# BASIC ANALYSIS (TO PROVIDE BACKGROUND AND A WHOLE PIECTURE)

## Trend Analysis

Time Series Analysis:

Pounds of garbage collected per year: 2015, 2016, 2017, 2018, 2019

Different kinds of garbage collected at beach per year: 2015, 2016, 2017, 2018, 2019 (Foam/Glass/Plastic)

Seasonal Analysis

## Spatial Analysis

State -- pounds/miles (in year)

County -- pounds/miles (in year)

# DEEP ANALYSIS

## County classification to 3 groups based on pollution degree (logistic)

Classification:

Serious polluted zone (take actions right now)

Median polluted zone (take actions later??)

Light polluted zone (monitor)

## County classification to specific garbage pollutions in serious polluted zone (To find origin of trashes for each type) (linear regression???)

1. Plastic polluted zone
   * Feature 1
   * Feature 2
2. Glass polluted zone
   * Feature 1
   * Feature 2
3. Foam polluted zone
   * Feature 1
   * Feature 2
4. Mixed polluted zone
   * Feature 1
   * Feature 2

## Human resource allocation to zones: whether to assign more volunters to bench garbage collection??

Reg: Number of people -- Cleaning ratio + pollution index + year + season???

## How many trashes going into the ocean will make animals dead and How often do organizations schedule cleanup works?

# PREDICTION

How many ocean collectors that we need to reduce the ocean pollution??

# Recommendation

* Set a cutoff to specify potential zone which might become serious polluted in few years
* Which zone needs to be paid more attention to now?
* How do organizations allocate efficiently their volunteers to cleanup work to make animals alive?
* What can we do to reduce the amount of garbage in beaches?