

# Data Analysis for Evaluation



# Purpose

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- ▶ To increase your skills in analysis and interpretation of the information you collect
- ▶ To increase your ability to report your findings to a variety of audiences
- ▶ To learn how to make evaluation results actionable

# Three Steps to Data Analysis

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- ▶ Analyze Results
- ▶ Communicate Findings
- ▶ Use Findings for Program Improvement

# Keep it Simple

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- ▶ Aim for a systematic effort
- ▶ Keep your audience in mind
- ▶ Pay attention to the usability of your evaluation report

# Two Kinds of Data

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- ▶ Quantitative
- ▶ Qualitative

# Quantitative Data

- ▶ Data that is numerical, counted, or compared on a scale
  - Demographic data
  - Answers to closed-ended survey items
  - Attendance data
  - Scores on standardized instruments

# Qualitative Data

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- ▶ Narratives, logs, experience
  - Focus groups
  - Interviews
  - Open-ended survey items
  - Diaries and journals
  - Notes from observations

# Summary Statistics

- ▶ Measures of Central Tendency
  - Mean
  - Median
  - Range
- ▶ Frequency distributions
- ▶ Percentage distributions

# Frequency Distributions

To what extent did you increase your skills in putting together a household budget?

|              | A lot | Some | A little | Not at all |
|--------------|-------|------|----------|------------|
| Women (N=30) | 14    | 9    | 5        | 2          |

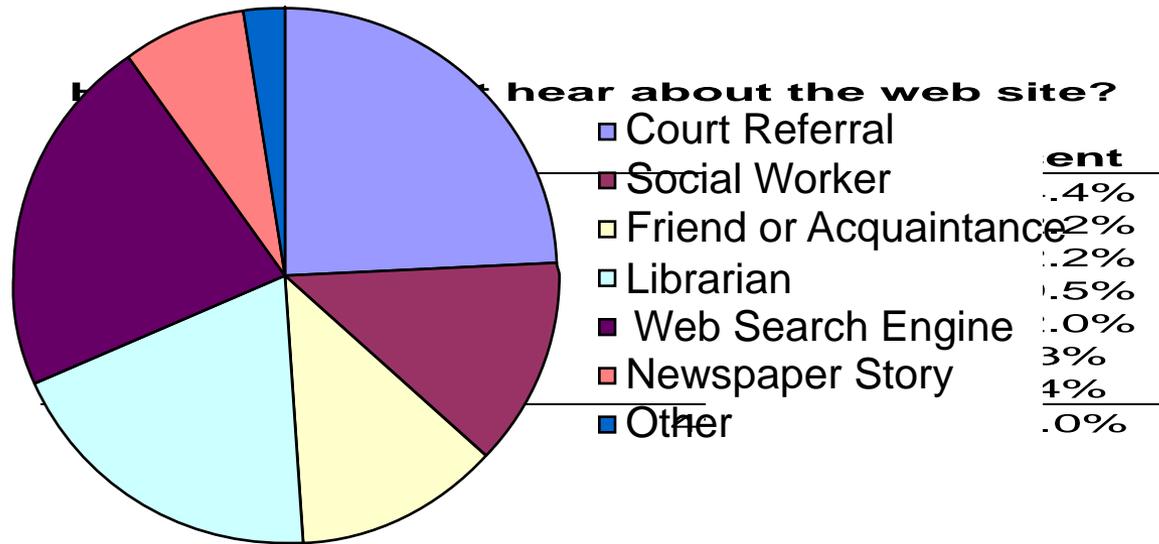
# Percentage Distributions

To what extent did you increase your skills in putting together a household budget?

|              | A lot | Some | A little | Not at all |
|--------------|-------|------|----------|------------|
| Women (N=30) | 46%   | 30%  | 17%      | 7%         |

# Graphing Frequency Data

How did you first hear about the web-site?



# Means and Medians

|         |    |
|---------|----|
| Math    | 98 |
| English | 96 |
| History | 95 |
| Music   | 94 |
| Biology | 98 |
| Art     | 94 |
| Gym     | 40 |

Mean = 87

Median = 94

# Some Subtleties

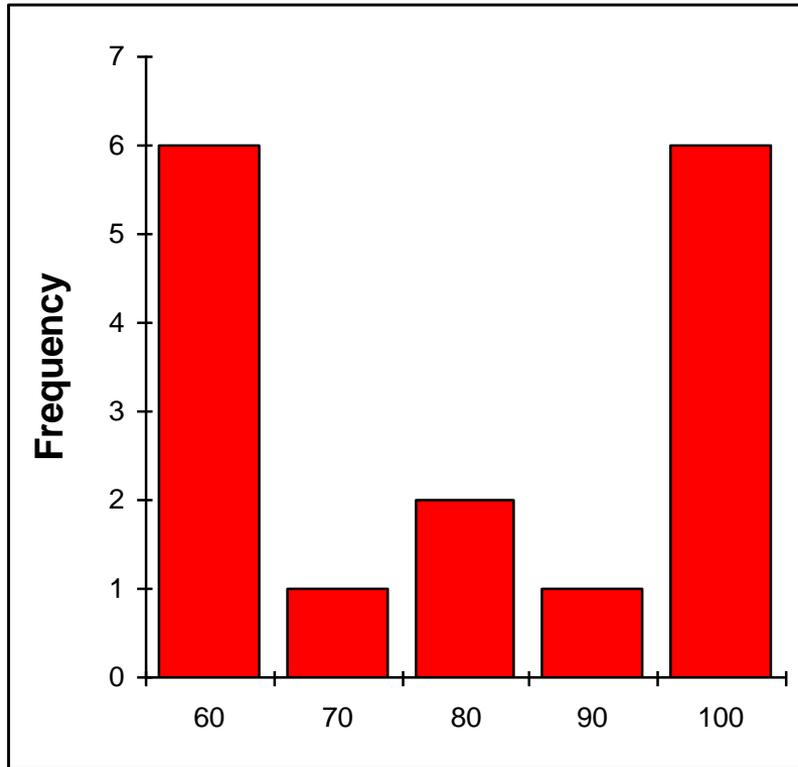
|    |    |    |    |     |     |     |
|----|----|----|----|-----|-----|-----|
| 40 | 50 | 55 | 94 | 100 | 100 | 100 |
|----|----|----|----|-----|-----|-----|

Mean = 81

|    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|
| 40 | 92 | 93 | 94 | 95 | 96 | 98 |
|----|----|----|----|----|----|----|

Mean = 87

# Histograms



# Cross Tabulations

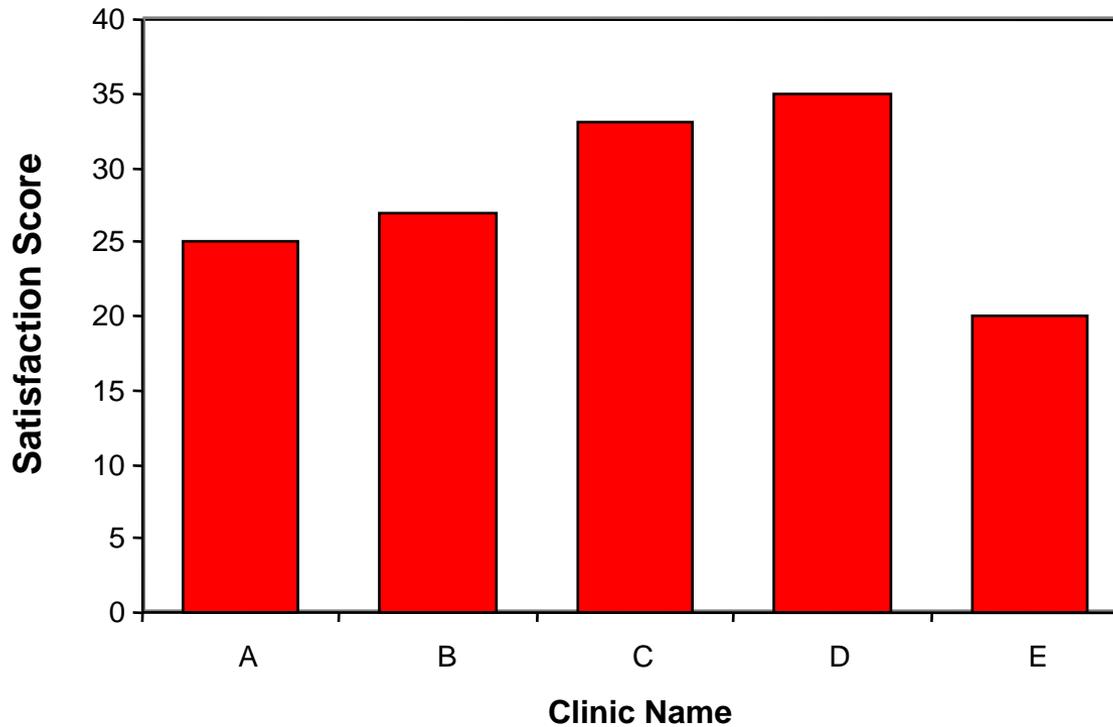
| Program Type | Area of Inquiry | Outcome    |
|--------------|-----------------|------------|
| Web site     | Employment law  | Satisfied  |
| I & R Line   | Family law      | Not satisf |
| Law clinic   | Immigration     | Pending    |
| Web site     | Immigration     | Satisfied  |
| I & R Line   | Immigration     | Satisfied  |
| I & R Line   | Family law      | Not satisf |
| Web site     | Employment law  | Not satisf |
| Law clinic   | Other           | Satisfied  |
| I & R Line   | Other           | Not satisf |
| I & R Line   | Other           | Satisfied  |
| Law clinic   | Employment law  | Satisfied  |
| Web site     | Family law      | Satisfied  |
| Law clinic   | Family law      | Satisfied  |
| Web site     | Immigration     | Not satisf |
| Law clinic   | Immigration     | Not satisf |
| I & R Line   | Family law      | Satisfied  |
| I & R Line   | Immigration     | Not satisf |
| I & R Line   | Employment law  | Not satisf |
| Law clinic   | Other           | Pending    |

| Count of Outcome | Outcome       |         |           | Grand Total |
|------------------|---------------|---------|-----------|-------------|
|                  | Not satisfied | Pending | Satisfied |             |
| Program Type     |               |         |           |             |
| I & R Line       | 7             |         | 5         | 12          |
| Law clinic       | 1             | 3       | 7         | 11          |
| Web site         | 6             |         | 5         | 11          |
| Grand Total      | 14            | 3       | 17        | 34          |

| Count of Outcome | Outcome       |         |           | Grand Total |
|------------------|---------------|---------|-----------|-------------|
|                  | Not satisfied | Pending | Satisfied |             |
| Program Type     |               |         |           |             |
| I & R Line       | 58%           | 0%      | 42%       | 100%        |
| Law clinic       | 9%            | 27%     | 64%       | 100%        |
| Web site         | 55%           | 0%      | 45%       | 100%        |
| Grand Total      | 41.18%        | 8.82%   | 50.00%    | 100.00%     |

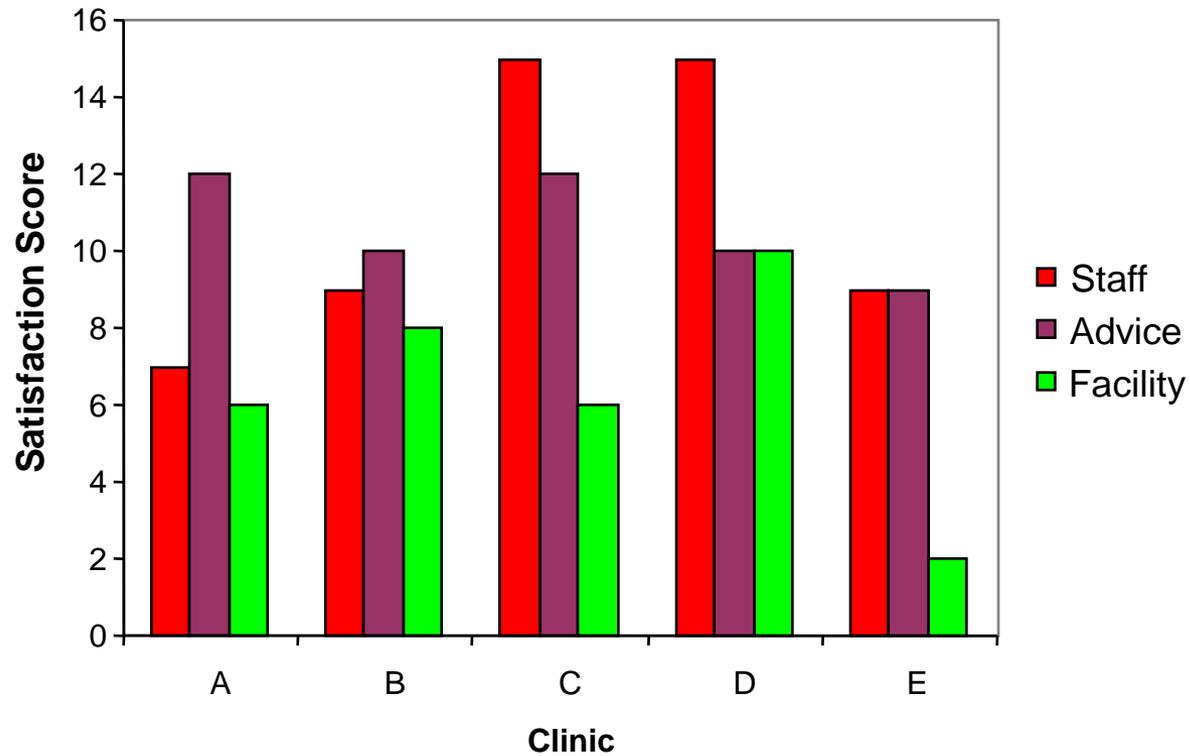
# Graphing comparisons

**Satisfaction with Services**



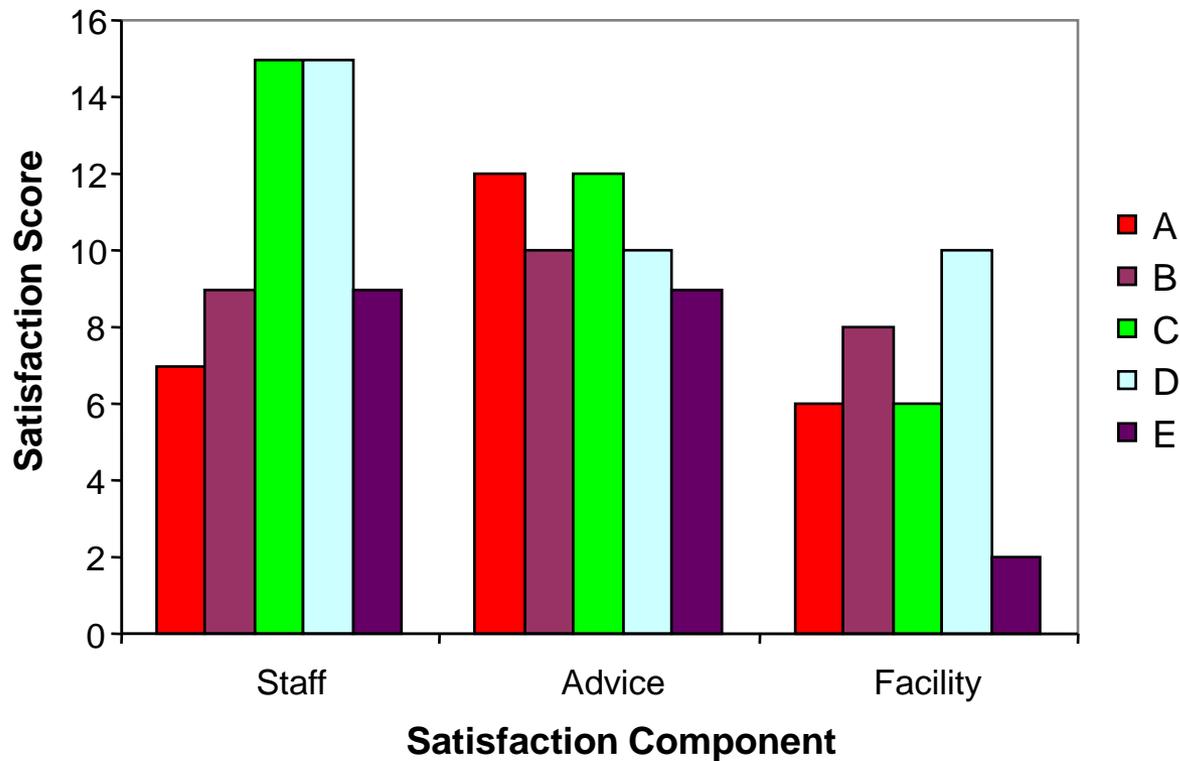
# Some subtleties

## Satisfaction with Services



# Some more subtleties

## Satisfaction with Services



# A Note on Quantitative Data Entry

- ▶ Several approaches
  - Paper and pencil tally
  - Word processing table
  - Spreadsheet
  - Custom database

# Qualitative Data

- Textual data
  - Interview transcripts
  - Case notes/ clinical notes
  - Open-ended survey questions
- Photographs
- Video recordings

# Qualitative Analysis

## Identify themes or patterns

- Pre-set themes
- Determine as you go

## Tag text segments with themes

# Sample data sheet

**Interview Write Up Sheet**

Naming Standard: Siteinterviewtype#

Cluster ND Futures  
 Site Oakville

Interviewee Diane Janssen, Elementary School Principal

Date of Interview December 2004

Tape # 02-1234-PCM

Length 31

Interview Types:

Focus  
 Com  
 Coach  
 Sup  
 Plan  
 Other

| Site Name | Interview Type/# | Question # | Text  |
|-----------|------------------|------------|---|
| Ellendale | Plan             | PC.1       | She states that she came from to the local Bible College, stayed to become the local school and then took a job at college before becoming the principal elementary school. She states that she involved with the program after the last meeting that took place in April of 2004 leadership (she doesn't indicate precisely) was important that someone from the |

Site

Interviewee

Date

Tape number

Length

Question number

# Communicating Findings

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“Information that is not effectively shared with others will not be effectively used.”

Source: *Building a Successful Evaluation*  
Center for Substance Abuse Prevention

# Audience

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- ▶ Staff
- ▶ Board
- ▶ Funders
- ▶ Partners
- ▶ Other agencies
- ▶ Public

# Reporting Formats

- ▶ Written report
- ▶ Data book
- ▶ Flyer
- ▶ Formal oral presentation
- ▶ Round table with partners/ stakeholders
- ▶ Poster
- ▶ Web site

# Whatever strategy you choose:

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- ▶ Link findings to the program's outputs and desired outcomes
- ▶ Include successes and challenges
- ▶ Support your claims with data
- ▶ Acknowledge knowledge gaps

# Organizing Findings

- ▶ Overview
  - Describe program/ describe evaluation
- ▶ Program Implementation
  - What did you do, and how well did you do it?
- ▶ Program Outcomes:
  - What were the changes that occurred?
- ▶ Lessons learned
  - Sub-group differences

# Overview Section

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- ▶ Your organization
- ▶ Your program
- ▶ Purpose of the evaluation
- ▶ Evaluation design
- ▶ Structure of the report

# Program Implementation

- ▶ Characteristics of program participants
  - Demographics
- ▶ Outputs
  - Number of sessions held
  - Number of participants served
  - Partnerships formed
  - Satisfaction with program

# Program Outcomes

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- ▶ What has changed?
- ▶ What do participants now know?
- ▶ What are they now able to do?
- ▶ What do they actually do?
- ▶ How are their lives different?

# Lessons Learned

- ▶ Which of the program's assumptions were validated, which need to be reconsidered?
- ▶ Does the program affect different kinds of people differently?
- ▶ Are results better with some groups?
- ▶ How will findings be addressed?
- ▶ What new hypotheses did the evaluation generate?
- ▶ How did the evaluation work?