Efficiency metrics for nonprofit marketing/fundraising and service provision – a DEA analysis

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ABSTRACT

Efficiency in both marketing/fundraising and production of services is an important managerial concern for charitable organizations. Nonprofits' evaluation, however, suffers from the lack of viable, generally accepted metrics to measure performance. In this paper, a method for metric determination is introduced that separately evaluates the efficiency of fundraising and the ultimate service provision in arts and heritage charities, using a two stage Data Envelopment Analysis (DEA). This allows efficiency assessment from two perspectives: 1) the effort directed toward fundraising and 2) the efficiency of utilizing those generated funds toward the stated charitable cause. This analysis is applied to U.S. Internal Revenue Service (IRS) data for charitable organizations classified as, "Arts, Culture and Humanities," directed toward "Cultural/Ethnic Awareness." For an inefficient charity, this paper 1) provides a benchmarking methodology for identifying sources of improved fundraising and program service delivery; 2) determines the sources of input or output inefficiency and 3) illustrates how many more funds a charity could raise if it were efficient.

Keywords: marketing metrics, marketing resource allocation, not-for-profit, data envelopment analysis, managerial efficiency, fundraising efficiency, service delivery efficiency

INTRODUCTION

In 2008 donations to charities in the United States comprised 2.2 percent of the Gross Domestic Product (GDP), with Americans giving $307.65 billion to charities (Giving USA, 2009). In addition to private donations, government represents a significant source of funding for nonprofit organizations (NPOs). For both private donations and government funding, there are numerous metrics that are used to decision makers to determine whether to support any given NPO. One such metric is the efficiency/inefficiency of the NPO (Marudas and Jacobs, 2011). While there are certain well-defined common financial or accounting measures of efficiency (program spending, administrative inefficiency, and fundraising efficiency ratios) that are used and well-publicized, these ratio measures do not capture efficiency of output and are subject to measurement error through valid or invalid accounting manipulations. Without common measurement tools, not-for-profit comparisons and benchmarking are difficult. To address this dilemma, a methodology is presented for assessing the relative efficiency of non-profits in directing resources toward a cause (service delivery), while separately examining the efficiency of fundraising efforts, thus responding to a call for addressing this void by Stamp and Waide (2004). By separately evaluating fundraising and service delivery to the cause, it is possible to better bifurcate the evaluation of charity performance for the two important functions: fundraising and the ultimate goal of the enterprise, which is supporting the cause or entities for which funds were raised. Social profit, providing benefit to society, is also increasingly a goal of for-financial-profit enterprises (Gilligan and Golden, 2009).

More efficient operations (and benchmarking) have also become increasingly important in the context of the 2008-2010 financial crisis, and President Obama's suggested change to lower deductibility of charitable deductions for taxpayers with incomes over $250,000. According to the *Chronicle of Philanthropy* (February 27, 2009), Indiana University's Center on Philanthropy estimates, the Obama deduction change could reduce donations $3.9 billion in 2009, and importantly, for every stock market decline of 100 points, charitable giving declines by $1.85 billion, making efficiency imperative for charities.

This paper presents a two-step approach to assessing the efficiency of a charity using Data Envelopment Analysis (DEA), which is used to analyze both fundraising and program service delivery efficiency. DEA allows for a comparison of a charity's efficiency against that of other charities, thus providing both an efficiency metric and benchmarking information (i.e., comparison with others in the industry or having the same type of social goal or benefit). This research applies DEA to 2006-2007 Internal Revenue Service (IRS) Form 990 data for charitable organizations classified as "Arts, Culture and Humanities" that are "directed toward Cultural/Ethnic Awareness," the latest available data at the time of the research.

A methodology for evaluation of non-profits' efficiencies is important beyond providing individual donor decision-making information (i.e., "Who can best allocate my donation to the cause?"). Many state and local governments are "outsourcing" social programs to non-profits (Frumkin and Kim, 2002). This outsourcing creates another sector's need to know what non-governmental entity can best allocate the charitable resources given to them. Illustratively, much of the disaster relief funds raised in the United States after the hurricanes of 2005 came from non-governmental charities rather than government agencies. Even some for-profit firms, such as Lockheed-Martin, are providing social services (Dees, 1998; Ryan, 1999). In addition to individual donors, both company donors and governmental donors benefit from knowing who is efficiently raising funds and allocating these funds raised to the dedicated cause. There are many papers in the economics, accounting, and non-profit literatures that examine determinants of donations to charitable organizations, and Table 1 in Jacobs and Marudas (2009) provides a comprehensive summary of this research through 2007. (Also see their 2011 article that focuses specifically upon governmental funding of NPOs.)

There are, in fact, already a number of simple ratio metrics that have emerged for rating non-profits (e.g., administrative cost comparisons to indicate how much of the donor's dollar goes to the cause). An appealing aspect of these accounting-based ratio measures is their apparent precision and objectivity. However, existing non-profit rating metrics have been criticized for lack of mathematical rigor (Niehaus, 2003; Berman, 2003; Manzo, 2001), and there is concern that the measures do not take into account the impact of the non-profit's spending, and implicitly consider a dollar of spending as producing a homogeneously beneficial amount of output across all non-profit organizations. Thus, with these types of measures, a dollar spent on micro-financing in impoverished areas is rated the same as a dollar spent on cancer research in terms of the accounting ratio measures, but in terms of benefits these are likely to be very different. Furthermore, when viewed in the aggregate, success or failure of the fundraising component of the organization might easily obscure performance of the delivery portion of the charity if the two separate activities (fundraising and service delivery) are concatenated into a single overall efficiency measure. A non-profit that is efficient in fundraising but not in program services might appear to be overall efficient if both stages are undifferentiated. After making the decision to donate, however, donors may seek to identify charities that are efficient in service delivery as they would like to give their money to organizations that best utilize it for the cause and might be misled by this apparent overall concatenated efficiency. Conversely, inefficiency in fundraising can also lead to misleading donor action since a non-profit inefficient in fundraising may appear overall to be inefficient when using an aggregated measure, but actually be 100% efficient in delivering services utilizing whatever funds they have raised, and hence, could be a good location for the donors' contributions ("best bang for their buck").

A separate evaluation of efficiency of the fundraising function and program delivery function yields a more complete picture of a non-profit's efficiency. As a by-product, the analysis also provides an inefficient charity with a metric for the amount of its inefficiency while simultaneously identifying 1) a set of related entities against which to benchmark, 2) what input and output variables should be used to benchmark, 3) how one might rectify inefficient fundraising activities to increase the amount of contributions, 4) how to determine the amount of deliverable program services that would be possible, if fundraising efficiency were optimized (i.e., how important efficiency might be in their particular context), and 5) the changes in input values necessary, related to the service provision function, to obtain efficient delivery of program services. This analysis might also have some implications for determination of strategic alliances between for-profit and not-for-profit firms (Andreasen, 1996), and between charities themselves, some of whom may be efficient in fundraising and others in service delivery, since a non-profit inefficient in one stage might learn from, or pair with, efficient charities in their particular niche market.

There have been other marketing and DEA applications appearing in the operations and management science literature (Emrouznejad, Parker and Tavares, 2008; Cooper, Seiford, and Tone, 2007; Mahajan, 1991; Brockett, Cooper, Golden, Rousseau and Wang, 1998, 2004, 2005; Brockett, Cooper, Deng, Golden, Kwinn and Thomas, 2002; Barua, Brockett, Cooper, Deng, Parker and Ruefli, 2004). In spite of the relevance of DEA to marketing (Luo, 2004), DEA's appearance in the marketing literature is limited. Articles using DEA analysis in marketing include: Murthi, Srinivasan, and Kalyanaram (1996) (investigating first mover marketing share advantages); Horsky and Nelson (1996) (evaluating sales force size and productivity); Kamakura, Ratchford, and Agrawal (1988) (studying market efficiency and welfare loss); Kamakura, Mittal, de Rosa and Mazzon (2002) (analyzing branch level efficiency of banks); Boles Donthu and Lohtia (1995) (investigating salesperson performance efficiency); Donthu and Yoo (1998) (studying productivity efficiency); Luo and Donthu (2001) (benchmarking advertising efficiency); Ratchford, Agrawal, Grimm and Srinivasan (1996) (examining market efficiency); Thomas, Barr, Cron and Slocum (1998) (evaluating retail store efficiency); Dutta, Narasimhan, and Rajiv (1999) (discussing DEA as an alternative method to stochastic frontier analysis in a marketing application); and Roh, Park and Moon (2011) (studying economic performance of nonprofit hospitals in the U.S.). In fact, DEA was invented for the purpose of evaluating not-for profit entities, and it has been applied to governmental entities and decision making frequently. A recent discussion of using DEA to evaluate the efficiency of not-for profit organizations is provided in Vakkuri (2003). Within the context of charitable fundraising, Luksetich and Hughes (1997) have applied DEA to evaluate the relative efficiency of the spending for development by 78 symphony orchestras in the United States. They did not, however, couple this work with the determination of the efficiency of actual service provision, nor use the same data as in this paper.

EVALUATING FUNDRAISING EFFICIENCY

Fundraising and marketing functions are especially important to non-profit entities when governmental contributions are available, as government contributions are often determined by applying a multiple of the amount the non-profit has already raised. There are also private philanthropic “matching funds” from donors to motivate fundraising performance. For example, in the United States many employers match employee contributions, and other organizations can provide matching funds to specific charities. In addition, recently, people have argued that emphasis should be placed on a non-profit’s ability and efficiency at delivering their services, rather than on its marketing and fundraising prowess (Polonsky, 2003). Further, recent work has shown that governmental support for nonprofit organizations is more likely to flow to “efficient” organizations than to “inefficient” organizations, where efficiency is determined through the “donation price” of any given nonprofit organization – as calculated from the IRS Form 990 data (Marudas and Jacobs, 2011). While Marudas and Jacobs utilize the same data source as used in this study, they do not separate out measurements for efficiency of service delivery, as accomplished herein.

Extensive research has shown that public perception of a non-profit’s efficiency in raising and then using funds for the ultimate goal heavily influences attitude and likelihood to donate (Bennett and Savani, 2003). Moreover, legal troubles, such as deceptive practices actions, or loss of non-profit tax status, can arise when non-profits spend too much of their raised money on marketing expenses and too little on the actual cause. Exacerbating the problem from the donors’ perspective is the fact that the IRS cannot disclose why they revoked non-profit status or took other adverse action (Herzlinger, 1996).

As donors and directors of non-profits become more aware of these issues, organizations have appeared to rate non-profits, intending to help donors know how much of their donation actually reaches the end goal (e.g., Charity Navigator, Ministry Watch, Charity Choices, The Nonprofit Times). There is even a company that rates charity raters (Niehaus, 2003). The biggest shortcoming of these rating systems is the relative weights assigned to different components intrinsic in the calculation. The rating structures are, therefore, subjective with possibilities for differences and conflicts between ratings.

An objective rating method enables non-profits (and donors) to weight components based on strategic views of different inputs and outputs. This is the case in DEA which, in effect, selects “best possible” weights that optimize apparent relative efficiency directly from the data in place of the customary a priori selection of weights. This method removes many conflicts due to the subjectivity involved in the choice of weights for individual components. Also, this approach can be useful to non-profits themselves, as they often use their efficiency ratings as a marketing tool for fundraising (Washington State University in Saint Louis, 2004; Cross International Catholic Outreach, 2003; Hope Worldwide, 2003; and Frumkin and Kim, 2001).

DEA FORMULATION FOR DETERMINING CHARITABLE EFFICIENCY

The DEA model is divided into inputs and outputs that non-profit organizations use to obtain funds and implement socially beneficial programs. Inputs are the requisite items needed by a charity to accomplish its goals. Outputs are the deliverables of the charity. In general, unlike the single input and single output process that lends itself to a simple ratio efficiency measure (such as that common in engineering efficiency ratios using energy in versus energy out), most charitable decision making involves multiple inputs and multiple outputs. In charities, there are several needed inputs and the outputs can be varied as well. The DEA models presented here generalize the simple ratio method of efficiency determination to incorporate multiple inputs and outputs. Marketing, fundraising and managerial efforts to secure public or private support are inputs. Services provided to recipients or to the causes for which the organization was founded are outputs. By comparing and evaluating the relationship of inputs needed to create outputs, it is possible to identify the most and least efficient charities in each phase (fundraising and service performance). Additionally, by this method, benchmarks to establish best practices are created that identify efficient (as distinct from inefficient) charities performing similar charitable functions that better utilize inputs to create outputs.

There are a number of individually identifiable inputs that affect proper functioning of a charity. The existence of a multiple input and output environment bars the use of a single simple accounting “ratio” approach to such an evaluation, although these simple ratios are often cited as determining efficient/inefficient nonprofits. The *Toronto Star*, for example, during the week of November 11, 2002 discussed charitable efficiency by calculating the ratio of total dollars raised to total dollars spent on charity works so as to avoid dealing with multiple outputs and inputs. Numerous papers examine the impact of simple accounting ratios on donations, such as Marudas and Jacobs (2007) who use a ratio of total expenses versus expenses spent toward the “cause” as a measure of efficiency. Many current charity rating services also do this. For example, Charity Navigator uses financial information on charity’s IRS 990 form to analyze performance in seven individual areas: fundraising efficiency, fundraising expenses, program expenses, administration expenses, primary revenue growth, program expenses growth and the charity’s working capital ratio. The scores in each of the seven areas are then combined to obtain an overall (additive) score for the charity which is then converted to a 0-5 star ranking system. In contrast, DEA generalizes the simple ratio notion (output/input) of efficiency and ratio-based charity ratings.

Using multiple inputs and multiple outputs, DEA applies mathematical programming to determine an "efficiency frontier" that is used to evaluate the efficiency level in each charity. For simplicity and consistency with the DEA literature, and because they may have different structural forms, the charity or non-profit to be examined is generically called a decision-making unit (DMU), i.e., that which transforms “inputs” into “outputs.” Essentially, the DEA technique seeks to determine which subset of DMUs determine an efficiency frontier of best performance. A DMU which is not on this efficiency frontier is deemed “inefficient” because it could, by comparison with other charities, increase some output or lessen some input without worsening any input or output relative to the other DMUs being evaluated. As a by-product of this approach, DEA explicitly provides a relative efficiency metric θ for each charity, $0 \le \theta \le 1$. This is done by comparing its output/input performance to that of other comparable charities on the efficiency frontier.

Mathematically, let $\{x_{ij}\}$, i = 1, 2, ..., m denote m input variables that the charity DMU_j, $j = 1,...,n$, uses to produce output values $\{y_{rj}\}$, r = 1, 2,..., s. Each charity in the comparison set is analyzed mathematically in succession. For notational convenience, each particular charity selected for evaluation is labeled DMU_0. This paper follows Banker, Charnes and Cooper (1984) which takes a ratio of weighted multiple outputs $\sum_{r=1}^{s} u_r y_{ro}$ over weighted multiple inputs $\sum_{i=1}^{m} v_i x_{i0}$. To distinguish them from the customary use of pre-assigned weights, these weights v_i and u_r are called “multipliers” since they multiply the input and output variables to create a sort of an input index and an output index. These multipliers are determined anew for each charity to be evaluated and are “best possible” weights for the charity in that they maximize the charity DMU_0’s apparent efficiency score.

The efficiency ratio, θ, which is to be maximized, is $\theta = (\sum_{r=1}^{s} u_r y_{r0} - u_0) / (\sum_{i=1}^{m} v_i x_{i0})$. It is akin to the usual ratio notion of efficiency (input/output) used for charity evaluation except that the multipliers here are optimized to give each charity a chance to look as efficient as possible, subject to the constraint that no charity can be more than 100% efficient. This allows for differing strategies and strategic priorities. The possibility of economies of scale existing for a particular charity is also obtained by incorporating the parameter u_0 in the numerator in the above ratio (mathematically u_0 is also determined from the data, see Banker, Charnes and Cooper, 1984). All u_r and v_i are nonnegative, and additionally, the constraint is imposed that using optimal weights for DMU_0 cannot result in any other DMU being “super-efficient” in the sense that they have a ratio of inputs to outputs greater than 100%, i.e., $(\sum_{r=1}^{s} u_r y_{rj} - u_0) / (\sum_{i=1}^{m} v_i x_{ij}) \le 1$ for j = 1, …, n).

The DEA model is now developed as follows: Let $\{x_{ij} \ge 0 | i = 1,...,m\}$ be the m inputs to be considered and let $\{y_{rj} | r = 1,...,s\}$ represent the outputs associated with DMU_j, $j = 1,...,n$. The problem considered:

$$\max_{\nu,\mu} \theta = \frac{\sum_{r=1}^{s} \mu_r y_{ro}}{\sum_{i=1}^{m} \nu_r x_{io}}$$

subject to

$$\frac{\sum_{r=1}^{s} \mu_r y_{rj}}{\sum_{i=1}^{m} \nu_i x_{ij}} \leq 1 \quad (j = 1,...,n) \tag{1.1}$$

$$\mu_r, \nu_i \geq 0, \forall r, i$$

where $j = o$ in the objective represents one of the $j = 1,...,n$ $DMUs$ to be evaluated relative to the performance of all $DMUs$ (including $j = o$). Since $j = o$ is itself represented in the constraints, this problem always has a solution by setting $\lambda_j = 1$ for $j = o$ and all other $\lambda_j = 0$. Hence for $\{x_{ij}, y_{rj} \geq 0 | i = 1,...,m; r = 1,...,s\}$ a solution will always exist and have a finite value. Thus,

$$\theta^* = \max \theta = \frac{\sum_{r=1}^{s} \mu_r^* y_{ro}}{\sum_{i=1}^{m} \nu_i^* x_{io}} \leq 1$$

$$with \tag{1.2}$$

$$0 \leq \max \theta = \theta^* \leq 1$$

and $\theta^* = 1$ representing the attainment of efficiency by the DMU_o being evaluated.

This formulation represents a generalization of the engineering science definition of efficiency in that it extends the usual single output to single input ratio. This is accomplished without requiring the use of prearranged or subjectively determined weights. Instead, DEA calculates the weights μ_r^*, ν_i^* from the data and hence does not employ any prearranged weights, as is done in engineering science as well as in management. It also differs from the engineering science definition in that the weights will, in general, change as different DMU_j are evaluated because the weights chosen are the best possible values for each particular DMU_o with its performance being evaluated relative to all of the DMU_j, $j = 1,...,n$ represented by the constraints. This is to say that no other choice of weights can improve the rating $\theta^* \leq 1$ assigned to the particular DMU_o via (1.1). See Cooper, Seiford and Tone (2007) for a detailed discussion of the ratio form of the BCC model, which constructs “optimal” weights for the virtual multipliers via mathematical programming. This book also contains a computer program to conduct this analysis.

The model in (1.1) states a non-convex programming problem that is difficult to compute. Therefore, as in (Cooper, Seiford and Tone, 2004) it is replaced by the following problem that is equivalent to (1.1),

$$\max_{\mu,\nu} \theta = \sum_{r=1}^{s} \mu_r y_{ro}$$

subject to

$$\sum_{r=1}^{s} \mu_r y_{rj} \le \sum_{r=1}^{s} \nu_r x_{ij}, \quad j = 1,\ldots,m$$

$$\sum_{i=1}^{m} \nu_i x_{io} = 1$$

$$\mu_r \nu_i \ge 0 \, \forall r, i.$$

(2.1)

This is an ordinary linear programming problem that is easy to compute. It also has a dual problem that can be written as

$$\min z - \varepsilon\left(\sum_{r=1}^{s} s_r^+ + \sum_{i=1}^{m} s_i^-\right)$$

subject to

$$\sum_{j=1}^{n} x_{ij}\lambda_j - s_i^- = z x_{io} \qquad i = 1,2,\ldots,m \tag{2.2}$$

$$\sum_{j=1}^{n} y_{rj}\lambda_j + s_r^+ = y_{ro} \qquad r = 1,2,\ldots,s$$

$$s_i^-, s_r^+, \lambda_j \ge 0 \quad \forall i, r, j.$$

where the s_i^-, $s_r^+ \ge 0$ represent slack variables and $\varepsilon > 0$ represents a non-Archimedean element smaller than any positive real number.

Further, the following conditions and definition of efficiency are:

Definition of Efficiency: DMU_o the DMU_j being evaluated, is efficient if and only if the following 2 conditions are satisfied

(i) $z^* = 1$

(ii) All slacks are zero.

Thus, efficiency is achieved if and only if it is not possible for DMU_o to increase some output or decrease some input without worsening some other output or input.

DEA then uses these points to generate an "efficiency frontier" to evaluate the points with coordinates representing the performances of each of the DMU_j, $j = 1,\ldots,n$. For each of the DMU_j being evaluated, the mathematical programming problem also identifies the specific amounts of inefficiencies via

$$\hat{x}_{io} = z^* x_{io} - s_{io}^{-*} \le x_{io}, \quad i = 1,\ldots,m$$

$$\hat{y}_{ro} = y_{ro} + s_{ro}^{+*} \ge y_{ro}, \quad r = 1,\ldots,s \tag{2.3}$$

so that $\hat{x}_{io} < x_{io}$ whenever $z^* < 1$ and/or $s_{io}^{-*} > 0$ and $\hat{y}_{ro} > y_{ro}$ wherever $s_{ro}^{+*} > 0$ where the $\left(\hat{x}_{io}, \hat{y}_{ro}\right)$ are the points on the efficiency frontier used to evaluate DMU_o. Thus, off the efficiency frontier, $\delta_{io} = x - \hat{x}_{io} \geq 0$ and $\delta_{ro} = \hat{y}_{ro} - y_{ro} \geq 0$ represent the amounts of inefficiency in each input and each output for the DMU_o being evaluated. Finally, DEA generates points from convex combinations of the actually observed efficient points that can, therefore, serve as "benchmark" DMUs.

Benchmarking in charity fundraising is a topic of ongoing research in non-profit marketing (Editorial, 2003). The DEA metric is unique in that it can simultaneously identify an inefficient charity and also produce information regarding sources of inefficiencies, and what input values must be altered to make the charity efficient, and also identify a set of efficient charities against which to benchmark.

SEPARATING FUNDRAISING AND SERVICE PROVISION EFFICIENCY ANALYSIS

The two-stage DEA model presented in this paper separates efficiencies of the fundraising and program delivery functions, while providing a measure of overall efficiency that reflects the connectedness of these measurements. This separation of the two processes is schematically represented in Figure 1 (all figures are in the Appendix) wherein a separate assessment of fundraising and service delivery operations is made. Here, f_1 takes various inputs into the fundraising effort to produce the contributions received. This recognizes that fundraising effort produces an intermediate economic product, i.e., a product output that is subsequently used as an input into production of another ultimate product, and that there is a second stage, with f_2 taking inputs into the cause related activities (including contributions produced by fundraising) and directing these toward program services provided.

The actual mathematical implementation of this two stage efficiency assessment is performed as follows: In the first fundraising stage, a DEA analysis is performed to determine efficiency of generating revenue/donations using equations (1.1) and (2.1).

Fundraising Stage:

Input Variables (x): fundraising expenses and managerial and general expenses
Output Variables (y): Contributions received

In the second program performance stage of DEA, the efficiency of using the allocating dollars raised toward the cause is calculated by again using equations (1.1) and (2.1) however this time utilizing the inputs also included in the first stage output.

Charitable Service Provision Stage:

Input Variables: Contributions received, plus managerial and general expenses
Output Variables: Amount of money going to the "cause"

Importantly from an "inefficient" charity's perspective, the $\lambda_j^* > 0$ values in (1.1) and (2.1) specify a collection of identified efficient charities against which the inefficient charity can benchmark. Brockett, Golden, Sarin and Gerberman (2001), and Brockett, et al. (2008) provide further details on using DEA results for benchmarking.

In creating a metric for fundraising and nonprofit service delivery efficiency, a critical decision is the determination of inputs and outputs. Accordingly, to motivate the discussion of multidimensional efficiency, a series of models is created with different input and output measures that focus on different aspects of non-profit efficiency. First, "simple" models are considered that use only a single stage DEA analysis (equations (1.1)-(2.1)) to analyze efficiency.

Most non-profit organizations in the United States are required to file an IRS 990 to obtain tax-exempt status. These are publicly available from GuideStar's website (www.guidestar.com). For the DEA models reported below, inputs and outputs are taken directly from each IRS 990 form. All subsequent analyses are based upon data used from the 2006-2007 IRS form 990 reports. For the simple models described below for evaluating efficiency, no differentiation between fundraising and program service delivery functions is made. To better follow the discussion, Table 1 (all tables are in the Appendix) provides a line-by-line description of the 990 reports.

SIMPLE ONE STAGE DEA MODEL METRICS

The overall or aggregated models for charitable efficiency are conceptually similar to current efficiency measures. These use an aggregate single ratio formulation of efficiency. Expressed verbally, the variables used are:

Input Variables: Fundraising expenses and management and general expenses
Output Variables: Amount of money going to the final "cause"

In this DEA formulation, this gives rise to the models detailed below.

Model A – Summary Program Cost Output (Fund Raising Function Model)

In Model A, summary measures obtained from Part I of IRS form 990 are used as inputs. This yields:

Model A Inputs

Expenses via:

1. Management and General Expenses (IRS 990 line 14)
2. Fundraising Expenses (IRS 990 line 15)

Income is represented by:

3. Investment Income (The sum of interest, dividends, net rental income, and other investment income taken from IRS 990 lines 4, 5, 6c and 7)
4. Total Contributions Received by the Non-Profit (IRS 990 line 1e)

For the output measure line 13 from 990 Part I designated as "Program Services" expenses is used. This includes all expenses listed as being associated with providing the goal "program service," including "grants and allocations" (line 22(B) Part II), "Specific assistance to individuals" (line 23(B) Part II), and many other expenses. When a single value for cause-related expenditures is requested, one might provide this number since it is labeled as such on the IRS form. Model A is a "baseline" model representing a more robust and sophisticated ratio measure. In summary:

Model A Output

1. IRS 990 form Cause Related Expenditures via: Program Services (IRS 990 line 13)

Model B – Only Actual Beneficiary Related Costs Considered As Output Variables

A closer examination of what is included in "program services" (line 13) reveals that possible "misinformation" can be "hidden" therein. Program services on IRS 990 form might have little to do with benefits actually received by the end cause recipient. Business expenses, such as "compensation of officers, directors, etc." (line 25(B) Part II), "other salaries and wages" (line 26(B Part II) and "pension plan contributions" (line 27(B) Part II) are included in program service expenses but ostensibly do not provide direct aid to the end cause recipient, and might not be expenses that solicited fund providers had in mind when responding to a fundraising promotion. Including extra costs as a service output increases the ratio and may make the charity appear "efficient."

Likewise, inefficiency in fundraising can be masked if fundraising expenses are instead included as part of program services, reducing the size of fundraising and management and general expenses while increasing service output, making it difficult to troubleshoot charity problems. There is an incentive to misrepresent these expenses and possibly move expenses from the "input side" to the "output side" because of donor concern about what percentage of contribution goes to expenses, rather than the cause--a possibility facilitated by the nomenclature, structure and suggested line itemizations of form 990 (Krishnan, Yetman, and Yetman, 2006). The discussion by the IRS of how to fill out the form 990 is vague as to how to exactly distinguish fundraising expenses from program services expenses, and indeed certain expenditures (e.g., postage, materials, etc.) might logically go in either column. Some organizations do not adequately train their staff in accounting principles, and some motivation exists in charities to misrepresent these costs as donors often focus on ratios of fundraising cost as compared to service delivery in choosing which charities to whom to give money (Association of Fundraising Professionals, 2004). Indeed, according to the study *The Nonprofit Fundraising and Administrative Cost Project* conducted by the Center on Philanthropy at Indiana University and the Center on Nonprofits and Philanthropy at the Urban Institute, in 2000 thirty seven percent of nonprofits with private contributions of at least $50,000 reported no fundraising or special event costs. More than eighteen percent which raised at least $5 million said they had no such costs (Association of Fundraising Professionals, 2004). The IRS estimates that about 4.6% of contributions are spent on fundraising (Bradley, Jansen and Silverman, 2003). However, Bradley, Jansen and Silverman (2003) put this figure at 18%, and the Urban Institute estimates are even higher. Statistical analysis by Pollak, Rooney and Hager (2002) of how expenses are allocated between "Managerial and General Expenses" and "Program Costs" found substantial inconsistencies in reporting expenses across organizations. By including only beneficiary related costs in Model B, the attempt is made to overcome this problem, and by examining the Models A and B together, it is possible to focus on individual entities that arouse suspicion concerning how they are allocating their expenses.

To deal with these reporting inconsistencies and misrepresentation issues, Model B uses the same input variables as in Model A, but, now considers only two outputs, "Grants and Allocations" (line 22) and "Specific Assistance to Individuals" (line 23), which are treated separately. In summary:

Model B <u>Inputs</u>:

<u>Expenses</u> via:

1. Management and General Expenses (IRS 990 line 14)
2. Fundraising Expenses (IRS 990 line 15)

Income is represented by:

3. Investment Income (The sum of interest, dividends, net rental income, and other investment income taken from IRS 990 lines 4, 5, 6c and 7)
4. Total Contributions Received by the Non-Profit (IRS 990 line 1e)

Outputs: Contributions to Cause(s) via:

1. Grants and Allocations (IRS 990 line 22 Column B)
2. Specific Assistance to Individuals (IRS 990 line 23 Column B)

Model C – Two Service Outputs with "Services Provided" Expenses Now As Inputs

When considering inputs it might be argued that costs of miscellaneous services charged to the program service account on line 13 are expenses to achieve the end goal. Paying employees and other expenses are necessary. Recognizing this, it is appropriate to include these as an input.

Recognizing these costs as "production expenses" consumed (inputs) in the ultimate production leads to the following model:

Model C Inputs

Expenses via:

1. Management and General Expenses (IRS 990 line 14)
2. Fundraising Expenses (IRS 990 line 15)

Income is represented by:

3. Investment Income (The sum of interest, dividends, net rental income, and other investment income taken from IRS 990 lines 4, 5, 6c and 7)
4. Total Contributions Received by the Non-Profit (IRS 990 line 1e), plus
5. Program delivery related costs: = [Total program service expenses (line 13) - Grants and Allocations - Specific Assistance to Individuals]

Outputs: Contributions to Cause(s) via:

1. Grants and Allocations (line 22 Column B)
2. Specific Assistance to Individuals (line 23 Column B)

TWO-STAGE MODELS OF FUNDRAISING AND PROGRAM EFFICIENCY

It should be noted that Berber, Brockett, Cooper and Golden (2009) consider a two stage DEA model for analyzing efficiency of social profit organizations in a manner similar to that presented here, however there are differences from the current paper with regard to the charity data used, the years examined, the goals of the analysis and the focus on benchmarking.

The next three models use two-stage DEA to separately measure fundraising and service delivery function efficiency. These models consist of:

Stage One: Efficiency of Generating Revenue/Donations

Input Variables: Fundraising expenses and management and general expenses

Output Variables: Contributions received

Stage Two: Efficiency of Allocating Dollars Raised Toward the Cause

Input Variables: Contributions received, plus managerial and general expenses

Output Variables: Amount of money going to the "cause"

As before, there are several implementations, using IRS 990 data yielding Models D, E, and F. The same formulation is used for the first Fundraising Function Model for all three models.

Two Stage Model D – Distinct Fundraising and Service Efficiency Assessment

For this model (Model D), it is assumed the ultimate output from the second stage is total program services expenses from IRS 990 line 13, analogous to Model A. This is summarized as follows:

Stage One: Fundraising Efficiency

Inputs

Expenses via:

1. Management and General Expenses (line 14)
2. Fundraising Expenses (line 15)

Outputs

1. Contributions to Organization via: Contributions (line 1e)

Stage Two: Efficiency in Delivery of Services to the Cause

Inputs

Expenses via:

1. Management and General Expenses (line 14)

Income via:

2. Investment Income (The sum of interest, dividends, net rental income, and other investment income taken from IRS 990 lines 4, 5, 6c and 7)
3. Total Contributions (IRS 990 line 1e)

Outputs

1. Program Services (line 13)

Model E - Distinct Fundraising and Service Efficiency Assessment

This has an output for the program delivery analogous to Model B:

Stage One: Fundraising Efficiency: (Same inputs and outputs as in Models D)

Inputs

Expenses via:

1. Management and General Expenses (line 14)
2. Fundraising Expenses (line 15)

Outputs

1. Contributions to Organization via: Contributions (line 1e)

Stage Two: Efficiency in Delivery of Services to the Cause

Inputs

Expenses via:

1. Management and General Expenses (line 14)

Income via:

2. Investment Income (IRS 990 lines 4, 5, 6c and 7)
3. Total Contributions (IRS 990 line 1e)

Outputs
1. Program Grants and Allocations (line 22)
2. Specific Assistance to Individuals (line 23)

Model F - Distinct Fundraising and Service Efficiency Assessment–Service Costs as Input

This has inputs and outputs for service delivery similar to that of Model C.

Stage One: Fundraising Efficiency: (Same inputs and outputs as in Models D and E)

Inputs

Expenses via:
1. Management and General Expenses (line 14)
2. Fundraising Expenses (line 15)

Outputs
1. Contributions to Organization via: Contributions (line 1e)

Stage Two: Efficiency in Delivery of Services to the Cause

Inputs

Expenses via:
1. Management and General Expenses (line 14)
2. Program Delivery Costs (line 13 minus lines 22 and 23)

Income via:

3. Investment Income (IRS 990 lines 4+5+6c+7)
4. Total Contributions (IRS 990 line 1e)

Outputs
1. Program Grants and Allocations (line 22)
2. Specific Assistance to Individuals (line 23)

DATABASE FOR EMPIRICAL APPLICATION AND ANALYSIS

As previously noted, most non-profit organizations in the United States are required to file an IRS 990 to obtain tax-exempt status. These reports are publicly available from GuideStar's website (www.guidestar.com). For this analysis, non-profits classified as "Arts, Culture and Humanities" directed toward "Cultural/Ethnic Awareness" were examined. Smaller charities were eliminated (less than $100,000 in revenues), since these often file less informative IRS form 990-EZ. Also eliminated were those which listed no "inputs" on lines 1e, 4, 5, 6c, 7, 14 or 15 of IRS form 990, or which had no output listed on IRS form 990 line 13 or lines 22 or line 23. The relative efficiency assessment for these charities is problematic since they either produce outputs without any inputs, or utilize inputs without producing any measurable outputs. The data used were 2006-2007 IRS form 990 reports, as available through GuideStar.

Results for Arts, Culture, and Heritage Charities

Table 2 presents results of the six models applied to the Arts, Culture and Heritage charities having complete data and revenues between $100,000 and $1 million. Prior literature (see Table 1 in Jacobs and Marudas, 2009; as well as Marudas and Jacobs, 2008) has found that total assets or revenues have a strong and significant effect on donations. Thus, this study restricted the size to this revenue range for comparability so as not to penalize smaller organizations as less efficient. The use of a DEA model that allows for economies of scale also addresses the issue of size comparisons in efficiency determination. For brevity, Table 2 lists only those charities that were efficient in at least one model.

As was previously conjectured, from Table 2 it can be observed that some arts and heritage charities are efficient at fundraising while others are efficient at program services, and others are efficient in both (or neither). In Table 2, only 29 arts and heritage charities out of 98 evaluated are efficient under at least one of the models. All remaining charities not listed are inefficient under all single and two stage models and also in the fundraising stage. These inefficient charities would most likely benefit from benchmarking and/or strategic alliances.

Discussion of Efficiency across DEA Models

Comparing the simple single stage Models A through C, it is apparent there are a number of charities that appear efficient when using the broad and inclusive IRS line 13 definitions of "program services" expenses as the output variable (Model A). However, when output services are limited to grants and allocations and specific assistance to individuals, some of these charities are found to be inefficient. From Table 2, it can be seen that 4 out of 13 charities go from fully efficient in Model A to inefficient in Model B once expenses are not treated as service related program services. This illustrates how a charity may appear efficient when costs and expenses are hidden in the program service category instead of removing these costs as outputs (Model B).

Model C in Table 2 goes the additional step to remove expenses associated with program delivery and treat them as actual costs on the input side. There are 10 charities that appear inefficient under Model A or Model B but efficient under Model C. For example, Hawaii Chao-Chow Association has an efficiency of .0556 in Model A. However, moving expenses to the input side, they become 100% relatively efficient in comparison to these same charities. This illustrates the negative impact that mislabeling costs can have on the relative efficiency evaluation of those charities that do not move expenses to the program services side of the form. They are perhaps being compared to an artificially high standard. As seen in Table 2, nine charities are efficient under all three models.

A similar observation can be made in the two stage Models D - F. Even after potential differences in fundraising efficiencies between charities are accounted for in the fundraising stage, the program delivery stage of the analysis yields inconsistencies when line 13 expenses are used as an output rather than only using actual expenditures received by beneficiaries. Thus, while neither Michigan Irish Music Festival Muskegon nor Detroit Telugu Association are efficient in fundraising, the latter is fully efficient at spending whatever funds they have raised toward their end beneficiary, while the former is not.

It is also apparent that it is significantly harder to obtain efficiency in fundraising than it is in service delivery. There are many more arts and heritage charities that are efficient, for example, in the second stage of Model F than in the fundraising stage. There are only three charities efficient in both fundraising and Model F program delivery. It has been estimated by Bradley, Jansen and Silverman (2003) that American charities could save $100 billion in resources simply by operating more efficiently. While these estimates have been criticized by Blumenthal (2003) and Kramer (2003), the DEA methodology here could be used to derive a "savings" quantity that overcomes criticisms of Kramer and Blumenthal by eliminating compounding errors that occur through incorrect cost allocations, identifying specific categories where costs are out of line with other entities' comparable cost entries, and identifying organizations that are exemplary with regard to their marketing practices, service delivery, etc. In so doing, DEA can help nonprofits identify possible strategic alliances to create improved efficiencies in both the marketing/fundraising and service delivery functions within their respective organizations.

STRATEGIC BENCHMARKING FOR ARTS AND HERRITAGE CHARITIES

There is evidence that when management subjectively selects benchmarks, they can be biased (Lewellen, Park and Ro, 1996), rendering them of questionable use. However, as a consequence of the two stage DEA analysis, each inefficient charity automatically gets an objectively determined list of benchmarking charities and benchmark variables. Another difficulty faced by an inefficient charity is determining which inputs are being over-utilized and by how much. The DEA analyses identify the non-zero slack variables that become a list of variables that must be altered to improve efficiency. The non-zero lambda values of the evaluated DMUs objectively identify efficient peer charities that can serve as benchmarks. This is all handled with DEA. As noted in (2.3) above, DEA generates points from the convex combinations of actual observed efficient points that can serve as "benchmark" DMUs.

For example, in the fundraising efficiency analysis of Model F, the efficiency score for Central Kentucky Japanese School, Inc. is $\theta = .5325$. From the DEA results the non-zero λ_r values are $\lambda_{23}= 0.5260$ and $\lambda_{37}= 0.4740$, where the subscripts correspond to "Saurashtra Patel Cultural Samaj" and "Gary Celebrations Inc." This means that these can be combined in proportions $\lambda_{23}= 0.5260$ and $\lambda_{37}= 0.4740$ to use no more inputs and produce at least as much output as Central Kentucky Japanese School, Inc. By using the projection equation 0.5260 *(Saurashtra Patel Cultural Samaj). + 0.4740 *(Gary Celebrations Inc.), it is possible to compute the amount of input that could be reduced (if any), and the additional funds that would be obtained if Central Kentucky Japanese School, Inc. were to become efficient. Thus, benchmarking charities have been identified that can be used to improve performance. Also identified is the reason for inefficiency: an over-utilization of the input "management and general expenses." In short, it can be calculated that, if Central Kentucky Japanese School, Inc. successfully emulated the identified benchmarking charities and operated efficiently, they could decrease their input on "management and general expenses" by 46.75% (from $17,263 to $9,192) while still obtaining their same level of "contributions," thus, over $9,100 could be freed up from marketing/fundraising to be used for more services.

CONCLUSIONS AND EXTENSIONS

In charitable evaluations there has been little or no examination of the efficiency of fundraising separate from but connected to that of program delivery, even though fundraising efficiency is key to on-going donation solicitation, as well as the amount of funds available for program delivery. Metrics for evaluating charities with respect to efficiency in either fundraising or in program services delivery are problematic because there is no evident "bottom line" and the measurement of performance cannot be done in terms of dollars alone.

This paper has shown that, by creating a two stage DEA model separating fundraising efficiency from program delivery efficiency, more information can be obtained on strategic performance. It also shows how DEA may be used to identify benchmark DMUs for use by the DEA being evaluated. See the discussion following (2.3), and the example discussed above.

This methodology represents advances in efficiency studies in charities. The analysis may also reveal commonalities that could create beneficial partnerships, as suggested in the literature for improving overall production of nonprofits (Scheff and Kotler, 1996). For example, a charity inefficient in fundraising, but efficient in service provision, can learn from one that is efficient in fundraising and instruct one that is inefficient in service delivery.

Further, this research lends itself to addressing efficiency issues associated with mergers of existing charities. When nonprofits merge, fundraising and marketing activities are impacted (Sargeant and Jay, 2002). Finally, with for-profit firms also providing social services, such as Lockheed-Martin (Dees, 1998; Ryan, 1999), the DEA analysis presented here allows for the comparison of service provision efficiency across different organizational types (non-profit and for-profit) that are pursuing the same social goal, even though they may use different funding methods. Comparing efficiency of two fundamentally different entities would be unsuccessful without the ability to factor out marketing and financing components. The two-stage DEA method presented herein creates an effective way to start to overcome this problem.

The choice of variables used in these models is acknowledged to be dependent on the circumstances of the group of charities examined, and extensions of the model to incorporate other variables should be considered in subsequent analysis involving other non-profit classes. Size of the charity, for example, has been shown to be important in fundraising (Marudas and Jacobs, 2008), and, while this analysis was stratified according to size of the charity, there are other variables which research has shown to be related to donations that might be included in further analyses of charitable organizations. For example, in addition to size, age of the organization is another factor that has generally been found to be significantly and positively associated with donations (Table 1 in Jacobs and Marudas, 2009). In addition, program service revenue is very important in certain types of charities, and this revenue source has been found to "crowd out" private donations in those types of charities that raise money from both fundraising and program services (Jacobs and Marudas, 2009). This variable was not incorporated in this particular analysis of arts and heritage charities. For other charity classes where program revenue is important, not including this input as a variable in these models could be a limitation that would tend to make organizations largely dependent on service revenue look less efficient. Wealth (net assets / (total expenses – fundraising expenses)) has also been found to have a significant negative effect on donations. An extension of the models presented herein to include this variable could also enhance the efficiency analysis of fundraising and program service delivery. A final thought on limitations of the proposed procedure concerns the formulation of the fundraising variable used here. While in this particular application, the attention was restricted to charities in a homogeneous class, an extension to cross-charity-class efficiency (such as analyzing the efficiency of the NonProfit Times 100 list of large charities encompassing charities with vastly differing goals and program objectives) requires more care in variable selection and model formulation. Not all forms of fundraising are open to every organization. Additionally, for certain large charities it may not be appropriate to only look at aggregate fundraising for a single year since some fundraising techniques might actually lose money in the short term paying back only in the medium or even longer term. Intertemporal DEA models, such as those discussed in Brockett, Golany, and Li (1998), can be adjusted to accommodate the multiperiod efficiency problem.

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Figure 1 Two Stage Model
for Nonprofit Efficiency

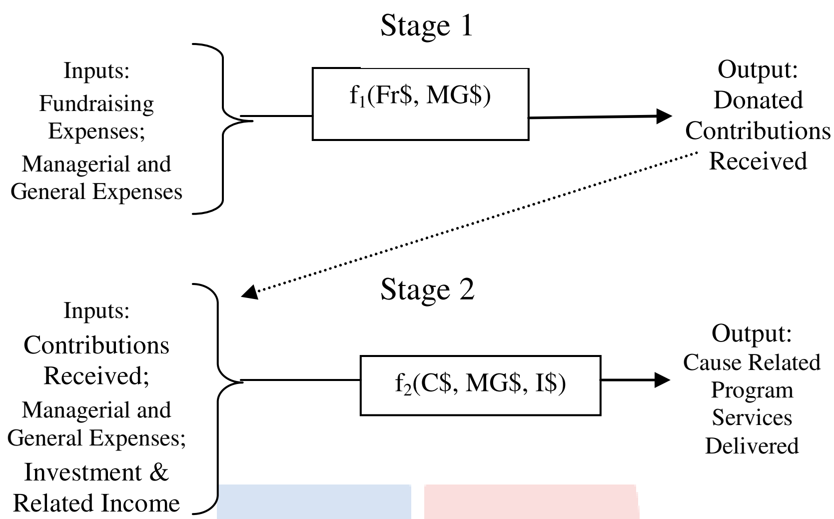

Table 1: 2006 IRS Form 990 Part I

Part I Revenue, Expenses, and Changes in Net Assets or Fund Balances *(See the instructions.)*

Revenue	1	Contributions, gifts, grants, and similar amounts received:		
	a	Contributions to donor advised funds	1a	
	b	Direct public support (not included on line 1a)	1b	
	c	Indirect public support (not included on line 1a)	1c	
	d	Government contributions (grants) (not included on line 1a)	1d	
	e	**Total** (add lines 1a through 1d) (cash $ noncash $)		1e
	2	Program service revenue including government fees and contracts (from Part VII, line 93)		2
	3	Membership dues and assessments		3
	4	Interest on savings and temporary cash investments		4
	5	Dividends and interest from securities		5
	6a	Gross rents	6a	
	b	Less: rental expenses	6b	
	c	Net rental income or (loss). Subtract line 6b from line 6a		6c
	7	Other investment income (describe ▶)		7
	8a	Gross amount from sales of assets other than inventory — (A) Securities / (B) Other	8a	
	b	Less: cost or other basis and sales expenses.	8b	
	c	Gain or (loss) (attach schedule)	8c	
	d	Net gain or (loss). Combine line 8c, columns (A) and (B)		8d
	9	Special events and activities (attach schedule). If any amount is from **gaming**, check here ▶ ☐		
	a	Gross revenue (not including $ of contributions reported on line 1b)	9a	
	b	Less: direct expenses other than fundraising expenses	9b	
	c	Net income or (loss) from special events. Subtract line 9b from line 9a		9c
	10a	Gross sales of inventory, less returns and allowances	10a	
	b	Less: cost of goods sold	10b	
	c	Gross profit or (loss) from sales of inventory (attach schedule). Subtract line 10b from line 10a		10c
	11	Other revenue (from Part VII, line 103)		11
	12	**Total revenue.** Add lines 1e, 2, 3, 4, 5, 6c, 7, 8d, 9c, 10c, and 11		12
Expenses	13	Program services (from line 44, column (B))		13
	14	Management and general (from line 44, column (C))		14
	15	Fundraising (from line 44, column (D))		15
	16	Payments to affiliates (attach schedule)		16
	17	**Total expenses.** Add lines 16 and 44, column (A)		17
Net Assets	18	Excess or (deficit) for the year. Subtract line 17 from line 12		18
	19	Net assets or fund balances at beginning of year (from line 73, column (A))		19
	20	Other changes in net assets or fund balances (attach explanation)		20
	21	Net assets or fund balances at end of year. Combine lines 18, 19, and 20		21

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Table 1(continued): 2006 IRS Form 990 Part II

Form 990 (2006) Page **2**

Part II **Statement of Functional Expenses** All organizations must complete column (A). Columns (B), (C), and (D) are required for section 501(c)(3) and (4) organizations and section 4947(a)(1) nonexempt charitable trusts but optional for others. *(See the instructions.)*

Do not include amounts reported on line 6b, 8b, 9b, 10b, or 16 of Part I.		(A) Total	(B) Program services	(C) Management and general	(D) Fundraising
22a Grants paid from donor advised funds (attach schedule) (cash $ ______ noncash $ ______) If this amount includes foreign grants, check here ▶ ☐	**22a**				
22b Other grants and allocations (attach schedule) (cash $ ______ noncash $ ______) If this amount includes foreign grants, check here ▶ ☐	**22b**				
23 Specific assistance to individuals (attach schedule)	**23**				
24 Benefits paid to or for members (attach schedule)	**24**				
25a Compensation of current officers, directors, key employees, etc. listed in Part V-A (attach schedule)	**25a**				
b Compensation of former officers, directors, key employees, etc. listed in Part V-B (attach schedule)	**25b**				
c Compensation and other distributions, not included above, to disqualified persons (as defined under section 4958(f)(1)) and persons described in section 4958(c)(3)(B) (attach schedule)	**25c**				
26 Salaries and wages of employees not included on lines 25a, b, and c	**26**				
27 Pension plan contributions not included on lines 25a, b, and c	**27**				
28 Employee benefits not included on lines 25a – 27	**28**				
29 Payroll taxes	**29**				
30 Professional fundraising fees	**30**				
31 Accounting fees	**31**				
32 Legal fees	**32**				
33 Supplies	**33**				
34 Telephone	**34**				
35 Postage and shipping	**35**				
36 Occupancy	**36**				
37 Equipment rental and maintenance	**37**				
38 Printing and publications	**38**				
39 Travel	**39**				
40 Conferences, conventions, and meetings	**40**				
41 Interest	**41**				
42 Depreciation, depletion, etc. (attach schedule)	**42**				
43 Other expenses not covered above (itemize):					
a	**43a**				
b	**43b**				
c	**43c**				
d	**43d**				
e	**43e**				
f	**43f**				
g	**43g**				
44 **Total functional expenses.** Add lines 22a through 43g. (Organizations completing columns (B)–(D), carry these totals to lines 13–15)	**44**				

Table 2: Arts and Heritage Charities Efficient Under At Least One Model, Revenues between $100,000 and $1M

Charity Name	Single-Stage Models (A-C) Model A Efficiency	Model B Efficiency	Model C Efficiency	Separated Two-Stage Models (D-F) Fundraising Efficiency	Model D Service Efficiency	Model E Service Efficiency	Model F Service Efficiency
% of Organizations Efficient Under Model	16.04%	18.87%	24.53%	7.14%	17.35%	18.37%	22.64%
* African & American Friendship Assoc Coop.	0.3043	1.0000	1.0000	1.0000	0.3043	1.0000	1.0000
* American Armenian Family Foundation	0.4702	1.0000	1.0000	1.0000	0.4702	1.0000	1.0000
American Hungarian Foundation	1.0000	1.0000	1.0000	0.0656	1.0000	1.0000	1.0000
Central Kentucky Japanese School	1.0000	1.0000	1.0000	0.5325	1.0000	1.0000	1.0000
Chinese Service Center of San Diego	0.3911	0.0623	0.1084	1.0000	0.3911	0.0543	0.0704
Custodians of Russian Culture	1.0000	0.9076	0.9076	0.1269	1.0000	0.9076	0.9076
Detroit Telugu Association	1.0000	1.0000	1.0000	0.7370	1.0000	1.0000	1.0000
FLAX	0.3310	1.0000	1.0000	0.1745	0.3011	1.0000	1.0000
Friends of the Jewish Culture Festival Society	0.3125	1.0000	1.0000	0.1923	0.3125	1.0000	1.0000
G A F Society	0.2675	1.0000	1.0000	0.0066	0.2675	1.0000	1.0000
Gary Celebrations	1.0000	0.1252	0.1344	1.0000	1.0000	0.1234	0.1298
German American Cultural Foundation of Wisconsin	1.0000	1.0000	1.0000	0.0316	1.0000	1.0000	1.0000
Gopio Chicagoland NPF	0.2738	0.5239	1.0000	0.6050	0.2738	0.5158	1.0000
Hawaii Chao-Chow Association	0.0556	0.0566	1.0000	0.0185	0.0556	0.0566	1.0000
Hung on Tong Society	0.1538	1.0000	1.0000	0.0027	0.1538	1.0000	1.0000
* India Association Cultural and Education Center of North Central Florida	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Iranian Association of Boston	1.0000	1.0000	1.0000	0.0150	1.0000	1.0000	1.0000
Italian Club of Dallas	0.1197	0.1197	1.0000	0.0034	0.1197	0.1197	1.0000
Korean American Association of New Jersey	0.1426	0.1426	1.0000	0.0073	0.1426	0.1426	1.0000
Korean Garden Society	0.2619	0.2619	1.0000	0.1889	0.2619	0.2619	1.0000
Man 2 Man Fatherhood Initiative of Marlboro County	0.2882	1.0000	1.0000	0.1751	0.2882	0.2623	0.2844
Merrie Monarch Festival	1.0000	1.0000	1.0000	0.0063	1.0000	1.0000	1.0000
Michigan Irish Music Festival Muskegon	1.0000	0.2581	0.2581	0.4275	1.0000	0.2556	0.2556
Norwegian American Foundation	0.0686	0.0325	0.0348	1.0000	0.0686	0.0325	0.0348
Saurashtra Patel Cultural Samaj	0.2596	0.2388	0.2472	1.0000	0.2596	0.2384	0.2458
Ten Thousand Villages Minnesota	1.0000	1.0000	1.0000	0.0204	1.0000	1.0000	1.0000
Toldos Yeshurun	0.2825	1.0000	1.0000	0.0964	0.2825	1.0000	1.0000
United German American Societies of Greater Chicago	1.0000	0.4775	0.4775	0.0279	1.0000	0.4775	0.4775
Whole Enchilada Festival	1.0000	1.0000	1.0000	0.0365	1.0000	0.6314	0.6314

* Organizations efficient in both fundraising and Model F program delivery.