

MID-LIFE PROJECT EVALUATION
setting the stage for continued funding

ATE PI CONFERENCE | OCTOBER 2015 | WASHINGTON DC

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RESEARCH EVALUATION STRATEGY

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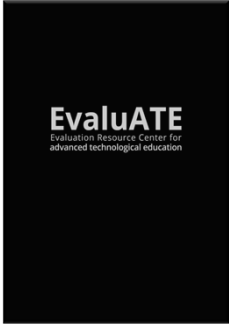
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webinars
newsletters
resource library
annual ATE survey
annual workshop
blog

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IN YOUR FOLDERS



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

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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

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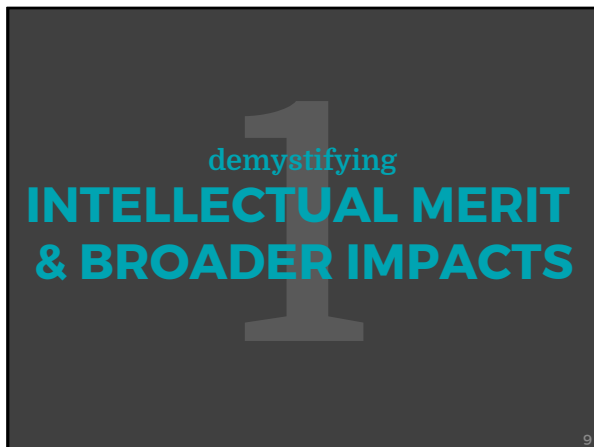
AGENDA

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

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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**



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NSF CRITERIA:
**INTELLECTUAL MERIT
& BROADER IMPACTS**

- 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**

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NSF DEFINITIONS

<p>Intellectual Merit</p>  <p>Potential to advance knowledge and understanding</p>	<p>Broader Impacts</p>  <p>Potential to benefit society or advance desired societal outcomes</p>
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REAL PROJECT ACTIVITIES

Intellectual Merit	Broader Impacts
The activity is about contributing to greater understandings of STEM technician training...	The activity is about the improvement, capacity building, or preparation of some STEM innovation...
...generally RESEARCH	...generally DEVELOPMENT

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REAL PROJECT ACTIVITIES

- 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

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REAL PROJECT ACTIVITIES


Intellectual Merit	Broader Impacts
<ul style="list-style-type: none">• tested the initial efficacy of a student-led, project-based course, which was formerly didactic• published results and lessons learned in peer-reviewed journal	<ul style="list-style-type: none">• increased retention of female students in course sequence by 25%• created agreements with 3 local employers for program that places 50 students per year in paid internships

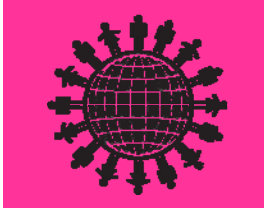
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ACTIVITY 1

identifying your project's

Intellectual Merit **Broader Impacts**





With A PARTNER, use worksheets in your folders

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EvalUATE BLOG

Enhance your project's dissemination
and share lessons learned
in just 300-500 words
www.evaluate.org/blog

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USING A LOGIC MODEL
to identify gaps in evidence

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INPUTS
are the resources brought
to bear on a project

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ACTIVITIES
the things a project does

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OUTPUTS
are the tangible results of
activities (things you can see
and count)

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OUTCOMES
are the changes brought about
through project activities and outputs

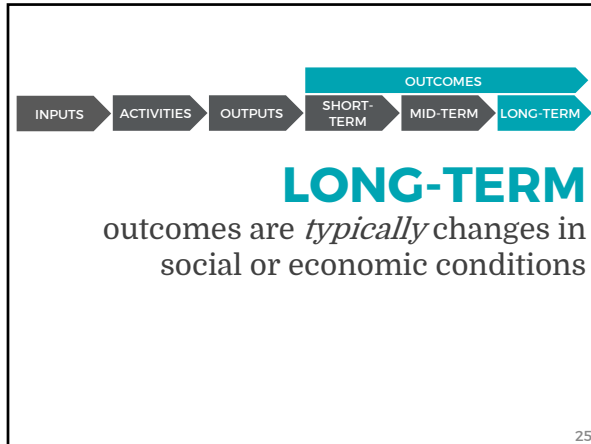
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SHORT-TERM
outcomes are *typically* changes in
knowledge, skills, and attitudes

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MID-TERM
outcomes are *typically* changes in
practice or behavior

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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.

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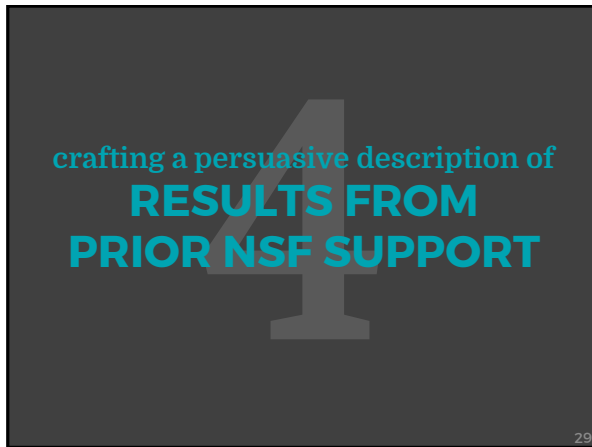
INTELLECTUAL MERIT: Advances in Knowledge X innovative? <i>Mentored former community college students who have transferred to local 4-year college to research the causes for high dropout rates among first-generation, minority students through in-person and mobile technology-based qualitative data collection techniques</i>	<i>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.</i>
BROADER IMPACTS: Benefit to society and contributions to desirable societal outcomes X serving groups that have historically been underrepresented in STEM? <i>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</i>	<i>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</i>



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

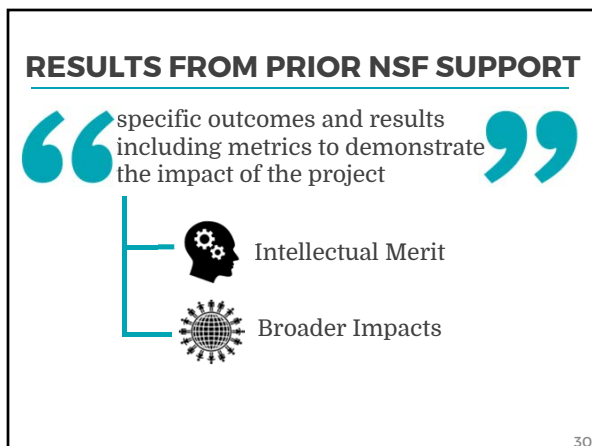
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crafting a persuasive description of
**RESULTS FROM
PRIOR NSF SUPPORT**

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RESULTS FROM PRIOR NSF SUPPORT

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

- Intellectual Merit
- Broader Impacts

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FOLLOW THE RULES

Do not exceed 5 pages

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FOLLOW THE RULES

Make it the first section of the proposal

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FOLLOW THE RULES

Identify the prior project's

- title
- NSF award number
- period of support

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FOLLOW THE RULES

Use these exact, distinct headings:

- Intellectual Merit
- Broader Impacts

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FOLLOW THE RULES

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

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SUGGESTIONS

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

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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

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SUGGESTIONS

Describe how the current proposal is building on results from prior work

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SUGGESTIONS

Describe what aspects of previously funded work are being **sustained** without NSF support

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FOR MORE INFORMATION

Read Lori's blog on this topic:
www.evaluated-ate.org/blog/wingate-oct2015
with links to helpful
RESOURCES
for understanding and writing about
Intellectual Merit and Broader Impact

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