

1.0 Business Acquisition Management (BAM) Training - A Proposal in Response to the UCAR President's Strategic Initiative

How to get more grants... and keep them! The University Corporation for Atmospheric Research (UCAR), the National Center for Atmospheric Research (NCAR), and UCAR Community Programs (UCP) external funding success rates could be substantially increased by providing staff with advanced Business Acquisition Management (BAM) training. This 1-year initiative, co-sponsored by two entities, aims to help staff develop skills needed to anticipate, write and deliver first-rate proposals, and increase the number of successful grants across the institution.

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1.1 Overview

Today's flat budget environment is driving the need for a more strategic approach to winning new business because "you can't do great science without great funding." Key to increased funding is having a workforce properly trained in the entire Business Acquisition Management (BAM) lifecycle (Figure 1). As such, we propose developing a BAM training series for the University for Atmospheric Research (UCAR), the National Center for Atmospheric Research (NCAR), and UCAR Community Programs (UCP), herein referred to as UCAR/NCAR/UCP – to help Principal Investigators (PIs) and support staff successfully identify, capture, and deliver compliant and compelling proposals. Addressing both individual PI-led efforts and large, complex collaborative proposals, BAM training is designed to measurably improve external funding win rates, reduce time and costs associated with unsuccessful proposal efforts, and increase high quality proposal submissions and sponsor satisfaction.

The BAM training series consists of three integrated training elements. First, Strategic Development, focuses on strategies that pre-position a science team to anticipate, influence and organize for Requests for Proposals (RFPs) well in advance of their release. The second, Bid and Proposal, is the heart of the training. In this element, individuals and teams are trained in best practices for managing, writing, and reviewing winning proposals. The third element called Project Performance, is an initiative to provide instruction on implementing project management principles, earned value management, and positioning the team favorably for follow-on funding opportunities. The three BAM elements make up an integrated institutional approach to business acquisitions and performance, with each element building upon and strengthening the others.

Business Acquisition Management Workflow

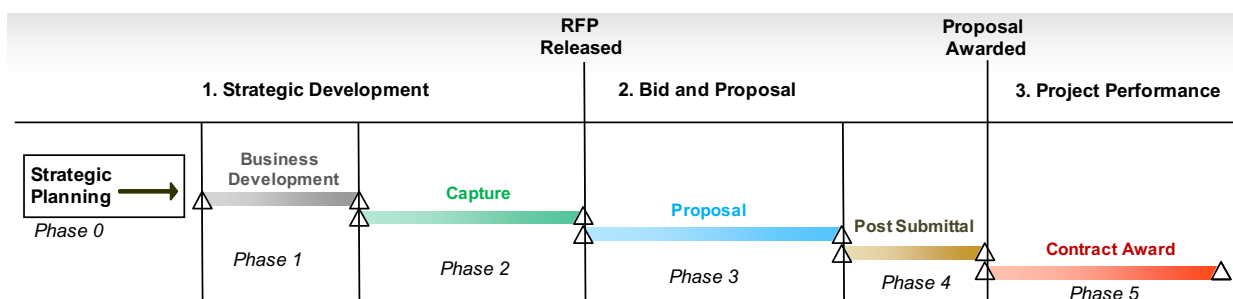


Figure 1. The BAM workflow is a standards-based process. Individuals working on proposals need to be equipped with all the tools, training and techniques for each of the phases that will make their proposals more competitive.

1.2 Explanation of the scientific merit of the proposal

Transformational science requires at least two ingredients: innovative science concepts and the funding necessary to carry out the research. While there will be no shortage of innovative science concepts to the strategic initiative fund, BAM training addresses the second element by providing our staff the training needed to succeed at securing the competitive funding essential to conduct their transformational interdisciplinary science. Today there is greater and greater competition for the limited number of open research funding opportunities. This is demonstrated by a significant increase in the number of competitive funding proposals being submitted by UCAR/NCAR/UCP over the past 5 years. However, UCAR currently does not provide in-depth training on how to succeed in these proposals. In response to this increasing competition, many peer organizations are establishing BAM training for their staff to increase funding success rates, and ability to support cutting-edge science (e.g., CU PI Boot Camp and Shipley and Associates at some Federal Labs).

1.3 Approach

BAM is a new activity that provides UCAR/NCAR/UCP staff with advanced training for identifying, responding to, and executing science proposals. This elective training series includes two components: A) a professionally-taught BAM training series with content as outlined below, and B) an optional BAM proposal-writing support group that provides accountability, and peer and red-team review processes to support the practical implementation of the concepts covered in the training.

A. Advanced Business Acquisition Management Training Series

The BAM training series is a professionally-developed, training course open to all potential PIs, Co-Is and support staff across the institution. We anticipate the course will take approximately 1-2 days focusing on Strategic Development, Bid and Proposal. Courses of these nature are commonly run by research development offices in research-intensive universities, or by professional consultants such as Shipley and Associates. Content to be included in the UCAR/NCAR/UCP training includes (Table 1):

Table 1. BAM Training Elements.

Element	Description
Strategic Management	Strategic Management identifies pre-RFP strategies, and methods for securing directed/sole-source funding.
	Upfront planning takes into consideration the development of a Capture Plan, and sponsor requirements; competitive analyses; key drivers for the potential bid, and high-level win themes and discriminators.
	Tactical actions include influencing RFP development and financing; serving on review panels; pre-assembling science teams; interacting with Federal program managers; interacting with state and federal lawmakers; and review library of prior successful/failed proposals.
Bid and Proposal	Bid and Proposal involves managing the team and the process; proposal analysis to encompass outlining, developing a compliance matrix, conducting the proposal kick-off meeting, and creating Proposal Development Worksheets with the PI and/or Team; and conducting regular status meetings.
	Proposal managers also help write various parts of the proposal; facilitate proposal reviews; provide formal proposal structuring; and offer mentoring and training throughout the process.
Project Performance	Project performance excellence (is proposed as a follow-on initiative to guarantee future proposal successes): This training would leverage Applied Project Management and Earned Value Management System practices from a government perspective. Participants would learn how to implement a standards-based project management structure, how to facilitate sponsor relations, and utilize milestones, deliverables, metrics, and benchmarks for performance management.

Training Capabilities

The following training capabilities provide equitable and impactful BAM training for our workforce for the Strategic Development and Bid and Proposal elements:

Track 1 training is for individual PIs who typically submit individual or small-group grant proposals (selection will be based upon guidance from their respective Departments). This track will be appropriate for a majority of PIs at our organization. A proven resource is the Grants Training Center (GTC), located in Arlington, VA, which has been in operation for over 25 years and specializes in science proposals that NCAR and UCP typically bid on, such as those for the National Aeronautics and Space Administration (NASA), National Institutes of Health (NIH) and National Science Foundation (NSF). The GTC provides onsite workshops for up to 20 individuals addressing how to find, apply for, win, and manage federal, foundation, and corporate funding.

Track 2 training is for larger and more complex competitive bids that require more upfront positioning, planning and institutional investment. Shipley Associates has been the industry standard for building business acquisition processes and training for over 40 years. Shipley has also been building specialized Business Acquisition processes and training for Federally Funded Research and Development Centers. Track-2 BAM participants will take part in two Shipley Public Workshops:

- ***Capturing Federal Business:*** In this Public Workshop, participants develop skills leading business pursuits prior to release of requests for proposals, when the competitive potential and flexibility are highest. Through lecture, presentations to course mates, and simulation of the pursuit of a real, competitive opportunity, participants learn to improve their understanding of positioning with sponsors before submitting offers, which seeks to lower business development costs and increase revenue.
- ***Managing and Writing Federal Proposals:*** This Public Workshop teaches skills for proposal writing and management in the U.S. federal market space. It begins by simulating a government source selection evaluation to build detailed understanding of how federal processes impact proposal planning and management. It continues by practicing all steps necessary to plan a successful proposal effort. It wraps up with comprehensive guidance on effective leadership techniques for the fast-paced proposal environment.

Project Performance Training: The third element, project performance, provides training in project management and leadership for both small and large projects with a focus on both maximizing project impact and securing future funding. This training begins with formal instruction on the fundamentals of project management that positions participants to pursue additional training supported by their own project in advanced project management leading to Project Management Professional certification and project leadership courses. This training is currently offered through programs such as the project management certification program at Colorado University (CU) Graduate School of Engineering, and numerous private training firms. Additional workshops on strengthening sponsor relations to increase the impact of the research while positioning the group for future funding will be developed internally.

B. Proposal Writing Community of Practice

While many departments in NCAR/UCP have a peer-review and coordination process for their grant proposals, this does not provide support to new investigators as they work to develop the initial proposal. A complementary proposal writing Community of Practice will thus be offered as a follow on to the training series, with facilitation provided by Robyn Rock and participants in the BAM training.

A supportive learning community has been shown to increase learning outcomes in many formal and informal educational settings; it is anticipated that the follow-on writing group will: (1) provide a cross-institutional community of proposal writers who can encourage, offer peer-review and require accountability toward writing efforts, (2) provide a venue for asking questions and identifying institutional resources in support of project capture efforts and (3) improve the quality of proposals.

1.4 Anticipated outcome

It is anticipated that the BAM training will lead to increased capability to seek out and respond to external funding opportunities, resulting in increased funding coming into the institution. Anticipated outcomes include: (1) reduced costs and risks in defining and capturing new business; (2) increased productivity, management visibility and control; and (3) improved forecasting of funding profiles.

1.5 Budget

The total cost of 1-year of BAM training is \$38,197.16. Co-sponsorship of \$500 has been committed to the effort by the UCP directorate for UCP personnel to attend the proposed BAM training. NCAR's Research Applications Laboratory (RAL) has also committed \$500.00 of co-sponsorship for RAL personnel to attend BAM training.

Track-1 - The cost for track-1 training by the GTC Executive Director, Dr. Mathilda Harris, to conduct a 2-day workshop for 20 participants at UCAR is \$14,000.00 (certificates are provided upon completion).

Track-2 - The proposed track-2 would consist of having three UCAR/NCAR/UCP representatives attend the two suggested Shipley Public Workshops. Capturing Federal Business costs \$1150 per person, and Managing and Writing Federal Proposals is \$1695 per person, so with three participants the total is \$8535. Participants would be expected to provide their own travel and lodging. Public Workshops are provided in AZ, CA, TX and VA. For track-2, there will be an opportunity for participants to take on a training/coaching role for other PIs in various Departments in order to show how this initiative can be sustained in the future. Guidance from UCAR Human Resources will be offered to facilitate this role.

Project Performance - The cost to send three BAM participants to the 3-credit CU Fundamentals of Project management course is \$10,422.00.

1.6 Strategic Initiative Questions:

1. *Why is this transformational?*

Writing and executing successful proposals has typically been an activity that researchers learn through mentoring and experience. Providing formal training and support that helps our staff learn how to navigate the funding landscape, identify opportunities and most efficiently target proposals is new in our organization, at least at the institutional level. By combining advanced training in BAM with a cohort that supports the proposal writing process, it is anticipated that we will decrease the time to develop expertise, increase the confidence of our staff, improve the quality of the proposals being submitted, increase the funding success rate, and increase the size of awards leading to transforming the organization as a whole.

2. *Why is this interdisciplinary?*

The proposed training and follow on support group will be offered to all interested staff across UCAR, NCAR and UCP. While the need for funding is universal throughout our organization, the scientific, computing, engineering and educational projects being proposed are multidisciplinary. By having multidisciplinary groups participate in writing support cohorts, they will have a unique opportunity to build connections with people across the organization and have the diversity of experiences and interests in the group necessary to strengthen the proposed research. Thus, both training tracks will focus on strategies for developing interdisciplinary and transdisciplinary proposals.

3. *How will this promote collaboration across the greater NCAR, UCP, university and/or private sector community?*

The proposed BAM training will be particularly focused on multi-institution/multi-PI solicitations, and as such, will include training on building teams and supporting collaborations. It is hoped that participants attending this training will feel empowered to build relationships across the NCAR, UCP, university and/or private sector community. Further, the proposed support groups will bring people across the

organization together in a meaningful way. By working closely together to support the proposal process, staff across NCAR, UCAR and UCP will get to know each other's work and develop interpersonal relationships that help promote collaboration.

4. What are expectations that this will lead to future, ongoing funding?

This initiative is entirely focused on developing the skills and human-capital resources to identify and capture external funding. The BAM training is designed to jumpstart the institutional proposal for identifying, successfully responding to and carrying out new funded projects. This is a pilot initiative to assess the viability of these new trainings. In the long term, should it prove successful, the vision is for this to be offered as a formal training program by UCAR HR.

5. What are your metrics and success criteria to demonstrate achievement?

The overall goal is to demonstrably increase the amount of external funding (both total and per-proposal) supporting UCAR/NCAR/UCP science and community activities. Evaluation metrics include:

1. The number of UCAR/NCAR/UCP staff who participate in the training.
Success criteria: 20 or more participants in the initial year.
2. The ratio of successful proposals that are submitted by BAM trained staff.
Success criteria for the 1-year period of performance, increase the number of proposal submissions as a result of the BAM training. In the longer-term, the success rate for winning proposals should increase by 5-10% over the next 3-5 years from current levels, acknowledging that there are additional initiatives across the institution with similar target goals.
3. The identification of new funding sources
Success criteria 10 new potential funding sources identified.
4. Number of proposals to new funding sources
Success criteria: 3-5 proposals submitted to new funding sources by BAM trainees.
5. Number of participants in the BAM Community of Practice
Success criteria: 50% participation by BAM trainees.

6. What are your milestones for when these metrics will be achieved?

1. The number of UCAR/NCAR/UCP staff who participate in the training. *The BAM Training workshop metrics will be achieved in 2018.*
2. The ratio of successful proposals that are submitted by BAM trained staff. *The metrics to increase the number of proposal submissions as a result of the BAM training will be achieved in 2019.*
3. The identification of new funding sources. *The metrics to identify 10 new potential funding sources will be achieved in 2019.*
4. Number of proposals to new funding sources. *The metrics to submit proposals to new funding sources will be achieved in 2019.*
5. Number of participants in the BAM Community of Practice. *The metrics for the number of participants in the BAM Community of Practice will be achieved in 2018.*

Summary. Best practices in pursuing new and existing work in a challenging funding environment are facilitated through the BAM training that emphasizes: (1) forming relationships early in the acquisition to identify, qualify, and ultimately influence the bid and pre-position our organization to be in the most favored position with the sponsor; (2) bid on those opportunities that have the highest probability of win, and that are aligned with strategic plans and core competencies; providing Capture Plans with competitive analyses to test the credibility of our strategy against the competition before developing the proposal; and (3) training the workforce for higher-quality bid submissions, to improve funding profiles, and how to structure and carry out a project such that it positions the group well for future funding.