

ANALYSIS OF DATA

NCAP Webinar Wednesday Series

April 12, 2023

ANALYSIS OF DATA
SOME EXAMPLES TO EXPLORE

Community action staff from around the network has indicated that they want to know more about how to analyze the data they are collecting and reporting.

We'll do a brief overview of basic concepts and then we'll dive into real-world examples.

In this session we will review several examples of data and tackle the kinds of information we might be able to extract from them and discuss how we can turn the information into accountability, accessibility, and knowledge.

Workshop Agenda

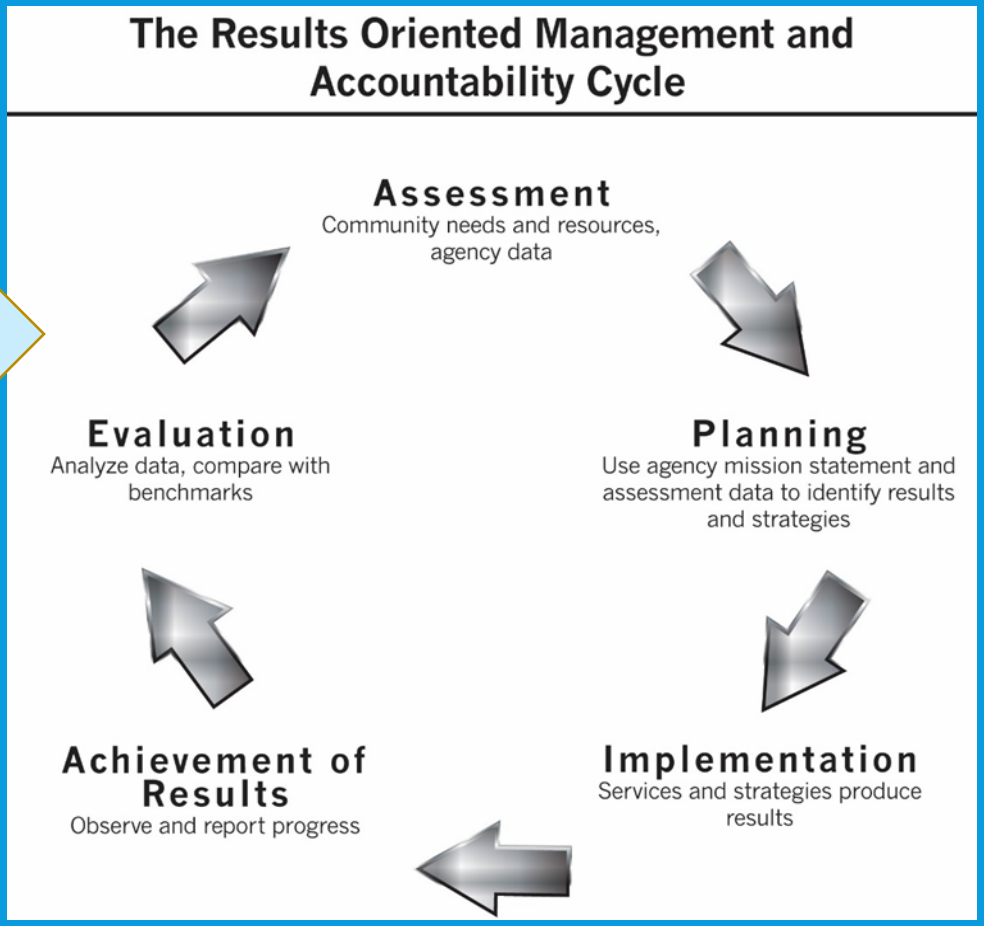
Presented by the Association of Nationally Certified ROMA Professionals (ANCRT)





SETTING THE CONTEXT

WHERE ARE WE ON THE ROMA CYCLE?



PEAAK

Performance

- Community Needs Assessment PEAAK
- ACSI
- Organizational Standards
- Accountability Measures*
- ROMA Next Gen

Evaluation

- Organizational Standards
- Accountability Measures
- ROMA Next Gen
- Monitoring
- Oversight

Accountability

- Monitoring
- Oversight
- CSBG State Plan
- CSBG Annual Report

Accessibility

- Making the CSBG Story available
  - ✓ OCS Annual Report
  - ✓ Congressional Report
  - ✓ CSBG Performance Management website

Knowledge

- How well do you know your CSBG Story?
  - ✓ CSBG State Plan
  - ✓ CSBG Annual Report
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BRIEF REVIEW

WHAT IS "DATA"?

Facts
or a set of well defined distinct objects
such as numbers or responses
that can be used for some practical purpose.



NUMBERS OR RESPONSES?

Qualitative

- Language/Letters
- Stories
- Depth and Breadth
- Focus Groups
- Notes
- Interviews

Quantitative

- Numbers
- Statistics
- Charts
- Graphs

RAW DATA

Unprocessed – Just a list of facts, numbers or other qualitative or quantitative "elements".

The raw data have some basic meaning but need to analyzed to turn them into information.

DATA, INFORMATION, AND KNOWLEDGE



Data is facts that are observed, measured, collected and aggregated.



Data only becomes information for decision making once it has been analyzed in some fashion.



Knowledge is derived from the interaction of information and experience with a topic.

FOR EXAMPLE

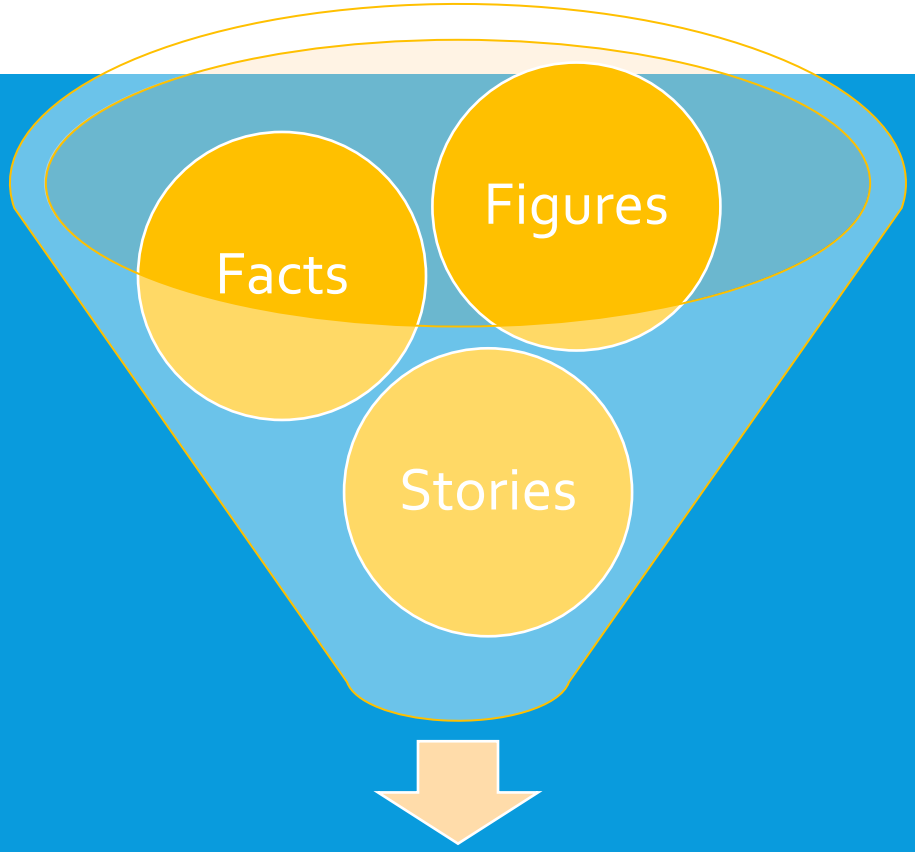


Data: 29,029 feet, location, climate, terrain.

Information: The combination of data elements to understand the conditions on the mountain.

Knowledge: Understanding how the information is related to the task of climbing and survival of the climber.

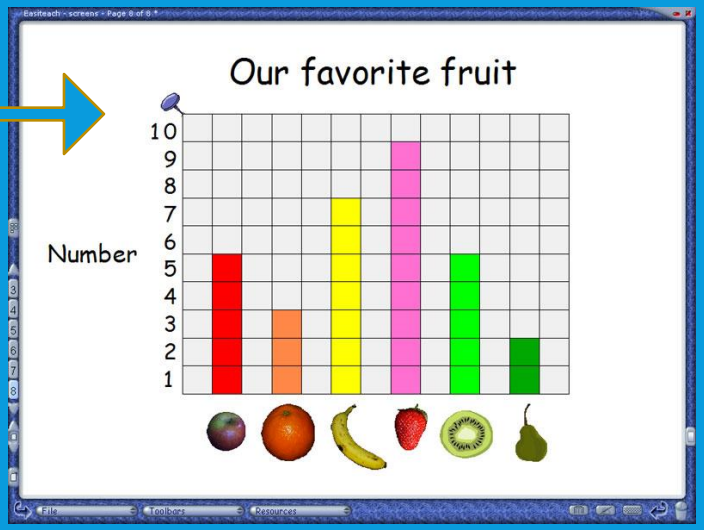
DATA ANALYSIS



WHY ANALYZE DATA?

- Remove outliers or obvious errors
- Question missing data
- Make comparisons
- Define, clarify the context
- Visualization

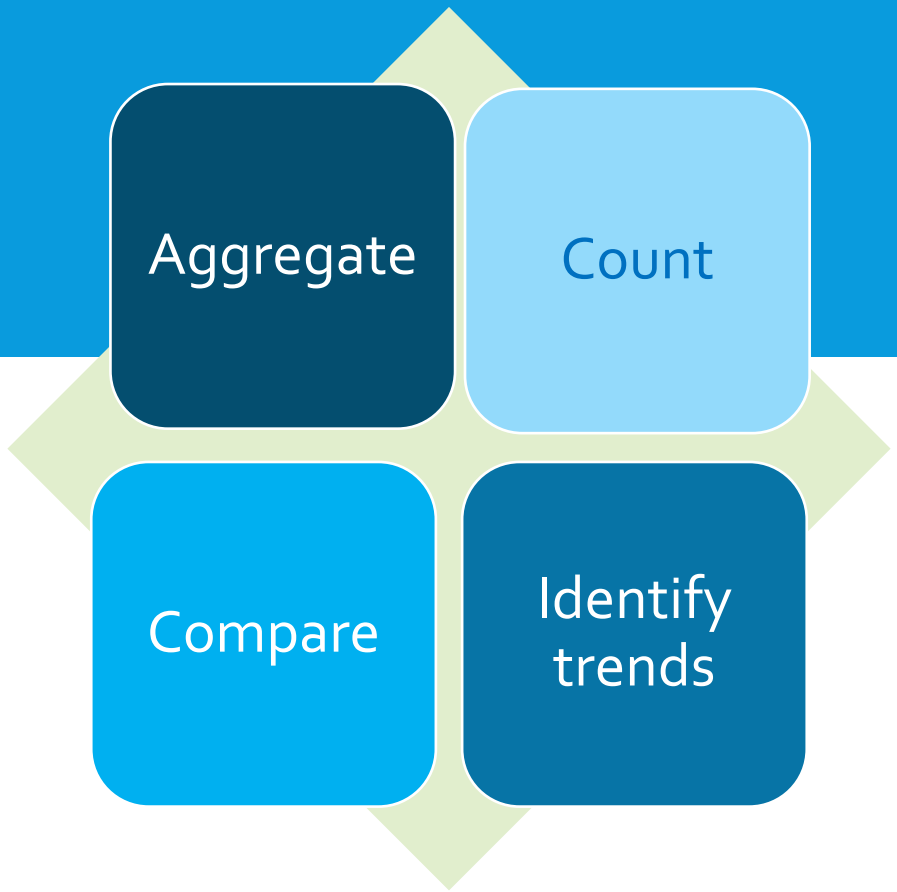
Strawberry wins!



VARIETIES OF DATA ANALYSIS

- Data mining
- Business intelligence
- Descriptive statistics
- Exploratory
- Confirmatory
- Forecasting
- Text analytics

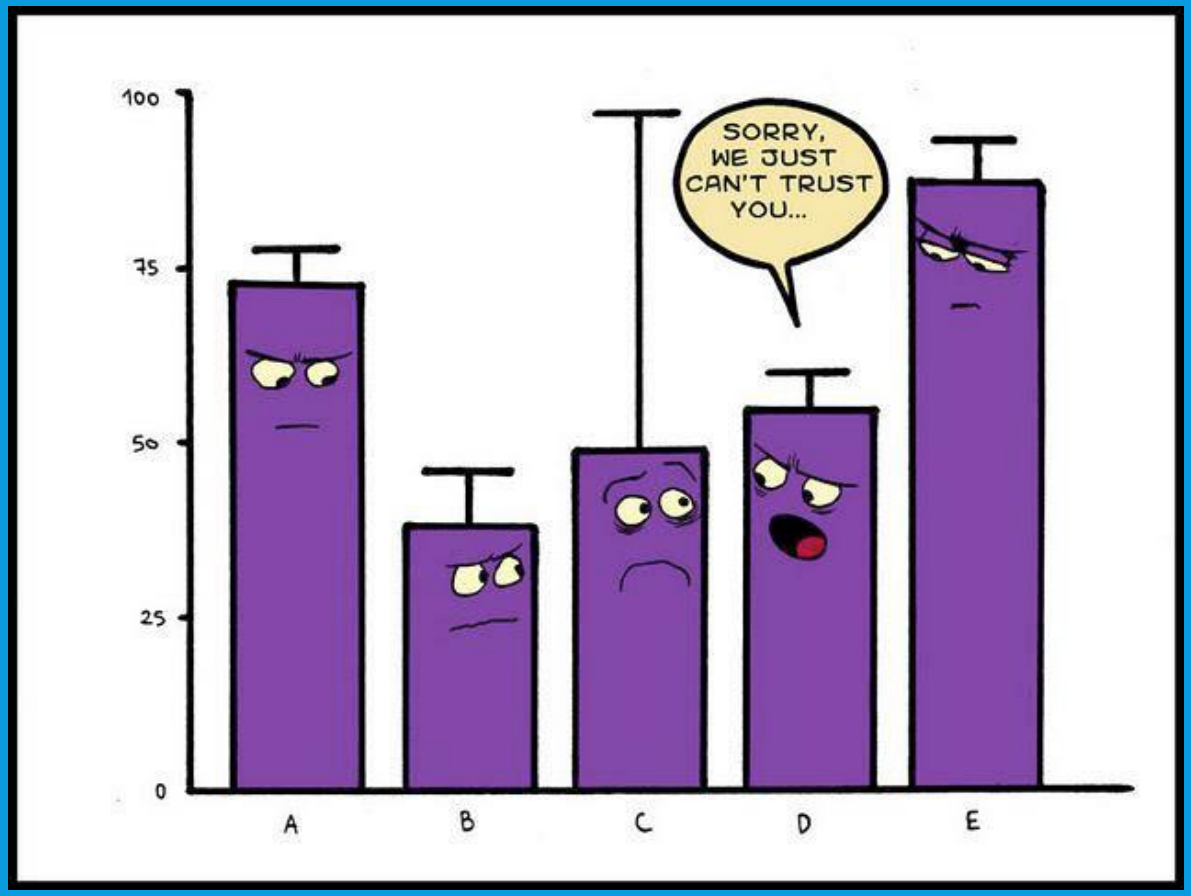
SIMPLE ANALYSIS TECHNIQUES



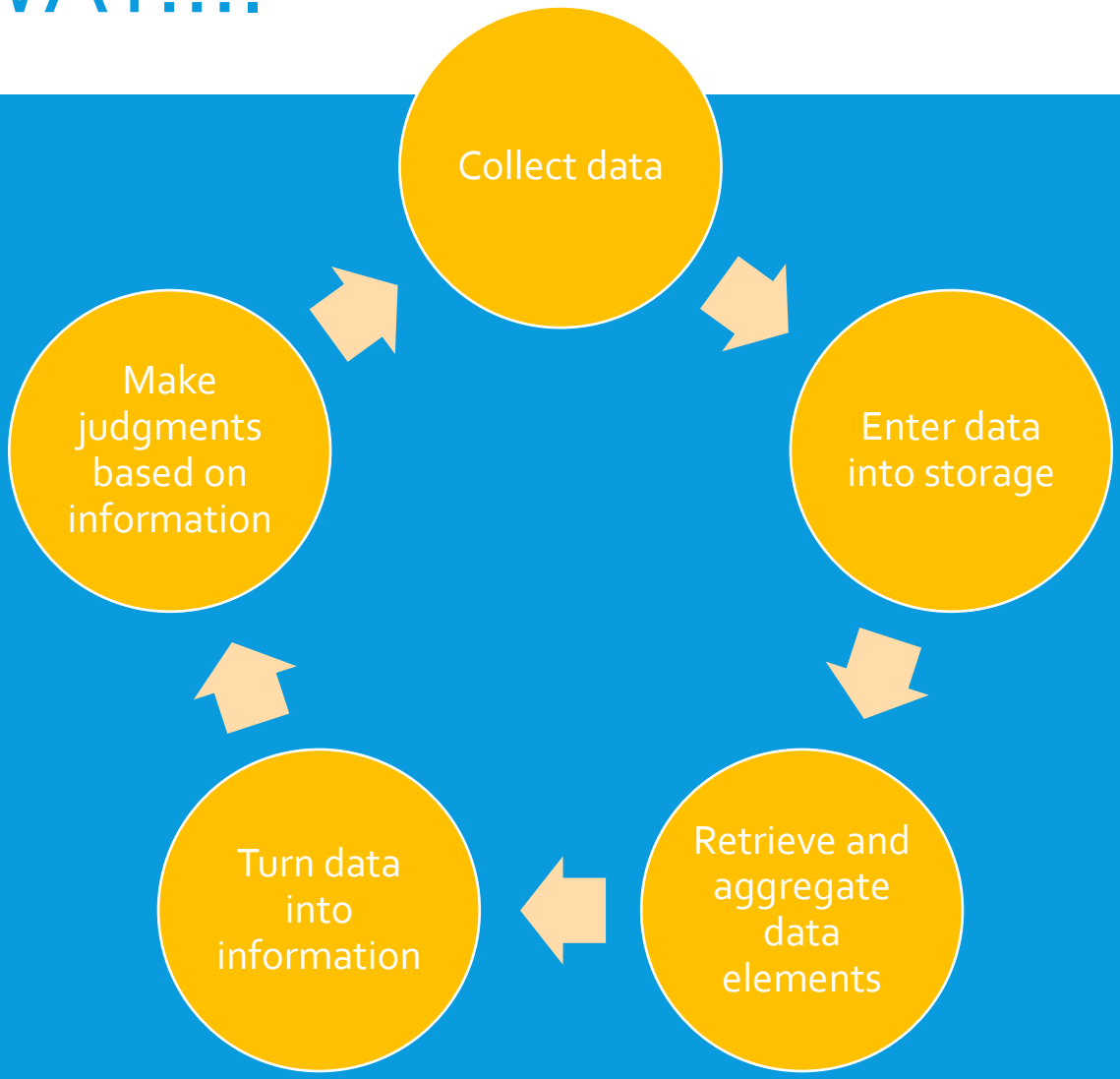
WHAT IF THE DATA IS FLAWED?

- Waste of time and money
- False impressions
- Poor forecasts
- Devalues decisions that follow

FLAWED DATA



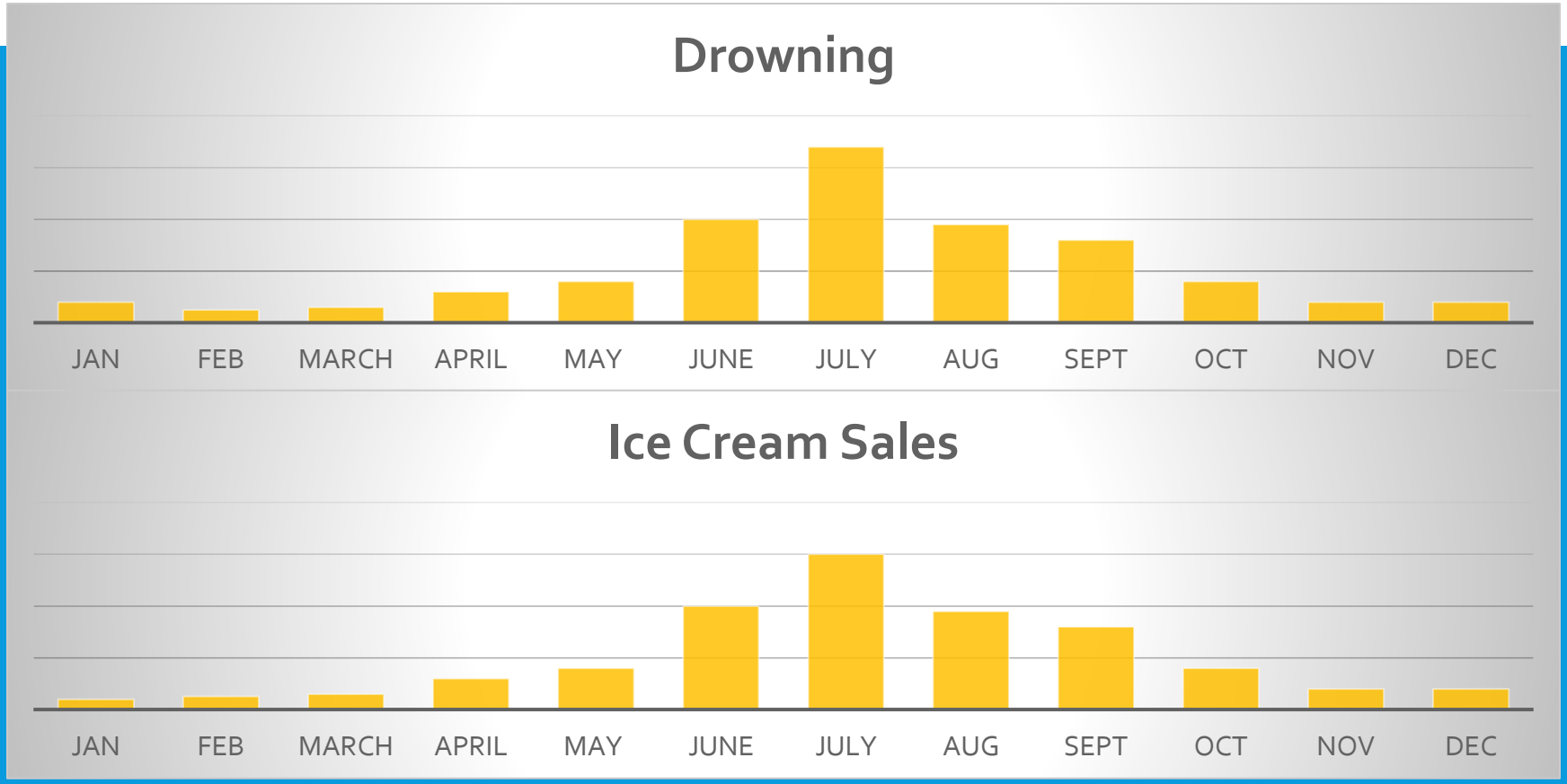
ERRORS CAN HAPPEN ALL ALONG THE WAY….

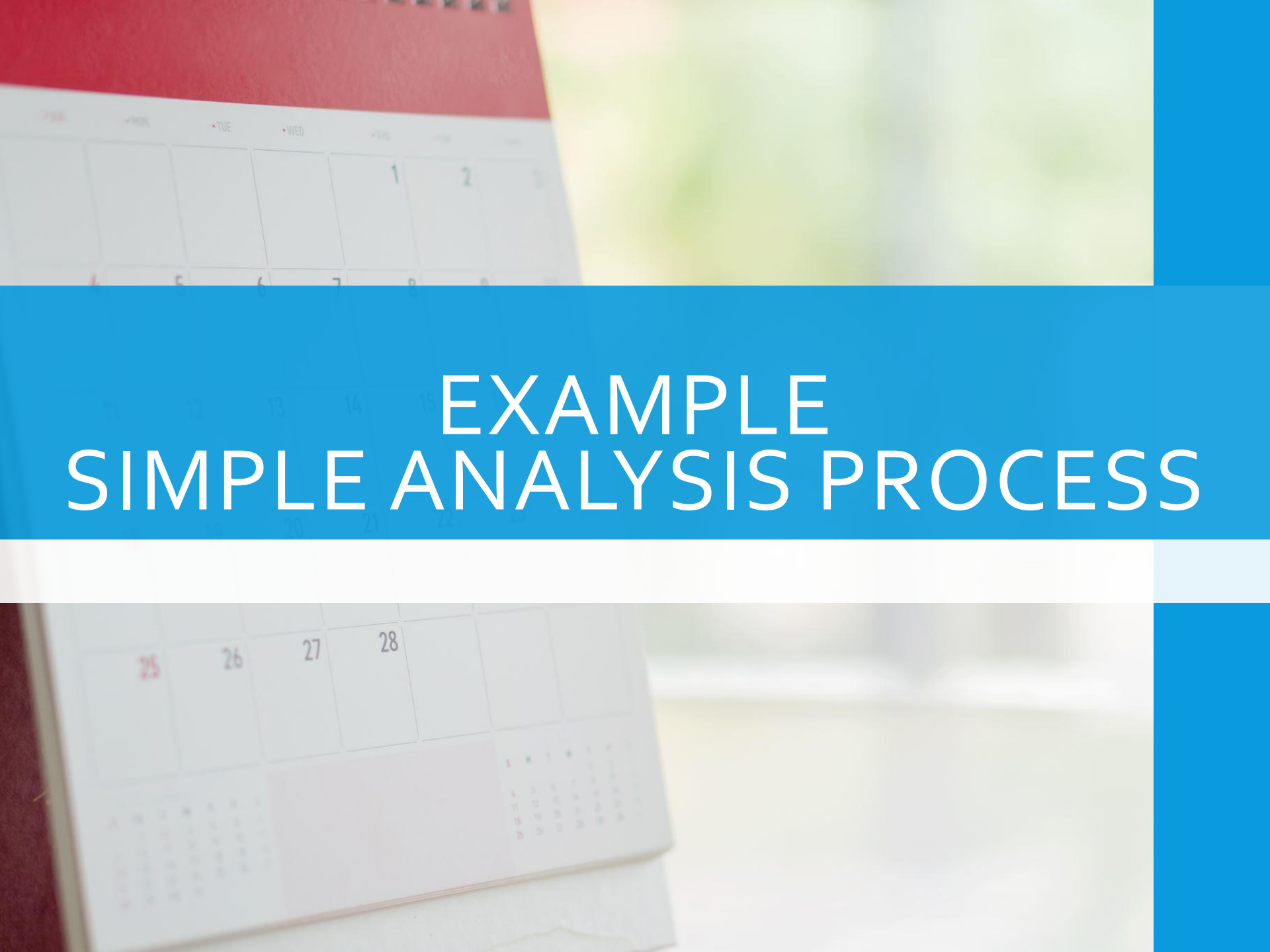





KNRM
LIFEGUARD
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ICE CREAM AND DROWNING



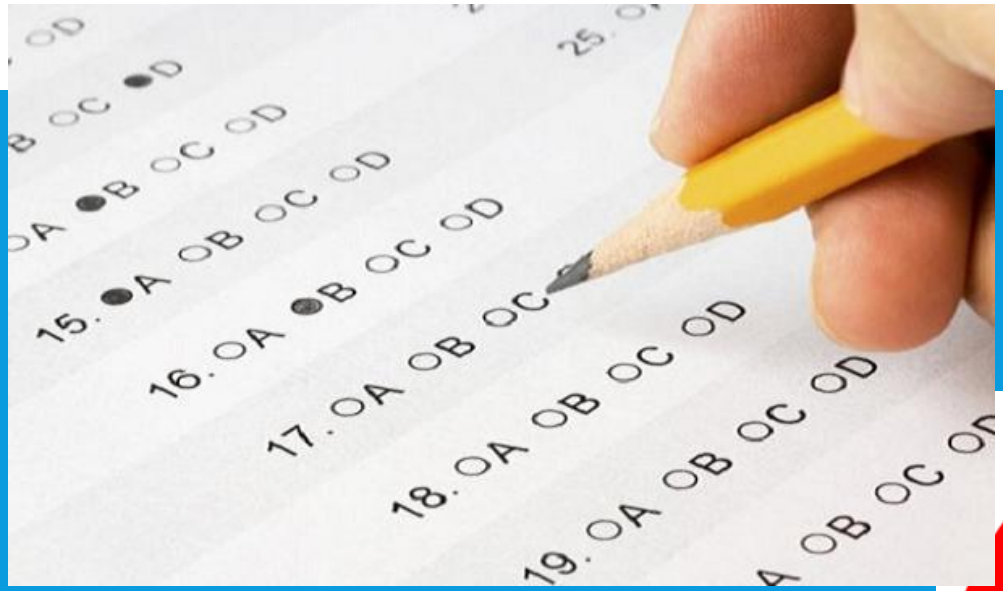


EXAMPLE
SIMPLE ANALYSIS PROCESS

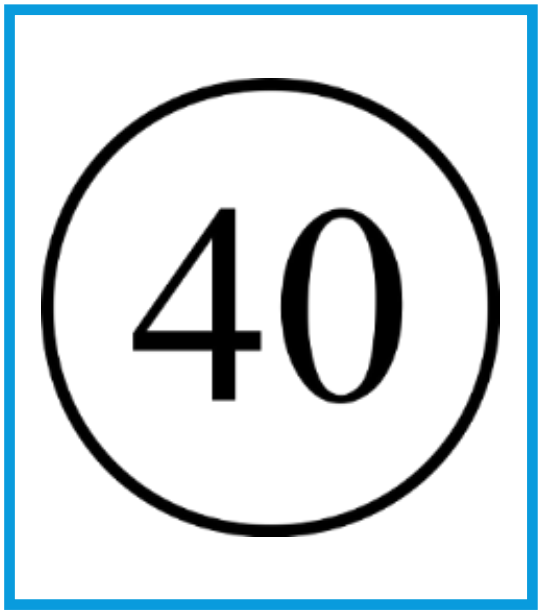
A CASE STUDY FROM ADULT EDUCATION

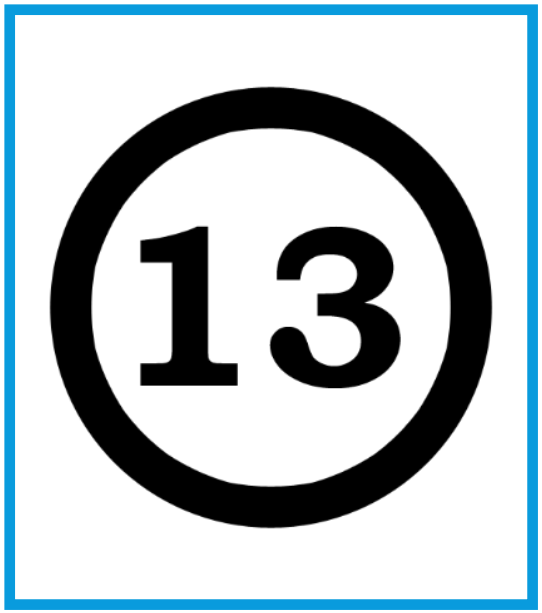
Look at the data, turn it into information and then use your knowledge to make a better impact in the future.

ADDING A NEW PROGRAM











END OF FIRST YEAR ANALYSIS

DIGGING DEEPER







CONSIDERING WHAT THEY DISCOVERED



USE THE DATA:

MAKE CHANGES

WHAT COULD CHANGE?



- New hours
- Measurement of progress
- Individualized Plan



EXAMPLES FOR PRACTICE

EXAMPLE 1 – WHEN YOU CONSIDER THE NUMBER OF CUSTOMERS SERVED:

Compare your customers to the total population in need:

- We served over 40,000 individuals and 16,000 households.
- This information can be compared to quantitative data provided in an earlier section of the CNA. The number of Southern Co. residents experiencing poverty in 2017 was identified as 90,851 individuals and 16,699 households.

- Possible findings:
  - Served 94% of households identified as "experiencing poverty"
  - The number of individuals is only about 45% of the number of families
  - - which may indicate a high number of single person households being served.
- Is there an agency need that you could identify from this data?

EXAMPLE 2 – WHEN THERE IS A NEW FACTOR:

Consider customer demographics:

- The number of agency customers in the "extremely low income" (under 50%) category has increased.

	2019	2022
up to 50%	135	250
51% to 75%	95	80
76% to 100%	50	30
101% to 125%	75	50
126% to 150%	12	30
151% to 175%	8	45
176% to 200%	5	80
201% to 250%	5	20
	385	585

Possible findings:

- The poor are becoming poorer despite resources and services being available.
- Root causes and characteristics of the under 50% populations have changed. How?

- Is there an agency need that you could identify from this data? What agency capacity is needed to better identify and more strategically serve this population.

EXAMPLE 3 – WHEN THERE IS A NEW FACTOR:

Consider customer demographics:

- The number of agency customers with incomes over 125% has increased.

	2019		2022
up to 50%	135		250
51% to 75%	95		80
76% to 100%	50		30
101% to 125%	75		50
126% to 150%	12		30
151% to 175%	8		45
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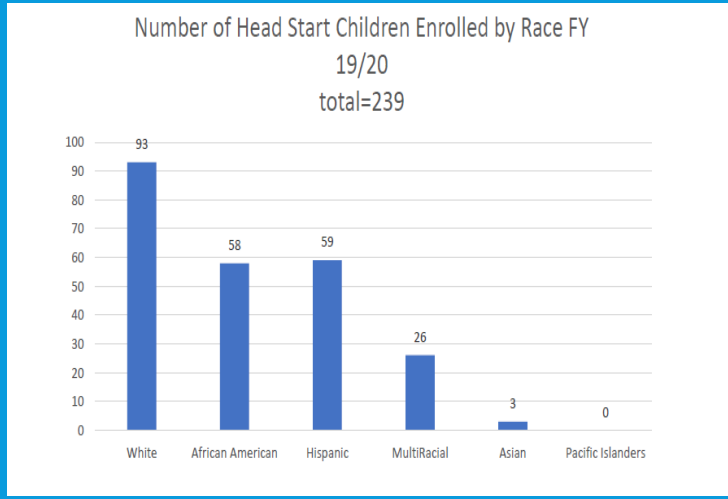
Possible findings:

- Eligibility levels increased bringing in families with different needs. What are the different needs?
- Has the service delivery process changed to meet needs for this population? Does it need to change?

- Is there an agency need that you could identify from this data? What agency capacity is needed to better identify and more strategically serve this population.

EXAMPLE 4 - WHEN THE AGENCY IS METING A NEED THAT DIDN'T SURFACE IN THE CN A:

- The *quantitative* data collected shows there is a high percent of children under the age of 5 years in low income families.
- The *qualitative* data does not show a need for early childhood services.
- *Agency data* shows that the agency provides a significant number of early learning opportunities through Head Start in various communities across our service area.



Therefore we can demonstrate the need for early learning, using the **number of children being served**. We demonstrated that there IS a need, and it is being met by our services.

- Is there an agency need identified here? Need to maintain the service?

EXAMPLE 5 – WHEN YOU CONSIDER THE SUCCESS OF YOUR PROGRAMS BEYOND ORIGINAL EXPECTATIONS:

"After enrolling my child in Head Start, I found out that there were also services for me! I was able to take classes to prepare me to take the GED test (for high school equivalency diploma) and now I am a high school graduate. I feel this will allow me to set a good example for my child – showing that I value education."

- What are the implications for agency capacity going forward?
- Is there an agency need you can identify from this story?

EXAMPLE 6 – WHEN SOMETHING DIDN'T HAPPEN THE WAY YOU PROJECTED:

We served more families but didn't meet our expected outcomes. So, what happened?

Self Sufficiency Case Management:

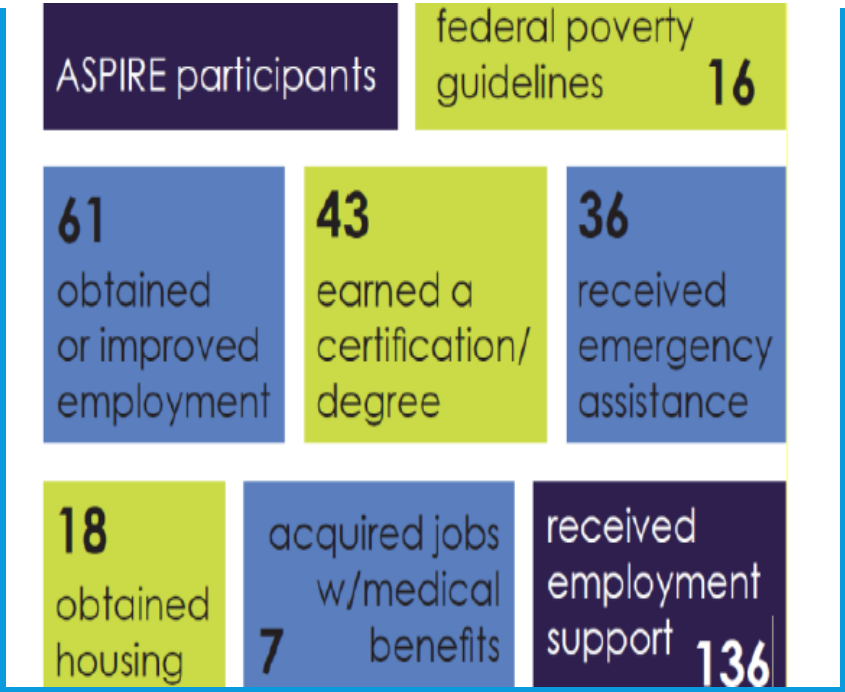
Self-Sufficiency is a case management program for low income families striving to exit out of poverty and obtain economic security.

Units of Service	Annual plan FY 19/20	Annual actual FY 19/20	Annual % FY 19/20
Families	50	54	108%
Employment Placements	10	1	10%
Moved out of poverty	5	2	40%
Obtained better employment	7	4	57%

EXAMPLE 7 – COMBINING DATA ELEMENTS TO TELL A COMPLETE STORY:

A lot of data elements in this snapshot:

- number served in the program (170),
- some specific types of service (emergency assistance and employment supports),
- and outcomes achieved (rose above poverty, obtained employment, earned a degree and obtained housing).



What are the implications for agency capacity going forward?

EXAMPLE 8 – USING DATA FROM SWOT ACTIVITY:

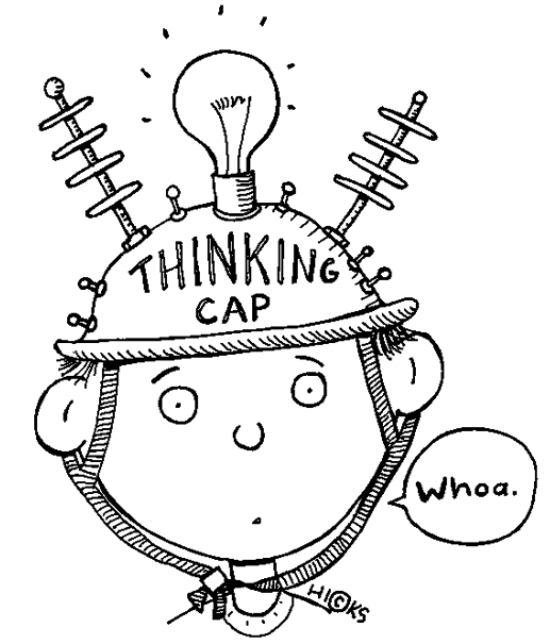
SWOT ANALYSIS

A SWOT analysis is the process of determining strengths and weaknesses (often seen as things that are helpful and harmful and internal to the agency), as well as possible opportunities and threats (external to agency). Members of the committee were asked to identify what they saw in each category. Below is the raw data collected during the 2022 SWOT analysis.

Mountain Projects, Inc. STRENGTHS and WEAKNESSES -Staff and Board of Directors

Area	Strength-Internal	Weakness-Internal
SERVICES TO FAMILIES	• Our services are vital to the community • Our services are based on needs	• Demand for services exceeds capacity to provide assistance
COMMUNITY RELATIONSHIPS	• Community Reputation and Support (x3) • Contacts with Haywood Commissioners	• Lack of Presence in Jackson County • Favorable Public Opinion • Not promoting Haywood Community College as a resource
AGENCY OPERATIONS	• Flexibility allows us to change course • Staff and Board follow protocols; overall understanding of agency programs offered by MP • Focus on planning and goal setting • Positive work environment • Transparency	• Limitations on financial accounting software and resources • Letting Philanthropist push person agendas • Communication • Too many projects/broad scope makes oversight a challenge/lots of goals (x4)
FISCAL	• Always looking for new resources • Knowledge of fiscal opportunities	• Not enough salary support • Lack of resources to meet needs of clients • Funding
MANAGEMENT, LEADERSHIP	• Strong leadership (x5)	
STAFFING	• Strong employees (x6) • Work ethic • Integrity • Unity of effort to achieve goals (team spirit, pitches in, staff go extra mile) • Compassionate, committed, dedicated, competent	• Full time HR Director • More staff in finance • Full time grant writer • Struggle to find and retain staff • Not enough staff (x5) • Lack of case managers • Staff vaccine resistance

CLOSING THOUGHTS



MAKE SURE YOU HAVE THE DATA AND THE INFORMATION



What story do we want to tell?

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- ACSI
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NEXT STEPS:



WHAT CAN YOU DO?

WHAT DO YOU NEED?

What is the first thing you will do?

Who will you talk to?

For more information



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