Do charitable subsidies crowd out political giving? The missing link between charitable and political contributions

by

Barış K. Yörük*

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Keywords: charitable giving, political giving, tax price of giving
JEL classification: H24, H31, L38

* Department of Economics, University at Albany, SUNY, 1400 Washington Ave., Albany, NY 12222. Tel: (518) 442-3175. Fax: (518) 442-4736. E-mail: byoruk@albany.edu.

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1 Introduction

In the United States and several other countries, charitable contributions are tax deductible. This makes a charitable donation less costly for those who itemize deductions in their federal or state income tax returns. According to the most recent estimate, the federal government is estimated to have 49 billion in foregone revenue in 2010 due to millions of households who will itemize charitable deductions in their federal tax returns (Joint Committee on Taxation, 2008). The economic ratio-

nales for providing tax subsidies for charitable contributions are well-documented in the literature.[1]

Recent literature also documents that the amount of charitable contributions are very responsive to tax subsidies.[2] However, the indirect effects of charitable subsidies on other types of contributions, in particular on those that are not tax deductible, remain unknown. Using data from five surveys of charitable and political giving in the United States conducted from 1990 to 2001, this paper is the first to document a previously unknown relationship between charitable giving and another type of contribution that is not tax deductible, namely political giving.[3] This paper also investigates the spillover effects of charitable subsidies on the propensity to give and the amount of donations to political organizations.

The relationship between charitable and political giving is ambiguous. Assuming that charitable and political contributions are normal goods, a simple economic intuition suggests that an individual with a limited portion of her income to allocate between political and charitable organizations should make her decision depending on her preferences and the prices of these two goods. If charitable and political giving are substitutes, then an increase in the price of one of these goods should increase the demand for the other. In this case, charitable subsidies should make a charitable contribution more attractive by decreasing its effective price, but at the same time, should negatively affect political contributions. However, if charitable and political giving are complements, then a subsidy for charitable giving should increase both charitable and political contributions. Finally, depending on preferences, demand for each of these goods can be independent from the price of the other good. If this is the case, a charitable subsidy should positively affect charitable giving while political contributions remain unaffected.

A large body of literature in economics and political science is dedicated to understanding the determinants of political behavior.[4] Joulfaian and Marlow (1991) document that several demographic variables such as age, wealth, and marital status are positively associated with the propensity to donate to a political organization. In addition to standard demographic variables, recent literature also argues that political interest and opinions, alternative forms of expressive behavior, ability, and

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[1] Andreoni (2006) provides an extensive discussion of the relationship between charitable subsidies and giving.

[2] Recent studies that investigate the impact of tax subsidies on charitable giving include Clotfelter (1990), Randolph (1995), and Auten, Sieg, and Clotfelter (2002).

[3] As early as 1971 and prior to the Tax Reform Act of 1986, Internal Revenue Service (IRS) allowed a dollar-for-dollar tax credit for contributions to political groups and candidates. The ceiling on this credit was $50 for single filers and $100 for married filers (Joulfaian and Marlow, 1991).

[4] In this paper, I focus on households' contributions to political organizations. A vast majority of the existing studies focus on the determinants of corporate political contributions. See, for example, Cooper, Gulen, and Ovtchinnikov (2010), de Figueiredo and Edwards (2007), and Abler (1991).

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various measures of personality are also significant determinants of political behavior. For instance, using a bivariate probit model of voter turnout and political interest, Denny and Doyle (2008) find that individuals with high comprehension ability and an aggressive personality are more likely to vote and have an interest in politics. Similarly, Copeland and Laband (2002) show that voting is positively associated with other forms of expressive behavior, such as putting a political bumper sticker on one's car. Amaro-de-Matos and Barros (2004) develop a model in which social norms and networks significantly affect the voter turnout rate. People express their opinions about social or political issues not only through voting or donating to political organizations but also through other forms of prosocial behavior such as donating money and time to charities. Are individuals who are more generous to charity also more likely to give to political organizations? Understanding the relationship between charitable and political giving may reveal a previously unknown determinant of political contributions. On the other hand, a possible relationship between these two prosocial behaviors may help policymakers to make informed choices about the indirect effects of charitable subsidies.

Most of the papers that investigate the relationship between charitable giving and other types of prosocial behavior focus on jointly modelling charitable contributions of time and money. Menchik and Weisbrod (1987), Brown and Lankford (1992), and Andreoni, Gale, and Scholz (1996) find that time and money are complements and hence, charitable subsidies should not only increase charitable giving but also volunteering as well.[5] Furthermore, few papers explore the relationship between generosity and religious behavior. Sullivan (1985) jointly models church attendance and religious contributions whereas Gruber (2004) finds that religious giving and religious attendance are substitutes. Hence, larger subsidies to charitable giving lead to an increase in the amount of charitable gifts, but also decrease religious attendance, with an elasticity of attendance with respect to tax price of giving as much as -1.1. However, the relationship between charitable behavior and other types of contributions and prosocial behavior remains unknown.

In this paper, I investigate the causal relationship between charitable and political giving. I do so by using five independent household surveys of charitable and political giving in the United States, which contain a unique information on households' donations to political organizations. I hypothesize that some unobservable variables should jointly affect charitable and political giving.

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[5] In contrast, Feldman (2010) finds that donations of time and money are substitutes. However, a decrease in the tax-price of monetary contributions has a positive effect on contributions of time that acts outside the change in relative prices and more than offsets the substitution effect leading to an overall positive correlation between these two charitable goods.

Therefore, one must address the possible endogeneity of charitable behavior in political giving models. Since political contributions are not tax deductible, I use the tax price of giving as a main identifying instrument for charitable behavior.[6] I expect that the tax price should be negatively correlated with charitable contributions but uncorrelated with the unobserved variables that may affect political giving.

The empirical results suggests that the decision to give to charity is not an endogenous determinant of political giving, but the amount donated to charity is. After controlling for the endogeneity of the amount of charitable contributions, I find that compared with non-donors, charitable donors are on average 6 percentage points more likely to donate to political organizations. Moreover, charitable donors donate more to political organizations compared with their non-donor peers even after income and other observable characteristics are controlled for. I also find a positive relationship between the amount of gifts donated to charitable and political organizations. A one percent increase in the amount of charitable donations is associated with a 0.3 percent increase in the amount of money donated to political organizations. Furthermore, the relationship between charitable and political giving is robust under different specifications.

These results imply that charitable and political giving are complements. Increasing the tax price of giving decreases charitable contributions but at the same time, negatively affects the amount of donations and the probability of giving to political organizations. The cross-price elasticity of the amount of political contributions rises as the tax price increases. I estimate that at the median tax bracket of 15%, the implied cross-price elasticity of the amount of political contributions is -0.78. On the other hand, the predicted probability of giving to political organizations goes down as the tax price of charitable giving increases. At the median tax bracket, the predicted probability of donating to a political organization is 0.11.

The rest of this paper is organized as follows. The next section presents the data and discusses the relationship between charitable and political giving. Section three sets out the specifications for different empirical models. Section four presents the results, discusses the validity of instruments, and interprets the findings. Section five focuses on the spillover effects of charitable subsidies on political giving and provides a discussion of policy implications. Section six summarizes the findings and concludes.

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[6]Gruber (2004) follows a similar approach to identify the effect of tax price of giving on religious attendance.

2 Data

I use a rich data set of charitable giving surveys conducted in 1990, 1992, 1994, 1996, and 2001.[7] The Survey of Giving and Volunteering in the United States series (SGV) are five independent cross-sectional surveys that obtain information on charitable and political contributions at the household level, and on various indicators of relevant motivations, household social characteristics, selected demographic descriptors, and economic factors. Weighting procedures are used to ensure that the final sample of respondents is representative of all non-instutionalized adults, 21 years of age and older.[8] Pooling the cross-sectional data from 1990 to 2001 and eliminating the observations missing key variables yields a nationally representative sample of 12065 households for the empirical analysis.

The survey records information on giving for thirteen different charity categories.[9] I identify the respondent as a charitable donor if her household has given to at least one of these categories and calculate the amount of charitable contributions as the sum of money that the respondent has reported giving to each of the specific charity groups. More than 74% percent of the respondents contribute to charitable organizations and the average contribution amount is $740.[10] Alternatively, charitable donors give 3% of their income to charity.[11] Since most of the charitable contributions in the United States are directed to religious organizations, when giving to this category is excluded, the probability of giving and the mean contribution amount considerably decrease. On average, 37% or the respondents give to secular charities and the mean contribution amount to secular charities is $474. Appendix A reports the summary statistics and further describes the key variables used in the empirical analysis in detail.

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[7] The 1990, 1992, 1994, and 1996 waves of the survey series were conducted by the Gallup Organization whereas the 2001 wave was conducted by Westat Inc. All waves were commissioned by the Independent Sector. The Independent Sector also collected data for 1988 and 1999. However, respondents of these surveys were not asked questions about their political contributions.

[8] There are other sources of survey data that contain information on household giving to charitable organizations such as the Panel Study of Income Dynamics (PSID). However, to my best knowledge, the SGV is the only survey that also contains information on political contributions.

[9] These categories are religious organizations, youth development, education, health, human services, environment and animal welfare, adult recreation, arts, culture, and humanities, public or societal benefit, private and community foundations, international or foreign programs, and other unnamed areas. The SGV also contains information on giving to relatives and giving to friends and neighbors. This information is not used, however.

[10] The amount of charitable and political contributions, and household income are reported in 1996 dollars throughout the paper.

[11] These numbers are comparable to giving rates from other sources of charitable giving data such as the PSID and tax returns from the IRS. For instance, in 2001 edition of the PSID, the giving rate is 69% and donors on average give 3% of their income to charities.

2.1 The relationship between charitable and political contributions

A unique feature of the SGV is that it contains information on household's contributions to political organizations for each respondent.[12] In Figure 1 panel A, I plot the probability of giving and the average amount of contributions to political organizations for each survey year. In general, the probability of giving to political organizations is stable across survey years. On average, 8 to 12 percent of the respondents has reported giving to political organizations. On the other hand, the amount of contributions to political organizations exhibits an increasing trend from 1990 to 1996, but decreases in 2001. The average contribution amount to political organizations differs between 14 to 27 dollars across the survey years. Panel B of Figure 1 shows that charitable giving trends during the same time period follow a similar trend. The probability of giving to charitable organizations across the survey years is stable and differs between 0.75 and 0.87. From 1990 to 1996, the average contributions to charitable organizations differ from 630 to 780 dollars. However, in contrast to political giving trends, the average charitable contribution amount increases considerably in 2001.[13]

Table 1 further documents the close relationship between charitable and political giving. Panel A shows that compared with non-donors, charitable donors are 10 percentage points more likely to give to political organizations. This difference is persistent when sub-samples of males, females, and unmarried respondents are considered. Furthermore, raw numbers in panel B document that compared with non-donors, on average charitable donors give 18 dollars more to political organizations. Table 2 shows that non only being a charitable donors but also the amount of the charitable gift is closely associated with the probability of giving and amount of contributions to political organizations. On average, 7 percent of the bottom quintile of charitable donors who donate up to $100 also contribute to political organization whereas this rate rises to 27 percent at the top quintile of charitable donors who give more than $1500. The amount of gifts to charitable and political organizations are also closely linked. The bottom quintile of donors who donate up to $100 to charitable organizations on average donate only 2 dollars to political organizations. At the

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[12] The respondents were asked the following question in each wave of the survey series: "Approximately how much money or the cash equivalent of property did you and the memebers of your household contribute to political organizations in [survey year]?"

[13] This finding is consistent with the historical trends in charitable giving reported by Giving USA Foundation (2003). Giving USA Foundation reports that starting from 1986, giving as percent of income had a decreasing trend until 1996, followed by an increasing trend until 2002. Furthermore, from 1989 to 1996, total amount of contributions by individuals were stable (around $110 billion in 2002 dollars). Starting from 1996, individual giving increased tremendously and reached $185 billion in 2001. Andreoni (2006) also discusses the historical trends in individual giving.

top quintile of charitable donors, average contribution amount to political organizations increases to 74 dollars. A similar trend is also observed for male, female, and unmarried donors. Therefore, simple tabulations reveal a positive relationship between charitable and political contributions.

2.2 The tax price of giving

Since households are allowed to itemize charitable deductions on their federal and most state personal income tax returns, each dollar given away to charity costs less than a dollar if the household itemizes deductions. I compute the price of giving as $1 - t$ for those who itemize deductions and 1 for those who do not, where t is the marginal tax rate that the donor faces. Since the surveys do not report marginal tax rates, I calculate this variable for each household using information on itemization status, number of household members, gross income in 1996 dollars, filing status, and the federal tax schedules for the relevant year. For each household, I determine filing status (married, single, or household head) using the respondent's marital status and the information on the presence of children, whereas I obtain the itemization status of the household from the following question in each survey wave: "For your [survey year] federal tax return, did you, or will you, itemize your deductions?".[14] I calculate the number of dependents using the information on family size and number of children under 18 in the household. For those who itemize deductions, following Andreoni, Gale, and Scholz (1996), I assign the average level of itemized deductions from the IRS tax return data for the relevant survey year, conditioning on filing status and income.[15]

For each household, I calculate the taxable income as the household income less the value of exemptions and less the greater of itemized deductions or the standard deduction. I correct for the fact that individuals who are 65 and older can claim additional standard deduction, but cannot correct for the fact that blind people are also eligible for an extra deduction since this information is unavailable. This calculation follows the assumptions that are consistent with the common practices in the literature.[16] The resulting variable depends on the household's contribution amount and is referred to as the "last-dollar price" in the literature.

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[14] Following the previous literature, I assume that those who are married declare joint filing status.

[15] The relevant IRS data is available at IRS Statistics of Income, Individual Income Tax Returns for year 1996.

[16] See, for example, Duncan (1999), Andreoni, Brown, and Rischall (2003), Yörük (2009), and Yörük (2010).

3 Empirical Models

In this section, I investigate the relationship between four outcomes. These are the probability of giving and the amount contributions to charitable and political organizations. The empirical models that I consider address for the endogeneity of charitable behavior since some unobservable factors which may affect charitable giving may also be correlated with political giving. The magnitude and direction of the effect that can be attributed to the endogeneity problem is ambiguous, however. If charitably inclined people are also those who are more likely to give to political organizations, than one expects that unobservable factors that affect charitable giving should be positively correlated with unobservables affecting political giving. In this case, not controlling for the endogeneity of charitable giving should overestimate the true effect of charitable behavior on political giving. However, if some unobservable factors that may be positively associated with political giving are negatively associated with charitable giving, then not controlling for the endogeneity problem in political giving models should underestimate the true effect of charitable behavior on political giving. Finally, if unobservable factors that affect political and charitable giving are uncorrelated, than one should get a consistent estimate of the effect of generosity on political giving without controlling for the possible endogeneity problem. The empirical models presented in this section not only provide a direct test of endogeneity of charitable behavior, but also reveal the direction of the effect that can be attributed to this possible endogeneity problem.

3.1 The effect of charitable behavior on the probability of political giving

First, I consider a probit model of the probability of giving to political organizations with an endogenous binary independent variable $give_{i,ts}$ which takes the value of unity if individual i residing in state s donated money to charitable organizations in year t. For the same individual, let $politics_{i,ts}$ denote a binary political giving indicator which can be expressed as

$$politics_{i,ts} = \mathbf{1}\{\beta_1' X_{i,ts} + \alpha_1 give_{i,ts} + \lambda_1' S_{ts} + \eta_1' state_s + \delta_1' year_t + u_{1i,ts} \geq 0\} \tag{1}$$

where $\mathbf{1}(.)$ denotes the indicator function, $X_{i,ts}$ is a covariate vector of income and other observable characteristics of individual i, S_{ts} is a set of state level control variables, $state_s$ and $year_t$ are vectors of state and year fixed effects, and $u_{1i,ts}$ is a normally distributed random error with zero mean and unit variance.[17] If unobservable factors that affect political and charitable and giving are

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[17]The following variables are controlled for at the individual level: Household income, family size, number of children, age, age squared, binary indicators for gender, employment status, marital status, race, and educational

uncorrelated, then, the probability of giving is exogenous and the parameters of the above model can be estimated directly. However, if charitable behavior is endogenously determined in equation (1), failing to take this into account results in biased parameter estimates. In order to address the endogeneity problem, consider the following model:

$$give_{i,ts} = \mathbf{1}\{\beta_2' X_{i,ts} + \zeta_1 price_{i,ts} + \lambda_2' S_{ts} + \eta_2' state_s + \delta_2' year_t + u_{2i,ts} \geq 0\} \tag{2}$$

where $price_{i,ts}$ is the natural logarithm of the tax price of charitable giving for individual i and $u_{2i,t}$ is a normally distributed random error with zero mean and unit variance.[18] Assume that the error terms of equations (1) and (2) are independently and identically distributed as a bivariate normal with $E[u_{1i,t}] = E[u_{2i,t}] = 0$, $var[u_{1i,t}] = var[u_{2i,t}] = 1$, and $cov[u_{1i,t}, u_{2i,t}] = \rho$. Then, following Evans and Schwab (1995) and Wooldridge (2002), the likelihood function corresponding to this set of events can be estimated as a bivariate probit using $price_{i,ts}$ as the identifying instrument for the probability of giving to charity.[19] If $\rho \neq 0$, then $u_{1i,ts}$ and $u_{2i,ts}$ are correlated and running separate probit regressions for the equations (1) and (2) yields inconsistent estimates for the parameter vectors.

In order to investigate the marginal effect of the amount of charitable contributions on the probability of giving to political organizations, I consider the following model:

$$politics_{i,ts} = 1\{\beta_3' X_{i,ts} + \theta_1 cont_{i,ts} + \lambda_3' S_{ts} + \eta_3' state_s + \delta_3' year_t + u_{3i,ts} \geq 0\} \tag{3}$$

where $cont_{i,ts}$ denotes the natural logarithm of the amount of donation given by charitable donor i.[20] If the amount of charitable contributions are independent of the unobservable factors that are

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attainment. The description and summary statistics for these variables are presented in Apprendix A. At the state level, I control for income per capita in 1996 prices, median age, unemployment rate, percent of female, black, and Hispanic, percent of high school, college, and graduate school graduates. The state level control variables are compiled from Census Bureau Estimates for each survey year.

[18] A widely discussed empirical issue in the literature is the endogeneity of the tax price in giving models. However, a possible endogeneity of the tax price should not affect the estimates of the political giving models as long as unobserved covariates that are jointly correlated with the tax price and charitable giving are uncorrelated with political giving. Furthermore, using the first tax price of giving which excludes charitable contributions, a widely used instrument in the literature, yields comparable estimates. These results are available from the author upon request.

[19] Following Maddala (1983), it is widely believed in the literature that in the joint estimation of (1) and (2), parameter vectors are not identified in the absence of exclusionary restrictions. However, Wilde (2000) argues that the joint model is identified as soon as both equations have a varying exogenous regressor. Monfardini and Radice (2008) also state that identification of this model does not require any additional instruments. But note that in the absence of exclusionary restrictions, identification relies heavily on the functional form. Therefore, estimation with additional instruments yields parameter estimates that are more robust to distributional misspecification. Hence, I rely on identifying instruments in the empirical analysis.

[20] Following the common practice in the literature, I also add 1 to the amount of charitable contributions before calculating its natural logarithm.

correlated with the probability of political giving, then the above model can be estimated using a simple probit estimator. Otherwise, one must address the endogeneity of the amount of charitable contributions using instrumental variables. As in the bivariate probit model, I use $price_{i,ts}$ as an instrument for the amount of charitable contributions. Hence, the reduced form model for the amount charitable contributions can be written as

$$cont_{i,ts} = \beta_4' X_{i,ts} + \zeta_2 price_{i,ts} + \lambda_4' S_{ts} + \eta_4' state_s + \delta_4' year_t + u_{4i,ts}. \tag{4}$$

Suppose that the error terms in equations (3) and (4) are independently and identically distributed with a bivariate normal distribution with $E[\varepsilon_{3i,ts}] = E[\varepsilon_{4i,ts}] = 0$, $var[\varepsilon_{3i,ts}] = 1$ and $var[\varepsilon_{4i,ts}] = \sigma^2$. If $\varepsilon_{3i,ts}$ and $\varepsilon_{4i,ts}$ are correlated, then separate probit and ordinary least squares(OLS) estimation of the equations in (3) and (4) yields inconsistent estimates for the parameter vectors. In this case, the joint system of equations (3) and (4) correspond to the IV-Probit model as discussed in Wooldridge (2002) and can be estimated using the maximum-likelihood (ML) methodology.

3.2 The effect of charitable behavior on the amount of political contributions

In order to investigate the effect of the probability of giving to charitable organizations on the amount donated to political organizations, I consider the following tobit type model which takes into account of a large group of individuals who do not donate to political organizations:

$$pcont_{i,ts} = \max\left\{\mathbf{0}, \beta_5' X_{i,ts} + \alpha_2 give_{i,ts} + \lambda_5' S_{ts} + \eta_5' state_s + \delta_5' year_t + u_{5i,ts}\right\} \tag{5}$$

where $pcont_{i,ts}$ denotes the natural logarithm of the amount of political contributions donated by individual i.[21] The causal effect of the probability of giving on the amount of political contributions can be consistently estimated using a tobit model as long as $u_{5i,ts}$ and $give_{i,ts}$ are uncorrelated. In order to address the possible endogeneity of the probability of giving in the above equation, I also estimate a two-step endogenous Tobit model. In this model, following Angrist (2001), I first estimate equation (2) and calculate a mills-ratio type endogeneity correction term

$$mills = give_{i,ts}(-\phi/\Phi) + (1 - give_{i,ts})\phi/(1 - \Phi) \tag{6}$$

where ϕ and Φ are normal density and cumulative normal distribution functions evaluated at the probit first-stage fitted values. In the second stage, I estimate equation (5) by including this

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[21] As in charitable contributions, I also add 1 to the amount of political contributions before calculating its natural logarithm. One can alternatively use the level form of charitable and political contributions instead of using their log transformations. Such an exercise yields comparable results, however.

correction term as an additional control variable. The coefficient of the correction term is $\varphi\sigma$, where φ is the correlation between $u_{2i,ts}$ and $u_{5i,ts}$ and σ is the standard deviation of the outcome residual. If this coefficient is significantly different from zero, then one should use a two-step endogenous Tobit model in order get a consistent effect of the probability of giving to charity on the amount donated to political organizations.

Similarly, if the amount of charitable contributions are not correlated with the unobserved factors affecting the amount of political contributions, one can estimate the consistent effect of the amount of charitable contributions on the amount of political contributions using the following standard tobit model:[22]

$$pcont_{i,ts} = \max\left\{\mathbf{0}, \beta_6' X_{i,ts} + \theta_2 cont_{i,ts} + \lambda_6' S_{ts} + \eta_6' state_s + \delta_6' year_t + u_{6i,ts}\right\}. \tag{7}$$

However, under the assumption that $u_{4i,ts}$ and $u_{6i,ts}$ are zero-mean normally distributed, if these two error terms are correlated, then the joint system of equations (4) and (7) correspond to the IV-Tobit model as discussed in Wooldridge (2002) and can be estimated using ML methodology.

4 Results

I start with estimating the relationship between the probabilities of giving to charitable and political organizations using probit and biprobit models. The results from the main models presented in the first specification of Table 3 suggests that the error terms of equations (1) and (2) are uncorrelated which implies that probability of giving to charitable organizations is not correlated with the unobserved factors that determine the probability of political giving. Since endogeneity is not a problem, probit and biprobit models yield virtually the same result and suggest that charitable donors are on average 6 percentage points more likely to give to political organizations compared with non-donors.[23] The remaining specifications in Table 3 report the results of the sensitivity tests performed to determine whether the estimated effect of the probability of charitable giving is robust to selection of the sample based on survey years, gender, marital status, inclusion of alternative control variables, and using alternative instrumental variables. In all specifications, the correlation coefficient is insignificant which suggests that the probit model is appropriate estimation strategy. The second specification adds two additional control variables to the probability of political giving

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[22] An alternative to standard tobit model is Censored Least Absolute Deviation (CLAD). However, Wilhelm (2008) shows that CLAD and tobit models generate similar estimates in the context of charitable giving.

[23] Detailed estimation results for main models are presented in Appendix B.

and the first stage probability of charitable giving equations. These variables control for the number of years that the respondent lived in her current community and whether she owns her primary residence. I hypothesize that people who own their primary residence are more integrated into their communities and may be more likely to be influenced by the behavior of their neighbors. People may sort themselves to certain communities depending on community characteristics. If community characteristics are associated with political or charitable giving, than not controlling for these factors may yield biased estimates. However, the marginal effect of the probability of charitable giving remains the same even after these extra control variables are controlled for. As mentioned before, until 2001, the Gallup Organization conducted biennial surveys of charitable giving and volunteering for Independent Sector. In 2001 Independent Sector hired Westat Inc. to conduct the same survey. As a result, in the 2001 edition of the survey series, the sample size increased considerably, some questions were dropped from the survey, and the wording of some others changed.[24] In order to check whether these changes affect the estimation results, the third specification excludes this year from the sample. Excluding the 2001 subsample does not affect the marginal effect of the probability of charitable giving in probit and bivariate probit models. In the fourth specification, instead of using a continuous measure of the tax price of giving, I use a set of dummy variables that correspond to different tax brackets as instruments.[25] Compared with the base bivariate probit model, in this specification, the marginal effect of the probability of giving to charitable organizations decreases by only 0.7 percentage points. The remaining specifications document the relationship between the probabilities of charitable and political giving by gender and marital status. The marginal effect of the probability of charitable giving is relatively smaller for females and unmarried. Female or unmarried charitable donors on average 3.5 percentage points more likely to give to political organizations compared with their non-donor counterparts. On the other hand, the marginal effect of the probability of charitable giving on the probability of political giving is much higher (8.5 percentage points) for males.

Table 4 documents the effect of the amount of charitable contributions on the probability of giving to political organizations. The main probit model which assumes the exogeneity of the amount of charitable donations suggests that a one log point increase in contribution amount is

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[24]Westat Inc. conducted the 2001 survey with a sample of 4216 adults, whereas previous versions were conducted by Gallup Organization on about 2500 households.

[25]These four dummy variables are generated for those who itemize deductions in their federal tax return and correspond to 15%, 28%, 31%, and 36% tax brackets. The excluded category is those who do not itemize deductions.

associated with a 1.4 percentage point increase in the probability of giving to political organizations. The probit models in the second and third specifications yield virtually the same effect of the amount of charitable contributions on the probability of giving to political organizations. The marginal effect of the amount of charitable contributions is relatively smaller for females and unmarried (1 and 0.8 percentage points respectively) and larger for males (1.6 percentage points). Compared with the probit model, the main IV-Probit model estimated using the tax price of giving as an instrument suggests that the effect of the charitable contribution amount on the probability of giving to political organizations is much higher (4.1 percentage points) once the endogeneity of charitable donations are controlled for.[26] Furthermore, the Wald test of exogeneity suggests that the unobserved covariates that determine both the amount of charitable contributions and the probability of giving is correlated and hence, the appropriate estimation strategy is IV-Probit. A similar result also prevails once additional controls are included in the model or 2001 survey year is excluded from the sample. However, the Wald test suggests that the appropriate estimation technique is probit when only males or unmarried respondents are considered or price dummies are used as instruments. For these models, the marginal effects from the IV-probit model are very similar to those from the corresponding probit models.

In Table 5, I report the marginal effect of the probability of giving to charitable organizations on the amount of political contributions. Compared with the single equation tobit models, the IV-Tobit models which control for the endogeneity of the probability of charitable giving yield a larger impact of the probability of charitable giving on the amount of political contributions. However, the mills ratio is insignificant under all specifications which implies that the error terms of equations (2) and (5) are uncorrelated and therefore, the appropriate estimation technique is tobit. The main tobit model suggests that compared with non-donors, charitable donors give almost 52 percent more to political organizations. This effect is also robust to the inclusion of additional controls or exclusion of 2001 survey year from the sample. Specifications 5 to 7 suggest that the effect of being a charitable donor on the amount of contributions to political organizations is larger for males and relatively smaller for females and unmarried respondents.

Table 6 documents the relationship between charitable and political contributions. The main tobit model suggests that a one percent increase in the amount of charitable donations is associated

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[26] The effect of the amount of charitable contributions on the probability of giving to political organizations is statistically significant but economically small since one log point increase in the contribution amount corresponds to a 272 percent increase in this variable. Hence, a roughly 70 percent increase in the amount of charitable contribution corresponds to a only 0.01 point increase in the probability of giving to political organizations.

with a 0.1 percent increase in the amount of political contributions. However, the Wald test of exogeneity shows that the amount of charitable contribution is an endogenous determinant of political gifts. The IV-Tobit model which controls for this endogeneity problem suggests that a one percent increase in charitable contributions increases political contributions by 0.3 percent. Specifications 2 and 3 show that this result is robust to the inclusion of additional controls or exclusion of 2001 survey year from the sample. The Wald test of exogeneity suggests that the appropriate estimation technique is tobit when only males or unmarried respondents are considered or price dummies are used as instruments. For males and unmarried respondents, the marginal effects from the IV-Tobit model are very similar to those from the corresponding tobit models. On the other hand, compared with the main IV-Tobit model, the fourth specification which estimated using price dummies as instruments yields a similar estimate of the marginal effect of charitable contributions.

4.1 The validity of instruments and interpretation of results

In order to be a valid instrument, the tax price of giving should satisfy two conditions. First, it must be a determinant of the probability of giving and the amount of contributions to charitable organizations. Second, it must be uncorrelated with the unobservable covariates which might affect political giving. It is easy to check that the first condition is satisfied. In all the models discussed above, the coefficient of the tax price in the first stage was negative and significant at conventional significance levels which suggests that people tend to give less to charities as giving becomes more expensive.[27]

Thus, the credibility of parameter estimates depends on whether the second condition is fulfilled. I recognize that it is not possible to test directly whether this condition is satisfied. Since several determinants of the tax price such as income, marital status, and number of children are already controlled for, the second condition may be violated if those who are more or less inclined to give to political organizations tend to sort themselves to certain tax brackets. This is highly unlikely since political contributions are not tax deductible and hence, they must be independent of the marginal tax rates. However, I address this possibility by investigating some observed characteristics of individuals who belong to different tax brackets. These characteristics are likely to reveal some

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[27] Appendix B tables show that the coefficient on the tax price of giving is negative and statistically significant in the first stage regressions which suggests that people become less likely to donate and give less to charity when the price of giving gets more expensive.

unobserved aspects of political giving. For example, if some individuals are more likely to give to political organizations, then it is likely that these individuals have confidence in political parties. A unique question in the SGV contains information on each respondent's degree of confidence in political parties.[28] Using this information, I find that respondents' confidence in political parties are independent of the tax bracket that they belong to. For example, those who are in 15% tax bracket are almost equally likely to have the same confidence level compared with those who belong to 28%, 31%, and 36% tax brackets (3.4 compared with 3.3, 3.4, and 3.6 respectively). Furthermore, in the 2001 edition of the SGV, respondents were also asked about their confidence in congress. The relationship between this variable and the tax price is comparable to those between confidence in political parties and the tax price which suggests that the tax price is not correlated with the unobserved covariates that may affect political giving.

The empirical results suggest that the decision to give to charity is not an endogenous determinant of political giving, but the amount donated to charity is. The results of IV-Probit and IV-Tobit models show that the estimated effect of the amount of charitable contributions on political giving is relatively higher once this endogeneity problem is controlled for. This result is counterintuitive in a sense that if people who donate more to charity are also those who are more likely to give to political organizations, then not controlling for the endogeneity of the amount of charitable contributions would lead one to overestimate the true relationship between the amount given to charity and political organizations rather than to underestimate it. How can one justify the fact that some unobservable covariates that have a positive impact on charitable giving negatively affect their political contributions?

The public agenda changes as public priorities shift. The empirical models do not control for several events that may directly affect the public agenda. For instance, as the intensity of news about the political parties and organizations increases during the election years, political activities such as contributions of time and money for political organizations and the propensity to vote are expected to increase whereas people may shy away from other prosocial behaviors such as charitable giving. Similarly, the media has the power to encourage generosity. The media coverage of humanitarian crises or natural disasters is positively associated with charitable giving.[29] As the

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[28]The respondents were asked the following question: "How much confidence you have in political parties?". The answers are coded as follows: "1-Great deal, 2-Quite a lot, 3-Some, 4-Very little". This question was not asked in 1990 survey year.

[29]Brown and Minty (2008) document the positive effect of media on charitable giving. Yörük (2009) documents the positive effect of media campaigns on volunteering. Gerber, Karlan, and Bergan (2009) investigate the effect of newspapers on voting behavior and political options.

public priorities tend to shift towards charitable giving aftermath of such events, political giving may be negatively affected. Yet, I also recognize that none of these hypotheses are testable due to the limitations of the survey data.[30]

5 The spillover effects of charitable subsidies on political giving

The above analysis clearly shows the positive relationship between charitable and political giving. Policymakers in the Unites States and many other countries encourage charitable giving through various subsidies. In the United States, for instance, charitable contributions can be deducted from taxable income making the price of giving inversely related to the marginal tax rate. In this section, I investigate the spillover effect of these policies by focusing on the relationship between the tax price of giving and political contributions.

Using equations (1) and (2), one can write down a reduced form equation of the probability of giving to political organizations as a function of observable covariates and the tax price of giving. This model would be similar to equation (2) except that the outcome variable is *politics* instead of *give*. Since, political contributions are not tax deductible, tax price of giving is exogenous in this reduced form equation and therefore, its effect on the probability of giving to political organizations can be consistently estimated using a simple probit model.

Estimating this reduced form model, I find that charitable and political giving are complements. Increasing the tax price of giving not only decreases the predicted probability of charitable giving but also decreases the predicted probability of political giving. Figure 2 documents this finding for the full sample and sub-samples of males, females, and unmarried. At the highest tax bracket, a charitable contribution of one dollar costs only 64 cents to a donor whose predicted probability of political contribution is almost 0.4. When the cost of donating a dollar to charity rises to 85 cents, the predicted probability of giving to a political organization decreases to almost 0.1.[31] If charitable donors do not itemize their contributions in their tax return, then the effective price of giving is unity. At this price, charitable contributions are not subsidized and the probability

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[30]Another possible reason for the negative correlation between the error terms of the charitable and political giving equations might be the attenuation bias caused by the measurement error in different measures of charitable giving. In particular, the survey literature generally reports that respondents' answers on attitudinal questions are subject to measurement error. However, IV-Probit and IV-Tobit models estimated by appropriate instruments should correct for the measurement error provided that the instruments are correlated with the true value of charitable giving and not with the measurement error.

[31]The 15% tax bracket also represents the median.

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of giving to political organizations decreases to 0.08. The relationship between the probability of political giving and tax price is also robust to selection of sample based on gender and marital status.

Using equations (4) and (7), I derive a similar reduced form equation of the amount of political contributions as a function of control variables and the tax price of giving. I estimate this model using a tobit estimator and calculate the elasticity of the amount of political contributions with respect to the tax price of giving. At the tax price of 0.64, a one percent increase in the tax price of giving decreases the amount donated to a political organization by almost 0.9 percent. This estimated elasticity is also statistically significant ($p-value = 0.005$). Interestingly, the cross-price elasticity of the amount of political contributions goes up as the tax price increases. At the lowest tax bracket (15%), the implied cross-price elasticity of the amount of political contributions is -0.78 ($p-value = 0.002$). When the tax price is unity, a one percentage point increase in the tax price corresponds to a 0.73 percent decrease in the amount of political contributions ($p-value = 0.001$).

The estimated cross-price elasticities for males and unmarried respondents are smaller compared with the full sample. However, females are more responsive to changes in the tax price of giving. For example, at the tax price of 0.85, females tend to decrease the amount of their political contributions by more than one percent as a response to a one percent increase in the tax price of giving ($p-value = 0.002$). These results highlight the positive externalities created by charitable subsidies and may help policymakers to make informed choices about the indirect effects of charitable subsidies on other types of contributions that are not tax deductible.

6   Conclusion

Policymakers promote tax reliefs for charitable donors who itemize their donations in their federal and state tax returns. However, the existing literature focuses on the immediate effect of such policies on charitable contributions and often ignore their impact on other types of contributions that are not tax deductible. In this paper, I focus on a particular type of contributions that are not tax deductible, namely political contributions. I explore the relationship between charitable and political contributions and investigate the spillover effects of charitable subsidies on political giving using five independent surveys of charitable and political giving in the United States conducted from 1990 to 2001.

I document that charitable and political giving are positively associated. Controlling for the

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endogeneity of charitable behavior in political giving models, I find that compared with non-donors, charitable donors are on average 6 percentage points more likely to give to political organizations. Charitable donors also donate more to political organizations compared with their non-donor peers even after income and other observable characteristics are controlled for. I also find a positive relationship between the amount of gifts donated to charitable and political organizations. A one percent increase in the amount of charitable donations is associated with a 0.3 percent increase in the amount of money donated to political organizations. Furthermore, the relationship between charitable and political giving is robust under different specifications.

I find that the decision to give to charity is not an endogenous determinant of political giving, but the amount donated to charity is. Compared with single equation models, models that control for the endogeneity of the amount of charitable contributions yield a larger effect of charitable contributions on political giving. This result is quite surprising since one might expect to find a positive relationship between the unobserved factors that jointly affect charitable and political giving. For instance, if people who are more charitably inclined are also those who are more likely to give to political organizations, then not controlling for the endogeneity of charitable behavior would lead one to overestimate the true relationship between charitable and political giving rather than to underestimate it. I propose several arguments that may explain the counterintuitive results. In particular, I argue that several events that may directly affect the public agenda, an unobserved covariate in empirical models, might be positively associated with charitable contributions but might have a negative effect on political giving or vice versa.

Estimating reduced form models of political giving, I find that charitable and political giving are complements at different tax price levels. Hence, policies that encourage charitable giving have positive spillover effects on the political contributions. This effect gets relatively smaller as the tax price of giving goes up. I find that at the lowest tax bracket, the implied cross price elasticity of the amount of political contributions is -0.78. However, when the tax price is unity, a one percentage point increase in the tax price corresponds to a 0.73 percent decrease in the amount of political contributions. Furthermore, although the estimated cross-price elasticities for males and unmarried respondents are smaller compared with the full sample, the amount of political contributions of females are more responsive to changes in the tax price of giving.

This paper documents a previously ignored relationship between charitable and political giving. It also highlights the positive externalities created by charitable subsidies and provides insights for alternative theoretical models which may investigate the indirect effects of charitable subsidies on

different types of contributions and prosocial behaviors. However, it cannot explore several related questions mostly due to the limitations of the survey data. For example, Hinich (1981) develops a model to examine choices of voting or contributing to political parties. A similar relationship may exist between charitable giving and other types of prosocial behavior. Although this paper argues that charitable giving and other prosocial behaviors might be correlated, further research is needed to explore this possible relationship.

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Table 1. The relationship between political giving and the decision to give to charitable organizations

A. Probability of giving to political organizations

	Give=1	Give=0	Difference
Full sample	0.128	0.026	0.102
	(0.003)	(0.003)	(0.006)
Unmarried	0.102	0.018	0.084
	(0.005)	(0.004)	(0.008)
Males	0.158	0.020	0.139
	(0.006)	(0.004)	(0.009)
Females	0.102	0.033	0.069
	(0.004)	(0.005)	(0.008)

B. Amount of political contributions

	Give=1	Give=0	Difference
Full sample	20.27	2.07	18.20
	(3.14)	(0.38)	(5.46)
Unmarried	9.56	1.87	7.67
	(1.47)	(0.51)	(2.08)
Males	24.64	1.63	23.01
	(5.53)	(0.49)	(9.04)
Females	16.52	2.56	13.96
	(3.39)	(0.587)	(6.24)

Notes: Sample weighted means are reported. Standard errors are reported in parenthesis. "Give" is a binary variable and equals to unity if the respondent donated money to charitable organizations.

Table 2. The relationship between political giving and the amount of charitable contributions

A. Probability of giving to political organizations

	Contribution amount in 1996 dollars				
	up to $100	$101 to $250	$251 to $750	$751 to $1500	more than $1501
Full sample	0.068 (0.252)	0.104 (0.305)	0.170 (0.375)	0.204 (0.403)	0.265 (0.441)
Unmarried	0.049 (0.217)	0.100 (0.301)	0.123 (0.328)	0.315 (0.465)	0.205 (0.405)
Males	0.095 (0.293)	0.128 (0.334)	0.205 (0.404)	0.197 (0.398)	0.314 (0.464)
Females	0.047 (0.212)	0.085 (0.279)	0.139 (0.346)	0.211 (0.408)	0.186 (0.390)

B. Amount of political contributions

	Contribution amount in 1996 dollars				
	up to $100	$101 to $500	$501 to $1500	$1501 to $3000	more than $3001
Full sample	2.42 (12.95)	7.65 (52.85)	30.14 (358.43)	48.56 (304.14)	73.97 (821.97)
Unmarried	2.01 (13.33)	7.58 (55.12)	7.46 (28.76)	54.03 (171.06)	42.11 (294.43)
Males	4.11 (16.98)	11.13 (59.47)	21.36 (87.49)	47.20 (365.51)	101.01 (1043.41)
Females	1.10 (8.29)	5.066 (47.21)	37.63 (481.13)	49.98 (223.08)	30.88 (126.98)

Notes: Sample weighted means are reported. Standard deviations are in parenthesis. In both tables, only charitable donors are considered and each contribution range roughly represents a quintile of charitable donors.

Table 3. The effect of the probability of giving to charitable organizations on the probability of giving to political organizations

		Probit	Biprobit	
	Number of obs.	Marginal effect	Marginal effect	Rho
1. Main model	12049	0.063 (0.008)***	0.064 (0.016)***	-0.234 (0.326)
2. Additional controls	12027	0.061 (0.008)***	0.057 (0.020)***	-0.127 (0.310)
3. Exclude 2001	8241	0.062 (0.009)***	0.060 (0.013)***	-0.275 (0.343)
4. Alternative instruments	12049	-	0.057 (0.020)***	-0.097 (0.288)
5. Unmarried	4490	0.034 (0.007)***	0.020 (0.020)	-0.815 (0.817)
6. Males	5758	0.085 (0.010)***	0.086 (0.010)***	-0.561 (0.335)
7. Females	6252	0.035 (0.010)***	-0.066 (0.241)	0.464 (0.617)

Notes: In addition to individual and household level control variables, all regressions include fixed year and state effects and state level control variables as discussed in the text. Sample weights are used in all regressions. Robust standard errors are reported in parenthesis. The signs *, **, *** indicate that the estimate is significant at 10%, 5%, and 1% significance levels, respectively.

Table 4. The effect of the amount of charitable contributions on the probability of giving to political organizations

	Number of obs.	Probit	IV-Probit	
		Marginal Effect	Marginal Effect	Wald test (p-value)
1. Main model	12049	0.014 (0.001)***	0.041 (0.016)***	4.76 (0.029)**
2. Additional controls	12027	0.014 (0.001)***	0.038 (0.016)**	3.63 (0.057)*
3. Exclude 2001	8241	0.014 (0.002)***	0.041 (0.017)**	4.49 (0.034)**
4. Alternative instruments	12049	-	0.034 (0.016)**	2.11 (0.147)
5. Unmarried	4490	0.008 (0.001)***	0.010 (0.009)	0.12 (0.727)
6. Males	5758	0.016 (0.002)***	0.023 (0.016)	0.17 (0.679)
7. Females	6252	0.010 (0.002)***	0.058 (0.026)**	7.43 (0.006)***

Notes: In addition to individual and household level control variables, all regressions include fixed year and state effects and state level control variables as discussed in the text. Sample weights are used in all regressions. Robust standard errors are reported in parenthesis. Wald test of exogeneity is reported in the last column as a chi-squared statistic with 1 degree of freedom. The signs *, **, *** indicate that the estimate is significant at 10%, 5%, and 1% significance levels, respectively.

Table 5. The effect of the probability of giving to charitable organizations on the amount of political contributions

| | | Tobit | IV-Tobit | |
	Number of obs.	Marginal effect	Marginal effect	Mills ratio
1. Main model	12065	0.519 (0.073)***	0.819 (0.314)***	0.209 (0.224)
2. Additional controls	12043	0.502 (0.074)***	0.692 (0.328)**	0.130 (0.229)
3. Exclude 2001	8284	0.504 (0.074)***	0.870 (0.330)***	0.257 (0.238)
4. Alternative instruments	12065	-	0.672 (0.329)**	0.105 (0.231)
5. Unmarried	4562	0.374 (0.085)***	0.673 (0.393)*	0.196 (0.258)
6. Males	5764	0.677 (0.093)***	1.246 (0.386)***	0.414 (0.288)
7. Females	6301	0.310 (0.099)***	0.147 (0.471)	-0.103 (0.281)

Notes: In addition to individual and household level control variables, all regressions include fixed year and state effects and state level control variables as discussed in the text. Sample weights are used in all regressions. Robust standard errors are reported in parenthesis. The signs *, **, *** indicate that the estimate is significant at 10%, 5%, and 1% significance levels, respectively.

Table 6. The effect of the amount of charitable contributions on the amount of political contributions

	Number of obs.	Tobit	IV-Tobit	
		Marginal Effect	Marginal Effect	Wald test (p-value)
1. Main model	12065	0.105 (0.010)***	0.305 (0.086)***	4.96 (0.026)**
2. Additional controls	12043	0.102 (0.010)***	0.284 (0.089)***	3.86 (0.049)**
3. Exclude 2001	8284	0.102 (0.010)***	0.294 (0.088)***	4.60 (0.032)**
4. Alternative instruments	12065	-	0.246 (0.091)***	2.32 (0.128)
5. Unmarried	4562	0.080 (0.013)***	0.119 (0.083)	0.22 (0.640)
6. Males	5764	0.113 (0.012)***	0.170 (0.099)*	0.34 (0.562)
7. Females	6301	0.086 (0.014)***	0.472 (0.149)***	6.08 (0.014)**

Notes: In addition to individual and household level control variables, all regressions include fixed year and state effects and state level control variables as discussed in the text. Sample weights are used in all regressions. Robust standard errors are reported in parenthesis. Wald test of exogeneity is reported in the last column as a chi-squared statistic with 1 degree of freedom. The signs *, **, *** indicate that the estimate is significant at 10%, 5%, and 1% significance levels, respectively.

Figure 1. The probability of giving and the amount of contributions to political and charitable organizations by year

A. Political organizations
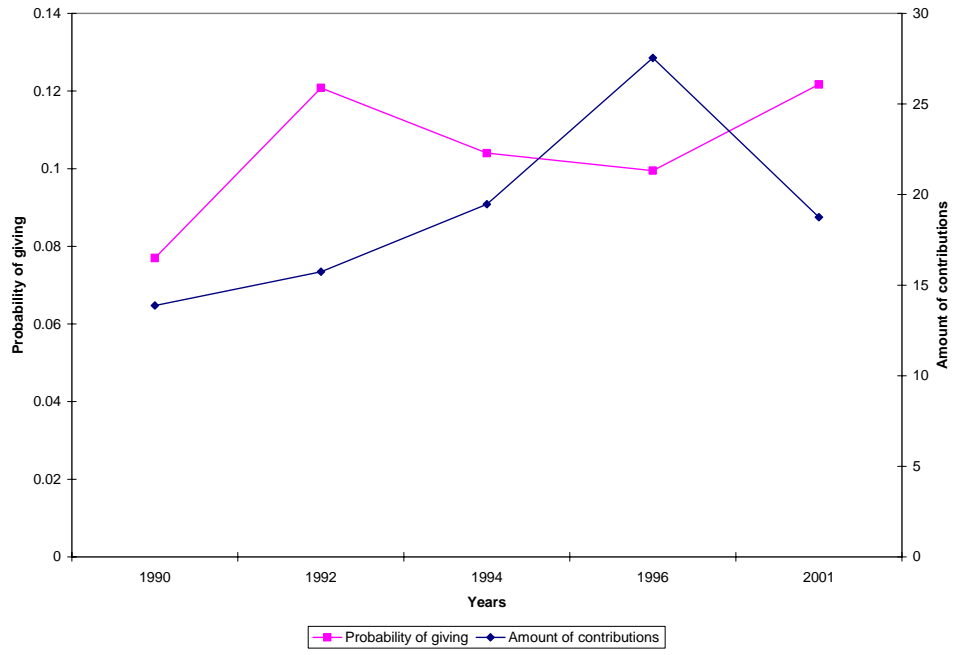
B. Charitable organizations

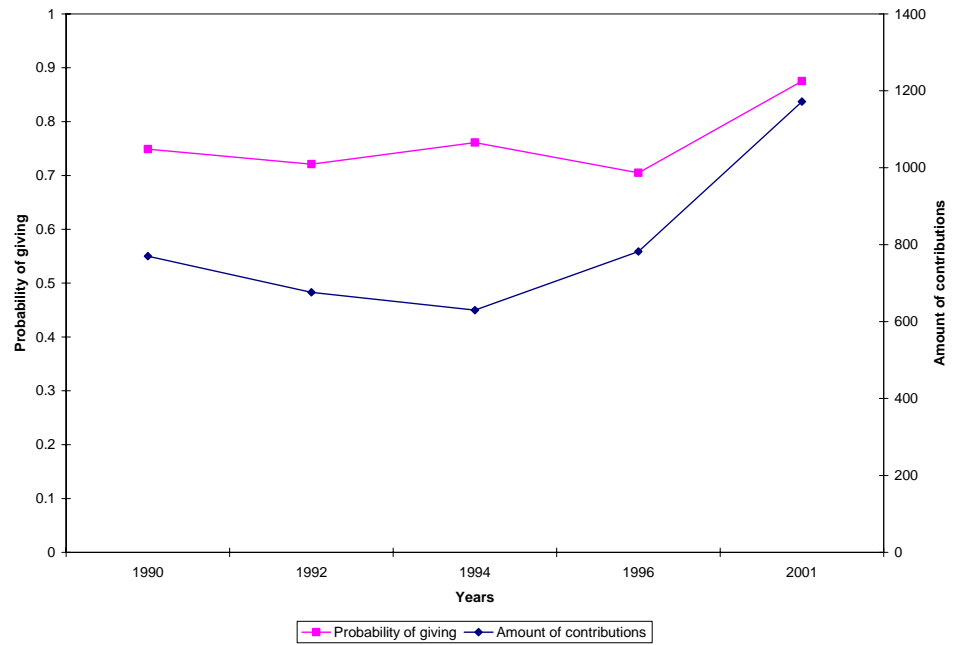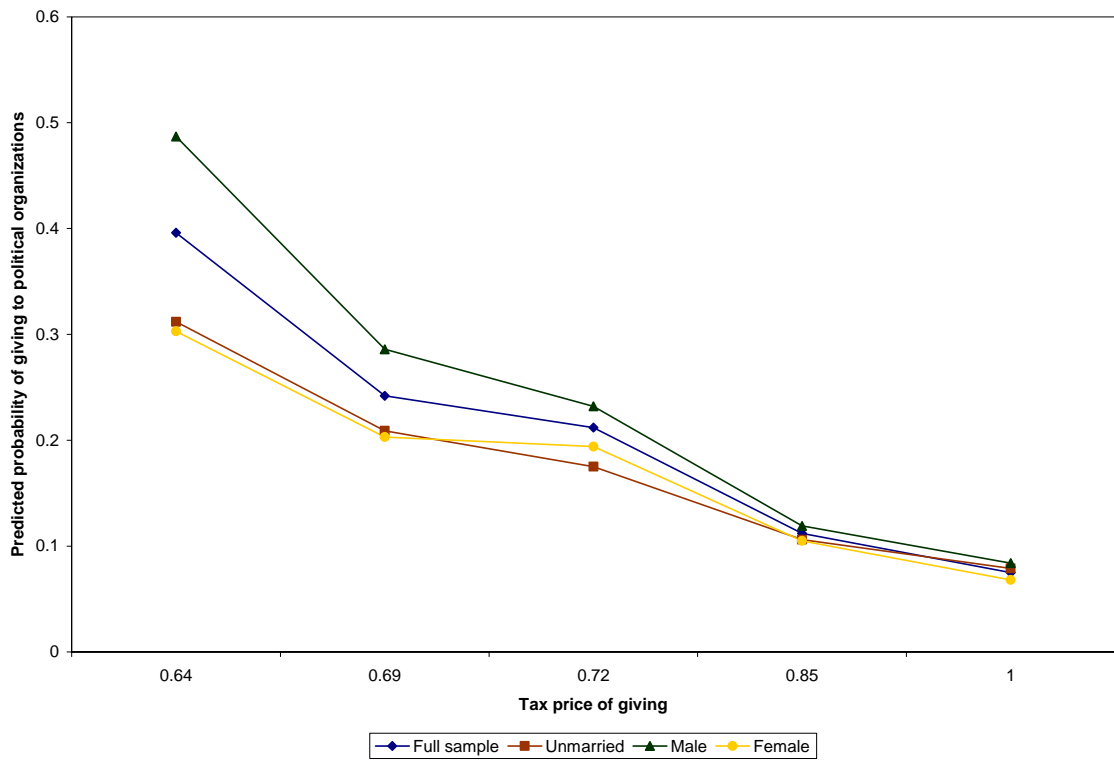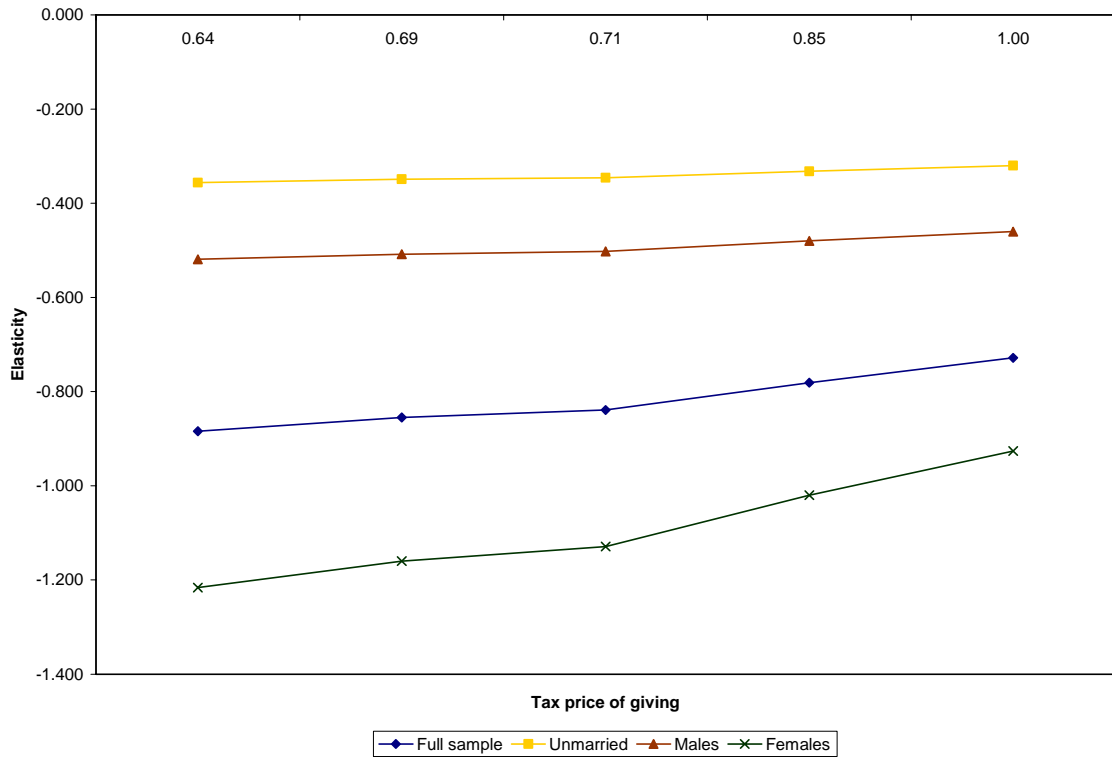Figure 2. Predicted probability of giving to political organizations by the tax price of giving

Note: The predicted probabilities are calculated from reduced form probit models as discussed in the text.

Figure 3. Elasticity of the amount of political contributions with respect to the tax price of giving

Note: Cross-price elasticities are calculated from reduced form tobit models as discussed in the text.

Appendix A. Definition of key variables and summary statistics

Variable name	Definition	Mean	S.D.
Political contributions	Household's political contributions in 1996 dollars.	15.55	262.90
Politics	=1 if the household contributed money to political organizations during the survey year.	0.101	0.302
Give	=1 if the household contributed money to charities during the survey year.	0.741	0.438
Charitable contributions	Household's charitable contributions in 1996 dollars.	740.01	2259.21
Price	=1 minus marginal tax rate for itemizers and 1 for non-itemizers. Tax rates are calculated from information on probable filing status, income, itemization status, and other key variables.	0.911	0.113
Income	Total household income in 1996 dollars. Respondents reported income in one of 15 before-tax income ranges. I use the midpoint of the each range as the actual income measure.	42440.57	30375.71
Family size	Number of people in the household including the respondent.	3.017	1.493
Children	Number of children in the household, 18 years old and younger.	0.879	1.204
Age	Age of the respondent.	44.55	17.52
Female	=1 if the respondent is female.	0.521	0.500
Employed	=1 if the respondent is employed.	0.608	0.488
Married	=1 if the respondent is married.	0.640	0.480
Widowed	=1 if the respondent is widowed.	0.082	0.274
Separated	=1 if the respondent is separated.	0.019	0.136
Divorced	=1 if the respondent is divorced.	0.066	0.249
High school	=1 if the highest level of education obtained by the respondent is a high school degree.	0.322	0.467
Some college	=1 if the respondent attended college but did not receive a four-year degree.	0.163	0.369
College	=1 if the respondent obtained a four-year college or higher degree.	0.172	0.377
Black	=1 if the respondent is black.	0.107	0.309
Hispanic	=1 if the respondent is Hispanic.	0.070	0.256

Years lived in current community: 2 to 4	=1 if the respondent reported living in her current community 2 to 4 years.	0.136	0.343
Years lived in current community: 5 to 9	=1 if the respondent reported living in her current community 5 to 9 years.	0.150	0.357
Years lived in current community: 10+	=1 if the respondent reported living in her current community more than 10 years.	0.538	0.499
Homeowner	=1 if the respondent owns her current residence.	0.673	0.469

Notes: Sample weighted means are reported. Mean "Homeowner" is calculated using 12043 observations. Means for the rest of the variables are calculated using 12065 observations.

Appendix B. Regression results from main models

Table B1. The relationship between the probability of giving to charitable organizations and the probability of giving to political organizations (Main Probit and Biprobit models)

	Probit	Biprobit	
	Politics	Politics	Give
Give	0.063 (0.008)***	0.064 (0.015)***	-
ln(Price)	-	-	-0.454 (0.072)***
ln(Income)	0.036 (0.006)***	0.029 (0.009)***	0.100 (0.013)***
Family size	-0.010 (0.005)**	-0.007 (0.004)**	-0.008 (0.009)
Children	0.003 (0.006)	0.003 (0.004)	0.022 (0.011)**
Age	0.002 (0.001)	0.001 (0.001)	0.005 (0.003)*
Age sq. ✕ 100	0.000 (0.001)	0.000 (0.001)	-0.001 (0.003)
Female	-0.021 (0.007)***	-0.010 (0.006)*	0.077 (0.015)***
Employed	0.009 (0.009)	0.007 (0.007)	0.028 (0.018)
Married	0.018 (0.013)	0.015 (0.010)	0.055 (0.022)**
Widowed	0.001 (0.020)	-0.001 (0.013)	-0.005 (0.034)
Separated	0.044 (0.050)	0.032 (0.035)	0.015 (0.046)
Divorced	-0.000 (0.020)	-0.002 (0.013)	-0.021 (0.032)
High school	-0.009 (0.010)	-0.003 (0.007)	0.056 (0.017)***

Some college	0.018	0.021	0.135
	(0.014)	(0.012)*	(0.018)***
College	0.052	0.050	0.167
	(0.016)***	(0.016)***	(0.016)***
Black	0.003	0.002	-0.009
	(0.015)	(0.010)	(0.022)
Hispanic	0.008	0.004	-0.032
	(0.016)	(0.011)	(0.026)
Rho	-	-0.234	
		(0.326)	
Log-likelihood	-3409.46	-61684.38	
Number of Obs.	12049	12049	

Notes: All regressions include fixed year and state effects and state level control variables as discussed in the text. Sample weights are used in all regressions. For the probit model, marginal effects calculated at the mean of the independent variables are reported. In the second column, marginal effects calculated at the mean of the independent variables for joint probability of success i.e., Pr(Politics=1, Give=1) are reported. In the third column, marginal effects are reported for the univariate probability of success, i.e., Pr(Give=1). Robust standard errors are reported in parenthesis. The signs ***, **, and * represent significance at 1, 5, and 10 percent respectively.

Table B2. The relationship between the amount of charitable contributions and the probability of giving to political organizations (Main Probit and IV-Probit models)

	Probit	IV-Probit	
	Politics	Politics	ln(Charitable contributions)
ln(Charitable contributions)	0.014 (0.001)***	0.041 (0.016)***	-
ln(Price)	-	-	-2.886 (0.395)***
ln(Income)	0.027 (0.006)***	0.002 (0.016)	0.834 (0.077)***
Family size	-0.010 (0.005)**	-0.008 (0.005)	-0.101 (0.053)*
Children	-0.000 (0.006)	-0.007 (0.005)	0.254 (0.065)***
Age	0.001 (0.001)	-0.001 (0.002)	0.056 (0.016)***
Age sq. ✕ 100	0.000 (0.001)	0.001 (0.002)	-0.024 (0.016)
Female	-0.019 (0.007)***	-0.027 (0.010)***	0.229 (0.088)***
Employed	0.008 (0.009)	0.004 (0.011)	0.170 (0.107)
Married	0.016 (0.013)	0.010 (0.015)	0.341 (0.135)**
Widowed	0.006 (0.020)	0.009 (0.024)	-0.196 (0.215)
Separated	0.040 (0.048)	0.036 (0.051)	0.148 (0.289)
Divorced	0.001 (0.019)	0.009 (0.023)	-0.307 (0.192)
High school	-0.006 (0.010)	-0.012 (0.012)	0.235 (0.115)**

Some college	0.016	-0.008	0.996
	(0.014)	(0.018)	(0.150)***
College	0.044	0.010	1.261
	(0.015)***	(0.022)	(0.141)***
Black	0.005	0.010	-0.166
	(0.014)	(0.017)	(0.139)
Hispanic	0.012	0.022	-0.269
	(0.017)	(0.022)	(0.154)*
Log-likelihood	-3330.15	-219699.59	
Number of Obs.	12049	12049	

Notes: All regressions include fixed year and state effects and state level control variables as discussed in the text. Sample weights are used in all regressions. The first two columns report the marginal effects calculated at the mean of the independent variables. The third column reports the coefficient estimates from the OLS model where "ln(Charitable contributions)" is the dependent variable. Robust standard errors are reported in parenthesis. The signs ***, **, and * represent significance at 1, 5, and 10 percent respectively.

Table B3. The relationship between the probability of giving to charitable organizations and the amount of political contributions (Main Tobit and IV-Tobit Models)

	Tobit	IV-Tobit	
	ln(Political contributions)	ln(Political contributions)	Give
Give	0.519 (0.073)***	0.819 (0.314)***	-
ln(Price)	-	-	-0.444 (0.070)***
ln(Income)	0.269 (0.046)***	0.226 (0.062)***	0.102 (0.012)***
Family size	-0.074 (0.034)**	-0.069 (0.034)**	-0.008 (0.009)
Children	0.020 (0.042)	0.011 (0.042)	0.023 (0.011)**
Age	0.011 (0.010)	0.009 (0.010)	0.005 (0.003)*
Age sq. ✕ 100	-0.002 (0.010)	-0.001 (0.010)	-0.001 (0.003)
Female	-0.158 (0.051)***	-0.178 (0.057)***	0.077 (0.015)***
Employed	0.066 (0.067)	0.055 (0.069)	0.028 (0.018)
Married	0.144 (0.094)	0.126 (0.096)	0.054 (0.022)**
Widowed	0.006 (0.136)	0.001 (0.135)	-0.005 (0.034)
Separated	0.322 (0.302)	0.318 (0.301)	0.013 (0.046)
Divorced	0.013 (0.0136)	0.017 (0.137)	-0.021 (0.032)
High school	-0.073 (0.074)	-0.092 (0.079)	0.054 (0.016)***

Some college	0.125 (0.094)	0.074 (0.108)	0.133 (0.018)***
College	0.347 (0.097)***	0.284 (0.119)**	0.166 (0.016)***
Black	0.028 (0.107)	0.032 (0.108)	-0.009 (0.022)
Hispanic	0.061 (0.109)	0.082 (0.112)	-0.032 (0.026)
Mills ratio	-	0.209 (0.224)	
Log-likelihood	-42027.07	-42020.27	
Number of Censored Obs.	10705	10705	
Number of Obs.	12065	12065	

Notes: All regressions include fixed year and state effects and state level control variables as discussed in the text. Sample weights are used in all regressions. The first two columns report the marginal effects for the expected value of the outcome conditional on being uncensored. The third column reports the marginal effects from the probit model where "Give" is the dependent variable. Robust standard errors are reported in parenthesis. The signs ***, **, and * represent significance at 1, 5, and 10 percent respectively.

Table B4. The relationship between the amount of charitable and political contributions (Main Tobit and IV-Tobit Models)

	Tobit	IV-Tobit	
	ln(Political contributions)	ln(Political contributions)	ln(Charitable contributions)
ln(Charitable contributions)	0.105 (0.010)***	0.305 (0.086)***	-
ln(Price)	-	-	-2.881 (0.385)***
ln(income)	0.199 (0.045)***	0.003 (0.111)	0.834 (0.077)***
Family size	-0.068 (0.033)**	-0.051 (0.039)	-0.100 (0.053)*
Children	-0.001 (0.040)	-0.056 (0.052)	0.253 (0.065)***
Age	0.006 (0.010)	-0.008 (0.013)	0.056 (0.016)***
Age sq. × 100	0.001 (0.010)	0.009 (0.011)	-0.024 (0.016)
Female	-0.141 (0.050)***	-0.200 (0.060)***	0.229 (0.088)***
Employed	0.062 (0.065)	0.027 (0.079)	0.172 (0.107)
Married	0.132 (0.090)	0.075 (0.104)	0.345 (0.135)***
Widowed	0.048 (0.136)	0.072 (0.157)	-0.191 (0.215)
Separated	0.297 (0.290)	0.277 (0.325)	0.152 (0.289)
Divorced	0.021 (0.131)	0.083 (0.151)	-0.305 (0.192)
High school	-0.053 (0.072)	-0.092 (0.083)	0.233 (0.115)**
Some college	0.108 (0.089)	-0.067 (0.126)	0.993 (0.150)***

College	0.295 (0.092)***	0.057 (0.149)	1.256 (0.141)***
Black	0.038 (0.103)	0.074 (0.118)	-0.166 (0.139)
Hispanic	0.090 (0.115)	0.163 (0.139)	-0.270 (0.154)*
Log-likelihood	-41426.24	-238543.36	
Number of Censored Obs.	10705	10705	
Number of Obs.	12065	12065	

Notes: All regressions include fixed year and state effects and state level control variables as discussed in the text. Sample weights are used in all regressions. The first two columns report the marginal effects for the expected value of the outcome conditional on being uncensored. The third column reports the coefficient estimates from the OLS model where "ln(Charitable contributions)" is the dependent variable. Robust standard errors are reported in parenthesis. The signs ***, **, and * represent significance at 1, 5, and 10 percent respectively.