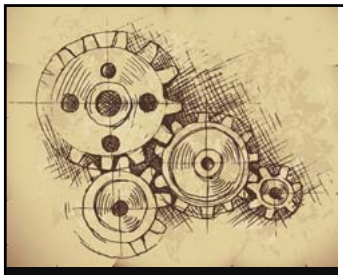


Making Evaluation Integral to Your ATE Proposal

July 21, 2010

presented by

Evaluate
Evaluation Resource Center for advanced technological education

This material is based upon work supported by the National Science Foundation under Grant No. 0802245. 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.

Introductions

Stephanie

Stephanie	Lori	Peggie	Linnea	Karl	Gordon
Evergreen	Wingate	Weeks	Fletcher	Kapp	Snyder
Moderator	Presenter	Presenter	Presenter	Discussant	Discussant

Evaluate Evaluation Resource Center for advanced technological education
Western Michigan University

NSF

ICT Center
Springfield Technical Community College

Bloomsburg University

2

Objectives

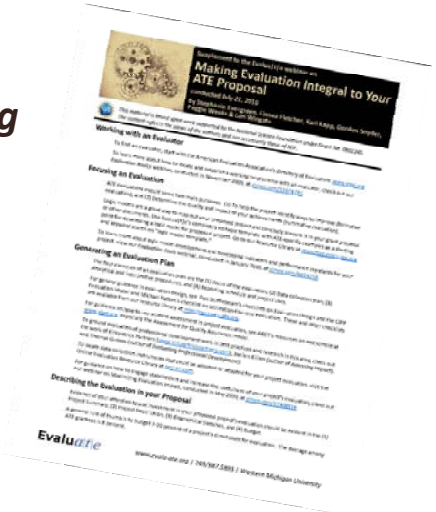
By the end of this webinar, you will be able to:

1. Locate and establish a working relationship with an evaluator
2. Sharpen the focus of your project's evaluation
3. Identify the elements of a coherent and feasible evaluation plan
4. Present your evaluation plan as a integral part of your proposal
5. Connect with others interested in ATE evaluation

Handout

Available from
resources.evalu-ate.org

Keyword search:
integral



Working with an Evaluator

Peggie

Start Early

Peggie

1. Identify
2. Involve
3. Build

Finding an Evaluator

- American Evaluation Association's Evaluator Directory: ***www.eval.org***
- Established ATE projects/centers ***www.atecentral.net***
- Graduate programs in evaluation
- University research centers
- University/college faculty

Evaluator Qualifications

General Qualifications

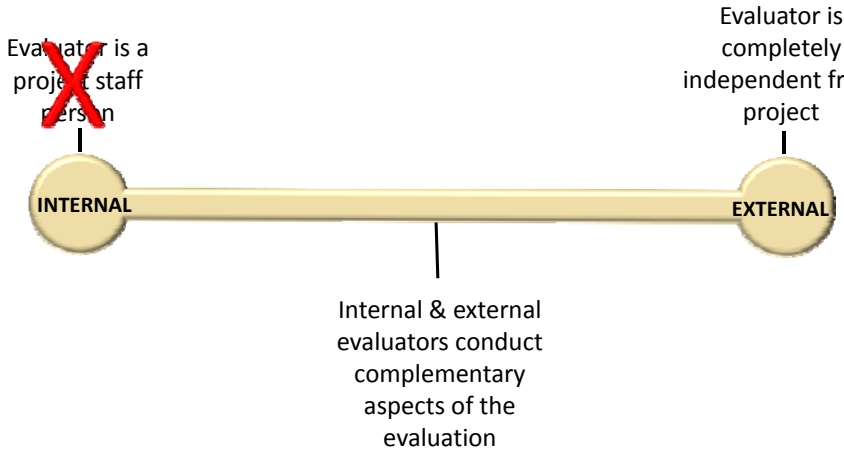
- Knowledgeable and experienced in qualitative and quantitative data collection methods
- Client-focused, responsive to context
- Effective communicator, facilitator, manager
- Identifies professionally as an evaluator

Evaluator Qualifications

ATE-Specific Qualifications

- Familiar with college environment and student population
- Knowledgeable about purpose and priorities of ATE
- Experienced in evaluating grant-funded projects
- Inquisitive about project

Internal - External Evaluation Continuum



Evaluator-Client Communications

- Ensures alignment between evaluation plans, project plans, and stakeholder values
- Improves understanding and utility of evaluation findings
- Increases accuracy of reports

Creating a Feedback Loop

- Meet quarterly with your evaluator
- Focus on reviewing and applying findings
- Schedule meetings well in advance—as part of the project management plan

A Program Officer's Perspective

- Follow Evalua|t|e's suggestions for finding an evaluator
- Former PIs do not necessarily make good evaluators
- Do not overpay
- Involve your evaluator from the start
- Name your evaluator in your proposal

Discussion

Gordon Snyder

- Principal Investigator/Executive Director, Information & Communications Technology Center
- Recipient of $5M in NSF funds since 2003
- Evaluated 3 NSF projects

Karl Kapp

- Professor, Bloomsburg University
- Evaluator for 6 ATE grants

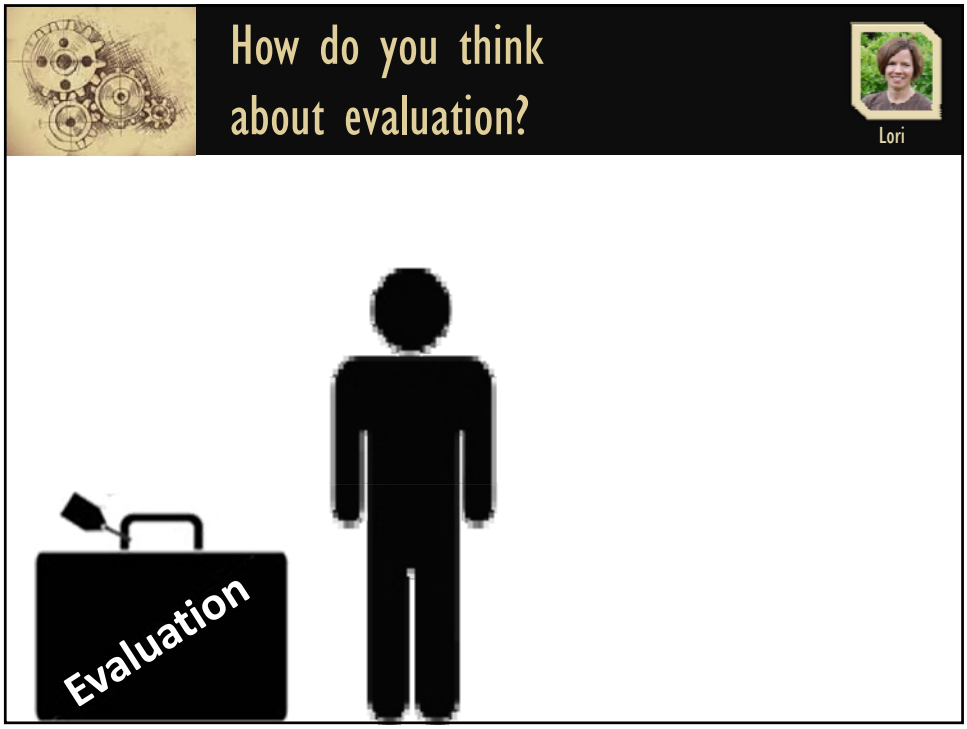
Focusing the Evaluation

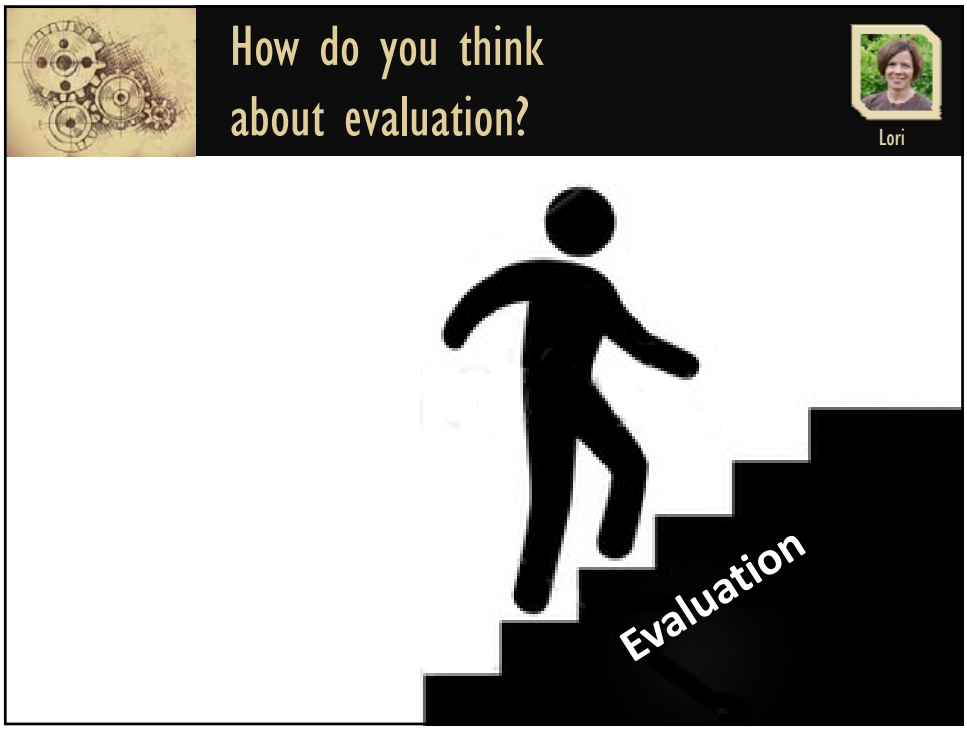
Lori

Evaluation Purposes

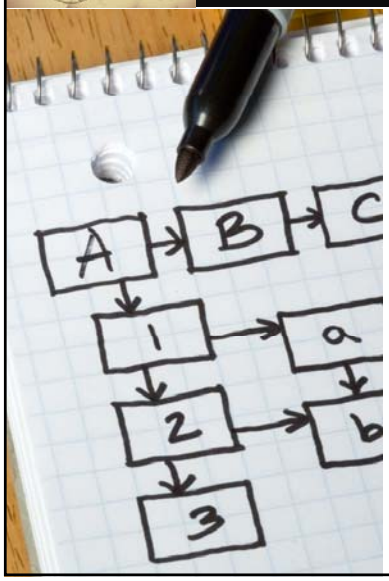
Lori

- Improvement (Formative Evaluation)
  - Learn how the project could be improved as it is implemented
  - Share lessons learned
- Accountability (Summative Evaluation)
  - Document what you achieved with the grant money
  - Demonstrate the quality and impact of your achievements


How do you think about evaluation?
Lori
Evaluation


How do you think about evaluation?
Lori
Evaluation

Start with a Logic Model



Lori

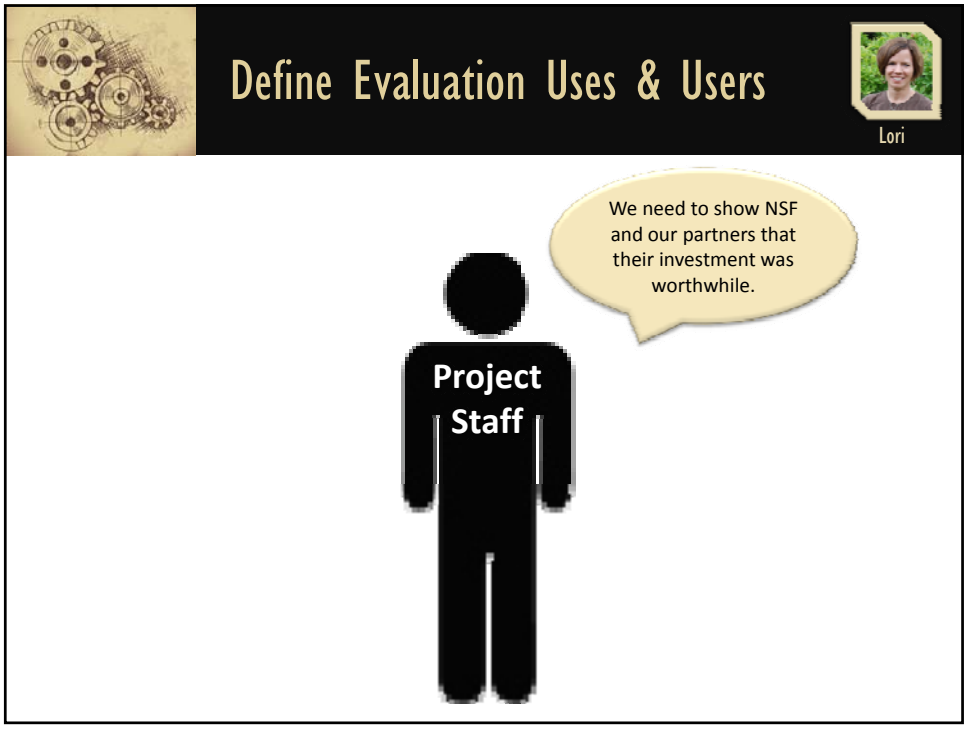
- Visual, one-page, depiction of project
- Communication tool
- Road map to results

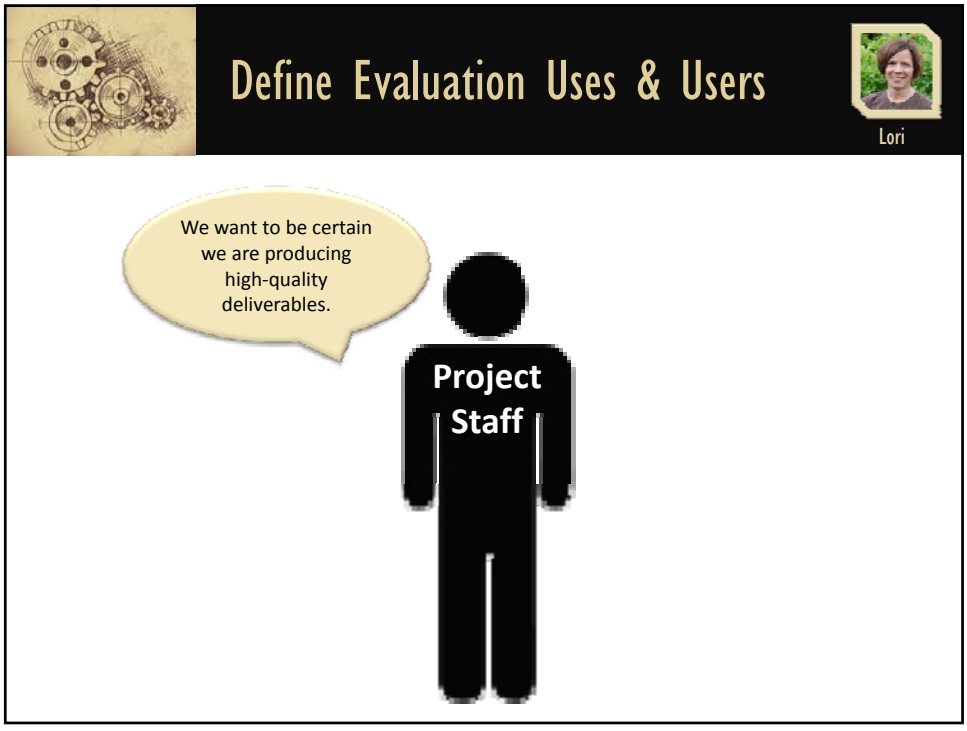
Start with a Logic Model

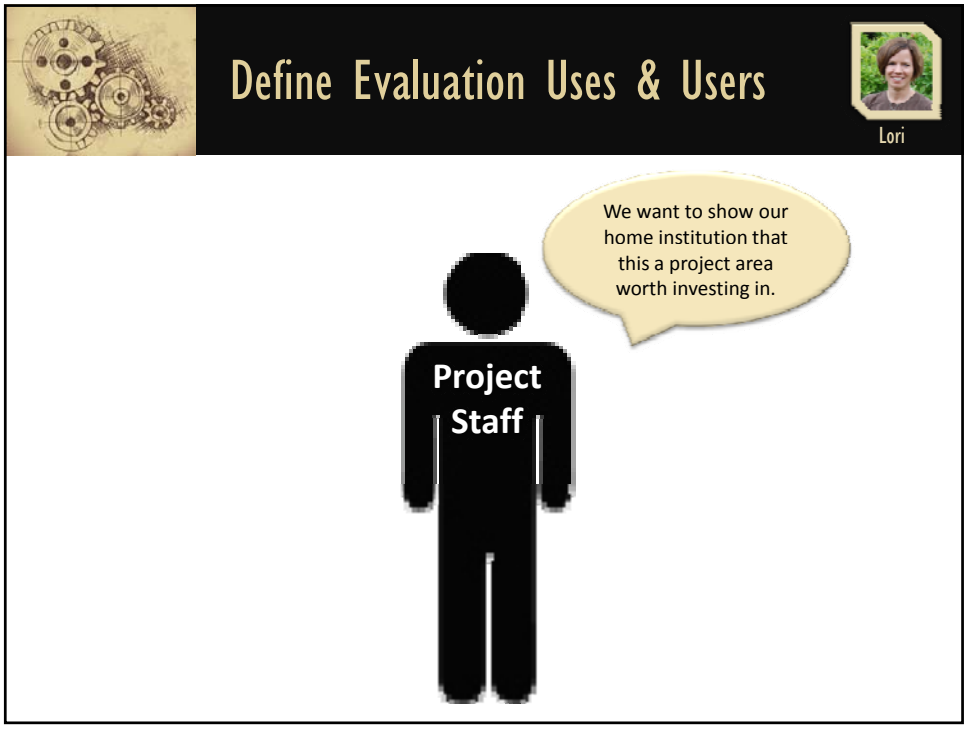
Lori

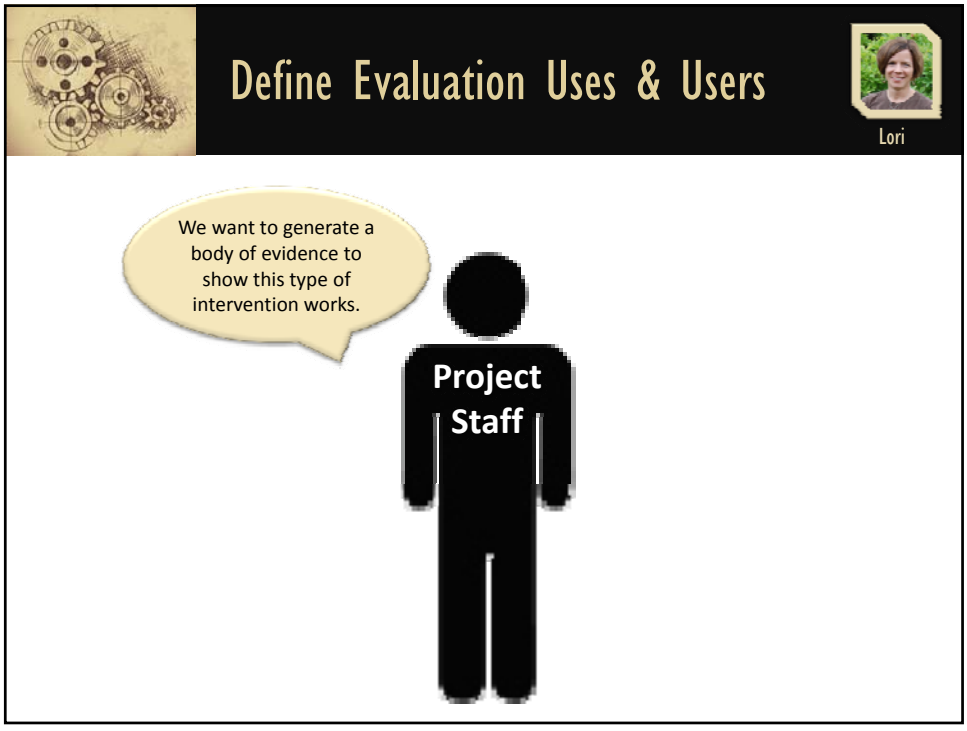
The Green Energy Technology (GET) Institute at Midwest Community College

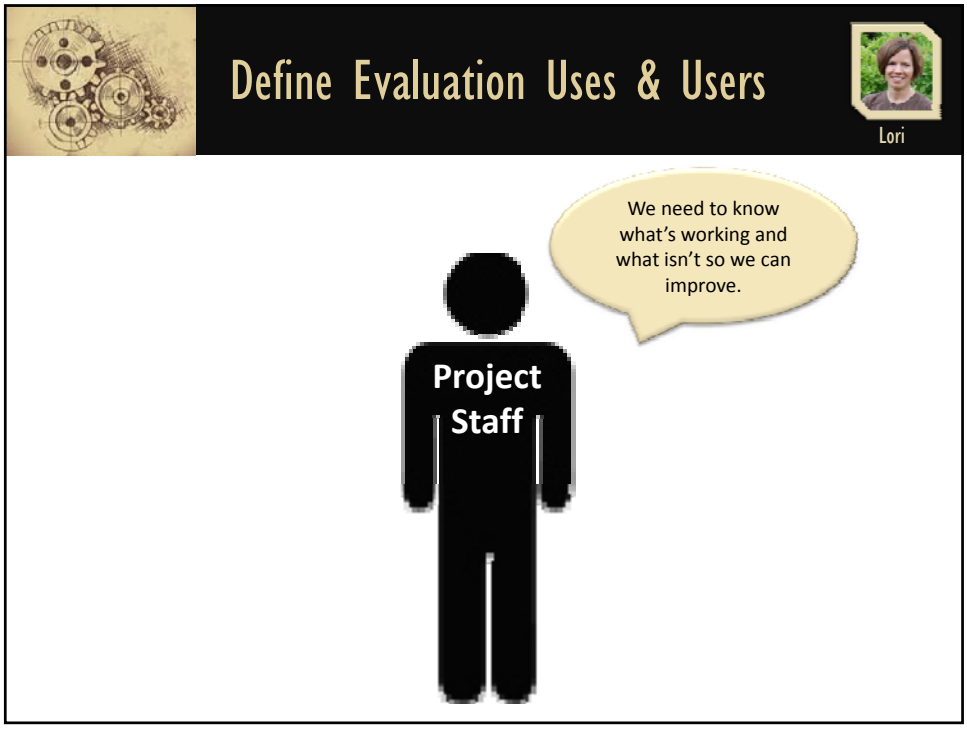
Inputs	Activities	Outputs	Short-Term Outcomes	Mid-Term Outcomes	Long-Term Outcomes
NSF Funding	Faculty workshops	Trained faculty	Increased student knowledge & skills in green tech	Graduates enter green tech careers	Increased regional economic vitality
Needs assessment	Follow-up support	Modules	Increased student interest in green tech careers	Regional demands for green technicians are met	Enhanced national capacity for sustainable development
Advisory panel	Guest lectures	Model curriculum	Curriculum dissemin-ated	Community colleges adopt curriculum	
ATE network	Field trips				
	Campus-wide activities				
	Dissemin-ation				

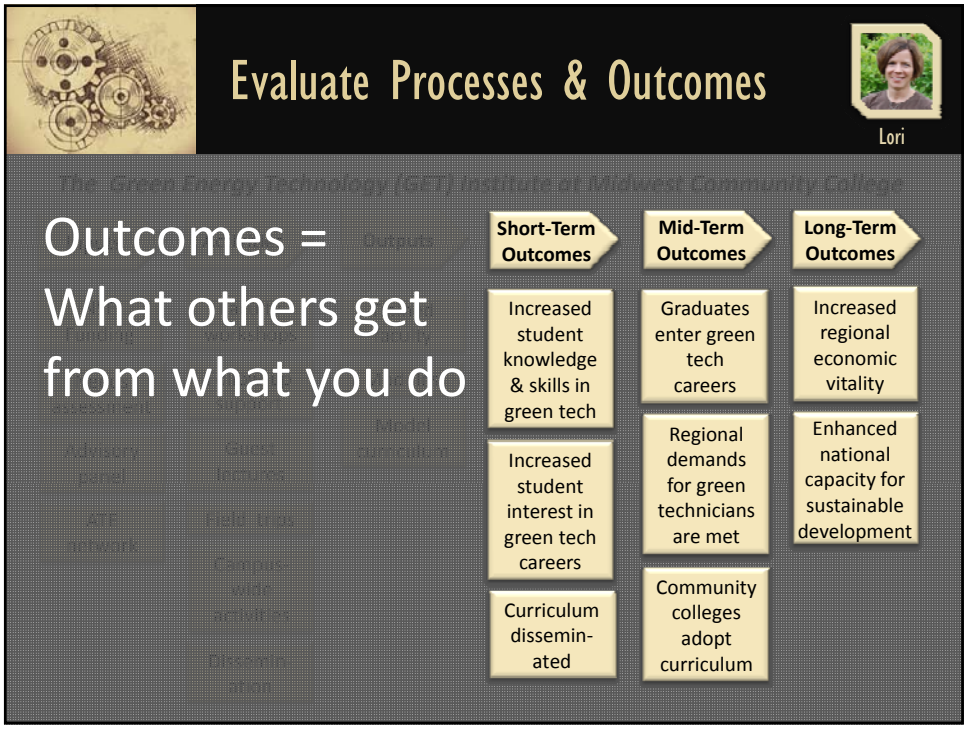

Define Evaluation Uses & Users
Lori
We need to show NSF and our partners that their investment was worthwhile.
Project Staff

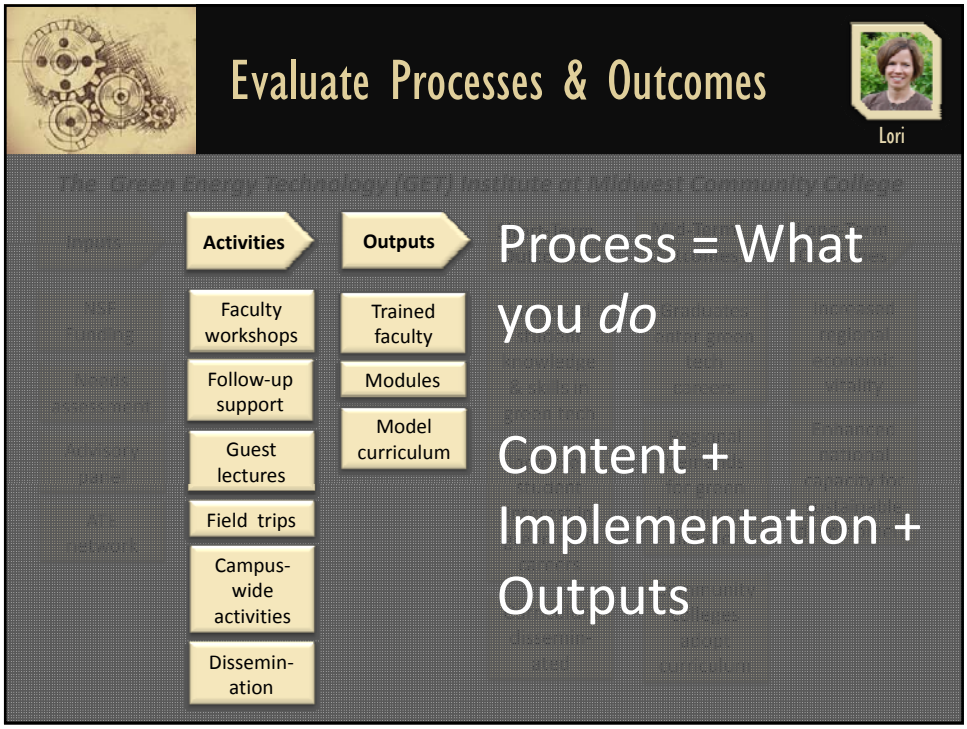

Define Evaluation Uses & Users
Lori
We want to be certain we are producing high-quality deliverables.
Project Staff

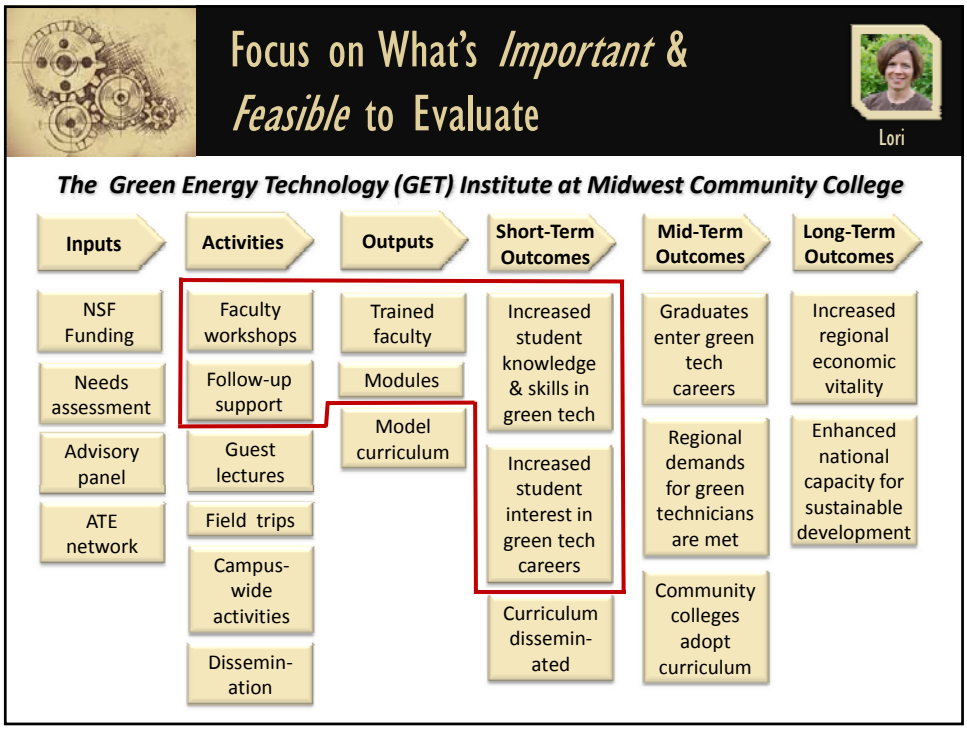

Define Evaluation Uses & Users
Lori
We want to show our home institution that this a project area worth investing in.
Project Staff


Define Evaluation Uses & Users
Lori
We want to generate a body of evidence to show this type of intervention works.
Project Staff


Define Evaluation Uses & Users
Lori
We need to know what's working and what isn't so we can improve.
Project Staff


Evaluate Processes & Outcomes
Lori
Outcomes = What others get from what you do
Short-Term Outcomes
Mid-Term Outcomes
Long-Term Outcomes
Increased student knowledge & skills in green tech
Increased student interest in green tech careers
Curriculum dissemin-ated
Graduates enter green tech careers
Regional demands for green technicians are met
Community colleges adopt curriculum
Increased regional economic vitality
Enhanced national capacity for sustainable development


Evaluate Processes & Outcomes
Lori
Activities
Outputs
Faculty workshops
Follow-up support
Guest lectures
Field trips
Campus-wide activities
Dissemin-ation
Trained faculty
Modules
Model curriculum
Process = What you *do*
Content + Implementation + Outputs


Focus on What's *Important* & *Feasible* to Evaluate
Lori
The Green Energy Technology (GET) Institute at Midwest Community College
Inputs
Activities
Outputs
Short-Term Outcomes
Mid-Term Outcomes
Long-Term Outcomes
NSF Funding
Needs assessment
Advisory panel
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Enhanced national capacity for sustainable development

A Program Officer's Perspective

- Let the solicitation be your guide
- Collect data, publish it, and use it

Discussion

Gordon Snyder

- Principal Investigator/Executive Director, Information & Communications Technology Center
- Recipient of $5M in NSF funds since 2003
- Evaluated 3 NSF projects

Karl Kapp

- Professor, Bloomsburg University
- Evaluator for 6 ATE grants

Generating an Evaluation Plan

Lori

Evaluation Planning Overview

Lori

An evaluation plan's 4 basic elements:

1. Focus of the evaluation
2. Data collection plan
3. Analytical and interpretive procedures
4. Reporting schedule and projected uses

Adapted from: University of Wisconsin-Extension, Cooperative Extension (2008). *Building capacity in evaluating outcomes: A teaching and facilitating resource for community-based programs and organizations.* Madison: UW-Extension, Program Development and Evaluation. www.uwex.edu/ces/pdande/evaluation/bceo/index.html

Use Proven Evaluation Approaches

Checklists offer guidance in using general evaluation models/approaches

resources.evalu-ate.org

Keyword search on:

- Checklists
- Patton
- Stufflebeam
- Scriven

Use Proven Evaluation Approaches

Evaluating student learning & outcomes

Gloria Rogers' **Assessment for Quality Assurance** model & tools

Assessment for Quality Assurance

© 2003 Gloria Rogers – Rose-Hulman Institute of Technology

www.abet.org

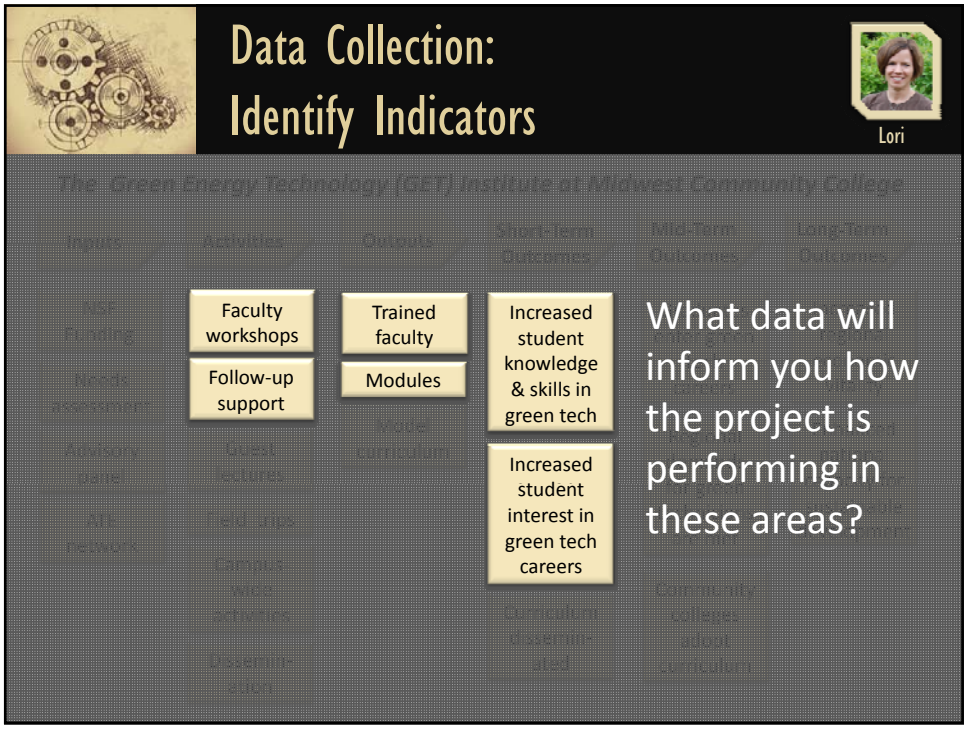
Use Proven Evaluation Tools & Approaches

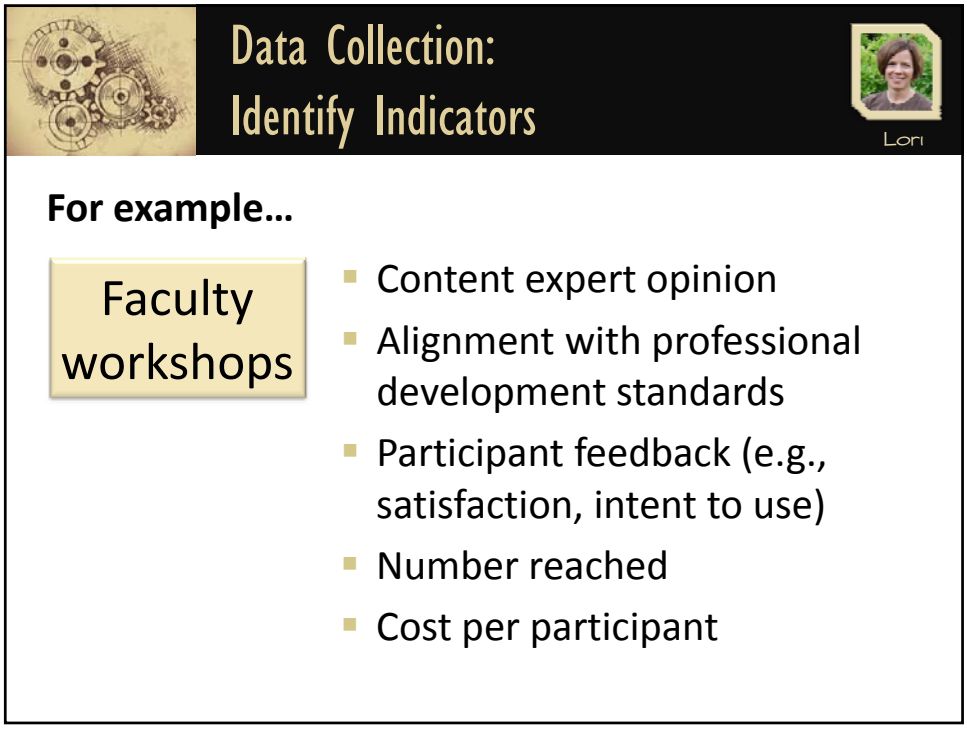
Evaluating professional development

Kirkpatrick Partners	Kirkpatrick Four Levels Evaluation Model
Joellen Killion National Staff Development Council	*Assessing Impact*
Thomas Guskey	*Evaluating Professional Development*

Data Collection

- What information do you need?
- How will you collect it?
- From whom?
- When?


Data Collection:
Identify Indicators
Lori
The Green Energy Technology (GET) Institute at Midwest Community College
Faculty workshops
Follow-up support
Trained faculty
Modules
Increased student knowledge & skills in green tech
Increased student interest in green tech careers
What data will inform you how the project is performing in these areas?


Data Collection:
Identify Indicators
Lori
For example…
Faculty workshops
Content expert opinion
Alignment with professional development standards
Participant feedback (e.g., satisfaction, intent to use)
Number reached
Cost per participant

Data Collection: Define Methods, Sources, Timing

Project Component	Indicator	Measure/ Method	Data Source	Timing
Faculty workshops	Expert assessment of content	Document review	Experts in green tech	Pre-implementation
	Alignment with professional development standards	Workshop plan review	Evaluator	Pre-implementation
	Participant feedback	Survey	All participants	End-of-workshop
		Focus group	Sample of participants	6 months post-workshop
	Number reached	Attendance counts	Project records	Ongoing

Notes on Data Collection

- Build a body of evidence
  - Multiple data sources
  - Qualitative & quantitative data
- Embed data collection into regular project activities
- Use existing data whenever possible
- Use existing instruments when & if they match your needs

Notes on Data Collection

Locating instruments

Online Evaluation Resource Library

oerl.sri.com

ATE Evaluation Community of Practice

evalu-ate.org/community

Analysis & Interpretation

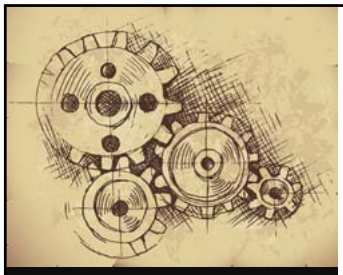
- How will you make sense of the data?
- What sort of comparisons will be made, if any?
- What counts as "success"?

Reporting & Use

- How and to whom will the evaluation results be reported?
- How will the project use the information?

A Program Officer's Perspective

- Evaluation should be embedded in the project
- Know the difference between goals, objectives, and learning outcomes



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Describing the Evaluation In Your Proposal

Lori

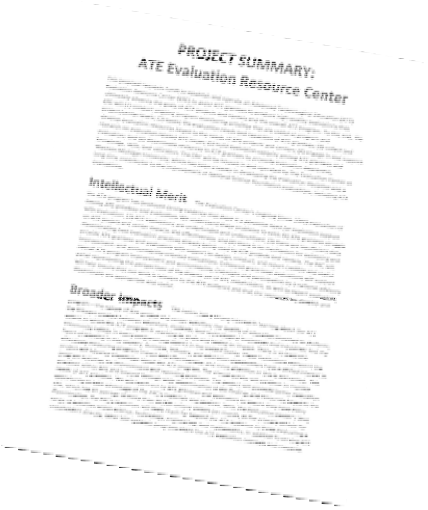
Proposal Contents

- **Project Summary**
- Table of Contents
- **Project Description**
- References Cited
- **Biographical Sketches**
- **Budget**
- Current and Pending Support
- Facilities, Equipment & Other Resources
- Special Information & Supplementary Documentation
- Appendices

Source: *National Science Foundation Grant Proposal Guide*

Project Summary

- Intellectual merit
- Broader impacts



Intellectual Merit

3 ATE-Specific Criteria About Evaluation:

- Is the evaluation plan clearly tied to the project outcomes?
- Is the evaluation likely to provide useful information to the project and others?
- Does the project provide for effective assessment of student learning?

Intellectual Merit

To demonstrate the evaluation is tied to outcomes …

- Clearly identify the focus of the evaluation
- Explain the linkage between your evaluation components
- Show that outcomes will be truly evaluated, not just described

Intellectual Merit

To show how the evaluation will be useful …

- Explain how timely feedback will be used to inform decision making
- Describe how the results will be shared beyond the project
- Indicate why the results will be of value to others

Intellectual Merit

To convey that student assessment will be effective…

- Define learning outcomes & criteria
- Specify assessment tools/procedures

Assessment for Quality Assurance

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www.abet.org

Broader Impact

1 ATE-Specific Criterion About Evaluation:

- Will the project evaluation inform others through the communication of results?

Broader Impact

Communicate results to external audiences via

- Presentations & poster sessions
- Website
- Newsletter articles
- Press releases
- Journal articles
- Evaluation summit

Project Description

> The PI should establish claims as to the project's effectiveness, and the evaluative activities should provide evidence on the extent to which the claims are realized.
>
> ***—2010 ATE Program Solicitation***

Project Description

DO:

- Create a subsection titled “Evaluation”
- Clearly specify the focus of the evaluation
- Summarize each aspect of the evaluation plan as concretely as possible

- 15-page maximum
- 1-2 pages to describe the evaluation

Project Description

DON'T:

- Overpromise
- Use a lot of "evaluationese"
- Copy-and-paste a "cookie cutter" evaluation plan

Examples

…The evaluation will utilize an accepted mixed-methods design (Cook & Campbell, 1979). Quantitative and qualitative measures of performance will be used in both a formative and summative manner to gauge the merit and worth of the grant initiative. This mixed-methods approach has proven useful in utilizing both quantitative and qualitative performance indicators in a single research design (Frechtling & Sharp, 1997). It is also consistent with the best practices and recommendations for rigorous scientifically-based research….

Examples

…The evaluation will utilize an accepted mixed methods design (Cook & Campbell, 1979). Quantitative and qualitative measures of performance will be used in both a formative and summative manner to gauge the merit and worth of the grant initiative. This mixed-methods approach has proven useful in utilizing both quantitative and qualitative performance indicators in design research (Frechtling & Sharp, 1997). It is also consistent with the best practices and recommendations for rigorous scientifically-based research….

Too vague!

Examples

What?
How?
Who?
When?

Project staff will administer an end-of-workshop survey to obtain **participants' feedback**, including both rating and open-ended comments. The external evaluator will conduct interviews with participants six months following the workshop to determine the extent to which they **applied the workshop content**. She also will interview a random sample of students at the end of each semester to learn how their **knowledge and perceptions** of green energy technology were impacted.

Examples

What?
How?
Who?
When?

Project staff will administer an end-of-workshop **survey** to obtain participants' feedback, including both rating and open-ended comments. The external evaluator will conduct **interviews** with participants six months following the workshop to determine the extent to which they applied the workshop content. She also will **interview** a random sample of students at the end of each semester to learn how their knowledge and perceptions of green energy technology were impacted.

Examples

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How?
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When?

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Examples

What?
How?
Who?
When?

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Biographical Sketches

Include a bio for your evaluator

- Qualifications
- Relevant experience

Budget

> All projects and centers carry out evaluative activities. The funds to support an evaluator independent of the project or center must be requested.
>
> *—2010 ATE Program Solicitation*

Budget

- ATE solicitation recommends ~10% of the total project cost for evaluation
- 8% is average among ATE grantees

Budget

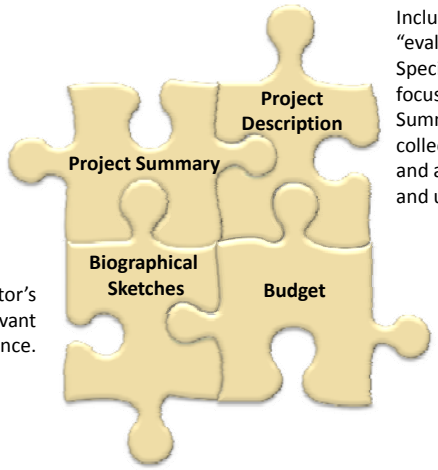
Example

Total project costs	$180,000
Evaluation budget @ 8%	**$ 14,400**
Total direct costs	$194,400
Indirect costs @ 25%*	$ 48,600
Total budget	$243,000

* Rates vary by institution

Putting it all Together

Show how evaluation will enhance your project's intellectual merit & extend impact.



Include a section labeled "evaluation."
Specify the evaluation's focus.
Summarize plans for data collection, interpretation and analysis, and reporting and use.

Describe your evaluator's qualifications and relevant experience.

Demonstrate you've allocated sufficient funds for the evaluation.

A Program Officer's Perspective

- Not just a single paragraph at the end of the proposal
- Don't confuse the project evaluation with student or faculty evaluation

Discussion

Gordon Snyder

- Principal Investigator/Executive Director, Information & Communications Technology Center
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Archive

Stephanie

Visit ***resources.evalu-ate.org***
Keyword search:
integral

ATE Evaluation Community of Practice

Peggie

Upcoming Events

Webinar: September 15
Needs Assessment

Workshop: October 27
ATE Conference – Washington, DC
Designing Practical & Useful Evaluations

Webinar: November 17
Evaluation Basics

Register at ***www.evalu-ate.org/events***

We Have $$$ for Your ATE Evaluator!

To attend the 2010 ATE PI Conference

- Up to $1,000 for expenses
- Must attend our preconference workshop with a project staff member
- Application deadline: August 15

Details at ***www.evalu-ate.org/events***

American Evaluation Association
Peggie
Coffee Break Webinar Series
July 22: You + Graphic Design = Love/Money/Happiness
Annual Conference
November 10-13 in San Antonio, TX
AMERICAN EVALUATION ASSOCIATION
Get more information/join at www.eval.org

Continue the Conversation
Peggie
Join our new listserv!
evalu-ate.org/community

Thank You!

Evalu*a|t|e*

EVALUATION RESOURCE CENTER *for*
advanced technological education

www.evalu-ate.org

Contributors

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