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This checklist is intended to be of assistance to prospective ATE principal investigators in developing evaluation plans for proposals to the National Science Foundation’s Advanced Technological Education (ATE) program. It is organized around the components of an NSF proposal (see the [NSF Grant Proposal Guide](#)) with an emphasis on the evaluation aspects. This document is not intended to serve as a comprehensive checklist for preparing an ATE proposal, but to provide guidelines for those elements that involve evaluation. All proposers should carefully read the [ATE Program Solicitation](#). For additional guidance related to developing ATE proposal evaluation plans, see [10 Helpful Hints and 10 Fatal Flaws: Writing Better Evaluation Sections in Your Proposals](#).

Proposal Component	What you need to do	What you need to know
<b>PROJECT SUMMARY</b> (1 page)	<input type="checkbox"/> Prepare a 1-page project summary that specifically addresses the NSF Intellectual Merit and Broader Impacts criteria.	<p>In addition to the NSF-wide Intellectual Merit and Broader Impacts criteria, the ATE program has additional ones, some of which are about evaluation, which are specified in the program solicitation. You are unlikely to have enough space to address all criteria, so focus on the ones most relevant to your proposal.</p> <p>Resource:            NSF’s <a href="#">Revised Merit Review Criteria Resources for the External Community</a></p>
<b>PROJECT DESCRIPTION</b> (15 pages total)	<p>Develop a coherent narrative describing your work and relevant background. Sections include</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Results from Prior NSF Support*</b></li> <li><input type="checkbox"/> Rationale</li> <li><input type="checkbox"/> Goals, Objectives, Deliverables, Activities</li> <li><input type="checkbox"/> Timetable</li> <li><input type="checkbox"/> Management Plan</li> <li><input type="checkbox"/> Roles and Responsibilities of the PI, co-PI(s), and Other Senior Personnel</li> <li><input type="checkbox"/> Plan for Sustainability</li> <li><input type="checkbox"/> <b>Evaluation Plan*</b></li> <li><input type="checkbox"/> Dissemination Plan</li> </ul>	<p>It is important that all elements of the project description, including the evaluation plan, convey a coherent, strongly aligned plan that supports your initial claims about the project’s intellectual merit and broader impacts (see above).</p> <p><b>*Results from Prior NSF Support</b> and <b>Evaluation Plan</b> are the Project Description sections that must include evaluation elements. What should be included in these sections is described below. You may wish to include evaluation activities or deliverables in other areas, such as the Timetable and Management Plan, as appropriate.</p> <p>For helpful information related to sustainability and dissemination, refer to ATE Central’s <a href="#">Handbook</a> and <a href="#">Outreach Kit</a>.</p>

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<b>Results of Prior Support</b> (up to 5 pages)	<input type="checkbox"/> In 5 pages or less, describe the specific results of your prior NSF funding, including “evidence of the quality and effectiveness of the project's deliverables.”	If the PI or a co-PI on the proposal has received prior funding from NSF related to this proposal, you must include a subsection titled “Results from NSF Prior Support” at the beginning of the project description. (Renewal proposals for national centers may describe their results in a supplementary document, rather than within the project description.) Keep in mind that not all results will be considered equally important by reviewers, so be selective in what you report here and give priority to reporting higher-level impacts (e.g., student outcomes are more important than website hits or satisfaction ratings).
<b>Evaluation Plan</b> (1-2 pages of the 15-page total)	<input type="checkbox"/> Locate an evaluator who will work with you on your proposal.	<p>Some evaluators are willing to help develop an evaluation plan for a proposal at no charge with the understanding that they will be awarded the contract for the evaluation if the proposal is funded. (When/if the project is funded, the evaluation plan will be implemented more smoothly if the evaluator was involved in developing the plan that was included in the proposal). Make this agreement explicit, as well as the needs and expectations for the evaluator’s contribution to proposal development, including how much space in the project description is being allotted for the evaluation plan. Provide sufficient lead time (ideally at least one month).</p> <p>Resources:            To find an evaluator:</p> <ul style="list-style-type: none"> <li>– Find out who your college has engaged as an evaluator in the past (ask colleagues or a grants administrator)</li> <li>– Consult the <a href="#">American Evaluation Association Evaluator Directory</a></li> <li>– Ask an <a href="#">ATE center PI</a> for recommendations</li> <li>– Inquire with your institutional research office—for smaller grants, their contribution may be adequate (but be sure it is sufficiently independent from the grant-funded work)</li> </ul>
	<input type="checkbox"/> Identify your evaluator by name and briefly describe his or her qualifications (especially prior experience evaluating STEM education projects); refer to an attached biosketch and commitment letter.	<p>Subject/disciplinary knowledge is a plus, but you need to convince reviewers that the evaluator has specialized knowledge and experience in <i>program/project evaluation</i>.</p> <p>Resources:            To learn more about what evaluators should know and be able to do, see</p> <ul style="list-style-type: none"> <li>– <a href="#">The Program Evaluation Standards</a>—Joint Committee on Standards for Educational Evaluation</li> <li>– <a href="#">Guiding Principles for Evaluators</a>—American Evaluation Association</li> <li>– <a href="#">Competencies for Canadian Evaluation Practice</a>—Canadian Evaluation Society</li> </ul>

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<b>Evaluation Plan, continued</b>	Develop a logic model that specifies your proposed project’s activities, outputs, and intended short-, mid-, and long-term outcomes.	<p>A logic model is not required for ATE proposals, but is a useful tool for providing an overview of your project for reviewers, as well as facilitating an internal check to ensure that the project’s activities are logically linked with its intended outcomes. A logic model is especially useful for evaluation planning. If you include your logic model in your proposal, it should take up no more than one half to one page—make sure the text is large enough for reviewers to read easily.</p> <p>Resources:</p> <ul style="list-style-type: none"> <li>– <a href="#">Enhancing Program Performance with Logic Models</a> online course—University of Wisconsin Extension</li> <li>– <a href="#">ATE Logic Model Template</a></li> </ul>
	<p><input type="checkbox"/> Specify the focus of the evaluation by formulating evaluation questions (or evaluation objectives)</p>	<p>Review the ATE program solicitation for specific expectations for evaluation of various kinds of projects—use this information to help focus your evaluation. For example, evaluation plans for national centers are expected to describe how impacts on institutions, faculty, students, and industry will be assessed.</p> <p>When formulating evaluation questions or purposes, keep the following points in mind:</p> <ul style="list-style-type: none"> <li>– Evaluation results (1) provide or directly inform determinations of program merit, worth, or significance; and (2) inform decision making about the program (e.g., whether or how to improve/modify; whether to continue, expand, or cancel).</li> <li>– Evaluation questions should be clearly aligned with the project’s goals, objectives, and activities.</li> <li>– Evaluators should be responsive to key stakeholder questions/information needs.</li> </ul>
	<p><input type="checkbox"/> Describe the data collection plan, including what indicators will be used, how the data for each indicator will be collected, from what sources, and when.</p>	<p>The description of the data collection plan should demonstrate that there is a clear vision for what indicators* will be used to answer each evaluation question and how data related to each of the indicators will be collected, from what sources, and when. If specific existing instruments are to be used for data collection, provide citations.</p> <p>*Indicators are observable, measurable information about the status or quality of an aspect of your project. It’s advisable to draw on multiple data sources using multiple methods to answer each overarching evaluation question.</p> <p>Resource:</p> <ul style="list-style-type: none"> <li>– <a href="#">Criteria for Selection of High-Performing Indicators: A Checklist to Inform Monitoring and Evaluation</a></li> </ul>
	<p><input type="checkbox"/> Describe the analytical and interpretive procedures to be used.</p>	<p>You may not have enough space to provide a lot of detail here, but you should show that there is a plan for how the data will be analyzed and interpreted. Of particular importance is identifying what types of comparisons will be made (e.g., over time, between groups, against targets).</p>

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<b>Evaluation Plan, continued</b>	<input type="checkbox"/> Identify the main evaluation deliverables (e.g., plans, instruments, reports) and their project uses.	<p>The evaluation section of a proposal does not provide sufficient detail to serve as a guide for the execution of the evaluation once the project is funded. Include a detailed, actionable evaluation plan and timeline among the deliverables to be generated by the evaluation (after the project is funded). In explaining what reports will be developed and how they will be used, remember that an ATE-specific intellectual merit criterion is, “Is the evaluation likely to provide useful information to the project and others?”</p>
<b>REFERENCES CITED</b>	<input type="checkbox"/> Include references to evaluation literature as needed.	<p>References to the evaluation literature can help show how the evaluation is grounded in and building on current knowledge and practice. If you are going to apply a specific evaluation approach or instrument, provide citations to support its use in your context.</p>
<b>BUDGET AND BUDGET JUSTIFICATION</b>	<input type="checkbox"/> Include evaluation as a line item in your budget for either a Consultant or Subaward within the “Other Direct Costs” category.	<p>Typically, a subaward is between institutions, and a consulting agreement is with an individual. Check with your institution’s grants office (if there is one) to ensure you are proceeding in accordance with their policies.</p> <p>The general rule of thumb is to dedicate 10 percent of a project’s costs to evaluation. Among ATE grant recipients, the average is 8 percent.</p>
	<hr/> <input type="checkbox"/> In your budget justification, explain the evaluation costs, including the evaluator’s daily rate, time committed to the project (broken down by major tasks), travel, materials, and institutional indirect/overhead, if applicable.	<p>Salary rates for your evaluator must be consistent with what he or she normally earns for comparable work (according to the <a href="#">NSF Grant Proposal Guide</a>).</p> <p>If the evaluation component is a subaward, have the evaluator prepare a detailed budget and budget justification in NSF format.</p>
<b>CURRENT AND PENDING SUPPORT</b>	<input type="checkbox"/> If the evaluation is a subaward, you will need a current and pending support form for your evaluator.	<p>Current and pending support information may be added to your proposal using FastLane’s interactive system, but if you need one from your evaluator, it may be more efficient to have him or her complete the form and send to you for uploading.</p> <p>Resource: Word version of NSF’s <a href="#">Current and Pending Support form</a></p>

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<b>SUPPLEMENTARY DOCUMENTS</b> (these files are uploaded separately and are not part of the 15-page project description)	<input type="checkbox"/> Prepare a <b>data management plan</b> (2 pages maximum,) organized around the following headings: <ul style="list-style-type: none"> <li>– Types of data</li> <li>– Standards for data and metadata format and content</li> <li>– Policies for access and sharing</li> <li>– Provisions for privacy, confidentiality, security, and intellectual property</li> <li>– Policies and provisions for re-use, redistribution, and the production of derivatives</li> <li>– Plans for archiving the data and preserving access to them</li> </ul>	<p>Data management plans are required for all NSF proposals. The plan should be organized around the headings indicated, but it's most important to explain how data or products will be shared with others and how the privacy of the individuals about or from whom you gather data will be protected. Note that the data management plan should address all data and products generated by the project, not just those related to the evaluation.</p> <p>Resources:</p> <ul style="list-style-type: none"> <li>– NSF's Directorate for Education and Human Resources has <a href="#">guidelines for data management plans</a>.</li> <li>– The <a href="#">ATE Central Handbook</a> includes a sample data management plan.</li> <li>– <a href="#">DMP Online</a> offers an interactive system for generating a data management plan tailored to NSF requirements.</li> <li>– <a href="#">Inter-University Consortium for Political and Social Research</a> provides a framework for creating data management plans with guiding questions and sample language.</li> </ul>
	<input type="checkbox"/> Include your evaluator's <b>biosketch</b> here, as the FastLane system for uploading biosketches is only for senior project personnel. Follow the 2-page, NSF biosketch format.	<p>The evaluator's biosketch should reflect his or her past experience in conducting project evaluations. It is not required to format the evaluator's resume in the 2-page NSF biosketch format, but doing so ensures that it will not consume too much of the space allotted for supplementary documents and that it will be easy for reviewers to quickly assess the evaluator's qualifications and experience.</p> <p>Resource: NSF's Grant Proposal Guide includes details about the format and content of <a href="#">biosketches</a>.</p>
	<input type="checkbox"/> Include a <b>commitment letter</b> from your evaluator.	<p>The evaluator's commitment letter should convey his or her personal and organizational commitment to provide evaluation services for the grant if it is funded.</p>
	<input type="checkbox"/> Include other documents that will support your proposal/evaluation plan.	<p>Keep in mind that reviewers may not review all supplementary documents, so any information critical to the proposal should be included in the main project description.</p>

<sup>1</sup> I thank Marilyn Barger, Michael Lesiecki, Krystin Martens, Jane Ostrander, Elizabeth Teles, and six anonymous reviewers for their valuable feedback on earlier versions of this checklist.