Evaluation and Biographical Sketch(es) Webinar

Presenters:  
Dr. Martha Desmond and Dr. Delia J. Valles-Rosales

NSF HSI National Resource Hub for Improving STEM Success: Jump Start Grantsmanship Webinar Series

hsistemhub.org
WHAT IS EVALUATION?

- See if your program works as intended
- Improve your program
- Gain evidence about your programs effectiveness to share with stakeholders and funders.
- Provide new insights or new information that was not anticipated.

Effective Evaluation also:
- Allows projects to tell a story and prove their worth
- Engages multiple perspectives
- Prepares organization to use evaluation ongoing
The Role of the Evaluator

- Helps you develop a road map of how you will achieve your program goals
- Assess progress toward goals
- Collect data that will help you determine if changes/adjustments are needed.
- Provide evidence of program quality and effectiveness

An evaluator should serve as a critical friend, an outside voice who can offer advice and insight.
Well –reasoned, well-organized plan for carrying out activities *including mechanisms* to assess success.

The project plan should indicate *(through the inclusion of a logic model)* the connections among project goals, activities, outputs and outcomes.

Proposals need to indicate how projects will provide ongoing critical reviews of all components of their design and activities. The call for proposals continues by providing specific examples and provides numerous references.

*…..read the call carefully*
Help ensure a common understanding about the projects structure, connections and expected outcomes.

Assist in focusing the evaluation design on the most critical elements.

**Logic models** are a particular kind of conceptual model, which describes the pieces of the project and expected connections among them.
# EXAMPLE LOGIC MODEL

<table>
<thead>
<tr>
<th>Planned Work</th>
<th>Intended Outcomes</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inputs</strong></td>
<td><strong>Activities</strong></td>
<td><strong>Outputs</strong></td>
</tr>
<tr>
<td>Resources</td>
<td>Partner tasks</td>
<td>Documentable occurrences</td>
</tr>
<tr>
<td>Core Partners</td>
<td>- State</td>
<td>Tracking system implemented and data used for updates and reporting</td>
</tr>
<tr>
<td></td>
<td>- University</td>
<td># Students enrolled</td>
</tr>
<tr>
<td>Students</td>
<td>- STEM</td>
<td># Students retained</td>
</tr>
<tr>
<td></td>
<td>- Graduate</td>
<td># Mentor-student meetings</td>
</tr>
<tr>
<td></td>
<td>- Undergraduate</td>
<td># Internships available, internships filled, and completed by location or agency</td>
</tr>
<tr>
<td>Financial</td>
<td>- Grant Funding</td>
<td>Evaluation feedback</td>
</tr>
<tr>
<td></td>
<td>- Scholarship</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Funding</td>
<td></td>
</tr>
<tr>
<td>Institutional</td>
<td>- Office of</td>
<td></td>
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<tr>
<td></td>
<td>Diversity and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inclusion</td>
<td></td>
</tr>
<tr>
<td>Administrative</td>
<td>- Admin asst (50%)</td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Program:**
- 1st cohort of at least 3 students is recruited
- Indicators of program success are identified
- Acquires more funding and/or resources
- Recruitment is happening via word-of-mouth via students
- Has a larger 2nd cohort
- Every student has an internship
- Students are retained in the program

**Students:**
- Feel their participation is worthwhile providing them with unique opportunities.
- Develop an awareness of career opportunities.
- Are doing well academically
- Are engaged in extra-curricular activities
- Have a sense of belonging in their cohort
- Can engage confidently with other professionals
- Have a clear vision for their stem careers
- Graduate

**Graduates are:**
- Doing well in their careers
- In a professional positions related to what the STEM program prepared them for
Research Component vs Project Evaluation

Research Design
- The research design addresses a research question and/or hypothesis that is important to the project and the field and is appropriate to the size and scope of the project.

Project Evaluation: Measures to Assess Success
- The evaluation plan examines all aspects of the project activities to inform the project's progress towards its goals and is appropriate to the size and scope of the project.

- Successful proposals will have well-aligned research questions/hypotheses, methods, analyses, project activities, and project evaluation.

From Dr. Erika Camacho’s 6/23/2020 webinar
Research Component vs Project Evaluation

Research vs. Evaluation

- Research
  - What happens to the soup’s flavor when I use different ingredients?
  - How does the rate of cooling change when I use different bowls?

- Evaluation
  - Did I use appropriate procedures to make the soup?
  - Did I adequately consider the possible ingredients I might use?

From Dr. Erika Camacho’s 6/23/2020 webinar
• **Formative evaluation** – formal and informal assessment while project is ongoing – intended for project development and improvement. Allows for modification/adjustment of program.

• **Summative evaluation** – assessment at the end of the project. Did your project meet its goals.
Formative vs Summative Evaluation

From Steve Wheeler's blog "The AEL Truth About Assessment"

From Dr. Erika Camacho's 6/23/2020 webinar
QUESTIONS AND CONSIDERATIONS FOR SELECTING AN EVALUATOR

Questions for your Project
- What phase of the project do you want to evaluate
- How much can you afford to pay?
- Is expertise in your content area important for an evaluator?

Questions for a potential evaluator
- What are their qualifications?
  *Such as:* formal education, evaluation philosophy, communication skills, recommendations, past work products, cultural responsiveness.
- What experience do they have with different types of evaluation?
  *Such as:* formative, summative, participatory, etc.

Evaluators can help introduce the evaluation to staff members and help them perceive it as important and not as a distraction or burden.
You may not be able to evaluate everything. Evaluators can help you prioritize and craft an evaluation plan that is feasible and meaningful.

It will make your proposal stronger to have a well thought out evaluation plan.

It sets the right tone that the evaluator is an important partner to the team from the start.

When you are awarded, you will not have to bring an evaluator up to speed. They will be ready to hit the ground running.

How to communicate
Work with your evaluator while developing your NSF Proposal: Zoom, email, in Person, etc.
BUDGETING AND CONTRACTS

- Generally expect to allocate 10% of budget to evaluation.
- A contract should specify:
  - Who owns the evaluation information
  - Publishing expectations and ownership
  - Scope of work
  - Who will perform specific evaluation tasks (evaluator or program staff)
  - Communication plan between evaluator and staff (schedule, deliverables, meetings, etc.)
  - Billing
- Options for payment are through a subcontract or a professional contract

*Internal* could be less costly because their time is covered by salary, while *external* are a higher fee rate but only used as needed.
FINDING AN EVALUATOR

- Engaging an evaluator early in the grant’s lifecycle is important.
  - Include them in the writing phase if possible.
- Plan for approximately 3-6 months of evaluation planning before data collection can begin.

Website resources:
American Evaluation Association: www.eval.org
Center for the Advancement of Informal Science Education:
https://www.informalscience.org/member-directory
BIOGRAPHICAL SKETCHES

- What NSF HSI program is looking for? PAPPG
- Align biosketches to your project goals and objectives
- What information to include in
  - Key personnel
    - Your biosketch
    - Your CoPIs
  - Evaluator biosketch

https://www.youtube.com/watch?v=af7SY0hKSXM
From PAPPG 20-1: Exhibit II-1: Proposal Preparation Checklist

Biographical Sketch(es):

[ ] A separate biographical sketch has been prepared through use of an NSF-approved format and provided for each individual identified as senior personnel. The pdf file(s) has been uploaded into FastLane, Research.gov or Grants.gov.

[ ] Each biographical sketch does not exceed two pages.

[ ] The content described has been prepared in accordance with the instructions, and does not contain additional information beyond that specified.

[ ] A list, in reverse chronological order by start date of all of the individual's academic, professional, or institutional appointments, beginning with the current appointment, has been provided for each individual.

[ ] A list of: (i) up to five products most closely related to the proposed project; and (ii) up to five other significant products, whether or not related to the proposed project has been provided. Each product includes the 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.

[ ] A list of up to five distinct examples that demonstrate the broader impact of the individual's professional and scholarly activities that focus on the integration and transfer of knowledge as well as its creation has been provided. The synergistic activities provided are specific and do not include multiple examples to further describe the activity.
PAPPG: BIOGRAPHICAL SKETCH(ES)

(i) Senior Personnel ........................................................................................................ II-13
   (a) Professional Preparation ................................................................................ II-13
   (b) Appointments ..................................................................................................... II-14
   (c) Products ............................................................................................................. II-14
   (d) Synergistic Activities ....................................................................................... II-14
(ii) Other Personnel ....................................................................................................... II-14
I) SENIOR PERSONNEL

- A separate biographical sketch (limited to two pages) must be provided through use of an NSF-approved format, for each individual designated as senior personnel. (See Exhibit II-3 for the definitions of Senior Personnel.)

- 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; driver’s license number; 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 Chapter III.H).
(a) Professional Preparation

- A list of the individual's undergraduate and graduate education and postdoctoral training (including location) as indicated below:
  - Undergraduate Institution(s) Location Major Degree & Year
  - Graduate Institution(s) Location Major Degree & Year
  - Postdoctoral Institution(s) Location Area Inclusive Dates (Years)

(b) Appointments

- A list, in reverse chronological order by start date of all the individual's academic, professional, or institutional appointments, beginning with the current appointment. Appointments include any titled academic, professional, or institutional position whether or not remuneration is received, and whether full-time, part-time, or voluntary (including adjunct, visiting, or honorary).
EXAMPLE OF SECTIONS A AND B

Juan Doe
Biology Instructor
Southwest Junior College, Uvalde, TX

A. PROFESSIONAL PREPARATION

<table>
<thead>
<tr>
<th>Institution</th>
<th>Degree</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sul Ross State University</td>
<td>Geography</td>
<td>BA</td>
</tr>
<tr>
<td>University of North Carolina, Wilmington, NC</td>
<td>Biology</td>
<td>MS</td>
</tr>
<tr>
<td>University of Texas-El Paso</td>
<td>Biology</td>
<td>PhD</td>
</tr>
</tbody>
</table>

B. APPOINTMENTS

<table>
<thead>
<tr>
<th>Position</th>
<th>Institution</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology Instructor</td>
<td>Mohave Community College</td>
<td>2017-present</td>
</tr>
<tr>
<td>Program Manager for Natural Sciences</td>
<td>Mohave Community College</td>
<td>2017-present</td>
</tr>
<tr>
<td>Biology Instructor</td>
<td>El Paso Community College</td>
<td>2012-2016</td>
</tr>
<tr>
<td>Biology Instructor</td>
<td>Cape Fear Community College</td>
<td>2009-2014</td>
</tr>
</tbody>
</table>
(C) PRODUCTS

- A list of: (i) up to five products most closely related to the proposed project; and (ii) 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.
C. PRODUCTS MOST CLOSELY RELATED


4. Doc, J., and J. Johnson. 2016. Leading to Straighter Paths: The AAS to BAAS Regional Template. Texas Community College Instructional Leaders Fall Conference, Austin, TX


OTHER SIGNIFICANT PRODUCTS

1. Ten easy ways to engage your students, Workshop participant, El Paso Community College, August 2015


(D) SYNERGISTIC ACTIVITIES

- A list of up to five distinct examples that demonstrates the broader impact of the individual's professional and scholarly activities that focus on the integration and transfer of knowledge as well as its creation.

- Synergistic activities should be specific and must not include multiple examples to further describe the activity.

- Examples may include, among others: innovations in teaching and training; 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.
**EXAMPLE OF SECTION D**

**D. SYNERGISTIC ACTIVITIES**

1. Developed and promoted 2+2 natural science pathways between Mohave Community College and the University of Nevada.

2. Have mentored community college students in STEM fields for 10 years across multiple institutions. My roles have included classroom instruction, course schedules and transfer options and outside classroom activities that expose students to networking, professional presentations and hands on experiential learning activities.

3. Have served in leadership roles that have included faculty search committee, student success committee, program manager for natural sciences, faculty advisor for Associated Student Government.

4. Teach STEM related classes in various formats including face to face, in hybrid form and 100% online. Have developed one new class (field biology 1 and 2) and have restructured two classes Anatomy and Physiology and Cellular and Organismal Biology at Mohave Community College.

5. I have received numerous teaching awards including 2018 Mohave Community College Teaching Excellence Award, 2018, 2016 National Institute for Staff and Organizational Development Award, El Paso Community College and 2009 Faculty Member of the Year, Math, Engineering, and Science, Cape Fear Community College.
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)
The requirement to use an NSF-approved format for preparation of the biographical sketch will go into effect for new proposals submitted or due on or after October 5, 2020.

In the interim, proposers must continue to prepare this document in accordance with the guidance specified in the PAPPG (NSF 20-1). NSF, however, encourages the community to use the NSF-approved formats and provide valuable feedback as we enhance them for the October implementation.
New Federal Requirements

As of June 1, 2020 NSF released PAPPG 20-1.

*NSF will require Biosketches to be generated through the use of an NSF-approved format such as SciE NV or a NSF PDF fillable format.
NSF BIOGRAPHICAL SKETCH

NAME:

NSF ID:

POSITION TITLE & INSTITUTION:

A. PROFESSIONAL PREPARATION

List undergraduate and graduate education and postdoctoral training. List the year the degree was received as well as inclusive dates of postdoctoral training. Institution name, Location, Major/Area of Study, Degree (if applicable), Year.

<table>
<thead>
<tr>
<th>INSTITUTION</th>
<th>LOCATION</th>
<th>MAJOR/AREA OF STUDY</th>
<th>DEGREE (if applicable)</th>
<th>YEAR (YYYY)</th>
</tr>
</thead>
</table>

B. APPOINTMENTS

List, in reverse chronological order, all academic/professional appointments beginning with the current appointment. Start/End Year of Appointment, Position Title, Organization, City, State, Country.

<table>
<thead>
<tr>
<th>From - To</th>
<th>Position Title, Organization and Location</th>
</tr>
</thead>
</table>

C. PRODUCTS

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. 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 Uniform Resource Locator (URL) or other Persistent Identifier.
## Submission of a collaborative proposal from multiple organizations

Required sections of the proposal differ based on the organization’s role. The following sections are required for a collaborative proposal submitted by:

<table>
<thead>
<tr>
<th>Lead Organization</th>
<th>Non-Lead Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Cover Sheet</td>
<td>• Cover Sheet</td>
</tr>
<tr>
<td>• Project Summary</td>
<td>• Table of Contents (automatically generated)</td>
</tr>
<tr>
<td>• Table of Contents (automatically generated)</td>
<td>• Biographical Sketch(es)</td>
</tr>
<tr>
<td>• Project Description</td>
<td>• Budget and Budget Justification</td>
</tr>
<tr>
<td>• References Cited</td>
<td>• Current and Pending Support</td>
</tr>
<tr>
<td>• Biographical Sketch(es)</td>
<td>• Facilities, Equipment and Other Resources</td>
</tr>
<tr>
<td>• Budget and Budget Justification</td>
<td>• Collaborators &amp; Other Affiliations Information</td>
</tr>
<tr>
<td>• Current and Pending Support</td>
<td></td>
</tr>
<tr>
<td>• Facilities, Equipment and Other Resources</td>
<td></td>
</tr>
<tr>
<td>• Data Management Plan</td>
<td></td>
</tr>
<tr>
<td>• Postdoctoral Mentoring Plan (if applicable)</td>
<td></td>
</tr>
<tr>
<td>• Collaborators &amp; Other Affiliations Information</td>
<td></td>
</tr>
</tbody>
</table>