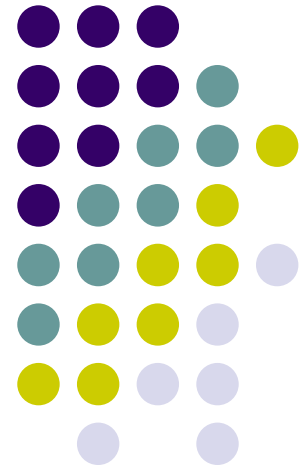
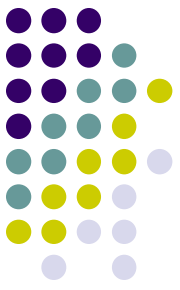


# A Method to Our Madness: Using Samples in Legislative Program Evaluation

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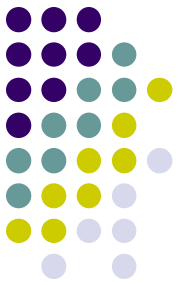




# What is a Sample?

- A sample is a subset of a population. A good sample is an accurate model of the population.

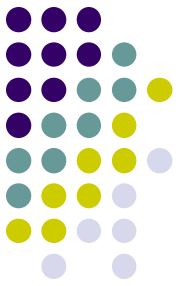




# Types of Samples

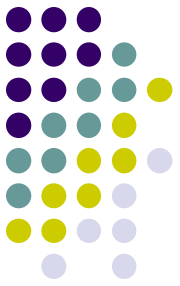
- Non-probability
  - Convenience sample
  - Typical case sample
  - Most similar/most dissimilar sample
  - Critical case sample
- Probability
  - Simple random samples
  - Stratified random samples
  - Cluster samples

# The Validity and Credibility of Samples

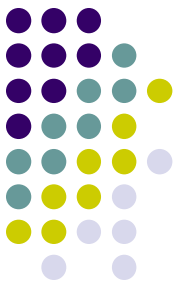


- Validity – How well information from the sample represents the information available from the population.
- Credibility – How well your target audience believes the information from the sample represents information available from the population.

# Should You Sample?

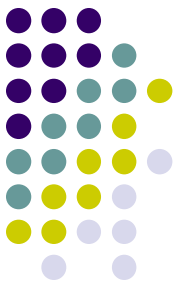


- Is there good information already available (e.g., a database, previous studies)?
- Are there enough resources to collect information from the entire population?
- What are the consequences of being wrong?
- Will information from a sample be credible?



# Non-Probability Samples

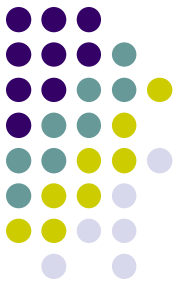
- Convenience sample
- Typical case sample
- Most similar/most dissimilar cases
- Critical case sample



# Non-Probability Samples

- Strength – relies on analyst’s judgment to not select cases that will provide irrelevant information
- Validity and credibility threat – relies on analyst’s judgment to select cases that represent the population

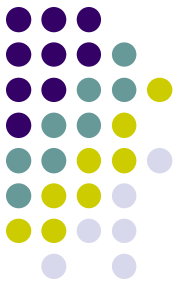
# When to Use Non-Probability Samples



- If a list (or close proxy) of all units in the population does not exist
- Collecting background information designed to identify potential issues and problems
- Limited resources do not allow using a probability sample

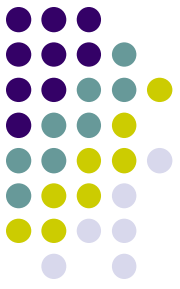


# Probability Samples



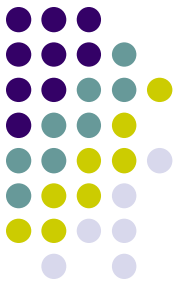
- Strength – reduce subjective bias, provide results with a known probability of being accurate, provide credible evidence
- Potential drawbacks - Can be resource intensive, complicated to plan and implement

# When to Use a Probability Sample:



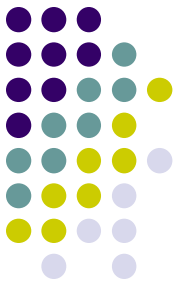
- Must have a list (or close proxy) of all units in the population
- When it is important to minimize potential subjective bias in selecting a representative sample
- When a sample will produce better information than attempting to gather information from the population

# What You Need to Know to Decide on Sample Size



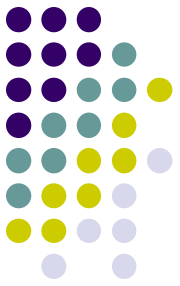
- How confident you want to be that the sample represents the population
- The variation among the members of a population
- The size of the population

# Confidence in Your Sample



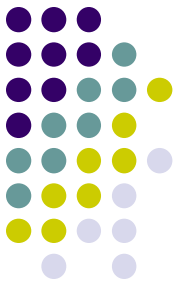
- Precision: the true average or proportion will be within plus or minus a certain amount of the sample average or proportion (e.g. within + or – \$1000; + or – 5%).
  - All other factors being equal, increase sample size to increase precision.
- Confidence: the risk your willing to take that the sample average or proportion will be wrong.
  - All other factors being equal, increase sample size to increase confidence

# Variation in the Population



- All other factors being equal, the less variation in the population the smaller the sample size needed

# Population Size



- All other factors being equal, the smaller the population the smaller the sample size needed