# Using Surveys to Help Evaluate and Improve Programs and Inform Decision Making

Hartford Foundation for Public Giving - Nonprofit Support Program

Dr. Elena Tamanas Ragusa

# Mini-Series Overview

**Session 1:
Surveys**

October 11, 2024

**Session 2:
"Off the Beaten
Path" Methods**

November 1, 2024

**Organizational
homework**

**Individual
consultations**

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# How We Will Spend Our Time Together

Designing surveys

Administering surveys

Analyzing & using survey data

Homework & next steps

Drive Evaluation studio

# To Maximize Your Experience

Be present and engaged.

Take part in activities,
and take notes.
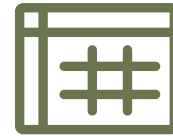
Make it your own.

# To Conduct Evaluation

Specify learning and evaluation question(s)

Develop an evaluation design

Collect and analyze data

Summarize, share, and use findings

# Data Collection Methods

### Interviews

One-on-one discussions with participants to understand their experiences and perspectives.

### Focus groups

Facilitated discussions with a small group of participants to uncover insights.

### Observations

Watching participants to understand behaviors or characteristics of a setting.

### Record review aka document analysis

Reviewing existing internal or external documents, records, and artifacts to gather context.

### Surveys

A series of structured questions, often with discrete choices

# Considerations Before Data Collection

- Who will you collect data about?

- How will you use the information?

- How do we make this as easy as possible for the participants?

- What instruments do you need?

- Are there any existing or pre-tested instruments that make sense here?

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# Survey Research and Design

# Time For A Poll

Do you currently use surveys in any of your work? This can include surveys of staff, program participants, key partners, stakeholders, etc.

- Yes

- No

- Sort of (explain in chat)

- Unsure

# Survey Research

## What is it?

People answering questions, often about themselves

## What can it assess?

Behaviors, attitudes, perceptions, and beliefs

Changes after events or over time

Facts and learned information

Demographics

## Why do it?

Get first-hand information

Cost-effective

Broad audience

Can ask about sensitive items

Can be conducted in multiple ways

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# Designing Surveys

**1** | Define the objective

Stick to what you want to know, be clear about how you will use each set of responses, and avoid scope creep.

**2** | Consider overall length and burden

Closed vs. Open-ended items

Number of responses

Rating scales

Required vs. optional items

**Rating scale resource doc**

**3** | Avoid common pitfalls

Keep questions **simple and clear**

Avoid **double-barreled** questions

Avoid **loaded or leading** questions
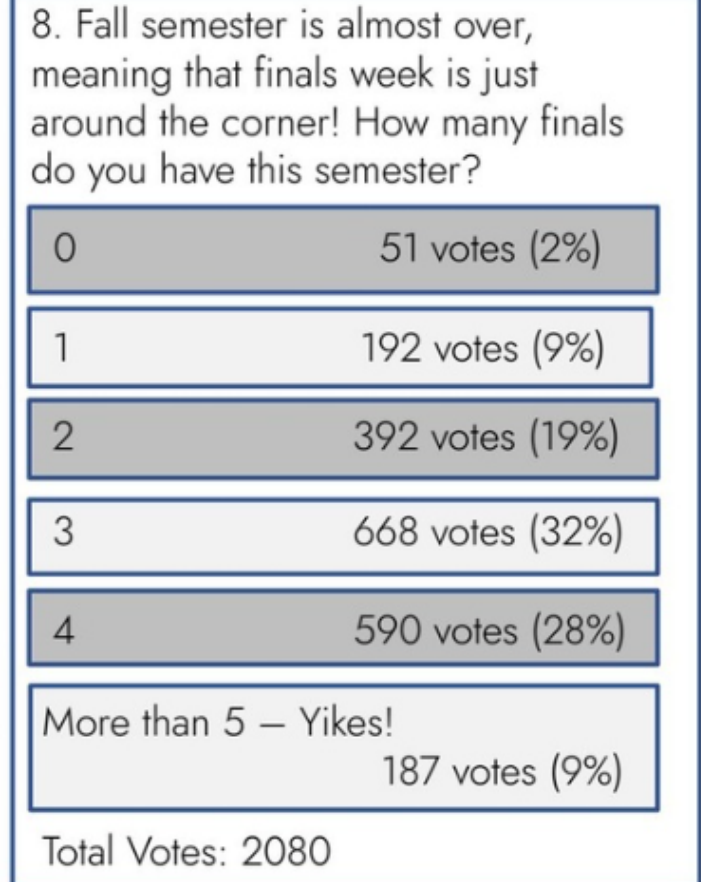
Avoid **negative wording** where possible

Ensure answer options are **mutually exclusive and exhaustive**

Look for **yea-saying** or **nay-saying**

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# What's the Problem?

1 | Managers should not be required to track days off.
(1 - strongly disagree, 5 - strongly agree)

2 | I enjoy resting and spending time with friends on weekends.

3 | Do you support the legislation that would unfairly tax hard-working farmers?

4 | I would describe myself as attractive and intelligent.

5 | Do you believe the relationship between cell phone behavior and consumption of fast food is orthogonal?

6 | Restaurants should not have to be inspected each month.

7 | Are you in favor of the boss' whim to cut lunchtime down to only 30 minutes?

8. Fall semester is almost over, meaning that finals week is just around the corner! How many finals do you have this semester?

| | |
|---|---|
| 0 | 51 votes (2%) |
| 1 | 192 votes (9%) |
| 2 | 392 votes (19%) |
| 3 | 668 votes (32%) |
| 4 | 590 votes (28%) |
| More than 5 — Yikes! | 187 votes (9%) |

Total Votes: 2080

# Multiple Choice

## One Response vs. Multiple Response (CATA)

**Do you like ice cream?**

◯ Yes

◯ No

◯ I'm not sure

Directions read:

Select (circle, fill in, mark) one.

Provide instructions unless they are very obvious.

**What flavors of ice cream do you like? Please choose all that apply.**

☐ Vanilla

☐ Chocolate

☐ Strawberry

☐ Raspberry

☐ Lemon

☐ Mango

☐ Pistachio

☐ Almond

☐ Hazelnut

☐ Other (please specify)

Multiple response items may create analysis challenges. Use thoughtfully.

# Matrix of Choices

One answer per row versus multi-answer per row

**How often do you eat the following types of ice cream?**

|  | Daily | Weekly | Monthly | Yearly | Never (N/A) |
|---|---|---|---|---|---|
| Traditional ice cream | ○ | ○ | ○ | ○ | ○ |
| Gelato | ○ | ○ | ○ | ○ | ○ |
| Sorbet | ○ | ○ | ○ | ○ | ○ |

**My family likes the following flavors of ice cream:**

|  | Vanilla | Chocolate | Fruit or berry flavors | Nut flavors |
|---|---|---|---|---|
| Me | ☐ | ☐ | ☐ | ☐ |
| My Spouse | ☐ | ☐ | ☐ | ☐ |
| My Children | ☐ | ☐ | ☐ | ☐ |

# Likert/Rating Scale

Can be in a table or separate (multiple choice style) items

| | Not at all important | Slightly important | Somewhat important | Moderately important | Extremely important |
|---|---|---|---|---|---|
| **Quality of ingredients** | ◯ | ◯ | ◯ | ◯ | ◯ |
| **Flavor** | ◯ | ◯ | ◯ | ◯ | ◯ |
| **Texture** | ◯ | ◯ | ◯ | ◯ | ◯ |
| **Brand** | ◯ | ◯ | ◯ | ◯ | ◯ |

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# Comment/Essay Box/Open-ended

Requires qualitative (thematic) analysis. Ensure you have an analysis plan for these.

**Please describe your first experience with ice cream.**

**What is the first word that comes to mind when you think about ice cream?**

**Please list your top three favorite brands of ice cream.**

One

Two

Three

# Numerical Textboxes

**Consider hard codes for analysis.**
**In this example, that might be 1/month, at least 6 times per year, etc.**

**How many times per year do you buy the following flavors of ice cream?**

Vanilla

Chocolate

Strawberry

Pistachio

# Pre and Post Surveys

Pre survey

Intervention

Post survey
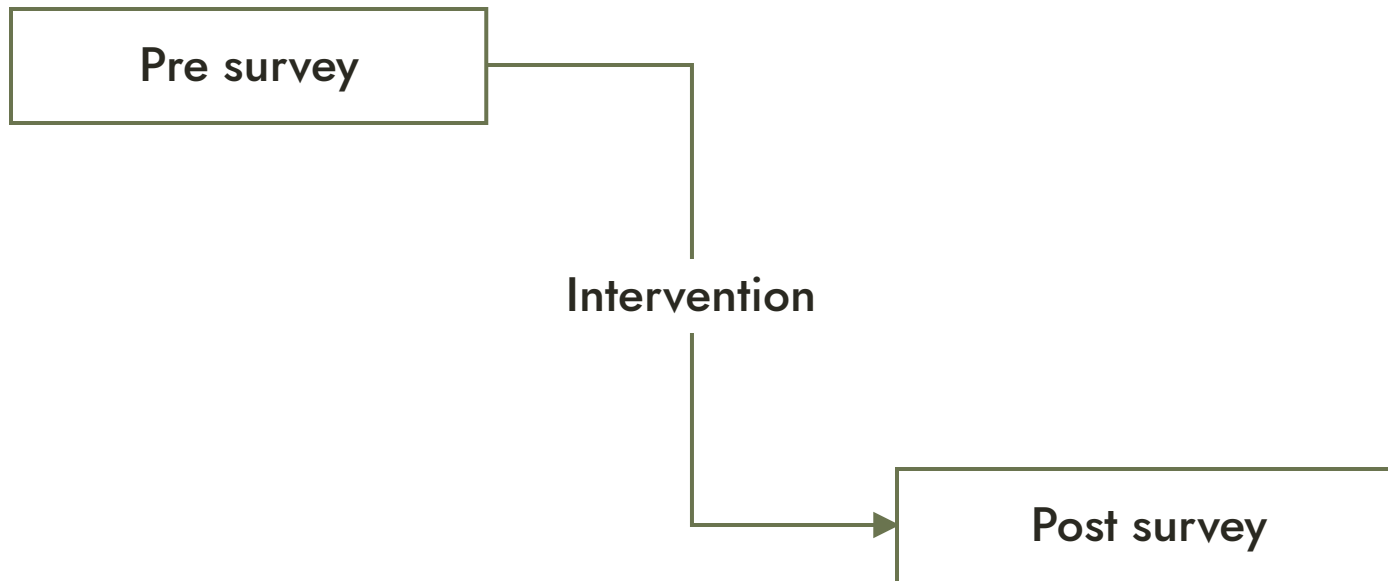
## Effective Uses of Pre/Post

1. Brief, well-constructed surveys with specific items linked to intervention

2. Careful mix of attitude, belief, and behavior items

3. Set targets (pre, post, change) (POST) - (PRE) = CHANGE

**If matching, you need a unique identifier.**

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# Pre-Post Survey Alternatives

**1** | Post Only (compare results to targets)

**2** | Retrospective Survey (aka Post-Pre-Post) that includes two questions for each item:
- Ask about behavior before
- Ask about behavior after

Percentage of families who agree or strongly agree that...

**Our family has sufficient food, shelter, and basic necessities.**

BEFORE: 63%

NOW: 83%
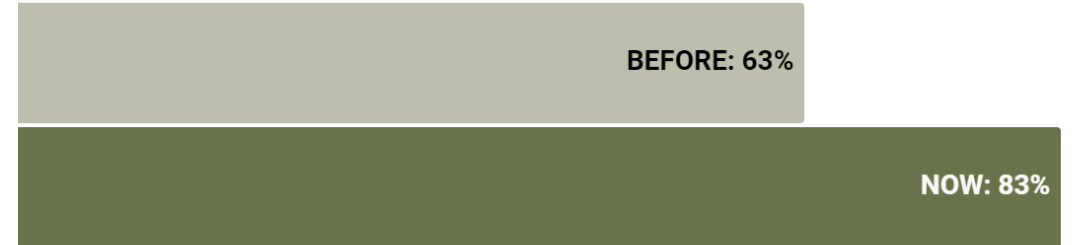
N=167

# Constructing & Finalizing Surveys

- **Consider sequence and flow**
  Lead in with easy questions, tough stuff in the middle, exit with easy questions
  Most important and interesting questions earlier in the survey
  Group similar questions together ("buckets")
  Consider order effect

- **Keep same number of points across scales if possible**

- **Think through demographics**
  Only questions being used to funnel a participant to a track should be at the beginning
  Those for classification purposes during analysis should be at the end
  Ensure answer options are exhaustive

- **Provide clear instructions throughout**

- **Pilot with a small group**

## Don't forget to set & clear the table

**Introduction should include:**

- Survey length

- Intended use

- Confidentiality vs anonymity

- Contact person for questions

**Closing should include:**

- Thank you

- Next steps if there's an incentive

# Survey Response Rate by Type of Survey

**10%**

**30%**

**35%**

**70%**

Mail Surveys

Online Surveys
(as low as 1-10% with no
history)

Phone Surveys
(as low as 10-15% with no
history)

In-person Surveys
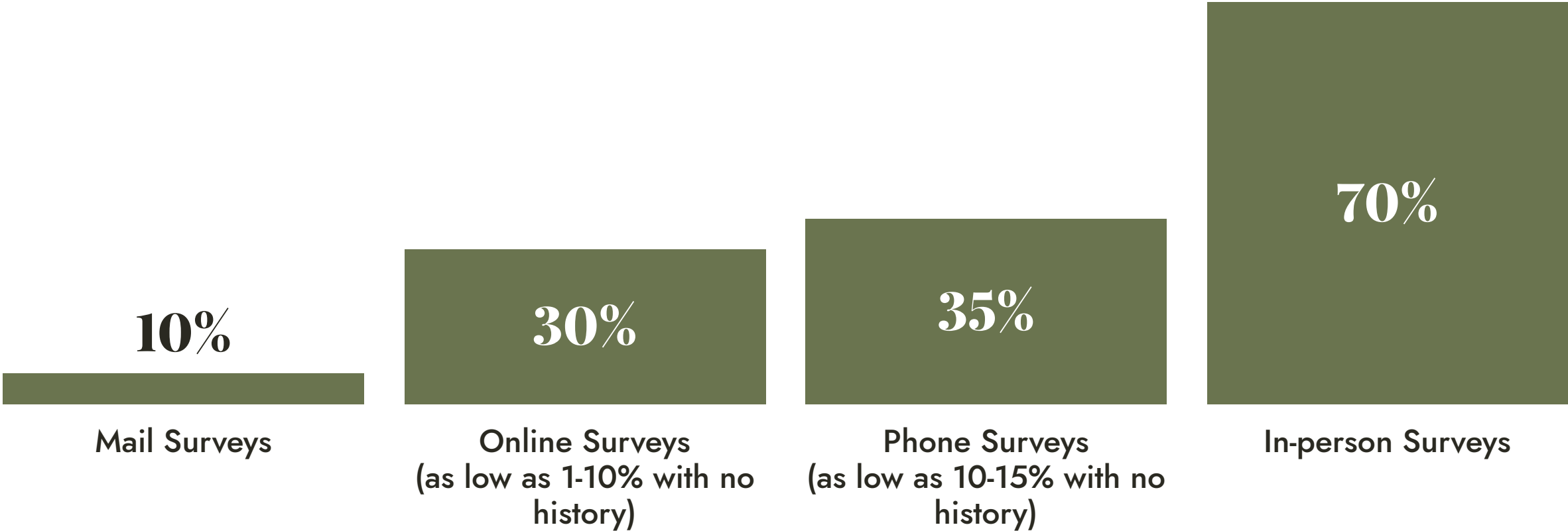
These data vary widely. These are means (averages) based on studies conducted by UConn and SurveyMonkey.

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# Survey Length and Completion Rate

The chance of someone completing your survey is directly related to how many questions you ask.

# Sampling Techniques

### Simple Random Sampling

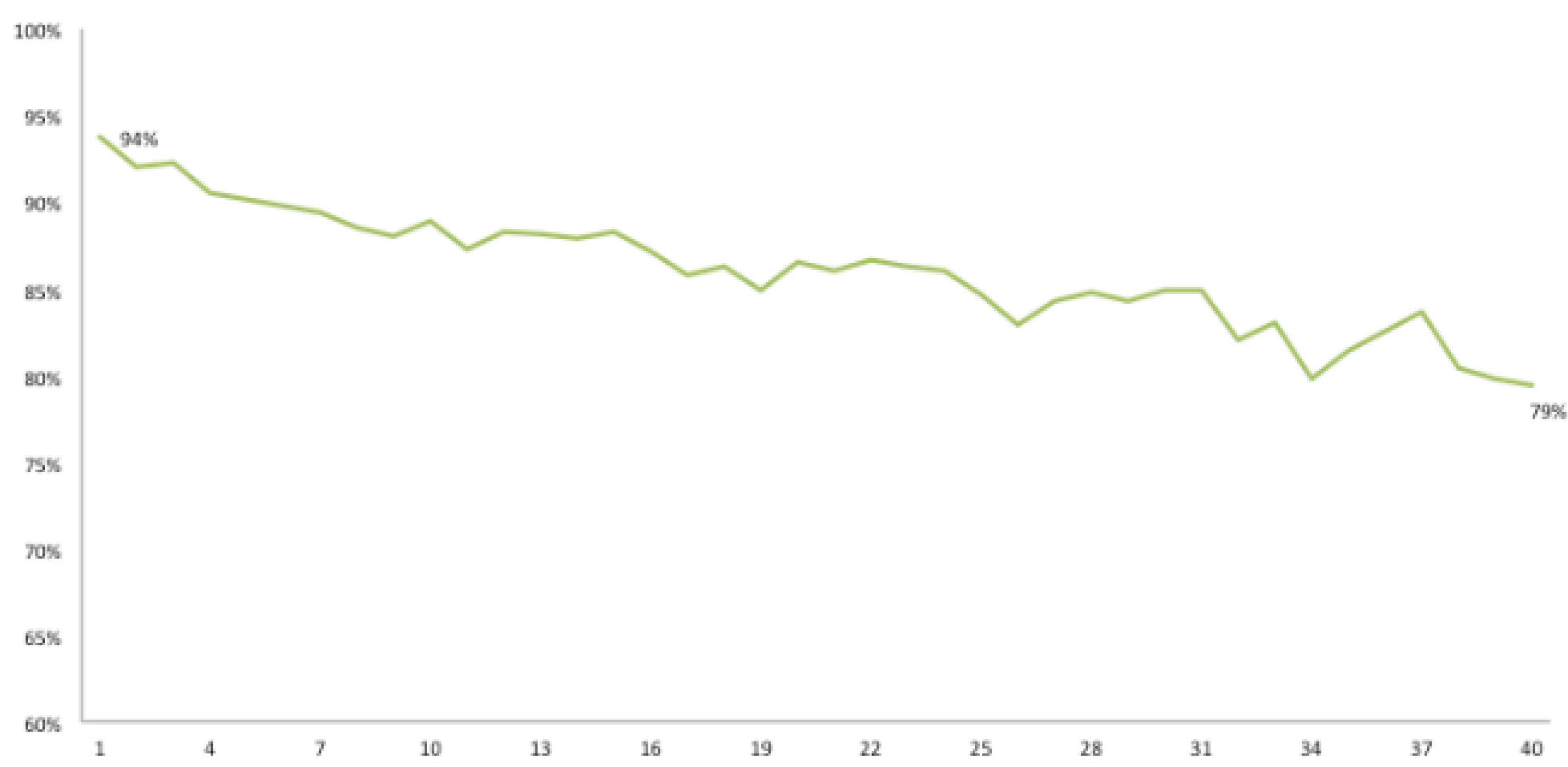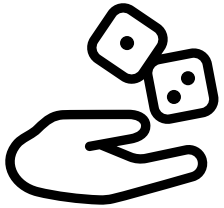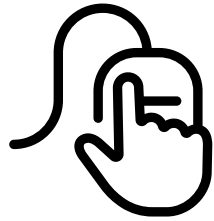Each element in the population has an equal chance of being selected, providing an unbiased representation of the population.

### Stratified Sampling

The population is divided into homogeneous subgroups (strata), and a random sample is taken from <u>each</u> stratum, ensuring representation of different characteristics.

### Cluster Sampling

The population is divided into mutually exclusive and exhaustive groups (clusters), and a random sample of clusters is selected for data collection.

### Selective Sampling

Non-probability method. Participants are selected based on specific characteristics or criteria relevant to the objectives.

These sampling methods provide different approaches to collecting data, each with its own strengths and applications depending on the objectives and the population.

# Tips for Increasing Survey Response Rates

- **Keep it Brief**

  Design concise surveys that are easy and quick for respondents to complete.

- **Offer Incentives**

  Provide small rewards or prizes to encourage participation and boost response rates.

- **Personalize Outreach**

  Tailor email subject lines, messages, and communication to each individual respondent.

- **Emphasize Importance**

  Clearly communicate the value and purpose of the survey to motivate participation.

- **Optimize Timing**

  Send surveys at optimal times when respondents are more likely to engage.

- **Intercept When Possible**

  In-person surveys have a higher response rate than any other method. Ask people to respond when they are with you, and make it as easy as possible for them.

THAT WAS A LOT.

# Take a break.

# Time For A Poll

Have you ever analyzed quantitative data?

- Yes

- No

- Sort of (explain in chat)

- Unsure

# Plan Your Analysis In Advance

Develop your analysis plan **before** you administer your survey.

- How will data be coded and recoded?

- How will data be broken out (disaggregated)?
  Consider breakdown by characteristics, time, dosage

- How will missing data be handled?

- What calculations will be done for what items?

- How and when will comparisons be made?

- Will statistical testing be needed? Which tests and why?

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# Most Common Quantitative Analyses

- Frequencies: How often something occurs as a count (e.g., 14 people like vanilla ice cream)

- Percentages: How often something occurs as a proportion of a total (e.g., 50% of people like vanilla ice cream)
  (FREQUENCY) / (TOTAL) * (100)

- Mean: Average

- Median: The middle value that appears in a sequence

- Mode: The most frequently occurring value (e.g., ice cream flavor selected most frequently as the favorite)

- Distribution: The spread of values in a response set

- Cross-tabulations: The relationship between two or more variables (e.g., Of the 14 people who like vanilla ice cream, 10 are over the age of 60. The remaining 4 people are between 2 and 5 years old.)

Useful second-level procedures: Means testing (ANOVA, T-Tests), Correlations, Regression analyses

# Survey Analysis Plan Sample

## Pro-Bono Legal Pre-Service(s) Survey

[*Organization name*] would like to better understand your needs and goals. Your responses are important for us to better serve you and to learn what is working about this program and what can be improved. Please be as honest as possible about your experience. This should take you no more than 10 minutes to complete. Your responses will be confidential.

**Q1 What is your name?**

○ First Name (1) _____

○ Last Name (2) _____

**Q2 What is your current age?**

▼ Under 18 (1) ... Over 65 (7)

**Q3 What is your legal sex?**

▼ Male (1) ... Prefer not to answer (3)

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**Elena Ragusa**

As a standing rule: report Ns for each data point based on how many respondents were included for that specific item.

Reply

**Elena Ragusa**

We are using this field to match up baseline and 6-month surveys. We will be analyzing everything throughout the survey in aggregate (everyone who answered the baseline and/or everyone who

Reply

**Elena Ragusa**

Calculate percentage in each category. Create a section on the brief summary entitled "Respondent profile," and within that section, report this as X% of respondents in each age group.

August 15, 2022, 12:51 PM

Reply

**Elena Ragusa**

Calculate percent in each category. Report in "respondent profile" section.

Reply

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# Survey Analysis Plan Sample, continued

Q9 How ***connected*** do you feel to your community?

- ○ Not connected at <u>all</u> (1)
- ○ A little <u>connected</u> (2)
- ○ Somewhat <u>connected</u> (3)
- ○ Very <u>connected</u> (4)
- ○ Not sure/hard to <u>say</u> (5)

Q10 How ***supported*** by your community do you feel?

- ○ Not supported at <u>all</u> (1)
- ○ A little <u>supported</u> (2)
- ○ Somewhat <u>supported</u> (3)
- ○ Very <u>supported</u> (4)
- ○ Not sure/hard to <u>say</u> (5)

Q11 How ***connected*** do you feel to your family members?

- ○ Not connected at <u>all</u> (1)
- ○ A little <u>connected</u> (2)
- ○ Somewhat <u>connected</u> (3)
- ○ Very <u>connected</u> (4)

---

**ER** Elena Ragusa

Create section for "Participant outcomes" . This goes there.

Calculate % in each category and put in a table with columns for "pre" (from this data set) and "post" (from the 6-month follow up data set)

August 15, 2022, 12:57 PM

Reply

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**ER** Elena Ragusa

Same as Q9

Reply

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**ER** Elena Ragusa

Same as Q9

Reply

# Characteristics of Effective Tables and Figures

### Clarity

Tables and figures should have clear and concise labeling and formatting.

### Consistency

Tables and figures should use consistent formatting, font styles, and units of measurement throughout the presentation.

### Accessibility

Tables and figures should be designed with accessibility in mind, ensuring that they can be easily understood.

# Survey Results: Table Example

| I think the Lutz Children's Museum is important to the town of Manchester because it. . . | Not Important | | | | | | Extremely Important |
|---|---|---|---|---|---|---|---|
| Allows people of diverse backgrounds, with common interests, to interact with each other | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Is an important partner with the local school districts | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Provides the town with a place for those who wish to spend their leisure time enjoying imaginary play | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Is a source of information on animals | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Creates a feeling of community by displaying artifacts reflecting the history, tradition, and diversity of local people | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Gives people an opportunity to learn about cultures they are less familiar with | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Allows people to connect with others in the community | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Is a contributor to the local economy because of the goods and services that it purchases | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Is vital to the local economy because it attracts tourists from out of town who spend money in Manchester | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Has events from which many local businesses can benefit | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

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# Survey Results: Table Example (Display)

**Table 3: Top Five Reasons the Lutz Children's Museum is important to the town of Manchester**

| The Lutz Children's Museum... |
| --- |
| Is a source of information on animals |
| Is an important partner with the local school districts |
| Creates a feeling of community by displaying artifacts reflecting the history, tradition, and diversity of local people |
| Gives people an opportunity to learn about cultures they are less familiar with |
| Provides the town with a place for those who wish to spend their leisure time enjoying imaginary play |

List developed based on aggregate ratings on a 7-point Likert scale of level of importance.

**Table 4: Respondents who believe the Lutz Children's Museum is extremely important to the town of Manchester**

| The Lutz Children's Museum... | % Responded "Very or Extremely" Important (n=X) |
| --- | --- |
| Is a source of information on animals | 62% |
| Is an important partner with the local school districts | 60% |
| Creates a feeling of community by displaying artifacts reflecting the history, tradition, and diversity of local people | 55% |
| Gives people an opportunity to learn about cultures they are less familiar with | 46% |
| Provides the town with a place for those who wish to spend their leisure time enjoying imaginary play | 41% |
| Has events from which many local businesses can benefit | 41% |

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# Survey Results: Pre-Post Table Example

## Pre-Survey

| Academic Skills | | Strongly Disagree ...... Strongly Agree | | | | |
|---|---|---|---|---|---|---|
| | | 1 NO 😔 Never True | 2 Not so True | 3 MAYBE 😐 Sometimes True | 4 Mostly True | 5 YES 😊 Always True |
| 1 | I study hard to be successful in school. | | | | | |
| 2 | I feel confident about my reading skills. | | | | | |
| 3 | I feel confident about my math skills. | | | | | |

## Post-Survey

| Academic Skills | | Strongly Disagree ...... Strongly Agree | | | | |
|---|---|---|---|---|---|---|
| | | 1 NO 😔 Never True | 2 Not so True | 3 MAYBE 😐 Sometimes True | 4 Mostly True | 5 YES 😊 Always True |
| 1 | I study hard to be successful in school. | | | | | |
| 2 | I feel confident about my reading skills. | | | | | |
| 3 | I feel confident about my math skills. | | | | | |

# Survey Results: Pre-Post Table Example (Display)

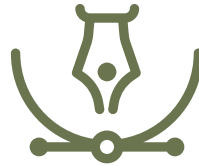| Question | Pre | Post | Change |
|----------|-----|------|--------|
| Q1 | 20% | 75% | +55 |
| Q2 | 10% | 50% | +40 |
| Q3 | 29% | 40% | +11 |



Confidence about Reading Skills

Before program (n=91)

After program (n=75)

0%  10%  20%  30%  40%  50%  60%  70%  80%  90%  100%

■ Mostly  ■ Always
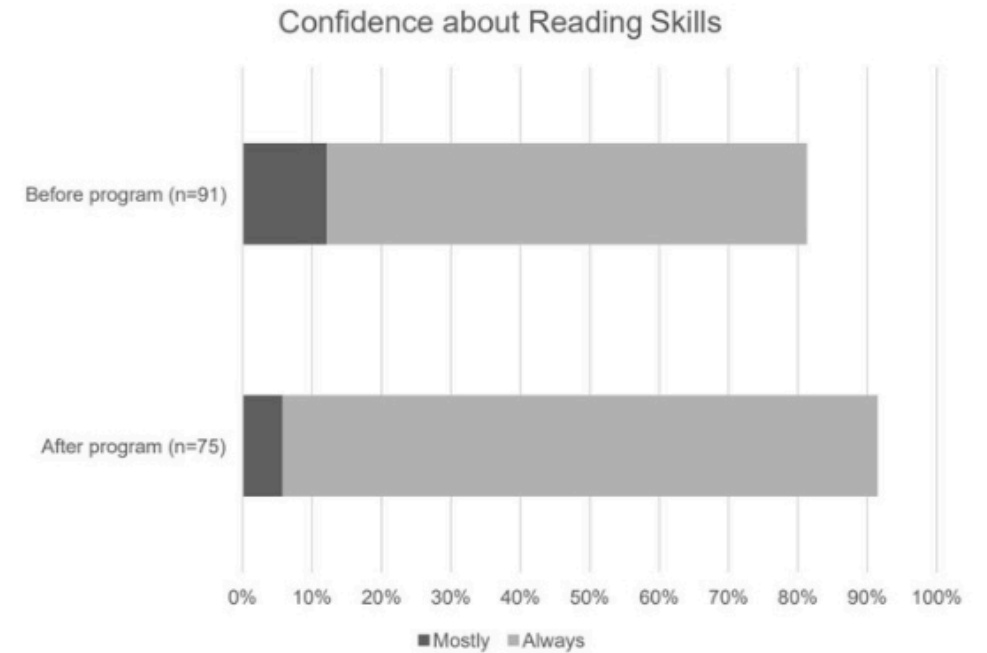
# Tips for Choosing the Right Graph

### When to use a Bar Graph

Use a bar graph to compare and contrast quantitative data across different categories or groups.

### When to use a Line Graph

Use a line graph to visualize trends and changes in data over time.

### When to use a Pie Chart

Use a pie chart to display the proportional size or percentage of different parts of a whole.
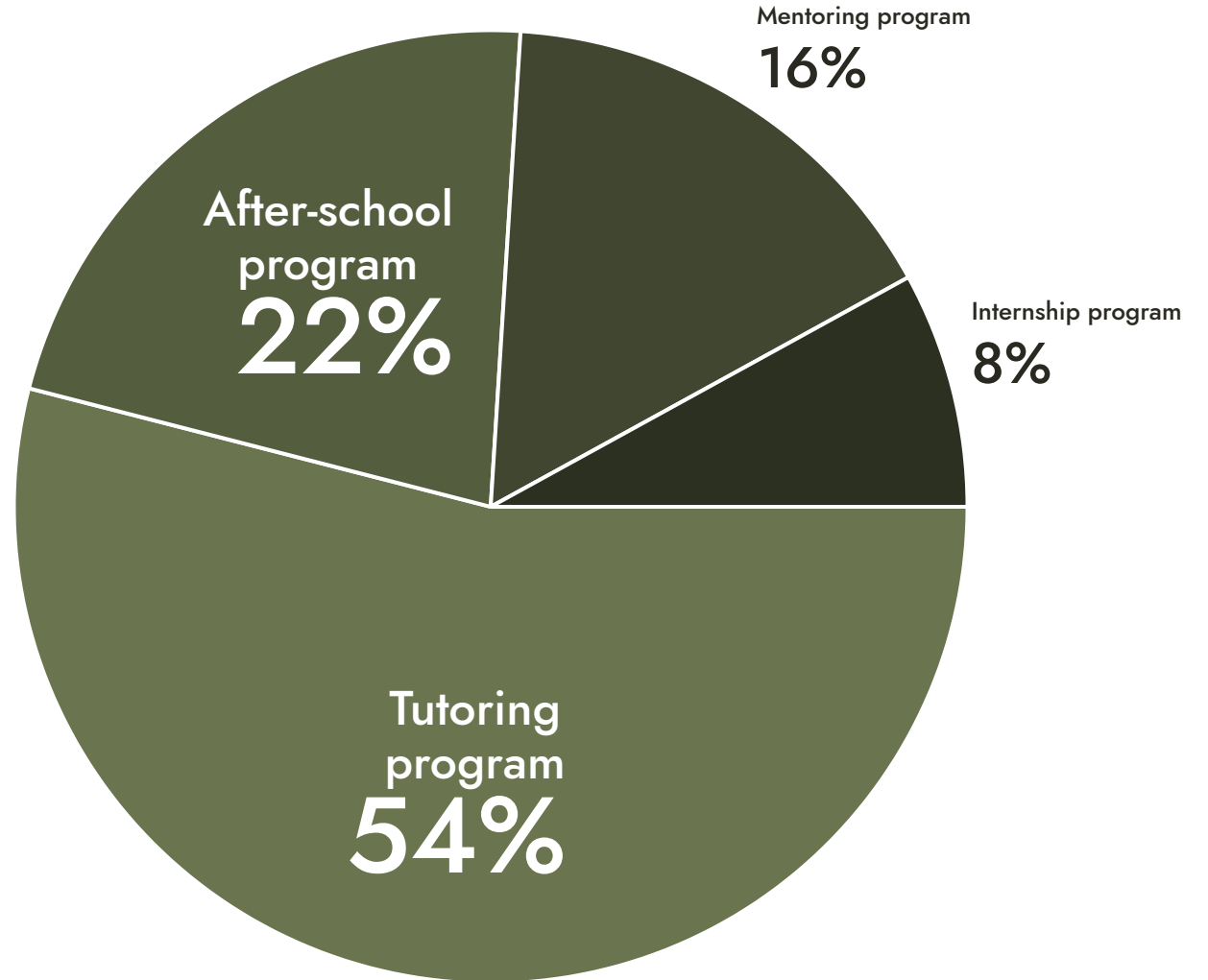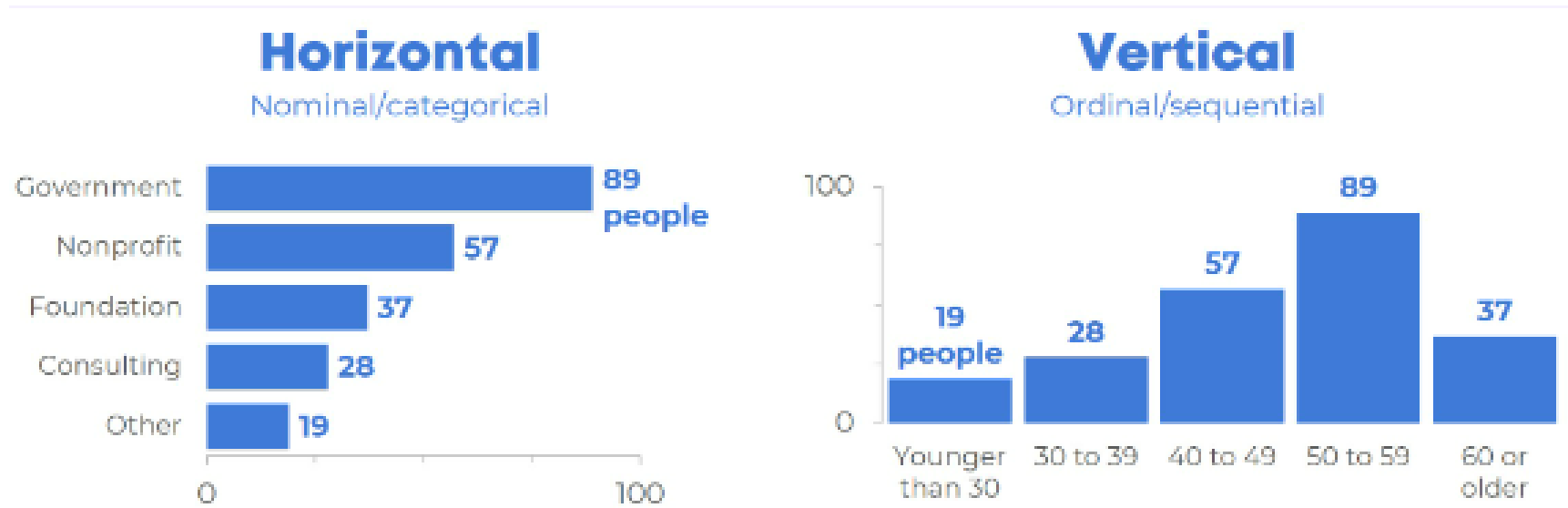
### When to use a Scatter Plot

Use a scatter plot to identify relationships and correlations between two variables.

# Pie Charts Show Proportions of a Whole

**Breakdown of Our 500 Participants by Program**

Mentoring program
**16%**

Internship program
**8%**

After-school program
**22%**

Tutoring program
**54%**
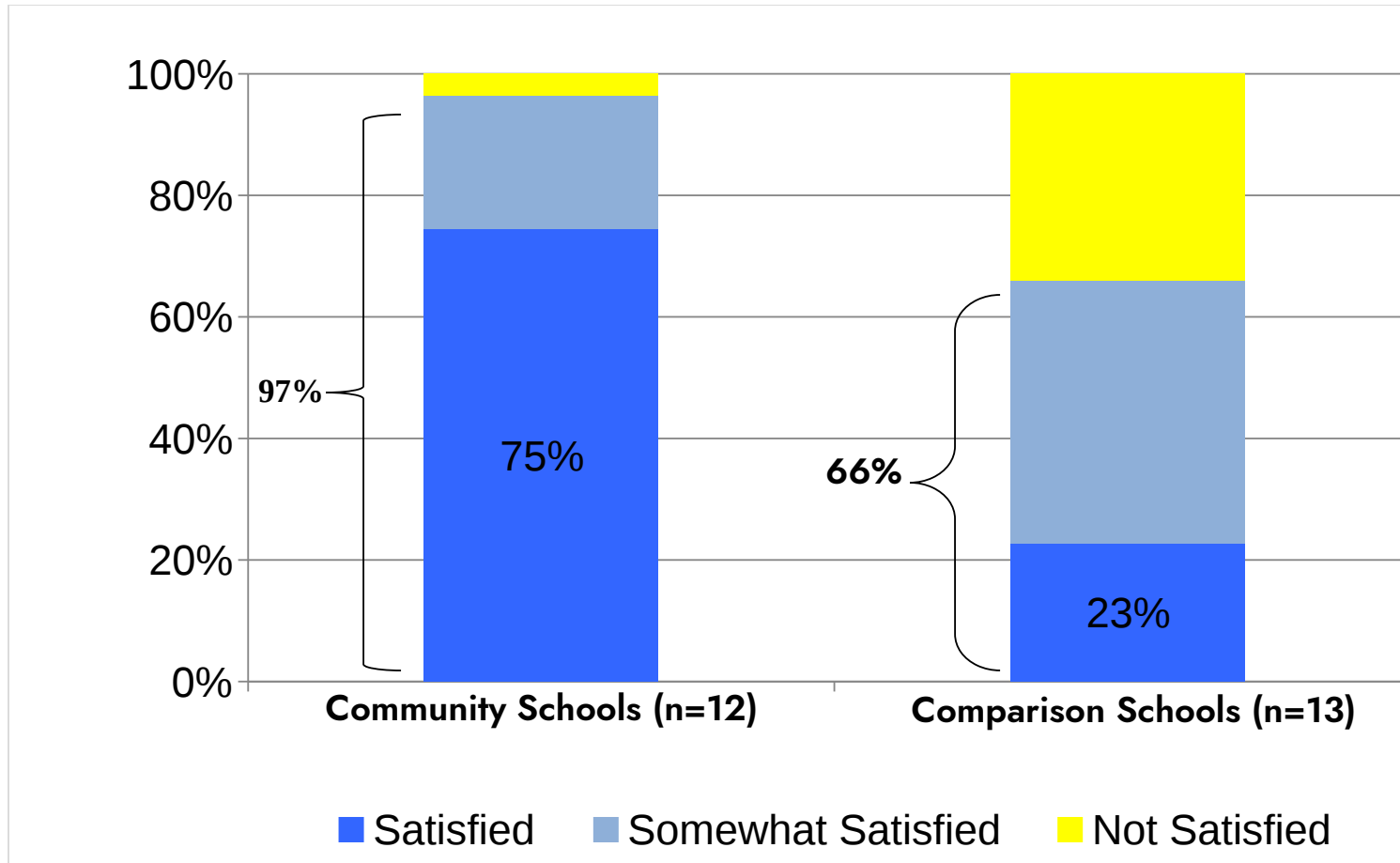
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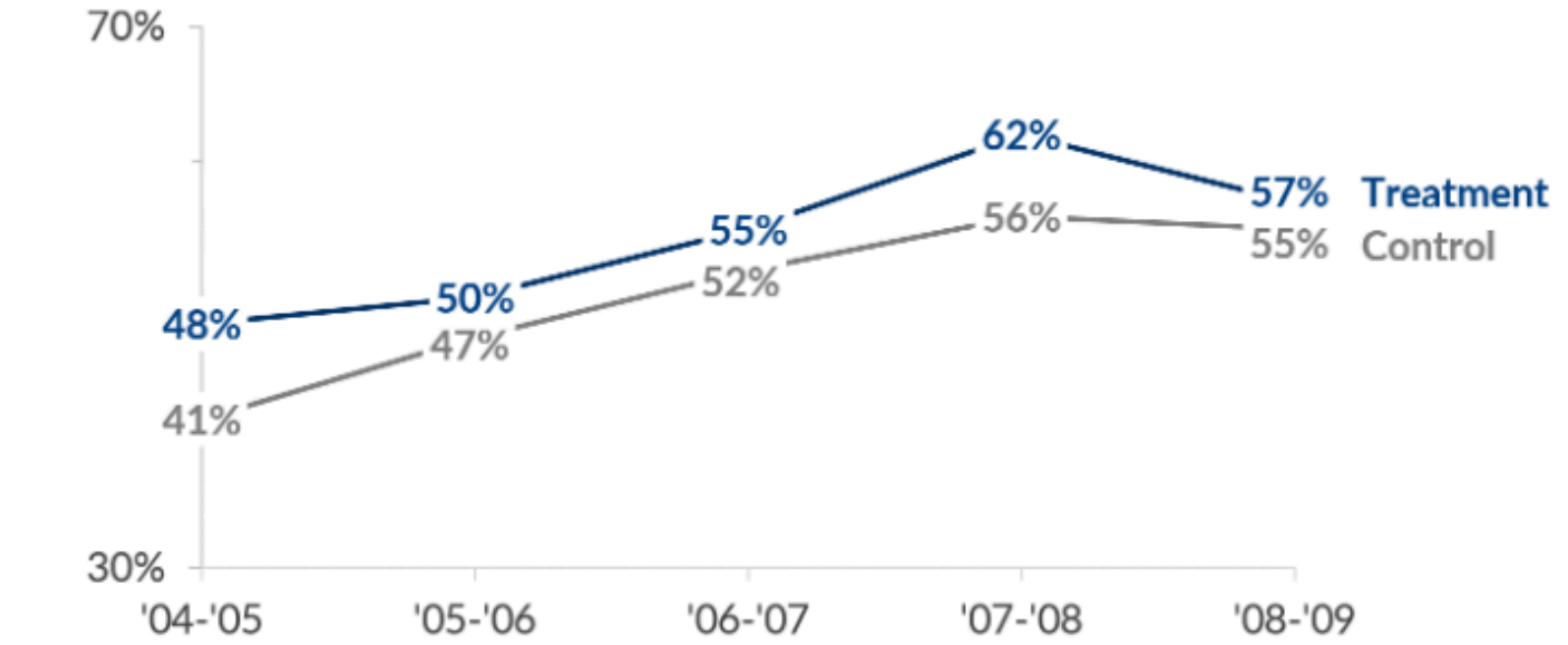# Bar Graphs Show Frequencies – Vertical & Horizontal

# Stacked Bar Graphs Show Proportions

Figure 3: Survey Results: Percent of Principals Who are Satisfied with 6th Grade Literacy Achievement at Community Schools and Comparison Schools

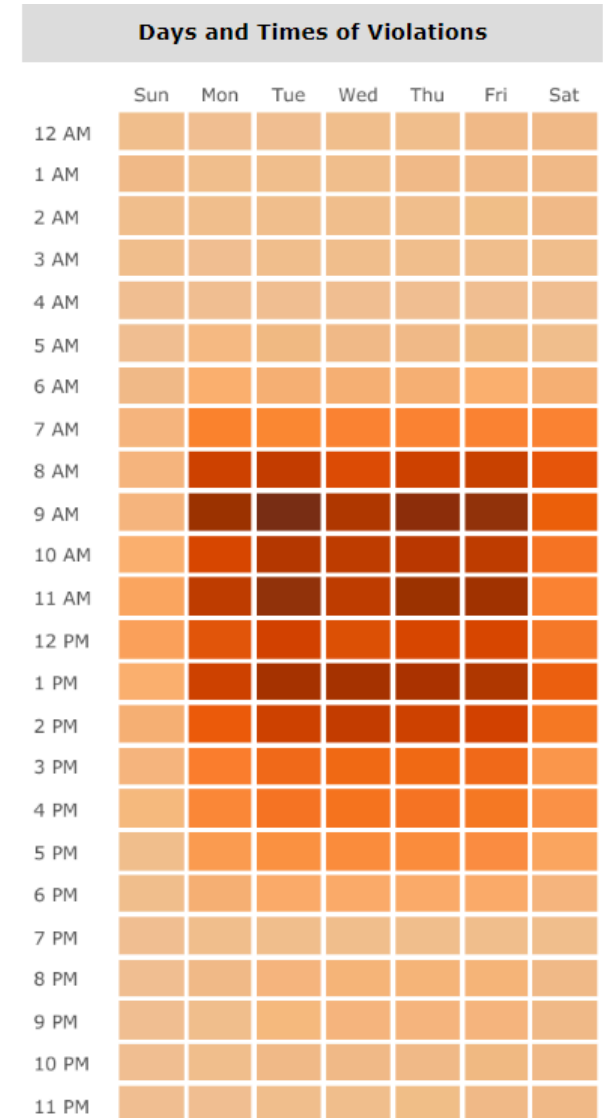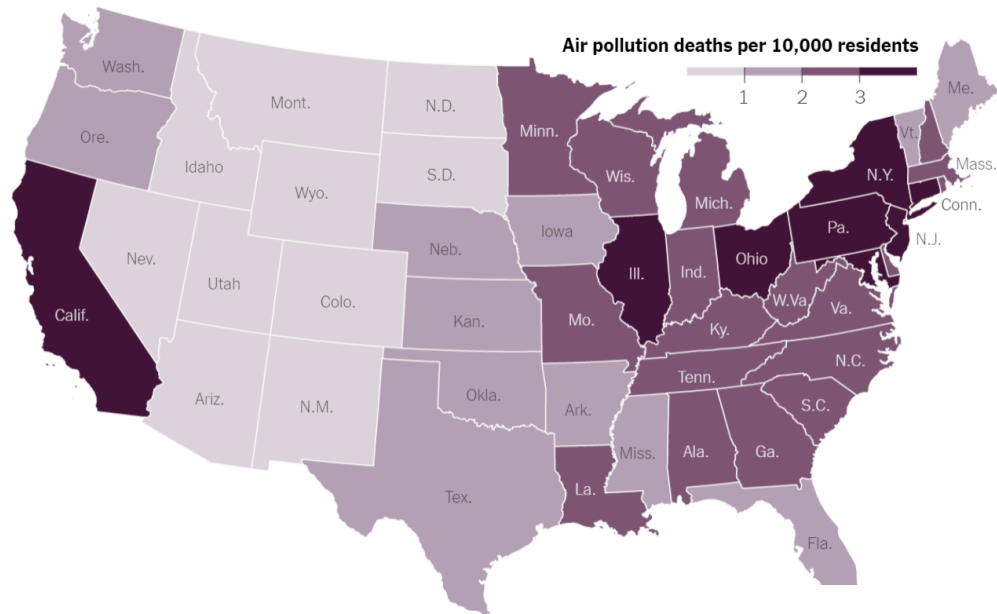# Line Graphs Show Change Over Time



Figure 1: Percentage of Students Passing the Third Grade Reading Assessment in Years 1 thru 5

Source: Depict Data Studio

# Maps and Other Displays

## Next Time: Infographics!



Air pollution deaths per 10,000 residents



Days and Times of Violations


Transform · options · import · count · frequency · Data · font · visualize · free · generator · Into · Insights · import · cloud · sentiment · color · word · customize · print · download

# Activity

# Reflection Using Evaluation Findings

"Now that we know _____, we will do _____."

- ## Questions to ask:

  What am I seeing that I already knew?

  What is something new I learned?

  What are some possible explanations for what I'm seeing?

  What could/should we do differently as a result?

- ## Possible steps to take:

  Create a document of key findings; consider variations by stakeholder group

  Share document(s) with stakeholders and have a sensemaking and action-oriented brainstorming discussion (strategize and plan)

  Try a new strategy and then re-examine (measure and monitor)

Consider natural opportunities for communicating findings such as in regular meetings, events, and annual reports.

Questions and Discussion

# Today's Summary

Surveys are the most common data collection method for answering questions about people's experiences, attitudes, beliefs, behaviors, and knowledge. Ensure surveys are well-designed and that data are analyzed and used accurately and ethically.

# Evaluation Mini-Series Components

**1**  Attend Session 1

**2**  Complete organizational homework

**3**  Attend Session 2

**4**  Schedule 1:1 consultation

# Homework

**Part 1:** Answer key survey planning questions.

**Part 2:** Design (or revise) your survey.

**Part 3:** Develop your analysis plan.

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## Hello, Evaluation Mini-series Participants!

This homework assignment has three parts. Work with others from your organization who attended the workshop to **complete it for your team before our next session on November 1, 2024.** You can also invite others to work with you on this, even if they did not attend. Make sure to give them a good overview of the material as a starting point for the assignment.

**Part 1:** Complete the items below to the best of your ability. This can be done for a new or existing survey.

**Part 2:** Design a survey with those answers in mind. Use the methods and best practices we discussed in our session. If you have an existing survey, review it and make notes for improvement.

**Part 3:** With a strong draft in place, design your survey analysis plan.

*Note that working on your analysis plan might necessitate revisions to the survey, just as revisions to the survey may change questions to answers in part 1. This is normal! Remember that this is an iterative - sometimes messy - process.*

Reference the session materials as needed, and email elena@driveevaluation.com with questions.

| Name of organization | |
|---|---|
| Individuals working on this assignment | |
| Program/initiative for which you are designing a survey | |

# Thank you!

**Elena Tamanas Ragusa, Psy.D.
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