

Burger, Ronelle; Owens, Trudy

Working Paper

Receive grants or perish? The survival prospects of African nongovernmental organizations

CREDIT Research Paper, No. 11/07

Provided in Cooperation with:

The University of Nottingham, Centre for Research in Economic Development and International Trade (CREDIT)

Suggested Citation: Burger, Ronelle; Owens, Trudy (2011) : Receive grants or perish? The survival prospects of African nongovernmental organizations, CREDIT Research Paper, No. 11/07, The University of Nottingham, Centre for Research in Economic Development and International Trade (CREDIT), Nottingham

This Version is available at:

<https://hdl.handle.net/10419/65462>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



Receive Grants or Perish?
The Survival Prospects of African Nongovernmental Organizations

by

Ronelle Burger Trudy Owens

Abstract

This study examines survival patterns in a large, representative panel of Ugandan nongovernmental organizations (NGOs) between 2002 and 2008. It finds no evidence that more effective or more altruistic NGOs have a greater likelihood of survival. The main determinant of survival appears to be access to grants, and NGOs without grants struggle to survive. An investigation of the grant allocation mechanism suggests that effectiveness does not increase an NGO's likelihood of receiving a grant. Grant allocation appears to be neither fair nor effective, but rather to be awarded on the basis of habit rather than merit: once a grant has been allocated there is a strong tendency for it to persist. The odds are stacked against small NGOs that have not previously received grants. A picture emerges of two parallel NGO worlds: one where revenues are small, variable and hard to come by and survival is not very likely, and the other where revenues are high, more stable and more accessible and survival is more likely. The study suggests it may be difficult for an NGO to move from the former to the latter.

JEL classification: F35, D82



Receive Grants or Perish?
The Survival Prospects of African Nongovernmental Organizations

by

Ronelle Burger* Trudy Owens[†]

Outline

1. Introduction
2. Data
3. How Do We Capture Effectiveness and Altruism?
4. Which NGOs Survive?
5. Which NGOs Attract Grant Funding?
6. Conclusions and Implications

The Authors

[†] School of Economics, University of Nottingham

* School of Economics, University of Stellenbosch

Acknowledgements

We would like to thank Fred Matovu, Patrick Birungi and their team of enumerators for their diligent efforts in tracing the NGOs and administering the questionnaire. For useful comments we would like to thank D. Bonbright, R. Burger, A. Dreher, M. Gugerty, O. Morrissey, H. Öhler, L. Salamon, W. Sokolowski and F. Teal. We are also grateful to participants of the following conferences and seminars who gave us useful feedback on earlier drafts: the International Society for Third Sector Research, Stellenbosch; Centre for the Study of African Economies, University Oxford; and the Association for Research of Nonprofit Organizations and Voluntary Action, Washington DC; and seminar presentations at the University of Goettingen; University of Nottingham; and the Centre for Civil Society Studies at Johns Hopkins University.

Non-governmental organizations (NGOs) are now acknowledged as being pivotal to poverty alleviation, especially in African countries where the governments' capacity and revenue are often very limited. However, despite their prominent role in developing countries, little is known about how these organizations function and survive.¹ Amid widespread concern about the use of aid funds in developing countries and growing awareness of the prevalence of corruption and lack of transparency among NGOs,² it is imperative to ask whether the current system for funding them is able to identify and 'weed out' the least effective.

In this paper we ask whether there is anything approaching a 'market mechanism' among African NGOs, or whether survival is more or less random. To investigate patterns of survival, we use a unique data set consisting of a nationally representative panel of Ugandan NGOs. Previous research by Fafchamps and Owens (2009) on the first wave of the data, collected in 2002, revealed a clear divide between NGOs that obtain grant funding and those that do not: the former are older, larger and more affluent. The research also found evidence of persistence in the pattern of grant allocation. In 2008, through extensive tracking and repeated field visits, the authors and collaborators from Makerere University surveyed all surviving NGOs originally sampled in 2002, paying particular attention to obtaining reliable verification of non-survival from local community officers or ex-employees.³ This places us in a unique position to explore patterns and determinants of survival.

Our concern about survival and effective allocation has to do with the problems of asymmetric information specific to a developing country with traditional three-agent donor funded projects: where institutional donors pay for the project, NGOs act as intermediaries to

¹ This is presumably at least partly because appropriate data is lacking. Existing work on the survival of nonprofit organizations (e.g. Tuckman and Chang 1991; Bielefield 1994; Fernandez 2008; Wollebaek 2009) relates mostly to developed countries.

² See Callamard (2006); McGann and Johnstone (2006); Burger and Owens (2010).

³ For a full account of the original survey see Barr, Fafchamps, and Owens (2005).

execute the project, and the local community are the beneficiaries. In such a set-up there is usually little or no scope for communication between the beneficiary community and the institutional donor. It is to be expected then that the likelihood of direct information flows between these two parties will be proportional to the distance between the community and the donor. For instance, when donors are based in North America or Europe and have no local presence, they are physically removed from the site of NGO activities, and the distances involved may make it prohibitively expensive for these donors to visit project sites regularly to observe conditions, outputs and outcomes. In such cases, donors may be heavily reliant on second-hand information, often from the NGO itself. If the donor is unfamiliar with local circumstances and culture and has no benchmark for cost comparisons, its interpretation of accounts and reports may be a further obstacle to assessing performance and detecting ineffectiveness or fraud. This information asymmetry means that donors follow a second-best strategy in allocating grants and base their funding decisions on productivity proxies; that is, a set of NGO characteristics that are expected to be correlated with effectiveness.

To investigate the way these information problems affect survival, we examine the influence of *income sources*, *perceived altruism* and *effectiveness* on the likelihood of survival. The paper proceeds as follows. We first outline the data used for this analysis. We then explore the differences between the surviving NGOs and non-survivors by examining group means and investigate the determinants of survival using both ordinary probits and instrumental variable probits. Finding that survival is largely dependent on receiving a grant, we investigate the determinants of receiving a grant, through extensive descriptives, then econometrically with probit estimations and finally, a Heckman selection model. To examine *fairness*, we study grant persistence and ask whether NGOs that do not receive grants are destined to remain dependent

on community sources of income with little chance of accessing grant funding. We conclude by emphasizing our concern with the current practice of grant allocation brought to light by this research.

I. Data

The study used a representative two-wave panel survey of the Ugandan NGO sector conducted in 2002 and 2008. The sampling frame for the 2002 survey was constructed via a mini census of the entire NGO population in Kampala and 14 districts. The survey sample (295 NGOs) was drawn from this sampling frame.

The 2008 survey returned to these 295 NGOs to see what changes had occurred in the intervening six years.⁴ The team initially started tracking NGOs during the second half of 2007 using telephone numbers from 2002, but this strategy had a fairly low success rate. In December 2007 a series of short trips to each of the 15 districts was more successful, although some open cases remained that were resolved during survey field trips from January to November 2008.

The researchers were extremely conservative in declaring the ‘death’ of an NGO. The guideline was that field workers could only stop searching for an NGO after its demise was confirmed by either the community development officer or a former member of staff. For each defunct NGO, field workers were required to capture a short description of the time and reasons for the ‘death’.

The survey was done in the form of two modules. The first used a questionnaire to collect information on each NGO’s structure, finances and activities. The second consisted of a

⁴ In the 2008 survey we added a further 255 new NGOs, to account for the strong growth in the sector as reflected in the NGO register, but these additions and the associated sampling strategy are not discussed in this paper, since the area of interest here is the survival and dynamics of the 295 NGOs sampled in 2002.

community focus group interview to discover how community members perceived each NGO.⁵ The aim was to compare, and postulate links between, the two sets of findings: self-reported organizational features, such as the size of the NGO and the number of skilled workers it employed, and community perceptions of the NGO, such as how effective they thought it was.

The questionnaire for the first module was extensive, consisting of 255 questions asking for details of funding, ownership, expenditure, assets and governance. To ensure comparability, most of the questions from 2002 were retained.

The second module comprised 268 community focus group interviews conducted in 2002. In each community visited, six to ten focus group participants were recruited via a community leader. Communities were identified by asking the NGO surveyed to list a number of parishes where they worked. In this way, parishes were matched to NGOs. The community focus groups asked the group members for their opinions about poverty in their community, their community needs, and those who helped the community meet those needs. It also asked more detailed questions about what they thought the particular NGO contributed.

The findings of the first module were matched to 207 of 268 NGOs from the community focus group module of 2002.⁶ There were cases where some NGOs were linked to more than one community. To avoid problems with error terms, 21 duplicates were eliminated randomly, reducing the matched sample to 186 observations.⁷ The distribution of the sample was investigated because there were concerns about possible bias due to the loss of observations after

⁵ For a detailed discussion of the community focus group interviews see Barr and Fafchamps (2006).

⁶ In some cases, the NGO was not known to the focus group and therefore could not be matched back to the intended NGO. In these cases, the focus group assessed an alternative NGO, which was often not part of the sample for the first module and subsequently had to be dropped from the analysis.

⁷ Investigation of bias introduced by the loss of observations due to matching is available on request. The analysis of a number of key observables shows that there is little evidence of such bias. This does not, however, exclude the possibility that there may be bias as a result of unobservable factors.

matching. Encouragingly, the post-merger sample closely matched the distribution of the pre-merger sample for key continuous variables such as revenues and staff size.

How Do How We Capture Effectiveness and Altruism?

We attempted to reflect organizational effectiveness by using a “perceived value added” indicator. This was constructed using a thought experiment with a pile of 100 beans meant to represent a pot of money. Focus group participants were asked to imagine that the NGO under assessment was facing bankruptcy. The participants were then asked to decide how much of the money in the pot they would donate to save the NGO. It could be zero, all, or any amount in between. This allowed us to generate a measure of effectiveness incorporating both the quality and the quantity dimensions of the NGO’s efforts to serve the community. With the hypothetical scenario a willingness-to-pay variable was estimated without the interference of constraints relating to the ability to pay.

Altruism was captured via a question on the perceived selfishness of the NGO. The focus group was asked to agree or disagree with the statement that the NGO existed to serve the purposes of its own staff rather than to help the community. Answers were collected on a Likert scale, with 1 indicating strong disagreement with the statement and 5 indicating strong agreement.

II. Which NGOs Survive?

In this section we investigate whether the NGO funding system weeds out ineffective and selfish NGOs, or whether survival is more or less random. We also consider whether NGOs without access to grants can be sustainable and robust.

Literature and Background

As a starting point for this analysis we present a survey of the most important theories and findings regarding NGO survival. Unfortunately, only a handful of large empirical studies have examined this question, and researchers looking at the determinants of NGO survival still rely on generic theories borrowed from organizational studies. Resource dependency theory and the organizational ecology approach (both from the organizational studies literature) are the most widely cited theoretical frameworks in research on the survival of non-profit organizations.

Resource dependency theory, formulated by Pfeffer and Salancik (1978), highlights the importance of acquiring and maintaining resources for ensuring the survival of organizations in an uncertain external environment. According to this theory, since resources often originate from outside the organization, access to such resources usually implies that those providing the resources have certain claims over the organization and these claims need to be managed carefully. Although the theory defines resources broadly to include networks and also knowledge, in practice the theory has in most cases been tested using revenue size as an approximation of the organization's resources and thus also as a measure of its control over the uncertain external environment. The significance of resources is a robust and widely cited finding in the study of non-profit survival (Hager 2001; Fernandez 2008)

Organizational ecology considers the organizational characteristics and environmental factors that affect the birth, growth and survival of organizations. This literature has identified an organization's size and years of existence as vital determinants of the likelihood of survival. Given the relationship between an organization's size and age, these effects are often difficult to disentangle (Lecy 2010).

Stinchcombe (1965) observes that younger organizations tend to lack a strong network and reputation, which creates a “liability of newness”. Stinchcombe (1965) and Hannan and Freeman (1989) suggest that younger organizations may find it more difficult to cope when faced with a crisis because they do not have established roles and procedures to deal with such situations, and Hager and Galaskiewicz (2002) point out that in younger organizations staff loyalty is not yet deeply entrenched, which could leave these organizations exposed to the whims and preferences of their workers. Studies on non-profit survival have confirmed that older organizations are more likely to survive (Selle and Oymyr 1992; Bielefeld 1994; Hager, Galaskiewicz, Bielefeld, and Pins 1996; Twombly 2003)

There is also some evidence on the “liability of smallness”. It has been suggested that small organizations may face an uphill battle because they find it more difficult to secure funding (Chambré and Fatt 2002), cannot leverage economies of scale and do not have strong, established networks (Hager, Galaskiewicz, Bielefeld, and Pins 1996). Although empirical studies on non-profit survival have not been able to distinguish between these various explanations for the liability of smallness, they have provided strong support for the existence of this phenomenon (Bielefeld 1994; Hager 1999; Twombly 2003).

In looking at the survival of NGOs, it is also important to consider the influence of mission and leadership, which are central concepts in the definition and description of NGOs. An NGO’s mission and drive are often intimately linked to charismatic leadership. Sooryamoorthy and Gangrade (2001) observe that when an enthusiastic individual with a vision launches an NGO, the organization’s motivation and decision-making often become so intimately intertwined with the leader’s personality and character that the NGO is likely to collapse when the leader

departs. Haveman (1993) also notes that a change of leadership increases mortality for small organizations.

Empirical studies have found support for these arguments. Fernandez (2008) investigated survival among 41 Spanish voluntary organizations in Madrid's metropolitan area and found that mission completion was an important factor in the dissolution of these organizations. This resonates with the findings of Hager, Galaskiewicz, Bielefeld, and Pins (1996), where a fifth of the 47 Minneapolis-based non-profit organizations that ceased operating between 1980 and 1994 reported that they had closed their doors because they had fulfilled their mission.

It is important to note that very little research has been done on NGO survival in developing countries, and the work that does exist is piecemeal and based on case studies. As far as we know, there have been no previous studies of the survival of African NGOs. While the above survey of the literature provides a useful starting point, we do not necessarily expect to see similar patterns emerge in an African country where the funding and incentive structure is radically different from the set-up in a developed country. For instance, in Uganda unemployment is high and aid flows represent a comparably large proportion of GDP (Gupta, Powell, and Yang 2005; IMF 2008), so revenue may be a stronger pull factor for individuals starting an NGO and may have a more dominant influence on survival.

Descriptive Analysis

The survival rate for NGOs in Uganda is 83 percent. By 2008, 235 of the 283 baseline NGOs from 2002 were still in existence and operational.⁸ As Table 1 shows, there were discernable

⁸ Decisions had to be made for exceptional cases. Five NGOs that had become private enterprises were removed from the baseline sample as being rare and special cases comparable neither to mortality nor to survival. Seven were classified as closed: three that still existed in name but had stopped operating, and four whose leaders had moved and the NGO had either ceased to exist or undergone such radical transformation (e.g. geographical focus, activities and staff) that it could be regarded as an entirely new NGO.

differences between the averages of the characteristics of the NGOs that survived up to 2008 and those that did not, with a significant difference between many of the means.

Insert Table 1

The NGOs that survived were considerably larger than those that did not survive. There was a noticeable difference between the survivors' and non-survivors' revenues, number of employees and years of existence. Generally, survivor NGOs appeared to be larger, more affluent, and to have been in existence longer.

NGOs that survived had an average of 37 employees, compared with 34 for those that were no longer in existence by 2008. The average revenue for NGOs that survived exceeded 200 million Ugandan shillings, while that for non-survivors was less than one sixth of this figure, with the difference being significant at the 1 percent level. There was a significant difference between the average ages of the survivors and non-survivors: eleven years for the former and six for the latter (significant at the 5 percent level).

Surviving NGOs were more likely to have grant income and had a higher degree of grant dependence than non-survivors. Seventy-two percent of survivors and 46 percent of non-survivors had received grants in the past. Grants constituted on average 50 percent of survivors' revenue but only 25 percent of non-survivors' revenue. The differences between the averages of both these measures were significant.

Survivors were perceived as adding more value than non-survivors, but also as having more selfish staff. However, these differences were small and not significant.

To discover whether surviving NGOs faced fewer constraints, we compared the average numbers of constraints reported by survivors and non-survivors (in the 2002 survey). The former tended to cite fewer on average, with a 10 percent level of significance. Further, there were

noticeable and significant differences between the average numbers of most constraints reported by the two groups. Survivors were significantly less likely to list lack of skilled staff, equipment, telephones, water and electricity distribution, or security as constraints. Survivors also tended to identify a lack of funds and a lack of vehicles as constraints less frequently than non-survivors, but this difference was not significant. The lack of significance may be attributable to the very high frequency with which NGOs cited these constraints: almost universally (93 percent) a lack of funds was classified as a constraint and a high share of NGOs (68 percent) believed they were constrained by their lack of access to vehicles.

Regression Results

To examine how our three variables of interest – income sources, perceived altruism and effectiveness – influence the likelihood of survival, we constructed a model (see Table 2) with controls for organizational features that have been shown to be correlated with survival, such as size, age, and the manager’s vision and leadership (captured via the manager’s characteristics and commitment).

Table 2 reports the results from our probit estimations, which investigate predictors of survival in 2008. We start with a baseline estimation that uses standard control variables for NGO characteristics, which are the years of the NGO’s existence and the size of the NGO (measured by full and part-time salaried staff),⁹ and NGO manager characteristics, which are the manager’s education (nearly all the sample are educated so to refine the variable we create a dummy for whether the manager holds a degree), manager’s age, length of time the manager has been with the NGO by 2002, whether the manager had other employment in the same year,

⁹ Other measures of staff that included volunteer as well as salaried staff gave similar results.

whether the manager has a religious title¹⁰, and finally, to control for connections, a variable for whether the manager has a relative living abroad. We then add our variables of interest sequentially, starting with our perceived altruism and effectiveness variables measured from the focus group interviews with the community: whether the community considers the NGO to be selfish, and how many beans the community would allocate to keep the NGO in operation. Next we add our funding proxies: whether the NGO has ever received a grant, and the log of total revenue. Other than our survival variable, which has a value of one if the NGO existed in 2002 and 2008, all the independent regressors are from the 2002 survey. All continuous variables are logged. As is often the case, we encounter a trade-off between breadth and depth in our selection of funding variables, with the grant recipient dummy being a very blunt measure but available for almost all the NGOs in our sample. In contrast, the revenue variable has a much finer grain but also a higher proportion of missing values.

What is striking is the power of the funding variables as opposed to the proxies for mission and commitment. In the base specification, having a degree matters, as does having a relative living abroad. Having other employment, perhaps a sign of less commitment to the NGO in question, decreases the chances of the organization's survival. To test the hypothesis that NGOs are rewarded by the system we include plausible indicators of NGO motivation and performance: an altruism indicator and a measure of "perceived value added", as defined in the data section above. The analysis shows that neither variable is significant. This is consistent with

¹⁰ Reinikka and Svensson's (2011) research on Ugandan not-for-profit health facilities finds that altruism (measured by religion) has an effect on service delivery that matters quantitatively. We therefore include this variable in the specification.

an interpretation that more effective NGOs are not more likely than others to survive and that there is little evidence of a well-functioning feedback system rewarding performance.¹¹

In contrast, revenue flows are associated with NGO survival. An NGO that received a grant in 2002 is more likely to have survived to 2008. For a subset we have information on revenue amount. Those with higher levels of revenue are more likely to have survived, at the 5 percent level of significance. Once we control for our monetary variables, our education variable falls in importance in the case of receiving a grant, and becomes insignificant when revenue is included. The relative living abroad variable remains significant when the grant recipient dummy is included, but turns insignificant when including the revenue variable. Having a religious title remains significant for both specifications. The analysis suggests that the NGO's mission contributes to survival mainly by improving the possibility of obtaining stable sources of revenue.

Insert Table 2

There may be concern about unobserved heterogeneity in the data and how this may introduce bias to the regression. In particular, because we observe large and significant differences between the observable characteristics of NGOs with grants and high revenue and the low revenue NGOs without grants, it is likely that there may also be such gaps in unobservable features. For instance, NGOs with grants may be better at working towards a shared vision or goal. If teamwork is important for survival, then the coefficient on grants may be inflated if we do not include a variable to capture the impact of teamwork. In an attempt to isolate the influence of grants on the likelihood of survival from such influences, we instrument the funding variables.

¹¹ Although not shown in the table, the result remains when we include these variables in other specifications of the model, and when they enter these models individually.

We instrument the monetary variables using the effort invested in applying for grants and variables measuring how well the manager was connected, how the NGO had been founded, and its formal status. Indeed, the number of people involved in writing grant applications, managers who worked for other NGOs, and NGOs that began with initial seed money appeared to be appropriate choices since they were correlated with the likelihood of receiving a grant, but not expected to be correlated with the error of the survival regression. For Model 2 we included initial seed network membership, the manager's years of service in government and registration with the Ministry of Internal Affairs as these were shown to be correlated with the level of revenue, but were not expected to be associated to the error of the survival regression.

To substantiate the assumption that these factors represent exogenous variation we must explain that in Uganda NGO managers are very closely associated with the NGOs they manage. For instance, we find that 58 percent of managers have been with the NGO as long as it has been in existence and 71 percent of managers have been with the NGO for at least 70 percent of its life as an organization. Anecdotes from NGOs also support this: often an NGO will migrate with a manager if he or she moves to a new location. This shows that there is limited scope for recruiting a manager to fit the profile of the NGO, therefore reducing concern about the possible endogeneity of manager characteristics and strengthening the case that these factors may be treated as exogenous.

The dependent variable, survival, is binary. We therefore report instrumental variable probit estimations.¹² Models 1 and 2 report the instrumenting regressions for receiving a grant and the log of revenue respectively. Models 3 and 4 in Table 3 are estimated with each funding variable instrumented. For each specification the instruments are jointly significant, but in Model

¹² For robustness we estimate both specifications using an instrumental variable linear regression which reports the same signs and levels of significance.

2 the F-statistic is less than 10, indicating a problem of weak instruments.¹³ We consequently report the estimated p-value from a corrected likelihood ratio test proposed by Moreira (2009) for weak instruments.¹⁴ Several other specification tests are also conducted. The exogeneity of the funding variables is rejected using a Durbin-Wu-Hausman test in both estimations. Model 3 is significant at the 10 percent level, Model 4 at the 5 percent level. Over-identification restrictions are tested using the Amemiya-Lee-Newey X2 and are not rejected.

Insert Table 3

Table 3 reports the instrumented regression results for the two funding variables and confirms that funding remains correlated with survival.¹⁵ The coefficients are generally similar to those reported in the uninstrumented estimations and remain significant. Given that exogeneity claims cannot be assessed empirically, we thus interpret this only as tentative evidence that receiving a grant and the level of revenue are crucial for NGO survival.

The strong association between revenue and survival resonates with the anecdotes from the field. During our field work we gathered information on the reasons why NGOs discontinued their work in the communities. In most cases the demise of an NGO was associated with events that cut it off from its funding source, such as the death or relocation of the manager or scandal that affected the legitimacy of the organization. There was only one case where an NGO's closure was associated with mission completion.

¹³ These test statistics are obtained from the 2SLS estimation, assuming a linear model. We are only interested in the first stage results from this specification, which makes this approach valid.

¹⁴ The Moreira p-value correction only exists for linear models. The values reported in Table 3 are thus based on linear implementation of the regression.

¹⁵ Not reported here, but available on request for our smaller sample, we include our perceived altruism and effectiveness variables. They remain insignificant. The coefficients of the funding variables do not change from those reported in Table 3.

We investigated the reasons why access to grants enhances the likelihood of survival and found that grant revenue tends to be higher than community sources of income (including user fees, community donations and membership fees) and less prone to extreme variation. In 2002 the average revenue for NGOs with access to grants was 247 million Ugandan shillings and for NGOs without access to grants it was 34 million.

We compare the absolute percentage change in income across the two periods, contrasting grant revenue with community income, and find that while the mean absolute change across the two periods is larger for grant income, the medians are very close, demonstrating the skewness of the variation patterns in community income. The fluctuations of community income variable have a lower spike around zero and a much longer tail to the right, reflecting the greater likelihood of extreme fluctuations in community income. For instance, we find that between 2000 and 2001 42 percent of NGOs in our 2002 sample saw a more than 50 percent change in their community revenue, while only 32 percent had a change of that magnitude in their grant income. Similarly, revenue changes exceeding 100 percent were more prevalent for community revenue (26 percent) than for grant income (16 percent).

Because average grant income is significantly higher than community income, and carries fewer risks, it is expected that NGOs will usually prefer the former to the latter to ensure financial stability in delivering their services. This may explain the importance of grant income as opposed to income from fees and donations in the estimation.

III. Which NGOs Attract Grant Funding?

The analysis in the previous section showed that revenue, particularly in the form of grants, had the strongest association with survival. We found little evidence of a ‘market mechanism’ in the NGO sector, whereby more effective NGOs would be rewarded with a greater share of funding and thus be more likely to survive. In this section, to gain a better understanding of the cycle of feedback and reward that influences survival via grants, we therefore examine how grants are allocated.

Literature and Background

In his contribution to the theoretical understanding of the information problems relating to the allocation of grants, Martens argues that the problem is essentially that “the people for whose benefit aid agencies work are not the same as those from whom their revenues are obtained” (2002:14). The feedback between the user and the payer is complicated by the geographic and political distance between the beneficiary communities and the donors who fund the NGO projects. Beneficiaries experience and observe the NGO project first-hand, but have no control over the payments to the NGO and are therefore not able to use payment to encourage and reward NGO performance.

According to Martens (2002), donors do not care whether grants achieve their intended purpose or not. They are plagued by the same ills that burden large public administrations. Because they pursue non-tangible and multi-dimensional goals, donors find it difficult to use incentives to encourage performance, and consequently incentives are weak and effective accountability mechanisms are often lacking. Martens (2002) maintains that excessive bureaucracy and procedures are introduced by decision-makers in an attempt to maintain control

and contain risks and this curbs discretion, hampers decision-making and limits responsiveness. He also explains how the desire to quantify, measure and control can divert the attention of aid organizations to inputs and contracts and away from the outcomes that matter.

New institutionalism explains how these problems can be magnified and enhanced via NGO mimicry. According to the pioneers of this approach, Meyer and Rowan (1977), there is a set of unwritten rules that NGOs need to follow if they want to gain legitimacy in the sector. This perceived legitimacy is crucial for survival because NGOs can survive only if they manage to persuade external actors that they deserve support (Hager, Galaskiewicz, and Larson 2004). For NGOs that rely on donor funding, these rules entail a bureaucratization of development which is usually associated with highly visible actions such as formal community participation processes and a considerable amount of paperwork, including feedback forms, reports, official registration and audited financial statements.

According to new institutionalism, these rules are supported and motivated by “rationalized myths” that link the rules to organizational effectiveness. However, these “myths” often have no empirical basis and are in many cases socially and culturally constructed. The adoption and promotion of such practices happens partly via isomorphism, where new NGOs mimic the formal structure of established NGOs to gain acceptance from the group.

The empirical work that follows will test these ideas. Since not much empirical work has been done on the determinants of grant allocation, the present study builds on previous work by Fafchamps and Owens (2009). They found that managerial characteristics, including age of NGO and network membership were significant predictors of funding; and that grant recipients are a select group of NGOs that have more educated and better connected managers and staff who are more skilled at writing grant applications.

Descriptive Analysis

In this section we use descriptive analysis to examine the ways in which grant recipients differ from those NGOs that do not receive grants. Our focus is on perceived altruism and effectiveness, and grant persistence.

The descriptive analysis reported in Table 4 suggests that NGOs that receive grants appear to be dramatically different from those that do not. On average, NGOs that receive grants are larger. They have an average workforce of 39 employees, while NGOs that do not receive grants have an average of 31, but the difference is not significant. The mean revenue is 248 million Ugandan shillings for NGOs receiving grants, but only 34 million Ugandan shillings for NGOs without grants and this difference is highly significant. The NGOs with grants are older than those without grants (eleven years compared to six, significant at the 1 percent level).

Insert Table 4

Several manager characteristics appear to matter. There is, for instance, a noticeable gap in the mean years of education of the manager for NGOs receiving grants and those not receiving grants – although the difference is one year (15 for surviving NGOs and 14 for non-survivors) the difference is significant at the 1 percent level. NGO managers with other jobs are considerably less prevalent among NGOs with grants (54 percent compared to 78 percent), and again this difference is highly significant. On average, managers of NGOs with grants had worked for the NGO for significantly longer (seven years compared to five, significant at the 1 percent level).

Membership of NGO networks or umbrellas is much more prevalent among NGOs with grants: 79 percent of grant-receiving NGOs were members of NGO umbrellas and 46

percent were members of international NGO umbrellas, compared to the 53 percent membership of NGO umbrellas and 18 percent membership of international NGO umbrellas among NGOs without grants. The differences between these group means are highly significant. Formal registration is also significantly higher among surviving NGOs (90 percent compared to 77 percent).

There are also large and significant differences between the group means of dedicating staff to grant applications and the submission of grant applications. There are more Kampala-based NGOs among the group of grant recipients (35 percent) than among the NGOs that are not grant recipients (29 percent), but this difference is not significant. Other NGO characteristics that are not significant include the number of constraints cited, and targeting. Close-to-equal proportions of NGOs with and without grants claim that they target specific groups (86 percent compared to 83 percent). There is no evidence that targeting a HIV/AIDS sufferers, rural residents, orphans, or the poor enhances the likelihood of obtaining a grant. However, there is however a significant difference in the proportion of grant recipients who target women and refugees.

The t-tests show an interesting relationship between altruism, effectiveness and the likelihood of obtaining a grant. NGOs receiving grants are significantly more likely to be identified as selfish (1.90 compared to 1.40), but are perceived to add more value (0.65 compared to 0.56) than NGOs without grants. The difference in the effectiveness indicator is not significant, but at a p-value of 0.11 this is marginal.

We also examine persistence in receiving grants. The likelihood of having received a grant previously (88 percent compared to 54 percent) and the average proportion of revenue

derived from grants (58 percent compared to 36 percent) are considerably and significantly higher for NGOs that had grants in 2008.

Table 5 shows that there is also a substantial degree of overlap between grant allocations in 2002 and 2008. The hypothesis of independence can be rejected at the 1 percent significance level. Eighty-six percent of the NGOs with grants in 2002 also received grants in 2008, while only 46 percent of the NGOs without grants in 2002 had grants in 2008. Of the 229 surviving NGOs (without missing values for either of these variables), 152 received grants in both periods. This is much higher than the expected overlap of 136 NGOs under the assumption of independence. Similarly, the number of NGOs not receiving grants in either of the periods is 28, which is again much higher than the overlap of 12 NGOs anticipated under the assumption of independence.

The odds appear to be stacked against small organizations without grant income – out of a group of 77 NGOs reporting that they had never received grants in 2002, 22 were no longer in operation by 2008. We only had data on grants for 52 of the remaining 55 NGOs and of these 28 were still in operation but had still never received a grant, and only 24 NGOs had received a grant by 2008. The lack of grants could not be attributed to a lack of effort or awareness of grant opportunities. A reasonable proportion of the 28 NGOs who had never received a grant reported having submitted grant applications during the last 12 months (50 percent in 2002 and 31 percent in 2008), and only 8 of the 28 had not applied for a grant in either 2002 or 2008. This should be seen against the backdrop of a high prevalence of grants in the sector: according to the 2008 survey, 88 percent of NGOs either currently had a grant or had received one in the past, and only 12 percent of NGOs had never received a grant previously.

Insert Table 5

Regression Results

This section explores whether grants are allocated fairly and effectively by examining the partial correlations of grant allocation in 2008 with a variety of NGO characteristics measured in 2002. As a starting point we borrow the basic specification for grant allocation used by Fafchamps and Owens (2009). To investigate whether a lack of grants may be merely a matter of insufficient capacity, effort and information, we also add variables to capture the organization's size, access to grant application writing skills and the number of civil servants a manager knows.

Our regression results are summarized in Table 6. Models 1 to 3 use probits. However, with such a specification there is reason to be concerned about selection bias because NGOs that did not survive are missing from our 2008 grant variable and the unobservable factors that are important for survival may also be important for grant allocation. We thus also estimate a Heckman probit in Model 4 and 5. Table 6 shows that the hypothesis of independent equations cannot be rejected, thus the discussion below concentrates on the first three models.

The patterns of significance are reasonably stable across Models 1 to 5, especially when considering the drop in the sample size when including our altruism and perceived effectiveness variables. The set of results in Table 6 shows that what matters for grant allocation is the size of the NGO, the education of the manager, and the manager's commitment to the NGO as measured by length of service and having other employment.

In particular the significance of size may be important, pointing towards a vulnerability trap for small community-funded NGOs: without access to grants they are considerably more vulnerable, but their characteristics make them unlikely grant recipients. To investigate this potential vulnerability trap, the sample of NGOs who had never received a grant in 2002 is examined separately. The analysis in Table 4, and previous work (Fafchamps and Owens 2009),

have demonstrated that grant recipients are a distinct and unique group of NGOs. There is therefore a basis for questioning the assumption of parameter homogeneity. The regressions for this subsample of NGOs (not reported here) are distinct from that for the full sample. This provides further evidence that NGOs with grants may be distinct types of NGOs that are fundamentally and inherently different from those without grants. The NGO manager's dedication – represented by how long he has been employed by the NGO and whether he has another job – is the only factor that can help improve the chances of obtaining grant funding for this group of NGOs. Note that these results are viewed as explorative and tentative only, since the sample size is small.

Table 6 also shows that there is little evidence that external interventions such as expending more effort on grant applications or joining an NGO umbrella or network will make a difference.

Our variables of altruism and perceived effectiveness do not appear to matter for receiving a grant in 2008, thus challenging claims that grants are allocated to more motivated and more effective NGOs.

There is also evidence of persistence across time in grant allocation: there is a positive and significant partial correlation between having received a grant in 2002 and the likelihood of receiving a grant in 2008.

Insert Table 6

IV. Conclusions and Implications

The findings reported in this paper provide little indication that grants are allocated fairly and effectively and that NGOs that serve the community well are more likely to survive than others. The evidence presented suggests that there may be two parallel worlds for NGOs: one where revenues are small, variable and hard to come by and the likelihood of survival is relatively low, and one where revenues are high, more stable and more accessible and survival is more likely. In addition, it appears that it may be difficult to make the transition from the former to the latter.

The paper provides evidence to support the case for greater transparency and more effective feedback and funding allocation mechanisms in the sector. There does not appear to be anything approaching a ‘market mechanism’ in the NGO sector. This points to a system where grants are allocated on the basis of habit rather than merit. NGOs that manage to make the transition do so through experience of working the grant system rather than through the merit of their achievement and effectiveness.

This is a matter for concern, as the effectiveness of the NGO sector is vital. The sector plays a crucial role in assisting vulnerable and poor individuals in developing countries, where service delivery capacity is often lacking and public funds are scarce.

References

Barr, Abigail, and Marcel Fafchamps. 2006. “A Client Community Assessment of NGOs in Uganda.” *The Journal of Development Studies* 42 (4): 611–39.

- Barr, Abigail, Marcel Fafchamps, and Trudy Owens. 2005. "The Governance of Non-Governmental Organizations in Uganda." *World Development* 33 (4): 657–79.
- Bielefeld, Wolfgang. 1994. "What Affects Nonprofit Survival?" *Nonprofit Management and Leadership* 5 (1): 19–36.
- Burger, Ronelle, and Trudy Owens. 2010. "Promoting Transparency in the NGO Sector: Examining the Availability and Reliability of Self-Reported Data." *World Development* 38, (9): 1263–77.
- Callamard, Agnès. 2006. "NGO Accountability and the Humanitarian Accountability Partnership: Towards a Transformative Agenda." In Lisa Jordan, and Peter van Tuijl, eds., *NGO Accountability: Politics, Principles and Innovations*. London: Earthscan.
- Chambré, Susan.M., and Naomi. Fatt. 2002. "Beyond the Liability of Newness: Nonprofit Organizations in an Emerging Policy Domain." *Nonprofit and Voluntary Sector Quarterly* 31 (4): 502–24.
- Fafchamps, Marcel, and Trudy Owens. 2009. "The Determinants of Funding to African NGOs." *World Bank Economic Review* 23 (2): 295–321.
- Fernandez, Juan J. 2008. "Causes of Dissolution Among Spanish Nonprofit Associations." *Nonprofit and Voluntary Sector Quarterly* 37 (1): 113–37.
- Gupta, Sanjeev, Robert Powell, and Yonzheng Yang. 2005. "Macroeconomic Challenges of Scaling Up Aid to Africa." IMF Working Paper WP/05/179.

- Hager, Mark A. 1999. "Explaining Demise among Nonprofit Organizations." *Dissertation Abstracts International* 60 (8), 3141.
- Hager, Mark A. 2001. "Financial Vulnerability among Arts organizations: A Test of the Tuckman-Chang Measures." *Nonprofit and Voluntary Quarterly* 30 (2): 376–92.
- Hager, Mark A., and Joseph Galaskiewicz. 2002. "Studying Closure among Nonprofit Organizations using Event Structure Analysis and Network Methods." Paper presented at the Fourth Annual Health Care Organizations Conference, June 6–7, 2002, Berkeley, California.
- Hager, Mark A., Joseph Galaskiewicz, and Jeff A Larson. 2004. "Structural Embeddedness and the Liability of Newness among Nonprofit Organizations." *Public Management Review* 6(2), 159–88.
- Hager, Mark A., Joseph Galaskiewicz, Wolfgang Bielefeld, and Joel Pins. 1996. "Tales from the Grave: Organizations' Accounts of their Own Demise." *American Behavioral Scientist* 39 (8): 975–94.
- Hannan, Michael T., and John H. Freeman (1989) *Organizational Ecology*. Cambridge, MA: Harvard University Press
- Haveman, Heather. A. 1993. "Ghosts of Managers Past: Managerial Succession and Organizational Mortality." *The Academy of Management Journal* 36 (4): 864–81.
- Lecy, Jesse. 2010. "Sector Density, Donor Policy, and Organizational Demise: A Population Ecology of International Nonprofits." Unpublished PhD dissertation, Social Science Maxwell School of Syracuse University.

- Martens, Bertin. 2002. "Introduction." In Bertin Martens, Uwe Mummert, Peter Murell, and Paul Seabright. *The Institutional Economics of Foreign Aid*. Cambridge: Cambridge University Press.
- McGann, James, and Mary Johnstone. 2006. "The Power Shift and the NGO Credibility Crisis." *The International Journal of Not-for-Profit Law* 8(2): 65–77.
- Meyer, John W., and Brian Rowan. 1977. "Institutionalized Organizations: Formal Structure as Myth and Ceremony." *American Journal of Sociology* 83(2), 340–63
- Moreria, Marcelo, 2009 "Tests with Correct Size When Instruments can be Arbitrarily Weak." *Journal of Econometrics* 152: 131 – 140.
- Pfeffer, Jeffrey, and Gerald Salancik, 1978. *The External Control of Organizations: A Resource Dependence Perspective*. New York: Harper and Row.
- Selle, Per, and Bjarne Øymyr. 1992. "Explaining Changes in the Population of Voluntary Organizations: The Roles of Aggregate and Individual Level Data." *Nonprofit and Voluntary Sector Quarterly* 21 (2): 147–79.
- Sooryamoorthy, Radhamany, and Kesharichand D. Gangrade. 2001. *NGOs in India: A Cross-Sectional Study*. London: Greenwood.
- Stinchcombe, Arthur L. 1965. "Social Structure and Organizations." In James G. March, ed., *Handbook of Organizations*. Chicago: Rand McNally.

Tuckman, Howard P., and Cyril F. Chang. 1991. "A Methodology for Measuring the Financial Vulnerability of Charitable Nonprofit Organizations." *Nonprofit and Voluntary Sector Quarterly* 20 (4), 445–60.

Twombly, Eric C. 2003. "What Factors Affect the Entry and Exit of Nonprofit Human Service Organizations in Metropolitan Areas?" *Nonprofit and Voluntary Sector Quarterly* 32 (2): 211–35.

Wollebaek, Dag. 2009. "Survival in Local Voluntary Associations." *Nonprofit Management and Leadership* 19 (3): 267–84.

Table 1. Test of Equal Means for NGO and Manager Characteristics in 2002, by Survival

Categories	Variables	Average for survivors	Average for non-survivors	P-value for t-test	No. of obs.
<i>Size</i>	Number of employees	37.27	33.58	0.69	286
	Revenue (in '000 Ugandan shillings)	225 468	33 362	0.04	189
<i>NGO age</i>	Age of NGO	10.59	6.46	0.03	286
<i>Manager characteristics and commitment</i>	Age of manager	41.72	39.65	0.15	269
	Years of education of manager	14.75	14.26	0.27	284
<i>Source of income</i>	Ever received a grant	0.72	0.46	0.0003	286
	Proportion of income from grant	0.50	0.25	0.004	194
<i>Perceived altruism</i>	NGO staff seen as selfish	1.76	1.68	0.74	176
<i>Effectiveness</i>	Perceived value added	0.64	0.54	0.15	172
<i>Cited constraints</i>	Lack of skilled staff	0.49	0.63	0.08	286
	Lack of vehicles	0.66	0.77	0.14	286
	Lack of equipment	0.73	0.90	0.01	286
	Lack of funds	0.93	0.94	0.90	286
	Lack of telephone	0.22	0.50	0.00	286
	Water & electricity distribution	0.19	0.46	0.00	286
	Security issues	0.26	0.40	0.06	283
	Number of constraints cited	3.48	4.58	0.00	286

Table 2. NGO Survival Probit

Variables: Coefficient <i>z-value</i>	Model 1	Model 2	Model 3	Model 4
<i>NGO characteristics</i>				
NGO age	0.213 <i>1.52</i>	0.222 <i>1.42</i>	0.110 <i>0.74</i>	0.296 <i>1.33</i>
Ln Salaried staff	0.035 <i>0.49</i>	0.034 <i>0.44</i>	0.036 <i>0.49</i>	-0.096 <i>-0.91</i>
<i>Manager characteristics</i>				
Education – degree	0.614** <i>2.37</i>	0.919*** <i>2.92</i>	0.562** <i>2.13</i>	0.371 <i>1.09</i>
Age	0.531 <i>1.08</i>	0.740 <i>1.30</i>	0.502 <i>1.05</i>	0.572 <i>0.99</i>
Length of service	0.068 <i>0.41</i>	0.069 <i>0.39</i>	0.086 <i>0.51</i>	-0.108 <i>-0.37</i>
Other employment	-0.027** <i>-0.13</i>	0.034 <i>0.13</i>	0.016 <i>0.07</i>	-0.028 <i>-0.11</i>
Religious title	0.678*** <i>2.54</i>	0.841** <i>2.36</i>	0.813*** <i>3.03</i>	0.703** <i>2.23</i>
Relative lives abroad	0.419** <i>2.07</i>	0.338 <i>1.54</i>	0.401* <i>1.94</i>	0.396 <i>1.44</i>
<i>Perceived altruism and effectiveness</i>				
NGO regarded as selfish		0.077 <i>0.87</i>		
Perceived value added		-0.225 <i>-0.67</i>		
<i>Sources of income</i>				
Received a grant in 2002			0.548** <i>2.35</i>	
Ln revenue in 2002				0.183** <i>2.28</i>
Constant	-2.281 <i>-1.28</i>	-3.299 <i>-1.59</i>	-2.392 <i>-1.37</i>	-3.551* <i>-1.64</i>
Pseudo R-squared	0.113	0.144	0.135	0.162
Observations	252	211	252	174

Source: Authors' calculations based on 2002 & 2008 survey data. Note: * Represents 10% level of significance; ** 5% level; *** 1%.

Table 3. NGO Survival Instrumental Variable Probit

Variables: Coefficient <i>z</i> -value	Instrumenting regression on receiving income		Determinants of NGO survival – instrument results	
	Model 1	Model 2	Model 1	Model 2
<i>NGO characteristics</i>				
NGO age	0.130*** 4.05	0.209 1.27	0.018 0.11	0.127 0.51
Ln salaried staff	-0.005 -0.28	0.754*** 8.84	0.037 0.48	-0.431* -1.86
<i>Manager characteristics</i>				
Education – degree	0.125* 1.81	1.138*** 3.54	0.476* 1.65	-0.092 -0.20
Age	-0.023 -0.020	1.095* 1.70	0.490 1.00	0.504 0.79
Length of service	-0.007 -0.20	-0.245 -1.02	0.096 0.56	0.058 0.19
Other employment	-0.087* -1.71	0.394** 2.05	0.070 0.31	-0.252 -0.87
Religious title	-0.173*** -2.69	-0.091 -0.30	0.917*** 2.59	0.780* 1.80
Relative lives abroad	0.011** 0.22	0.380 1.58	0.380* 1.74	0.176 0.52
<i>Sources of Income</i>				
Received a grant			1.117* 1.83	
Ln revenue in 2002 #				0.120** 2.34
<i>Instruments</i>				
No. people writing grants	-0.013*** -3.36			
Works for other NGO	0.183*** 3.72			
Received seed money	0.232*** 4.62	0.479* 1.93		
Belongs to a network		0.663*** 2.74		
Registered		0.886*** 2.64		
Years in government		-0.040** -2.22		
Constant	0.465 1.10	1.972 0.85	-2.584 -1.42	-5.889 -2.10
Centered R-squared	0.362	0.655		
Joint F-test of instruments	16.23***	6.31***		
Durbin-Wu-Hausman			2.91* (0.08)	4.52** (0.03)
Amemiya-Lee-Newey			0.661 (0.71)	0.503 (0.91)
Observations	252	174	252	174

Source: Authors' calculations based on 2002 & 2008 survey data. Note: * Represents 10% level of significance; ** 5% level; *** 1%.

Table 4. Test of Equal Means for 2002 NGO and Manager Characteristics for NGOs with/without Grants in 2002

Categories	Variables	Average for grant recipients	Average for NGOs without grants	P-value for t-test	No. of obs.
<i>Size</i>	Number of employees	38.65	31.25	0.34	286
	Revenue (in '000 Ugandan shillings)	247 717	34 264	0.00	189
<i>NGO age</i>	Age of NGO	11.17	6.49	0.00	286
<i>Effort in grant application</i>	Applied for grant in 2002	0.25	0.49	0.00	286
	Staff members involved in grant writing	3.27	5.38	0.01	286
<i>Geographical</i>	Based in Kampala	0.35	0.29	0.28	286
<i>Manager characteristics and commitment</i>	Years of education of NGO manager	14.94	13.92	0.00	284
	Length of time NGO manager has been with NGO	7.011	4.71	0.00	281
	NGO manager has another job	0.54	0.78	0.00	282
	Age of manager	41.38	41.34	0.97	269
<i>Formal status</i>	NGO registered	0.90	0.77	0.00	278
<i>Networks</i>	Member of NGO umbrella	0.79	0.53	0.00	282
	Member of international NGO umbrella	0.46	0.18	0.00	275
	Manager knows how many government officials	22.26	21.79	0.91	286
<i>Constraints</i>	Number of constraints cited by NGO	3.64	3.74	0.65	286
<i>Perceived altruism</i>	NGO staff seen as selfish	1.90	1.40	0.01	176
<i>Effectiveness</i>	Perceived value added	0.65	0.56	0.11	172
<i>Target groups</i>	NGO has target group	0.86	0.83	0.53	286
	HIV/AIDS sufferers as target group	0.12	0.119	0.84	249
	Women as target group	0.35	0.22	0.05	249
	Rural dwellers as target group	0.08	0.06	0.73	249
	Orphans as target group	0.19	0.28	0.15	249
	Refugees as target group	0.06	0.00	0.04	249
	Poor as target group	0.33	0.30	0.63	249

Table 5. Persistence in Grant Recipients

		Grant recipient 2008		
		No	Yes	Total
Grant recipient 2002	No	53.85	46.15	100
	Yes	14.12	85.88	100
	Total	23.14	78.86	100
		<i>28</i>	<i>24</i>	
	<i>25</i>	<i>152</i>		

Note: The number of observations in each cell is shown in italics

Table 6. Determinants of receiving a grant

Variables: Coefficient	Probit			Heckprobit	
<i>z</i> -value	Model 1	Model 2	Model 3	Model 4	Model 5
<i>NGO characteristics</i>					
NGO age	-0.102 <i>0.57</i>	-0.279 <i>-1.48</i>	-0.401** <i>-1.96</i>	-0.206 <i>-1.48</i>	-0.013 <i>-1.02</i>
Ln of Salaried Staff	0.212** <i>2.35</i>	0.222** <i>2.35</i>	0.192* <i>1.70</i>	0.169** <i>2.16</i>	0.143* <i>1.71</i>
Religious affiliations	-0.134 <i>-0.57</i>	0.009 <i>0.04</i>	0.024 <i>0.09</i>	0.252 <i>1.36</i>	0.226 <i>1.07</i>
Belongs to a network	0.285 <i>1.17</i>	0.103 <i>0.40</i>	0.058 <i>0.20</i>	0.046 <i>0.25</i>	0.020 <i>0.09</i>
Indigenous	0.020 <i>0.06</i>	0.164 <i>0.50</i>	-0.009 <i>-0.03</i>	0.010 <i>0.04</i>	0.028 <i>0.10</i>
No involved in grant application	-0.020 <i>-1.23</i>	-0.018 <i>-0.99</i>	-0.042 <i>-1.26</i>	-0.026 <i>-1.40</i>	-0.030 <i>-1.08</i>
<i>Managers characteristics</i>					
Years of education	1.562*** <i>3.28</i>	1.438*** <i>(0.508)</i>	2.030*** <i>3.34</i>	1.151** <i>2.43</i>	1.560** <i>2.55</i>
Length of service	0.108 <i>0.55</i>	0.161 <i>0.87</i>	0.222 <i>1.15</i>	0.208 <i>1.42</i>	0.124 <i>0.91</i>
Other employment	-0.751*** <i>-3.30</i>	-0.705*** <i>-3.08</i>	-0.760*** <i>-2.91</i>	-0.312 <i>-1.48</i>	-0.380 <i>-1.36</i>
No. Known in government	0.004 <i>1.05</i>	0.004 <i>1.03</i>	-0.002 <i>-0.43</i>	0.003 <i>0.99</i>	0.001 <i>0.07</i>
Received a grant in 2002		0.899*** <i>3.00</i>	0.619* <i>1.83</i>	0.733*** <i>2.89</i>	0.555** <i>2.21</i>
<i>Perceived altruism and effectiveness</i>					
NGO regarded as selfish			0.041 <i>0.46</i>		0.062 <i>0.88</i>
Perceived value added			-0.365 <i>-0.99</i>		-0.248 <i>-0.91</i>
Constant	-3.905*** <i>-2.89</i>	-4.102*** <i>-2.82</i>	-4.711** <i>-2.68</i>	-3.925*** <i>-2.86</i>	-4.800*** <i>-2.86</i>
Selection model					
<i>NGO characteristics</i>					
NGO age				0.056 <i>0.44</i>	0.008 <i>0.74</i>
Ln of Salaried staff				0.107 <i>1.51</i>	0.129* <i>1.76</i>
<i>Managers characteristics</i>					
Age				0.164 <i>0.45</i>	0.128 <i>0.33</i>
Other employment				0.162 <i>0.83</i>	0.264 <i>1.26</i>
Length of service				0.025 <i>0.17</i>	0.026 <i>0.19</i>
Religious title				0.283 <i>1.27</i>	0.356 <i>1.46</i>
<i>Source of income</i>					
Whether received grant in 2002				0.370* <i>1.62</i>	0.420* <i>1.83</i>
Seed money donated				0.018*** <i>3.24</i>	0.018*** <i>3.18</i>
Constant				-0.984 <i>-0.74</i>	-1.017 <i>-0.72</i>
LR test of independent equations				11.07***	8.09**
Observations	185	185	156	238	210

Note: * Represents 10% level of significance; ** 5% level; *** 1%.