



University of Hawai'i

# Grantseeker's Handbook



**November 2013**

University of Hawai'i  
Office of Research Services  
2440 Campus Road, Box 368  
Honolulu, HI 96822  
808-956-7800  
<http://www.ors.hawaii.edu>

**Contacts:**

Victoria Rivera, Contracts and Grants Manager,  
808-956-5300 or [riverag@hawaii.edu](mailto:riverag@hawaii.edu)

or

Melody Bentz, Contracts and Grants Specialist,  
808-689-2324 or [mbentz@hawaii.edu](mailto:mbentz@hawaii.edu)

Last revised: March 13, 2014

This helpful handbook was developed by Dr. Lynn Miner, Miner and Associates, [www.MinerAndAssociates.com](http://www.MinerAndAssociates.com),  
[LMiner@MinerAndAssociates.com](mailto:LMiner@MinerAndAssociates.com) for the University of Hawai'i, Office of Research Services

# Table of Contents

## **1.0 Pre-Proposal Strategies**

Developing and Refining Grant Ideas	
ORS Grant Idea Worksheet .....	5
Recasting Grant Ideas .....	6
Pre-Proposal Contacts .....	8
Institutional Uniqueness .....	10

## **2.0 Writing Grant and Contract Proposals**

Statement of Problem/Need	
Need Statements for Applied, Clinical, and Training Proposals ....	11
Need Statements for Basic Science Research .....	13
Documenting the Need: Data Sources.....	15
Key Questions to Answer.....	17
Goals, Objectives, and Outcomes	
Key Definitions.....	18
Power Verbs.....	21
Sample Templates.....	21
Key Questions to Answer.....	23
Methodology	
Justifying the Selection of Methods.....	24
Data Collection Sources.....	25
Time and Task Charts.....	26
Logic Models.....	29
Grant Resource Inventory.....	32
Collaboration Strategies.....	35
Key Questions to Answer.....	36
Dissemination	
Active Dissemination Strategies.....	37
Passive Dissemination Strategies.....	37
Key Questions to Answer.....	37
Evaluation	
Choosing an Evaluator.....	38

Process (Formative) Evaluation.....	38
Outcome (Summative) Evaluation.....	39
Impact Evaluation.....	41
Key Questions to Answer.....	42
Budgets	
Direct Cost Components.....	43
Understanding Facility and Administration (F&A) Costs.....	44
Cost Sharing.....	46
Budget Narrative Template.....	51
Key Questions to Answer.....	60
Sustainability	
Structural Sustainability.....	61
Social Sustainability.....	62
Technological Sustainability.....	63
Environmental Sustainability.....	63
Key Questions to Answer.....	65
Appendices	
Consortium Agreements.....	66
Letters of Commitment.....	67
Resumes and Biosketches.....	69
Key Questions to Answer.....	70
Abstracts	
Key Components.....	71
Formatting.....	71
Key Questions to Answer.....	71

### **3.0 Writing Tips**

Writing Tips	
Headings.....	72
Levels of Organization.....	72
Margins.....	73
Font Type and Size.....	73
Sentence and Paragraph Length.....	73
Transitional Words, Sentences, and Paragraphs.....	73
Starter Sentences.....	75
Verb Choice.....	85
Readability Statistics.....	85
NIH Multiple PD/PI Leadership Plan.....	88
NSF Intellectual Merit.....	90
NSF Broader Impact.....	92

NSF Integration of Research and Education.....	94
Integrating Diversity into NSF Programs, Projects, and Activities..	95
Basic NIH Research Proposal Outline.....	96
Writing Resubmission Proposals.....	98
Proposing a National Model.....	100
Data Management and Sharing.....	101
Post-Doctoral Mentoring Plan.....	104

## ***1.0 Pre-Proposal Strategies***

### **Developing and Refining Grant Ideas**

#### ***Office of Research Services (ORS) Grant Idea Worksheet***

In the early stages of developing a proposal, it is helpful to jot down a brief overview of your idea. This will help bring focus to your proposal and serve as a useful tool as you talk with the Office of Research Services (ORS). Below you will find the ORS Grant Idea Worksheet to help you organize your project. You don't need to fill out a lot of detail. A couple of sentences in each section will suffice for now. When finished, you may wish to share it with ORS to help identify possible funding sources.

#### **ORS Grant Idea Worksheet**

Describe the problem or need as you see it. What is the specific gap between the way things are and the way things should be?

Describe who is affected by the problem or need. What specific target populations are you concerned about?

Describe the consequences if nothing is done to solve the problem or address the need? How would it affect people?

Describe the geographic areas affected. Is the problem or need local, citywide, state, regional, national, or international?

Describe your tentative project goals and objectives. What specifically do you want to accomplish?

Describe a suggested solution. How might you close the current gap and solve the problem?

Describe possible sources of funding. Who do you think might be interested in providing grant dollars for this project?

## Recasting Grant Ideas

There are many ways to describe your project. Specifically, you can search for funding options and present your proposal idea to sponsors as you manipulate four variables: subject matter, project location, population served, and type of grant. The following table shows some examples. Jot down some different terms you might use to recast your proposal.

Subject Matter	Project Location	Population Served	Type of Grant
<p>Examples: education, social welfare, justice,</p> <p>Examples: low cost housing, minority education</p>	<ul style="list-style-type: none"> <li>• Neighborhood</li> <li>• City</li> <li>• County</li> <li>• State</li> <li>• Region</li> <li>• National</li> <li>• International</li> </ul>	<p>Examples: frail elderly, disadvantaged, single parents with low incomes, homeless, HIV/AIDS</p>	<ol style="list-style-type: none"> <li>1. Capacity Building Grant</li> <li>2. Challenge Grant</li> <li>3. Conference Grant</li> <li>4. Construction Grant</li> <li>5. Consulting Grant</li> <li>6. Demonstration Grant</li> <li>7. Dissemination Grant</li> <li>8. Endowment Grant</li> <li>9. Equipment Grant</li> <li>10. Exhibition Grant</li> <li>11. General Purpose Grant</li> <li>12. Land Acquisition Grant</li> <li>13. Matching Grant</li> <li>14. Operating Grant</li> <li>15. Planning Grant</li> <li>16. Publication Grant</li> <li>17. Renovation Grant</li> <li>18. Research Grant</li> <li>19. Scholarship Grant</li> <li>20. Seed Grant</li> <li>21. Special Project Grant</li> <li>22. Subvention Grant</li> <li>23. Training Grant</li> <li>24. Travel Grant</li> </ol>

### Definitions of Grant Types

1. Capacity Building Grant: money to build the infrastructure of an organization
2. Challenge Grant: money used as a magnet to attract additional funds
3. Conference Grant: money to cover the expenses of holding a conference or seminar

4. Construction Grant: money for building construction
5. Consulting Grant: money to hire consultants for an organization or project
6. Demonstration Grant: money to demonstrate or prove that a particular project or idea actually works
7. Dissemination Grant: money to share the results or findings of a successful project
8. Endowment Grant: money to be kept permanently and invested to provide continued income to an organization
9. Equipment Grant: money to purchase new or replacement equipment
10. Exhibition Grant: money to cover the costs of exhibiting a project or work of art
11. General Purpose Grant: money to further the general purpose or work of an organization rather than for a specific purpose
12. Land Acquisition Grant: money to purchase real estate property
13. Matching Grant: money to match funds provided by another donor or sponsor
14. Operating Grant: money to cover the daily costs of running an existing program, project, or organization
15. Planning Grant: money to assess the need for and develop plans to implement a project
16. Publication Grant: money to publish a report, book, or other publication
17. Renovation Grant: money to renovate, remodel, or rehabilitate property
18. Research Grant: money to cover costs of scholarly inquiry
19. Scholarship Grant: money to underwrite the expenses of advanced study
20. Seed Grant: money to contact a preliminary project inquiry
21. Special Project Grant: money to support specific projects or programs as opposed to general purpose grants
22. Subvention Grant: money to support the partial cost of publishing a book
23. Training Grant: money to conduct education or training programs
24. Travel Grant: money to cover travel expenses associated with conducting a grant project

## Pre-Proposal Contacts

Engaging in pre-proposal contacts is **THE** most important thing you can do to maximize your chances of being funded. You want to do this to ensure that your idea matches the “values glasses” of the potential sponsor. To be successful in making pre-proposal contact, follow this four-step process.

**Step One:** Write the program officer requesting information about application guidelines, names of past grant winners, and names of past grant reviewers. Adjust your request depending on availability of online information. Email requests are fine. Be concise and direct with your request.

**Step Two:** Call a past grant winner to data mine for success secrets. Explain that you are calling at the recommendation of their program officer (Step One). Ask any of the following questions that might be of value to you in determining if you should approach this potential sponsor:

- Did you call or go see the sponsor before writing the proposal?
- What materials did you find most helpful in developing your proposals?
- Who did you find most helpful on the funding source staff?
- Did the funding source review a pre-proposal or a proposal draft prior to final submission?
- How close was your initial budget to the awarded amount?
- Was there a hidden agenda to the program’s guidelines?
- Given the problems you identified, what are the implications of those difficulties?
- What would you do differently next time?

In the course of a 10 minute phone conversation, you can obtain a much better idea of whether your needs mesh with those of the sponsor.

**Step Three:** Call a past grant reviewer to learn what turns reviewers on and off. Again, select the pertinent questions from the following list.

- How did you get to be a reviewer?
- Did you review the proposals at the sponsor’s office or at home?
- Did you review electronic or hard copies of the proposals?
- Did you follow a particular scoring system?
- How much time did you have to read the proposals?
- What were you told to look for?
- What were the most common mistakes you saw?
- If there were no budget limits, what should have been proposed that wasn’t?
- Was there a staff review following your peer review?
- How would you write a proposal differently now that you have been a reviewer?

Answers to questions like these, resulting from a 10-minute phone conversation, will help shape your proposal format and content. On the other hand, if you are accumulating negative “vibes” from your discussion with a past grant winner and past grant reviewer, you may decide to start over with your pre-proposal contact that focuses on a different sponsor. If you are getting encouraging messages, continue on with Step Four.

**Step Four:** Call the program officer again to confirm the goodness of fit with your project.

- What is your current budget?
- How much of that money will be available for new awards as opposed to noncompeting continuation awards?
- What is the anticipated application/award ratio?
- Does the program provide one-time-only support or will it permit multi-year funding?
- Would you be willing to review our pre-proposal (2 to 3 page concept paper)?
- Would you be willing to review our draft proposal if we got it to you early? If so, how early would we need to get it to you?
- Who officially reviews our final proposal?
- How are proposals reviewed? Who performs the review? Outside experts? Board members? Staff?
- How are proposals being evaluated? Against what yardstick are the proposals being measured?
- Does my project fall within your current priorities?
- Your average award last year was \$xx,xxx dollars. Do you expect that to change?
- Will awards be made on the basis of any special criteria, e.g., geography or type of organization?
- Do you know of/are you aware of any unannounced programs or unsolicited funds in my area to support my project?
- What are the most common mistakes in proposals you receive?
- What would you like to see addressed in a proposal that other applicants may have overlooked?
- Could you recommend a previously funded proposal for us to read for format and style?
- Should the proposal be written for reviewers with nontechnical backgrounds?
- What percentage of your awards is made in response to unsolicited proposals?
- Can you provide me with a copy of the reviewer’s evaluation form?
- What outcomes do you expect from grantees?
- Do you plan to offer a workshop, webinar, teleconference, technical briefing session, or a pre-proposal conference to explain how to prepare an application?

Again, a 10-minute phone call will give you a substantial competitive edge. This four-step process is one that successful grantseekers follow. After looking at the information gleaned from following it, you can see the disadvantage you would face if you **didn’t** follow it.

# Institutional Uniqueness

## ***Common Boilerplate Descriptions***

Below you will find some “boilerplate” language that describes the University of Hawai‘i. Such information is often requested in grant applications.

The University of Hawai‘i (UH) System includes ten campuses and dozens of educational, training and research centers across the Hawaiian Islands. As a ten campus public system of higher education in Hawai‘i, UH offers opportunities as unique and diverse as our island home. UH is the state’s leading engine for economic growth and diversification, stimulating the local economy with jobs, research and skilled workers. UH academic offerings include 117 associate degree programs, 139 bachelor’s programs, 91 master’s programs, and 53 doctoral programs that serve a cumulative 60,000 plus students. Hawai‘i’s location, midway between Asia and the U.S. mainland in the middle of the Pacific Ocean, creates opportunities for international leadership and influence. Asia/Pacific expertise permeates the university’s activities.

## ***Institutional Brag Points***

From life-saving medical breakthroughs, to environmental protection, to economic stimulus, the scholarship and research conducted by the University of Hawai‘i impacts the quality of life on many levels.

Because of its unique geographic location, it is one of the few universities in the nation that has strong research credentials in land, sea, and air investigations. In broad terms, UH research programs:

- Develop human capital and new knowledge
- Promote innovation and collaboration
- Support new businesses and long-term job growth
- Generate revenues that boost the local economy
- Maximize the advantages of Hawai‘i’s unique natural and cultural heritage

Some specific examples include the following:

1. Hawai‘i physicists observe mysterious new particle in Beijing Spectrometer Experiment (BESIII)
2. Western Painted Turtle genome decoded
3. UH Hilo researchers are scouring ocean bottoms for compounds that prevent carcinogenesis
4. New study reconciles carbon record disparities on land and on sea

## 2.0 Writing Grant and Contract Proposals

### Statement of Problem/Need

#### ***Need Statements for Applied, Clinical, and Training Proposals***

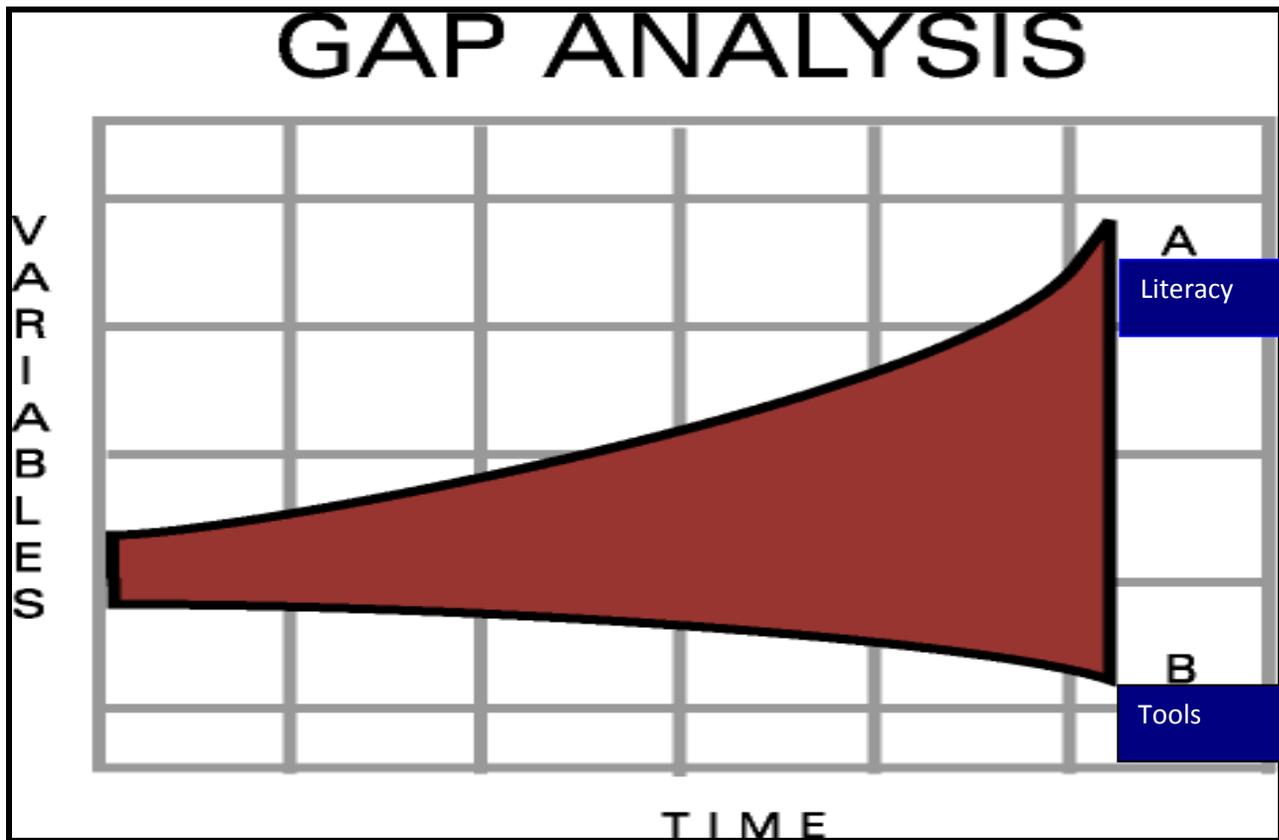
By definition, a problem or need is a gap--a discrepancy between the way things are and the way things ought to be. To persuade proposal reviewers that you have identified a significant problem, you must present two data points or lines that are separated by a gap. Suppose, for example, that you are a high school principal who wants to upgrade your computer laboratory. What, then, are your two data points?

- **Data Line A:** The increasing need to train computer literate students in the 21st century. As educators, you recognize that computers are a means to an end of training computer literature students, a need that has grown over time as evidenced by the increase in such things as iPods, scanning machines at check-out counters, ATM machines at banks, Internet information explosions, social media, and the deluge of information technology devices.
- **Data Line B:** The growing obsolescence of existing computers in your computer laboratory. Given the rapid changes in computer technology, machines must be replaced on a regular basis. Computer memories increase and speeds accelerate. New software requires increased capacity. Existing machines malfunction over time and through heavy use. Existing computer capacities will decrease over time unless upgrades occur.

Your proposal narrative could document the following:

- The **frequency** of the problem: how often do computer malfunctions occur, how much instruction time is affected, to what extent have student complaints increased?
- The **severity** of the problem: students perform poorer than peers on computer examinations, future employment opportunities are affected, parents become disenchanted with the quality of instruction provided at school.
- The **consequences** of not addressing the problem: students have restricted access to information, the computer literacy of your students is constrained, the school system is less able to fulfill its instructional responsibilities.

Visually, you could graph your statement of the problem to show how your gap is widening over time, as the following figure indicates.



Your gap analysis tells your sponsor that the demand for computer literacy grows while the capacity of your instructional tools to meet that demand declines over time.

As you write your next proposal, conduct a gap analysis: what is your A Line and your B Line? If you don't have well-defined answers, then you need more conceptual clarity before you start writing.

The A/B gaps may exist for multiple reasons. Possibly, stakeholders are unaware that the problem exists, that it doesn't appear on the "radar" screen of many people. Perhaps, stakeholders are aware of the problem but are unable to do anything about it because they lack the human, fiscal, or physical resources necessary to solve it. Maybe stakeholders know about the problem and have the resources and capacity to solve it but are unwilling to do so because of attitudes or beliefs that they hold. Your gap discussions can address the reasons why you think they exist.

Finally, you should regard the statement of the problem or need as the ***single most important section*** of your proposal that influences funding success. It tells reviewers that the applicant organization has done its homework. It also establishes the thesis, and presents credible, current, and appropriate evidence to support both the need and the organization's proposed solution. It's a "teaching tool" for reviewers that prefaces everything else in the proposal, and is so important, that it should be stressed regardless of whether it may receive the highest point total, based on the reviewer's evaluation form. You should

consider it as the most important proposal section, since it will weigh most heavily in the minds of reviewers.

Statement of Problem/Need	A Line	B Line
Inadequate healthcare services exist in Eastern Tennessee, despite the fact that access to basic healthcare is a fundamental right	Multiple indices show a growth in health problems and a decrease in the quality of life	The number of healthcare providers has remained constant
Living Conditions in New Orleans' Lower 9th Ward remains devastated due to Hurricane Katrina	Roads, utilities and habitable facilities are devastated	No multidisciplinary comprehensive plan exists for restoring, reconstructing, and resettling the Lower 9th Ward
Youth Suicide is a significant health issue in Wyoming	State vital records show suicide is the second leading cause of death among teenagers and is growing each year	The number of schools with suicide prevention programs remains low and has remained constant over time

### ***Need Statements for Basic Science Research***

The statement of need, as discussed so far, addresses immediate needs or problems that people have. However, not all grant proposals address immediate people needs. This is particularly the case in the basic sciences, which may address scientific questions that contribute to the stockpile of knowledge with no known immediate application to people. Examples would include the chemist who conceives of a new way to combine chemicals or create new reagents. In like manner, a mathematician may envision a new way to solve a long-standing and perplexing math problem with no direct use, or a neuroscience researcher may study brain chemistry thinking that eventually such research might lead us to new insights into Alzheimer's disease or drug addiction. Jonas Salk did years of basic science research before discovering the polio vaccine with no intent on searching for a cure when he started his research path. How then, do you justify the conduct of basic science research in proposal writing?

The frequency—severity—consequences troika used in solving immediate people problems doesn't work well with basic science proposals and a different strategy is needed. We cite five basic reasons below as to why scientists do basic research.

#### **1. To test hypotheses**

Hypothesis testing is a predominant domain of much of science. Researchers formulate "best guesses" (hypotheses) about the nature of some phenomenon and then conduct an experiment to see if their hunch was right. Hypothesis testing underlies much of scientific inquiry and is a legitimate reason to explore a problem, whether or not it will immediately give us something

that is better, cheaper, quicker, faster, broader, more comprehensive, more economical, or healthier.

**2. To indulge our curiosity**

Curiosity is just human nature. The average three year old child asks “Why, mommy?” over 100 times each day. Everyday curiosity often stops when the curiosity has been satisfied. Scientific curiosity goes beyond that and seeks out the methods by which the answers to its questions are obtained. Suppose a child asks “Why are all those bees in the garden?” and the father replies, “They are gathering pollen from the roses so that they can make some honey from it.” The nonscientific child stops here because his curiosity is satisfied. The future researcher will wonder if bees are attracted by certain colors. Perhaps the shape of the petals is important. Perhaps the pollen that sticks to the bees’ legs is only incidental to their search for some substance that makes them attractive to bees of the opposite sex. These possibilities can be resolved only by controlled observation and experimentation. Scientific curiosity is an essential part of the discovery process.

**3. To try out a new method or technique**

Sometimes we develop a new technique because we couldn’t get the desired information by standard means. Other times we might try out a new technique to see what kind of data it will yield. Researchers recognize the desirability of technical advances, which may include improvements in measuring instruments, advanced methods of recording data, sophisticated data analysis, the design of specialized instrument to do a particular job or an extension of old techniques into new areas. Any of these outcomes could result from doing basic science research to try out a new method or technique.

**4. To establish the existence of a phenomenon**

Prior basic science experiments may demonstrate previously unobserved, unmeasured, or uncontrolled phenomena. In such cases, it is perfectly justifiable to conduct an experiment to demonstrate a particular effect. Science proceeds by manipulating variables in a systematic fashion and unifying the results of such manipulation with a conceptual framework. The demonstration of a particular phenomenon is a prelude to theory building.

**5. To explore the conditions under which a phenomenon occurs**

Any new experimental finding or promising theory remains in an intellectual silo, unrelated to other findings and theories, until one discovers the conditions under which the phenomenon occurs. This is the first step in theory integration. Scientific theories are built on a foundation of small findings, none of them necessarily world-shaking by themselves, but without which the final step could never have been taken. Often data are important only as they establish or refute the soundness of other data or of some conceptualization of natural phenomena. They serve to strengthen the internal consistency of science.

If you are doing applied research or service delivery or training projects, it is relatively easy to explain your statement of need. It is more difficult to justify a problem when doing basic science research, but the solution lies in one or more of the five answers above. We once asked a prominent psychology professor at an east coast university why he did basic research. In response, he said, "When I conduct basic research, it is because basic research has the potential to impact the largest variety of practical problems. This is a subtle point and one that is often missed when contrasting basic with applied science: basic science is also applied, but the application is farther down the road and harder to see. In my opinion, this distinction varies from project to project; basic science will on average contribute to solving more problems than applied science will. For example, discovering the laws of physics was a basic science endeavor, but the practical consequences are enormous. Curing alcoholism solves one (important) problem, but understanding addiction impacts many (important) problems. The differences between basic and applied science are many, but three important ones are: (1) the immediacy of the application; (2) the variety of problems affected; and (3) whether the application is directly in mind during the conduct of the research." ***Documenting the Need: Data Sources***

Beyond searching the University of Hawai'i libraries and institutional repositories for scholarly literature to document your problem statement, you can explore these online tools.

1. **Education Resources Information Center** – <http://www.eric.ed.gov>  
An online digital library of education research and information
2. **Google Scholar** – <http://scholar.google.com>  
This scholarly version of Google searches across many disciplines and sources: articles, theses, books, abstracts and court opinions, from academic publishers, professional societies, online repositories, universities and other web sites
3. **HighWire** – <http://highwire.stanford.edu>  
HighWire is the world's largest archive of free full-text science, containing over 2 million articles
4. **PubMed** – <http://www.ncbi.nlm.nih.gov/pubmed>  
PubMed comprises more than 22 million citations for biomedical literature from MEDLINE, life science journals, and online books
5. **Scirus** – <http://www.scirus.com>  
Scirus contains 545 million scientific items that search not only journal content but also scientists' homepages, courseware, pre-print server material, patents and institutional repository and website information
6. **National Technical Information Service** – <http://www.ntis.gov>  
NTIS is the largest central resource for government-funded scientific, technical, engineering, and business related information available today, providing access to approximately 3 million publications covering over 350 subject areas
7. **Children's Defense Fund** – <http://www.childrensdefense.org>  
The U.S. State Data presents information basic statistical information about poverty, health, hunger, child welfare, early childhood development, education and youth at risk for children
8. **County Health Rankings** – <http://www.countyhealthrankings.org>

County level data are presented for health factors (health behaviors, clinical care, social and economic variables and the physical environment) and health outcomes (mortality and morbidity information)

9. **KIDS COUNT** – <http://www.kidscount.org>  
This Annie E. Casey foundation project presents information about national and state efforts to track the well-being of children in the United States
10. **State Health Facts** – <http://www.statehealthfacts.org>  
Through this Kaiser Family Foundation initiative, you can search for basic health information by state or 11 different health-related categories
11. **U.S. Census Bureau (General)** – <http://census.gov>  
Thousands of data points dealing with people, business, geography, and more
12. **U.S. Census (Data Sets)** – <http://factfinder2.census.gov>  
Community facts accessible by state, county, city, and zip code
13. **Bureau of Justice Statistics** – <http://bjs.gov/>  
Extensive crime, criminal justice, law enforcement, victim, and corrections data
14. **Bureau of Labor Statistics** – <http://www.stats.bls.gov>  
Subject areas include inflation & prices, employment, unemployment, pay and benefits, spending and time use, productivity, workplace injuries, and international activities
15. **Centers for Disease Control & Prevention** – <http://cdc.gov/healthyyouth>  
A prime source of information about youth health and risk behaviors
16. **Data.Gov** – <http://www.data.gov>  
A federal government data portal for information on 11 major topic areas ranging from the environment to agriculture
17. **National Center of Educational Statistics** – <http://nces.ed.gov>  
NCES is the primary federal entity collecting and analyzing data related to education
18. **National Center for Biotechnical Information** –  
<http://www.ncbi.nlm.nih.gov/CBBresearch/Lu/search/>  
A NIH-based web site that links you to 28 different sources of biotechnical information

Beyond these information sources, consider approaching local and regional health planning councils; city, county, or regional planning departments; vocational rehabilitation agencies; crisis centers in your field; law enforcement and judicial departments; chambers of commerce; universities (libraries, academic departments, computer centers, research offices); national associations; other grantees; United Way (community resource file); and development departments in state and local governments. Don't overlook your state and federal legislators. They survive in large part by providing constituency services. They may be able to help you find government reports on your project topics.

## ***Key Questions to Answer***

Does your proposal do the following?

- Specify the conditions you wish to change?
- Define the gaps in existing programs, services or knowledge?
- Include appropriate statistical data about the frequency and severity of the problem?
- Clarify what will happen if nothing is done about this problem?
- State the problem in terms of human needs, not your opportunities?
- Cite pertinent theoretical literature, research findings, or ongoing studies?
- Convey the focus of your project early in the narrative?
- Establish the importance and significance of the problem from the sponsor's perspective?
- Point out the relationship of your project to a larger set of problems or issues?
- Supply an appropriate and compelling introduction to the rest of the application?

Use this list both as a guide to develop your statement of the problem or need, and as a checklist to critique your draft, to make sure you have included all essential elements.



# Goals, Objectives, and Outcomes

## **Key Definitions**

Your project **goals** represent the idealized dream of what you hope to accomplish. They are usually presented in terms of hopes, wishes, or desires. Goals represent the "big picture" vision of what you wish to accomplish, and also communicate global purposes. Typical goal-oriented words include advocate, analyze, appreciate, extend, illustrate, improve, integrate, participate, promote, or recommend. Goals are not observable or quantifiable. For instance, a recent health education proposal included the following four goal statements:

- To analyze the special needs of underserved populations and to develop new programs to meet those needs.
- To extend services to underserved target populations.
- To improve the quality of services while experiencing an increased demand for those services.
- To integrate new educational materials for special focus programs.

While these are valuable goals, they cannot stand by themselves. They need to be followed by concrete, measurable objectives that represent observable behaviors.

Your **objectives** (sometimes called "aims") specify the end products of your project. When sponsors fund your project, they are literally "buying" your objectives. That is why it is extremely important to state your objectives in clear and measurable terms. In essence, the objectives answer one fundamental question: "What will this project change?" The emphasis is on the "what." If you can't see the change, it may not exist.

When you write your objectives, follow the acronymic advice: "Keep them S-I-M-P-L-E." Your objectives should be:

- **Specific:** show precisely what you intend to change through your project. What will be different when your project is finished? What will people be able to do once the project is completed that they couldn't do before?
- **Immediate:** indicate the time frame during which a current problem will be addressed. Why should the project be acted on right now? How long will it take to achieve your goals and objectives?
- **Measurable:** specify what you would accept as proof of project success. What qualitative and quantitative data will you gather? What tools will you use to measure project success?

- **Practical:** point out how each objective pinpoints a real problem requiring a solution—now. Are your objectives realistic and feasible? Does your organization have the skill, experience, qualifications, resources, and personnel to carry out each objective?
- **Logical:** describe how each objective systematically contributes to achieving your overall goal(s). Are you really doing what you think you're doing? Do your objectives relate to your sponsor's priorities? Does it make sense to do this?
- **Evaluable:** define how much change has to occur for the project to be effective. What are your criteria for success? What impact will your project make? What is the value of your project? How will you interpret the change you measured?

Although these categories are not mutually exclusive, each of your objectives should meet several of these criteria. For instance, given the goal of "improving the quality of life for homeless individuals in our city," a proposal objective might be stated as follows:

Midwest Home Shelter Agency will reduce the number of homeless [Specific] [Practical] [Logical] during the next 24 months [Immediate] by 15 percent [Evaluable] as noted in the Department of Social Welfare Homeless Survey Report [Measurable].

The following example of a goal and its objectives is taken from a demonstration project submitted to the U.S. Department of Education. The objective has several parts that meet each of the six criteria, with some overlap.

- **Goal.** The goal of this program is to prepare parents to function independently and effectively in helping their children develop to their own potentials.
- **Objectives.** During the next 18 months [Immediate] the parents who participate in the program will demonstrate the following behaviors [Specific]:
  - identify the education content in the events that occur in the home [Logical]
  - structure sequential and cumulative instructional tasks in the home for the child [Logical]
  - observe the child and use checklists to monitor progress [Measurable]
  - use available equipment and processes in the home to teach children specific skills [Evaluable]
  - use packaged materials prepared by the project or other agencies in teaching specific skills [Practical]

Your objectives represent the yardstick to evaluate your proposal results. That is, if you write your objectives in precise, measurable terms, it is easy to write your proposal evaluation section because you know exactly what will be evaluated.

**Outcomes** are the benefits, changes, or effects that occur to the target population due to participation in your project. Outcomes express project results in humanistic terms; they are the desired changes in peoples' knowledge, skills, attitudes, or behaviors. Identifying outcomes means going beyond outlining

how the project will operate to describing how participants will be able to think, do, act, or behave differently by the conclusion of your project.

In the increasingly competitive world of grantseeking, **accountability is key**. Sponsors want to know that their funds are being spent wisely and that your project is really making a difference in the lives of people; hence, your proposal must balance process and outcome objectives. Process statements answer “what?” What are you going to do? Outcome statements answer the question “so what?” What are the benefits of this project to the target population?

Consider the following pairs of statements: the first describes a process, and the second describes an outcome.

Process	Outcome
Provide firefighters with new communications and personal protective equipment.	Firefighters will increase coordinated service delivery to the community and decrease average response times.
Conduct 10 cultural sensitivity training courses.	Employees will respect and value diversity.
Enroll 6,000 at-risk youth in summer school classes.	Student’s academic performance will improve.
Provide 10,000 free meals to low-income senior citizens.	Senior citizens are able to remain in independent living.
Have 60 undergraduate university students contribute a total of 3,600 hours to service learning projects at the Hispanic Community Center.	<ul style="list-style-type: none"> <li>• Students will make real world connections to the local community through service, educational outreach, and employment.</li> <li>• Continuing education adults at the Hispanic Community Center will earn their General Educational Development (GED) diplomas.</li> </ul>
Distribute 25,000 “So You’re Having A Baby” educational packets to pediatric physicians’ offices.	<ul style="list-style-type: none"> <li>• Teen mothers immunize their newborns by age two.</li> <li>• Teen mothers understand the value of breastfeeding their babies during the first year of life.</li> <li>• Teen mothers do not have a repeat pregnancy until after age 18.</li> </ul>

The final two examples illustrate that even when projects appear on the surface to be similar, they may in fact target very different outcomes. That’s why prior to developing intervention strategies, you must identify outcomes that will be meaningful to your project. Outcomes borrowed from or imposed by individuals external to your organization are unlikely to be valuable to your efforts. Section 2.5 takes a closer look at evaluation and outcomes, including outcome indicators—specific characteristics selected for measurement to demonstrate success in achieving project outcomes.

## Power Verbs



In grant parlance, “power verbs” are action verbs that represent concrete, observable behaviors. To illustrate, a specific aim that says your purpose is “To study....” is not a power verb. Quite simply, you can’t see people study; “study” is a concept that manifests itself in specific behaviors. You can describe, examine, test, and translate; those are specific, observable actions. Below is a list of power words often found in specific aim statements.

Assess	Describe	Incorporate
Build	Determine	Increase
Compare	Develop	Measure
Conduct	Evaluate	Obtain
Contrast	Examine	Specify
Define	Explore	Test
Delineate	Extend	Translate

## Sample Templates

In the three examples that follow, each from a different proposal, note that not only is the objective (aim) expressed in measurable terms, but the three bulleted sub-points enable the reviewer to foreshadow the other key elements in the proposal

### Specific Aim 1: To determine the pattern of expression of insulin sensitivity and secretion in adolescent girls predisposed to Polycystic Ovary Syndrome (PCOS).

- **Hypothesis:** Girls at high risk for PCOS will demonstrate abnormal patterns of insulin sensitivity and secretion with respect to pubertal maturation, when compared with control populations matched for developmental stage.
- **Methods:** Insulin sensitivity will be assessed using intravenous glucose tolerance tests. Insulin secretion will be evaluated by high-frequency entrainment assays.
- **Expected findings:** In contrast to control adolescent subjects, girls with high-risk backgrounds are expected to manifest an exaggerated and/or earlier tendency towards insulin resistance and  $\beta$ -cell dysfunction, and a failure to resolve their insulin resistance by the completion of puberty.

### Specific Aim 1: To evaluate the effectiveness of the sepsis bundle on elderly patients with sepsis receiving traditional care.

- **Hypothesis:** Compliance with the sepsis resuscitation bundle improves patient care but produces a differential effect among hospitalized older and younger adults.
- **Methods:** A before/after study design will capture and analyze bundle compliance in two different adult populations (< and ≥ 65) receiving traditional hospital care.
- **Expected Findings:** Improved process of care in elderly patients with sepsis leads to improved sepsis bundle compliance, decreased hospital mortality rates, decreased ICU usage, reduced length of stay, and lower sepsis-related healthcare costs.

**Specific Aim 1: To compare the clinical characteristics of patients who are and are not weather sensitive.**

- **Hypothesis:** Clinical differences exist between patients who are and are not weather sensitive.
- **Methods:** To compare the clinical characteristics between the two patient populations.
- **Expected Findings:** Thirty to fifty percent of individuals with migraines will be weather sensitive. These individuals will show different clinical characteristics than those who are not weather sensitive.

## ***Key Questions to Answer***

Does your proposal do the following?

- Clearly describe your project's objectives, hypotheses, and/or research questions?
- Identify observable behaviors that can be measured?
- Signal project objectives without burying them in a morass of narrative?
- Demonstrate that your objectives are important, significant, and timely?
- Directly address the chosen problem?
- Demonstrate why your project outcomes are appropriate and important to the sponsor?
- Reflect the need for the project and show clearly its purpose and direction?
- Include one or more objectives for each need discussed in the problem statement?
- State objectives in terms of outcomes and not methods or activities?
- State the time by which the objectives will be accomplished?



# Methodology

## ***Justifying the Selection of Methods***

Each project will have its own unique set of methods, activities, and tasks to accomplish the stated objectives. You should justify the selection of whatever methods you deem appropriate for your project. Reviewers will want to know why you chose your stated approach over other alternatives. A few sentences of methodological justification prior to describing specific project activities will anticipate and answer an important question in the minds of the reviewers: “Of the universe of possible methodologies, why did you pick this one?”

- The method of choice is to use a double blind study. It is the only experimental design available that can isolate the effects of the independent variable on project outcomes.
- This project is using the Grace Hope Scale to measure spirituality since according to the *Mental Measurements Yearbook*, published biennially by the Buros Institute of Mental Measurements, it is the only instrument with acceptable reliability, validity, and normative data for our target population.
- It is necessary for us to develop our own measurement instrument since no psychometric instrument exists to measure teenage attitudes toward learning a foreign language, according to the *Mental Measurements Yearbook*. Dr. Don Sprengel from the Department of Research Methodology at the local university has agreed to serve as a project consultant in this regard and has the requisite expertise in psychometric methodology.
- Since it is imperative we have the broadest possible community input in the most cost-effective manner, our approach relies on the time-proven benefits of using focus groups, a survey procedure that the project director has used successfully in similar past situations.
- Mentoring is our preferred method to solve existing needs because research over the past 15 years documents that is the most cost-effective approach to integrate individuals with severe physical disabilities into the workplace.

Larger projects are sometimes difficult to understand, especially when reviewers might only skim read your proposal. One way to bring clarity to large-scale projects is to “chunk” it up into phases.

Our perinatal depression campaign consists of five phases. In this proposal, we seek funding for Phase IV, while appreciating the fact that proposal reviewers might like to see the scope of our entire initiative.

- Phase One: Public Awareness Campaign, 2009
- Phase Two: Best Practices Symposium, 2010
- Phase Three: Blueprint for Action, 2011
- Phase Four: Regional Conferences, 2012
- Phase Five: Collaborative Projects and Field Research, 2013

The above example illustrates project phasing within the context of a large scale, multi-year maternal mental health initiative. The phasing concept can also be used within a single project. For example, the regional conference proposal itself could be presented as consisting of three phases: (1) to disseminate best practices to constituents, (2) to integrate best practices among constituents, and (3) to evaluate the adoption of best practices. The notion of proposal phasing is useful any time many activities will occur in a proposal and there is need to clarify and organize project tasks.

### **Data Collection Sources**

You will probably need to collect some data as a part of your project. Common types and sources of data collection include those listed below.

• Achievement tests	• Government records	• Referral forms
• Archival information	• Historical program records	• Reviews of literature
• Attendance records	• Interviews	• Role-playing exercises
• Case histories	• Personal diaries or logs	• Searches of news media
• Clinical examinations	• Physical tests	• Surveys
• Controlled observations	• Psychological tests	• Telephone logs
• Daily program records	• Questionnaires	• Tracking slips
• Focus groups	• Ratings by program staff	• University research offices

You can either construct your own data-gathering instruments or use existing ones. To find out if an appropriate instrument already exists (and avoid re-inventing the wheel), consider looking through the *Mental Measurements Yearbook*, a two-volume listing published biennially by the Buros Institute of Mental Measurements, which reviews consumer oriented tests in a variety of fields. The Buros's yearbooks review the various attitudes, behavior, and motor tests that are commercially available. Each review contains a description by the test author(s) and critiques by several experts in the field. The descriptions include the purpose, statistical characteristics, and, when available, the test norms. For example, if you are studying the relationship between spirituality and wellness, you could look in Buros's to see if any attitudinal measures of spirituality exist. The Buros's reference can be found in most university libraries or on the Internet at <http://buros.org>.

## Time and Task Charts

Time and Task Charts are visual representations of your methodology section. When reviewers scan it, they will quickly get an overview of the specific activities you plan to do in your proposal. Five examples follow.

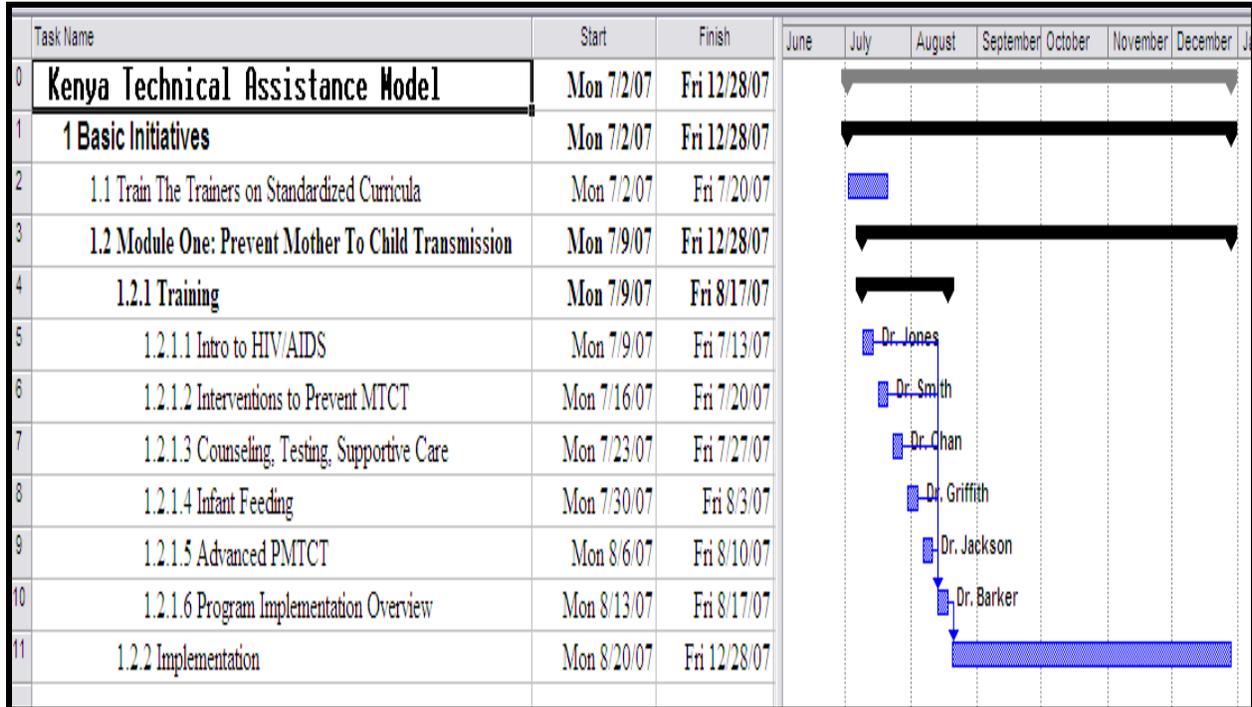
### Time and Task Chart # 1

Activity	Begin Date	End Date	Responsibility
<b>Objective # 1:</b> Train 200 children on Houston's northwest side in a culturally competent early childhood program.	Jun 2008	Dec 2010	Executive Director, White's/Multicultural
• <b>Activity 1.1.</b> Develop and field test a modular early childhood enrichment curriculum based on early brain development research	Jun 2008	Nov 2008	Curriculum Consultant, Health Education Center
• <b>Activity 1.2.</b> Train 10 trainers in the curriculum modules	Aug 2008	Aug 2009	Curriculum Consultant
• <b>Activity 1.3.</b> Establish formal collaborations between White's Child Development Center, Multicultural Family Services, Silver Lake Neighborhood Center and affiliate family care	Sep 2008	Dec 2010	Project Manager
• <b>Activity 1.4.</b> Disseminate project findings through regular monthly meetings with collaborators and quarterly newsletters	Sep 2008	Dec 2010	Project Manager
<b>Objective # 2:</b> Coordinate education, training and supportive services for parents of at least 200 young children.	Dec 2008	Dec 2010	Executive Director, White's/Multicultural
• <b>Activity 2.1.</b> Explain curriculum to 50 parents	Aug 2009	Dec 2010	HEC, Project Manager
• <b>Activity 2.2.</b> Show 25 parents ½ hour training video	Sep 2009	Dec 2010	Project Manager
• <b>Activity 2.3.</b> Train 10 parents of special needs infants and toddlers, and link them with support services	Dec 2009	Dec 2010	Curriculum Consultant
• <b>Activity 2.4.</b> Stimulate parental involvement in education sessions, parent-teacher meetings, and class volunteers	Jan 2009	Dec 2010	HEC, Project Manager

## Time and Task Chart # 2

Activities	Responsibility	Duration	Budget
• Identify Target Urban Areas	Jane O'Connor, Project Director	Month One	\$ 3,345
• Design Evaluation Tools	Jane O'Connor	Month One	2,845
• Survey Program Practices	Audra Hill, Assistant Director	Months One and Two	8,976
• Analyze Survey Data	J. O'Connor, A. Hill	Months Three and Four	5,190
• Draft Preliminary Report	Tera Maki, Technical Writer	Months Five and Six	4,690
• Publish Preliminary Report	Wise Publishing Company	Months Seven and Eight	7,345
• Disseminate Report	Wise Publishing Company	Month Nine	3,238
• Seek Report Feedback	J. O'Connor	Months Nine and 10	4,345
• Revise Preliminary Report	T. Maki	Months 11 and 12	5,805
• Publish Final Report	Wise Publishing Company	Months 13 and 14	11,690
• Distribute Final Report	T. Maki	Month 15	3,476
<b>Total Direct Cost</b>			<b>\$60,945</b>
+ Administrative Cost			11,520
<b>= Total Project Cost</b>			<b>\$72,465</b>
- Cost Sharing			(2,888)
<b>= Amount Requested</b>			<b>\$69,577</b>

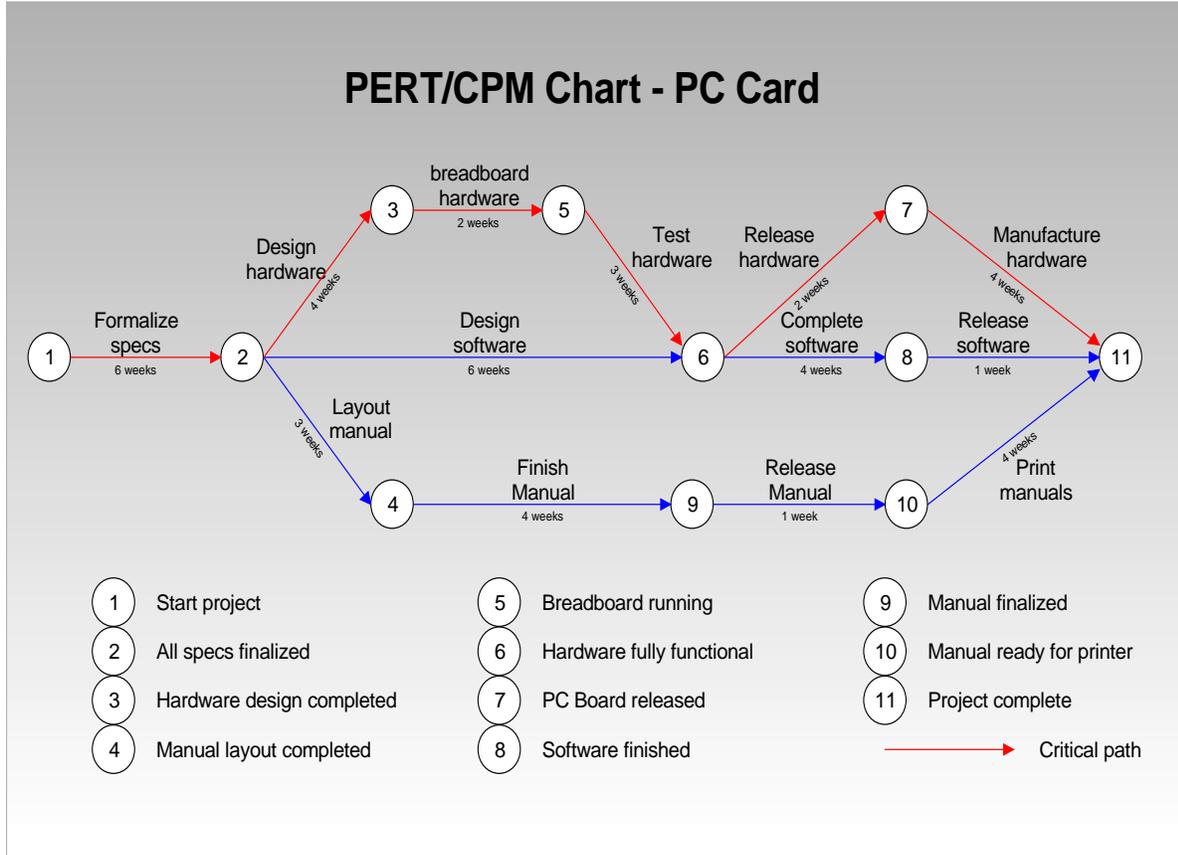
### Time and Task Chart # 3 (Microsoft Project)



### Time and Task Chart # 4 (Milestone Chart)

Activity	Responsibility	Timeframe
<b>Objective 1: Train Teachers</b>		
Recruit Teachers	Moe	Month 1
Hire Teachers	Larry	Month 2
Conduct Training Sessions	Curly	Month 3
Test Trainees	Shemp	Month 4
<b>Objective 2: Recruit Clients</b>		
Prepare Recruitment Materials	Moe	Month 5
Distribute Materials	Curly	Month 6
Issue Press Releases	Larry	Month 7
Contact Other Agencies	Shemp	Month 8

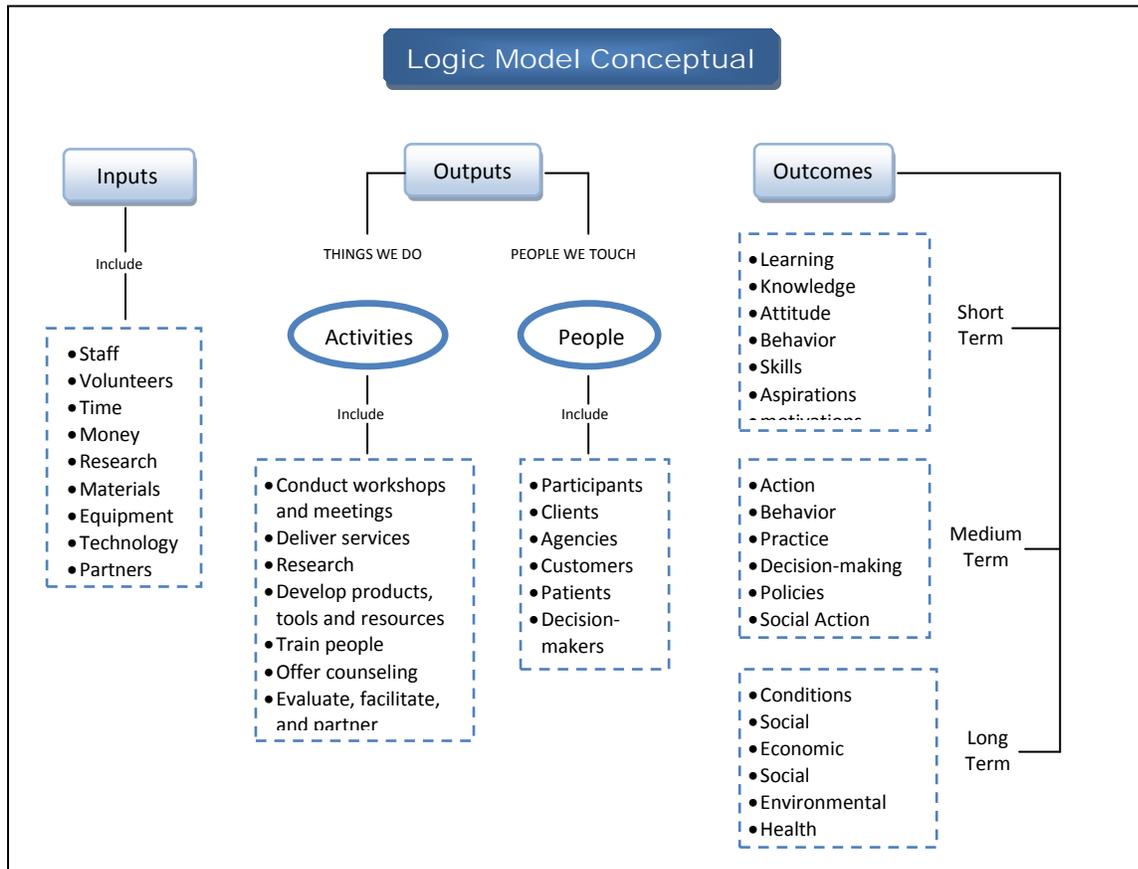
## Time and Task Chart # 5 (Pert Chart)



## Logic Models

A logic model is a graphic tool to help you effectively plan, implement, evaluate, and communicate your project. In essence, it graphically presents your theory of change. Increasingly, sponsors are requiring that proposals include logic models. In order to develop a logic model, you must have spent some time strategically thinking about your project and conceptualizing its overview. In its most basic form, the conceptual map for a logic model is illustrated below. It is presented here to give you a theoretical overview of logic models that will help you develop your own. It illustrates how your available resources and activities will achieve your desired outcomes.

## Logic Model Conceptual Map

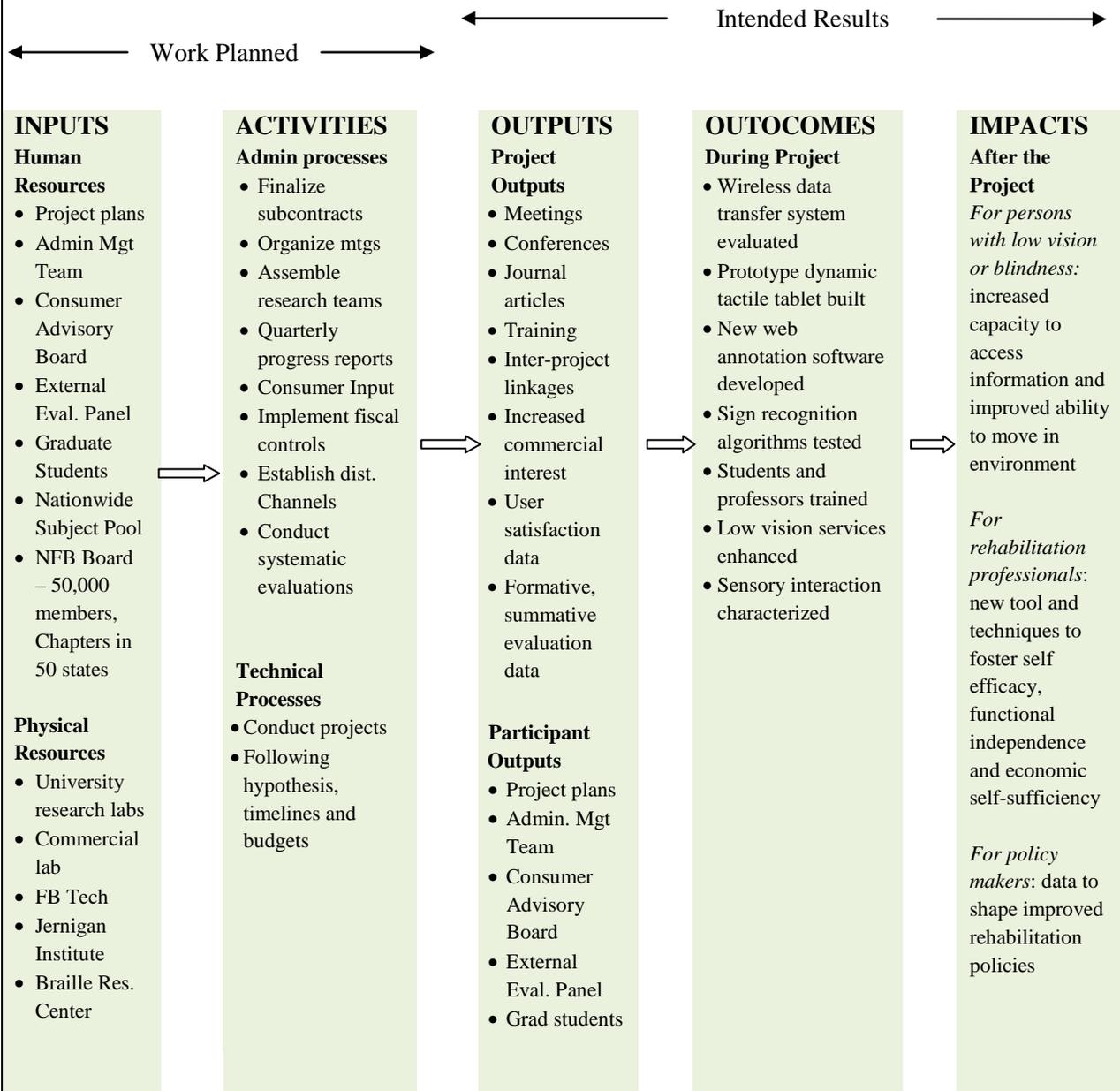


In logic models, the “Inputs” represent a list of the resources that you will have to support the project. The “Activities” are the main actions that the project will perform. The “People” segment indicates the people whose lives will be touched during the project. The “Short Term Outcomes” indicate which outcomes are expected to occur as a result of the activities and outputs, often producing changes in knowledge, skills, and attitudes. The “Medium Term Outcomes” show the results that should follow from the initial outcomes, often in the form of behaviors, policies, or practices. The “Long Term Outcomes” reflect the results that should follow from the initial outcomes, commonly changes in broader conditions.

There is no perfect logic model template. Your purpose, application (planning, implementation, evaluation, or communications), target audience, context, and available resources will dictate the level of specificity you need. A logic model for implementation or evaluation may be more detailed than one for planning or evaluation purposes. Complex or multi-level projects may require several logic models. Remember, it is only a model so it does not need to show all details. Logic models can bring clarity to what you propose, create project consensus, and help focus and evaluation.

# Logic Model

## Project Logic Model



**Primary Assumption: R & D activities for persons who are blind or have low vision should be consumer driven**

**Formative Evaluation**

**Summative Evaluation**

For more information on and examples of developing logic models, consult the following references.

1. W.K. Kellogg Foundation Logic Model Development Guide <http://www.compact.org/wp-content/uploads/2010/03/LogicModelGuidepdf1.pdf>
2. Innovation Network Logic Model Workbook [http://www.innonet.org/client\\_docs/File/logic\\_model\\_workbook.pdf](http://www.innonet.org/client_docs/File/logic_model_workbook.pdf)
3. The HUD Partnership Center’s Capacity Building Workshop Series: Evaluation Strategies and Logic Model Module <http://portal.hud.gov/hudportal/documents/huddoc?id=FBCIEvalStratLogicMods.pdf>
4. Logic Model Builder – FRIENDS National Resource Center for Community-Based Child Abuse Prevention & Child Welfare Information Gateway [www.toolkit.childwelfare.gov/toolkit](http://www.toolkit.childwelfare.gov/toolkit)
5. Reflect and Improve Tool Kit - Innovation Center for Community and Youth Development [http://www.theinnovationcenter.org/files/Reflect-and-Improve\\_Toolkit.pdf](http://www.theinnovationcenter.org/files/Reflect-and-Improve_Toolkit.pdf)
6. Logic Model Resources – CDC Evaluation Working Group <http://www.cdc.gov/eval/resources/index.htm>
7. Comprehensive Community Initiatives: Using a Logic Model [http://www.ccitoolsforfeds.org/getting\\_concept.asp](http://www.ccitoolsforfeds.org/getting_concept.asp)
8. University of Wisconsin – Logic Model <http://www.uwex.edu/ces/pdande/evaluation/evallogicmodel.html>

These sites contain various do-it-yourself guides, summaries, case studies, worksheets, and additional resources.

## ***Grant Resource Inventory***

**Orienting Comments.** Collaborations are customarily sought with organizations that share our “values glasses.” We operationally define “collaboration” as mutually beneficial interactions between the University of Hawai’i and others who share a common goal. To develop a successful grant proposal, we must identify the significant and specific contributions to the collaboration from all partners. The examples in each category represent specific, observable behaviors. One can easily determine whether a computer or a technician, for example, has been shared by a collaborator to achieve the project outcomes. Consider the following resources and communication tools used in collaborations.

### **1. Tangibles**

Specialized equipment, instrumentation, facilities, furniture, space, sites, unique specimens or samples, data, databases, software, computers, or other technologies.

### **2. Project Personnel**

Laboratory technicians, graduate students, work study students, statisticians, computer specialists, evaluation consultants, medical specialists, and access to other types of collaborators with special expertise.

**3. Target Populations**

Minorities, handicapped, health disparities, frail elderly, persons with special needs, persons living in poverty, with HIV/AIDS, or homeless. Target populations are not necessarily human and could include animals or laboratory specimens used in basic science research.

**4. Business Office Services**

Printing services, paper and envelopes, meter postage for mailings, loan of a calling card to minimize long distance telephone expenses, use of conference rooms, food, and similar items that facilitate the administration of collaborative grants.

**5. Intellectual Property**

Patents, copyrights, trademarks, novel ideas, unique protocols, methods, approaches, shared materials, or educational opportunities,

**6. Financial Resources**

Either in the form of cash or in-kind services such as volunteers, use of vehicles, value of frequent flyer miles, complimentary lodging, used furniture, or loan of executives or technicians.

**7. International Connections**

**8. Domestic Connections**

**9. Print and Electronic Media to Disseminate Project Progress and Outcomes**

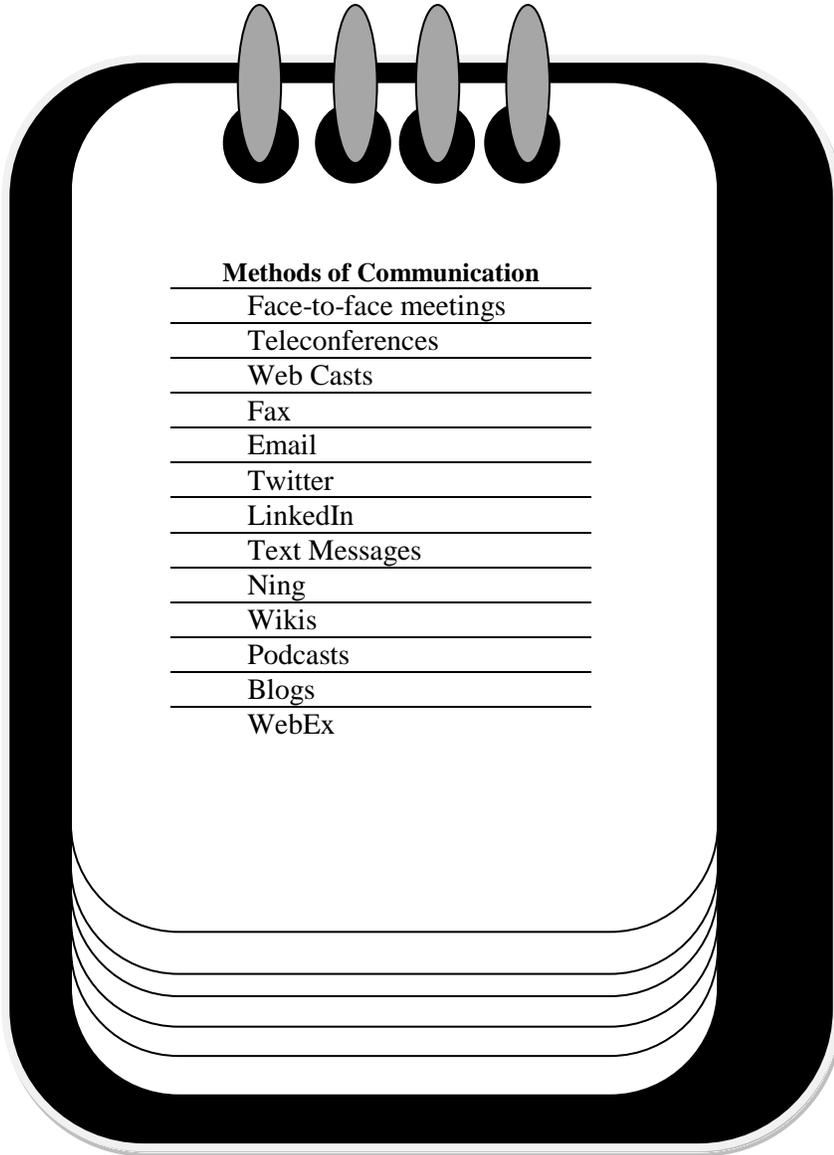
Journal articles, newsletters, pamphlets, press releases, interim working papers, executive summaries, conference papers, and reports pertaining to our project.

**10. Group Communications to Disseminate Project Progress and Outcomes**

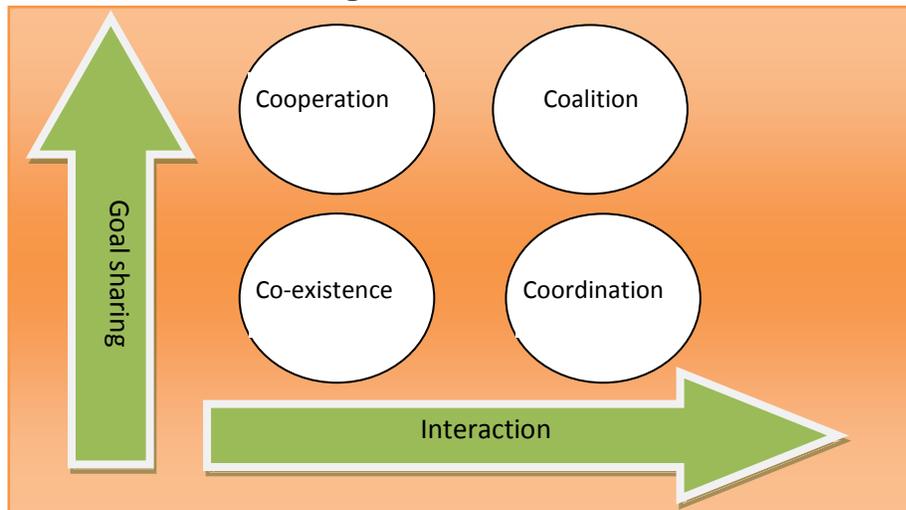
Workshops, colloquia, seminars, meetings, and conference presentations where the opportunity exists to disseminate project information.

**11. Preferred Modes of Communication During Proposal Development**

Obviously frequent communication is essential during the development of successful collaborative proposals. As PI, you will want to communicate with your collaborators on a number of proposal-related topics. Since we have many communication options, you will want to use methods that are within your zone of comfort. Consider the following ways to give or receive grant-related communications.



## Collaboration Strategies



Collaboration is *an interaction between two or more persons or organizations directed toward a common goal that is mutually beneficial*. The key concepts are goal sharing and interaction.

- **Co-Existence Collaboration:** collaborators have a minimum amount of interaction and goal sharing
- **Coordination Collaboration:** collaborators bring the project components together as a result of appropriate interactions to ensure a successful outcome
- **Cooperation Collaboration:** collaborators see their future as linked together and agree upon rules to create stable relationships
- **Coalition Collaboration:** collaborators establish and are dependent upon a high level of goal sharing and interaction during the project period

**Reference:** An extensive discussion of collaborative grantseeking can be found in *Collaborative Grantseeking: A Guide to Designing Projects, Leading Partners, and Persuading Sponsors*, Jeremy T. Miner, Lynn E. Miner and Jerry Griffith, Greenwood Press, 2011.

## ***Key Questions to Answer***

Does your proposal do the following?

- Explain why you chose one methodological approach and not another?
- Describe the major activities for reaching each objective?
- Indicate the key project personnel who will carry out each activity?
- Show the interrelationship among project activities?
- Identify the project data that will be collected for use in evaluation proposal outcomes?
- Link closely with the budget and budget narrative?



## Dissemination

Sponsors want to know how you will disseminate the results of your grant project. Typically, beginning grant writers respond by saying they will publish a paper in a journal and present at a professional society meeting. Although these are essential documentation strategies many more exist. Consider starting out by saying, "Our project uses a strategic mix of active and passive dissemination strategies.", and then pick and choose ones that are appropriate from the following lists.

### ***Active Dissemination Strategies***

1. Commercial Distributors
2. Conferences and Workshops
3. Courses and Seminars
4. Demonstrations
5. Displays/Poster Sessions
6. Instructional Materials
7. Site Visits
8. Teleconferences
9. Web Casts & Chat Rooms Video Conferences
10. Web Sites, Blogs, Podcasts, & Video on Demand
11. Webinars & Instant Messaging

### ***Passive Dissemination Strategies***

1. Books and Manuals
2. CD-ROMs and DVDs
3. Conference Papers
4. Executive summaries
5. Interim Working Papers
6. Journal Articles
7. National Information Sources (See [www.ntis.gov](http://www.ntis.gov))
8. Newsletters and Listservs
9. Pamphlets
10. Press Releases
11. Staff Presentations
12. Text Messaging and Social Media

### ***Key Questions to Answer***

Does your proposal do the following?

- Clearly identify the intended results of the dissemination effort?
- Include a feasible and appropriate plan for dissemination?
- Succinctly describe any products to result from the dissemination effort?
- Demonstrate that you understand dissemination principles and practices?
- Provide sufficient detail to justify your dissemination budget request?
- Include imaginative and practical dissemination?
- Specify precisely who will be responsible for dissemination and why they are capable?
- Discuss internal as well as external project dissemination?
- Evaluate the effectiveness of the dissemination efforts and products?
- Indicate how and when the audiences will get the timely and useful information?

## Evaluation

The semantics of evaluation terminology are not consistent among sponsors. The following table attempts to clarify different evaluation terms.

<i>During the grant period</i>	<i>Conclusion of grant period</i>	<i>Beyond the grant period</i>
Process <ul style="list-style-type: none"> <li>▪ Structure</li> <li>▪ Process</li> </ul>	Outcome <ul style="list-style-type: none"> <li>▪ Outputs</li> <li>▪ Outcomes</li> </ul>	Impact
Formative	Summative	Impact
Immediate Outcomes	Short-term Outcomes	Long-term Outcomes
Initial Outcomes	Intermediate Outcomes	End Outcomes

### ***Choosing an Evaluator***

Evaluations can be done using someone within or outside of your organization. An individual from within your organization conducting an internal evaluation has great intuitive knowledge of your program and is less likely to be seen as an intruder. Evaluation costs are usually less expensive when the evaluations are conducted in-house and the ability to communicate useful information is high. On the other hand, internal evaluations may be biased because of involvement with certain program aspects. Evaluation findings may be ignored, not seen as professional enough, or not be taken seriously. Your internal evaluator should have knowledge of and experience in research design and statistical analysis, data collection tools and techniques, psychometric methodology (if measuring attitudes), research ethics, and pertinent regulatory agency requirements.

Using external evaluators offers considerable objectivity. They often have a fresh perspective and can see things not noticed before. They have high autonomy, freedom, and specialized training. External evaluators usually have high professional and scholarly competence. They can mediate and facilitate activities with staff and management while ensuring public confidence in evaluation results. On the other hand, they may be perceived as a threat by the staff and may require extra time to understand the program rationale. Outside evaluation costs may be high. The findings may be ignored because the evaluator doesn't really know the program and can miss essential. Evaluation energies may distract from program activities.

### ***Process (Formative) Evaluation***

Process evaluations generate information that will improve the effectiveness of the project during the project period. They systematically examine internal and external characteristics associated with the delivery and receipt of services. This may include evaluating structure, the environment and settings in which services occur. Understanding the strengths and weaknesses of the structure of your

organization, the target population and their community environment, and the procedures your organization is using to interact with the community will provide immediate feedback to help you meet project objectives. When writing a process evaluation, you'll need to consider the following types of questions.

- **Your Organization.** Are sufficient numbers of key personnel adequately trained to carry out the project? Do staff members reflect the ethnic, cultural, and linguistic make-up of the community? Are suitable facilities and equipment available? Do current services respond to the needs of the target population and community? What is your relation to other organizations who provide similar types of services?
- **Target Population & Community Environment.** Have individual and community needs been identified through a formal needs assessment or an informal survey of perceived needs? Has the community's knowledge, attitude, and behavior toward the problem been assessed? What is the prevalence and distribution of physical, social, and economic risks in the community? Does the community face any geographic, cultural, or linguistic barriers to overcome the problem? Does the target population have access to additional personal, family, or community resources that will help your project succeed?
- **Organization & Community Interaction.** What types of services are being provided to whom and how often? Who from your organization is collecting what type of evidence to document the quality and quantity of interactions? Is the target population satisfied with services? Are your staff members satisfied with their experiences? What barriers still need to be overcome in order to improve participant satisfaction?

Evaluation indicators are specific characteristics that you will track and measure to gauge project success. Process-level indicators may examine features such as the intensity of the intervention, quality of service provided, and cultural competence of the intervention.

Example: Suppose that you were trying to establish an interdisciplinary collaboration to address gang violence issues. Part of your process evaluation would include the frequency and substance of participation in collaborative meetings. Your data collection plan might include attendance logs and results from a meeting evaluation survey.

Structure-level indicators may assess elements such as who provided the intervention, what type of intervention was used, where the intervention occurred, when and how long the intervention took place, and length of participant involvement.

### ***Outcome (Summative) Evaluation***

Outcome evaluations examine the end result of an intervention. The goal here is to document the extent to which the project did what it was designed to do. Outcomes are the benefits, changes, or effects that occur to the target population due to participation in your project. Outcomes are generally expressed in humanistic terms, e.g., improved health status, increased knowledge of parenting skills,

and decreased youth violence. Some sponsors may also ask you to identify outputs, products generated as a result of program activities, e.g., a curriculum to teach oral health to middle school students, the number of conflict resolution classes taught, the number of volunteers recruited. Keep in mind that “ideal” outcomes can vary with perspective: your organization, the target population, and potential sponsors may value different outcomes. Your project might need to evaluate several types of outcomes simultaneously.

The core of outcome evaluations is measurement: collect data to document the extent to which project objectives were accomplished. Outcome indicators—specific characteristics selected for measurement—must best describe an associated end result.

Example: Suppose your grant project wanted to improve asthma-related quality of life. Your outcome measures could include participants having a written asthma action plan; using anti-inflammatory inhalers, spacers, and peak flow meters; reducing the amount of sleep; exercise; school days lost due to asthma; and reducing the number of hospital admissions and emergency room visits for asthma.

Participants who demonstrate these behaviors are the indicators of the project’s success in achieving this outcome.

Example: a project whose desired outcome is to improve academic mastery of key science concepts by undergraduate students could use indicators such as results from Web-based polls administered during class; midterm and final exam results compared against classes taught in previous years and against course sessions taught in traditional formats by other instructors; performance on standardized exams (e.g., major field tests) compared against other course sections and against national norms; and electronic portfolios that track performance from freshman to senior year.

Four types of outcome indicators exist: economic, workforce, scientific, and social. Some possible metrics for each type are as follows:

**Economic Growth.** Observable, measurable metrics include invention disclosures submitted, patents received, new start-up companies, new jobs created, investment capital raised, payroll taxes paid, new markets assessed, copyrighted materials, new consulting agreements, new hires, investments in technology transfer/commercialization, acquisition of unique facilities and equipment.

**Workforce Growth.** Quantifiable metrics that would measure mobility in the workforce and related employment markers include employment statistics (total and by subgroups), retention rates, unemployment records, job training programs, transitional jobs, minimum wage figures, average placement wages, workforce legislation, job placement programs, wage progression, average family income, job placement costs, and legislative authorizations and appropriations.

**Scientific Growth.** Micro and macro metrics that measure scientific growth include publications, grants, citations, honors and awards, and presentations at scientific meetings. Multiple databases exist to record scientific achievements and verify the accuracy of the results.

**Societal Growth.** Societal growth is measured long-term through health and environmental impacts; often qualitative metrics must be used to address the social impact criterion and include subjective impressions, unsubstantiated opinions, panel reviews, case study projects, and inferential logic. A better quality of life might be approached through increased longevity and reduced healthcare costs. Society benefits from transformative events that create new knowledge or uniquely apply existing knowledge. Societal growth metrics demonstrate that, as a result of the grant, the client's quality of life improved in a meaningful way, albeit health, education, communication, transportation, or other aspects of quality of life.

## ***Impact Evaluation***

Impact evaluations generate information to measure the overall worth and utility of the project beyond the project period. An impact evaluation goes beyond assessing whether goals and objectives were achieved and focuses on the project's larger value—long-term, fundamental changes in participants' knowledge, attitudes, or behaviors. That is, improving outcomes at the program level may impact change over time at the community level. By their nature, many outcomes are delayed, occurring beyond the project period. Impact evaluations attempt to attribute outcomes exclusively to an intervention, although data may be difficult to obtain over the long-term.

Impact can be demonstrated at several levels: the target population, the community at large, and beyond. Lasting changes in the target population demonstrate the project's overall value. Inclusive participation by the community may contribute to long-term project sustainability. Regional and national buy-in for targeted interventions and outcomes can promote large-scale project replication. Consider the following types of questions when writing an impact evaluation:

- **Overall Value.** What enduring changes will occur in participants' knowledge, attitudes, or behaviors as a result of this project? Over the long term, will you be able to demonstrate that the project's impact extended beyond the target population to the entire community, area, or region? Will this project serve as a catalyst for other related community actions, services, and programs?
- **Sustainability.** Will project activities continue beyond the project period? Will you be able to mobilize continued support for the project internally and/or externally? Will your organization institutionalize strategies deemed effective? Will key champions for the project be able to increase levels of community involvement and fiscal support? Will your project influence changes at provider, policy, or system levels?
- **Replicability.** Will key findings be disseminated to local, regional, and national stakeholders so that the project can be replicated? Does the project's design have flexibility to be adapted to other populations or topics? Could your organization serve as a national clearinghouse to educate and

train other communities about implementing your program? Does your project have the potential to serve as a public policy model?

Collectively, conducting process, outcome, and impact evaluations is a strategy to achieve a competitive grantseeking advantage by increasing project accountability. These assessments also provide essential information about the direction that the project should take in the future and if additional public and private funding will be needed. As evaluation data are generated, be sure to disseminate relevant findings to key constituents.

### ***Key Questions to Answer***

Does your proposal do the following?

- Provide a general organizational plan or model for your evaluation?
- Identify the type and purpose of your evaluation and the audiences to be served by its results?
- Demonstrate that an appropriate evaluation procedure is included for every project objective?
- Demonstrate that the scope of the evaluation is appropriate to the project? To what extent is the project practical, relevant, and generalizable?
- Describe the information that will be needed to complete the evaluation, the potential sources for this information, and the instruments that will be used for its collection?
- Define standards that will be used in judging the results of the evaluation?
- Summarize any reports to be provided to the funding source based on the evaluation, and generally describe their content and timing?
- Discuss who will be responsible for the evaluation?
- Establish the credentials of your evaluator, including pertinent prior experience and academic background?
- Describe mechanisms to disseminate the results of your evaluation?



# Budgets

## ***Direct Cost Components***

Direct costs are explicit project expenditures listed as line items in the budget. Direct costs are usually categorized into personnel (people) and non-personnel (things) components. Personnel costs include such items as salaries, wages, fringe benefits, consultant fees, and contractor/subcontractor charges. Non-personnel costs include such items as equipment, supplies, travel, and publication charges. Usually, direct cost figures are easy to pinpoint. For example, grant-funded salaries are calculated as a percentage of the time and effort devoted to the project relative to one's annual salary. Salary calculations follow this mathematical formula.

- Grant Salary = base salary x percent effort x duration

To illustrate, if a key project person had an annual base salary of \$60,000 and was going to spend 25% effort on a grant for one year, the formula says:

- Salary = \$60,000 x 25% x 1 or \$15,000.

If the grant were to be for 18 months, the formula says:

- Salary = (\$60,000 x 25% x 1) + (\$62,400 x 20% x 0.5) or \$21,240

This latest calculation assumes in the last six project months (duration = 0.5), the key project person received a 4% salary increase (base salary = \$62,400) and percent effort reduced slightly (20%).

As another illustration, travel costs can be computed on the basis of reimbursement costs per mile or round trip airfare, as appropriate. UH's current mileage and per diem rates can be found at the [UH eTravel Site](#) on the "Allowable Rates and Memos" page.

Fringe benefits are typically expressed as a percentage of salaries and cover such things as social security, health insurance, dental and vision insurance, retirement, unemployment compensation, and disability insurance. UH estimates the fringe benefit rates and cost sharing fringe benefit rates for each class of employee (faculty, staff, graduate assistant, casual hire, student help, and overload) annually. The current rates are available on the ORS website [here](#).

Consultant costs may be expressed on an hourly, daily, or project basis. Keep in mind that State of Hawai'i procurement laws and UH's rules and regulations will apply. Your department or school's Fiscal Administrator (FA) is available to provide guidance and assistance in this area, as well as to answer questions on the allowability and allocability of program costs.

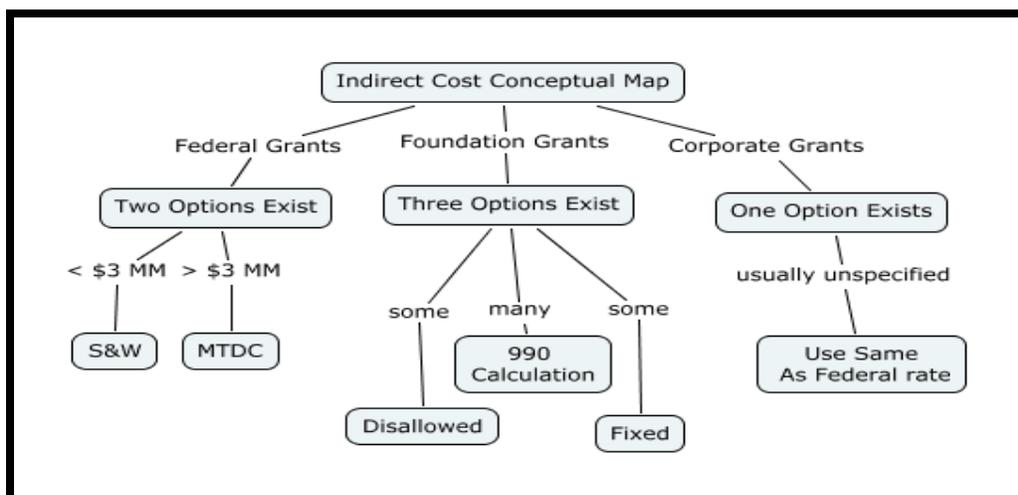
Space and utilities may be reflected either as direct costs or included as a part of your indirect cost rate, which is described next.

## Understanding Facility and Administration (F&A) Costs

Facility and Administration (F&A) costs (also called “Indirect Costs”) are perhaps the most perplexing cost component to include in grant budgets. It is perplexing for grantseekers because (1) it is not always clear what cost components should be included in such calculations, and (2) indirect cost policies vary among sponsors so no single strategy will work in all circumstances. To help clarify matters, we begin this discussion topic with a conceptual map of indirect costs, followed by in-depth discussions.



Figure 1 Conceptual Map of Indirect Costs



Indirect costs represent other project costs not itemized as direct costs. Typically, grant budgets do not list *all* of the costs associated with a project because some costs are hard to pin down, e.g., payroll and accounting, library usage, space and equipment, and general project administration. Costs such as those associated with preparing payrolls or the time your boss spends talking with you about your project are difficult to quantify, but at the same time, are real project costs, e.g., someone has to write your payroll checks. Rather than calculating a strict cost accounting of these nebulous factors, many sponsors allow you to compute them as a percentage of your direct costs and add them to your budget request as indirect cost items.

**Federal Indirect Costs.** Semantically, most federal agencies use the term “facilities and administration costs (F&A)” instead of “indirect costs” to refer to these additional project operating costs. These F&A grant costs are usually calculated on a percentage figure assigned to an institution by the federal government as a result of an indirect cost audit.

ORS has a special section in its office (Cost Studies and Rate Analysis) that compiles and analyzes data on actual UH operating costs and develops reports for UH leadership and the federal government. Based on its analyses, ORS proposes and negotiates F&A rates with the federal government through its “cognizant agency.” The federal cognizant agency for UH is the San Francisco-based Division of Cost Allocation (DCA), an office of the U.S. Department of Health & Human Services.

The following is a list of generally what UH considers F&A costs:

- Centralized and departmental contracts and grants administration;
- Research compliance functions (e.g., protection of human and animal subjects, environmental health and safety, etc.);
- Use of offices, labs, classrooms, conference rooms, and other facilities on the ten UH campuses;
- Related building and grounds maintenance and utilities; and
- Use of campus and departmental libraries.

When the rates are approved, DCA sends signed rate agreements to ORS, which are then posted on the ORS website. These federally approved rates must be used in proposal budgets on all federally funded projects unless the sponsor explicitly limits or prohibits F&A or indirect costs.

Generally, administrative and clerical costs are considered to be F&A costs and should not be budgeted or charged as a direct cost of the project. There are exceptions. Some large projects and major activities require an extensive amount of administrative support beyond the level that departmental administrative staff typically provides. When individuals can be specifically identified with a particular project or activity, it may be appropriate to include the expenses associated with their salaries and benefits in the direct cost section of the proposal budget. This must be well justified in the budget narrative.

Sometimes even if an award is made based on the budget as submitted, those costs could later be deemed unallowable and therefore denied. (Exhibit C of OMB Circular A-21 provides examples of situations in which the federal government acknowledges that direct charging of such costs may be allowable.)

To learn more about F&A rates, visit the Office of Management and Budget Web site [www.whitehouse.gov/omb/grants/attach.html#cost](http://www.whitehouse.gov/omb/grants/attach.html#cost).

**Foundation Indirect Costs.** Foundations often use the term “administrative costs” rather than the term “indirect costs” or “F&A costs” when referring to additional project operating expenses, although the terms are interchangeable. Foundations hold three different policies regarding administrative costs. Some will pay fixed administrative costs on grants and their application guidelines will specify the allowable percentage of total direct costs. Other foundations will say explicitly in their application

materials that they disallow or do not fund administrative costs. The majority of the foundations tend to remain silent on this budget issue.

It is UH policy to recover full F&A costs unless the sponsor explicitly limits or prohibits recovery. However, there are individuals at UH who are authorized to approve reductions or waivers of established rates. This is generally the chancellor of the campus, but for Manoa, it is the Vice Chancellor for Research and Graduate Education. Discuss the situation with your dean or director before you request a reduction or waiver of an approved F&A Rate.

You must provide written documentation of a sponsor's rate restriction when you submit your proposal to ORS. Also, make sure you obtain and submit to ORS written documentation of any approved reductions or waivers from the appropriate UH official.

**Corporate Indirect Costs.** In contrast to governments and foundations, corporations use the term "overhead" to mean the same thing as administrative, indirect, or F&A costs. In most instances, the corporate application materials do not specify a policy regarding the payment of overhead. As business professionals, they are accustomed to the concept of overhead and are apt to have a high overhead rate themselves. Normally, the federally negotiated indirect cost rate can be used for corporate sponsors.

Use F&A rate that best fits your situation. The rates can be found at the ORS website (<http://www.ors.hawaii.edu/index.php/rates>).

## **Cost Sharing**

The costs that your organization will contribute to the total project costs are called "shared costs" or "matching costs." You may contribute partial personnel costs, space, volunteer time, or other costs toward the total project expenses. Your cost sharing may be in the form of a "hard" dollar match or in-kind contributions -- costs not requiring a cash outlay to your organization (although they would represent real dollars if you had to pay for services rendered, e.g., the value of time contributed by volunteers). Use fair market value to calculate in-kind contributions, by determining what it would cost you if you had to buy those volunteered services or goods outright. For example, if you have a volunteer attorney giving you *pro bono* services to evaluate a new rental contract, you would calculate the value of the cost share by using that person's hourly billing rate multiplied by the number of donated hours.

Because expectations about cost sharing vary considerably, check with your program officer to determine their preferences. In fact, pre-proposal contact (see section 1.2) is essential to determine the value that cost sharing carries in evaluating budgets. Many sponsors still look upon cost sharing as evidence that your organization is committed to your proposed project to the extent that you are willing to absorb some of its expenses. Some sponsors will require a minimum amount of cost sharing, as indicated in their proposal guidelines. For instance, most equipment grant proposals to the National Science Foundation require a 50 percent cost sharing effort on the organization's part. On the other

hand, some sponsors do not place a high value on cost sharing, even to the extent of insisting that cost sharing be dropped from the proposed budget as a condition of awarding a grant.

If cost sharing is required, the PI should be conservative and realistic in the effort to satisfy the sponsor's requirements. Only non-federal funds may be used to share costs, such as General, Trust, or Special Funds, and PIs should not commit indirect personnel costs such as those associated with executive offices, maintenance, accounting, or administration. It is a good idea to discuss cost sharing and obtain approval of your dean or director, as applicable for any cost sharing commitment prior to developing a budget.

Keep in mind that shared costs must be:

- Verifiable from university records
- Not included as a contribution on another federally funded project or grant
- Not paid for by another federal award, unless allowed by statute
- Necessary to accomplish the project objectives

Federal grants are governed by regulations which dictate what can and cannot be cost shared. The following are just a few examples of what is allowed or not allowed. ORS has developed several documents that can be found at the ORS website (<http://www.ors.hawaii.edu/index.php/start-up-a-manage/manage-award/cost-sharing/80-apply/134-cost-sharing>)

Examples of the kinds of costs that can generally be cost shared:

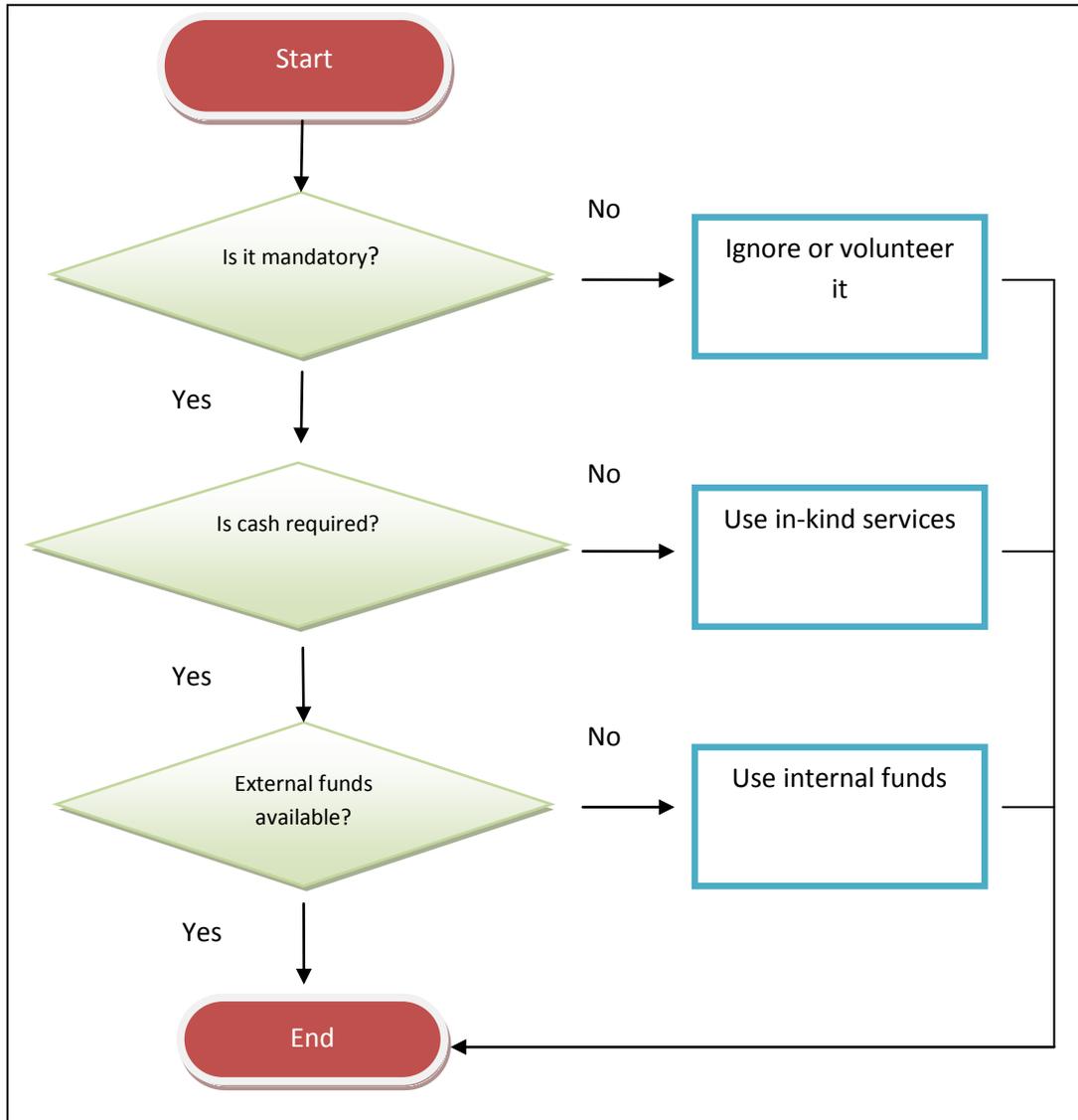
- Salaries and fringe benefits of personnel who perform technical work on the grant (e.g., faculty, researchers, research associates, educational specialists, technicians, postdocs that are paid salaries, and graduate assistants)
- Volunteers, as long as the time spent on the project is documented with timesheets or sign-in logs with start and end times
- The depreciated value of equipment purchased within the project period with non-federal funds to carry out the scope of work; provided it is "special purpose" equipment, such as scientific, medical, and machining equipment
- Costs that can be charged directly to the grants (i.e., laboratory supplies, long distance charges, animals, animal care costs, and travel costs)
- Unrecovered indirect costs, if allowed by the sponsor
- Third party cost share, so long as the cost commitment is summarized in a letter on company letterhead and signed by an authorized signatory

Examples of costs that cannot be cost shared:

- Costs of constructing, acquiring, or renovating space, regardless of the source of funding
- Office supplies, postage, and local telephone costs (these costs are generally considered indirect costs)

- Salaries of maintenance personnel, administrative staff (fiscal officers, personnel officers, secretaries, clerks, administrative assistants), and executive administrators (presidents, chancellors, deans, directors)
- Stipends for post-doctoral fellows or researchers

The following flow chart shows the decision-making pathway that one follows relative to cost sharing. As the following figure shows and is discussed next, you may end up with one of several options.



**Mandatory vs. Voluntary Cost Sharing.** The starting point in the above decision tree is to determine whether cost sharing is mandatory or voluntary. Mandatory cost sharing is often referred to as “matching funds,” and it is required, whereas voluntary cost sharing is optional.

**Mandatory**—As an eligibility requirements of the grant, the sponsor requires you to share a certain percent of the total project costs. For example, “Local organizations are required to

provide a match totaling 75 percent of the requested grant funds.” In this case, if a sponsor provides \$20,000, the required match is \$15,000 toward the total project cost of \$35,000.

**Voluntary**—You offer cost sharing in your proposal as an incentive to get the grant award. For instance, a sponsor may indicate, “Consideration will be given to organizations with in-kind contributions.” When developing proposals for extramural support, the University discourages PIs from making cost sharing commitments unless such commitments are necessary to meet sponsor requirements.

Cost sharing can be inadvertently committed by the way UH resources are described in the proposal narrative. To avoid this pitfall, ORS offers sample proposal language of how best to describe UH resources without committing these resources as shared costs. Samples can be found at:

<http://www.ors.hawaii.edu/files/acceptable%20narrative%20in%20lieu%20of%20cs%205-09.pdf>

**Cash vs. In-Kind Cost Sharing.** The second level in your cost sharing decisions tree is to determine if it may be in the form of a cash match (hard dollars) or an in-kind contribution (soft dollars).

**Cash**—Your organization contributes so-called “hard dollars” toward your proposed project. Perhaps you were planning to purchase some equipment with your regular internal budget. If the equipment will be used directly on the project and is purchased during the project period, the purchase price of the equipment can be allocated toward your project. Ideally, you had already planned to spend the money; now, in a tactical budget building mode, you link those planned expenditures to your proposal.

**In-kind**—These “soft dollars” do not require a cash outlay by your organization, yet represent real dollars you would have to pay if the costs were not absorbed elsewhere. Personnel effort is perhaps the most common form of cost sharing, since it can include salaries, fringe benefits, and associated indirect costs. To illustrate, Ms. Ida Know, Project Director, may allocate 50 percent of her time (salary and fringe benefits) to a project grant, yet request sponsor funding for only 10 percent effort. The remaining 40 percent of her salary and fringe benefits could be cost shared. As a further example, you can also cost share indirect costs. So, if your organization has a 26 percent indirect cost rate and your sponsor only allows a maximum reimbursement of 20 percent on direct costs, you can show the 6 percent difference as cost sharing.

**Internal vs. External Cost Sharing.** Your final level on the cost sharing decision-making tree is the source of the funding. Assuming you’ve decided to cost share on your proposed budget, the funds may come either from internal or external sources -- or both.

**Internally**—You may allocate a portion of your direct or indirect costs to your proposed project. These shared costs may take on the form of cash or in-kind contributions. Consider this internal cost sharing example: assume you decide to cost share 20 percent of the project director’s salary towards your proposed project. This means that instead of your project director receiving

100 percent of her salary from your agency personnel budget, she will now receive 80 percent from that source and the remaining 20 percent from the cost sharing account on the grant. You merely reallocate a portion of her salary and her income remains the same.

**Externally**—You may allocate extramural dollars from third party sources to the project, as indicated in the following three examples.

- You have a matching grant from another sponsor.
- A wealthy philanthropist has given you unrestricted dollars that can be earmarked to this project.
- Revenue is generated from a fundraising activity, e.g., an alumni golf tournament directed to this project.

In each case, you can redirect dollars from those sources to help support the total costs of your proposed project, thereby showing your sponsor you are financially committed to supporting your proposal.

Keep in mind it is the responsibility of the PI to obtain a written letter on company letterhead from the person authorized to bind the third party. The letter should explicitly state the dollar amount of a cash commitment. If the item in question represents a large part of your cost sharing commitment or is based on estimates (e.g., appraised value), you should obtain copies of the documentation supporting the valuation (e.g., purchase documents, appraisals, volunteer hours, or related values) and retain of the documentation in the project file.

**Cost Sharing Example.** If your sponsor requires or strongly encourages cost sharing, then you need to discuss this with your dean or director. Your dean or director will help you to determine whether cost sharing is an option and where the cost sharing dollars can be found. Cost sharing is often done through a portion of salary, fringe benefits, and indirect costs. For instance, assume that a project director will spend 20 percent of her time on the project, but is only requesting the sponsor to fund 10 percent of that effort. The other 10 percent of the project director's salary can be shown as cost sharing. In addition to the cost sharing on salary dollars, additional cost sharing can be shown on the fringe benefits and indirect costs associated with the salary dollars, as the following exhibit shows.

Item	Amount Requested	Cost Sharing	Total Amount
Project Director (\$30,000/yr x 1 yr z 20% effort)	\$3,000	\$3000	\$6,000
Fringe benefits (28% of salary)	\$840	\$840	\$1,680
Indirect Costs (30% of salary)	\$900	\$900	\$1,800
Total \$	\$4,740	\$4,740	\$9,480

This exhibit shows how one budget could be put together, but one size does not fit all. There are many variations in assembling meaningful grant budgets. Looking at past winning proposals and talking with

your program officer will help clarify expectations. The following websites will suggest other budget models that may be adapted to your situation.

- A university-based sample budget page  
[http://www.indstate.edu/osp/Grant%20Proposal%20Process/Budget%20Development/Budget\\_Development.htm](http://www.indstate.edu/osp/Grant%20Proposal%20Process/Budget%20Development/Budget_Development.htm)
- Grants.gov sample SF 424 R&R (research & Related) forms  
<http://apply.grants.gov/apply/FormsMenu>
- National Endowment for the Humanities sample budget form  
<http://www.neh.gov/grants/manage/organizations>
- National Institutes of Health sample modular budget forms  
<http://grants2.nih.gov/grants/funding/424>
- U.S. Department of Education sample budget narrative  
[http://www.ed.gov/admins/grants/apply/techassist/resource\\_pg8.html](http://www.ed.gov/admins/grants/apply/techassist/resource_pg8.html)

To look for other budget models, use the phrase “grant budget forms” in your favorite internet search engine.

Public and private sponsors vary within and among themselves regarding the cost categories they use on budgets. Some require more detail than others. Occasionally, a sponsor may request a list of other sponsored support.

### ***Budget Narrative Template***

Here is a very detailed budget narrative that was used in a proposal to create a virtual care pediatric intensive care unit. Only identifiers have been changed. The proposal was eventually funded. Your proposal may not require the level of detail that this one did, but you can use this template as a starting point. The main purpose of the budget narrative is to let the reviewers know how you arrived at each cost element and why each element is needed to successfully carry out the proposal.

## **Budget Narrative**

### ***VPS Data Collection Center***

Virtual PICU LLC (VPS) proposes a five-year project budget totaling \$4,239,565 over the project period, distributed as follows.

<b>Year</b>	<b>Dates</b>	<b>Amount</b>
1	Apr 1, 2005 – Sep 30, 2005	\$337,374
2	Oct 1, 2005 – Sep 30, 2006	\$910,936
3	Oct 1, 2006 – Sep 30, 2007	\$991,523
4	Oct 1, 2007 – Sep 30, 2008	\$999,735
5	Oct 1, 2008 – Sep 30, 2009	\$999,997
<b>Total</b>		<b>\$4,239,565</b>

The requested funds will support the VPS Data Collection Center, one component of the Collaborative Pediatric Critical Care Research Network. While these funds represent the VPS' most precise and experienced-based calculations, this budget has the prudent flexibility and existing VPS resources to expand or contract to meet the needs of the Network, assuming adjustments in funding.

As the budget details are presented below, note that the initial funding cycle is for six months only. Requested salaries and fringe benefits are adjusted to reflect the duration of each funding period for all five years. Further, FTEs cited below refer to the full time effort expended for each project year (initially six months, then 12 months). To illustrate, assume a key project person has an annualized salary of \$100,000 and spent 75% FTE on the grant for Year One (a six month period). Then the requested salary would be  $\$100K * 0.75FTE * 0.5$  (one-half year) or \$37,500 in salary, plus applicable fringe benefits. Put differently, requested salaries are the product of three variables: (1) annual base salary, (2) duration, and (3) percent effort.

## I. Personnel

**A. Project Administrative Staff-** Eight staff positions represent the Project Administrative Leadership Team and are included in the Project Administration section of the budget. The Principal Investigator and the Administrative Staff are critical to the success of this endeavor as they collectively represent a commitment to project leadership that is shared among nationally known pediatric intensivists, a biostatistician, an epidemiologist, an administrator of a pediatric critical care database and senior program personnel. This unique combination of expertise will assure a focused outcome of facilitating pediatric critical care research. Percent FTE Totals: Yr 1 = 180%; Yr 2 = 305%; Yr 3 = 372%; Yr 4 = 352%; and Yr 5 = 340%

**Principal Investigator - Evelyn M. Alpha, PhD,** will serve as the PI, devoting a total of 75% FTE (6 months in year one) to this effort throughout the five project years. Dr. Alpha is a senior biostatistician with the National Outcomes Center, presently working on VPS related projects. As PI, she is directly responsible for the development, implementation, monitoring and day-to-day supervision of the project. She will ensure that all project research protocols receive the necessary design and infrastructure support for project success. She will also serve as the primary liaison between the project and NICHD, the Clinical Centers, and the National Steering committee. Her Year 1 grant base salary is \$59,507, resulting in a Year One request of salary and fringe benefits of \$29,902; a 3% increase is projected in subsequent project years. (This same COLA increase is used for all project personnel.) Five Year Percent FTE: 75%--75%--75%--75%.

**Senior Pediatric Research Mentor - Ramesh Bravo, MD, PhD, JD, MBA** is Executive Vice President of the National Outcomes Center and a Vice President for Research in VPS. He is a pediatric critical care physician and has a doctorate in epidemiology, focusing on health policy/management and biometry, emphasizing study design, health economics, decision analysis and statistical modeling. Dr. Bravo will support the protocol design and analysis to help ensure that the resulting research studies are high

quality, culturally sensitive, and statistically valid. With a grant base salary of \$175,700, a Year One budget of \$9,418 is requested. Five Year Percent FTE: 8%--10%--8%--8%--10%.

**Senior Pediatric Research Specialist - Tom B Charlie, MD.** is Medical Director of Critical Care and Lung Transplants at Children's Hospital of Wisconsin, Chief of Pediatrics (Critical Care) at the Medical college of Wisconsin, and a principal in VPS. His specialties and board certifications are in pediatrics and pediatric critical care medicine. His project role will be to help support the protocol design and analysis to ensure valid and reliable pediatric critical care research is being conducted. With a grant base salary of \$175,700, a Year One budget of \$9,418 is requested. Five Year Percent FTE: 8%--10%--8%--8%--10%.

**Senior Pediatric Research Specialist - Randall C Delta, MB, BS, FCCM, FAAP** is Chair of Anesthesiology Critical Care Medicine, the Anne O'M. Wilson Professor of Critical Care Medicine, Professor of Pediatrics and Anesthesiology at the Keck School of Medicine at the University of Southern California, Director of the Laura P. and Leland K. Whittier Virtual Pediatric Intensive Care Unit, and Chairman of the Board at VPS. As a specialist in critical care medicine, he will focus his project efforts on protocol design and analysis to ensure the clinical utility of approved research projects. With a grant base salary of \$175,700, a Year One budget of \$9,347 is requested. Five Year Percent FTE: 8%--10%--8%--8%--10%.

**Senior Management Specialist - Mary Epilson, MBA, MPH** is Vice President of the National Association of Children's Hospitals and Related Institutions (NACHRI) and Managing Director of VPS. Her NACHRI responsibilities include Management Information Services, Education, Members Services, and Information Technology. Her knowledge of and relationships with children's hospitals provide a valuable resource when analyzing data. Her role in this project is to serve as a senior administrative management advisor. With a grant base salary of \$175,700, a Year One budget of \$8,673 is requested. Five Year Percent FTE: 8%--10%--8%--8%--10%.

**Program Coordinator - Lesley Frank, MPA (Master's of Public and International Affairs)** is currently the Associate Director for Applications Development in the Management Information Services Department at NACHRI. Ms. Frank has a decade of experience in data coordination, collection, and review and has significant skills in programming, database management and report generation. For the past six years, she has been the lead developer responsible for technical oversight for NACHRI's data collection system. During the last two years, she has managed the VPS critical care data collection system, including its development and operations. Her VPS project role is to provide overall program coordination for protocol development and programming; technical support; data management, analysis, and reporting; and general logistics, including meetings, participant communications, and publication support. With a grant base salary of \$82,845, a Year One budget of \$10,223 is requested. Five Year Percent FTE: 20%--30%--50%--40%--40%.

**Project Facilitator - Lynne George, MS (Nursing Administration), BS (Nursing)**, is presently the Field Director of FOCUS Group Initiatives, at NACHRI. She has extensive experience in hospital-based pediatric patient care services, including reengineering and redesign efforts to successfully open the "new children's hospital" Her research efforts for NACHRI focus on nurse retention. Her VPS role will be to serve as project coordinator, ensuring administrative efficiency; improve support systems, records

management, and control of confidential records; provide senior project personnel with crucial information for resource planning and reallocation; and facilitate problem-solving. With a grant base salary of \$94,760, a Year One budget of \$29,233 is requested. Five Year Percent FTE: 50%--50%--100%--100%--75%.

**Project Facilitator - Patrick Harry, PhD.** is presently the Director of the Leadership Fellowship Program and the Director of Professionalism and the Practice of Medicine Course at the USC Keck School of Medicine. His role will be to use his leadership development skills to facilitate team building, interpersonal communications, and professional development for members of the National Steering Committee. With a grant base salary of \$50,000, the initial Year Two budget of \$66,000 is requested. Five Year Percent FTE: 0%--100%--100%--100%--100%.

**Administrative Coordinator - Lisa Icycle** currently serves as the Executive Assistant for the National Outcomes Center at Children's Hospital of Wisconsin. Her overall project responsibility is to provide administrative support and coordination for the project administrative staff. More precisely, she will help maintain accurate documentation of administrative records, ensuring consistently high results; effectively control paperwork; establish effective information retrieval systems; make appropriate use of formal and informal communication systems; accurately estimate costs; maintain effective cost controls; and ensure that deadlines are met. With a grant base salary of \$45,747, a Year One budget of \$1,533 is requested. Five Year Percent FTE: 5%--10%--15%--5%--10%.

**B. Project Training Coordinators.** Three staff positions representing 60% FTE in Years One and Five with 100% FTE in Years Two through Four are included in the Project Training section of the budget. The Data Quality coordinator and training staff provide crucial support to ensure the integrity of the data capture: its accuracy, reliability, and security.

**Data Quality Coordinator - Maureen Jones, MS, RD** presently works as an Outcomes Specialist at the National Outcomes Center. Her VPS project role is to monitor data quality, ensuring that it is captured in a timely manner, missing data elements are secured, interrater reliability is repeatedly achieved at high levels, needs for new data fields are clearly defined, and data confidentiality is preserved. Additionally, she will maintain operational definitions for the VPS multi-institutional database. With a grant base salary of \$55,399, a Year One budget of \$3,712 is requested. Five Year Percent FTE: 15%--20%--35%--35%--20%.

**Training Coordinator - Krista Kangaroo, RN** presently works as an Outcomes Specialist at the National Outcomes Center. Her VPS role is to work in close cooperation with the six Clinical Centers to provide training and follow-up support relative to data collection, entry, and scrubbing while consistently ensuring compliance with IRB and HIPAA requirements. With a grant base salary of \$55,349, a Year One budget of \$1,854 is requested. Five Year Percent FTE: 5%--10%--30%--30%--20%.

**Training Coordinator - Christine Fitz-Leopard, MSN** presently works as an Outcomes Specialist at the National Outcomes Center. Her VPS role is to work in close cooperation with the six Clinical Centers to provide training and follow-up support relative to data collection and entry, while consistently insuring

compliance with IRB and HIPAA requirements. With a grant base salary of \$57,953, a Year One budget of \$5,824 is requested. Five Year Percent FTE: 15%--30%--35%--35%--20%.

**C. Project Data Managers.** Five staff positions representing 50% FTE in Year One and expanding to 250% in Years Two through Four and concluding with 300% in Year Five are included in the Project Data Management section of the budget. The Data Managers provide essential VPS infrastructure support to maintain the data captured by insuring its electronic integrity, proper back up properly, and searched quickly and efficiently to serve the multiple needs for data reports.

**Data Technology Coordinator - Sam Mouse, BS** holds a bachelor's degree in Information Sciences and Management and is experienced in software development, business statistics, simulation, optimal solution modeling and data management. Currently, he serves as an Associate for Information Programs in the Management Information Services Department at NACHRI. His VPS project role concentrates on data coordination, technical development, and participant operations support. With a grant base salary of \$46,062, a Year One budget of \$11,368 is requested. Five Year Percent FTE: 40%--50%--50%--50%--60%.

**Data Technology Coordinator - Essie Blankson-Nickel, MSW, MPH** currently serves as Assistant Director, MIS and FOCUS Group Initiatives for NACHRI. She is actively involved in a multi-institutional research project to study understanding, communication and satisfaction with Rounding Goals and its possible effect on factors such as length of stay, discharge time and mechanical ventilation. Her VPS project role concentrates on data coordination, technical development, and participant operations support. With a grant base salary of \$53,000, a Year One budget of \$8,175 is requested. Five Year Percent FTE: 25%--50%--50%--50%--60%.

**Data Management Coordinator - Marilouise Owl, RHIA** (Registered Health Information Administrator) presently works as a Senior Outcomes Informatics Analyst at the National Outcomes Center. Her VPS project role is to provide data management support in such areas as ensuring quality, consistency, currency, completeness, and correctness of all reported data. With a grant base salary of \$66,651, a Year One budget of \$4,466 is requested. Five Year Percent FTE: 10%--50%--50%--50%--60%.

**Data Communications Coordinator - Casey Pickle, BBA** presently works as an Outcomes Data Analyst at the National Outcomes Center. His VPS project role is to provide data management support in such areas as data management, data system support, writing queries to retrieve data, and data system support. He will devote approximately 50% FTE throughout most of the project period. Five Year Percent FTE: 5%--50%--50%--50%--60%.

**Assistant Data Management Coordinator, Lisa Quinkleberry, RHIT.** Ms. Quinkleberry presently works as an Outcomes Specialist at the National Outcomes Center. Her VPS project role is to provide data management support, receive and follow-up on requests for queries, cross-check data quality, and monitor interrater reliability. With a grant base salary of \$38,480, a Year One budget of \$2,578 is requested. Five Year Percent FTE: 10%--50%--50%--50%--60%.

**D. Logistical Support Coordinators.** Two staff positions representing 20% FTE initially and expanding to 50% over the course of the grant are included in the Project Logistical Support Coordinators section of the budget. The Logistical Support Coordinators provide essential VPS tactical services to ensure project continuity and administrative crispness. In general terms, they provide indispensable meeting and records support.

**Planning Coordinator - Patricia Robin, BS** currently serves as Director of Education and Member Services for NACHRI with a background in speech communications and two decades of experience in adult education programming, her VPS project role is to provide oversight for meeting planning and education. With a grant base salary of \$91,670, a Year One budget of \$5,656 is requested. Five Year Percent FTE: 10%--15%--25%--25%--25%.

**Logistics Coordinator - Bea Sousa, MPA** (Master’s of Public Administration) currently serves as an Assistant Director of Education for NACHRI. As a Certified Meeting Professional (CMP), she will provide such essential VPS services as site selection, meeting minutes, contract negotiation, housing, registration, and contracting vendors for outside services. With a grant base salary of \$66,752, a Year One budget of \$4,119 is requested. Five Year Percent FTE: 10%--15%--25%--25%--25%.

**II. Fringe Benefits**

Since VPS is a new organization, it does not have an established fringe benefit rate. For the purposes of this project, fringe benefits are calculated based on the actual rates project personnel are currently receiving.

- National Outcomes Center at Children’s Hospital and Health System in Memphis: fringe benefit rate is 34%
- National Association of Children’s Hospitals and Related Institutions (NACHRI): fringe benefit rate is 23.4%
- The Virtual PICU at Children’s Hospital of Los Angeles (CHLA): fringe benefit rate is 32%

Accordingly, Year One fringes are as follows:

Person	Year One Requested Salary Support	Fringe Benefit Rate	Year One Requested Fringe Amount
Dr. Alpha, Principal Investigator	\$22,315	34.0%	\$7,587
Dr. Bravo, Senior Pediatric Advisor	\$7,028	34.0%	\$2,390
Dr. Charlie, Senior Pediatric Advisor	\$7,028	34.0%	\$2,390
Dr. Delta, Senior Pediatric Advisor,	\$7,028	32.0%	\$2,249
Ms. Epsilon, Senior Management Advisor	\$7,028	23.4%	\$1,645
Ms. Frank, Program Coordinator	\$8,285	23.4%	\$1,939
Ms. George, Project Coordinator	\$23,690	23.4%	\$5,543

Ms. Icycle, Administrative Coordinator	\$1,144	34.0%	\$389
Ms. Jones, Data Quality Coordinator	\$2,770	34.0%	\$942
Ms. Kangaroo, Training Coordinator	\$1,384	34.0%	\$471
Ms. Fitz-Leopard, Training Coordinator	\$4,346	34.0%	\$1,478
Mr. Mouse, Data Technology Coordinator	\$9,212	23.4%	\$2,156
Ms. Blankson-Nickel, Data Technology Coordinator	\$6,625	23.4%	\$1,550
Ms. Owl, Data Management Coordinator	\$3,333	34.0%	\$1,133
Ms. Quinkleberry, Assistant Data Management Coordinator	\$1,924	34.0%	\$654
Mr. Pickle, Data Communications Coordinator	\$915	34.0%	\$311
Ms. Robin, Planning Coordinator	\$4,584	23.4%	\$1,073
Ms. Sousa, Logistics Coordinator	\$3,338	23.4%	\$781
<b>Total Requested Fringe Benefits for Year One</b>			<b>\$34,679</b>

Similar fringe benefit calculations were made for subsequent years that also reflected increases in FTE. Accordingly, the resulting **fringe benefit calculations** were as follows:

<b>Year</b>	<b>VPS</b>
2007: Year Two	\$127,362
2008: Year Three	\$164,881
2009: Year Four	\$166,789
2010: Year Five	\$182,403

### **III. Consultant Costs**

In Year Two, \$5,000 for technical support and consultation regarding advice on statistical approaches for handling specialized designs and analyses, e.g., development of a complex randomization scheme for a clinical trial involving treatment subgroups. Selection of the most appropriate statistical consultant will depend on the studies being conducted.

### **IV. Equipment**

Office Furniture and Equipment

- **Year One:** \$50,000: a dedicated SQL server (\$15-20K), backup system (\$10K), internet access (connection and router: \$8K) that has the capacity to handle data base growth and management for the duration of the project. LCD projector (\$3K) to support presentations at multiple committee meetings, site visits, and a color printer (\$6K) maintenance contract.
- **Year Two:** \$40,000: software packages (\$5-10K), advanced statistical packages, project management software, laptops (5@\$4-5K) for DCC staff to support on-site visits, another LCD

(\$3K) to support presentations when multiple protocols are running concurrently, maintenance contracts.

- **Year Three:** \$10,000: Laptop (\$4K), printer (\$2K), maintenance contract
- **Year Four:** \$10,000: laptop replacement, server memory/capacity expansions (\$8-10K), CD replicator(\$1.5K)
- **Year Five:** \$5,000: laptop replacement, server memory/capacity expansions (\$8-10K), CD replicator(\$1.5K)

**V. Supplies (itemized by category)**

Item	Year One	Year Two	Year Three	Year Four	Year Five
Printing/Copies	\$3,600	\$7,200	\$9,600	\$9,600	\$12,000
Postage	\$2,400	\$4,800	\$6,000	\$6,000	\$7,200
Office Supplies	\$7,400	\$3,600	\$4,800	\$4,800	\$3,600
<b>Totals</b>	<b>\$13,400</b>	<b>\$15,600</b>	<b>\$20,400</b>	<b>\$20,400</b>	<b>\$22,800</b>

Printing of reports for multiple audiences— NIH, steering committees, meeting materials, publication preparation and support. Projected 36,000 pages year one.

Office supplies—printer consumable, CD’s , markers/flipcharts for many, many meetings, PDA’s to support to support site visits, general office supplies, including consumable paper, pens, and pencils, averaging to \$320 per key project person per year, based on prior comparable VPS records.

**VI. Travel**

Item	Year One	Year Two	Year Three	Year Four	Year Five
National Steering Committee	\$33,450	\$22,300	\$22,300	\$22,300	\$36,000
Advisory Board	\$8,000	\$0	\$0	\$0	\$0
DCC Other	\$6,400	\$11,200	\$16,000	\$16,800	\$11,200
<b>Totals</b>	<b>\$47,850</b>	<b>\$33,500</b>	<b>\$38,300</b>	<b>\$39,100</b>	<b>\$47,200</b>

**Year One Travel Assumptions:** Six Steering Committee Meetings with 17-20 people (1 VPS, 6 CC PIs, 1 NICHD Project Scientist, 3 CC RNs, 1 NSC chair, 2 additional VPS staff, and other NIH staff). Cost per meeting is \$5,575, including travel for DCC staff, hotel, meeting rooms, and meals. One Advisory Board Meeting involving 11-14 people (2 VPS, 3 NIH, 6 CCs) at \$8,000 including travel for VPS staff and Clinical Centers and hotel meeting space and meals. Other DCC Travel includes eight individual trips to CCs and NIH at \$1,800/trip.

In **Year Two**, travel assumptions include four steering committee meetings (\$5575@) and six individual VPS trips (\$1800 @). In **Years Three and Four**, travel assumptions include four steering committee

meetings (\$5,575@) and 16 VPS trips (\$1,050 @). In **Year Five**, travel assumptions are six steering trips (\$6,000@) and 11 individual VPS trips (\$1,000@).

**VI. Alterations and Renovation.**

None.

**VII. Other Expenses (Itemize by Category)**

VPS other project expenses fall into two categories. First, certain telecommunications and computer technology costs will be incurred. Second, since VPS, as a new organization has not had time to establish a federally negotiated Facilities and Administrative Cost Rate (F&A), and recognizing that those costs are real, partial recovery is requested as direct costs for space and utilities usage.

Item	Year One	Year Two	Year Three	Year Four	Year Five
Conference Calls/Telephone	\$11,400	\$41,500	\$48,100	\$48,100	\$37,200
Computer/Web/Internet Usage/eRoom 7	\$48,000	\$99,000	\$93,000	\$93,000	\$75,000
Facilities	\$10,000	\$48,000	\$45,600	\$45,000	\$41,400
Training Conferences	\$0	\$10,000	\$10,000	\$10,000	\$10,000
<b>Totals</b>	<b>\$69,400</b>	<b>\$198,500</b>	<b>\$196,700</b>	<b>\$196,700</b>	<b>\$163,600</b>

**Conference Call Assumptions:** *Year One:* 21 calls at \$500/call, including 12 steering committees, 3 protocol committee, three site implementation, 3 site monitoring, and other telephone calls at \$1000/mo. *Year Two:* 47 calls at \$500, including eight steering committee, 2 advisory board, four protocol committee, nine site implementation, 12 site monitoring and 12 VPS, plus others at \$1,500/mo. *Years Three and Four:* 53 calls at \$600 each including 8 steering committee, 2 advisory board, four protocol committee, 9 site implementation, 18 site monitoring and 132 VPS, plus additional calls at \$2,000/mo. *Year Five* includes 32 calls at \$700 each with 6 steering committee, three advisory board, 9 site monitoring 2 project wrap up, 12 VPS plus other calls at \$1,800/mo.

**Computer Technology Assumptions.** The eRoom 7 electronic conferencing costs include a one-time \$625/seat with 20 participants cost, plus 18% annual maintenance (\$2,250) and an initial personnel training cost of \$5,000. Beyond eRoom 7, the additional Web, Internet Usage costs are based on actual figures that VPS currently encounters.

**Facilities Assumptions.** As a new organization, VPS does not have a negotiated Facilities and Administration (F&A) cost rate. Accordingly, partial facility costs are requested as a direct cost item, amounting to less than \$2,500 per key project person per year.

**VIII. Contractual**

**Pharmaceutical.** While the nature of the 13 approved protocols presently remains unknown, it is likely that at least two will involve randomized clinical trials (RCTs). For budget forecasting purposes, it is

estimated that \$150,000 over five years is needed to cover RCT protocols, including placebo medication. See the Fisher letter of commitment in Attachment Five.

## ***Key Questions to Answer***

Does your proposal do the following?

- Follow all pertinent guidelines governing your project's budget?
- Provide sufficient resources to carry out your project?
- Include a budget narrative that justifies major budget categories?
- Present the budget in the format desired by the sponsor?
- Show sufficient detail so reviewers know how all budget items were calculated?
- Separate direct costs from indirect costs and describe their components?
- Relate budget items to project objectives?
- Specify the type and amount of any cost sharing?
- Include any attachments or special appendices to justify unusual requests?
- Identify evaluation and dissemination costs?



## Sustainability Plan

No sponsor likes to think that their grant will only fund a project for a short time. While some grants are awarded to address a specific question or conduct research trials on a one-time basis, others are broader in scope and carry an expectation that projects/programs begun with extramural funds will continue after the original award is expended. Before investing in your project, your sponsor will want to know your plans for carrying the project into the future, with or without this particular sponsor's help.

You should think of the sustainability part of your grant (or the future funding plan) as the sequel to the story you told throughout your proposal. Make sure that your future funding section provides a solid and specific blueprint of how you intend to continue operating its programs and continuing to serve its clients and community. (Taken in part from Cheryl A. Clarke, author of the very useful, *Storytelling for Grantseekers* Second Edition, Jossey-Bass, 2009)

Online Resources:

[How to Write the Sustainability Section of Your Proposal](#)

[Strategies for Sustainability of Grant-funded Programs](#)

[The Foundation Center – What is Sustainability?](#)

[Writing Your Sustainability Plan \(Sample Provided\)](#)

Proposal reviewers are not looking for 100 percent proof positive that you can provide future project funding. Rather, they want specific evidence that you have a tentative plan. Such a plan also shows that you have an extensive project network of support, thereby enhancing your credibility. Some types of research grants may not need extensive funding beyond the grant. Nevertheless, this proposal section may be used to lay the groundwork for future support requests.

### ***Structural Sustainability***

Structural sustainability borrows the notion from engineering that projects should be rooted in permanence. When applied to grant projects, this means that infrastructure, systems, and procedures must be in place in order for services to be delivered and received in a particular setting. In some instances, you will already have these elements in place, such as access to the target population, service sites in the community, a means for communicating regularly with stakeholders, institutional policies to guide training in research conduct, an established database, validated survey instruments, processes for

collecting data, a ready supply of volunteers, and laboratory equipment. In other cases, you will need to develop, enhance, or acquire these elements so that the project can be implemented as planned. Regardless of whether the elements came into existence before or during the project period, structural sustainability means describing the extent to which they will exist beyond the conclusion of the grant.

To get more “bang for their buck,” many public and private sponsors strongly encourage (if not outright require) collaboration in grant applications. Collaboration is one way to increase the odds that the project will continue in some form even after the grant ends. Sponsors hope that partners will be so invested in the project that they will continue to commit resources to keep it going. To earn the grant award, collaborators may have made changes internal to their respective organizations so that personnel time, physical space, and financial resources could be pledged toward the project. When these elements can be continued into the foreseeable future, you have a commitment to structural sustainability. An example of grant structural sustainability language follows and calls attention to an established history of collaboration in the community.

While many community-based organizations have high personnel turnover, our project is rooted in an organizational structure that offers long-term stability and sustainability. Accordingly, this project has the potential for substantially change systems for health care beyond the project period. With initial government grant support, we have sustained an effective environmental lead prevention coalition. We anticipate that your generous support will have a similar impact on health care systems in our community.

## ***Social Sustainability***

Social sustainability focuses on people, examining the humanistic benefits that will continue to accrue beyond the end of the project period. Benefits may extend to direct and indirect audiences and vary by type of grant (e.g., research, service delivery, training). For instance, longer-term benefits experienced by a direct audience of scholarship/fellowship winners may include acceptance into highly competitive graduate schools and career placements. International travel grantees may increase appreciation for other cultures and for their place as global citizens. Families in sub-Saharan Africa may gain long-lasting insecticide treated nets for malaria prevention as part of a service delivery project.

Grants may produce enduring advantages not only for direct project participants but also for secondary, indirect audiences. For example, a conference grant may directly increase awareness among nurses of evidence-based practices for early detection and prevention of perinatal depression, which ultimately improves a child’s development and the mother-infant relationship. A research grant may lead to synthesizing a new compound that improves the efficacy of medications for cancer patients who have developed a drug resistance. A capacity building grant may train an organization’s staff in marketing and communications, which in turn raises community responsiveness to incidents of cyberbullying among adolescents. The following example of social sustainability highlights the benefits that a training program will have on the primary audience (teachers) and a secondary audience (students). This strategy allows you to show a greater human impact over a longer period of time.

This training program will have a multiplier effect that will continue to touch the lives of participants well beyond the yearlong grant period. Specifically, during the summer, 25 teachers will be immersed in an “Academic Boot Camp” to enhance their content and pedagogy skills. During the next school year, each teacher will apply these new skills in their respective classes, reaching about 20 students each. Over the next five years, this translates to 2,500 students who will benefit from enriched learning experiences.

## ***Technological Sustainability***

For some grant projects it may be necessary to purchase technology to implement and monitor proposed activities. Technological sustainability describes the extent to which technology—such as equipment, instrumentation, smart TVs, laptops, tablets, software, databases, and apps—will continue to be used, maintained, repaired, and replaced after the grant ends. Imaginably, once a behavioral database has been purchased, it will become the institution’s principal management tool for administrators and officers to use for collecting and reporting data on stalking, threats, sexual harassment, sexual assault, and physical violence. To further strengthen students’ research and writing skills, perhaps use of laptops will be expanded to additional sections of 6th grade English as well as to all sections of 7th grade English. Perhaps plans are in place for the confocal laser scanning microscope to be used in the future by other researchers in the chemistry department, as well as disciplinary colleagues in biology, geology, and materials science, and with opportunities for inter-institutional collaboration with scientific counterparts at nearby universities.

Beyond continued technology use, sustainability includes a description of plans for maintenance, repair, and replacement. Devices may come with standard warranties that will still be in effect at the conclusion of the project period. Manufacturer extended warranties may be purchased (with grant funds!) to expand and lengthen protection coverage. Existing IT staff may have the technological know-how to service common device issues. Scheduled and unscheduled maintenance costs may be subsumed into departmental operational budgets. User fees may be reinvested to support direct repairs. One proposal to a private sponsor included the following language about technological sustainability, which reflects an institutionalization of database use.

In this information age, it is counterintuitive to dedicate staff time to chasing down students via email and cellphone to collect health information when students will voluntarily input it on their own, if given a secure portal. Automated scheduling and record maintenance will free up staff time to engage in higher order tasks, such as tracking immunizations, assessing complications, conducting surveillance, and investigating disease outbreak. Streamlined operations will help provide more time for staff to engage in data collection and analysis, and thus ensure a high quality of care.

## ***Environmental Sustainability***

Environmental sustainability considers long-term impacts to one’s natural surroundings, including the land, water, and air. Methodological choices during the grant period can influence the sustainability of

our natural environment in subtle and in significant ways. For instance, a construction project may install large windows to allow in plenty of natural light and install special roofing to reduce internal heating and cooling loads. A research project may use ground-penetrating radar to map archaeological features rather than physically disturbing a historical site. A service delivery project might collect gently used professional attire to redistribute to jobseekers from disadvantaged backgrounds, thus diverting tons of clothing from landfills. An outreach initiative might recruit citizen scientists to help preserve ash trees by running an emerald ash borer trapping program. As part of an educational program that promotes healthy lifestyles, children might learn to get outside, grow their own garden, and eat fresh fruits and vegetables. A training program might show farmers best management practices to reduce soil erosion. Below is an operative paragraph on environmental sustainability that was included in a K-5 education project.

Children of today will inherit the earth of tomorrow. As elementary school teachers, we want our children to hit the ground running so they understand words like “carbon footprint” and “global warming” as easily as the name of the current pop star. As a responsible corporate citizen, funding from your grant will allow us to secure the lesson plans that span our entire elementary school grades. Our elementary science curriculum will be modified to include such lesson plans as planet science, climate change, earth day games, recycle city and wildlife fund. These lesson plans are a necessary but not totally sufficient condition of providing our students with an “eco-education.” To sustain this project we will need a broad range of consumable supplies, e.g., recycled paper, water supplies, and harmless chemicals. Fortunately, the local Parent Teacher Organization has accepted the responsibility to conduct an annual “Eco Roundup” campaign that would encourage parents to donate common household items that can be used to continue our environmental science initiative. In sum, no additional funding is needed since volunteers will generate the required instructional resources.

## ***Key Questions to Answer***

Does your proposal do the following?

- What level of financial support will be required in the year after the grant ends? Two years?  
Three years?
- Which elements of the project can be institutionalized?
- Which project activities can continue with the support of collaborative partners?
- Which elements of the project do not need to be continued in the future?
- Will an infrastructure, systems, procedures, and networks live on beyond the grant?
- Will your project serve as a model that can be replicated in other settings?
- Will project participants continue to experience humanistic benefits beyond the conclusion of the project period?
- Will enduring advantages accrue for secondary, indirect audiences?
- Is there a plan to continue to use, maintain, repair, and replace technology after the grant ends?
- Do methodological choices contribute to preserving and protecting the environment?



## Appendices

Appendices contain supportive information relevant to your proposal. Certain appendices may be required by the sponsor, but can also be optional. Sponsors vary in the number and type of appendices they will allow. The following are a few examples.

### ***Consortium Agreements***

A *consortium agreement* is appropriate when the collaborating party will be performing substantive programmatic work. The investigator at the consortium institution provides scientific input which could affect the direction of the project. Under this arrangement the parent applicant organization must obtain and include in the application separate budgets for each consortium institution involved.

[Address separate letters to Chancellor of each consortium partner]

Dear Chancellor:

The three neighbor island community colleges within the University of Hawaii system—University of Hawaii Maui College (UHMC), Hawaii Community College (HawCC) and Kauai Community College (KauCC)—have joined together to support the [Name of Grant Here].

University of Hawaii Maui College is the lead for the consortium and is responsible for the submission of all deliverables and required reporting to DOL. All consortium members are committed to working together to accomplish the grant objectives and intend to carry out their respective goals and objectives contained in the project proposal. The two consortium members will provide UHMC, as the lead institution, all information required to meet the reporting requirements of the grant. Institution-specific roles and responsibilities follow, as well as funding amounts requested:

#### **University of Hawaii Maui College (UHMC)**

Amount requested: \$xxx,xxx

UHMC is the lead institution on the grant and will serve as the primary point of contact for the consortium. UHMC will provide support and oversight of the proposed programs and Project Coordinator positions, with direct management of these activities by the Program Manager. Add additional description of roles and responsibilities and project deliverables, including all deliverables in connection with administrative functions including quarterly reports, annual reports, and data required for evaluation purposes.

#### **Hawaii Community College (HawCC)**

Include: Amount requested; Role on the project; and required deliverables

#### **Kauai Community College (KauCC)**

Include: Amount requested; Role on the project; and required deliverables

As consortium members, we recognize the important role filled by each college to leverage grant funding in addressing Hawaii's most pressing needs. We are optimistic that the programs outlined will result in [insert text here].

Sincerely,  
XXXX Community College Consortium Partners

Insert a signature line for each consortium partner leader (Chancellor)

## **Letters of Commitment**

To persuade reviewers, you should obtain letters of commitment that actually spell out what project partners will do to contribute to project success. An example follows.

Current Date

Mr. Peter Barnett, Project Director

Organization Name

Street Address

City/State/Zip

Dear Mr. Barnett:

I was pleased to learn about your project to address health literacy in Hawai'i, an issue that many health professionals are very concerned about. I am writing this letter of commitment that the XYZ Health System will partner with you in your grant proposal, Reducing Health Disparities by Improving Health Literacy: A Model for Collaboration.

As you know, we have a network of 128 HealthAlert centers distributed throughout the state. Collectively, we have more than 300 healthcare professional that are affiliated with our umbrella organization. We have been serving communities statewide since 1964. Our tenure has afforded us opportunities to build a strong network of individuals who share the values reflected in this project. Your Health Literacy project represents a continuation of your decade long collaboration on various health-related projects.

We are dedicated to partnering in this project by:

1. Appointing a representative to the Health Literacy Advisory Council, which would meet semi-annually in Portland for three years to monitor and evaluate the progress of this project;
2. Provide opportunities for project partners to meet with our staff to obtain input into the development of this project, as needed;
3. Working with project partners to increase awareness of health literacy in Hawai'i hospitals by emphasizing project progress in our bi-weekly newsletter and including you prominently in our annual conventions; and
4. Communicating knowledge gained and relevant products developed through this project to hospitals throughout the state.

We look forward to working with all partners on this grant and believe this is a much-needed and innovative initiative.

Sincerely,

Doris Eggerding, MD  
University of Hawai'i

The typical letter of commitment contains an opening paragraph, a statement of past relationship between the collaborating organization and the sponsor, a precise listing of what the collaborator will contribute to the project, and a closing paragraph. The following sample paragraphs endorse various projects. Each paragraph below came from a separate letter. Typically, these letters contain a polite opening a closing paragraph and one more substantive paragraph as exemplified below.

**Commitment Letter # 1: Opening Paragraph**

I am pleased to lend official support from our agency to your project. I welcome this opportunity to blend our interests with your very real needs. I enthusiastically endorse the involvement of my agency. All will profit from this cross-pollination of ideas. I know from experience that multiple viewpoints are needed to traverse the milieu you face.

**Commitment Letter # 2: Opening Paragraph**

I have just finished reviewing your proposal. Your emphasis will certainly be of benefit to your agency and ours. Bringing together the interdisciplinary expertise you have assembled in this proposal can only augment the richness of your project. I enthusiastically endorse the involvement of our agency and will personally assure the administrative support required to reach your project objectives. We eagerly await the formal beginning of your project.

**Commitment Letter # 3: Opening Paragraph**

For more than a decade, our agencies have worked cooperatively on a variety of social service projects. In that context, I see your current proposal as a systematic continuation of our past joint efforts. The human and physical resources are in place- and have been for years-to achieve your desired project objectives.

**Commitment Letter # 4: Opening Paragraph**

Thank you for the opportunity to review your proposal. You have identified some very significant local problems. As you address these problems in your agency, I am particularly pleased that we can contribute our organizational strength: (specify). Our agency personnel have a demonstrated concern for and proven expertise in this area. In total, you have assembled an excellent interdisciplinary cadre of professionals to make this project quite promising. I want you to know that this project has the highest levels of support and commitment to success. We eagerly await active participation.

**Commitment Letter # 5: Opening Paragraph**

I enthusiastically support your proposal. Its interdisciplinary approach to addressing the ever-increasing challenges we face promises valuable guidance. Your leadership role provides you with unique experience and insights with which to direct this project. Your past efforts will serve as an indispensable resource to professionals and enrich the delivery of services. Your proposal has my strong support, and I will continue to allocate time for my personnel to participate in your project activities.

You can mix and match sentences from these five different examples to craft opening and closing paragraphs. However, the heart of the letter is the specific commitments that might be made. What might your collaborator be able to bring to your project? Your answer lies in one or more of the following areas, as the following table indicates with 18 different examples.

Financial Funds	Human Resources	Professional Expertise
Cash Support	Advisory Council Participation	Disseminate Knowledge Gained
In-Kind Support	Access to Special Populations	Fiscal Accounting
Tuition	Facilitate Partnership Linkages	Programmatic Competence
Scholarships	Loan of Personnel	Testing Samples
Use of Credit Cards	Attendance at Meetings	Legal Counsel
Excess Equipment	Graduate Students/Lab Technicians	Medical Advice

Viewed broadly, the letters of commitment should address collaborator roles before, during, and after the proposed project. Persuasive commitment letters will cite specific activities during the following project phases and demonstrate the full potential of the collaboration:

- *Before:* What have you done to collaborate before the grant was submitted?
- *During:* How will you propose to collaborate during the grant?
- *After:* To what extent are you willing to commit to project sustainability after the grant is over?

## ***Resumes and Biosketches***

Many federal sponsors, such as NIH, NSF, USDA, just to name a few, require that you submit a biosketch in their required format. However, if one is not required, for consistency you should settle on a standardized format for proposal resumes. The choice of format is not as important as the fact that all of your organizational resumes match in order to show project cohesiveness. The format you ultimately choose should emphasize the skills that are essential to conduct the proposed project. Most grant applications call for an abbreviated resume or biosketch, often two to four pages. A sample biosketch form exists at <http://grants.nih.gov/grants/funding/424/>.

To enhance the readability and persuasiveness of the personal statement section in your biosketch, you may wish to include headings such as the following, which includes several exemplary starter sentences.

- **Professional Background.** I have over two decades of experience in the healthcare field, including eleven years with the XYZ Hospital system, the eighth largest in the nation.
- **Project Relevance.** The primary project aim is to identify patients who are at risk for falls, which is central to my current responsibilities for patient safety.
- **Professional Credentials.** By profession and training, I come from a clinical background as opposed to being a publishing researcher. I have a track record of experience that is directly relevant to this project as evidenced in these three examples. (Insert examples.)

## ***Key Questions to Answer***

Does your proposal do the following?

- Can reviewers evaluate the proposal without any appendix information?
- Have you included strong letters of commitment and not just support?
- Are assurances of cooperation provided in instances of partnership projects?
- Are resumes included for all key project personnel and consultants?



# Abstracts

## *Key Components*

A thorough yet concise abstract includes the following information elements:

- **Subject:** What is the project about?
- **Purpose:** Why is the project being done? What is the problem or need being addressed?
- **Activities:** What will be done? What methods will be used?
- **Target Population:** What special group is being studied or served?
- **Location:** Where is the work being performed?
- **Outcomes:** What types of findings will result? To whom will these be useful?

## *Formatting*

Inexperienced grant writers often make two major mistakes in writing proposal abstracts. First, they compress their information into one or two paragraphs, paying little attention to readability. Second, they fail to include subheadings into their text, thereby making it difficult for reviewers to obtain a clear project overview.

The proposal abstract should be the last written proposal section. An easy way to craft the abstract is to first identify the primary subheadings, such as those listed above, and repeat one or two key sentences from your project narrative that addresses each element. Among other things, this approach enables the readers to foreshadow the entire proposal. The length of your abstract will vary, depending on sponsor requirements. The range varies from 250 words to 3 pages.

## *Key Questions to Answer*

Does your proposal do the following?

- Does my abstract effectively summarize the project?
- Does it place appropriate emphasis on the various proposal components?
- Does it enumerate project outcomes?
- Does it comply with the length or word requirements of the sponsor?
- Does it use key subheadings to highlight proposal sections?



## 3.0 Writing Tips

### Headings

Headings and subheadings act like a table of contents placed directly in your proposal text. That is, at a glance they reveal the main ideas and the organization of your proposal to the reader. Ask your program officer for a copy of the reviewer's evaluation form, and use those same headings and subheadings in your proposal. If a reviewer's evaluation form is not available, use headings and subheadings that are specific to your proposal. Generic headings such as "Introduction," "Background," "Materials," "Methods," "Results," "Conclusions," and "Recommendations" are not unique to your proposal. Short, specific headers such as these will have more impact on your readers:

- **The Problem: Overcoming Distance Barriers**
- **Eliminating the Shock Waves**
- **Our Credentials: 125 Years of National Experience**
- **Benefits of Youth Programming**
- **Capabilities: 75 New Volunteers**

Specific heading give reviewers an overview of your entire project, even if they are merely skimming your proposal. Note that the headings are in a different type style (Arial Boldface in the above examples) than the proposal text (Calibri in this paragraph).

### Levels of Organization

You can use vertical and horizontal white space to create up to three levels of organizational headings. Do not use more than three levels of headings because you may lose the reader in the structural detail of your proposal. Effective use of white space sets off headings and enhances readability.

- Level one headings should be centered, 16 point font, sans serif type face (e.g., Arial), all capital letters, and 12-point boldface font double spaced before further text follows.
- Level two headings should be left justified, sans serif type face (e.g., Arial), keywords capitalized and italicized, 14-point boldface font. Single space before further text follows.
- Level three headings should be indented, serif typeface (e.g., Times New Roman), keywords capitalized, and 12-point boldface font. Punctuate and continue with paragraph copy.

An example follows of all three levels of headers:

<p style="text-align: center;"><b>THIS IS A LEVEL ONE HEADING</b></p> <p>The rest of the proposal would continue here.</p> <p><b><i>This Is a Level Two Heading</i></b></p> <p>The rest of the proposal would continue here.</p> <p style="text-align: center;"><b>This Is a Level Three Heading.</b> The rest of the proposal would continue here.</p>
---



Note the spacing between the three heading levels. This visual chunking strategy is highly readable and facilitates reviewer skimming.

Level one headings signal new topic areas, whereas levels two and three indicate subtopics within level one. The headings should be concise but informative. Too few or too many headings make the proposal difficult to read.

## Margins

A ragged right margin is preferable to a right margin justified. The justified right margin requires proposal spacing and causes the appearance of little white “rivers” to flow down the page, making the proposal more difficult to read. You want to avoid reviewer fatigue when reading your proposal. Pay particular attention to the margin requirements in the sponsor guidelines. If margins are not specified, the margins should be one inch on all four sides. While smaller margins allow more words per page, the proposal narrative becomes too difficult to read.

## Font Type and Size

Unless sponsor guidelines dictate differently, we recommend using 12 point Times New Roman (a serif font) for your proposal narrative and Arial (a sans serif font) for your headings and subheadings. Since NIH doesn't allow the use of Times New Roman, we suggest you use the closest allowable font, which is Georgia.

## Sentence and Paragraph Length

While sentence length varies, your average sentence length should be under 20 words. If you have any sentences over 30 words, they become difficult to follow on a skim reading basis. Word processing software have tools that allow you to perform word counts on sentences, a block of text, or a document. Say it as simply as possible, for example:

*Too Long:* The elastic fabric surrounding the circular frame whose successive revolutions bear you onward in space has lost its pristine roundness.

*Better:* You have a flat tire.

Paragraphs should be approximately eight to twelve lines long. Short paragraphs allow for use of white space that enhances proposal readability.

## Transitional Words, Sentences, and Paragraphs

Transitional expressions -- words and phrases that signal connections among ideas -- can help you achieve coherence in your writing. Each expression is a signal to the reader that explains how one idea is connected to the next. Business writers suggest that the use of transitions makes the difference

between average and persuasive copy. Common transitional words and phrases examples included below can indicate:

- **Addition:** also, in addition, again, and, and then, too, besides, further, furthermore, equally important, what's more, next, then, finally, likewise, moreover, first, second, third, last, indeed, more precisely, what is more, besides
- **Comparison:** similarly, likewise, in like manner, in the same way, in comparison
- **Concession:** after all, although this may be true, at the same time, even though, of course, to be sure, certainly, naturally, granted
- **Contrast:** but, yet, however, on the other hand, nevertheless, nonetheless, conversely, in contrast, on the contrary, still, at the same time, after all, although true, and yet, in spite of, notwithstanding
- **Example:** for example, for instance, thus, as an illustration, namely, specifically, in particular, incidentally, indeed, in fact, in other words, said differently, that is, to illustrate, of note
- **Location:** in the front, in the foreground, in the back, in the background, at the side, adjacent, nearby, in the distance, here, there
- **Restriction:** despite, contrary to, although, while, provided, in case, if, lest, when, occasionally, even if, never
- **Result:** therefore, thus, consequently, so, accordingly, due to this, as a result, hence, in short, otherwise, then, truly, that caused, that produced
- **Sequence:** first, firstly, second, secondly, third, thirdly, next, then, finally, afterwards, before, soon, later, during, meanwhile, subsequently, immediately, at length, eventually, in the future, currently, after a short time, as soon as, at last, at the same time, earlier, in the meantime, lately, presently, since, temporarily, thereafter, thereupon, until, when, while
- **Summary:** as a result, hence, in short, in brief, in summary, in conclusion, finally, on the whole, to conclude, to sum up, thus, therefore, as a consequence, at last
- **Time:** now, later, meanwhile, since then, after that, before that time

Extending this notion, we recommend using transitional sentences and paragraphs to ensure that your proposal reads smoothly and fluently. Transitions will blend separate proposal segments into one continuously flowing copy. Insert them wherever you are making major content shifts within your proposal. These overview paragraphs provide signals that the current ideas are shifting to something else:

1. A transitional bridge from a problem section to a solution section in the proposal.

In sum, a combination of school and community poverty, health disparities, and shortage of health care providers are preventing children from leading healthy lifestyles. School-based health centers can bridge these gaps in order to provide comprehensive primary and preventive health care to this medically underserved community.

This transition paragraph reminds reviewers of the problems as a prelude to discussing solutions.

2. An introductory statement to a methodology section.

This section summarizes our plans, and is supplemented with concise statements that provide the motivation behind this plan of action.

This sentence does two things: it foreshadows the upcoming proposal section for the reviewer and it alerts the reviewer that the rationale for selecting this particular methodology will be explained, an important inclusion that is often overlooked.

3. A proposal section that establishes the credibility of the project co-directors.

One added value of the co-directors is that they have experienced the challenges of managing multi-faceted project. They know what works and doesn't work. Based on their experience, and a concern that reviewers might feel the co-directors are already "overextended," considerable thought has gone into this carefully crafted project organizational structure, which includes strategic highly-trained professionals as key support personnel.

This section tells the reviewers that the key project personnel are not only experienced project managers, but also are not over committed.

4. A proposal section that alerts the reviewer to the structure of the methodology section.

Each of these activities is written in a way that is consistent with the agency scoring system.

This sentence signals the reader that the proposal writers obtained a copy of the reviewer's evaluation form from the Program Officer and follow it in their discussion of the methods section, thereby simplifying the reviewer's task.

5. These proposal writers had a pretty good idea who their competition might be and wanted to posture themselves favorably against their competition.

Our plan of activities is built on a careful reading of the RFP priorities, and of activities of the existing center at the XYZ Institute. While their activities are appropriate, we believe we have the infrastructure in place that enables us to aim higher.

In a very professional manner, this section says "we're better than our competition."

## **Starter Sentences**

### ***Orienting Comments***

Perhaps one of the biggest challenges in proposal writing is getting started. Often times, people will stare at a blank computer screen for a long time before getting that first sentence down. If one could overcome the mental block that sometimes accompanies writing that first sentence, the rest of the paragraph would flow easier.

This document is intended to help you jump-start your proposal writing by suggesting possible starter sentences for the proposal sections. Whether you use one of these sentences verbatim or see it as a trigger to write your own sentence, the important thing is to start writing. Remember, your first draft is not your final draft. Your first draft is for getting it down, not getting it perfect, which comes through the subsequent editing process. Pick and choose among these sentences as needed.

## ***Need***

1. A spiraling gap exists between A and B.....
2. A growing body of evidence suggests three major problems exist.....
3. Despite the increase in technology, we continue to lag behind.....
4. XXX is a formidable obstacle to solving major needs in the area of.....
5. We are in dire need of innovations to combat several increasingly prevalent problems that voraciously devour our social and economic resources
6. A current limiting factor to solving this problem regards .....
7. Nationally, the frequency of the problem is xxx. Statewide, it is even worse at xxx. But, locally the incidence is an overwhelming xxxx.
8. Our understanding of this problem is currently hindered by a lack of a clear relationship between xxx and yyy.
9. To overcome this barrier, new insights into are xxx and yyy are essential.
10. Our preliminary studies have highlighted the need to address this urgent problem.

## ***Goals, Objectives, and Outcomes***

### **Goals**

1. Our goal of this proposed project is to .....
2. Based on our preliminary data, our project goal is to.....
3. We will pursue four measurable objectives, detailed below, to achieve our goal of .....
4. Our project goal – (to do something) – represents our “big picture” vision of what we wish to accomplish
5. To achieve this goal, our broad vision of what we hope to accomplish of (doing something), we will pursue three specific, measurable objectives...

### **Objectives**

1. Our three specific aims (objectives) are .....
2. In this proposal, we will test the hypothesis that.....
3. This proposal presents two major goals with three specific objectives for each goal....
4. To assess the extent to which the proposed project solves the problems noted above, the project’s effectiveness will be measured using the following project objectives:
5. By October 31, 2015, we will accomplish the following measurable objectives.

### **Outcomes**

1. We will advance fundamentally our understanding of .....
2. Specifically, the outcomes of this project will enable us to better identify.....
3. Achieving our goals and objectives will result in three major benefits. First,.....
4. At the end of the project period, three significant changes will occur. First, .....
5. Here’s what will be different upon project completion:.....

## **Methods**

1. Our methodological approach will produce a paradigm shift in...
2. Viewed broadly, this project will provide an innovative approach to the study of .....
3. Recent advances in XXX approaches justify...
4. We will validate the most promising...
5. Our approach combines the power of XXX to investigate YYY
6. This innovative and ambitious project will integrate .....
7. If successful, our method would represent a novel therapeutic approach to ....
8. The innovative approaches of this proposal capitalize on our unique expertise in .....
9. Our approach offers a cost effective solution to the problem of .....
10. Three distinguishing features characterize our approach. First,.....Second,.....Third,.....

## **Evaluation**

1. Our evaluation protocol uses a strategic mix of qualitative and quantitative methods.
2. We will conduct a process evaluation to make any necessary “mid-course” corrections and an outcome evaluation to ensure that we achieve our final project results.
3. To ensure full project accountability, we will conduct both internal and external evaluations.
4. To ensure the appropriateness and comprehensiveness of our evaluation methods and the use of objective performance measures to produce quantitative and qualitative data, this project follows an evaluation model (Brinkerhoff, *et. al*, 1983).
5. Our evaluation model poses specific questions, states outcome criteria clearly, adopts an information plan, analyzes data, interprets results and disseminates outcomes.
6. We will conduct formative evaluations to assess the effectiveness of the project during the grant period as well as summative evaluations to judge the ultimate success of the completed project.
7. To achieve our project evaluation goals, we will appoint an Evaluation Steering Committee, consisting of the project director and seven additional individuals representing the affiliate institutions, agencies, and professions.
8. Our evaluation protocol serves two purposes: (1) to provide feedback during program operation, and (2) to provide quantifiable data regarding the short- and long-term effectiveness of the program
9. Our outcomes evaluation plan involves collecting data to document the extent to which objectives and activities were achieved.
10. We will conduct a rigorous evaluation in order to gain feedback that will be used to modify childcare programming, trainings, and technical assistance to improve the likelihood of accomplishing project goals.

## **Dissemination**

1. Our project uses a strategic mix of active and passive dissemination strategies to communicate our results to all stakeholders.

2. Since our target audience of teenagers relies heavily on social media as a communication tool, we will disseminate our health education program to them in short segments via Facebook and Twitter.
3. Traditionally, academics rely on publications in journal articles and presentations at large conventions to disseminate their research findings. In this project, we will go beyond the standard strategies and host a webinar, issue press releases, and make our data instantly available through the National Technical Information Service.
4. Since our primary project purpose is to advocate for a new temporary jobs policy, we will issue interim working papers to state legislators and invite them for a site visit to see firsthand the employability and work productivity of these formerly incarcerated persons.
5. Through the dissemination of study results in peer-reviewed publications, the project will inform and strengthen the education of Occupational Therapy students and other practitioners working with older adult patients.
6. Because dissemination has such a positive multiplier-effect, we have formed a Dissemination Steering Committee consisting of the Project Director, head of our Department of Media Communications, and a news reporter from our local ABC-TV affiliate to ensure widespread distribution of project results through the mass media.
7. Our strategic dissemination plan targets both internal and external audience. Our internal staff will monitor project progress through weekly staff meetings and *ad hoc* emails. Our primary external audience of elementary school teachers and parents will be kept abreast of project progress through web site postings and an annual open house. More specifically, we will.....
8. The distinctive feature of our dissemination plan is its cultural sensitivity. Since our DVD will disseminate infant nutrition information to new Hispanic mothers, we will first ensure that our script will be translated into “street level” Spanish and spoken on the DVD by Hispanic mothers. The DVD will be made available free to the maternity wards in all three local hospitals for playing on their in-house closed circuit TV system on-demand.
9. Since our key project collaborators are geographically spread over 1000 miles, we will disseminate interim project status reports by use of a group web conferencing system such a WebEx or GoToMeeting. They have the capacity to handle large numbers of participants. For smaller group discussions, we will use Skype.
10. To effectively disseminate our project results, we have created an information architecture that will provide the key intellectual content and delivery systems for transferring our research findings to practitioners. Our information architecture represents the knowledge base generated from our three phase project.

## **Budget**

1. The following itemized budget requests \$xx,xxx in direct costs (xx%) and \$xxxx (xx%) in indirect costs for a project total of \$xx,xxx.
2. With the demonstrated concern that you have shown in the delivery of quality services, we are requesting a grant of \$x,xxx, which represents a cost of x¢ per individual served over the next three years.

3. To close the spiraling gap, we are requesting \$xx,xxx towards the construction of a new building that costs \$500,000 in total. The requested funds represent the cost of one 25 x 25 square foot room in the new building
4. Since this current project extends beyond our financial boundaries, we must reach out to the community for a grant of \$x,xxx to support this vital service.
5. Although we are expanding our budget allocations to this project as rapidly as possible, it is our intent to build an endowment that will provide ongoing, long-term support. To that goal, we are request your support of \$x,xxx.
6. In the first year of operation, this may look like an investment of \$xx,xxx, but over a five-year period, we will train xxx students who will use this equipment, resulting in a per student cost of \$yy.
7. Over a 10 year period, your equipment gift of \$xx,xxx will touch the lives of zzz handicapped persons. Such a gift will assure the quality and regularity of the programs to be provided and will enrich the lives of all whom those programs reach.
8. In the spirit of beneficial synergism between business and the nonprofit community, I respectfully request the Foundation to grant \$xxx,xxx, payable over three years to provide funds for.....
9. Mindful of your great interest in incorporating state-of-the-art computer technology into the learning experiences of students, we are requesting a grant of \$xxx for.....
10. Maintaining adequate facilities is quickly becoming prohibitive for our 50 year old building. Quite frankly, the costs extend beyond our financial boundaries. Accordingly, we must reach out for assistance of \$x,xxx in what surely is a vital service to our entire community.

### ***Sustainability***

1. In order to sustain project services beyond the termination of the grant, we will...
2. We are committed to the long-term success of this project. The generosity of your support will allow us to hire an associate director in the first year of this initiative. Over the three years of funding we will put up an increasing share of the associate director's salary and fringe benefits with the aim to full institutionalize the position in year four.
3. To ensure long-term sustainability, we will implement a planned giving program that integrates personal, financial, and estate planning with the individual donor's plans for lifetime giving in order to leave a legacy embracing this project.
4. During the three project years, our clients will learn the value of our services pro bono and have time to build budgets to absorb nominal fee-for-service costs commensurate with their ability to pay. Our business model assumes only a level of modest fee support to sustain this project.
5. The proposed project uses a distinctive blend of financial, structural, and technological sustainability to ensure that activities, outcomes, and impacts will continue well into the future. Specifically, ...
6. The proverb is well known: "Give a man a fish, and you feed him for a day; show him how to catch a fish, and you feed him for a lifetime." This proverb effectively summarizes our sustainability approach: we teach functional life skills to youth with disabilities. We don't drive

them to their jobs, we teach them to ride the bus. We don't feed them, we teach them how to grocery shop. We don't manage their money, we teach them to develop and stick to a budget.

7. In the words of President John Kennedy, "The supreme reality of our time is...the vulnerability of our planet." It is with this in mind that our sustainability plan takes an environmentally friendly approach and includes the following...
8. Once the instrument is set up, we anticipate that it will be used up to 16 hours per day by faculty researchers, post docs, graduate students and undergraduate students. It will be available by online scheduling and accessible during supervised hours (6:00 a.m. – 6:00 p.m.) and after hours by special permission. Annual maintenance costs run about \$2,500 per year and will be covered through departmental funds (a combination of indirect cost returns and alumni gifts).
9. We are fortunate to have a deep pool of volunteers, which once trained, will be able to continue outreach services beyond the initial grant year. The lead volunteer coordinator will be responsible for developing the protocol handbook to guide future community engagement activities. This combination of infrastructure and talent will allow us to serve an estimated 6,000 people over the next three years.
10. For more than a decade, project partners have worked together on a variety of education, intervention, and research initiatives in the state, including participating in two federally funded cooperative agreements. Collaborators recognize and embrace their role in affecting change at the local level. Trusting relationships and a strong sense of community ownership drive our long-term commitment to success.

## ***Appendix***

The following starter sentences reflect language that you can use to craft opening and closing paragraph in letters of commitment. The intellectual heart of the letter is the specific commitment that will be made to the project.

1. I am pleased to lend official support from our agency to your project. I welcome this opportunity to blend our interests with your very real needs. I enthusiastically endorse the involvement of my agency. All will profit from this cross-pollination of ideas. I know from experience that multiple viewpoints are needed to traverse the milieu you face.
2. I have just finished reviewing your proposal. Your emphasis will certainly be of benefit to your agency and ours. Bringing together the interdisciplinary expertise you have assembled in this proposal can only augment the richness of your project. I enthusiastically endorse the involvement of our agency and will personally assure the administrative support required to reach your project objectives. We eagerly await the formal beginning of your project.
3. For more than a decade, our agencies have worked cooperatively on a variety of social service projects. In that context, I see your current proposal as a systematic continuation of our past joint efforts. The human and physical resources are in place – and have been for years -- to achieve your desired project objectives.

4. Thank you for the opportunity to review your proposal. You have identified some very significant local problems. As you address these problems in your agency, I am particularly pleased that we can contribute our organizational strength: (specify). Our agency personnel have a demonstrated concern for and proven expertise in this area. In total, you have assembled an excellent interdisciplinary cadre of professionals to make this project quite promising. I want you to know that this project has the highest levels of support and commitment to success. We eagerly await active participation.
5. I enthusiastically support your proposal. Its interdisciplinary approach to addressing the ever-increasing challenges we face promises valuable guidance. Your leadership role provides you with unique experience and insights with which to direct this project. Your past efforts will serve as an indispensable resource to professionals and enrich the delivery of services. Your proposal has my strong support, and I will continue to allocate time for my personnel to participate in your project activities.
6. As dean and vice president of Academic Affairs at Woodland University, I am thrilled to be a formal partner in the project titled, "Paper TIGERS: turning Infinities and Geometries into Exceptional Results for Students." This project meets a pressing need for our students, and, as a result, it will have the highest levels of institutional support.
7. LGBTQ Foundation is deeply concerned that intimate partner violence remains a leading cause of injury and death in our state. Our participation in the Health Department's "Caring Relationships" project represents a natural extension of the types of educational and outreach initiatives in which we've been engaging over the past two decades aimed at curbing dating violence. Our statewide professional networks and database of 37,000 volunteers will allow us to disseminate information quickly to providers and peer mentors.
8. We are delighted to work with the Gerontological Institute on the proposed project "Decreasing Falls among the Frail elderly." Over the course of this three-year initiative, we will train 60 coaches who, in turn, will serve an estimated 720 seniors in the community. We have partnered with the Gerontological Institute on three previous grant-funded projects and have the types of trusting relationships in place to ensure this project, too, is a success.
9. On behalf of the Anytown School district, I write this letter of commitment for the Tobacco Free Coalition's application to the Wellnitz Foundation. Based on my involvement on their advisory council and having participated in the community SWOT analysis, I can say without reservation that "Breathe Deep" will meet the needs of school-aged youth. There's no better way to connect with student than to use an integrated approach of meeting them where they're at – in the home, at school, and in the community.
10. For more than a decade, DoubleDown and BlackJack College have partnered together on a variety of educational initiatives. Our success is built on a foundation of shared values – quality services and relationships, mutual trust, integrity, and financial strength. That's why it is with great pride that I write this letter of commitment for the "Aces Project." I am committed to the success of Aces professionally and personally, including serving as a role model and mentor, answering questions, sharing knowledge, providing encouragement, and fostering growth and development.

## **Abstracts**

Over 90% of your abstract should be sentences lifted from your proposal narrative. Nevertheless, the follow sentences might help jumpstart writing your abstract.

1. Community Eats, the only food bank in west central Ohio, invites your investment of \$xx,xxx to alleviate hunger in Seneca County
2. Obesity in the United States has become epidemic: more than one-third of adults and approximately one-fifth of children are obese. North Carolina ranks # 16 in the nation with the percentage of adults and children who are obese and overweight.
3. In partnership with the University of Noodlenoggen, the Center for Big Brains aims to increase the mathematics and reading achieve of Native American students in grades 4-8.
4. The community Health Rankings recently bestowed a dubious honor on Cook County” the worst possible community health score in the state. Resident suffer from high rates of cardiovascular disease, type 2 diabetes, cancer, and premature death.
5. The purpose of this pilot program is to engage, educate, and encourage African American teens to make health decisions about sexual health behaviors.
6. The Central School District seeks a grant of \$xx,xxx to enhance the teaching skills of K-12 educators who work with children with disabilities.
7. According to a recently completed general preservation assessment survey, environmental monitoring is required immediately to preserve the library’s special collections, which include a significant number of pre-1600 and pre-1700 imprints. The goal of this project is to improve the environmental climate surrounding these rare materials through training and the purchase and installation of environmental monitoring equipment.
8. Social inequality and income growth varies considerably more across households in development economies than conventional economic factors can explain. The researchers undertaking this interdisciplinary research project hypothesize that environmental, social, cultural, and historical variations interact with economic factors to...
9. With foundations in three existing campus service/leadership programs, the “First Year Student Program” is a new initiative that integrates citizenship and scholarship through these primary goals” (1) Improve retention rates and academic success of first-generation and low-income students who transfer from two-year institutions; (2) Develop a peer network that enables students to serve as agents of civic engagement to respond effectively to local community issues; and (3) Foster a deep appreciation of democratic values and citizenship among students.
10. Griffin College requests \$xx,xxx to improve teaching about Islam in the Independent School district. This grant will enable yyy in-service teachers to participate in a comprehensive graduate seminar series on Islam, broadening their knowledge of beliefs and practices and helping them translate that knowledge into improved classroom instruction for zz,zzz students. Curriculum planning for the seminar series will begin in September 2015 with the seminars and the ensuing dissemination to the wider education community to be completed by December 2016.

### ***National Institutes of Health (NIH): Significance***

Usually, NIH research grant application guidelines ask you to describe the significance of your proposal. Like many words, “significance” is a multiple meaning term. Below, we lift up three questions from NIH and offer a starter sentence to get you going.

**Significance Question # 1.** Does the project address an important problem or a critical barrier to progress in the field?

**Starter Sentence.** This project addresses a critical barrier severely constraining progress in the field of xxxxxxxxxxxx. Specifically.....

**Significance Question # 2.** If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved?

**Starter Sentence.** Achieving the three project aims will not only contribute to the stockpile of scientific knowledge, it will significantly improve the delivery of services in the field of xxxxxxxxxxxxxxxxx. Specifically.....

### ***National Institutes of Health (NIH): Innovation***

**Innovation Question # 2.** Are your concepts, approaches, methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense?

**Starter Sentence:** The project outcomes are initially applicable to the field of widget analysis and can potentially be extended to freemoology and pickle juice within the next three years.

**Innovation Question # 3:** Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation or interventions proposed

**Starter Sentence:** This project goes well beyond a systematic extension of existing approaches and represents a transformative intervention to the field of fetal brain analysis.”

### ***National Science Foundation (NSF): Intellectual Merit***

**Intellectual Merit Questions # 1 and 2.** Will your proposal advance knowledge or technology. If knowledge is advanced, does it apply to one field only or does it advance knowledge in several fields? What is the specific new knowledge and which fields will benefit the most? The same perspective applies to technology. If your proposal advances technology, what are the specific technological improvements? What are the range of applications for this new technology? What will be better, cheaper, faster, or healthier as a result of this new technology tool?

**Starter Sentence.** This proposal advances knowledge in the field of widget analysis. Specifically, the project outcomes accelerate insights into conditions under which widget phenomena occur,

thereby benefit the fields of widgetology, freemonology, and pickle juice.” (Notice the similarity between what NSF means regarding Intellectual Merit and NIH means regarding Innovation.)

**Intellectual Merit Questions # 3.** Have you assembled a distinguished team of experts to guide your project progress?

**Starter Sentence.** A distinguished team of experts will guide our project progress. Our Interdisciplinary Advisory Board includes nationally recognized scholars in the fields of information technology, cyberlearning, and electronic medical records.

**Intellectual Merit Question # 4.** Will the project result in new collaborations, equipment, laboratories, or services? What will exist at the end of the project that didn't exist at the beginning?

**Starter Sentence.** One major project result establishes a new interdisciplinary collaboration that merges expertise in information technology, cyberlearning, and electronic medical records; our collaborators now share common research goals and mechanisms of interaction that systematically extends their previous “silo” work. The collaboration is a real one, not a “phantom collaboration.”

**Intellectual Merit Question # 5.** Have you built in rigorous internal and external evaluation procedures? Can you ensure that appropriate evidence will be available to document project progress and outcomes?

**Starter Sentence:** We will conduct process evaluations internally and outcome evaluations externally through use of an independent evaluator. Our Evaluation Steering Committee will oversee a strategic mix of qualitative and quantitative methods.

### ***National Science Foundation (NSF): Broader Impact***

**Broader Impact Question # 1:** Will your project produce a quantum impact on the way something is currently done, e.g., a new procedure or service delivery?

**Starter Sentence.** This project will transform the way fetal brain tissues can be analyzed by shifting the approach from anatomical descriptions to physiological functions.

**Broader Impact Question # 2:** Will your project have significant implications for existing or proposed education and training programs? When change occurs, we often must teach others about the why, what and how of change.

**Starter Sentence.** The project research outcomes also bear significant pedagogical implications. Specifically,  
...

**Broader Impact Question # 3:** Will you be implementing a strategic dissemination plan involving multiple strategies targeting various stakeholders at key project milestones?

**Starter Sentence:** Our project uses a strategic mix of active and passive dissemination strategies...

**Broader Impact Question # 4:** Will your project reach out to underrepresented groups, e.g., gender, ethnicity, disability, geographic? Many grantmakers are concerned about diversity issues and this is your opportunity to ensure diversity is directly addressed in your proposal

**Starter Sentence:** We recognize that diversity and respect for individual differences is a key source of intellectual vitality and innovation. With absolute consistency, we have integrated this principle into our proposal in the following specific ways....

## Verb Choice

Use active verbs instead of passive whenever possible. By way of example: Passives are a form of the verb "to be" and a past tense form of another verb. Persuasive proposals typically contain no more than 25% of passive voice sentences. Although passive-voice verbs add variety to your sentence structure, your proposal becomes dull, weak, hard to read, and filled with useless words if you use too many passives.

*Passive:* The homeless are little appreciated by people today.

*Active:* Today, people don't appreciate the homeless.

*Passive:* By the year 2016, half of this population is projected to be 75-plus, according to the Census Bureau.

*Active:* The Census Bureau estimates one-half of the elderly will be over age 75 by the year 2016.

When you write in passive sentences, readers often "rewrite" the sentence into an active form, thereby slowing reader comprehension. When editing, use your search command to find forms of "be" and "have." Convert passive to active sentences whenever possible, but do not feel guilty about using some passives.

## Readability Statistics

To ensure your proposal is readable, consider using the readability tools available free at <http://storytoolz.com>

The readability statistics from a recent science education proposal were as follows.

### *Reading Levels*

[Flesch-Kincaid Grade Level](#)

Grade 11.1

<a href="#">Automated Readability Index</a>	Grade 12.6
<a href="#">Coleman-Liau</a>	Grade 14.0
<a href="#">Flesch Reading Ease</a>	47.4/100
<a href="#">Gunning fog index</a>	Grade 14.6
<a href="#">Laesbarhedsindex (LIX) Formula</a>	51.5 = school year 10
<a href="#">SMOG Index</a>	Grade 13.0
Average grade level	Grade 13.1 (mean of above)

### ***Sentence Information***

Number of characters	29,229
Number of words	5,462
Characters per word	5.35
Syllables per word	1.67
Number of sentences	308
Words per sentence	17.7
Number of short sentences	130 (42%, 13 words or less)
Number of long sentences	43 (14%, 28 words or more)
Number of paragraphs	1
Sentences per paragraph	308.0
Number of questions	6 (2%)
Number of passive sentences	93 (30%)
Longest sentence	96 words long
Shortest sentence	1 word long

### ***Word Usage***

Number of to be verbs	108
Number of auxiliary verbs	121
Number of conjunctions	255 (5% of words)
Number of pronouns	244 (4% of words)
Number of prepositions	594 (11% of words)
Number of nominalizations	239

### ***Sentence Beginnings***

Pronouns	65
Interrogative pronouns	6
Articles	54
Subordinating conjunctions	10
Conjunctions	0
Prepositions	15

Pay particular attention to average grade level (target: grade 12-15; grade levels above 12 indicate college-level), words per sentence (target: 15-20 words), number of long sentences (target: less than 10 percent), number of passive sentences (target: less than 25%), and number of “to be” verbs, which are signals for passive voice sentences.

## National Institutes of Health (NIH) Multiple PD/PI Leadership Plan

With the growing trend in collaborative grantseeking, an increasing number of proposals involve the use of multiple principal investigators (PIs) or project directors (PDs). With multiple “chiefs,” sponsors want to know how you will handle project leadership. In fact, NIH requires that you to present a multiple PI leadership plan if your proposal involves multiple PIs. NIH does not recognize the term “Co-PI,” unlike other agencies. [Link to NIH Multiple PI Policy](#)

Whether you are proposing multiple PIs or co-PIs [e.g., National Science Foundation (NSF) proposal], reviewers need to know how the division of labor will be handled on larger scale projects.

Below, we offer a template that you can use when presenting a multiple PI leadership plan. It generally follows the NIH guidelines, but extends them further to help you gain an extra half-point in the review process. (In today’s highly competitive grant world, proposals are often won on the basis of half-points.)

**Rationale.** Explain why you need multiple PIs. Is your project interdisciplinary, inter-institutional, or international? Is a team approach required to unfence traditional disciplinary boundaries?

**Organizational Structure.** Present an organization chart showing the relationship among the multiple PIs. Each may have the primary responsibility for one particular project facet, although as a PI, all share equally in project authority and responsibility for directing the project intellectually and logistically.

**Governance.** Communication is a key to effective project governance. In this section, you want to include details that support your project communication plan.

**Communication Philosophy.** Is communication a core project value among all project participants? Is the responsibility for communications shared equally among all PIs and not relegated to an individual person?

**Communication Audiences: The Who.** Who are the primary external and internal audiences that are included in your communication plan?

**Communication Audiences: The What.** What are the primary messages that need to be disseminated to project stakeholders?

**Communication Audiences: The When and How.** How are you going to communicate your messages and how often?

**Decision-Making Processes.** What process will you use to make key project decisions?

**Conflict Resolution.** How will you resolve inevitable differences of opinion?

**Roles and Responsibilities.** Prepare a three column table with Individual, Project Role, and Project Responsibilities as headers. In your rows, name each individual, their role in the project, and three types of responsibilities: administrative, technical, and scientific.

**Budget Allocation.** Finally, indicate how the budget will be divided among the PIs.

Following these template items will let your reviewers know you really have a strategic leadership plan.

## National Science Foundation (NSF) Intellectual Merit

Often, proposal guidelines ask you to write about the intellectual merit of your proposal. The National Science Foundation (NSF) and the National Institutes of Health (NIH) guidelines, for example, request this information.

“Intellectual Merit” is a broad goal, an abstraction requiring further analysis. In essence, NSF and NIH are asking you to describe your meaning of this phrase. What are the specific outcomes that would cause reviewers to agree your proposal has intellectual merit? You can use a thermometer to measure temperature; what are the specific actions that will occur so you can substantiate your claim that your proposal has intellectual merit?

Here are a few questions relating to intellectual merit that will help you get started.

1. Will your proposal advance knowledge in one or more fields? If so, what is the specific new knowledge and which fields will benefit most?
2. Will your proposal advance technology? Specifically, what are the technological improvements?
3. Have you assembled a distinguished team of experts to guide your project progress? What special credibility do they bring to the project?
4. Will the project result in new collaborations, equipment, laboratories, or services? What will exist at project end that didn't exist as the project begins?
5. Have you built in rigorous internal and external evaluation procedures? Can you ensure that appropriate evidence will be available to document project progress and outcomes?

In answering these five questions, you will be citing specific, observable behaviors that taken collectively, represent your operational definition of intellectual merit.

Note: Effective January 14, 2013, NSF modified their review criteria statement as noted below. While the two key criteria – intellectual merit and broader impacts – remain, NSF has broadened its definition of them. To that end, reviewers will be asked to evaluate all proposals against two criteria:

- **Intellectual Merit**- encompasses the potential to advance knowledge; and
- **Broader Impacts**- encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

The following elements should be considered in the review for both criteria:

1. The potential for the proposed activity to:

a. Advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and

b. Benefit society or advance desired societal outcomes (Broader Impacts).

2. The extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?
4. How well qualified is the individual, team, or organization to conduct the proposed activities?
5. Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

## National Science Foundation (NSF) Broader Impact

Your task as a proposal writer is to operationalize this global term: **broader impact**. How do you define it? If you were to take a stack of proposals and sort them into two piles, one pile that had broad impacts and another that lacked them, how would you decide which proposal goes in which pile? Your reviewers are looking for concrete evidence that your proposal can produce a ripple effect.

Start writing this proposal section by addressing the following questions:

1. Will your project produce a quantum impact on the way something is currently done, e.g., a new procedure or service delivery? Grants produce change and sponsors like to see big change.
2. Will your project have significant implications for existing or proposed education and training programs? When change occurs, we often must teach others about the why, what and how of change.
3. Will you be implementing a strategic dissemination plan involving multiple strategies targeting various stakeholders at key project milestones? Let your sponsors know they will be getting a “big bang for the buck.”
4. Will your project reach out to underrepresented groups, e.g., gender, ethnicity, disability, geographic? Many sponsors are concerned about diversity issues and this is your opportunity to ensure diversity is directly addressed in your proposal.

If you are really serious about writing a persuasive “broader impacts” section in your proposal you will include methods to plot your progress on a chart and indicate zones of reason for probable change.

At NSF, reviewers will look for indications of impacts such as: increased faculty involvement in the mainstream of research; direct student experience in research; acquisition of research instrumentation that will improve faculty and student research opportunities; and enhanced departmental ability to prepare students for entry into graduate study or scientific and engineering careers, as well as to provide a research-enriched learning environment for all students. Evaluation of research instrumentation proposals may consider such additional factors as the criticality of the instrumentation for the research proposed, the expected extent of usage of the instrumentation and the number of investigators and students benefiting, and the institution's commitment for operation and maintenance. Even if you are not writing an NSF proposal, you should include this information anyway.

Following you will find an example of a broader impact section included in an NSF proposal dealing with the subject of neurotology.

“The broader impacts of this project cluster into three notable areas: quantum advances in robotic surgery, significant expansion in education and training programs, and widespread use of dissemination strategies. “

“**Robotic Surgery.** One noteworthy broad impact of this project advances the applications of robotic surgery to a broader array of surgical situations by (a) developing new tools requiring interventions in bony structures, and (b) improving haptic and visual feedback in all robotic surgery situations, thereby reducing robotic surgery treatment barriers, advancing the health status of society, and producing a quantum leap in healthcare. As a result, this project will stimulate the adoption of new surgical instrumentation and its resulting networks and partnerships, thereby strengthening the research and education infrastructure in the biomedical community. Further, by addressing a problem of national relevance to surgeons, this project leaps the hurdle that will make robotic surgery more available as a result of advances in visual and haptic feedback, thereby broadening the project impact.”

“**Education and Training.** This project raises the threshold of robotic surgery knowledge that directly affects teaching, training, and learning in the xx medical housing aaa medical students and residents and yy engineering schools guiding bbb engineering students throughout the nation as well as over zz practicing surgeons. Working with established Continuing Medical Education (CME) programs, the project team plans to implement a professional development program to train over xxx multidisciplinary surgeons. Recognizing that robotic surgery can be difficult to teach, this project will create a RONS Virtual Patient model, consisting of Skill Builder Tutorial, Simulated Patient Visits, and a Performance Assessment Scorecard, which can be accessible worldwide. By project’s end, a broader impact of this project will be (a) new partnerships in international medical education and medical resident exchange programs, and (b) a new research community impetus to learn how robotic applications can further transform the social, economic, and political environments of resource-poor communities.”

“**Dissemination.** The dissemination plan and implementation strategies encompass a broad array of active and passive approaches that target multiple stakeholders and are adequately detailed to gauge their likely impacts. The innovative dissemination approaches taken in this project go well beyond the traditional published papers, convention presentations, and Web hostings to include iPod updates, video conferences, and White Papers. Further, a “blue-ribbon” advisory council representative of key project dissemination stakeholders will help ensure the distribution of timely information to target audiences. Finally, in the long term, students are the most effective technology transfer dissemination tools. Accordingly, the project’s findings and best practices will be disseminated through a PhD dissertation in the College of Engineering at the University of Einstein. “

“The broader impacts that accrue from cumulative project outcomes will trigger transformational advances in the field of robotic surgery.”

# National Science Foundation (NSF) Integration of Research and Education

Many National Science Foundation (NSF) proposals require a section indicating how you will integrate research and education. Below you will find some ideas and draft templates that can be adapted to your specific circumstances.

At the University of Hawai'i, the integration of research and education is governed by six basic principles. It has a strong administrative commitment. It emphasizes interdisciplinary, collaborative research that yields an eventual economic or societal benefit. It provides students at all levels with a broad range of hands-on practical experiences.

These principles are put into practice at the University of Hawai'i as evidence by the following concrete, observable activities.

1. **Brown Bag Seminars.** STEM faculty and students participate in bi-weekly meetings over the lunch hour to share their latest research activities. Prior meetings have covered such topics as a, b, and c. The average attendance (voluntary) includes x faculty and y students.
2. **Poster Sessions.** Students present the results of their research training at both an annual internal, campus-wide Research Day as well as at various professional society meetings. In the past few years, students have presented posters at x,y, and z society meetings. Poster topics have included, a, b, and c.
3. **Joint Faculty/Student Publications.** Faculty are encouraged to include students as junior authors in publications, when appropriate, a factor that is taken into consideration when annual faculty performance evaluations are conducted. Existing data show that approximately xx joint publications have occurred in the last five years. Sample publication titles have included a, b, and c that have appeared in x, y, and z journals.
4. **Research Methods Courses.** At the University of Hawai'i, xx departmental courses are offered that cover the fundamentals of research design and statistical analysis.
5. **Pilot Projects.** Many courses require students to carry out pilot research projects. In these pilot projects, students gain "hands-on" experience in asking relevant questions, making controlled observations, and interpreting results.
6. **Conference Presentations.** Students developing novel and innovative ideas are encouraged to submit papers for conference presentations. In recent years, xx students have participated in professional society meetings by presenting their recent research findings at x,y, and z societies.

When it comes to integrating research and education, at the University of Hawai'i, we practice what we teach.

## **Integrating Diversity into National Science Foundation (NSF) Programs, Projects, and Activities**

The University of Hawai'i recognizes that diversity and respect for human differences are key sources of intellectual vitality and innovation. The University of Hawai'i not only fully embraces the NSF principle of integrating diversity into its many activities, it ensures that integration occurs at multiples levels throughout the campus. With absolute consistency, it attempts to broaden opportunities and enable participation of all members of the campus community, namely, women, underrepresented minorities, and persons with disability. This commitment is put into practice at the University of Hawai'i as evidence by the following concrete, observable activities.

The Diversity and Equity Initiative (DEI) has served the University of Hawai'i campuses for more than a decade implementing a University strategic goal that honors and respects the differences and contributions of its students, faculty, staff and administration. It funds projects that address issues on ethnicity, race, gender, sexual orientation, disabilities and culture. Promoting campus diversity and a climate of inclusiveness, diversity initiatives have been applied toward teaching, research, performance, trainings, workshops, visiting speakers and through outreach and recruitment activities.

The Office of Multicultural Student Services focuses on outreach activities encouraging individuals from underrepresented groups and underserved communities to seek high education, providing university students opportunities to experience Hawai'i's multicultural contexts, conducting activities promoting cross-cultural understanding and social justice, and promoting the development of and provide a clearinghouse for information and resources related to Hawai'i's multiethnic groups.

- An Office of Student Support Services and Intercultural Affairs oversees programming for special student populations, including under-represented minorities, international students, non-traditional students, students with disabilities, and adult learners. Annual programming includes student retention, cultural programming, international programming, educational programming, and social programming.
- The Office of Human Resources ensures that diversity is directly addressed as a part of the University hiring practices
- University diversity activities are communicated through posting the (insert house organ newsletter) in prominent public areas; web calendar listings of diversity-focused events; announcements in publications, including (whatever you have by way of weekly publications); the University strategic plan; and the student handbook.
- The Student Satisfaction Inventory measures students' satisfaction with college experiences, including diversity topics
- The Office of Enrollment Services has a full-time Assistant Director of Admissions for Multicultural Recruitment
- A Certificate Program in Diversity in Community is offered

# Basic National Institute of Health (NIH) Research Proposal Outline

1. **Specific Aims** (1 page limit for NIH)

2. **Research Strategy**

a. **Significance**

- i. Does the project address an important problem or a critical barrier to progress in the field?
- ii. If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved?
- iii. How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?

In essence, the significance section is your opportunity to succinctly evaluate the existing knowledge and identify the gaps that your project intends to fill. The importance of your project should be related to your specific aims. State why the information to be obtained is useful and what you will do with it after you get it.

b. **Innovation**

The key questions to answer are as follows:

- i. Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions?
- ii. Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense?
- iii. Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed?

Note that these three elements are conceptually similar to the essentials found in the broader impact and intellectual merit sections required in NSF proposals.

c. **Approach**

- i. Preliminary Studies (New Applications)
- ii. Progress Report (Renewals/Revisions)

In either case—new or revised proposals—you will generally address these questions.

- i. Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project?

- ii. Are potential problems, alternative strategies, and benchmarks for success presented?
- iii. If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed? If the project involves clinical research, are the plans for 1) protection of human subjects from research risks, and 2) inclusion of minorities and members of both sexes/genders, as well as the inclusion of children, justified in terms of the scientific goals and research strategy proposed?

Most often times, the maximum page limit for RO1 proposals is 12 pages while R03 or R21 proposals is 6 pages. Many successful NIH grant seekers devote at least 50% of the proposal to the “Approach” section and split the remaining between the “Significance” and “Innovation” sections.

# Writing Resubmission Proposals

Here is a four-part model to craft a resubmission proposal that addresses reviewer criticisms. It typically runs one to three pages, depending on page limitations.

## 1. Introduce Your Response.

In responding to our three reviewer critiques, we've substantially re-evaluated our research context and approach. The summary statements were extremely valuable in preparing this revised proposal. Direct responses to the reviewers' concerns are described below.

## 2. Summarize General Concerns.

All reviewers thought the research topic was highly significant but stressed that important changes were necessary. Accordingly, the changes are extensive: problems and solutions are clearly stated; the significance section specifically describes background information important for the proposed studies, which has been divided into subsections for clarity. The specific aims are better focused. The research design section now explains the experimental approach for each specific aim.

## 3. Cite And Respond To Specific Reviewer Concerns.

The first reviewer was concerned about the apparent lack of coworkers and limited resource description. In response, the PI has now hired an experienced laboratory supervisor and two advanced graduate students. The laboratory supervisor has strong background in cellular biology; thus, preparation of the laboratory samples will be straightforward. Additionally, a new Left Handed Wigit Analyzer has been purchased, enabling us to design more comprehensive experiments and add more experimental data.

The second reviewer felt the electrochemistry temperature experiments were tangential to the overall proposal. In response, we agree, especially since additional laboratory personnel and new equipment permitted us to gain additional preliminary data for the main experiments. Accordingly, the temperature experiments have been deleted in this revised proposal.

The third reviewer thought that although our assays might work, they involved a very risky set of experiments. In response, we took this criticism seriously and explored the matter further in the research literature. Our view remains in line with Reviewer Two who wrote "the use of assays to identify monoclonal antibodies is very novel." This methodological approach was reaffirmed in the Smith and Weston (2007) journal article.

## 4. State Your Conclusion.

In this revised proposal, a wealth of new evidence exists that the proposed experiments will produce useful and publishable information. Moreover, reviewers' concerns have been addressed and the proposal is now presented with a distinct focus on the specific aims. The PI, along with his

established track record and expanded research group, is uniquely postured to carry out the proposed project. We thank the reviewers for their scholarly critique of our original application, which enabled us to substantially improve this revised proposal.

## Proposing a National Model

A national model has four main characteristics.

**First, generalizability.** National models should contain valid, reliable, and generalizable data. Your proposal evaluation should produce data assessing the transferability of your project methods to other comparable situations.

**Second, training.** Your national model should include a training or user's manual that clearly explains in great detail how to implement your methodology. In essence, your training manual represents a step-by-step prescription for others to follow in successfully adapting your project approach to their local situations.

**Third, inquiry.** Your national model should include an estimated minimum of xxx (insert best estimate) requests from others in comparable situations wanting to learn more about your approach. The number of project inquiries received about your national model can be tracked through a tally of emails, phone calls, letters, persons inquiring at poster sessions and conference presentations, and responses to journal publications; all are indices of initial interest in your national model.

**Fourth, adoption.** Your national model should be adopted by a minimum of xx (insert estimate again) organization over the next x (estimate) years. Evidence of adoption will be monitored through the same mechanisms as monitoring inquiries, as noted above; additionally, written references to your national model can be monitored through such bibliometric analyses as the Citation Index, [www.scholar.com](http://www.scholar.com), [www.google.com](http://www.google.com), and [www.scirus.com](http://www.scirus.com).

All four of these characteristics contain quantifiable indices that when pre-determined criteria are met, justify the conclusion that a national model has been developed. Dissemination, of course, is a key to adoption and replication of your national model. Accordingly, the project and its outcomes must be widely disseminated to local, regional, and national stakeholders, as described in another proposal section.

# Data Management and Sharing

## NSF Expectations

NSF expects a two page supplementary document describing how the proposal will conform to NSF policy on dissemination and sharing of research results.

- A valid Data Management Plan may include only the statement that no detailed plan is needed, as long a clear justification is provided.
- The Data Management Plan will be reviewed as part of the intellectual merit and/or broader impacts of the proposal.
- Proposers who feel that the plan cannot fit within the two page limit may use part of the 15-page Project Description for additional data management information.
- FastLane will not permit submission of a proposal that is missing a data management plan.

Data may include, but are not limited to: data, publications, samples, physical collections, software, and models. It is acceptable to state in the Data Management Plan that the project is not anticipated to generate data or samples that require management and/or sharing. You are encouraged to deposit your data in a public database such as the National Technical Information Service. Include any costs of implementing your Data Management Plan in your budget and budget narrative. Your data must be maintained and released in accordance with appropriate standards for protecting privacy rights and maintaining the confidentiality of respondents. If your data has potential intellectual property and commercial value, you can protect that information; your program officer will provide details.

## NIH Expectations

NIH expects a Data Sharing Plan or an explanation of why data sharing is not feasible is expected to be included in all applications where the generation of data is anticipated. Reviewers are instructed to assess the reasonableness of the data sharing plan or the rationale for not sharing research data

- All NIH grant applications where the development of model organisms is anticipated are expected to include a description of a specific plan for sharing and distributing unique model organism research resources generated using NIH funding or state why such sharing is restricted or not possible
- Applications that include Genome Wide Association Studies (GWAS), regardless of the requested costs, are expected to include either a plan for submission of GWAS data to the NIH designated data repository or an appropriate explanation for why submission to the repository will not be possible

Final research data are recorded factual material commonly accepted in the scientific community as necessary to document, support, and validate research findings. This does not mean summary statistics or tables; rather, it means the data on which summary statistics and tables are based. For most studies,

final research data will be a computerized dataset. For example, the final research data for a clinical study would include the computerized dataset upon which the accepted publication was based, not the underlying pathology reports and other clinical source documents. For some but not all scientific areas, the final dataset might include both raw data and derived variables, which would be described in the documentation associated with the dataset.

Given the breadth and variety of science that NIH supports, neither the precise content for the data documentation, nor the formatting, presentation, or transport mode for data is stipulated. What is sensible in one field or one study may not work at all for others. Data must be kept for three years following closeout of a grant or contract agreement. (Contracts may specify different time periods.)

The rights and privacy of human subjects who participate in NIH-sponsored research must be protected at all times. It is the responsibility of the investigators, their Institutional Review Board (IRB), and their institution to protect the rights of subjects and the confidentiality of the data. Prior to sharing, data should be redacted to strip all identifiers, and effective strategies should be adopted to minimize risks of unauthorized disclosure of personal identifiers.

Data can be shared through various dissemination strategies available to the Principal Investigator, including publications, scholarly presentations, data archives, data sharing agreements, or data enclaves. Regardless of the mechanism used to share data, each dataset will require documentation. Documentation provides information about the methodology and procedures used to collect the data, details about codes, definitions of variables, variable field locations, frequencies, and the like.

Data-sharing plan depends on several factors, such as whether or not the investigator is planning to share data, the size and complexity of the dataset, and the like. Below are several examples of data-sharing plans.

#### **Example 1**

The proposed research will involve a small sample (less than 20 subjects) recruited from clinical facilities in the New York City area with Williams syndrome. This rare craniofacial disorder is associated with distinguishing facial features, as well as mental retardation. Even with the removal of all identifiers, we believe that it would be difficult if not impossible to protect the identities of subjects given the physical characteristics of subjects, the type of clinical data (including imaging) that we will be collecting, and the relatively restricted area from which we are recruiting subjects. Therefore, we are not planning to share the data.

### **Example 2**

The proposed research will include data from approximately 500 subjects being screened for three bacterial sexually transmitted diseases (STDs) at an inner city STD clinic. The final dataset will include self-reported demographic and behavioral data from interviews with the subjects and laboratory data from urine specimens provided. Because the STDs being studied are reportable diseases, we will be collecting identifying information. Even though the final dataset will be stripped of identifiers prior to release for sharing, we believe that there remains the possibility of deductive disclosure of subjects with unusual characteristics. Thus, we will make the data and associated documentation available to users only under a data-sharing agreement that provides for: (1) a commitment to using the data only for research purposes and not to identify any individual participant; (2) a commitment to securing the data using appropriate computer technology; and (3) a commitment to destroying or returning the data after analyses are completed.

### **Example 3**

This application requests support to collect public-use data from a survey of more than 22,000 Americans over the age of 50 every 2 years. Data products from this study will be made available without cost to researchers and analysts. User registration is required in order to access or download files. As part of the registration process, users must agree to the conditions of use governing access to the public release data, including restrictions against attempting to identify study participants, destruction of the data after analyses are completed, reporting responsibilities, restrictions on redistribution of the data to third parties, and proper acknowledgement of the data resource. Registered users will receive user support, as well as information related to errors in the data, future releases, workshops, and publication lists. The information provided to users will *not* be used for commercial purposes, and will *not* be redistributed to third parties.

## Post-Doctoral Mentoring Plan

NSF offers the following sample of an acceptable post-doctoral mentoring plan, a required proposal section if requesting post-docs. While it is written in the context of an SBIR/STTR proposal for NSF, it is applicable to all NSF grants.

**This Post-doctoral Researcher Mentoring Plan** has been prepared by <organization name>. The Plan establishes guidelines for work to be performed by a Post-doctoral Researcher in support of the NSF <SBIR or STTR> <Phase I or Phase II> Project Awarded to <company name>, entitled “<title of project>”. The Post-doctoral Researcher assigned to the project will work in <name/university> laboratory and will conduct research on <name tasks>.

**1. Orientation** will include in-depth conversations between <company researcher name> and the Post-doctoral Researcher. Mutual expectations will be discussed and agreed upon in advance. Orientation topics will include (a) the amount of independence the Post-doctoral Researcher requires, (b) interaction with coworkers, (c) productivity including the importance of scientific publications, (d) work habits and laboratory safety, and (e) documentation of research methodologies and experimental details so that the work can be continued by other researchers in the future.

**2. Career Counseling** will be directed at providing the Post-doctoral Researcher with the skills, knowledge, and experience needed to excel in his/her chosen career path. In addition to guidance provided by <post doc researcher name>, the Post-doctoral Researcher will be encouraged to discuss career options with researchers and managers at <university name> and with former students and colleagues of <post doc researcher name>.

**3. Experience with Preparation of Grant Proposals** will be gained by direct involvement of the Post-doctoral Researcher in proposals prepared by <company name>. The Post-doctoral Researcher will have an opportunity to learn best practices in proposal preparation including identification of key research questions, definition of objectives, description of approach and rationale, and construction of a work plan, timeline, and budget.

**4. Publications and Presentations** are expected to result from the work supported by the grant. These will be prepared under the direction of <post doc researcher name> and in collaboration with researchers at <company name> as appropriate. The Post-doctoral Researcher will receive guidance and training in the preparation of manuscripts for scientific journals and presentations at conferences.

**5. Teaching and Mentoring Skills** will be developed in the context of regular meetings within <university name> research group during which graduate students and post-doctoral researchers describe their

work to colleagues within the group and assist each other with solutions to challenging research problems, often resulting in cross fertilization of ideas.

**6. Instruction in Professional Practices** will be provided on a regular basis in the context of the research work and will include fundamentals of the scientific method, laboratory safety, and other standards of professional practice. In addition, the Post-doctoral Researcher will be encouraged to affiliate with one or more professional societies in his/her chosen field.

**7. Technology Transfer** activities will include regular contact with researchers at <company name>. The Post-doctoral Researcher will be given an opportunity to become familiar with the university-industry relationship including applicable confidentiality requirements and preparation of invention disclosure applications.

**8. Success of the Mentoring Plan** will be assessed by monitoring the personal progress of the Post-doctoral Researcher through a tracking of the Post-doctoral Researcher's progress toward his/her career goals after finishing the post-doctoral.