Movie Success Analysis
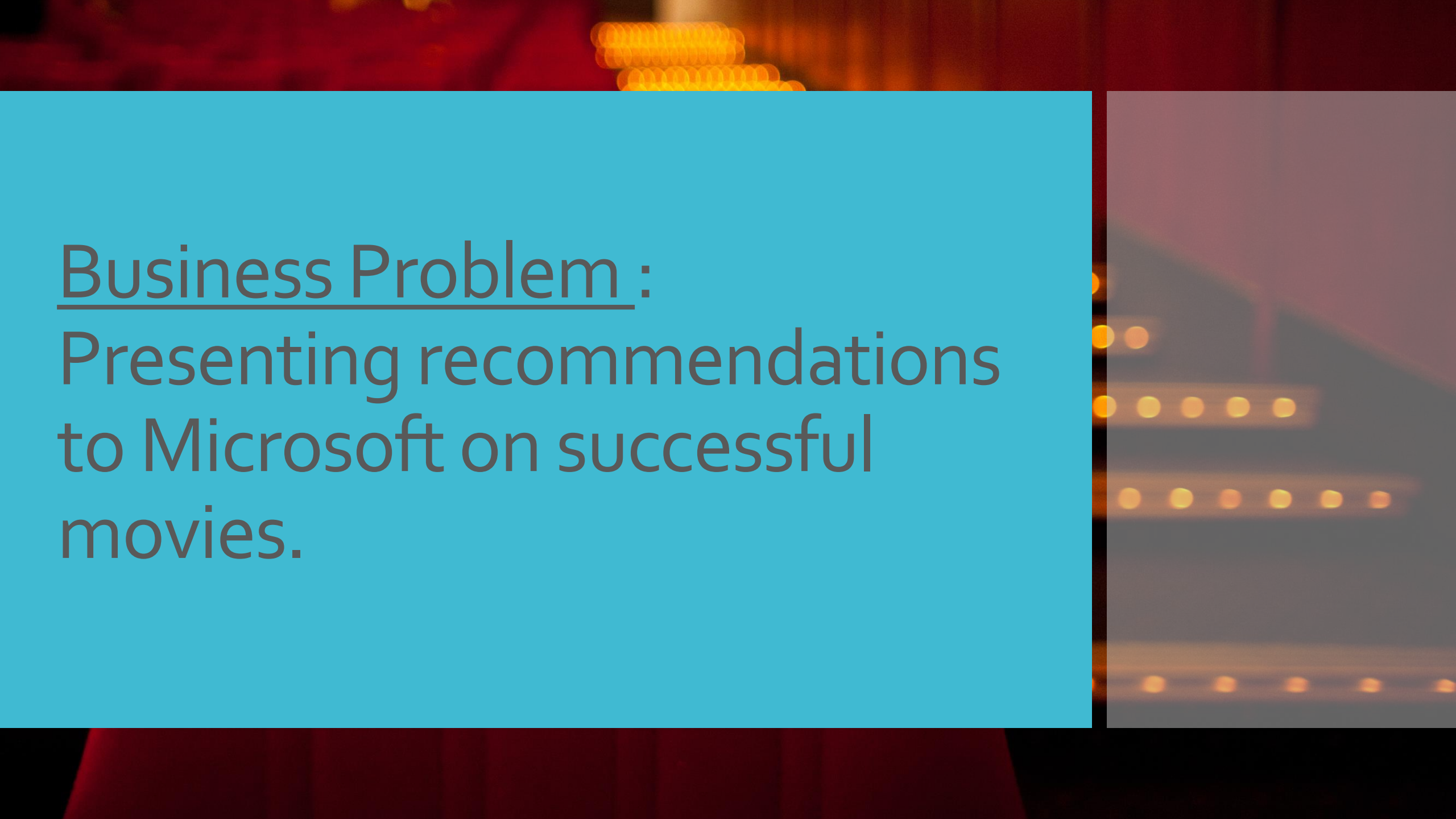
By Andrew Levinton

alevinton151@gmail.com

Business Problem :
Presenting recommendations to Microsoft on successful movies.

The Data

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

Overview of Study

Exploratory Data Analysis

- Data Prepped and Cleaned
- Statistical visuals Generated and Observed

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

Revenue

Profit

Return on Investment

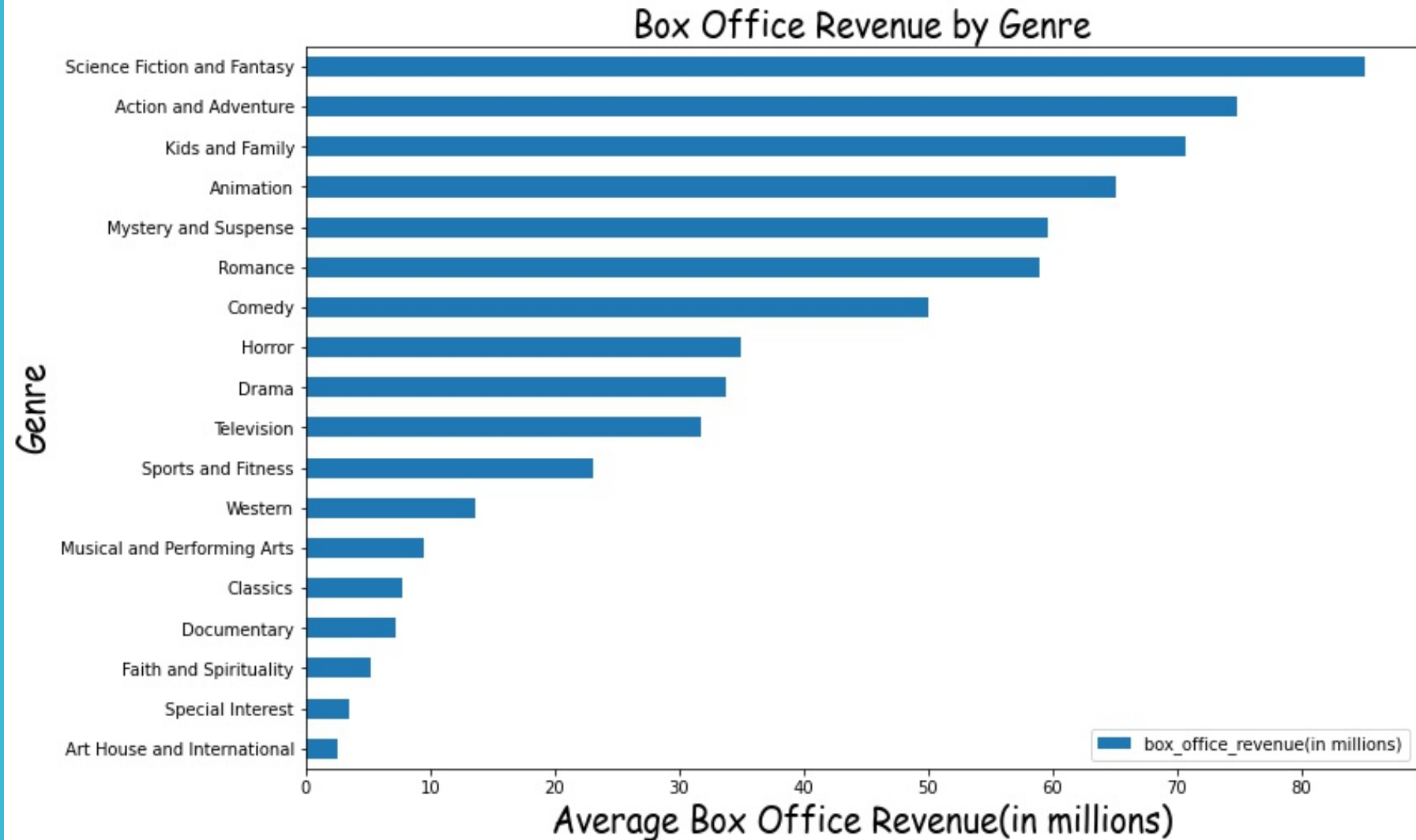# Question #1 - What Genres lead to the most revenue at the box office?

Highest Grossing Genres:

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

Medium-High Performing:

- Romance
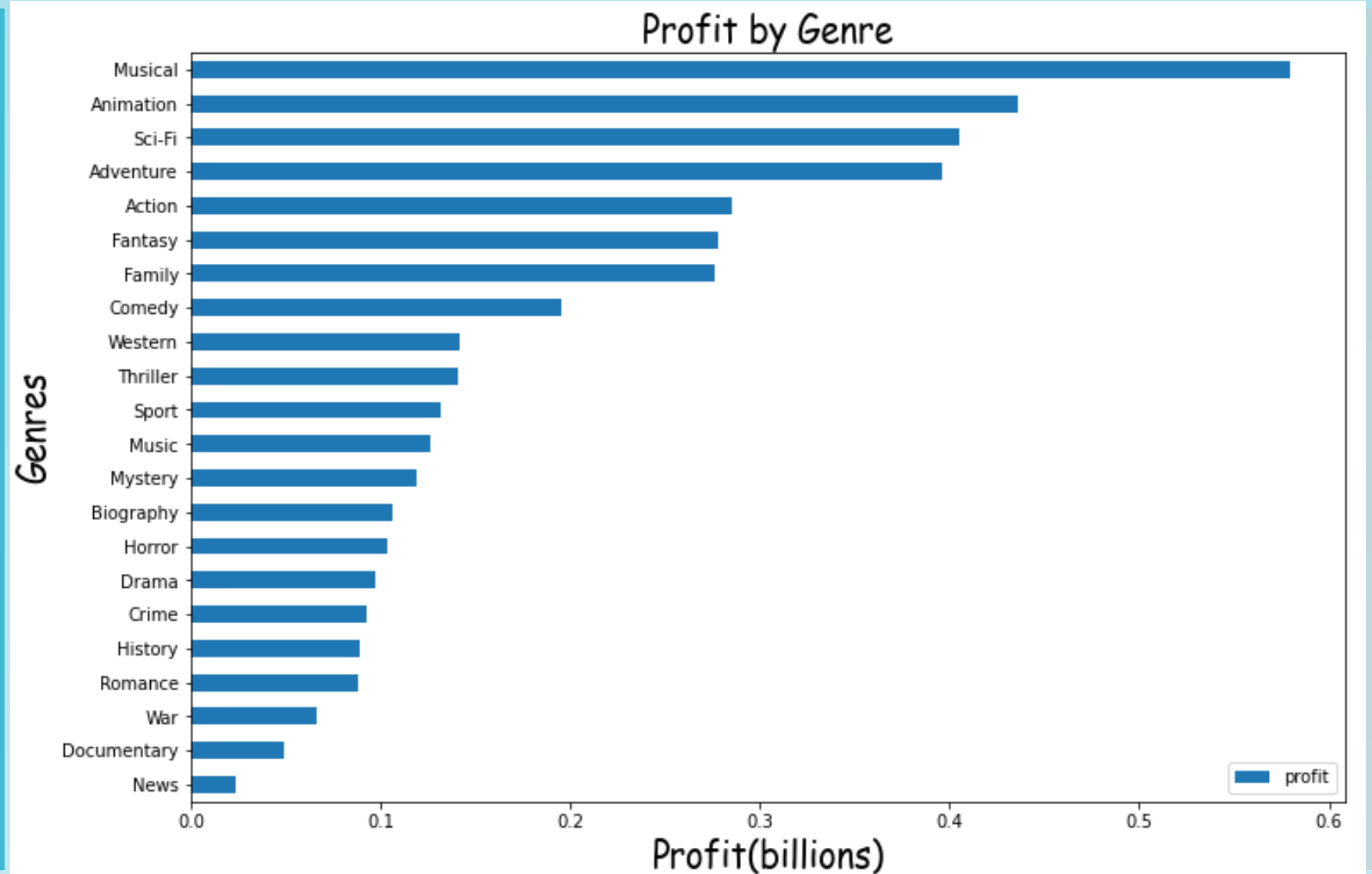- Mystery and Suspense
- Animation
- Comedy

Box Office Revenue by Genre

Question #2 - What Genres lead to the profit?

Highest Profit Genres:

- Musical
- Sci-Fi
- Animation

Medium-High Performing:
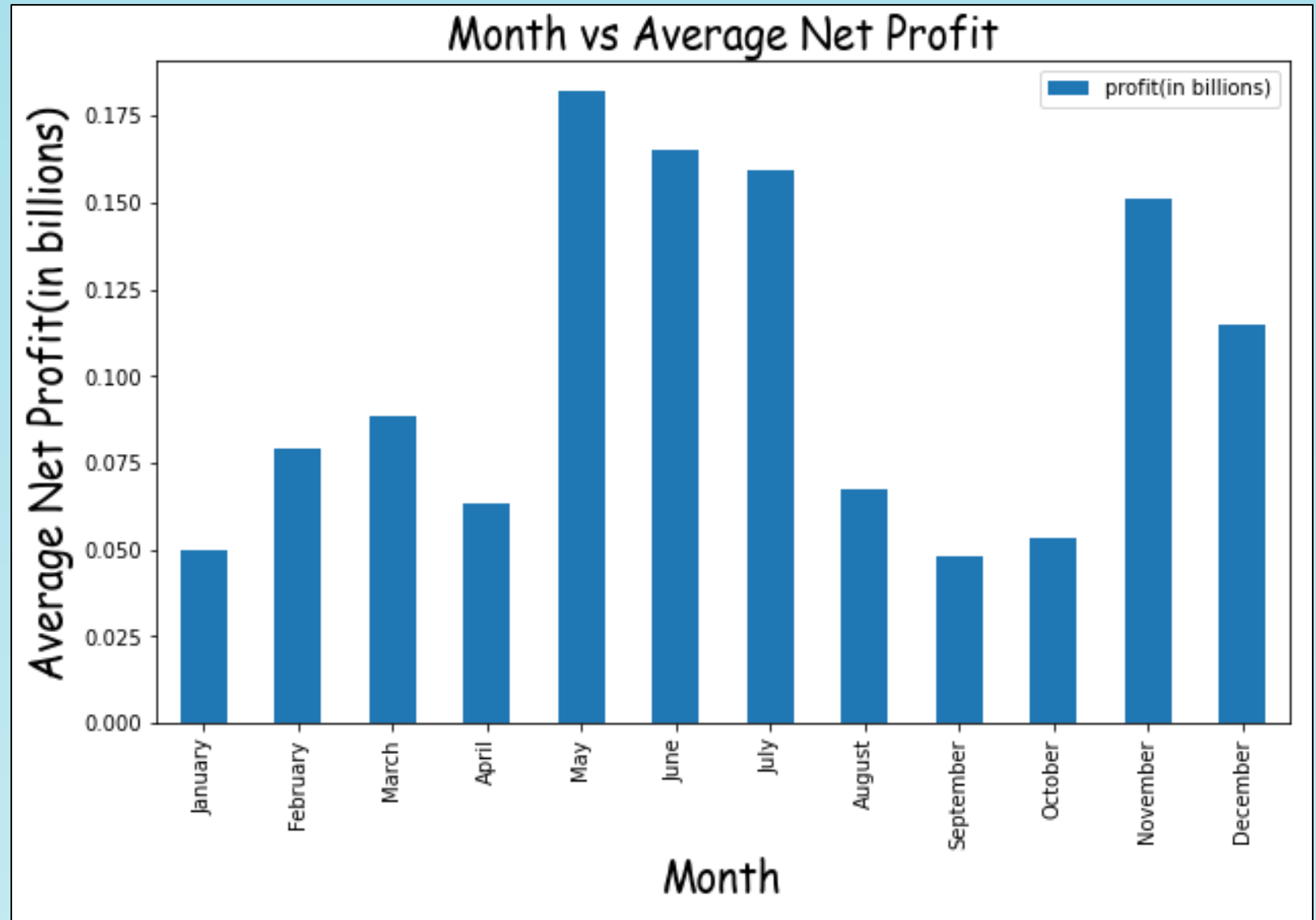
- Action
- Fantasy
- Family
- Comedy

Profit by Genre

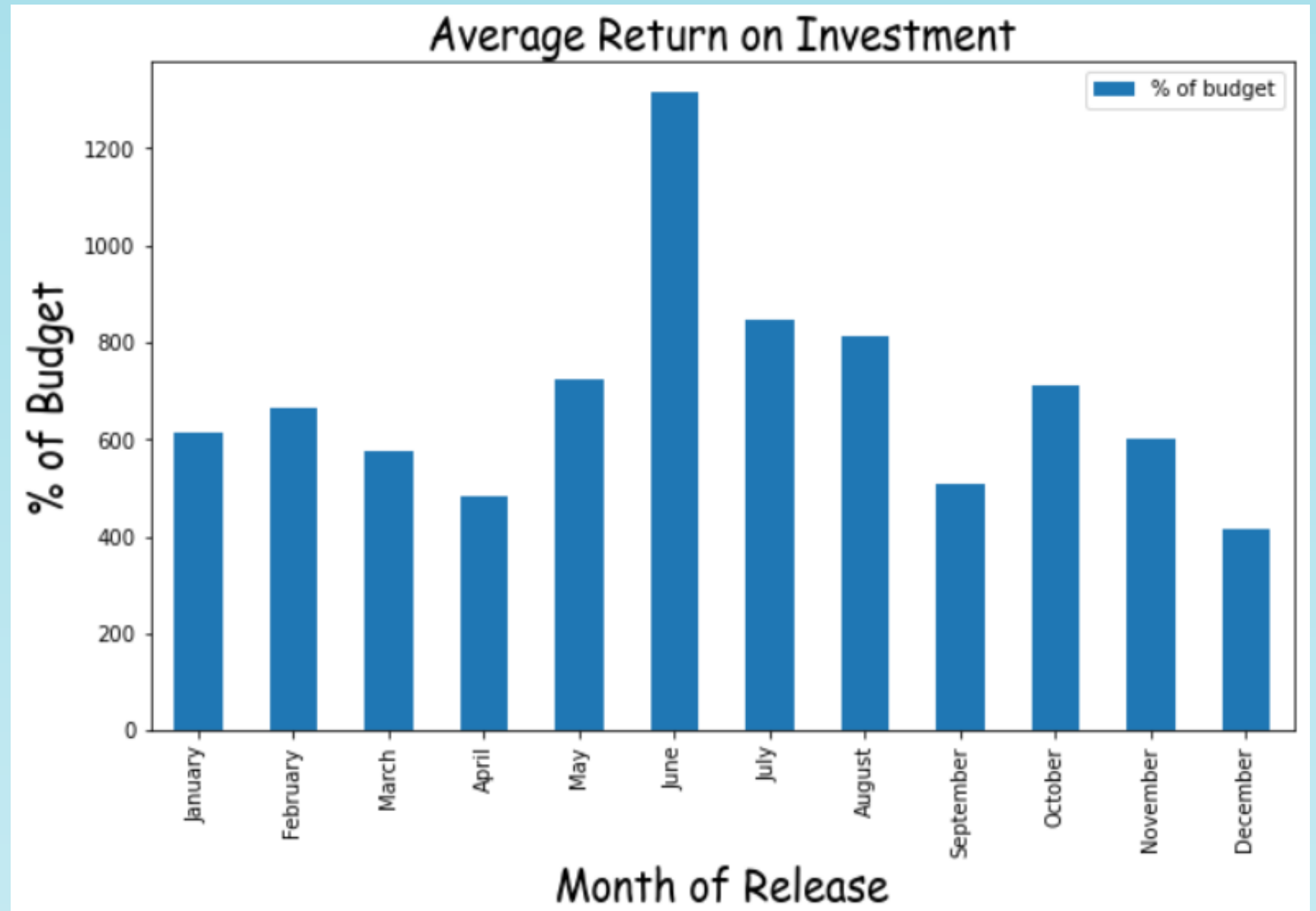# Question #3 - What time of the year leads to the highest net profit?

Highest Months for Profit:

- May
- June
- July
- November
- December

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

Month vs Average Net Profit

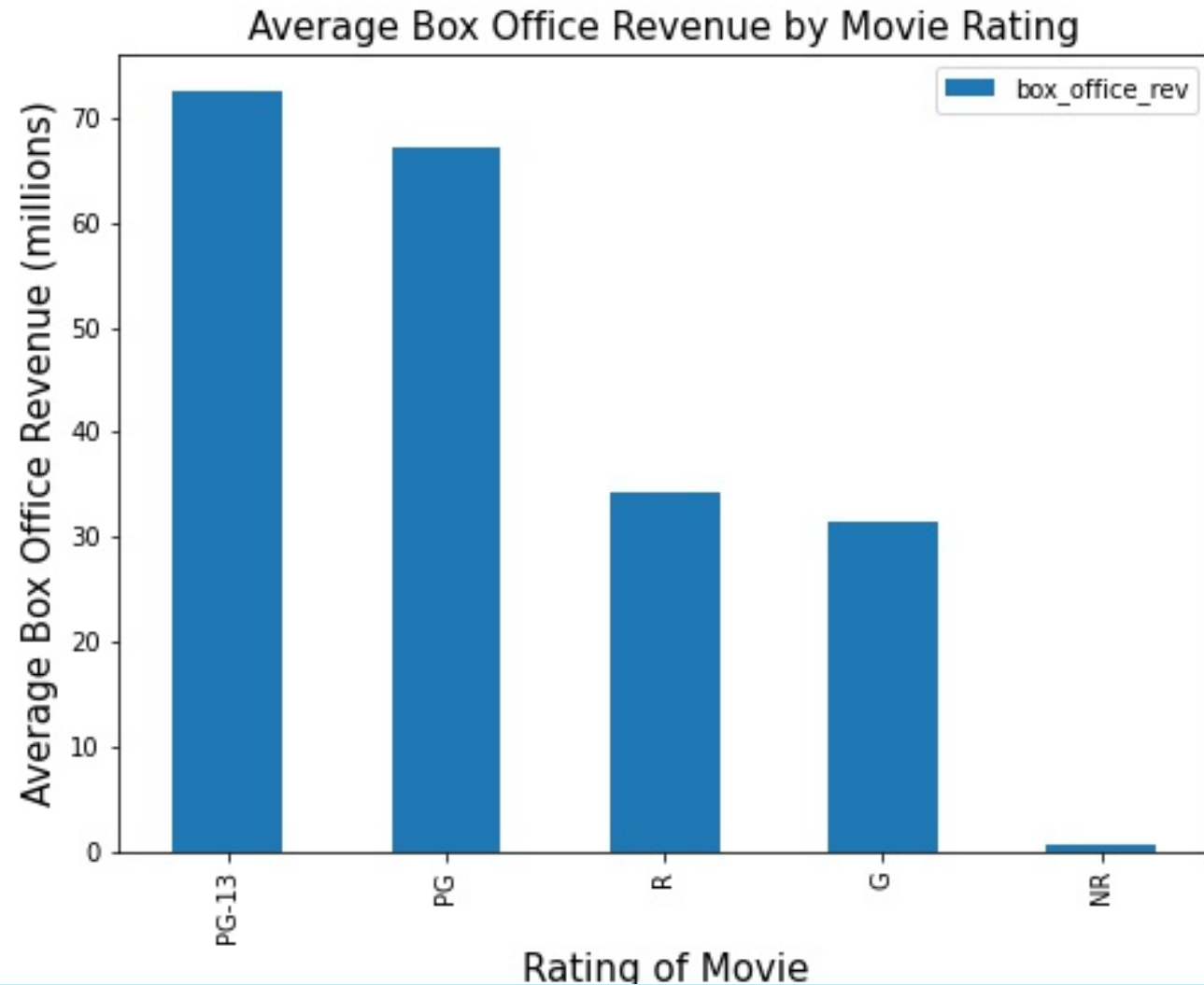June - highest potential for return on investment.

Average Return on Investment

Question #5 - What rating leads to the highest box office revenue?

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

Possible reason:

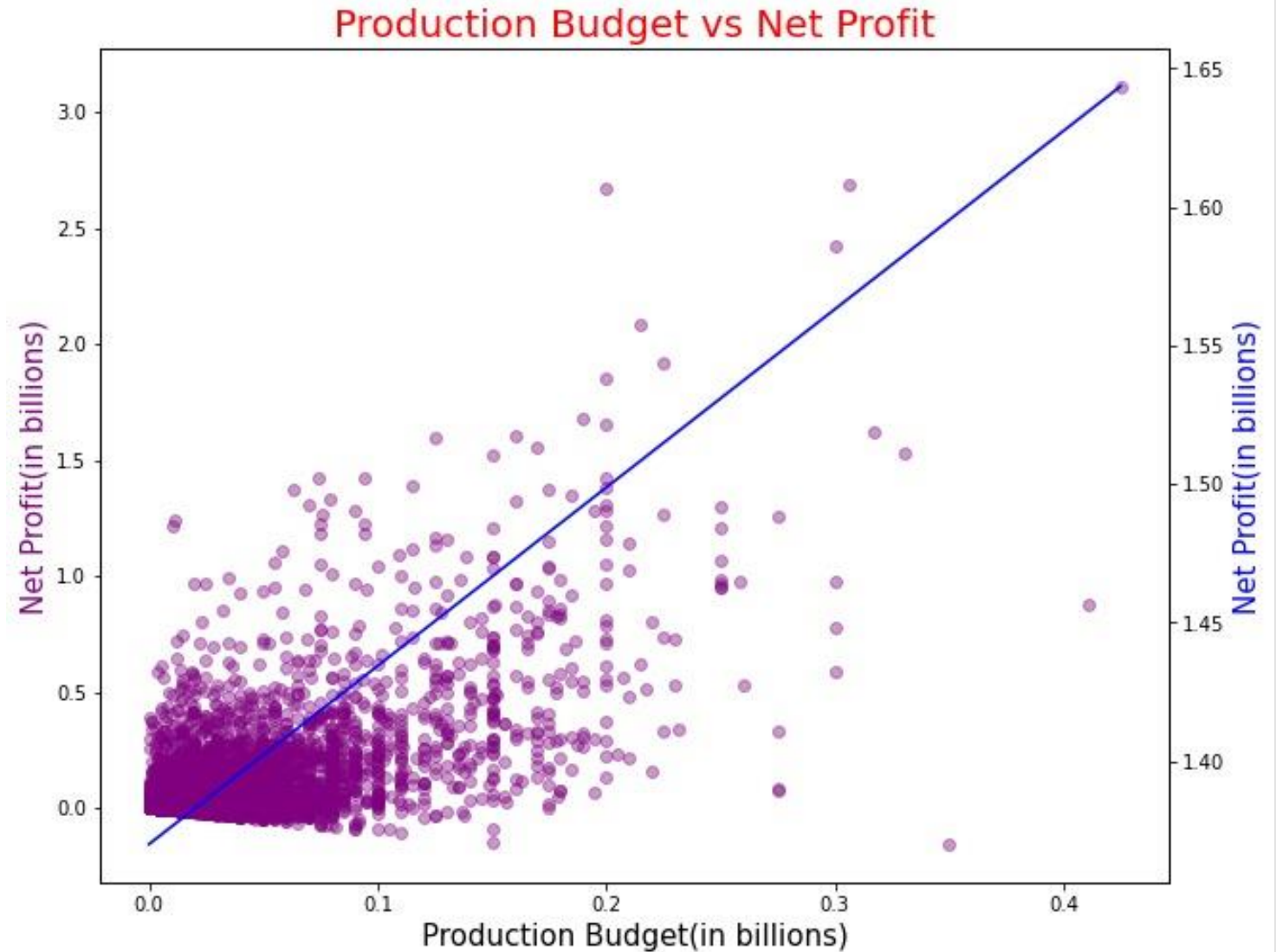- Rated R and G movies will by design exclude a subset of viewers for a population due to age.

Average Box Office Revenue by Movie Rating

Correlation Coefficient of Production Budget to Net Profit: .64

Medium Positive Correlation – more reliable with a lower budget.

Production Budget vs Net Profit

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.