



Think about one of your systems.

Identify some of the key system elements that change over time.

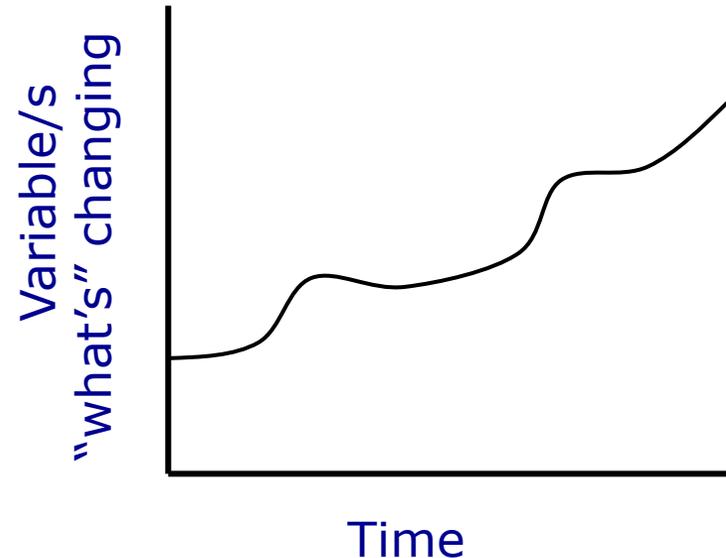
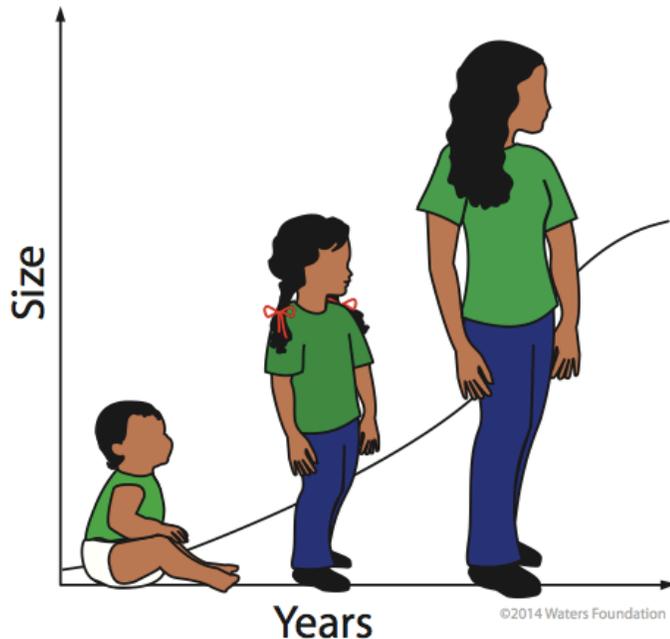
## Graphs Tell the Story of What is Important in Systems

# Collaborative efforts help

**surface patterns and trends of  
current reality and  
aspirations for the future**



**Behavior-Over-Time Graphs** show patterns and trends of behavior in a system, rather than discrete events. They measure change over time and show “what” has happened in the system as represented by the graphed component.



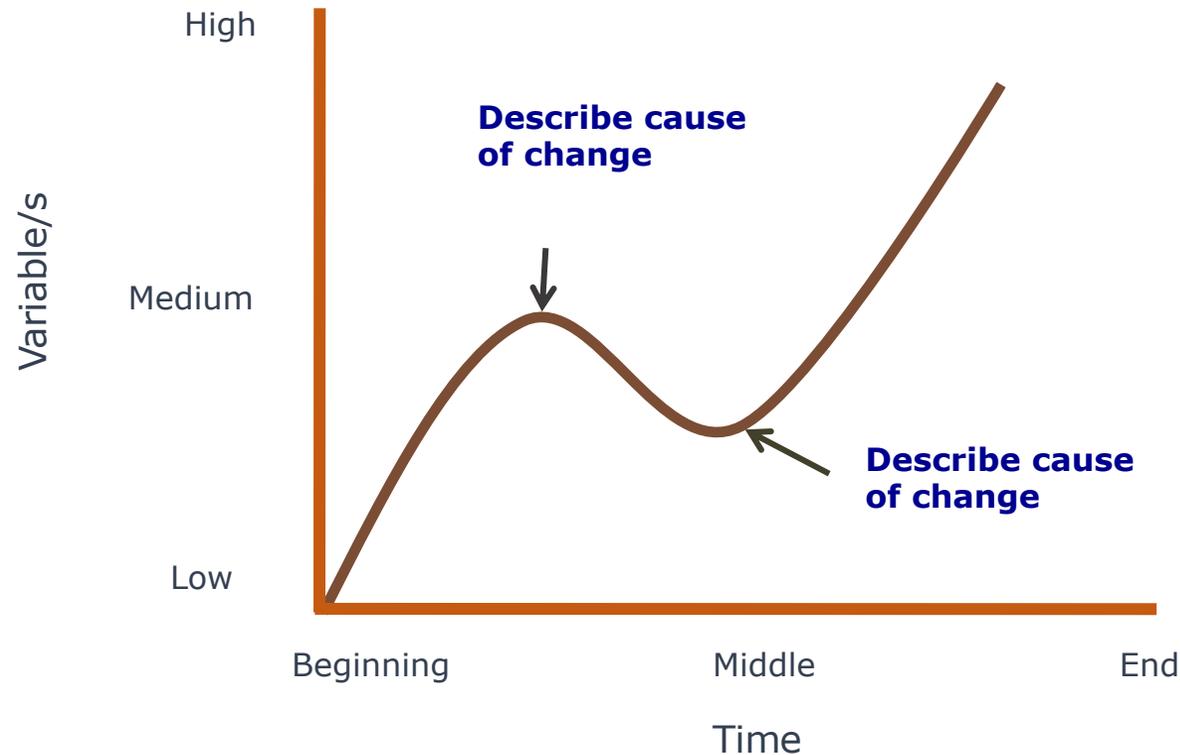
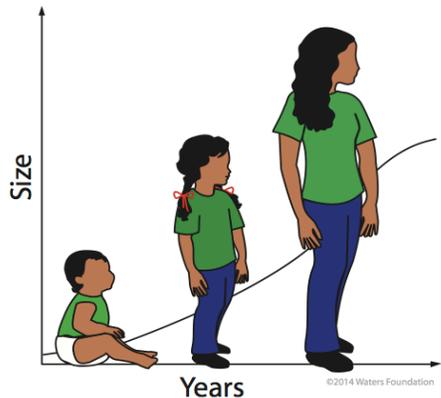
# Some helpful hints for naming key elements

- Amount of....
- Level of ....
- Number of ....
- % of ....
- Quality of...

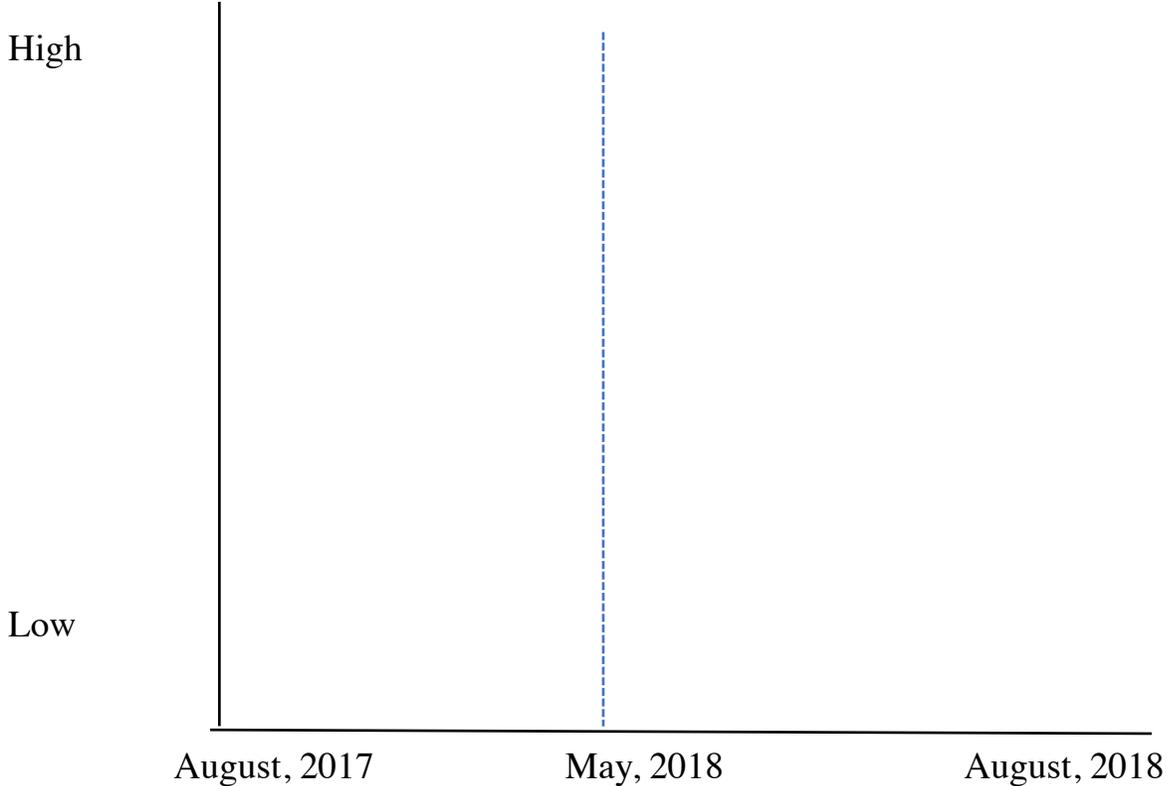
# Behavior-Over-Time Graph Basics

BOTGs show trends and patterns of behavior in a system, rather than discrete events.

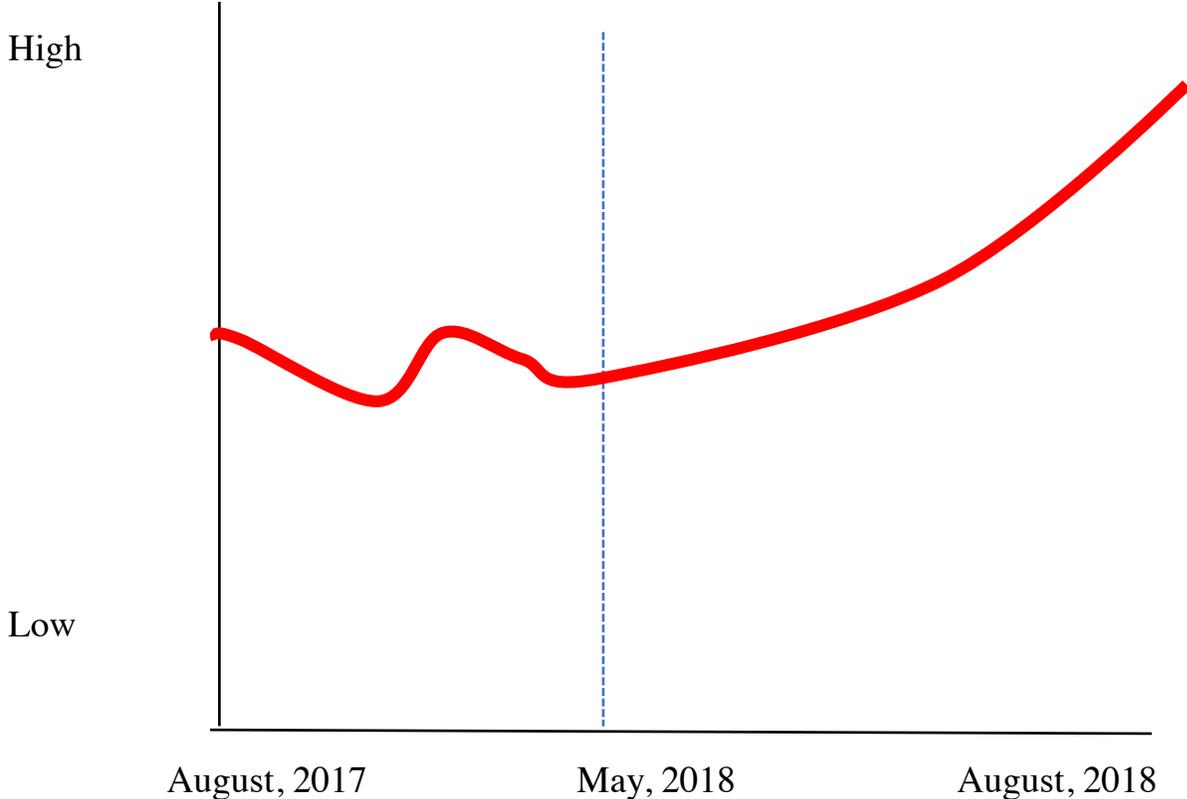
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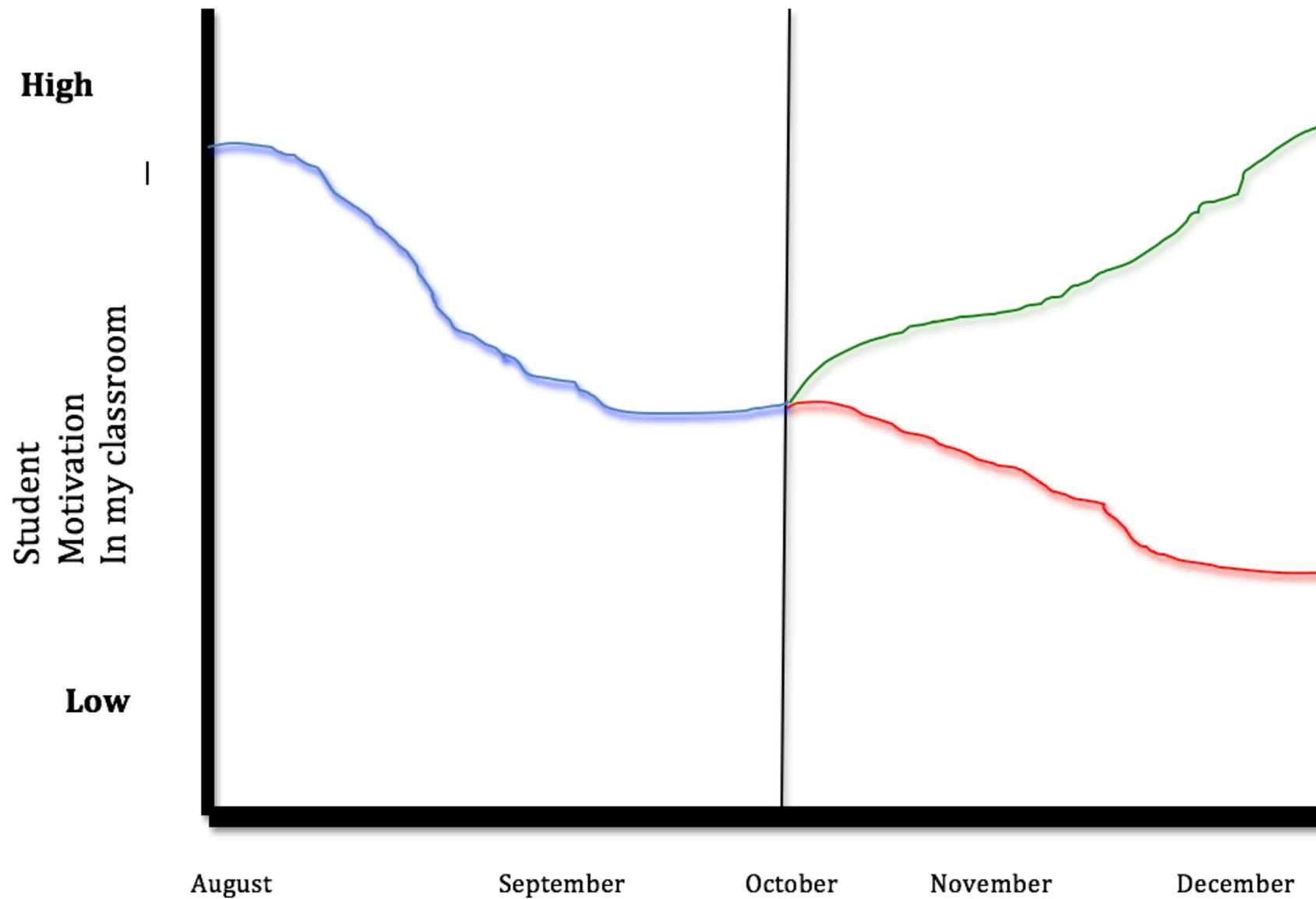


# Using BOTGs to identify current and desired trends



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Blue - Past trends

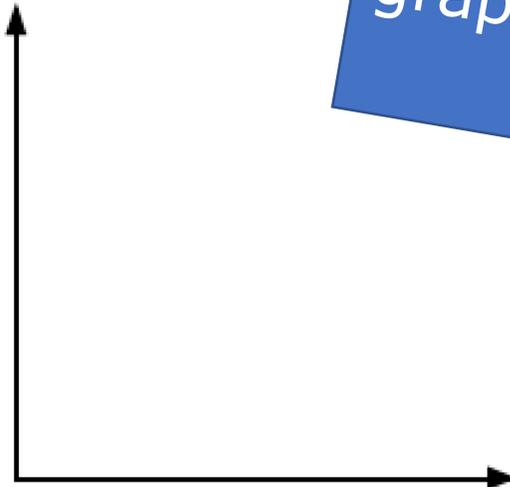
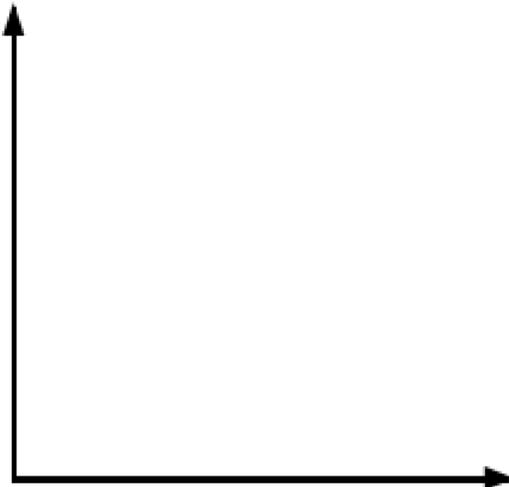
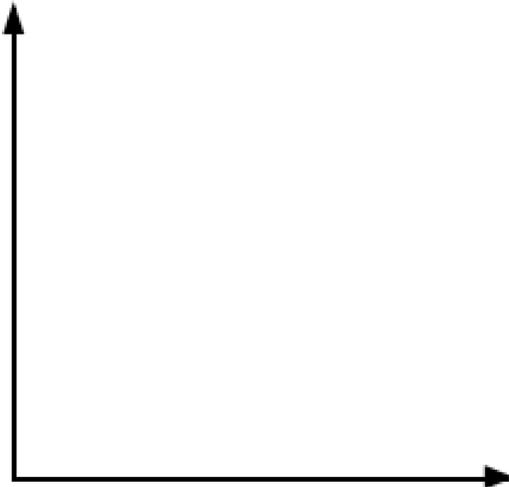
Green - Hopes for the future

Red - Fear for the future

## Behavior-Over-Time Graphs:

What is changing over time?

How are the essential elements changing?



Let's Practice

1. Quickly sketch the graph.
2. Focus on the shape of the change.
3. Tell the story of your graph.

# The Nature of Change – Scenarios

Scenario 1: You are driving on the highway using cruise control set at 65 mph. You make no stops. Which graph would most closely show the distance traveled on the highway while using cruise control?

Scenario 2: You have opened up an interest-earning investment account, and you have made an initial deposit that will grow at a rate of 2% per year. Which graph most closely represents the bank balance you would see from an initial investment of \$100?

Scenario 3: Which graph would best represent a changing rabbit population faced with a predator population that changes based on the number of rabbits?

Scenario 4: Which graph would show the changes to your level of hunger in the time span from when you start eating lunch to before you eat dinner.

Scenario 5: Which graph would show an endangered species on the road to extinction.

