**Unit 2 Assignment**

**Kindly review the Data-Visualization-Exploring-and-Explaining-with-Data-J.Camm  on Pages 61-25 of our textbook  .**

**1. Question 3**

**I, the line chart displays the data better because it shows the gradual increase and decrease in gas prices. On a visual level, it provides a better view to analyze data.**

**2. Question 4**

Iii, bar chart because we want to the display the quantitative variable for each category(in this case, the manufacturer). The bar chart provides better separation along the y-axis for each category.

**3. Question 7**

**I, stacked bar chart because we want to display two quantitative variables for each project. We would then differentiate the variables for each category by changing the color of the bar to visualize the overall risk and return of the R&D portfolio.**

**4. Question 11**

a. Scatter chart

b. ii. There is no apparent relationship between year founded and tuition for private colleges.

c. iii. Private colleges founded before 1800 have high graduation rates, but there are greater differences in graduation rate for private colleges founded after 1800.

**5. Question 13**

**a. ii. Clustered column works best to display these data because they work better when comparing data sets for each category. We want a separate data columns for comparison for each category/age range.**

**b. True. As we can see from the chart, the smartphone column bar for each category decreases after passing the age range 25-34.**

**6. Question 14**

**a. California, Texas, New York, Illinois, and Florida have the highest demand.**

**b. The demand does indeed appear to be related to population. One exception is Illinois where they were recorded around 300,000 less than Pennsylvania. Besides that, the other four states were recorded highest in population so it only makes sense that the demand significantly higher for states with a much greater population.**

**7. Question 15**

**a. High-Low-Close Stock Chart**

**8. Question 10**

I, bar chart because the quantitative variable is accurately presented in that chart. For example, the area chart and scatter chart only lists the year in 5 year increments which is not accurate when analyzing data for each year.

**9. Question 23**

a. IAD has the lowest wait time

b. ATL has the most enplanements

**10. Question 26**

The minutes walked significantly decreases as men age compared to women.