

***An Examination of the Relationship between Government Funding
Allocation and Services Provided by Nonprofit Organizations in Brooklyn
and the Bronx, 1997 - 2000***

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ABSTRACT

Nonprofit organizations' role as providers of various services to the public has dramatically increased in the past few decades. Government's increased reliance on nonprofit organizations' as service providers can be said to be the major factor for such phenomenon, where government allocates funds to organizations chosen to provide the services. The reliance on nonprofit organizations follows policy changes based on *privatization* and *devolution*. Although much literature discusses the changes in relation to privatization and devolution, little research has been done using empirical data on factors that affect government's allocation of funds. Using an unique set of data on the nonprofit organizations in two boroughs in New York, namely Brooklyn and the Bronx, this paper examines the hypothesis that the types of services that organizations are intending to provide, as listed in their contracts with the government, has an influence on the amount of government funding. Using ordinary least squares (OLS), we examined three models, (i) a model looking at all organizations in Brooklyn and the Bronx, (ii) a model looking at organizations only in Brooklyn, and (iii) a model looking at organizations only in the Bronx. The independent variables is the total amount of government funding that an organization received, and in addition to organizational characteristics of organization age and size, the dependent variables are various services which are categorized into 10 fields, namely, Advocacy, Community Development, Education and Culture, Employment, Family Related

services, Health, Immigration, Housing, Organization related services, and Undecided.

Although there are some disparities in the results of the three models, the results show that the hypothesis is partially supported, as while certain service types have a statistically significant relationship with government funding, some do not.

INTRODUCTION

Nonprofit organizations provide many activities including those related to education, health care, employment training, and cultural activities to mention a few. Nonprofit organizations play an important role of providing such services to the public, and it has increased substantially in size; the number of nonprofit organizations in the United States increased from approximately 309,000 in 1967 to nearly 1 million in 1997 (Burton 1997). Also, government's reliance on nonprofit organizations as service providers increased in the past few decades as reflected in the percentage of federal social service expenditure devoted to nonprofit organizations; while rarely any expenditure was devoted to nonprofit organizations in the 1960s, over 50 percent of the federal social expenditure was devoted to nonprofit organizations as it approached the 1990s (Lipsky 1989-90). Moreover, in regards to nonprofit organizations, although there have been changes in their financial environment, government funding makes up a substantial portion of their financial resources.

In light of the mutual dependence between government and nonprofit organizations, the increase in government's reliance on private nonprofit organizations as service providers follows the policy changes based on privatization and devolution of the Reagan administration. In hand with privatization, where government contracts out services to

private nonprofit organizations, devolution refers to the transfer of decision-making responsibilities from the government to local levels such as states and cities (Austin 2003; Lipsky 1989-90; Marwell 2004; Meyers et al. 2002; Stone et al. 2001). Thus, with such changes social services are now mainly provided by private nonprofit organizations, where funds are allocated to organizations through government contracts. As the government increases contracting out services, government agencies will be met more frequently with cases in which they have to make the decision of choosing organizations to fund. Although changes following privatization and devolution have been discussed, there are relatively little paper using empirical data where it examines factors that influences government's decision-making process in allocating funds.

This paper examines certain factors affecting such decision-making process using an original set of empirical data. More specifically, I examined the relationship between the types of services that an organization is intending to provide and the government fund that was allocated to the organization. In examining the question, I used an unique set of data that is being compiled for Marwell and Gullickson's ongoing project, "The Spatial Allocation of Social Provision: Government Contracting, Material Resources, and the Poor", which is a dataset based on government contracts given from New York City and State to nonprofit organizations in the boroughs of New York during the period of 1997 to 2000. I participated as a research assistant in compiling the data, where this paper uses a subset of the data, examining nonprofit organizations in Brooklyn and the Bronx. Not only will this paper extend research on government's funding allocation process to nonprofit organizations by using empirical data, but even more so as the dataset is valuable in that it

is a comprehensive set of nonprofit organizations and not limited to organizations in a certain industry; although it is limited to a specific geographic area. In addition to the services that an organization is intending to provide, I included organizational characteristics such as organization age and size in the analysis. Thus, the hypothesis is as follows,

Hypothesis: The type of service that an organization intends to provide as listed in their contracts will have an affect on the amount of government funding

LITERATURE REVIEW

Earlier in the paper, I have looked at the political and social changes that induced the increase in government's contracting out services to private firms. However, in addition to political and social influences, there would also other environmental factors, such as economic reasons, favorable to the increase in government's decision to contract out services. This process is one step in advance to my research question as government agencies will first make the decision to contract out and thereafter make the decision of choosing which firms will provide the service in need and allocate funds. Ferris and Graddy not only examine political influences in making the decision to contract out but also examine fiscal influences in "Contracting Out: For What? With Whom?". Also branching out from the focus on privatization, Ferris and Graddy examine government's patterns of contracting out where they first examine the step of where the government decides whether or not to contract out and move on to examine with whom they decide to contract out; here, not only are nonprofit organizations an option as service providers, but also profit-making organizations as are other governments.

When making the decision to contract out, agencies will have to consider the costs and benefits of contracting out services. The general consensus regarding the potential benefits of contracting out are efficiency gains while the costs are the reduction in the degree of government's control over the service delivery process. More specifically, the paper states that the primary sources for saving costs comes from scale economies, sector differences in labor practices, and competition among suppliers. On the other hand, the reduction in government control over the service delivery process has the potential that continuity of service delivery will be threatened as well as the service quality and the ability to achieve distributional objectives. Given such reasons for and against the willingness for government agencies to contract out services, the paper examined the pattern of government contracting with data from surveys sent out to chief administrative officers of 4700 local governments in the United States between March and June of 1982. Here the return rate was 38 percent and the survey gathered data regarding 44 services provided for citizens in the area of public works, public safety, health and human services, and recreation and arts. The survey examined the patterns of contracting out with questions such as whether their government was responsible or not in providing certain services, and if so, what methods was used in the delivery of the services. In addition to contracting out to service providers such as nonprofit, for-profit, and other governments, the survey also included nine other methods of service delivery such as public employees and volunteers.

Examination of the data gives interesting results in that they were not able to find dominating characteristics predicting the decision to contract out. That is, for the services in

public work, public safety, health and human services, and recreation and arts categories, the main reasons for expecting contracting out were when the services are labor intensive, does not have the potential problem of moral hazard concerns, and when the services are tangible. However, regardless of such reasons and expectations, the percentage that the government contracted out varied greatly among different types of services within the categories and among the categories. For example, among the health and human services categories, while 20.8 percent of the animal shelter related services was contracted out other organizations, 72.6 percent of daycare services was contracted out. In addition, although we do not expect much of the health and human services to be contracted out as they generally entail intangible results, the data show that for 5 out of 9 services more than 50 percent was contracted out.

Thus, in light of the increase in government's contracting out based on privatization, Ferris and Graddy's paper examined reasons that made the environment favorable to such phenomenon. Although the dataset has the limitation of being compiled for only one year, as it did not find specific characteristics predicting government's contracting out usage it adds weight to the policy changes emphasizing privatization and devolution for the increase in contracting out services more than the environmental conditions. However, as mentioned earlier, the limitation of the dataset is that it was compiled for a single year only, and when looking at a more longer period of time, certain characteristics could emerge as predictors for contracting out. Following the question where the government decides whether or not to contract out certain services would be to examine specific factors affecting the government's decision - making process of allocating funds to the chosen service providers.

The paper by Stone, Hager, and Griffin, “Organizational Characteristics and Funding Environments: A Study of Population of United Way – Affiliated Nonprofits”, gives a comprehensive examination of the relationship between the various organizational characteristics of the service providers and government funding.

With data on nonprofit organizations affiliated with United Way of Massachusetts Bay in 1994, not only is it examining the funding environment in relation to government, but also, to that of United Way. In addition to organizational characteristics generally examined in previous work, such as organization size, governance, managerial systems and the use of volunteers, this paper extends previous work by including understudied organizational characteristics such as pursuit of commercial income and the radical diversity of organizations’ members. Here, the dependent variable is the percentage of total revenues either from government sources or from the United Way among the total revenue of the organizations. The paper is able to analyze such research question as the dataset includes information including funding sources of United Way affiliated organizations, their revenues and expenditures, and detailed organizational characteristics.

The paper used ordinary least squares regression in the analysis, and it is interesting to see that organizational characteristics that reflect higher percentage of revenue from government are usually associated with receiving low percentage of revenue from United Way. That is, while larger organizational size indicates higher percentage of total revenues from government it is not likely that larger sized organizations will receive higher percentage of total revenues from United Way. Moreover, while board size, administrative

complexity, and use of volunteers are negative indicators for higher proportion of government funding, they were positive for that of United Way. In terms of commercial income and diversity, while these characteristics were significant (negative and positive, respectively) in relation to government funding, they were insignificant in regards to the relationship with United Way funding.

Although this paper included a comprehensive amount of organizational characteristics, it did not look at the types of services that an organization is providing, and how such factor might have a significant impact on the funding organizations are receiving from the government. As an organization could be providing various types of services, sometimes not explicit by the organization's names, by breaking down the different types of services that the organization is providing, we might get a better understanding of the factors influencing the allocation process of government's funds. Or, on the other hand, it could either reflect the needs and demands of the public at that time or the types of services that are relatively overlooked. Moreover, while the independent variable for this paper is the ratio of government or United Way funding over the total revenue amount, the independent variable for my paper is the absolute number of government funding in U.S. dollars. There could be cases where the percentage that an organization is receiving from government is greater than another organization, but in absolute values, the previous organization may be receiving less than the latter organization. Thus, using absolute values for the amount of government funding might be a more accurate way in examining the allocation of government funds. Although my analysis does not include all variables as included in this paper, I believe it will be an extension in a way, as, in addition to

organizational characteristics of organization age and size, it also takes into account the types of services an organization is providing.

DATA AND MODEL

In examining the research question, I analyzed government contracts from New York City to nonprofit organizations in New York for the period 1997 to 2000. Moreover, I limited the dataset to nonprofit organizations in Brooklyn and the Bronx due to the availability of certain variables. This section provides detailed information regarding the dataset and explains the independent and dependent variables. Finally, it discusses the statistical method used in examining the question, and following, the model.

Research Data Set

As mentioned earlier in the paper, the dataset that I have used is a subset of the dataset that is being compiled for Marwell and Gullickson's ongoing project, "The Spatial Allocation of Social Provision: Government Contracting, Material Resources, and the Poor". The dataset is comprised of government contracts from the City and State of New York to nonprofit organizations located in the five boroughs of New York, namely, Manhattan, Brooklyn, the Bronx, Queens, and Staten Island from the period 1997 to 2000 (Marwell and Gullickson, forthcoming). However, in regards to my paper, I examined government contracts only from New York City. Moreover, as the variable of interest indicating the different types of services, *service codes*, is not completely available in the whole dataset, except for the organizations in Brooklyn and the Bronx, I narrowed down my dataset to that of Brooklyn and the Bronx. This results in 3068 unique contracts given

to 498 unique organizations during the period of 1997 to 2000, which is before taking missing values into consideration. As the dataset is a list of contracts, the unit of analysis is government contracts in this initial set of data. However, we want the unit of analysis to be organizations, and as there are several contracts given to the same organization we have organized the dataset so that there is one observation per organization, which is explained more in detail in the following description.

Variables

In addition to the information already included in the contracts, we obtained additional variables from the New York State Department of State website (www.dos.state.ny.us), and from the Internal Revenue Service Form 990 available from Guidestar (www.guidestar.org), a database of information regarding nonprofit organizations.

Dependent Variable – Total Contract Amount

As we are interested in the allocation of government funds to nonprofit organizations, the dependent variable used in the analysis is the total amount of funds that an organization received over the given time period; I named the variable as ***total contract amount***. Thus, the *total contract amount* is an aggregation of the contract amount over all contracts that an organization received during 1997 to 2000. By aggregating the contract amount over all contracts that an organization received during the time period, we have one observation per organization, and now, the unit of analysis is organizations instead of contracts.

Independent Variables

– *Service Codes, Organization's Size, and Organization's Age*

- *Service Codes*

Our main interest is the relationship between government funding and the types of services that an organization is intending to provide. Following, we need to include the various types of services as independent variables. The description of the services was included in the contracts and based on the description Marwell created a new variable for the types of services, *service codes*, which is complete for the organizations in the boroughs of Brooklyn and the Bronx. There are 22 different *service codes* included in this dataset, and I collapsed these service codes into 10 categories as there are services within similar fields. The following table, **Table 1**, shows the 10 new service codes, the original service codes, and their brief description.

These 10 new variables started off as dummy variables where 1 indicates the case if the contract is referring to the specified service and 0 otherwise. However, we have to note that there are organizations that have several contracts where each contract refers to different services. This conflicts with our intention of having one observation per organization as we want to use organizations as the unit of analysis and not contracts. Thus, in order to solve this problem, for a given organization, we obtained the ratio of the number of contracts of a specific service over the total number of contracts. For example, if organization A has 4 contracts where two contracts have service codes of FAM, one contract has service code of HOUS, and the last contract has the service code of UND, the value for FAM will be 0.5 (2/4), the value for HOUS will be 0.25 (1/4), and the value for

Table 1 – Service Codes

	New Service Code	<i>Original Service Code</i>	<i>Complete Name of the Original Service Code</i>	<i>Brief Description</i>
1	ADV	ADV	Advocacy	Contracts with the term legal with some exceptions.
2	COMM	CD	Community Development	Community development/ Business Revitalization/ Technical Assistance
		GEN	General, Multi-service	General community activities/ Encompassing more than one categories
3	EDUCUL	CULTO	Cultural	Environmental, cultural, recreational contracts, and any cultural contracts
		DC	Day Care	Care of kindergarten-level children and younger, contracts targeting preschoolers
		EDUC	Education & Training	Adult education, etc
		YOUTH	Children & Youth	Contracts relating to children, youth, or schools
4	EMPLOY	EMPM	Mental Health, Employment for the mentally ill people	Contracts targeting increased employment of mentally ill people
		EMPLY	Literacy, Pre-employment skill training	Contracts enhancing individual skills to increase their chances of obtaining employment
		EMPO	Employment other	All other employment-related contracts
5	HEALTH	HLA	Aids	Contracts relating to Aids related programs
		HLM	Mental Health	Contracts relating to mental health
		HLS	Substance Abuse	Contracts from Commission of Alcoholism and Substance Abuse and all contracts relating to drugs, substance abuse, and alcoholism
		HLO	Health other	All other health-related contracts
6	FAM	FSF	Foster care	Foster care
		FSP	Family Preventive Services	Contracts relating to family support services, well-being, and preventing services
		ELD	Elderly	Contracts relating to the elderly and all contracts from the State Office for the Aging
7	ORGA	NRENT	Support to nonprofit organizations for rent and physical plant	Support to nonprofit organizations for rent and physical plant
		GOS	General operating support to organizations and contractors	General operating support to organizations and contractors
8	IMM	IMM	Immigration	Contracts relating to immigrant services
9	HOUS	HOUS	Housing	Any housing services
10	UND	UND	Undecided	Contracts no fitting into any categories or those that were unidentifiable

UND will 0.25 (1/4) as well. Also, the rest of the seven *service codes* will have the value of 0. Thus, although the 10 new *service codes* started off as dummy variables they are now continuous variables. In addition to the various *service codes*, I included two variables as independent variables in order to control for organizational characteristics; namely, organization's age and size.

- Organization's Age

In terms of organization age, we used the incorporation year of the organizations as it reflects their age. We obtained the incorporation year from the New York State Department of State website (www.dos.state.ny.us), where the incorporation year of the dataset ranged from 1855 to 2005. I recreated this variable so that it is a categorical variable where the reference group is 1949 and earlier, 1 indicates the incorporation year in 1950 - 1959, 2: 1960 - 1969, 3: 1970 - 1979, 4: 1980 - 1989, 5: 1990 - 1999, and 6: 2000 - 2005. Following the creation of this categorical variable, we now have 6 new dummy variables indicating the 6 groups besides the reference group. Moreover, I also created a dummy variable indicating missing values for *Organization Age*, which is explained further on.

- Organization's Size

Organization size is reflected by the organization's total expenses. Here, we obtained the organization's total expense from the year of the organization's earliest contract. For example, if an organization had several contracts ranging from 1998 to 2000, the total expense was that of 1998. However, there were cases in which the 990 form, where we obtained the data for total expenses, corresponding to the earliest contract year was not available, and we had to use the total expense of the year earlier or later than the

earliest contract year. That is, the year in which the 990 form was available and closest to the earliest contract year. In order to account for this, I created a dummy variable indicating the case where I used the total expense from a different year than the year of the earliest contract (*different*, 112 cases out of 499 cases, 22.44%). I am not sure how much of an influence this will have. As in the case of *Organization Age*, I have also created a dummy variable for the missing values of *Organization Size*.

Statistical Analyses

Looking at the dataset, we can see that out of the total 498 observations, 118 values are missing for *Organization Age*. There is only one value missing for *Total Contract Amount* (the dependent variable), and 86 values missing for *Organization Size*. The missing values could be a concern as about 24% of the values are missing for *Organization Age* and about 17% of the values are missing for *Organization Size*. In order to see if there is a systematic pattern in the observations with missing values I ran a t-test between the two groups in the *Organization Age*, one group with missing values and the other with the rest of the remaining observations. The t-tests show us that while there are significant differences in *Organization Size*, COMM, EDUCUL, and ORGA, there are no significant differences in the rest of the independent variables. For *Organization Size*, when we run the t-test it shows that while there are significant differences in *Organization Age*, EDUCUL, and HOUS there are no significant differences in the rest of the independent variables.

These results reflect that there could be systematic patterns in the organizations with missing values for *Organization Age*, either being higher or lower, on *Organization Size*,

COMM, EDUCUL, and ORAGA, and for organizations with missing values for *Organization Size*, systematic patterns in *Organization Age*, EDUCUL, and HOUS. Some methods to take account of missing values is to replace the missing values with the average value or replace the missing values with the one corresponding to the observation with similar characteristics. By replacing missing values with other such values, we are able to keep observations with missing variables. Thus, for the missing values for *Organization Age*, I replaced the average value of *Organization Age* for the missing values. Moreover, in order to examine the change caused by replacing missing values with the average value, I created a dummy variable indicating the replacement as *size.m*. Also, for the missing values for *Organization size*, I also replaced the missing values with its average. Here, I also created a dummy variable reflecting the replacement with *age.m*.

Moreover, when compiling the data for organization size, there were cases where the total expenses were listed as 0 in the 990 forms. It seems highly unlikely that the total expense of an organization is 0, and that this could be due to the unavailability of the information at the time of filling out the 990 form. Moreover, as there are only seven such cases, I have dropped these seven observations. In addition to the missing values, I checked for the normality assumption which needs to hold when using ordinary least squares for the analysis. As the *Total Contract Amount* and *Organization Size* were highly skewed to the left, I transformed both variables by taking the natural log. The linearity assumption holds, and there does not seem to be the problem of multicollinearity as the Variance Inflation Factor (VIF) usually ranges from 1-2. The VIF between the variables related to size ($\log(\text{size})$, *size.m* and *diff*) is about 12.5, and EDUCUAL is 10.13, but since we should be

concerned with the cases where VIF is greater than 10, and this is on the border line or a bit greater than that, I will keep these variables as they are for now. I used ordinary least squares (OLS) in the analysis, and did not detect the problem of heteroskedasticity. Having examined the variables and gone through the regression assumptions following ordinary least squares, **Table 2** shows the descriptive statistics.

Table 2 – Descriptive Statistics

Variable	Mean	Standard Deviation	N
Contract Amount (in natural logs)	13.980	2.261	497
Organization Size (in natural logs)	14.679	2.008	498
Dummy variable indicating the case when using different year for total expenses (Organization Size) rather than earliest contract year (<i>diff</i>)	0.225	0.418	498
Dummy variable indicating missing values for Organization Size (<i>size.m</i>)	0.189	0.392	498
Organization Age (in categories)	3.305	1.339	498
Dummy variable indicating missing values for Organization Age (<i>age.m</i>)	0.237	0.426	498
<u>Service Codes:</u>			
ADV	0.009	0.091	498
COMM	0.045	0.190	498
EDUCUL	0.519	0.470	498
EMPLOY	0.014	0.113	498
FAM	0.198	0.367	498
HEALTH	0.059	0.219	498
IMM	0.011	0.094	498
HOUS	0.043	0.184	498
ORGA	0.063	0.228	498
UND	0.016	0.115	498

The descriptive statistics show us that on average, an organization in this population is in the 3-4 Organization Age group, that is, it tends to have incorporation year between 1970 to 1989. Moreover, the average organization tends to have a contract amount of approximately \$ 1,178,791 and a total expense (Organizations Size) of about \$ 2,371,421. Moreover, EDUCUL and FAM are the two services with the highest ratio that an organization is likely to provide.

Model & Discussion of Results

As the dataset is comprised of organizations in two separate boroughs, I ran three models using ordinary least squares (OLS); the first model (Model 1) using the whole dataset, the second model (Model 2) using the dataset only in Brooklyn, and lastly, the model (Model 3) using dataset only in the Bronx. All three cases are based on the same model, where the model and results are in **Table 3**,

Model

$$\begin{aligned} & \log(\text{contract amount}) \\ &= \beta_0 + \beta_1 \log(\text{size}) + \beta_2 \text{sizem} + \beta_3 \text{diff} + \beta_4 \text{agem} + \beta_5 \text{age1} + \beta_6 \text{age2} + \beta_7 \text{age3} + \beta_8 \text{age4} + \\ & \beta_9 \text{age5} + \beta_{10} \text{age6} + \beta_{11} \text{adv} + \beta_{12} \text{comm} + \beta_{13} \text{educul} + \beta_{14} \text{employ} + \beta_{15} \text{fam} + \beta_{16} \text{health} + \beta_{17} \text{imm} \\ & + \beta_{18} \text{house} + \beta_{19} \text{orga} + \beta_{20} \text{und} \end{aligned}$$

I will first look at the results from Model 1, as it gives an overview of all the organizations in the Brooklyn and the Bronx. First, looking at the organizational characteristics, *Organization Age* and *Organization Size*, it is interesting to note that organization's age does not have a statistically significant effect on the amount of the government fund being allocated to the nonprofit organizations. However, we can see that *Organization Size* is statistically significant at the .05 significance level. That is, when

Table 3 – Regression Results

<i>Variable</i>	Model 1 - All organizations in Brooklyn and the Bronx		Model 2 - Organizations only in Brooklyn		Model 3 - Organizations only in the Bronx	
	Est. Coefficient	(SD)	Est. Coefficient	(SD)	Est. Coefficient	(SD)
<u>Service Types:</u>						
Advocacy (ADV)	0.128	1.088	1.335	1.247	-3.236	2.201
Community Development (COMM)	-2.095**	0.742	-1.167	0.862	-4.252**	1.500
Education & Culture (EDUCUL)	0.458	0.618	1.465*	0.738	-1.824	1.118
Employment (EMPLOY)	1.382	0.942	1.658	1.117	0.088	1.746
Family Related (FAM)	1.671**	0.639	2.752***	0.756	-1.231	1.18
Health (HEALTH)	1.151	0.712	1.859*	0.845	-0.966	1.33
Immigration (IMM)	-2.541*	1.068	-1.843	1.126	15.586	18.17
Housing (HOUS)	1.771*	0.764	1.803*	0.898	2.223	1.426
Organization Related (ORGA)	0.307	0.707	1.120	0.844	-1.068	1.3
Undecided (UND)	0.264	0.936	1.111	1.006	-	-
<u>Organization Size:</u>						
Organization's Size (in natural logs)	0.360***	0.051	0.374***	0.057	0.334**	0.116
Missing Value for Organization Size (dummy variable)	-0.821**	0.262	-0.760**	0.288	-1.466*	0.626
Whether or not used different year in obtaining Organization Size (dummy variable)	1.377***	0.215	1.409***	0.242	1.003*	0.485
<u>Organization Age:</u>						
Organization's Age (in categories) Reference Group: Earlier than 1949						
Group 1: 1950 -1959	-0.843	0.616	-0.59	0.702	-1.377	1.252
Group 2: 1960 - 1969	-0.228	0.474	0.079	0.606	-1.029	0.819
Group 3: 1970 - 1979	-0.711'	0.37	-0.436	0.422	-1.882*	0.764
Group 4: 1980 - 1989	-0.35	0.386	0.2	0.437	-2.101*	0.815
Group 5: 1990 - 1999	-0.423	0.39	-0.253	0.437	-1.641	0.852
Group 6: 2000 - 2005	-1.252'	0.735	0.108	0.992	-3.930**	1.184
Missing Value for Organization Age (dummy variable)	0.194	0.263	0.083	0.286	1.119	0.634
_cons	8.385***	1.073	6.988***	1.211	12.071***	2.349
r2	0.374		0.353		0.425	
N	478		381		117	

organization's size increases by 1 %, on average, the total contract amount increases by approximately 0.36%. Thus, in this population, we can see that the larger the size, organizations tend to receive more government funding. Moreover, replacing missing values with the average value and using different year's total expense also had a significant effect. As the estimated coefficient for the dummy variable indicating the missing values for *Organization Size* is negative, we can see that the predicted *Total Contract Amount* for organizations with missing *Organization Size* values are systematically lower than for observations on the mean. Moreover, the estimated coefficient for the dummy variable reflecting the missing values for *Organization Size* is positive, showing that the predicted *Total Contract Amount* for organizations with missing *Organization Size* values are systematically higher than for observations on the mean.

When we look at the types of services, we can see that while some service types have statistically significant relationships with the government funds being allocated, there are less number of service types that do not have a significant relationship. More specifically, while COMM, FAM, IMM, and HOUS have statistically significant relationships with the allocation of government funds, ADV, EDUCUL, EMPLOY, HEALTH, ORGA, and UND do not. It is interesting to see that while FAM and HOUS have a positive relationship, COMM and IMM have a negative one. When the ratio of community development (COMM) increases by 0.1 point, *Total Contract Amount* decreases by approximately 21 percent, and when the ratio of housing (HOUS) increases by 0.1 point, *Total Contract Amount* decreases by approximately 18 percent. Such negative relationship between the service types and government funding is unexpected, as while we

expect that certain service types will receive more funding than others, we do not expect that some will actually lead to a decrease in the funding allocation. Following, we can see that when the ratio of family related services (FAM) increases by 0.1 point, *Total Contract Amount* increases by approximately 17%, and when the ratio of housing related services (HOUS) increases by 0.1 point, *Total Contract Amount* increases by about 18%. Thus, family related services and housing related services have approximately the same degree of influence on the allocation of government funds. Although, insignificant, when we look at the estimated coefficients for the rest of the independent variables, we find that they are all positive, where employment related services (EMPLOY) is associated with the highest degree of government funding and advocacy related services (ADV) the lowest. Thus, as not all service types showed statistically significant relationship with the amount of government funding, we can see that the hypothesis, that the type of service that an organization intends to provide as listed in their contracts will have an affect on the amount of government funding, is partially supported.

There could be several reasons as to why we see differences in estimated coefficients for the service types. It could be related to the fact that in terms of policies, funds are pre-allocated for certain services more than others. Also, it could be related to the focus on a specific social phenomenon, such as increase in the focus on breast cancer, leading to more fund allocation to health related services. Thus, in order to understand this phenomenon more deeply, we need to also understand the policies related to the allocation process and other social factors that could have influenced the policies. However, under the acknowledgement of such limitations, we might get a better understanding of the differences in the estimated coefficients through Model 2 and Model 3.

It is interesting to see that in both cases, as was in Model 1, *Organization Size* has a statistically significant relationship with *Total Amounts*. Moreover, the influence of *Organization Size* is similar in all three cases as the estimated coefficient for *Organization Size* is 0.374 in Model 2 and 0.334 in Model 3, where it was 0.360 in Model 1. Moreover, as in Model 1, replacing missing values with the average value and using different year's total expense also had a significant effect. That is, the negative estimated coefficient for the dummy variable indicating the missing values for *Organization Size* reflects that organizations with missing *Organization Size* values are systematically lower than observations on the mean, and the positive estimated coefficient for the dummy variable reflecting the missing values for *Organization Size* shows that the predicted *Total Contract Amount* for organizations with missing *Organization Size* values are systematically higher than for observations on the mean.

We see interesting results in the estimated coefficients for *Organization Age*. While *Organization Age* does not have a statistically significant effect in Model 1 and Model 2, in the model where we only look at nonprofit organizations in the Bronx (Model 3), certain age groups have significant relationships with the total amounts allocated. That is, if an organization is in Group 3 (1970 – 1979), the organization is expected to receive about 188% less funding than organizations that have incorporation year earlier than 1949. Moreover, if an organization is in Group 4 (1980 – 1989), the organization is expected to receive approximately 210% less than organizations with incorporation year earlier than 1949, and if an organization is in Group 6 (2000 – 2005), the organization is expected to receive about 393 % less than organizations with incorporation year earlier than 1949. The difference in funding allocation between the reference group (i.e., organizations with

incorporation year earlier than 1949) and Group 3, 4, and 5 are quite striking. Although it is not in perfect order where the estimated coefficient is decreasing as the age group increases in all three models, we can see that there is a general decrease in the estimated coefficients. This implies that the older an organization, the more funding it is likely to receive. Such result could be understood that when organizations are older, they tend to be more well-known and established. This in turn would work as competitive factors for the organization when competing with others to receive the funds. However, it is interesting that only in the dataset for Bronx, that *Organization Age* groups are significant. It would be interesting to see the relationship between *Organization Age* groups and funding in other boroughs such as, Manhattan, Staten Island, and Queens.

We also see disparities in the types of services that have significant relationship with *Total Contract Amount* among the three models. The service types that are significant in Model 2 are more closely aligned with those in Model 1 than are service types that are significant in Model 3 are with those of Model 1. This could be as the total number of observation in Model 2 (381) is more than trice the number of observation in Model 3, having more influence in the results when examining all organizations in Brooklyn and the Bronx. In Model 2, EDUCUL, FAM, HEALTH, and HOUS have significant relationship with *Total Contract Amount*, while in Model 3 only COMM has a significant relationship. Once again, having a more in depth understanding of the policies in each boroughs, and incorporating additional variables could help in understanding such disparities. However, in general we can see that the hypothesis of service types having an affect on the amount of government funding is partially supported.

LIMITATIONS AND FURTHER RESEARCH QUESTIONS

Although we were able to find the result that certain service types have an influence on the amount of government funding, we are left with the problem of the representativeness of the results as the main limitation of this paper coming from the limitation imposed by the dataset. Since the dataset is that of Brooklyn and the Bronx for the period of 1997 to 2000, there follows two limitations; one, coming from the location and second, coming from the time period. Since the dataset is only from the Brooklyn and the Bronx, we are careful in expanding this result to other areas. With the availability of such data in other areas in the United States, we will be able to get a more comprehensive result, taking the differences of different areas into account by using methods such as multi-level modeling. Thus, for future research, it would be interesting to examine whether such results hold or not with the compilation of the variables mentioned in this paper for other parts of the United States. Moreover, the dataset only covers for only 4 years duration. It would be also be interesting to examine results when we have dataset with a longer period of time, that is, up to present years.

CONCLUSION

In light of the increase in nonprofit organizations' role in the United States as providing various services to the public, and following, the government's allocation of funds to chosen nonprofit organizations, this paper was an attempt to better understand the factors affecting government's allocation process using empirical data. More specifically, this paper examined the relationship between the services that organizations are providing and the amount of government funding that they received. Among the 10 service categories,

Advocacy, Community Development, Education & Culture, Employment, Family Related services, Health, Immigration, Housing, Organization related services, and Undecided, while some services showed statistically significant relationship with government funding, others did not. Although this paper has the limitation of the dataset being specified to certain geographic areas, namely Brooklyn and the Bronx, this paper extends the area of research in understanding government's decision-making process in allocating funds.

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