



# Baseline and Data Collection Methods

Alabama Department of Mental Health

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# BASELINE DATA



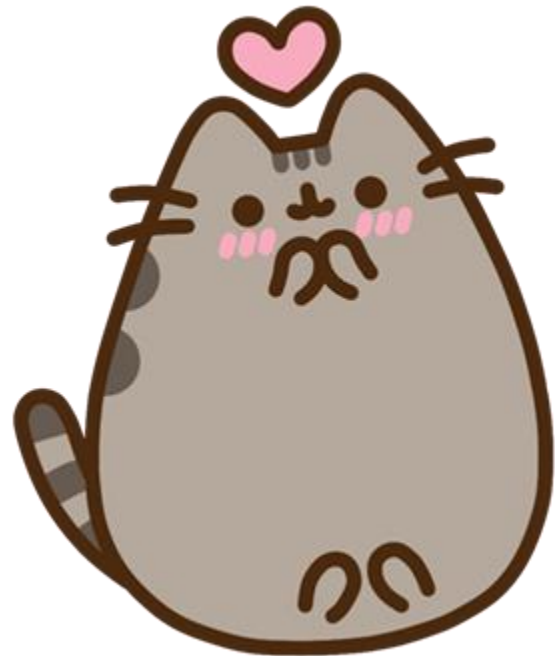
Baseline data is collected before any intervention has been put into place

- Allows for comparison of the behavior before and after plan implementation to determine effectiveness



Collect data  
on positive  
behaviors  
too!

Don't forget to collect data on the positive behaviors as well! If you are targeting task refusal, log when the individual completes the instruction immediately.

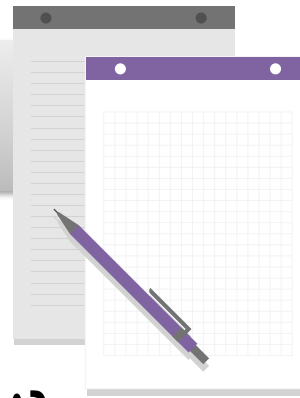


## Steps in measuring behavior



- Select a target behavior (s)
- Assess the target behavior (s)
- Define the target behavior (s)
- Identify if the behavior occurs not enough / too much
- Determine measurement system
- Graph data

# Define Behavior



- **Observable and measurable**

{What the behavior looks like, not how it makes you feel!}

Behavior	Defined
Off Task	
Poor organization and planning	
Disruptive / Outbursts	



## Gather Information

- Collect data on target behavior
  - Observations
  - Interviews
  - Record review / past information
- Look at the antecedents
- Look at the consequences

Date / Time	Duration / Intensity	ANTECEDENT	BEHAVIOR	AFTER	Notes:
	<input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	<input type="checkbox"/> Alone <input type="checkbox"/> Given demand/instruction/ correction <input type="checkbox"/> Denied access to item / activity <input type="checkbox"/> Attention to others <input type="checkbox"/> Transition <input type="checkbox"/> Preferred activity interrupted <input type="checkbox"/> Asked to wait <input type="checkbox"/> Other:	<input type="checkbox"/> Yelling / Arguing <input type="checkbox"/> Throw Objects / Property Destruction <input type="checkbox"/> Flopping / refuse to look at speaker <input type="checkbox"/> Physical Aggression <input type="checkbox"/> Verbal Refusal <input type="checkbox"/> Lying / Embellishment <input type="checkbox"/> Running Away <input type="checkbox"/> Hurting Self <input type="checkbox"/> Screaming/ Cursing <input type="checkbox"/> Other:	<input type="checkbox"/> Left Alone <input type="checkbox"/> Continued with Demand <input type="checkbox"/> Changed Subject/ Demand <input type="checkbox"/> Given New Activity/ Task <input type="checkbox"/> Removal of Activity/ Task <input type="checkbox"/> Verbal Reprimand <input type="checkbox"/> Given access to item / activity <input type="checkbox"/> Ignored <input type="checkbox"/> Time Out / Loss of Privilege <input type="checkbox"/> Calming/ Soothing (touch/ voice) <input type="checkbox"/> Other:	

# OUTLINE THE BEHAVIOR

- Notice strengths
- Identify possible fast triggers
- Identify possible slow triggers
- Outline consequences
- Is the behavior occurring too often or not frequently enough



BASELINE		
DEFINE TARGET BEHAVIOR	TYPE OF DATA COLLECTION:	POSSIBLE REPLACEMENT BEHAVIORS/ NOTES
<b>Staff Initials:</b> _____ <b>DATE:</b> _____ <b>TIME:</b> _____ <b>Record any triggers, strengths, consequences, etc. that may be helpful</b>		
DATA & NOTES:		
<b>Staff Initials:</b> _____ <b>DATE:</b> _____ <b>TIME:</b> _____		
DATA & NOTES:		
<b>Staff Initials:</b> _____ <b>DATE:</b> _____ <b>TIME:</b> _____		
DATA & NOTES:		

# Functional Behavior Assessment

## IDENTIFY PROBLEM BEHAVIOR(S)

Gather data and complete interviews

Organize Data

Hypothesize Needs

Develop Behavior Plan

Implement Behavior Plan

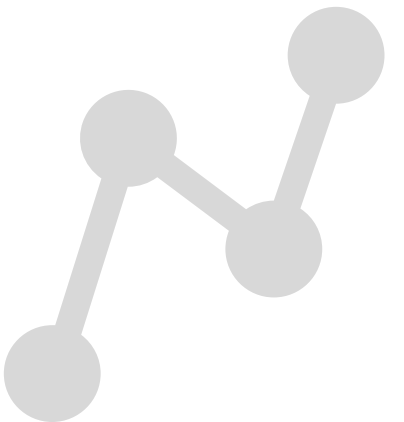
Evaluate Behavior Plan

Review and Revise!!!!

# COLLECTING BEHAVIOR DATA

- Frequency
- Duration
- Latency
- Intensity
- Anecdotal Reports
- Time Sampling

All behavior occurs within a **context**. It may not be the actual form of the behavior that is inappropriate, but the duration, intensity, or rate with which the behavior occurs.



# FREQUENCY RECORDING

Only use for situations when the behavior has a clear beginning and end!

Pro: Easy for staff to collect data

Con: May not be the best method of data collection for long lasting behaviors

**Definition:** the number of times an individual engages in a behavior within an observation period.

**Measurement:** count incidents of behavior (tally marks)

**Examples:**

- Number of instances of yelling “DONUT” during 15 minutes of meal prep practice.
- Number of positive statements made by staff during a 20-minute period.



# DURATION

Duration is great for high-rate behaviors that have a clear beginning and end.

Pro: Recording total length of an episode is often more accurate and reliable than counting each instance for longer occurring events.

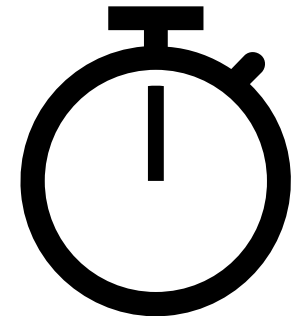
Con: You aren't recording the total number of incidents within an episode

**Definition:** how long an individual engages in a behavior

**Measurement:** timing how long an individual engages in...  
...one instance of behavior  
...one behavior throughout a period (cumulative)

**Example:**

- Individual was on task and completed all steps during a 15-minute meal prep practice.



# LATENCY

Great for tracking how long it takes someone to complete a task! Good data method for social goals / learning objectives.

Pro: Great way to track if an individual is becoming more independent with a skill.

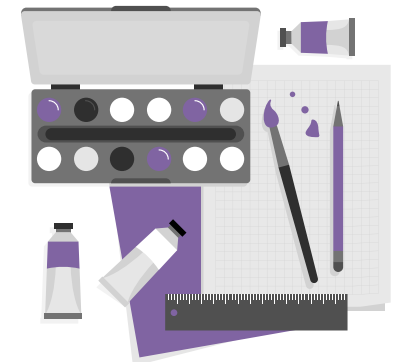
Con: Only useful method if you are providing a CLEAR instruction before you want a behavior to occur

**Definition:** the amount of time between the instruction and a behavior

**Measurement:** timing interval between instruction and when student begins to perform

**Example:**

- Individual begins completing chores 5 minutes after instruction was given.
- Individual completes a task independently for 7 minutes before asking for a break.



# INTENSITY

Useful for gauging priority level for particular behaviors or skill.

Pro: Intensity is helpful for individuals with several high rate behaviors that vary in severity.

Con: Can be subjective depending on who is scoring. It may be best to have a criteria for collecting intensity data.

**Definition:** the severity of a behavior

**Measure by:** observation (subjective) or apparatus designed to measure intensity

**Example:**

- Individual hit hard enough to leave a bruise/scratch
- Individual spoke loudly enough to be heard
- Sound sensitive traffic lights in cafeterias
- Rating day on a 1 (quiet) to 5 (dangerous to self or others) scale

Level 1	Level 2	Level 3
Less than 5 minutes	5-10 minutes	Over 10 minutes
No property damage	Property damage up to \$50	Property damage over \$50
Audible from the same room	Audible from outside of room	Audible from outside of building
No risk of injury	First Aid required	Medical Attention needed

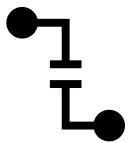
# HOW TO PICK A MEASUREMENT SYSTEM



**WHO** is collecting the data

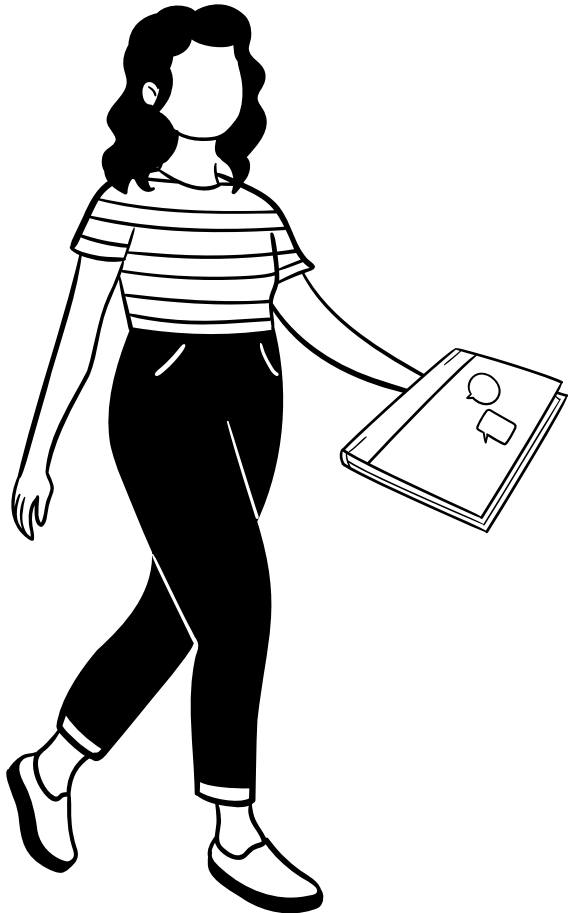


**HOW** does the data need to be collected



**BALANCE** what is practical with what will be the most precise

# ANECODOAL REPORTS



## What is it?

Written description of what is going on within a setting

## When use it?

- To measure *topography, locus, and force(?)*
- Generating *operational definitions*.
- Developing a *task analysis* (“how to” steps)
- Writing A-B-C notes to identify *possible function and behavior chains*

# INTERVERVAL RECORDING AND TIME SAMPLING

**Definition** Ways to estimate the number of times a behavior occurs.

**Example:**

Used for higher frequency discrete behaviors or behaviors of longer duration.

***Interval recording*** yields a slightly more accurate estimate.

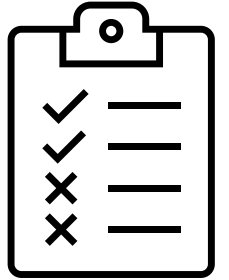
***Time sampling*** is more practical if you are doing two things at once (i.e., teaching and recording data).

# INTERVAL RECORDING

Interval Recording	Notes	Pros	Cons
Whole Interval	Mark if the behavior occurred throughout the ENTIRE interval	Useful for behavior that will continue for longer period of times or behaviors you want to INCREASE	Underestimates behavior and requires observation for the entire interval
Partial Interval	Mark if the behavior occurred at any point in the interval	Useful for short lived behaviors that are difficult to track	May overestimate behavior, requires observation for the entire interval
Momentary Time Sampling	Mark whether or not a behavior occurs at the end of an interval.	Easiest data collection on multiple behaviors, useful for very frequent behaviors or behaviors that last a long period of time	May miss instances of behavior, may underestimate behavior

# PERMANENT PRODUCT

**Definition** Measuring a specific outcome you can see like, making the bed, sweeping, or clearing the table.



## **Example:**

**Frequency/Rate**— steps in morning routine completed independently

**Locus**—where did the fight occur

**Topography**—QUALITY of a task, wiping the table without leaving any crumbs

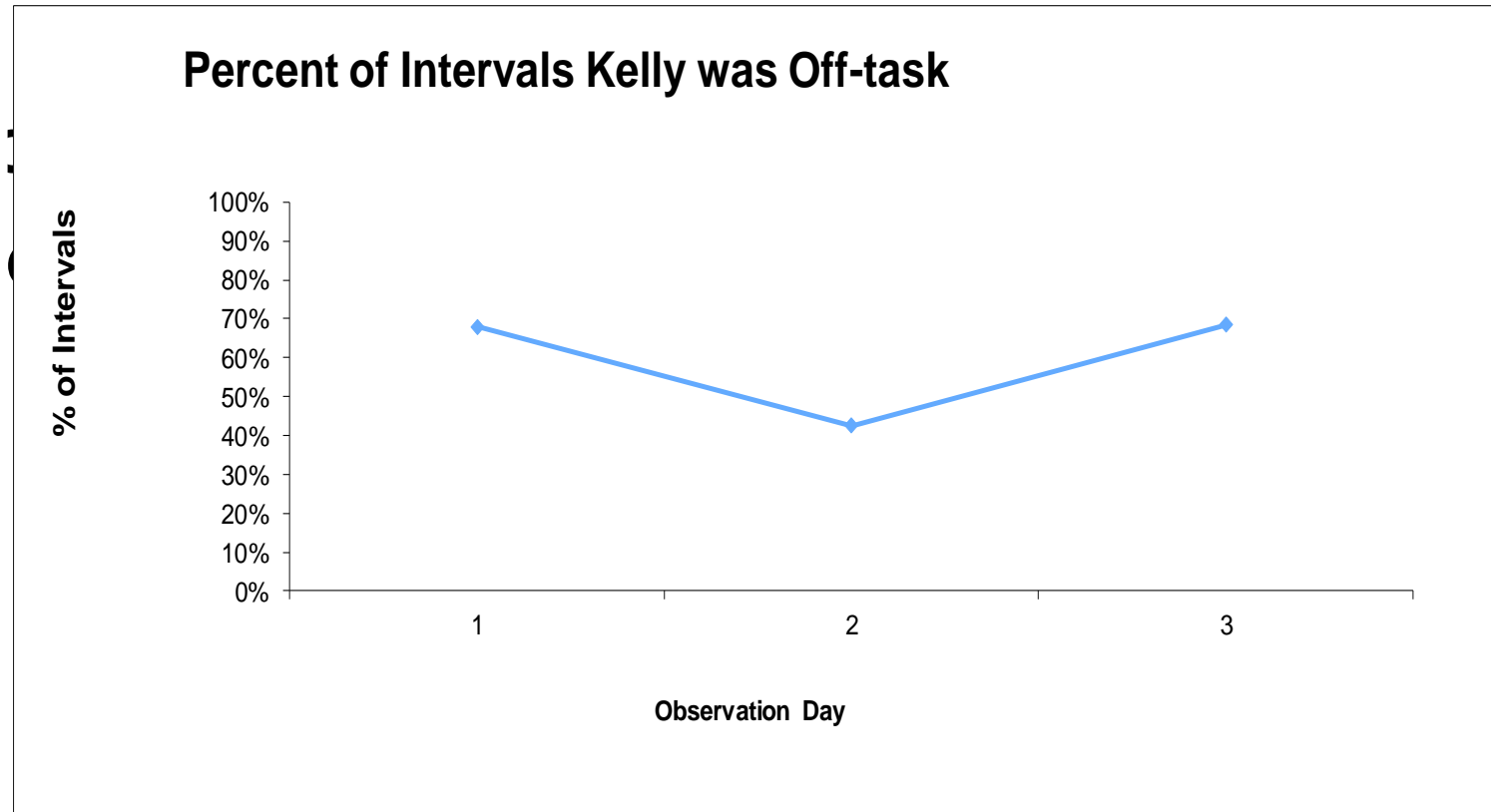
**Force**—amount of property destruction

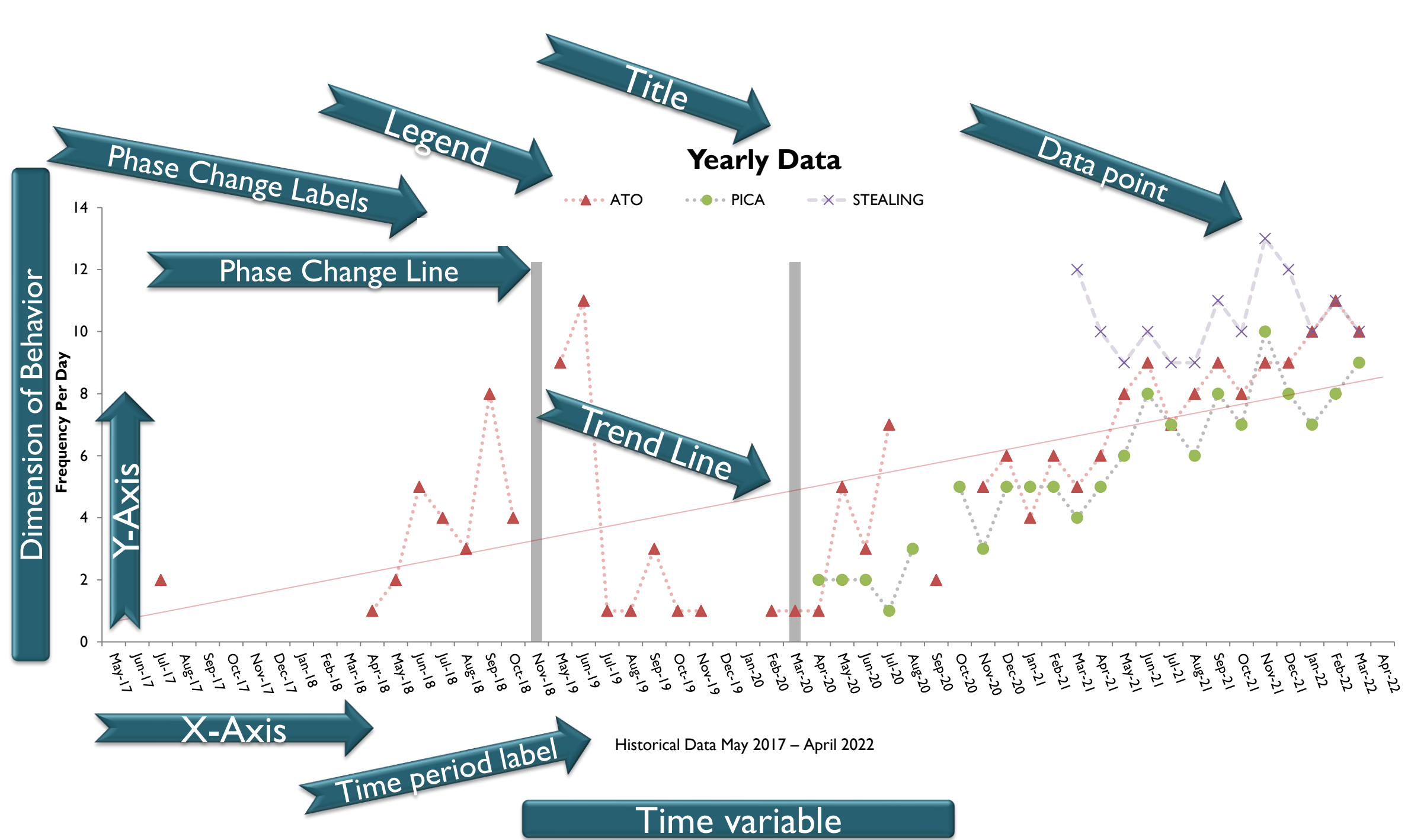
# BENEFITS OF GRAPHING DATA

- Graphed data helps to make the results easier to interpret
- Graphs are a visual summary that provide an on-going visual record
- Graphs help to identify changes in behavior
- Graphs allow for interpretation of potential triggers

# LINE GRAPHS

Use a **line graph** to summarize and show trends across time.





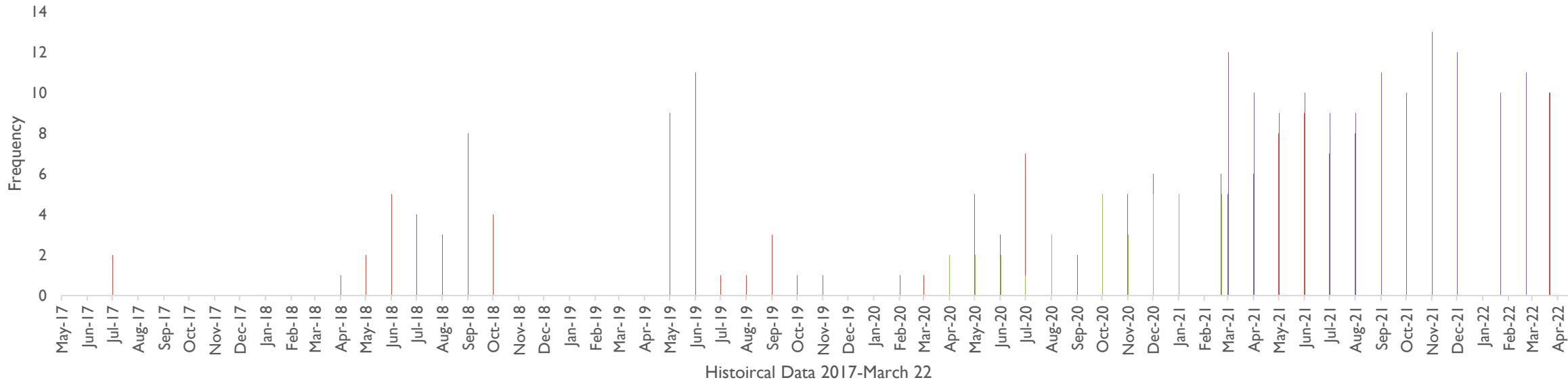
# BAR GRAPHS

**Bar graphs** are helpful for summarizing or comparing data in categories

- Comparing antecedents and consequences
- Different types of behaviors
- Different types of settings

### Behavior Data

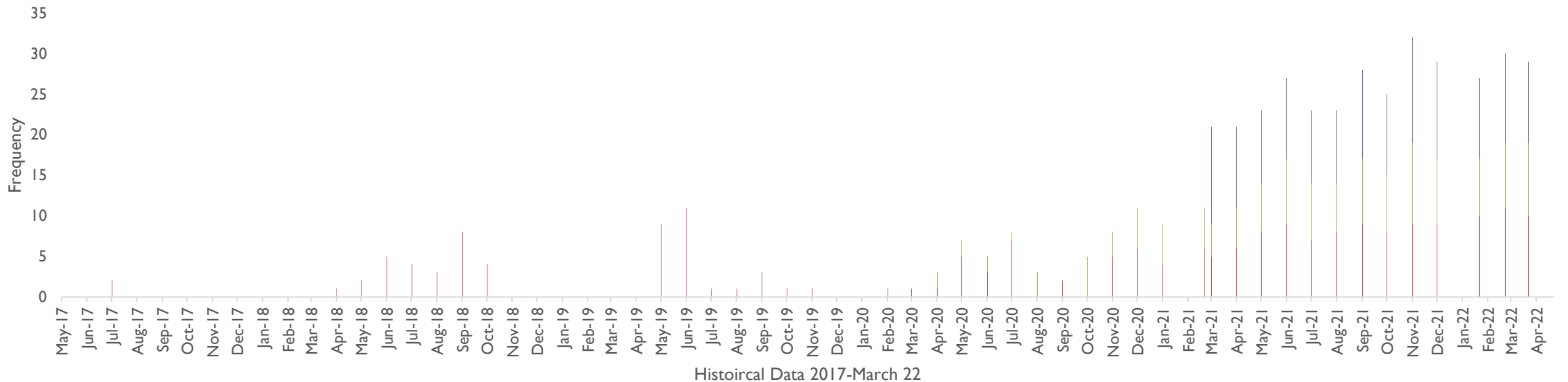
■ ATO ■ PICA ■ STEALING



Historical Data 2017-March 22

### Behavior Data

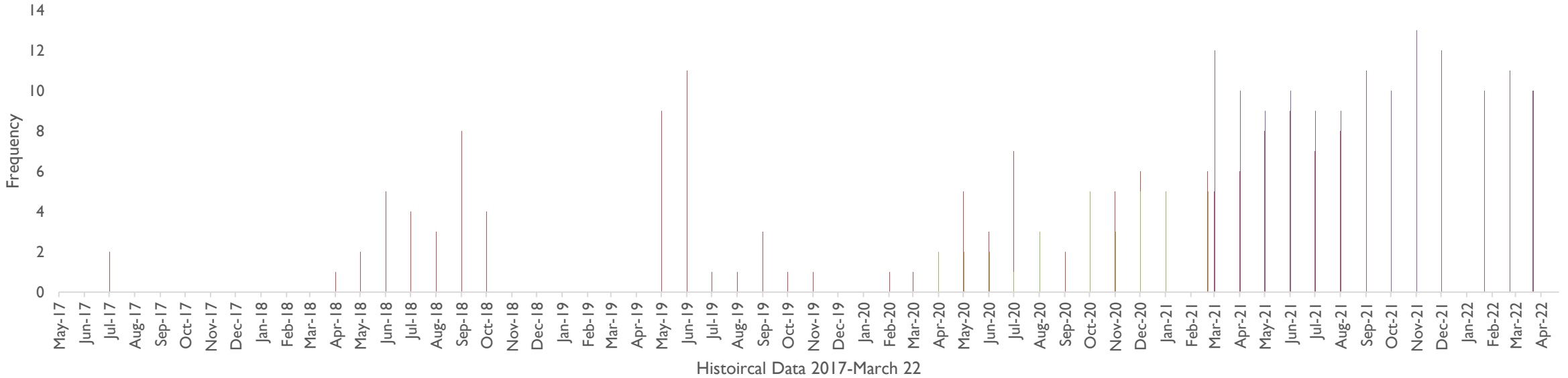
■ ATO ■ PICA ■ STEALING



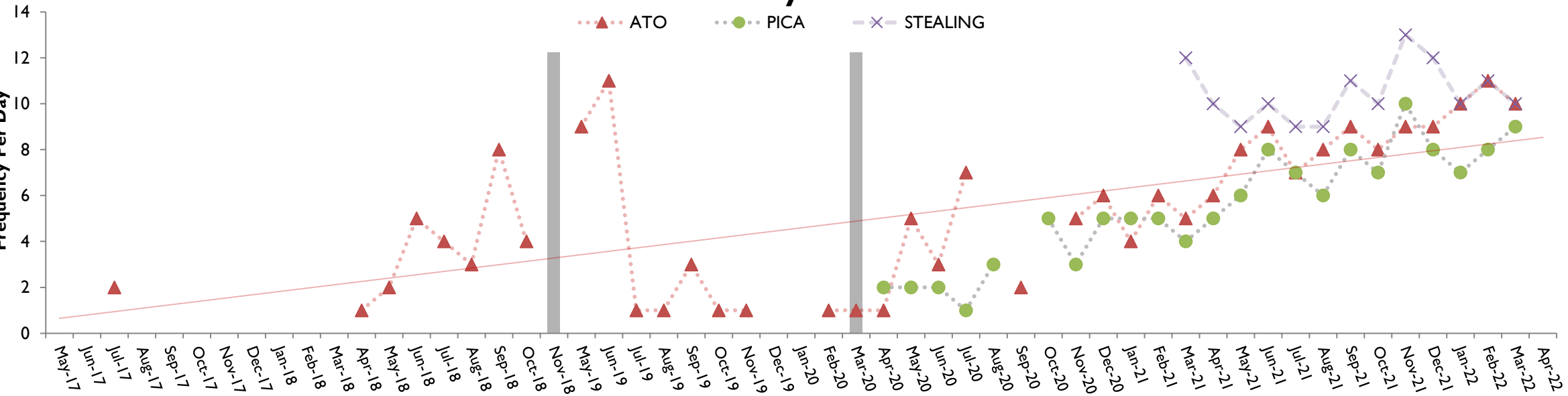
Historical Data 2017-March 22

# Behavior Data

■ ATO ■ PICA ■ STEALING



# Yearly Data



# EXAMPLE

Kelly is often **off-task** at job skills training. In addition, she has gotten into trouble for **screaming at peers** and **walking out** of the room during instruction.

- How would you know what to take data on?
  - Which behaviors are highest priority?
- Which aspects of the behavior would you choose? Why?
- Who would take the data?
- How will it be collected?

# EXAMPLE

You could consider

- Momentary time sampling Kelly's was on/off task behavior.
- The frequency of screaming at peers or walk-outs.
- Her job skills instructor or staff will collect and summarize the data.
- Once the data is graphed, the team can come together to determine which behavior should be targeted first and discuss any potential interventions.

DATE	Phase Change	ATO	PICA	STEALING	Notes
May-17					
Jun-17					
Jul-17		2			
Aug-17					
Sep-17					
Oct-17					
Nov-17					
Dec-17					
Jan-18					
Feb-18					
Mar-18					
Apr-18		1			
May-18		2			
Jun-18		5			
Jul-18		4			
Aug-18		3			
Sep-18		8			
Oct-18		4			
Nov-18	7				Missing data Nov 18-April 19
May-19		9			
Jun-19		11			
Jul-19	7	1			ended 1:1 sls
Aug-19		1			
Sep-19		3			
Oct-19		1			
Nov-19		1			
Dec-19					
Jan-20					
Feb-20		1			
Mar-20	7	1			Moved group homes
Apr-20		1	2		
May-20		5	2		
Jun-20		3	2		
Jul-20		7	1		
Aug-20			3		
Sep-20		2			
Oct-20			5		
Nov-20		5	3		
Dec-20		6	5		

# Phase Change Lines

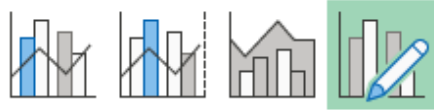
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May-17					
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Jul-17		2			
Aug-17					
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Nov-17					
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Jan-18					
Feb-18					
Mar-18					
Apr-18			1		
May-18			2		
Jun-18			5		
Jul-18			4		
Aug-18			3		
Sep-18			8		
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May-20			5	2	
Jun-20			3	2	
Jul-20			7	1	
Aug-20				3	
Sep-20			2		
Oct-20				5	
Nov-20			5	3	
Dec-20			6	5	

# Phase Change Lines

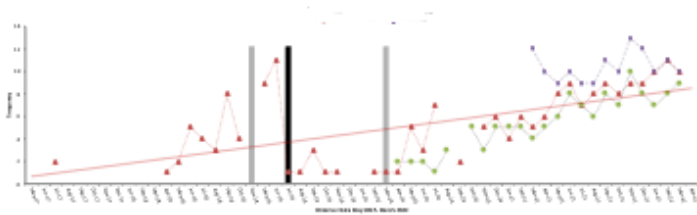
Recommended Charts

All Charts

- Recent
- Templates
- Column
- Line
- Pie
- Bar
- Area
- X Y (Scatter)
- Map
- Stock
- Surface
- Radar
- Treemap
- Sunburst
- Histogram
- Box & Whisker
- Waterfall
- Funnel
- Combo



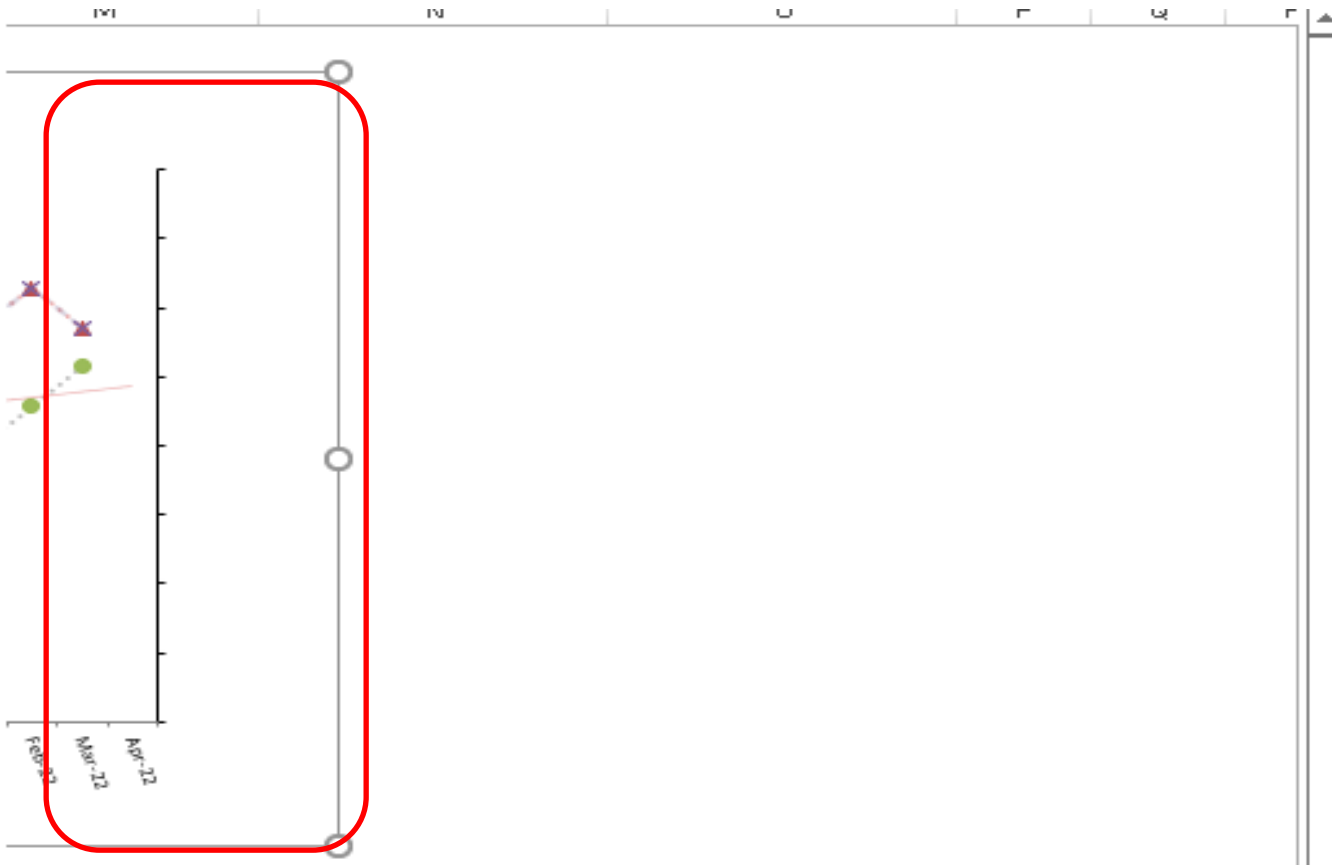
## Custom Combination



Choose the chart type and axis for your data series:

Series Name	Chart Type	Secondary Axis
■ Phase Change	Clustered Column	<input checked="" type="checkbox"/>
■ ATO	Line with Markers	<input type="checkbox"/>
■ PICA	Line with Markers	<input type="checkbox"/>
■ STEALING	Line with Markers	<input type="checkbox"/>

# Create a Combo Chart



## Format Axis

Axis Options | Text Options



### Fill

- No fill
- Solid fill
- Gradient fill
- Picture or texture fill
- Pattern fill
- Automatic

Color



Transparency

0%

### Line

- No line
- Solid line
- Gradient line
- Automatic

Color



Transparency

0%

Width

3.75 pt

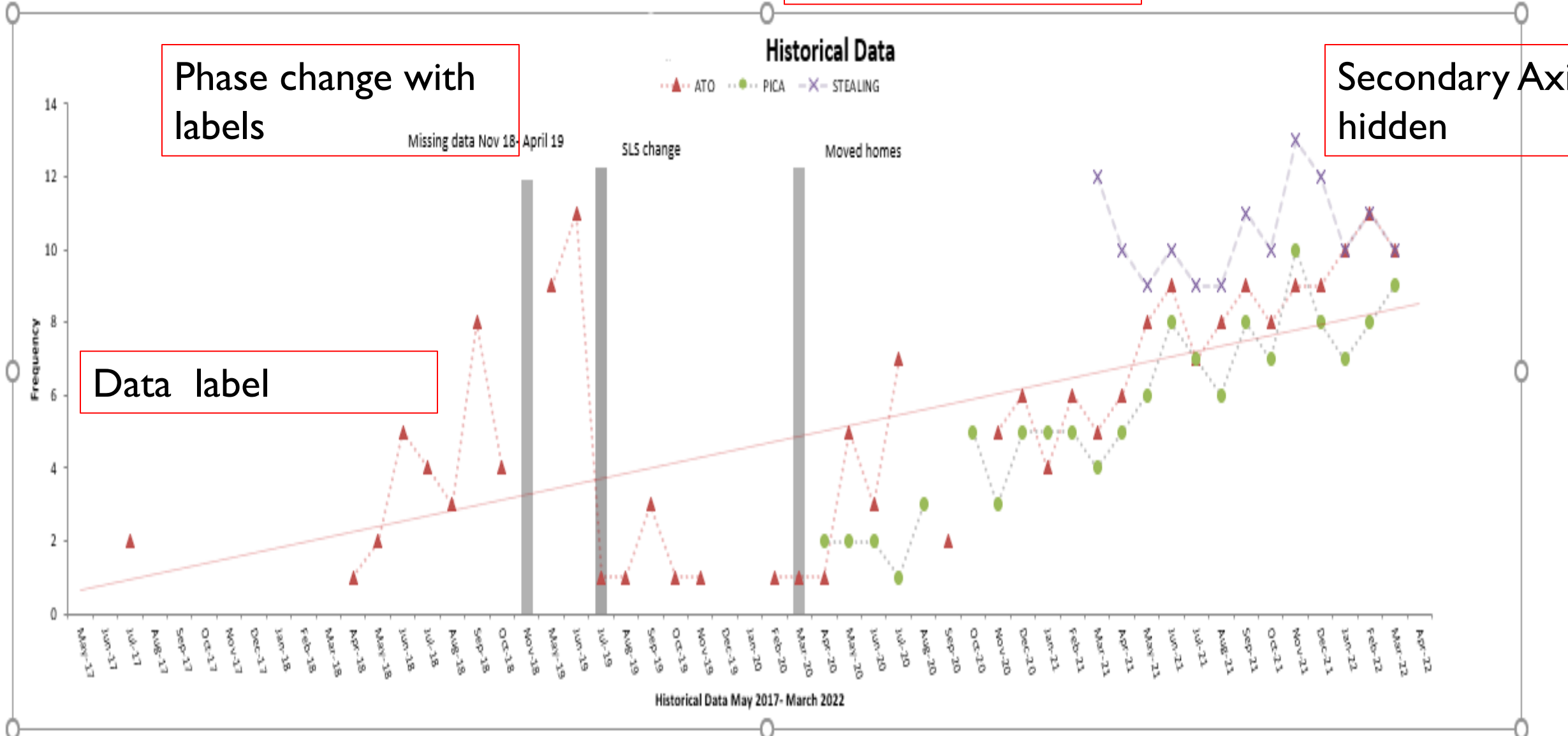
Title with behavior data legend

Phase change with labels

Secondary Axis hidden

Data label

Timeline label



The ADMH Mission:

**Serve • Empower • Support**

The ADMH Vision:

Promoting the health and well-being of  
Alabamians with mental illness,  
developmental disabilities and substance  
use disorders



**Thank you**