

**Variations in Overhead and Fundraising Efficiency Measures:
The Influence of Size, Age, and Subsector**

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The desire of individual donors and institutional funders to know how their money is spent, along with the increasing availability of financial information on nonprofit organizations, has increased the use and abuse of financial measures of nonprofit efficiency. We focus on two measures: the proportion of budget spent on non-program expenses and the ratio of fundraising expenses to contributions. We hypothesize variations in these measures by organizational size, age, and subsector, and we test these hypotheses with data reported by the organizations to the Internal Revenue Service. We conclude that the ratio measures vary by organizational characteristics, a factor both widely cited by watchdog groups and overlooked by agents that attempt to apply the measures to nonprofit organizations without regard for systematic variation. We also conclude that other factors besides size, age, and subsector are important in explaining the relative efficiencies of nonprofit organizations.

Variations in Overhead and Fundraising Efficiency Measures: The Influence of Size, Age, and Subsector

People care about the ways that nonprofit organizations spend their contributions (Greenlee & Brown 1999; Parsons 2001). However, despite pressures for nonprofit organizations to conform to donor demands, watchdog guidelines, and, in some cases, contractual requirements to maintain a certain level of financial efficiency, little is known about the relative efficiencies of nonprofit organizations. This research report summarizes how the relationships between revenues and overhead costs on the one hand, and fundraising costs and contributions on the other, are distributed by organizational size, age, and subsector. The report concludes that these ratios vary by these organizational characteristics, and that individual donors, nonprofit watchdog groups, institutional funders, journalists and researchers can benefit from understanding the differences. However, we also conclude that these factors explain only a small amount of the variation in the cost ratios, a finding that points to the need for future research on this topic.

We undertake this work with the understanding that nonprofit organizations experience pressures to manage the way they are perceived by their constituencies. These pressures, along with the differences in how managers account for the dollars that flow through their organizations, result in formal reporting documents that only approximate the realities of what goes on inside of organizations. "Nonprofit organizational effectiveness," writes Herman and Renz (1999: 118), "is a social construction." When one compares the reporting documents of two nonprofit organizations, one often concludes that the idiosyncrasies of their situations and their accounting processes make a comparison of financial efficiencies difficult. Indeed, recent reviews of publicly available data on nonprofits (i.e. Lampkin and Pollak 2001; Brostek 2002;

Froelich, Knoepfle and Pollak 2000; Gordon, Khumawala and Kraut 2001) range from guarded to cautiously optimistic in their assessment of the reliability of financial reporting documents. Nonetheless, the proliferation of publicly available data on nonprofit organizations invites these comparisons (Frumkin 2001), which are routinely trumpeted as a primary guide for decisions about charitable giving. Consequently, and despite our concerns about the limitations of the data, we offer benchmarks for understanding several common financial ratios.

A Brief Review of Relevant Studies

Individuals give to organizations that they like. Individuals like organizations that work on causes they think are important, and that use their contributions in responsible ways. A 1988 Roper Organization survey found that *an adequate amount spent for program* was the second most important factor in the decision to contribute to a nonprofit, a factor that was rated as important or very important by 82 percent of respondents (Glaser 1994). Doble (1990) reported from focus group research where participants felt that 75 percent of contributions should be spent on programs, although they suspect that nonprofits actually spend less than 50 percent on programs.

More recently, Stehle (1998) reported on a study from the Hudson Institute on the attitudes Americans have toward public charities. While nearly three-quarters of the respondents said that the organization's mission influences their giving decisions, nearly half said that they care how much the potential recipients of their giving spend on administration and fundraising. These numbers were even more pronounced among wealthy respondents, with 87 percent concerned with a charity's goals and 64 percent attuned to fundraising costs.

Still more recently, a public opinion poll by Princeton Survey Research Associates (PSRA, 2001) asked Americans what kind of information is most important when making giving decisions. Nearly half of the respondents focused on *how the organization uses its money*. In contrast, 13 percent focus on *an organization's legitimacy or reputation*, and only 6 percent cited *fulfills a genuine need or makes a difference* as the primary impetus for giving.

Several academic studies (Tinkelman 1999; Greenlee and Brown 1999) support the notion that financial information about a charity plays a role in the allocation of donor resources. While program performance is important, a charity's financial performance may well play a large role in its reputation and ability to garner future resources. Since financial information is more widely available and more easily compared across organizations, it has become a primary means by which charities are evaluated as worthy recipients of the public's contributions.

Guidelines and Measures

Several non-governmental organizations observe charities and promulgate standards of ethical and efficient operations. These entities are frequently referred to as “watchdog” organizations. Hopkins (2002) has observed that the influence of the watchdogs is declining due to the increase in disclosure of information about charities and the rise in accessibility to this information by means of the Internet. Nonetheless, these charities remain the primary source of normative guidelines on such issues as accountability, fundraising, and governance. The most visible national watchdog is the Wise Giving Alliance, a recent merger of the National Charities Information Bureau (NCIB) and the Council of Better Business Bureau's Philanthropic Advisory Service. Another is the American Institute of Philanthropy (AIP).¹

Both the Wise Giving Alliance and the AIP discuss two common financial measures. These measures go by a variety of names, but we adopt *Overhead Ratio* and *Fundraising Cost Ratio* in this paper.ⁱⁱ We define and discuss these ratios in the remainder of this section, and then hypothesize the relationships between these ratios and institutional characteristics in the following section. Following that, we introduce our data and tests of the hypotheses. We conclude with a discussion of the results and several conclusions about the measures and the meanings we attribute to them.

1. Overhead Ratio: Fundraising and Administrative costs as a proportion of Total Revenues

Overhead Ratio can be thought of as the amount of total receipts spent on administration and fundraising, in contrast to the amount spent delivering services. The Wise Giving Alliance advances its “Standards of Charitable Solicitations,” derived largely from the longstanding “Standards in Philanthropy” established by the NCIB. According to the standards, charities should spend at least 50 percent of total income on program activities. This standard diverges from the original NCIB standard, which set the Overhead Ratio at 40 percent of total expenditures.

The American Institute of Philanthropy adopts a more stringent standard, noting that “60 percent or greater [of total expenditures on charitable programs] is reasonable for most charities.” Rather than rely on the allocation decisions made by the charities they watch, however, AIP allocates portions of joint fundraising/education appeals to fundraising if the charity has represented the costs as educational program costs. That is, AIP recognizes at least

one of the common vagaries of nonprofit accounting and tries to adjust its ratios to reflect a more accurate representation of how nonprofits spend their money.

2. Fundraising Costs Ratio: Fundraising Costs as a proportion of Contributions

The Fundraising Costs Ratio can be thought of as the amount that an organization spent to raise each dollar it received from contributors. While the NCIB did not originally offer a numerical guideline for fundraising efficiency, the Wise Giving Alliance now suggests that “fundraising costs [should] not exceed 35 percent of related contributions.” However, following the NCIB tradition, the Wise Giving Alliance acknowledges that different organizations may need to be held to different standards. “The higher fundraising and administrative costs of a newly created organization, donor restrictions on the use of funds, exceptional bequests, a stigma attached with a cause, and environment or political events beyond an organization’s control,” they suggest, “are among the factors which may result in costs that are reasonable although they do not meet these percentage limitations.”

Similarly, AIP notes that “\$35 or less to raise \$100 is reasonable for most charities.” Similar to their adjustments for joint program/fundraising efforts, AIP also adjusts fundraising expenses if organizations have not allocated all of the costs of direct mail and telemarketing to fundraising expenses. AIP extols the Fundraising Costs Ratio as useful “because it tells donors how much a charity is spending to obtain your contribution and how much is left to spend on charitable programs and general administration.”

While the watchdog organizations consistently point to the need to consider the financial or environmental circumstances of the nonprofit organizations they evaluate, others do not

always provide this courtesy. Institutional funders and federated drives often offer their dollars or services to charities that meet a strict and uniformly applied standard. Similarly, journalists frequently apply a strict standard without regard for how their measures vary across sub-populations or organizational characteristics. Benjamin (2000) notes that popular magazines such as *Money*, *Kiplinger's Personal Finance*, and *U.S. News and World Report* publish annual articles on charitable giving to help donors identify worthy nonprofit organizations. "With few exceptions," writes Benjamin, "these articles focus on evaluating nonprofits according to the percentage of funds spent on administration and fundraising. In fact, every year *Money* ranks charities solely according to what percentage of their total income is spent on programs...." Both *Guidestar* and the *Combined Federal Campaign*, two key entry points for information regarding giving to individual charities, emphasize the financial position of charities. Some watchdog groups, e.g. Charity Navigatorⁱⁱⁱ, develop their profiles of charities *exclusively* on financial information.

Although the public, journalists, and funders are interested in fundraising and administrative cost ratios, researchers (outside of their occasional use as independent variables in regression models) have given little attention to them. The purpose of the research reported in this paper is to begin to address this gap by exploring the variation in these ratios by organizational size, age, and subsector, and to determine the extent to which these factors explain variation in the cost ratios. To this end, we advance eight hypotheses regarding these relationships, test them with data from a population of nonprofit organizations, and discuss the outcomes.

Hypotheses

All of our hypotheses take as their starting point the supposition that organizational characteristics influence the efficiencies of nonprofit organizations. First, we presume that the Overhead Ratio will vary by the size of a nonprofit. Larger organizations are able to take advantage of economies of scale, while smaller organizations must endure relatively higher proportional expenses for sunk costs. For example, the costs of phone or computer network systems and services are not substantially different for small and large organizations. The same might be said for payroll services, legal consultants, and fundraising counsel. These costs represent a base of non-program costs that represent a greater proportion of the budget of a small organization than a larger one. Therefore,

H1: The larger an organization, the lower the proportion of budget spent on administration and fundraising.

Second, we presume that the Overhead Ratio will also vary with the age of a nonprofit organization. This presumption is rooted in Stinchcombe's (1965) liability of newness argument, which points to the lack of routines, competencies, working relationships, and clients that younger organizations have to overcome in order to survive. In short, we believe that younger organizations will have to spend more money on administration and fundraising in order to establish their organization's reputation and build a donor base. This suggests the second hypothesis,

H2: The older an organization, the lower the proportion of budget spent on administration and fundraising.

Third, we presume that the Overhead Ratio will vary depending on the subsector that the nonprofit organization is operating in. Galaskiewicz and Bielefeld (1998) contend that an organization's primary activity is one dimension (along with its size and source of revenues) that determines its micro-niche. The micro-niche is that space, densely or sparsely populated by other nonprofit organizations, wherein an organization searches for resources. Some subsectors are more asset-intensive than others, requiring organizations with one type of activities to spend more on administrative costs than other types of organizations. Further, organizations in different subsectors presumably must approach their fundraising in different ways. Different fundraising methods have different costs and levels of return. Consequently, we expect differences in the Overhead Ratio across subsectors, although we reserve our judgements about which subsectors are relatively more efficient. In short,

H3: The proportion of budget spent on administration and fundraising will differ across nonprofit subsectors.

Our next set of hypotheses regard the relationship between organizational size, age and subsector and fundraising efficiencies. First, we contend that the Fundraising Costs Ratio will vary inversely with the size of the organization. In addition to the economies of scale we described in introducing Hypothesis 1, we also observe that larger organizations tend to be more professionalized. That is, larger organizations are more likely to have professional fundraising staff members who are equipped to manage a broader array of fundraising methods that best capture the dollars available in their resource niche. This leads us to Hypothesis 4,

H4: The larger an organization, the lower the proportion of contributions spent on fundraising.

Like the Overhead Ratio, our expectations about variation in the Fundraising Costs Ratio by age of organization are influenced by the liability of newness argument. Soliciting a new donor base has high start-up costs. Younger organizations lack the institutional connections to effectively solicit grants and contributions, and they lack the history with donors to benefit from large gifts and bequests. Consequently, they have to spend more to get what they can. So,

H5: The older an organization, the lower the proportion of contributions spent on fundraising.

Finally, we propose that the subsector in which an organization solicits funds will partially dictate the efficiency with which it is able to secure them. As noted above, organizations operating in different subsectors work for different kinds of causes that attract different kinds of dollars. Most operas, for example, raise contributions in much different ways than the average homeless shelter. Although galas may be more expensive than door-to-door solicitations of local business, they are also more likely to produce more unrestricted income. The relative costs and benefits of different fundraising methods are at the heart of the Fundraising Costs Ratio. Therefore,

H6: The proportion of contributions spent on fundraising will differ across nonprofit subsectors.

In addition to these two sets of hypotheses about variations in Overhead and Fundraising efficiencies, we also advance two more hypotheses regarding the importance of age, size, and

subsector in explaining variations in costs. Our decision to focus on these characteristics as points of comparison for our ratio measures grows out of the observations of the watchdog organizations that variations in the ratios are natural and expected consequences of differing organizational characteristics. Consequently, we hypothesize that variation in these ratios is due primarily to precisely these kinds of characteristics. The rival hypotheses are that age, size and subsector explain little of the variation in our two ratio measures, which may be influenced by other aspects of the organization and its environment not explored in this paper. In short,

H7: Organizational size, age, and subsector are primary explanations of variation in Overhead Ratio exhibited by different nonprofit organizations.

H8: Organizational size, age, and subsector are primary explanations of variation in Fundraising Costs Ratio exhibited by different nonprofit organizations.

Data and Variables

Organizations that enjoy charitable exemption under section 501(c)3 of the Internal Revenue Code and receive over \$25,000 in gross receipts in a given year are obliged to report their finances and activities to the Internal Revenue Service. The standard reporting document is Form 990, which is publicly available once filed and forms the basis for sector-wide statistics on nonprofit organizations. The most current and comprehensive database of Forms 990 is housed at the National Center for Charitable Statistics. Our analysis draws on returns for 1999.

The organizations in this study are those public charities that meet certain criteria. Since the study focuses in part on organizations that solicit contributions from the public, we include

only those organizations that receive at least \$50,000 in direct contributions or gross special events income. Further, since many nonprofit organizations receive contributions but do not have or report fundraising expenditures (, we further specify that organizations must have either fundraising or special events expenditures to be included in the study. To provide a more focused analysis, we also restricted our study to operating charities that function in the arts, health, education, environment/animals, and human services industries. These specifications result in 37,819 nonprofit organizations.

Our analysis focuses on three variables: organizational size, age, and the subsector of nonprofitdom in which it operates. Our measure of size is the based on each organization's total 1999 revenues. We break organizations down into six size categories, ranging from organizations with less than \$200,000 in total revenues to organizations with more than \$10,000,000 in revenues.

Age is calculated by subtracting the organization's IRS exemption ruling date from 2001. Since an organization's ruling date does not always coincide with its founding date, this measure results in an imprecise measure of age for some organizations. However, it is the only measure of organizational age available in the data.

The subsector categories are amalgamations of categories described in the National Taxonomy of Exempt Entities and summarized in the "Level 3" variable in NCCS datafiles. Table 1 summarizes the number of organizations in each of these categories.

< Table 1 about here >

Measure 1: Overhead Ratio

Overhead Ratio is calculated by dividing the sum of administrative, fundraising, and special events expenses by total organizational revenues.^{iv} Table 2 summarizes the distribution of this measure by quartile, as well as the top decile, for organizations in different subsectors and of different size categories.

< Table 2 about here >

The distribution exhibits a positive skew. That is, more organizations with low Overhead Ratio are in the upper end of the distribution, pulling the mean values up from the median regardless of category. Inspection of the subsector breakouts reveals that the median values range from 15 for Environment/Animal organization to 25 percent for Arts organizations. The means range from a low of 23 percent for Health organization to 30 percent for arts organizations.

Indeed, the preponderance of organizations do not threaten the 50 percent overhead expenses standard championed by NCIB and AIP until we consider the top 10 percent of organizations in the distribution. At least one out of ten nonprofit organizations in the study spent more than 50 percent of total revenues on administration and fundraising. The only subsector that defies this generalization is the health subsector, wherein the upper 10 percent most inefficient nonprofits spend 45 percent on administration and fundraising, leaving the majority for program expenses. The size breakouts reveal that the greatest amount of organizations with high Overhead Ratios are found among the smallest organizations. In the

category of nonprofits with less than \$200,000 in annual revenues, over a quarter spend more than half their budget on fundraising and administrative costs.

Table 3 shows the distribution of the average Overhead Ratio for each Subsector by organizational size. The most striking observation from this chart is that each Subsector demonstrates this pronounced organizational size effect. That is, in all industries, smaller organizations have higher overhead costs on average than larger organizations, with the largest organizations displaying the lowest average overhead expenses.

< Table 3 about here >

Next, we consider the role that the age of an organization plays in its Overhead Ratio. Table 4 breaks down the ratio by both the size and age of an organization. Hypothesis 2 contends that younger organizations must spend more money on fundraising and administrative cost to build donor bases and establish organizational routines. In contrast, older organizations should be able to put more of their money toward programs and less toward fundraising and administrative expenses. This trend emerges when one does not account for the size of a nonprofit, but age breakdowns within size categories reveal potential interactions between an organizations size and age. For organizations with at least a million dollars in annual expenditures, the Overhead Ratio does not seem to vary with age. However, among those organizations with less than a million dollar budget, overhead expenditures seem to *increase* with age.

< Table 4 about here >

Age seems to matter more to organizations in some subsectors than in others. As indicated in Table 5, nonprofits in the health, education, and human services subsectors seem to benefit from the efficiencies that come with becoming increasingly established. In contrast, arts organizations and nonprofits that focus on the environment and animals do not, on average, derive this same benefit.

< Table 5 about here >

Measure 2: Fundraising Costs Ratio

Fundraising Costs is calculated by dividing the sum of fundraising and special events expenses by the sum of total contributions and gross special events income. Table 6 summarizes the distribution of this measure by quartile, as well as the top decile, for nonprofits operating in different subsectors and of different size categories.

< Table 6 about here >

Like the Overhead Ratio measure, the Fundraising Costs measure displays a strong positive skew. For many subsector categories, the mean value is as close to the value of the upper quartile as it is to the median value. The median organization in the sample spent 16 cents to raise each dollar in contributions, although the high fundraising costs for a large number of organizations pulls the mean value up to 24 cents for each dollar contributed.

The variation within subsectors for the Fundraising Efficiency Ratio is even more pronounced than the variation for the Overhead Ratio measure. The subsector with the most

efficient organizations, on average, is the Environment/Animals organizations, whose median organizations spent only 11 cents on fundraising for each dollar they received in contributions. In contrast, the median Education and Health organizations spent 18 cents for each dollar of contributions.

Both the Wise Giving Alliance and the PAS specify that nonprofits should not spend more than 35 percent of contributions on fundraising expenditures. All of the upper quartile of Human Services and Education organizations spend more than 35 cents on fundraising for each dollar of contributions. Just less than a quarter of Health organizations fail this test as well. A look at the top ten percent of organizations on this measure produces some striking observations. Ten percent of all nonprofits in the study spend nearly two-thirds of contributions on fundraising expenses. However, when one considers the distribution by size categories, the category of smallest organizations again emerges as the culprit driving up the overall mean. One in ten organizations in the smallest size class spent at least 82 cents to raise each of its dollars from contributions or special events.

< Table 7 about here >

Despite this observation, the interpretation of the relationship between size and subsector on the Fundraising Costs Ratio measure is less straight-forward than the relationship for the Overhead Ratio measure. As indicated in Table 7, size does seem to matter for Fundraising Costs, but not in the linear manner exhibited for Overhead Ratio. As noted, the smallest organizations (less than \$200,000 in 1999 revenues) are least efficient in fundraising. However, when organizations cross the \$200,000 mark, increasing size becomes less important in terms of

declining Fundraising Costs. Although not pronounced, we observe a U-shaped relationship in some subsectors, with the smallest and largest nonprofits displaying higher Fundraising Costs ratios (on average) than their medium-sized counterparts. Such curvilinear relationships are common among for-profit organizations with falling average costs during an initial stage (economies of scale), followed by a range of flat average costs, followed by a range of increasing average costs (Samuelson and Nordhaus 1985). Despite our initial hypothesis, finding the U-shaped relationship among nonprofits is consistent with observations of other firm types.

As with the Overhead Ratio, the influence of age on the Fundraising Costs Ratio defied our expectations. We hypothesized that organizations would become more efficient as they overcame the liability of newness -- as fundraising procedures became more routinized, donor bases more established, and organizations more familiar with what works for their particular cause. In contrast, Table 8 indicates that for all sizes of organizations the Fundraising Costs Ratio goes up (reflecting more fundraising pennies spent to bring in each dollar of contributions) rather than down. That is, we seem to observe an age effect that is independent of size, although the relationship operates in a direction we did not expect.

< Table 8 about here >

The age effect appears to operate without regard for size or organization, but what about organizational subsector? Table 9 breaks down the Fundraising Efficiency Measure by both age of organization and its subsector. The results indicate no clear relationship between an organization's age, the subsector it operates in, and the proportion of contributions it spends on additional fundraising. While the youngest organizations in each subsector consistently rate a bit

better efficiency scores, on average, than the oldest organization in each subsector, the averages for the organizations in the middle-age categories do not suggest a simple trend of increased inefficiency over time. Rather, Table 9 suggests that an organization's age is not tightly coupled with its Fundraising Costs Ratio. Indeed, age appears more tightly linked with subsector than age. Table 9 illustrates pronounced differences by subsector across all age groups, but fairly narrow range of fundraising costs within a subsector across age groups.

< Table 9 about here >

A Multivariate Test

Another way to investigate the relative influence of organizational characteristics on such measures as the Overhead and Fundraising Efficiency Ratios is to calculate a model that estimates our ability to use the characteristics to predict the values of the ratios. Such a model takes on the form of

$$\text{Ratio} = a + (\text{size} * b) + (\text{age} * c) + (\text{subsector dummies} * d) + e$$

where Ratio is either the Overhead or Fundraising Costs Ratio, a is a constant value common to all organizations, b is a multiplier that indicates the independent value of size, c is a multiplier that indicates the independent value of age, d is one of a set of dummy variables that indicates the influence of operating in a particular subsector, and e is the portion of variation unexplained by size, age, and subsector.

We measure size and age with categories similar to those used in the preceding tables. For the size measure, we used the same categories. That is, an organization has a value of 1 on the size measure if it received less than \$200,000 in revenues in 1999, a 2 if it received between \$200,000 and \$400,000, etc., and a 6 if it received over \$10 million; the coefficient reported in Table 10 indicates the relative influence of moving from one size category to the next. For the age measure, we used a slightly more refined breakdown for the youngest category of nonprofits. An organization has a value of 1 on the age measure if it received its exemption in the past 5 years, a 2 if between 5 and 10 years, a 3 if between 10 and 20 years, a 4 if between 20 and 30 years, and a 5 if it received its exemption more than 30 years ago.

< Table 10 about here >

Table 10 reports the results of an ordinary least squares regression that seeks to explain the relative influences of organizational size, age, and subsector on the two ratio measures under study. If the “models” represented here are useful, then one should be able to take the characteristics of a sample case and estimate the respective efficiency ratios. Examining the model for the Overhead Ratio, we start with a constant base of 36.4; an increase in each size class results in a decrease of 5.2 points. Each increase in age class results in an increase of 1 point. Health organizations are not significantly different from human services (an omitted category, against which the other subsectors are scaled), which receive no increase or decrease due to subsector. Those organizations in the environment/animals subsector are comparatively more efficient, however, and receive a decrease of 2.9 points on the Overhead Efficiency

measure. Arts organizations are the least efficient, followed by education, which receive additions of 4.3 and 3.4 points, respectively.

Consider an example of National Kidney Cancer Association (NKCA), one of the organization in the study. When NKCA completed its fiscal year in October of 1999, it reported management and general expenses of \$75,426, fundraising expenses of \$70,507, and no special events expenses. So, nonprogram service expenses totaled \$145,933. Revenues totaled \$1,281,451, and there were no special events revenues to adjust. The Overhead Ratio for this case is \$145,933 divided by \$1,281,451, or 11.4.

How well does the model predict this value of 11.4? The revenues for NKCA put it in the fourth size class, and its ruling date of 1995 puts it in the second age class. NKCA is classified as a health organization. So,

$$\begin{aligned}\text{Estimated Overhead Ratio (NKCA)} &= 36.4 + 4(5.2) + 2(1.0) \\ &= 17.6\end{aligned}$$

The model for the Overhead Ratio in Table 10 overestimated the ratio for NKCA by more than 6 points (predicted value of 17.6, versus an observed value of 11.4), a more than 50 percent difference. This test indicates that the model is not particularly good, at least for this specific case. However, students of multiple regression models will have already noted another indication that the model is lacking in its ability to predict the value of specific cases. The adjusted R^2 value (adjusted to account for the presence of six independent variables in the model) is 0.15, which is interpreted to mean that the model can account for 15 percent of the variance in the distribution of Overhead Ratios for the organizations in the study. A perfect

model, never achieved in any kind of science, could explain 100 percent of the variance in the distribution. The fact that the model accounts for only 15 percent of the variance indicates that other variables, not included in the current models, do a better job of explaining why one organization has a higher Overhead Ratio than another.

Discussion

Table 11 summarizes the hypotheses and indicates whether they received support in our analyses or not. Hypothesis 1, which argued that the proportion of budget spent on administration and fundraising should decrease with increasing organizational size, received strong support. Tables 3 and 4 provide support for this contention, showing that even within categories of size and nonprofit subsectors, the Overhead Ratio decreases as size of organizations in the study increase. The regression models in Table 10 also provide support for Hypothesis 1. Accounting for the effects of age and subsector, the negative coefficient for the size measure indicates that increasingly large organizational size is associated with decreased spending on fundraising and administration, proportional to the amount spent on programs.

< Table 11 about here >

Hypothesis 2, however did not gain support. In contrast to our suggestion that nonprofit organizations will spend less money on administration and fundraising as they grow older and become more established, we found evidence among small nonprofits that older organizations are actually *less* efficient than their younger counterparts. Although the trends in Tables 4 and 5 do not point strongly to the conclusion that increasing organizational age generally results in

more spending on overhead, we nonetheless did not find evidence to support Hypothesis 2. The regression model for Overhead Ratio in Table 10, however, does suggest a positive relationship between age and spending on administration and fundraising. That is, accounting for both size and subsector, the positive coefficient for the age measure suggests that older organizations do indeed operate less efficiently than younger organizations. Nonetheless, our observations above regarding the relationship between size and age (Table 4) argues more for further study than firm conclusions about the Overhead Ratio and the age effect.

In Hypothesis 3, we contend that the subsector in which an organization operates will affect its Overhead Ratio. This hypothesis gained clear support. Table 2 shows differences in the distribution of the Overhead Costs ratio by subsector, and Table 3 shows substantial differences in subsector by organizational size. The first regression model in Table 10 reports significant differences between several subsectors and the human services subsector, the reference category. However, despite the evidence of differences, we are hesitant to label organizations in one subsector as relatively more efficient than organizations in another subsector since there seems to be substantial influences by conditioning factors, such as size and age. For example we note in Table 3 that the environment/animals category sports the lowest average Overhead Ratio among the organizations with less than \$200,000 in annual revenues. However, among the organizations with more than \$10 million in revenues, the organizations in the environment/ animals category has the *highest* average among the subsectors represented. So, while we are confident in our conclusion for overall support of Hypothesis 3, the nature of the relative differences between organizations in different subsectors is ripe for future study.

Hypothesis 4 is the first of the set of hypotheses regarding the Fundraising Costs ratio. Although we did receive some qualified support for Hypothesis 4, it is not nearly as strong as the

evidence of support for Hypothesis 1. We found that the smallest nonprofits were indeed the ones that had to spend the most on fundraising to raise their contributions. However, for organizations with more than \$200,000 in annual contributions, the effect of increasing size seems to have less importance in explaining the magnitude of the Fundraising Costs ratio (Table 7). We also noted that for organizations in the health subsector, the largest organizations had the highest Fundraising Costs ratios, a finding that is not consistent with Hypothesis 4. However, the negative coefficient for the size variable in the second regression model in Table 10 provides evidence of decreasing costs with increasing size of a nonprofit organization. Therefore, we conclude that Hypothesis 4 is generally supported, although not all evidence points that way. Indeed, we discovered preliminary evidence for a curvilinear relationship.

The second hypothesis regarding the Fundraising Costs ratio is Hypothesis 5, which reflected our expectation that younger organizations would have higher relative fundraising costs due to their need to establish norms, internal processes, external legitimacy, and donor bases. The evidence presented in the preceding sections of this paper does clearly not support this hypothesis. Although the trends are not perfectly linear, Tables 8 and 9 support the conclusion that older organizations have *higher* Fundraising Costs ratios rather than lower. The Fundraising Efficiency model in Table 10 supports this finding; the positive coefficient for the age variables indicates a positive relationship between aging and higher values of the ratio measure. Hypothesis 5 is not supported.

Hypothesis 6 contends that organizations in different subsectors will have different distributions of the Fundraising Costs ratio. As we note in the narrative above, the variation within subsectors for this ratio is even more pronounced than the variation for the Overhead Ratio measure. Tables 6 and 7 show evidence of pronounced variation, and the second model in

Table 10 shows substantial differences between subsector categories. However, in this case, we can make more generalizations about the relative efficiencies of different subsectors. As we note above, the organizations in the Environment/Animals category appear to be most efficient; this category reflects both the lowest subsector mean and median in Table 6 and the lowest mean for both the largest and smallest nonprofits in Table 7. Although the race for *least* efficient subsector is less clear, organizations comprising the Education subsector appear to have the edge. Organizations in this subsector have both the highest subsector mean and median in Table 6, and they have the highest mean for the smallest organizations represented in Table 7. The generalization does not hold for organizations in larger categories of size, but the whole subsector is marked by the notable average inefficiency of its smallest members.

Our final two hypotheses concern the role of nonprofit size, age, and subsector in determining its relative efficiency. Hypothesis 7 contends that these factors matter in explaining spending on fundraising and administration, and Hypothesis 8 argues that these factors matter in explaining the amount of money spent to raise contributions. The results of the multivariate test do not support these hypotheses. While the Overhead ratio and Fundraising Costs ratio show evidence of systematic variation by organizational age, size, and subsector, the low adjusted R^2 values for both models in Table 10 suggest that age, size and subsector play a moderate to minimal role in explaining why nonprofit organizations differ on these ratio measures. These results argue for the rejection of the final two hypotheses, and the beginning of the search for other variables that more reliably separate efficient from inefficient nonprofit organizations.

Conclusions

Three general conclusions emerge from the work presented in this paper. First, age, size and subsector matter. That is, at the risk of oversimplification, larger and younger nonprofits tend to exhibit greater efficiencies in expending dollars on program-related expenses and spending less to raise additional contributions. Clearly, organizations in different nonprofit subsectors exhibit different levels of efficiency on these measures.

Second, and paradoxically, age, size, and subsector do *not* matter. That is, while these organizational characteristics explain some of the variation in the financial ratio measures explored in this paper, they do not explain much of it. Other organizational or environmental characteristics presumably do a better job of explaining variation of the measures. Likely candidates include accumulated management expertise in the nonprofit, choice and success of different fundraising tactics, the timeliness and appeal of its mission, competition and collaboration with other organizations in its micro-niche, and the involvement level of the board of directors. Our speculation on this matter invites future research.

Finally, whatever the source of variation, the observations in this research report caution against uniform application of efficiency standards across all types of nonprofit organizations. While watchdog and advisory groups sound this caution in their literature, it is routinely ignored by journalists and researchers who use the ratios as a means of differentiating efficient from inefficient organizations. The best comparisons are within-group comparisons that focus on organizations that are truly similar in important ways (Weber, 1994). The summaries reported here show clear — although sometimes complicated — differences in Overhead Ratio and Fundraising Costs by organizational size, age, and subsector. At a minimum, and absent future

research on this topic, advocates of these efficiency measures should apply different standards to organizations with different profile characteristics.

Endnotes

ⁱ Discussions of and quotations from the Wise Giving Alliance and AIP are based on information on the websites of the respective organizations (give.org and charitywatch.org). Discussions of NCIB come from pre-merger visits to its website, now defunct.

ⁱⁱ Cautions about the use of these ratios are common. For good discussions, see Weber 1994, Benjamin 2000, Paton 1999, and McLean and Coffman 2001.

ⁱⁱⁱ www.CharityNavigator.org

^{iv} Our measure of total revenues includes gross income from special events rather than the net.

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Table 1: Distribution of Organizations by Size and Subsector

	<200K	200K-400K	400K-1M	1M-4M	4M-10M	> 10M	All
All	9753	6388	7705	8112	2932	2929	37819
Human Services	4159	2911	3519	3739	1287	746	16361
Arts	1662	1263	1391	1156	336	255	6063
Education	2028	823	1121	1417	651	1115	7155
Health	1162	881	1167	1387	541	725	5863
Environment & Animals	742	510	507	413	117	88	2377

Table 2: Distribution of Overhead Expenses as a Proportion of Total Revenues

	Mean	Lower 25%	Median	Upper 25%	Upper 10%
All	0.26	0.12	0.20	0.33	0.55
Subsectors					
Human Services	0.25	0.12	0.19	0.31	0.54
Arts	0.30	0.15	0.25	0.39	0.59
Education	0.27	0.12	0.20	0.35	0.61
Health	0.23	0.12	0.19	0.29	0.45
Environment & Animals	0.24	0.10	0.18	0.30	0.50
Size Categories					
< \$200K	0.39	0.17	0.32	0.57	0.83
\$200K - \$400K	0.27	0.13	0.22	0.35	0.53
\$400K - \$1M	0.23	0.12	0.19	0.29	0.42
\$1M - \$4M	0.20	0.12	0.17	0.25	0.35
\$4M - \$10M	0.17	0.10	0.15	0.22	0.31
> \$10M	0.15	0.09	0.13	0.19	0.27

Table 3: Mean Overhead Ratio by Size and Subsector

	<200K	200K-400K	400K-1M	1M-4M	4M-10M	> 10M	All
All	0.39	0.27	0.23	0.20	0.17	0.15	0.26
Human Services	0.38	0.26	0.22	0.18	0.15	0.12	0.25
Arts	0.39	0.27	0.23	0.20	0.17	0.15	0.26
Education	0.45	0.24	0.21	0.20	0.20	0.16	0.27
Health	0.35	0.26	0.23	0.20	0.16	0.16	0.23
Environment & Animals	0.31	0.23	0.20	0.18	0.19	0.17	0.24

Table 4: Mean Overhead Ratio by Size and Age

	<200K	200K-400K	400K-1M	1M-4M	4M-10M	> 10M	All
Under 10 years	.37	.25	.21	.19	.17	.14	.28
10-20 years	.39	.27	.22	.19	.16	.13	.27
20-30 years	.39	.27	.23	.20	.18	.15	.25
30 or more years	.43	.31	.26	.21	.17	.15	.24

Table 5: Mean Overhead Ratio by Age and Subsector

	Under 10 years	10-20 years	20-30 years	30 or more years
All	.28	.27	.25	.24
Arts	.29	.31	.31	.30
Health	.26	.26	.22	.20
Education	.29	.28	.26	.25
Environment & Animals	.24	.24	.25	.22
Human Services	.29	.25	.23	.23

Table 6: Distribution of Fundraising Expenses as a Proportion of Contributions

	Mean	Lower 25%	Median	Upper 25%	Upper 10%
All	0.24	0.06	0.16	0.34	0.63
Subsectors					
Human Services	0.25	0.06	0.16	0.35	0.65
Arts	0.23	0.06	0.15	0.31	0.56
Education	0.28	0.07	0.18	0.34	0.58
Health	0.25	0.07	0.18	0.34	0.58
Environment & Animals	0.18	0.04	0.11	0.22	0.48
Size Categories					
< \$200K	0.33	0.07	0.23	0.55	0.82
\$200K - \$400K	0.20	0.04	0.13	0.28	0.53
\$400K - \$1M	0.20	0.05	0.13	0.28	0.48
\$1M - \$4M	0.22	0.07	0.15	0.30	0.53
\$4M - \$10M	0.24	0.07	0.17	0.32	0.56
> \$10M	0.24	0.08	0.17	0.32	0.56

Table 7: Mean Fundraising Efficiency by Size and Subsector

	<200K	200K-400K	400K-1M	1M-4M	4M-10M	> 10M	All
All	0.33	0.20	0.20	0.22	0.24	0.24	0.24
Human Services	0.33	0.22	0.20	0.23	0.25	0.24	0.25
Arts	0.29	0.20	0.20	0.21	0.20	0.18	0.23
Education	0.43	0.19	0.20	0.22	0.23	0.23	0.28
Health	0.26	0.20	0.22	0.25	0.26	0.30	0.25
Environment & Animals	0.23	0.16	0.14	0.17	0.19	0.18	0.18

Table 8: Mean Fundraising Efficiency by Size and Age

	<200K	200K-400K	400K-1M	1M-4M	4M-10M	> 10M	All
Under 10	.30	.18	.17	.17	.19	.22	.23
10-20	.32	.20	.19	.20	.22	.21	.23
20-30	.33	.22	.21	.23	.27	.26	.25
30 or more	.37	.25	.24	.24	.23	.24	.26

Table 9: Mean Fundraising Efficiency by Age and Subsector

	Under 10 years	10-20 years	20-30 years	30 or more years
All	.23	.24	.25	.26
Arts	.21	.23	.24	.23
Health	.21	.25	.26	.26
Education	.26	.28	.29	.28
Environment & Animals	.17	.18	.19	.19
Human Services	.25	.23	.25	.26

Table 10: Regression of size, age, and subsector on Overhead Ratio and Fundraising Efficiency Ratio

	Dependent Variable: Overhead Ratio	Dependent Variable: Fundraising Efficiency Ratio
Size (Total revenues)	-5.2 *	-2.4 *
Age	1.0 *	1.7 *
Subsectors:		
Arts	4.3 *	-2.4 *
Health	.4	.6
Education	3.4 *	3.1 *
Environment / Animals	-2.9 *	-7.1 *
Constant	36.4 *	25.7 *
Adjusted R ²	.15	.03
N	36858	36858

Note: * p < .001

Note: In the system of subsector dummy variables, the omitted category is Human Service organizations.

Table 11: Summary of hypotheses and results

H1: As size increases, the Overhead Costs ratio decreases.	Supported
H2: As age increases, the Overhead Costs ratio increases.	Not supported
H3: Subsectors have different average Overhead Cost ratios.	Supported
H4: As size increases, the Fundraising Efficiency ratio decreases.	Qualified support
H5: As age increases, the Fundraising Efficiency ratio decreases.	Not supported
H6: Subsectors have different average Fundraising Efficiency ratios.	Supported
H7: Size, age, and subsector explain variation in the Overhead Cost ratio.	Not supported
H8: Size, age, and subsector explain variation in the Fundraising Efficiency ratio.	Not supported