

NSF ATE Evaluation Essentials for Non-Evaluators: Understanding the Basics and Benefits of Evaluation

Begins at 3 p.m. Eastern



1



2

Slides available at:
evalu-ate.org/webinar/march23

1

OUR Vision

EvaluATE envisions an ATE community in which evaluation is valued, systematic, and used to improve the education of technicians in high-tech fields.





3

OUR Vision

EvaluATE envisions an ATE community in which evaluation is valued, systematic, and used to improve the education of technicians in high-tech fields.

OUR Mission

EvaluATE's mission is to engage the ATE community with information, expertise, and tools to advance high-quality evaluation.



4

Materials



Slides



Additional Resources

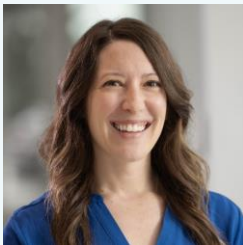


Recording



5

Introductions



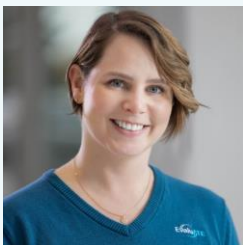
Samantha

Hooker



Brianna

Hooks Singletary



Lyssa

Wilson Becho



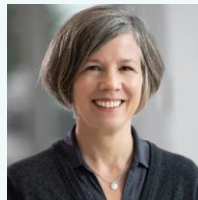
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Behind the Scenes & Thank You



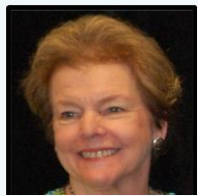
**Maureen
Green**



**Lori
Wingate**



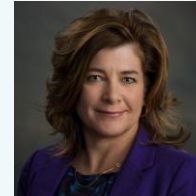
**Carolyn
Williams-Noren**



**Elaine
Craft**



**Pam
Silvers**



**Emery
DeWitt**



7



This material is based upon work supported by the National Science Foundation under Grant Nos. 1841783 and 2332143. The content reflects the views of the authors and not necessarily those of NSF.



8



Lyssa



Brianna



9

One Word

CHAT QUESTION

- What is one word that comes to mind when you hear “evaluation”?

Answer
in chat box

10

Meet Jen Genericson*



She has a GREAT idea
for an ATE proposal

*This is a fictional character and project.
Any resemblance to actual persons or projects is coincidental.

11

NSF 24-584: Advanced Technological Education (ATE)


Program Solicitation

Document Information

Document History

- **Posted:** June 24, 2024
- **Replaces:** NSF 21-598

[View the program page](#)

 **National Science Foundation**
Directorate for STEM Education
Division of Undergraduate Education

Full Proposal Deadline(s) (due by 5 p.m. submitting organization's local time):
October 03, 2024
First Thursday in October, Annually Thereafter

12

Slides available at:
evalu-ate.org/webinar/march23

Evaluation: All ATE-funded work must be evaluated. Project descriptions must include a subsection titled "Evaluation Plan" that includes the following information:

- The primary role of the evaluator is to analyze collected data to summarize findings and inform project team decision making about any modifications to activities (i.e., formative evaluation). At the end of the project provide a summative evaluation identifying key accomplishments learned.
- Clear alignment between the evaluation plan and the project outcomes, activities, and deliverables must be detailed.
- Surveys should be developed in partnership; project team staff may administer surveys.
- Routine metrics may be collected by a member of the project funds to support these activities.
- The specific data sources, data collection instruments, and methods should be identified.
- A timeline for the evaluative activities must be included that identifies when data will be collected, when reports will be submitted, and the frequency of communication between the external evaluator and project personnel.
- The inclusion of a logic model is optional, and proposals will not be negatively impacted if not included.
- If evaluation is being performed by a team, the project management plan should clearly describe the expertise and role/responsibility of each member; the budget should reflect this distribution of effort.

All ATE-funded work must be evaluated, with the exception of planning grants for centers.

13

? What is evaluation?

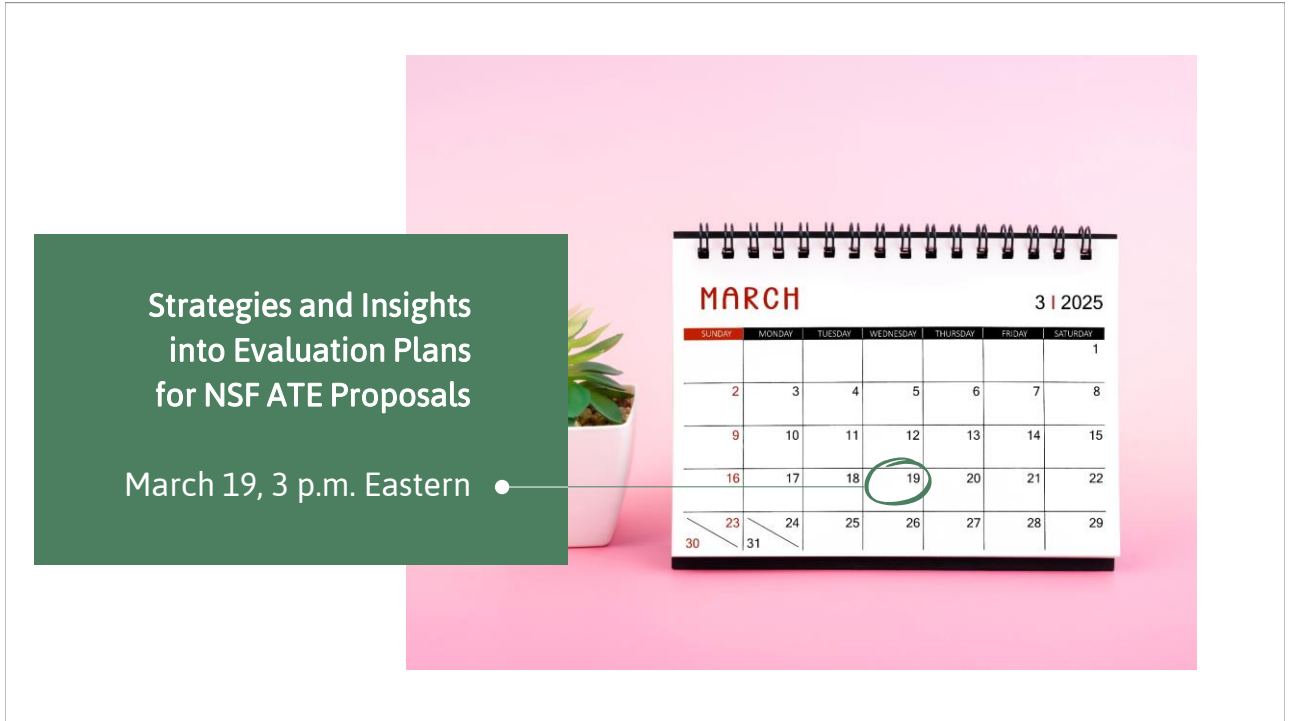
Why should I do it?

\$ How much does it cost?

Who can evaluate?

Where do I find an evaluator?

14



Strategies and Insights
into Evaluation Plans
for NSF ATE Proposals

March 19, 3 p.m. Eastern

MARCH							3 2023
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
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2	3	4	5	6	7	8	
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23	24	25	26	27	28	29	
30	31						

15

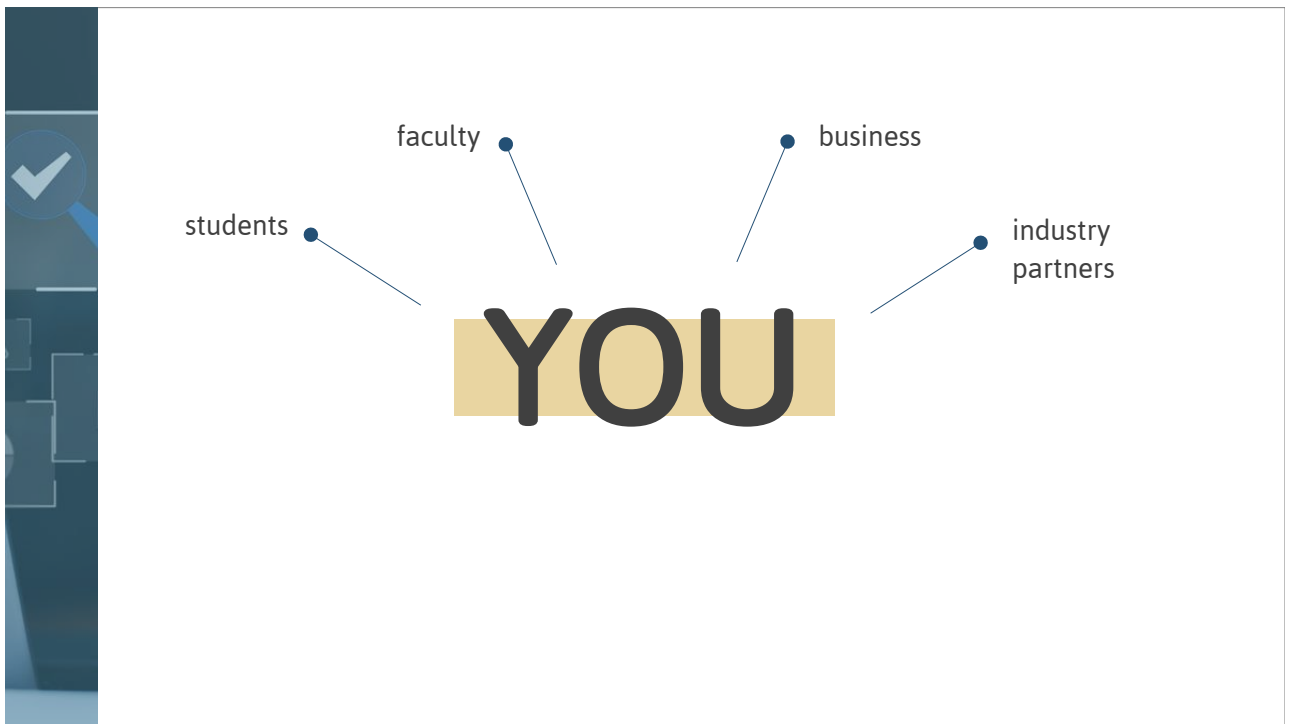


What is evaluation?

16



17



18



19



20

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10



21

Poll Question

When should you **start** thinking about evaluation in your grant process?

- A** **During proposal development** – Building evaluation into the project from the start
- B** **At project kickoff** – Once funding is secured and activities begin
- C** **Near the end of the project** – Primarily for reporting and future planning

Answer in poll box

22

Poll Question

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23



? What is evaluation?



Why should I do it?




24



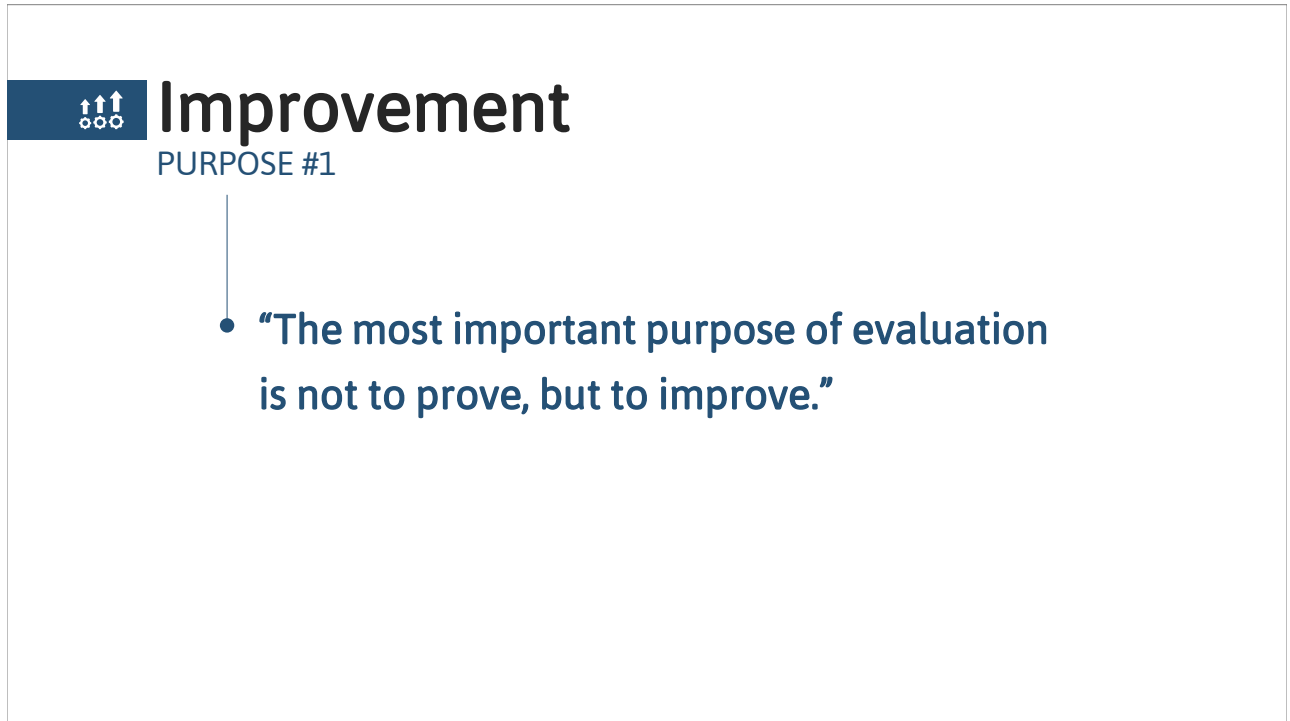
25


Evaluation

PURPOSES

-  Project improvement
-  Accountability
-  Evidence

26



 **Improvement**
PURPOSE #1

- “The most important purpose of evaluation is not to prove, but to improve.”

27



 **Improvement**
PURPOSE #1

 **Joint Committee on Standards
for Educational Evaluation**

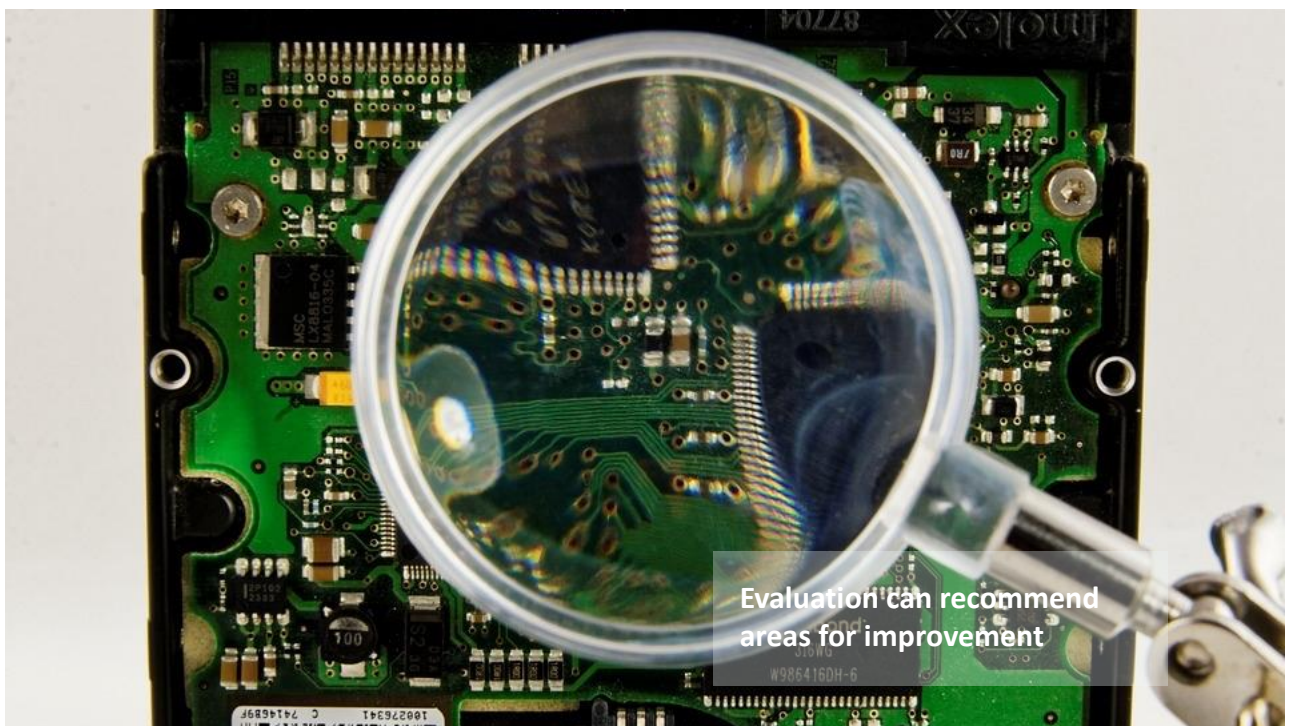
- **Utility**
- Feasibility
- Propriety
- Accuracy
- Accountability

Learn more at
evaluationstandards.org/program

28



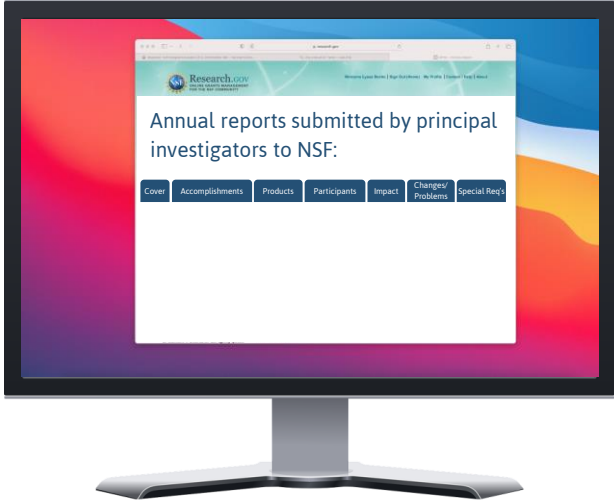
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30

Accountability

PURPOSE #2



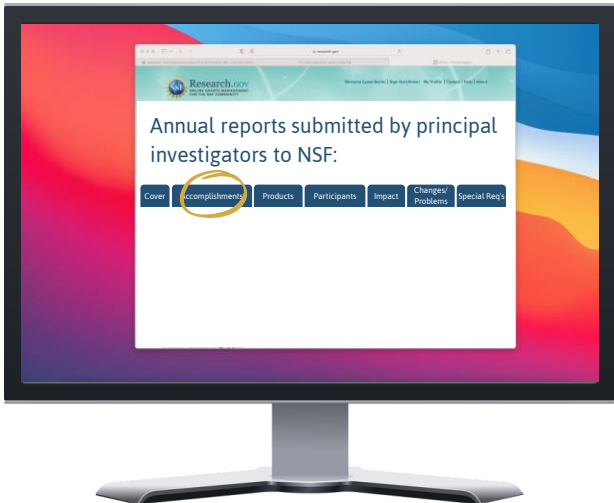
33

Accountability

PURPOSE #2

Accomplishments

- Report on goals, activities, objectives, results, outcomes
- Upload evaluation report




34

Accountability

PURPOSE #2

Changes/ Problems

- Use data to justify changes in project plans



35

Evidence

PURPOSE #3

So, did it work?

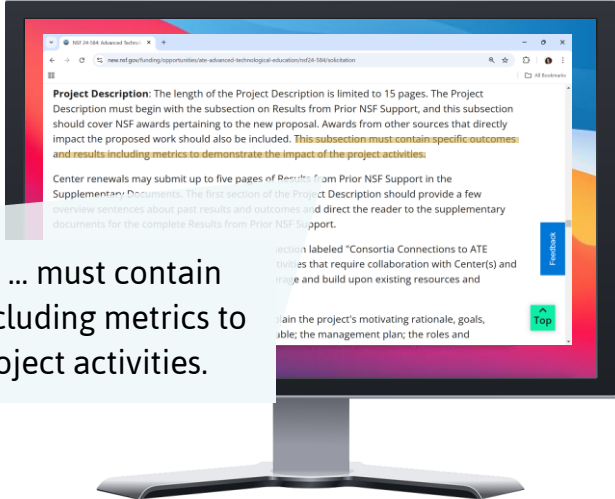


freshspectrum.com

36

Evidence

PURPOSE #3



Results from Prior NSF Support ... must contain specific outcomes and results including metrics to demonstrate the impact of project activities.

Project Description: The length of the Project Description is limited to 15 pages. The Project Description must begin with the subsection on Results from Prior NSF Support, and this subsection should cover NSF awards pertaining to the new proposal. Awards from other sources that directly impact the proposed work should also be included. **This subsection must contain specific outcomes and results including metrics to demonstrate the impact of the project activities.**

Center renewals may submit up to five pages of Results from Prior NSF Support in the Supplementary Documents. The first section of the Project Description should provide a few overview sentences about past results and outcomes and direct the reader to the supplementary documents for the complete Results from Prior NSF Support.

Section labeled "Consortia Connections to ATE Activities that require collaboration with Center(s) and engage and build upon existing resources and

tain the project's motivating rationale, goals, timeline, the management plan; the roles and

37



Which is the best evidence of outcomes?

POLL QUESTION

Example A

The prior project was funded to increase the number of students completing 2-year degrees and entering the technical workforce. Funded activities included developing bridge courses, enhancing recruitment efforts, and developing support resources and strategies for first-generation college students.

Example B

All project objectives were achieved: 150 students enrolled in the new ATE course. 300 first-generation students benefited from newly developed resources aimed at addressing their diverse needs. 400 potential students were reached with new recruitment strategies.

Example C

The average pass rate for targeted courses increased from 62% to 85% (n=325). Student's placement in jobs right after graduation increased from 55% to 84% (n=250). First generation students said that they felt a strong sense of belonging in the program and received additional support that helped them be successful.

Answer
in poll box

38



Which is the best evidence of outcomes?

Example A

The prior project was funded to increase the number of students completing 2-year degrees and entering the technical workforce. Funded activities included developing bridge courses, enhancing recruitment efforts, and developing support resources and strategies for first-generation college students.

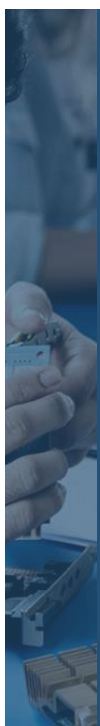
Example B

All project objectives were achieved: 150 students enrolled in the new ATE course. 300 first-generation students benefited from newly developed resources aimed at addressing their diverse needs. 400 potential students were reached with new recruitment strategies.

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39



Your Best Evidence

CHAT QUESTION

- Imagine you've been funded by the NSF ATE program.

What is **one piece of evidence** that you want to be able to say about the success of your project?

Answer
in chat box


40

Resources

RESULTS FROM PRIOR SUPPORT

Results from Prior NSF Support Checklist

Page 8



REQUIREMENTS

- ☐ Limit to 5 pages or less
- ☐ Make it the first section of your proposal. If the proposal is for the renewal of an ATE center, it may be uploaded as a supplementary document rather than presented in the 15-page project description.
- ☐ Describe research and development products and how they have been made available to others
- ☐ Clearly indicate the prior project's
 - Title
 - NSF award number
 - Period of support
- ☐ Present results using these exact, distinct headings:
 - Intellectual Merit
 - Broader Impacts
- ☐ Provide complete bibliographic citations for all publications developed with NSF support, either in the narrative or in the separate references document. If there were no publications, state "No publications were produced under this award."

SUGGESTIONS

- ☐ Provide a brief factual account of what the project did, created, and who was engaged. A list of activities or deliverables is not sufficient evidence of intellectual merit or broader impacts, but it is important for reviewers to understand the nature and scope of your prior work.
- ☐ Present as much hard evidence as possible in describe the project's intellectual merit and broader impacts.
- ☐ Be forthright about what didn't work and lessons learned.
- ☐ Describe how the current proposal is building on the prior project's results.
- ☐ Describe what aspects of previously funded work are being sustained without NSF support.

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41

QUESTION BREAK



Use  chat window

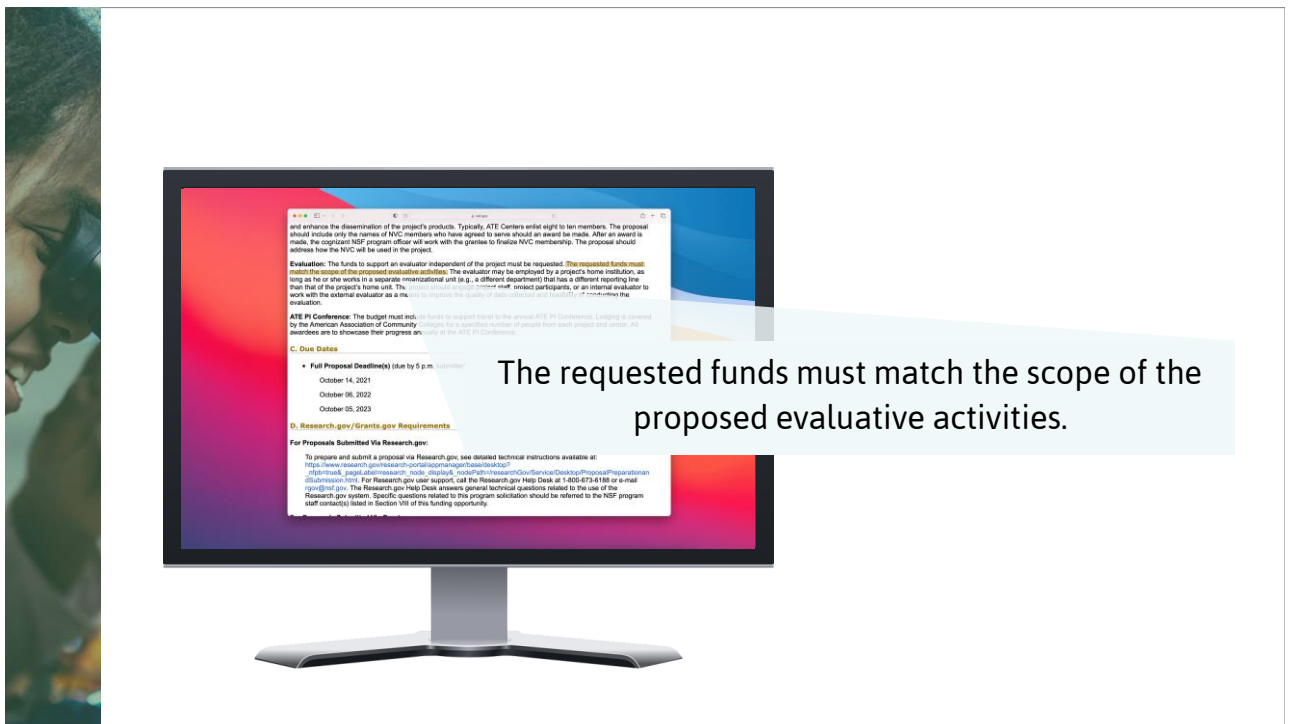
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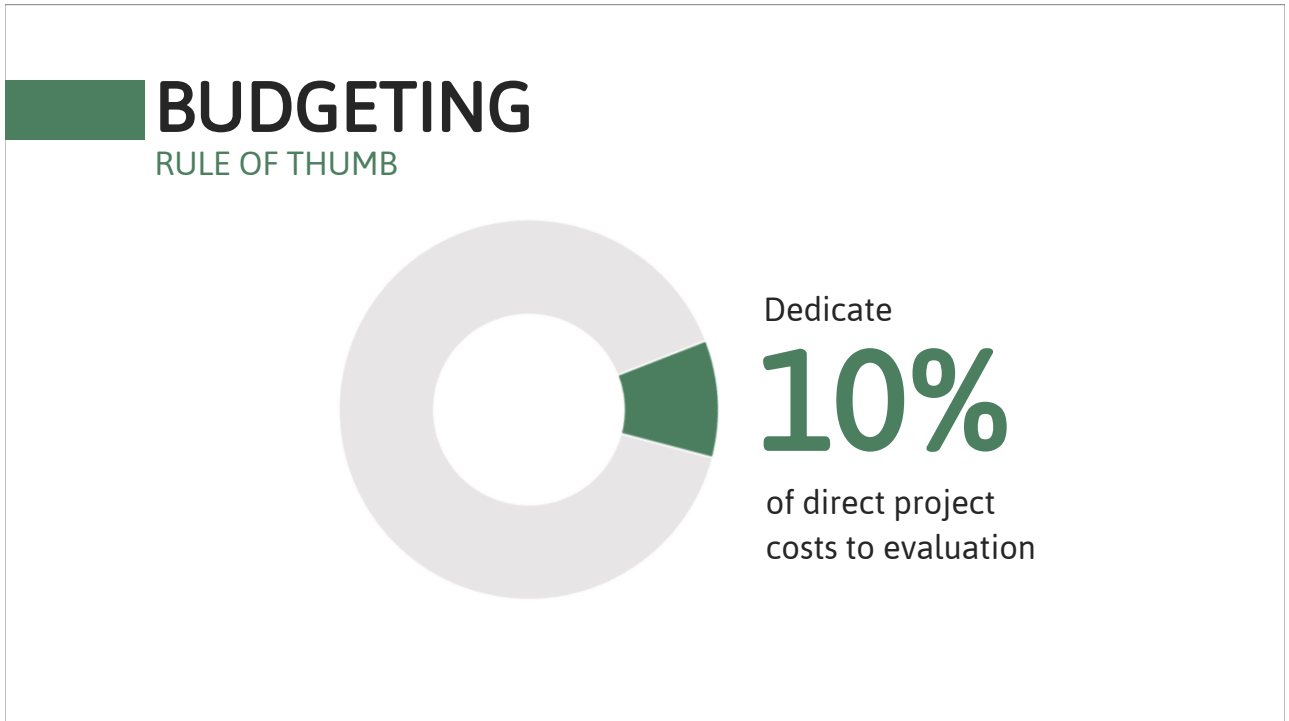


How much does it cost?

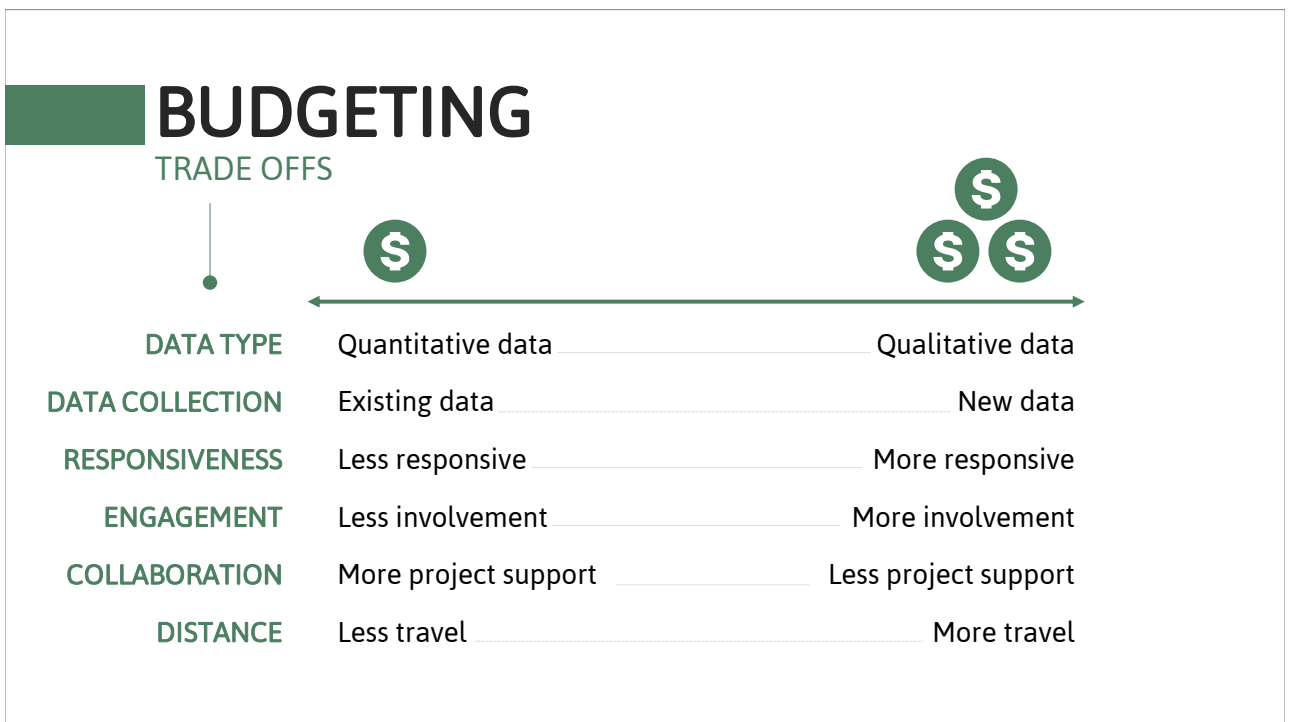
43



44




45



46

BUDGETING

EXAMPLE



Total Project Budget:
\$475,000 over 3 years
-\$95,000 for indirect
\$380,000 direct costs

10% EVALUATION BUDGET:
\$38,000 total for 3 years
\$ 12,666 per year

- Evaluator's time
- Travel costs for site visits
- Evaluator's overhead costs

47



? What is evaluation?

✎ Why should I do it?

\$ How much does it cost?

? Who can evaluate?

48

QUESTION BREAK

Use
chat window

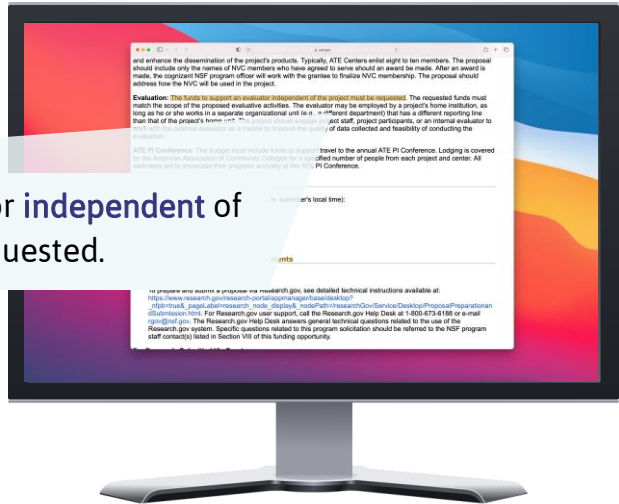
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50

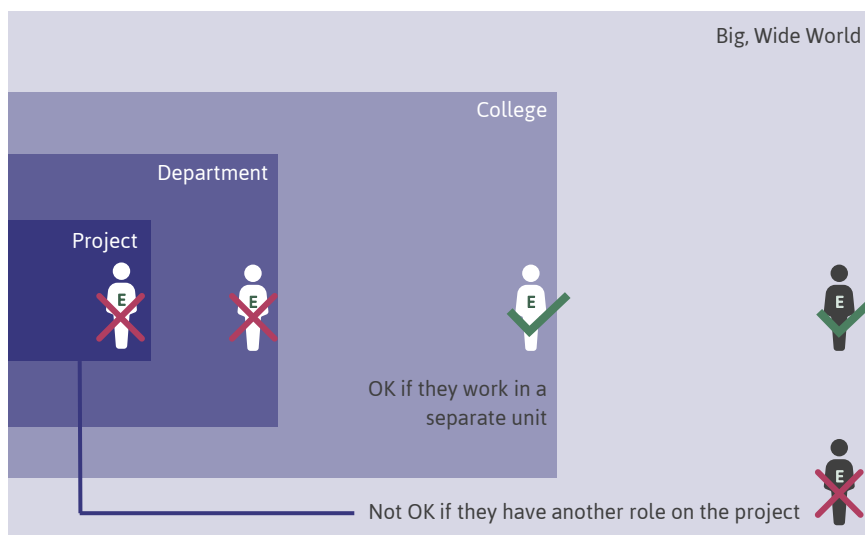
Independent EVALUATOR

The funds to support an evaluator independent of the project must be requested.



51


What counts as an independent?



52

Professional EVALUATORS

- **What to look for in an evaluator:**
 - ✓ Experience as an evaluator
 - ✓ Research skills
 - ✓ Communication skills
 - ✓ Understanding of NSF and 2-year-college contexts



53



Which evaluator would you recommend?

POLL QUESTION

Evaluator A

- Ph.D., Higher education administration
- 10 years of experience leading accreditation teams for technical programs at two-year colleges
- Published 5 research articles and 2 book chapters on technical education and student services

Evaluator B

- M.A., Organizational psychology with emphasis in program evaluation
- Currently serving as lead evaluator for 25 NSF-funded projects
- Recipient of Outstanding Evaluation award from American Evaluation Association

Evaluator C

- M.S., Information technology
- Retired dean of technical programs at community college
- Received more than \$4 million in NSF grants over 20-year career

Answer
in poll box

54



Which evaluator would you recommend?

Evaluator A

- Ph.D., Higher education administration
- 10 years of experience leading accreditation teams for technical programs at two-year colleges
- Published 5 research articles and 2 book chapters on technical education and student services

What is your experience with project evaluation?

- Currently serving as lead evaluator for 25 NSF-funded projects
- Recipient of Outstanding Evaluation award from American Evaluation Association
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55



Which evaluator would you recommend?

Evaluator A

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- 10 years of experience leading accreditation teams for technical programs at two-year colleges
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Evaluator B

- M.A., Organizational psychology with emphasis in program evaluation
- Currently serving as lead evaluator for 25 NSF-funded projects
- Recipient of Outstanding Evaluation award from American Evaluation Association

Do you have time to work on my project's evaluation?

Who would do most of the work and what are their credentials?

Do they have experience with ATE projects?

56



Which evaluator would you recommend?

What research methods do you have experience with?

What is your experience as an external evaluator of grant-funded projects?

Evaluator C

- M.S., Information technology
- Retired dean of technical programs at community college
- Received more than \$4 million in NSF grants over 20-year career

colleges

- Published 5 research articles and 2 book chapters on technical education and student services

- Recipient of Outstanding Evaluation award from American Evaluation Association

57

Resources

QUESTIONS TO ASK AN EVALUATOR

**Getting to Know an Evaluator:
What Should I Ask?**

Page 7

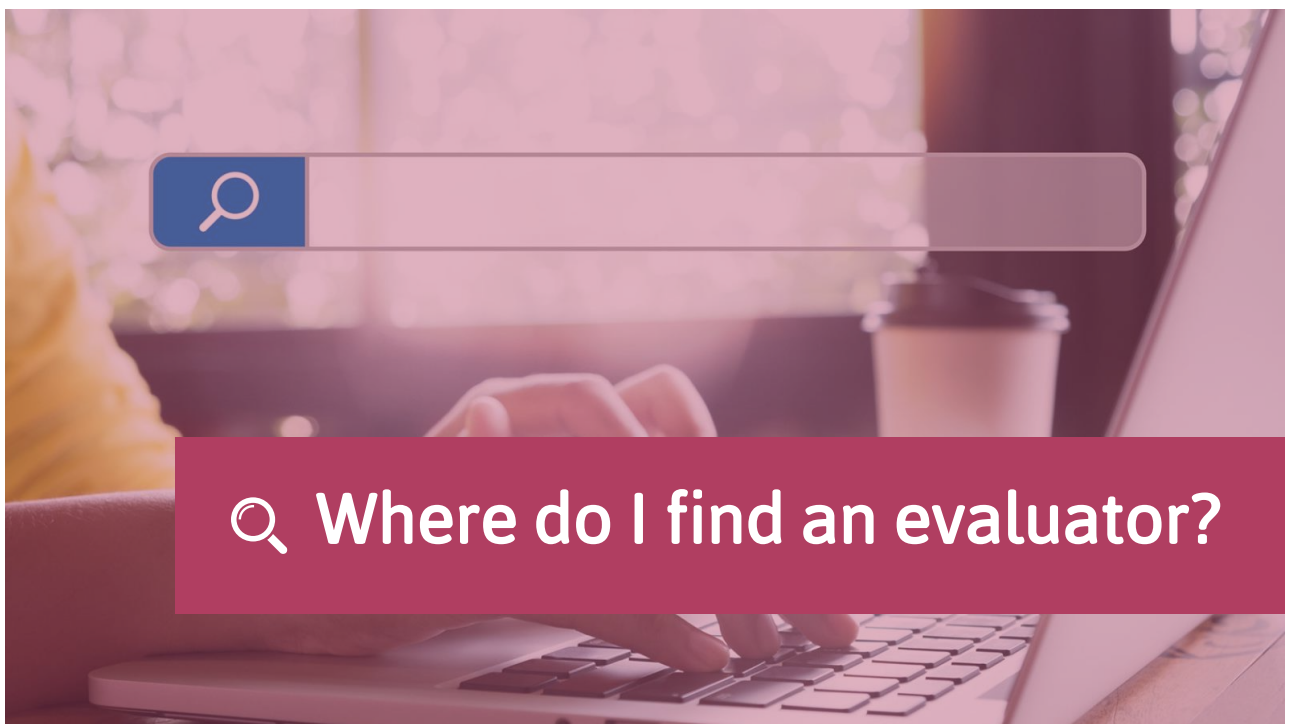
58



A woman with curly hair is shown in a circular frame, looking thoughtful with her hand to her chin. To her right are five speech bubbles containing questions about evaluation:

- What is evaluation?
- Why should I do it?
- How much does it cost?
- Who can evaluate?
- Where do I find an evaluator?

59



A search bar with a magnifying glass icon is overlaid on a background image of a person's hands typing on a laptop keyboard. A coffee cup is visible in the background. A large red bubble with a magnifying glass icon and the text "Where do I find an evaluator?" is positioned at the bottom of the image.

60

Procuring AN EVALUATOR

STEP 1: Talk with your procurement office at your institution to determine your path.

TWO BASIC PATHS

- Institution policies **allow** you to name an evaluator in your proposal → Search for and choose an evaluator
- Institution policies does **not allow** you to name an evaluator in your proposal → Use EvaluATE's resources

61

Resources

PROCUREMENT PROCESS

Guide to Navigating the Evaluator Procurement Process

Page 2

The flowchart 'Mapping Out the Evaluator Procurement Process' starts with the question 'What best describes your award stage?'. It branches into two paths: 'I am in the ATE grant proposal development stage' and 'My ATE project has been awarded'. The 'proposal development' path leads to 'Are you able to work with an independent evaluator to develop an evaluation plan for your ATE proposal?'. If 'No', it refers to resources for writing an evaluation plan. If 'Yes', it asks 'Under your institution's procurement or contracting policies, can you name an evaluator in your project proposal?'. If 'No', it refers to competitive bidding or similar processes. If 'Yes', it asks 'Is a sole source justification allowed?'. If 'No', it refers to resources for finding and selecting an evaluator. If 'Yes', it states 'You can likely interview prospective evaluators. Refer to the next page for resources on finding and selecting an evaluator.'

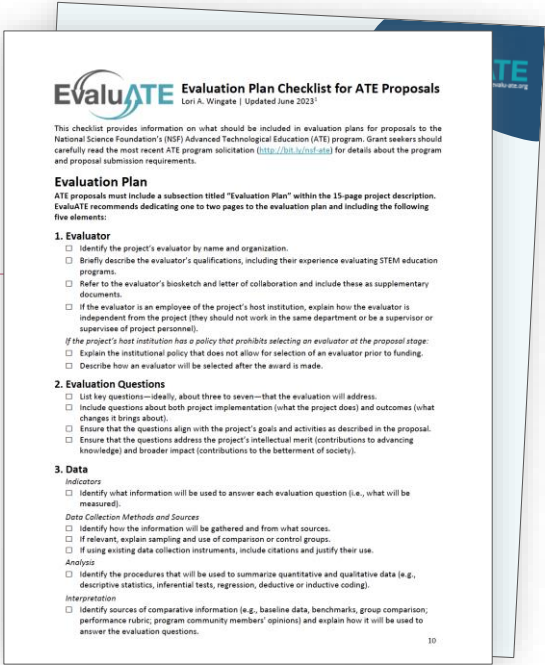
62

Resources

WRITING EVALUATION PLANS

Evaluation Planning Checklist for ATE Proposals

Page 10



The thumbnail shows the title page of the 'Evaluation Plan Checklist for ATE Proposals' document. It includes the EvaluATE logo, the author 'Lori A. Wingate | Updated June 2023', and a brief introduction stating that the checklist provides information on what should be included in evaluation plans for proposals to the National Science Foundation's (NSF) Advanced Technological Education (ATE) program. It also lists the five elements of an evaluation plan: 1. Evaluator, 2. Evaluation Questions, 3. Data (with sub-sections for Indicators, Data Collection Methods and Sources, Analysis, and Interpretation), and 4. Evaluation Questions (repeated). The page number '10' is visible at the bottom right.

63

Finding AN EVALUATOR

American Evaluation Association (AEA)
my.eval.org/find-an-evaluator

AEA Local Affiliate Groups
eval.org/community/local-affiliates

Expanding the Bench
Expandingthebench.org/ace/evaluators

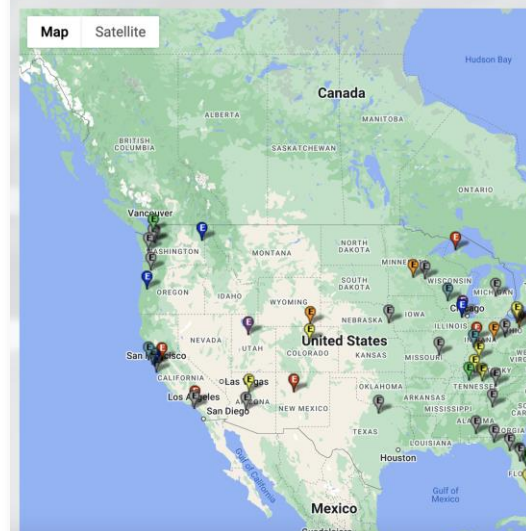
ATE Evaluator Map on ATE Central
atecentral.net/evaluators

64

Slides available at:
evalu-ate.org/webinar/march23

ATE Evaluators

Please Note: These are individuals or organizations who have done or are currently doing evaluation work for ATE project listed, and does not represent all available evaluation options for ATE-funded work. When selecting an evaluator for your project, please read the full listing.



32

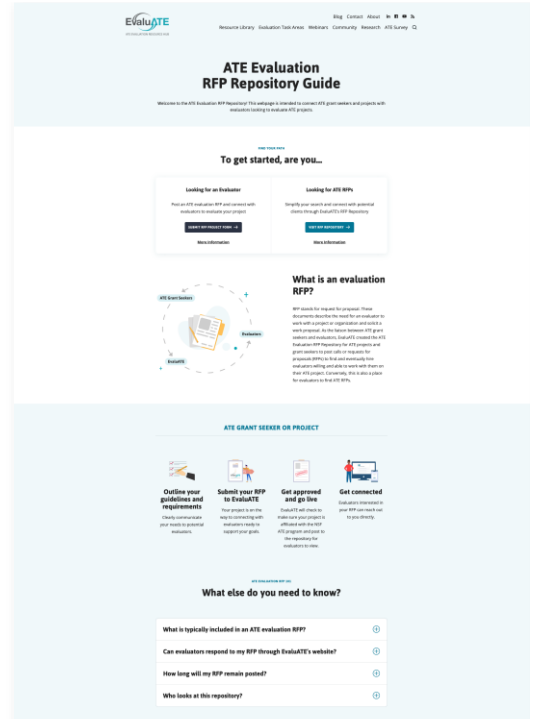
Finding AN EVALUATOR

NEW

● ATE Evaluator Directory
evalu-ate.org/evaluator-directory-guide

NEW

ATE Evaluation RFP Repository
evalu-ate.org/repository-guide



65

Resources

FINDING & SELECTING AN EVALUATOR

Guide to Finding and Selecting an Evaluator for ATE Proposals

Page 4

ATE PROPOSERS SHOULD CAREFULLY READ THE ATE PROGRAM SOLICITATION: bit.ly/2017ATE

All ATE proposals are required to request "funds to support an evaluator independent of the project." Ideally, this external evaluator should be identified in the project proposal. The information in this guide is for individuals who are able to select and work with an external evaluator at the proposal stage. However, some institutions prohibit selecting an evaluator on a noncompetitive basis in advance of an award being made. Advice for individuals in that situation is provided in an EvaluATE blog (bit.ly/2017ATE) and newsletter article (bit.ly/2017ATE).

This guide includes advice on how to locate and select an external evaluator. It is not intended as a guide for developing an evaluation plan or contracting with an evaluator.

- 1. What is an external evaluator?**
An external evaluator is the person who will lead the design and implementation of the evaluation of your ATE project. The evaluation will include systematic collection and analysis of evidence related to the quality, effectiveness, and impact of the project. To be external, the evaluator must be independent of the project (see Question 3).
- 2. When should I start working with an evaluator?**
Proposal developers should contact an evaluator at least one month in advance of the proposal's due date—earlier if possible. A good evaluation plan should be closely aligned with the project's goals and activities. To achieve good alignment, the evaluator needs time to review a draft of the proposal, ask questions, and develop a sound evaluation plan. With short notice, some evaluators may offer to provide a generic evaluation plan. However, seasoned proposal reviewers will give your proposal a more favorable review if it has a well-integrated, tailored evaluation plan.
- 3. Where should I look for an evaluator?**
There is no list of vetted or approved evaluators for NSF projects. It is up to the proposal developer (which is usually the principal investigator) to locate an evaluator and determine if they are qualified and right for a project.
Here are three sources for locating a potential evaluator:
 - Ask colleagues for recommendations: If you know someone with a grant that has an evaluation component, ask for the evaluator's name and contact information.
 - Use the American Evaluation Association's evaluator directory (bit.ly/2017ATE): It's searchable by state and keyword.
 - Use ATE Central's evaluator map (central.ateevaluation.org): This interactive map can be used to identify evaluators by location and the types of ATE projects they evaluate.Most ATE projects employ evaluators based outside of their home institutions. However, program rules do allow grant recipients to contract with an evaluator who is employed by the project's home institution, as long as the evaluator is independent of the project. That is, the evaluator should not work in the same unit

This material is based upon work supported by the National Science Foundation under Grant No. 1600951. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

66



A woman with curly hair, wearing a blue top, is shown in a circular frame, giving a thumbs-up gesture. To her right are five speech bubbles containing common questions about evaluation:

- What is evaluation?
- Why should I do it?
- How much does it cost?
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67



**QUESTION
BREAK**

Use chat window

68

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Through our website
evalu-ate.org



69

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70

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71