Creating a Data Strategy: Building Staff and Community Capacity

The **Institute** for Urban Policy Research

at The University of Texas at Dallas

Sara Mokuria and Anthony Galvan

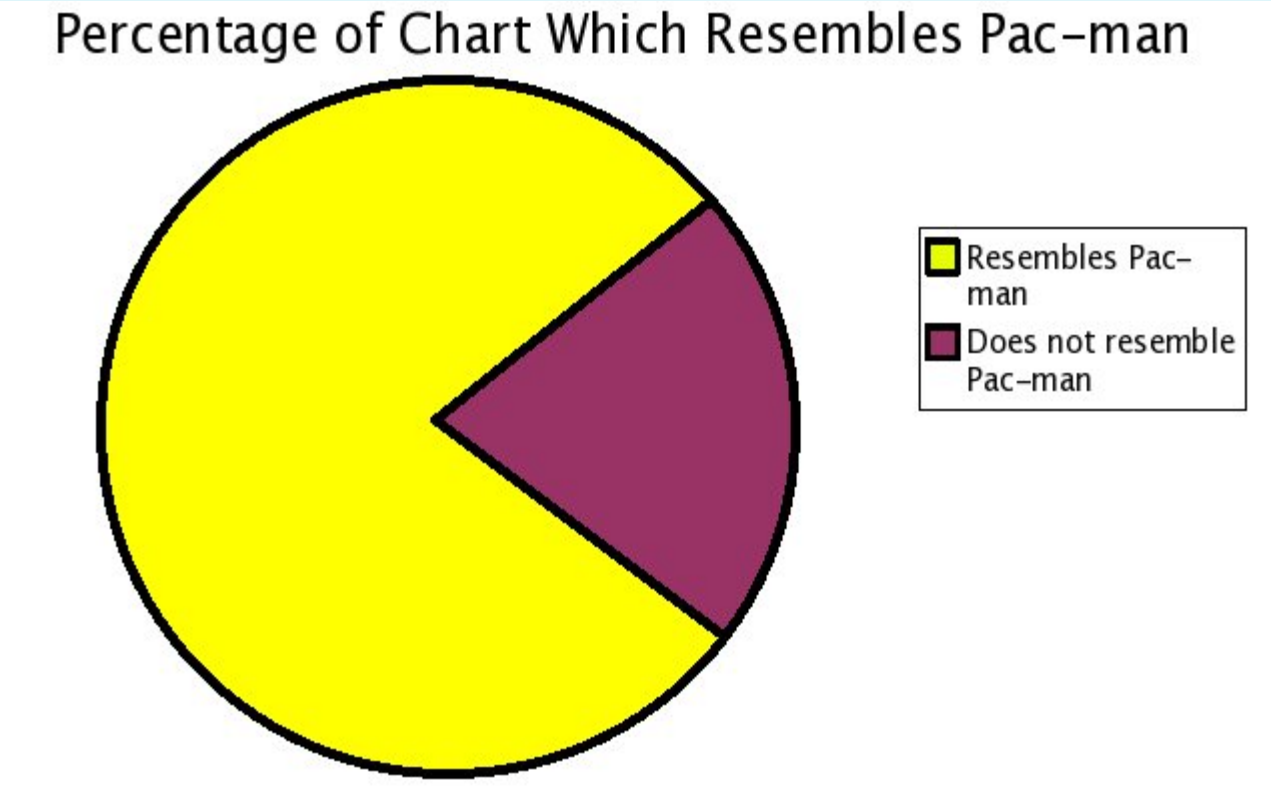
Learning Objectives:

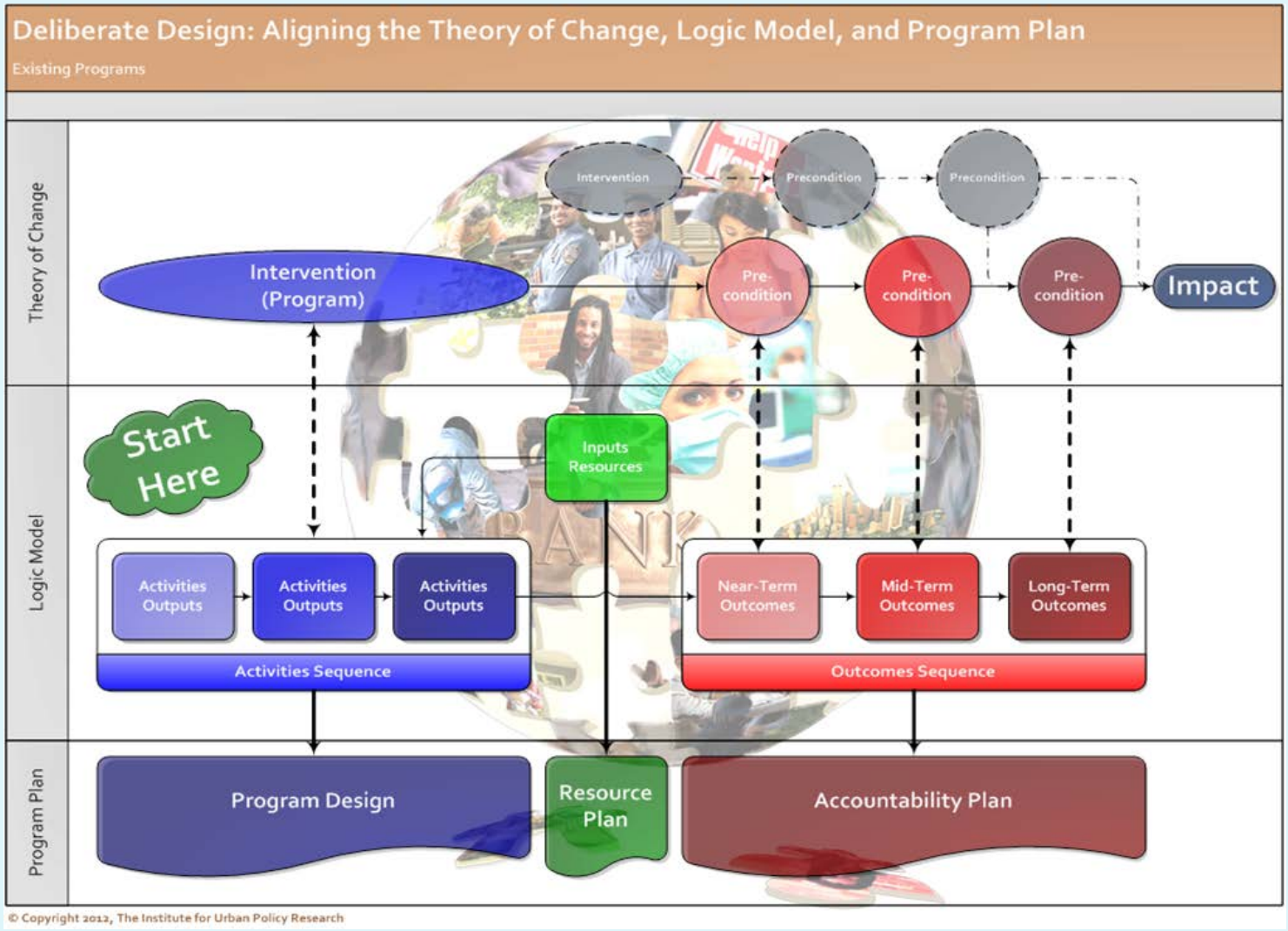
Participants will

- Discuss how and why community-based organizations use data
- Understand how a data strategy supports successful programs
- Assess his/her originations capacity to access, analyze and use data

The **Institute** for Urban Policy Research

Why and how does your organization use data?





Transforming data into impact with Deliberate Design:

The goal is for agencies to use both qualitative and quantitative data to show impact and adjust strategies accordingly.

Three Considerations in the Deliberate Design Architecture

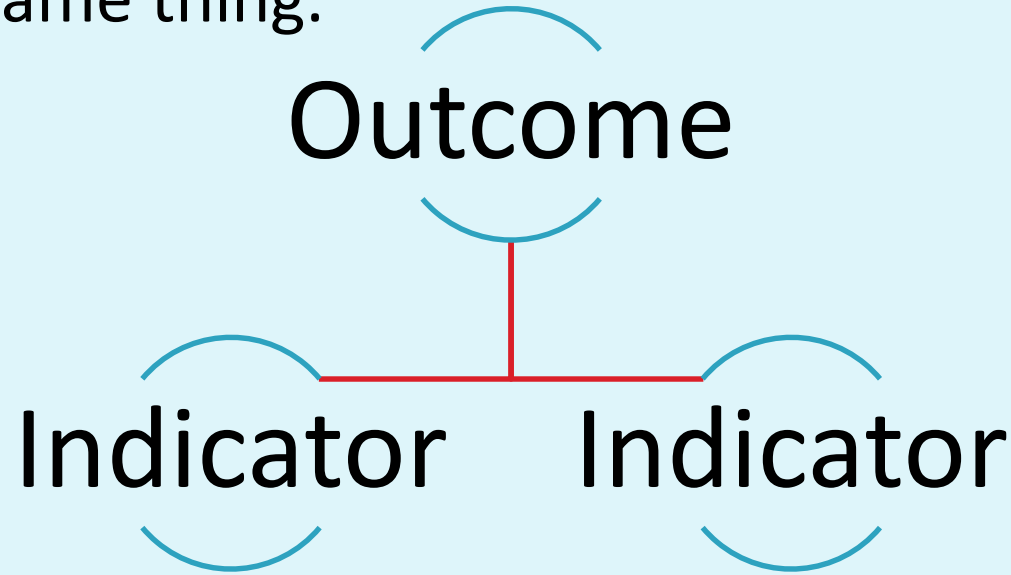
The **Implications** of Data Access for Data-Driven Decisions

- Define the Impact (Outcome)
- Find the Indicators
- Find the Measures
- Explore the Preconditions
- Evaluate Where You're At

- First, Defining the word…
- What result should occur because of your program's impact? What needle do you want to move?
- Programmatic results should be more than a crap shoot!
- Deliberate Design is Essential!

Define the Impact

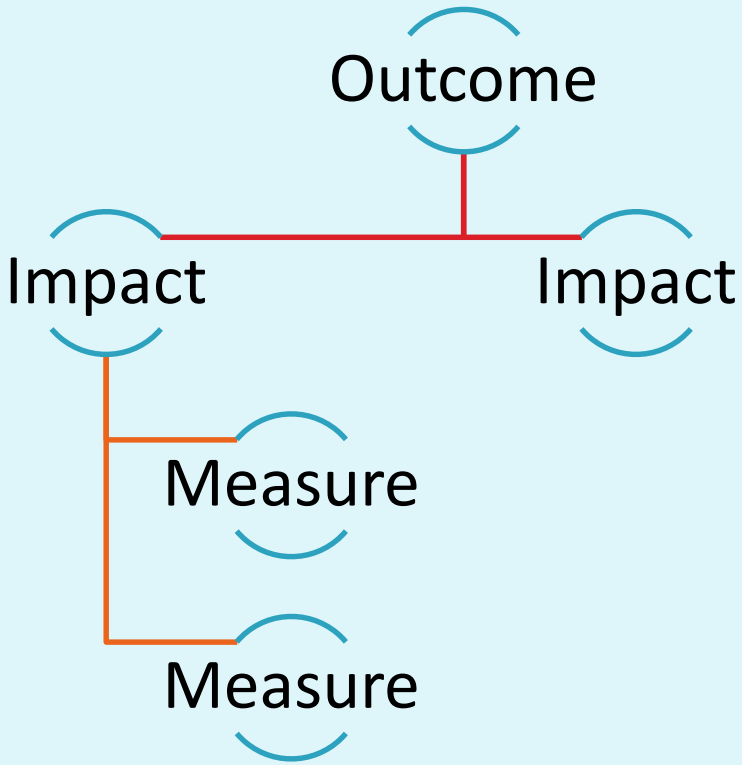
- What is an indicator?
- If the needle moved on your outcome, how would you know?
- Important – the outcome and the indicator of the outcome are often **not** the same thing.

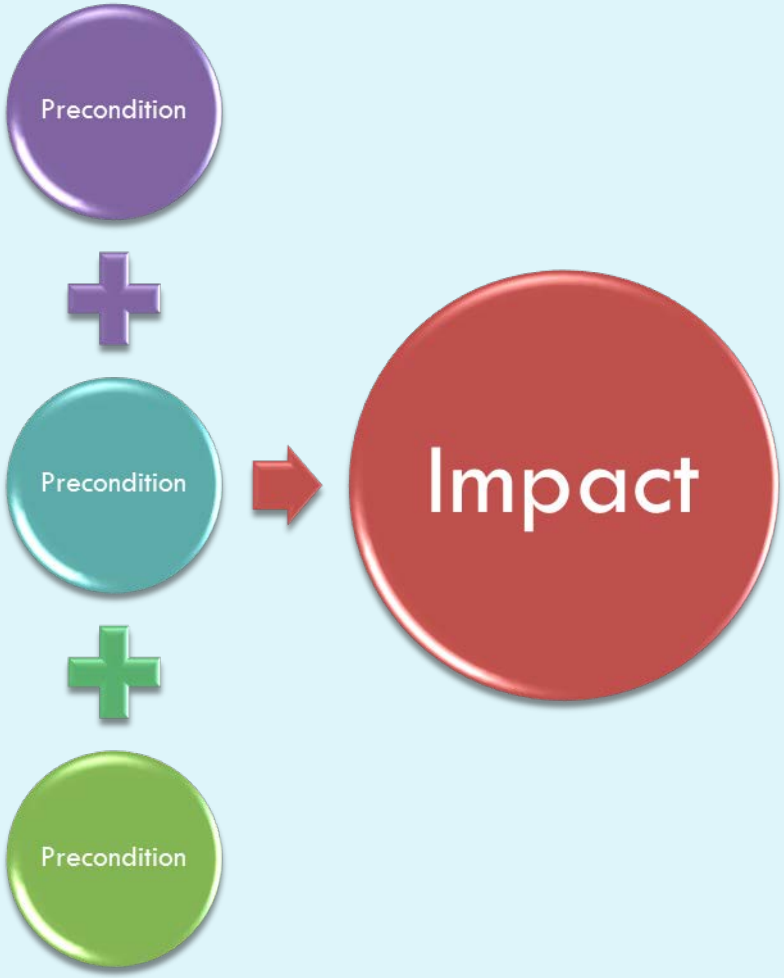


Finding the Indicator

Finding the Measure(s)

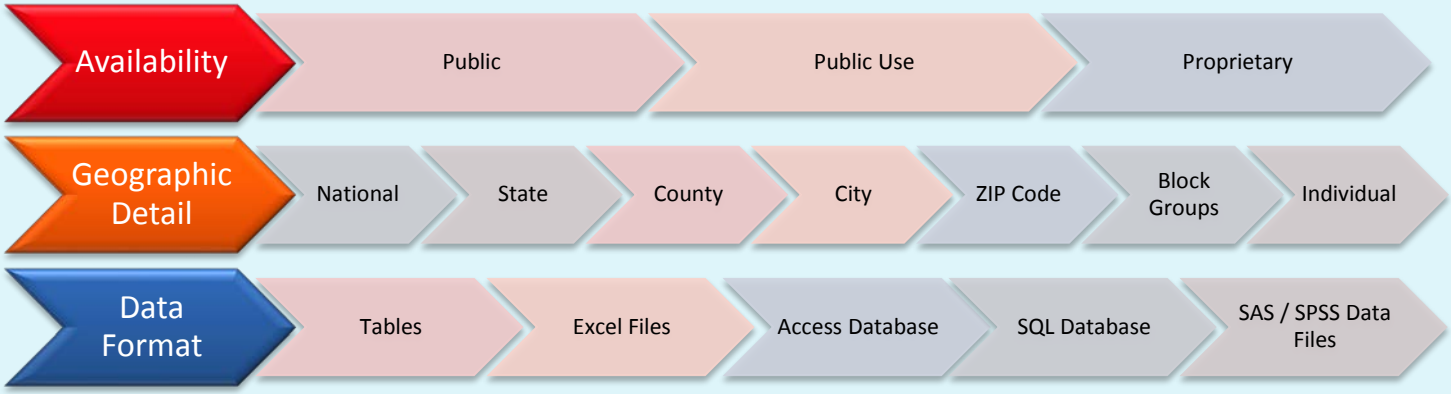
- How will you measure the indicator you selected?
- Things to think about…
  - Definition
  - Purpose
  - Time
  - Geography





- Defining preconditions…
- Why do preconditions matter?
- How much do ***changes in the measure*** reflect ***changes in the indicator***, and how much does that indicate ***changes in the impact?***

Exploring Preconditions



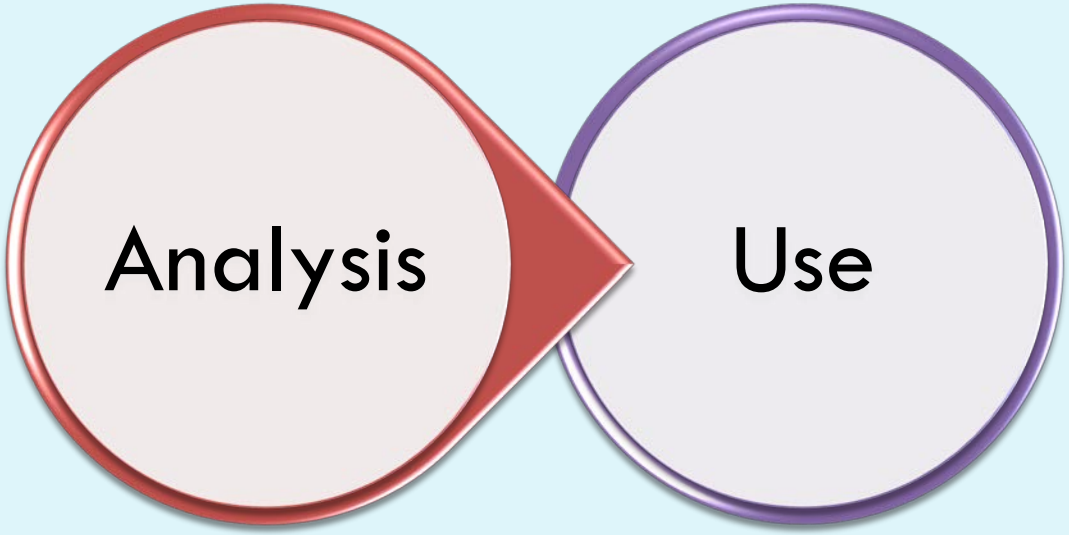
A Guide to Using Data: Access

From Simple to Complex

- Does your measure measure what you think it measures?
- Are there things that might move the needle you weren't considering?
- How will you "analyze" and "use" your measure?
- "Does it mean what you think it means?"

Evaluating Where You're At

Three Considerations in the Deliberate Design Architecture



The **Implications** of Data Analysis for Data-Driven Decisions

- Analytical Strategy
- Technical Requirements
- Skill Requirements
- Securing What You Need
- Evaluating Where You're At

- How will you use the data now that you have it?
- Key Decision Points:
  - Time
  - Relativity
  - Level of Rigor

Analytical Strategy

- What tools and technology will you need?

Technical Requirements

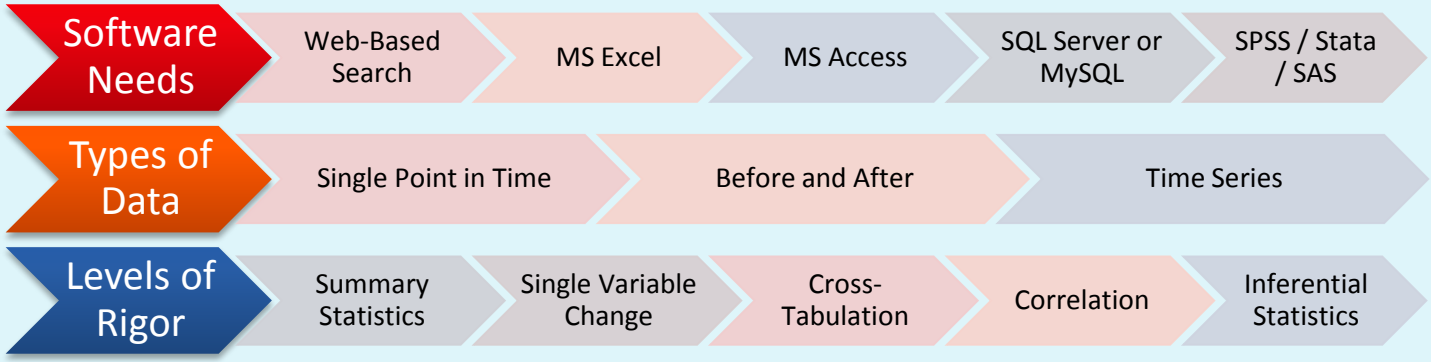
- What skill sets do you need to complete the analytical strategy?
- Can the analysis be done with a solid understanding of Excel?

Statistic	*Formula*	*Used For*
Sample mean (average)	$\bar{x} = \frac{\sum x}{n}$	Measure of center; affected by outliers
Median	*n* odd: middle value of ordered data *n* even: average of the two middle values	Measure of center; not affected by outliers
Sample standard deviation	$s = \sqrt{\frac{\sum (x - \bar{x})^2}{n-1}}$	Measure of variation; "average" distance from the mean
Correlation coefficient	$r = \frac{1}{n-1} \sum \frac{(x - \bar{x})(y - \bar{y})}{s_x s_y}$	Strength and direction of linear relationship between *X* and *Y*

Skill Requirements

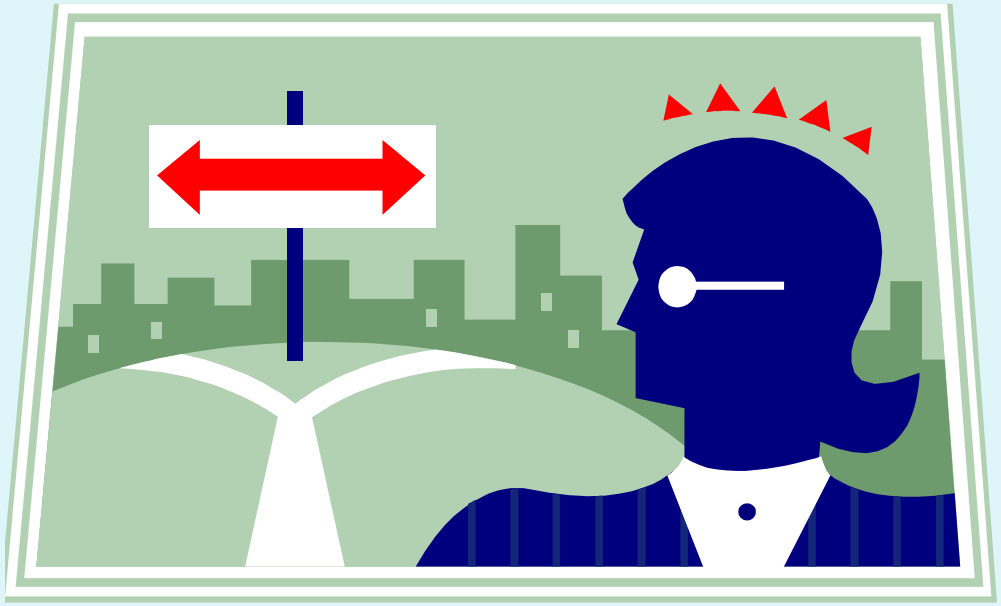
- Sizing the gap…do you have the assets on hand, or in short reach through development of existing staff?
- Are there universities or organizations you can partner with for low to know cost?

Securing What You Need



A Guide to Using Data: Access

From Simple to Complex



- How might your data strategy change given your work so far?
- What are the implications for future projects?

Evaluating Where You're At