

2. PROJECT PLANNING

2.1 Initial Project Development

Most projects focus on a need -- a problem to be answered, a situation to be "fixed," or a skill to be acquired. The first step in developing an unsolicited proposal is to define that need. Before approaching any potential sponsors for support, a principal investigator must be able to answer the following questions: *What* do I want to do/find out? *Why* is it worth doing/knowing? *How* will I find the answer? *Who* will benefit? Alternatively, some projects originate with a sponsor – a sponsor identifies a problem to be answered or "fixed" and solicits proposals to remedy the problem. The primary concerns for principal investigators in solicited proposals are: *How* do I find the answer? *How* much money will I need to find that answer?

There are several ways to develop a well-defined project. Three such methods are discussed below.

Talk with colleagues about the project. Other professionals are a valuable source of knowledge in the field, and can suggest further readings on related topics, and comment on the significance of the project and the proposed methods. The act of describing plans to colleagues can also help you to organize your thoughts or approach.

Write a concept paper. A concept paper is aimed at defining the project for yourself and can be used in the proposal writing process as a basis for describing the project to others (agency/foundation staff). A concept paper should contain the following information:

Priorities: What projects are you presently working on? What are your general needs/interests? Which are the most important to you? How does this project fit in to your larger research/career plans?

Needs: What new data, equipment, information, or other resources (time, personnel, etc.) are critical for moving your project forward? NOTE: This question is a first step toward estimating your budget for the project.

Audience: Who will benefit from your project? What kind of sponsor will be interested in your work?

Resources: What intellectual or physical resources do you (or the university) have that make your project unique, attractive, or likely to succeed?

Collaborators: Who have you worked with, or want to work with, and what are their areas of expertise?

The general concept paper described above can be tailored to answer the needs/concerns of each sponsor to be approached. The concept paper is a proposal development tool—not a proposal. It can be changed to reflect the interests of each potential sponsor, or to reflect changing research priorities within the university or a field.

Contact the funding agency directly. Once a funding source has been targeted, it is sometimes a good idea to speak to the appropriate program manager directly using e-mail, phone, or personal contact. They will often offer guidance, and it does not hurt to put a face and a name with a proposal.

2.1.1 Why Do Proposals Fail?

Sponsors decline to fund proposed projects for many reasons, most of which can be classified into several simple categories.

Mechanical - proposals which fail to adhere to deadline or format requirements, including sloppy presentation.

Content - proposals that appear unsound methodologically, including lack of qualified personnel, failure to enlist the support of all parties to the proposal, inaccurate or unrealistic budgets, incomplete statements of work, or apparent ignorance of other work in the field.

Wrong sponsor - proposals that are sent to the wrong sponsor or to the wrong program.

2.2 Internal Funding

The following internal resources are available to researchers and other faculty and staff on the Knoxville campus.

2.2.1 Scholarly Activity & Research Incentive Funds (SARIF)

The Office of Research manages approximately \$1.1 million per year in incentive funds to support research and creative activities through six SARIF programs. These SARIF funds support projects for principal investigators whose departments are under the direct jurisdiction of the Chancellor of The University of Tennessee, Knoxville. The SARIF programs below are described in terms of types of cost that a program covers, type of proposal match, eligibility, and review process (Link).

The Exhibit, Performance, and Publication Expense Fund (EPPE)

- Publications, performances, and exhibits of scholarly activity (costs for typing manuscripts or reprint charges are excluded)
- No match required but matches are desirable
- All faculty
- Requests reviewed when received by a subcommittee of the Research Council

Foreign Travel Funds

- Presentations of research/scholarly activity at professional conferences outside U.S.
- Generally requires a one-third match from the department and a one-third match from the college
- All faculty
- Requests reviewed weekly by a committee in the Office of Research

Small Grant Fund

- Pilot studies, start-up funds, travel to granting agencies, organization of workshops/conferences at UT, bridge funds, seed funds
- Requires departmental/college matching
- Tenured and tenure-track faculty only are eligible
- Requests reviewed weekly by a committee in the Office of Research

Grant-Matching on External Proposals

- Matching funds for external proposals (primarily for equipment)
- Matching from other sources within the University is strongly encouraged
- Tenured and tenure-track faculty only are eligible
- Requests reviewed at the time of submission of the proposal by a committee in the Office of Research (one week lead time required)

Graduate Research Assistantship (GRA) Fund

- Summer support for a graduate student
- Requires endorsement by department head but no financial match
- Tenured and tenure-track faculty are nominators
- Applications reviewed once a year by a subcommittee of the Research Council

Equipment and Infrastructure Fund

- Major equipment purchases, upgrades, renovations (typically only two to three awards per year)
- Requires significant matching funds
- Tenured and tenure-track faculty only are eligible
- Proposals reviewed once a year by a subcommittee of the Research Council

2.2.2 Other Campus Funding

Chancellor's Awards for Funding Development -- Provides faculty in the arts, humanities, social sciences, and applied social sciences with release time to research and develop a proposal for externally-funded research or scholarship.

UT Chancellor's Awards for Research and Creative Achievement -- Established to honor faculty who have received recognition in their field, and to stimulate research and creative achievement integral to the UT mission.

UT Professional Development Awards -- Administered by the Office of the Chancellor. These are highly competitive awards in three categories: research, career enhancement, and professional leave.

2.3 External Funding

There is a sponsor for almost any project. To find that sponsor, it is necessary to match the institutional environment and project needs to the concerns of that sponsor. This section discusses the different categories of sponsors, the types of projects each typically supports, and the special considerations or constituencies of each type.

Sponsors fall into several basic types: government, foundations, associations or other special-interest organizations, educational institutions, corporations or industry, and individuals. Each type of sponsor gets its own funds from different sources, and these sources determine in large part how the money will be distributed. A detailed discussion of each type follows.

2.3.1 Government Funding Sources

Federal, state, and local governments all provide funding for university projects. Public sponsors support many kinds of projects, from basic research to scholarships to community service demonstration projects. The application procedures for government funds are often arduous. Deadlines, format guidelines, and budget restrictions and requirements are strictly enforced.

The majority of UT's external funding comes from government sources, such as the US Department of Energy, National Science Foundation, National Institutes of Health, US Department of Education, etc. In addition, UT performs many service projects for various departments of the State of Tennessee, such as the Department of Human Services, Department of Children's Services, etc. UT also performs research or service projects for local governments but to a lesser degree than federal and state sponsors.

2.3.2 Private Funding Sources: Foundations

Foundations come in all shapes and sizes, ranging from large family foundations like the Ford Foundation (which has offices throughout the world), to corporate, community, and special-interest foundations. For more information, visit the Foundation Center at <http://foundationcenter.org/>. Many foundations operate from an endowment set up by an individual or a family, or with corporate profits. Community foundations like the East Tennessee Foundation, and special-interest foundations like the Elizabeth Glaser Pediatric AIDS Foundation, actually raise their own funds to support their grants programs.

Applying to a foundation for funds is much easier and less formal than applying to a government agency, though you should be aware that most private foundations have a very limited range of interests, and their guidelines are less apparent. Many foundations require no forms. Application is usually made via a short letter describing the proposed project. These letters are known as proposals, concept papers, or letters of inquiry, among other terms. Many foundations don't even have deadlines! Often, a foundation will instruct applicants to submit proposals in time to be considered at regularly scheduled board meetings.

Funding decisions in most foundations are made by its program staff and board of directors. Some foundations call upon experts in the field to advise the staff and directors. When approaching a foundation for support, it is wise to ask foundation staff who make funding decisions.

A good source of information on a foundation's priorities and programs is its annual report. The annual report will describe funding priorities in detail, and it often includes a list of the previous year's grant recipients. Check this list for information about the geographic scope of the foundation's operations, the type of institution it typically funds, and project topics it has found worthy in the past. However, annual reports may be out of date. If a foundation has a website, the information there will be more current, and one may also check with the staff member who handles corporate relations in the UT Office of Development.

2.3.3 Private Funding Sources: Associations and Other Organizations

There are many other types of private sponsors. Each type answers to its own particular constituency, and many operate in a manner very similar to the foundations described above. Short descriptions of the types of private sponsors and the special features of each type follow.

Associations and Professional Societies. These organizations are usually concerned with a certain profession or field of academic endeavor. Associations and professional societies generally support training and research only in their own field. Many offer awards for past achievement (publication of books or papers, patents, and so on). Associations and societies must answer to their membership, and the application process is usually more rigorous than that of foundations, with firm deadlines and application forms. Funding decisions are often made by a panel of experts.

Museums and other arts or scholarly organizations. Many museums, performing arts organizations, archives, and other research organizations support assistantships (sponsor may refer to such support as fellowships) which take advantage of their special resources. Examples include the Museum of Natural History. Funding decisions in these organizations are typically made by the program staff and the board of directors, although some may use a review panel.

Special interest organizations. Many private sponsors provide support for work in a specific problem area. The American Cancer Society, March of Dimes, and Muscular Dystrophy Association are all examples of special interest organizations which focus on medical problems or disease. These organizations will support basic and applied research aimed at the prevention or treatment of a particular disease or condition.

Special communities. These communities support assistantships (sponsor may refer to such support as fellowships), workshops, or seminars by providing workspace and living quarters to qualified people or projects and they can be found on the internet.

2.3.4 Educational Institutions

Institutions of higher education offer assistantships (sponsor may refer to such support as fellowships, scholarships, and visiting professorships). Colleges and universities will usually support work which draws upon the special expertise or collections of an institution. This type of assistantship is often aimed at junior faculty.

2.3.5 Corporations

Corporations support research that is directly related to the products or services they provide. This support is distinct from the funds that corporate foundations provide: those funds are usually tied to the interests of the communities where corporate offices or plants operate.

Corporate support for applied research is usually made in the form of contracts for specific services, not as grants or fellowships. Companies do not advertise or announce the availability of funds for research contracts. Faculty who are working on a project in which a company might be interested, or who have special expertise that would be useful to a company, should first research the organization's structure to determine the person or office to whom to direct inquiries. The decision to support a project will be made by company staff working in the same topic or area.

2.3.6 Individuals

The Office of the Vice Chancellor for Development, including staff based within colleges, may, but not exclusively, handle approaches to individuals for sponsored program funding.

2.4 Industry Sponsorship: Special Considerations

Although proposals for industry-sponsored projects often are shorter and less formal than those submitted to federal agencies, the resultant legal agreement can be quite onerous. Besides addressing the planned research and its costs, discussions with industry sponsors should cover matters such as publication rights, intellectual property ownership, confidentiality issues, and other potential contract clauses that must be consistent with University policies and applicable laws. Negotiation of contracts with industry sponsors is under the purview of Sponsored Programs staff in the Office of Research. Be advised that negotiations with industry sponsors frequently take quite some time to complete, and they can be complicated by numerous factors, e.g. involvement of government resources, proprietary/confidential information of the sponsor, publication restrictions particularly in regard to graduate students' theses or dissertations, etc.

Proposals for industry-sponsored projects should detail the specific nature and scope of the work to be done, time frames, budget (including all direct and facilities and administrative costs). Ownership of potential intellectual property may be deferred until such time as intellectual property is developed or may be determined at the time the contract is negotiated. In either case, the Office of Research will work closely with the UT Research Foundation to determine acceptable ownership provisions.

2.5 Before You Write the Proposal

When preparing to write a proposal, it is helpful to talk with colleagues who are active researchers, especially those who have gotten funding from the same sponsor or program. Department chairs and associate deans for research may provide valuable advice. Sponsored Program staff in the Office of Research have experience that may be of some help. Also, contact the appropriate program officer at the sponsor. Program officers represent a particular program or division in an agency; they coordinate proposal review and oversee funded projects in their area. Most sponsors encourage a prospective applicant to discuss ideas with a program officer before submitting a proposal. A phone call or meeting is best, unless the agency or program guidelines specify written communications only. Check the guidelines or the sponsor's web site for the names and phone numbers of program officers.

2.6 Release Time and Cost Sharing

If the University is requested or required to pay for or absorb any portion of the cost of a proposed project, cost sharing is involved. Any centrally-funded direct costs cost sharing and any voluntary facilities and administrative costs cost sharing must be approved before a proposal is submitted to the sponsor. To obtain approval, a letter or e-mail should be addressed to the Associate Vice Chancellor for Research detailing the reason for cost sharing and the amount and type of funds to be shared. Back-up materials, such as sponsor budget instructions, should be attached to the letter of request. If a sponsor limits reimbursement of facilities and administrative costs, a copy of the sponsor's guidelines can be attached to the Internal Document Review/Approval Sheet when it goes through the normal review/approval process, in lieu of approval by the Associate Vice Chancellor for Research.

Also, any direct costs cost sharing from departmental resources must be approved in writing by the applicable department head and that approval must accompany the proposal through the approval process.

Cost sharing must be approved by the department head and dean or director before being considered by the Associate Vice Chancellor for Research (in the case of direct costs from central administration funds, e.g. SARIF, etc. or voluntary facilities and administrative costs) or other authorized university representatives (in the case of required or voluntary direct costs from departmental and/or college funds or mandatory facilities and administrative costs). The signed approval letter must accompany the proposal when it comes to OR for final approval.