Making Sense of Your Data

Keck/PKAL
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Plan for Presentation

• Common pitfalls when looking at data from academic programs
• Getting a sense of what data you have and what data you don’t have
• Organizing data in order to make decisions
• Goal: For every team member to be on the same page regarding data and decisions about the data.
Data Gathering in Academia

Is there such a thing as too much data?

I just need some time to organize the data!
Making Decisions with Data

Of course we all understand what to do with data.

Often each person has a slightly different idea for what decisions need to be made.
Data you currently posses

Discussion at the table

• What data points are broad and apply to all students and which ones are specific to your project?

• Data are from which group? (students, faculty, resources, or staff)

• Who collects data for the project?
Organizing Data to Make Sense

• Logic model for program planning and evaluation
  – Inputs - resources invested in creating change
  – Initiative(s) - what activity(ies) are put in place that influence the inputs
  – Output - as a result of the initiative(s) what is expected to happen
  – Decision Point (not typically a part of Logic Models) given what you have – what decisions must be made
  – Outcomes - short, medium, or long term
Designing a Logic Model

**Inputs**
- Students
- Lecturers
- Lab Space
- College Leadership

**Initiative(s)**
- Tutoring
- Placement
- Frequent and early feedback
- Course length - time on task
- Evaluation of credit hour limit
- Data from student systems

**Output(s)**
- Increase C or better grades
- Lower course drops
- More students retained in major
- Increase funding for lab assistant

**Decision Points**
- If no change occurs?

**Outcomes**
- Increased Student Success in STEM
Think about as a team

• Identify gaps in data needed to make decision
• Think through if no change occurs
  – Is the intervention being done consistently?
  – What type of training was offered for those involved?
  – What should be changed?
  – Can the reason be identified qualitatively?
• Multiple decision points – create a model that works for your projects