EvaluATE Resources for Getting Started with Your ATE Evaluation Post-Award

Let's Get Started!

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ATE PI Checklist for Getting Started with Your Evaluation Post-Award

Kelly Robertson & Elaine Craft | September 2022

All ATE-funded projects (except planning grants for centers) require evaluation. This checklist contains key tasks to help PIs and co-PIs get their ATE evaluation off to a strong start. Evaluation of your ATE project should begin as soon as you get notification of your grant award. In most cases, these tasks should be completed within the first six months of the project.

A strong evaluation involves collaboration across several groups of people. The main groups include:

- An **external evaluator** is independent of your project, although they can be internal to your organization. An external evaluator leads the evaluation design and implementation. A project may also have an internal evaluator, a member of the project team who helps implement evaluation activities to support the work of the external evaluator.
- The **project team** consists of the principal investigator (PI), co-PIs, and others specified in the proposal who help manage, plan, and implement the project activities.
- **Partners** are organizations or individuals external to your institution or organization who help you to implement the project or provide you with information to aid the project.
- **Institutional research (IR) offices** at colleges gather and maintain data on student retention, demographics, and academic performance. (The relevant office at your institution may also be known as the institutional research and effectiveness, institutional effectiveness, or institutional research and assessment office.)

The checkmarks indicate the groups of people who should be involved in each task, in addition to the PI or co-PI carrying out the task.

	Evaluator	Project Team	Partners	IR Office
☐ **If an evaluator was identified in your proposal: Notify your evaluator of the project award.** As soon as possible, let the evaluator know the project start date and confirm their participation.	✔			
☐ **If an evaluator was not identified in your proposal: Select an evaluator.** Work with your institutional purchasing office to complete the necessary steps to find and select an evaluator through your college's bid process.		✔		
☐ **Get an evaluation contract in place.** Request that your college initiate a contract or memorandum of agreement for evaluation services. This will likely necessitate a purchase request. Ask your evaluator for a scope of work with a timeline to append to the contractual document. As part of this process, identify when your evaluator will send invoices. You are responsible for ensuring your institution pays your evaluator.	✔			

	Evaluator	Project Team	Partners	IR Office
☐ **Work with your evaluator to create a detailed evaluation plan.** The evaluation plan included in your ATE proposal may need to be expanded to serve as an effective action plan. The more detailed plan may also serve as the scope of work in the contract. Meet with the evaluator to review the plan (e.g., expectations, process, activities, timeline, intended use of the results) and refine and clarify as needed.	✔	✔		✔
☐ **Create an evaluation communication plan.** The plan should identify primary contact people for the project and evaluation teams; set out a schedule for evaluation meetings; and outline processes for reviewing materials and disseminating reports.	✔	✔		
☐ **Review and refine goals for project success.** Review the project goals and objectives specified in the proposal. Set interim benchmarks to help gauge progress towards the end-of-project goals/objectives. Note: If the goals/objectives you identified in the proposal need to be changed, approval from your NSF program officer is required.	✔	✔	✔	
☐ **Identify data you need to report for your project.** Work with the evaluator to determine what data needs to be collected, how data will be collected, who will collect the data, and when the data should be collected. Also, note the data you will need for preparing your NSF annual report[i] and the annual ATE Survey.[ii]	✔	✔	✔	✔
☐ **Determine which data team members need to collect.** Evaluators and project teams often collect different types of data. Project teams typically focus on data related to the implementation of project activities (e.g., activities that occurred, number and characteristics of participants) and the dissemination of project results (e.g., materials downloaded, curricula implemented).	✔	✔	✔	
☐ **Discuss with the evaluator what data collection instruments with be used.** Your evaluator can identify or develop project survey instruments. Use uniform surveys or other tools across project activities and partners to ensure that data can be aggregated. Make sure to capture participants' demographics and other information needed for the ATE Survey.	✔	✔	✔	
☐ **Discuss evaluation reporting expectations.** Tell your evaluator in what format you want information about the evaluation process and findings communicated (e.g., technical reports, verbal presentations, slides, executive summaries, infographics). Specify when you want to receive draft and final reports. Make sure these dates align with deadlines for your reporting needs (e.g., NSF annual reports, ATE Survey, project meetings, advisory meetings, etc.).	✔	✔		

	Evaluator	Project Team	Partners	IR Office
☐ **Meet with staff from the institutional research office.** Explain your project goals and the need for specific data for NSF reporting and to support external evaluation. Make sure to clearly define the data variables, time frames (use specific dates), and due dates for your request. If not previously used in your proposal, don't forget to obtain baseline data (i.e., data on the current status or recent history). Involve your evaluator in these meetings to help define variables and specify populations and parameters. This will provide the evaluator with a clear understanding of the available institutional data.	✔			✔
☐ **Communicate data needs to your project partners.** Be clear about what data you need, how data variables are defined, your timeline for data analysis, and your reporting deadlines. Responsible parties might include partner institutions, collaborating organizations, or business and industry partners.	✔		✔	
☐ **Review institutional review board (IRB) requirements.** Review the IRB determination letter for your project. This letter will indicate if or when you need to contact the IRB as surveys or other evaluation activities are being planned or before using the project results for peer-reviewed publications. Partnering institutions might have additional IRB requirements that were determined during proposal development.	✔		✔	
☐ **Review and adhere to the data management plan.** Verify that project staff and partners are familiar with the project's data management plan. If needed, put in place measures to secure and share project data and materials in accordance with your data management plan.	✔	✔	✔	

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[i] Project annual reports are due to NSF within the 90-day period prior to your project anniversary. The anniversary date is set by the grant award (see Award Period of Performance in your grant award notification from NSF) and is typically the start date that was requested in the proposal. Reports become past due on the anniversary of your grant start date. Since your NSF program officer needs to review your annual report before it is submitted, it is recommended that you submit the report three to five weeks prior to the anniversary.

[ii] PIs are required to complete the ATE Survey annually in February/March. The survey asks about ATE project and center activities and achievements. You can view the survey questions on the ATE Survey website.

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Get the Most Out of Your Project Evaluation:

A Checklist for Using Evaluation Findings

Lyssa Wilson Becho, Michael Harnar, & Lori Wingate | October 2020

Evaluation use occurs when an evaluation leads to a change in the program being evaluated, the host organization, or people involved in the evaluation or the program. ATE projects are encouraged to use their evaluations for reasons beyond accountability to NSF. The ATE grant solicitation's review criteria reinforce the importance of using evaluation: "Is the evaluation likely to provide useful information to the project and others? Will the project evaluation inform others through the communication of results?" (http://bit.ly/nsf-ate). Below are 13 ways that project staff and other stakeholders can use evaluation findings throughout a project's lifecycle.

13 Ways to Use Evaluation Findings

For Project Improvement

Create a feedback loop so you are regularly reflecting on evaluation findings and using them to fine-tune your activities and deepen your project's impact.

1. **Maximize the strengths of project activities.** Evaluation findings reveal which activities are working and which are not. Set aside time for project staff to review and discuss evaluation findings and their implications for project activities. Leverage findings to increase project impact in the areas that are working well, such as expanding the reach of high-impact activities or dedicating more resources to successful areas.
2. **Assess and address any trouble areas.** Feedback from project participants, including students, faculty, or industry partners, could identify aspects of the project that are experiencing difficulties or are not making the intended impact. These insights will help you to more fully understand barriers to success and can suggest modifications to project activities, such as changes in curriculum content, training materials, or instructional activities.
3. **Ensure reach to project's target audience.** Obtain a deeper understanding of who your project is reaching and who is benefiting from the project. Disaggregate findings by participant characteristics such as gender, race, age, discipline, enrollment status, or other factors. This can determine whether some are benefiting more from your project than others or if an intended audience is not benefiting as expected.
4. **Add or modify industry engagements.** Evaluation findings may identify a gap in industry partnerships or business expertise. Use these insights to recruit new industry partners or find additional opportunities for collaboration.

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For Project Dissemination and Advocacy

Promote technological education teaching and learning by sharing what you're learning with colleagues and others who can help advance your project and the field.

5. **Share lessons learned from your evaluation with other projects that have similar outcomes.** Share lessons documented through your evaluation at conferences, in practitioner and academic journals, or in blogs, newsletters, and magazines. Help others learn from your project's struggles and areas of success.
6. **Highlight project achievements for institutional administrators.** Most college administrators are too busy to read full evaluation reports. Provide a one-page summary of key achievements that highlight the value and impact of your work. They'll appreciate having this succinct document to share with institution stakeholders like board members, policy makers, and community partners.
7. **Disseminate achievements to industry partners.** Sharing evaluation findings with industry partners helps them to assess the return on investment for their time and other contributed resources. It may also prompt them to continue or increase their involvement with your project.
8. **Communicate key findings to participants who provided data for the evaluation.** A great way to thank evaluation participants is to share key findings with them. If evaluation findings suggest that some aspects of the project should change, demonstrate that you value participants' input by sharing how your project intends to respond.

For Project Accountability

Fulfill the technical requirements of informing advisors and funders of your project's progress and impact.

9. **Share project activities and achievements with advisors.** If your project has an advisory group or a National Visiting Committee, share short reports or presentations to communicate key evaluation findings and progress towards your project goals. Invite discussion of implications for project activities.
10. **Include and respond to evaluation findings in your annual report to NSF.** In addition to integrating evaluation findings into your NSF annual report, be sure to demonstrate how the project responded to or took action because of evaluation results. Don't just report findings—explain how you are using the information.
11. **Include key results in your final outcomes report to NSF.** A project outcomes report is required within 90 days of a grant's end date. This report provides a "complete picture of the results" across all years of the project (bit.ly/POR-FAQs). Use your evaluation findings across the life of your project to summarize the most important lessons and showcase the impact of your project.

For Project Planning

Use evaluation findings about past work to plan your next endeavor.

12. **Identify areas of need for future projects.** Review evaluation findings to identify emergent needs for faculty, students, or other stakeholders. Draw on these insights in order to craft goals and objectives for a new ATE submission.
13. **Substantiate results of prior support in future proposals.** If you have previously received an ATE grant, you will need to submit a summary of results from completed work in your ATE proposal. Use your evaluation findings to explain how what you learned from prior projects is informing your new submission.

A Guide to Reporting in the ATE Program

Lyssa Wilson Becho and Erika Sturgis | March 2023

Projects funded by the National Science Foundation's (NSF) Advanced Technological Education (ATE) program have several reporting requirements. This guide differentiates these various reports and provides tips on preparing for each.

	Project Annual Report or Final Report to NSF	ATE Survey	Evaluation Report	Project Outcomes Report
Purpose	Describe progress towards your project's goals and outcomes with NSF	Report on project activities and achievements in a form that allows for program-wide aggregation	Answer project-specific evaluation questions to assess and document your project's process and outcomes	Public documentation of your project's activities and impact
Distinguishing Feature	Reports on the most recently completed budget year and only available to NSF program officers	Provide an annual profile of the ATE program as a whole	Demonstrates a project's effectiveness and outcomes written by an independent observer and may provide the project team with recommendations for continuous improvement	Overview of your project's impact across the entire grant period and is publicly available
Audience	The project's NSF program officer	ATE community, NSF, Congress, and others involved in career and technical education	Project staff, participants, and NSF program officer	The general public
Person Responsible	Principal Investigator (PI) or their designee	PI, possibly with assistance from project team, evaluator, and/or institutional research staff	External evaluator	PI or their designee
Submission Mechanism	Research.gov	Online survey link emailed directly to PI from EvaluATE	Agreed upon by project and evaluation teams	Research.gov
Timing	Due annually within the 90-day period before the project	Due annually. The ATE Survey opens in February each year.	The timing of evaluation reports is determined by the PI and evaluator based on the project's information needs.	Due no later than 120 days following the expiration of the award.

	Project Annual Report or Final Report to NSF	ATE Survey	Evaluation Report	Project Outcomes Report
	anniversary.[1] We recommend that you submit three to five weeks before to allow time for your program officer to review. In the last year of your grant, you'll be asked to complete a *Final Report*. This is the same as an annual report but only for the last year. The final project report is due no later than 120 days after the expiration of the award.		Project teams should receive evaluation reports in time to include pertinent information in their annual reports.	
Additional Tips	In addition to your successes and challenges of the past year, your program officer is looking for you to respond to your evaluation findings. Don't shy away from negative findings. Instead, explain what you're going to do to address any challenge areas of your project.	The ATE Survey asks about activities based on the calendar year (January – December). This might differ from your project annual report or your evaluation report. Make sure to track your project data by months or quarters to allow for reporting in different timeframes.	Upload your evaluation report with your project annual report. While it is not an official requirement, your program officer will be looking for your evaluation report.	The Project Outcomes Report is short (only 200-800 words). This is your only chance to publicly report your project's accomplishments. Include a brief overview of the project's goals for context, but focus on project outcomes.
Additional Resources	NSF project annual report template	Preview of questions for ATE Survey	Checklist for Program Evaluation Report Content	Project Outcomes Reporting Requirements from NSF

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[1] The anniversary date is set by the grant award (see Award Period of Performance in your grant award notification from NSF) and is typically the start date that was requested in the proposal.

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Communication Plan Checklist
for ATE Principal Investigators and Evaluators

Lyssa W. Becho and Lori A. Wingate | October 2017

Creating a clear communication plan at the beginning of an evaluation can help project personnel and evaluators avoid confusion, misunderstandings, or uncertainty. The communication plan should be an agreement between the project's principal investigator and the evaluator, and followed by members of their respective teams. This checklist highlights the decisions that need to made when developing a clear communication plan.

- ☐ **Designate one primary contact person from the project staff and one from the evaluation team.** Clearly identify who should be contacted regarding questions, changes, or general updates about the evaluation. The project staff person should be someone who has authority to make decisions or approve small changes that might occur during the evaluation, such as the principal investigator or project manager.

- ☐ **Set up recurring meetings to discuss evaluation matters.** Decide on the meeting frequency and platform for the project staff and evaluation team to discuss updates on the evaluation. These regular meetings should occur throughout the life of a project.

  Frequency — At minimum, plan to meet monthly. Increase the frequency as needed to maintain momentum and meet key deadlines.

  Platform — Real-time interaction via phone calls, web meetings, or in-person meetings will help ensure those involved give adequate attention to the matters being discussed. Do not rely on email or other asynchronous communication platforms.

  Agenda — Tailor the agendas to reflect the aspects of the evaluation that need attention. In general, the evaluator should provide a status update, identify challenges, and explain what the project staff can do to facilitate the evaluation. The project staff should share important changes or challenges in the project, such as delays in timelines or project staff turnover. Conversations should close with clear action items and deadlines.

- ☐ **Agree on a process for reviewing and finalizing data collection instruments and procedures, and evaluation reports.** Determine the project staff's role in providing input on instruments (such as questionnaires or interview protocols), the mechanisms by which data will be collected, and reports. Establish a turnaround time for feedback, to avoid delays in implementing the evaluation.

- ☐ **Clarify who is responsible for disseminating reports.** As a rule of thumb, responsibility and authority for the distribution of evaluation report lies with the project's principal investigator. Make it clear whether the evaluator may use the reports for their own purposes and under what conditions.

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Getting to Know an Evaluator: What Should I Ask?

Megan Zelinsky & Lyssa Wilson Becho | July 2022

It can be difficult to determine whether an evaluator will be a good fit. Project staff need to ensure that an evaluator has the right qualifications and skills, and that their personality and vision for evaluation mesh well with the project. Ask these questions to get to know an evaluator and figure out whether they're right for your project.

Questions to Ask When Selecting an Evaluator

Background and Experience

- What are your qualifications and skills?
- What approach do you take to evaluation?
- Have you evaluated projects in a community college setting? What about STEM education?
- Have you been involved in an NSF-funded project?
- How many other evaluation projects do you currently have? What are your other clients like?
- In your view, what makes a successful evaluation?

Collaborating with Project Staff

- How do you typically get started with a new project?
- How do you determine key deliverables or outcomes of an evaluation?
- How often do you meet with project staff?
- Do you do site visits with projects?
- What is your role in interpreting data and encouraging the use of findings for project improvement?

Budgeting and Contracting

- *[If in proposal development stage]* Do you assist with evaluation plan development for grant proposals? If so, what arrangement do you prefer for this service?
- What might an evaluation budget look like for my project? *[Probe for activities, deliverables, and cost.]*
    - **Tip for Project Staff:** If comparing proposed evaluation budgets between prospective evaluators, be sure to look not only at the cost but also at the level of service and planned deliverables. A lower-cost evaluation might come at the expense of the overall evaluation quality, thoroughness, or usefulness.

Questions an Evaluator Might Ask You

- What are the goals of your project?
- What questions are you looking to answer with the evaluation?
- What would success look like for your project?
- What is your budget for evaluation?
- What are your institution's requirements around procurement? Will a request for proposals be required?
    - **Tip for Project Staff:** Meet with your institution's procurement officer or grants management office staff as early as possible to learn about the guidelines and policies your project must follow when contract with an evaluator. They are there to help! Building these relationships will help you find and contract with the right evaluator for your project.

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A Guide to Requesting Data from Institutional Research Offices

By Megan Zelinsky and Kelly Robertson | October 2022

Institutional research (IR) offices can support Advanced Technology Education (ATE) principal investigators, project staff, evaluators, and grant specialists in accessing data to document project activities and outcomes. These data are essential for ATE project evaluation and answering ATE Survey questions.[1] This guide answers common questions about establishing relationships and working with and requesting data from institutional research offices.

1. What is an institutional research office?

Many (but not all) two- and four-year colleges have institutional research offices. Depending on the institution, this office may go by a different name, such as Institutional Research and Effectiveness, Institutional Effectiveness, or Office of Institutional Research and Assessment. Institutional research offices provide student data (e.g., student enrollment or student demographic information) to federal and state authorities. They also fulfill other requests for student and program data that may be needed for strategic planning, accreditation, grant proposals and reports, or internal assessments or evaluations. In addition to providing data, institutional research offices can offer insight into research and evaluation design, implementation, and analysis.[2]

2. My institution does not have an institutional research office. How can I obtain data?

All institutions are required to report data to federal and state authorities. This might occur in other offices with labels such as assessment, accreditation, management information systems (MIS), registrar, information technology (IT), or enterprise solutions. Other potential sources of data include:

- *Instructors and faculty*: You can consult instructors participating in the ATE project or delivering project services. They may be willing to share student records or other information related to project activities.
- *Program administrators and academic advisors*: Contact the academic program chair or academic advisor participating in the ATE project to determine whether the type of data they collect may be helpful to project activities.

[1] The National Science Foundation requires ATE principal investigators to complete the ATE Survey each year to report on their projects' activities and achievements. Visit the ATE Survey Website to preview the survey questions and learn about the types of data you will be asked to provide.

[2] To learn more about what institutional research offices do, visit the Association for Institutional Research (AIR) website.

3. When should I start working with my institutional research office?

As soon as possible, contact an institutional research officer to confirm the type of data the project can track. It is ideal to contact the institutional research office when preparing your ATE proposal for submission. Understanding the data the institutional research office can provide will have implications for the proposal's evaluation and data management plans. If you did not make contact during the proposal process, contact them as soon as you are notified about the award. Identify a person within the office who can serve as the primary contact, and set up a meeting with them. Building a relationship with institutional research staff early in the grant process can help facilitate the ease and speed with which you can obtain data later. Waiting too long to contact the institutional research office may limit the type and amount of data that can be collected or reported.

If you take one thing away from this document,

contact the institutional research office as soon as possible!

4. What information needs to be communicated with my institutional research office at the first meeting?

Project staff, evaluators, and principal investigators should attend the first meeting with the institutional research office.

- ☐ **Primary contact person:** Determine who will be the primary contact, both at the institutional research office and from the project, when requesting data.
- ☐ **Reporting deadlines:** Tell the institutional research officer when major reports (e.g., NSF annual reports, evaluation reports, ATE Survey) are due and when you will request data.
- ☐ **Timeline for returning data requests:** Find out how long it will take the institutional research office to review and respond to your specific data request—some offices may require a few days, while others require several weeks.
- ☐ **How to submit a data request:** Determine the process for submitting a data request (e.g., via data request form, email, or meeting) and the details necessary to fulfill that request (e.g., program codes, student IDs, courses).
- ☐ **Availability of existing data:** Ask what information is already collected. Determine if all data points needed by the project are collected, and if not, whether it is possible to begin collecting new data for the project. If not already collected, ask whether baseline data (i.e., data on the current status or recent history) exist related to the outcomes the project hopes to impact.
- ☐ **Privacy rules:** Ask about and become familiar with the institution's rules and policies governing student data access and use.

5. What should I do after I find the evaluator I want to work with?

First, confirm they want to proceed in working with you on the proposal. Then, ask what they need from you. Most likely, this will include the draft proposal, a timeline for completing the evaluation plan, and a ballpark figure for the evaluation budget (see Question 6). Allow time for one or two conversations with the evaluator, to make sure that you share a common understanding of the proposed project and what responsibilities each party will have for the evaluation.

IMPORTANT! Provide the evaluator with a link to the ATE Program Solicitation (bit.ly/2017ATE) and the ATE Proposal Evaluation Planning Checklist (bit.ly/checklist-evalplan). The latter document includes details about the evaluation-related information needed for the proposal.

6. How much should I budget for the external evaluation?

A prospective evaluator will probably ask you how much your evaluation budget is. The cost of an evaluation should be consistent with the scope of the evaluation effort. ATE evaluations are generally between 4 - 10% of a project's direct costs.

7. How do I compensate the evaluator for their assistance with the proposal?

Many evaluators are willing to help develop a proposal evaluation plan at no charge with the understanding that they will get the evaluation contract if the proposal is funded. Make this agreement explicit. If you do not get the grant, there will be no financial benefit to them, which is the nature of grant funding. Try to avoid making numerous demands for information and assistance (particularly if it is not specifically about evaluation), given that there is a cost to the evaluator (time) with uncertain benefits.

Whether the proposal is funded or not, share the reviewers' feedback with the evaluator. This will be valuable information for the evaluator's professional development and is a type of compensation in and of itself.

8. The award notification has arrived – what happens next?

If your proposal is accepted, contact the evaluator right away. Begin the contracting process as soon as possible, since it will almost certainly take longer than you expect. Defer to your institution's established contracting process and boilerplate contracts. Work with the evaluator to prepare a statement of work to append to the formal contract. The statement of work should specify the evaluation activities, deliverables, and timeline, elaborating on what was stated in the grant proposal. Once the contract is fully executed, the document will serve as the basis for developing a detailed and actionable evaluation plan.

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Finding and Selecting an Evaluator for Advanced Technological Education (ATE) Proposals

Lori A. Wingate | July 2017 | www.evalu-ate.org

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/rearick) and newsletter article (bit.ly/no-eval).

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/aea-dir): It's searchable by state and keyword.
- Use ATE Central's evaluator map (atecentral.net/evaluators): 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

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where the project is housed. However, neither the evaluator nor any of the project's personnel should have supervisory responsibilities in relation to the other party.

4. How do I determine if an evaluator is qualified and right for my project?

At minimum, an evaluator for an ATE project should have basic social science or education research skills, and academic preparation or extensive practical experience in evaluation. Ideally, ATE project evaluators will also have experience with community colleges and knowledge of the project's disciplinary area.

Keep in mind that there is no certification or credential for evaluators in the United States. Do not assume that just because a person calls themselves an "evaluator" or has evaluated a grant project in the past that they are qualified to evaluate your project. If possible, assess a potential evaluator's qualifications before contacting them. Sometimes you can learn a lot about an evaluator's credentials and experience by searching the web. For example, if the evaluator has a website, review it for evidence of their experience and expertise related to evaluation in general and your type of project in particular. Look for examples of reports, academic papers, presentations, and blogs.

If you find someone who looks promising, contact them to learn more. Here's an example of what to say:

> *I am developing a proposal for the National Science Foundation's Advanced Technological Education program and I'm looking for an evaluator who will help us with the evaluation plan. The project is about [insert super short description of what your project is about]. If you think you might be interested, may I [call or email] you with a few questions?*

In that follow-up dialogue, here are examples of questions you may want to ask:

- What experience have you had evaluating STEM education or similar types of projects?
- What is your experience with community colleges?
- Do you have experience evaluating [insert discipline/content area] projects?
- Tell me about how you work with your clients.
- Who are some of your past clients?

Pay attention not only to how they answer your questions, but the degree of rapport you feel in interacting with them. Successful client-evaluator relationships are grounded in open communication and respect. If this is missing from the start, there are likely to be problems down the road.

If it's not possible to find someone with expertise in both your content area and evaluation, prioritize evaluation knowledge. All evaluators—regardless of their content area knowledge—should take time to learn about the specific contexts of the projects they work with. Evaluation expertise is needed throughout the evaluation process, while content area expertise is needed more intermittently. Without a strong background in evaluation, subject matter experts may be prone to making methodological errors that compromise evaluative findings. Evaluation conclusions should be based on systematically collected data more than the evaluator's experience and opinion. If needed, evaluators may consult with content area experts to compensate for gaps in knowledge.

To learn more about what professional evaluators should know and be able to do, see the following resources:

- The Program Evaluation Standards: bit.ly/jc-pes
- American Evaluation Association Guiding Principles for Evaluators: bit.ly/aea-gp
- Competencies for Canadian Evaluation Practice (U.S. evaluation competencies are being drafted): bit.ly/10v3dc3

5. What details do I need to include when requesting data from my institutional research office?

Be clear and detailed about the data you are requesting to fulfill reporting requirements. For example, to fulfill the ATE Survey reporting requirements, include the following items in your data request:

- ☐ **Context of the project and evaluation:** Sharing information about program activities, reporting requirements, and the evaluation plan can help institutional research staff provide needed data. (It is ideal to involve the institutional research office in the evaluation planning process.) If not done already, send a summary of grant or evaluation documents (e.g., one-page summary or proposal, logic model, evaluation plan, evaluation matrix, data collection plan) that identify the data needed and reporting requirements. If such documents do not exist, provide the project or research questions associated with the different data points you are requesting.
- ☐ **Needed data variables:** Clearly define data variables. Be as specific as possible. The grant and the institutional research office may define certain variables differently (e.g., completion rate, underserved, participant, financial need). For example, for the ATE Survey, you will need to know the number of students who have enrolled in academic programs supported by the ATE project. The ATE Survey defines enrollment by whether a student took a course in the identified academic program, but your institution may have a different definition of "program enrollment." Ensure that you provide the titles or codes for the courses you are requesting. If requesting data for the ATE Survey, provide the institutional research office a copy of the survey so they have an idea of the level of detail needed and the required report format.
- ☐ **Start and end date for data:** Be specific about the timeframe for which you want the data. For example, the timeline for data capture on the ATE Survey is January 1 through December 31. If you request data for a specific year, include the exact dates instead of vague terms like "for last year" or "2022." Additionally, different institutions run on different semesters or terms. Understand how the institution defines semesters or terms, and include those labels in the request.
- ☐ **Whether you need identifiable data or not:** Data requests that do not require identifiable information (i.e., student names, birth dates, or social security numbers) are significantly easier to access. Some offices refer to this data as "redacted" or "de-identified." State up front whether the request requires identifiable student data. If you are requesting identifiable information, be prepared to explain why deidentified data will not suffice and how you plan to keep the data secure.
- ☐ **Whether you need unduplicated counts:** If you are requesting student counts across multiple courses or programs, tell the research officer if you need an unduplicated student count. An unduplicated student count means that an individual who is in multiple courses would only be counted once in the total. If you ask for deidentified data, you will not be able to produce an unduplicated count after you receive the data.

- ☐ **Specific program codes:** Know the specific code for the academic program, courses, or grant. Using specific codes will save institutional research staff time and may help you receive accurate and complete data sooner.
- ☐ **A reasonable timeline:** Every institutional research office has different capacity levels and varying reporting demands throughout the year. This translates into different turnaround times across institutions. Turnaround times may also vary within institutional research offices depending on the type of data being requested, as certain types of data may take more time to pull than others. If you do not know how long the office needs to provide you with the requested data, reach out as soon as possible. Ideally, you will have started a relationship with institutional research staff at the proposal stage or beginning of the grant, so you will already be aware of how long the office needs to fulfill your request. Also, specify whether the request will be a one-time or reoccurring request.

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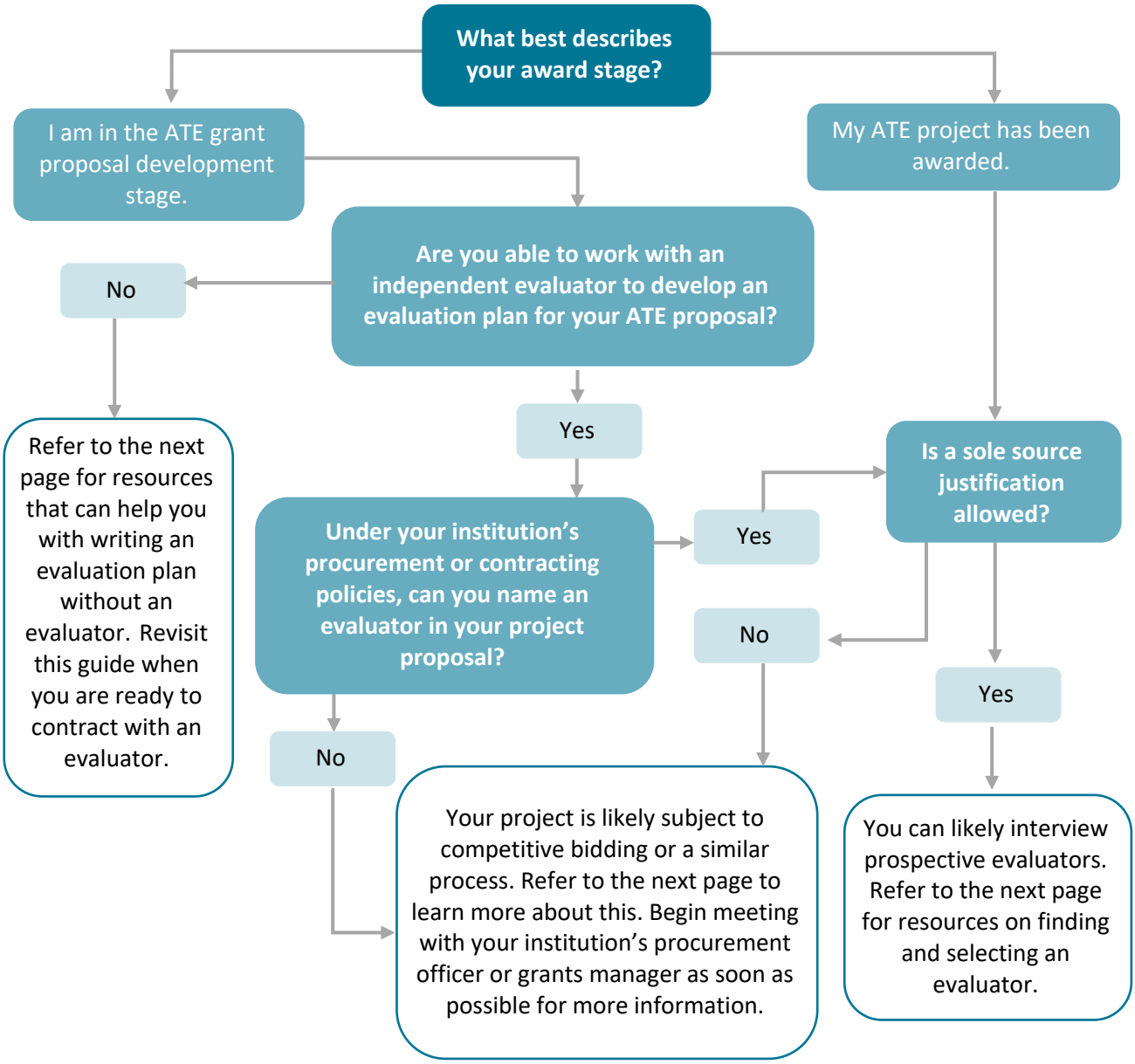
Guide to Navigating the Evaluator Procurement Process

Megan López & Michael Lesiecki| February 2023

Every NSF-funded ATE project is required to include an evaluation plan in its proposal and to work with an independent evaluator. For many projects, the act of procuring independent evaluation services is subject to institutional procurement policies. This step-by-step map aims to provide prospective and new ATE grantees with a general overview of when and how to select an evaluator. This resource may be most helpful while developing an ATE proposal and/or before naming an independent evaluator.

Remember, this process varies across institutions and can take time. Therefore, we recommend meeting early on with those who can walk you through your institution's specific process (e.g., your institution's procurement officer, purchasing or fiscal agent, or grants manager).

Mapping Out the Evaluator Procurement Process



Key Terms

Independent evaluator	An individual or entity external to the project who is contracted to conduct an evaluation. The person may be external to your institution or, if the person has no other role in the ATE project, is qualified for the work, and has no potential conflicts regarding project personnel or outcomes, they may be internal to your institution. This is a requirement for all ATE projects, as stated in the NSF Solicitation Guidelines (bit.ly/NSFSolicitation).
Competitive bidding or contracting process	The formal process of identifying, selecting, and contracting for professional products or services by soliciting bids from prospective vendors (in this case, evaluators). Each institution specifies its own competitive bidding or contracting requirements, so if your project is subject to this process, contact your institution's procurement officer or grants management office as soon as possible to learn more.
Procurement policies	The policies that dictate the overarching principles and standards used to identify, select, and contract with professional products or services. The purpose of these policies is to ensure that purchasers receive products or services that are the best balance of price, quality, and service while minimizing fraud, waste, and abuse in purchasing. These policies exist in many institutions.
Sole source justification	A statement explaining that, to the best of the purchaser's knowledge, only one supplier is appropriately qualified and can provide the necessary products or services sought by the purchaser. This justification must describe the steps taken to research potential vendors and suppliers. Reach out to your institution's procurement officer or grants management office to learn about the circumstances under which a sole source justification is applicable.

Resources to Support Your ATE Proposal Evaluation Plan

- **Evaluation Plan Checklist:** Know what elements to include in your ATE evaluation plan (bit.ly/ATEevalplan).
- **Evaluation Plan Template:** Organize your evaluation plan (bit.ly/ATEevaltemp).
- **Logic Model Template:** Create a visual summary for your project activities and anticipated outcomes (bit.ly/logicmodeltemp).
- **Integrating Evaluation into Your ATE Proposal:** Check out this video series to learn more (bit.ly/ATEeval).
- **Evaluation Crash Course for Non-Evaluators:** If you're new to evaluation, this webinar is for you (https://bit.ly/EvalCrashCourse).
- **Finding and Selecting an Evaluator:** Start here if you're looking for an evaluator (bit.ly/FindEvaluators).

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Evaluation Data Matrix Template

Lori Wingate | July 2017

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An evaluation plan should include a clear description of what data will be collected, from what sources and how, by whom, and when, as well as how the data will be analyzed. Placing this information in a matrix helps ensure that there is a viable plan for collecting all the data necessary to answer each evaluation question and that all collected data will serve a specific, intended purpose. The table below may be copied into another document, such as a grant proposal, and edited/ expanded as needed. An example is provided on the next page.

Evaluation Question:					
Indicator	**Data Source and Methods**	**Responsible Party**	**Timing**	**Analysis Plan**	**Interpretation**

If space is limited, such as in a National Science Foundation proposal, fewer columns may be used. It is most critical to include the evaluation questions, indicators, data sources and methods, and timing.

DEFINITIONS

Evaluation Questions are overarching questions about a project's quality or impact. The number of evaluation questions depends on the scope and purpose of the evaluation; 3 to 7 questions is typical. Questions should address both project implementation and outcomes.

Indicators are specific pieces of information about an aspect of a project—basically, what will be measured in order to answer the evaluation questions. It is useful to use multiple indicators to address an evaluation question, including qualitative and quantitative data.

Data Sources are the entities from which data will be collected. Typical data sources for ATE evaluations include project personnel, students, graduates, faculty, project partners, business and industry representatives, institutional records, website usage statistics, and teaching and learning artifacts.

Data Collection Methods are the means by which information will be gathered. Typical methods include surveys, focus groups, interviews, observations, and institutional database queries.

Responsible Parties are the individuals or organizations tasked with collecting the needed information. In many cases, data collection requires cooperation among multiple entities. For example, an external evaluator may be responsible for an administering a survey, but a member of the project staff may need to supply the contact information.

Timing identifies when and how frequently data will be collected (e.g., at events, quarterly, annually). It is important to identify approximately when data collection will take place to ensure the information will be obtained when needed for reporting purposes and decision making and that the data collection schedule is conducive to other things taking place in project's context (e.g., other major data collection activities, semester schedules).

Analysis Plan how the quantitative and qualitative data will be summarized into meaningful, usable information.

Interpretation is how the analyzed data will be used to reach conclusions related to the evaluation questions.

EXAMPLE

Evaluation Question: To what extent are students using education pathways established by the project?					
Indicator	**Data Source and Methods**	**Responsible Party**	**Timing**	**Analysis**	**Interpretation**
Number of high school students enrolled in the college's wind energy technology courses	Institutional data	Project director obtains from institutional research office	End of each semester	Counts	Comparison with project target of 10 per semester
Percentage of dual-enrolled high school students who intend to pursue wind technology degrees or certificates	Survey of dual-enrolled students	External evaluator develops survey and conducts analyses; faculty administer survey	End of each semester	Descriptive statistics, disaggregated by demographic characteristics	Comparison with project target of 60% or more, , with one-third or more from underrepresented minority groups
Students' perceptions of what affects their education or career interests	Focus group with	External evaluator	End of each spring semester	Inductive coding to determine factors that increase or suppress interest in wind technology	Identify which, if any, factors can be influenced by the program
Percentage of students who began has dual-enrolled who graduate with wind technology degrees or certificates	Institutional data	Project director obtains from institutional research office	End of each semester after first cohort is eligible to receive degree or certificate	Descriptive statistics, disaggregated by demographic characteristics	Comparison with project target of 40% or more, with one-third or more from underrepresented minority groups

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EvaluATE works to advance evaluation in the ATE community through

- Open-access training and resources for evaluators and non-evaluators
- Community of people dedicated to improving ATE projects through evaluation
- Research on evaluation practices in ATE
- Open-access data and reports on ATE program activities

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