HENRY FORD HEALTH SYSTEM: FINANCIAL ANALYSIS, PLANNING & CONTROL DIMENSIONS OF PREPARING GRANT WRITERS TO INCREASE EFFECTIVENESS

MSA 698 Directed Administrative Portfolio

Paper #4 MSA 602 Financial Analysis, Planning & Control

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Financial Analysis, Planning & Control Dimensions
of Preparing Grant Writers to Increase Effectiveness

Section 1: Financial Analysis, Planning & Control Aspects of the MSA 698 Issue

Solutions to organizational challenges typically have monetary costs, and so there are various associated financial implications. The need for Henry Ford Health System (HFHS) to adequately prepare its grant writers to successfully compete for external research funding is no exception. This paper examines the financial implications of resolving this critical, system-wide issue, which was introduced and analyzed in the three preceding papers. A brief review of relevant literature is presented, followed by a discussion of associated financial information and an analysis of the implications for HFHS.

Several research questions related to financial management have been developed to analyze this major issue facing HFHS. These questions are:

1. What are the current costs of existing grant writer preparation resources?
2. How does providing internal training compare financially to the alternatives of contracting for on-site training courses or funding grant writers’ participation in off-site training?
3. What are the direct and indirect costs associated with implementing a grant peer review program?
4. How is return on investment measured for grant writer preparation resources?
5. What recommendations can be made to improve the financial return on investment of grant writer preparation resources?

Section 2: Brief Review of the Literature

Employee training and development is important for all organizations to be competitive and there is a significant amount of literature devoted to this topic. This literature review
discusses some financial implications of different sources of training, evaluating the return on investment of training, and costs of peer review panels.

Differing sources of employee training have different associated costs. An in-house training program may require a significant amount of time and resources to develop and implement (Daniels, 2003), resulting in high personnel, materials and supplies, and technology costs. Outsourcing training tends to cost less than conducting in-house training and allows for access to more advanced technology and up-to-date training experts (Stroh & Treehuboff, 2003). Brown and Fink (2012) recommended conducting in-house training for everyday activities that are simplistic in nature and for which training programs can be standardized, easily delivered, and maintained internally in a cost-effective manner. More complex training should be outsourced, as these programs require greater resource commitments and maintenance of technical expertise.

Regardless of the source of training, its value must be evaluated by comparing the costs of the training to the returns. As Murray & Efendioglu (2007) discussed, though, the evaluation of training return on investment (ROI) can be difficult. Costs of training are generally fairly easy to quantify; however, there can be some disagreement about which indirect costs should be included in the ROI calculation. Additionally, many benefits (returns), such as reduced number of errors or improved morale, are intangible and a monetary value cannot be easily assigned. A third concern with methods commonly used by training professionals to calculate ROI is that the time value of money is not considered in the calculation.

Rowden (2005) discussed several methods for evaluating training’s value. In one fairly basic model, Kirkpatrick’s model, training is evaluated by measuring the change in behavior resulting from the training and then analyzing the training results, that is, its effect on the
organization’s bottom line, which may include increased productivity, quality, and sales and decreased costs and accidents. These results are converted to monetary values to provide the dollar value of the benefits. Using this value, the cost/benefit ratio is calculated by dividing the total monetary benefits of training by its costs. To determine ROI, subtract the costs of training from the total benefits, then divide by the cost. Regardless of the method chosen, two key points to remember are that variables other than training can affect job performance improvements and make it difficult to assess the training’s benefits and, as stated previously, the time value of money must be considered when evaluating the costs and benefits of training.

Peer review panels also have associated direct and indirect costs that must be considered and analyzed. According to Kostoff (1994), direct expenditures include panel members’ salaries, salaries of investigators presenting their projects to the panel, panel per diem and travel costs, and honoraria. Indirect expenditures include investigators’ time for preparing background material and preparing and practicing the presentation; panel members’ time for reading background material, traveling to review, and writing reports; and agency staff time for identifying reviewers and coordinating reviews. Costs for peer review panels with sufficient expertise can be substantial.

Employee training programs often have significant associated costs and the most cost-effective method of providing training can vary based on the complexity of the training required. The establishment of a peer review program is also likely to result in sizeable costs to the organization. The decision whether or not to provide these resources, and how to provide them while maximizing benefits and minimizing costs, requires an assessment of the resources’ ROI. Careful analysis of the costs and benefits of grant writer preparation resources is critical.

**Section 3: Brief Description of MSA 602 Organizational Data Collection Efforts**
HFHS data was collected from a number of sources. Personal observations based on six years of employment in the Research Administration department and informal discussions with current grant writers and Research Administration staff provided information about the costs of conferences, employees’ salaries, and the current method of evaluating the ROI of grant writer preparation resources. Data regarding the costs of current grant writer preparation resources and average grant award amounts was collected from internal financial spreadsheets. Internal policies provided guidelines and restrictions on travel, food, and other expenses associated with internal and external training seminars and conferences.

**Section 4: Current Costs of Grant Writer Preparation Resources**

This section presents the current costs of grant writer preparation resources. The opportunity costs incurred because of insufficient grant writer preparation are examined and the impact of those costs on HFHS is discussed.

There are currently few resources at HFHS to prepare grant writers to develop successful grants. The primary resource is the mentored grant program. This program does not provide training on grant writing; it merely provides researchers with experience with the grant submission process. Researchers write grants with whatever level of training they possess and submit the grants for review and potential internal HFHS funding. While this process does provide peer review of submitted grants, it does not provide feedback during the grant writing process, only after the grants have been formally submitted and evaluated. On average, three grants are awarded and $500,000 is spent each year on this program.

This lack of adequate preparation resources results in significant opportunity costs. Inadequately prepared grant writers may submit low-quality grants that are not funded. Alternatively, these grant writers may not submit grants at all to relevant funding sources. In
either case, HFHS loses potential research funds. As the average amount received by HFHS from the National Institutes of Health for a successful grant is $1.2 million over the project period, each grant not received due to lack of sufficient grant writer preparation represents a major loss.

**Section 5: Costs of Different Approaches for Providing Grant Writer Training**

There are three general approaches available to provide grant writer training. HFHS could develop an in-house program, contract an external training firm to provide training on-site, or send grant writers to training programs conducted at other institutions. This section examines the different costs associated with each of these approaches.

The development of an internal training program would require significant financial resources. The trainer must be an expert on the content and an effective presenter. This would require the trainer to receive external training before developing the training program, as well as continued training to remain up-to-date on changes to federal regulations governing grants. An estimated cost of such training is $2,000 per session. Development of the training program would entail a substantial amount of time and personnel costs. Assuming 100 hours for the initial program at $40 per hour, personnel costs for program development would be $4,000. At the same rate, costs for the trainer to conduct the training would be $320 for a one day program.

Reference materials for the participants would also need to be developed and printed, and updated each time training practices and content change. The total cost for these materials would include both supply and personnel costs and would vary based on the number of participants. Costs for paper, ink, staples, and other supplies needed to produce the materials can be estimated at $5 per unit. Administrative costs for preparing these materials can be estimated at 30 minutes per unit and $20 per hour. Thus, the total cost for printing the materials would be approximately $15 per unit.
Minimal capital costs would be required initially to provide internal training, as HFHS already has many meeting rooms designed for employee seminars, with adequate seating and resources for presentation, such as computers connected to projectors and microphones with speaker systems. As training technology advances, however, HFHS will need to purchase new systems to provide a competitive training environment.

The costs of contracting an external firm to provide training at HFHS include both fixed and variable costs. The largest cost would be the fixed contract price for the trainer, which averages $50,000 per session. Variable costs would include $10 for lunch during the training seminar and books or other reference materials for the participants, which are typically about $30 for training programs. The estimated total cost for using an external training firm to provide training at HFHS would be $50,000 + 40x, where x is the number of grant writers attending the training.

The costs of sending grant writers to other institutions’ training programs are all variable costs and the total cost would be dependent upon the number of grant writers who require training. Assuming that the training seminar is two days, the total cost per person would be approximately $1,885, which includes a conference registration fee of $1,000, coach airfare at $300, a hotel room for three nights at $120 per night, and reimbursement for three days of meals up to $75 per day. The total cost per conference would be approximately $1,885x, where x is the number of grant writers attending the training.

Of the three potential approaches for providing grant writer training, developing an internal program requires the most resources and has the highest cost. Compared to sending grant writers to training at other institutions, on-site training by an external firm has lower variable costs; however, the contract cost is a sizeable fixed cost. Based on the estimates above, if more
than 27 grant writers need training, it is more cost-effective to hire an external firm to provide training on-site; if 27 or fewer grant writers require training, then they should be sent to another institution’s training conference.

Section 6: Budget Implications of Implementing a Grant Peer Review Program

This section discusses the financial impact of implementing a peer review program to review new grant proposals. A brief description of the structure, staffing, and operating resources that would be necessary for this program is presented.

When a grant writer has completed a grant proposal for submission to an external funding source, the grant peer review program would begin with submission via email to the Research Administration office for an administrative review. This reviewer would check to make sure that all required sections of the grant have been completed. If all sections are present, the proposal would be assigned and sent to two full reviewers. These reviewers would conduct a thorough review of the written quality of the proposal, the scientific innovation and value, and the reasonableness of the methodology and budget. The reviewers would then submit their comments to the Research Administration department for return to the grant writer. This indirect method of providing comments would be necessary to protect the anonymity of the reviewers.

Depending on the length of the grant proposal, the amount of time required to thoroughly review and provide comments on the grant could range from an hour to a full day or more. The cost of experienced grant writers’ time can be considerable. A high-level researcher’s hourly rate is often over $100. Assuming an average of three hours per review and two reviewers per grant, the cost for reviewers would be approximately $600 per grant.

The time required for administrative personnel to conduct the initial review would be approximately one hour per grant. Time would also be needed to coordinate reviewers and
correspond with the grant writer throughout the review process; therefore, the total estimated amount of time required for administrative personnel is four hours per grant. Assuming a rate of $20 per hour, costs for these personnel would be approximately $80 per grant.

This program would be coordinated by the Research Administration department; thus, funding for this program should be provided from the Research Administration department’s budget. Assuming that 500 grants are submitted per year and grant writers choose to submit 75% of their grants through this review process, approximately 375 grants would be reviewed annually. HFHS would need to increase the department’s annual budget by approximately $255,000 to accommodate this new expense.

Section 7: Evaluating Return on Investment of Grant Writer Preparation Resources

After HFHS selects which new grant preparation resources to implement, the ROI of these programs must be evaluated to determine if the benefits of the new preparation resources justify the costs. The current process of assessing ROI and the need to evaluate the ROI of the new grant writer preparation resources are discussed in this section.

Presently, there is no formal evaluation of ROI of the current grant writer preparation resource. The mentoring program’s success is determined generally by noting if the grant writers funded through this program obtain external funding within a few years of the internal award and the amount of this funding. Comparison of the effectiveness of this program and the benefits obtained relative to the cost between years or to other programs is difficult.

HFHS must develop a useful method, such as those described in the literature review, to calculate the ROI of new grant writer preparation resources. Critical to this evaluation is a standardized process of identifying and quantifying the benefits that can be attributed to the new preparation resources.
Section 8: Conclusions and Recommendations

Conclusions

The preceding sections highlight some financial analysis, planning, and control dimensions of providing resources to prepare grant writers to write successful grants. The costs of the current preparation resources and different options for providing new training programs, budget implications of implementing a peer review program, and the evaluation of ROI affect the strategy that will be used to address this challenge.

The level of funds currently devoted to existing grant writer preparation resources is fairly low, as only one program is provided. This lack of investment in preparing grant writers to write successful grants has significant opportunity costs. Each grant not awarded because a poorly written grant was submitted, or no grant was submitted at all, due to insufficient preparation of the grant writer costs HFHS several thousands to millions of dollars in missed funding.

Different methods of providing grant writer training have different costs. Since this training would be complex and require frequent updating to remain current, an internal training program would have the overall highest cost. The cost-effectiveness of hiring an external firm to provide on-site training compared to funding grant writers’ participation in training programs at other institutions is dependent upon the number of participants. If only a few grant writers require training, utilizing another institution’s training program has a lower cost; if many grant writers require training, hiring a firm to provide on-site training has a lower cost.

The total costs of implementing a grant peer review program include both direct and indirect costs. The direct costs consist of the reviewers’ salaries for their time spent reviewing
the grant and writing an evaluation and the indirect costs include the time administrative personnel spend coordinating the reviews and corresponding with the grant writer and reviewers.

HFHS currently does not have a process for quantitatively measuring the ROI of grant writer preparation resources. The literature review provides a model for evaluating the benefits received from training and formulas for calculating the cost/benefit ratio and ROI, as well as other points to consider when assessing a training program’s returns.

**Recommendations**

Grant writer training should be outsourced and the method of training selected should be based on the number of employees requiring training. In general, receiving training at another institution would have lower costs for a smaller number of participants and on-site training would have lower costs for a larger number of participants. The actual costs of contracting a training firm, conference fees, and associated travel and the number of participants should be carefully evaluated and the total cost of each option calculated.

In order to implement and sustain a grant peer review program, the Research Administration department’s budget should be increased in proportion to the level of use of the peer review program. Additional personnel may need to be hired to accommodate the increased workload of conducting administrative reviews, coordinating the other reviewers, and corresponding with grant writers.

A detailed evaluation of the financial ROI of grant writer preparation resources is critical to improve these resources’ ROI. HFHS should develop a standard method of determining ROI so that changes in ROI can be quantitatively compared between years and different preparation resources. This would allow HFHS to analyze the relative effectiveness of these resources and make strategic decisions about which resources should continue to be provided.


