STAT 021 S22 HW 8

Raya Tuffaha

TOTAL POINTS

10 / 10

QUESTION 1

1 Description 3 / 3

✓ **+ 3 pts** **Correct**

QUESTION 2

2 Identify possible mistakes 3 / 3

✓ **+ 3 pts** **Complete**

+ 0 pts Incomplete

QUESTION 3

3 Connection to ASA guidelines 4 / 4

✓ **+ 4 pts** **Correct**

Raya Tuffaha
HW 8

Research question

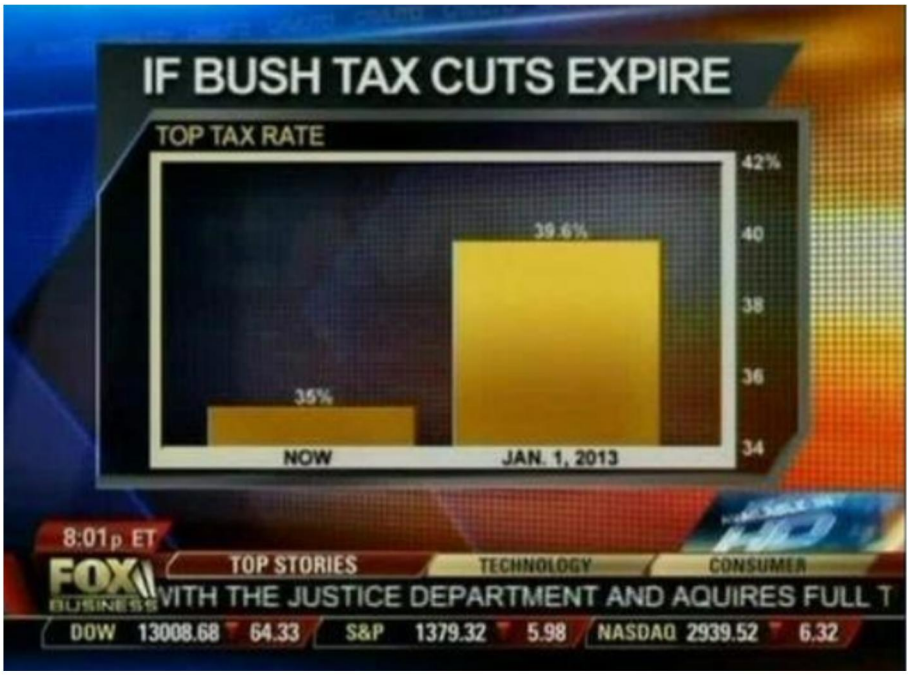
The example of “bad statistics” that I found was an image from Fox News a few years back, likely from 2012, based on the dates in the image. This image was found on Business Insider, from an entire article on the ways Fox News manipulates data in an unethical manner.

Data

On the screen is a graph supposedly showing the top tax rate if Bush-era tax rates expire. The left bar appears quite low on the scale at 35%. From there, the anticipated tax rate after Bush-era tax cuts expire seems to skyrocket. But, upon closer inspection, the proposed value only increases to 39.6%. At first glance this model would seem appropriate for the comparison the person is trying to make. It is a reasonable diagram to choose given the amount of information and intended audience. Yet this seems to be quite manipulated.

Misinformation and Unethical Practice

The Y axis is so far zoomed in that the increase from 35% to 39.6% seems almost a five-fold increase. Additionally, the numeric labels on the different tax rates, as well as the Y axis labels, are quite small and difficult to read. For Fox News viewers, who may be sitting feet away from a TV screen and older in age, this would be an easy miss. The only thing the viewers would remember is the brightly colored bars that appear quite far apart. This violates the ASA Ethical Guidelines for Statistical Analysis, specifically Principle H: Responsibilities Regarding Potential Misconduct. The person or people who created this graph exhibited disregard for the rules of ethical statistics in their decision to portray a 4.6% increase in tax rates as an exponential jump.



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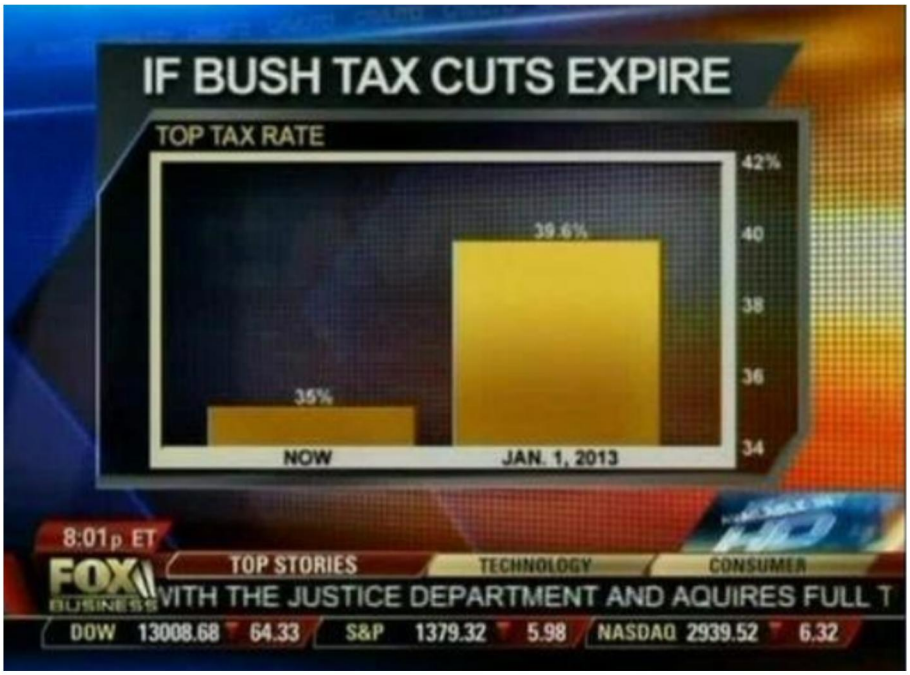

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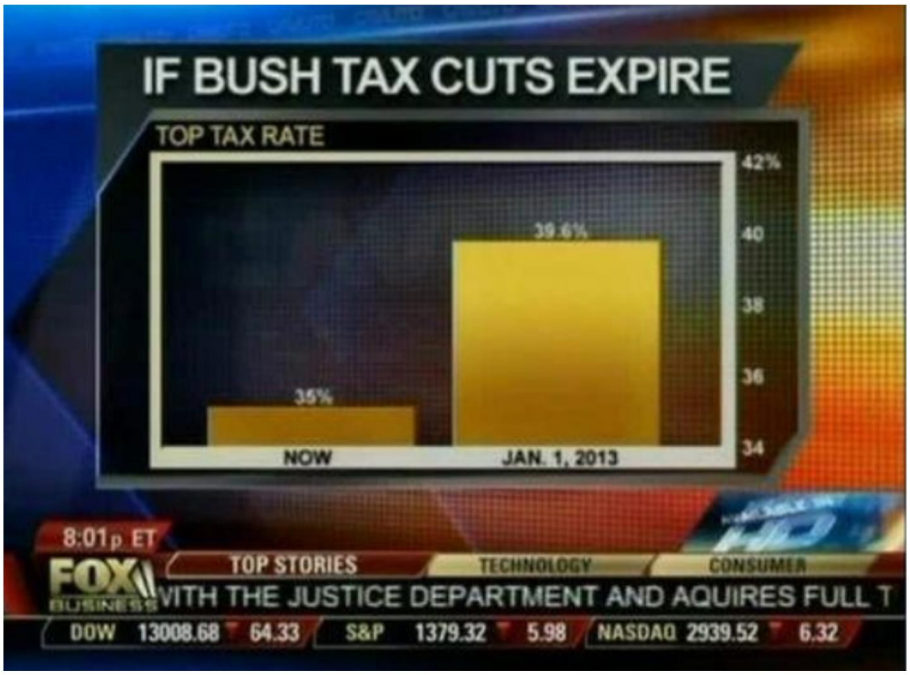

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