

# Movies Through the Decades

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## Dataset

# Dataset Summary

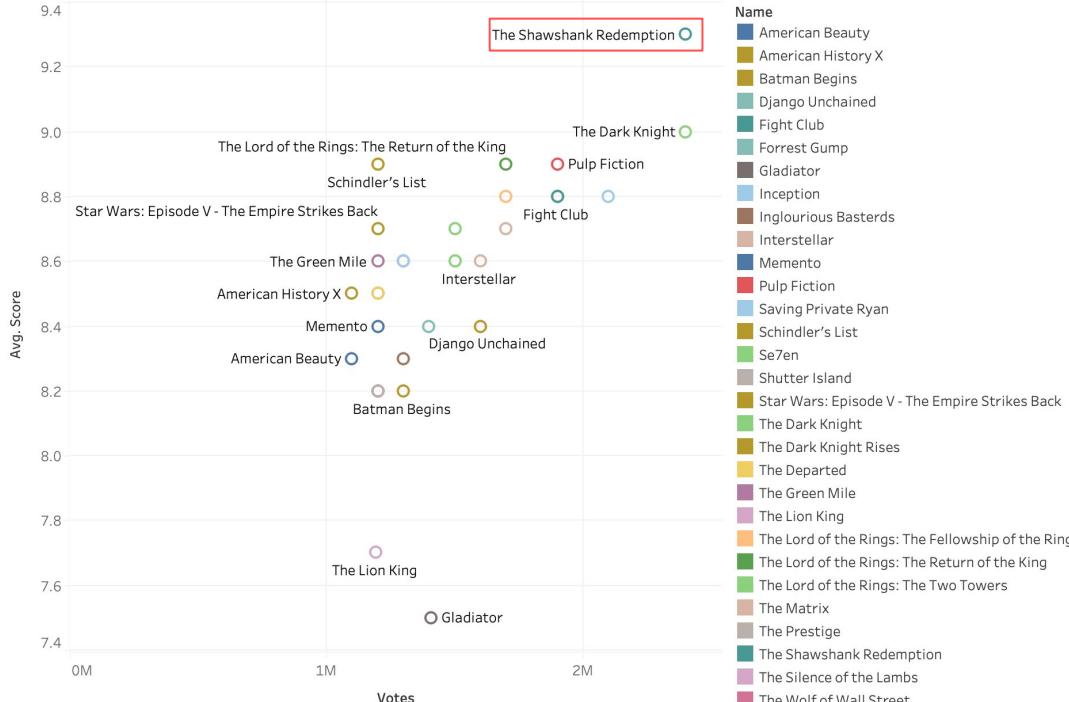
**6820** movies from IMDb  
220/year from 1986-2016

- Budget
- Company
- Country
- Director
- Genre
- Gross
- Name
- Rating
- Runtime
- IMDb user rating score
- Number of IMDb votes
- Star
- Writer
- Year

# Top 30 Most Voted Movies



Top 30 Most Voted Movies, Highest IMDb Scores vs Votes



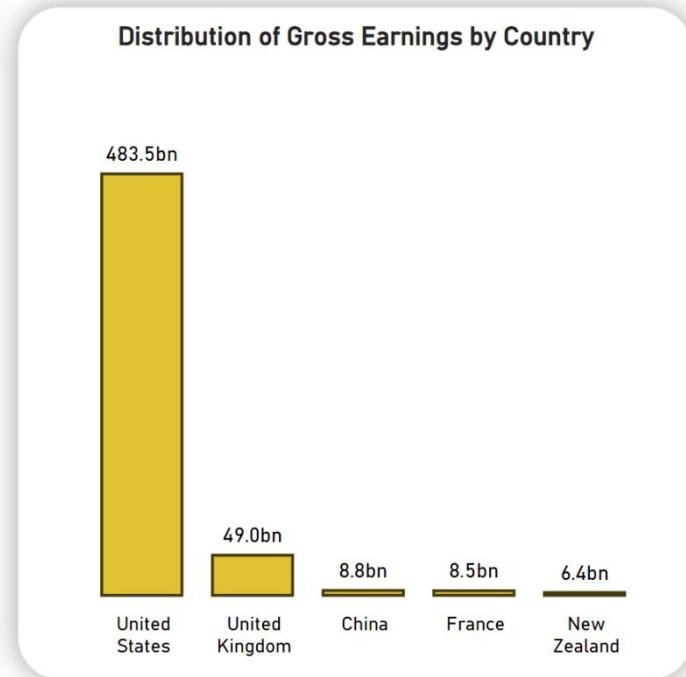
Coming in at #1:  
The Shawshank  
Redemption



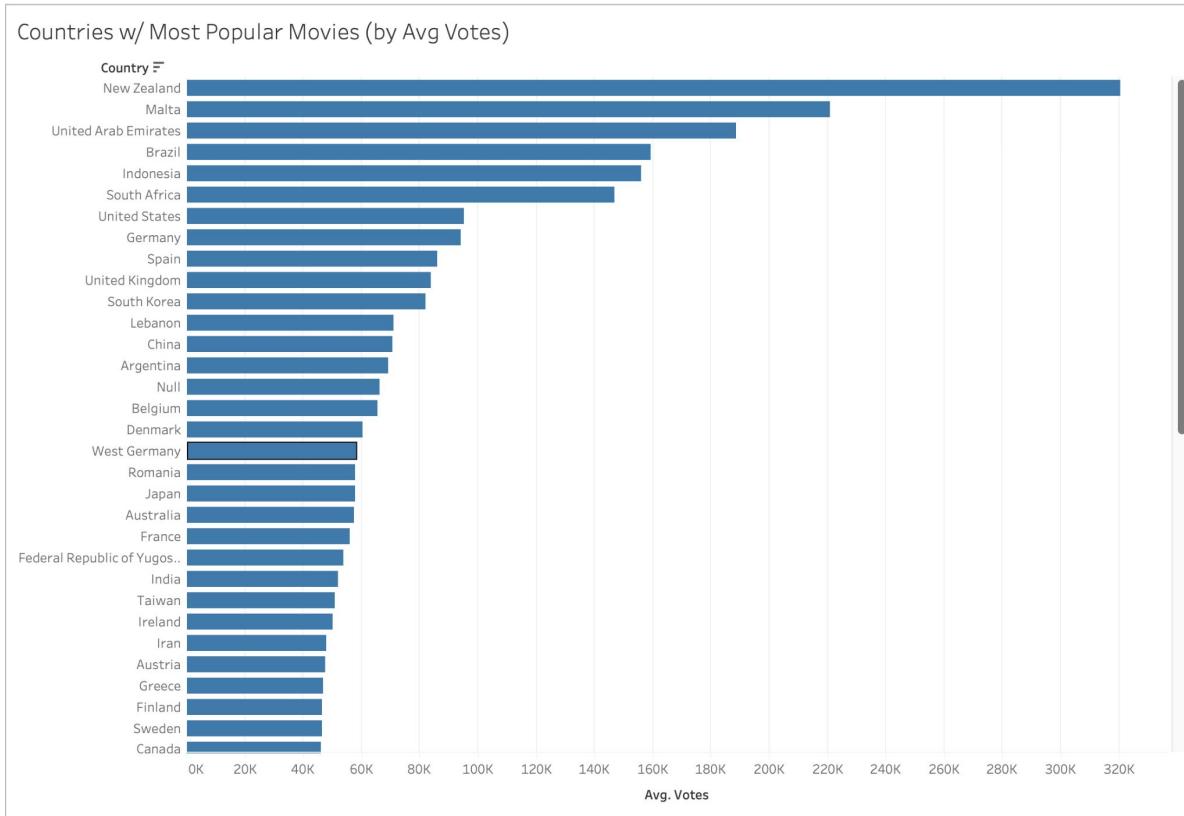
02

## All Around the World

# How Do Movie Earnings Vary by Country?

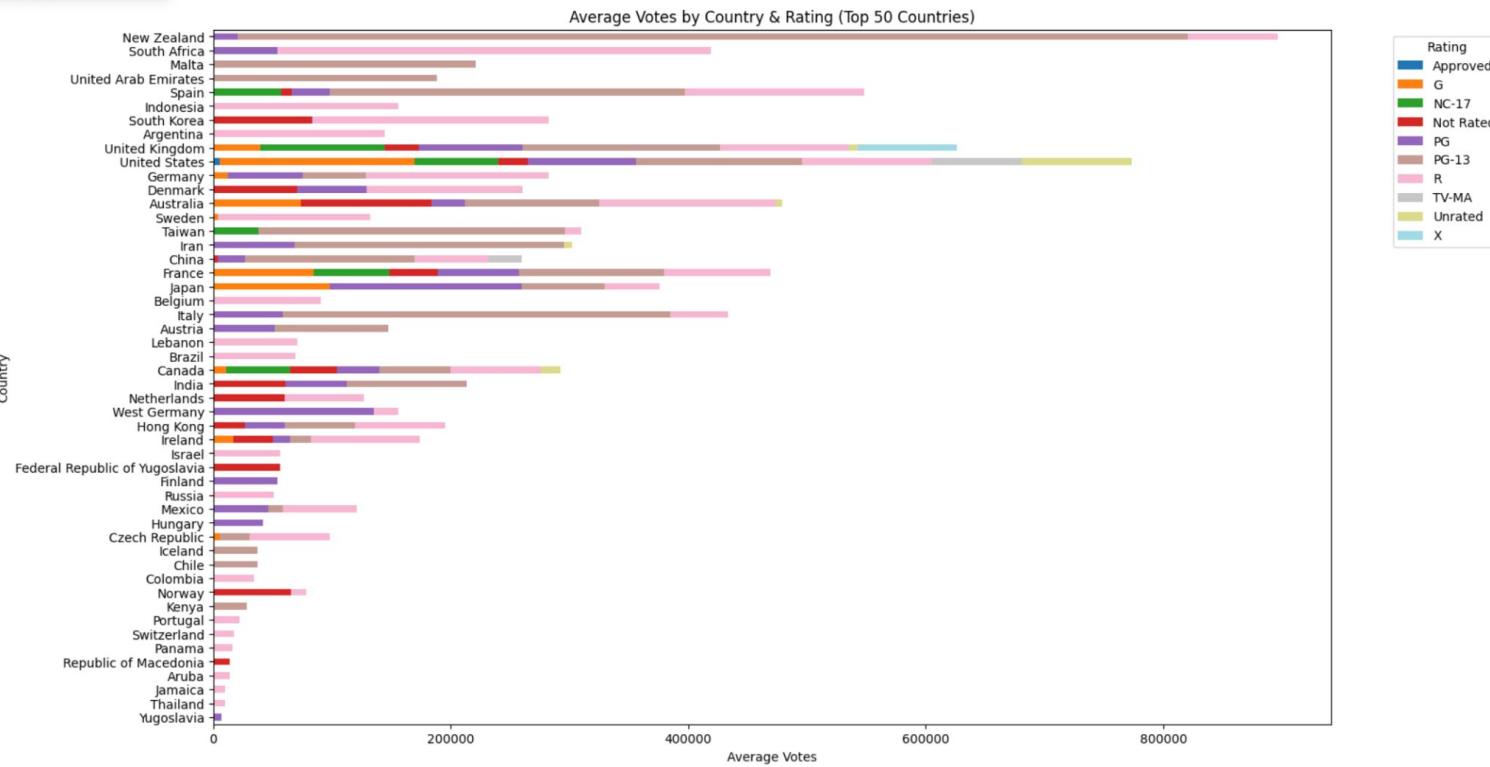


# Which countries have the most popular movies?



Lead by New Zealand,  
Malta, United Arab  
Emirates, Brazil  
Indonesia,

# What if we split them into different genres?



Rating

- Approved
- G
- NC-17
- Not Rated
- PG
- PG-13
- R
- TV-MA
- Unrated
- X

Sorted based on movies w/ highest average votes

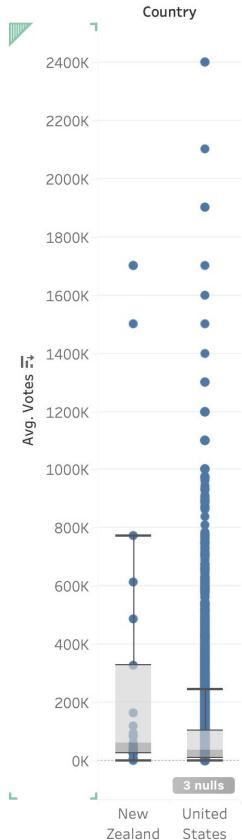
It's clear which countries dominate which genres

- New Zealand dominates PG13,
- South Africa dominates R, Japan & West Germany
- dominates PG

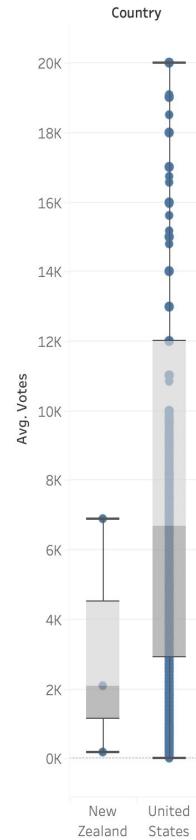
The countries with the longest bar graphs here have the most # of ratings

# Does New Zealand *really* have the highest rated movies?

Votes by US & New Zealand



Votes by US & New Zealand (<20,000 votes)



Remember, we ranked them based on average # of votes, meaning that New Zealand has *highest average voting* based on the sample of movies

Ranking their movies based on average votes, we have #1 New Zealand & #6 United States

Looks like a country like US has a lot more movies in general

In the left: we see US w/ lots of highly voted movies

On the right: BUT proportionally, it also has more low voted movies, which dragged down its rating

⇒ US lower than NZ

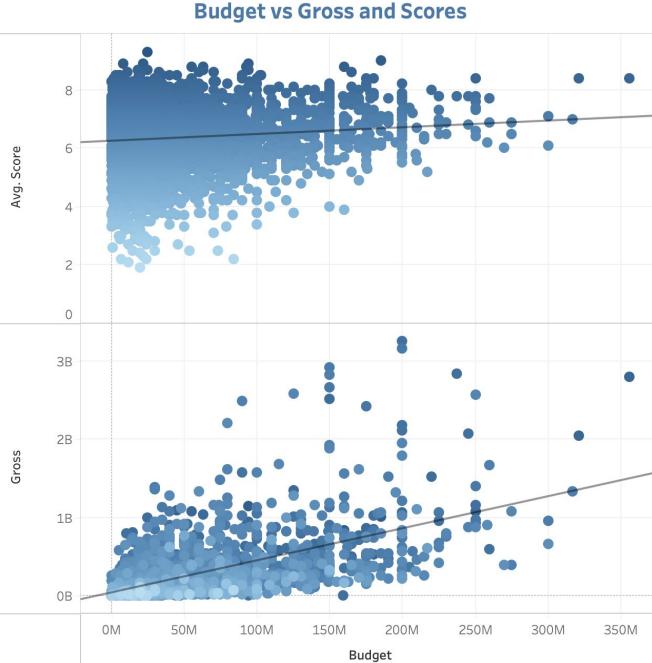
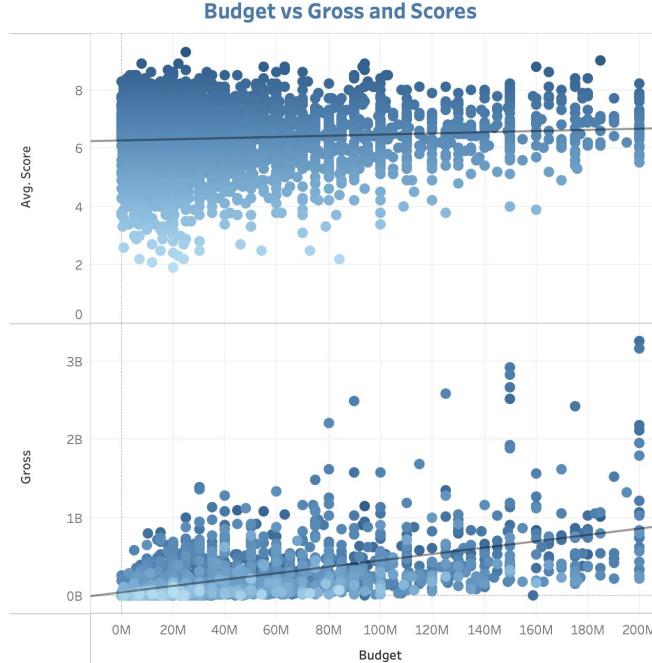


03

## Blockbuster Blueprints

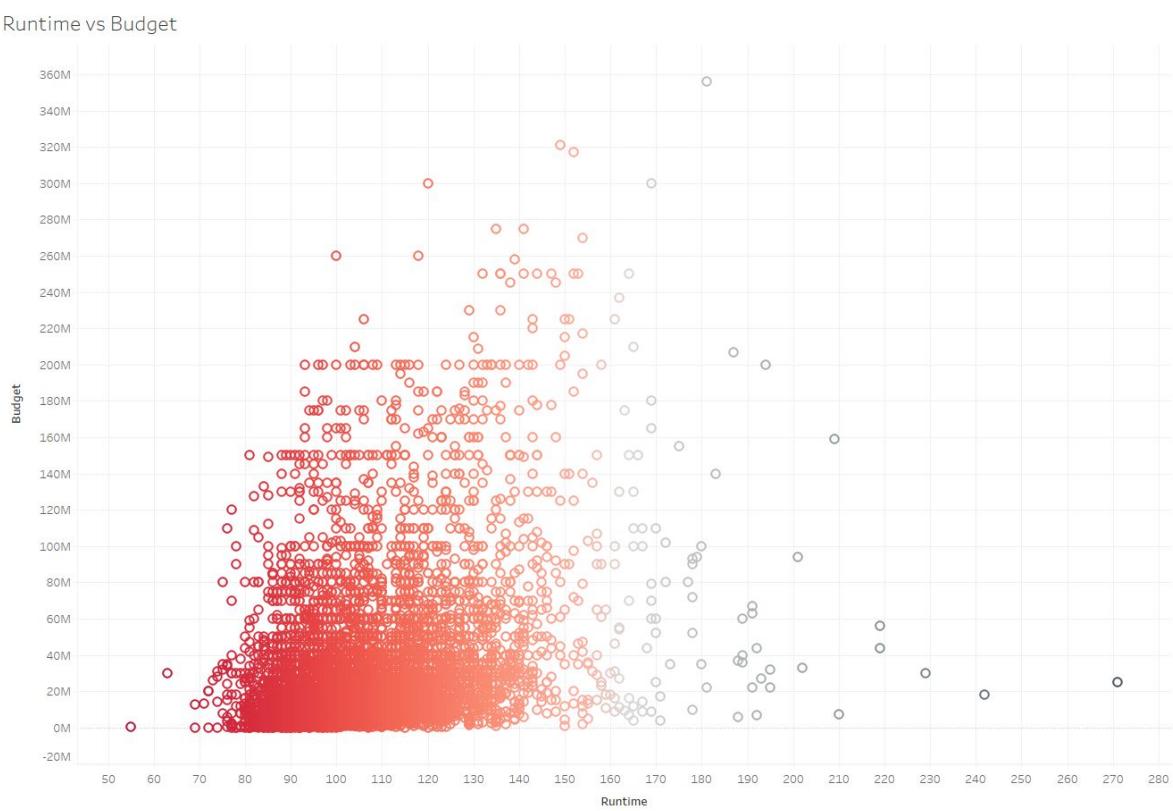
# Does having a higher budget increase your chances of a successful movie?

- Averages of IMDb score as the budget increases stays the same around 6-7
- Bigger the budget does not = higher IMDb rating
- Bigger the budget does not = higher gross
- R squared difference of 0.048

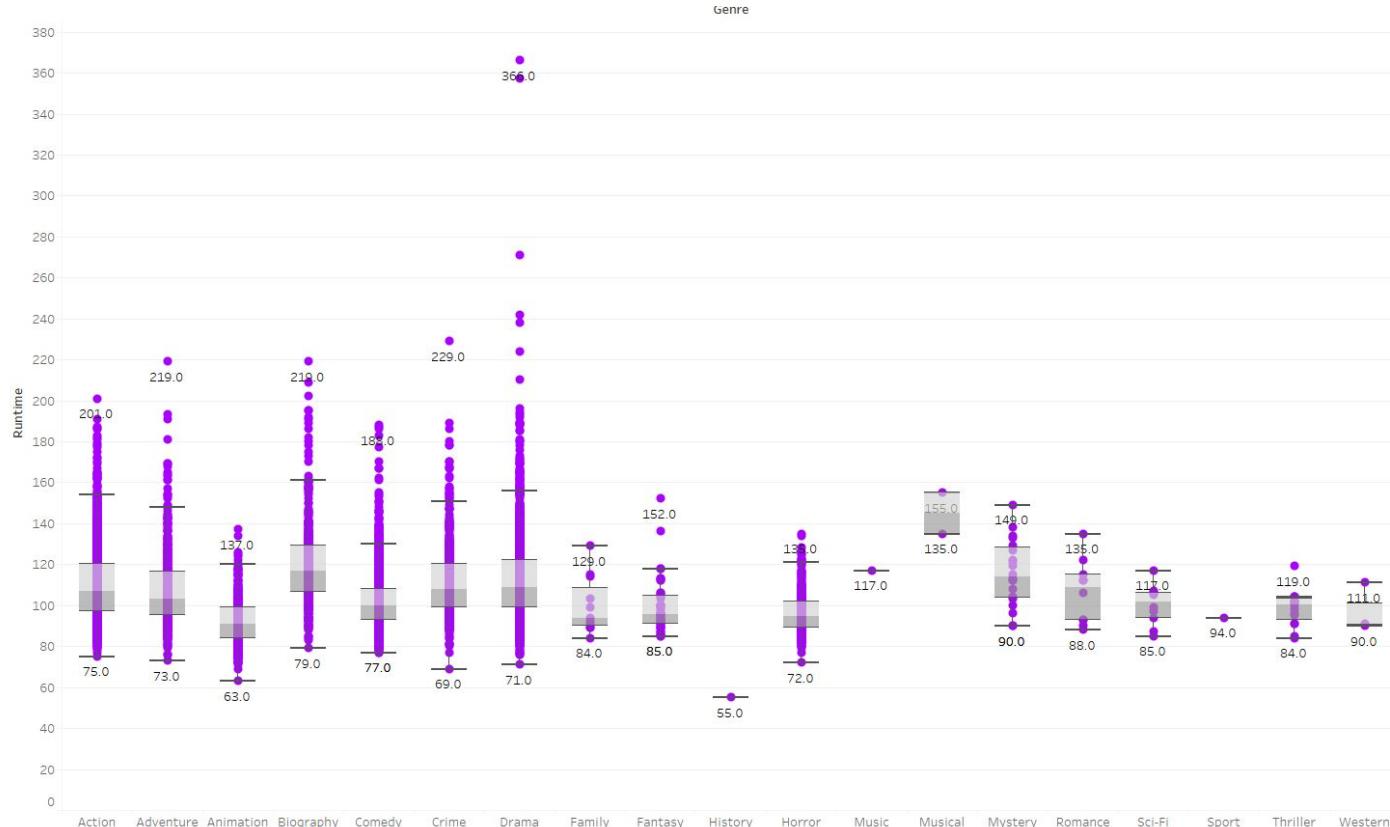


# Runtime vs. Budget: Does Budget Affect a Film's Runtime?

Runtime vs Budget



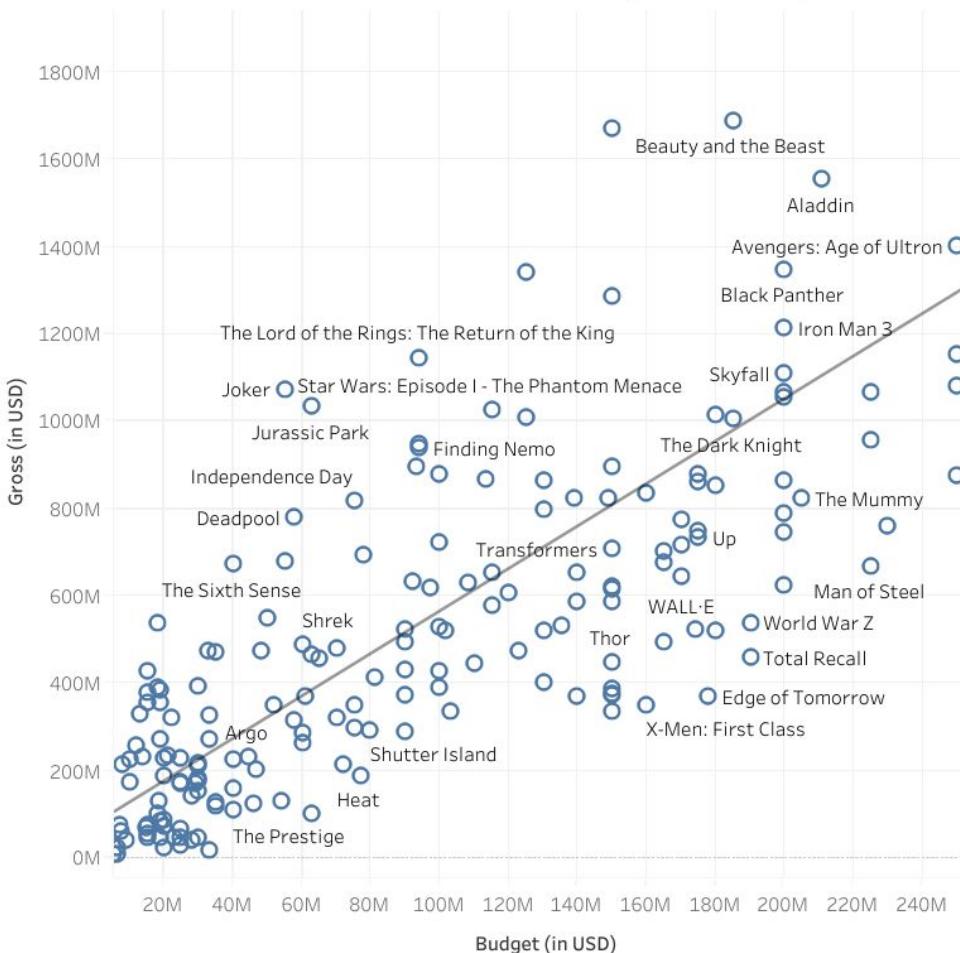
# Which Genres are More Likely to Have a Longer Runtime?



# Budget vs. Gross of the Top 200 Voted Movies

- R-squared = 0.602

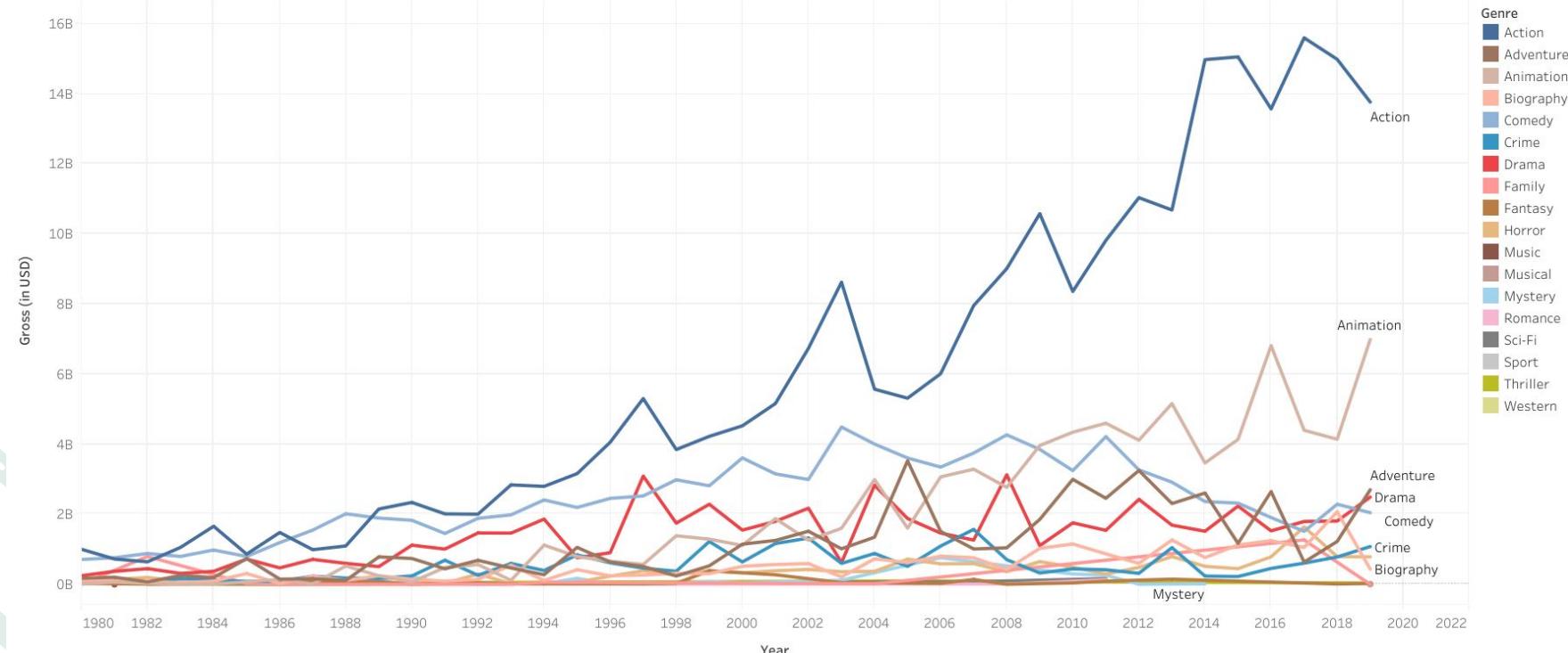
Budget vs. Gross of Top 200 Voted Movies (1980-2020)



# Which Genre Produces the Most Revenue?

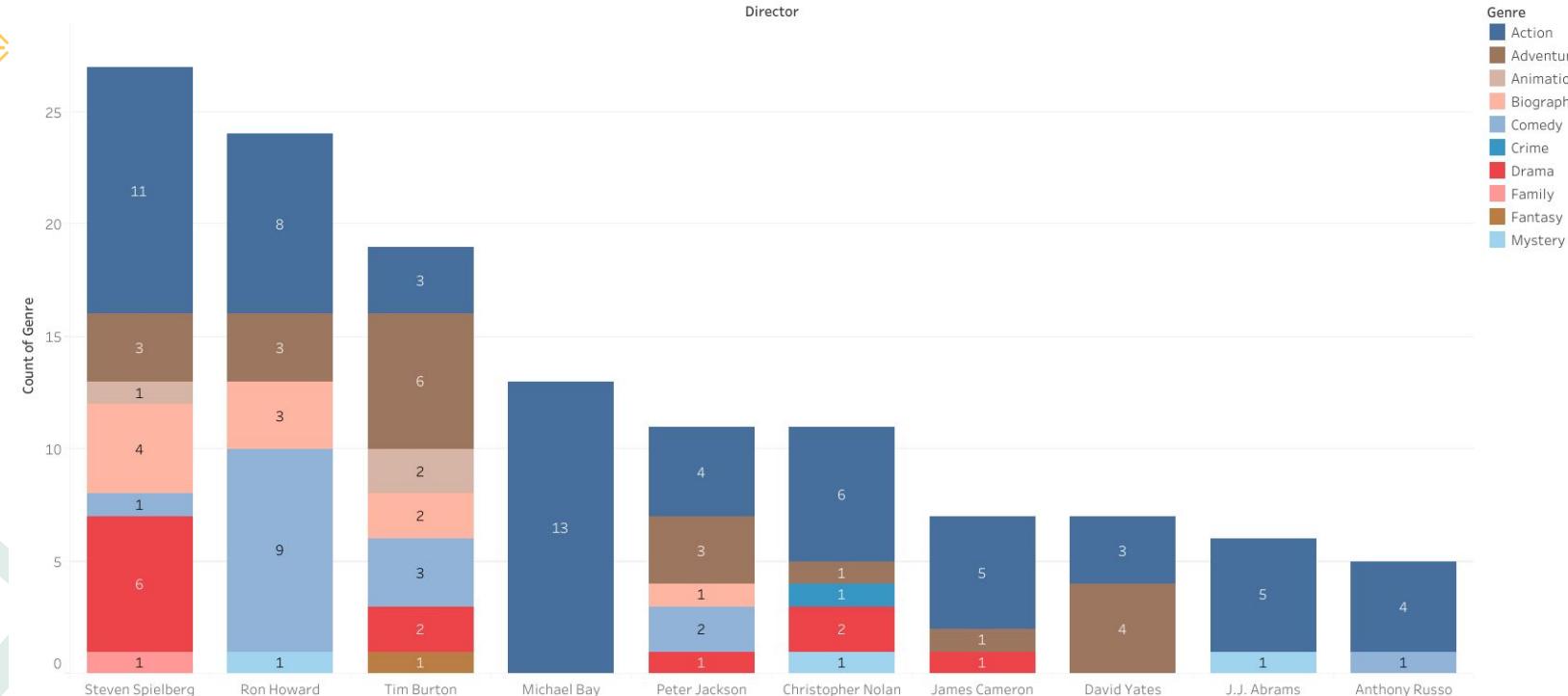


Total Gross Earnings Per Genre (1980 - 2019)



# Which Genres do the Top Grossing Directors Choose to Film?

## Top 10 Grossing Directors Split by Genre



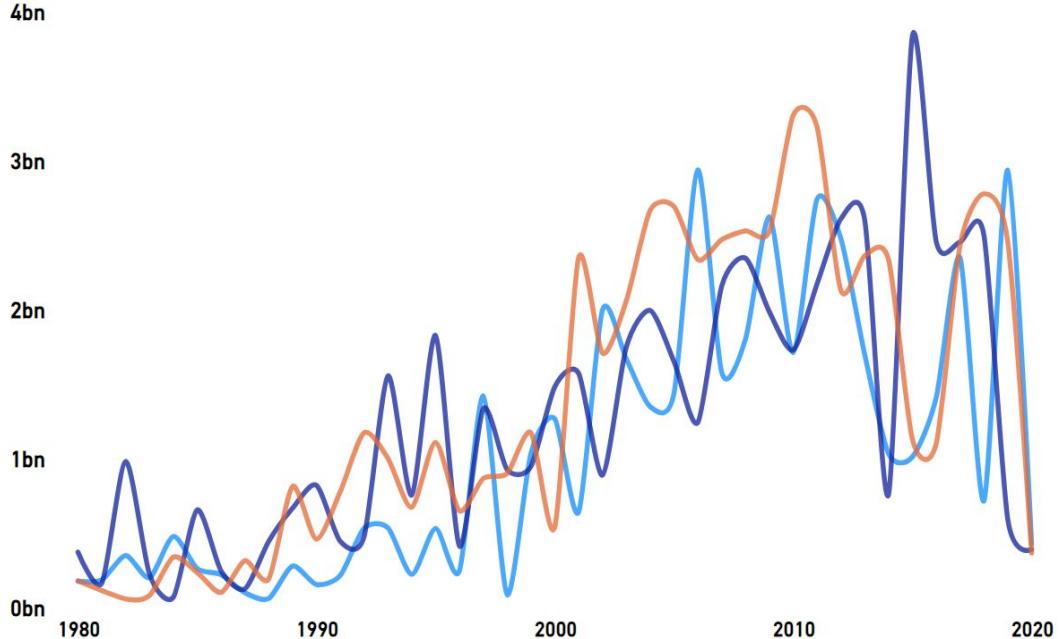
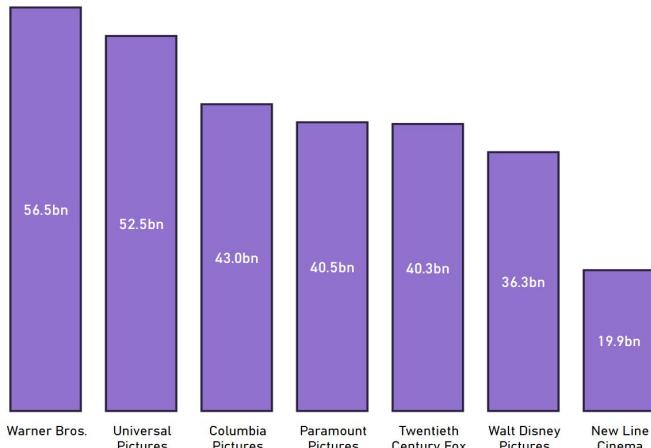
# Which Hollywood companies have been successful?



Sum of gross by year and company

● Columbia Pictures ● Universal Pictures ● Warner Bros.

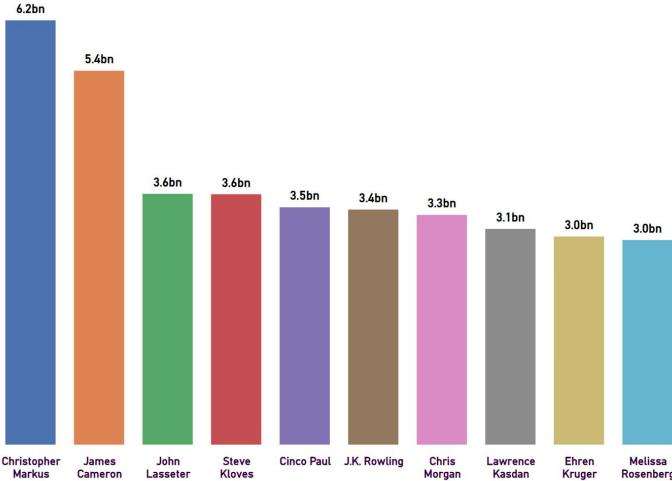
Distribution of Gross Earnings by Company



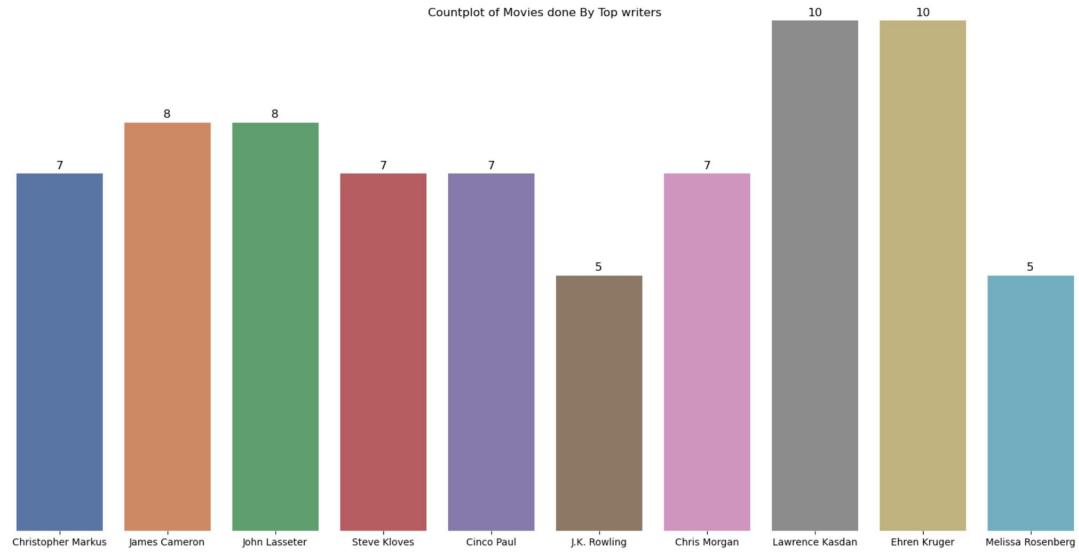


# Which Writers Earned the Most Profit?

Writers Profit Earned



Countplot of Movies done By Top writers

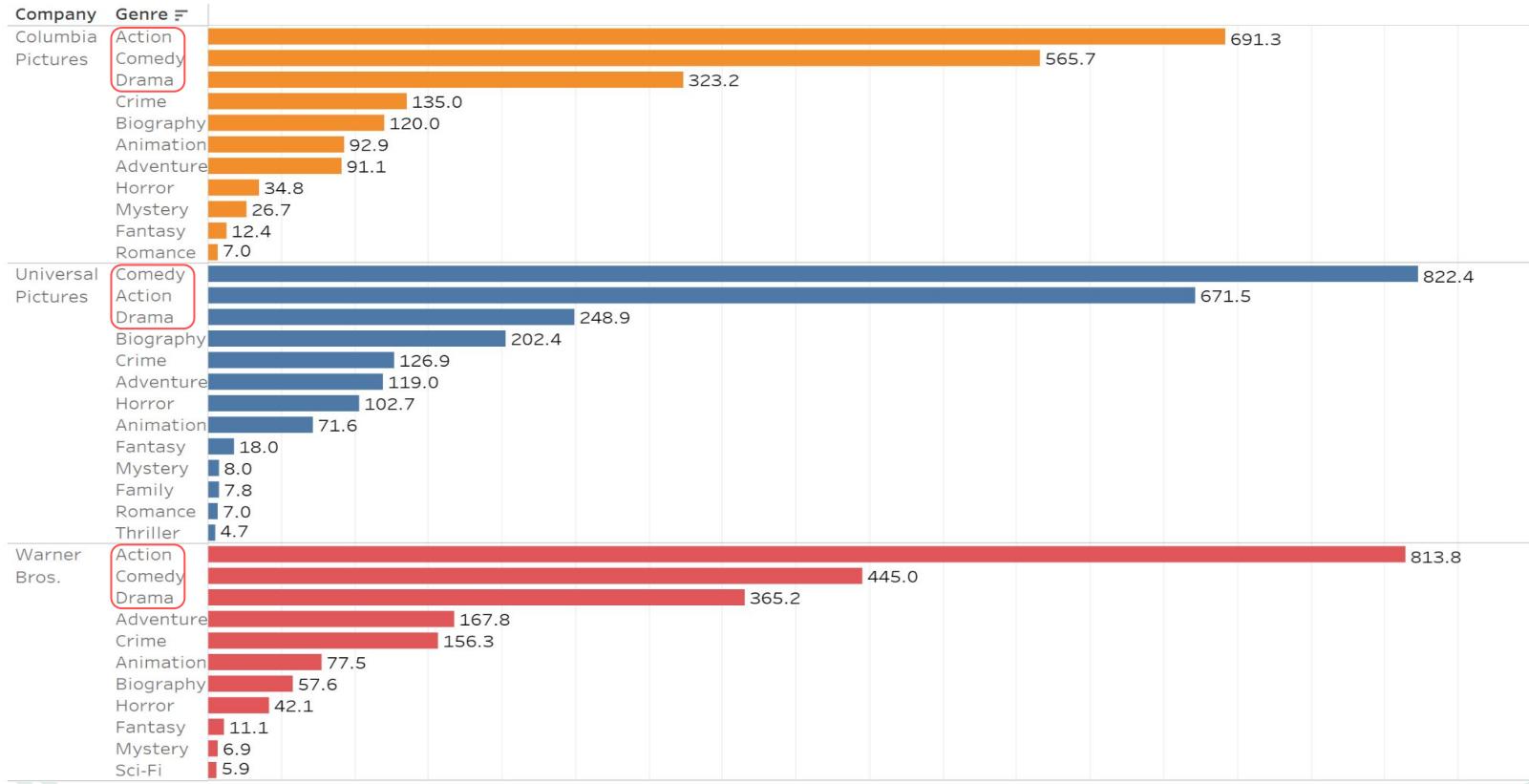




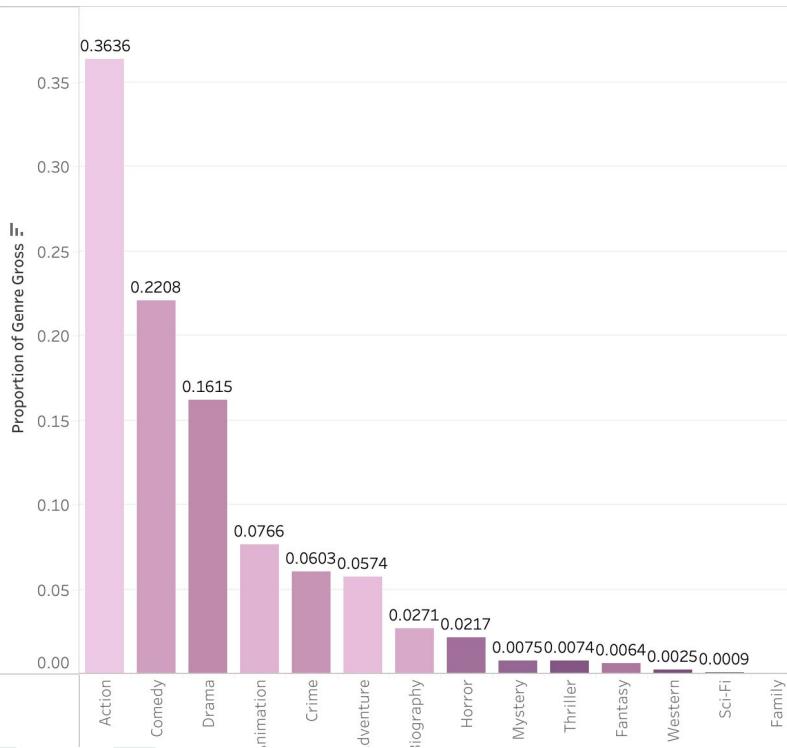
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## Audience Acclaim

# Distribution of Audience Score by Company and Genre



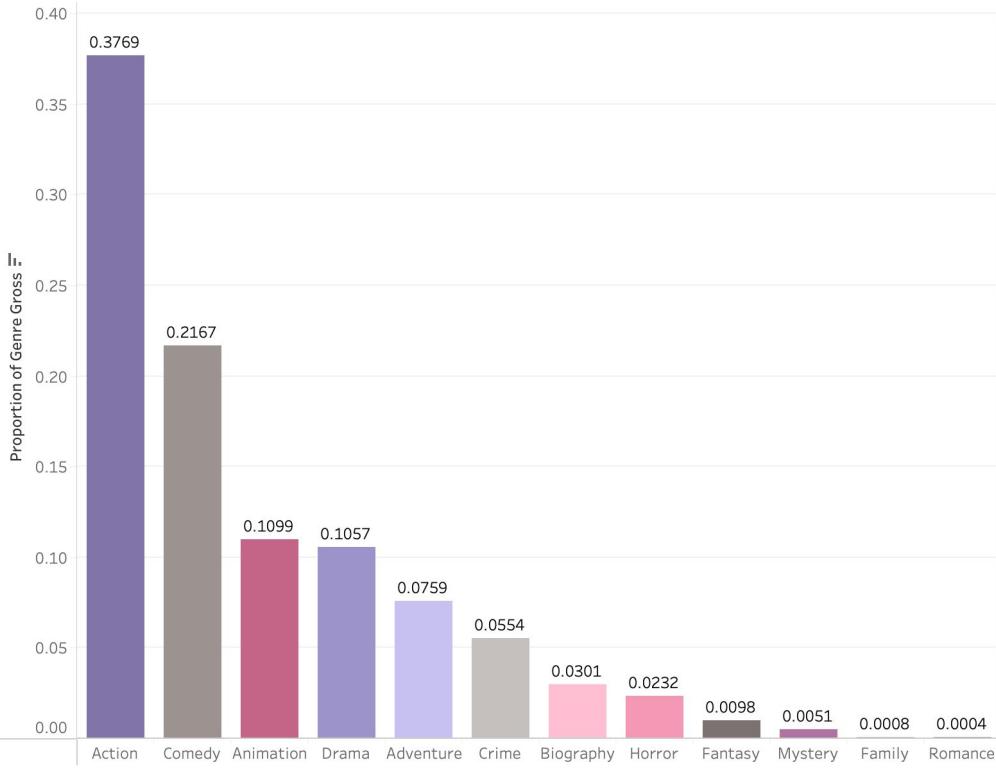
# What genre helped contribute the most to the total gross per decade?



Genre	Proportion of Genre Gross
Action	0.3636
Comedy	0.2208
Drama	0.1615
Animation	0.0766
Crime	0.0603
Adventure	0.0574
Biography	0.0271
Horror	0.0217
Mystery	0.0075
Thriller	0.0074
Fantasy	0.0064
Western	0.0025
Sci-Fi	0.0009
Family	0.0003

1990's

# What genre helped contribute the most to the total gross per decade? Cont.

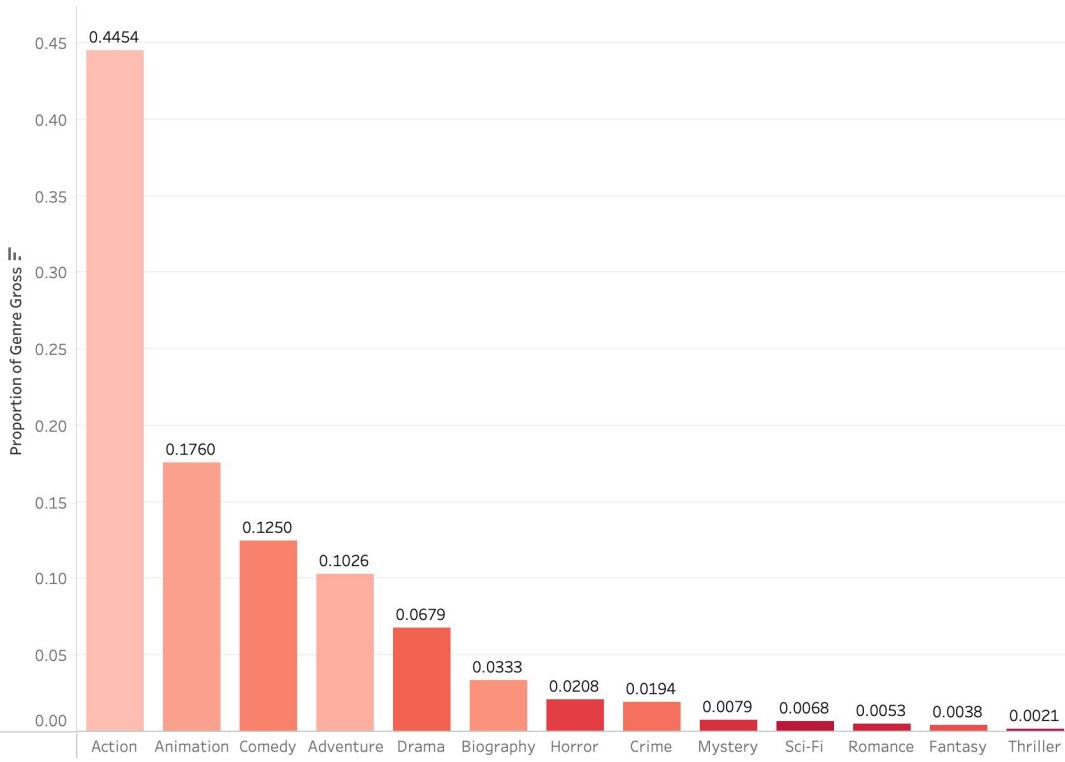


Genre	=
Action	0.3769
Comedy	0.2167
Animation	0.1099
Drama	0.1057
Adventure	0.0759
Crime	0.0554
Biography	0.0301
Horror	0.0232
Fantasy	0.0098
Mystery	0.0051
Family	0.0008
Romance	0.0004



2000's

# What genre helped contribute the most to the total gross per decade? Cont.

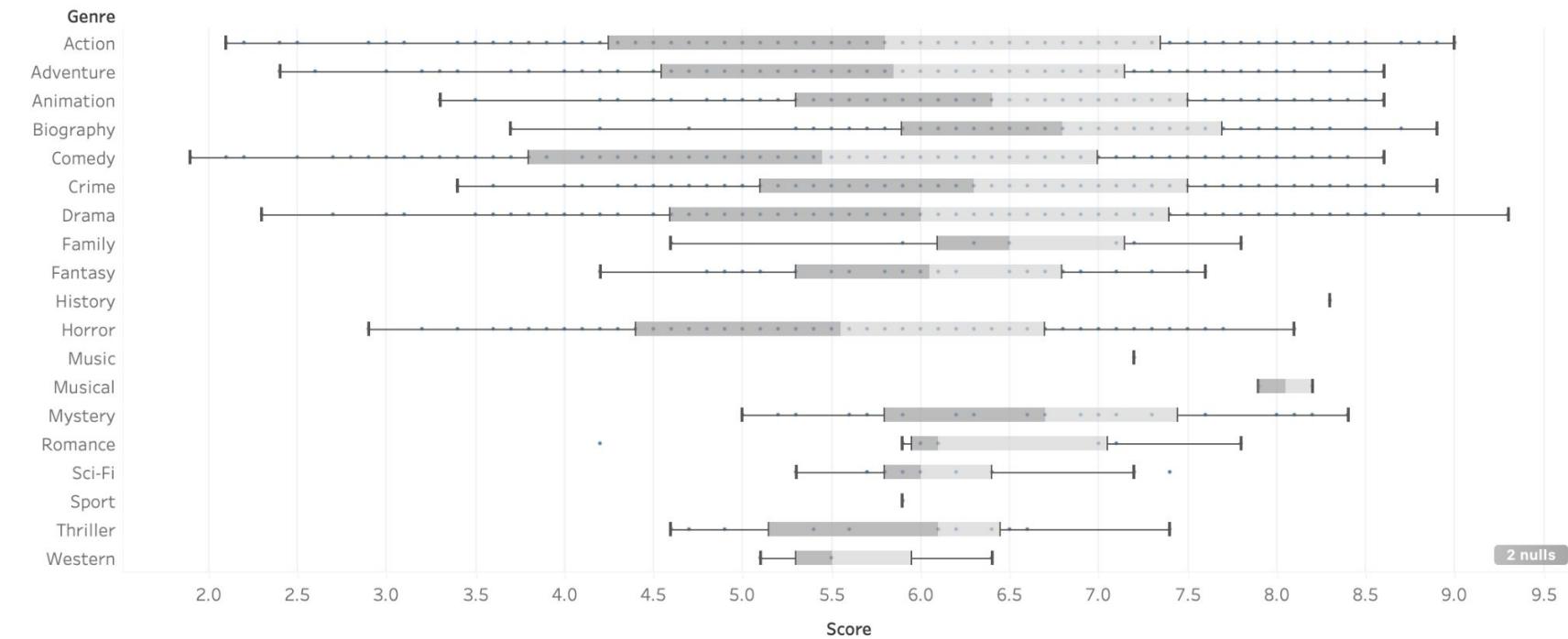


Genre	F
Action	0.4454
Animation	0.1760
Comedy	0.1250
Adventure	0.1026
Drama	0.0679
Biography	0.0333
Horror	0.0208
Crime	0.0194
Mystery	0.0079
Sci-Fi	0.0068
Romance	0.0053
Fantasy	0.0038
Thriller	0.0021



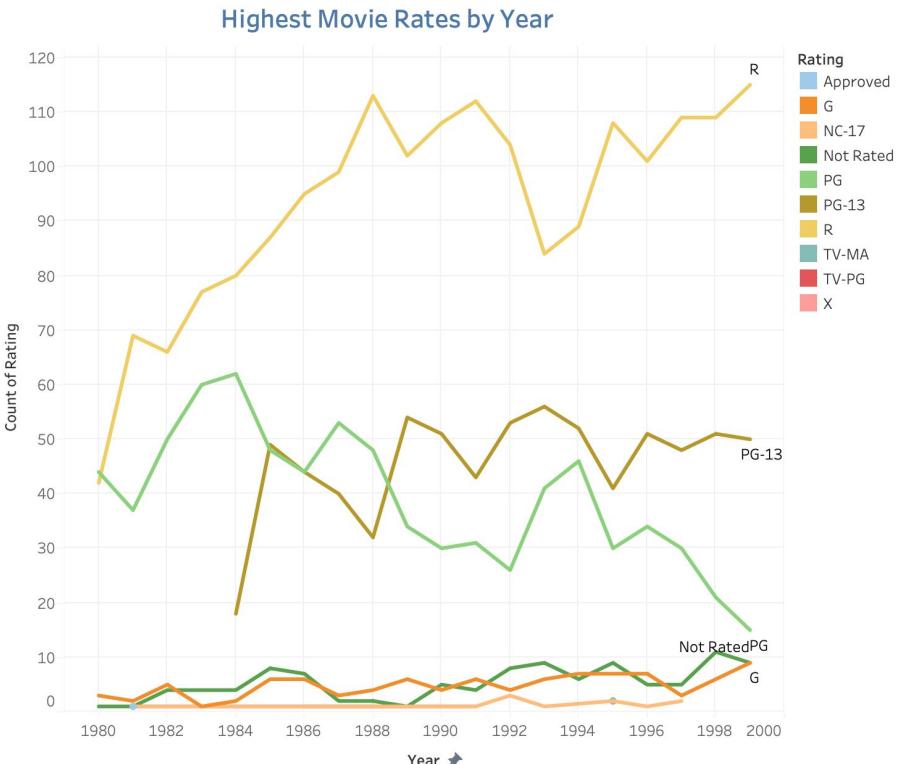
2010's

## Ratings of Different Genres



Thank  
you!

# How have the trends in the frequency of different movie ratings (e.g., R, PG-13, PG) evolved between 1980 and 2000?



R rated movies being the most popular throughout the years

# Growth in Gross Earnings Throughout Time

