

Question1

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Task

I will seek to prove that movie critics were not a near perfect prediction of a film's popularity and profitability amongst audiences in the mid-2000s. In order to do that I use the **Movies.csv** data set given to me by my friend at *Mr Video*. I will try to disprove her claims using plots throughout.

Claim 1

She claims that: *if a movie had a rating of more than 80% on Rotten Tomatoes, audiences would rate it above 85% every time.*"

The barplot below clearly shows that my friend's claim is false. For the films that Rotten Tomatoes rated above 80, an overwhelming majority was not rated above 85 by audiences.

Claim 2

The second claim is that *"Disney films may not have the highest grossing numbers, but they've always been the most profitable of all the leading studios."*

I will show that they have not always been the most profitable out of the leading studios.

There is one film called Fireproof that has a very high profitability of 66.934. It is an outlier that will be excluded from the plot along with any missing values of profitability or studios.

```
## # A tibble: 1 x 8
##   Film      Genre 'Lead Studio' 'Audience  score ~ Profitability 'Rotten Tomatoes~
##   <chr>    <chr> <chr>                <dbl>          <dbl>          <dbl>
## 1 Firepr~ Drama Independent          51           66.9           40
## # ... with 2 more variables: Worldwide Gross <dbl>, Year <dbl>
```

In 2 we see that Disney is not clearly the most profitable film. While it's median is very close to Fox, Sony, and Summit, it's upper quintile is substantially lower than Summit. Note also that Disney is being pulled up by an outlier, High School Musical 3: Senior Year

If we remove this outlier, we get 3. It shows that Disney is an average performer in terms of Profitability. It's median is lower than Fox, and its upper quintile appears lower than Fox, Sony, Summit, and Universal Studios.

Therefore, it is not clear that Disney is indeed more profitable. The plots indicate that there are a number of studios that are more profitable and more consistent.

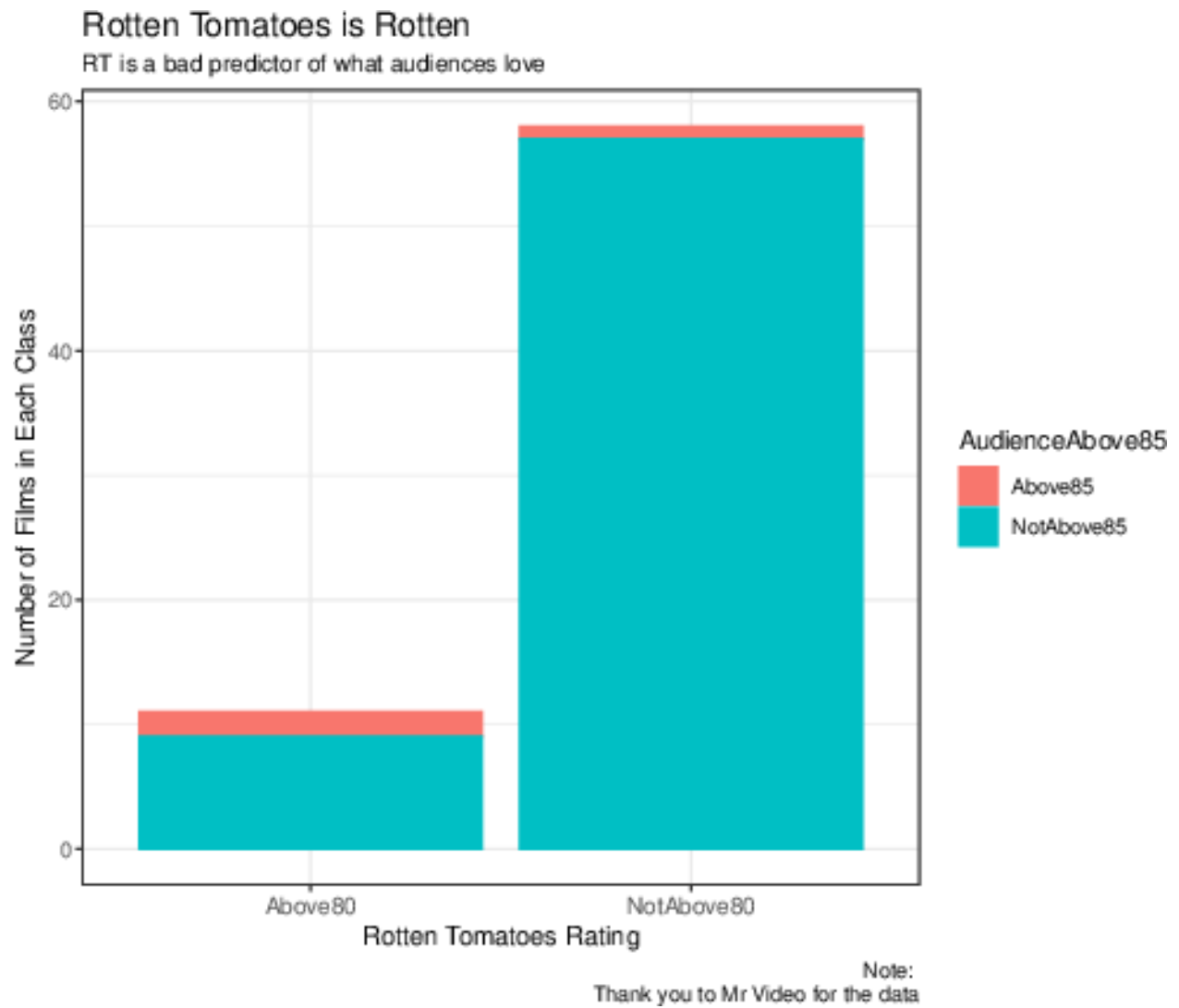


Figure 1: Caption Here

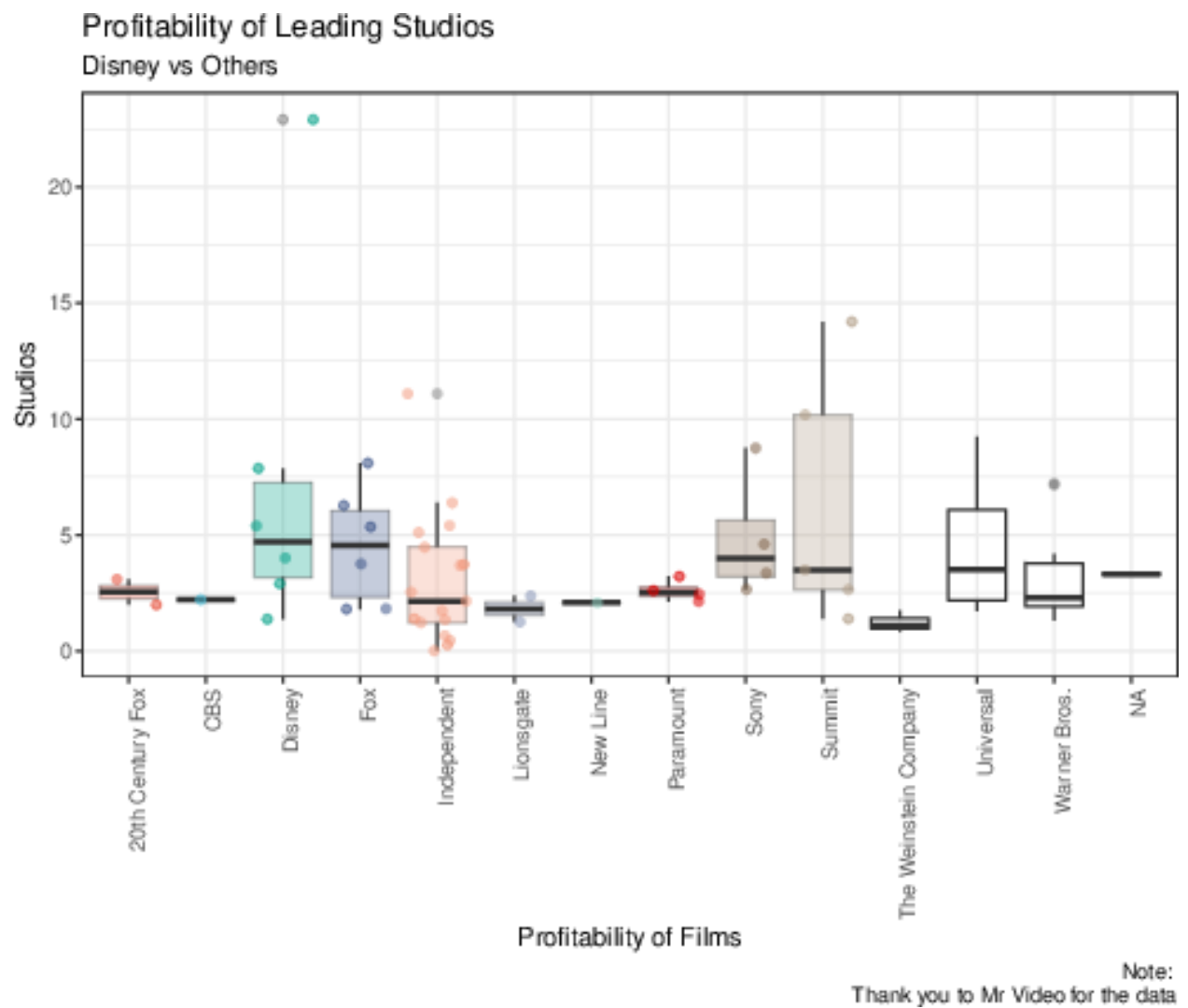


Figure 2: Boxplot Comparing Disney's Profitability

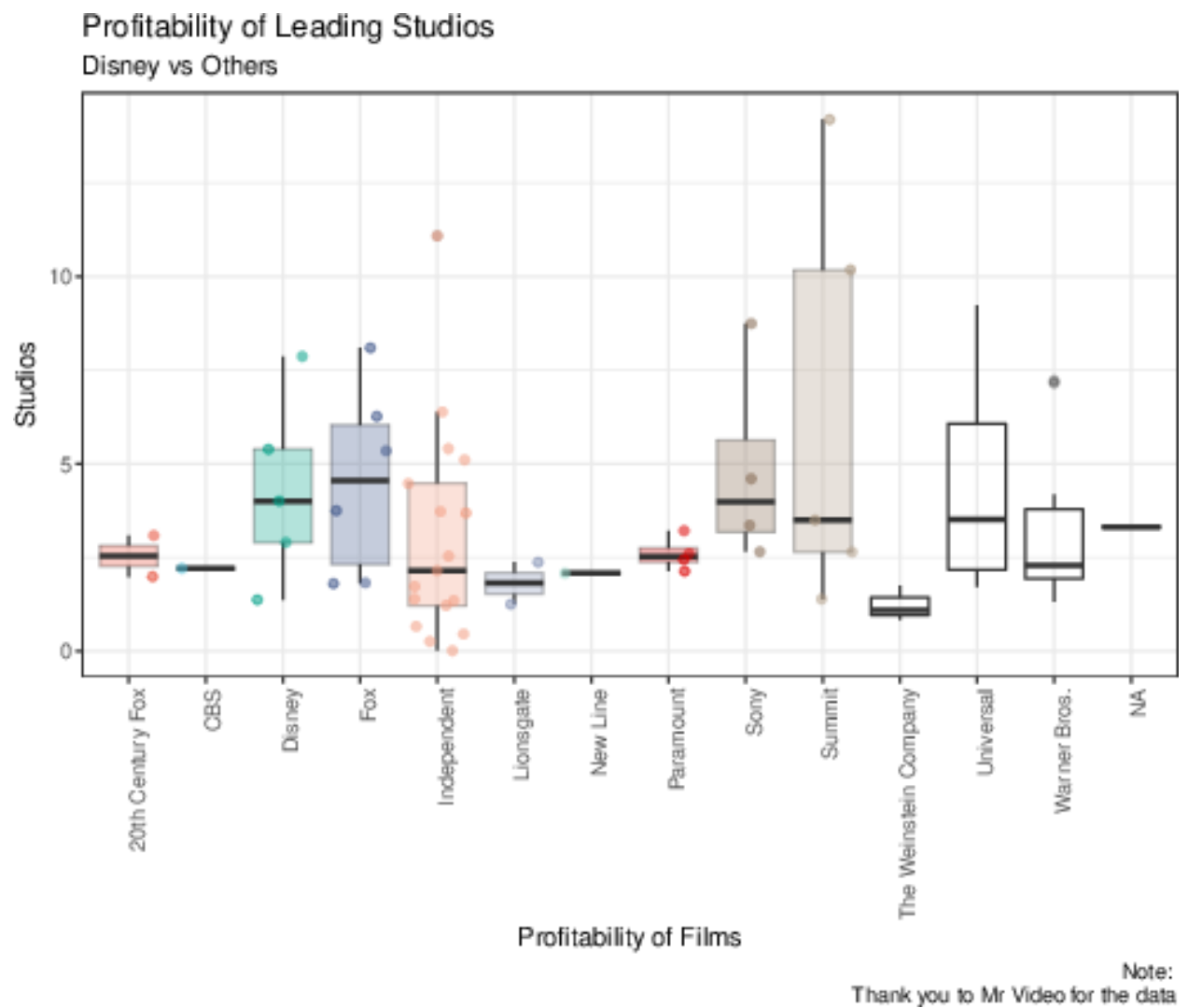


Figure 3: Boxplot Comparing Disney's Profitability

Claim 3

The third claim is that “*Audiences are always drawn to the highest grossing films*”. She goes further to claim that the correlation between world wide grossing numbers and audience scores would be near 80%.

Note that 4 gives the relationship between world wide gross and audience rating. The linear line is shows what a strong correlation would look like. However, the actual line plot of the relationship between world wide gross and audience scores is much more jagged and sporadic. There is not a clear linear relationship and correlation. This means that the third claim also appears false.

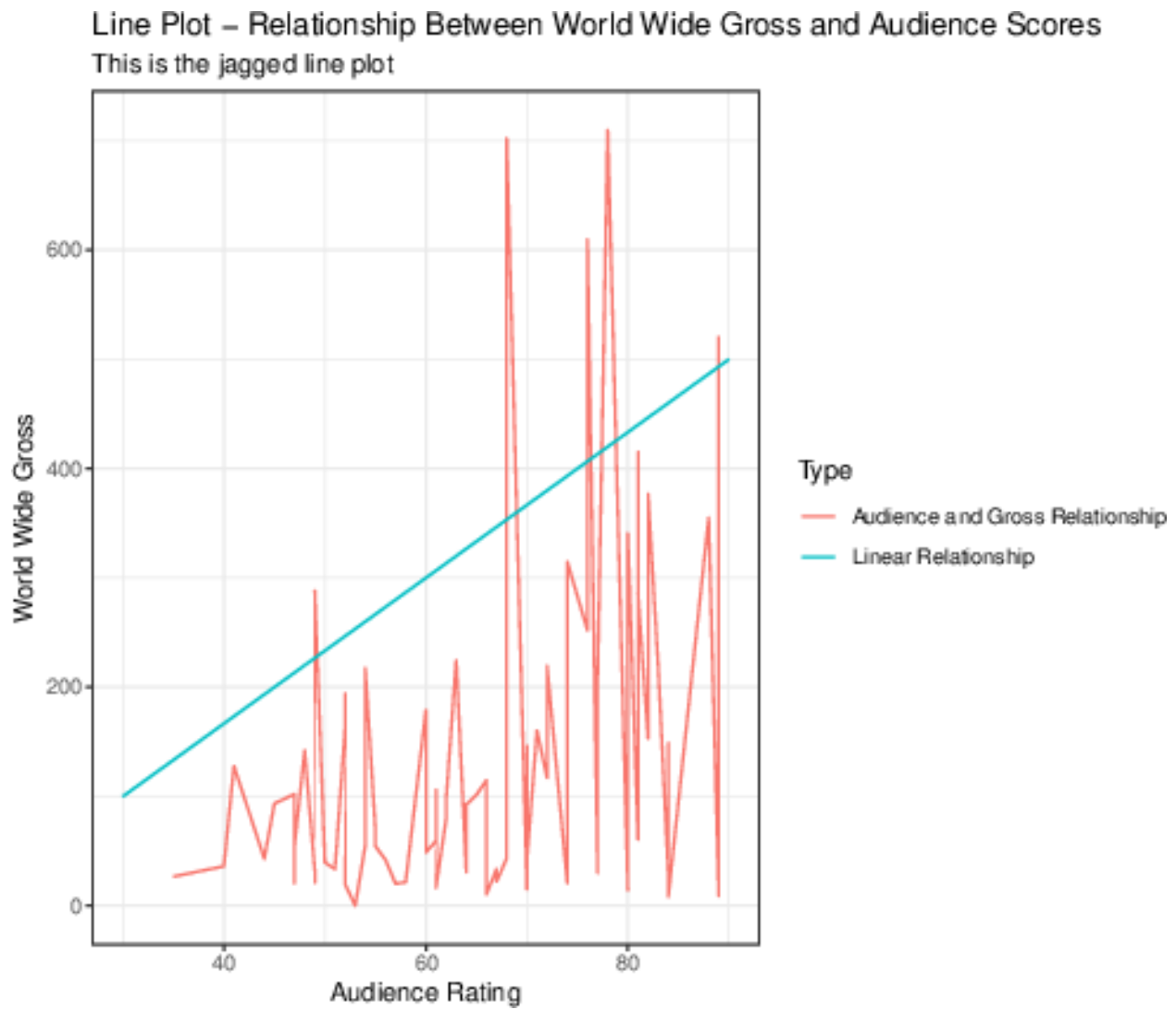


Figure 4: Jagged Line Plot of Gross and Rating