



# *SMALL-SCALE EVALUATION*


February 15, 2017  
1-2 p.m. EST

## *INTRODUCTIONS*



Miranda Lee      Lori Wingate      Elaine Craft





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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*



Mike Lesiecki   Janet Pinhorn   Tim Suchomski   Mike Rudibaugh   Charlotte Forrest



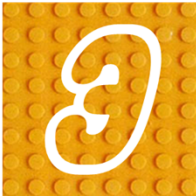


# MATERIALS



Handout                      Slides                      Recording

[www.evalu-ate.org/webinars/2016-mar/](http://www.evalu-ate.org/webinars/2016-mar/)

	<h2>Small-scale Evaluation Basics</h2> <p>Tales from the Trenches   Question Break</p>
	<h2>Evaluation Scale: Getting it Right</h2> <p>Tales from the Trenches   Question Break</p>
	<h2>Data Collection &amp; Division of Labor</h2> <p>Tales from the Trenches   Question Break</p>



*SETTING THE STAGE*


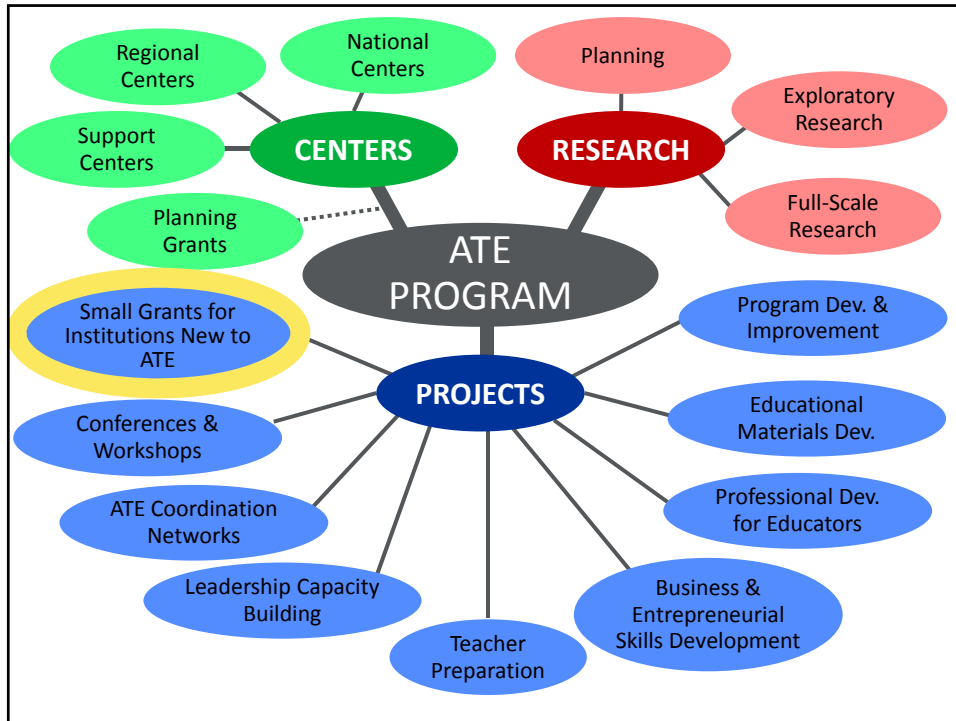
Lori Wingate



**ADVANCED  
TECHNOLOGICAL  
EDUCATION  
(ATE)**

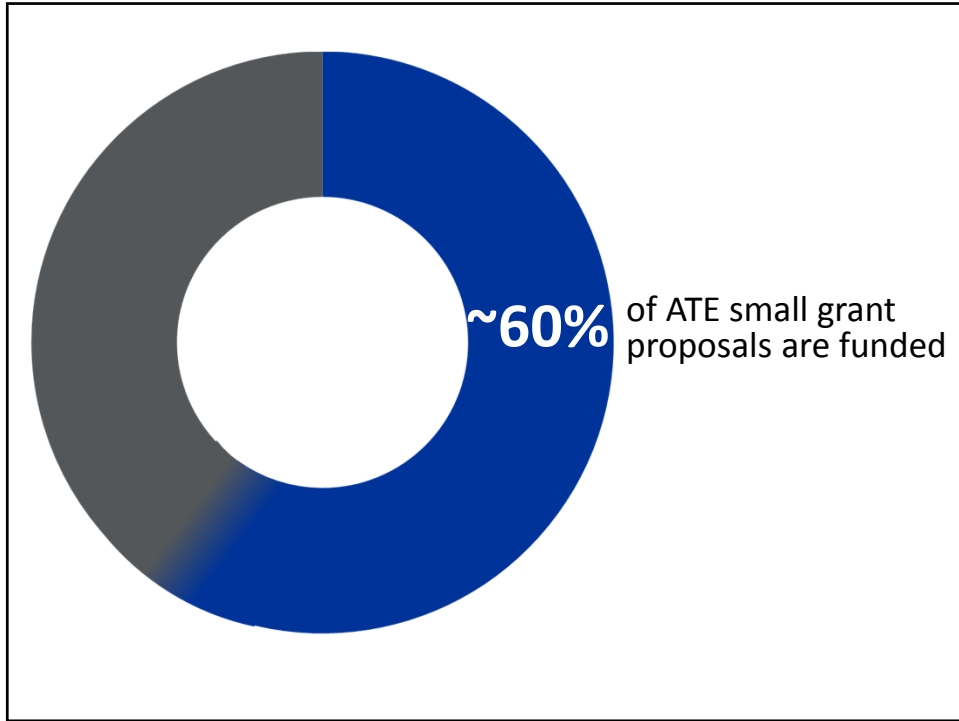


[www.nsf.gov/ate](http://www.nsf.gov/ate)




## Small Grants for Institutions New to the ATE Program

- Community colleges that have not had an ATE award in the past 10 years
- Up to \$200,000 over 3 years



“ What is the difference between a small-scale and a large-scale evaluation ? ”



Images from lego.com

- Many components
- More time to make
- More expensive (\$150)

- Made from the same components
- Have the same general form

- Few components
- Takes less time to make
- Less expensive (\$10)

The image shows a large LEGO Star Wars Millennium Falcon set, which is a complex model made of many small components. It is surrounded by several LEGO minifigures and accessories. A smaller, simpler LEGO model of a similar ship is shown in the top left corner, illustrating the concept of a small-scale evaluation.

**SMALL-SCALE EVALUATION**

- Few components
- Takes less time to make
- Less expensive

**LARGE-SCALE EVALUATION**

- Many components
- More time to make
- More expensive

- Made from the same components
- Have the same general form

The diagram illustrates the relationship between small-scale and large-scale evaluations. A red box on the left represents the 'SMALL-SCALE EVALUATION' with three bullet points. A blue box on the right represents the 'LARGE-SCALE EVALUATION' with three bullet points. The two boxes overlap, and the text 'Made from the same components' and 'Have the same general form' is shared between them, indicating that the large-scale model is constructed from the same basic parts as the small-scale model.

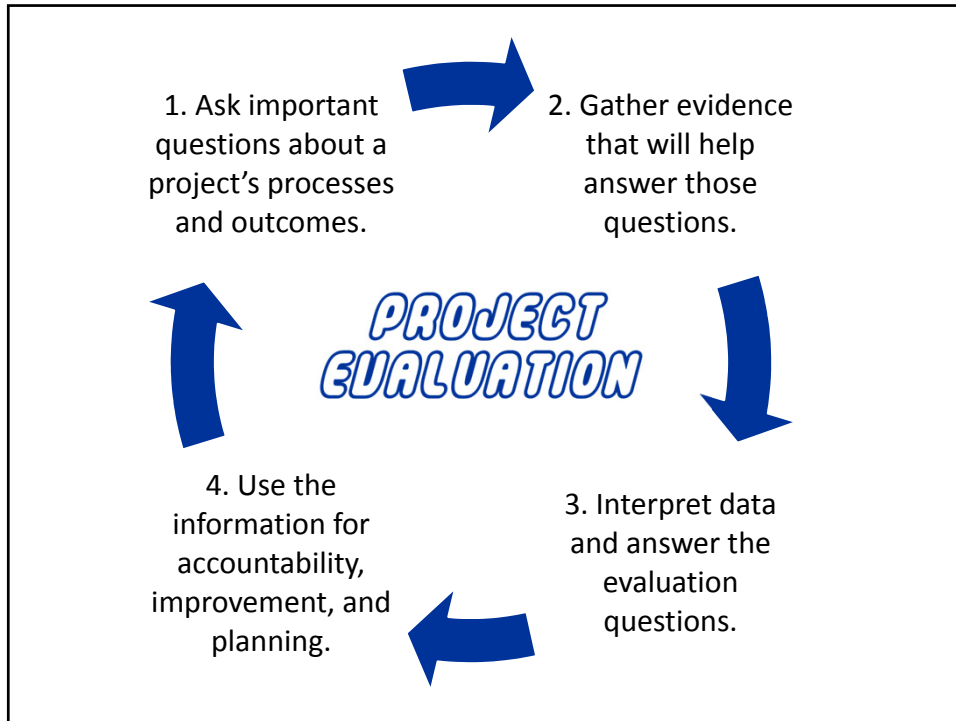
## *EVALUATION*

The determination of something's  
quality, value, or importance

## *PROJECT EVALUATION*

The **systematic** determination of a **project's**  
quality, value, or importance  
**based on evidence**





**Kevin Little**  
Smallville Community College

Injection Molding Certificate Program  
\$198,913 | 2017-20



*Original evaluation plan from proposal:*

“ The project will be evaluated using surveys of students, conducted annually by the project director.

This is a fictional project. Any resemblance to actual persons or projects is coincidental.

## Read the ATE program solicitation:

**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.

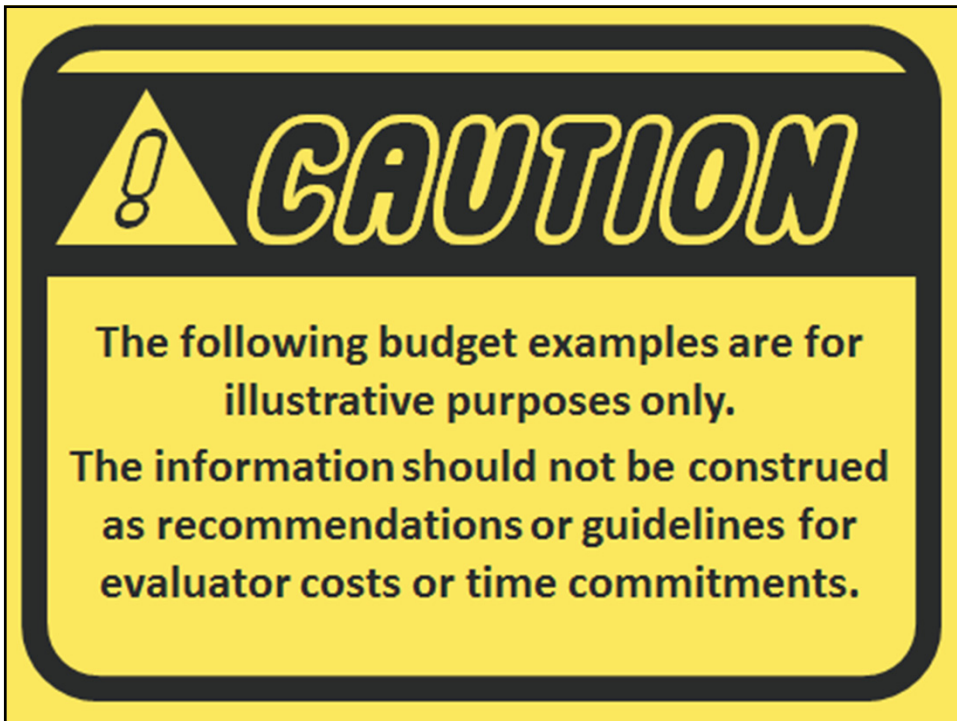
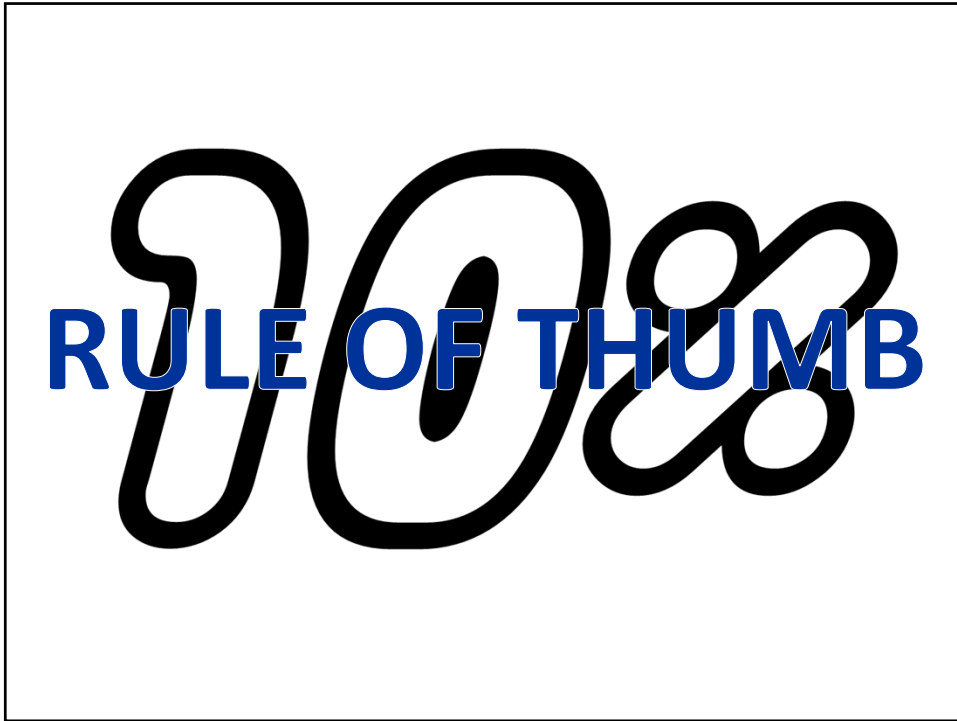
**INTELLECTUAL MERIT:** Is the evaluation plan clearly tied to the project outcomes? Is the evaluation likely to provide useful information to the project and others?

The Project Description must begin with the subsection on **Results from Prior NSF Support** .... This subsection must contain specific outcomes and results including metrics to demonstrate the impact of the project activities.



How much is it going to cost?





## Injection Molding Certificate Project

Category	Cost	
Salaries & Fringe Benefits	\$103,500	<b>Total direct costs before external evaluation: \$139,100 X .10 = \$13,910</b>
Equipment	\$12,000	
Materials	\$20,000	
Travel	\$3,600	
Other – Evaluation Consultant	\$13,910	
Modified Total Direct Costs	\$153,010	
Indirect Costs (30% )	\$45,903	
<b>TOTAL PROJECT COST</b>	<b>\$198,913</b>	

## Injection Molding Certificate Project

Category	Cost	
Salaries & Fringe Benefits	\$103,500	
Equipment	\$12,000	
Materials	\$20,000	
Travel	\$3,600	
Other – Evaluation Consultant	\$13,910	<b>What's included?</b>
Modified Total Direct Costs	\$153,010	
Indirect Costs (30% )	\$45,903	
<b>TOTAL PROJECT COST</b>	<b>\$198,913</b>	

## Evaluation Budget

Category	Year 1	Year 2	Year 3	Total
Travel	\$500	\$500	\$500	\$1,500
Consultant fees	\$4,500	\$4,000	\$3,910	\$12,410
<b>TOTAL EVALUATION COST</b>	<b>\$5,000</b>	<b>\$4,500</b>	<b>\$4,410</b>	<b>\$13,910</b>

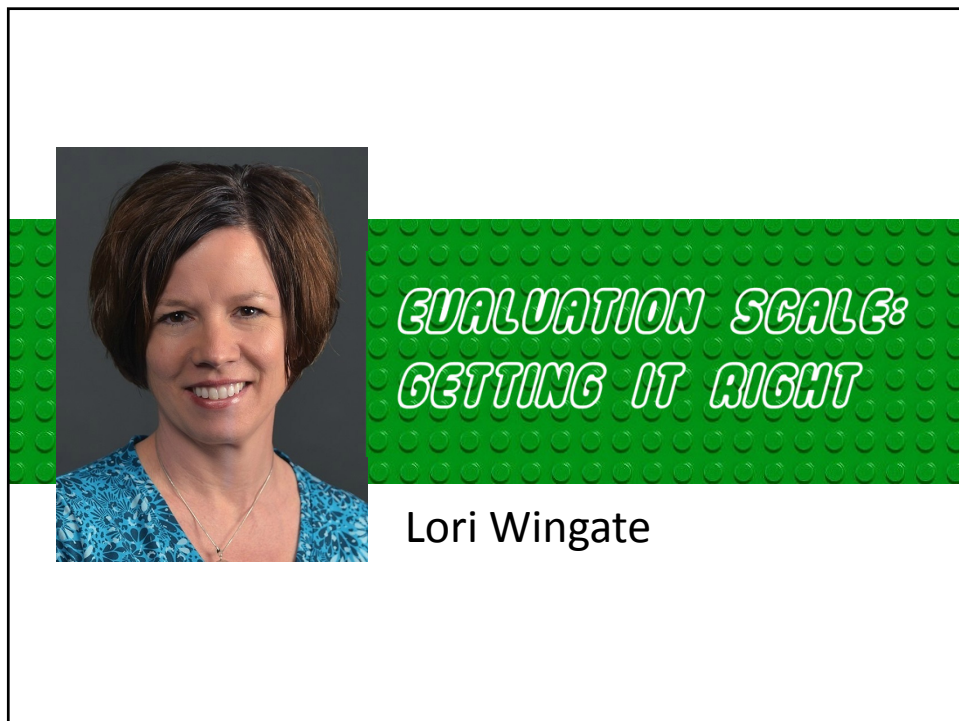
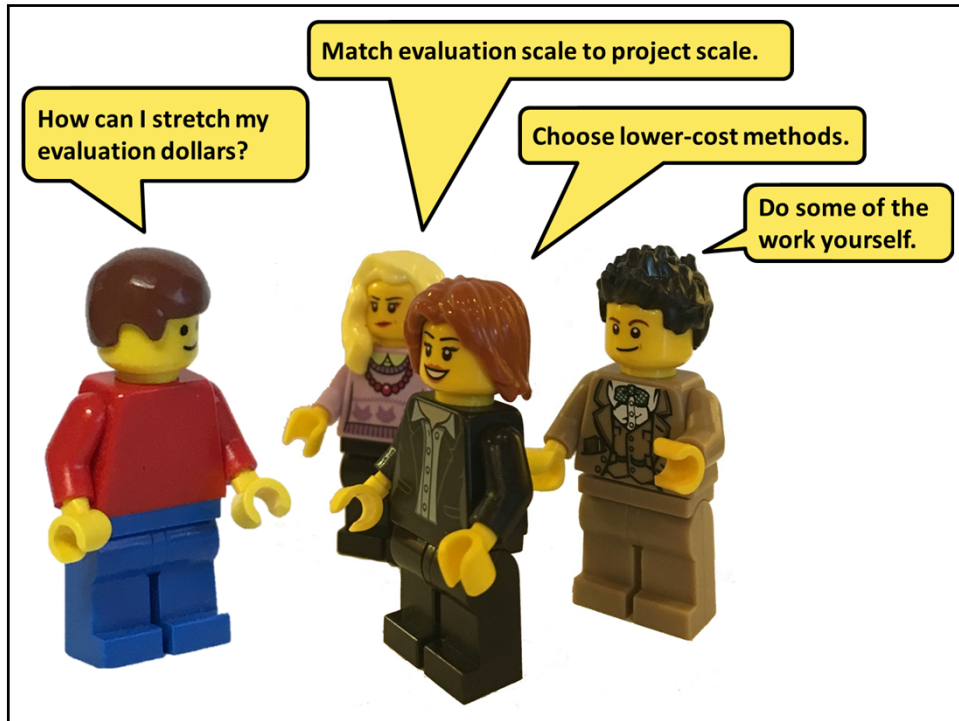
*Annual site visits are important!*

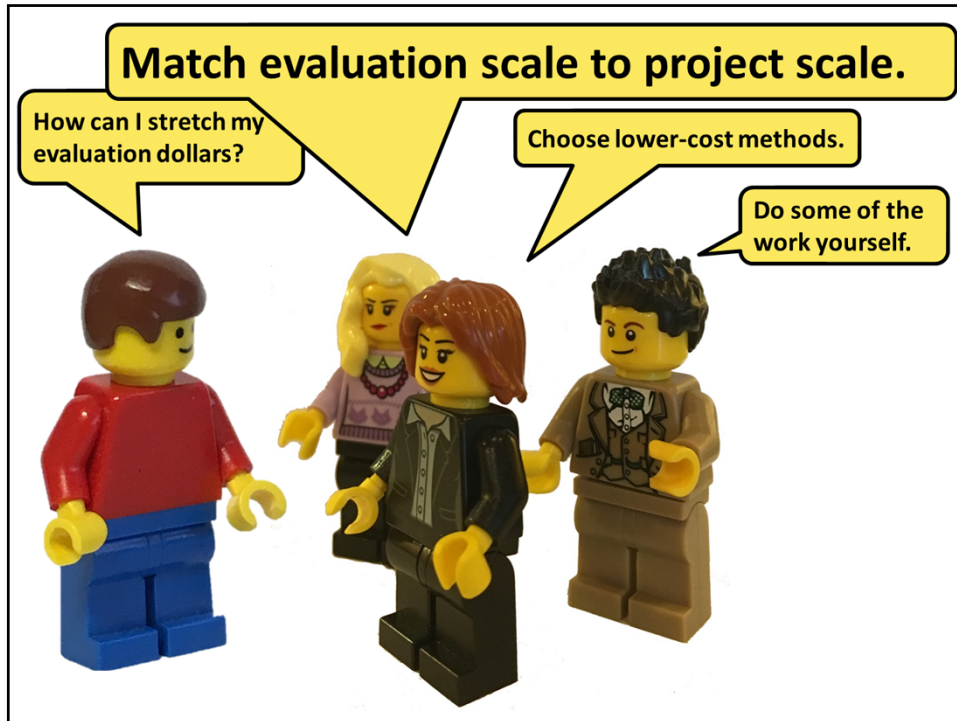
## Evaluation Budget

Category	Year 1	Year 2	Year 3	Total
Travel	\$500	\$500	\$500	\$1,500
Consultant fees	\$4,800	\$4,000	\$3,610	\$12,410
<b>TOTAL EVALUATION COST</b>	<b>\$5,300</b>	<b>\$4,500</b>	<b>\$4,410</b>	<b>\$13,910</b>


*6 days      5 days      4.5 days*

*@ \$100 per hour, how many days can the external evaluator devote to this project?*





***SMALLSVILLE COMMUNITY COLLEGE***



**NSF-ATE Proposal for Developing an  
Injection Molding Certificate Program  
\$198,913 | 2017-20**

## PROJECT ABSTRACT

### Plastics Injection Molding Certificate Program

To address the growing demand for injection molding technicians among regional manufacturers, Smallsville Community College is developing a certificate in plastic injection molding. The program is being designed with input from an advisory committee comprised of representatives from local manufacturing employers. Five existing courses from the areas of plastic technology and engineering technology are being updated to better align with employer needs.

In addition, a new course called "Essential Workplace Skills," is being created to focus on developing students' communication, teamwork, and critical thinking skills. To attract students to the program, marketing efforts will include simulation activities at the local "education for employment" fair for area high school students and a promotional video produced by the college's videography students. Once established, it is expected that the program will award certificates to 20 students per year.

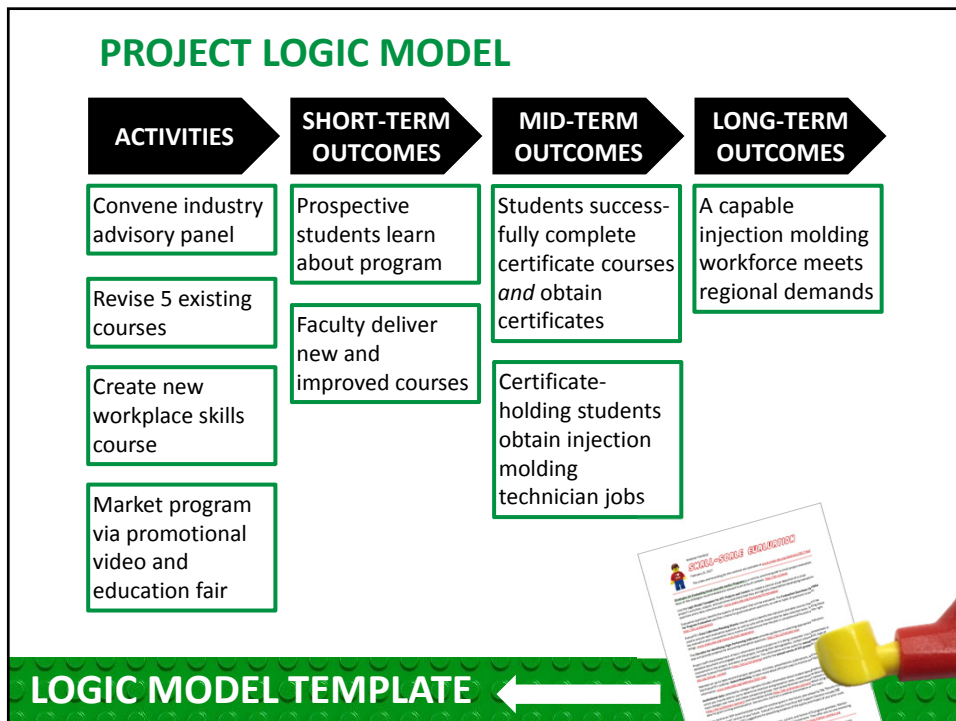
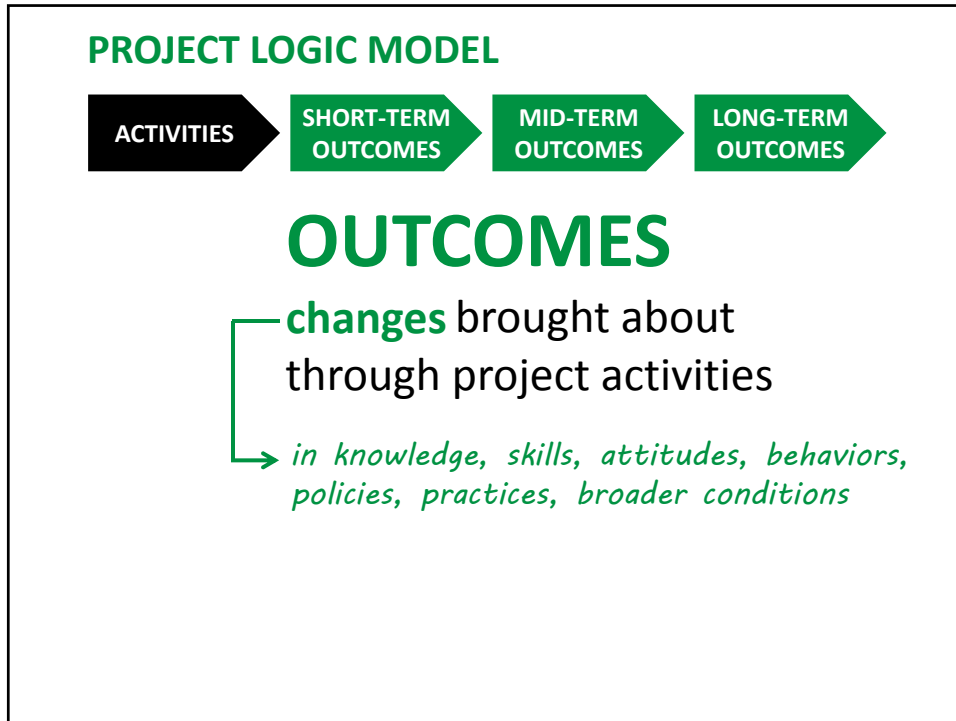
## PROJECT LOGIC MODEL

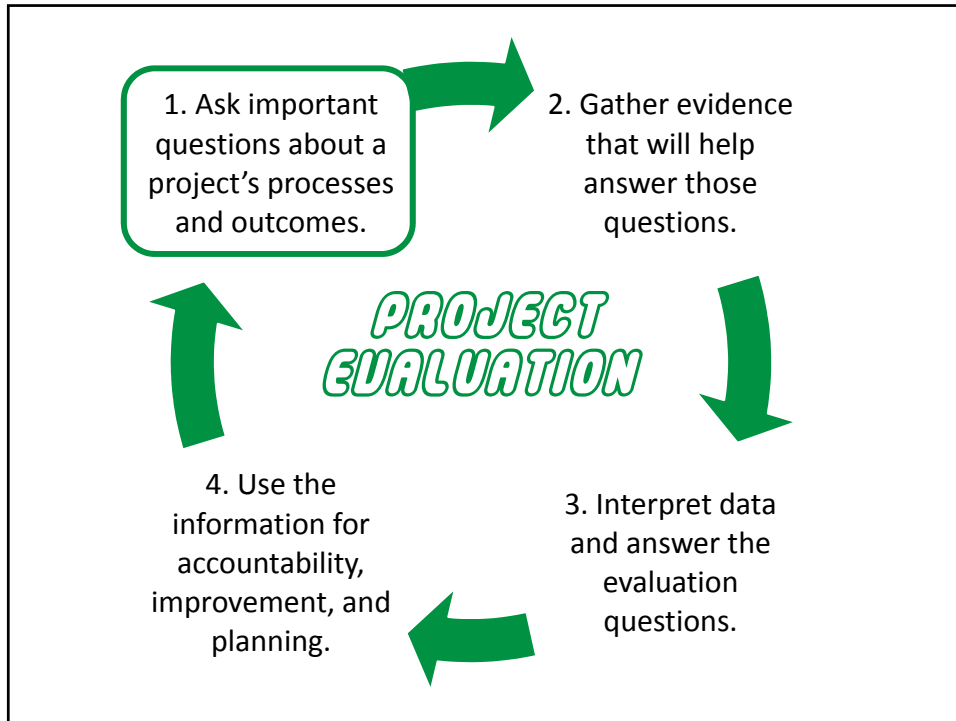


## ACTIVITIES

what a project does




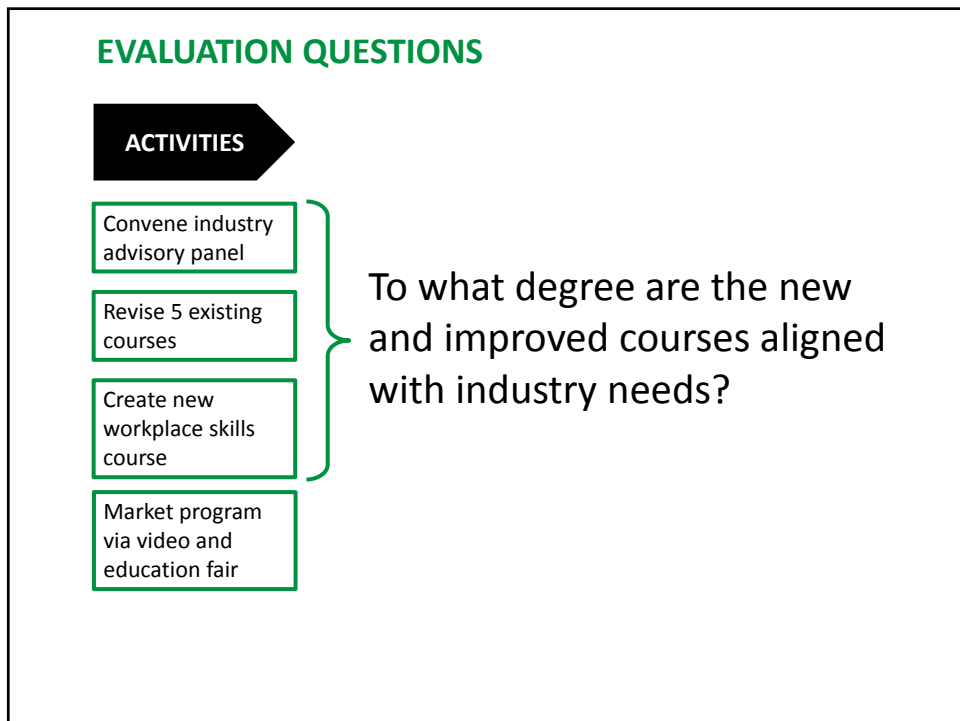
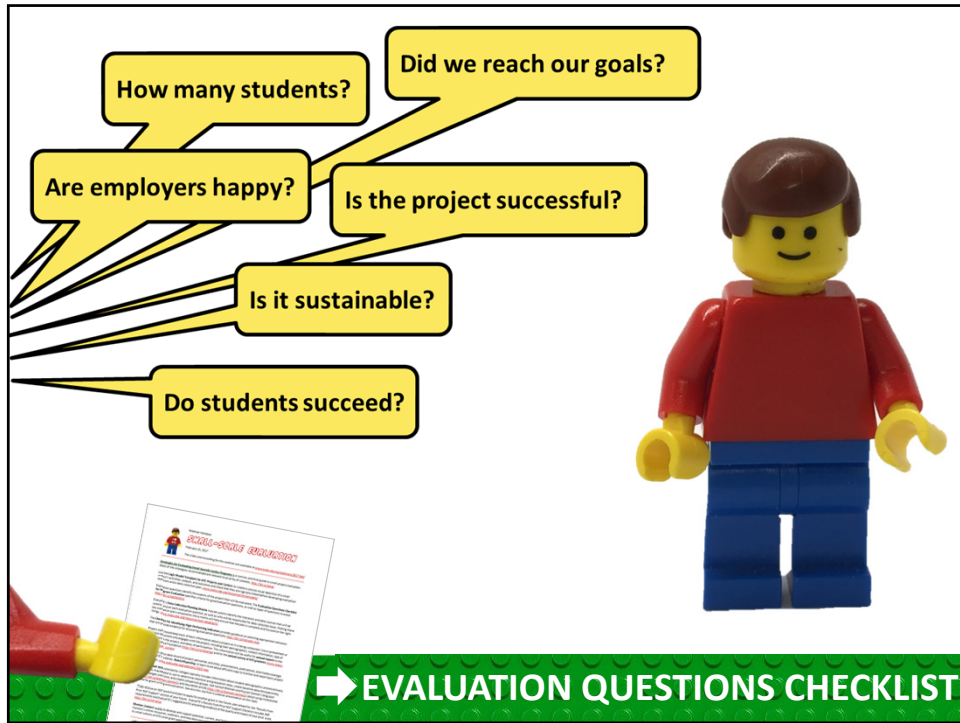




## EVALUATION QUESTIONS

( Provide a foundation and establish boundaries for the evaluation process )





**EVALUATION QUESTIONS**

**SHORT-TERM OUTCOMES**

- Prospective students learn about program
- Faculty deliver new and improved courses

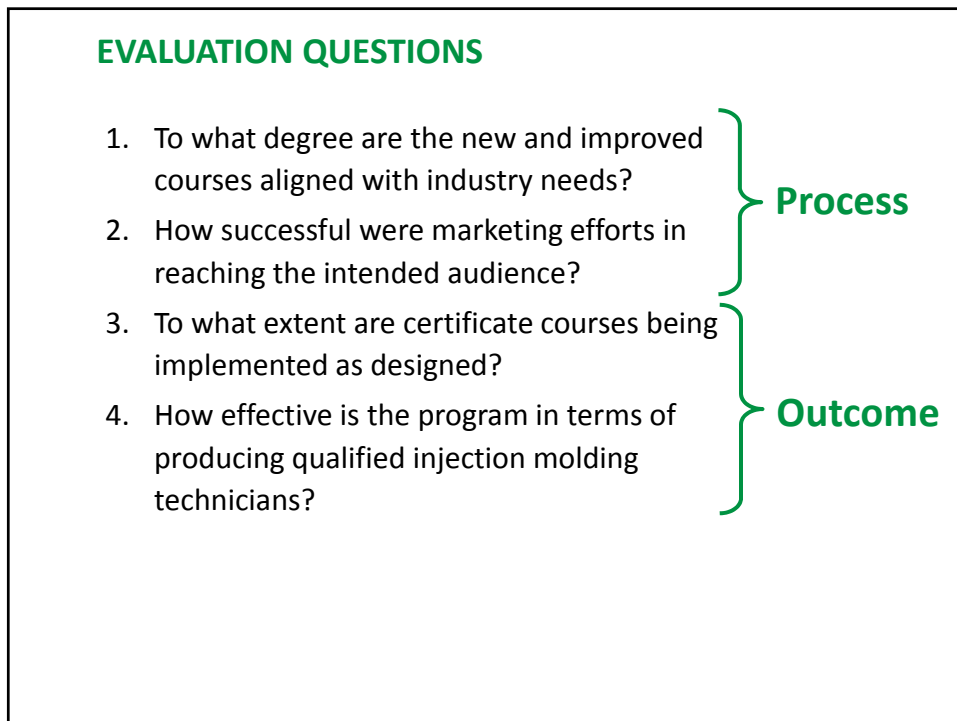
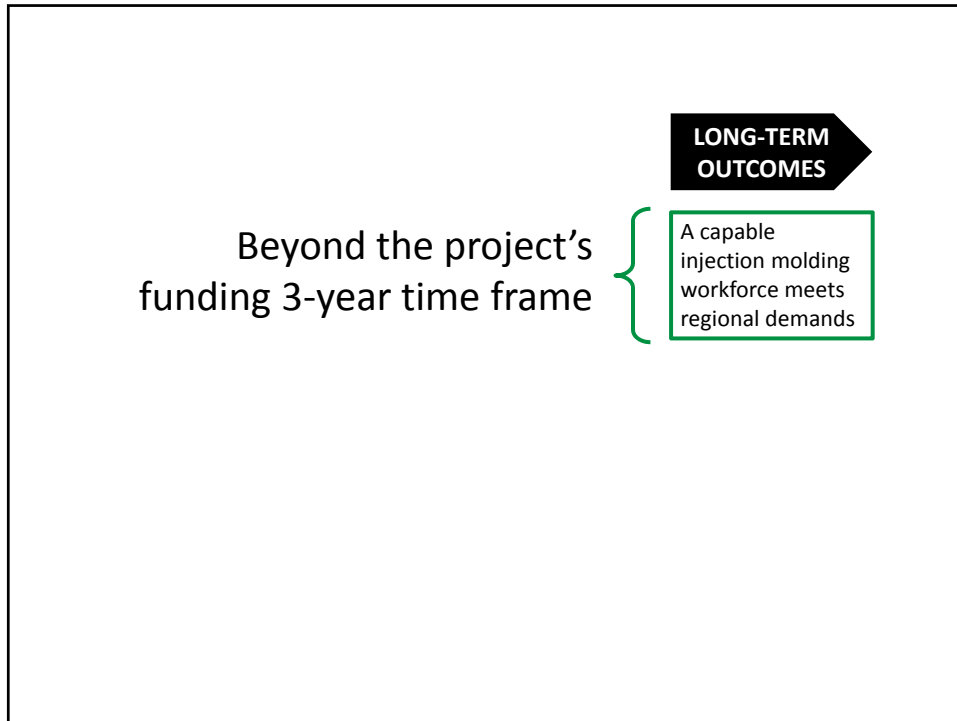
To what extent are certificate courses being implemented as designed?

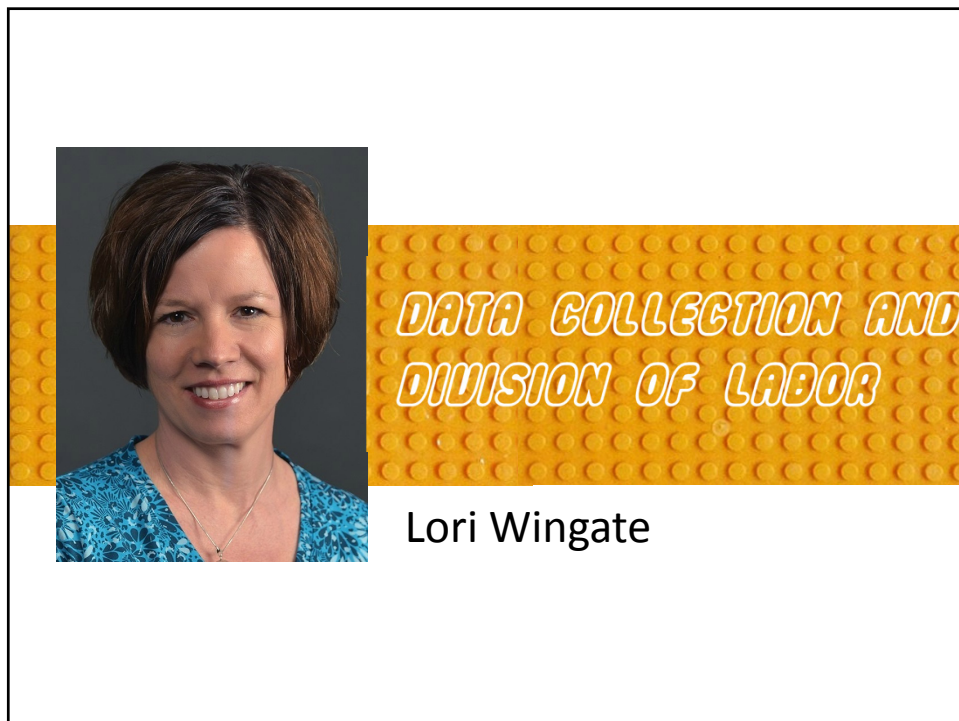
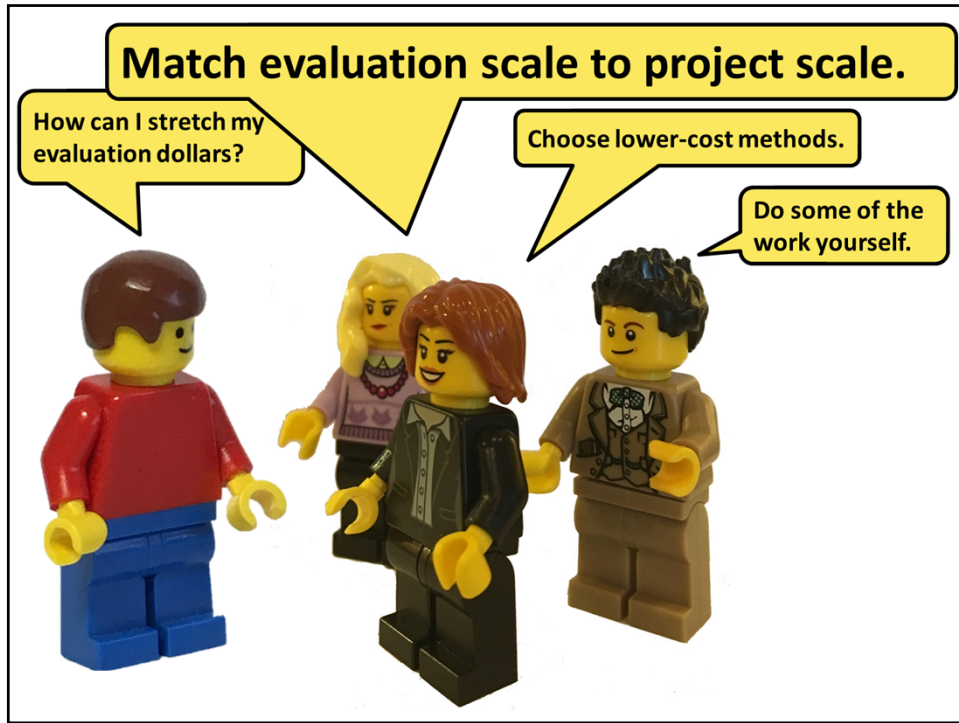
**EVALUATION QUESTIONS**

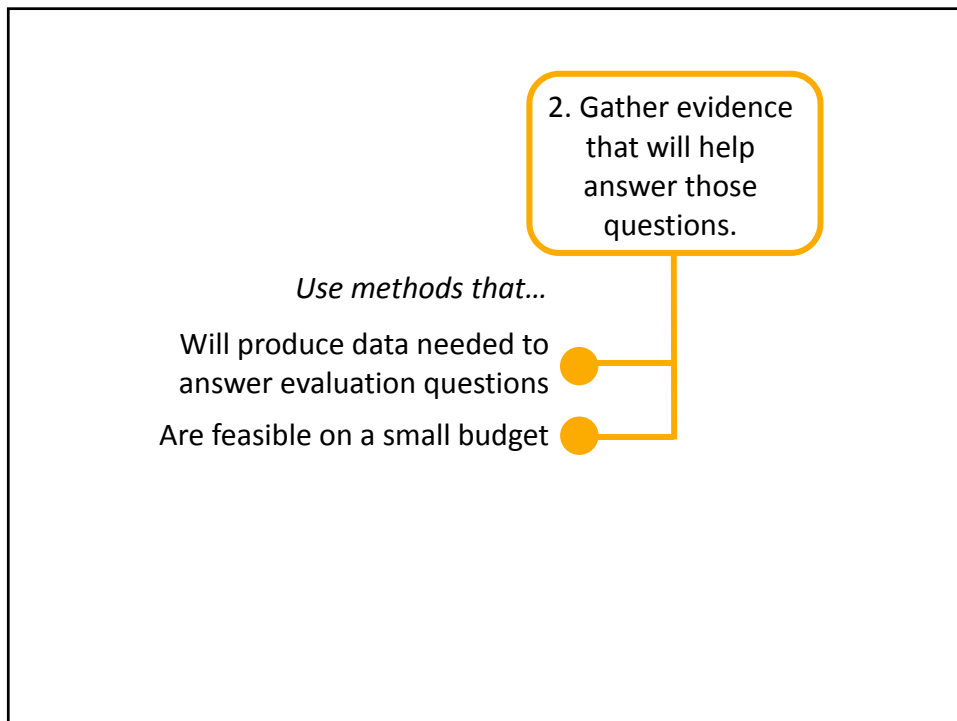
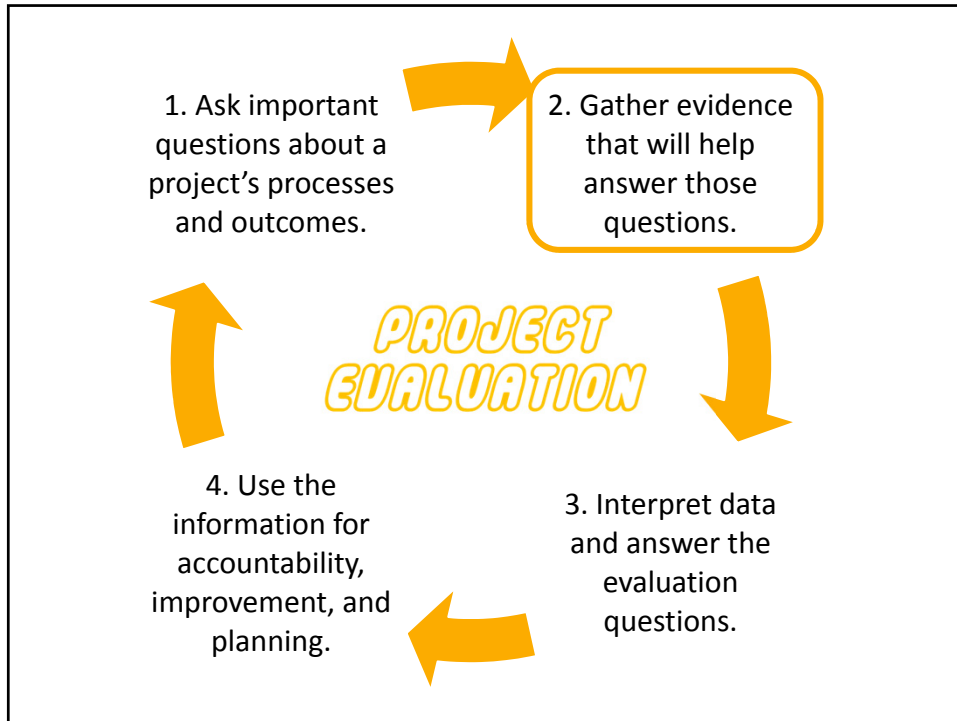
How effective is the program in terms of producing qualified injection molding technicians?

**MID-TERM OUTCOMES**

- Students obtain certificates
- Students obtain injection molding technician jobs









*CHAT*

- Observations
- Document review
- Unstructured interviews
- Structured interviews
- Focus groups
- Electronic survey
- Paper-and-pencil survey

**Which of these methods are relatively MORE costly?**



**MORE costly:**

- Observations
- Document review
- Unstructured interviews
- Structured interviews
- Focus groups
- Electronic survey
- Paper-and-pencil survey

Qualitative data collection and analysis is very time consuming

**MORE costly:**

- Observations
- Document review
- Unstructured interviews
- Structured interviews
- Focus groups
- Electronic survey
- Paper-and-pencil survey

Manual data entry and data verification is necessary with paper surveys.

**MORE costly:**

- Observations
- Document review
- Unstructured interviews
- Structured interviews
- Focus groups
- Electronic survey
- Paper-and-pencil survey

Open-ended inquiry requires time-consuming, in-depth qualitative analysis.

**LESS costly:**

- Observations
- Document review
- Unstructured interviews
- Structured interviews
- Focus groups
- Electronic survey
- Paper-and-pencil survey

### EVALUATION QUESTIONS

1. To what degree are the new and improved courses aligned with industry needs?
2. How successful were marketing efforts in reaching the intended audience?
3. To what extent are certificate courses being implemented as designed?
4. How effective is the program in terms of producing qualified injection molding technicians?

#### Evaluation Question 1:

To what degree are the new and improved courses aligned with industry needs?

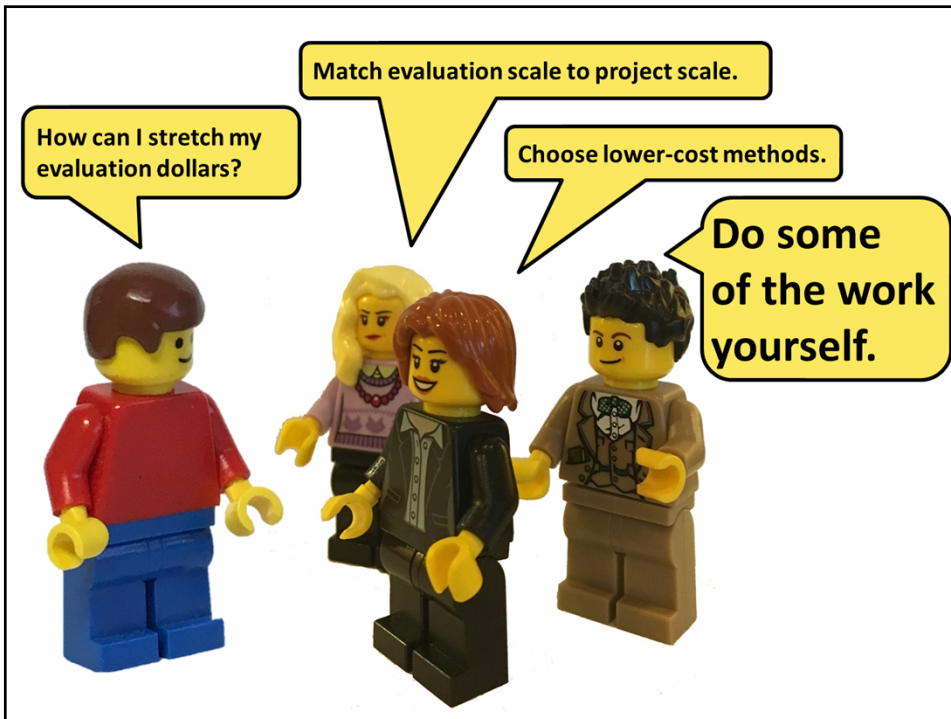
INDICATORS	DATA SOURCES/ METHODS	RESPONSIBILITY
Degree of match between industry recommendations and new course content	Document review to compare of formal recommendations with course syllabi	External evaluator
Opinions of industry advisors on degree of alignment	Structured interviews with industry advisors	External evaluator

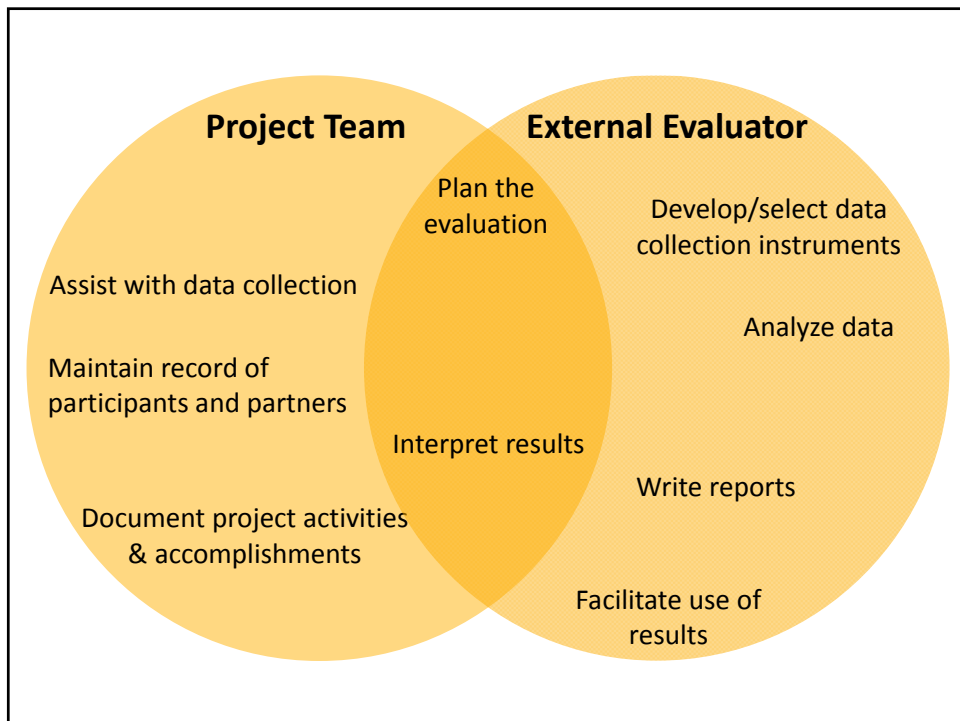
**Evaluation Question 4:**


How effective is the program in terms of producing qualified injection molding technicians?

INDICATORS	DATA SOURCES/ METHODS	RESPONSIBILITY
Number of students awarded certificates as percentage of target of 20 per year	Review of program records	Provided to external evaluator by project director
Number and percentage of certificate holders who intend to pursue jobs as injection molding technicians	Web survey of enrolled students	Administered by program faculty in cooperation with external evaluator
Opinions of industry advisors regarding preparedness of students for injection molding jobs	Structured interviews with industry advisors	External evaluator with assistance from

**DATA COLLECTON MATRIX  
& INDICATOR CHECKLIST**



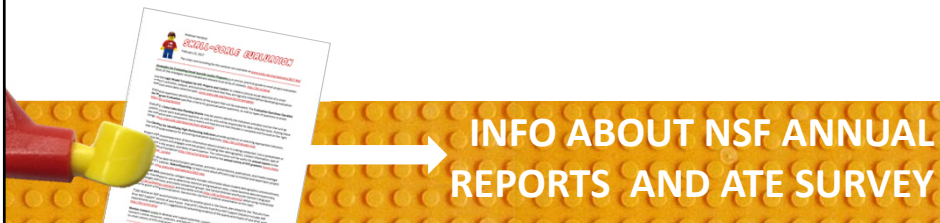




## Participant & Partner Data

Also needed for:

- NSF annual reports
- ATE annual survey



INFO ABOUT NSF ANNUAL REPORTS AND ATE SURVEY

### students – faculty – staff – partners – advisors

Use a spreadsheet or database to document **WHO PARTICIPATED** and their

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

**Evaluated** ATE Evaluation Resource Center  
Resume | February 2017

EvaluATE is located within The Evaluation Center at Western Michigan University in Kalamazoo, Michigan. We are supported by the National Science Foundation under Grant Number 1600992.

**THE EC EVALUATION CENTER** **W** **NSF**

**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 2017 (includes 1-year no-cost extension): \$2,186,660  
September 2016-September 2020: \$1,599,872


**Staffing**  
~2.5 FTE, not including contracted work


**Activities**  
Webinars (each webinar's presenters are listed alphabetically)  
Craft, E., Lee, M., & Wingate, L. (2017, February). Small-scale evaluation.  
Roberson, V., & Monroe, L. (2016). Examples of small-scale evaluation reports.

Create a project resume that includes a profile and record of activities, products, people, etc.



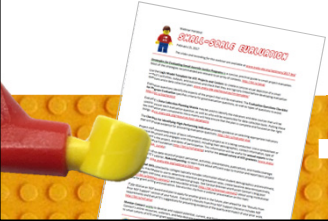

**WEBINAR AND CHECKLIST ON PROJECT RESUMES**





- ✓ Evaluation budget
- ✓ Evaluation questions
- ✓ Data collection plan

The Project Description must begin with the subsection on **Results from Prior NSF Support** .... This subsection must contain specific outcomes and results including metrics to demonstrate the impact of the project activities.



**RESULTS FROM PRIOR NSF SUPPORT CHECKLIST**

***THANK YOU!***



[www.evalu-ate.org](http://www.evalu-ate.org)



[www.mentor-connect.org](http://www.mentor-connect.org)