

# Characteristics of EPSCoR evaluations

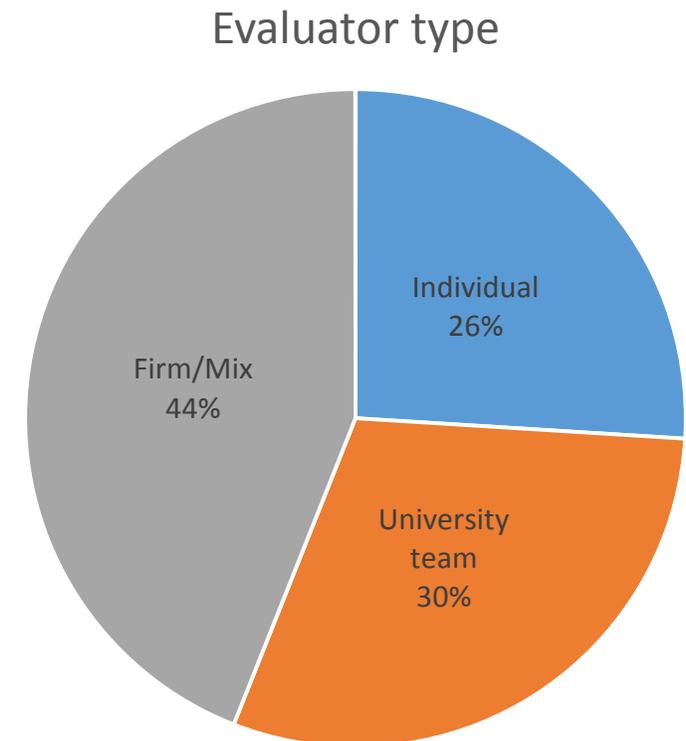
Nicole Peterson, AAAS Science and Technology Policy Fellow  
and Assistant Professor of Anthropology, UNC Charlotte

# Objectives

- What are the current ways EPSCoR programs are being evaluated?
- How might these be improved?
  - For more useful evaluations for PIs
  - For more useful evaluations for NSF

# Method

- Reviewed 27 recent RII Track 1 evaluation reports from different jurisdictions (2015-2016)
- How are EPSCoR projects being evaluated?
  - What do they have in common? What appear to be useful elements?
  - Coded for elements or characteristics of these evaluations: e.g. questions, methods, claims, recommendations.
  - Only accessed reports, not other project documents.



# Checklist

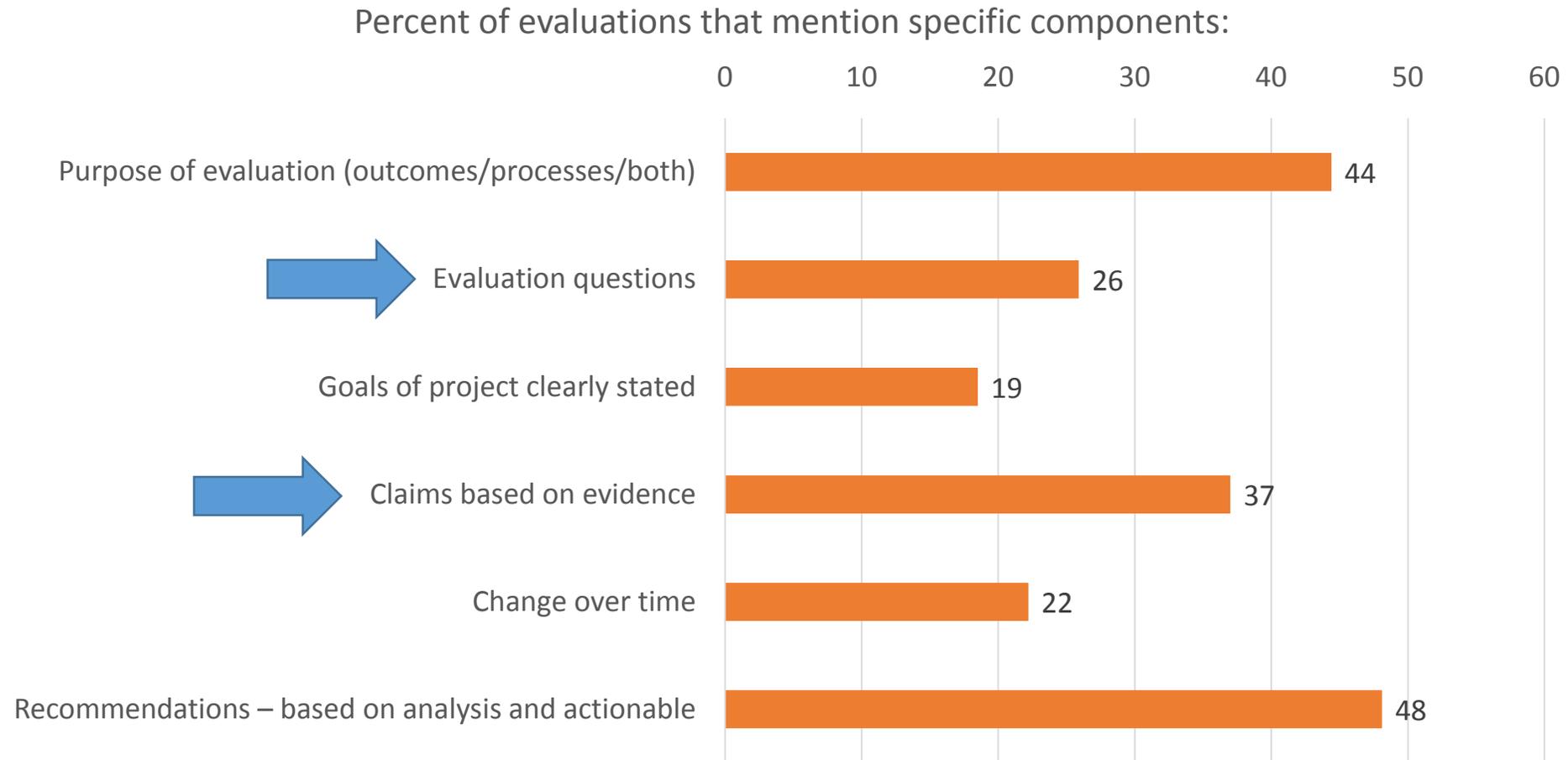


## Evaluation component

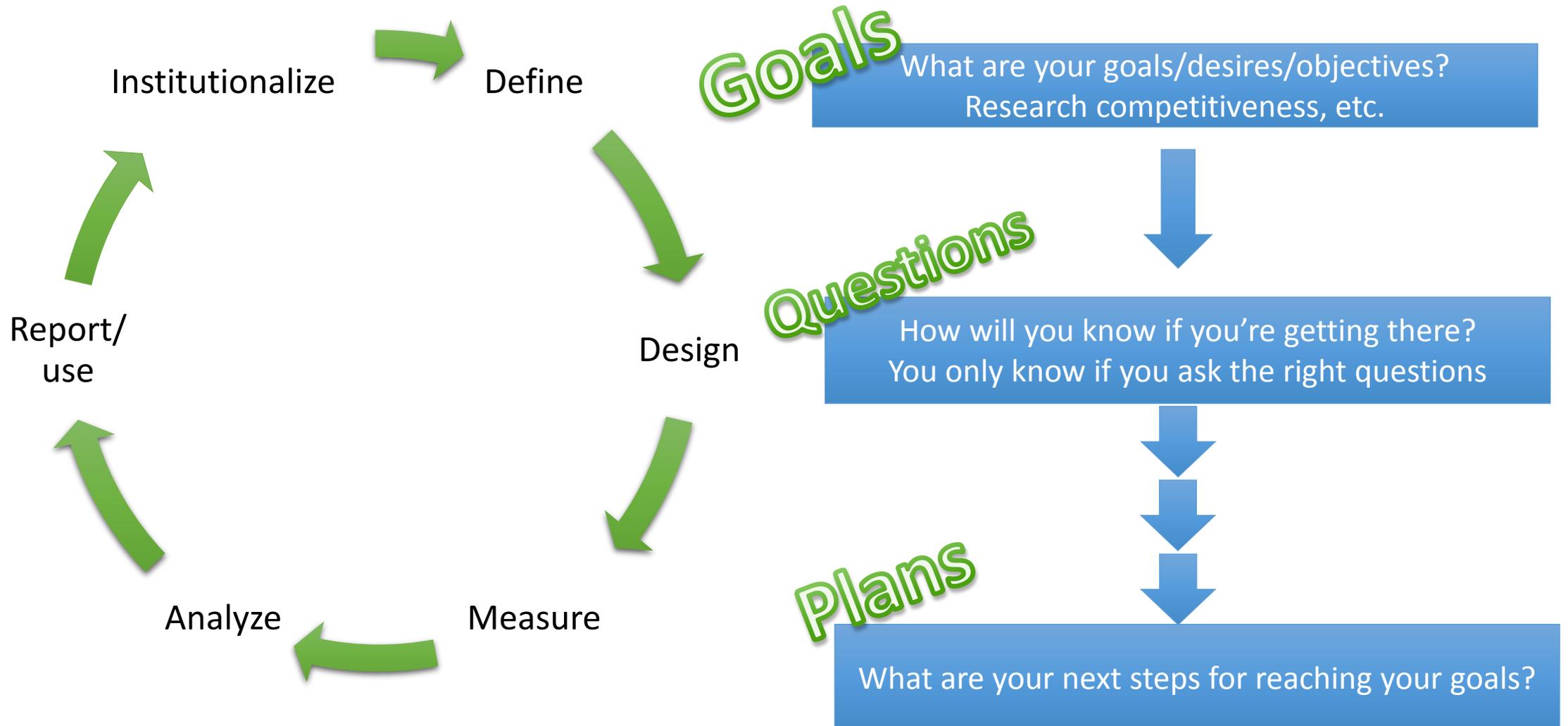
- \_\_\_ Purpose of evaluation
  - \_\_\_ Outcome (Summative)
  - \_\_\_ Process or implementation focused (Formative)
- \_\_\_ **Evaluation questions** follow from the purpose and:
  - \_\_\_ The project goals: what are the goals of the project?
  - \_\_\_ The specific funded activities: what activities are being evaluated?
  - \_\_\_ **Context** of the project (institutional, local, state, etc): can I act upon the answers?
- \_\_\_ **Context**, background, relevant literature review: what data do you need and can you get?
- \_\_\_ **Evaluation design** or framework (from the purpose of the evaluation and **evaluation questions**):
  - \_\_\_ Pre-test
  - \_\_\_ Retrospective pre-test
  - \_\_\_ Post-test
  - \_\_\_ Comparison group
  - \_\_\_ Data collection at points during the project
  - \_\_\_ Follow-up data collection
  - \_\_\_ Quasi-experimental
- \_\_\_ Methods: follow from **evaluation questions** and **design**
  - \_\_\_ **Data collection** might be via:
    - \_\_\_ Surveys
    - \_\_\_ Interviews
    - \_\_\_ Observations
    - \_\_\_ Project document review
    - \_\_\_ Data collection system for project participants
    - \_\_\_ Who is data being collected from? Students, faculty, administrators?
  - \_\_\_ **Analysis** of the **data** might be via:
    - \_\_\_ Counts or percentages
    - \_\_\_ Examples and case studies
    - \_\_\_ Bibliometric analysis
    - \_\_\_ Social network analysis
- \_\_\_ Findings: **results** connected to **evaluation questions**
  - \_\_\_ Claims based on **evidence**
  - \_\_\_ Comparison to specific goals
  - \_\_\_ Comparison with pre-EPSCoR data
  - \_\_\_ Comparison over time
  - \_\_\_ Identifies specific barriers
- \_\_\_ Actionable recommendations based on **evidence**



# Evaluation practices



# Evaluation questions: is what you're doing effective?



# Evaluation questions should be SMART

- **Specific**

- **Measurable (potentially)**

- **Achievable**

- **Realistic**

- **Time bound**

- “What are the short-term and long-term impacts of project initiatives to enhance competitiveness of research enterprises?”
- “How has research generated from the project advanced the state’s position in renewable energy and energy efficiency?”
- “To what extent is the state EPSCoR institutional framework developing to support the goals of this project, including the organization of the research pillars and supporting cross-institutional and cross disciplinary integrative research?”

# What you get from evaluation questions

- “To what extent is the state EPSCoR institutional framework developing to support the goals of this project, including the organization of the research pillars and supporting cross-institutional and cross disciplinary integrative research?”

“The team was awarded X NSF grants, published Y papers, filed for Z patents, and gave ZZ presentations last year”

“The goal was to submit 2 grants, 3 papers, 1 patent, and give 10 presentations. The papers were in medium-impact journals... They did this, so are on track. We recommend they continue this trend.”

“To date, 12 Year 1, 12 Year 2, and five Year 3 publications have more than 15 citations.”

“The overall funding rate for the project is 36.0%; higher than the funding rate of the NSF Merit Review Process (24.0%). This has increased from previous years.”

# Small group assignment:

- Assess the evaluation question in front of you and improve upon it.
- Keep in mind:
  - Goals of project and evaluation
  - Question strengths:
    - Specific
    - Measurable (potentially)
    - Achievable
    - Realistic
    - Time bound