

An Introduction to the Overhead Costs Study: Method and Data

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The “Overhead Costs Study” is a multi-year research collaboration between the Center on Nonprofits and Philanthropy at the Urban Institute and the Center on Philanthropy at Indiana University. The main goal of the project is to increase understanding of how nonprofit organizations track and spend money on fundraising and administrative costs. The project has three main research components. The first is analysis of fundraising and administrative costs reported by nonprofit organizations on their Forms 990 filed each year with the Internal Revenue Service (IRS). These analyses have been the subject of our presentations at the past three ARNOVA meetings. The second research component is a (U.S.) national survey of nonprofit organizations. The method of and response to the survey is the subject of this research note, and other papers in the panel (of which this paper is a part) draw on this survey data. The third research component is case studies of nonprofit accounting practices based on visits to nonprofit organizations and semi-structured interviews with executives. These case studies will be the basis for future presentations.

This research note has two purposes. First, the paper provides details on research decisions regarding the methodology of collecting survey data from the sample of nonprofit organizations drawn for the Overhead Costs Study. Second, the paper investigates differences between organizations that returned a survey and those that did not.

Survey Method

In the fall of 2001, we drew a sample of nonprofit organizations that had recently filed Form 990 with the IRS. We drew upon the most comprehensive sampling frame available at the time, the year 2000 Core File developed by the National Center for Charitable Statistics. The Core Files combine descriptive information from the IRS Business Master File and financial variables from the Return Transaction Files. In an attempt to represent the full universe of nonprofit organizations that are required to file Form 990 in a given year, the Core Files insert previous-year records for organizations that fail to file or have not yet filed at the time the data set is finalized. Consequently, the Core Files err on the side of including defunct, small, and organizations that may no longer be operating as a nonprofit.

Since the Overhead Costs Project has specific research aims, we chose to exclude several kinds of organizations from the sample. Our first criterion for exclusion takes into account the size of the organization. Since we wanted to focus on organizations that have meaningful fundraising or administrative expenses, we excluded organizations that reported less than \$100,000 in gross receipts. We also removed any remaining organizations that filed Form 990-EZ. Our second criterion for exclusion concerns the types of organizations in the nonprofit universe. Since we wanted to focus mainly on operating charities that match a common conception of a public-serving nonprofit, we excluded a variety of categories of charities that are made up mostly of organizations that do not match this conception. We excluded organizations coded primarily as mutual or membership benefit organizations, pension and retirement funds, and real estate organizations. We also scanned named foundations and trusts and removed those that appeared to operate primarily as single-person charitable giving accounts.

We divided organizations into two strata, and then sampled proportionately within the categories created by the intersection of these strata. First, we divided organizations according to whether they report fundraising expenses, report zero fundraising expenses, or failed to indicate whether they have fundraising expenses. Second, we divided organizations into four different categories of volume of annual revenue.

Because we did not know how many organizations would be required to generate a viable sample, we drew an initial batch of 5000 organizations and delivered the list to the Center for Survey Research (CSR) at Indiana University (Bloomington). The CSR sleuthed for phone numbers that matched the name or address provided by the nonprofit on its Form 990. Organizations for which we could find no phone number were removed from the study. For organizations with a matching phone number, we conducted pre-mailing calls. We had three reasons for conducting these calls. First, we wanted to verify that the organization still existed. Second, we wanted to verify the mailing address and acquire the name of a specific individual who would be the appropriate recipient of the survey. Third, if possible, we wanted to discuss the project briefly with this person and alert him or her to the imminent arrival of the survey. In an effort to obtain a sample of approximately 3000 organizations, the CSR attempted pre-mailing

calls with 3782 organizations. They were able to complete a call by reaching a live person and obtaining the required information at 3114 of these.

Pre-mailing calls, subsequent mailouts, and all follow-up procedures were conducted identically in seven waves. The mailout package, consisting of a cover letter, survey, and stamped return envelope, was delivered via FedEx to the designated individuals in each organization. The cover letter promised a \$50 donation to organizations that fully completed the survey. Of those packages returned by Federal Express because of bad address, 45 organizations resisted efforts at re-contact for purpose of obtaining a better address. Consequently, the surveys presumably reached the desks of specific individuals in 3069 organizations.

After two weeks, CSR mailed a post-card to remind these individuals about the importance of returning the survey. After an additional two weeks, they mailed a second full package to nonrespondents. In this second mailing, CSR included a username and password that allowed organizations to access a web-based version of the survey. After several more weeks, CSR called nonrespondents to personally invite the return of the survey. After several more weeks, nonrespondents who had said that they intended to return the survey received a second reminder call.

The field period lasted approximately four months. At the end of the field period we had received 1540 surveys, a response rate of 50.2 percent.

Analysis of Survey Nonresponse

Survey researchers seek a high response rate because increasing the number of returns decreases the likelihood that systematic differences between respondents and nonrespondents will bias survey results. One might imagine a variety of factors that might influence an organization's decision to return a survey such as ours. To offer a few, and to provide a rationale for the empirical tests that follow, we advance three propositions regarding the potential for nonprofit organizational response bias.

Proposition 1: Organizations will become increasingly responsive as they age.

Rationale: The longer organizations are around, the more they become integrated in their community or field, raising their interest and willingness to deal in issues that extend beyond the borders of their organization. For this reason, organizations will become increasingly willing to turn their attention from overcoming the liabilities of newness to outside appeals that will shed light on higher order kinds of issues.

Proposition 2: Larger organizations will be more responsive than smaller organizations.

Rationale: Larger organizations have a greater capacity to respond to survey appeals. They are also more likely to have the kinds of personnel or management systems that will make a survey of overhead costs interesting and relevant to them.

Proposition 3: The more reliant organizations are on public contributions, the more responsive they will be.

Rationale: Reliance on contributions both fosters an ethic of interaction with and responsiveness to the public. Organizations that get very little of their revenues from direct contributions can afford to ignore public appeals. Organizations that get large proportions of revenues from contributions cannot.

Survey researchers usually have few tools to help them explore these kinds of propositions. Our data have two features that allow us to make some unique comparisons. First, since data are drawn from Form 990 filers, we have detailed data on both respondents and nonrespondents. For (nearly) all of the cases, we know when the IRS granted organizations their charitable exemption. This date gives us the basis for an approximate organization age that we can use to compare respondents to nonrespondents. Organizations report total expenditures on their Form

990, a figure that is frequently used to compare the sizes of different organizations. We use total expenditures as our size measure, but we calculate the natural log of expenditures for each organization since the distribution of total expenditures is very heavily skewed toward organizations with low budgets. Finally, to get a measure of “publicness”, we sum direct contributions and gross revenues from special events, and then divide this total by an organization’s gross receipts. The result is a proportion of receipts that an organization receives directly from public contributions.

A second feature of the survey data is that CSR tracked the number of days elapsed between initial survey mailout and return of a completed survey to their office. This feature allows us to study not only whether an organization returned a survey, but also how much prompting it took them to send it back. Organizations whose surveys were returned because of a bad address were removed from the analyses presented below. Table 1 illustrates the number of days required to receive surveys from half the sample.

Table 1: Time to Return of Survey

| | Number of Surveys Returned | Percentage |
|--------------------|-------------------------------|------------|
| 7-10 days | 156 | 10.1% |
| 11-32 days | 671 | 43.6% |
| 33-60 days | 438 | 28.4% |
| 61-100 days | 186 | 12.1% |
| More than 100 days | 86 | 5.6% |
| <i>unknown</i> | 3 | 0.2% |

The ultimate indication of whether an organization is responsive or not is whether or not it returned a survey to us. However, one can argue that the length of time required to return the survey, especially given the number of follow-ups in our research design, is another indication of responsiveness. The organizations that returned the survey in 7 days are certainly more responsive than those that returned it in 107 days. This conception of responsiveness is important because researchers make hard decisions about the number of follow-ups they can afford and the number of days they should wait for surveys to trickle in.

Table 2 reports zero-order Pearson’s correlation coefficients for organization age, size, proportion of revenues from contributions, response vs. nonresponse, and the number of day elapsed until return of survey. Except for indications that older organizations tend to be larger and that larger organizations tend to derive a smaller proportion of revenues from direct contributions, the correlations are quite low. However, the matrix also gives us our first indications that our propositions are in for little support. The negative signs on the response/nonresponse dummy variable suggest that older and more contributions-reliant organizations tend toward nonresponse. The positive signs on the days-to-return variable suggest that older, larger, and more contributions-reliant organizations took longer to send back the survey.

Table 2: Correlation Matrix

| | Independent Variables | | |
|---|-----------------------|-----------------------|---|
| | AGE | SIZE: Ln(expenses) | PUBLICNESS: contributions/ total revenues |
| SIZE: Ln(expenses) | 0.34 | | |
| PUBLICNESS: contributions/total revenues | -0.14 | -0.28 | |
| Response=1; Nonresponse=0 | -0.03 | -0.00 | -0.01 |
| Days to return survey | 0.07 | 0.07 | 0.05 |

To test our time-dependent conception of “responsiveness,” we estimated proportional hazards models of response time. In these models, the “hazard” is the likelihood that an organization would return a survey on a particular day, given that the organization had not yet returned a survey. The dependent variable (the hazard rate) is constructed from both an indication of whether an organization had returned a survey (“events”) or not (“censored cases”) and the number of days elapsed for those who returned it.

Different organizations have different characteristics that introduce variable likelihoods (or “risks”) of returning a completed survey. The proportional hazards analysis uses response and response time to estimate the hazard function for each organization, and then assesses how well

the independent variables relate to where each organization falls on the survival distribution. Table 3 reports the parameter estimates for the age, size, and public contributions covariates.

Table 3: Event History (Cox Regression) Models of the Influence of Organization Age, Size, and Public Contributions on the Hazard of Survey Response

| | Age Model ? (SE) | Size Model ? (SE) | Public Model ? (SE) | All Three ? (SE) |
|--|---------------------|----------------------|------------------------|---------------------|
| Organization Age | -0.01 (0.00) ** | | | -0.00 (0.00) * |
| Organization Size | | -0.04 (0.02) ** | | -0.04 (0.02) ** |
| Proportion of Funding from Direct Contributions | | | -0.14 (0.08)~ | -0.21 (0.08) ** |
| Events | 1497 | 1531 | 1531 | 1491 |

Note: ~ p < .07; * p < .05; ** p < .01

The results of the survival analysis give us two important pieces of information about the relationship between responsiveness of organizations and their age, size, and reliance on direct contributions. First, age, size, and reliance on contributions are significant predictors of the probability of returning a survey at any given point in time that a survey is being fielded, but in all three cases the relationship is in the opposite direction indicated in the propositions above. The negative signs on the estimates indicate that as an organization becomes older, larger, and more contributions-reliant, the hazard of returning a survey decreases.

The second finding is that the magnitude of the coefficients for age and size, though statistically significant, are very small. The practical difference between adding a year of age or a number of log-dollars to total expenses has a small effect on the hazard rate. On the other hand, the magnitude of the direct contributions estimate (-.21) is more substantial. We can ascribe meaning to this estimate by exponentiating, subtracting 1.0, and interpreting as a percentage change per increment of the independent variable. So, $e^{-.206} = .813$, and $(.813-1)(100\%) = 18.7\%$. For every percentage point that direct contributions represents of total revenues, the

hazard of returning a survey decreases by 18.7 percent. So, an organization whose contributions represent 24 percent of budget has an 18.7 percent lower hazard of survey response than an organization whose contributions represent 25 percent of budget. Of the three variables investigated in this research note, percentage of revenues from direct contributions influences the hazard of survey response the most.

While the survival analysis sheds light on the likelihood of organizations returning a survey in a timely manner during the field period, it does not tell us whether we successfully motivated and waited out the older, larger, and more contributions-reliant organizations in our quest to generate survey responses from a representative segment of the nonprofit sector. If younger, smaller, and less contributions-reliant organizations are over-represented in the final tally of respondents, then we should be able to use these variables to predict which organizations returned a survey. To make this assessment, we estimated logistic regression models. These models tell us whether the three independent variables are substantially related to the log-odds of returning a survey. Table 4 summarizes the models.

Table 4: Logistic Regression Models of the Influence of Organization Age, Size, and Public Contributions on the Log-Odds of Survey Response

| | Age Model | Size Model | Public Model | All Three |
|---|--------------------------|-------------|-------------------------|---------------|
| | ? (SE) | ? (SE) | ? (SE) | ? (SE) |
| Organization Age | -0.00 (.00) [~] | | | -0.01 (.00) * |
| Ln (Organization Size) | | -0.00 (.02) | | -0.01 (.02) |
| Proportion of Funding from Direct Contributions | | | -0.06 (.11) | -0.11 (.11) |
| Intercept | 0.11 (.06) | 0.08 (.13) | 0.09 [~] (.05) | 0.27 (.15) |
| Valid N | 2973 | 2969 | 2963 | 2867 |

Note: [~] p < .07; * p < .05

The results indicate that our follow-up and time spent in the field were sufficient to overcome the differential hazards associated with the age, size, and contributions-reliance of sampled organizations. For our final sample, one cannot use an organization's size or proportion of budget due to contributions to predict whether an organization responded to the survey or not. However, organization age *is* significant at the $p < .05$ level (and negative), suggesting that older organizations are underrepresented among the respondents. Our concern about this finding is tempered by the very small magnitude of the parameter estimate (-0.004 in the bivariate model and -0.005 in the multivariate model). We can again interpret this estimate by exponentiating, subtracting 1.0, and interpreting as a percentage change per unit change in the independent variable. So $e^{-0.005} = .995$, and $(.995 - 1)(100\%) = 0.5\%$. For each year older an organization gets, the odds of returning a survey decreases by only half of one percent. While we think it is important to be attuned to response bias in our sample, the influence of age is practically negligible.

Summary

The purpose of this paper was to introduce the method for collecting survey data for the Overhead Costs Project and to summarize tests of response bias due to organizational age, size, and proportion of total receipts from contributions. A carefully thought out and executed multi-contact survey design resulted in a response rate of 50.2 percent. Analysis of the time elapsed until return of survey indicates that older, larger, and organizations more reliant on contributions take longer (or require more prompts) to return a survey. However, the length of the survey field period (or the number or nature of nonrespondent promptings) in our study resulted in a set of survey respondents that do not differ from nonrespondents on the basis of organizational size or reliance on contributions. Older organizations are underrepresented in the final sample, although to a very small degree.