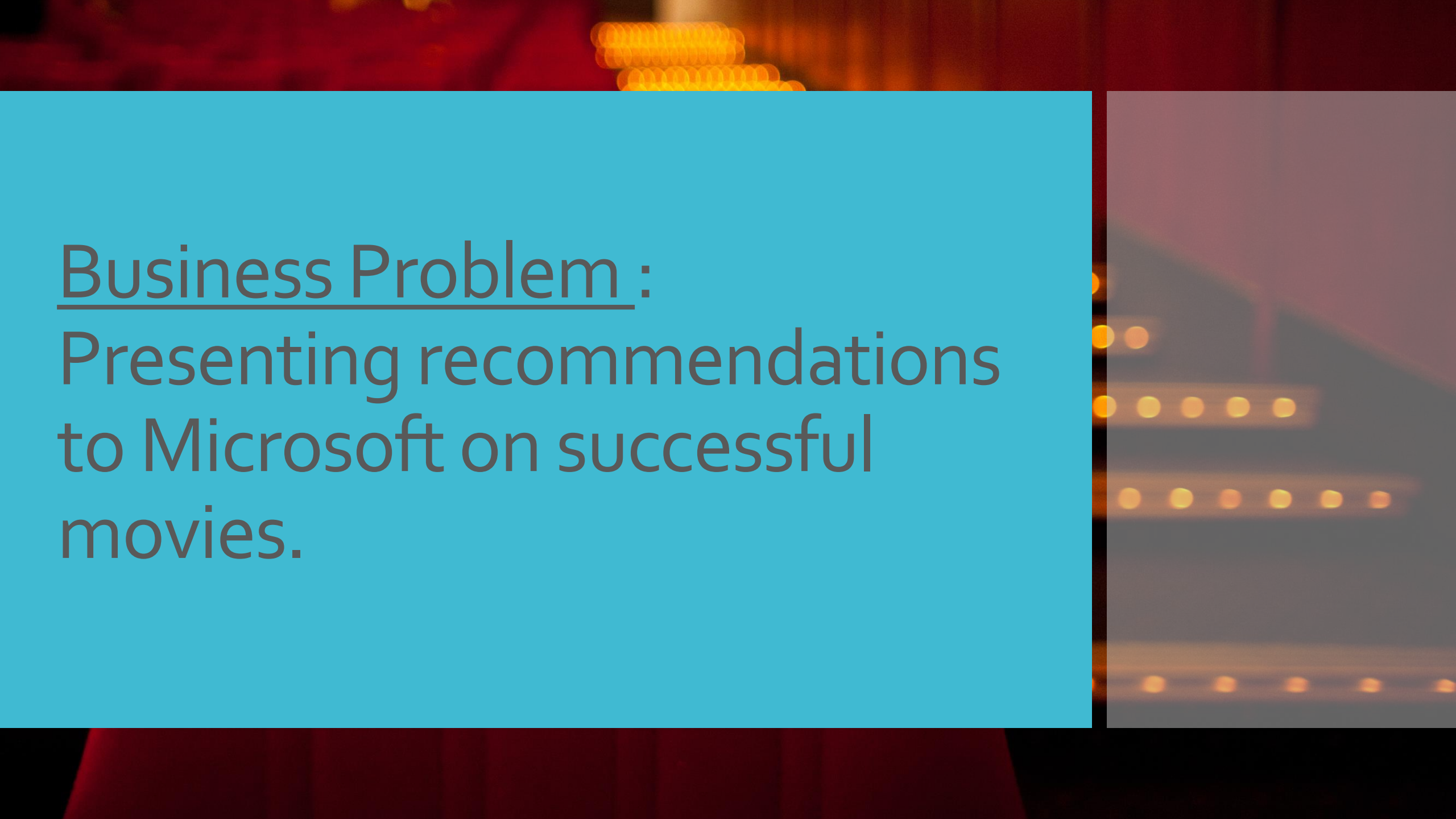


# Movie Success Analysis

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Business Problem :  
Presenting recommendations  
to Microsoft on successful  
movies.



Source	Length	Movies dating from _____ to _____
Rotten Tomatoes: Reviews and Movie Info	Merged – 54,672 Data Points	1958 to present
The Numbers : Movie Budgets	5782 Data Points	1915 to present
IMDB and The Numbers: Movie Budgets	Merged – 43,969 Data Points	1915 to present

## The Data

The IMDb logo, consisting of the letters "IMDb" in a bold, black, sans-serif font on a yellow background.



## Overview of Study

### Exploratory Data Analysis

- Data Prepped and Cleaned
- Statistical visuals Generated and Observed

**Key measurements of success used for recommendations:**

**Rating, Revenue, Profit, and Return on Investment**

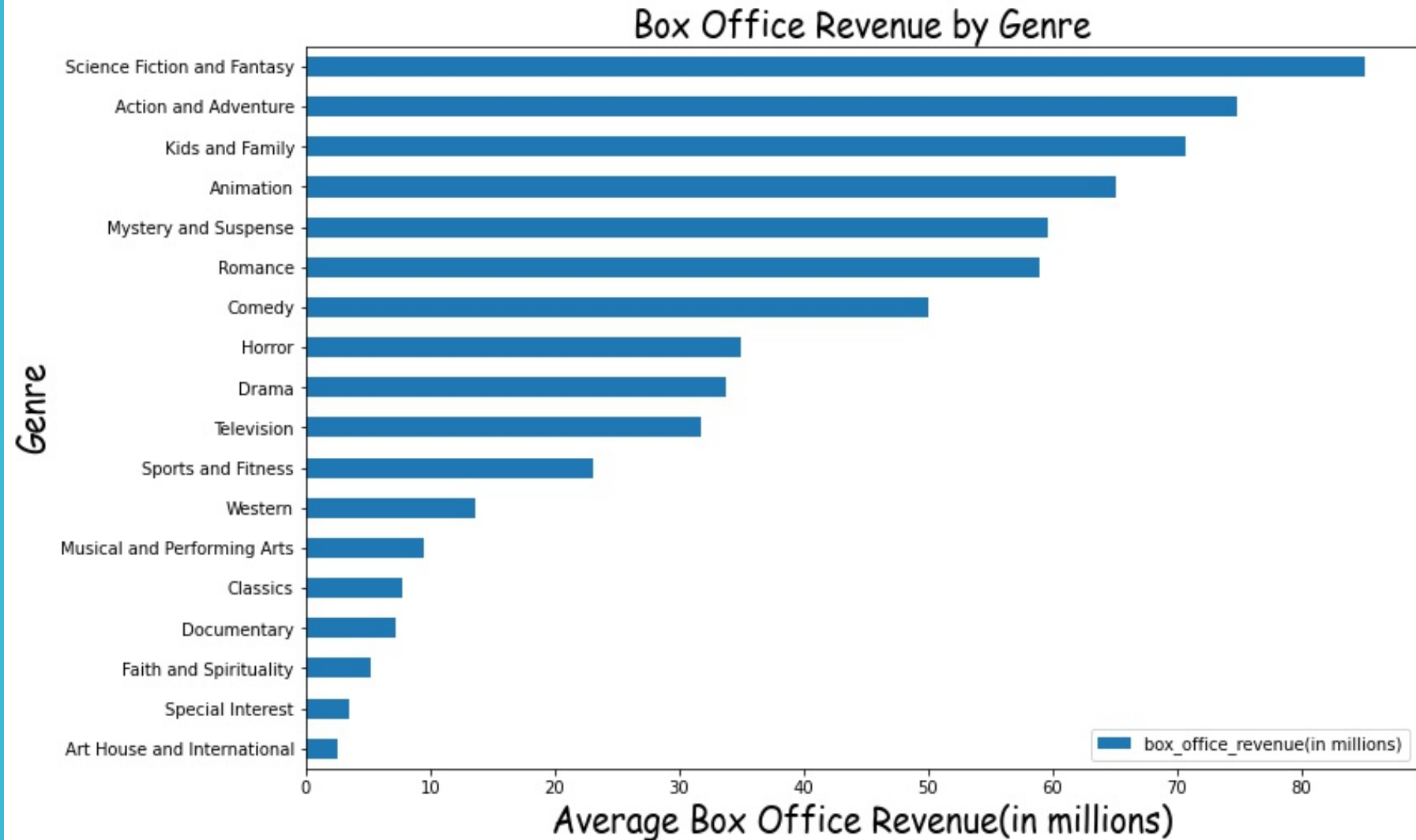
## Question #1 - What **Genres** lead to the **most revenue** at the **box office**?

### Highest Grossing Genres:

- Science Fiction and Fantasy
- Action and Adventure
- Kids and Family

### Medium-High Performing:

- Romance
- Mystery and Suspense
- Animation
- Comedy



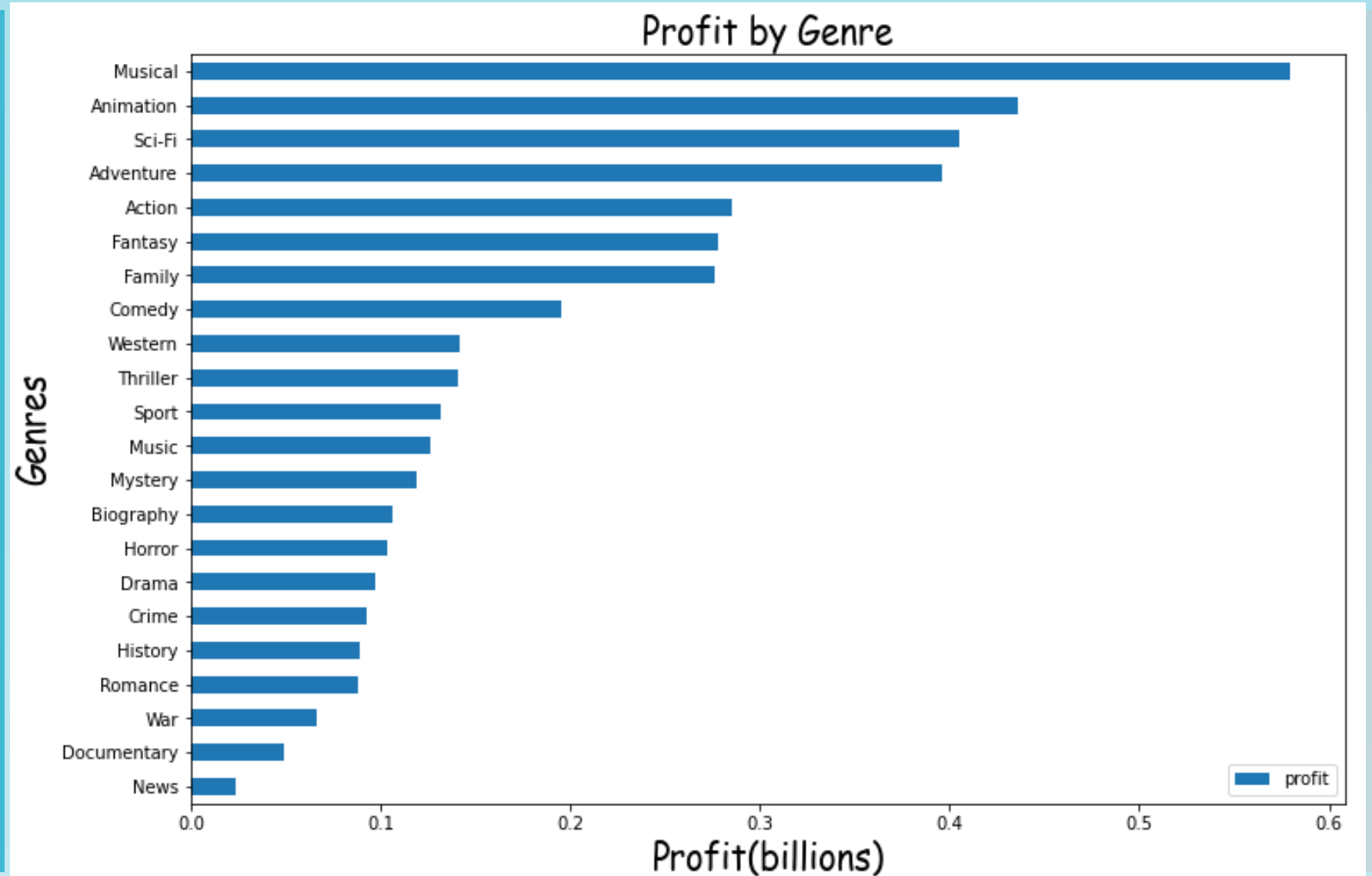
## Question #2 - What Genres lead to the profit?

### Highest Profit Genres:

- Musical
- Sci-Fi
- Animation

### Medium-High Performing:

- Action
- Fantasy
- Family
- Comedy

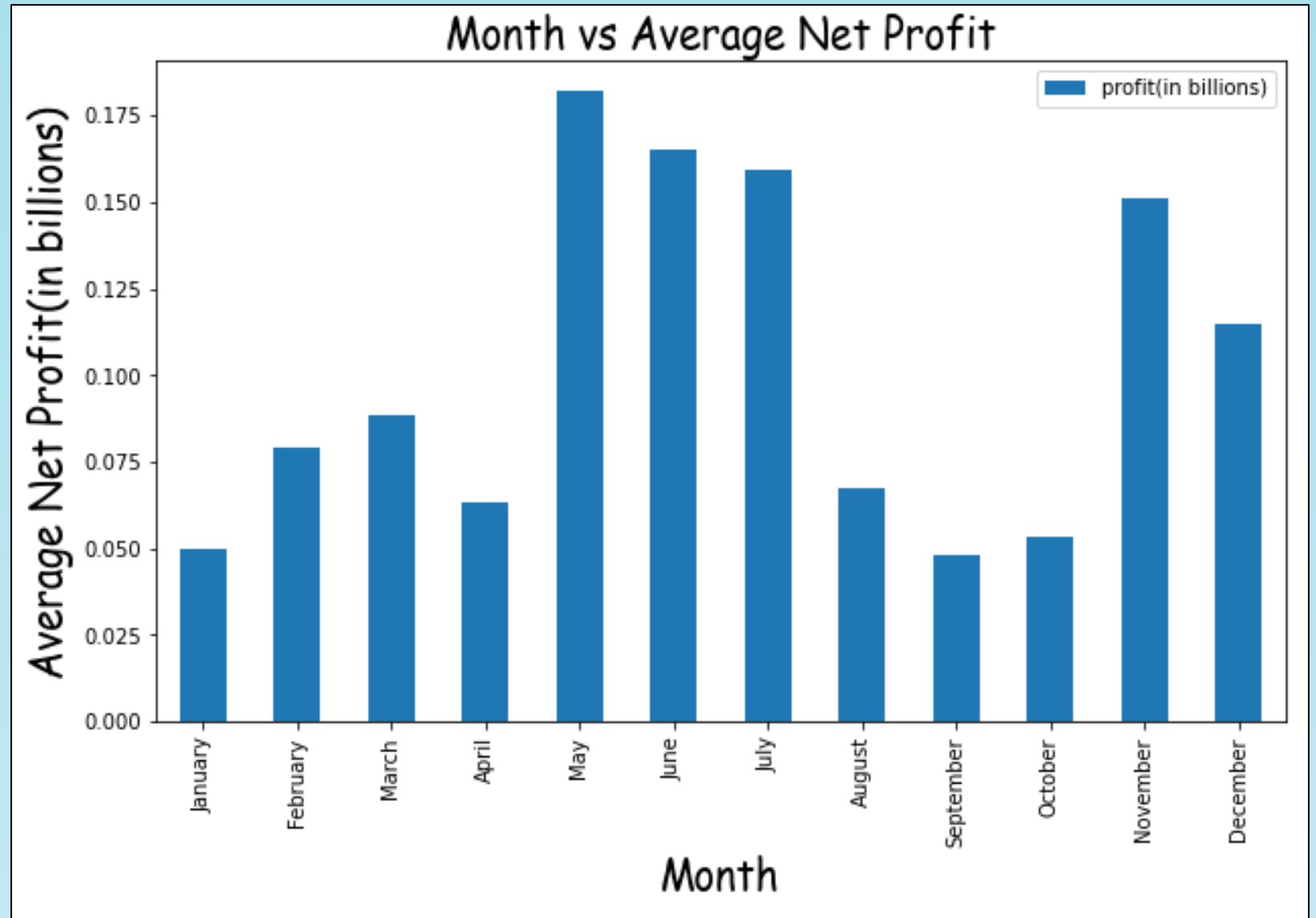


### Question #3 - What **time of the year** leads to the **highest net profit**?

#### Highest Months for Profit:

- May
- June
- July
- November
- December

This is likely due to the Summer and holidays months being so popular for movies.

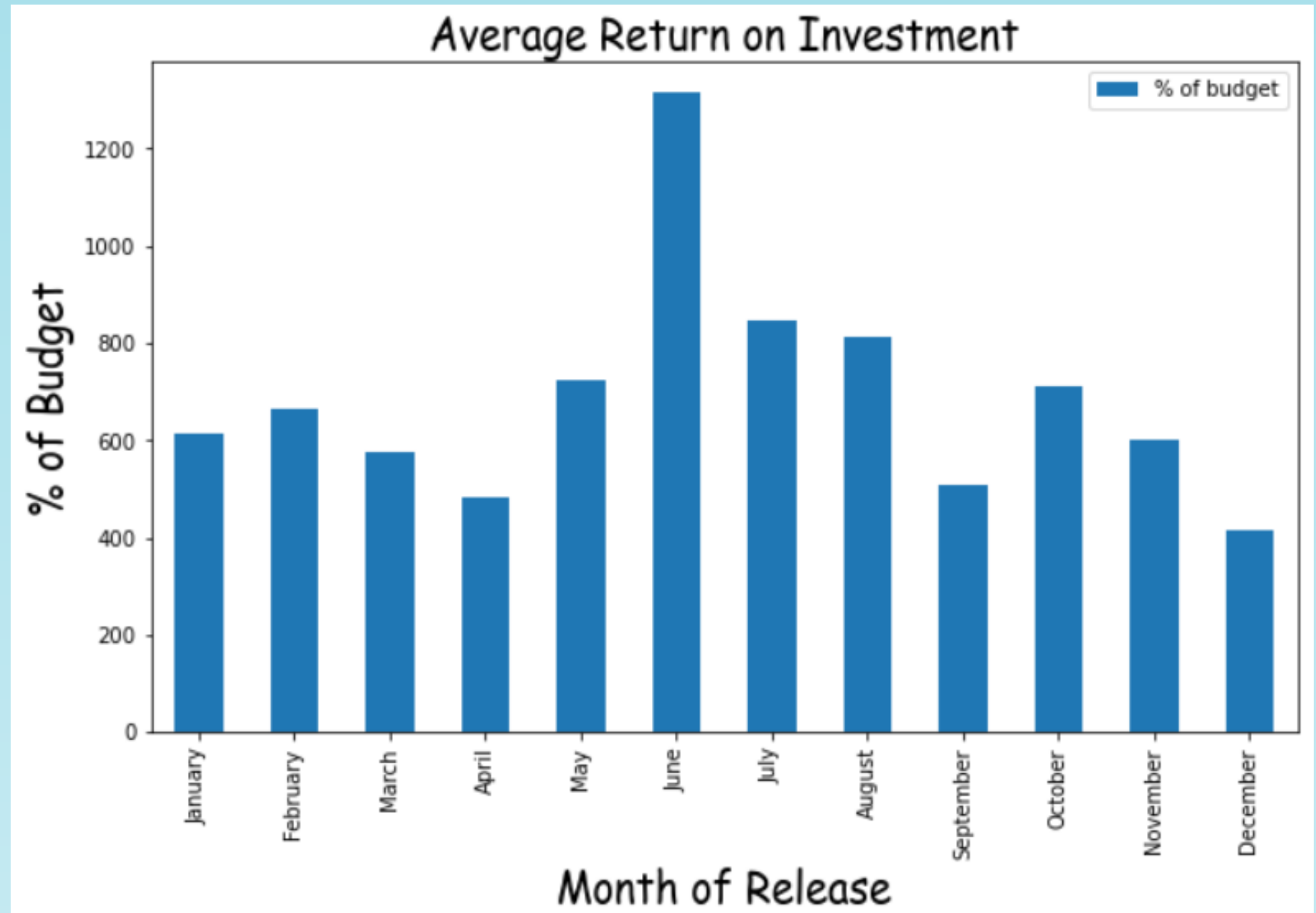


### Question #3 - What time of the year leads to the highest return on investment?

Highest Months for ROI:

June - highest potential  
for return on investment.

Likely because budgets  
for movies are not  
necessarily higher in the  
Summer, but the  
popularity is!



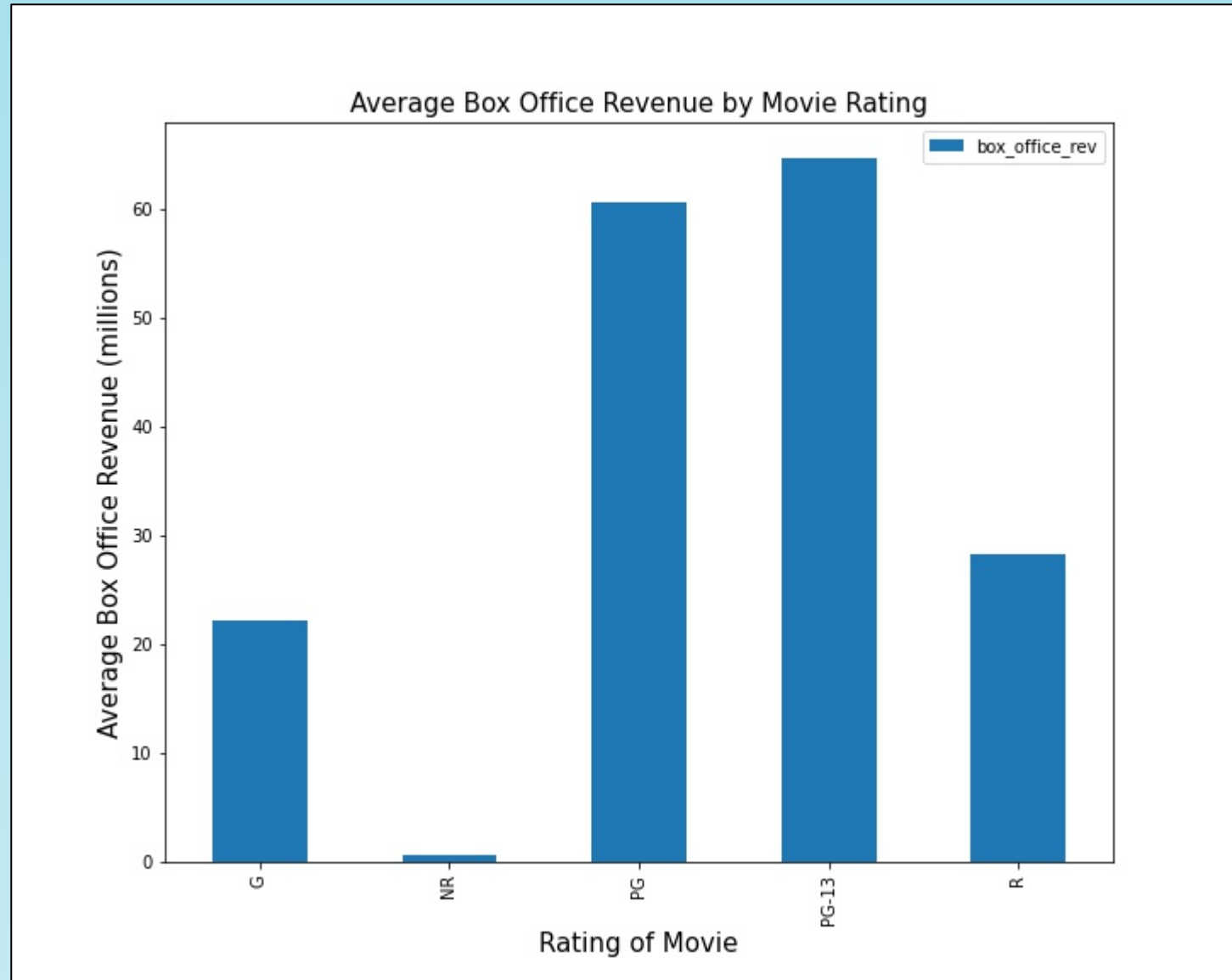


## Question #4 - What rating leads to the highest box office revenue?

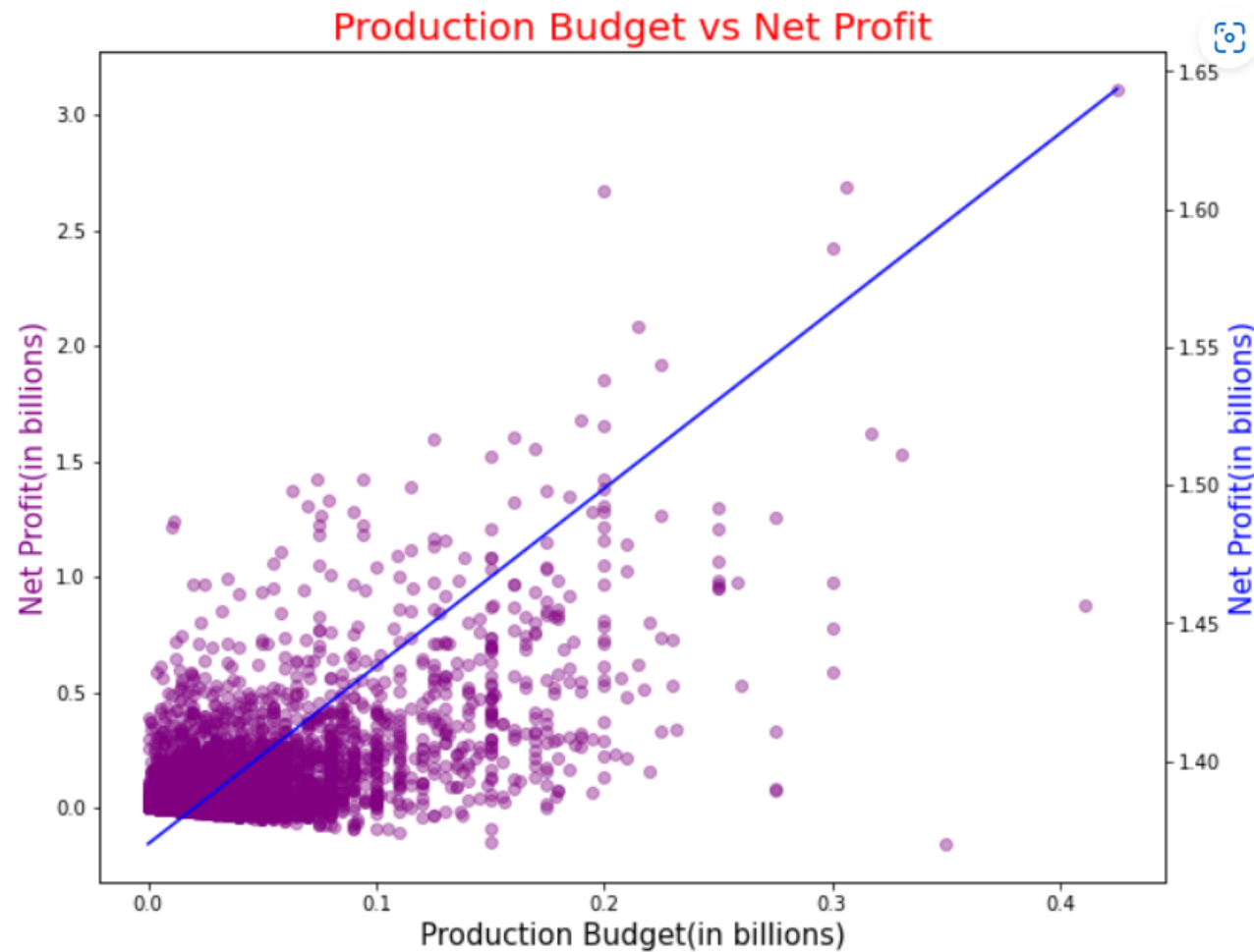
- The **average revenue** for ratings appears to favor **PG and PG-13** films

Possible reason:

- Rated **R** and **G** movies will by design exclude a subset of viewers for a population due to **age**.



## Question #4 - Does a higher budget lead to a higher net profit?



The Correlation Coefficient is: 0.643579874967001. This is a sign that the budget has a positive, but weak correlation to profit of the film. With a weak correlation, it makes sense to try keeping the budget low as it is where the highest concentration of the data is.

## Moving forward

- Recommendations

#1: Keep the Budget low to manage risk.

#2: Release Movies during the Summer and the Holiday Season.

#3: Maximize these Genres:

- Action, Adventure
- Science-Fiction, Fantasy, Animation
- Musicals
- Preferably in the PG, PG-13 rating.