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Government Grants, Crowding Out Theory and American Based International Non-Governmental Organizations

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**GOVERNMENT GRANTS, CROWDING OUT THEORY AND AMERICAN
BASED INTERNATIONAL NON-GOVERNMENTAL ORGANIZATIONS**

BY

KING ODHIAMBO OWALLA

**A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree
of
Doctor of Philosophy
in the
Andrew Young School of Policy Studies
of
Georgia State University**

**GEORGIA STATE UNIVERSITY
2007**

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ACCEPTANCE

This dissertation was prepared under the direction of the candidate's Dissertation Committee. It has been approved and accepted by all members of that committee, and it has been accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Economics in the Andrew Young School of Policy Studies of Georgia State University.

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ABSTRACT

GOVERNMENT GRANTS, CROWDING OUT THEORY, AND AMERICAN BASED INTERNATIONAL NON-GOVERNMENTAL ORGANIZATIONS

BY

KING ODHIAMBO OWALLA

December 2007

Committee Chair: Dr. James Alm

Major Department: Economics

This dissertation extends the literature on the crowd-out theory¹ to international nonprofits² based in the United States. The dissertation measures the simultaneous impact of government grants on private contributions and fundraising activities of INGOs. Understanding the relationship of the major players (government, donors and nonprofit managers) in revenue collection of INGOs is important in understanding international charity and its implications. Six major sub-categories of international organizations have been identified for this research. These are based on a review of the literature on international organizations and those already coded as international according to the National Taxonomy of Exempt Entities (NTEE).. The major sub-categories include (1) International, Foreign Affairs and National Security (ifans), (2) Promotion of International Understanding (piu), (3) International Development (id), (4) International

¹ “Crowd-out” in this dissertation refers to the theoretical prediction of an inverse relationship between private and government contributions. The inverse relationship follows directly from the well-known incentives to “free ride” in the provision of a public good.

² An “international nonprofit” in this dissertation (henceforth referred to as International Non-governmental Organization, or INGO) is defined as a United States-based charitable organization whose primary purpose or mission is international in scope (i.e. they are referred to as organizations that support activities that are carried out beyond U.S. borders and whose beneficiaries are citizens of other countries). (Kerlin and Reid 2005)

Peace and Security (ips), (5) International Human Rights (ihr), and (6) International, Foreign Affairs and National Security N.E.C. (ifansNEC). We employ a panel dataset of INGOs between the years 1998 and 2003 to test for the crowding-out effect of government grants on private contributions and fundraising activities. We have a total of 2,169 INGOs in our data set and a total of 6,239 observations. We find that fundraising expenses have a positive effect on private donations. Government grants have a negative effect on fundraising expenditures and a positive effect on private donations to INGOs. We infer from this that an increase in INGOs receipt of government grants may provide favorable information to potential donors about the reputation or the trustworthiness of an INGO. Overall for all organizations, our results show evidence that government grants have a negative impact on private contributions to INGOs, although the size of the crowd-out is sensitive to both the construction of the panel and estimation technique and vary across subcategories. We also find that government grants have a negative impact on fundraising expenditures of these institutions.

CHAPTER I

INTRODUCTION

Researchers have dwelled extensively on the relationship between government grants and charitable contributions to nonprofits in an attempt to answer one of the fundamental policy questions in public finance, which is whether private donors who contribute to charities reduce or increase their contributions in response to increased government funding. The assumption of the crowding-out hypothesis has been that private givers, who are also taxpayers, view their tax payments as a substitute for their voluntary donations, reducing the net effectiveness of grants. Recently, it has been argued that government grants crowd out fundraising efforts rather than private contributions (Andreoni and Payne (2003). These authors argue that charitable organizations reduce their fundraising efforts when they receive a government grant and this indirectly causes a decrease in private contributions. Some papers find strong evidence that government grants to nonprofits cause significant reductions in fundraising efforts Kingma (1989). The lower levels of fundraising expenditures, in turn, reduce private contributions Andreoni and Payne (2003). This dissertation will jointly examine the crowding-out effect of government grants on private contributions and fund-raising activities of INGOs, respectively, in an attempt to explain the incomplete crowding-out observed in the literature more precisely.

The simultaneous approach taken in this research follows that of Straub (2004) who states that private contributions, government grants, and fundraising efforts by nonprofits should be jointly determined, and cannot be understood in isolation.

The conclusion of Okten and Weisbrod (2000) that there is little evidence of crowd-out after controlling for fundraising expenditures only encourages our approach to analyzing crowd-out in international nonprofit organizations.³

Past research on crowding-out theory is incomplete and has provided mixed evidence on the relationship between government grants and private contributions. Most theoretical literature on the crowding-out hypothesis predicts a one-to-one relationship between government grants and private contributions (Andreoni 1988; Bernheim 1986; Roberts 1984; Warr 1982, 1983)⁴ while most econometric⁵ and experimental studies have found evidence of partial or no crowding-out (Khanna, Posnett, and Sandler 1995; Khanna and Sandler 2000; Okten and Weisbrod 2000; Payne 1998). In an experimental study, Andreoni (1993) found evidence of partial crowding-out which was later confirmed in an experiment by Bolton and Katok (1998). On the other hand, Eckel, Grossman et al. (2005) found almost complete crowding out when they used an alternative experimental design and subjects were told that they were “taxed” for the government to be able to contribute to nonprofit organizations. A majority of the studies undertaken find evidence for some degree of crowding-out, although some studies find

³ Kingma (1989) finds significant evidence of crowd-out while not controlling for fundraising or distinguishing between lump sum and matching grants, and finds that fundraising expenditures have a positive and statistically significant effect on the probability that a given listener contributes to public radio.

⁴ In those models, the crowding-out is exactly one-for-one, since the altruistic individuals care only about the total funding to the charity and not the source of funding.

⁵ Empirical evidence finds that crowding-out effect is less than one-for-one. Andreoni (1989) provides an explanation that individuals may derive private enjoyment from the act of giving (a “warm-glow”), independent of the level of the public good.

“crowding-in”⁶ of government grants. Khanna and Sandler (2000) find this for charities in the U.K., while Payne (2001) finds this for academic research institutions.⁷

This dissertation examines the interaction of government grants, fundraising expenses and private contributions in revenue collection of INGOs, and seeks to determine whether government grants to INGOs simultaneously crowd out private donations and/or fundraising activities. As with the more recent empirical studies, we use data at the organizational level, which allows for the matching of charitable contributions to government grants given to the same organization. Our employment of panel data makes it possible to control for unobserved organizational heterogeneity and time-fixed effects.⁸

Objective, Research Questions and Hypothesis of the Study

The main objective of the study is to determine the simultaneous effect of government grants on private contributions and fundraising activities of INGOs in the United States. In particular, the study seeks to capture the crowd-out/and or crowd-in effect of government grants on private contributions and fundraising activities of INGOs in 6 major sub-categories of the international nonprofit sub-sector in the United States.

⁶ “Crowding-in” in this dissertation refers to the theory that government grants can lead to higher private donations to nonprofits (i.e. that government grants are positively related to private donations).

⁷ A summary of the literature review is found in Appendix B1.

⁸ Problems using tax data, such as the omission of charitable donations for non-itemizers, still remain. For this reason, the data on charitable giving are not truly representative of the population; they under represent low-income individuals, certain minority groups, renters, and others who are less likely to itemize their deductions. Given the original purpose of the data, many demographic characteristics that affect preferences and behavior are not supplied on tax forms (i.e., factors such as education, race, and religion are not supplied).

We seek to analyze the following research questions:

- i) Do government grants to United States-based international non-governmental organizations (INGOs) crowd out private contributions to these institutions?

We hypothesize that there is a crowding-in effect of private contributions by government grants to INGOs. Our hypothesis of a crowd-in effect is based on conclusions by Rose-Ackerman (1982; 1987) who observes that government grants potentially crowd in charitable contributions because they can enhance the reputation of a charity in the view of donors. Since government officials monitor how INGOs operate, information asymmetries are usually limited and this enhances the willingness of potential donors to contribute. The grant monitoring function of government also may act like a price reducer in the minds of donors if they perceive that administration costs and fundraising activities will be kept in check. Government grants can also circumvent the standard neutrality theorem result that is behind crowding-out when the grants are financed in part from taxes on non-contributors.

Studies finding that charitable donors' lack of knowledge/concern about nonprofit's revenue from the government (Horne, Johnson, and VanSlyke 2005) further reinforce our hypothesis that private contributions do not change much in the case where INGOs accept government funds. This leads to crowding-in of private contributions by government grants. Other authors have found that government subsidies to nonprofits most often predict an increase in charitable giving, leading to a crowding-in effect (Khanna and Sandler 2000)

- ii) Do government grants to INGOs crowd out fund-raising activities of these institutions?

We hypothesize that there is a negative correlation between the amount the government gives INGOs in the form of grants and the fundraising activities of these organizations. Recent increased pressure on INGOs to limit spending on administration and direct fundraising due mainly to scandals (InterAction (2004) leads us to believe that these institutions will logically reduce their fundraising activities in the presence of government grants and allocate more funds for programs and services. This suggests a negative relationship between government grants and fundraising expenses as found by Hager, Pollack et al.(2004). These authors conclude that INGOs may opt to keep administrative and fundraising costs excessively low to attract private charitable contributions. In this dissertation, we hypothesize that government grants help to meet the revenue requirements of INGOs, which leads to lower levels of fundraising efforts. Hence we see a negative relationship between government grants and fundraising expenses.

Motivation

Studies on crowding-out suggest that it is quite small, often near zero, and sometime even negative (Hungerman 2005; Khanna, Posnett, and Sandler 1995; Kingma 1989; Manzoor and Straub 2005; Okten and Weisbrod 2000). All of this analysis, however, has not accounted for the simultaneous effect of government grants on private charitable contributions and fundraising activities of international nonprofits.⁹ This gap in the literature motivates this dissertation, which determines the simultaneous impact of

⁹ Andreoni and Payne (2003), in factoring the actions of fundraisers in the crowd-out theory, ask what happens to a national nonprofit's fundraising expenses when it gets a government grant.

government grants on private charitable contributions and fundraising expenses. We attempt to answer the question of whether both private donations and fundraising expenses reduce or increase, and by how much, in the presence of government grants.

The INGO sub-sector has become a key player in American foreign policy¹⁰ especially in disbursing international aid,¹¹ and exists as a vehicle for charitable donors to apply their pooled resources toward a common goal outside the boundaries of the U.S. The financial relationship between INGOs and the U.S. government, though, has led INGOs' autonomy, advocacy, and accountability to be called into question and their ability to attract charitable contributions¹² jeopardized. The relationship between these three major actors (INGOs, government, and donors) has given rise to a number of different studies with the essential question being whether INGOs should maintain their distance from the government so as to retain their autonomy or whether they should work hand-in-hand with the government. According to Salomon, Sokolowski et al. (2003), INGOs receive 29 percent of their income through fees and charges, 35 percent from government and governmental organizations, and 36 percent through private contributions (which goes up to 58 percent when volunteer input is factored in as monetary equivalent). The need for understanding the effect governmental grants have on the other sources of revenue to answer some of the questions being asked in different studies further motivates the undertaking of this research.

¹⁰ This has come about for various reasons, including the failure of direct government-to-government foreign assistance, poverty reduction concerns, movements for economic development assistance and more recently with the quest to reduce the AIDS epidemic to manageable levels around the world.

¹¹ INGOs have recently been involved in assisting earthquake victims in Bam Iran, Indian Ocean Tsunami victims in Indonesia, helping in the two-decade-old conflict in Northern Uganda, assisting in the famine – ridden Darfur region in Sudan and helping in the war-induced starvation in the democratic Republic of Congo among other areas.

¹² This is the distinctive feature of these organizations and forms the basis of their existence.

The perceived conflict between private donors' willingness to contribute to these organizations that are undertaking activities whose qualities cannot be judged ((1998) and their perceived negative reaction towards contributing to INGOs receiving government grants further motivates this dissertation. Understanding the relationship between INGOs, donors, and the government is also important, as these institutions need funds to operate and grow although different donors normally demand that their conflicting goals and agendas be met.¹³ This creates decision-making problems to nonprofit managers especially since the relationship between government grants and charitable contributions is still poorly understood. These major revenue sources place different sets of external demands on INGOs and the quest to shed some light on their relationship motivates this research. On one hand, multiple sources of revenue place contradictory demands on INGO managers. On the other hand, a lack of diversity in revenue sources creates its own management challenges.¹⁴ Understanding the relationship between the three actors is important as these institutions rely heavily on both government grants and private charity and also spend substantial amounts of money to lobby for both sources of revenue.¹⁵ Brown and Mark (2001) point out that due to various concerns expressed by this sub-sector when receiving government grants some of these institutions have distanced

¹³ The government normally is concerned for its population while safeguarding its own prerogatives, whereas donors and INGOs must justify their expenses to their respective constituencies.

¹⁴ Too much reliance on government funding, for example, may subject an INGO to cash flow interruptions, bureaucratization, or distraction from the organization's mission (Froelich 1999).

¹⁵ Knowing the true impact of government grants on charitable contributions and fundraising expenses helps INGO managers to benefit by knowing the true cost/benefit of applying for government funds if part of that cost/benefit is hidden as future crowding-out and/or crowding-in of charitable giving. Understanding the relationship of different revenue sources also helps public managers to promote an optimal level of private giving and INGO output and to equip INGO managers to maximize their resources and ability to fulfill their missions. According to (Benefield and Edwards 1998; Froelich 1999; Kingma 1993), this also leads to INGO managers managing resource portfolios so as to maximize revenue.

themselves from accepting government grants (i.e., Oxfam) while according to Commins (1997), other well-funded organizations have maintained a critical distance while receiving government funding.

This dissertation challenges some of the crowding-out literature on national nonprofits whose conclusions, although mixed, have a unanimous verdict that predicts that charitable donors' response to government funding to nonprofits is to decrease their charitable giving. Brown (1997) argues that if government grants to a nonprofit act as a signal to donors about the number of people in need, then it can lead to an increase in private donations. Weisbrod (1998) concludes that government grants barely crowd out private donations after controlling for fundraising expenditures. The mixed evidence on the relationship between government grants and charitable contributions renders crowd-out theory incomplete and in need of a new methodology to explain the crowd-out behavior observed in the literature. In addressing this gap in the literature, we jointly examine the crowding-out of government grants on private contributions and fundraising activities of INGOs.

Extending the crowd-out theory¹⁶ to INGOs takes on special meaning in the current times given that these organizations have and continue to face important government grant disbursement policy shifts ever since the September 11, 2001 terrorist attacks on the United States. The policy change adopted by the U.S. government that any organization operating abroad and receiving government grants be considered "an arm of the U.S. government" has especially led to significant concerns in the INGO community in relation to their ability to raise funds from the private sector. The more these

¹⁶ Scholars using data from national nonprofits with little or no research dwelling on international nonprofits have undertaken crowd-out theory.

institutions are required to gather information that is extraneous to their charitable mission, the more they are perceived as agents of the U.S. government resulting in their impartiality being compromised and the possibility of private contributions being crowded out. This further compromises their role of channeling humanitarian and international aid of American citizens and the resources of government worldwide in this era of seemingly non-stop natural and man-made calamities of great magnitude.¹⁷ The effects of the policy shift motivate this dissertation, whose conclusions will benefit INGO managers as they will know the true cost or benefit of government funding to their institutions. This is especially true if part of the cost is hidden as future crowding-out of private donations or if part of the benefit is hidden future crowding-in of private donations.

As a sub-sector, INGOs command enormous resources with many of them receiving significant levels of funding from the U.S. government to undertake large-scale programs around the world.¹⁸ According to Masendeke and Mugova (2006), large amounts of international aid from the U.S. government have increasingly been channeled to non-state actors such as INGOs, especially after some developing countries experienced a host of social problems when implementing the World Bank mandated structural adjustment programs in the mid 1980s to late 1990s and could not manage their economies efficiently. Weitzman et al. (2002) estimate that the nonprofit sector in the U.S. received over \$664 billion in revenue. This accounted for more than six percent of

¹⁷ International media now provide nearly instantaneous information about international disasters and emergencies worldwide.

¹⁸ INGOs make up between 2-4 percent of the revenue of the charitable nonprofit sector in the United States, according to Kerlin and Thanasombat (2006). They estimate that the INGO sector commanded US\$ 15.4, \$15.9, and \$17.7 billion in the years 2001, 2002, and 2003 respectively.

the total national income in 1997. Hammack (2001), on the other hand, estimates that the nonprofit sector generated nine percent of the gross domestic product in 2001. A slowdown in the U.S. economy¹⁹ resulting in government deficits (as happened in the mid- to-late 1980s) would lead to government cuts in funds to INGOs leading to cash flow interruptions, which would distract these organizations from their primary missions. Understanding the influence of government grants on charitable contributions is therefore important in understanding how INGOs can respond to loss of government grants and turn to other revenue sources to sustain their operations internationally.²⁰ This important fact forms part of the reason for our undertaking this dissertation.

According to the Urban Institute, over 40 percent of INGOs ran deficits in 2003 despite the sub-sector having budgets that run in the hundreds of thousands and sometimes in the millions of dollars. Funding such large budgets demands significant fundraising efforts. This further motivates our dissertation as an attempt at a better understanding of the effect fundraising activities have on both private donations and government grants in allowing INGOs to maximize their resources and be able to put themselves in a position to fulfill their missions. Knowing the true cost or benefit of fundraising activities is beneficial to INGO managers and also introduces another explanation to account for the incomplete crowding out of private donations by government grants observed in the literature. Recent articles have found strong evidence that government grants to nonprofits cause significant reductions in fundraising efforts (Kingma (1989)).

¹⁹ A similar slowing down of the economy happened in the 1970s and early 1980s, leading to cuts to nonprofits by the Reagan administration.

²⁰ Froelich (1999) shows that too much dependence on government funding may subject a nonprofit to cash flow interruptions, bureaucratization, or distraction from the organization's primary mission.

Finally, this dissertation is motivated by the fact that organizations that comprise the INGO sub-sector in the U.S. are diverse, making generalizations about the composition of revenue sources of the entire sub-sector of limited value. We therefore focus not only on the impact of government grants on charitable contributions and fundraising expenses for the INGO sub-sector as a whole, but also subdivide the sub-sector into six major categories in an attempt to identify their widely varying revenue profiles and their effect on subsidy-charity relationships and subsidy-fundraising expenses relationships.

Contributions to the Literature

Our work adds to previous studies in four main ways. First, by controlling for changes in the organizations' fundraising behavior, we attempt to more accurately measure the crowd-out and/or crowd-in effect of government grants on private contributions. Second, instead of looking at only a few charities of a particular type, we use an extensive data set with over 2,000 INGOs in 6 main sub-categories. The extensive INGOs data set used is an improvement over previous studies that have looked at specific sub-categories only.²¹ Aggregating INGOs into 6 different sub-categories makes it possible to map out the differences in their behavior in the presence of government grants and how the grants affect private donors to a specific sub-category. Previous literature on crowding-out has tended to focus on a specific type of charity, so it is unclear whether their results apply to other sub-categories of nonprofits. Third, though numerous papers test whether government contributions crowd out private contributions, none can be

²¹ Check Appendix B for details.

found that either model or empirically test for crowding-out in the context of INGOs operating outside the boundaries of the United States. By looking at data on INGOs, we extend this literature into international policy. Fourth, we may help international charities in their fundraising campaigns and government in implementing their grant policies. Extension of the crowd-out literature to international organizations based in the United States allows comparison with national nonprofits in the United States as well. Disaggregating the INGO sub-sector into six major sub-categories also identifies the widely varying revenue profiles and the subsidy-charity/subsidy-fundraising activities relationship for different types of INGOs.

The rest of the dissertation is organized as follows. Chapter 2 provides background on INGOs. Chapter 3 reviews the literature on private donors' motivations for giving to charities and the contribution of fundraising to the incomplete crowding-out theory. Chapter 4 offers a simple theoretical model showing how government grants impact fundraising decision and private donations to nonprofits. Chapter 5 presents the methodology and addresses the empirical specification, econometric issues, and description of the data set and explanation of variables. Chapter 6 presents and analyzes the empirical results. Chapter 7 offers policy implications of our empirical results and possible future research directions.

CHAPTER II

BACKGROUND OF INGOs

Historical Background of International Nonprofits

The internationalization of the nonprofit sector is not an entirely recent phenomenon (Anheier and Cunningham 1994; Boli 2006) as it has grown for the past 150 years from the formative era before the 1850s through 1910 to the interwar period 1914-1918 (when only 31 international nonprofits were founded in Europe) and the postwar expansion 1939-1945 through the 1990s. The last few decades have seen an increase of the sub-sector with some of the international nonprofits growing into global actors (Anheier and Cunningham 1994; Clark and Themudo 2004; Lewis 2001; Lindenberg and Bryant 2001) operating in two or more countries and functioning with significant budgets, political influence, and responsibility. Increase in the popularity of international nonprofits is often given as one of the main reasons for their recent growth although the political environment since the 1980s has also favored these institutions as agents of development (Clarke (1998). Another factor for the growth of these institutions is the growing recognition of humanitarian needs in distant areas due mainly to the development of international media that now provide nearly immediate information about international disasters and emergencies worldwide (Lindenberg and Bryant (2001). Other supply-side elements that account for the development of international nonprofits include new openings in the political opportunities structure as well as important technological and social changes that have enabled these institutions to operate more freely and cheaply

across borders. A summary of the growth of international organizations from the 1900s to the year 2002 can be seen in Table 1 below. The table clearly shows a sharp increase of these institutions after World War II and another sharp escalation from the 1980s upwards.

Table 1: Number of International Organizations

	1909	1920	1931	1940	1951	1960	1972	1981	1991	2000
Active Nonprofits (All Types)	374	474	801	841	1,307	1,987	2,976	9,937	18,767	25,269
Total International Nonprofits	374	474	801	841	1,307	1,987	2,976	4,265	4,620	6,357

Source: Union of International Associations (UIA), Yearbook of International Associations, various years.

Figures for 1909-1972 in Table 1 are based on data using founding and dissolution dates from 1988-1989 and 1984-1985 Yearbooks. While any given Yearbook underestimates the number of international nonprofits operating in the years immediately prior to its publication, the UIA database remains the most reliable and comprehensive source of information available. Another way to appreciate the growth of these institutions is by considering the number of new international nonprofits founded in each decade as in Table 2.

Table 2: Distribution of International nonprofits in 8 Eras

	Founded 1851-60	Founded 1871-80	Founded 1881-90	Founded 1891-00	Founded 1901-10	Founded 1911-45	Founded 1946-88	Intern. Nonprofits active in 1988
Intern. Nonprofits	5	22	38	95	261	854	3,673	4,449

Source: Union of International Associations, Yearbook of International Associations 1985, 1988-1989, GIVING USA, 2005.

The first great wave of international nonprofits occurred in-between 1850-1910, reaching its first peak of expansion by 1910. This period also saw a powerful wave of economic internationalism. The period 1911-1945 covered the turmoil of the world wars and the interwar periods. International nonprofits exploded between 1946 and 1988 with differentiation between global and regional organizations occurring Boli (1999), as shown in Table 2.

The growth of international nonprofits over time and their important role in the development of third world nations has led to a number of different studies. Much of this literature has focused on two interrelated issues: the relationship between these organizations and the government and the relationship between them and private donors that fund them. One question that has arisen in these studies is whether international nonprofits should be competitors or partners with the government.²² Another question that has arisen in these studies is concern about dependency itself, and whether over-reliance on donors (especially foreign donors) may affect the way they operate.²³

This dissertation takes a different approach to understanding the relationships between international nonprofits, donors, and the government, by examining two sources

²² The larger question is whether these institutions should maintain their distance from the government so as to retain their autonomy, or rather whether they should work hand-in-hand with government projects.

²³ There is a question of who these institutions are ultimately accountable to: a) the poor they service or b) the donors that fund their services.

of revenue²⁴ and the fundraising activities of INGOs. In the process we identify unique challenges to their existence and management. Revenue is more than just money and can represent the expectations and values of donors, the obligations of international nonprofits to government agencies, and the reliance of government on these institutions for implementing public policies.

Definition of International Non-Governmental Organizations

The term non-governmental organization is very broad and encompasses many different types of organizations. According to Judge (2000), the variety of international organizations that are nonprofit is too great to produce a satisfactory abstract definition. But the Union of International Associations (UIA) Yearbook of International Associations (YIA) 1961-2003 editors have come up with seven rules to identify an international nonprofit organization. The thrust of these rules is that these organizations must be functioning organizations with a high degree of autonomy, have a demonstrated international presence or orientation, and have ongoing activities oriented to reasonably well-specified goals.

A few definitions put forth to describe these organizations include The Union of International Association's concept of an international nonprofit as "Any organization that operates on a nonprofit basis and is not a creature of the state." ECOSOC (2002) further refines this definition and states that INGOs can be defined as "Any international organization which is not established by intergovernmental agreement and includes organizations which accept members designated by government authorities, provided that

²⁴ These sources are private contributions and government grants.

such membership does not interfere with the free expression of views of the organization.” A more elaborate statement offered by the UN Department of Public Information (2004) defines international nonprofits as “a not-for-profit, voluntary citizen’s group, which is organized on an international level to address issues in support of the public good. The institutions should be able to encourage political participation of civil society stakeholders at the community level internationally, provide analysis and expertise, serve as early warning mechanisms and help monitor and implement international agreements.”

The definition of international nonprofits adopted here resembles those of (Bradshaw and Schafer 2000; Greensmith 2001; MacDonald 1994), who define a nonprofit operating internationally as “a nonprofit organization based in a developed country which operates in developing countries” stressing the importance of northern resources in the flow of international aid to developing countries. In this dissertation, we limit our definition to charitable tax-exempt organizations in the National Center for Charitable Statistics/Guidestar National Nonprofit Database (NCCS). We also do not limit the beneficiaries of these institutions to developing countries. We adopt Kerlin and Reid’s (2006) definition of the international nonprofit sub-sector (referred to here as International Non-governmental Organization, or INGO) as a United States-based charitable organization whose primary purpose or mission is international in scope.

Case for Study of INGOs

Focus on activities undertaken by U.S.- based international non-governmental organizations is at an all time high with technology, media and transportation

increasingly turning the world into a global village and forcing these organizations to respond to one crisis after another (i.e., increase in chronic hunger spots, doubling of natural disasters, dealing with the doubling of food aid prices, etc). These organizations have been enabled by rising trends in charitable giving (2002-2005), allowing these institutions to serve as vehicles for charitable donors to pool their resources toward a common goal. The ability to attract charitable contributions is a distinctive feature of these organizations, with private donations coming from individuals, charitable foundations, corporations, and bequests.

Figure 1: Giving by Source, In Billions of Inflation-adjusted Dollars

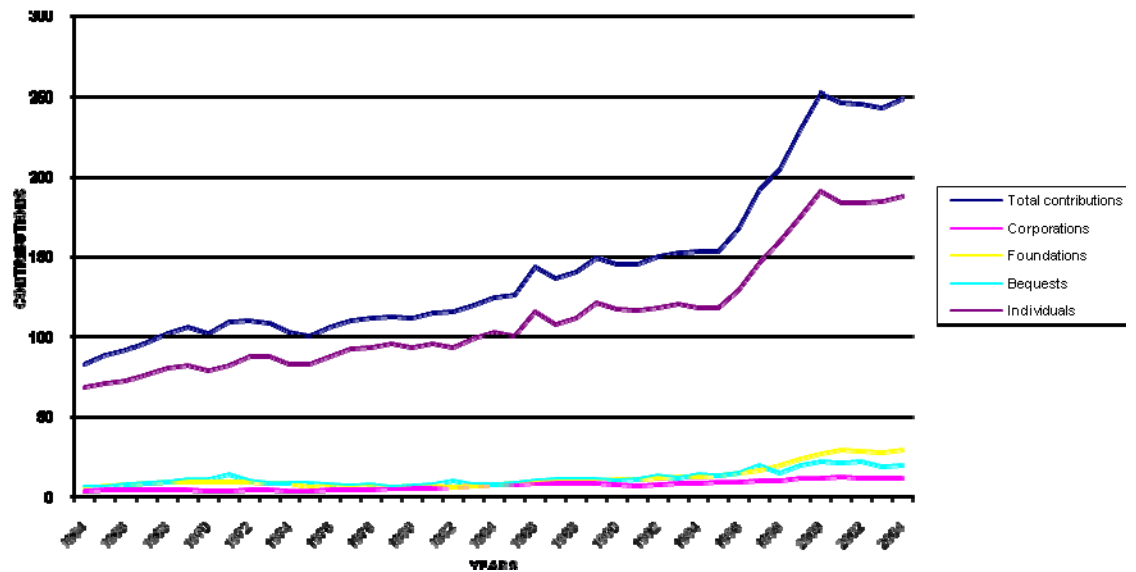
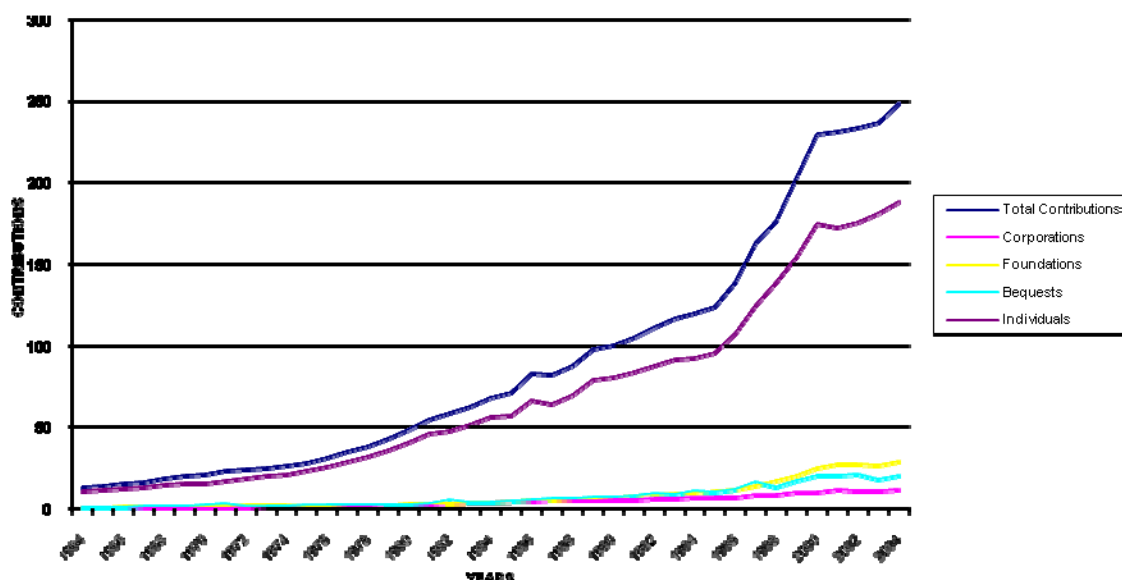


Figure 2: Giving by Source, In Billions of Current Dollars



Source: Giving USA 2005.

As can be seen in Figures 1 and 2, individual donors dominate private charitable donations, although all sources of private charitable revenue are significant. Using data from GIVING USA (2006), we show the trend of total charitable contributions to all nonprofits in the United States for the past 40 years.²⁵ The trend for charitable contributions for INGOs is similar to the one for total charitable contributions to nonprofits in America, in the range of 2-4 percent of the total charitable contributions.²⁶

Figure 1 and 2 also show that total charitable giving has risen from approximately U.S. \$11 billion in the early 1960s to over U.S. \$248.52 billion in 2004 with individuals accounting for over 75 percent of the total contributions. Individual giving rose from U.S. \$11.19 billion for inflation-adjusted dollars in 1964 to approximately U.S. \$187.92

²⁵ We show both inflation-adjusted and current dollar trends.

²⁶ This is based on calculations by Kerlin and Thanasombat (2006).

billion in 2004. While individual giving remains the lion's share of total giving, it has declined as a percentage of the total over time. The figures above show that corporate giving is consistently the lowest share of the total while foundation giving has increased over time. Charitable bequests have been fairly stable as a share of total giving over time.

Other sources of income to these institutions are from government grants, fees for services, dues, and rental of space and/or equipment. Government grants are the second largest source of funding for INGOs although they account only for about a fifth of INGOs revenue. According to Garrett and Rhine (2007), real federal government expenditures per capita to nonprofits in the United States were approximately \$3,326 in 1996 and \$ 7,116 in 2004, reflecting an average annual increase of 2.0 percent which almost paralleled charitable giving during this period.²⁷ Forman and Stoddard (1996) show a clear bias in government funding towards larger INGOs and to certain INGO activities.

Table 3 below shows government grants to INGOs in a 3-year period.

Table 3: INGOs with Government grants, by amounts and percentages of grants

	YEAR					
	1998	1999	2000	2001	2002	2003
INGOs with government grants	171	195	203	202	194	223
Government grants to INGOs (in millions)	256	285	301	305	304	328
Government grants as a percent of total INGO revenue	10.18	10.26	10.04	9.67	9.43	9.53

Source: National Center for Charitable Statistics/Guidestar National Nonprofit Database (1998-2003)

Table3 shows that an average of 10 percent of aggregate INGO revenue came

²⁷ Based on Kerlin and Thanasombat (2006), government expenditures to INGOs will account for 2 percent of the expenditures per capita for the years 1965-2004.

from government grants for the years 1998-2003. The data show an increase in government dollars between the years 2001 to 2003 – from \$305 million in 2001 to \$328 million in 2003. This is due to a shift in the federal policy to increase foreign assistance after September 11.

The steady growth in private contributions and government grants is a motivation for us to pursue economic research on the question of whether private donors that contribute to charities reduce or increase their contributions in response to increased government funding for INGOs. We also will address whether INGOs reduce or increase their efforts in response to increased government funding for these institutions.

Characteristics of INGOs

Data from the Urban Institute's National Center for Charitable Statistics/Guidestar database²⁸ will be the basis for our summary of the major characteristics of INGOs. INGOs with annual revenue over \$25,000 and who work in the international arena have averaged about 5,600 institutions between 1998 and 2003 and make up 2 percent of all nonprofit organizations and 2 percent of the revenue of the charitable nonprofit sector in the United States.²⁹ The number of INGOs has been increasing over time. Although the numbers of international development and assistance organizations (id) have registered the strongest growth, the mix of these organizations has grown younger with newer organizations sprouting up in areas like democracy, civil

²⁸ Data consist of information that 501(c)(3) organizations, with \$25,000 or more in annual revenue, have filed on Forms 990 with the Internal Revenue Service.

²⁹ See Kerlin and Thanasombat (2006).

society-building, the environment, and human rights. Analysis of the INGO sector by Kerlin and Thanasombat (2006) reveals that over 75 percent of these organizations are considered small organizations with less than \$500,000 in revenue. The large proportion of small nonprofits in the United States is important as grant makers consider size when giving grants (government grants make up approximately 10 percent of the revenue for the sector).³⁰ Charitable contributions³¹ still remain the most significant source of funding for INGOs (averaging between 60 – 65 percent of total revenue in the sector) despite larger organizations receiving sizable amounts of government funding.

Revenue Sources

The INGO sub-sector, just like the nonprofit sector in general in the U.S., has consistently and significantly relied on government for funding although government funding is still limited to a relatively small percentage of INGOs and contributes about one fifth of the overall revenue to the sub-sector Anheir (2005). Conventional wisdom, backed by studies of nonprofits (Chang and Tuckman 1991; Hager, Pollack, and Wing 2004; J.S.Greenlee and Trussel 2000), suggests that a diverse portfolio of funding sources provides flexibility to organizations through periods of instability when the tastes and preferences of donors change or an economic downturn reduces charitable contributions or government funding. Heavy reliance on any one source of funding may jeopardize organizations in the event of a financial shock.

³⁰ Forman and Stoddard (1996) confirm this in their analysis of more than 400 organizations registered with USAID in 1999.

³¹ See again Figures 1 and 2.

An analysis of the mix of revenue sources received by INGOs provides insights into their partnerships with government. Understanding the composition and distribution of revenue in the INGO sub-sector is key to understanding the existence of these institutions and the challenges of the INGOs management. Table 4 shows the mix of revenue sources in the INGO sub-sector.

Table 4: Sources of Revenue (in Millions), by category and year

	1998			
	Private Contribution	Government Grants	Program Service Revenue	Total Revenue
Inter. Foreign Affairs & Nat. Sec.	194	33	103	330
Promotion of Inter. Underst.	352	69	270	691
International Development	541	92	156	789
International Peace & Security	130	17	70	217
International Human Rights	81	13	26	120
Inter. Foreign Affairs & Nat. Sec.NEC	258	32	78	368
Total Revenue	1556	256	703	2515
	1999			
	Private Contributions	Government Grants	Program Service Revenue	Total Revenue
Inter. Foreign Affairs & Nat. Sec.	209	36	119	364
Promotion of Inter. Underst.	373	74	287	734
International Development	601	101	176	878
International Peace & Security	136	22	80	238
International Human Rights	78	15	27	120
Inter. Foreign Affairs & Nat. Sec.NEC	310	37	97	444
Total Revenue	1707	285	786	2778
	2000			
	Private Contributions	Government Grants	Program Service Revenue	Total Revenue
Inter. Foreign Affairs & Nat. Sec.	213	41	119	373
Promotion of Inter. Underst.	397	79	294	770
International Development	614	105	184	903
International Peace & Security	147	23	78	248
International Human Rights	82	14	26	122
Inter. Foreign Affairs & Nat. Sec.NEC	432	39	112	583
Total Revenue	1885	301	813	2999
	2001			
	Private Contributions	Government Grants	Program Service Revenue	Total Revenue
Inter. Foreign Affairs & Nat. Sec.	217	36	123	376
Promotion of Inter. Underst.	395	72	282	749
International Development	645	111	186	942
International Peace & Security	140	23	77	240
International Human Rights	88	16	31	135
Inter. Foreign Affairs & Nat. Sec.NEC	527	47	135	709
Total Revenue	2012	305	834	3151
	2002			
	Private Contributions	Govern. Grants	Prog. Service Revenue	Total Revenue
Inter. Foreign Affairs & Nat. Sec.	226	42	125	393
Promotion of Inter. Underst.	393	68	278	739
International Development	678	104	180	962
International Peace & Security	151	26	79	256
International Human Rights	95	14	29	138
Inter. Foreign Affairs & Nat. Sec.NEC	539	50	144	733
Total Revenue	2082	304	835	3221
	2003			
	Private Contributions	Govern. Grants	Prog. Service Revenue	Total Revenue
Inter. Foreign Affairs & Nat. Sec.	243	42	121	406
Promotion of Inter. Underst.	403	75	287	765
International Development	774	113	208	1095
International Peace & Security	152	28	85	265
International Human Rights	94	19	29	142
Inter. Foreign Affairs & Nat. Sec.NEC	560	51	152	763
Total Revenue	2226	328	882	3436

Source of Data: National Center for Charitable Statistics/Guidestar National Nonprofit Database (1998-2003)

Table 4 shows the composition and distribution of revenue in the INGO sub-sector for the years 1998 to 2003. The summary describes how INGOs' revenues are distributed among some of their funders. A summary of the sources of revenue in Table 4 shows that despite government grants being a significant source of funding for INGOs, private contributions far out-paced government grants in all years. The effect of private contributions to INGOs can be compared with charitable donations in United States. While all sources of private donations are significant, by far the dominant source of giving is from individuals. According to GIVING USA (2003), individuals gave over 183 billion dollars to charity, or 76 percent of the total dollars donated, while foundations which fall into second place were responsible for only 11.2 percent of all donations.

Table 5 shows the source of revenue as percentage of total revenue for further comparisons of revenue sources to INGOs.

Table 5: Sources of Revenue as Percentage of Total revenue, by category and year

	1998			
	Private Contributions	Government Grants	Program Service Revenue	Total Revenue
Inter. Foreign Affairs & Nat. Sec.	7.71	1.31	4.10	13.12
Promotion of Inter. Underst.	14.00	2.74	10.74	27.48
International Development	21.51	3.66	6.20	31.37
International Peace & Security	5.17	0.68	2.78	8.63
International Human Rights	3.22	0.52	1.03	4.77
Inter. Foreign Affairs & Nat. Sec.NEC	10.26	1.27	3.10	14.63
Total Revenue	61.87	10.18	27.95	100
	1999			
	Private Contributions	Government Grants	Program Service Revenue	Total Revenue
Inter. Foreign Affairs & Nat. Sec.	7.52	1.30	4.28	13.10
Promotion of Inter. Underst.	13.43	2.66	10.33	26.42
International Development	21.63	3.64	6.34	31.61
International Peace & Security	4.90	0.79	2.88	8.57
International Human Rights	2.81	0.54	0.97	4.32
Inter. Foreign Affairs & Nat. Sec.NEC	11.16	1.33	3.49	15.98
Total Revenue	61.45	10.26	28.29	100
	2000			
	Private Contributions	Government Grants	Program Service Revenue	Total Revenue
Inter. Foreign Affairs & Nat. Sec.	7.10	1.37	3.97	12.44
Promotion of Inter. Underst.	13.24	2.63	9.80	25.68
International Development	20.47	3.50	6.14	30.11
International Peace & Security	4.90	0.77	2.60	8.27
International Human Rights	2.73	0.47	0.87	4.07
Inter. Foreign Affairs & Nat. Sec.NEC	14.40	1.30	3.73	19.44
Total Revenue	62.84	10.04	27.11	100
	2001			
	Private Contrib.	Govern. Grants	Prog. Service Revenue	Total Revenue
Inter. Foreign Affairs & Nat. Sec.	6.89	1.14	3.90	11.93
Promotion of Inter. Underst.	12.54	2.28	8.95	23.77
International Development	20.47	3.52	5.90	29.90
International Peace & Security	4.44	0.73	2.44	7.62
International Human Rights	2.79	0.51	0.98	4.28
Inter. Foreign Affairs & Nat. Sec.NEC	16.72	1.49	4.28	22.50
Total Revenue	63.85	9.67	26.45	100
	2002			
	Private Contrib.	Govern. Grants	Prog. Service Revenue	Total Revenue
Inter. Foreign Affairs & Nat. Sec.	7.02	1.30	3.88	12.20
Promotion of Inter. Underst.	12.20	2.11	8.63	22.94
International Development	21.05	3.23	5.59	29.87
International Peace & Security	4.69	0.81	2.45	7.95
International Human Rights	2.95	0.43	0.90	4.28
Inter. Foreign Affairs & Nat. Sec.NEC	16.73	1.55	4.47	22.76
Total Revenue	64.64	9.43	25.92	100
	2003			
	Private Cont.	Govern. Grants	Prog. Service Revenue	Total Revenue
Inter. Foreign Affairs & Nat. Sec.	7.07	1.22	3.52	11.82
Promotion of Inter. Underst.	11.73	2.18	8.35	22.26
International Development	22.53	3.29	6.05	31.87
International Peace & Security	4.42	0.81	2.47	7.71
International Human Rights	2.74	0.55	0.84	4.13
Inter. Foreign Affairs & Nat. Sec.NEC	16.30	1.48	4.42	22.21
Total Revenue	64.79	9.53	25.65	100

Source of Data: National Center for Charitable Statistics/Guidestar National Nonprofit Database (1998-2003)

Government grants for all international organizations remain relatively stable from 1998 to 2000, but reduce from 9.67 percent in 2001 to approximately 9.53 percent in 2003. This decrease is contrary to expectations as we expected it to increase as a result of renewed emphasis by the U.S. government in using foreign assistance to support foreign policy objectives in the aftermath of 9/11. International development and assistance organizations (id) and promotion of international understanding organizations (piu) among the 6 sub-categories of international organizations in this research are the most likely partners with government. Between the years 1998 – 2003 these two sub-categories got the highest percentage of their revenue from the government (between 3.66 percent to 3.29 percent and 2.74 to 2.18 percent, respectively, for the id and piu sub-categories). All 6 sub-categories show significant increases of government funding from the year 2001 and above (see Table 5). International organizations as a whole have not seen a substantial increase in grant revenue over the years under this research. This decrease goes contrary to the popular perception of the government striving to increase international aid programs to shore up unstable regions by dramatically increasing foreign assistance.

Size

This research adopts Kerlin and Reid's (2003) measurement of the size of nonprofit organizations according to the total revenue an organization receives in a single year. Organizations are deemed to be small if they receive less than \$500, 000 in annual revenue; medium if they receive between \$500, 000 and \$2 million, and large if they

receive over \$2 million (see Table 6).

Table 6: Number of INGOs, by category and Size

	1998							
	Small < \$ 50,000		Medium 50000-\$ 1,999,999		Large \$ 2 Million and Above		Total INGOs	
	#	%	#	%	#	%	#	%
Inter. Foreign Affairs & Nat. Sec.	140	9.06	48	3.10	23	1.49	211	13.65
Promotion of Inter. Underst.	322	20.83	67	4.33	0	0.00	389	25.16
International Development	379	24.51	89	5.76	0	0.00	368	30.27
International Peace & Security	105	6.79	20	1.29	0	0.00	125	8.08
International Human Rights	55	3.56	17	1.10	0	0.00	72	4.66
Inter. Foreign Affairs & Nat. Sec.NEC	187	12.10	56	3.62	38	2.46	281	18.18
Total INGOs	1188	76.84	297	19.21	61	3.95	1546	100
	1999							
	Small < \$ 50,000		Medium 50000-\$ 1,999,999		Large \$ 2 Million and Above		Total INGOs	
	#	%	#	%	#	%	#	%
Inter. Foreign Affairs & Nat. Sec.	151	8.57	50	2.84	30	1.70	231	12.11
Promotion of Inter. Underst.	345	19.59	81	4.60	0	0.00	426	24.19
International Development	432	24.53	109	6.19	0	0.00	541	30.72
International Peace & Security	116	6.59	25	1.42	0	0.00	141	8.01
International Human Rights	58	3.29	12	0.68	0	0.00	70	3.97
Inter. Foreign Affairs & Nat. Sec.NEC	247	14.03	67	3.80	38	2.16	314	19.99
Total INGOs	1349	76.60	344	19.53	68	3.86	1761	99.99
	2000							
	Small < \$ 50,000		Medium 50000-\$ 1,999,999		Large \$ 2 Million and Above		Total INGOs	
	#	%	#	%	#	%	#	%
Inter. Foreign Affairs & Nat. Sec.	143	7.63	54	2.88	33	1.76	197	12.27
Promotion of Inter. Underst.	354	18.88	86	4.59	0	0.00	440	23.47
International Development	417	22.24	109	5.81	0	0.00	526	28.05
International Peace & Security	117	6.24	24	1.28	0	0.00	141	7.52
International Human Rights	50	2.67	22	1.17	0	0.00	72	3.84
Inter. Foreign Affairs & Nat. Sec.NEC	338	18.03	78	4.16	50	2.67	466	24.86
Total INGOs	1419	75.68	373	19.89	83	4.43	1875	100
	2001							
	Small < \$ 50,000		Medium 50000-\$ 1,999,999		Large \$ 2 Million and Above		Total INGOs	
	#	%	#	%	#	%	#	%
Inter. Foreign Affairs & Nat. Sec.	151	7.50	48	2.38	37	1.84	236	11.72
Promotion of Inter. Underst.	346	17.18	86	4.27	0	0.00	432	21.45
International Development	445	22.10	120	5.96	0	0.00	565	28.06
International Peace & Security	111	5.51	26	1.29	0	0.00	137	6.80
International Human Rights	60	2.98	17	0.84	0	0.00	77	3.82
Inter. Foreign Affairs & Nat. Sec.NEC	420	20.85	100	4.97	47	2.33	567	25.82
Total INGOs	1533	76.12	397	19.71	84	4.17	2014	100
	2002							
	Small < \$ 50,000		Medium 50000-\$ 1,999,999		Large \$ 2 Million and Above		Total INGOs	
	#	%	#	%	#	%	#	%
Inter. Foreign Affairs & Nat. Sec.	163	7.86	53	2.56	33	1.59	249	12.01
Promotion of Inter. Underst.	335	16.16	88	4.25	0	0.00	423	20.41
International Development	494	23.83	105	5.07	0	0.00	599	28.90
International Peace & Security	114	5.50	29	1.40	0	0.00	143	6.90
International Human Rights	59	2.85	24	1.16	0	0.00	83	4.01
Inter. Foreign Affairs & Nat. Sec.NEC	433	20.89	94	4.53	49	2.36	576	27.78
Total INGOs	1598	77.07	393	18.96	82	3.96	2073	99.99

	2003							
	Small < \$ 50,000		Medium 50000-\$ 1,999,999		Large \$ 2 Million and Above		Total INGOs	
	#	%	#	%	#	%	#	%
Inter. Foreign Affairs & Nat. Sec.	171	7.69	55	2.47	34	1.53	260	10.16
Promotion of Inter. Underst.	357	16.06	82	3.69	0	0.00	439	19.75
International Development	579	26.05	123	5.53	0	0.00	702	31.58
International Peace & Security	119	5.35	28	1.26	0	0.00	147	6.61
International Human Rights	59	2.65	19	0.85	0	0.00	78	3.50
Inter. Foreign Affairs & Nat. Sec.NEC	446	20.06	97	4.36	54	2.43	543	24.42
Total INGOs	1731	77.87	404	18.17	88	3.96	2223	100

Source of Data: National Center for Charitable Statistics/Guidestar National Nonprofit Database (1998-2003)

Table 6 shows that the INGO sector is dominated by small organizations (over 75 percent of them are small organizations) with revenue less than \$500,000. Medium organizations are about 20 percent of all INGOs while large organizations only make up 4 percent of the INGO sub-sector. Analysis of Table 6 shows that organizational size is a factor in government grant making as a majority of the small organizations are smaller in size but receive the lion's share of grants. This fact suggests that governmental funding of organizations leans towards smaller organizations.

Age

The age of each organization has been calculated using the "rule date" on which the IRS recognized the organizations as a charitable, tax-exempt entity, following Kerlin and Reid (2005). Analysis of Table 7 indicates that international understanding and international affairs organizations are generally older, while development and assistance organizations are on average younger. The international affairs education category though has older organizations.

Table 7: Average and Median Age of International Organizations by Subcategories in the year 2003

	Average Age (Years)	Median Age (Years)
International Development and Assistance		
General	10	7
Agricultural Development	12	9
Economic Development	8	7
International Relief	10	6
Educational Development	12	6
Health Development	10	6
Science and Technology Development	7	5
Democracy and Civil Society Development	9	6
Environment, Population and Sustainability	11	7
Human Rights, Migration, and Refugees	12	9
Development and Assistance Subtotal	10	7
International Understanding		
General	16	12
International Cultural Exchange	10	7
International Academic and Student Exchange	14	10
International Exchange N.E.C.	17	12

Source: Adopted from Kerlin and Reid (2006) "The International Charitable Nonprofit Sub-sector in the United States." National Center for Charitable Statistics/Guidestar National Nonprofit database.

World Regions of Operations

Table 8 shows that INGOs in Latin America, the Middle East and North Africa, and East Europe and Central Asia are relatively prosperous compared to Sub-Saharan Africa and South and East and the Pacific regions. In addition, a relatively small number of development and assistance organizations were dedicated to sub-Saharan Africa. INGOs increased their presence in terms of global operations in the Middle East especially after 2001, most likely because of the "war on terrorism" in U.S. foreign policy after the attacks of September 11, 2001.

Table 8: Different Types of (Ifans) in Specific World Regions, In Percentages

	Central Europe & Central Asia	Latin America & the Caribbean	The Middle East & North Africa	South & East Asia & the Pacific	Sub-Saharan Africa	Western Europe, Canada, Australia, New Zealand, Japan	Global (More than one Region)	% Total
General (n=699)	10	29	9	15	9	2	26	100
Agriculture (n=59)	10	19	5	3	8	2	53	100
Economic (n=168)	15	16	3	9	7	3	46	99
International Relief (n=1,025)	17	27	6	14	8	1	27	100
Education (n=356)	6	17	26	17	10	12	12	100
Health (n=581)	6	27	6	14	10	2	34	99
Science and Technology (n=41)	5	7	10	12	7	12	46	99
Democracy and Civil Society (n=76)	32	16	3	11	4	1	34	101
Environment, Population, and Sustainability (n=169)	5	18	1	8	8	2	59	101
Human Rights, Migration, and Refugees (n=185)	11	9	12	17	7	2	41	99
All Development and Assistance (n=3,359)	12	24	8	14	9	3	31	101
General (n=796)	10	29	9	16	11	2	25	21
Agriculture (n=62)	10	19	5	5	8	2	52	2
Economic (n=177)	15	15	3	11	8	3	46	5
International Relief (n=1,117)	16	27	5	15	9	1	27	30
Education (n=423)	6	18	24	18	12	11	11	11
Health (n=655)	7	28	6	14	11	2	32	18
Science and Technology (n=45)	4	9	9	11	13	11	42	1
Democracy and Civil Society (n=84)	30	17	4	11	4	1	35	2
Environment, Population, and Sustainability (n=177)	5	20	1	7	10	2	57	5
Human Rights, Migration, and Refugees (n=204)	10	10	11	18	8	2	40	5
All Development and Assistance (n=3,740)	11	24	8	15	10	3	29	100
General (n=796)	9	29	9	15	11	2	25	100

Source: Adopted from Kerlin and Reid (2006) "The International Charitable Nonprofit Sub-sector in the United States." National Center for Charitable Statistics/Guidestar National Nonprofit database.

Note: Percentages may not sum across to 100 due to rounding.

The growth of INGOs is not equally spread across the world with global organizations making up over 50 percent of these organizations that receive government grants. Although these global INGOs operate in multiple regions, they are mostly concentrated in large numbers in Europe and North America. The large number of organizations operating globally in the dataset introduces imprecision in our analysis, as their work cannot be accounted for in the breakdown of organizations operating in one world region.

Table 8 summarizes the number, percentage, and funding of government-funded development and assistance organizations by world region, and clearly shows that Central Europe and Central Asia receive the most in terms of government grants, followed by the Middle East and North Africa regions. Latin America and the Caribbean receive the fewest grants from the U.S. government followed by the Western Europe, Canada, Australia, New Zealand, and Japan regions. The large number of INGOs that operate globally makes it difficult to determine the percentage of official aid reaching various regions of the world through these organizations, although generally, the regions of Latin America, the Middle East, East Europe, Central Asia, and North Africa receive more official aid compared to sub-Saharan Africa, South and East Asia and the Pacific. Organizations with a single regional focus indicate that Agriculture Development organizations operate mostly in Latin America; Economic Development nonprofits have an emphasis on Central Europe and Central Asia and Latin America; Educational Development is relatively high in Latin America and the Caribbean, South and East Asia and the Pacific, and the Middle East and North Africa, and Health Development organizations are concentrated in Latin America.

Although the data show that over time INGOs have increased in all regions, the highest expansion rates are in Central and Eastern Europe, followed by central Asia, and then by East Asia and the Pacific. The growth in Central and Eastern Europe is due mainly to the fall of state socialism and the introduction of freedom of association. Economic expansion and democratic reform explains the growth in Asia.

Importance of Research

The relationship between government grants and charitable contributions in INGOs has not been explored in the economic literature to date. However, a better understanding of the relationship between government grants and charitable contributions is of paramount importance to INGO decision makers. They will be better equipped to leverage their organization's fundraising activities, government funding and private charity to maximize their income and other resources and enhance their ability to address social problems globally. As with any government funding, contentious political debates related to any changes (positive or negative) in government grants to these institutions have arisen.³² This dissertation addresses some of these contentious issues by analyzing how government grants affect charitable contributions. This is important because the availability of these funds is usually not guaranteed to them on a yearly basis.

³² Conservatives argue that INGOs attract enough non-government support to warrant government grants and that federal aid discourages private charitable giving to these organizations. On the other hand, liberals and the staff of these institutions often complain of the shortage of funds, the financial struggles they undergo in raising revenue, and the difficulty of meeting their operating costs and so advocate and welcome government grants.

CHAPTER III

LITERATURE REVIEW OF GOVERNMENT CROWD-OUT

A large body of research has dwelled on the effect government grants to nonprofits have on the private donors to these institutions, with mixed results. Part of the literature focuses on the effect of direct government grants to a charitable organization on donations to that organization; another part of the literature focuses on the effect of general government transfer spending on charitable donations.

Motivation for Giving

INGOs vary in their purpose and objectives, and have clienteles far removed from donors. Hence the motives for making donations to them may vary significantly from their nonprofit counterparts in the U.S. Several authors have tried to show why individuals donate to nonprofits in general, with some suggesting that it may be influenced by an experience in one's youth Schervish (1997); others suggest that it is associated with religious heritage, personal philosophy, social responsibility, and political beliefs Boris (1987). Still others have argued that donors have to be asked to contribute Hodgkinson and Weitzman (1996). Some authors have formulated models in which individuals are not only motivated by economic costs and benefits, but also have a moral or norm-based motivation.

The literature indicates that there are many unique benefits that contributors/donors to nonprofits experience apart from valuing the organization's output. Vesterlund (2006) shows that the most obvious benefit from giving is the output produced by a nonprofit organization: individuals who benefit from the nonprofit's output are referred to as "altruistic". Since these institutions produce mostly public goods, the literature concludes that a charity's output is normally not the primary explanation of why people donate to nonprofits, because donors would free-ride. The strong incentive to free-ride has led researchers to argue that other benefits explain why most households in the U.S. choose to make charitable contributions. That is, that there are other unique benefits that only contributors experience that motivate them to donate and not view donations by others as a perfect substitute for their private donations. The extreme argument is that the private benefit of donating is no different from that of purchasing any other private good, although private benefits of donating may be less tangible (Becker 1974; Glazer and Konrad 1996; Harbaugh 1998a; Tullock 1966). Private benefits from donating have also been argued to be more intrinsic in nature³³ (Andreoni 1989; 1990; Arrow 1974; Rose-Ackerman 1982; Sen 1977). Although the benefits stipulated by different authors differ from one another, they are all "private" in the sense that only the individual responsible for the donation gets to experience the benefit

³³ Refers to motivation to engage in the act of donating for no compelling reason beyond the satisfaction derived from the act itself (i.e. refers to motivation to donate when one does not have to do anything).

Crowding Out/In of Private Donations to INGOs

The conventional finding is that government grants crowd out charitable giving. This conventional understanding has been contradicted by some researchers who argue that donors lack knowledge or concern about nonprofit's revenue from government sources. Other findings conclude that government grants to the nonprofit sector most often predict an increase in charitable donations. These contradictory findings underline the need to identify the correct causal mechanisms that explain the government funding-charitable giving relationship. Other factors in the literature that affect donations include fund-raising efforts (Weisbrod and Domiguez (1986), a nonprofit's mission-related outputs and its reputation for efficiency and integrity (hence its trustworthiness to use donated funds effectively), and the perception by the public that nonprofits are self-serving entities that pursue the interests of their top officials and board members (Hancock (1996).

Crowd-Out/In Theory

The idea, made popular by Barro (1974), that government spending on public goods might crowd out voluntary donations of time and money, may be traced back to the classical economist Ricardo, for whom the idea of “Richardian equivalence” is named. As noted earlier, complete crowd-out theory is the basis for the classical model and predicts that, because nonprofits produce public goods, free-riding occurs and hence complete crowd-out of private contributions is observed in the presence of government

grants if output produced by the organizations is the focus of individuals. A model where the nonprofits' output is the sole motive of giving predicts that donors are indifferent toward the source of funding and hence nullify government grants (raised through taxation) by reducing their contributions to the charity dollar-for-dollar, resulting in complete crowd-out. The model predicts that government grants completely crowd out private contributions (Bergstrom, Blume, and Varian 1986; Roberts 1984, 1987; Warr 1982; 1983). The authors, applying this line of thinking to the private provision of public goods, note that if donors were "pure altruists", then production by the government would crowd out voluntary donations toward the private production of similar goods by private citizens and the nonprofit sector.

Bergstrom, Blume et al. (1986) show that two conditions must be met for the complete crowd-out prediction: a) that the tax for government contribution be limited only to those who contribute to the charity, and b) that none of the present contributors stop giving after the tax has been levied. Sugden (1982) and Margolis (1982) point out in their papers that when there are many donors, an increase in one person's contribution is almost completely offset by decreases in other people's contributions. Andreoni (1988) extends, formalizes, and proves this argument using the classical model. Another prediction of the classical model is that the levels of services experienced with or without the individual donation are almost the same.

Though earlier theoretical and empirical work (Bergstrom, Blume, and Varian 1986; Roberts 1984; Warr 1983) indicated that complete crowd-out was possible, more recent work has shown that better and improved methods and data puts this view in doubt. Duncan (1999) observes, though, that the hypothesis of a complete crowd-out

cannot be rejected when the joint effect on contributions of time and money are included. Most studies however, reject the hypothesis of a complete crowd-out and find the degree of crowd-out to range from 0.5 percent to 3.5 percent per unit of government spending Steinberg (1991). Abrams and Schmitz (1978; 1984), using tax data, show that government grants crowd out private contributions at the rate of about 28 percent, while Clotfelter (1985) estimates that crowd-out is only 5 percent, suggesting that concern for the nonprofit's output is not the primary reason for giving. Andreoni (1989; 1990) proposes a situation under which the government provision of public goods would not completely crowd out private donations to such a good because of what he termed as impure altruism. Under this formulation, government spending on public goods need not crowd out private donations one-for-one, although some degree of crowding out was still likely. Kingma (1989), using data from the National Public Radio and looking at crowding-out as well as income and price effects of donations, also finds crowding-out to be less than complete (13.5 percent). Day and Devlin (1996) examining volunteering in Canada and the response to government expenditure outlays, find that although the level of government spending influences the decision to volunteer, it has no effect on the number of hours donated, and the outcome of the relationship depended on the type of government expenditure. Ribar and Wilhelm (2002), examining a panel of donations and government funding from 125 international relief and development organizations from the United States between 1986–1992, find that private donations at most decrease by 13 cents for every dollar increase in government funding. They show that even when the clientele of INGOs are far removed from the donor, the motive for giving an additional dollar is private with less concern for the organization's output. Bergstrom, Blume et al.

(1986) show that if donors are treated as a group separate from non-donors, then an increase in government expenditures for charitable goods, funded by a redistribution of income across both donors and non-donors, will result in only partial crowd-out.

Despite the assumption that charitable private donors base their contributions on their knowledge of the amount of government grants these organizations receive, most of the articles in the literature find either no crowd-out of government transfers, or they find crowd-in. These results (i.e., of little or no crowd-out) contrast with the theoretical results, which suggest large crowd-out (Bergstrom, Blume, and Varian 1986; Roberts 1984). Some experimental evidence Andreoni (1993) also shows large (but still incomplete) crowd-out in laboratory settings. Brown (1997) notes that if government spending on public goods can act as a signal to donors about the number of people in poverty, then it can lead to the possibility of crowding-in, or an increase in private donations. Such crowding-in might occur if donors saw increased spending as a signal that their donations would now be more effective and would have a higher marginal product. Posnett and Sandler (1989), examining donations to U.K. charities in 1985, find that government grants to nonprofits increase individual donations to the charity. In a similar study, Khanna, Posnett et al. (1995), examining a panel of 159 U.K. charities, find that government grants encourage rather than decrease private giving, leading to a crowding-in effect. Schiff (1990) proposes that government funding may actually enhance utility derived from charitable giving by acting as a signal of nonprofits' quality to private donors, thus increasing private giving. Sugden (1982) and Rose-Ackerman (1981) conclude that a crowd-in effect occurs when the government's donations serve as a signal of the quality of the charitable good provided or if the production of the

charitable good exhibits increasing returns to scale. Duncan (1999) argues that some donors contribute because they want to make a difference and become worse off when contributions of others increase. Therefore, increased government contributions to a nonprofit may increase the individual's contribution. Brooks (2000b) hypothesizes a curvilinear effect in which crowding-in is observed with a smaller proportion of government funding that stimulates private giving up to a certain threshold, after which crowding-out is observed with increased government funding. He finds that orchestras benefited from a crowding-in effect up to \$8,200 in government support per concert; above this level, crowding-out was dominant.

Fundraising Activities

The bulk of theoretical and empirical analysis has assumed that charities played active roles in soliciting for donations from private donors. Nonetheless INGOs usually have budgets that run in hundreds of thousands and sometimes in the millions of dollars. Funding such large budgets demands significant fundraising efforts on the part of these institutions. Some research has found strong evidence that government grants to nonprofits cause significant reductions in fundraising efforts (Kingma (1989). Andreoni and Payne (2003) develop a theoretical model to show that a charity that chooses its level of fundraising strategically reduces fundraising in response to government grants, and found empirically that indeed there is strong evidence that government grants to nonprofits cause significant reductions in fundraising efforts. They emphasize that charitable fund-raising activities may add another dimension to the crowding-out theory,

i.e., that an increase in government funding causes significant reductions in fund-raising efforts. Commenting on the empirical study, (Abrams and Schmitz 1985; Driessen 1984; Straub 2004) conclude that the “behavior of nonprofits” should be taken into account; otherwise conclusions of crowding-out of charitable giving by government funding may actually be a result of a nonprofit’s strategic decision making. This strategic response may help explain the incomplete crowding-out of government grants to private charities. Altruism theory seems consistent with fundraising practices of INGOs, which provide the donors with specific information on the potential value of contributions and on their overhead costs.

This study adds to the literature by extending the crowd-out theory to INGOs and by simultaneously measuring the crowd-out effect of government grants on private donations and fundraising activities on six major sub-categories of INGOs by using the same data set. A summary of previous research is included in Table B1 in the Appendix.

CHAPTER IV

THEORETICAL MODEL

This section outlines the basic theoretical foundations for philanthropy by drawing from various theoretical models by Andreoni (1988; 2006) and a paper by Andreoni and Payne (2003). We show a theoretical relationship between government grants, private donations, and fundraising expenditures in explaining the crowding-out theory.

The adopted theoretical models are motivated by the fact that economists have only just begun to take seriously the effects of fundraising (the demand side of the charity) in undertaking the effect of government grants on charitable giving. Past economic research focused almost exclusively on donors (the supply side of charity) when explaining the effect of government grants on charitable giving mainly due to the difficulty in establishing theoretically how fund-raising works.

Theoretical Framework

Our theoretical framework is adopted from the one developed by Andreoni and Payne (2003). It is based on conclusions drawn from (Hochman and Rodgers 1969; Kolm 1969) that charitable giving, motivated out of altruism, creates a public good out of charity. The model is based on the “continuing campaigns” category of fund-raising

identified by Andreoni (1998).³⁴ The continuing campaigns model is in turn tied to the “power of the ask model” Andreoni (2003). Both charities and donors report that the most effective fund-raising tool is to directly ask someone to donate.³⁵

Our contributions to the theoretical models we have adopted from various papers by Andreoni include: 1) assuming that fund-raisers seek to maximize the lifetime stream of contributions; 2) assuming that fund-raisers live for two periods only; and 3) using the theoretical models to explain crowd-out on international organizations.

We precede our theoretical model by first describing in detail Andreoni’s summarized theoretical models that assume charities have no active role to play in extracting donations from potential donors. We then proceed to summarize the role the government plays in the crowding-out model and follow this by showing how crowding out occurs and the reason why a complete crowd-out may take place. We summarize this model to show how warm glow affects the crowding-out theory. Finally, we summarize Andreoni and Payne’s (2003) theoretical model and then introduce fundraising as an explanation for the crowding-out observed in the literature.

Model of Private Giving to Public Goods

We adopt the summarized version by Andreoni (2006). In this model, only individuals provide goods through voluntary donations. Here, pure public goods are inefficiently provided, which justifies the involvement of the government in providing

³⁴ Continuing campaigns raise the operating funds for on-going charities and are unlikely to be built around revealing information about the charity but focus instead on revealing information about the donors.

³⁵ Other continuing campaign categories of fund-raising include “donors are recognized” and “charity raisers and auctions” models. See Andreoni (2006).

public goods (Becker 1974; Bergstrom, Blume, and Varian 1986). Government involvement in the provision of public goods in this model was initially thought to be an efficiency-enhancing supplement to private donors. The model, developed by Becker (1974) has the following assumptions:

- 1) There are $i = 1, \dots, n$ individuals in the economy
- 2) Each individual i consume a composite private good χ_i and a public good G .
- 3) Individual's donation to $G = g_i$
- 4) G is defined as $G = \sum_{i=1}^n g_i$
- 5) Each person is endowed with money income m_i
- 6) Preferences are $\mu_i(\chi_i, G)$ since G is a pure public good.
- 7) The public good can be produced from the private good with a simple linear technology.

Each individual faces the following optimization problem;

$$\begin{aligned} \text{Max}_{\chi_i, g_i} \mu(\chi_i, G) \quad & \text{s.t. } \chi_i + g_i = m_i \\ G = \sum_{j=1}^n g_j \quad & g_i \geq 0 \end{aligned} \tag{1}$$

Assuming that each person i takes the contributions of others as given, the model can be solved by assuming Nash equilibrium. Letting $G_{-i} = \sum_{j \neq i} g_j = G - g_i$ equal the total contributions of all individuals except person i , the optimization problem can be rewritten with each individual choosing G rather than g_i as shown below;

$$\begin{aligned} \text{Max}_{\chi_i, G} \mu(\chi_i, G) \quad & \text{s.t. } \chi_i + G = m_i + G_{-i} \\ G \geq G_{-i} \end{aligned} \tag{2}$$

According to Becker (1974), individuals act as though their “social income” $m_i + G_{-i}$. i.e., m_i and G_{-i} will have the same marginal effect on an individual’s optimal G_i .

Solving the above equation by setting the marginal rate of substitution equal to 1 and assuming that people can only give positive amounts to the public good, the individual’s best reply function can be rewritten as;

$$g_i = \max \{f_i'(m_i + G_{-i}) - G_{-i}, 0\}$$

Finally assuming that the public good is a normal good and that the private good is strictly normal for all individuals is sufficient to guarantee that there exists a unique Nash equilibrium, i.e., there exists a Φ such that $0 < f_i' \leq \Phi < 1$ for all i in the set of givers. The decision problem and Nash equilibrium can be illustrated in Figure 3:

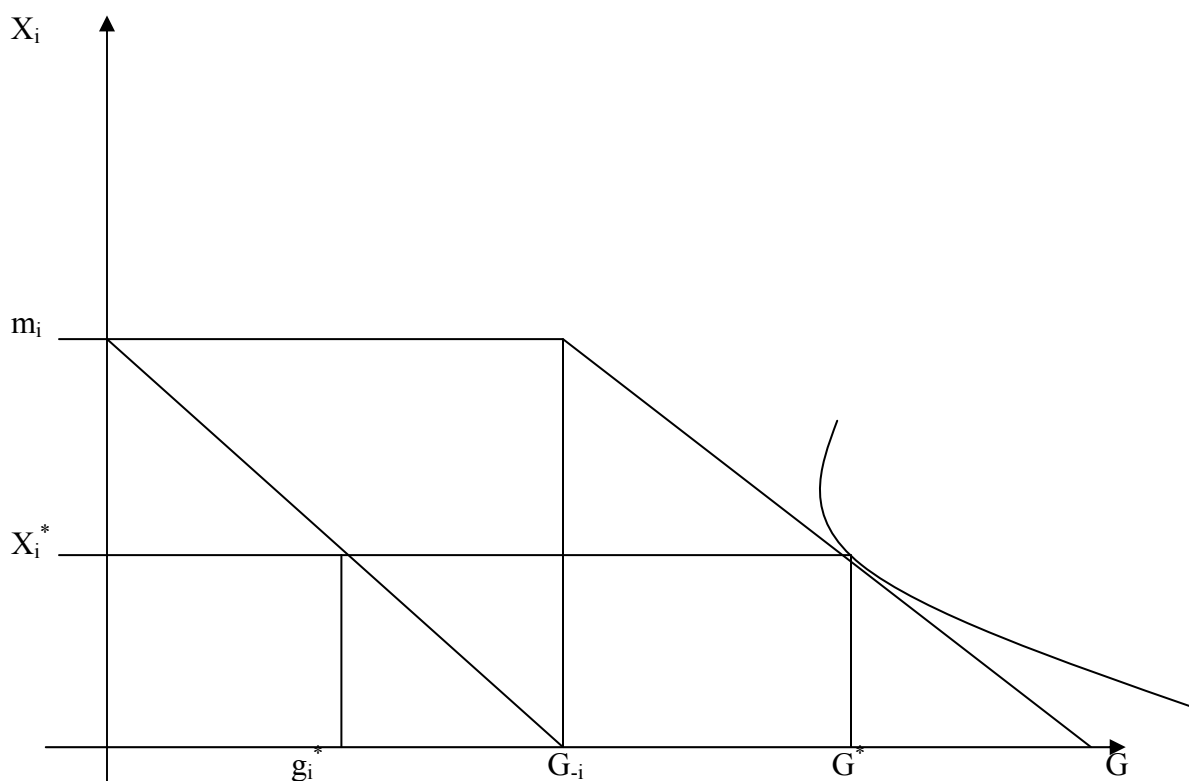


Figure 3: Nash Equilibrium in the Provision of Public Goods

The “endowment point” can be seen where consumption $\chi_i = m_i$ and the public good $G = G_{-i}$. When the classic model of Samuelson (1954) is applied to voluntary giving above, we see that as individuals decide to give, χ_i can be traded for more G along the 45-degree line above. In equilibrium, all individuals consume the same G but, assuming different preferences and incomes, different χ_i . It can also be seen that private giving will not be Pareto efficient. Figure 3 therefore suggests a partnership between government and charitable donors.

According to the Samuelson conditions, G reaches the efficient level

when $\sum_{i=1}^n \left(\frac{\partial \mu_i}{\partial G} \right) / \left(\frac{\partial \mu_i}{\partial \chi_i} \right) = \sum_{i=1}^n MRS_i = 1$.³⁶ But each giver is setting $MRS_i = 1$

hence $\sum_{i=1}^n MRS_i$ is in excess of 1 whenever at least one person is giving, implying inefficiently low G.

Crowding-Out Theory

This is based upon a model of Warr (1982). Warr's model shows that any "small" lump sum tax on donors that is contributed to the public good will completely crowd out private donations, i.e., the substitution will be dollar-for-dollar. Building on this model, Roberts (1984) claimed that just like the expansion of government services to the poor was accompanied by a reduction in charitable giving to the poor during the great depression, this effect also occurs for all public-private partnerships.

Re-writing the optimization problem above by introducing a lump sum tax t_i on person i with the proceeds donated to the public good, the individuals' budget constraint becomes $\chi_i + g_i + t_i = m_i$ leading to a total payment $y_i = g_i + t_i$.

Let $Y = \sum_{i=1}^n y_i$ and $Y_{-i} = \sum_{j \neq i} y_j$ and let $(g_1^*, g_2^*, \dots, g_n^*)$, then the optimization problem above becomes:

³⁶ The sum of the marginal rates of substitution equals the marginal cost.

$$\begin{aligned} \text{Max}_{x_i, Y} \mu(\chi_i, Y) & \quad \text{s.t. } \chi_i + Y = m_i + Y_{-i} \\ Y & \geq Y_{-i} + t_i \end{aligned}$$

(3)

$g_i \geq 0$ in the inequality constraint 3 above. Equation 3 above will be the same as equation 2 whenever $t_i \leq g_i^*$.

Complete Crowding-Out

Complete crowd-out occurs when everyone reduces their voluntary contribution by the amount of the involuntary contribution in equilibrium so as to keep their total utility-maximizing contributions the same. This can be demonstrated as below;

Let $(g_1^*, g_2^*, \dots, g_n^*)$ be the Nash equilibrium donations with no government taxation. If lump sum taxes $0 \leq t_i \leq g_i^*$ for all i are donated to the public good, the equilibrium donation after taxation will be $g_i' = g_i^* - t_i$ for all i . The total supply of the public good will be unchanged. The model assumes that people are indifferent between voluntary giving g_i and involuntary giving t_i .

The intuition explained above can be shown in Figure 4:

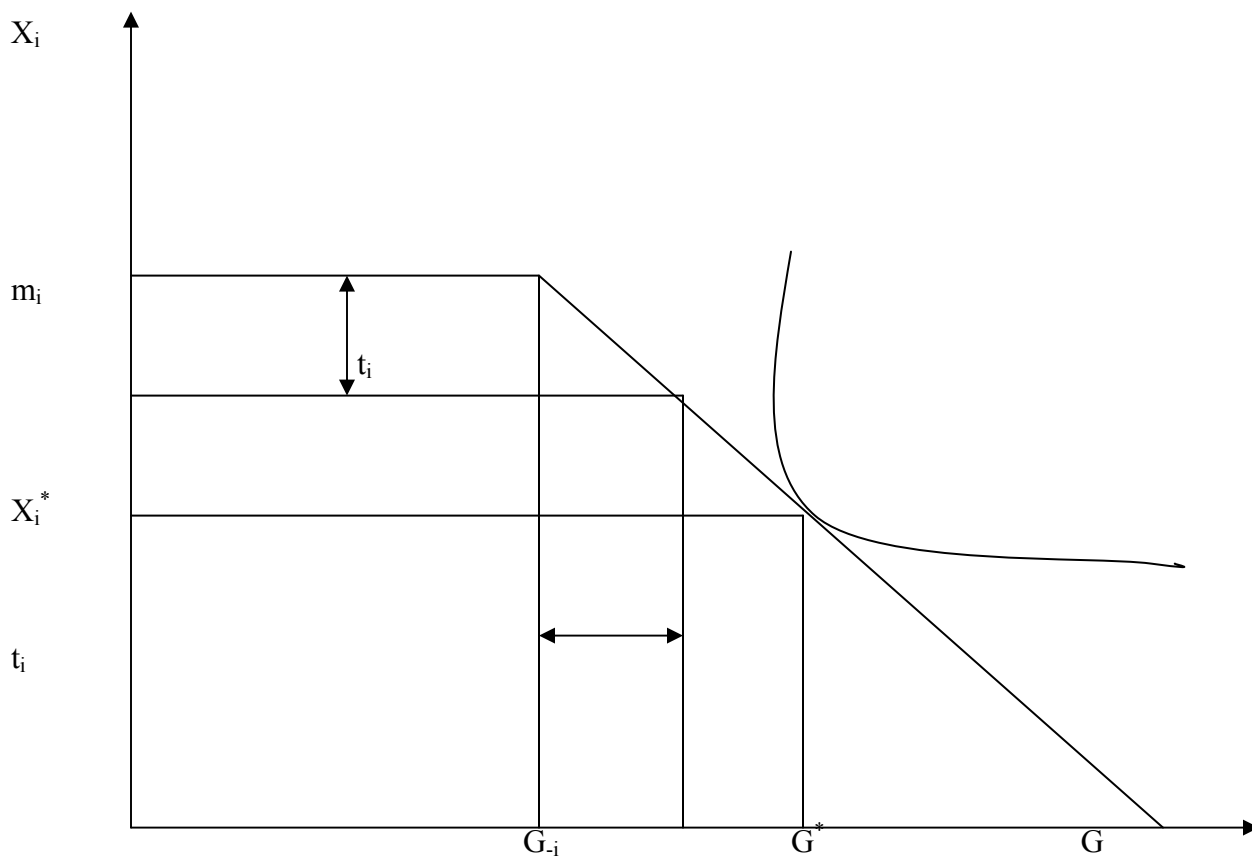


Figure 4: Complete Crowding Out

Figure 4 indicates that in equilibrium, each person acts as though they are choosing their total gift, $y_i = g_i + t_i$. When one of the factors of the sum is forced to move in one direction, the other element will respond with an equal and opposite change. Note that if the tax were to rise to $t = g^* = m - \chi^*$, then the person's private contribution would be driven to zero. Any tax beyond this would be non-neutral, and would force total payments to rise.³⁷

³⁷ According to Bergstrom, Blume, and Varian (1986), since a good deal of taxation involves individuals who are not givers or for whom $t_i > g_i$, total provision of the public good will increase.

Warm-Glow Giving Model

To capture warm-glow effects, an individual's contribution can be put in the utility function directly as:

$$\mu_i = \mu_i(\chi_i, G, g_i)$$

Donations in this utility function will have some qualities of public goods, but also some properties of private goods.³⁸ The individual's optimization problem, assuming the inequality constraint is not binding, is:

$$\text{Max}_{\chi, g} \mu_i(\chi_i, G, g_i) \quad \text{s.t. } \chi_i + g_i = m_i$$

When an individual chooses G rather than g_i , the above optimization problem is re-written as:

$$\text{Max}_{\chi, G} \mu(\chi_i, G - G_{-i}) \quad \text{s.t. } \chi_i + G = m_i + G_{-i}$$

We can argue that the utility function can be re-written as:

$$g_i = f_i(m_i + G_{-i}, G_{-i}) - G_{-i}$$

Taking the derivative of the above function with respect to G_{-i} and letting f_i^s be the derivative with respect to social income and f_i^w be the derivative with respect to the second term (i.e., the warm-glow term)³⁹, the result is:

$$\begin{aligned} \frac{dg_i}{dG_{-i}} &= f_i^s + f_i^w - 1 \\ &= -(1 - f_i^s) + f_i^w \end{aligned}$$

³⁸ See (Andreoni 1989, 1990; Cornes and Sandler 1984; Steinberg 1984, 1987)

³⁹ According to Andreoni (1989; 1990), $f_i^w > 0$ and $0 < f_i^s < 1$ is true for normal goods.

The expression $-(1 - f_i^s)$ captures the case with no warm-glow. Others gifts are a perfect substitute for one's own; hence, increased giving by others causes people to reduce their gift. The expression f_i^w captures the warm-glow effect. The explanation here is that with warm-glow a person is no longer as willing to reduce his own contribution in response to increased gifts by others.

When people care only for warm-glow, then $\frac{dg_i}{dG_{-i}} = 0$, implying that crowding out will no longer be complete.⁴⁰ Putting warm-glow into the model, while intuitively appealing, is at most an ad hoc fix, which can only be indirectly tested (Ribar and Wilhelm (2002). Experimental data, though, overwhelmingly support the warm-glow effect (Andreoni 1993; 1995; Andreoni and Miller 2002; Palfrey and Prisbrey 1996; 1997), and provides the needed evidence to turn this ad hoc fix into a solid foundation for motivations of giving to charities.

The theoretical models above (see especially equation 2 above) indicate that government grants and charitable fund-raising are likely to be jointly determined and that government grants crowd out private giving, resulting in the classic crowd-out hypothesis. In this dissertation, we assume that in the case of INGOs the warm glow effect is dominant (see equation 4) and that this might lead perhaps to crowding-out being small or non-existent in these kind of organizations. This leads us to the rationale for our theoretical model. We look at fund-raising as the INGOs' way of being strategic players in attracting private contributions from potential givers and as an explanation of the

⁴⁰ This is true only so long as warm-glow does not extend to gifts made involuntarily through taxes.

crowd-out observed in the literature. In particular, we will portray the influence on contributions received by charities and how charities respond to government grants.

Dominance of Warm-Glow

Ribar and Wilhelm (2002) show that as the economy grows large warm-glow becomes the dominant if not the exclusive motive for giving at the margin. Since experimental data overwhelmingly support warm-glow preferences, we can assume that as the size of the charity grows, all giving due to altruism will be crowded out, leaving only giving due to warm-glow. In equation 3a below, as n increases, the relative importance of α (the utility parameter on altruism) diminishes and in the limit, choices are dictated by β (the warm-glow parameter). Thus, in the limit, giving becomes a solely private good and all the implications of neutrality disappear.

This argument is developed as follows.

We assume that the economy has n individuals with identical incomes m and identical Cobb Douglas preferences as:

$$\mu_i = \ln x_i + \alpha \ln G + \beta \ln g_i \quad (3a)$$

The first order conditions are then:

$$-\frac{1}{m - g_i} + \alpha \frac{1}{G} + \beta \frac{1}{g_i} = 0$$

The Nash equilibrium gifts will be the same for all i since individuals are identical, giving us $G^* = ng^*$.

The Nash equilibrium thus becomes;

$$g^* = \frac{\alpha m/n + \beta m}{1 + \alpha/n + \beta}$$

From the above, we deduce that $g^* = \frac{\alpha m}{n + \alpha}$ if there were only altruism and no warm-glow. In this case, as n increases, each person's equilibrium gift asymptotes to zero while total giving asymptotes to αm .

When there is only warm-glow and no altruism, then, $g^* = \frac{\beta m}{(1 + \beta)}$ (which is independent of n).

The Power of the Ask Model⁴¹

In this model donors have latent demands to give, but transaction costs such as finding the address or simple procrastination keep them from giving.⁴² When contacted by a charity, their costs fall drastically and so they give. The model is based on models of advertising that reduce or eliminate prohibitive search costs.⁴³

We adopt Andreoni and Payne's (2003) model, and assume that INGOs differ on some dimension Θ and that each charitable donor has a favorite Θ . Charitable donors give to the INGO whose Θ is closest to their favorite when contacted by several INGOs. Here solicitations through fundraising increase charitable donations for two reasons.

⁴¹ A detailed mathematical derivation of the theoretical model is attached in Appendix B.

⁴² See O'Donoghue and Rabin (1999a), and their "models of procrastination".

⁴³ The assumption here is that individuals do not exercise their demand for a good unless they receive an advertisement from a seller. Precedence of this assumption is in the literature on advertising.

First, they turn non-donors into donors, and secondly, they move charitable donors to charities they prefer.

We assume, for the sake of modeling, that individuals will not give unless they are solicited, at which point they will give. How much they give depends on how close the INGO is to their ideal Θ . As in Andreoni and Payne (2003), we assume for simplicity that charitable donors give exclusively to an INGO nearest its ideal. Fundraising is a requirement in our model because of the assumption that people need to be asked to donate.

In summary, our theoretical model, based on models stipulating that advertising reduces or eliminates prohibitive search costs, incorporates the following assumptions;

- 1) Charities differ qualitatively in the services they provide.
- 2) Individuals differ in the quality of charity they prefer.
- 3) Individuals face high costs of finding the names and addresses and qualities of charities.
- 4) Individuals will only give when they are solicited by a charity.
- 5) Charities first set their fundraising levels and then they move simultaneously.

Givers move second and play a Nash equilibrium giving game.

For simplicity, we also assume that:

- 1) Fund-raisers seek to maximize the lifetime stream of contributions.
- 2) Fund-raisers live for two periods. Hence the INGO (fund-raiser institution) seeks to maximize the following objective function:

$$\text{Max}_{\{\Theta_{jt}\}} v_j = C_{j,t} - \Theta_{jt} S_{jt} + \beta P_{tj}(\Theta_{jt}) \{C_{j,t+1}\} \quad (1)$$

where:

$$C_{j,t} = \sum y_{ij,t} + G_{jt}$$

$y_{ij,t}$ (G_{jt}) is the contribution of individual i to charity j , at period t .

G_{jt} is the level of government grants received by charity j .

$C_{j,t} - \Theta_j S_j$ refers to net utility of the INGO at time t , which depends positively on $C_{j,t}$.

In other words $y_{ij,t}$ (G_{jt}) represents the equilibrium condition levels $y_{ij,t}^* = y_{ij,t}^*(G)$.

Thus, we can define the level of total charitable contributions to institution j at time t as $C_{j,t}$. Also, the activities of fund raising are costly, hence $S_j \geq 0$ represents the

disutility to the charity managers of engaging in fund-raising, while Θ_j is managers'

effort on fund raising. Therefore, the term Θ_j reflects managerial time in screening, and

following up possible contributors.

In (1) the expression $\beta P_r(\Theta_j)\{C_{j,t+1}\}$ represents the discount utility of the expected contributions at period $t+1$, where:

$P_r(\Theta_j)$ is the probability of obtaining an amount of contributions $C_{j,t+1}$ at period $t+1$.

β refers to the discount factor (e.g., the higher β is, the more important is the future).

We finally assume that INGOs exert effort in the first period, while the return or gain of fund raising is reflected in the expected contributions at period $t+1$. At period t ,

the contributions at $C_{j,t} = \sum y_{ij} + G_{jt}$ are given. Hence the problem for fundraisers is to exert the effort at period t (Θ_{jt}) that maximizes the lifetime utility of the organization.

The optimality conditions are given by:

$$\frac{\partial v_j}{\partial \Theta_j} = -S_j + \beta P_j \{C_{j,t+1}\} = 0$$

$$\Theta^* = \Theta^*(G_t, \sum y_{1j,t}, \dots) \quad (2)$$

The first order conditions imply that the organizations exert effort to raise funds at the point in which the marginal cost of fund raising $-S_j$ is equal to the expected marginal utility gain of increasing contributions at period t+1 (or equivalently $\beta P_j \{C_{j,t+1}\}$).⁴⁴

Andreoni and Payne (2003) argue that individuals and charities alike report that givers give primarily because they are asked. Thus, we will also assume that the effect of fund raising efforts on the expected contributions is driven by “the power of the ask” in our model. However, since it is engaging in fund raising, a rational organization will not pursue their efforts to a point in which the marginal expected contributions are lower than the resources consumed in fund raising. The expression $\Theta^* = \Theta^*(G_t, \sum y_{1j,t}, \dots)$ in (2) is the optimal value function, or the optimal level of effort at period t, which depends on contributions at period t and t+1.⁴⁵ Thus we are interested in calculating the effect of government’s grant at period t. We can obtain this result by calculating:

⁴⁴ To simplify the analysis, we are assuming that the efforts of fund raising affect only the expected amount of contributions, through the effect of effort on the probability to raise a certain amount of funds $C_{j,t+1}$. In the future, we can remove this assumption to allow the total amount of funds to depend on the effort.

⁴⁵ Using the function $\Theta^* = \Theta^*(G_t, \sum y_{1j,t}, \dots)$ into the lifetime utility at the optimum which is given by $v_j^* = v_j^*(G_t, G_{t+1}, \sum y_{1j,t}, \sum y_{ij,t+1}, \Theta^*(\bullet))$

$$\frac{\partial \Theta_j^*}{\partial G} = \frac{-\frac{\partial v}{\partial \Theta \partial G}}{\frac{\partial^2 v}{\partial \Theta^2}} > 0.$$

To do so, we can express the first order condition in (2) as follows:

$$\frac{\partial v_j}{\partial \Theta_j} = -S_j + P'_{rj}(\Theta_j) \left\{ \frac{v_j^*(\Theta_j^*) - C_{j,t} + \Theta_j^* S_{j,t}}{P_{rj}(\Theta_j)} \right\} = 0 \quad (2')$$

In (2') we have used the optimality condition in (2) and the lifetime utility of the NGO

evaluated at the optimum. In (2') $P'_{rj} = \partial P_{rj}(\Theta_j) / \partial \Theta_j$. Thus we obtain:

$$\frac{\partial \Theta^*}{\partial G} = \frac{P_r(\Theta^*) P'_r(\Theta^*) * \frac{\partial C_{j,t}}{\partial G}}{P_r(\Theta^*) P''_r(\Theta) \lambda + P_r(\Theta^*) P'_r(\Theta - [P'_r(\Theta^*)])^2 \lambda + S_j P_r(\Theta) P'_r(\Theta)} \quad (3)$$

where $\gamma = \left\{ P_r(\Theta^*) P''_r(\Theta) \lambda + P_r(\Theta^*) P'_r(\Theta - [P'_r(\Theta^*)])^2 \lambda + S_j P_r(\Theta) P'_r(\Theta) \right\} \leq 0$ by the second order sufficient conditions for an optimum of (1). In the numerator of (3)

$P'_{rj}(\Theta_j) * P_{rj}(\Theta_j) \frac{\partial C_{j,t}}{\partial G} > 0$. Hence, $\frac{\partial \Theta_j^*}{\partial G} \geq 0$. We get an ambiguous result meaning that

government grants to INGOs do not necessarily crowd out the activities of fund raising of INGO's.

The result is intuitive: An increase in government's contribution at period t has an ambiguous effect on the marginal expected contributions at period t+1.⁴⁶ On the one hand, an increase on government's grants at period t has a direct positive effect on the lifetime contributions of the INGO (which reduces effort on fund raising); however, on

⁴⁶ If the effect of government's grants reduces the marginal utility of the expected contributions in period t+1, then this will induce INGOs to reduce efforts on fund raising. If the effect of government's grants increases the marginal utility of the expected contributions in period t+1, then this will induce INGOs to increase efforts on fund raising, a crowd-in effect.

the other hand, a government grant at period t might crowd out private contributions and hence the overall expected contributions at $t+1$.

Link between the Theory and Empirical Methodology

Our theoretical model predicts that fundraising can have two opposing influences on private donations. On the one hand, when charities ask for less in the presence of government grants,⁴⁷ they reach fewer donors and private donations fall. On the other hand, when INGOs do not reduce their fundraising efforts in the presence of government grants, private donations might increase. In this case, government grants will have the effect of crowding in donations. This can happen because of various reasons discussed below. In other words, our model predicts that government grants do not necessarily crowd out the activities of fundraising of INGOs and by extension private donations to these institutions.

In addition to affecting fund-raising, a change in government grants can also result in a direct effect on individuals' contributions to the INGO. Individuals may respond directly through crowding-out or crowding-in (see the reasons given below) and indirectly due to changes in fundraising efforts. Donations cost can increase (in cases where the INGO reduces its fundraising activities) or decrease (in cases where the INGOs either increase their fundraising efforts or continue at the same level of fundraising activity).

When the INGOs are “satisfiers” who have revenue goals and stop when they are reached, government grants will lead to a reduction of fundraising efforts and we will

⁴⁷ This might be due to the marginal benefit of fundraising effort reducing.

observe a crowding-out effect.⁴⁸ Marginal revenues here may exceed marginal costs. This is due in part to classic crowding-out, but also to the fact that any solicitation will likely be less productive and the institutions in this case will choose to reduce fund-raising efforts. The net effect of a government grant in the case where fundraising falls will be to reduce donations to the recipient nonprofit. We observe a crowding-out effect in part because donors give less as they shift their donations to competing nonprofits when a specific charity asks only a few of them and does not reach others. By channeling some of the charity's income away from direct program expenses, increased fundraising may be perceived by donors as increasing the price of giving, and this also might lead to reduced contributions by donors.

On the other hand, if INGOs are net-revenue maximizers and act like a business, they will continue spending dollars on fundraising until the marginal dollar spent raises an additional dollar of funds. The impact of government grants will be a crowding-in of charitable contributions especially with no change on fundraisers of INGOs. In our model, fundraising remains constant or increases in period $t+1$. Despite the charity receiving grants from the government, solicitations will increase donations by turning non-donors into donors, and by moving donors to charities they prefer. In this role, fundraising acts like advertising and stimulates giving by informing the public and soliciting contributions (Khanna and Sandler (2000)). Here, government grants have the potential for crowding-in donations. Since INGOs operate far from the donors who have limited capacity to monitor them, government grants may also cause a crowding-in effect

⁴⁸ The theoretical model predicts that an INGO might decide to reduce fund-raising efforts when it gets a grant from the government.

by affecting donors in several ways.⁴⁹ i.e., grants enhance the reputation of a charity in the view of donors (Rose-Ackerman (1982; 1987); Government grants also increase the willingness of potential donors to contribute since information asymmetries are limited due to government officials' capacity to monitor these institutions where they operate. The monitoring function of government grants also may act like a price reducer in the minds of donors especially when they perceive that administration costs and fundraising activities of these institutions will be kept in check. Government grants can also circumvent the standard neutrality theorem result that is behind crowding-out whenever the grants are financed in part from taxes on non-contributors; and finally, when there is a matching grant component, then government grants can reduce price and stimulate private donations.

Another avenue by which government's grants can affect fund raising activities of INGOs is through the role of repeated (or consistent lack of) contributions. For instance, it is simple to see that if government's grants at $t+1$ depend on the stream of contributions on the past, then the marginal expected gain of fundraising (or the second term in condition 2) will be affected. It seems reasonable to argue that there might be donor's fatigue. In this case, we need to replace $P_{rj}^*(\Theta) = P_{rj}^*(\Theta_j^*(G_t), G_t)$ and $G_{t+1} = f(G_t)$. The last term reflects a recursive function in which donations at $t+1$ depends on past grants of the government. It is simple to see that this reinforces our previous findings that governments grants could have an effect in either way on INGO's fund raising efforts. In our model, the possibility of crowd in effect on fund raising is explained by the uncertainty of INGOs with respect future contributions. That is, an increase of

⁴⁹ Here the warm glow effect is dominant.

government's grants today might reduce the potential expected contributions in the future for the INGO, which induces INGOs to increase their fundraising efforts.

We test our theoretical model empirically to determine whether INGOs are net-revenue maximizers or "satisfiers". This will offer an explanation as to whether fundraisers or charitable donors account for crowding-out.

CHAPTER V

EMPIRICAL FRAMEWORK

This chapter presents the empirical methodology and data sources.

Empirical Methodology

Previous empirical studies have captured a number of factors relevant to the effect of government grants on charitable contributions and fundraising activities. The literature on crowd-out varies considerably in data coverage, empirical specification and econometric procedures although research on crowding out is still inconclusive. Our objective in this dissertation is to extend the literature to international nonprofits by simultaneously measuring the effect of government grants on charitable contributions and fundraising activities. This is in line with recent research, which has tended to focus on the behavioral response of charities on government grants as a second reason for the crowd out observed in the literature. We adopt Dokko's (2005) doctoral dissertation empirical methodology, which relates the effect of government grants simultaneously on charitable contributions and fundraising efforts of nonprofits.

We complement and extend previous empirical studies along 3 dimensions. First, we adopt a reduced form approach, which includes simultaneous equations of determinants of charitable contributions and fundraising activities rather than on one particular structural or behavioral model. Second, we employ Baltagi's error component

two stage least squares and fixed effects estimation techniques that control for endogeneity, omitted variable bias, simultaneity, and other econometric issues. Third, we extend the composition of nonprofits to international organizations.

Our estimation framework is based on three types of variables – endogenous variables, predetermined/exogenous variables, and unobservable disturbance terms. For the functional composition, we estimate the following set of two equations.

$$Pdon_{it} = \beta_0 + \beta_1 Gov_{it} + \beta_2 F exp_{it} + Z'_{1it} \beta_3 + D\lambda_1 + \varepsilon_{it}^1 \quad (1)$$

$$F exp_{it} = \alpha_0 + \alpha_1 Gov_{it} + \alpha_2 Pdon_{it} + Z'_{2,it} \alpha_2 + D\lambda_2 + \varepsilon_{it}^2 \quad (2)$$

Where :

Pdon , *Gov* and *F exp* – are endogenous variables.

*Z*₁ and *Z*₂ – are pre – determined / exogenous variables.

ε_1 and ε_2 – are Random variables.

Here the vector, *D*, captures the unobserved heterogeneity at organizational level and overtime. We assume that the vector of disturbances, ε , is mean independent of the predetermined variables, *Z*, such that:

$$pdf(\varepsilon/Z) = f(0, \Omega).$$

Simultaneous Equation Model and Two-stage Least Squares Estimation

Ordinary least squares (OLS) estimation of the above simultaneous equation model (SEM) yields biased estimates due to endogeneity problems or omitted variables in the specification. To overcome these problems, we use Baltagi's 1984 error component two-stage least squares (2SLS) regression technique and fixed effects regression

technique. We use instruments for endogenous variables to deal with factors such as correlation between independent variables and the disturbance terms. We rule out the first differencing regression technique because the data pattern here leads to loss of a large percentage of the data.⁵⁰

In estimating equations (1) and (2), we are likely to potentially come across two problems: serial correlation and endogeneity. Serial correlation in the error process is a common problem in panel datasets, and if present, our standard errors can be severely biased Kezdi (2003). To solve for this problem, we perform the Wooldridge test for autocorrelation in panel datasets (Drukker 2003; Woolridge 2003). The null hypothesis is that there is no serial correlation. We reasonably assume that the error terms are serially correlated within each organization but not in-between organizations.

Endogeneity might be present due to private donations and government grants being jointly determined.⁵¹ It may also be due to a problem of reversed causality between private donations and fundraising expenditures making the measure of fundraising expenditures biased (i.e. fundraising expenditures are targeted to increase private donations, but low private contributions in one year can cause fundraising expenditures to increase within the same year and make fundraising measure to be negatively biased). We solve for this possible problem of endogeneity of government grants and fundraising expenditures by choosing to use instrumental variables. The use of instrumental variables allows us to have a variable that affects government grants but not

⁵⁰ See Appendix E for the pattern of data.

⁵¹ Unmeasured influences may be increasing both government grants and private donations and the measure of crowd-out would then be positively biased (i.e. after a catastrophe such as a hurricane, terrorist attack etc, the services of an INGO such as the red cross are in high demand). Contributions are thus likely to be sought from both private givers and government donors).

fund-raising or private contributions to allow for an estimate of the pure crowding out effect that holds constant the level of fundraising. Alternatively, we might look for a variable that affects fundraising but not government grants or private contributions to estimate the effect of fundraising on private giving, and subtract this effect from the total effect.

In order to have good instruments, we look for instruments that must be strongly correlated with the endogenous explanatory variables and the dependent variables of interest and that should only be correlated with the dependent variables through the endogenous explanatory variables (i.e. they should not cause a change in the dependent variable directly). Since weak instruments lead to biased estimates, we carry out several tests. First, we carry out the Hansen-Sargan test to test for the over-identification restriction. The null hypothesis is that the instruments are valid instruments (i.e., they are uncorrelated with the error term, and the excluded instruments are correctly excluded from the estimated equation). A rejection of the null will cast doubt on the validity of the instruments. Second, we check and use the rule-of-thumb in line with Stock and Watson (2003), which states that the first-stage F-statistic should be greater than 10 for instrumental variables to be strong. Last, we test for the endogeneity problem by carrying out a Hausman test for endogeneity. The assumption necessary to carry out a Hausman test is that the instruments are exogenous (the Hansen-Sargan test should indicate this to us). Our null hypothesis in the Hausman test is that government grants, fundraising expenditures, and private donations are exogenous.

Instrumental Variable (IV) Estimation

This is an estimation technique for dealing with factors such as correlation between independent variables and the disturbance terms by finding or creating a variable that is correlated with the variable being instrumented for and asymptotically uncorrelated with the disturbance term. We estimate equations 1 and 2 above and obtain predicted values of the endogenous variables as shown below;

$$\hat{Pdon}_1^* = \hat{\Pi}_1 Z \quad (3)$$

$$\hat{Fexp}_2^* = \hat{\Pi}_2 Z \quad (4)$$

The resulting coefficients estimates are consistent.⁵² Correction of the standard errors entails our final step in estimating our SEM. In our estimation, we tackle this issue by insuring that at least one exogenous variable appearing in one equation does not appear in the other equation.⁵³ Goodness of fit will be looked at after the first stage of the two-stage least squares to ensure that we have quality instruments since the higher the correlation with the endogenous variable the better.

In identifying our instruments, we considered two factors:

- i) That our instruments be strongly correlated with the endogenous explanatory variable.
- ii) That they should only be correlated with the dependent variable through the endogenous explanatory variable (i.e., the instruments

⁵² In small samples, the IV estimator will be a biased estimator.

⁵³ The more such restrictions/exclusions the better.

should not cause a change in the dependent variable directly).

Based on the above, we have identified several instrumental variables for our endogenous variables, as explained below.

Instruments for Government Grants

The literature identifies several instruments for government grants. Kingma (1989) uses mean personal income in a nonprofit's region as an instrument for government grants. Payne (1998) uses state level government transfer payments to individuals as an instrument in the first stage estimate of government grants.⁵⁴ Andreoni and Payne (2003) use transfers to non-profits measured at the state level as instruments for government grants to nonprofits in their study. Breman (2005) uses government grants lagged one year as an instrument for government grants. Government grants do not vary substantially over time, and government grants in year $t-1$ should therefore be a good estimate of government grants in year t .

We use federal-level measures of government transfers to individuals from SSI programs, government grants lagged one year, and transfers to non-profits measured at the federal level⁵⁵ as our instruments for government grants.

⁵⁴ One potential problem with this instrumental variable is that transfer payments to individuals are an automatic stabilizer, so when personal income experiences negative shocks, this instrument is likely to have a negative relationship with private contributions, independent of the mechanism through government grants (i.e. one may find partial crowding out even if the true relationship is one of perfect crowding out).

⁵⁵ These measures help control for the size of the government that has been spent on nonprofit activities, thus it proxies the size of the "pie" for which a nonprofit organization competes.

A negative variable for the price of a dollar of charitable donation implies that as the implicit price of giving rises, through higher fund-raising and administration expenditures in the previous period, charitable giving decreases in the current period.

Instruments for Fundraising Expenditures

We use the INGOs own capital and returns on financial assets as instruments for fundraising expenditures. These are similar to those used by Breman (2005).

Data and Data Sources

The U.S. international nonprofit dataset that is used is composed of nonprofit organizations that are private corporations created, maintained, and terminated by voluntary decisions of the trustees, board, and/or members of the organization; are registered in the United States with the Internal Revenue Service (IRS) as charitable tax-exempt organizations (501 (c) (3)); receive over \$25,000 in annual income⁵⁸ and file an annual IRS form 990.⁵⁸ They serve public purposes as organizations with missions and programs that are primarily international in purpose and scope; that is, they provide goods, services, and/or funds to individuals or institutional beneficiaries abroad and/or promote international understanding and/or address international policy issues here and abroad. The dataset of these organizations used in this study is drawn from information

⁵⁸ Excluded are 501 (c)(3) private foundations and other non-charitable tax exempt organizations registered with the IRS such as trade unions, business organizations, social and recreational clubs, and veterans associations, classified under varying sections of the IRS code (e.g., 501 (c) (4) as well as many religious organizations that are exempt from filing).

included in the National Center for Charitable Statistics/Guidestar National Nonprofit Database (Center on Nonprofits and Philanthropy (1998-2003)).⁵⁹ Other data come from the World Bank (2005).

Data Problems

As noted in the literature, the dataset we are using has some problems that need to be addressed. The potential problems that we will have to tackle include the following:

1 The timing of government funding and the efforts expended towards fundraising may not fall within the same one-year period. To solve for this problem, we lag government funding in our dataset. The alternative is to take a moving average of the measures. Andreoni and Payne (2003) find robust results regardless of whether they use one or the other.

2 By the definition of fundraising expenditures,⁶⁰ a nonprofit may include the costs associated with applying for government funding, the costs of reporting and complying with the conditions of the grants, and the like, as a fundraising expenditure leading the coefficient on the fundraising measure to have a positive bias in our estimation. We address this issue by looking separately at the components of fundraising costs,

⁵⁹ These data files are built from information from Form 990 that nonprofit organizations file annually with the U.S. IRS. Form 990 contains basic financial information, as well as location, founding date, lobbying expenses, and other variables.

⁶⁰ 'Fundraising expenditures' is defined as the total expenses incurred in soliciting contributions, gifts, and grants.

specifically professional fundraising fees, portion of officers' salaries allocated to fundraising, and the portion of overall salaries and wages allocated to fundraising.⁶¹

3 The nature of the data set does not allow us to determine whether government grants are tied to the charitable organization receiving a matching grant. Matching grants that vary over time and within firms will make fixed effects of little use, and the coefficients on the fundraising expenditures will have a positive bias. Organization fixed effects and year fixed effects would control for some type of phenomenon although the most effective method of solving for this problem would be through the 2SLS estimation.

4 These data cannot account for the actual number of U.S. nonprofits with international programs and the extent of the financial capacity and outputs provided by U.S. nonprofits in the international arena. This is because the dataset is comprised of organizations whose primary purpose falls into one of the international NTEE categories, and yet many organizations have mixed domestic and international purposes and programs. Separating program expenditures for domestic and international programs is not feasible using information from the NCCS/Guidestar National Nonprofit Database, so some organizations with significant international programs are not captured in the dataset. The anomalies in the data are addressed by following set rules to exclude organizations from the sample and include others that are not typically captured in the dataset. For the purposes of this study, we are concerned with studying organizations that exhibit positive

⁶¹ See Andreoni and Payne (2003).

fundraising expenditures and government funding during the sample period.⁶²

5 Problems associated with the IRS sample of nonprofit tax returns are addressed by counterchecking this data by scanning the websites and communicating with these organizations to reconcile them. Expected problems include: many zeros reported in the measures of interest, divergent accounting practices among organizations that raise concern about the comparability of the tax return, and dramatic variation of the types of organizations that are considered a 501 (c) (3) organization, even within the NTEE classification of the organization.

6 The only explicit measure of government funding is government grants to the organizations. Reimbursements to the non-profits for services provided under a government contract are imbedded in the non-profit's measure of program service revenue.

⁶² Organizations whose scope are national in purposes or are a national chapter of local organizations are excluded. We identify these organizations by searching for the word "national" or "America" in their websites and then reviewing their mission statements.

Descriptive Statistics

The descriptive statistics of the variables used in the study are presented below.

(Variable names are given in Table 10.)

Table 9: Descriptive Statistics for Key Variables

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
p1tcont	10792	3.65	27.73	0.00	723.19
gdp1	10792	34.39	0.86	32.67	35.57
regime	10792	0.55	0.50	0.00	1.00
Sep11	10792	0.37	0.48	0.00	1.00
pop65	10792	12.44	0.16	12.19	12.65
popn1	10792	284.14	5.04	275.85	290.81
dues	10792	0.02	0.19	0.00	5.68
ps_exp	10792	3.41	25.48	0.00	704.03
ps_rev	10792	0.27	2.34	0.00	76.95
f_exp	10792	0.17	1.81	0.00	63.28
g_grants	10792	0.75	8.66	0.00	332.04
p1secur	10792	0.03	0.97	-33.28	49.30
p1mexp	10792	0.26	1.22	-0.45	32.54
trpyts	10792	1125.39	136.26	946.53	1328.71

All variables are in millions of dollars, except transfer payments to all nonprofit organizations by the federal government and transfer payments to persons, which are in billions of dollars. The average private donations to INGOs are about \$3.65 million in the sample period, while fundraising expenditures have a mean of \$0.17 million. The government gives an average of \$0.75 million to these institutions for the sample period considered in our study. The organizations' program service revenues vary from a

minimum of \$0.00 to a maximum of \$76.95 million, although the average for all the institutions is \$0.27 million. The list of variables used in this study to measure the impact of government grants on private donations and fundraising expenditures is not exhaustive, and many other factors not included in the above list also may have an influence on private donations and fundraising activities of INGOs.

Table 10 shows a correlation matrix for the variables used in the regressions. There is no high correlation between the explanatory variables and private contributions except with program service revenues, fundraising expenses, government grants, and the organization's own capital. We observe a high correlation between fundraising expenses, program service expenses and the organization's own capital. In the case of government grants, we observe a high correlation with program service expenses and organization's own capital. This implies that most of the explanatory variables only explain part of the variation in the dependent variables of my equations. Due to high correlation among some of the explanatory variables, we excluded gross domestic product, regime, population above 65 years, and total payments to persons as exogenous variables from the final estimations. The estimation results are presented and discussed in the next chapter.

	plcont	gdp1	regime	Sep11	pop65	popn1	dues	ps_exp	price1	ps_rev	f_exp	g_grants	Lf_exp	plsecurn	plmexp	lg_grants	trpyts
plcont	1																
gdp1	0.007	1															
regime	0.004	0.602	1														
Sep11	0.004	0.775	0.658	1													
pop65	-0.001	0.253	0.152	-0.134	1												
popn1	0.006	0.906	0.870	0.866	0.186	1											
dues	0.035	-0.008	-0.008	-0.009	0.000	-0.009	1										
ps_exp	0.991	0.007	0.006	0.005	0.000	0.007	0.046	1									
price1	0.001	0.013	0.010	0.002	0.022	0.011	0.005	0.001	1								
ps_rev	0.018	-0.004	-0.003	-0.004	-0.003	-0.004	0.121	0.100	0.002	1							
f_exp	0.705	0.004	0.004	0.002	0.003	0.004	0.045	0.656	0.002	0.004	1						
g_grants	0.597	0.009	0.004	0.005	-0.002	0.007	0.020	0.583	0.001	0.022	0.457	1					
lf_exp	0.698	0.006	0.008	0.006	0.003	0.008	0.048	0.653	0.002	0.005	0.981	0.475	1				
plsecurn	0.018	-0.048	-0.058	-0.057	-0.007	-0.061	0.006	0.046	0.000	0.014	0.037	0.009	0.038	1			
plmexp	0.692	-0.001	0.001	-0.001	-0.001	0.000	0.187	0.672	0.002	0.228	0.720	0.659	0.726	0.066	1		
lg_grants	0.521	0.000	0.002	0.000	0.000	0.001	0.014	0.508	0.001	0.032	0.406	0.948	0.429	0.013	0.616	1	
trpyts	0.006	0.896	0.849	0.906	0.057	0.991	-0.009	0.007	0.009	-0.004	0.004	0.007	0.007	-0.061	0.000	0.001	1

Note:

plcont = Private contributions

price1 = Price of a dollar of donations

dues = Dues and assessments

f_exp = Fundraising expenses

g_grants = Government grants

plsecurn = INGOs own capital

trpyts = Total transfer payments to persons

ps_rxp = Program service expenses

ps_rev = Program service revenue

gdp = Gross Domestic Product

unemp = Unemployment rate

pop65 = Population above 65 years

plmexp = INGOs total assets

tr_ngo = Total federal transfer payments to INGOs

Table 10. Correlation Matrix

CHAPTER VI

EMPIRICAL RESULTS

This chapter presents and discusses the empirical results obtained from estimating Baltagi's (1984) error component two-stage least squares (EC2SLS) random effects (RE) and fixed effects (FE) estimation models. We report results from the EC2SLS RE estimation procedure and the fixed effects (FE) estimator models. We give a detailed discussion of the results based on the RE results, and report FE estimation results for comparison. All the variables are in millions of dollars except total transfer payments to individuals which are in billions. We simultaneously estimate the two sets of equations so as to be able to address the simultaneity problem. We present our results from EC2SLS RE and FE estimations in Table 11, and, for comparison purposes, we include results from a balanced data set in Appendix H.

Table 11: Dependent Variable – Private Contributions

Random Effects Estimates							
	INGO Sub-Categories						
Independent Variables	All INGOs	Ifans	Piu	Id	Ips	Ihr	IfansNEC
Fundraising Expenses	3.193 (0.176)**	-1.004 (0.192)**	4.108 (0.367)**	2.335 (0.099)**	4.998 (0.870)**	4.539 (0.614)**	-14.094 (2.910)**
Government Grants	-0.101 (0.038)**	0.428 (0.051)**	0.013 (0.034)	0.020 (0.021)	1.255 (0.209)**	-0.122 (0.082)	0.658 (0.078)**
Population	-0.003 (0.006)	0.009 (0.009)	-0.009 (0.007)	0.001 (0.007)	-0.006 (0.005)	-0.051 (0.045)	0.001 (0.001)*
Dues	-0.325 (0.422)	0.016 (0.635)	-0.717 (0.075)**	-6.910 (2.164)**	0.521 (0.496)	-3.892 (17.472)	15.436 (3.386)**
Program Service Expenses	0.949 (0.006)**	1.050 (0.004)**	1.007 (0.007)**	0.966 (0.005)**	0.411 (0.089)**	1.004 (0.020)**	0.970 (0.029)**
Price1	-0.000 (0.006)	0.001 (0.037)	0.000 (0.003)	-0.005 (0.023)	0.002 (0.013)	-0.020 (0.085)	0.231 (0.172)
Program Service Revenues	-0.939 (0.027)**	-1.170 (0.125)**	-0.904 (0.015)**	-0.867 (0.023)**	-0.385 (0.083)**	-4.160 (0.428)**	-1.365 (0.155)**
Observations (K)	10792	3702	2170	3601	821	498	2461
EIN (N)	2427	874	481	797	170	105	610
R-Square	0.9803	0.9789	0.9766	0.9908	0.6740	0.9841	0.5731
Fixed Effects Estimates							
	INGO Sub-Categories						
Independent variables	All INGOs	Ifans	Piu	Id	Ips	Ihr	IfansNEC
Fundraising Expenses	18.147 (2.831)**	20.650 (0.709)**	26.907 (450.149)	8.057 (5.407)	19.578 (19.053)	0.226 (0.171)*	-373.5475 (304.558)
Government Grants	-0.765 (0.213)**	-0.240 (0.134)+	-13.403 (114.971)	0.468 (0.452)	-1.196 (3.101)	- 4.883 (0.891)**	7.235 (5.542)
Population	-0.028 (0.021)	-0.037 (0.009)**	0.181 (1.582)	-0.006 (0.022)	-0.009 (0.012)	0.040 (0.149)	0.470 (0.401)
Dues	-2.332 (2.891)	-1.211 (1.170)	6.821 (79.964)	-7.500 (12.871)	8.001 (7.254)	- 6.436 (44.099)	104.534 (105.368)
Program Service Expenses	0.596 (0.071)**	1.044 (0.006)**	9.671 (75.237)	0.516 (0.379)	0.447 (0.265)+	0.683 (0.056)**	1.141 (0.606)+
Price1	-0.001 (0.019)	-0.044 (0.039)	0.001 (0.085)	-0.003 (0.044)	0.003 (0.019)	- 6.944 (0.539)**	1.632 (2.047)
Program Service Revenue	-1.204 (0.142)**	-1.207 (0.236)**	-5.834 (45.595)+	-0.516 (0.368)	-0.509 (0.286)+	0.074 (0.033)*	-6.880 (6.195)
Observations (K)	10792	3702	2170	3601	821	498	2461
EIN (N)	2427	874	481	797	170	105	610
R-Square	0.6792	0.8458	0.7325	0.8801	0.1938	0.9569	0.0000

Notes: Standard errors are in parenthesis. + Significant at 10%; * significant at 5%; ** significant at 1%. All models include year dummies.

The coefficients of interest on regressions in Table 11 are government grants, private contributions, and fundraising expenses. Overall, our results for RE regression for all INGOs as a group indicate that government grants crowd out private contributions. A \$1000 increase in government grants leads to a decrease in private contributions of approximately \$100. On the other hand, fundraising activities and program service expenses crowd in private contributions.

Table 12 shows that government grants crowd in fundraising expenses at about \$47 per \$1000 of government grants spent on these institutions.

Table12: Dependent Variable - Fundraising Expenses

Random Effects Estimates							
	INGO Sub-Categories						
Independent variables	All INGOs	Ifans	Piu	Id	Ips	Ihr	IfansNEC
Private Contributions	0.209 (0.013)**	-0.823 (0.316)**	0.015 (0.009)+	0.277 (0.032)**	0.135 (0.033)**	-0.066 (0.014)**	-0.006 (0.008)
Government Grants	0.047 (0.011)**	0.331 (0.228)	0.003 (0.004)	0.048 (0.026)+	-0.199 (0.057)**	-0.176 (0.025)**	0.015 (0.013)
Population	0.002 (0.002)	-0.004 (0.006)	0.001 (0.000)*	-0.002 (0.004)	0.001 (0.001)	0.003 (0.004)	0.001 (0.000)**
Dues	0.006 (0.080)	-0.002 (0.593)	-0.022 (0.018)	-1.604 (0.875)+	-0.198 (0.089)*	-1.009 (1.546)	0.493 (0.134)
Program Service Expenses	-0.197 (0.013)**	0.874 (0.334)**	-0.009 (0.010)	-0.251 (0.034)**	-0.039 (0.021)+	0.092 (0.017)**	0.008 (0.008)
Program Service Revenues	0.161 (0.015)**	-0.858 (0.347)*	0.016 (0.008)+	0.271 (0.036)**	0.037 (0.022)+	-0.434 (0.095)**	-0.026 (0.014)+
PIsecurn	0.136 (0.012)**	-0.719 (0.267)**	0.006 (0.003)*	0.074 (0.044)+	0.008 (0.006)	0.100 (0.075)	0.011 (0.024)
PIMexp	0.214 (0.040)**	-0.124 (0.324)	0.052 (0.010)**	-0.070 (0.060)	0.041 (0.030)	1.839 (0.173)**	0.012 (0.022)
Observations (K)	10792	3702	2170	3601	821	498	2461
EIN (N)	2427	874	481	797	170	105	610
R-Square	0.6007	0.0073	0.2764	0.6596	0.1634	0.7703	0.0377
Fixed Effects Estimates							
	INGO Sub-Categories						
Independent variables	All INGOs	Ifans	Piu	Id	Ips	Ihr	IfansNEC
Private Contributions	-1.464 (223.200)	-0.378 (2.422)	0.055 (1.220)	-0.417 (18.642)	-0.140 (1.870)	0.183 (4.423)	-0.062 (0.113)
Government Grants	0.299 (32.462)	0.097 (0.489)	--	0.208 (7.437)	--	-0.061 (3.167)	0.061 (0.079)
Population	0.001 (0.076)	-0.001 (0.018)	0.001 (0.003)	0.003 (0.082)	0.001 (0.001)	0.019 (0.047)	0.001 (0.001)+
Dues	--	-0.023 (0.610)	-0.190 (1.230)	--	-0.325 (0.896)	1.768 (45.478)	0.558 (0.631)
Program Service Expenses	1.473 (222.215)	0.403 (2.575)	-0.040 (1.060)	0.437 (17.685)	0.100 (1.132)	-0.124 (2.546)	0.048 (0.086)
Program Service Revenues	-1.262 (198.412)	-0.345 (2.296)	0.030 (0.618)	-0.265 (12.458)	-0.074 (0.911)	1.140 (26.935)	-0.053 (0.069)
PIsecurn	-0.948 (139.498)	-0.353 (2.004)	-0.005 (0.142)	-0.052 (2.461)	-0.010 (0.103)	-0.724 (11.452)	0.172 (0.329)
PIMexp	-0.547 (69.138)	--	0.044 (0.606)	-0.530 (16.034)	0.074 (0.620)	--	--
Observations (K)	10792	3702	2170	3601	821	498	2461
EIN (N)	2427	874	481	797	170	105	610
R-Square	0.3853	0.0098	0.1887	0.1067	0.2949	0.1267	0.0133

Overall, our results show a crowd-in effect of government grants on fundraising expenditures and a crowd-out effect of government grants on private contributions. These contradict conclusions by Andreoni and Payne (2003), who argue that government grants crowd out fundraising efforts rather than private contributions, that this effect is large, and that it may explain the crowd-out observed in the literature. We infer from our results that fundraisers of these organizations do not reduce their fundraising efforts in the presence of government grants. By reducing their contributions when INGOs receive government grants, we conclude that donors possibly do not regard government grant recipients as especially meritorious or efficient. This agrees with positions taken by classical economists (Bergstrom, Blume, and Varian 1986; Bernheim 1986; Roberts 1984, 1987; Warr 1982; 1983), who concluded from theoretical analysis that voluntary contributions to nonprofits may be completely crowded out by government contributions to nonprofits. On the other hand, matching requirements accompanying grants seem not to reduce the effective price of giving in the eyes of private contributors and may be a reason for the crowd out of private contributors by government grants noted in our estimates.⁶³

Comparing our results with the literature on crowd out theory, we note that our results are differ from those of Okten and Weisbrod (2000). They concluded that government grants generally do not crowd out private donations and that there are significant positive effects of the grants on private donations. Ribar and Wilhelm (2002) also arrive at similar conclusions, using a panel of 125 international relief and development organizations in the United States. They find that private donations at most

⁶³ Rose-Ackerman (1987) shows that even non-matching grants with no strings attached may free a manager of a nonprofit from compromising his/her ideology to satisfy a major donor resulting into similar effect.

decrease by 13 cents for every dollar increase in government funding.

We note that fundraising expenses crowd in private contributions in Table 11 for the RE model. We can conclude therefore that our results are an indication that private donors to INGOs recognize that high levels of fundraising may translate into higher donations from others or that the donors are indifferent to fundraising expenses. A \$1 increase in fundraising expenses leads approximately to a \$31 and \$18 increase in private contributions in the RE and FE models, respectively. These results suggest that the more INGOs spend on fundraising, the more people donate to them. We differ with conclusions by Andreoni and Payne (2003) in our analysis. They argue that the incomplete crowding-out observed in most empirical and experimental literature is due to a change in the behavior of the organizations rather than a negative change in the behavior of private donors.

Program service revenue is negatively correlated with private donations and significant in both the RE and FE model. A \$10 increase in program service revenue leads to approximately \$9 and \$12 decrease in private contributions in the RE and FE models respectively. This indicates that increases in the program service revenue may be diminishing donations as the marginal utility of output falls. Our results also suggest that increases in program service revenue do not stimulate donations in so far as donors wish to reward an INGO's self-help and disregarding it as a source of information about management's motivation to pursue its social mission. In contrast, we see a positive correlation between program service expenses and private donations, with a \$100 increase in program service expenses leading to approximately a \$94 and \$57 increase in private contributions in the RE and FE models, respectively.

Our conclusions agree with Kingma, (1995), who studies Red Cross commercial activities and found that profits generated from program service activities crowd out donations. (Khanna, Posnett, and Sandler 1995) and Khanna and Sandler (1997) also find some evidence of positive effects of program service revenue on private donations. Okten and Weisbrod (2000), on the other hand, find no evidence that private donations are affected negatively by “autonomous income”.

The effect of the price of giving is economically very small and insignificant, although it has the expected negative sign on both models.

The most important conclusion we draw here is that government grants crowd out private donations of INGOs as a group. This is in line with the predominant prevailing evidence in the crowd-out theory for most national charities, which suggests that the relationship between government grants and private donations should be negative.⁶⁴ We deduce from our results that government grants do not signify an INGO’s worthiness for support by U.S. citizens. Our results are the opposite of much research (Khanna and Sandler 2000; Payne 2001), which concentrates on local American based nonprofits and which also uses a 2SLS specification to control for possible endogeneity of government grants. Other studies that disagree with our conclusions on crowding-in results include (Connolly 1997; Eckel, Grossman, and Johnston 2005; Hughes and Luksetich 1999; Schiff 1985). This research further agrees with the findings of Horne et al. (2005), who conclude that the assumption that individuals possess knowledge of government funding levels and act on that knowledge is not true and has very little support among private donors. Based on our results, we conclude that most private donors to INGOs generally

⁶⁴ Government grants are supposed to crowd out private donations. My results indicate that there is crowding-in rather than crowding-out.

do not view government grants to these institutions as a signal that the institutions are “okay to donate to” although they might not have the means to find out for themselves among the various INGOs soliciting for their contributions.

Overall, our estimation results suggest that altruism toward others may not be a major motivator for giving in the U.S. If this were the case, we would expect to see the free-riding theory predominating, with donations made to maximize a utility function that includes the benefits to others or to the global society in general. Since we do not see this, we assume either that people may be getting utility (“warm-glow”) from the act of giving to INGOs or that the economic discipline of self-interested behavior is not suited to explain philanthropy to these organizations. We can infer that private donors to INGOs in the U.S. experience some form of direct private utility from the act of giving in addition to caring about the total supply of charity. Our research can be used to point out the inability of the U.S. government to influence foreign policy through an increase in the supply of foreign aid internationally through these organizations. INGOs as a group walk a thin line in depending on both private contributions and government grants so as to widen their resource base. The cost attributed to taxation seems not to be outweighed by the benefits of increased revenue to these institutions suggested with our results. We can conclude that there are fewer unique benefits that a private contributor to an INGO experience apart from the organization’s output. The strategic behavior of these organizations may also not account for the crowding-out observed in the literature.⁶⁵

The crowding-out literature states that the magnitude of crowding-out indicates the government’s ability to effectuate an increase in the supply of a public good. We

⁶⁵ The benefits of giving to INGOs can be characterized as consisting of both private and public characteristics.

conclude that the government will not be encouraged to work more directly with these organizations when disbursing aid to countries outside its boundaries as grants to these institutions do negatively impact private donations, which comprise seventy percent of total revenues. Since aid to countries outside the U.S. is financed by tax dollars, we deduce that it is not Pareto improving for the country to rely partly on INGOs in the provision of public services worldwide through the disbursement of aid. Since the U.S. tax code subsidizes charitable giving, and the optimal subsidy rate on a charitable good depends positively on the magnitude of crowding-out (Andreoni 1990; Saez 2003), we conclude further that the optimal subsidy rate on charitable giving will be higher because of the crowd out from our regression. Since individuals seem to treat their own and government donations as perfect substitutes, the government will be less effective at increasing the supply of INGO services outside the boundaries of the U.S.A.

Kerlin and Thanasombat (2006) conclude that despite low levels of administrative and fundraising expenses, the INGO sub sector operates on a slim cash margin with revenues just outpacing expenses.⁶⁶ These institutions need to be looking for other sources of revenue. Our negative relationship between government grants and private contributions imply that the sub sector need not actively pursue government grants to shore up their revenues.⁶⁷ As a source of revenue, government grants offer extra revenue to INGOs, helping to alleviate their bare-bones operations, which normally end in program cuts if the organizations fall on serious financial difficulties. Since private donations are the single most significant source of INGOs' revenue (accounts for 70

⁶⁶ Revenues and expenses were \$17.7 billion and 17.2 billion respectively in 2003.

⁶⁷ It is possible that INGOs may keep their administrative and fundraising costs low to attract private contributions (Hager, Pollack, and Wing (2004).

percent of total revenue in the sector), it does not augus well that government grants⁶⁸ crowd out private contributions to INGOs. These institutions may jeopardize their main source of revenue when they receive government funding.⁶⁹

We conclude by stating that our research does not conclusively exhaust all INGOs in the U.S. as less than ten percent show that they receive government grants. As explained earlier, due to certain restrictions, some categories of INGOs are excluded from our data. It is also very difficult to answer the question of whether or not government funding preferences and program requirements are shaping the work of INGOs based on our regression results.

Analysis of Sub-categories of the INGO Sub-sector

When we subdivide the INGO sector into sub-categories, we note that there is a lot of variability among the sub categories. Since the model of crowd out depends on either government grants or private contributions being able to respond to the level of giving from each other, there may be an effect of timing that is not captured entirely in our sub categories. This might be one possible explanation for the variability. It is also possible that the effect of crowd out as well as the other control variables and instruments apply only to a subset of the INGOs hence the variance occurring across the sub categories.

⁶⁸ Government grants account for approximately 20 percent of the sector's revenue.

⁶⁹ The Hudson-Institute (2006) estimates that private giving is on average three and half times that of U.S. official government grants to INGOs.

The international foreign affairs and national security (ifans) sub-category makes up 11 percent of INGOs and accounts for less than 5 percent of the sector's revenue. Our results from this sub-category are opposite to the results for all INGOs in the case of government grants' effect on private contributions; the results are similar for government grants' effect on fundraising expenses. Our fundraising expenses coefficient is significant for both the RE and the FE models, but the sign changes from negative on the RE model to positive on the FE model. This might possibly be caused by a great deal of skewness in the data for this sub-category (i.e. the effects of outlier organizations may swamp the effects of the majority). This problem possibly explain why the fundraising expenses coefficient (which is a main regressor) is significant in the RE model but its effect is in the unexpected direction. Our instruments may also be of low relevance, with the consequences of imprecise and potentially misleading parameter estimates. Our results agree with those of Duncan (1999) who finds a crowd-in effect, but do not agree with those of Ribar and Wilhelm (2002) who find a crowd-out of 13 cents for every dollar increase in government funding. It is clear that fundraising activities significantly crowd in private donations in the FE model but crowd out private contributions in the RE model. Our FE results support the views of (Driessen 1984; Straub 2004), who concluded that the "behavior of nonprofits" should be taken into account in the crowd-out theory.

Since the category receives most of its revenue from private contributions (74 percent) and less than 8 percent from government grants, these INGOs should accept government grants, as grants crowd in private contributions. On the other hand, they need to tone down their fund-raising activities⁷⁰ to increase private donations in light of the fact that 47 percent of them have negative operating margins and few assets to fall back

⁷⁰ Fundraising activities crowd in private donations.

on.

The International Understanding (piu) category of INGOs makes up between 15-17 percent of INGOs and 6-8 percent of the sector's revenue. Funds from this category come mostly from program service revenue which has a negative relationship with private contributions in both models. Government grants, fundraising expenses, and price of donations change sign from the RE to the FE model. This is possibly due to outliers in our data set and gaps in the six-year sample period. We note that program service revenue diminishes private donations. This indicates that the marginal utility of output falls with the INGO's own revenue-generating sales activities.

With 44 percent of these organizations having negative operating margins, there is a need for an increase in fundraising activities (especially since this category has the lowest fundraising expenses) to increase private contributions⁷¹ and enhance its financial health. This observation is based on the FE model, which shows a positive relationship between fundraising expenses and private contributions.

The International Development (id) category has similar problems like the piu category, and hence the sub-category also faces similar problems that we have discussed above. The literature indicates that most of these organizations struggle financially with little operating cash from year to year, with 39 percent of them having a negative operating margin.⁷² Low asset levels provide little cushion during economic downturns, prompting these INGOs to explore and exploit other sources of revenue, especially

⁷¹ Private contributions account for 29 percent of this sector's revenue.

⁷² This category makes up 74 percent of organizations and 8 percent of the INGO sector's revenue. Private contributions account for over 70 percent of the revenue while government grants account for an average of 20 percent of the category's revenue.

government grants for sustenance.⁷³ Based on our results, an increase in fundraising, which has a positive relationship with private contributions in the RE model, would increase private donations and hence should be adopted.

International Peace and Security (ips) and International Human Rights (ihr) categories make up less than 2 percent of INGOs and account for less than 4 percent of the sector's revenue. The government grants coefficient is insignificant in the ihr model but significant in the ips model and it also changes signs from the RE to the FE models in both the private contributions and government grants coefficients. This might be a sign of outliers and gaps occurring in both sub-categories.

International Foreign Affairs and National Security N.E.C. category is related to the ifans category, but its major purpose is unclear. These organizations show that government grants crowd in private contributions in both the RE and FE models. The sub-category has similar results as the ifans category, and the analogy is also similar.

Future research on the above categories should focus on the proportion of revenue from government grants⁷⁴ among the many sub-categories delivering specific types of assistance in order to grasp fully the effect of government grants on private contributions in the major categories.

⁷³ Regression 1 suggests that government grants crowd in private contributions. This shows that government grants should be pursued by these INGOs as an alternate source of revenue so as to alleviate their precarious financial positions.

⁷⁴ Government grants vary considerably among sub-categories.

CHAPTER VII

CONCLUSION

The effect of crowding out of private donations by government contributions, proposed by Warr (1982) and Roberts (1984), and extended by various authors, has had numerous empirical investigations. Some studies have found significant evidence of partial crowd-out (Kingma 1989, Payne 1998). Others have found some evidence of crowding in of private donations (Khanna and Sandler 2000, Payne 2001). Most of these papers use relatively small sample of charities, and test for crowding out only in one direction.

We extend the crowd-out literature to INGOs and seek to simultaneously investigate how government grants, private contributions, and fundraising expenses of INGOs in six sub-categories affect each other. Using a U.S. panel data set of IRS Form 990 returns for the period 1998-2003, we find that fund raising expenses have a positive effect on private donations. Government grants have a negative effect on fundraising expenditures and a positive effect on private donations to INGOs. We infer from this that an increase in INGOs receipt of government grants may provide favorable information to potential donors about the reputation or the trustworthiness of an INGO.

Overall for all organizations, our results show evidence that government grants have a negative impact on private contributions to INGOs, although the size of the crowd-out is definitely sensitive to both the construction of the panel and estimating technique. It is also clear that government grants have a negative impact on fundraising expenditures of these institutions. Our findings of crowd out do not contradict other authors (Dokko 2005; Kingma 1989), who find a significant crowding-out effect of government grants on private contributions.

Under conditions of crowd-out, INGOs must examine the negative effects of government grants and might be wiser not to pursue government funding, especially in cases where their objectives and/or policies are not in alignment with those of the government policies. Under conditions of minor crowd-in or zero crowd-out, INGOs would be well served to vigorously pursue government grants for the efficient distribution of public goods and/or services abroad, especially when government policy interests and objectives align to those of the specific categories. Under conditions of crowding-in, these organizations can take advantage of increased government contracting to them, especially in light of the fact that direct government-to-government foreign assistance has been deemed a failure Forman and Stoddard (1996). Our results of government grants crowding in private contributions to INGO sub-categories suggest an opportunity for these institutions to diversify their resource base by accepting government grants, helping them alleviate their precarious financial positions.

The fact that we find little evidence for a negative relationship between government grants and private contributions lends support to the prestige theory and warm-glow theory of charitable giving (Glazer and Konrad 1996; Harbaugh 1998a), although this is not to imply that other motives for giving, such as altruism are not important. Our results refute the explanations given by the rational ignorance of citizens' theory Downs (1957) and the fiscal illusion theory that assumes that government officials can mislead citizens on the taxation and spending activities of government. Contrary to assumptions made by Congleton (2001), that citizens are rationally ignorant because the time cost of citizens learning about the taxing and spending activities of government is too great, our results point out what appears to be a positive relationship between government grants and private donations. If people are rationally ignorant about the size and activities of government, regardless of whether government officials attempt

to hide their activities, we would expect there to be no statistical relationship between government grants and charitable contributions.

Generally we conclude that crowd-out effect can be explained away by the fundraising activities of INGOs in the presence of government grants. As we find no evidence of a one-to-one crowd-out of government grants and private contributions, we conclude that the early models in the crowd-out theory literature do not apply to INGOs. These models predicted dollar-for-dollar crowd-out with suggestions that the models of “impure altruism” (which predict less than dollar-for-dollar crowd-out) are a more appropriate fit in the study of crowd-out theory. Our results seem to suggest new empirical evidence that government grants reduce fundraising activities rather than crowding out private contributions to INGOs.

Finally, our results provide a rationale for coming up with policies to counteract the impact of government grants in crowding out fundraising activities such as matching grants (here a recipient of a government grant might be required to show increased fundraising revenue to qualify for additional funds). Our study shows how government grants affect fundraising efforts and this forms a basis for coming up with better policies toward international nonprofits and to offer a deeper understanding of the costs and consequences of fundraising activities which might be a valuable source of information to scholars and policy makers.

Policy Implications

Our hypothesis that government grants crowd in private donations can be broadly accepted, based on results obtained in most of our regressions. Our results show that even where government grants have a negative effect on private donations, the effect is small with the net

effect of government grants being clearly positive for almost all the sub-categories and for the INGO sub-sector.

Understanding the relationships among the suppliers and demanders of charity is essential for calculating the social costs and benefits of INGOs, especially with the current trend of donor governments increasingly channeling aid to developing countries through private organizations like INGOs. We also know that these institutions are increasingly becoming sophisticated at raising money and delivering needed services, and hence they form a more reliable conduit of foreign aid from the government.

The government might choose an optimal level of provision of a public good through aid to INGOs and adjust its funding to reach that level. Without accounting for the response of private donors, there is likelihood that funding will fall short of the optimal level due to crowding-out.

The failure of government-to-government aid as noted in the literature and the efficient way the media has highlighted the plight of people far away from the United States, justifies more funding (public and private) to flow towards international nonprofits to try and rectify some of these problems. It is crucial to understand how each type of funding affects the other type if one aims to attain efficiency in making an impact on world problems. Our dissertation is a first step in the right direction.

Future Research

Our dataset faces the same weakness faced by most empirical studies of donations, as we focus on the crowding-out effect using data on donations aggregated at the national level, thus

yielding only indirect evidence on individual preferences (Khanna and Sandler 2000; Posnett and Sandler 1989; Weisbrod and Domiguez 1986). Future research should factor in the underlying motives of donations by analyzing the correlation between donations and consumption to fully understand the motives for donations. This will more precisely measure the crowding-out of private donations by government grants. This is important not only for charities designing fundraising campaigns, but also for policy makers who decide on public subsidies to charity donors or who make policy concerning the tax treatment of donations. This entails having data on donations at an individual level with the focus mainly being on the underlying motives of donation by analyzing the correlation between donations and consumption.

Our results clearly show that all the sub-categories and the INGO sector respond in a similar manner to government grants. Future research should focus first on asymmetric information between private givers and charitable organizations about the quality of the charity, especially since private donors might see government grants as a signal that the organization is serious, causing an increase in private donations to that specific organization. First, reputational effects for certain types of charities, especially in terms of their age should be considered. Second, the restrictions facing different categories of INGOs in accepting government grants might differ, so future research with better data could contribute greatly to our understanding of the organizations' behavioral response to government grants.

Using data in future research that can distinguish between matching and non-matching grants can also help explain differences in how government grants affect fundraising behavior to different categories of INGOs. Our data, unfortunately, do not differentiate the extent of matching grants with government grants given to these organizations. Matching grants force these institutions to raise funds from private sources to qualify for the government grants, and

this might reduce the negative impact that government grants have on fundraising expenditures, enhancing crowding-in of private donations. The issue of matching grants also might explain why different categories of INGOs react differently to government grants.

Aggregating INGOs further to individual subcategories instead of to 6 major subcategories might further be able to effectively compare how government grants affect private contributions to these institutions. Due to lack of enough data for my data set, we could only manage to aggregate INGOs into 6 major categories resulting in getting an average crowding-out and/or -in effect of the individual INGOs lumped together in a category.

Appendix A

Table A1: Overview of the International Nonprofit sub-sector

Number of Organizations in Major Groupings per Year						
International Understanding	1998	1999	2000	2001	2002	2003
General	72	85	86	92	98	111
International Cultural Exchange	175	192	207	198	199	196
International Academic Exchange	145	154	156	150	137	146
Other International Exchange	59	59	60	57	53	50
Internat. Understand. Subtotal	451	490	409	497	487	503
International Development						
International Development	1998	1999	2000	2001	2002	2003
General	335	368	376	396	395	448
Agricultural Development	24	30	25	24	25	26
Economic Development	30	32	26	30	30	32
International Relief	187	229	226	239	269	317
Human Rights, Migration and Refugees	82	82	85	91	97	97
Internat. Development Subtotal	658	741	738	780	816	920
International Affairs						
International Affairs	1998	1999	2000	2001	2002	2003
General	66	77	78	74	81	82
Peace and Arms control	44	43	42	40	41	41
International Affairs Education	15	16	20	18	18	18
National Security	16	19	18	20	21	19
Internat. Affairs Subtotal	141	155	158	152	161	160
Total International Nonprofits	1250	1386	1305	1429	1464	1583

Source: Kerlin and Reid (2004).

Table A2: Number of INGOs with Registration Rule Dates in Specified Time Periods

	No Rule date	Before 1940	1940-59	1960-1979	1980-1999	2000-2001
International Understanding	72	5	31	126	511	53
International Development and Assistance	298	7	86	336	2145	425
International Affairs, Foreign Policy and Security	45	4	25	92	336	32
International Sub-sector Total	415	16	142	554	2992	510

Source: Adopted from Reid and Kerlin (2004).

Table A3: Sources of Revenue by Percentage of Total Revenue (3 Sectors and Sub-sectors)

Years	Sector	Sub-sector	N	Percentages			
				Private Contributions	Government Grants	Program Services	Other Revenue
		General	372	66	25	4	
		Agriculture	32	22	40	31	
		Economic	88	28	41	7	
		International Relief	413	90	7	1	
		Educational	180	58	17	12	
		Health	274	71	15	11	
		Science & Technology	19	48	24	14	
		Democracy & Civil Society	42	38	46	10	
		Environment, Population, Sustainability	95	60	14	12	
		Human Rights, Migration, Refugees	92	77	13	5	
	All International Development & Asst. Organizations	1607	71	16	6		
		General	175	41	19	17	
		International Cultural Exchange	37	44	9	16	
		International Academic & Student Exchange	132	39	10	42	
		International Exchanges N.E.C.	84	16	6	65	
		All International Understanding Organizations	428	45	12	38	
		General	182	50	7	9	
		Peace & Arms Control	48	77	0	16	
		International Affairs Education					
		National Security	19	30	2	50	
		International Economic & Trade Policy	38	49	35	8	
		All International Affairs	308	70	5	10	
	All International Org.	2343	69	15	9		
		General	435	67	24	5	
		Agriculture	33	19	38	31	
		Economic	95	42	37	10	
		International Relief	526	89	8	1	
		Educational	205	55	19	12	
		Health	316	68	16	11	
		Science & Technology	20	44	30	10	
		Democracy & Civil Society	43	23	64	8	
		Environment, Population, Sustainability	110	57	15	12	
		Human Rights, Migration, Refugees	104	69	18	4	
	All International Development & Asst. Organizations	1656	71	17	6		

		General	179	42	22	18	
		International Cultural Exchange	38	51	10	17	
		International Academic & Student Exchange	128	43	10	39	
		International Exchanges N.E.C.	82	19	8	63	
		All International Understanding Organizations	427	39	13	36	
		General	187	57	6	9	
		Peace & Arms Control	50	83	7	17	
		International Affairs Education					
		National Security	19	28	2	51	
		International Economic & Trade Policy	39	49	23	13	
		All International Affairs	317	73	3	10	
	All International Org.		2400	68	15	8	
		General	534	67	24	4	5
		Agriculture	51	21	43	31	5
		Economic	145	34	41	13	12
		International Relief	754	88	10	1	1
		Educational	281	53	24	12	11
		Health	440	73	14	11	2
		Science & Technology	34	61	12	13	14
		Democracy & Civil Society	65	38	52	6	4
		Environment, Population, Sustainability	149	59	17	15	9
		Human Rights, Migration, Refugees	147	61	26	3	10
		All International Development & Asst. Organizations	2600	72	17	6	5
		General	240	56	16	18	10
		International Cultural Exchange	67	67	11	19	3
		International Academic & Student Exchange	201	12	35	45	7
		International Exchanges N.E.C.	118	31	11	53	5
		All International Understanding Organizations	626	33	24	35	9
		General	140	66	12	6	16
		Peace & Arms Control	130	70	16	7	7
		International Affairs Education	69	81	2	10	7
		National Security	30	36	3	37	24
		International Economic & Trade Policy	58	39	18	31	12
		All International Affairs	427	71	7	11	11
	All International Org.		3653	67	18	9	5
		General	585	69	24	4	3
		Agriculture	51	20	41	37	3
		Economic	149	37	43	14	6
		International Relief	812	88	10	1	1
		Educational	319	58	25	12	6

		Health	487	69	18	11	2
		Science & Technology	36	72	14	8	7
		Democracy & Civil Society	72	24	59	14	3
		Environment, Population, Sustainability	157	65	14	19	3
		Human Rights, Migration, Refugees	162	65	27	3	5
		All International Development & Asst. Organizations	2830	73	18	7	2
		General	246	44	25	25	6
		International Cultural Exchange	80	71	11	21	4
		International Academic & Student Exchange	205	12	37	44	7
		International Exchanges N.E.C.	205	12	37	44	7
		All International Understanding Organizations	655	26	29	39	6
		General	148	67	12	6	16
		Peace & Arms Control	138	68	15	12	5
		International Affairs Education	72	78	6	10	6
		National Security	30	33	2	51	15
		International Economic & Trade Policy	61	41	20	31	9
		All International Affairs	449	70	9	12	9
	All International Org.		3934	69	18	10	3
		General	636	69	25	5	1
		Agriculture	56	16	39	42	4
		Economic	173	29	39	19	14
		International Relief	854	85	13	1	1
		Educational	351	51	30	12	7
		Health	528	70	20	8	3
		Science & Technology	39	64	10	23	4
		Democracy & Civil Society	79	31	54	12	4
		Environment, Population, Sustainability	174	56	21	21	3
		Human Rights, Migration, Refugees	171	71	24	1	3
		All International Development & Asst. Organizations	3061	71	20	6	2
		General	246	45	23	26	7
		International Cultural Exchange	84	72	8	12	12
		International Academic & Student Exchange	210	17	32	48	4
		International Exchanges N.E.C.	126	26	13	57	4
		All International Understanding Organizations	666	29	25	41	5
		General	144	76	12	7	6
		Peace & Arms Control	156	65	17	14	5
		International Affairs Education	76	83	3	9	5
		National Security	31	37	2	48	13
		International Economic & Trade Policy	65	37	23	29	10
		All International Affairs	472	74	8	13	6
	All International Org.		4199	69	20	9	3

Source: Kerlin and Reid (2000, 2003, and 2005); National Center for Charitable Organization/Guidestar National Nonprofit Database.

Table A4: Sample Description of INGOs

NGO-Network	Turnover or Related Monetary Figure in U.S. \$	Operating in Number of Countries	Other Size Indicators, information
CARE (USA)	From 2002 annual report: Revenues \$428 million; Program Expenses \$392 million	Over 60 countries	CARE U.S. is one of 11 member organizations with about 10,000 staff members
International Cooperation for Development and Solidarity	\$951 million combined (Clark 2003)	Four continents: Latin America, Africa, Asia-Pacific, and Southeast Asia	Association of 14 catholic development and relief NGOs
International Federation of Red Cross and Red Crescent Societies	From 2000 annual report: Income \$335 million; Expenditure \$337 million	178	115 million Volunteers
Medecins sans Frontieres	\$304 million (Clark 2003)	80	Volunteer centers in 18 countries with thousands of members
Oxfam International	From 2001 Annual Report: \$349 million in revenues, \$303 in expenditure	117	In 2000, worked with 3000 local organizations in over 100 countries; in 2000 their "face-to-Face" campaign recruited 70,000 volunteers in 5 countries
Plan International	From 2001 annual report: \$303 million in revenue; and \$301 in expenditures	45	6,700 staff members; supports 1.3 million children in 45 countries; Over 930,000 sponsors or members, 60,000 volunteers.
Save the Children (USA)	From 2002 annual report: \$202 million in revenue and support; with about \$200 million in expenditure	45	85,000 sponsors in 2002 supporting more than 500,000 children
World Vision	From 2002 annual report: raised \$732 in contributions, total of \$1.032 billion if non-monetary contributions included; expenditures \$1.032 billion for Programs and also non-monetary aid	96	18,000 staff members in 2002
World Wildlife Fund (USA)	\$350 million (Clark 2003)	50	5 million members worldwide.

Source: (Anheir 2005; Clark 2003), based on Annual Reports from agencies listed above

Table A5: U.S. International Nonprofit Sub-sector Coding and Definitions

Sector	Sub-sector	Code	Total Number	Definition/Primary Purpose	Examples
		Q		Private nonprofit organizations whose primary purpose is to provide services or other forms of support to increase mutual understanding across countries, encourage social, economic or political development outside of the U.S., and/or impact national, multilateral or international policies on international issues.	
	Alliances & Advocacy	Q01	65	Organizations whose primary purpose is influencing public policy within the International, Foreign Affairs, and National Security major group area. Includes groups employing activities designed to influence government and international institutional policy, such as, public education and influencing public opinion, public mobilizations, and lobbying.	Religious Zionists of America
	Management & Technical Assistance	Q02	78	Organizations whose primary purpose is consultation, training, and other forms of management and administrative support services to nonprofit groups within the International, Foreign Affairs, and National Security major group area.	
	Professional Societies & Associations	Q03	93	Learned societies, professional councils, and other organizations that bring together individuals or organizations with a common professional or vocational interest within the International, Foreign Affairs, and National Security major group area.	Doctors for Global Health
	Research Institutes & Public Policy Analysis	Q05	432	Organizations whose primary purpose is to conduct research and/or public policy analysis within the International, Foreign Affairs, and National Security major group area.	
	Single Organization Support	Q11	200	Organizations existing as a fund-raising entity for a single institution within the International, Foreign Affairs & National Security major group area.	United Israel Appeal
	Support N.E.C.	Q19	328	Organizations that provide all forms of support except for financial assistance or fund raising for other organizations within the International, Foreign Affairs and National Security major group area.	
Promotion of International Understanding		Q20	544	Organizations whose primary purpose is to promote international understanding through activities, such as events, forums, trainings, and exchanges, which enable people to develop an appreciation for other societies, their traditions and culture. Use this code for organizations that provide a wide variety of organizations relating to the promotion of international understanding or which offer specific programs not specified below.	Sister Cities
	International Cultural Exchange	Q21	1167	Organizations whose primary purpose is to provide international cultural educational experiences abroad and/or sponsor international cultural events (e.g., touring performing arts troupes) that are designed to increase understanding of other societies through the arts and humanities." Also use this code for financial support for museums and other cultural institutions	Japan America Societies

				outside of the United States.	
	International Academic Exchange	Q22	888	Organizations that provide opportunities for high school students from foreign countries to live with an approved family in the United States and attend an American high school for one semester or one year in exchange for American students living and attending school in their country during the same period of time.	Rotary Youth Exchanges
	International Exchange N.E.C.	Q23	338	Organizations whose primary purpose is to provide international living experiences for individuals and families by arranging job exchanges, residence exchanges and other similar opportunities.	
International Development		Q30	2319	Organizations whose primary purpose is to provide technical assistance training and material resources to support the capacity-building efforts of nations outside the U. S. with a focus on agricultural and rural development, health, education, social welfare, small business development and industrial growth. Use this code for organizations that provide a wide range of international development and/or relief services or those not specified below.	Care Int. Book Proj; Peruvian Foundation for Educ. & Health
	International Agricultural Development	Q31	154	Organizations that provide information, technical assistance and support to developing countries regarding the planting, nurturing, protection and utilization of agricultural products with the objective of increasing the productivity of their cultivated land and improving their food supply.	Agric Services Inter. & Inter. Fertilizer Dev. Center
	International Economic Development	Q32	180	Organizations that provide technical assistance and training, loans and loan guarantees and other forms of support to stimulate the economy, expand employment opportunities, encourage the establishment and growth of commerce and industry and otherwise enhance the economic development of countries outside the United States.	
	International Relief	Q33	1467	Organizations that work to relieve poverty in developing countries by providing funds, technical assistance and supplies which improve the health, education, welfare, social well-being and self-reliance of individuals and families. Also included are organizations that provide relief services in response to a major disaster or large-scale emergency that occurs abroad.	Care Inter. & Hunger, Relief and Dev., Inc
International Peace & Security		Q40	458	Organizations that promote harmony and understanding among nations either globally or in a particular region of the world and/or engage in activities that promotes peaceful ways of managing and settling international conflicts.	
	Arms Control & Peace	Q41	251	Organizations that promote control of nuclear, biological, chemical and conventional weapons development and proliferation.	Physicians for Social Resp.
	United Nations Associations	Q42	105	Organizations whose activities relate specifically to the United Nations.	

	National Security	Q43	114	Organizations that conduct studies on major national security topics including the U.S. armed forces, weapons decisions, deployment policies and the security aspects of U.S. foreign relations; monitor legislation on national security issues; advocate for specific defense policies and expenditures; and engage in other activities related to the security of the United States.	National Security
International Human Rights		Q70	358	Organizations that work to protect individuals around the world from denial of civil rights and liberties or other arbitrary governmental interference, harassment, or abuse due to their political or religious beliefs.	
	International Migration & Refugee Issues	Q71	176	Organizations that monitor and inform the public about the world refugee situation; review refugee-related legislation; and advocate for specific policies relating to the plight of refugees in other countries. Also included are organizations that raise money to enable refugees to leave their own countries and migrate to foreign countries of their choice; or provide aid to refugees who have left their country of origin and are residing in another country outside the United States.	
International, Foreign Affairs & National Security N.E.C.		Q99	2839	Use this code for organizations that clearly provide services related to international affairs where the major purpose is unclear enough that a more specific code cannot be accurately assigned.	

Source: Adopted from Kerlin and Reid (2003) and National Center for Charitable Statistics/Guidestar National Nonprofit Database.

APPENDIX B

Table B1: Summary of Previous Empirical Studies and Findings

Author, Objective	Data and Methodology	Model	Findings
Smith, T.M. (2007) The paper tests the crowding-out hypothesis for a balanced panel of nonprofit performing arts organizations	Data: A balanced panel of nonprofit performing arts organizations from the unified database of Arts Organizations (1998-2003). NCCS-digitized data (1998-2003).	$D_{it} = \alpha_1 + \beta_1 Price_{it} + \beta_2 Govt_{it} + \beta_3 Fund_{it} + b_4 PSR_{IT} + X_{it\phi} + \varepsilon_{it}$ <p>Where :</p> <p><i>D</i> = Private donations</p> <p><i>Price</i> = Efficiency of a company in using donated funds</p> <p><i>Govt</i> = Government grants</p> <p><i>Fund</i> = Fundraising expenditures for the</p> <p><i>PSR</i> = Program Service Revenue</p> <p><i>X</i> = Vector of other relevant covariates</p> <p>ε = Random Disturbance</p>	Under alternative specifications, the relationship between government grants and private donations suggests crowding-in between \$0.14 and \$1.15 and changes according to art type. There is a lack of evidence of crowd-out for nonprofit performing arts organizations as a group.
Kingma, B (1989) Examines the relationship between public and private funding with respect to nonprofit "public" radio			Public funding has a significant crowding-out effect on private donations in the range of \$0.14 (i.e., estimated crowd-out is merely 13.5%) for public broadcasting.
Brooks A. (2000b)			Finds a positive crowding-in between public funding and private funding to Symphony orchestras in the amount of approximately \$2.50. Larger grants crowd-out private contributions though.
Smith T.M. (2003) Looks specifically at the impact of National Endowment for the Arts funding to			Finds a modest crowding-in effect of approximately \$3.0.

nonprofit dance companies			
Brooks, A. (2003)			Finds a positive and non-linear relationship between public and private funding in public radio.
Andreoni J. and Payne A. (2003) They examine the relationship between government giving and fundraising for a panel of performing arts organizations	NCCS data on nonprofit revenues and expenses for fiscal years 1982 to 1998 (excluding 1984)	$F_{ist} = \alpha_i + \gamma_t + \beta G_{ist} + O_{ist} \eta + Z_{st} \lambda + \varepsilon_{it}$ <p>Where;</p> <p><i>F</i> = The real level of fundraising expenditures</p> <p><i>G</i> = The real level of government grants</p> <p><i>O</i> = Vector of revenue and / or expenditure measures</p> <p><i>Z</i> = Vector of economic, demographic, government transfers to individuals, and / or political measures</p>	They find that government grants crowd-out fundraising expenditures.

<p>Dokko, J. (2005) Examines the relationship between government giving, fundraising and private donations for a sample of nonprofit arts organizations.</p>	<p>NCCS data for fiscal years 1990 through 1998.</p>	$\Delta DON_{jt} = \beta_0 + \beta_1 \Delta GOV_{jt} + \lambda' Z_j + \varepsilon_{jt}$ $\Delta F_{jt} = \gamma_1 \Delta GOV_{jt} + \phi' Z_j + \eta_{jt}$ <p>Where;</p> <p><i>DON</i> = Private donations <i>GOV</i> = Federal and state grants <i>Z</i> = Vector of control variables Δ = Signifies that the variable is differenced over 2 time periods <i>F</i> = Fundraising expenditures</p>	<p>Finds that government grants crowd-out private giving by as much as \$0.63. He also found that fundraising expenditures increased 25 cents for every dollar decrease in government grants on average.</p>
<p>Okten C. and Weisbrod B. (2000) They examine the relationship between public and private grants for a range of nonprofit organizations, including arts exhibits (galleries)</p>	<p>Utilize a set of IRS data on individual nonprofit organizations in each of seven industries for the years 1982-1994</p>	$\ln Don_{it} = \beta_0 + \beta_1 \ln Fund_{it-1} + \beta_2 \ln Price_{it} + \beta_3 Age_{it} + \beta_4 (Age \cdot \ln Fund_{it-1}) + \beta_5 \ln Grant_{it-1} + \beta_6 \ln PSR_{it-1} + \mu_{it}$ <p>Where;</p> <p><i>ln Don</i> = Natural log arithm of private donations <i>ln Fund_{it-1}</i> = Expenditures on fundraising in the previous year <i>ln Grants_{it-1}</i> = Natural log of government grants in previous year <i>ln PSR_{it-1}</i> = Natural of program service revenues in the previous year <i>Age</i> = The number of years the organization has existed as a nonprofit <i>ln Price</i> = The natural log of the "price" of contributing a dollar</p>	<p>Find little evidence of crowd-out after controlling for fundraising expenditures.</p>

<p>Ribar and Wilhem (2002) Theoretically and empirically examines altruistic and joy-of-giving motivations underlying contributions to charitable activities</p>	<p>Examine a 1986-1992 panel of donations and government funding from the United States to 125 international relief and development organizations</p>	$H_{j,t} = \gamma_G H_{G,j,t} + \gamma \hat{Q}_{-j,t} + X'_{jt} \Gamma + \varepsilon_{j,t}$ <p>Where;</p> <p>H = Direct Government Support Q = Related Service expenditures by other organization X = Vector of other observed time varying determinants ε = Unobserved Organization and year specific error term</p>	<p>Finds crowd-out to be close to zero (13 cents for every dollar increase in government funding) when the number of potential contributors is large, and expenditures on the public good are substantial in their study of contributions to international relief organizations</p>
<p>Straub (2004). Takes into account the possible effect of government grants on fundraising activities when estimating crowding-out for a set of public radio stations in the U.S..</p>	<p>The data covers a wider cross-section of stations (202 stations) and includes information on matching grants and fundraising expenditures.</p>	$P = (1 + G_m)(C_i + C_{-i} + O_m) + O_n + G_\ell$ <p>Where;</p> <p>C_i = Contributions from household i C_{-i} = Contributions from all other households O_m = Households contributions and some other forms of revenue G_m = Revenue matching rate by the government. O_n = Unmatched Revenue G_ℓ = Lumpsum grants from the government.</p>	<p>Does not permit the rejection of the hypotheses that crowd-out is zero when he runs a regression on fundraising and crowd-out of charitable contributions to public radio.</p>
<p>Abrams and Schmitz (1984)</p>			<p>Estimated crowding out to be 30 cents on a dollar of state and local social welfare payments.</p>
<p>Clotfelter (1985)</p>			<p>Estimates that crowd-out is only 5 percent.</p>
<p>Steinberg (1991)</p>			<p>The degree of crowd-out ranges from 0.5% to 35% per unit of government spending.</p>
<p>Kingma and</p>			<p>Conclude that there is very limited</p>

McClelland (1995) Examine data on giving to National Public Radio			crowd-out.
Posnett and Sandler (1989). Examine donations to U.K. charities in 1985.			Find that government grants to nonprofits increase (crowd-in) rather than decrease individual donations to the charity.
Khanna, Posnett, and Sandler (1995) Paper presents a set of panel data estimates for 159 of the most prominent U.K. charities	Examine U.K. charities for the period 1983 to 1990.		Find that government grants encourage (crowd-in) rather than decrease private giving.

		$CV_{it} = \beta_0 + \beta_1 P_{i,t-1} + \beta_2 FE_{i,t-1} + \beta_3 AI_{i,t-1} + \beta_4 GG_{i,t-1} + \beta_5 LEG_{it} + \beta_6 AGE_{it} + \mu_{it}$ <p>Where;</p> <p><i>CV</i> = Voluntary contributions <i>P</i> = Price variable <i>AI</i> = Autonomous income. <i>FE</i> = Fund – raising <i>GG</i> = Government grants <i>LEG</i> = Legacies <i>Age</i> = Charity's age</p>	
Payne (1998). Uses a panel dataset on 430 U.S. charities between the years 1982 and 1992	Data comes from federal tax returns filed by IRS 501(c)(3) organizations for the period 1982 to 1992 (excluding 1984)	$D_{ijt} = \alpha + \beta Gov_{ijt} + \gamma Z_{jt} + \varepsilon_{it}$ <p>Where;</p> <p><i>D</i> = Real private donations <i>Gov</i> = Real government grants <i>z</i> = Vector of political and / or economic measures</p>	Concludes that government grants crowd-out private donations (i.e., a one dollar increase in government grants, on average, crowded-out private donations with about 50 cents.
Payne (2001). Uses panel data from U.S. universities			Finds evidence of crowd-in.
Duncan (1999)			Cannot reject that there is complete crowd-out when including the joint effect on contributions of time and money.
Andreoni (1993) Paper presents an experimental test of the proposition that government			Finds an average crowd-out of 71.5% over all rounds of the game and finds crowd-out of 84% in the last period of the game.

contributions to public goods, funded by lump-sum taxation, will completely crowd-out voluntary contributions			
Chan, Kenneth, Rob Godby, Stuart Mestleman, and R. Andrew Muller (2002)			Shows that crowd-out increases as the involuntary transfer increases.
Gronberg, Luccasen, and Van Huyck (2003)			
Bolton and katok (1998). Examine crowding out by comparing donations in two different dictator games			Find that 60% of the original transfers were crowded-out when the original allocation to the recipients was increased by \$3 (i.e., they too find larger evidence of crowd-out in the lab).
Eckel, Grossman, and Johnston (2003). Extends Bolton and Katok's study to real charities.			Their results reveal great sensitivity to framing. In the neutral frame they observe essentially no crowd-out and in the tax-frame they found complete crowd-out.
Breman A. (2005). Uses a new panel dataset to test	Data covers all charitable organizations in Sweden between 1989 and 2003 (Total of 361 organizations)		Find that the results diverge between the various types of charitable organizations and that

<p>whether government grants crowd-out private donations to charitable organizations controlling for changes in the organizations' fundraising behavior.</p>	<p>2SLS specification</p>		<p>the estimated crowd-out is small in social services organizations and health related organizations but significantly crowd-in private donations on average by 134% and 52% to environment/culture and opinion/lobby organizations respectively.</p>
<p>Eckel, C.C., Grossman, P.J. and M.R. Johnston (2004). They implement an alternative experimental design with two different settings where the settings are identical except from the framing</p>			<p>They report almost complete crowding out when subjects are told that they are "taxed" with contributions to charitable organizations, but partial crowding out otherwise.</p>
<p>Khanna, Jyoti and Sandler, Todd (2000) The paper examines the determinants of voluntary donations to U.K. charities, using empirical specifications that combine error-component and simultaneous-equations methods.</p>	<p>Examine the determinants of voluntary contributions for U.K. charities during 1983-1990</p>	$CV_{it} = \beta_0 + \beta_1 P_{it} + \beta_2 FE_{it} + \beta_3 GG_{it} + \beta_4 LEG_{it} + \beta_5 AI_{it} + \beta_6 LAGE_{it}$ <p>Where;</p> <p><i>CV</i> = Voluntary Contributions <i>P</i> = Price Variable <i>FE</i> = Fundraising Expenses <i>GG</i> = Government Grants <i>LEG</i> = Legacies <i>AI</i> = Autonomous Income <i>LAGE</i> = Log of Charity Age</p>	<p>They find that fundraising is a positive and significant stimulant to voluntary donations and also evidence of crowding-in rather than crowding-out for the full sample.</p>

Brown (1997). Extends the question of crowding out by looking at the charitable provision of private goods			He notes that if government spending on public goods can act as a signal to donors about the number of people in poverty, then it can lead to the possibility of crowding in, or an increase in private donations.
Rose-Ackerman, Susan (1982) Paper shows how competition for donations can push fundraising shares to high levels even when donors dislike charities that spend a large portion of receipts on fundraising.			Paper demonstrates that the competition for charitable dollars reduces the level of service provision relative to funds raised for all charities.
Day, K.A. and Rose A. Devlin (1996) Paper addresses the question of what motivates people to volunteer, and if they respond to government expenditure decisions	Uses the 1987 micro data set of Survey of volunteer activity.	$y_i^* = X_i \beta_1 + \varepsilon_{1i}$ $\ln v_i = Z_i \beta_2 + \varepsilon_{2i}$ <p>Where;</p> <p>$y = \text{Individual's utility gain from volunteering}$</p> <p>$X \text{ and } Z = \text{Vectors of explanatory variables}$</p> <p>$\varepsilon_{1 \text{ and } 2} = \text{Random errors.}$</p>	Level of government spending influences the decision to volunteer but has no effect on the number of hours donated.
Tefft, Nathan W. (2005) Paper shows evidence that the magnitude and frequency of volunteering and giving are significant.	Summarized data on volunteering and giving collected by the panel study of income dynamics (PSID) in 2001 and 2003.		Confirms empirically previous results regarding income and substitution effects, price elasticities, and the substitutability of volunteering and giving.

		$Z_i^*(p_i, w_i, y_i) = a_z + b_z p_i + c_z w_i + d_z y_i + e_{z_i}$ $V_i^*(p_i, w_i, y_i) = a_v + b_v p_i + c_v w_i + d_v y_i + e_{v_i}$ <p>Where;</p> <p>a_j through d_j are price coefficients for the respective equations</p> <p>e_{ji}'s Are idiosyncratic taste parameters for both giving and vol</p>	
<p>Breman, Anna (2005)</p> <p>Paper uses a new panel dataset to test whether government grants crowd out private donations to charitable organizations controlling for changes in the organizations' fundraising behavior</p>	<p>Data covers all charitable organizations in Sweden between 1989 and 2003</p>	$P_{it} = \alpha + \beta Gov_{it} + \delta F_{it} + Z_{it} \gamma + \zeta D_i + \pi D_t + \varepsilon_{it}$ <p>Where;</p> <p>P = Private donations</p> <p>Gov = Government grants</p> <p>F = Fundraising expenditures</p> <p>Z + Vector of other revenue and / or expenditure measures</p>	<p>Finds estimated crowd out is small, close to zero or crowd in private donations, on average by 134% and 52% after controlling for fundraising behavior</p>
<p>Heutel, Garth (2006)</p> <p>The paper tests for crowding out in both directions in a static model.</p>	<p>NCCS data from 1998-2003 containing 1,388,480 observations</p>		<p>No crowding out effect can be found for any type of charity in either direction. Some evidence suggests crowding in of private donations by government grants for social service charities.</p>
<p>Garrett, T.A. and Rhine, R.M. (2007)</p> <p>The paper exploits time series properties of charitable giving data to provide additional insights into the crowding out of charitable contributions in</p>	<p>Annual data from Giving USA (2006) covering the period 1965 to 2003</p>		<p>Study found that increases in federal spending reduce total charitable giving by roughly 20 percent. System estimation though finds no evidence of any effect of government spending on charitable contributions.</p>

response to government spending.			
Richard Steinberg (1987) The paper presents unified models of the effect of exogenous governmental changes on aggregate donations and of the effect of federal changes on local government expenditures.			
Abrams, B.A. and Schitz, M.D. (1978) The paper concentrates on an analysis of a particular category of governmental expenditures-social welfare transfers-and their effect on private charitable contributions	Data is from federal welfare expenditures and charitable contributions for the years 1950-1970 (1958 dollars)	$\text{Log}G_{it} = \alpha_0 + \alpha_1 \text{Log}Y_{it} + \alpha_2 \text{Log}P_{it} + \alpha_3 \text{Log}T_{it} + \mu_{it}$ <p>Where;</p> <p>G = Private Charitable contributions.</p> <p>P = "Price" of contributing.</p> <p>Y = Average disposable income.</p> <p>T = Federal expenditures on health, education and welfare.</p>	The coefficients indicate that a 1 percent increase in governmental transfers (per person) reduces an individual's private charitable giving by approximately 0.2 percent.

<p>Brooks, B.A. (2000) This paper presents a new macro-level dataset across several nonprofit sub-sectors and empirically tests the question.</p>	<p>Dataset looks at both state/local and federal spending on social and human welfare, health, and education from 1955 to 1995. Federal spending on Arts and culture using data from 1966 to 1997.</p>	$WEL_PVT_t / EDU_PVT_t / HEA_PVT_t / ART_PVT_t = WEL_PVT_t + EDU_PVT_{t-1} + HEA_PVT_{t-1} + ART_PVT_{t-1} + WEL_FED_t + EDU_FED_{t-1} + HEA_FED_{t-1} + ART_FED_{t-1} + WEL_STATE_t + EDU_STATE_{t-1} + HEA_STATE_{t-1} + PERIOD + GDP_t + \epsilon_{it}$ <p>Where;</p> <p><i>Wel _ Pvt = Pvt Contri.to nonprofit social and human welfare pro</i> <i>Edu _ Pvt = Pvt contri.to nonprofit Educational organizations</i> <i>Hea _ Pvt = Pvt contri.to nonprofit healthcare organizations</i> <i>Art _ Pvt = Pvt contri.to nonprofit arts and cultural organizations.</i> <i>Wel _ Fed = Federal Expenditures on social and human welfare p</i> <i>Edu _ Fed = Federal Expenditures on educational organizations.</i> <i>Hea _ Fed = Federal Expenditures on healthcare organizations</i> <i>Art _ Fed = Federal Expenditures on arts and cultural organizati</i> <i>Wel _ State = State and local exp end.on social and human welfare</i> <i>Edu _ State = State and local exp end.on educational organization</i> <i>Hea _ State = State and local exp end.on healthcare organizations.</i> <i>Art _ State = State and local exp end.on arts and cultural organiza</i> <i>Period =Trend variable,increa sin g as years pass in sample</i> <i>GDP =Gross Domestic Pr oduct.</i></p>	<p>The paper gets mixed results with crowding out being the dominant effect in social/human service provisions and health services. Literature is inconclusive in education and arts and culture. No case though of any significant evidence of crowding in was found.</p>
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APPENDIX C

Table C1: Variable Definitions and Sources

Variable	Variable Initials in Raw Data	Final Variable Name	Definition	Source
Fund Raising Expenses	plfrexp	F_exp in millions of dollars	Amount spent on soliciting contributions, gifts, and grants.	National Center for Charitable Statistics (NCCS)
Gross Domestic Product per Capita	gdp	Gdp1 in '000s of dollars	GDP per capita (constant 2000 U.S.\$)	World Development Indicators CD-Rom (2005)
Unemployment rate		Unemp	Total unemployment as a percentage of total labor force	World Development Indicators CD-Rom (2005)
Population	popn	Popn1 in millions of millions	Total population of the country	World Development Indicators CD-Rom (2005)
Population>65		Pop65	Population aged 65 and above as a percentage of the total population.	World Development Indicators CD-Rom (2005)
Government grants	plgovgt	g_grants in millions of dollars	All government contributions to a charity organization	National Center for Charitable Statistics (NCCS)
Dues & Assessment	pldues	Dues in millions of dollars	Revenue received from "members" of the organization	National Center for Charitable Statistics (NCCS)
Program service Expenses.	plpexp	Ps_exp in millions of dollars	Expenses incurred by the organization in provision of services.	National Center for Charitable Statistics (NCCS)
Program Service Revenues	plpsrev	Ps_rev in millions of dollars		National Center for Charitable Statistics (NCCS)
Total Charitable Contributions	plcont	P1cont in millions of dollars		National Center for Charitable Statistics (NCCS)
Total Expenses	pltotexp	P1totexp in millions of dollars		National Center for Charitable Statistics (NCCS)
Administrative Costs	plmexp	P1mexp in millions of dollars		National Center for Charitable Statistics (NCCS)
Returns on Financial Assets	plsecrn	P1secrn in millions of dollars		National Center for Charitable Statistics (NCCS)
Federal level transfer payments to persons	trpyts	Trpyts in billions of dollars		Bureau of Economic Analysis (NIPA Tables)
Federal level transfers to all nonprofit	tr_ngo	Tr_ngo in billions of		Bureau of Economic Analysis (NIPA Tables)

organizations.		dollars		
Price of a dollar of charitable donations (1)	price1	Price1		Bureau of Economic Analysis (NIPA Tables)
Price of a dollar of charitable donations (2)	price2	Price2		
Age of the organ.		Age	The number of years the organization has existed as a nonprofit entity.	National Center for Charitable Statistics (NCCS)
Effect of Sept 11, 2001			Dummy=1 if =>year 2001 otherwise = 0	
Regime			Dummy = 1 if Republican otherwise 0 (Refers to the Party the current President belongs to).	
Ifans			International Foreign Affairs & National security Organization	National Center for Charitable Statistics (NCCS) – National Taxonomy of Exempt Entities – core codes
Piu			Promotion of International Understanding grouping	National Center for Charitable Statistics (NCCS) – National Taxonomy of Exempt Entities – core codes
Id			International Development	National Center for Charitable Statistics (NCCS) – National Taxonomy of Exempt Entities – core codes
Ips			International Peace and Security	National Center for Charitable Statistics (NCCS) – National Taxonomy of Exempt Entities – core codes
IfansNEC			International Foreign Affairs & National Security NEC Organization.	National Center for Charitable Statistics (NCCS) – National Taxonomy of Exempt Entities – core codes
Ihr			International Human Rights	National Center for Charitable Statistics (NCCS) – National Taxonomy of Exempt Entities – core codes

APPENDIX D

Detailed Mathematics of the Theoretical Model

FOC's:

$$\frac{\partial v}{\partial \Theta} = -S_j + \beta P_r'(\Theta_j) \frac{(v_j(\Theta_j) - C_{jt} + \Theta_j S_{j,t})}{P_r(\Theta_j)\beta}$$

$$\text{But } C_{jt} = \sum y_{it} + G_t$$

$$\text{Let } \lambda = \{v_j(\Theta_j) - C_{j,t} + \Theta_j S_{j,t}\}$$

$$\frac{\partial \Theta}{\partial G} = \frac{-\left\{ \frac{P_r'(\Theta)}{P_r(\Theta)}(-1) \right\}}{P_r(\Theta_j) \left\{ P_r''(\Theta_j)\lambda + P_r(\Theta_j)S_{jt} - P_r(\bullet)\lambda P_r(\bullet) \right\} / [P_r(\Theta_j)]^2}$$

$$\frac{\partial \Theta}{\partial G} \leq 0$$

$$\uparrow G = \downarrow \Theta$$

(+)

$$\therefore \frac{\partial \Theta}{\partial G} = \frac{G_t P_r'(\Theta_j) * P_r(\Theta_j)}{\left\{ \begin{array}{ccccccc} P_r(\Theta) P_r''(\Theta_j)\lambda & + & [P_r(\Theta_j)]^2 S_{jt} & - & P_r(\Theta_j) [P_r(\bullet)]^2 \lambda \end{array} \right\}}$$

$\oplus \quad (-) \quad (+) \quad (+) \quad (+) \quad (+) \quad (+)$

$$\therefore \frac{\partial \Theta}{\partial G} \Leftrightarrow 0$$

The above indicates that with increase in government grants, fundraising efforts might increase, decrease or remain the same.

APPENDIX E

Table E1: Data Patterns

Frequency	Percent	Cumulative	Pattern
1085	32.82	32.82	111111
273	8.26	41.081
211	6.38	47.46	0.11111
192	5.81	53.2711
165	4.99	58.26	...111
129	3.9	62.16	..1111
101	3.06	65.21	1....
89	2.69	67.91	11111
74	2.24	70.151.
74	2.24	72.38	.1....
70	2.12	74.5	..1...
61	1.85	76.35	1.1111
61	1.85	78.19	11....
58	1.75	79.95	1111.1
57	1.72	81.67	...1..
54	1.63	83.3	111...
46	1.39	84.69	1111..
39	1.18	85.87	11.111
36	1.09	86.96	111.11
32	0.97	87.93	...11.
29	0.88	88.81	..111.
27	0.82	89.62	...1.1
27	0.82	90.44	.111..
26	0.79	91.23	.11...
26	0.79	92.01	.1111.
25	0.79	92.77	..11..
21	0.64	93.41	.1.111
18	0.54	93.95	.111.1
15	0.45	94.4	..1.11
15	0.45	94.86	..11.1
11	0.33	95.19	.11.11
10	0.3	95.49	1..111
9	0.27	95.77	.1...1
9	0.27	96.04	11.1..
8	0.24	96.28	1.1...
7	0.21	96.49	1.11.1
7	0.21	96.7	1.111.
7	0.21	96.91	111..1

6	0.18	97.1	.1.11.
6	0.18	97.28	.11..1
6	0.18	97.46	.11.1.
6	0.18	97.64	11..11
6	0.18	97.82	11.1.1
6	0.18	98	11.11.
6	0.18	98.19	111.1.
5	0.15	98.34	..1..1
5	0.15	98.49	.1.1..
5	0.15	98.64	1..1..
5	0.15	98.79	1.1..1
5	0.15	98.94	1.1.11
4	0.12	99.06	1...11
4	0.12	99.18	1.11..
3	0.09	99.27	..1.1.
3	0.09	99.36	.1..11
3	0.09	99.46	1....1
3	0.09	99.55	1..1.1
3	0.09	99.64	11...1
3	0.09	99.73	11..1.
2	0.06	99.79	.1..1.
2	0.06	99.85	.1.1.1
2	0.06	99.91	1...1.
2	0.06	99.97	1..11.
1	0.03	100	1.1.1.
3306	100	xxxx	xxxxxx

APPENDIX F

Detailed Definition of the Model Specifics

$Pdon_{jt}$ denotes private donations to organization j at time t , Gov_{jt} denotes government grants received by organization j at time t , and Z_{jt} is a vector of control variables and includes political and/or economic measures in the United States. The crowd-out parameter (in equation 32) is measured by β_1 , the coefficient on government grants, and tells us the total effect of government grants on private contributions.⁷⁵ ε_{jt} is a random variable. $Fexp_{jt}$ denotes fund-raising expenditures for organization j at time t . D_i denotes unobserved heterogeneity at the organization level (i.e. organization specific time invariant unobserved effects). D_t denotes unobserved heterogeneity at the time level (i.e. time specific unobserved effects). The crowd-out and/or in parameter (in the equation 24) is measured by α_1 the coefficient on government grants and tells us the total effect of government grants on fundraising expenditures.⁷⁶ η_{jt} and λ_{it} are random variables.

Use of economic conditions of the U.S. proxy a donor's incomes and the needs of the country for the services provided by the firms studied. We expect private and public donations to rise as real income rises. The effect of the other measures will depend on the type of INGO. Economic and demographic measures incorporate such variables as per capita income, the

⁷⁵ If $\beta_1 = -1$, private contributions rise by a dollar for every dollar decrease in government grants.

⁷⁶ If $\alpha_1 = -1$, fundraising expenditures rise by a dollar for every dollar decrease in government grants.

unemployment rate, and the different measures of the country's population.⁷⁷

Political measures cover the representation of the political parties in legislative positions at the federal level and the political party affiliation of the president. These measures proxy the sentiments of the voters in the country as liberal politicians (assumed to be the Democrats) are associated with higher provisions of social welfare programs abroad. We expect government grants and private donations to INGOs to be positively affected by increases in the representation by democratic politicians.⁷⁸

We add age to the private donations model (i.e., the number of years the organization has existed as a nonprofit entity) as it may affect donations in two ways: directly, as a source of information about organization reputation, and indirectly, by influencing the productivity of fundraising. We expect that older organizations benefit from a reputational effect, and that the effectiveness of a given level of fundraising depends on the stock of reputational goodwill. We include organization and year fixed effects as we have a panel data set. Organization fixed effects capture the time invariant heterogeneity in the organizations (i.e. reputation, age, type and method of operation). We also include the natural log of age (LAGE) to account for the diminishing marginal influence of age as a charity becomes older.

⁷⁷ Variables for economic measures include real per capita income of individuals in the U.S., the country's unemployment rate, the proportion of the population whose age is greater than 65 years, the proportion of the population whose age is between 5 and 17 years, and the country's population.

⁷⁸ Variables for political measures include a dummy variable indicating if the President is affiliated with the Democratic Party, the number of Democratic U.S. senators, and the ratio of Democratic to total U.S. representatives.

Other Explanatory Variables

A detailed description of the RHS variables used in the SEM estimation can be viewed in table 7 in the appendix. A summary description of some of the independent variables is given below.

Government Grants

Government grants include all government contributions that enable the recipient “to provide a service to, or maintain a facility for, the direct benefit of the public” IRS (2000). Additionally, few organizations in the dataset report foreign government funding. While commingling of foreign and U.S. government funding is small, the NCCS Guidestar data provide no basis for assessing the extent of foreign government revenue reported. Government grants are arguably the best candidate for demonstrating crowding-in theory for several reasons. First, they may enhance the reputation of a charity in the view of donors Rose-Ackerman (1982; 1987). Second, they are usually accompanied by monitoring of the clients by government officials, thus limiting information asymmetries. In doing so, they increase a potential donor’s willingness to contribute. Third, there may be a “buying-in” effect, in which donors can desire to give to larger charities rather than smaller ones Rose-Ackerman (1982; 1987). Fourth, if government grants have a matching component, then this can reduce price and stimulate private donations. Finally, government grants can circumvent the standard neutrality theorem result that is behind crowding-out, whenever the government finances the grant, in part, from taxes on non-contributors. The converse of the five factors above will lead to government grants becoming the

best candidate for crowding-out.

Private Contributions

Direct and indirect revenues are combined to represent total private contributions. Direct contributions include: individual grants, bequests, and giving by corporations, estates, and foundations. Indirect contributions include any money the organizations receive from affiliated organizations and those received indirectly from the public through solicitation campaigns. The level of voluntary donations is dependent on other sources of funds since donors may give less (more) as a charity's income rises if they view alternative sources as substitute (complement) funding. If the overall level of funding is the only thing that matters (perfect altruism), then funding sources substitute for one another. But whenever donors view a source of funding as enhancing the desire to contribute, then the source is complementary to donations.

Fundraising Expenses

Fundraising expenses include the amount spent on soliciting contributions, gifts, and grants. Specifically this includes the cost of “a) publicizing and conducting fundraising campaigns; b) soliciting bequests and grants from foundations or other organizations, or government grants; c) participating in federated fundraising campaigns; d) preparing and distributing fundraising manuals, instructions, and other materials; and e) conducting special events that generate contributions....”⁷⁹ Fundraising can have two opposing influences on voluntary contributions Khanna and Sandler (2000). It can stimulate giving by informing the

⁷⁹ See IRS (2000).

public and soliciting contributions when it acts like advertising. However, by channeling some of the charity's income away from its final output, increased fundraising increases the price of giving, which is anticipated to reduce contributions.

Severity of U.S. Disasters

Disasters that occur in the country such as the terrorist attack on the twin towers on September 11, 2001, Hurricane Katrina in 2005, among others, usually sensitize policy makers and the public to disaster-caused suffering elsewhere and consequently increase the likelihood of providing assistance and more of it. This logic can be reversed since policy makers may be more sensitive to the monetary costs of U.S. domestic disasters and be less likely to grant foreign disaster assistance. Nonetheless, we hypothesize here that U.S. disasters will increase empathy for foreign disasters and therefore increase the likelihood and amounts of humanitarian aid overseas. We expect a negative relationship between calamities happening in the U.S. and fundraising activities of INGOs. The reasoning here is that people donate more to INGOs after disasters in the U.S. and the charities cut back on their fundraisers due to the flow of finances from other sources.

Fixed Effects

Fixed effects capture time-invariant heterogeneity in the organizations that affect the collection of funding and the use of fund-raising expenditures. We have included the age and type of the organizations to control for organizational fixed effects. Age defines the number of

years the organization has existed as a nonprofit entity. This affects fundraising efforts in two ways: directly, as a source of information about the organization's reputation and indirectly, by influencing the productivity of fundraising. Older organizations are expected to benefit from a reputational effect, and the effectiveness of a given level of fundraising depends on the stock of reputational goodwill. We hypothesize that there will be a negative relationship between the age of the charities and fundraising activities of these institutions.

The year fixed effects such as per capita income, the unemployment rate, different measures of the population, and so on control for macro-level time-varying shocks that affect all of the organizations similarly. We expect an inverse relationship between unemployment rate and population above 65 years with fundraising expenses since when more people are unemployed (or retired), they contribute less to charitable organizations even with increased solicitation. On the other hand, we expect an increase in fundraising expenses when the total population increases, as more funds are needed to reach the increased population.

Dues and Assessment

In Andreoni and Payne's (2003) paper, dues and assessment affect fundraising expenditures positively and are significant at the five percent level. We find similar results with the regression as "dues and assessment" in the OLS regression are not significant although they are significant in the fixed effects and random effects regressions. These represent the revenue received from "members" of the organization and help control for time-varying changes at the organizational level. We expect a negative relationship between fundraising activities and "dues and assessment" since the more the charities receive from their members, the less likely they are

to embark on vigorous fundraising activities as they would probably meet a large percentage of their financial obligations through contributions from members.

APPENDIX F

First-Stage RE Estimates

Table F1: RE, Dependent Variable – Private Contributions

Deviations OPvertime (d)							
	INGO Sub-Categories						
Independent Variables	All INGOs	Ifans	Piu	Id	Ips	Ihr	IfansNEC
Plsecurn	-0.631 (0.028)**	-0.822 (0.022)**	0.117 (0.038)**	-0.285 (0.126)*	-0.055 (0.033)+	3.323 (0.451)**	2.889 (0.151)**
Plmexp	0.002 (0.098)	0.308 (0.153)*	-0.497 (0.202)*	-0.342 (0.141)*	0.331 (0.177)+	4.940 (0.620)**	1.060 (0.151)**
Trpyts	-0.001 (0.001)	-0.000 (0.001)	-0.001 (0.004)	0.000 (32.888)	-0.001 (0.001)*	-0.005 (0.006)	-0.000 (25.953)
Population	0.019 (0.027)	-0.000 (0.032)	0.010 (0.107)	-0.006 (840.404)	0.036 (0.018)+	0.107 (0.159)	-0.000 (663-178)
Dues	0.526 (0.774)	-0.365 (0.881)	1.007 (0.600)+	7.444 (2.112)**	0.475 (0.625)	-13.252 (21.802)	4.153 (4.068)
Program Service Expenses	1.022 (0.004)**	1.065 (0.004)**	0.869 (0.018)**	1.04 (0.005)**	0.605 (0.048)**	0.758 (0.015)**	0.925 (0.019)**
Price1	-0.000 (0.005)	-0.005 (0.029)	-0.000 (0.003)	-0.001 (0.023)	0.001 (0.010)	0.004 (0.061)	-0.063 (0.097)
Program Service Revenues	-0.980 (0.028)**	-0.953 (0.178)**	-0.507 (0.082)**	-0.929 (0.034)**	-0.487 (0.073)**	-6.372 (0.363)**	-1.068 (0.234)**
Mean overtime (m)							
	INGO Sub-Categories						
Independent Variables	All INGOs	Ifans	Piu	Id	Ips	Ihr	IfansNEC
Plsecurn	-0.948 (0.042)**	-0.408 (0.040)**	-0.016 (0.059)	-0.537 (0.244)*	-0.226 (0.062)**	-2.706 (0.976)**	-1.059 (0.290)**
Plmexp	1.238 (0.027)**	0.414 (0.081)**	0.287 (0.055)**	0.300 (0.041)**	0.353 (0.158)*	3.112 (0.218)**	0.143 (0.088)
Trpyts	0.001 (0.002)	0.001 (0.002)	0.001 (0.004)	0.001 (32.888)	0.002 (0.001)	0.006 (0.010)	0.000 (25.953)
Population	-0.034 (0.028)	-0.007 (0.034)	-0.014 (0.106)	-0.021 (840.404)	-0.040 (0.019)*	-0.127 (0.165)	-0.002 (663.178)
Dues	-1.092 (0.120)**	-0.225 (0.271)	-0.349 (0.069)**	-0.200 (1.894)	-0.099 (0.221)	-4.222 (15.321)	-0.022 (0.553)
Program Service Expenses	0.538 (0.001)**	0.230 (0.002)**	0.243 (0.004)**	0.128 (0.002)**	0.241 (0.018)**	0.939 (0.011)**	0.086 (0.009)**
Price1	0.001 (0.013)	0.004 (0.053)	0.001 (0.007)	-0.001 (0.027)	0.000 (0.019)	0.220 (0.524)	-0.055 (0.138)
Program Service Revenues	-0.615 (0.011)**	-0.272 (0.056)**	-0.239 (0.014)**	-0.142 (0.014)**	-0.294 (0.044)**	-1.545 (0.669)*	-0.095 (0.052)+
Observations (K)	10792	3702	2170	3601	821	498	2461

Table F2: RE, Dependent Variable - Fundraising Expenses

Deviations Overtime (d)							
Independent Variables	INGO Sub-Categories						
	All INGOs	Ifans	Piu	Id	Ips	Ihr	IfansNEC
P1securn	-0.037 (0.006)**	-0.040 (0.001)**	0.002 (0.006)	-0.013 (0.054)	-0.002 (0.003)	-0.179 (0.073)*	-0.009 (0.009)
P1mexp	0.091 (0.020)**	0.033 (0.008)**	0.017 (0.033)	-0.118 (0.061)+	0.028 (0.016)+	0.483 (0.101)**	0.026 (0.009)**
Trpyts	-0.000 (0.000)	-0.000 (0.000)	-0.001 (0.001)	0.000 (14.148)	0.000 (0.000)	0.000 (0.001)	0.000 (1.522)
Population	0.007 (0.005)	0.003 (0.002)	0.012 (0.018)	-0.000 (361.523)	0.000 (0.002)	0.003 (0.026)	0.000 (38.883)
Dues	0.310 (0.155)+	0.031 (0.044)	-0.135 (0.099)	0.770 (0.908)	-0.391 (0.057)**	-0.397 (3.544)	0.253 (0.239)
Program Service Expenses	0.031 (0.001)**	0.001 (0.000)**	0.008 (0.003)*	0.052 (0.002)**	0.016 (0.004)**	-0.001 (0.003)	0.005 (0.001)**
Price1	0.000 (0.001)	0.002 (0.001)	-0.000 (0.000)	0.000 (0.010)	-0.000 (0.001)	0.001 (0.010)	0.005 (0.006)
Program Service Revenues	-0.014 (0.006)*	0.012 (0.009)	0.002 (0.014)	-0.013 (0.144)	-0.006 (0.007)	-0.001 (0.059)	-0.029 (0.014)*
Mean overtime (m)							
Independent Variables	INGO Sub-Categories						
	All INGOs	Ifans	Piu	Id	Ips	Ihr	IfansNEC
P1securn	-0.004 (0.009)	0.185 (0.002)**	0.144 (0.010)**	-0.842 (0.105)**	-0.041 (0.006)**	-0.976 (0.159)**	0.055 (0.017)**
P1mexp	0.234 (0.006)**	0.045 (0.004)**	0.090 (0.10)**	0.526 (0.018)**	0.127 (0.015)**	0.777 (0.035)**	0.032 (0.005)**
Trpyts	0.000 (0.000)	0.000 (0.000)	0.000 (0.001)	0.001 (14.148)	-0.000 (0.000)	0.001 (0.002)	-0.000 (1.521)
Population	-0.008 (0.006)	-0.003 (0.002)	-0.012 (0.017)	-0.006 (361.523)	-0.000 (0.002)	-0.008 (0.027)	0.000 (38.883)
Dues	-0.158 (0.024)**	0.106 (0.014)**	-0.055 (0.011)**	6.995 (0.815)**	0.196 (0.020)**	-1.771 (2.491)	0.520 (0.032)**
Program Service Expenses	0.004 (0.000)**	0.004 (0.000)**	0.005 (0.001)**	0.015 (0.001)**	0.007 (0.002)**	-0.013 (0.002)**	0.002 (0.001)**
Price1	0.001 (0.003)	0.013 (0.003)**	0.000 (0.001)	0.003 (0.012)	0.001 (0.002)	0.130 (0.085)	0.045 (0.008)**
Program Service Revenues	-0.032 (0.002)**	-0.017 (0.003)**	0.001 (0.002)	-0.066 (0.006)**	-0.073 (0.004)	0.590 (0.109)**	-0.014 (0.003)**
Observations (K)	10792	3702	2170	3601	821	498	2461

Table F3: RE, Dependent Variable – Government Grants

Deviations Overtime (d)							
	INGO Sub-Categories						
Independent Variables	All INGOs	Ifans	Piu	Id	Ips	Ihr	IfansNEC
Plsecurn	-0.042 (0.030)	0.025 (0.011)*	-0.005 (-0.005)	-0.382 (0.293)	0.008 (0.023)	1.024 (0.367)**	-0.045 (0.095)
Plmexp	2.145 (0.107)**	1.533 (0.077)**	0.070 (0.472)	1.298 (0.327)**	0.174 (0.127)	6.900 (0.505)**	1.510 (0.096)**
Trpyts	0.001 (0.001)	0.001 (0.001)	0.007 (0.010)	0.000 (76.514)	0.001 (0.001)	-0.002 (0.005)	-0.001 (16.427)
Population	-0.024 (0.029)	-0.017 (0.016)	-0.169 (0.249)	-0.012 (195.174)	-0.011 (0.013)	0.022 (0.130)	-0.001 (419.771)
Dues	3.619 (0.847)**	-0.859 (0.446)+	0.164 (1.401)	18.661 (4.923)**	-0.111 (0.447)	-4.226 (17.754)	-0.830 (2.575)
Program Service Expenses	0.182 (0.004)**	0.009 (0.002)**	0.672 (0.425)**	0.237 (0.013)**	0.121 (0.034)**	0.255 (0.012)**	0.232 (0.012)**
Price1	-0.000 (0.006)	0.003 (0.015)	0.000 (0.006)	-0.001 (0.054)	-0.001 (0.007)	0.002 (0.049)	0.016 (0.061)
Program Service Revenues	-0.624 (0.031)**	-0.030 (0.090)	-0.393 (0.191)*	-0.653 (0.078)**	-0.111 (0.052)*	-0.395 (0.296)	-0.687 (0.148)**
Mean overtime (m)							
	INGO Sub-Categories						
Independent Variables	All INGOs	Ifans	Piu	Id	Ips	Ihr	IfansNEC
Plsecurn	-0.262 (0.046)**	-0.594 (0.020)**	-0.520 (0.139)**	6.961 (0.568)**	-0.015 (0.044)	4.894 (0.795)**	-0.244 (0.184)
Plmexp	0.979 (0.030)**	1.932 (0.041)**	1.094 (0.129)**	2.393 (0.095)**	-0.464 (0.113)**	4.907 (0.177)**	2.193 (0.056)**
Trpyts	-0.001 (0.002)	-0.001 (0.001)	-0.006 (0.009)	-0.003 (76.514)	0.000 (0.001)	-0.003 (0.008)	0.000 (16.427)
Population	0.021 (0.030)	0.017 (0.017)	0.161 (0.246)	0.007 (1955.174)	0.006 (0.013)	-0.017 (0.134)	-0.002 (419.771)
Dues	-0.951 (0.132)**	-0.817 (0.137)**	-1.161 (0.162)**	-27.502 (4.407)**	-0.669 (0.158)**	6.387 (12.477)	-1.896 (0.350)**
Program Service Expenses	0.018 (0.001)**	-0.007 (0.001)**	0.113 (0.009)**	0.044 (0.004)**	0.233 (0.013)**	0.226 (0.009)**	0.065 (0.005)**
Price1	-0.002 (0.014)	-0.020 (0.027)	0.001 (0.016)	-0.012 (0.063)	-0.002 (0.014)	-0.602 (0.427)	-0.089 (0.087)
Program Service Revenues	-0.091 (0.012)	-0.057 (0.028)*	-0.210 (0.032)**	-0.219 (0.031)**	0.064 (0.032)*	-4.096 (0.545)**	-0.137 (0.033)**
Observations (K)	10792	3702	2170	3601	821	498	2461

First-Stage within Regression Results – FE

Table F4: FE, Dependent Variable – Private Contributions

Independent Variables	INGO Sub-Categories						
	All INGOs	Ifans	Piu	Id	Ips	Ihr	IfansNEC
Population	0.019 (0.027)	-0.000 (0.036)	0.031 (0.029)	-0.002 (0.060)	0.036 (0.020)+	0.107 (0.169)	-0.015 (0.041)
Dues	0.526 (0.792)	-0.365 (0.968)	1.007 (0.673)	7.444 (2.375)**	0.475 (0.692)	-13.252 (23.150)	4.153 (4.641)
Program Service Expenses	1.022 (0.004)**	1.065 (0.005)**	0.869 (0.020)**	1.043 (0.006)**	0.605 (0.053)**	0.758 (0.016)**	0.925 (0.022)**
Price1	-0.000 (0.006)	-0.005 (0.032)	-0.000 (0.003)	-0.001 (0.026)	0.001 (0.011)	0.004 (0.064)	-0.063 (0.110)
Program Service Revenues	-0.980 (0.029)	-0.953 (0.195)**	-0.507 (0.092)**	-0.929 (0.038)**	-0.487 (0.081)**	-6.373 (0.386)**	-1.068 (0.267)**
P1secur	-0.631 (0.028)**	-0.822 (0.024)**	0.117 (0.042)**	-0.285 (0.142)+	-0.055 (0.036)	3.323 (0.478)**	2.889 (0.172)**
P1mexp	0.002 (0.100)	0.308 (0.168)+	-0.497 (0.226)*	-0.342 (0.158)*	0.331 (0.196)+	4.940 (0.658)**	1.060 (0.172)**
Trpyts	-0.001 (0.001)	-0.000 (0.001)	-0.001 (0.001)	0.000 (0.002)	-0.001 (0.001)+	-0.005 (0.006)	0.000 (0.002)
Constant	-4.003)	0.654 (8.686)	-7.053 (7.082)	1.160 (14.504)	-8.458 (4.855)+	-22.834 (41.017)	4.246 (10.015)
Observations	10792	3702	2170	3601	821	498	2461
EIN (N)	2427	874	481	797	170	105	610
R-Squared	0.9851	0.9842	0.9633	0.9874	0.7751	0.9776	0.7501
F-Test	9129.32	4938.76	176.67	3719.77	15.42	290.48	214.79

Table F5: FE Dependent Variable – Fundraising Expenses

Independent Variables	INGO Sub-Categories						
	All INGOs	Ifans	Piu	Id	Ips	Ihr	IfansNEC
Population	0.007 (0.005)	0.003 (0.001)*	0.002 (0.001)+	0.014 (0.013)	0.000 (0.002)	0.006 (0.005)	0.000 (0.001)
Dues	0.310 (0.144)*	0.031 (0.033)	-0.135 (0.030)**	0.770 (0.520)	-0.391 (0.053)**	0.010 (0.051)	0.253 (0.163)
Program Service Expenses	0.031 (0.001)**	0.001 (0.000)**	0.008 (0.001)**	0.052 (0.001)**	0.016 (0.004)**	-4.548 (15.115)	0.005 (0.001)**
Price1	0.000 (0.001)	0.002 (0.001)+	0.000 (0.000)	0.000 (0.006)	-0.000 (0.001)	0.276 (0.008)**	0.005 (0.004)
Program Service Revenues	-0.014 (0.005)**	0.012 (0.007)+	0.002 (0.004)	-0.013 (0.008)	-0.006 (0.006)	0.598 (0.220)**	-0.029 (0.009)**
P1securn	-0.037 (0.005)**	-0.040 (0.001)**	0.002 (0.002)	-0.013 (0.031)	-0.002 (0.003)	0.165 (0.149)	-0.009 (0.006)
P1mexp	0.091 (0.018)**	0.033 (0.006)**	0.017 (0.010)+	-0.118 (0.035)**	0.028 (0.015)+	0.463 (0.229)*	0.026 (0.006)**
Trpyts	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.001 (0.001)	0.000 (0.000)	4.071 (0.463)**	0.000 (0.000)
Constant	-1.670 (1.211)	-0.639 (0.298)	-0.587 (0.313)	-3.218 (3.174)	-0.080 (0.374)	-41.269 (36.780)	-0.035 (0.351)
Observations	10792	3702	2170	3601	821	498	2461
EIN (N)	2427	874	481	797	170	105	610
R-Squared	0.4594	0.0046	0.1165	0.4801	0.0094	0.2134	0.1205
F-Test	287.57	244.38	12.60	180.25	7.84	224.77	10.38

Table F6: FE Dependent Variable – Government Grants

Independent Variables	INGO Sub-Categories						
	All INGOs	Ifans	Piu	Id	Ips	Ihr	IfansNEC
Population	-0.024 (0.027)	-0.017 (0.013)	-0.028 (0.064)	-0.061 (0.059)	-0.011 (0.012)	0.022 (0.066)	-0.031 (0.017)+
Dues	3.619 (0.783)**	-0.859 (0.355)*	0.164 (1.477)	18.661 (2.348)**	-0.111 (0.398)	-4.226 (9.020)	-0.830 (1.911)
Program Service Expenses	0.182 (0.004)**	0.009 (0.002)**	0.672 (0.045)**	0.237 (0.006)**	0.121 (0.030)**	0.255 (0.006)**	0.232 (0.009)**
Price1	-0.000 (0.006)	0.003 (0.012)	0.000 (0.000)	-0.001 (0.026)	-0.001 (0.006)	0.002 (0.025)	0.016 (0.046)
Program Service Revenues	-0.623 (0.028)**	-0.030 (0.072)	-0.393 (0.202)+	-0.653 (0.037)**	-0.111 (0.047)*	-0.395 (0.150)**	-0.687 (0.110)**
Plsecurn	-0.042 (0.028)	0.025 (0.009)**	-0.005 (0.093)	-0.382 (0.140)**	0.008 (0.021)	1.024 (0.186)**	-0.047 (0.071)
Plmexp	2.145 (0.099)**	1.533 (0.062)**	0.070 (0.497)	1.298 (0.156)**	0.174 (0.113)	6.899 (0.257)**	1.510 (0.071)**
Trpyts	0.001 (0.001)	0.001 (0.001)	0.002 (0.002)	0.002 (0.002)	0.001 (0.000)	-0.002 (0.003)	0.001 (0.001)
Constant	5.370 (6.579)	4.330 (3.183)	5.489 (15.559)	14.598 (14.336)	2.395 (2.794)	-5.559 (15.982)	7.910 (4.124)
Observations	10792	3702	2170	3601	821	498	2461
EIN (N)	2427	874	481	797	170	105	610
R-Squared	0.4229	0.3162	0.2086	0.4266	0.3437	0.9191	0.5199
F-Test	477.72	67.67	23.20	296.97	3.05	361.99	129.92

APPENDIX G

RE and FE Estimates for Balanced Data

Table G1: Balanced Data, Dependent Variable – Private Contributions

Random Effects Estimates							
	INGO Sub-Categories						
Independent Variables	All INGOs	Ifans	Piu	Id	Ips	Ihr	IfansNEC
Fundraising Expenses	3.433 (0.242)**	-2.214 (0.120)**	4.348 (0.524)**	2.073 (0.125)**	8.591 (1.754)**	3.180 (0.409)**	1.925 (1.028)+
Government	-0.210 (0.050)**	0.335 (0.039)**	-0.060 (0.052)	0.039 (0.024)	1.273 (0.291)**	0.049 (0.059)	0.239 (0.048)**
Population	0.030 (0.009)**	0.018 (0.015)	-0.015 (0.012)	-0.011 (0.021)	-0.010 (0.009)	-0.069 (0.070)	-0.010 (0.008)
Dues	-0.137 (0.633)	0.360 (0.488)	-0.732 (0.103)**	-4.687 (3.351)	-1.312 (0.866)	-10.066 (27.071)	-0.446 (1.350)
Program Service Expenses	0.962 (0.008)**	1.064 (0.003)**	1.016 (0.011)**	0.973 (0.007)**	0.314 (0.135)*	0.969 (0.018)**	0.973 (0.014)**
Price1	0.000 (0.008)	0.021 (0.043)	0.000 (0.004)	-0.068 (0.269)	-0.067 (0.094)	-0.267 90.883)	-0.074 (0.137)
Program Service Revenues	-0.994 (0.038)**	-0.749 (0.141)**	-0.915 (0.024)**	-0.881 (0.031)**	-0.197 (0.139)	-4.091 90.516)**	-0.898 (0.135)**
Observations(K)	5472	1644	1110	1908	510	300	966
EIN (N)	912	274	185	318	85	50	161
R-Square	0.9784	0.9907	0.9770	0.9927	0.6171	0.9861	0.9671
Fixed Effects Estimates							
	INGO Sub-Categories						
Independent Variables	All INGOs	Ifans	Piu	Id	Ips	Ihr	IfansNEC
Fundraising Expenses	18.435 (3.652)**	21.937 (1.085)**	61.975 (186.178)	3.831 (5.016)	34.079 (46.839)	-13.447 (3.224)**	-0.578 (11.494)
Government	-0.682 (0.242)**	-2.927 (0.418)**	2.347 (4.534)	0.099 (0.562)	-0.819 (4.081)	1.119 (0.312)**	0.702 (1.468)
Population	-0.028 (0.036)	-0.053 (0.019)**	-0.162 (0.390)	0.010 (0.027)	-0.024 (0.036)	0.177 (0.098)+	0.004 (0.038)
Dues	-5.180 (5.504)	-1.412 (4.205)	7.841 (24.440)	4.322 (22.407)	5.945 (10.220)	-4.189 (69.443)	2.878 (5.790)
Program Service Expenses	0.571 (0.101)**	1.074 (0.010)**	-1.168 (4.306)	0.819 (0.388)*	0.296 (0.562)	0.427 (0.088)**	0.845 (0.213)**
Price1	0.000 (0.027)	-0.038 (0.061)	-0.000 (0.023)	-0.078 (0.313)	-0.132 (0.232)	0.030 (0.235)	-0.098 (0.149)
Program Service Revenues	-1.147 (0.180)**	0.428 (0.501)	-0.093 (1.078)	-0.814 (0.432)	-0.316 (0.410)	-7.594 (0.753)**	-1.524 (1.801)
Observations(K)	5472	1644	1110	1908	510	300	966
EIN (N)	912	274	185	318	85	50	161
R-Square	0.6750	0.8063	0.0014	0.9755	0.1719	0.7123	0.9051

Table G2: Balanced Data, Dependent Variable - Fundraising Expenses

Random Effects Estimates							
	INGO Sub-Categories						
Independent variables	All INGOs	Ifans	Piu	Id	Ips	Ihr	IfansNEC
Private Contributions	0.285 (0.023)**	0.304 (0.104)**	0.001 (0.013)	0.363 (0.033)**	0.106 (0.070)	-0.092 (0.017)**	-0.004 (0.025)
Government Grants	0.058 (0.020)**	-0.392 (0.082)**	0.005 (0.006)	-0.015 (0.013)	-0.139 (0.128)	-0.252 (0.021)**	-0.014 (0.012)
Population	0.016 (0.004)**	0.000 (0.003)	0.001 (0.001)	0.004 (0.009)	0.001 (0.001)	0.006 (0.008)	0.001 (0.001)+
Dues	0.077 (0.188)	-0.730 (0.471)	-0.061 (0.025)*	4.612 (1.330)**	-0.007 (0.163)	-0.913 (3.060)	0.760 (0.140)**
Program Service Expenses	-0.274 (0.023)**	-0.322 (0.111)**	0.004 (0.014)	-0.345 (0.035)**	-0.029 (0.030)	0.132 (0.019)**	0.009 (0.024)
Program Service Revenues	0.279 (0.027)**	0.357 (0.121)**	0.003 (0.013)	0.301 (0.040)**	0.019 (0.025)	-0.656 (0.114)**	-0.063 (0.033)+
P1securn	0.168 (0.019)**	0.250 (0.095)**	0.018 (0.005)**	-0.065 (0.083)	0.007 (0.008)	0.348 (0.117)**	-0.021 (0.012)+
P1Mexp	0.040 (0.072)	1.252 (0.231)**	0.106 (0.018)**	0.148 (0.092)	0.005 (0.033)	2.344 (0.160)**	0.164 (0.030)**
Observations (K)	5472	1644	1110	1908	510	300	966
EIN (N)	912	274	185	318	85	50	161
R-Square	0.6044	0.2029	0.2552	0.7382	0.1292	0.7244	0.2462
Fixed Effects Estimates							
	INGO Sub-Categories						
Independent variables	All INGOs	Ifans	Piu	Id	Ips	Ihr	IfansNEC
Private Contributions	0.040 (7.235)	-0.125 (0.356)	-0.025 (0.705)	1.044 (11.972)	-0.187 (0.812)	-0.076 (0.884)	-0.035 (0.182)
Government Grants	0.085 (20.02)	--	-0.069 (0.916)	-0.406 (5.200)	--	0.567 (4.771)	0.148 (0.115)
Population	0.001 (0.015)	0.001 (0.002)	0.003 (0.030)	-0.009 (0.113)	0.001 (0.002)	0.027 (0.116)	0.003 (0.001)**
Dues	--	0.458 (1.102)	--	--	-0.543 (1.365)	--	0.483 (0.643)
Program Service Expenses	-0.025 (7.067)	0.135 (0.382)	0.075 (0.067)	-0.944 (11.308)	0.118 (0.463)	-0.087 (0.724)	0.012 (0.156)
Program Service Revenues	0.078 (5.825)	-0.815 (0.268)	-0.022 (0.112)	0.691 (7.721)	-0.080 (0.327)	-0.222 (4.099)	-0.204 (0.261)
P1securn	-0.009 (4.836)	-0.151 (0.322)	0.004 (0.083)	0.009 (0.327)	-0.014 (0.055)	-0.631 (3.556)	-0.013 (0.020)
P1Mexp	-0.132 (7.977)	-0.075 (0.539)	-0.081 (0.180)	1.085 (15.561)	0.074 (0.266)	-3.135 (29.745)	--
Observations(K)	5472	1644	1110	1908	510	300	966
EIN (N)	912	274	185	318	85	50	161
R-Square	0.3415	0.0000	0.1126	0.6000	0.2338	0.2226	0.0053

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