Meeting Requirements, Exceeding Expectations: Understanding the Role of Evaluation in Federal Grants

May 25, 2016
Webinar will begin at 3pm ET

The CCTA IS Led By

- National Center for Convergence Technology (CTC) at Collin College in Frisco, TX (lead)
- South Carolina ATE National Resource Center (SCATE) at Florence Darlington Technical College in Florence, SC
- Florida ATE Center (FLATE) at Hillsborough Community College in Tampa, FL
- Bio-Link Next Generation National ATE Center for Biotechnology and Life Sciences (Bio-Link) at City College of San Francisco in San Francisco, CA
- Networks Resource Center at the Maricopa Community College District in Phoenix, AZ
CCTA Purpose

• Respond to a request from the Department of Labor (DOL) to the NSF to have ATE Centers provide technical assistance services to DOL TAACCCT grantees
• Activities relevant for DOL grants, NSF grants and workforce-oriented programs of all kinds
• Deliverables
  – Topical webinars on existing and new solutions
  • Live/recorded with attendee Q&A
  – Identify and document best practices
  – Host convenings

TODAY’S PRESENTERS

Lori Wingate
Director of Research,
The Evaluation Center at Western
Michigan University

Leslie Goodyear
Principal Research Scientist,
EDC

Ann Beheler
Facilitator,
PI, National CTC
Meeting Requirements, Exceeding Expectations:
Understanding the Role of Evaluation in Federal Grants

Lori Wingate
Director

Evaluation resource center for NSF’s
Advanced Technological Education program
webinars | resource library | newsletter | blog

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.
Overview

PART I: Evaluation Fundamentals
Commentary by Leslie Goodyear | Question Break

PART II: Evaluation Requirements and Expectations
Commentary by Leslie Goodyear | Question Break

PART III: Evaluation Staffing, Budgeting, and Utilization
Commentary by Leslie Goodyear | Question Break

Let's play
Two Lies and a Truth!
Find your poll buttons
Which is the truth?

a. A federal evaluation policy dictates the requirements for project-level evaluation.

b. All federal grantseekers and grantees should be evaluation-literate.

c. All federal grant programs require project-level evaluation.

systematic EVALUATION
the determination of something’s quality, value, or importance
1. Ask important questions about a project’s processes and outcomes.
2. Gather evidence that will help answer those questions.
3. Interpret data and answer the evaluation questions.
4. Use the information for accountability, improvement, and planning.

**EVALUATION**

- sometimes used interchangeably
- not everyone agrees on what’s what
- follow funders’ cues

**EVALUATION** determines quality and value

**RESEARCH** produces generalizable knowledge

**ASSESSMENT** often associated with student evaluation

[Link to EvaluATE website](www.evalu-ate.org)
A federal evaluation policy dictates the requirements for project-level evaluation. **FALSE**

**But...**
Some federal agencies have agency-specific guidance on evaluation (and research),

- User-Friendly Handbook for Project Evaluation
- Framework for Program Evaluation in Public Health
- Common Guidelines for Education Research and Development
All federal grant programs require project-level evaluation. But...

There are good reasons to evaluate, even if you don’t have to.

Why some federal programs require projects to be evaluated

Accountability
Improvement
Evidence
Why you should evaluate your project if even you don’t have to

Accountability
Improvement
Evidence

Why you should evaluate your project if even you don’t have to

Accountability
Improvement
Evidence

Why you should evaluate your project if even you don’t have to

Accountability
Improvement
Evidence

Why you should evaluate your project if even you don’t have to

Accountability
Improvement
Evidence
Meeting Requirements, Exceeding Expectations: Understanding the Role of Evaluation in Federal Grants

Leadership, Causality, Building for Faculty. The quality and growth of the ATE community is closely linked to industry needs and as well as the success of the PI and their institution, and also includes: 1) faculty must work with their institutional administration; 2) effectively manage both program and professional activities; 3) maintain industry contacts that include mentor, dissertation, and external economic development efforts; and 4) maintain and maintain networks with other program stakeholders. Businesses, activities that teachers might include:

- Mentoring programs in research, development, and commercialization activities. Activities are expected to lead to new PIs acquiring leadership skills, which they may become mentors for future faculty and sustain their projects as well as facilitating the transfer of faculty and their administrators for the purpose of developing and implementing new curricula in an area of technological education to educate teachers for industry needs.
- Outreach activities that reach faculty and their institutions to communicate about the value and potential impact of working with the ATE program and to their communities. These efforts could include sharing information on funding opportunities, awareness of assessment tools, providing guidance on the role of the ATE in the broader landscape of educational opportunities for students and other faculty.

Teacher Preparation: The foundation for advanced technological education is growing in strong mathematics, science, and research projects, and more research projects, and more research projects aimed at developing a range of technological education in K-12 schools. The preparation of future teachers who will operate the student learning in mathematics and science must have an impact on the school's technological careers. ATE teacher training projects in the ATE program have been reviewed to ensure that technological education in K-12 schools is strong in mathematics, science, and technology. Projects focus on using this technology to expand and personalize student learning, global literacy, and STEM education.

Teacher Preparation projects challenge students to conduct research projects that are designed to increase the number, quality, and diversity of teachers in K-12 education. These projects are designed to improve the quality of teachers who work with teachers in STEM education, to increase their experience with a broad base of skills, and to strengthen their preparation in science and mathematics. These projects are expected to build on and research the teacher preparation programs, and provide new and unique opportunities for teachers.

The projects have a strong focus on measuring the success of these programs, and students need to understand and effectively use and communicate the role and importance of their work. The projects focus on measuring the number of students who, in fact, have opportunities to explore and use technology in their work, and measure the number who use technology in their work. Students need to understand these attributes and differences to be effective employees.

Employers often expect employees to possess knowledge, skills, and competencies in a specific technical area and to demonstrate professional, industry-related, and entrepreneurial skills. Entrepreneurship skills can be developed in students through various methods: by having them take selected business courses, by engaging students in problem-solving challenges using projects of interest to local industry, working with local economic development organizations, and by developing outreach programs that provide opportunities for students to interact with businesses. Projects are encouraged them.

GRANTS.GOV

1,717 grant opportunities
25 federal agencies

CCTA | CENTERS COLLABORATIVE FOR TECHNICAL ASSISTANCE  www.atecenters.org/ctta
We’ll look at examples from

NSF, Department of Education, CDC

Comments

Leslie Goodyear, Ph.D.
- Principal Research Scientist at EDC
- Former NSF program officer in the Division of Research on Learning
Overview

**PART I:** Evaluation Fundamentals  
*Commentary by Leslie Goodyear | Question Break*

**PART II:** Evaluation Requirements and Expectations  
*Commentary by Leslie Goodyear | Question Break*

**PART III:** Evaluation Budgeting, Personnel, and Utilization  
*Commentary by Leslie Goodyear | Question Break*
Meeting Requirements, Exceeding Expectations:
Understanding the Role of Evaluation in Federal Grants
Webinar
5/24/2016

Guidance Gauge

No Guidance

Very Detailed Guidance

Leadership Capacity Building for Faculty: The vitality and growth of the ATE community is closely tied to industry trends and needs as well as the career paths of the PI’s and their institutions who operate the programs. In such a fast-paced environment, 1) work with their institutional administration, 2) develop a strong professional development effort, and 3) maintain active committees with other grantees across funding agencies. Activities that foster these skills might include:

- Mentoring programs that link experienced ATE PIs with new grantees. Activities are essential to lead to new PIs acquiring the skills needed to successfully manage, oversee, evaluate, and sustain their projects as well as fostering leadership skills that they may become leaders at a future time.
- Identifying and mentoring faculty and their administrators, the purpose of developing and implementing a new curriculum in an advanced technological area to educate teachers for local industry needs.
- Outreach activities that reach faculty and their institutions to educate them about the value and potential impact of working with the ATE Program and its community. These efforts could include providing information on funding opportunities, developing effective proposal writing skills, providing guidance on ways of surveying local industry to determine industry needs as well as finding and working with local workforce investment boards and other entities.

Teacher Preparation: The foundation for advanced technological education is grounded in strong mathematics, science, and technology education in K-12 schools. The preparation of future teachers who will facilitate student learning in mathematics and science and cultivate an interest in technological careers is an important component of the ATE program. ATE teacher preparation projects help prepare future K-12 teaching workforce that is skilled in teaching science and mathematics, understands the technological workforce, and can prepare students to use a variety of approaches to solving real-world technology-related problems using digital tools. Some examples of teacher preparation projects:

- Using a STEM approach to increase student understanding and diversity of science, technology, engineering, and mathematics. These projects are especially effective for engaging students in technology and developing their skills in the classroom. Often, the projects also help with practical aspects of the curriculum, such as hands-on projects. These projects are expected to build on the existing teacher preparation initiative on teacher preparation. These year-long projects have the unique advantage of having technology faculty participate with the high-performance workforce, who can work with mathematics and science faculty in developing and teaching these programs.

The project’s evaluation plan must measure the effectiveness of efforts to recruit prospective K-12 teachers, transfer those students into four-year teacher preparation programs, and help them understand of advanced technologies used in the workplace, and enhance their ability to improve the technological literacy of their students. Project leaders should also be prepared to contribute to longitudinal studies that trace student progress through the pipeline, in order to measure the number who graduate with teaching credentials, first positions in K-12 schools, and demonstrate successful performance in the classroom.

Business and Entrepreneurial Skills Development for Students: In addition to technical skills and disciplinary content, students entering the industry environment need skills that allow them to understand and work effectively in a business environment. Many companies have a good presence, and students need to understand that the global economy affects them as employees. Another sector of the industry is comprised of small startup companies, and these have different attributes than large established firms. Students need to understand these attributes and differences in the effective employee.

Employers often expect employees to possess knowledge, skills, and competencies in a specific technical area and to demonstrate professional, industry-related, and entrepreneurial skills. Entrepreneurial skills can be developed in students in technician education programs by having them take selected business courses, by engaging students in problem-based learning using projects of interest to local industry, working with local economic development organizations, and by developing internships and programs that provide experience for students to interact with entrepreneurs. Projects are encouraged that
**Evaluation Plan.** The application must describe an evaluation plan to review and determine the **quality and effectiveness** of the training project grant.

---

*Occupational Safety and Health Training Project Grants — Centers for Disease Control and Prevention*

---

**Evaluation Plan:** Based on the theory of change and the desirable outcomes of the proposed revolution, enumerate appropriate **indicators of success** related to accomplishing the **goals and objectives** and a **timeframe** to seek measurable change.

---

*Formation of Engineers: Revolutionizing Engineering and Computer Science Departments — National Science Foundation*
The [evaluation] plan should describe the evaluation design, indicating: (1) what types of data will be collected; (2) when various types of data will be collected; (3) what methods will be used; (4) what instruments will be developed and when; (5) how the data will be analyzed; (6) when reports of results and outcomes will be available; and (7) how the applicant will use the information collected through the evaluation to monitor progress of the funded project and to provide accountability information...

Innovative Approaches to Literacy Program
—U.S. Department of Education

Performance Evaluation Describe a data collection plan, aimed at describing the measures, methods, techniques, and tools used to evaluate the project and whether it achieved its anticipated outcomes, that includes, at minimum:

- Identification of specific data on participants and other data that the grantee plans to use, and how the data will be collected for analysis
- Plans for how the grantee will document the lessons learned, both positive and negative
- Plans to identify the most effective TA models and how they were implemented and could potentially be replicated
- Plans for involving program participants in evaluation activities
- Plans for how the data will be used to inform program delivery

Women in Apprenticeship and Nontraditional Occupations Technical Assistance Grants
—U.S. Department of Labor
Evaluation Plan Elements

1. Evaluation questions
2. Indicators
3. Data sources
4. Data collection methods and instruments
5. Data analysis procedures
6. Evaluation deliverables
7. Timeline
8. Personnel
9. Budget
10. Plan for use of results

Learn more by checking out related resources
—links on the final slide
Evaluation Plan Elements

1. Evaluation questions
   - Identify what aspects of the project will be evaluated

2. Indicators
   - Identify what will be measured in order to answer the evaluation questions

3. Data sources
4. Data collection methods and instruments
5. Data analysis procedures
6. Evaluation deliverables
7. Timeline
8. Plan for use of results
9. Personnel
10. Budget
Evaluation Plan Elements

1. Evaluation questions
2. Indicators
3. Data sources
4. Data collection methods and instruments
5. Data analysis procedures
6. Evaluation deliverables
7. Timeline
8. Personnel
9. Budget
10. Plan for use of results

Describe how evidence will be gathered and analyzed

Evaluate deliverables

Identify products to be generated by evaluation (detailed plan, instruments, reports)
Evaluation Plan Elements

1. Evaluation questions
2. Indicators
3. Data sources
4. Data collection methods and instruments
5. Data analysis procedures
6. Evaluation deliverables

7. Timeline
   - Show how evaluation activities align with project activities and milestones

8. Personnel
   - Identify who will be responsible for which aspects of the evaluation

9. Budget
10. Plan for use of results
Evaluation Plan Elements

1. Evaluation questions
2. Indicators
3. Data sources
4. Data collection methods and instruments
5. Data analysis procedures
6. Evaluation deliverables
7. Timeline
8. Personnel
9. Budget
10. Plan for use of results

Include a line item for evaluation that matches the scope of work.

Evaluation Plan Elements

1. Evaluation questions
2. Indicators
3. Data sources
4. Data collection methods and instruments
5. Data analysis procedures
6. Evaluation deliverables
7. Timeline
8. Personnel
9. Budget
10. Plan for use of results

Demonstrate intention and commitment to use results for improvement and sharing lessons learned.
Evaluation Plan Elements

1. Evaluation questions
2. Indicators
3. Data sources
4. Data collection methods and instruments
5. Data analysis procedures
6. Evaluation deliverables
7. Timeline
8. Personnel
9. Budget
10. Plan for use of results

Tailor these elements to your specific project!

Evaluation Planning Checklist for NSF-ATE Proposals

10 Helpful Hints and 10 Fatal Flaws: Writing Better Evaluation Sections in Your Proposals

Details about data collection and analysis will probably receive the most scrutiny.
Let’s play

Be the Reviewer!
Get ready to use your poll buttons

Which data collection description is better?

**a**
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.

**b**
Project staff will administer an end-of-workshop survey to obtain participants’ feedback, including both ratings 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.
## Data Collection Planning Matrix

**Evaluation Question:** How has the project impacted enrollment in renewable energy programs and courses?

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Data Source</th>
<th>Method</th>
<th>Responsible Party</th>
<th>Timing</th>
<th>Analysis Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in course enrollment numbers</td>
<td>Institutional research database</td>
<td>Review of institutional and departmental records</td>
<td>Project PI</td>
<td>End of each semester</td>
<td>Comparison of enrollment numbers over time (start 2 years prior to project start)</td>
</tr>
<tr>
<td>Opinions of faculty and career center staff about the project’s impact</td>
<td>Participating faculty, Career center advisors, Career center director</td>
<td>In-person interviews, External evaluator</td>
<td></td>
<td>Annually</td>
<td>Inductive coding of interviews to identify themes</td>
</tr>
<tr>
<td>Students’ reports about why they enrolled</td>
<td>Enrolled students</td>
<td>Web survey</td>
<td>Instructors (instructions provided by evaluator)</td>
<td>Beginning of each semester</td>
<td>Descriptive statistics and inductive coding</td>
</tr>
</tbody>
</table>

---

### “logic model”

**Visual representation of a project’s inputs, activities, outputs, and outcomes and the logical progression of how resources translate into impact**

Leadership Capacity Building for Faculty: The vitality and growth of the ATE community is closely linked to industry trends and needs, as well as the interests of the PIs and their institutions who allocate resources. As such, faculty must: 1) work with their institutional administration, 2) effectively manage both program and professional activities, 3) maintain industry connections that include local, statewide, and national economic development efforts, and 4) maintain and cultivate networks with other grantees across funding agencies. Activities that foster these skills might include:

- Mentoring programs that link experienced ATE PIs with new grantees. Activities are expected to result in new PI’s acquiring skills needed to successfully manage, complete, evaluate, disseminate and sustain their projects, as well as fostering leadership skills such that they may become mentors at a future time.
- Identifying, recruiting, and mentoring faculty and their administrators for the purpose of developing and implementing a new curriculum in an advanced technological area to educate technicians for local industry needs, and:
- Outreach activities that reach faculty and their institutions to educate them about the value and potential impact of working with the ATE Program and its community. These efforts could involve providing information on funding opportunities, developing effective proposal writing skills, providing guidance on ways of advancing area industry to cover industry needs as well as providing and working with local workforce investment boards and other entities.

Teacher Preparation: The foundation for advanced technological education is grounded in strong mathematics, science, and technology education in K-12 schools. The proliferation of college teachers who will facilitate student learning in mathematics and science and cultivate an interest in technological careers is an important component of the ATE program. ATE teacher preparation projects help prepare future K-12 teaching candidates that are skilled in teaching science and mathematics, understand the technological workplace, and can prepare students in a variety of opportunities to solve real-world technology-related problems using design procedures and other tools provided by the ATE Program for Technology Learning/ATEA.

Instructor Preparation: The foundation for advanced technological education is grounded in strong mathematics, science, and technology education in K-12 schools. The proliferation of college teachers who will facilitate student learning in mathematics and science and cultivate an interest in technological careers is an important component of the ATE program. ATE teacher preparation projects help prepare future K-12 teaching candidates that are skilled in teaching science and mathematics, understand the technological workplace, and can prepare students in a variety of opportunities to solve real-world technology-related problems using design procedures and other tools provided by the ATE Program for Technology Learning/ATEA.

- "logic model”

**Visual representation of a project’s inputs, activities, outputs, and outcomes and the logical progression of how resources translate into impact**

Leadership Capacity Building for Faculty: The vitality and growth of the ATE community is closely linked to industry trends and needs, as well as the interests of the PIs and their institutions who allocate resources. As such, faculty must: 1) work with their institutional administration, 2) effectively manage both program and professional activities, 3) maintain industry connections that include local, statewide, and national economic development efforts, and 4) maintain and cultivate networks with other grantees across funding agencies. Activities that foster these skills might include:

- Mentoring programs that link experienced ATE PIs with new grantees. Activities are expected to result in new PI’s acquiring skills needed to successfully manage, complete, evaluate, disseminate and sustain their projects, as well as fostering leadership skills such that they may become mentors at a future time.
- Identifying, recruiting, and mentoring faculty and their administrators for the purpose of developing and implementing a new curriculum in an advanced technological area to educate technicians for local industry needs, and:
- Outreach activities that reach faculty and their institutions to educate them about the value and potential impact of working with the ATE Program and its community. These efforts could involve providing information on funding opportunities, developing effective proposal writing skills, providing guidance on ways of advancing area industry to cover industry needs as well as providing and working with local workforce investment boards and other entities.

Instructor Preparation: The foundation for advanced technological education is grounded in strong mathematics, science, and technology education in K-12 schools. The proliferation of college teachers who will facilitate student learning in mathematics and science and cultivate an interest in technological careers is an important component of the ATE program. ATE teacher preparation projects help prepare future K-12 teaching candidates that are skilled in teaching science and mathematics, understand the technological workplace, and can prepare students in a variety of opportunities to solve real-world technology-related problems using design procedures and other tools provided by the ATE Program for Technology Learning/ATEA.

Instructor Preparation: The foundation for advanced technological education is grounded in strong mathematics, science, and technology education in K-12 schools. The proliferation of college teachers who will facilitate student learning in mathematics and science and cultivate an interest in technological careers is an important component of the ATE program. ATE teacher preparation projects help prepare future K-12 teaching candidates that are skilled in teaching science and mathematics, understand the technological workplace, and can prepare students in a variety of opportunities to solve real-world technology-related problems using design procedures and other tools provided by the ATE Program for Technology Learning/ATEA.

Business and Entrepreneurial Skills Development for Students: In addition to technical skills and disciplinary content, students learning the industry environment need skills that allow them to understand and work effectively in a business environment. Many companies have a global presence, and students need to understand that the global economy affects them as employees. Another trend in the workforce is comprised of small startup companies, and there is a demand for attributes that encourage innovation. Students need to understand these attributes and differences to be effective employees.

Entrepreneurs often expect employees to possess knowledge, skills, and competencies in a specific technical area and to demonstrate professional industry-related, and entrepreneurship behavior. Entrepreneurial skills can be developed in students in technical education programs by having them take selected business courses, by engaging students in problem-based learning using projects of small businesses, helping them to develop strategic thinking, and working with local economic development organizations and by developing incubation programs that allow students to interact with entrepreneurs. Projects are encouraged that...
“theory of change”
“formative evaluation”
“summative evaluation”
“process evaluation”
“outcome evaluation”
“impact evaluation”
“external evaluator”
“internal evaluator”

Also serves as a foundation for a project’s evaluation
Comments

Leslie Goodyear, Ph.D.
- Principal Research Scientist at EDC
- Former NSF program officer in the Division of Research on Learning

Questions?

Lori Wingate
Leslie Goodyear
Overview

PART I: Evaluation Fundamentals
Commentary by Leslie Goodyear | Question Break

PART II: Evaluation Requirements and Expectations
Commentary by Leslie Goodyear | Question Break

PART III: Evaluation Staffing, Budgeting, and Utilization
Commentary by Leslie Goodyear | Question Break

Evaluation Staffing and Budgeting

Evaluation: All projects and centers carry out evaluative activities. 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.

Advanced Technological Education Program
—National Science Foundation
Evaluators in the ATE Program

- 84% of ATE projects and centers have external evaluators
- 19% use both external and internal evaluators
- 11% use internal evaluators only
- 5% don’t have a designated evaluator

Locating an Evaluator

Check the American Evaluation Association’s Evaluator Directory

If already funded, post an RFP in the “Career” section of AEA’s website

Check with university-based evaluation centers in your region

Ask for recommendations from colleagues or other program grantees
Evaluation Staffing and Budgeting

**Evaluation**: All projects and centers carry out evaluative activities. 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.

---

Evaluation Budgeting Rule of Thumb

10% of the cost of conducting the project should be allocated to evaluation

---

[Small Project Evaluation: Principles and Practices]
### Evaluation Utilization

1. Use results to inform for continuous project improvement
2. Share results with project participants, partners, and other stakeholders
3. Report on project success and lessons learned in annual reports to funders
4. Incorporate evaluation results into new funding proposals

### Results from Prior NSF Support

"specific outcomes and results including metrics to demonstrate the impact of the project"

- **Broader Impacts**: Benefits to society; contributions to the achievement of desired societal outcomes
- **Intellectual Merit**: Advances in knowledge and understanding

---

EvaluATE Winter 2016 newsletter: Revisiting Intellectual Merit and Broader Support

---

www.evalu-ate.org

CCTA | CENTERS COLLABORATIVE FOR TECHNICAL ASSISTANCE  www.atecenters.org/ccta
Meeting Requirements, Exceeding Expectations: Understanding the Role of Evaluation in Federal Grants

Webinar
5/24/2016

Served groups that have historically been underrepresented in STEM

Improved STEM education

Enhanced infrastructure for research and education

Contributed to the development of a diverse, globally competitive STEM workforce

Increased economic competitiveness of the United States

Expanded partnerships between academia, industry, and others

New knowledge or improved understanding

Innovative developments

Transformative, revolutionary research
As part of this project, our goal was to increase the number of women who successfully earned an associate's degree in welding. To this end, we began a targeted recruiting campaign focusing on women who were about to complete or had recently completed other related programs such as pipefitting and construction and developed a brochure for new students that included positive images of women in welding. We used funding to develop the Women in Welding program and support team building and outreach efforts by them. Institutional data reveal that since this project was started, the number of women in the welding program has almost tripled from 12 (2006-10), of which only 8 graduated to 34 (2011-16), of which 17 have already graduated and 5 have only one semester left. Even if the remaining 17 were not to graduate, the 17 who already have is double the number of female students who graduated from the program between 2006-10.”
Advice from EvaluATE blog contributor, Amy Germuth

As part of this project, our goal was to increase the number of women who successfully earned an associate’s degree in welding. To this end, we began a targeted recruiting campaign focusing on women who were about to complete or had recently completed other related programs such as pipefitting and construction and developed a brochure for new students that included positive images of women in welding. We used funding to develop the Women in Welding program and support team building and outreach efforts by them. **Institutional data reveal that since this project was started, the number of women in the welding program has almost tripled from 12 (2006-10), of which only 8 graduated to 34 (2011-16), of which 17 have already graduated and 5 have only one semester left. Even if the remaining 17 were not to graduate, the 17 who already have is double the number of female students who graduated from the program between 2006-10.**

Results from Prior NSF Support

**ADDITIONAL TIPS**
- Focus on outcomes
- Include as much evidence as possible
- Describe how the current proposal is building on results from prior work
- Be forthright about what didn’t work and lessons learned
Comments

Leslie Goodyear, Ph.D.
- Principal Research Scientist at EDC
- Former NSF program officer in the Division of Research on Learning

Questions?

Lori Wingate

Leslie Goodyear
Meeting Requirements, Exceeding Expectations: 
Understanding the Role of Evaluation in Federal Grants  
Webinar  
5/24/2016

### Resources

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>RESOURCE</th>
<th>LINK</th>
</tr>
</thead>
</table>

---

**Webinar: Small Project Evaluation: Principles and Practices**

Webinar included demonstrations of:
- Evaluation budget development
- Logic model development
- Evaluation question development
- How to divide internal and external evaluation tasks

Check out the recording, plus slides and resource handout!
[www.evalu-ate.org/webinars/2016-march/](http://www.evalu-ate.org/webinars/2016-march/)