

Making Decisions with Visual Data

Part 1.1 Visualizing Categorical Data

Taylor Weidman

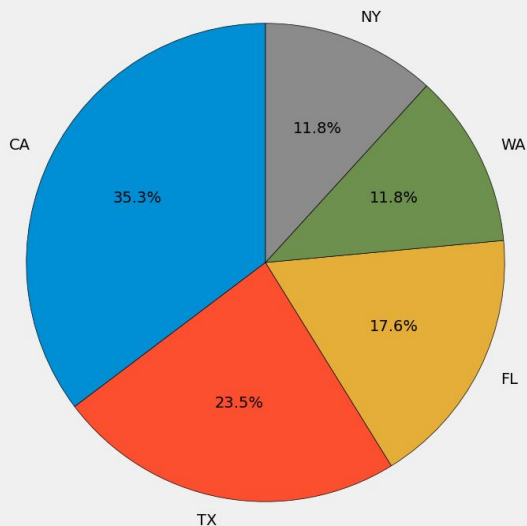
Categorical Variables: Coffee Shop Locations by State

Q. Which state has the most locations?

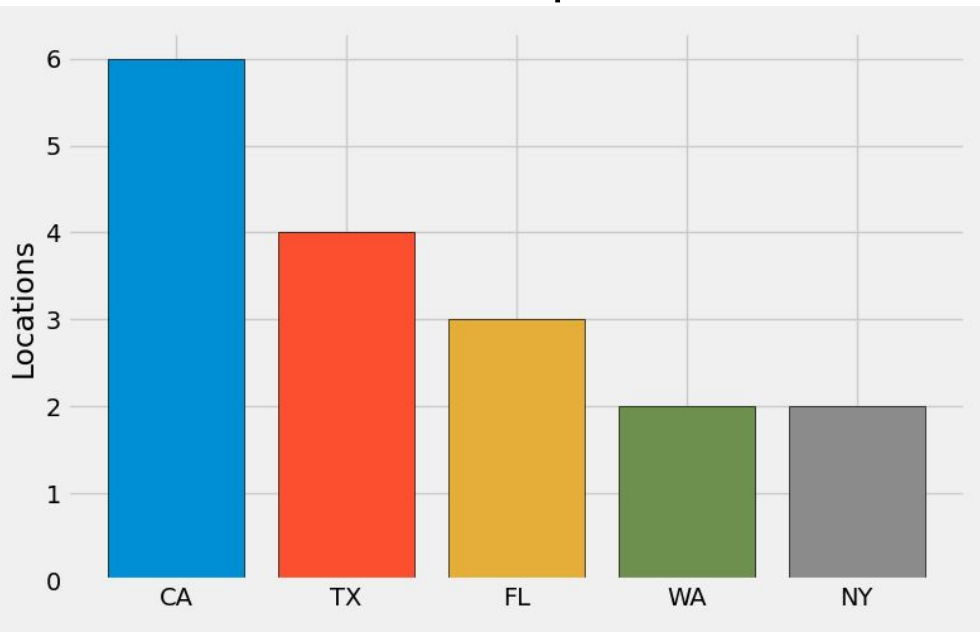
Categorical Variables: Coffee Shop Locations by State

Q. Which state has the most locations?

Pie Graph



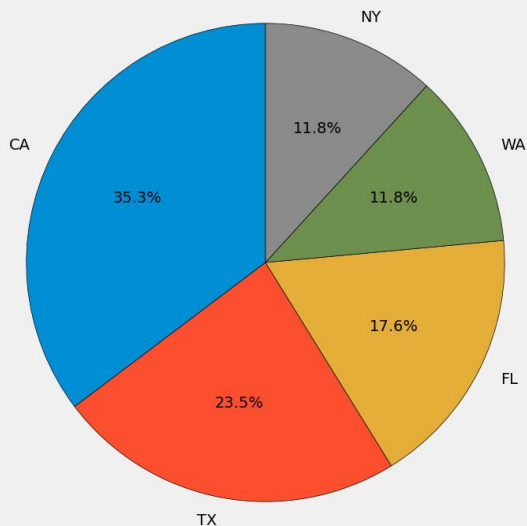
Bar Graph



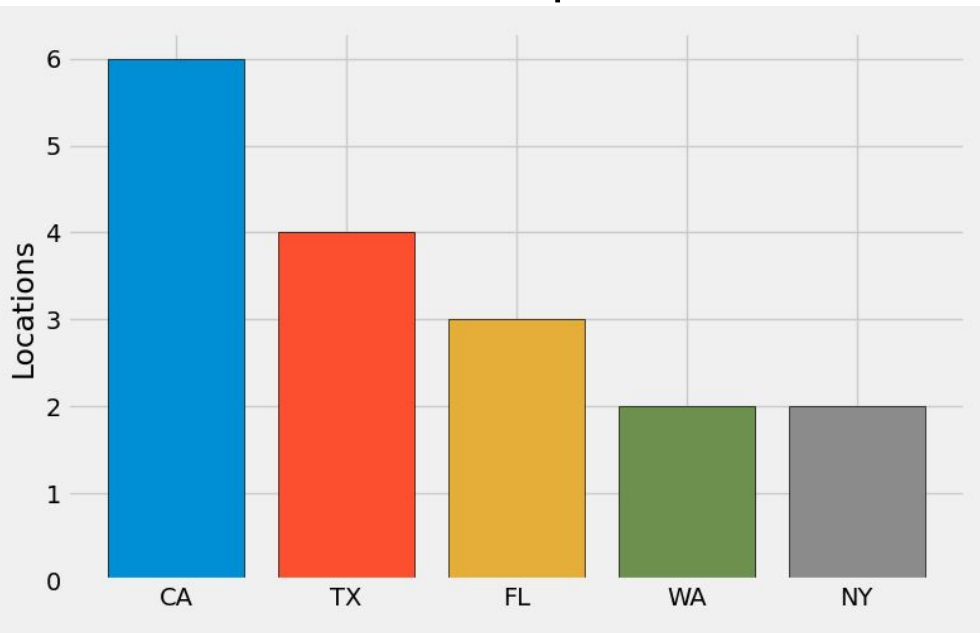
Categorical Variables: Coffee Shop Locations by State

Q. Does Florida (FL) or Washington (WA) have more locations?

Pie Graph



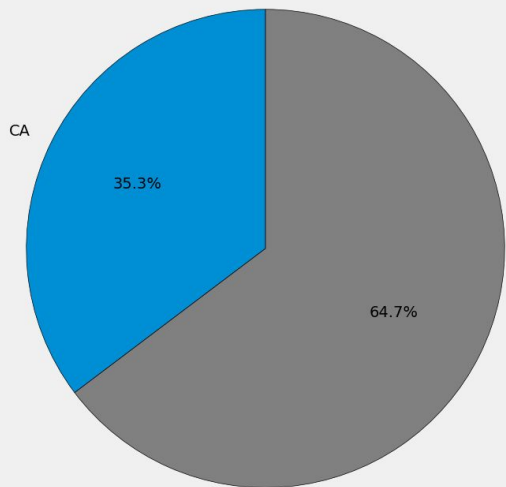
Bar Graph



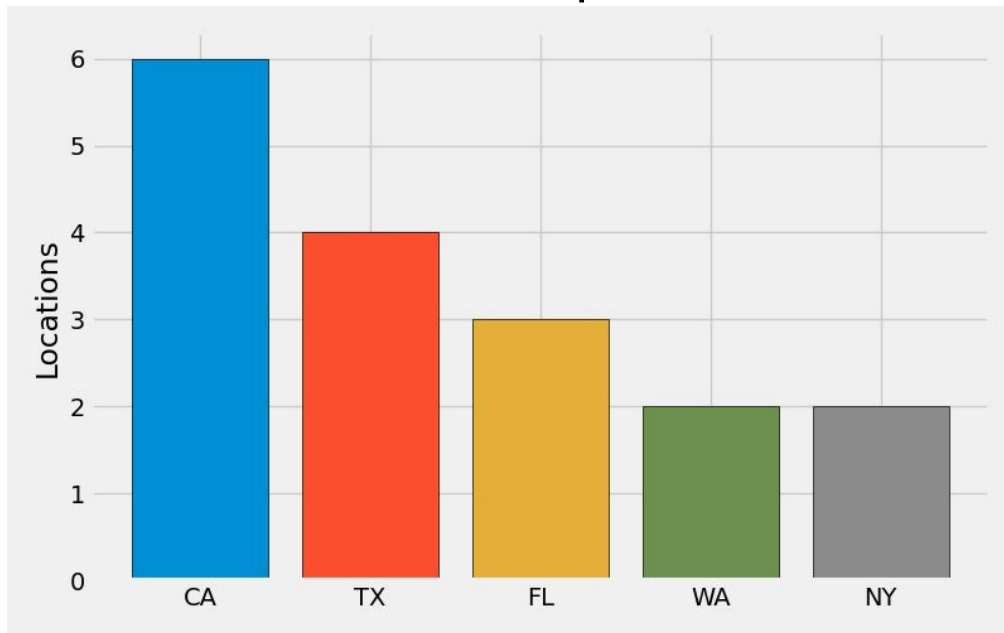
Categorical Variables: Coffee Shop Locations by State

Q. What share of coffee shop locations in CA?

Pie Graph



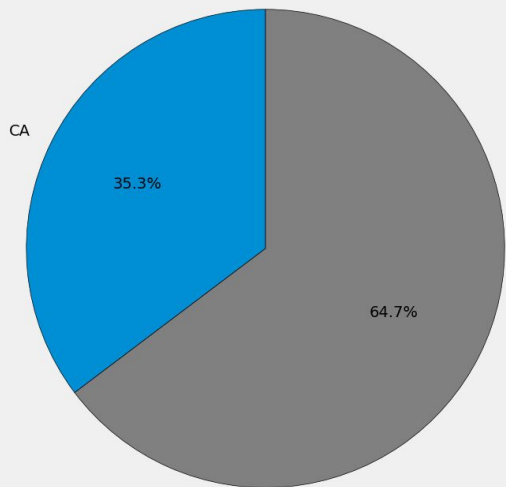
Bar Graph



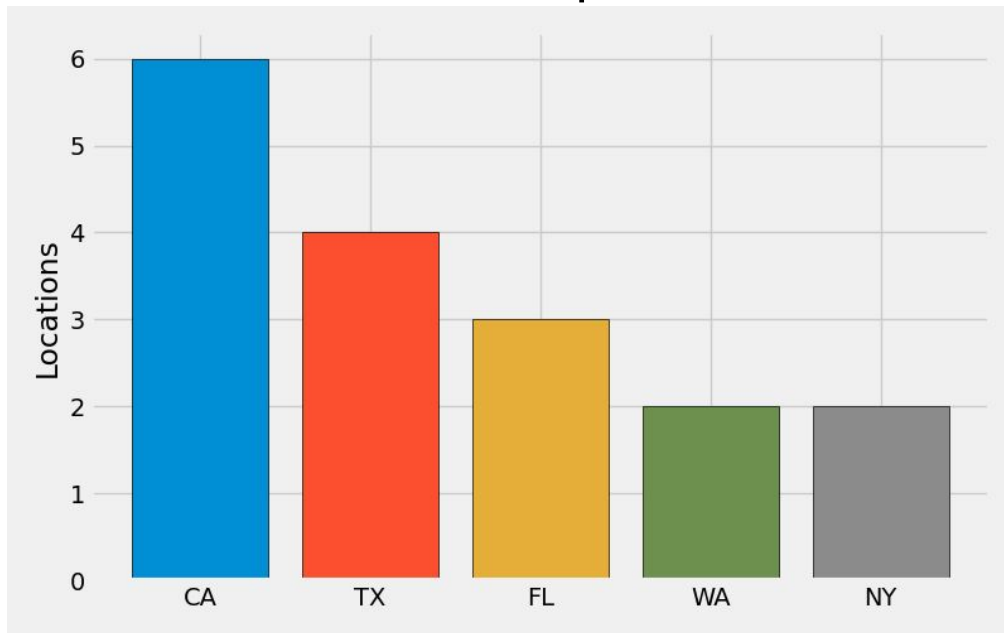
Categorical Variables: Coffee Shop Locations by State

- Use bar graphs to compare values with each other.
- Use pie graphs to compare one value against the total.

Pie Graph



Bar Graph



Excel Exercise: Categorical Variables

We're going to examine the locations of coffee shops by State.

- Data: Coffee_Shops.csv
- Bar Graph
- Pie Graph

Making Decisions with Visual Data

Part 1.2 Visualizing Continuous Data

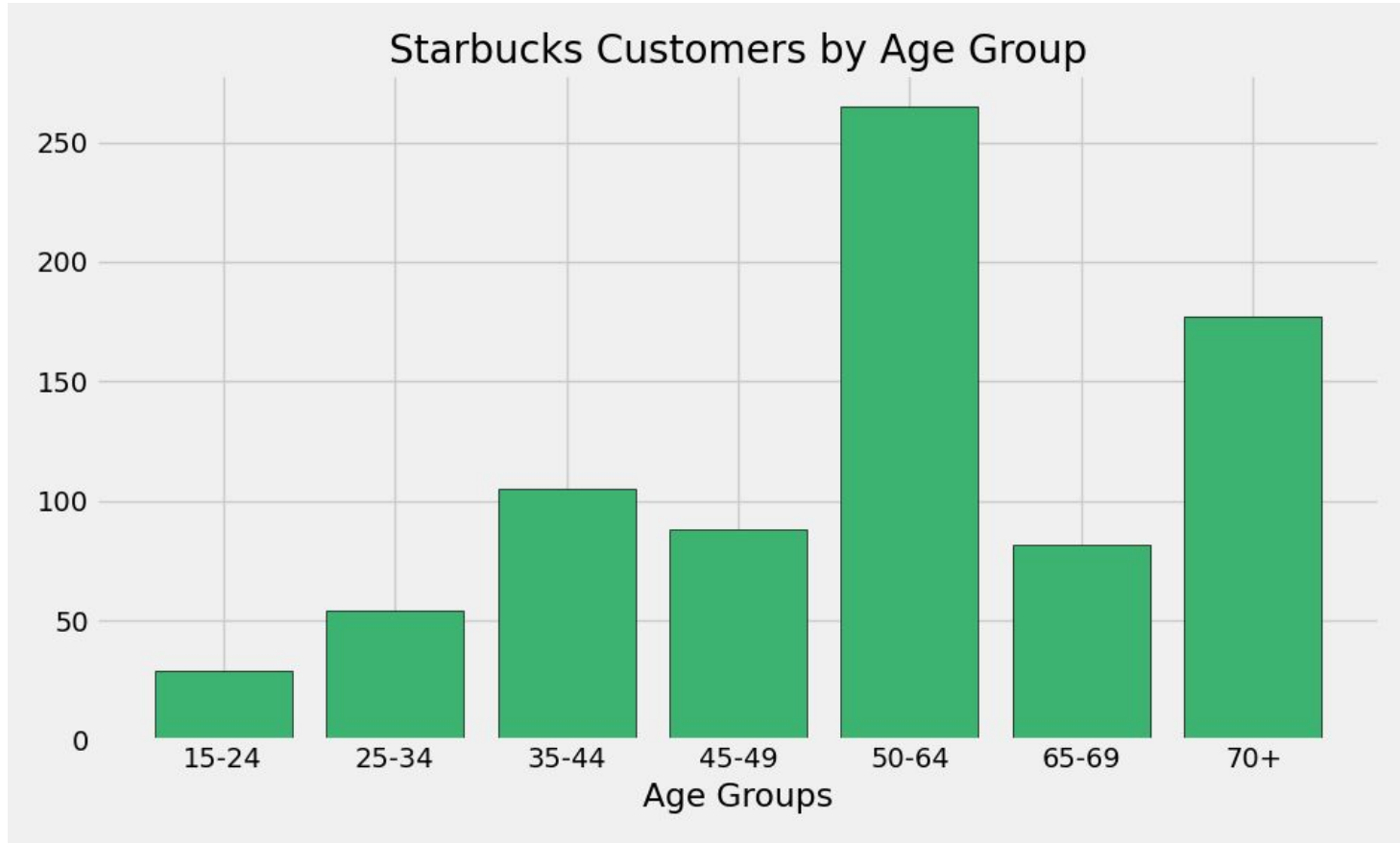
Taylor Weidman

Continuous Variables

Q. Which age group has the most Starbucks customers?

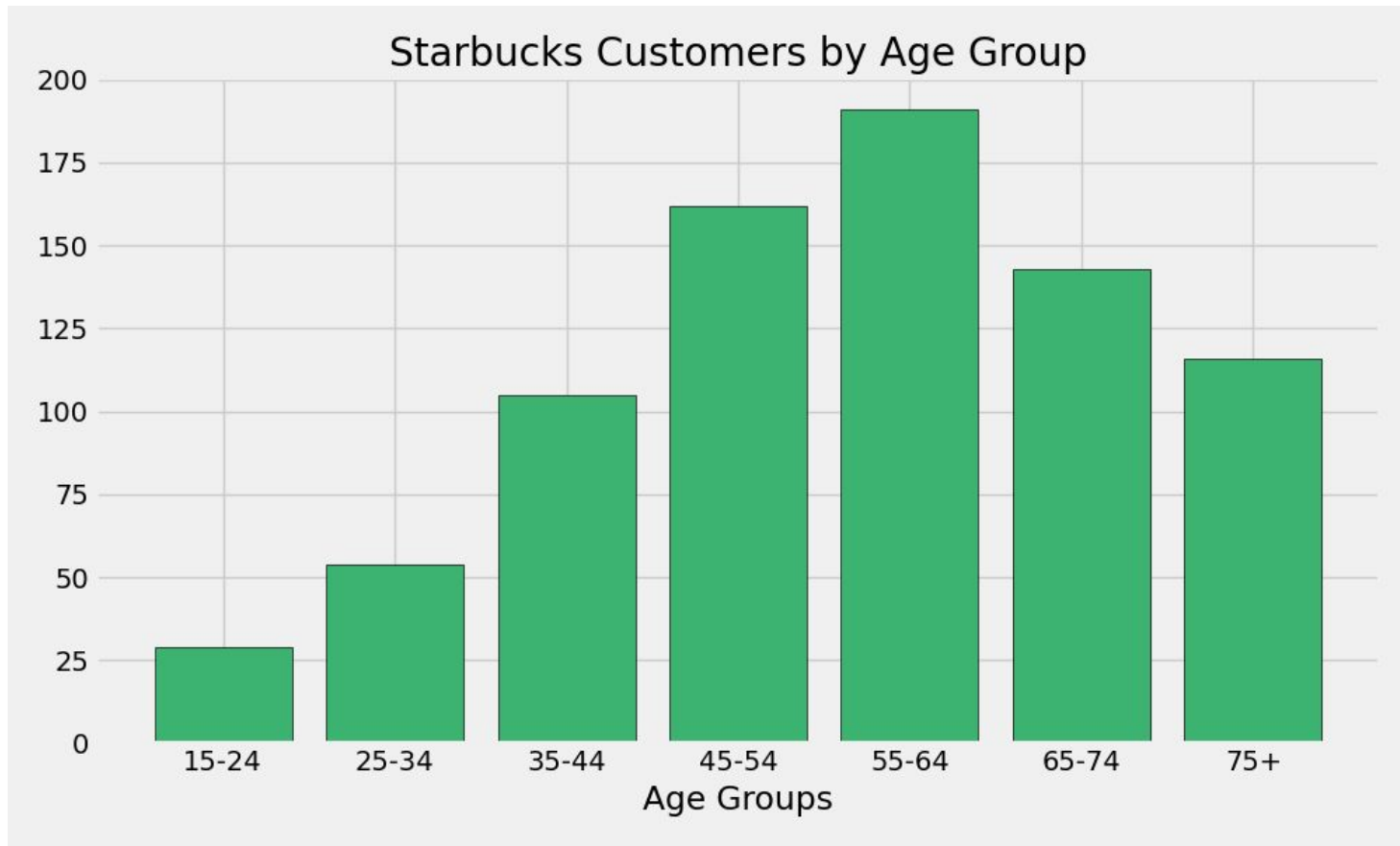
Continuous Variables: Histograms

Q. Which age group has the most Starbucks customers?



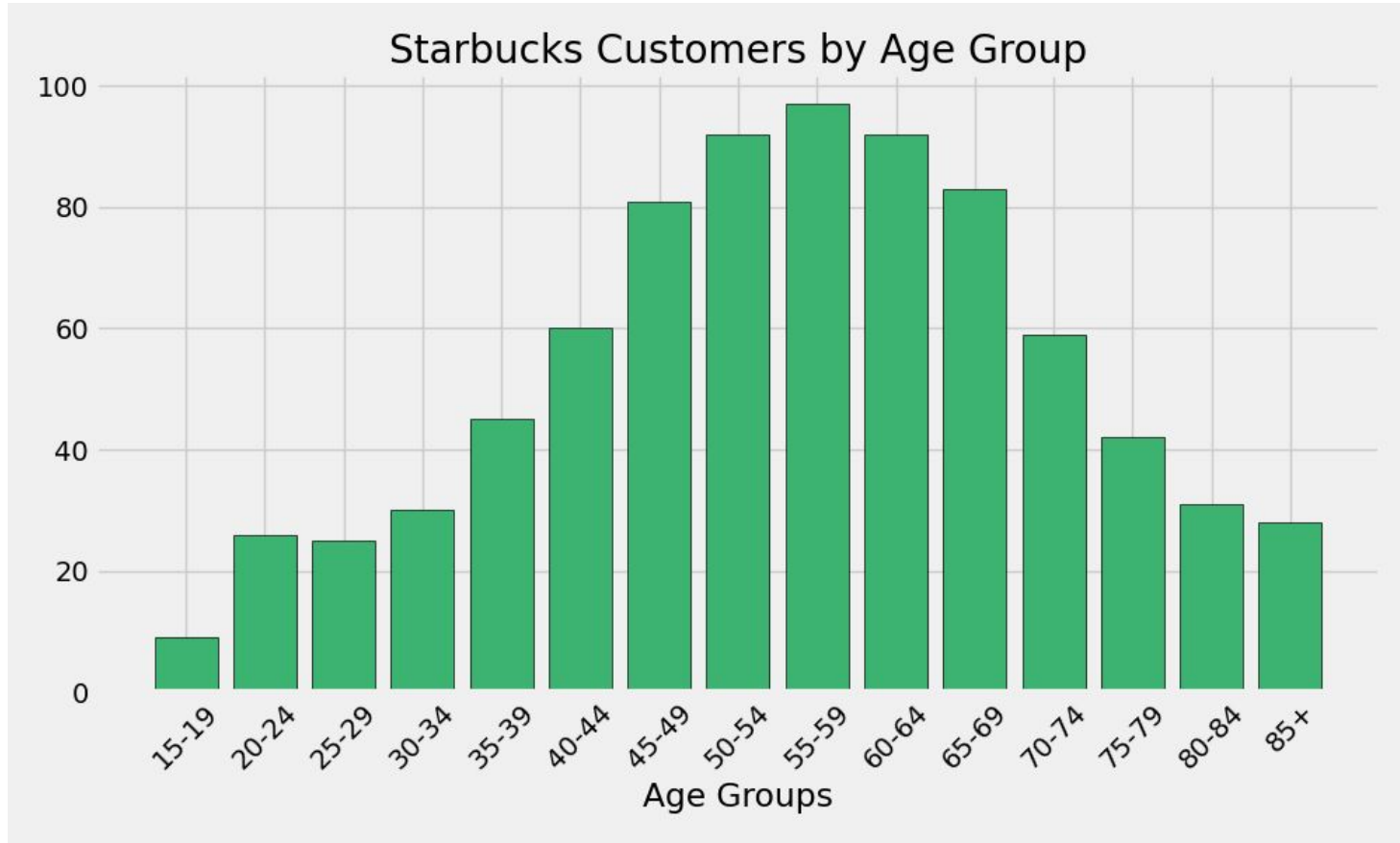
Continuous Variables: Equal Sized Bins

Q. Which age group has the most Starbucks customers?



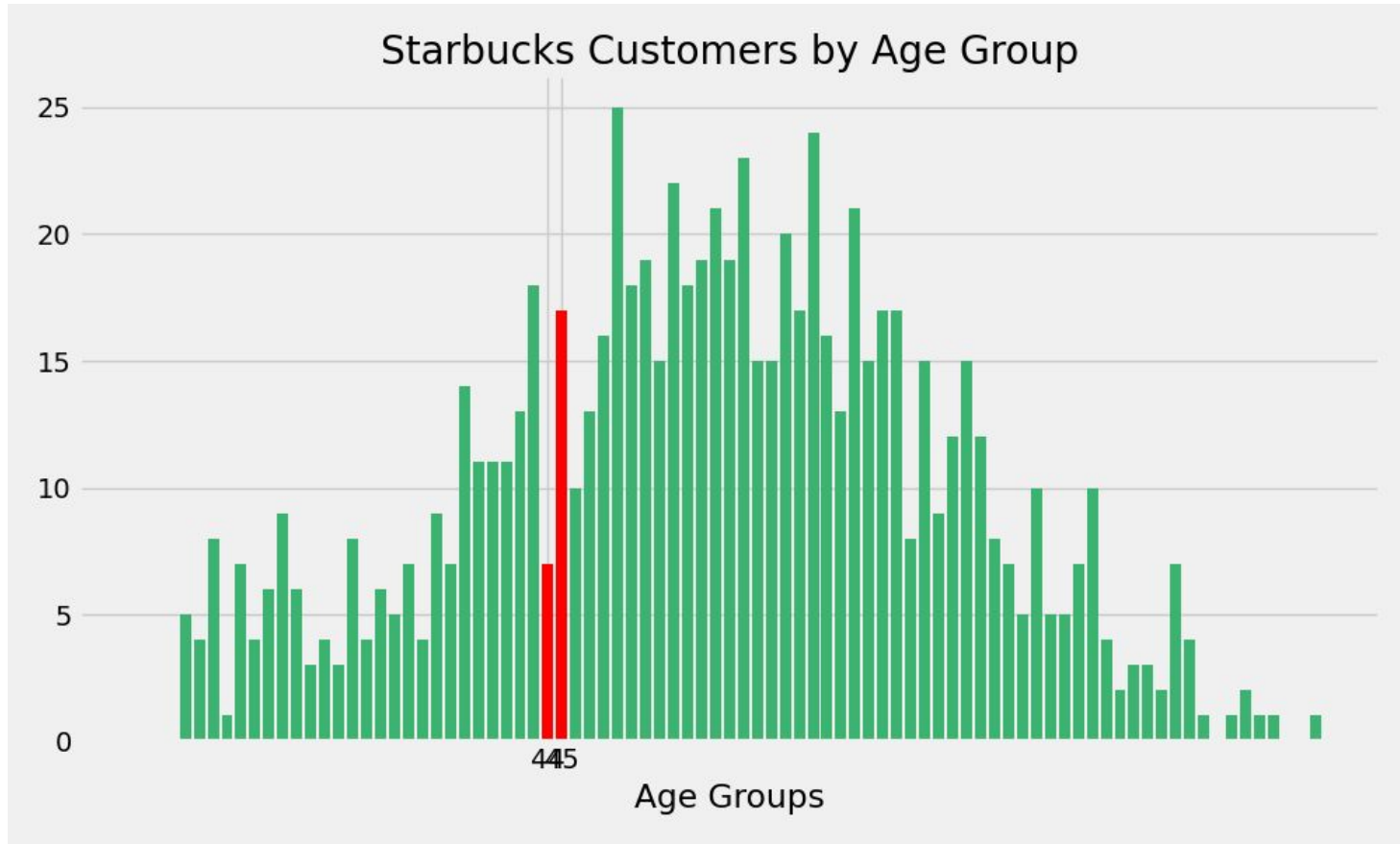
Continuous Variables: 5 Year Bins

Q. Which age group has the most Starbucks customers?



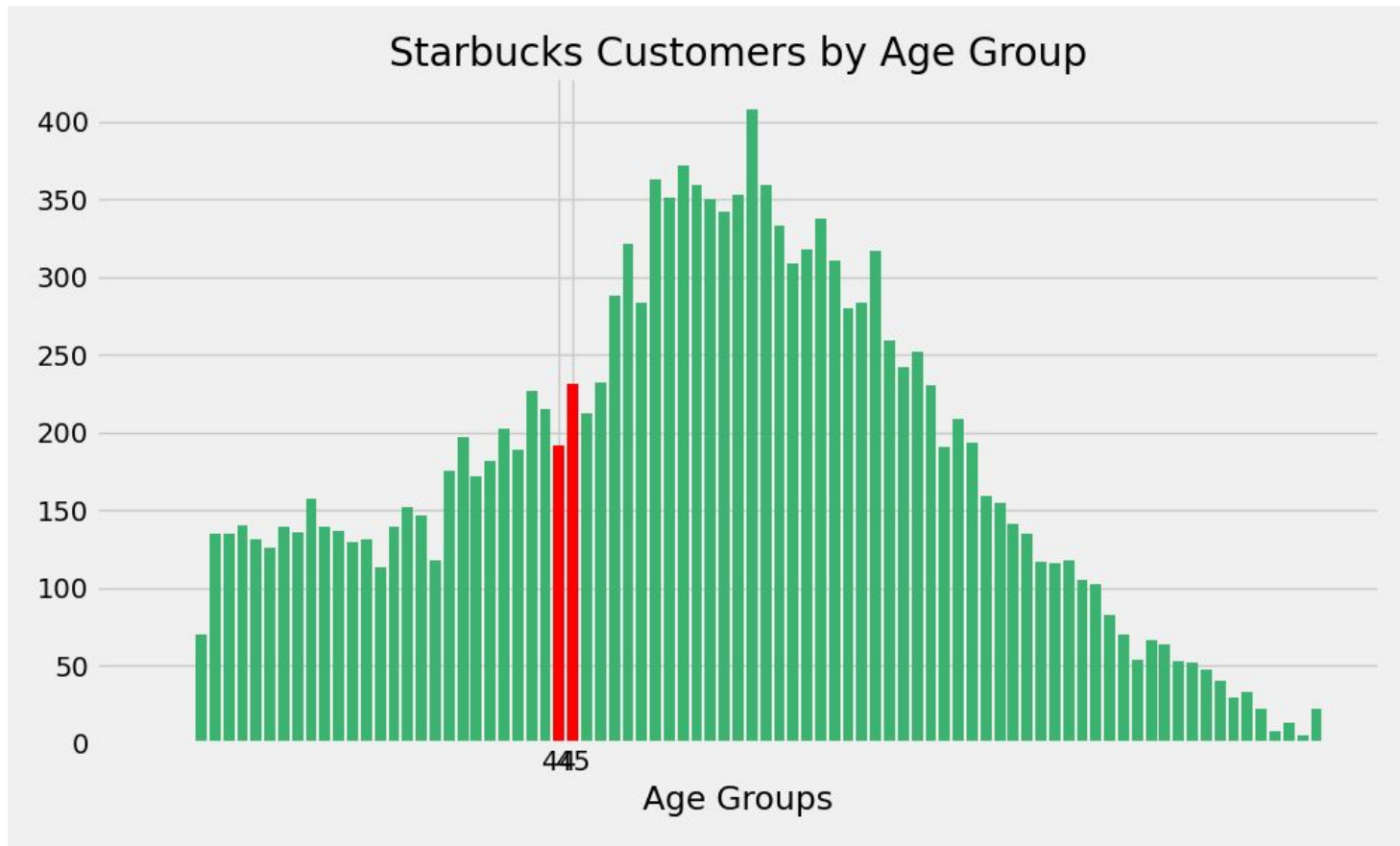
Continuous Variables: Statistical Noise

Q. Which age group has the most Starbucks customers?



Continuous Variables: Statistical Noise w/ More Data

Q. Which age group has the most Starbucks customers?



Continuous Variables: Starbucks Customer Ages

Summary:

- Use **histograms** to visualize continuous variables.
- Make histograms with equally sized bins.
- Histograms with bins that are too narrow increase statistical noise, which can obscure underlying relationships.

Excel Exercise: Continuous Variables

We're going to examine the ages of starbucks customers by age.

- Data: Starbucks_Customer_Profiles.csv
- Histograms