

## STATISTICS

### ***PROBLEM 3: BEVERAGE CONSUMPTION***

The following *Beverage World* estimates were based on a survey of bottlers. These data include seltzer and club soda marketed by soft drink bottling companies.

Region of U.S.	Population (Millions)	Gallons Consumed (Millions)	Per Capita Consumed (Gallons)	Retail Dollars (Millions)
New England	12.8	554.5	43.3	2,076.9
Middle Atlantic	37.6	1,737.9	46.2	6,936.5
East North Central	42.1	2,033.3	48.3	7,618.0
West North Central	17.8	868.4	48.8	2,941.8
South Atlantic	42.8	2,152.8	50.2	7,818.0
East South Central	15.4	845.6	54.9	2,862.5
West South Central	27.1	1,538.2	48.1	4,570.5
Mountain	13.4	496.8	37.1	2,013.2
Pacific	37.6	538.2	40.9	6,268.8
Total United States	246.6	11,531.3	46.7	43,106.2

- A. What does it mean to use estimates based on a survey of bottlers.?
- B. What kind of data was obtained in the survey?
- C. Construct two line plots, one for the total number of gallons consumed in the regions and the other for the number of retail dollars in the regions. Compare and contrast these line plots.
- D. What different information is obtained from a graph of the per capita consumption compared to a graph of the number of total gallons consumed?
- E. Calculate the summary statistics for total consumption and retail dollars.
- F. Construct box plots for total consumption and retail dollars. Compare and contrast the box plots.