MID-LIFE PROJECT EVALUATION
setting the stage for continued funding

ATE PI CONFERENCE | OCTOBER 2015 | WASHINGTON DC

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IN YOUR FOLDERS

- Slide handout
- Worksheet
- Results from NSF Prior Support checklist
- Evaluation sessions at the conference
- Feedback survey

FEEDBACK SURVEY
OBJECTIVES

1. **UNDERSTAND** the fundamentals of Intellectual Merit and Broader Impacts
2. **IDENTIFY GAPS** in evaluation data that need to be addressed in order to make a strong case for new funding
3. **FILL GAPS** with low-cost, high-impact evidence
4. **CREATE** a persuasive Results from Prior NSF Support section for proposals

AGENDA

1. Demystifying Intellectual Merit and Broader Impacts
2. BREAK @ ~2:15
3. Using a logic model to identify gaps in evidence
4. Filling evidence gaps
5. Creating a persuasive Results from Prior NSF Support section
INTRODUCE yourself to your tablemates

READ & RESPOND to the question on your icebreaker card
NSF CRITERIA:
INTELLECTUAL MERIT
& BROADER IMPACTS

• Every NSF ATE project should make a difference in terms of both merit criteria
• Every proposal is reviewed against both merit criteria
• Results from Prior Support must be explicitly described in terms of both merit criteria
Evaluation of every project must examine implementation and impact in terms of both merit criteria.

Activities proposed—then implemented and evaluated—will typically fall into two categories defined by the merit criteria:

**Intellectual Merit**
- Potential to advance knowledge and understanding

**Broader Impacts**
- Potential to benefit society or advance desired societal outcomes
REAL PROJECT ACTIVITIES

**Intellectual Merit**

The activity is about contributing to greater understandings of STEM technician training...

...generally **RESEARCH**

**Broader Impacts**

The activity is about the improvement, capacity building, or preparation of some STEM innovation...

...generally **DEVELOPMENT**

• Activities described in a proposal will be influenced by factors in the real world

• The purpose of “research and development” makes responsive, purposeful changes an OK thing

• Evaluation strategies must accommodate—and document—such changes at the activity level
### REAL PROJECT ACTIVITIES

<table>
<thead>
<tr>
<th>Intellectual Merit</th>
<th>Broader Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>• tested the initial efficacy of a student-led, project-based course, which was formerly didactic</td>
<td>• increased retention of female students in course sequence by 25%</td>
</tr>
<tr>
<td>• published results and lessons learned in peer-reviewed journal</td>
<td>• created agreements with 3 local employers for program that places 50 students per year in paid internships</td>
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</tbody>
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#### ACTIVITY 1

identifying your project’s

<table>
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With a PARTNER, use worksheets in your folders
BREAK TIME!
please return in 15 minutes

Enhance your project’s dissemination and share lessons learned in just 300-500 words
www.evalu-ate.org/blog
USING A LOGIC MODEL
to identify gaps in evidence
INPUTS
are the resources brought to bear on a project

ACTIVITIES
the things a project does
OUTPUTS are the tangible results of activities (things you can see and count)

OUTCOMES are the changes brought about through project activities and outputs
SHORT-TERM outcomes are *typically* changes in knowledge, skills, and attitudes

MID-TERM outcomes are *typically* changes in practice or behavior
LONG-TERM outcomes are *typically* changes in social or economic conditions

**ACTIVITY 2**

1. Review your achievements related to **INTELLECTUAL MERIT**. If you have evidence of those achievements, describe the evidence briefly on a **BLUE** sticky note.

2. Review your achievements related to **BROADER IMPACTS**. If you have evidence of those achievements, describe the evidence briefly on a **PINK** sticky note.

3. Place your blue and pink **EVIDENCE NOTES** under the logic model headings where you think they fit best.
**MID-LIFE PROJECT EVALUATION**

Setting the Stage for Continued Funding

**ATE PI CONFERENCE**

October 21, 2015

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Mentored former community college students who have transferred to local 4-year college to research the causes for high dropout rates among first-generation, minority students through in-person and mobile technology-based qualitative data collection techniques.

**EVIDENCE:**

- We adapted a peer-mentoring model for engaging underrepresented minority students directly in data collection and analysis—an approach not documented in the literature.
- We have had two papers accepted for publication on both the design and the results of this study.

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Replaced all traditional remedial courses for students in technician programs with online, on-demand, competency-based modules; augmented online learning with drop-in support sessions lead by specially trained faculty.

**EVIDENCE:**

- Too early for graduation data, but enrollment data show that 50% of students are on track to graduate within 3 years, compared with 15% prior to elimination of remedial courses at our college and 10% of students nationally who take remedial courses.

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FILLING EVIDENCE GAPS with low-cost, high-impact data

Questions from participant sent in advance of this workshop:

- What are the best measures of impact on students for ATE?
- What are the best methods for gathering data on those measures within the context of an ATE grant?
- Is there a difference in the answers to those questions for centers vs. projects?
RESULTS FROM PRIOR NSF SUPPORT

crafting a persuasive description of

specific outcomes and results including metrics to demonstrate the impact of the project

Intellectual Merit

Broader Impacts
FOLLOW THE RULES

Do not exceed 5 pages

FOLLOW THE RULES

Make it the first section of the proposal
FOLLOW THE RULES

Identify the prior project’s
• title
• NSF award number
• period of support

FOLLOW THE RULES

Use these exact, distinct headings:
• Intellectual Merit
• Broader Impacts
FOLLOW THE RULES

Include complete bibliographic citations for all publications —may go in References

SUGGESTIONS

Provide a brief factual account of what the project did, created, and who was engaged
**SUGGESTIONS**

Describe the project’s Intellectual Merit and Broader Impacts, with as much evidence as possible

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**SUGGESTIONS**

Be forthright about what didn’t work and lessons learned
Describe how the current proposal is building on results from prior work.

Describe what aspects of previously funded work are being sustained without NSF support.
QUESTIONS & COMMENTS

FOR MORE INFORMATION

Read Lori’s blog on this topic: www.evalu-ate.org/blog/wingate-oct2015

with links to helpful RESOURCES for understanding and writing about Intellectual Merit and Broader Impact
WORKSHOP EVALUATIONS

THANK YOU!