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## **Labour Market Outcomes:**

**A Cross-National Study**

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McMaster University

DEPARTMENT OF ECONOMICS

# 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. However, when the woman is the decision maker, she will still make a significantly different allocation of those charity dollars, preferring to give to more charities but to give less to each. We find our results give new insights into both issues of charitable giving and household decision making.

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## **I. Introduction**

Within their households, people 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 people in multi-person households make these decisions and how economic variables affect these household dynamics. Likewise, charitable giving is an important household public good. The average household gives between one and two 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. This paper will provide new results for both issues of intra-household decision making and charitable giving.

The literature on intra-household decision making has been very active lately, but has been constrained by the difficulty 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 (e.g. husband's leisure, men's clothing), wife's goods (e.g. wife's leisure, women's clothing) and public goods (e.g. 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.<sup>1</sup> Still, much more remains to be learned about how households make decisions and how compromises are formed.

Research on charitable giving has also been active, but the approach to households has not taken into account the newer view that bargaining rather than benevolence characterizes household decisions. With the growing economic power of women, their voice is being heard more loudly by charities and fund-raisers. In addition, there is evidence that their tastes could be quite different from their husband's. For instance, Eller (1997), in a recent study of estate tax data, reports that 37.6 percent of the amount bequeathed by men went to private foundations, while women directed only 18.7 percent of their charity to such groups. Women gave 14.3 percent of their estates to religious organizations, in contrast to just 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. These differences in the allocation of gifts were far more dramatic than differences in the overall level of philanthropy: male donors contributed 26.7 percent of their net worth, and women gave 27.6 percent of theirs. If men and women differ so in their estate giving, they are also likely to have conflicting notions of how to allocate annual giving.<sup>2</sup> How are these conflicts resolved? How will the landscape of giving change as women gain more power in the market and within the household?

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<sup>1</sup> For prominent examples theoretical models of household bargaining, see McElroy and Horney (1981), 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.

<sup>2</sup> It is also interesting to note that males and females have been found to differ on altruism exhibited in experiments. See Andreoni and Vesterlund (1998).

This paper will explore both issues of household decisions and of charitable giving. We employ a survey that was designed to learn about charitable giving, but which also contains a question about who in the household is the primary decision maker on charity. We draw on theories of intra-household resource allocation to frame an empirical investigation of the role played by gender in determining the distribution of charitable giving. In the next section we discuss a theoretical framework for approaching the problem. In Section III, we discuss the data, and in Section IV we present evidence that single men and women have distinct patterns of charitable giving and look at how giving differs by the sex of the decision maker in married couples. Section V takes a closer look at how couples may compromise on the charity decision, while Section VI explores how the role of the decision maker is chosen. In Section VII, we conclude by drawing some implications from our results in light of demographic trends and policy options.

## **II. How Are Intra-household Decisions Made?**

When dealing with a single individual, a simple neo-classical framework is sufficient to describe and predict the decisions of the household. If we measure different demand curves for males and females, we can conclude that there are systematic differences in tastes across the sexes. How should we think about the household decisions on charitable giving when a man and a woman who comprise a household may have different tastes, either for the amount to be given or for the allocation of those dollars? One can imagine several scenarios.

First, think of a very well matched couple with nearly identical tastes. Having one person specialize in researching charities and keeping records of the gifts is a sensible distribution of tasks in the household, since the outcome would be virtually the same regardless of who is in charge. For a couple like this, being the charity decider would be a chore like many others, and since either spouse would perform the task equally to the other's tastes, each spouse is happy to let the other do it. This household would then give the same to charity as a single household with the same income.

Next imagine a couple with non-overlapping tastes in charities. For instance, each likes to give to their college *alma mater*, but each graduated from a different college and is indifferent to the other's school. Now specializing all the giving with one spouse would not satisfy the couple. Instead, they may strike a bargain to give to both colleges. Of course, the bargain may also include a compromise on the level of giving, such that each gives some fraction of what would be their most preferred amount at the household's level of income. Given the bargaining framework, however, total giving (to both charities) by this couple may be higher than what either spouse would give as a single person with the household's level of income.

There could be a third type of couple for whom giving impulses run at cross purposes. Suppose, for instance, that one spouse favors the National Rifle Association while the other favors the Handgun Control, Inc. Neither spouse wants the other to be in control of the charity dollars, and they may jointly realize that they are better off giving no money to either charity. Hence, this household will give less to charity than either individual in the household would give as a single person with the household's level of income.

Finally, there could be couples that don't get along well enough to reach a bargaining solution when their preferences differ. These families 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 fall along a default of socially sanctioned gender roles. In such a case, both will choose giving to maximize their own utilities in a non-cooperative household setting. Here, regardless of whether tastes overlap, don't overlap, or are at cross-purposes, this household is likely to give more than either spouse would give as a single person with income equal to the household's level.

This simple exercise illustrates two things. First, households that bargain are quite different from households that are "unitary," that is, act as a single individual in the way proffered by Becker (1981). Giving by bargaining households can differ from unitary households in most any way imaginable, being either more or less. The difference will depend on the constellation of tastes for giving and the harmony or acrimony in the relationship.<sup>3</sup>

Second, this exercise illustrates the inherent difficulty in deriving a unified model of household decision making over who will perform the task of providing a household public good. There are many variables that could matter and small changes in the relative magnitudes of these variables can easily cause great turns in the predictions. Consider a simple world with just two charities. A household in which each spouse likes only one (non overlapping) charity

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<sup>3</sup> See Bergstrom (1996, 1997) for reviews and discussions of the literature on economics of the family.

differs greatly from one in which each spouse likes both, but with differing intensities. The outcome changes again if the two charities are complements, substitutes, or at cross-purposes.

There are also issues of who will bear the cost of obtaining information about the quality of the charities. Suppose information on quality of charities can be obtained for a privately borne cost, due, for instance, to the time involved in information gathering and processing. Because of differing tastes, the information on quality cannot always be credibly conveyed between spouses. This raises the question of optimal contracting. Since specialization is always cost efficient, can a household design an optimal contract in which one spouse has the proper incentives to implement a full-information bargaining outcome or some other Pareto efficient allocation? While this holds intrinsic interest, it leads one to ask when bargaining over the optimal contract is more costly than simply letting both spouses pay to be informed and then bargaining over the levels of charity directly.

In this paper we will not pose or test any specific model of household decision making — the theoretical possibilities are rich enough that most any model could be supported to some degree by the outcome of the estimation. Rather, we will focus on establishing just how charitable giving by households differs depending on the household composition and the structure of household decision making. The results will bear on policy toward charitable giving and will also give insights into household bargaining.



### III. Data

We use 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 by telephone. 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.

Pooling the 1992 and 1994 data gives a sample of 4180 households.<sup>4</sup> Eliminating observations missing key variables leaves us with a sample of 3572, including 2560 who are married.<sup>5</sup> Among these 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 decision-maker. Table A1 in the appendix provides detailed definitions of key variables, and Tables A2, A3 and A4 in the appendix provide summary statistics for the variables we use in this study.

An important policy variable in research on charitable giving is the price of giving. Because of the charitable deduction for households that itemize deductions on the personal

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<sup>4</sup> Independent Sector also collected data for 1990 and 1996. We do not use the 1990 data because it is missing information of 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.

<sup>5</sup> 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.

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.<sup>6</sup> 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.<sup>7</sup>

#### **IV. Gender Differences in Charitable Giving**

If men and women do not differ in their charitable giving decisions, then it does not matter who within the household gets to decide. If they are systematically different, however, then the question of how resources are allocated within marriage becomes an interesting one, both for understanding households and for understanding trends in personal philanthropy. To help identify the effects of gender and marital status on giving, we consider five subsamples of our data: single males, single females, married males who are the primary decision makers, married females who are the primary decision makers, and couples who decide jointly.

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<sup>6</sup> The deductibility of gifts from state tax returns introduced 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 calculated price.

<sup>7</sup> For this estimation 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.

### *A. Gender and the Patterns of Total Giving*

Look first at the likelihood of making a gift. Table 1 contains the results of the probit estimation of the probability of making a charitable donation. The price variable has a negative effect on the likelihood of giving for all five subsamples. The coefficient on the income variable is positive for all five subsamples, but is only statistically significant for single men and for couples who make decisions jointly. The dummy variables for education have a significant positive effect for all five subgroups, although somewhat less so for married women and couples. It is interesting and important to notice, however, that for married givers it is only the givers' own education that matters — the likelihood of giving does not change with the spouse's education. Note, too, that among couples who make decisions together we find significant effects only for the man having attended or graduated college, while the woman's education has no significant effects.

Next we ask whether the underlying likelihood-of-giving functions are different across relevant pairs of the five subsamples. The test results are shown in Table 2.<sup>8</sup> The hypothesis that single men and single women behave identically can be rejected at the 0.10 level of significance, indicating a basic difference across the sexes. Looking at marriage, we cannot reject the hypothesis that the equations are the same for single men and married men who make decisions,

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<sup>8</sup> To compare single people to married people, and married males to married females, we assume that only the characteristics of the decider matter. This will prevent any differences from being attributable to the characteristics of the decider's spouse. (To compare couples to married males and married females, we assume both the characteristics of the giver and the spouse matter.) Then the test is done in the following manner: we first estimate the probit model for the two subgroups we would like to compare, where the explanatory variables are the explanatory variables of Table A2, and interact of each of the explanatory variables and indicator of belonging to one of the subgroups. We then do a joint test of the hypothesis that all those interaction terms are equal to 0. If the null is rejected then we reject that the likelihood-of-giving functions are the same for the two subgroups.

hence marital status does not seem to matter for males. For females, however, marital status is important: single and married women deciders are significantly different at a 0.05 level. In contrast to single males and females, one cannot reject that married males and females have the same likelihood of giving equations. Finally, we cannot reject that the giving equation for couples deciding jointly is the same as that for married males, but we can reject that married females are the same as the couples. This result is due to the strong effect of male education and the relatively weak effect of female education on the decision to give to charity for couples who make charity decisions jointly.

There are at least two ways to interpret the observation that women's giving behavior varies with marital status more dramatically than men's. First, if there were reason to believe that women's tastes were more heterogeneous than men's, the result could be due to selection in marriage markets: women who have preferences similar to men's are most likely to marry. Alternatively, the results may point to a power issue: women's preferences do not have as much influence as men's preferences in household decision making on charity.

Next we discuss the amounts given by households. There is a large literature on estimating equations for the supply of charity by donors.<sup>9</sup> Giving is generally found to increase with income and education, and to decrease with price. In our analysis, as in much of the literature, the dependent variable is the logarithm of the dollar amount of contributions. Because 31 percent of our sample reported no contributions, we estimate the function with a tobit

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<sup>9</sup> Recent reviews of this literature include Brown (1997) and Clotfelter (1997).

specification, where the censoring is assumed to start where the logarithm of giving equals zero.

The results of the tobit estimation of giving functions are presented in Table 3. As expected, the tax price has a negative effect in all equations, and the effect is significant in all cases except single females. Income has a positive and significant effect in all equations, as does education. Again, it is important to note that when only one member of a couple is the decider, only that person's education variables that are significant, while among couples who report that they make decisions jointly, both partners' education levels are statistically significant.

Table 4 reports estimates of the price and income elasticities implied by the results of Table 3. For all five subgroups, charity is highly price elastic. It is much more so for males than females or couples. In general, the income elasticity is around 0.8 across the subgroups. However, it is a bit higher for single males who have an income elasticity of approximately 1.0.<sup>10</sup>

Table 5 reports tests of whether the supply-of-giving equations are the same across subgroups. The tests were performed in the same manner as in Table 2. As with the probabilities equations, we can reject the hypothesis that the giving equations are the same for single men and single women, and for married women decision-makers and single women. We cannot reject the hypothesis that married male decision-makers have the same giving function as single males or married female decision-makers. Also, couples tend to have giving equations that look more like married males than married females. Again, it is possible that these results

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<sup>10</sup> These price and income elasticity estimates are consistent with the body of literature using this type of regression analysis. Estimates of price elasticity in the literature range from 0 to -4.97. While most estimates are between -1.0 and -2.0, estimates in the neighborhood of -2.0 to -3.0 are not uncommon. Income elasticities of 1 or less are typical of this literature, with most around 0.6 to 1.0. See Clotfelter (1985) or Steinberg (1990) for a synthesis of these results.

suggest that females who select into marriage have preferences similar to males. Perhaps a better explanation is that men and women have different natural tendencies for giving, and that women make greater compromises in marriage on the levels of charitable giving than do men.

### *B. Gender and The Distribution of Gifts Across Charities*

An interesting pattern from the above analysis is that, while marital status affects observed giving patterns, especially among women, there is little difference within married couples based on who decides. However, these last two analyses have only looked at total giving in the household. Our data allows us to look at the distribution of gifts across twelve different functional categories of charitable activity. We show next that even though the patterns of total giving are not appreciably affected by who the decider is, the allocation of those gifts is greatly affected.

Looking at the means across these twelve types (see Table A3 in the appendix), an interesting pattern emerges. Among single people, females are more likely than males to give to every single category of charity except one — adult-recreation. Among married people, females are more likely than males to give to all but two categories — adult-recreation and public-benefit. Looking at levels of giving (appendix Table A4), females also seem to spread their giving dollars more thinly than males, while males appear to have a greater tendency to concentrate their giving.

To test this hypothesis, we construct a Herfindahl index of concentration of giving. Herfindahl indices are commonly used to measure the concentration of firms in a product market. In our case an index equal to one will imply that an individual gives all their charity to one type

of organization, such as religious groups. If an individual spreads charity evenly among all twelve types of charitable organizations then the index will reach its lower bound, which in this case is 0.083.<sup>11</sup> The average value of the Herfindahl index for married males is 0.64, for married females is 0.59 and for couples is 0.63. Tests reveal that indeed married males concentrate their giving significantly more than married females. However, when couples decide jointly, the concentration is not significantly different from when males decide alone, but is significantly different from when females decide.<sup>12</sup>

When examining the results from aggregate giving we could not discern whether married women were intrinsically different from single women or whether they were compromising more in marriage. Analyzing the concentration of giving suggests that single women and married women have similar preferences. Hence, it is an accurate characterization of our results to say that women compromise more in the marriage with respect to charitable giving, but when they do become the deciders they are significantly more likely to spread the charity dollars around to more recipients.

Next we ask how this difference manifests itself across charities. In Tables 6 and 7 we present predicted values for the probability and magnitude of gifts across the twelve types for a

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<sup>11</sup>A detailed description of the Herfindahl Index is given in Table A1 in the appendix.

<sup>12</sup> The Herfindahl index for single males is 0.67 and for single females is 0.66. The comparison and test statistic (p-value) for the relevant comparisons of the Herfindahl Indices are: Single Male vs. Single Female,  $F(12,515)=1.09$  (0.368); Single Male vs. Married Male,  $F(12,497)=0.90$  (0.546); Single Female vs. Married Female,  $F(12,780)=1.29$  (0.217); Married Male vs. Married Female,  $F(12,763)=2.66$  (0.002), Couple vs. Married Male,  $F(16,1121)=1.31$  (0.180); Couple vs. Married Female,  $F(16,1308)=2.01$  (0.010). These tests report a test of the difference in conditional expectations of the Herfindahl Index.

representative household.<sup>13</sup> The tables show predictions for a white, church-going family of three, in which both adults 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.

These predictions indicate significant differences between married men and women. Married women are significantly more likely to give to health and education than either males or couples, and males are significantly more likely to give to adult recreation than are couples. In general, however, couples appear to look more like males than females, with one exception — males are significantly more likely to give charity than couples.

Turning to the amounts given to each category of charitable activity, Table 7 shows again that couples seem to look more like males than females. Females 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.

The predictions in Tables 6 and 7 are made at the median price of 0.85. It should be noted, however, that these predictions do not tell the whole story about gender differences in the effect of price. Table 8 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

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<sup>13</sup> The representative family is based on the median characteristics of each variable in the married subsample. The median education for males is actually having attended college, but this difference itself causes large differences in married male giving to married female giving. Hence, we use high school graduate for both male and females in the representative case.



more than males.<sup>14</sup> Looking at the distribution of giving, we see that religious giving can explain most of this variation. As shown in Table 8, differences in religious contributions explain 64% of the difference in male and female giving at the price of 0.69, and the difference in religious contributions is greater than the difference in total contribution at prices 0.72 and 0.85.

Combining this result with the observation that wives are likely to spread their giving across more categories of giving suggests that the opportunity cost of finding suitable charities may play a role. One's place of worship can be seen as the low-research-cost outlet for giving. If, for example, jointly-deciding couples tend to be well-educated, and husbands with decision-making authority tend to have higher wages than wives who decide, then perhaps giving to religious organizations is especially attractive to people who have a high opportunity cost of investigating charitable outlets.

## **V. A Closer Look at Compromise**

Results from the last section indicated that men may be the stronger bargainers within the marriage. The patterns of giving don't differ much between single men, married male deciders, and couples who decide jointly. By contrast, married female deciders are significantly different than single women, but when married they seem to adopt much of the same posture as their husbands, especially in jointly made decisions. In this section we try to quantify this effect by looking at a constrained version of the model above.

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<sup>14</sup> Notice the perhaps startling resemblance to the experimental findings of Andreoni and Vesterlund (1998) who found that male and female demand curves for giving cross, with men more generous at a low price of giving and women more generous at a high price.

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 decision maker, and let  $I_f$  and  $I_c$  equal one when the female or couple is the decider, respectively. Finally, the  $G$  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 decision is made by the couple, this approach constrains the prediction to be

$$\begin{aligned} \hat{G}_c &= \hat{a}_m X_m \hat{B}_m + \hat{a}_f X_f \hat{B}_f \\ &= \hat{a}_m \hat{G}_m + \hat{a}_f \hat{G}_f. \end{aligned}$$

The scalars  $a_m$  and  $a_f$  then tell us how the couple's decision is influenced by the desires of both its members.<sup>15</sup>

Note that in estimating  $a_m$  and  $a_f$  we do not need to constrain them in any way. For instance, if  $a_m$  and  $a_f$  sum to one then this would imply that households compromise perfectly, and that in making a joint decision they neither create nor destroy any dollars for charity. This would happen if, for instance, the spouses' preferences are identical. By contrast, if  $a_m$  and  $a_f$

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<sup>15</sup> Of course, interpreting the  $a$ 's in this way requires that we assume that there is no endogenous selection of who decides based on the tastes of the deciders. This is clearly a simplification and thus limits the interpretation of our results.

sum to more than one, then extra charity is created. This could be like the case of non-overlapping (or weakly overlapping) interests in charity discussed in Section II. Finally,  $a_m$  and  $a_f$  could sum to less than one, in which case the bargaining is destroying some charity. This could happen if, for instance, spouses are opposed to each other's charities and so joint decision making amounts to policing the perceived excesses of one's spouse.

The estimated values (and standard errors) of the  $a$ 's are<sup>16</sup>  $\hat{a}_m = 0.677$  (0.163) and  $\hat{a}_f = 0.260$  (0.160), while their sum is  $\hat{a}_m + \hat{a}_f = 0.936$  (0.033). These results are consistent with the results indicated in the prior section of the paper. While both the estimates of  $a_m$  and  $a_f$  are significantly different from zero,  $\hat{a}_m$  is almost three times  $\hat{a}_f$ . This provides more solid evidence that indeed men are prevailing in the marital bargain over charitable giving. However, some battles are lost for both spouses -- the sum of  $a_m$  and  $a_f$  is significantly below one. This means that compromise in the bargaining process is destroying some of the charitable impulses of the husband and wife.

## VI. Who Decides?

Given that there is a significant effect of who is the decision maker on the allocation of gifts, it is natural to ask what factors influence who the decision maker is in the household. Tables 9 and 10 present the results of multinomial logistic modeling of the choice of decider. The base case is that the woman decides, hence the first column of estimates gives the effect of each variable on

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<sup>16</sup> For brevity, we do not also report the estimates of  $B_m$  and  $B_f$ . These coefficients change quantitatively some from earlier tables, but the qualitative results remain the same. Full tables of these results are available from the authors.

the probability that the man decides, and the second column looks at the probability that the decision is made jointly. In Table 9, we include a dummy variable equal to one if the household reports that the male is the primary earner. Since this may be endogenous to the choice of charity decision maker, Table 10 presents instrumented predictions of whether the man is expected to be the primary earner. The other variables intended to reflect human capital are relative age, measured as the man's age minus the woman's, and relative educational attainment. To control for cohort effects, we also include average age and average education in the household. To control for possible cultural differences in gender roles, we control for ethnicity. Because the presence of children has historically limited a woman's options more than a man's, and because the presence of children may affect whether a couple stays together in a non-cooperative equilibrium rather than divorce, we also control for family size.

Table 9 shows that the coefficient on who in the household is the primary earner is large and statistically significant -- if the male is reported to be the primary earner, he is far more likely to make the charitable giving decisions, the couple is somewhat more likely, and the female 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.

We also see in Table 9 that age differences are not a significant influence on who is the decider, but educational differences are. The greater the male's education relative to the female, the greater the likelihood that the male 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 decision-making is a utility-providing privilege. It could also be true, however, that more educated spouses may be 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 decision-maker.

To avoid having the endogenous primary-earner variable on the right-hand side, we also perform a two-stage estimation in which the first stage predicts primary earner status from age, education, occupation of head, family size, and racial 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.

As before, Table 10 shows that, with the instrumented value of primary earner, the probability that the man is the sole decision-maker is still increasing in his educational advantage relative to his partner, and average education still increases the likelihood that decisions are made jointly. Beyond that, however, the results from this table differ greatly from those in Table 9. Increasing the likelihood that the male is the primary earner significantly increases the likelihood that either he or the couple makes the decisions, while increasing the likelihood that the female is the primary earner decreases the likelihood of her being the sole decider. Moreover, as the probability that the male is the primary earner goes to one, the probability of the male being to sole decider goes to 0.16, and that of the female goes to about 0.31. By contrast, 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 that for the couple goes to one.

This suggests two things. First, the results reported in Table 9 are likely to be driven by unobserved bargaining power that leads one member of the household to be both the primary earner and the charity decision-maker. Second, it suggests an interesting dynamic in household decisions in which the male, as he loses power over the household's earnings, bargains harder to retain at least shared control over the household's decisions on charity.

## **VII. Summary and Conclusion**

This paper draws some conclusions that won't surprise some people: men and women are different, people behave differently in marriage than when single, and men tend to get their way in household bargaining. But this paper does more than others in putting some interesting measures on these differences.

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

How are these difference resolved when multi-person households are formed? Perhaps surprisingly, we found that single men, married men, and couples who decide jointly on charitable giving were, by most measures, not significantly different from each other. Women's charitable behavior, by contrast, changed dramatically with their status — married women

deciders behaved much more like their married male counterparts than like single females, and were even more similar to males when in a couple that decides on charity jointly. When couples decide jointly, we estimate that the “compromise” achieves 68 percent of the male preference and only 26 percent of the female preference, with 6 percent simply “lost.”

Although the marital bargain on charity mostly favors men when it comes to total giving, when women do become the primary 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. Women especially favor health and education more than men, while men are more generous than women only within the sphere of adult recreation.

Finally, how does the couple select who will take the task of being the charitable decision maker? Our analysis finds an important simultaneity between the household choice of primary wage earner and decision maker on charity — unobserved variables seem to devolve the two roles onto the same spouse.

This work also has some implications for policy regarding charitable giving. First, it provides direct evidence to support the growing feeling among fund-raisers 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.

There are also implications for charity in the growing market wages and independence of women. Our results show, for instance, that as the male is the primary earner, about 31% of women in such families will be primary deciders on charity, while in 16% the male will be the sole decider. However, as the female is more likely to be the primary earner, the chance becomes virtually certain that the couple will make charity decisions jointly. As a result, the changing nature of the family, the earnings of women, and the marriage market in general could make charity markets quite dynamic in the years to come.

In sum, by looking at the family as a complicated institution in which tasks such as charitable giving are bargained over, we have gained insights into both the issues of household decision making and charitable giving. The analysis in both areas reveals a rich and complex set of relationships between gender, economic status, tastes for charity, and bargaining strength. Further exploration in to charity as well as other household public goods could prove to be an exciting frontier for further economic research.



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**Table 1**  
**Probability of Giving to Charity by Gender and Marital Status**  
**Dependent Variable: Indicator Gives to Charity**  
**Estimation Technique: Probit**

	Single Males	Single Females	Married Males	Married Females	Couples
Ln(Price)	-1.112 (0.71)	-0.868 (0.73)	-0.971 (0.81)	-0.749 (0.64)	-0.445 (0.43)
Ln(Income)	0.271* (0.11)	0.171 (0.10)	0.1726 (0.15)	0.203 (0.12)	0.211* (0.09)
Age of Male	0.009 (0.00)	--- (0.00)	0.012 (0.01)	0.017 (0.01)	0.001 (0.01)
Age of Female	--- (0.00)	0.003 (0.00)	-0.007 (0.01)	-0.012 (0.01)	0.012 (0.01)
Male HS Grad	0.502* (0.22)	--- (0.22)	0.766* (0.23)	0.074 (0.19)	0.091 (0.14)
Male Attd. Coll.	0.997* (0.22)	--- (0.22)	1.033* (0.26)	0.149 (0.21)	0.431* (0.16)
Male Col. Grad	0.732* (0.23)	--- (0.23)	0.719* (0.30)	0.016 (0.25)	0.391* (0.17)
Female HS Grad	--- (0.16)	0.409* (0.16)	-0.205 (0.22)	0.326 (0.19)	0.137 (0.14)
Female Attd. Coll.	--- (0.19)	0.453* (0.19)	-0.114 (0.27)	1.115* (0.23)	0.135 (0.17)
Female Coll Grad	--- (0.23)	0.840* (0.23)	0.188 (0.32)	0.790* (0.26)	0.322 (0.19)
Hispanic	-0.411 (0.24)	-0.006 (0.21)	-0.194 (0.21)	-0.157 (0.19)	-0.263 (0.15)
Black	-0.146 (0.22)	0.166 (0.16)	-0.387 (0.25)	-0.198 (0.21)	-0.243 (0.17)
Family Size	-0.034 (0.06)	-0.016 (0.05)	0.032 (0.06)	0.007 (0.05)	0.049 (0.04)
Church-Goer	0.569* (0.16)	0.415* (0.13)	0.756* (0.15)	0.547* (0.13)	0.516* (0.09)
year=1992	0.308* (0.15)	-0.309* (0.13)	0.167 (0.15)	0.054 (0.13)	-0.026 (0.09)
Constant	-3.683* (1.12)	-1.947* (0.94)	-2.640 (1.54)	-2.570* (1.21)	-2.970* (0.89)
#obs	368	500	412	625	1140
log-likelihood	-204.65	-291.95	-201.55	-279.58	-576.35

\*estimate is significant at a 5% level. (standard errors in parentheses)

**Table 2**  
**Testing Differences in Male, Female, Single and Married Coefficients**  
**for Probability of Giving Equations**

	Distribution	Test Statistic	P-Value
Single Male vs. Single Female	$\chi^2(12)$	19.69	0.073
Single Male vs. Married Male	$\chi^2(12)$	4.98	0.959
Single Female vs. Married Female	$\chi^2(12)$	24.26	0.019
Married Male vs. Married Female	$\chi^2(12)$	9.44	0.665
Couple vs. Married Male	$\chi^2(16)$	14.25	0.580
Couple vs. Married Female	$\chi^2(16)$	24.26	0.017

**Table 3**  
**Supply of Charity Parameter Estimates by Gender and Marital Status**  
**Dependent Variable: ln(Total Contributions), Estimation Technique: Tobit**

	Single Males	Single Females	Married Males	Married Females	Couples
Ln(Price)	-3.135 (1.86)	-2.496 (1.90)	-3.455 (1.76)	-2.177 (1.20)	-1.832 (0.99)
Ln(Income)	1.108* (0.33)	0.916* (0.29)	0.793* (0.37)	0.810* (0.25)	0.861* (0.22)
Age of Male	0.032* (0.01)	--- ---	0.050 (0.03)	0.046 (0.02)	0.007 (0.02)
Age of Female	--- ---	0.021 (0.01)	-0.023 (0.03)	-0.022 (0.03)	0.040 (0.02)
Male HS Grad	1.769* (0.66)	--- ---	2.140* (0.60)	0.309 (0.40)	0.563 (0.36)
Male Attd. Coll.	3.404* (0.65)	--- ---	3.133* (0.64)	0.649 (0.43)	1.491* (0.39)
Male Col. Grad	2.576* (0.69)	--- ---	2.671* (0.71)	0.335 (0.48)	1.537* (0.42)
Female HS Grad	--- ---	1.619* (0.50)	-0.477 (0.54)	0.857* (0.43)	0.329 (0.38)
Female Attd. Coll.	--- ---	1.888* (0.57)	-0.170 (0.64)	2.263* (0.46)	0.403 (0.42)
Female Coll Grad	--- ---	2.905* (0.64)	0.171 (0.71)	2.160* (0.53)	0.890 (0.46)
Hispanic	-1.225 (0.71)	0.260 (0.61)	-0.469 (0.52)	-0.518 (0.39)	-0.789* (0.38)
Black	-0.488 (0.64)	0.467 (0.47)	-0.849 (0.61)	-0.786 (0.43)	-0.822 (0.42)
Family Size	-0.144 (0.16)	-0.0813 (0.14)	0.097 (0.14)	0.040 (0.10)	0.155 (0.09)
Church-Goer	2.080* (0.44)	1.696* (0.36)	2.484* (0.35)	1.776* (0.25)	2.066* (0.22)
year=1992	0.895 (0.43)	-0.837* (0.36)	0.522 (0.36)	0.517* (0.25)	0.230 (0.22)
Constant	-13.39* (3.30)	-9.580* (2.77)	-10.047* (3.80)	-8.792* (2.53)	-10.707* (2.25)
Standard Error	3.597* (0.19)	3.613* (0.16)	3.250* (0.14)	2.904* (0.10)	3.310* (0.09)
#obs	368	500	412	625	1140
# obs censored	147	182	112	138	287
log-likelihood	-709.79	-1015.74	-887.87	-1357.91	-2530.30

\*estimate is significant at a 5% level. (standard errors in parentheses)

**Table 4**  
**Estimated Price and Income Elasticities from Total Contributions Equations**

	Single Males		Single Females		Married Males		Married Females		Married Couples	
	price	income	price	income	price	income	price	income	price	income
Total	-3.00	1.06	-2.11	0.77	-3.35	0.77	-2.10	0.78	-1.73	0.82
Price = 0.69	-3.07	1.09	-2.41	0.89	-3.43	0.79	-2.17	0.81	-1.81	0.85
Price = 0.72	-3.03	1.07	-2.27	0.84	-3.40	0.78	-2.16	0.80	-1.78	0.84
Price = 0.85	-3.00	1.06	-2.10	0.77	-3.35	0.77	-2.10	0.78	-1.73	0.81
Price = 1	-2.67	0.94	-1.98	0.73	-3.14	0.72	-2.02	0.75	-1.61	0.76

Note: Elasticities have been calculated for the representative (median) married person at each of the 4 charity prices. In the case of Total, the price of charity at the median income was used. In all five cases the representative person is white, a church-goer, surveyed in 1992 and has a family size equal to three. For Total: Price = 0.85, ln(Income)= 10.59125, age of male = 45, age of female 43, males attend college, females are high school grads. Price = 0.69: ln(Income)= 11.79522, age of male = 45, age of female 44, males graduate college, females graduate college. For Price = 0.72: ln(Income)= 11.17904, age of male = 45, age of female 43, males graduate college, females attend college. For Price = 0.85: ln(Income)= 10.59125, age of male = 44, age of female 40, males attend college, females are high school grads. For Price = 1: ln(Income)= 10.2811, age of male = 45, age of female 43, males are high school grads, females are high school grads.

**Table 5**  
**Testing Differences in Male, Female, Single and Married Coefficients**  
**for Total Contributions Equations**

	Distribution	Test Statistic	P-Value
Single Male vs. Single Female	$\chi^2(12)$	21.30	0.046
Single Male vs. Married Male	$\chi^2(12)$	6.49	0.890
Single Female vs. Married Female	$\chi^2(12)$	27.08	0.008
Married Male vs. Married Female	$\chi^2(12)$	7.01	0.857
Couple vs. Married Male	$\chi^2(16)$	15.14	0.515
Couple vs. Married Female	$\chi^2(16)$	29.42	0.021

**Table 6**  
**Differences in the Probabilities of Married Males and Females Giving to Specific Types of Charities**

	Married Males	Married Females	Couples	Test Statistic: Married Males vs. Married Females	Test Statistic: Couples vs. Married Males	Test Statistic: Couples vs. Married Females
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 & 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

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, church-going 45-year old, family of 3 with  $\ln(\text{income}) = 10.59125$  and price of charity = .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  $\chi^2(1)$  under the null-hypothesis that the predictions are equal.

\* statistically significant at 10% level.

\*\* statistically significant at 5% level.

2177 observations.

**Table 7**  
**Differences in the Estimated Amounts Married Males and Females Give to Specific Types of Charities**

	Married Males	Married Females	Couples	Test Statistic: Married Males vs. Married Females	Test Statistic: Couples vs. Married Males	Test Statistic: Couples vs. Married Females
All Charities	1186.59	1099.49	1078.90	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 & 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 amounts are constructed from estimating tobit models where the dependent variable is how much the household gave to the specific charity type. The estimates are the predicted amount for a white, church-going 45-year old, family of 3 with  $\ln(\text{income}) = 10.59125$  and price of charity = .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  $\chi^2(1)$  under the null-hypothesis that the predictions are equal.

\* statistically significant at 10% level.

\*\* statistically significant at 5% level.

2177 observations.



**Table 8**  
**Average Estimated Predictions of Total and Religious Contributions: By Price**

	Married Males		Married Females		Married Couples	
	Total	Religious	Total	Religious	Total	Religious
Price = 0.69	2199.90	1122.06	1844.36	895.29	1940.54	1130.34
Price = 0.72	1822.10	1057.27	1466.56	700.77	1658.32	1018.84
Price = 0.85	1181.01	755.08	967.60	532.58	1066.19	691.83
Price = 1	670.62	429.28	746.94	453.38	707.57	467.29

Note: These amounts are constructed from estimating tobit models where the dependent variable is how much the household gave to the specific charity type. These are mean prediction by price and giving status.

**Table 9**  
**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* (0.24)	0.262 (0.15)
Male Age less Female Age	-0.008 (0.01)	-0.006 (0.01)
Male Education less Female Education	0.280* (0.07)	0.154* (0.05)
Average Age	0.004 (0.005)	0.003 (0.004)
Average Education	0.000 (0.07)	0.172* (0.05)
Hispanic	0.416* (0.18)	-0.225 (0.16)
Black	0.092 (0.21)	-0.370* (0.17)
Family Size	0.007 (0.05)	-0.064 (0.04)
Church-Goer	0.037 (0.12)	0.355* (0.10)
Constant	-1.538* (0.42)	0.081 (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
# obs	2560	
Log-Likelihood	-2527.079	

Note: The predicted probabilities are for a church going family of 3 that includes a 45-year old, high school graduate, white male and a 43-year old, high school graduate, white female. Female being the primary giver is the base category.

(standard errors in parentheses)

\*estimate is significant at a 5% level.

**Table 10**  
**How Households Choose the Primary Giver**  
**Two-Stage Multinomial Logit Model**

	Probability that the Male is the Giver	Probability that the Couple Shares Giving Responsibility
Prediction of Male Earnings less Female Earnings	-0.160 (0.16)	-0.209* (0.09)
Male Age less Female Age	-0.016 (0.02)	-0.015 (0.01)
Male Education less Female Education	0.420* (0.13)	0.311* (0.09)
Average Age	0.007 (0.01)	0.006 (0.004)
Average Education	-0.018 (0.07)	0.150* (0.06)
Hispanic	0.396 (0.21)	-0.245 (0.18)
Black	-0.019 (0.25)	-0.496* (0.20)
Family Size	0.043 (0.06)	-0.022 (0.05)
Church-Goer	0.073 (0.14)	0.397* (0.11)
Constant	-0.946 (0.47)	0.045 (0.35)
Predicted Probability if Male is the Primary Earner With 95.7% Probability	0.165	0.531
Predicted Probability if Male is the Primary Earner With 92.0% Probability	0.168	0.568
Predicted Probability if Male is the Primary Earner With 85.3% Probability	0.169	0.603
# obs	2560	
Log-Likelihood	-2529.95	

Note: First stage logit estimates are available upon request. The dependent variable for the logit is Primary Earner is Male. The explanatory variables are Age of Male, Age of Female, the six education indicators, Black, Hispanic, Family Size, Church-Goer, an indicator variables that the head of the household's occupation is professional, low-skilled, in the service-sector or a Trade job. The predicted probabilities are for a church-going family of 3 that includes a 45-year old, high school graduate, white male and a 43-year old, high school graduate, white female. Female being the primary giver is the base category. For hypothesis testing the bootstrapped distribution is assumed to be approximately normal (bootstrapped standard errors in parentheses).

\*estimate is significant at a 5% level.

## APPENDIX

**Table A1**  
**Definitions of Key Variables**

Variable	Definition
Primary Earner is Male	Respondent's 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 then 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 twelve 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 twelve charity groups in the previous calendar year, expressed in 1993 dollars.
Price	Equals one minus the marginal tax rate for itemizers, and one for non-itemizers. 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 \$7000 we use \$5000 and for those who report earning more than \$100000 we use \$125000.
Age of Male Age of Female	Age of respondent or spouse, as appropriate.
Male or Female HS Grad, Attend College, College Grad,	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?"
Church-Goer	Indicator that respondent claims to go to church or synagogue services at least once or twice a month.
Herfindahl Index	Let $S_j$ , $j=1, \dots, 12$ , 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 $\sum S_j^2$ . 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	Married Males	Married Females	Couples
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
	(1407.37)	(688.38)	(2075.12)	(1730.84)	(1850.35)
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 HS Grad	0.240	---	0.303	0.344	0.279
	(0.43)	---	(0.46)	(0.48)	(0.45)
Male Attd. Coll.	0.271	---	0.241	0.263	0.243
	(0.44)	---	(0.43)	(0.44)	(0.43)
Male Col. Grad	0.238	---	0.274	0.212	0.328
	(0.43)	---	(0.45)	(0.41)	(0.47)
Female HS Grad	---	0.310	0.410	0.367	0.358
	---	(0.46)	(0.49)	(0.48)	(0.48)
Female Attd. Coll.	---	0.223	0.225	0.299	0.244
	---	(0.42)	(0.42)	(0.46)	(0.43)
Female Coll Grad	---	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)	(0.31)	(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)
Church-Goer	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)
#obs	425	587	485	716	1359

(standard deviations 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	Married Males	Married Females	Couples
Health	0.209 (0.41)	0.242 (0.43)	0.272 (0.45)	0.388 (0.49)	0.322 (0.47)
Education	0.108 (0.31)	0.133 (0.34)	0.181 (0.39)	0.236 (0.42)	0.239 (0.43)
Religious Organizations	0.341 (0.47)	0.404 (0.49)	0.501 (0.50)	0.520 (0.50)	0.521 (0.50)
Human Services	0.155 (0.36)	0.203 (0.40)	0.272 (0.45)	0.345 (0.48)	0.297 (0.46)
Environment	0.087 (0.28)	0.116 (0.32)	0.113 (0.32)	0.152 (0.36)	0.150 (0.36)
Public/Society Benefit	0.073 (0.26)	0.094 (0.29)	0.128 (0.33)	0.120 (0.33)	0.104 (0.31)
Recreation – Adults	0.045 (0.21)	0.020 (0.14)	0.062 (0.24)	0.049 (0.22)	0.052 (0.22)
Arts, Culture & Humanities	0.052 (0.22)	0.075 (0.26)	0.080 (0.27)	0.084 (0.28)	0.098 (0.30)
Youth Development	0.113 (0.32)	0.126 (0.33)	0.206 (0.40)	0.232 (0.42)	0.213 (0.41)
Private Community Foundations	0.028 (0.17)	0.032 (0.18)	0.056 (0.23)	0.068 (0.25)	0.055 (0.23)
International/Foreign	0.012 (0.11)	0.019 (0.14)	0.039 (0.19)	0.043 (0.20)	0.039 (0.19)
Other	0.035 (0.18)	0.034 (0.18)	0.031 (0.17)	0.039 (0.19)	0.027 (0.16)
#obs	425	587	485	716	1359

(standard deviations in parentheses.)

**Table A4**  
**Summary Statistics**  
**Amount Given to Specific Charities**

	Single Males	Single Females	Married Males	Married Females	Couples
Health	38.60 (224.09)	29.37 (114.67)	69.26 (308.48)	52.37 (172.26)	48.56 (273.74)
Education	12.35 (71.55)	19.60 (149.83)	75.75 (440.29)	71.84 (599.22)	83.63 (448.42)
Religious Organizations	237.74 (1220.9)	185.52 (483.99)	507.58 (1160.6)	392.66 (1143.7)	564.20 (1420.9)
Human Services	26.57 (114.97)	33.06 (164.89)	86.68 (345.68)	105.58 (673.86)	75.64 (380.23)
Environment	22.16 (262.27)	9.51 (50.02)	13.17 (74.08)	15.46 (83.67)	10.84 (76.53)
Public/Society Benefit	10.45 (53.50)	10.24 (61.58)	24.94 (111.51)	19.44 (118.80)	16.30 (113.11)
Recreation – Adults	11.99 (136.17)	1.45 (13.76)	23.27 (248.90)	5.66 (49.08)	6.95 (60.62)
Arts, Culture & Humanities	7.58 (50.96)	7.98 (40.25)	28.73 (230.14)	22.73 (246.96)	14.44 (81.45)
Youth Development	30.93 (228.80)	12.98 (55.47)	36.35 (162.19)	26.57 (89.58)	28.11 (109.15)
Private Community Foundations	6.47 (19.38)	6.44 (20.72)	12.96 (64.03)	15.59 (70.39)	13.39 (87.99)
International/Foreign	4.86 (9.68)	7.23 (38.33)	55.33 (654.44)	12.40 (83.47)	16.10 (197.34)
Other	7.86 (32.52)	8.02 (28.53)	9.56 (57.09)	15.86 (70.39)	6.52 (37.88)
#obs	425	587	485	716	1359

(standard deviations in parentheses.)

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