

The Heterogeneity of Competitive Forces: The Impact of Competition for Resources on United Way Fundraising

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Abstract

How does competition for resources affect the fundraising performance of local United Way (UW) affiliates? Drawing upon population ecology, we hypothesize a nonlinear relationship between competition and organizational performance. Using a 21-year panel data set that includes UW campaign data, contributions to specialized fundraising organizations, and contributions to the general population of nonprofit organizations, we estimate a fixed effects regression model. We find that the effect of competition differs depending upon the degree of niche overlap. Contributions to organizations with greatest niche overlap have a negative effect on contributions to local UWs. Consistent with population ecology, other types of fundraising organizations that have less niche overlap show beneficial relationships at certain levels of giving. However, few communities reach the philanthropic level at which benefits of competition occur.

Keywords

competition, fundraising, population ecology, philanthropy, United Way

Thomas Friedman's (2008) metaphor for the state of the world in the 21st century—"hot, flat and crowded"—might be an apt metaphor to describe the contemporary nonprofit landscape. Between 2001 and 2011, the number of nonprofit organizations in the United States registered with the Internal Revenue Service (IRS) increased by 25%

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(Blackwood, Roeger, & Pettijohn, 2012; Pettijohn, 2013), and since 1980, the number of foundations more than tripled (Lawrence & Mukai, 2010). New organizational forms, such as giving circles (Eikenberry, 2009) and commercial donor advised funds, such as Fidelity Charitable (Grønbjerg, 2006), have emerged, empowering individual donors to explore a wider range of giving options. Despite the growth in the number of nonprofit organizations, giving to charities as a percent of gross domestic product (GDP) has remained at about 2% over the last 40 years (Giving USA, 2014). Faced with requests from an ever-growing number of organizations, donors may be fatigued (Din & Ali, 2005).

How does growing competition for charitable contributions affect the fundraising performance of nonprofit organizations? On one hand, theories from industrial economics, public choice economics, and population ecology posit that competition between organizations has positive effects for the field: decreasing costs, increasing quality, and promoting innovation (Faulk, 2014; Paarlberg & Varda, 2009; Seaman, Wilsker, & Young, 2014). Others suggest that nonprofit competition results in duplication of services, increased administrative costs, and splintering of the resource pool (Grønbjerg, Harmon, Olkkonen, & Raza, 1996; Steinberg, 1987). Drawing upon 21 years of campaign data for the population of local United Ways¹ (UWs), this article empirically tests how contributions received by diverse types of nonprofit organizations affect the fundraising performance of local UWs. While we find that competition generally has a negative effect on the fundraising performance of UWs, the effects differ across type of organization and level of competition. Low levels of competition with organizations that engage in more specialized fund raising efforts provide benefits for UW campaigns. In contrast, competition with direct competitors has a negative, linear effect. Our study sheds light on the heterogeneity of competitive effects on fundraising performance.

A Crowded Field

The UW is a federation of community-based fundraising organizations that raises and distributes funds to health and human service organizations located in specific geographic communities. For the past two decades, the UW system has consistently been the largest (or second largest) charity in America, raising more than US\$3.9 billion in annual campaigns each year (Flandez, 2011; Hall et al., 2013; Lindsay, Olsen-Phillips, & Stiffman, 2016). Despite the historical legacy and the value of the UW brand, many local UWs have experienced stagnant campaigns over the last two decades (Grønbjerg et al., 1996; Hall et al., 2013; Paarlberg & Meinhold, 2012).

UWs have experienced increased competition on many fronts. The number of nonprofit organizations has increased and many organizations have professionalized their fundraising practices (Barman, 2002; Brilliant, 1990; Paarlberg & Meinhold, 2012). In particular, community-based organizations, such as local UWs, experience growing competition from elite organizations, such as universities, hospitals, and major cultural institutions who have invested in the philanthropic tools necessary to dominate the grants marketplace and attract the wealthiest donors (Hall, 2008). Workplace campaigns, once a UW monopoly, have opened up (Brilliant, 1990).

Local UWs have also faced competition from the growth of direct competitors—local community foundations, which are also place-based, grant-making organizations (Lowe, 2004). The number of community foundations doubled during the 1990s (Carman, 2001), and they now exist in all 50 states (Grønberg, 2006). Between 2006 and 2013, the nation's 100 largest community foundations recorded a 25% increase in contributions (Columbus Survey Findings, 2012). Other nontraditional fundraising vehicles have also entered the field. A growing number of commercial investment institutions, such as Fidelity and Vanguard, have established nonprofit entities to administer donor advised funds² for their high-worth clients. Annual contributions to Fidelity's Charitable Gift Fund surpassed contributions to local UW affiliates in 2016 (Lindsay et al., 2016). Finally, UWs have faced competition from the growth of a variety of alternative fundraising vehicles, including social change funds (Brilliant, 2000) and grassroots giving circles (Eikenberry, 2009).

UWs are often large, institutionalized organizations that one might expect would be immune from increased competition. However, as generalized fundraising organizations that are bound to a specific geographic community, UWs may find it more difficult to secure donors as local competition increases (Lowery, Gray, Kirkland, & Harden, 2012). Does competition affect the fundraising performance of local UWs? Do the effects of competition differ across types of competitors? We draw upon population ecology to address these questions.

Organizational Theory and a Crowded Field

Organizational scholars across a variety of disciplines continue to explore how the presence of other organizations influences the survival, performance, and strategies of organizations within a field. Assuming that the environment contains a fixed pool of resources, as density increases, one would expect that competition for resources becomes a detriment to performance, driving up costs of production and carving up the market of potential customers (Baum & Mezias, 1992; Freeman & Audia, 2006; Tuckman, 1998). Gray and Lowery (1995) find that as the density of interest groups increases, reducing access to the resources needed for survival, death rates increase. However, population ecology, and the study of regional agglomerations, suggests that organizational crowding also affords organizations increased opportunities to act in both competitive and mutualistic ways (Freeman & Audia, 2006). Furthermore, not all crowding has the same effect. Specialization and niche overlap may moderate crowding effects. In the following section, we develop hypotheses about the relationships between field density and performance across resource niches.

Benefits of Competition

Studies of organizational clusters (geographic locations with high densities of organizations) draw upon concepts from population ecology, network studies, and institutional theory to suggest that organizations are not only resource consumers but also shape their social and political context. Rather than depleting the pool of existing

resources, the presence of similar organizations may expand the level of resources that are available (Paarlberg & Varda, 2009). Organizational clusters, a geographic concentration of organizations within a specific field or complementary fields, afford organizations increased opportunities to act in both competitive and mutualistic ways (Freeman & Audia, 2006; Marrett, 1980). An increasing density of organizations in a field promotes the “legitimacy” of the field. Over time, the public (including donors, potential members, and other customers) begin to accept the presence and value of the field (Abzug & Turnheim, 1998; Baum & Oliver, 1991; Hannan & Freeman, 1987).

Organizational clusters also become identifiable to others outside of the industrial field, resulting in a self-reinforcing process (Romanelli & Khessina, 2005). Guo and Brown (2006) posit that as the number of community foundations in a state increases, the visibility of local community foundations increases and contributions to community foundations also increase. Similarly, Markusen (2006, 2007) describes the benefits that result from the clustering of artists. Over time, communities hosting a dense concentration of arts organizations become supporters of and advocates for artists and artistic programming, improving the performance of organizations within the field.

Higher organizational density may allow organizations to borrow or benefit from the collective resource of a region. Clustering may create complementarities across organizations that are attractive to customers. For example, local museums benefit from the presence of not only high-quality transportation systems but also restaurants, theaters, and other museums that enhance the visitor experience (Porter, 2000). Clustering also increases the supply of specialized personnel and promotes the sharing of resources (Saxenian, 1996; Wiewel & Hunter, 1985). Applied to fundraising, the fundraising success of other organizations may form the basis for a community’s stock of philanthropic capital—legitimation of fundraising practices, community norms of giving, and field structures that promote professional practices—that becomes self-reinforcing.

Population ecology, however, posits two competing processes that drive the mutualistic value of other organizations. At first, increasing density promotes “legitimation,” which spurs organizational formations and tempers organizational failures. Later, at significantly higher levels of organizational density, competition for limited resources dominates, leading to poor performance and increased mortality rates (Abzug & Turnheim, 1998; Hannan & Freeman, 1987; Sorenson, 2003). A large body of research supports a curvilinear relationship (specifically an inverted-U relationship) between density and organizational formations or alternatively a U-shaped relationship between density and organizational death (Stretesky, Huss, Lynch, Zahran, & Childs, 2011).

Hypothesis 1: Competition for resources with generalist organizations will be associated with a curvilinear relationship with UW fundraising performance. Low levels of competition will be positively associated with UW fundraising performance, while higher levels of competition will be negatively associated with UW fundraising performance.

Competition and Niche Overlap

Not all organizations sharing the same geographic space compete with each other for resources. Organizations may avoid competition by specializing. Specialists differentiate themselves by serving the needs of a unique population located in a limited geographic region and seek resources from a narrow range of sources (Barman, 2002; Carroll, 1985; Galaskiewicz & Bielefeld, 1998; Lowery & Gray, 1995). Specialists are able to partition the resource pool and offer more benefits for members (Lowery et al., 2012; McPherson, 1983).

Hypothesis 2a: Competition with organizations that specialize in fundraising will be negatively associated with UW fundraising performance.

Hypothesis 2b: Competition with generalist organizations will be associated with an inverted U-shaped curvilinear relationship with UW fundraising performance.

Niche theory suggests that specialist organizations draw upon different combinations of resources for survival. Organizations compete with each other to the extent that their use of resources overlaps. A niche is a multidimensional space characterized by three dimensions of resource usage: resources sought after, location of resources, and time when resources are consumed (McPherson, 1983). Nonprofits compete with each other to secure funding from a variety of resources (Lowery et al., 2012). Some groups compete with each other for membership dues, while others compete with each other for foundation grants. Organizations compete for members (or donors) within a particular population of “potential members/donors.” Donors differ based upon specific characteristics, clearly defined interests, or geographic locations (Barman, 2007). Fundraising organizations may also diversify based upon the timings of their campaigns.

In a study of day care centers, Baum and Singh (1994) find that the degree of niche overlap determines the benefits and competition that arise from field crowding. They find that high niche overlap had a competitive effect, while low niche overlap had a positive effect. Organizations with low or moderate niche overlap are more likely to develop complementary resources and expand the demand for services. However, similar to general models of field crowding, we expect that the benefits of density have their limits. This leads us to a third set of hypotheses that posits that the nonlinear effects of competition will depend upon the degree of resource niche overlap. While the presence of other specialists with high niche overlap might have strong adverse effects on organizational performance, we would expect that the presence of specialists, with low or moderate niche overlap, would have positive effects on organizational performance, up until a point. Consistent with the general tenets of population ecology, we posit a curvilinear relationship between specialists with limited niche overlap.

Hypothesis 3a: Competition with organizations that have high niche overlap with UWs will be negatively associated with UW fundraising performance.

Hypothesis 3b: Competition with organizations that have low or moderate niche overlap with UWs will be associated with an inverted U-shaped curvilinear relationship with UW fundraising performance.

In the following section, we discuss our methods, including data, variable construction, and statistical modeling.

Method

Data

This article draws upon UW campaign data, nonprofit data from the National Center of Charitable Statistics (NCCS) core files, and census data. Our unit of analysis is the UW system. While many UWs cover a single county, approximately 42% of all UWs cover multiple counties. In other cases, some UWs cover a portion of a county and sometimes even several UWs serve the same county. We obtained information on each local UW service area from the UW Worldwide website. To identify the characteristics of each UW system, we captured all variables at the county level and then aggregated all counties served by a local UW system, either fully or partially. We divided all aggregated totals by the population within the UW system, drawn from the UW campaign data. This provides a per capita measure of performance. Drawing upon data from 1989 to 2009, we use 3-year rolling averages to minimize the effect of missing values in any given year. We adjust all financial values for inflation and report in 2010 values.

Dependent Variable

While most empirical studies of population ecology test the relationship between the density of organizations and organizational birth and death rates, we seek to advance the study of nonprofit competition by focusing on the effect of resource competition on organizational performance. Our dependent variable is per capita campaign contribution to a local UW affiliate, as reported by each affiliate to UW Worldwide, the traditional barometer of UW performance (Brilliant, 1990). We compared a random sample of UW campaign data against total contributions reported on Form 990 (available from the NCCS core files) and found a high degree of correlation ($>.90$). Our initial data set included 1,268 local UWs. Approximately 10% of local UW entities reported zero campaign dollars at any given point in time. We replaced all zero observations as missing in the 3-year rolling averages. As Figure 1 shows, since 1989, UW per capita giving has gradually decreased and the decline is independent of economic downturns.

Independent Variables

Our independent variables measure competition with UW from various types of organizations. There are several ways to measure competition. The Herfindahl–Hirschman

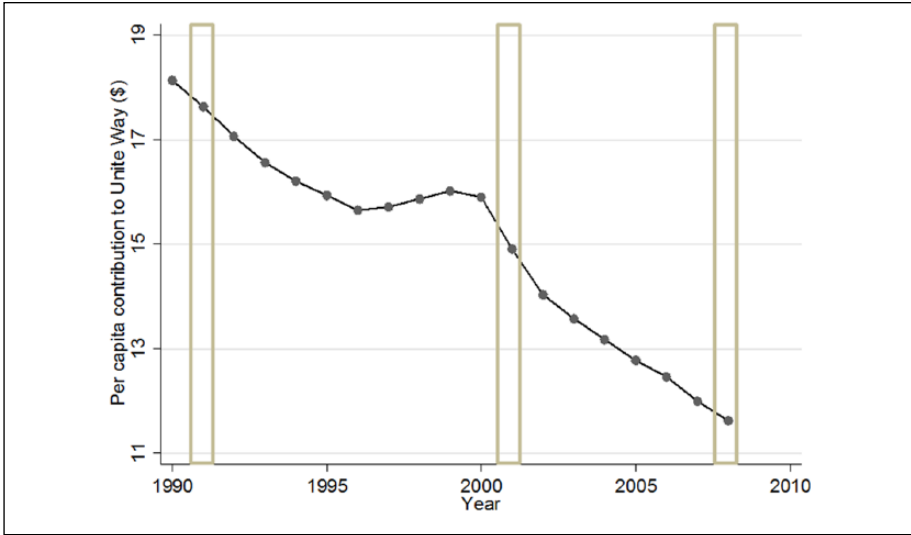


Figure 1. United Way per capita trend (average of each year) (US\$ 2010).
Note. Periods of economic recession are identified by solid vertical lines.

index (HHI), an indicator of market concentration (Seaman et al., 2014; Thornton, 2006), describes the evenness of the distribution of resources within a geography (monopoly vs. competitive markets) but does not allow for comparison across niche. The density of organizations (Saxton & Benson, 2005) captures the number of organizations within the niche, but it does not account for resource usage—a key element of niche theory. Consistent with niche theory, we measure competition as contributions to nonprofits located in the UW’s service area. As Thornton (2006) notes, “. . . fund-raising remains the primary mechanism of interagency competition for scarce donor resources” (p. 204).

We draw our nonprofit contribution data from the NCCS core files. The contribution measures include contributions from individuals and other organizations and grants from foundations and governments. The core files include only those organizations that meet a specific filing threshold (more than US\$25,000 in total receipts prior to 2008 and US\$50,000 thereafter). The core files include only about one third of all charitable organizations registered with the IRS. However, organizations reporting revenue to the IRS are financially active and more likely to be in competition with the UW for donors than organizations that do not report revenue. Similar to our measure of UW performance, all other variables are per capita measures.

To test our hypotheses, we first test the effect of contributions to all charitable nonprofits on UW campaigns. Then, we distinguish between generalists and fundraising specialists. Finally, drawing loosely upon McPherson’s (1983) categories of niche domains, we categorize niche overlap among fundraising specialists as low, high, and moderate along two dimensions: revenue structure and the characteristics of donors from whom they seek resources. Table 1 summarizes our niche overlap categories.

Table 1. Categorization of Niche Overlap.

		Overlapping donor characteristics	
		High	Low
Similarity in revenue structure	High	Community foundations: high reliance on contributions (median 75% of total revenue); similar geographic boundaries for general, place-based donor pool	Federated funders: high reliance on contributions (median 78% of total revenue) from individuals and corporations; often draw from identity based donor pools
	Low		Private charitable foundations and entity cause specific organizations: less reliant on contributions (median 46% of total revenue); limited donor overlap

All charitable nonprofits. We begin our analysis by including a measure of contributions to all charitable organizations, minus contributions to the UW. We then distinguish between generalists and specialists.

Fundraising specialists versus generalists. ³ We categorize fundraising specialists as those 501c (3) charitable organizations whose primary mission is to raise resources (rather than service delivery) for themselves or another organization. Fundraising specialists include four categories of organizations: community foundations (NTEE-CC: T30), federated fundraisers (NTEE-CC T70's), private charitable foundations (NTEE-CC: T20-T23), and entity/cause specific fundraisers (NTEE-CC: A-Z, numeric codes 11 and 12). Generalist organizations are all other organizations that are not included in one of the forms of specialized fundraising organizations. Since 1989, contributions to fundraising specialists increased from US\$146.46 per capita in 1990 to US\$248.26 in 2008. In actual dollars, not adjusted for inflation, average contributions to fundraising specialists increased from US\$87 to US\$242. Average contributions to the general population of nonprofit organizations increased from US\$1,065.91 per capita in 1990 to US\$1,939.38 per capita in 2008, adjusted for inflation. In actual dollars, not adjusted for inflation, average contributions to the general population of nonprofits increased from US\$637 to US\$1,890.

Specialists with high niche overlap: Contribution to community foundations. We posit that UWs generally experience the greatest niche overlap with community foundations, which are also heavily reliant upon contributions as a source of revenue. In addition, they compete for similar donors, often in overlapping geographies. Community foundations and UWs both engage in ongoing fundraising through broad based appeals to

individuals and corporations located within geographic boundaries that often overlap. Although there are some differences in the characteristics of donors to UW and community foundations (Zunz, 2011), both have increased reliance upon donor-advised funds that blur these traditional distinctions. Average contributions to community foundations more than tripled between 1990 and 2008, increasing from US\$11.87 in 1990 to US\$43.49 in 2008, adjusted for inflation. In actual dollars, contributions to community foundations increased from US\$7 to US\$42. We use the broad T30 National Taxonomy of Exempt Entities Core Codes (NTEE-CC)⁴ to identify community foundations. The median community foundation receives 75% of revenues from contributions.

Specialists with moderate niche overlap: Contribution to federated fundraising organizations. UWs are a form of a federated fundraising organization and experience moderate niche overlap with other federated fundraising entities.⁵ Similar to UWs, federated fundraising organizations generally rely upon contributions from individuals and corporations, rather than grants from foundations and government. Contributions make up 78% of total revenue for the median federated fundraising organization. Like the UW, many are active in workplace giving campaigns. Some, such as local Jewish Federations, seek donors from a special identity or interest group within a geographic community. Others, such as Major League Baseball Charities, have no geographic bounds and appeal to donors based solely upon identity or interest. Between 1990 and 2008, per capita contributions to other federated organizations declined from US\$56.88 to US\$38.42; however, in actual dollars contributions increased slightly from US\$34 to US\$37.

Specialists with low niche overlap: Contributions to private charitable foundations and entity/cause specific organizations. We posit that UWs have limited niche overlap with private foundations and those organizations that raise money on behalf of another organization or a specific cause. Both forms of organizations raise resources from a more diverse pool of donors than the UW and have limited geographic overlap with the UW. We aggregate contributions to private charitable foundations and entity and field fundraising organizations to create one measure of low niche overlap. On average, contributions make up less than 50% of the total revenue for both types of organizations.

The private charitable foundation category includes the widest variety of fundraising organizations, including corporate foundations, private independent foundations, and private operating foundations (T20-T23). Unlike private foundations that are endowed by a single entity, private charitable foundations raise resources from multiple sources. Organizations that raise funds on behalf of a specific organization, such as Friends of the Library, or a field or multiple organizations, such as a local educational foundation, fall into the numeric codes 11 and 12 for each of the 26 major NTEE-CC category codes (A-Z). These fundraising organizations generally seek donors from a narrower donor pool than the UW. Their donors generally have a connection to a specific institution or issue, and they may not be place based. For example, university and school alumni are often located outside of the school's geography. These organizations

may also seek donations from foundations and government. Per capita contributions to this broad category of fundraising organizations doubled, increasing from US\$78 to US\$166 between 1990 and 2008, adjusting for inflation. Not accounting for inflation, contributions to this category of fundraising organizations increased from US\$46 to US\$162.

Control Variables

We include a limited number of control variables in our model: number of nonprofits, median age of the nonprofit sector, and annual payroll.

Number of nonprofits. Consistent with population ecology models, we include a measure of density of all nonprofit organizations in the community. In the context of the UW, the number of nonprofits in their service region may represent the potential service market of the local UWs—the base of organizations that potentially benefit from UW fundraising, capacity building, and other general support services. Using the NCCS core files (1989-2009), density is measured as the number of all reporting charitable (501c (3)) organizations per 10,000 population.

Annual payroll per employee. Numerous studies have found that community income is a key determinant of the size of the nonprofit sector (see Lecy & Van Slyke, 2012, for a review of many of these earlier studies). We measure community income as annual private, nonfarm payroll (BZA210 from the Census of County Business Patterns) per employee.

Age. The maturity of the sector may have an impact on an organization's ability to secure donations. Organizational age, an indicator of stability, legitimacy, and reputation, is associated with various measures of organizational performance (Guo & Brown, 2006). Organizations located in communities with a more established nonprofit sector may benefit from the legitimacy that the sector has achieved. More established fields might experience less competition for resources than fields populated by young organizations seeking capital for growth and expansion. We measure age as the median age for all nonprofit organizations located in the UW service area.

Table 2 summarizes our construction of variables, and Table 3 presents descriptive statistics of the variables including dependent, independent, and control variables aggregated by local UW systems.

Analysis

Our analysis explores the relationship between contributions to various types of competitors and the fundraising outcomes of local UW affiliates using a 21-year panel data set. Panel data analysis assumes that each variable in the model varies over time. Recognizing that our model inherently has omitted variables that may influence other predictors or the outcome, we control for entity fixed effects. In doing so, we are

Table 2. Variable Construction.

Variable	Components of contributions	NTEE core code from NCCS
Dependent variable		
1. United Way giving	United Way per capita giving	
Independent variables		
2. All nonprofits	Contributions to all nonprofits except for the United Way	
Generalists vs. specialists		
3. Fundraising specialists	Contributions to community foundations, federated funds, private charitable foundations, and entity fundraising	
4. Generalists	Contributions to all nonprofits-contributions to fundraising specialists (excluding contributions to United Way)	All other fundraising entities
Fundraising specialists by niche overlap		
5. High niche overlap	Contributions to community foundations	Public foundation (T30) Community foundations (T31) Federated giving program (T70) Private charitable foundation (T20) Corporate foundation (T21) Private independent foundation (T22) Private operating foundation (T23) Single organization support (All 11) Fundraising & Fund distribution (All 12)
6. Moderate niche overlap	Contributions to federated funds	
7. Low niche overlap	Contributions to private charitable foundations and entity/cause specific	
Control variables		
10. Density of nonprofits	The number of all nonprofits / 10,000 population	NCCS / United Way campaign data
11. Payroll per employee	Private nonfarm annual payroll /private nonfarm employment	Census
12. Median age	Median age of nonprofits	NCCS rule date

Note. All contribution variables are divided by United Way entity population. All dollar values are adjusted for inflation. NTEE = National Taxonomy of Exempt Entities; NCCS = National Center of Charitable Statistics.

Table 3. Descriptive Statistics of Variables.

	M			SD	Minimum	Maximum
	All years	1990	2008			
Dependent variable (per capita)						
United Way per capita giving (\$) ^a	0.015	0.018	0.012	0.014	0.000	0.400
Independent variables (per capita-adjusted for inflation)						
All nonprofits (\$) ^a	1.693	1.210	2.186	9.169	0.000	276.366
Fundraising specialists (\$) ^a	0.211	0.146	0.248	1.256	0.000	43.478
Generalists (\$) ^a	1.483	1.066	1.939	8.256	0.000	271.491
High overlap:						
Community foundation (\$) ^a	0.034	0.012	0.043	0.221	0.000	8.494
Moderate overlap:						
Federated funders (\$) ^a	0.044	0.057	0.038	0.351	0.000	7.991
Low overlap:						
Private and entity/cause fundraising (\$) ^a	0.133	0.078	0.166	0.779	0.000	29.460
Control variables (per capita)						
Density of all nonprofits (501c(3)) ^b	0.195	0.146	0.238	0.535	0.002	9.937
Payroll per employee (\$) ^b	3.195	3.039	3.366	0.654	0.950	8.316
Median age of nonprofits ^c	1.345	1.219	1.537	0.376	0.046	4.796

^aScaled by US\$1,000.

^bNumber of 501c(3) and payroll divided by 10,000 population.

^cScaled by 10.

controlling for various omitted characteristics of the UW system, which are constant over time and whose effects remain constant. For example, we assume that regional cultural values that shape philanthropic behaviors have remained stable and have had a constant effect on UW fundraising performance over the last two decades. We also control for unobserved omitted temporal variation in our model—variables that change over time but not across entities. Examples might include changes in national policy that might affect charitable giving (Stock & Watson, 2011). To determine whether a fixed effect model is justified, we run a Hausman specification test. The Hausman specification test⁶ shows that fixed effect model is preferred (Greene, 2003, as cited in Park, 2009) in each of our models.

Consistent with population ecology, we test for nonlinear relationships, running separate models with squared and cubic terms for each form of competition. We report the model with the best fit. In each of our models, we test for multicollinearity before introducing quadratic and cubic terms. The mean variance inflation factor (VIF) for the base linear base models is 3.06, suggesting limited multicollinearity across the variables included in our model.

We repeat this series of analysis three times. First, we begin our analysis by modeling the relationship between contributions to all nonprofits and UW campaign size. Table 3 displays these results. Second, we compare the differential effects of contributions to specialized fundraising organizations and all other charitable organizations on UW campaign size. Table 4 displays these results. Finally, we further distinguish between the various forms of specialized fundraising competitors. We run a separate model for the nonlinear (quadratic and cubic) for each type of competitor.

Results

Contributions to other fundraising organizations affect the fundraising performance of UWs. First, we find that contributions to all organizations are negatively associated with giving to the UWs. However, the effects of competition depend upon the degree of niche overlap. Furthermore, these relationships are nonlinear, and the direction of the relationship changes as the level of contributions to other types of organizations increase.

Beginning with our control variables, we find that the number of nonprofit organizations, payroll, and median age of the nonprofit sector positively affect UW contributions in all models. As population of the service market and community resources increase and the sector matures, giving to UWs increase. We next review the effect of each form of competition on UW fundraising, beginning with the effect of contributions to all nonprofits.

All Nonprofits

In Model 1 (Table 4), we explore the nonlinear relationship between contributions to all nonprofits and UW campaigns. Our analysis does not support Hypothesis 1 that posits an inverted U-shaped relationship between per capita contributions to all

Table 4. The Impact of Competition on UW Campaigns (1990-2008) by Fundraising Specialist and General Population of Organizations.

	β (SE)		
	Model 1	Model 2	Model 3
All nonprofits	-1.73e-05 (4.91e-05)		
All nonprofits ^{a2*}	-1.13e-06** (4.55e-07)		
All nonprofits ^{a3^b}	-1.53e-09 (1.16e-09)		
Fundraising specialist		-0.00208*** (0.000272)	-0.000659*** (0.000116)
Fundraising specialist ^a		0.000152*** (2.53e-05)	
Fundraising specialist ^b		-3.19e-06*** (6.44e-07)	
Generalist nonprofits		-0.000355*** (2.99e-05)	7.48e-05** (3.67e-05)
Generalist nonprofits ^a			-1.93e-06*** (1.02e-07)
Control variables			
Nonprofit density	0.0102*** (0.000413)	0.0105*** (0.000434)	0.0104*** (0.000413)
Payroll per employee	0.0008*** (0.000181)	0.0010*** (0.000181)	0.0007*** (0.000179)
Median age	0.0005*** (0.000145)	0.0005*** (0.000146)	0.0005*** (0.000145)
Constant	0.0136*** (0.000608)	0.0135*** (0.000612)	0.0137*** (0.000607)
N	19,798	19,798	19,798
R ²	.196	.184	.198
Number of UW entities	1,163	1,163	1,163
Entity fixed effects	YES	YES	YES
Year fixed effects	YES	YES	YES

Note. Robust standard errors in parentheses. UW = United Way.

^aQuadratic term (^{a2}).

^bCubic term (^{a3}).

* $p < .1$. ** $p < .05$. *** $p < .01$.

organizations and per capita contributions to the UW. There is a negative, slightly nonlinear relationship between contributions to UWs and contributions to generalists (Model 1, Figure 2). The magnitude of the negative effect of competition increases as contributions to generalists increase. Low levels of contributions to other nonprofits have a weak negative effect on UW campaigns; high levels of contributions have a stronger negative effect. At mean level of contributions to all nonprofits, our model predicts UW contributions to be US\$15.02 per capita, all else being equal. However, as per capita contributions to all nonprofits increase by one standard deviation (approximately US\$9,169), predicted UW per capita contributions decrease to US\$14.73, a 2% decrease.

Specialists Versus Generalists

We test Hypotheses 2a and 2b by comparing the nonlinear effects of per capita contributions to specialized fundraising organizations (Table 4: Models 2 and 3). First, we find a nonlinear, S-shaped relationship between contributions to fundraising organizations and contributions to the UW (Table 4, Model 2, Figure 3). At lower levels of contributions, there is U-shaped relationship between contributions to other fundraising organizations and contributions to the UW. However, at higher levels of contributions

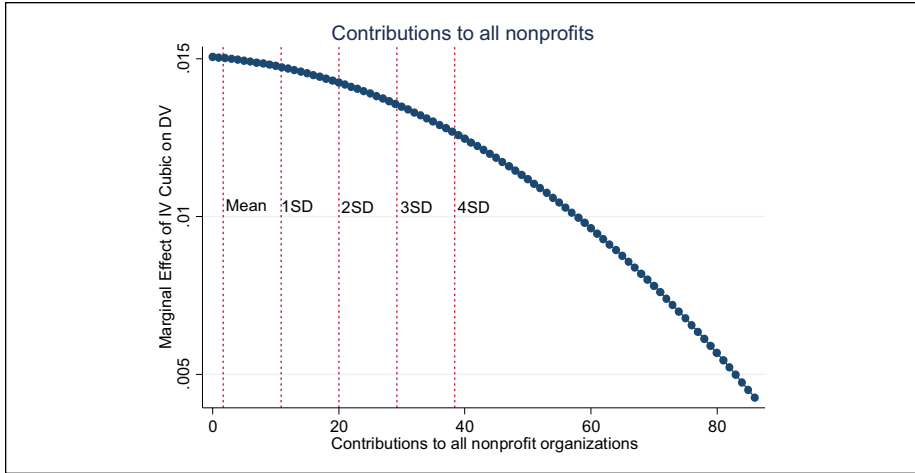


Figure 2. Model 1: All nonprofits.

Note. Vertical lines represent the mean, and up to 4 standard deviations above the mean.

to other fundraising organizations, the relationship resembles an inverted-U shape. At the mean level of contributions to specialist nonprofits, our model predicts UW contributions to be US\$14.81 per capita, all else being equal. However, as contributions to specialist nonprofits increase by one standard deviation (US\$1,256), predicted UW per capita contributions decrease 15.5% to US\$12.51.

Consistent with population ecology, we find an inverted U-shaped relationship between contributions to generalists and contributions to the UW (Model 3, Figure 4). One standard deviation increase in contributions to generalist organizations from the mean (approximately US\$8,256) increases the predicted mean level of contributions to the UW contributions from US\$15.05 to US\$15.49, all else being equal. When per capita contributions to generalists reach US\$19,378, approximately two standard deviations above the mean, contributions to the UW reach their maximum.

Degree of Niche Overlap

To test the niche overlap hypotheses further, we distinguish between contributions to the various types of specialized fundraising organizations based upon degree of niche overlap. In Models 4 to 6 (Table 5), we test the nonlinear relationship between each form of specialized fundraising organization in our model and find support for Hypotheses 3a and 3b.

High Niche Overlap

Those organizations that have the greatest niche overlap with the UW, community foundations, have a negative, linear relationship with contributions to the UW (Table 5:

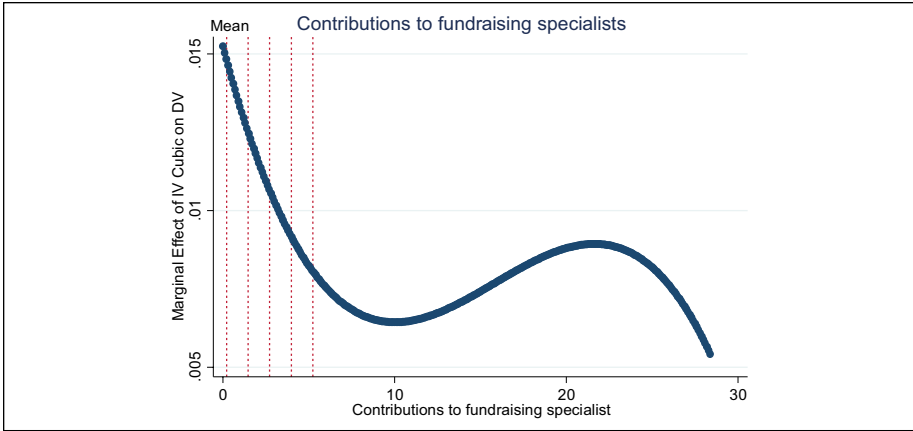


Figure 3. Model 2: Specialists.

Note. Vertical lines represent the mean, and up to 4 standard deviations above the mean.

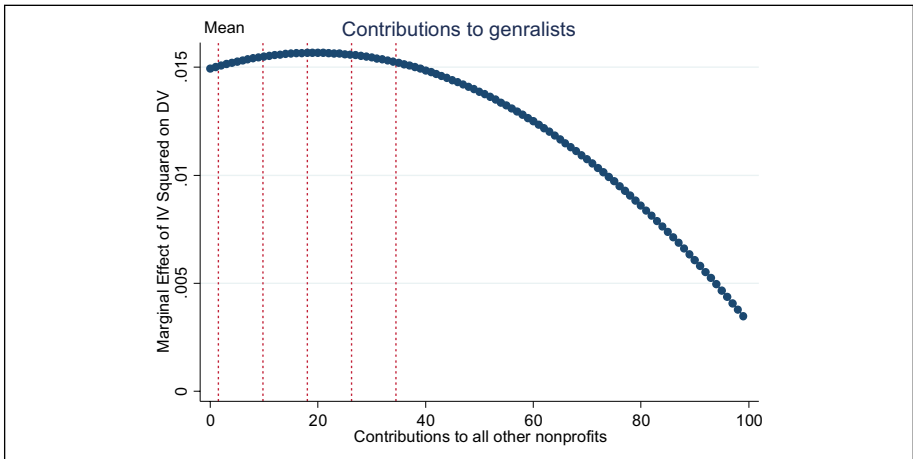


Figure 4. Model 3: Generalists.

Note. Vertical lines represent the mean, and up to 4 standard deviations above the mean.

Model 4 and Figure 5). One standard deviation increase in per capita contributions to community foundations from the mean, approximately US\$221, decreases the predicted mean per capita contributions to the UW contributions 3%, from US\$14.94 to US\$14.45, all else being equal.

However, contributions to organizations with moderate niche overlap, federated fundraising organizations, exhibit an inverted-U relationship (Table 5: Model 5 and Figure 6). One standard deviation increase in per capita contributions to other federated funders (US\$351) increases the predicted mean per capita contributions to the

Table 5. The Impact of Competition on UW Campaigns (1990-2008) by Niche Overlap.

	β (SE)		
	Model 4	Model 5	Model 6
High overlap			
Community foundation	-0.0025*** (0.000361)	-0.0017*** (0.000361)	-0.0023*** (0.000407)
Moderate overlap			
Federated funders	-0.0022*** (0.000288)	0.0102*** (0.000741)	-0.0019*** (0.000298)
Federated funders ² ^a		-0.0017*** (9.24e-05)	
Low overlap			
Private and entity fundraising	0.0007*** (0.000176)	0.0006*** (0.000175)	-0.0018*** (0.000368)
Private and entity fundraising ² ^a			0.0006*** (6.95e-05)
Private and entity fundraising ³ ^b			-2.33e-05*** (3.13e-06)
Generalist nonprofits	-0.0004*** (2.97e-05)	-0.0004*** (2.95e-05)	-0.0004*** (2.97e-05)
Control variables			
Nonprofit density	0.0104*** (0.000416)	0.0116*** (0.000417)	0.0010*** (0.000440)
Payroll per employee	0.0008*** (0.000182)	0.0009*** (0.000180)	0.0008*** (0.000182)
Median age	0.0005*** (0.000146)	0.0005*** (0.000145)	0.0005*** (0.000146)
Constant	0.0140*** (0.000615)	0.0130*** (0.000611)	0.0139*** (0.000614)
N	19,798	19,798	19,798
R ²	.186	.200	.189
Number of UW entities	1,163	1,163	1,163
Entity fixed effects	YES	YES	YES
Year fixed effects	YES	YES	YES

Note. Robust Standard errors in parentheses. UW = United Way.

^aQuadratic term (²).

^bCubic Term (³).

* $p < .1$. ** $p < .05$. *** $p < .01$.

UW contributions from US\$15.20 to US\$19.25, all else being equal. This is an increase of 27%. All else being equal, we find that contributions to the UW are maximized when per capita contributions to federated fundraising organizations reach US\$2,990, which is between the 90th and 95th percentile.

In Model 6, the cubic terms are significant, suggesting an S-shaped relationship between contributions to organizations with low niche overlap and contributions to local UWs (Table 5: Model 6, Figures 7). One standard deviation increase in contributions to low niche overlap specialists (US\$779) decreases per capita contributions to UWs by 6.3% (from US\$14.82 to US\$13.90). However, a one standard deviation increase from the third to fourth standard deviation above the mean increases UW contributions by 4.8% (from US\$13.77 to US\$14.44).

Before concluding our discussion of the results, it is important to note that we also tested the robustness of our results using log-log specifications.⁷ The effects of two variables—all nonprofits and federated funders—are no longer statistically significant, reflecting the changing slope of the effect across levels of the independent variable. However, the direction of the effect of all other independent variables in the log-log model is consistent with the effect of the nonlinear models for lower values of

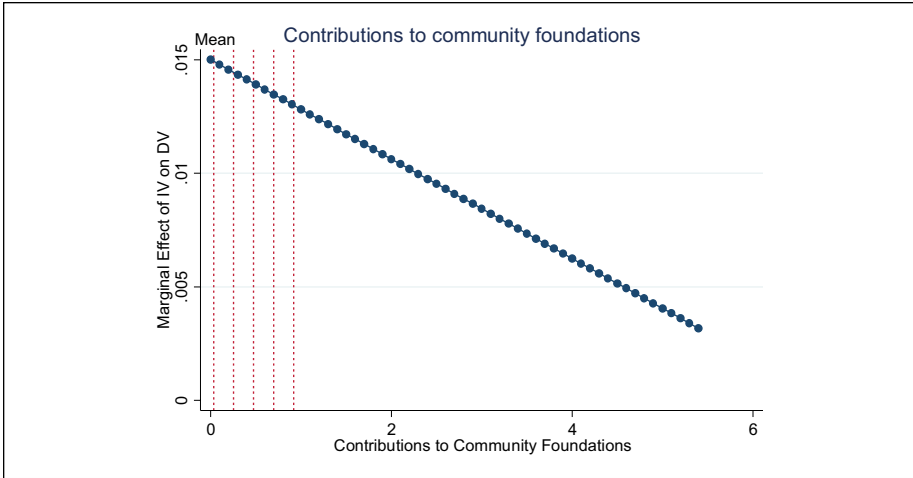


Figure 5. Model 4: High niche overlap.
 Note. Vertical lines represent the mean, and up to 4 standard deviations above the mean.

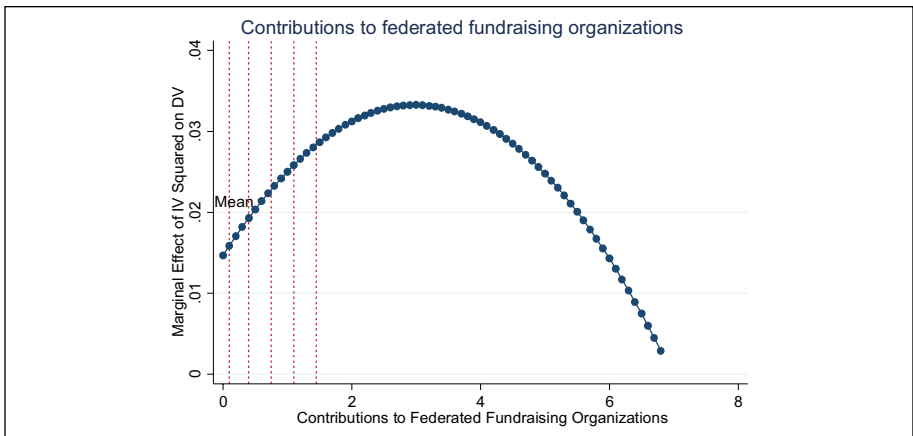


Figure 6. Model 5: Moderate niche overlap.
 Note. Vertical lines represent the mean, and up to 4 standard deviations above the mean.

the independent values (the linear vs. squared or cubed terms). For example, the effect of the log of contributions to fundraising specialists is negative as is the effect of the first-order term in the nonlinear models ($-0.002, p < .05$). In general, a log-log model ignores the effect of outliers, those communities with the highest levels of contributions. However, the results of the log-log model confirm that the effects of contributions differ across types of organizations and degree of niche overlap and, as noted earlier, the magnitude of these effects is very small.

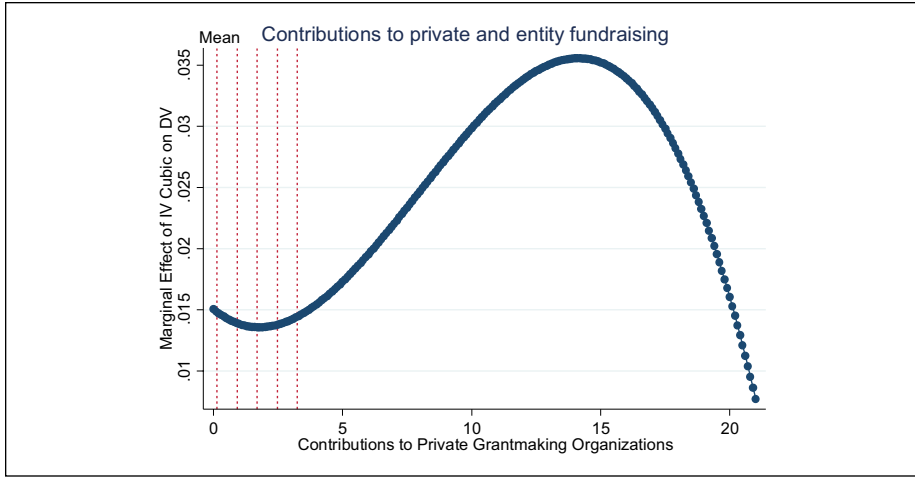


Figure 7. Model 6: Low niche overlap.

Note. Vertical lines represent the mean, and up to 4 standard deviations above the mean.

Implications and Discussion

The nonprofit field is crowded. Contributions to other organizations, particularly other fundraising specialists, negatively affect contributions to local UW affiliates. However, the story is more complex than a simple story of unrelenting competition for resources. First, as noted in our description of findings, the crowd-out effect of contributions to other organizations is small. As an example, an increase in contributions of US\$221 per person to community foundations is associated with a US\$0.48 decline in per capita contributions to the local UW, suggesting that UWs are only modestly responsive to giving to independent community foundations. Nevertheless, our study advances conceptual models of competition in the nonprofit sector by testing the effect of diverse forms of competition on organizational performance. Three key findings emerge from our analysis that merit future study. We begin by discussing the conceptual contributions of this model and the implications for future research and conclude by offering suggestions for practice.

First, degree of niche overlap matters. Competition for contributions may be greatest for generalist fundraisers (Lowery et al., 2012), such as community foundations and UWs. As contributions to community foundations—fundraising organizations with the greatest niche overlap with the UW—increase, contributions to the UW decrease. Donors may perceive these organizations as substitutes with donations to one type of geographically based organization crowding out donations to organizations operating in similar niches. However, the positive relationships between contributions to other specialized types of fundraising organizations that have less niche overlap with UW campaigns suggest complementary relationships between fundraising organizations. Specialized organizations may be able to target their donor pool and

even seek resources outside of particular geographic bounds. However, it is also important to note that the positive relationship between contributions to other federated funders and contributions to the UW may also be picking up general declines in support for mainstream federated funders, representing broader trends in the fundraising field (Barman, 2002).

Second, although our findings suggest that beneficial relationships exist among organizations with low niche overlap, research on industrial clusters also suggests that value is created through interindustry spillovers—organizations working in similar but different fields. Exchange of knowledge and resources is most valuable when it occurs across diverse organizations that provide vertical linkages to other resources and capabilities (Greve, 2002; Saxenian, 1996). Our findings of the differentiated impact of competition may lend support to the value of “industry spillovers” and suggest the need for further exploration of the process by which such spillovers occur in the nonprofit sector.

Third, our findings challenge the notion of a fixed resource pool (Lowery & Gray, 1995; Paarlberg & Varda, 2009). The positive effect of very high levels of contributions to fundraising organizations suggests that specialist organizations may help to create the resource field (Audia, Freeman, & Reynolds, 2006). Specialized fundraising organizations may promote fundraising practices that enhance the capacity and skill sets of the larger community. Communities that are home to several successful fundraising organizations may develop “cultures of philanthropy” that encourage local norms and expectations about giving, norms that extend beyond a specific organization. In essence, it may be that successful fundraising encourages the development of philanthropic capital—a stock of human resources and social expectations—that supports higher levels of giving. It is important to note, however, that such benefits are realized when a critical mass of activity is reached. In our models, only communities that have the highest levels of per capita giving may actually benefit from these philanthropic synergies.

Our study expands our understanding of niche overlap by suggesting that the effect of competition differs depending upon the degree of niche overlap, even among fundraising specialists. However, because of the limitations of existing secondary data, we used somewhat arbitrary categories of niche overlap. Future empirical studies of nonprofit competition should incorporate measures of niche overlap based upon a detailed analysis of funding structure and/or mission overlap. Building upon concepts of niche overlap may provide for a more nuanced understanding of resource environments that includes not only substitution effects that may reflect competition but also complementary relationships.

It is important to continue to build and test models of these complementary and competing resource relationships. We model these relationships in one unique field, UWs, which have experienced a variety of unique competitive challenges over the last two decades. While focusing on one specific organizational type offers the ability to model diverse forms of competition within one field, future research should test models of heterogeneous competition in other contexts. For example, what is the impact of fundraising by arts museums on performing arts organizations? Alternatively, how

does competition affect organizational forms that are more reliant upon program fees? Second, we use one measure of competition—level of contributions. Subsequent studies should test how different measures of competitive structure affect the results. Competition may be less intense in monopolistic markets dominated by a few large organizations (Seaman et al., 2014). Our model is also deliberately parsimonious. Future studies of competition could benefit from understanding how additional sociodemographic variables, such as wealth, income distribution, or diversity, moderate these competitive relationships. Finally, the fundraising boundaries of organizations located within a community do not necessarily match the geographic boundaries of the UW system. Changes in workplace campaigns, increased popularity of commercial donor advised funds, and the general rise of online giving vehicles make it easier for donors to give to nonlocal organizations. As philanthropic capital becomes increasingly mobile, it is important to recognize that donations are not limited to geographic borders.

Despite these limitations, our study suggests that nonprofit competition is real and a very critical issue for many community organizations, offering implications for practice. Not all organizations are performing equally well in the crowded, rapidly shifting field of fundraising. This places some organizations at risk of being perpetually under-resourced (Barman, 2002; Carman, 2001; Hall, 2008). In response to increased competition from more professionalized and increasingly specialized fundraising entities, local UWs have adopted a variety of diverse strategies (Paarlberg & Meinhold, 2012). Some UWs have become more specialized, limiting funding to narrow fields of activity, while others have moved away from a clearly defined niche in response to donors' diverse preferences. UWs have also pursued diverse fundraising strategies—some broadening their markets and others concentrating their efforts. Our preliminary findings suggest that by further specializing (both grant making and fundraising), UWs may be able to create a unique niche in the fundraising field, increasing contributions and reducing the costs of fundraising (Thornton, 2006). Future research should test the effect of strategic positioning on fundraising performance across various competitive markets.

Our findings also suggest that field building remains an important strategy for community-based philanthropic institutions. While our models provide strong support for the negative effects of competition, we also find ranges, where communities with higher levels of giving to specialized fundraising organizations have higher levels of giving to the local UW. However, few communities are at that maximizing point. Even in those cases in which direct competition seems to exist, it is important to recognize that a dollar contribution to community foundations is not associated with a dollar lost to the local UW campaign. In the end, despite the negative effect that some forms of competition may have on specific organizations, competition among organizations may build the larger fundraising field.

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Notes

1. The United Way (UW) Worldwide is a federated system of more than 1,800 local affiliates across the globe. UW affiliates are locally governed organizations that raise and distribute resources to nonprofit partner agencies within a defined geography.
2. Donor advised funds allow donors to make irrevocable contributions to an account and then make recommendations for disbursement to charitable organizations from this account.
3. Many of the largest commercial donor advised funds (such as Fidelity and Vanguard) have NTEE-CC codes of T99. For the purposes of our analysis, they are then included as “generalist” organizations.
4. Although organizations might change their NTEE code over the course of these two decades, we compared NTEE_CC codes across years and found that less than 1% of organizations changed codes over time.
5. To calculate this variable, we subtract total UW campaigns from total contributions to T70’s.
6. The Hausman specification test compares the fixed versus random effects under the null hypothesis that the individual effects are uncorrelated with the other regressors in the model (Hausman, 1978; Park, 2009).
7. For the results of the log-log analysis, please contact the corresponding author.

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