

MSE Dissertation Proposal Written Template

(Based on a NSF Proposal Template)

A. COVER SHEET

B. PROJECT SUMMARY (1 page)

Include a self-contained description of proposed dissertation. Write in the 3rd person and include a statement of objectives and methods to be employed. *Clearly address in separate statements intellectual merit and broader impacts.*

C. TABLE OF CONTENTS

D. PROJECT DESCRIPTION (15 pages)

i. INTRODUCTION

Provide a basic but thorough introduction to your subject. Don't expect reviewers to be familiar with your field so you should include clarifying information for your project. Reviewers are an intelligent, yet diverse audience. State your overall vision and motivating rationale. What is lacking? Provide background and need/significance. Do you have preliminary results?

ii. PROJECT PLAN

Include Goals, Objectives and Deliverables. Describe your Activities. Provide enough information as to why you and your team are expert enough to accomplish the goal. What facilities and resources are available? How will you address a diversity component? Goal?

Include for each Objective: (1) Methods/Activities (2) Expected Results/Deliverables (3) Limitations & alternatives & (4) Timeline/Resources if needed

iii. MANAGEMENT PLAN – for projects with more than one PI

Detail how the project will be managed. Who is responsible overall for the project and include specific roles and responsibilities information for PI, co-PIs and senior personnel. Are there advisory boards? Industry relations? How will communications be handled? Quarterly meetings? Include activities, persons responsible and timeline. Will the project be sustainable and for how long?

iv. EVALUATION/ASSESSMENT PLAN

Be sure to include details about how your project and objectives will be evaluated and how results will be analyzed. Project evaluation should be reflected in the budget as well.

v. DISSEMINATION

How will results be broadly conveyed? Professional conferences, papers, special seminars, etc.

vi. SUMMARY

Summarize project goals and expected outcomes, including how they pertain to broader impacts.

E. REFERENCES CITED (use consistent style – APA, IEEE, Chicago, MLA, etc)

F. BIOGRAPHICAL SKETCHES (2 pages)

Include Professional preparation, appointments, publications (has limits), synergistic activities and collaborators. See example of NSF Biographical Sketch below. A Budget Template can be found here: https://osp.utah.edu/xls/NSF_Budget_Template.xlsx

G. BUDGET (by year and summary)

- i. **BUDGET JUSTIFICATION** - See example of NSF Budget Justification below.

H. FACILITIES, EQUIPMENT & OTHER RESOURCES

I. SPECIAL INFO & SUPPLEMENTARY DOCUMENTATION

J. APPENDICES

K. POST DOCTORAL MENTORING PLAN

Need to include Post Doctoral Mentoring Plan, if any post doctorates are included in project activities.

L. DATA MANAGEMENT PLAN

Need to include Data Management Plan, even if no data will be collected must still include a statement as such in your plan.

Biographical Sketch

Page Limit: 2 pages

NO HYPERLINKS ALLOWED. You may cite URLs, but they may not be active links.

Senior Personnel

A biographical sketch (limited to two pages) is required for each individual identified as senior personnel. (See GPG Exhibit II-7 https://www.nsf.gov/pubs/policydocs/pappg17_1/pappg_2.jsp#Ilex7 for the definitions of Senior Personnel.) Proposers may elect to use third-party solutions, such as NIH's SciENcv to develop and maintain their biographical sketch. However, proposers are advised that they are still responsible for ensuring that biographical sketches created using third-party solutions are compliant with NSF proposal preparation requirements.

The following information must be provided in the order and format specified below. Inclusion of additional information beyond that specified below may result in the proposal being returned without review.

Do not submit any personal information in the biographical sketch. This includes items such as: home address; home telephone, fax, or cell phone numbers; home e-mail address; drivers' license numbers; marital status; personal hobbies; and the like. Such personal information is not appropriate for the biographical sketch and is not relevant to the merits of the proposal. NSF is not responsible or in any way liable for the release of such material. (See also GPG Chapter III.H https://www.nsf.gov/pubs/policydocs/pappg17_1/pappg_3.jsp#IIIH).

Professional Preparation

A list of the individual's undergraduate and graduate education and postdoctoral training (including location) as indicated below:

Undergraduate Institution	Location	Major	B.A./B.S., Year
Graduate Institution	Location	Major	M.A./M.S., Year
Graduate Institution	Location	Major	Ph.D., Year
Postdoctoral Institutions	Location	Area	Inclusive Dates (years)

Appointments

List in reverse chronological order, all the individual's academic/professional appointments beginning with the current appointment.

Products

- (i) A list of up to five products most closely related to the proposed project; and
- (ii) A list of up to five other significant products, whether or not related to the proposed project.

Acceptable products must be citable and accessible including but not limited to publications, data sets, software, patents, and copyrights. Unacceptable products are unpublished documents not yet submitted for publication, invited lectures, and additional lists of products. Only the list of ten will be used in the review of the proposal.

Each product must include full citation information including (where applicable and practicable) names of all authors, date of publication or release, title, title of enclosing work such as journal or book, volume, issue, pages, website and URL or other Persistent Identifier. If only publications are included, the heading "Publications" may be used for this section of the Biographical Sketch.

Synergistic Activities

A list of up to five examples that demonstrate the broader impact of the individual's professional and scholarly activities that focuses on the integration and transfer of knowledge as well as its creation. Examples could include, among others: innovations in teaching and training (e.g., development of curricular materials and pedagogical methods); contributions to the science of learning; development and/or refinement of research tools; computation methodologies, and algorithms for problem-solving; development of databases to support research and education; broadening the participation of groups

underrepresented in STEM; and service to the scientific and engineering community outside of the individual's immediate organization.

In FastLane, Biographical sketches for all senior project personnel must be uploaded as a single PDF file associated with that individual.

(ii) Other Personnel

For the personnel categories listed below, the proposal also may include information on exceptional qualifications that merit consideration in the evaluation of the proposal. Such information should be clearly identified as "Other Personnel" biographical information and uploaded as a single PDF file in the Other Supplementary Documents section of the proposal.

- (a) Postdoctoral associates
- (b) Other professionals
- (c) Students (research assistants)

Reference: NSF Proposals and Award Policies and Procedures Guide (PAPPG), 17-1, p. 21-22
https://www.nsf.gov/pubs/policydocs/pappg17_1/pappg_2.jsp#IIC2f

Budget Justification Template

Budget Justification

Page Limit: 3 pages

Personnel

A) Senior Personnel (\$xxx requested)

- 1.
- 2.
- 3.
- 4.
- 5.
6. Others (List individually on budget justification)

B) Other Personnel (\$xxx requested)

1. Post Doctoral Fellows
2. Other professionals (Technician, Programmer, etc.)
3. Graduate Students
4. Undergraduate Students
5. Secretarial – Clerical (if charged directly)
5. Other

C) Fringe Benefits (\$xxx requested)

Fringe benefits have been calculated at 30% for all personnel except Undergraduate students, whose fringe benefits have been calculated at 10%. Sponsored awards are responsible for the actual fringe benefits incurred by each employee. Fringe benefits costs have been estimated based on historical data. However, actual costs for fringe benefits are charged (billed) to the sponsored project at the time the cost is incurred, based on salary, selected benefits package, and other variables applicable to the individual employee.

D) Equipment (Items costing \$5000 or more for each item) (\$xxx requested)

1. Name and description of equipment; specs; price per item.

E) Travel (\$xxx requested)

1. Domestic Travel (\$xxx requested)

Provide a justification for the travel. Include the number of travelers, destination, number of days/months of travel, lodging, meals, ground transportation, airfare.

2. Foreign Travel (\$xxx requested)

Provide a justification for the travel. Include the number of travelers, destination, number of days/months of travel, lodging, meals, ground transportation, airfare.

F) Participant Support Costs (\$xxx requested)

Number of Participants:

1. Stipends (\$xxx requested)
Amount per person
2. Travel (\$xxx requested)
Destination, number of days/months of travel, ground transportation
3. Subsistence (\$xxx requested)
Lodging, meals
4. Other (\$xxx requested)

G) Other Direct Costs (\$xxx requested)

1. Materials and Supplies (\$xxx requested)

Computers costing less than \$5,000 each should be listed in this section of the budget and budget justification. The justification for purchasing computer equipment must include an explanation of how the computer equipment will be used, and why currently available computer equipment is not sufficient to complete the proposed work.

2. Publication Costs/Documentation/Dissemination (\$xxx requested)
3. Consultant Services (includes stipends and travel expenses) (\$xxx requested)
4. Computer Services (\$xxx requested)
5. Subawards (calculate IDC on first \$25,000 only of each subaward totaling \$25,000 or more)
(List each) (\$xxx requested)
6. Other (\$xxx requested):
 - Tuition for GRAs (\$xxx requested)
 - Human Subjects Payments (\$xxx requested)
 - Park/Station/Archive Fees (\$xxx requested)
 - Etc. Add additional if needed.

Total Direct Costs (\$xxx requested)

Indirect Costs (\$xxx requested)

The University of Texas at Austin's federally negotiated indirect rate for or 55% is appropriate for this project.

Total Project Costs (\$xxx requested)

Current and Pending Support

Page Limit: None

SPECIAL NOTE: *The proposal you are currently working on must be included as a pending proposal in this section for the PI and all Co-PIs and non-PI or Co-PI key senior personnel. This applies to collaborative proposals from multiple organizations. The total amount requested should correspond to the budget being submitted by the institution supporting the key personnel.*

This section of the proposal calls for required information on all current and pending support for ongoing projects and proposals, **including this project**, and any subsequent funding in the case of continuing grants. All current project support from whatever source (e.g., Federal, State, local or foreign government agencies, public or private foundations, industrial or other commercial organizations, or internal funds allocated toward specific projects) must be listed. The proposed project and all other projects or activities requiring a portion of time of the PI and other senior personnel must be included, even if they receive no salary support from the project(s). The total award amount for the entire award period covered (including indirect costs) must be shown as well as the number of person-months per year to be devoted to the project, regardless of source of support. Similar information must be provided for all proposals already submitted or submitted concurrently to other possible sponsors, including NSF. Concurrent submission of a proposal to other organizations will not prejudice its review by NSF.

If the project now being submitted has been funded previously by a source other than NSF, the information requested in the paragraph above must be furnished for the last period of funding.

Reference: NSF Proposals and Award Policies and Procedures Guide (PAPPG), 17-1, p. 30, https://www.nsf.gov/pubs/policydocs/pappg17_1/pappg_2.jsp#IIC2h

This information is listed in reverse chronological order with the current DDRIG information as the first entry, so both you and your faculty advisor will have at least one item of pending support. Entries must be formatted according to NSF requirements.

(According to the following instructions, list any pending or current support or your plans to submit the current proposal to another agency in the near future for both yourself and your advisor.)

- List pending support first; future submissions; then current support.
- List most recent item first in reverse chronological order.
- List all current/active awards and all pending awards. Do not list awards that have closed or those that have been rejected.
- Pending Support – List all awards you have applied for that have not been awarded or rejected at the time of the current application. Provide all the requested information for each award.
- Proposal currently being submitted is listed first for all NSF applications.
- Current Support – List all active awards. Do not list grants that have closed or been rejected. Provide all the requested information for each award.
- Follow the format below for each project listed.

Include the following information for each item of support reported. The PI (advisor) should not include person-months for any doctoral dissertation proposals or fellowship proposals on which s/he serves as advisor.

Name (PI, co-PI):

Support (Choose one): Current, Pending, Submission Planned in Near Future

Project/Proposal Title:

Source of Support (sponsor name):

Project Location (list all that apply):

Total Award Amount:

Total Award Period Covered: mm/dd/yyyy to mm/dd/yyyy