

Government Funding and Nonprofit Organizations

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In this article, the author tests whether there is a simultaneous relationship between the number of nonprofits and government funding of nonprofit activity and whether the fundraising efforts of nonprofits are the means by which nonprofits affect the grants available to them. Estimates of the model are consistent with the proposition that government grants and contracts (program revenues) received by nonprofits are strong determinants of the number of nonprofits in a state. They lend support to the argument that nonprofit fundraising activities have an independent effect on the availability of the grants and contracts; however, although the number of nonprofit organizations per state has a similar effect on grants to nonprofits, they do not have an effect on the contracts they receive.

Keywords: nonprofits; grants; contracting; growth

Theories explaining the existence of nonprofits are classified as either demand-side or supply-side theories. Hansmann (1987) noted that contract failure exists when there are information asymmetries; nonprofits provide some assurance to buyers of the quality of a good or service. Abzug and Turnheim (1998) classified as supply-side determinants the legal environment and the organizational environment and resources that encourage nonprofit formation. Demand-side determinants include social issues such as the extent of poverty, unemployment, and population heterogeneity. James (1987) argued that supply-side factors and government policies result in more nonprofits. She observed that across countries the nonprofit form of organization exists in education and health care. Powerful religious motivations often not compatible with profit motivations lead to the formation of nonprofit schools and hospitals. Religious groups may also have the political power necessary to acquire government grants.

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Governments may prefer to subsidize nonprofits rather than provide the services for three reasons. First, it may garner political support for the party; second, the government's share of the costs of the operation may be lower; third, volunteer labor available to schools and hospitals mean lower costs in the provision of these services.

James (1987) also noted that nonprofits may grow in response to increased government spending and result in political pressure for greater subsidization. Smith and Lipsky (1993) hypothesized that "downsizing" or cost shifting of government agencies and the contracting out of government services has encouraged the development of new nonprofits. In this scenario, the increased availability of government contracts and grants spur the development of new nonprofits and perhaps the growth of existing nonprofits, namely, "If you fund it, they will come."

In a paper presented at the 1998 Association for Research in Nonprofit and Voluntary Action annual meeting, Robert McClelland tested Smith and Lipsky's (1993) hypothesis. He estimated whether and to what extent the interstate variation in the number of nonprofits was the result of the variation in nonprofit government contracts and grants. Using a sample of nonprofit organizations with assets under \$10 million, McClelland estimated whether the average number of nonprofit organizations for each state over the 1992-1995 period was related to the average value of government grants per state as reported to the Internal Revenue Service (IRS) and the average value of program service revenues per state. Government contracts are not reported separately on IRS Form 990; however, they are included with program revenues.

Although he did not directly test whether activities undertaken by nonprofits affected the grants they received, McClelland (1998) clearly recognized this possibility. He therefore modified his model and took into account the simultaneity between the number of nonprofits when he estimated the relationship between grants and program service revenues and the number of nonprofits across states. McClelland found that the greater the availability of government grants and program service revenues, the greater the number of nonprofits. His results also suggested that perceived recipient need also affects the number of nonprofits.

In addition to the effect of government grants and contracts on the formation of new nonprofits, it is reasonable to expect that these grants and contracts would also affect the size or rate of growth of existing nonprofits. Moreover, the nonprofits themselves could increase their fundraising activities in the effort to acquire government grants and contracts, and these efforts could themselves result in increased government funding. In this article, I test whether there is a simultaneous relationship between the number of nonprofits and government funding of nonprofit activity and whether the fundraising efforts of nonprofits are the means by which nonprofits affect the grants and program service revenues available to them.

MODEL, DATA, AND RESULTS

The simultaneous model I adopt assumes that the total dollar value of government grants and/or program service revenues affect the number of nonprofits per state and over time and that the number of nonprofits through their fundraising activities affects positively the size of the government grants and program service revenues they receive. The data for nonprofits are from the U.S. Internal Revenue Service's Statistics of Income File Form 990 and are for the years 1982 and 1983 and 1985 through 1996, inclusive. These data are made available by the Center for Charitable Statistics at the Urban Institute and contain financial information for all nonprofit organizations with assets in excess of \$10 million plus a random sample of approximately 4,000 smaller organizations. Data include the number of nonprofit organizations, the dollar value of grants received by nonprofits from governments, program service revenues, which include the dollar value of government contracts to nonprofits, and nonprofit fundraising expenditures.

The Internal Revenue Service's Instruction Booklet of Form 990 states, "Program services are primarily those that form the basis of an organization's exemption from taxes" (IRS, 1990). As examples of program service revenues, the IRS instructions mention, among others, the following: hospital charges for medical services; parking fees; room, laboratory, and other fees; and insurance premiums. Income earned from providing a service for governmental agencies that benefit that agency directly or for the general public can be reported as program service revenues. Tuition, revenues from concerts and other performing arts groups, museum exhibits, author royalties, rental income that aids another organization exempt function, and unrelated trade or business activities that generate fees for service can also be included.

Hansmann's (1987) classification of nonprofits includes "commercial nonprofits" that provide goods and services in competition with for-profit competitors. Exempt from taxation are revenue from the sales of goods and services that are directly related to a nonprofit's main mission. He noted that the IRS takes a broad view of what is exempt income. Schiff and Weisbrod (1991) noted that declining government support of nonprofits has caused them to turn to commercial activities to fund their programs. They argued that a major factor influencing the decision by nonprofits to engage in commercial activities is the tax subsidy on related business activities. They also noted that the restriction prohibiting "unrelated" business activity from the taxation is not very relevant and that unrelated and related business activity are treated the same for four reasons: There is poor compliance with the law, courts have interpreted broadly the related test, there are important exceptions to the law, and cost allocation between the two types of activities allows tax avoidance. Schiff and Weisbrod provided empirical evidence that nonprofits undertake commercial activities and use these funds to subsidize their mission goals.

Table 1. Descriptive Statistics

Name	Mean	Minimum	Maximum	Coefficient of Variation
Number of nonprofits	190	2	1,290	1.19
Government grants ^a	284	0	49,835	2.19
Program service revenues ^a	4,955	2	58,547	1.55
Fundraising expenditures ^a	43	0	678	1.82
Population	4,962,100	449,000	31,781,000	1.08
Spending per capita	\$2,170	\$825	\$8,840	0.49
Income per capita	\$17,712	\$8,301	\$51,238	0.26
Corporate tax burden	.0004	0	.006	1.32

Note: Number of observations = 700. All data are per state, per year.

a. In millions of dollars.

Gulley and Santerre (1993) examined the effect of tax exemption on the market share of nonprofit hospitals. Using panel data, they found that states with higher corporate tax rates and higher local property tax rates increased nonprofit hospitals' market shares.

I assume the greater the reliance of a state on corporate taxes, the greater the incentive to adopt the nonprofit organizational form. To control for the effects of corporate taxes on the formation of nonprofits, I use a measure suggested by Rork (1999), the ratio of total corporate taxes divided by total state government spending, to capture the relative business tax burden across states. Other control measures, per capita state income and state government spending per capita, are included as measures of states' ability and willingness to fund nonprofits organizations (McClelland, 1998). Finally, De Vita (1997) showed that an important determinant of the number of nonprofits across states is the size of the state population. Data for the control measures, state corporate tax rates, state population, state income per capita, and state spending data, are from various issues of the *Statistical Abstract of the United States*. All monetary data are expressed in 1982 dollars.

The data are for 50 states for 14 years (1982, 1983, and 1985 through 1996, inclusive: there are no data for 1984), yielding 700 observations. The cross-section/time series data allow for use of a fixed effects model with state and yearly dummy variables to account for specific state characteristics not explicitly included and other general effects over time. Summary data of all variables, save the state and annual dummy variables, are presented in Table 1.

To account for the simultaneity between the dollar value of grants and the number of nonprofits and alternatively the dollar value of program service revenues, which includes government contracts, and the number of nonprofits, two-stage least squares models are estimated. Results of a Hausman test imply rejection of unidirectional causality between the funding measures and the number of nonprofits. All variables, save the dummy variables, are entered as natural logarithms, which also allow one to interpret the regression coefficients as elasticities.

The second-stage equations in the model are shown in Equations 1, 2, 3, and 4. The grants or alternatively the program service revenues in Equations 1 and 3 and the number of nonprofits in Equations 2 and 4 are their first-stage estimated values.

$$\text{Number of Nonprofits} = f(\text{Estimated Grants, Corporate Tax Burden, Per Capita State Income, State Population, Year Dummy Variables, State Dummy Variables}), \quad (1)$$

$$\text{Grants} = g(\text{Estimated Number Nonprofits, Fundraising Expenditures, State Spending Per Capita, Year Dummy Variables, State Dummy Variables}), \quad (2)$$

$$\text{Number of Nonprofits} = h(\text{Estimated Program Service Revenues, Corporate Tax Burden, Per Capita State Income, State Population, Year Dummy Variables, State Dummy Variables}), \quad (3)$$

$$\text{Program Service Revenues} = j(\text{Estimated Number Nonprofits, Fundraising Expenditures, State Spending Per Capita, Year Dummy Variables, State Dummy Variables}). \quad (4)$$

Estimates of the second stage of the models presented in columns 1 through 4 of Table 2 are consistent with the proposition that government grants/program service revenues received by nonprofits and the numbers of nonprofits are simultaneously determined. Columns 1 and 2 contain the estimates of the simultaneous relationship between the number of nonprofits and the dollar value of grants across states over the 1982 through 1996 periods, excluding 1984. Columns 3 and 4 contain the estimates of the relationship between the number of nonprofits and program service revenues.

The data in columns 1 and 2 show that government grants have a positive and statistically significant effect on the number of nonprofits and that the numbers of nonprofits and their fundraising efforts have a positive and significant effect on the amount of government grants. The data in column 1 show that the dollar value of government grants increases the number of nonprofits; the elasticity of the number of nonprofits with respect to the grants is estimated to be 0.38. This implies that a 10% increase in the dollar value of government grants will increase the number of nonprofits by 3.8%.

The estimates presented in column 2 show that the increased number of nonprofits and the fundraising efforts of nonprofits increase the dollar amount of government grants to nonprofits. The estimated elasticity of government grants with respect to the estimated number of nonprofits is 0.37 and is 0.45 with respect to fundraising expenditures. A 10% increase in the number of nonprofits increases government grants by 3.7%, whereas a 10% increase in their fundraising expenditures increases government grants by 4.5%.

Table 2. Second-Stage Estimates of the Simultaneous Relationships Between Government Grants and Program Service Revenues Contracts and the Number of Nonprofits Across States (1982-1983, 1985-1996)

	1	2	3	4
	Number of Nonprofits	Government Grants	Number of Nonprofits	Program Service Revenues
Number of nonprofits (estimate)		0.37 (2.76)		-0.06 (0.73)
Fundraising expenditures		0.45 (9.84)		0.19 (9.43)
Government grants (estimate)	0.38 (13.59)			
Program service revenues (estimate)			1.55 (14.79)	
Corporate tax	0.02 (0.63)		0.22 (8.18)	
Population	-0.32 (1.81)		-0.84 (4.60)	
Income per capita	1.53 (14.77)		1.27 (12.54)	
Per capita state spending		-0.17 (0.89)		0.28 (2.86)
Adjusted R ²	.97	.97	.97	.98

Note: Number of observations = 700. Absolute values of *t* statistics in parentheses.

The estimates of the effect of the number of nonprofits on the amount of program service revenues differ from their effect on government grants. Although the number of nonprofits and their fundraising spending has a positive and statistically significant relation to the size of the grants available to them, only their fundraising expenditures affect program service revenues. This may result from the fact that grants are provided for the direct benefit of the public with any benefit to the governmental unit providing the funds being indirect and insubstantial (IRS, 1990). Government contracts are reported with other program service revenues; consequently, it is less likely that they would have as great a statistical impact on that total. This is not surprising given that program service revenues include revenues received by medical facilities, performing arts organizations, universities, and so on.

The relation between the number of nonprofits and program service revenues is different than on their effect on government grants. The estimates in column 4 show that the numbers of nonprofits bear no relation to the program service revenues, and the elasticity of the revenues with respect to fundraising expenditures is only 0.19 (a 10% increase in fundraising expenditures increases the program service revenues by 1.9%). These results are consistent with results reported by Luksetich, Lange, and Jacobs (1986), which showed that it was not the number of nonprofit museums that determined whether they received government support but whether they undertook efforts to obtain these funds.

As noted earlier, the number of nonprofits per state in this sample consists of all nonprofits with assets in excess of \$10 million and a random sample of approximately 4,000 smaller organizations. The increase in the number of nonprofits in each state over the period in this study probably occurs because some smaller nonprofits become large and consequently other smaller nonprofits not included in earlier years are included in later years.

The expansion of program revenues had a much greater effect on the number of nonprofits than did government grants (see column 3), the elasticity of the number of nonprofits to program revenues being 1.55 (a 10% increase in program revenues increases the number of nonprofits by 15.5%: 4 times the effect of grants on the number of nonprofits). It is very likely that there is a significant upward bias in the estimates of the effects of fundraising on government grants and on program service revenues and, consequently, on the number of nonprofits.

In their study concerning the misreporting of spending by nonprofits on their IRS Forms 990, Wing, Pollak, and Rooney (2004) documented gross understatement of fundraising costs. Of the 1,500 nonprofits in their sample, they found that 37% of these organizations reporting more than \$50,000 in contributions reported zero fundraising expenses. A quarter of the nonprofits reporting \$1 to \$5 million and those over \$5 million reported no fundraising costs. Another 25% spend less than 7% per dollar raised. Carroll, Hughes, and Luksetich (2005), in a recent article concerned with managerial compensation in nonprofits, found significant underreporting by small organizations of their fundraising expenditures. Indeed, most small organizations reported no fundraising expenditures.

Underreporting of fundraising expenditures by the smaller organization is likely to result in the estimates of the elasticities of fundraising spending on program service revenues and grants to be too large. On the other hand, if this increases the predicted values of program service revenues and government grants become larger than they otherwise would have been, the estimates of the elasticities of program service revenues and grants on the number of nonprofits are understated.

The corporate tax burden on the formation and or growth of nonprofits was not significant in the equation reporting the effect of grants on nonprofits (column 1); however, the coefficient on the corporate tax burden in the equation reporting the effects of program services on the number of nonprofits (column 3) is positive and statistically significant. This is consistent with the proposition that higher tax rates increase the likelihood that nonprofits will find their exemption from taxes in the provision of goods and services in the commercial sector beneficial and have led to the growth in the size and number of nonprofits. These new organizations may be for-profits in disguise of ventures enhancing the earnings of existing organizations to be used to cross-subsidize mission goals. Moreover, the results presented are also consistent with Smith and Lipsky's (1993) contention that the growth in the number of nonprofits is affected by the grants and contracts provided by governments, especially the latter.

State per capita income, the measure used to determine a state's ability to fund the number of nonprofits, is positively and significantly related to number of nonprofits (see columns 1 and 3 in Table 2). Per capita state spending was positively and significantly related to program service revenues. The elasticity of program revenues to per capita state spending is estimated to be 0.28; consequently, a 10% increase in spending will increase nonprofit program revenues by 2.8%, an effect greater than that of their fundraising efforts. This percentage increase in turn is estimated to increase the number of nonprofits by 3.3%.

Population is negative and significant in both equations examining the determinants of the number of nonprofits across states. One possible explanation for this surprising result is that the state and annual dummy variables in the fixed effects model are picking up the effect of measures not explicitly included in the model that are associated with population in affecting the number of nonprofits.

DISCUSSION

Using a 990 data set (time series data containing organizations with assets greater than \$10 million and a random sample of smaller organizations), the empirical results presented here are consistent with McClelland's (1998) and lend further support to Smith and Lipsky's (1993) argument that the availability of government funds results in more nonprofit organizations and an increase in the number of large nonprofit organizations. Moreover, the results show that through their fundraising activities, nonprofits affect the amount of funds available to them

Care must be taken with respect to the use of program service revenues as a proxy for government contracts. Although some nonprofits receive only a small portion of their income from governments, others, such as hospitals and human service organizations, receive a substantial portion of their revenues from government. The increase in the number of nonprofits caused by the increase in program service revenues may in large part be concentrated in these types of organizations. Research into the relation between the increase in program service revenues and grants on the growth of particular types of organizations is beyond the scope of this article.

The results presented here do not imply that the availability of government funds or that rent-seeking behavior by nonprofits is the only or even main reason for the growth of nonprofits over time and across states. The size, signs, and significant levels on the state dummy variables (not reported here) show that there are substantial differences in the number of nonprofits across states that are not accounted for by the variables explicitly considered in the estimated model. Moreover, the results should not be interpreted in such a manner that they imply that all nonprofits spend substantial amounts of funds in rent-seeking efforts. Such spending, to the extent it exists, could

be accounted for by a relatively small number of sectors in the nonprofit industry.

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