DESIGNING
Broader Impacts and Outreach Plans

1. DEVELOP YOUR RESEARCH “HOOK”
How does your research make a positive difference in the world? In other words, why should the average person care about it? Focus not on WHAT you do but WHY. Try to use less than 50 words with no jargon. Some people call this the “elevator speech.”

2. PICK YOUR IMPACT
Choose at least one of the following areas from the NSF grant proposal guide upon which to focus. Which one(s) fit best with your statement above or are areas in which your research could have an impact?

- Full participation of underrepresented groups in STEM (women, persons with disabilities, and underrepresented minorities)
- Improved STEM education and educator development
- Enhanced infrastructure for research and education
- Increase public science literacy and public engagement
- Diverse competitive STEM workforce
- Partnerships between academic, industry and other
- Improved well-being of individuals in society
- Improved national security
- Increase US economic competitiveness

Describe how the proposed impact(s) makes sense with regard to your research goals and objectives.

NSF has defined types of impact in five categories. WHAT CATEGORIES ARE YOU TRYING TO IMPACT?

- BEHAVIOR - intention to change and actual change
- ATTITUDE - changes in perspectives toward self, STEM, scientists or a topic
- SKILLS - interpreting data, procedural aspects of knowing, using devices, scientific inquiry
- INTEREST - engagement/interest in a mission, a scientific topic, concept, phenomena, theory, or career
- KNOWLEDGE - awareness, knowledge, understanding of a particular scientific topic, concept, phenomena, theory, or career

3. DEVELOP YOUR BROADER IMPACTS GOALS AND OBJECTIVES
Create a goal and SMART (see below) objectives.

GOAL - Using the impact info above, create a broad statement about what you hope to achieve or accomplish through the project

YOUR GOAL

OBJECTIVE - And what are your objectives? (Observable, measureable results that would be expected when your goal is achieved)

OBJECTIVES ARE: S - Specific  M - Measureable  A - Aggressive but Attainable  R - Results-oriented  T - Time-bound

WHO  VERB  TARGET  TIME BOUNDARY

Who will do what + why, how much when

YOUR OBJECTIVES
4. CLARIFY YOUR TARGET AUDIENCE(S) AND PARTNERS; VERIFY THE NEED

What audiences will benefit from the strategies you have proposed? Be specific!

____________________________________________________________________________________________________________

What partners will help be part of your plan?

____________________________________________________________________________________________________________

Considering the audiences and partners listed above, use the needs assessment rubric below to confirm there is a demonstrated need from your target audiences and partners for your proposed broader impacts strategies:

<table>
<thead>
<tr>
<th>What is the evidence of need?</th>
<th>Fair</th>
<th>Good</th>
<th>Very Good</th>
<th>Excellent</th>
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<tbody>
<tr>
<td>Prior experience, “Seems like a good idea”</td>
<td>Research on what works; Literature review on similar programs/products/populations/goals</td>
<td>Conversation with and/or direction from stakeholders (Focus Group); Experts review the ideas/plan</td>
<td>Survey of or pilot with potential audience/users about the draft program</td>
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5. CREATE YOUR EVALUATION PLAN

EVALUATION is a process for determining how well project goals were achieved.

IMPACT is defined as the intended and unintended effects on the Behavior, Attitudes, Skills, Interests, and/or Knowledge (BASIK) of participants.

IMPACT is determined based on the DATA YOU COLLECT AS EVIDENCE OF IMPACT (THE RESULTS) and the RIGOR OF THE METHODS AND MEASURES you use to collect those data.

Results x Rigor = Documented Impact

Impact is increased by using evaluation for needs assessment, setting goals and objectives, designing experiences, and during implementation.²

WHAT EVALUATION STRATEGIES WILL YOU USE? How will you know your broader impacts strategies are working? Can you make iterative changes to your plan if it is NOT working?

____________________________________________________________________________________________________________

FINAL CHECKLIST

ARE YOUR BROADER IMPACTS ADDRESSED IN:

☑ Project summary
☑ Project description
☑ Budget
☑ Results of previous funding
☑ Annual and final reports

MERIT REVIEW

☑ Does the proposed activity benefit society or advance societal outcomes?
☑ Does the proposed activity suggest and create, original, or potentially transformative concepts?
☑ Is the plan well-reasoned, well-organized, and based on a sound rationale?
☑ Does the plan incorporate a mechanism to assess success?
☑ How qualified is the individual or team to conduct the proposed activities?
☑ Are there adequate resources available to the PI (either at the home organizations or through collaborations) to carry out the proposed activities?

For help or information, contact Suzi Taylor (taylor@montana.edu) or Jamie Cornish (jcornish@montana.edu) with MSU Extended University
