Introductions


Jason

Jason Burkhardt

Lori Wingate

Elaine Craft

Dennis Faber

EvaluATE
Evaluation Resource Center for advanced technological education

MENTOR CONNECT

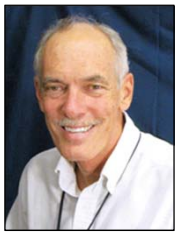
WESTERN MICHIGAN UNIVERSITY

This material is based upon work supported by the National Science Foundation under grant number 1204683. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the presenters and do not necessarily reflect the views of NSF.

Behind the Scenes

Jason

Mike Lesiecki



Janet Pinhorn

Charlotte Forrest

Emma Perk

NETWORKS

MARICOPA COMMUNITY COLLEGES

MENTOR CONNECT

EvaluATE Evaluation Resource Center for advanced technological education

WESTERN MICHIGAN UNIVERSITY

Webinar Materials

Jason

Slides Handout Recording

Available from **www.evalu-ate.org**

Webinar Overview


Jason

1 
ATE Small Grants
Elaine Craft

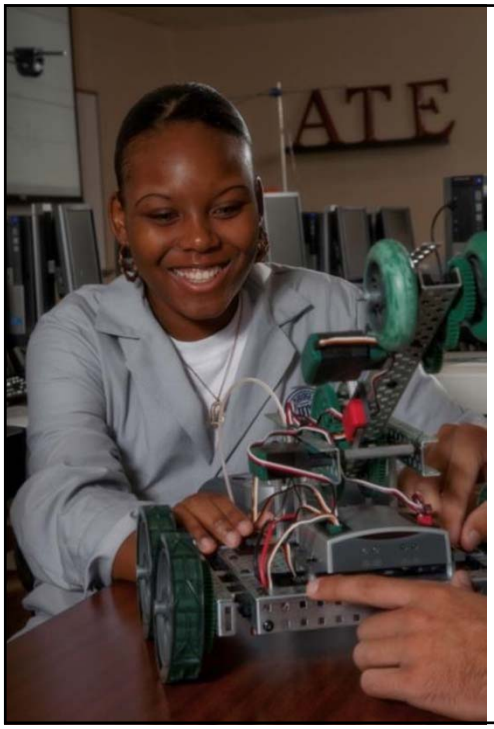

Mentor-Connect
Dennis Faber

2 
Maximizing Evaluation Impact
Lori Wingate

3 
Minimizing Evaluation Costs
Lori Wingate

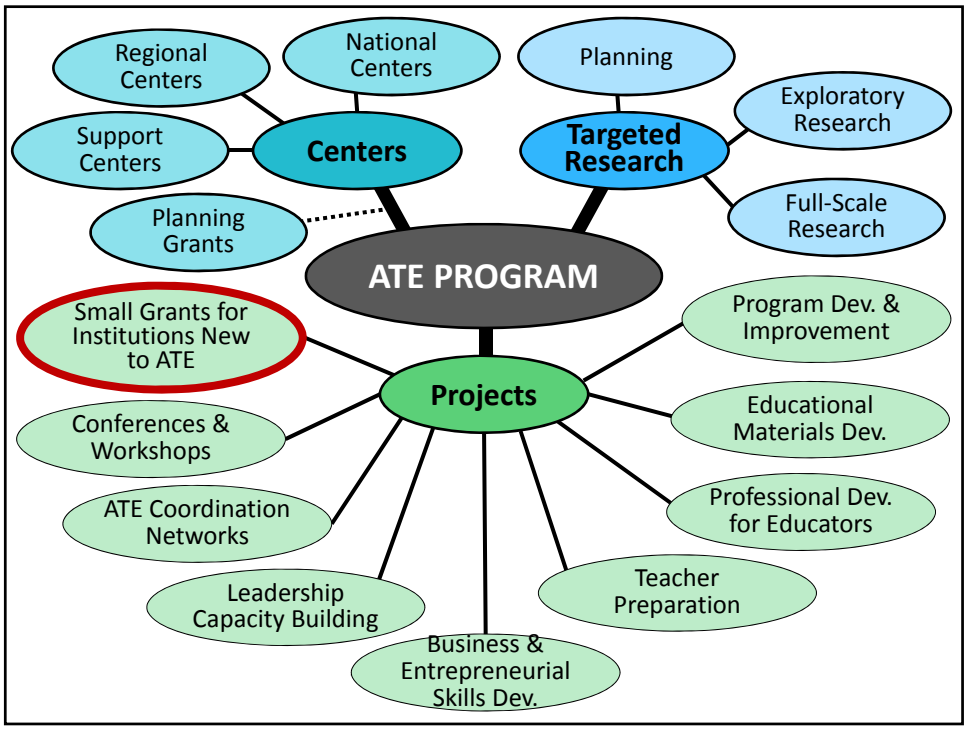
ATE Small Grants

Elaine Craft



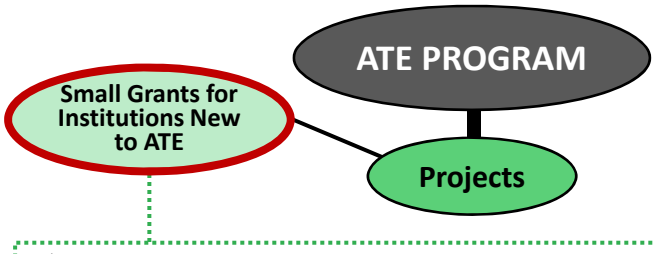
The NSF ATE Program

focuses on strengthening technician education at the postsecondary and secondary levels for the high-technology fields that drive our nation's economy



Broadening the Base of Community Colleges Involved in ATE


Elaine

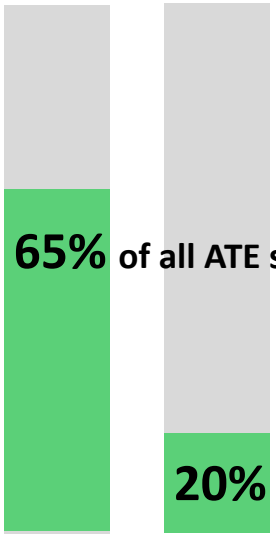


- ✓Only community college campues that have not had an ATE award in the past 10 years may apply
- ✓$200,000 over 3 years
- ✓12-20 awards made per year

Proposal Success Rates

(Approximate)


Elaine



Source: Celeste Carter, *Mentor-Connect Opportunities for NSF ATE Program Funding and Mentor-Connect Grant Writing Support*
- Mentor-Connect webinar on 9/14/14
- www.youtube.com/watch?v=A8l-iKoOvao

65% of all ATE small grant proposals are funded

20% of all ATE proposals to ATE are funded

Examples of ATE Small Grants


Elaine

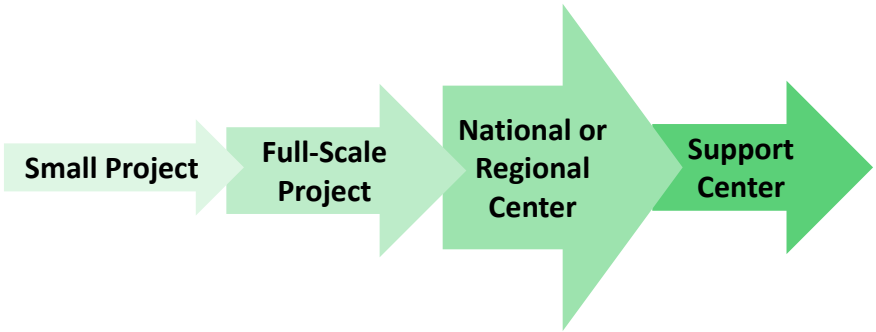
Faculty Development for Technician Education in Welding, Materials Joining, and Non-Destructive Testing | $197,944

Manufacturing Associate Degree Education in Northwestern Connecticut | $199,960

Saint Paul College Science Instrumentation Collaborative| $199,712

Some Full-Scale Projects Evolve into Centers


Elaine



Tips for ATE Small Grants*

Elaine

- ✓Use resources developed by existing ATE projects and centers
- ✓Consult with ATE PIs

ATE CENTRAL
www.atecentral.net

- ✓Address rural technician education issues, as appropriate

*from ATE program solicitation

Mentor-Connect

Dennis Faber

Mentor-Connect


Dennis

MENTOR CONNECT

provides comprehensive and interactive support for leadership development and knowledge transfer by developing and supporting potential, current and former grantees

Getting Help from Mentor-Connect

	For Mentor-Connect Mentees ONLY	For Everyone
Worksheet to guide development of project focus and rationale	✓	
2 workshops on grant writing and leadership skills	✓	
ATE mentor for personalized assistance with grant development and submission	✓	
3 technical assistance webinars		✓
Online resources (e.g., samples, checklists, guidelines, tutorials, webinar recordings)		✓
Help desk access (phone, email)		✓

Applying to Mentor-Connect

Applications available this summer

Learn more at the "Get a Mentor section" of mentor-connect.org

MENTOR CONNECT

MENTOR CONNECT

www.mentor-connect.org

Maximizing Evaluation Impact

Lori Wingate


Lori

1. Ask important questions about a project's processes and outcomes.

2. Gather evidence that will help answer those questions.

EVALUATION

3. Interpret findings and answer the evaluation questions.

4. Use the information for accountability, improvement, and planning.

Cost-Saving Strategies


Lori

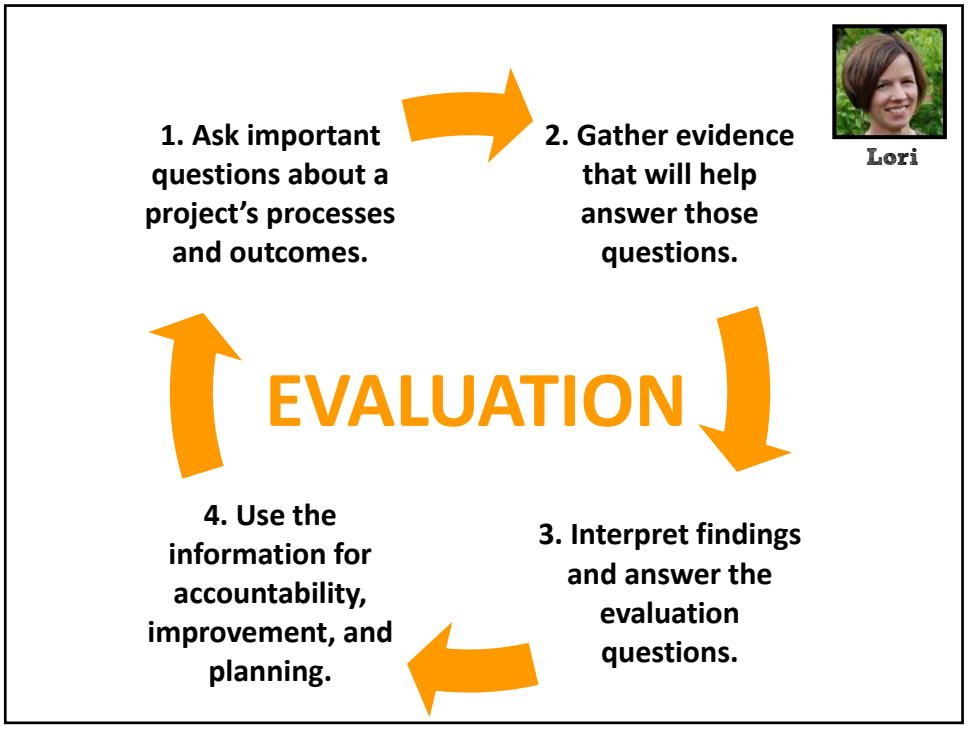
- ☐ Match the scope of the evaluation to the scope of the project.
- ☐ Develop a tracking system to monitor project reach and participation.
- ☐ Maintain a record of key project activities and accomplishments.
- ☐ Utilize institutional research data to the fullest extent possible.
- ☐ Leverage internal and external evaluation to answer the most important questions.

Cost-Saving Strategies


Lori

- ☐ Match the scope of the evaluation to the scope of the project.

MOST IMPORTANT!

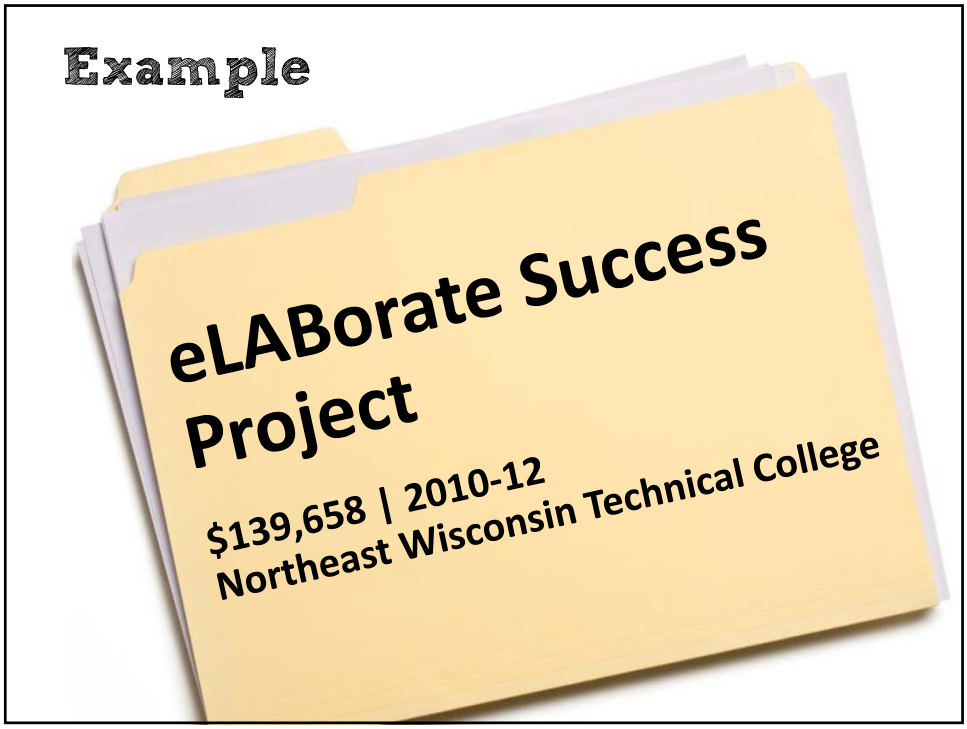


Before Developing an Evaluation Plan…

Ensure there is clarity about

- the **need** the project is addressing
- the project's main **activities**
- the project's **impactees**
- the project's intended **outcomes**

Example



…faculty-initiated project in response to challenges associated with the open lab format used at the college. Because students use the lab on an open-entry/open-exit basis, the staff member on hand at any one time might not have the expertise needed to help the student. To address this challenge, the staff is implementing a strategy of cross training, support and enhancement that provides all faculty members with enough knowledge to deal with basic content issues and questions in the shared concentrations (Electrical Engineering Technology, Electronics/Biomedical Technology, Electro-Mechanical Technology, and Automation Engineering Technology.). …

Goals:

1. Enhance the quality of students' learning experience in the Manufacturing Technology Center by improving the instructor's ability to assist all students in select courses.
2. Improve the quality of the labs.
3. Increase the percentage of students successfully completing courses on his/her first attempt.

NEED

1. What is the problem or need being addressed by this project?

ACTIVITIES

2. What are the main project activities?

PARTICIPANTS

3. Who are the primary participants in the project's activities?

OUTCOMES

4. What will be different for participants because of the project?

5. Who is ultimately supposed to benefit from this project?

6. What is expected to be different for students because of the project?

Confirming Project Logic


Lori

Need	Activities	Outcomes
Faculty do not have adequate knowledge to assist students in open labs.	Train faculty staffing the lab on all equipment.	Faculty are able to help students in the lab.
↓		↓
A significant number of students are performing poorly in courses requiring open lab work.		Students learn more.
		↓
		Students are successful in their courses.


Lori

1. Ask important questions about a project's processes and outcomes.
2. Gather evidence that will help answer those questions.
3. Interpret findings and answer the evaluation questions.
4. Use the information for accountability, improvement, and planning.

EVALUATION

Evaluation Questions

Lori

Activities	Outcomes
Train faculty staffing the lab on all equipment.	Faculty are able to help students in the lab.
	Students learn more.
	Students are successful in their courses.

1. To what extent did the training meet the needs of faculty?

Evaluation Questions

Lori

Activities	Outcomes
Train faculty staffing the lab on all equipment.	Faculty are able to help students in the lab.
	Students learn more.
	Students are successful in their courses.

2. To what extent did the training improve the faculty's competence with lab equipment?

Evaluation Questions


Lori

Activities	Outcomes
Train faculty staffing the lab on all equipment.	Faculty are able to help students in the lab.

Students learn more.

Students are successful in their courses.

3. To what extent did the training improve student performance in lab-related courses?


Lori

1. Ask important questions about a project's processes and outcomes.

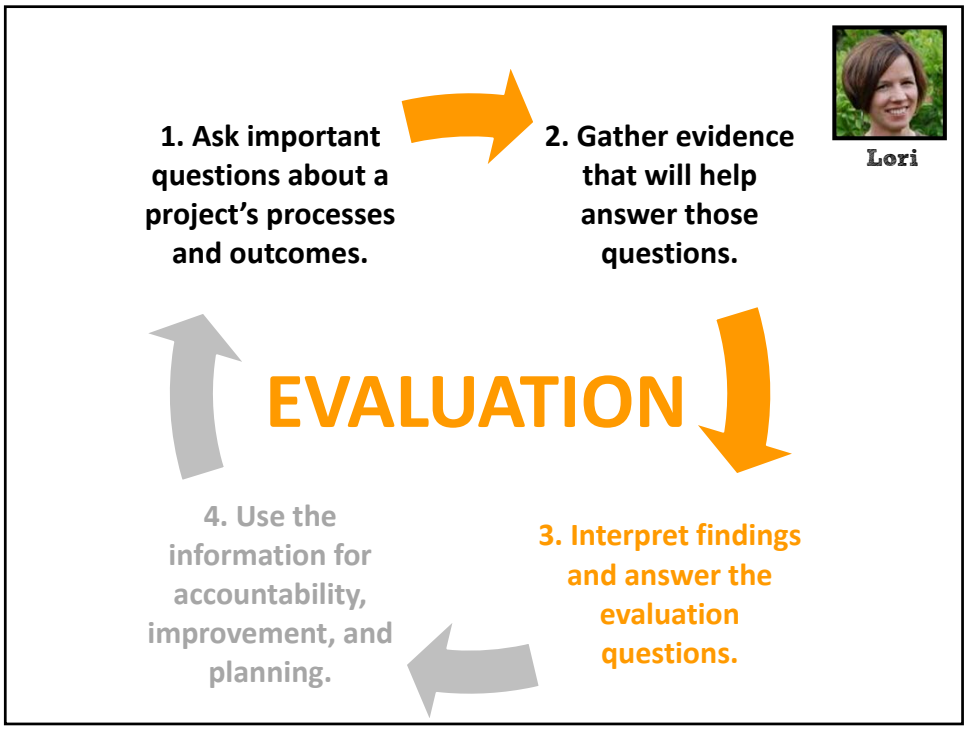
2. Gather evidence that will help answer those questions.

EVALUATION

3. Interpret findings and answer the evaluation questions.

4. Use the information for accountability, improvement, and planning.

EVALUATION QUESTIONS	INDICATORS	DATA SOURCES/ METHODS
1. To what extent did the training meet the needs of participating faculty?	Faculty self-report of satisfaction, relevance, engagement	Interviews or surveys of participating faculty
	Degree to which training covered all lab equipment	Review of training content and/or PI self-report
2. To what extent did the training improve the faculty's competence with lab equipment?	Faculty self-report of learning	Interviews or surveys of participating faculty
	Percentage of faculty participating	Project records
	Participants' ability to operate lab equipment	Observation of performances tasks during training
	Student satisfaction with the help they receive in labs	Surveys or interviews of students
3. To what extent did the training improve student performance in lab-related courses?	Student grades on assignments requiring lab work	Provided by faculty teaching courses
	Student grades for lab-related courses	Provided by faculty teaching courses
	Percentage of students passing courses on first attempt	Institutional data



Interpret Findings


Lori

EVALUATION QUESTIONS	INDICATORS	TARGETS
3. To what extent did the training improve student performance in lab-related courses?	Student grades on assignments requiring lab work	75% of students will achieve a grade of 'C' or better on all assignments
	Student grades for lab-related courses	75% or more of students will achieve course grade of 'C' or better on first attempt
	Percentage of students passing classes on first attempt	Increase from 50% to at least 75%

Compare results with targets in order to answer questions
(may find that targets need to be adjusted)


Lori

1. Ask important questions about a project's processes and outcomes.

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EVALUATION

3. Interpret findings and answer the evaluation questions.

4. Use the information for accountability, improvement, and planning.

Use the Information

Accountability
- Include results in your annual report to NSF

Improvement
- Monitor results as data are gathered to determine if changes are needed in implementation

Planning
- Determine what worked and didn't as you plan your next project
- Summarize outcomes and lessons learned in your next proposal's "Results of Prior NSF Support" section

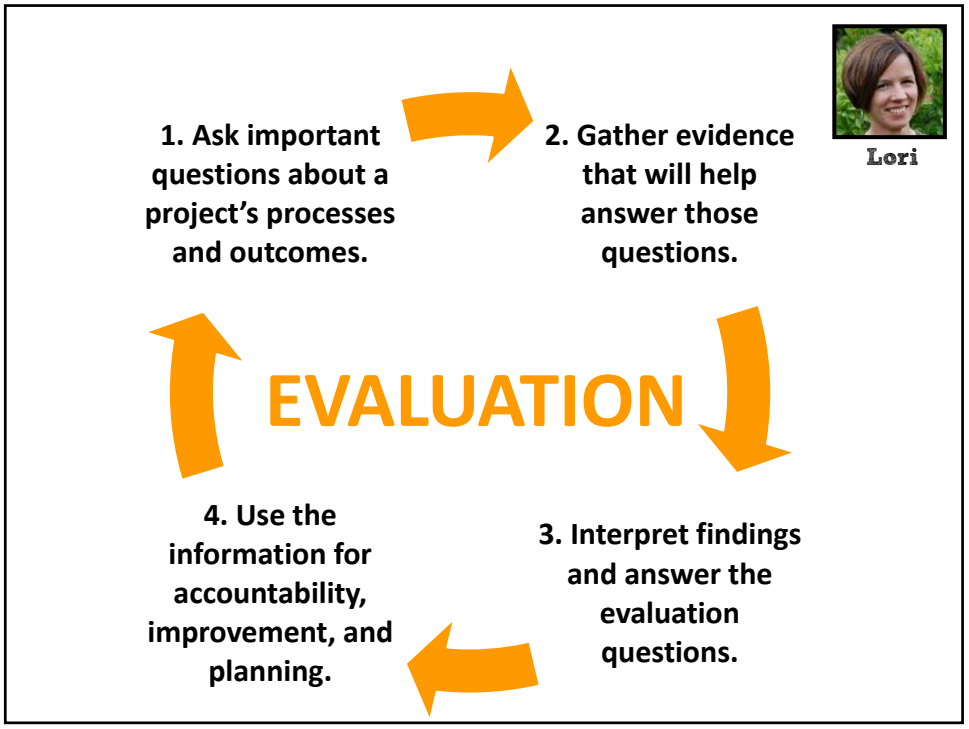
Use the Information

Accountability
- Include results in your annual report to NSF

Improvement
- Monitor results as data are gathered to determine if changes are needed in implementation

Planning
- Determine what worked and didn't as you plan your next project
- **Summarize outcomes and lessons learned in your next proposal's "Results of Prior NSF Support" section**

Discussing what you learned from your evaluation demonstrates commitment to excellence and stewardship of resources



ATE Program Goals

- produce more qualified science and engineering technicians to meet workforce demands
- improve the technical skills and the STEM preparation of these technicians and the educators who prepare them

Your project's job is to make a contribution to these goals.

Your evaluation's job is to determine the merit, worth, and significance of your contribution.

Cost-saving Strategies


Lori

- [x] Match the scope of the evaluation to the scope of the project.
- [ ] Develop a tracking system to monitor project reach and participation.
- [ ] Maintain a record of key project activities and accomplishments.
- [ ] Utilize institutional research data to the fullest extent possible.
- [ ] Leverage internal and external evaluation to answer the most important questions.

Minimizing Evaluation Costs

Lori Wingate

What do you think?


Lori

What are your suggestions for keeping evaluation costs down?

Answer in the chat box

Cost-Saving Strategies


Lori

- ☐ Match the scope of the evaluation to the scope of the project.
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Track Reach and Participation


Lori

Use spreadsheet or database software to keep a log of **WHO PARTICIPATED** and their

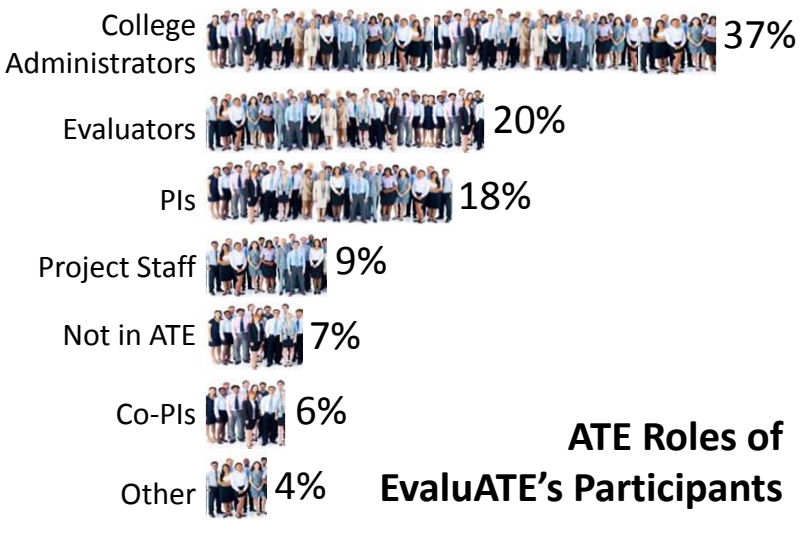
- ✓ key demographics
- ✓ contact information
- ✓ involvement in the project, including dates

students – faculty – staff – partners – advisors

EvaluATE Example:

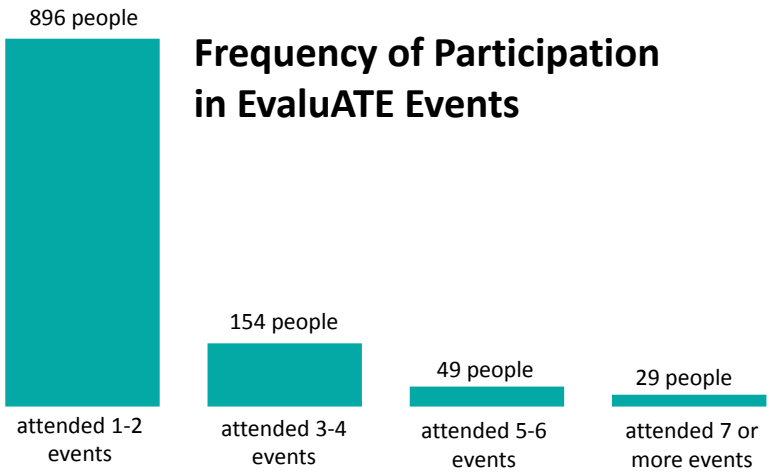
Track Reach and Participation


Lori



ATE Roles of EvaluATE's Participants

EvaluATE Example:
Track Reach and Participation



Track Reach & Participation

Data on project participants are also needed for

- NSF annual reports
- ATE annual survey

Cost-Saving Strategies


Lori

- ☐ Match the scope of the evaluation to the scope of the project.
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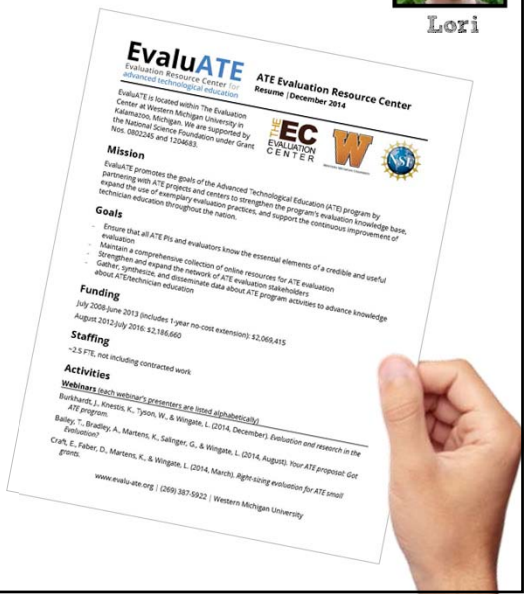
Project Resume (or Fact Sheet)


Lori

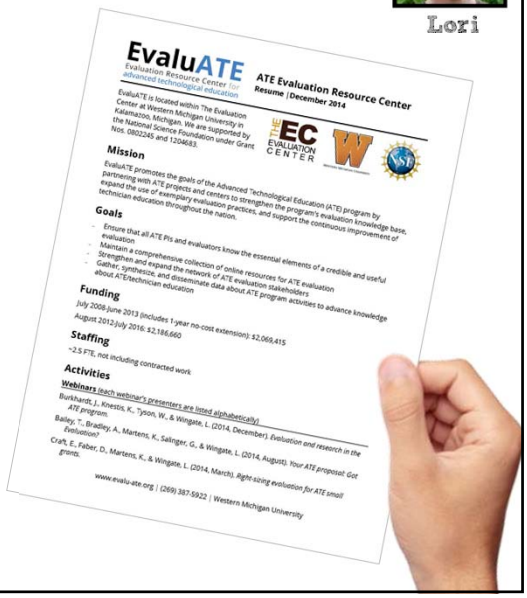
Provides succinct documentation of your past performance and capacity for future work


EvaluATE
Evaluation Resource Center for advanced technological education
ATE Evaluation Resource Center
Resume | December 2014
Mission
Goals
Funding
Staffing
Activities

Project Resume (or Fact Sheet)


Lori

- Mission
- Goals
- Funding
- Staffing levels
- Activities/Deliverables
- Personnel (including paid staff, consultants, and collaborators)


EvaluATE
Evaluation Resource Center for advanced technological education
ATE Evaluation Resource Center
Resume | December 2014
EvaluATE is located within The Evaluation Center at Western Michigan University in Kalamazoo, Michigan. We are supported by the National Science Foundation under Grant Nos. 0802245 and 1204683.
Mission
EvaluATE promotes the goals of the Advanced Technological Education (ATE) program by partnering with ATE projects and centers to strengthen the program's evaluation knowledge base, expand the use of exemplary evaluation practices, and support the continuous improvement of technician education throughout the nation.
Goals
Ensure that all ATE PIs and evaluators know the essential elements of a credible and useful evaluation
Maintain a comprehensive collection of online resources for ATE evaluation
Strengthen and expand the network of ATE evaluation stakeholders
Gather, synthesize, and disseminate data about ATE program activities to advance knowledge about ATE/technician education
Funding
July 2008-June 2013 (includes 1-year no-cost extension): $2,069,415
August 2012-July 2016: $2,186,660
Staffing
~2.5 FTE, not including contracted work
Activities
Webinars (each webinar's presenters are listed alphabetically)
Burkhardt, J., Knestis, K., Tyson, W., & Wingate, L. (2014, December). Evaluation and research in the ATE program.
Bailey, T., Bradley, A., Martens, K., Salinger, G., & Wingate, L. (2014, August). Your ATE proposal: Got Evaluation?
Craft, E., Faber, D., Martens, K., & Wingate, L. (2014, March). Right-sizing evaluation for ATE small grants.
www.evalu-ate.org | (269) 387-5922 | Western Michigan University

Cost-Saving Strategies


Lori

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- ☐ Leverage internal and external evaluation to answer the most important questions.

Institutional Data


Lori

Common Data Elements
- student ID
- demographics
- program of study
- retention
- graduation

Uses
- track over time
- create comparison group


See Carolyn Brennan and Russell Cannon's newsletter article and blog on using institutional data for grant writing and evaluation

—bit.ly/instdata

Cost-Saving Strategies


Lori

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Budgeting for ATE Evaluation


Lori

"The funds to support an **evaluator independent of the project or center** must be requested and the requested funds must match the scope of the proposed evaluative activities."

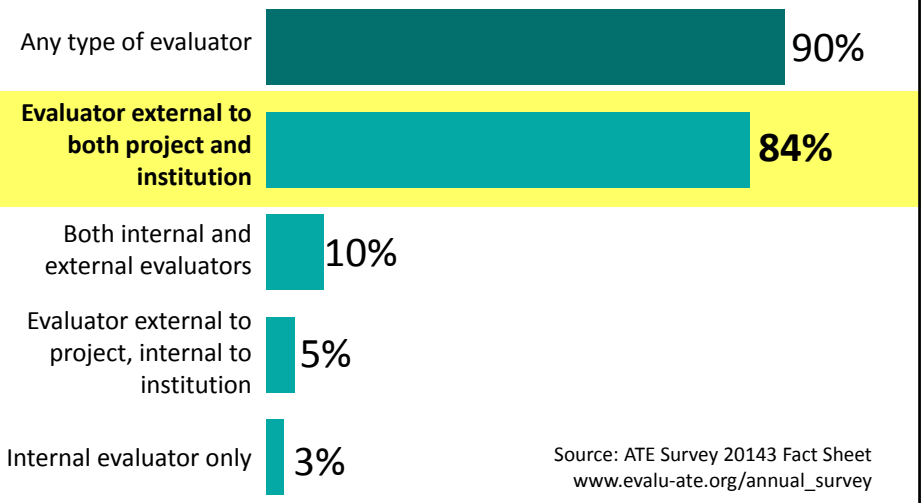
What Makes an Evaluator INDEPENDENT?


Lori

- Does not have other roles on the project
- Is not supervised by someone who works on the project
- Has no financial or intellectual stake in the project's success

Evaluators in the ATE Program


Lori



Source: ATE Survey 20143 Fact Sheet
www.evalu-ate.org/annual_survey

Budgeting for ATE Evaluation


Lori

"The funds to support an evaluator independent of the project or center must be requested and the **requested funds must match the scope of the proposed** evaluative activities."

Budgeting for Evaluation


Lori

10%

general rule of thumb

Budgeting for Evaluation


Lori

8%

ATE reality

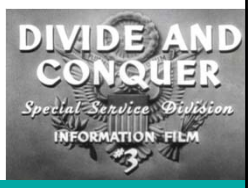
External Evaluator Roles


Lori


External Evaluator as Coach


External Evaluator as Heavy Lifter


External Evaluator as Architect



Divide-and-Conquer

To learn more, see my newsletter article at www.evalu-ate.org/newsletter/2014-fall-rqra

Leverage Internal and External Evaluation


Lori

Cost-Saving Strategies


Lori

These are evaluation tasks that project personnel should do!

- ☐ Develop a tracking system to monitor project reach and participation.
- ☐ Maintain a record of key project activities and accomplishments.
- ☐ Utilize institutional research data to the fullest extent possible.

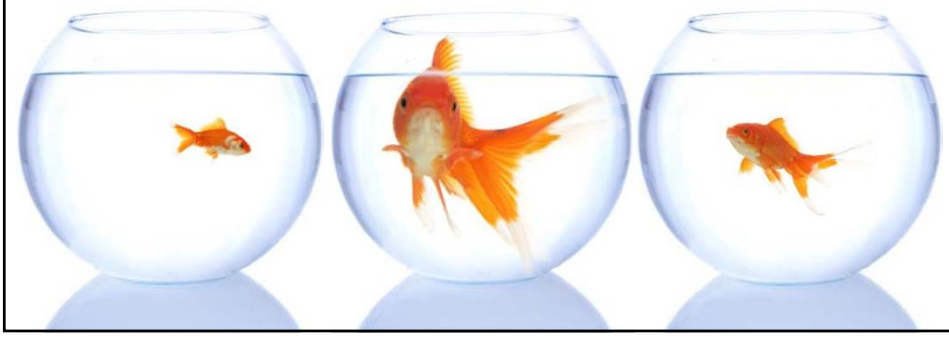
Evaluation is an Investment


Lori

Evaluation is too small: *Minimal investment yields minimal return.*

Evaluation is too big. *Drains resources away from project implementation.*

Evaluation is just right: *Adds value to the project.*




Thank
You!
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