

Microsoft studio needs analysis

Movie studio development suggestions.

Summary



Descriptive analysis of world wide movie market's numbers and vote data reveal opportunities to develop movies and budget appropriate amount.

- There are top 10 movies from the market choice. Most of the movies are high level CG action and magic movies.
- I suggest to use the budgets from 100 to 200 million dollars, that most movies spent. That's because the budgets don't have correlation with ROI.
- Most movies have vote average from 5 to 8 rating. If your movie fits in this goal, market tell you 'your movie is successful.'
- The right production studio will make or break your major motion film. To choose wisely, evaluate the return on investment provided by each studio to better guarantee success at the box office.
- The ideal return on investment will be at least 2.0 or higher.

Outline

- Business Problem
- Data & Methods
- Results
- Conclusions

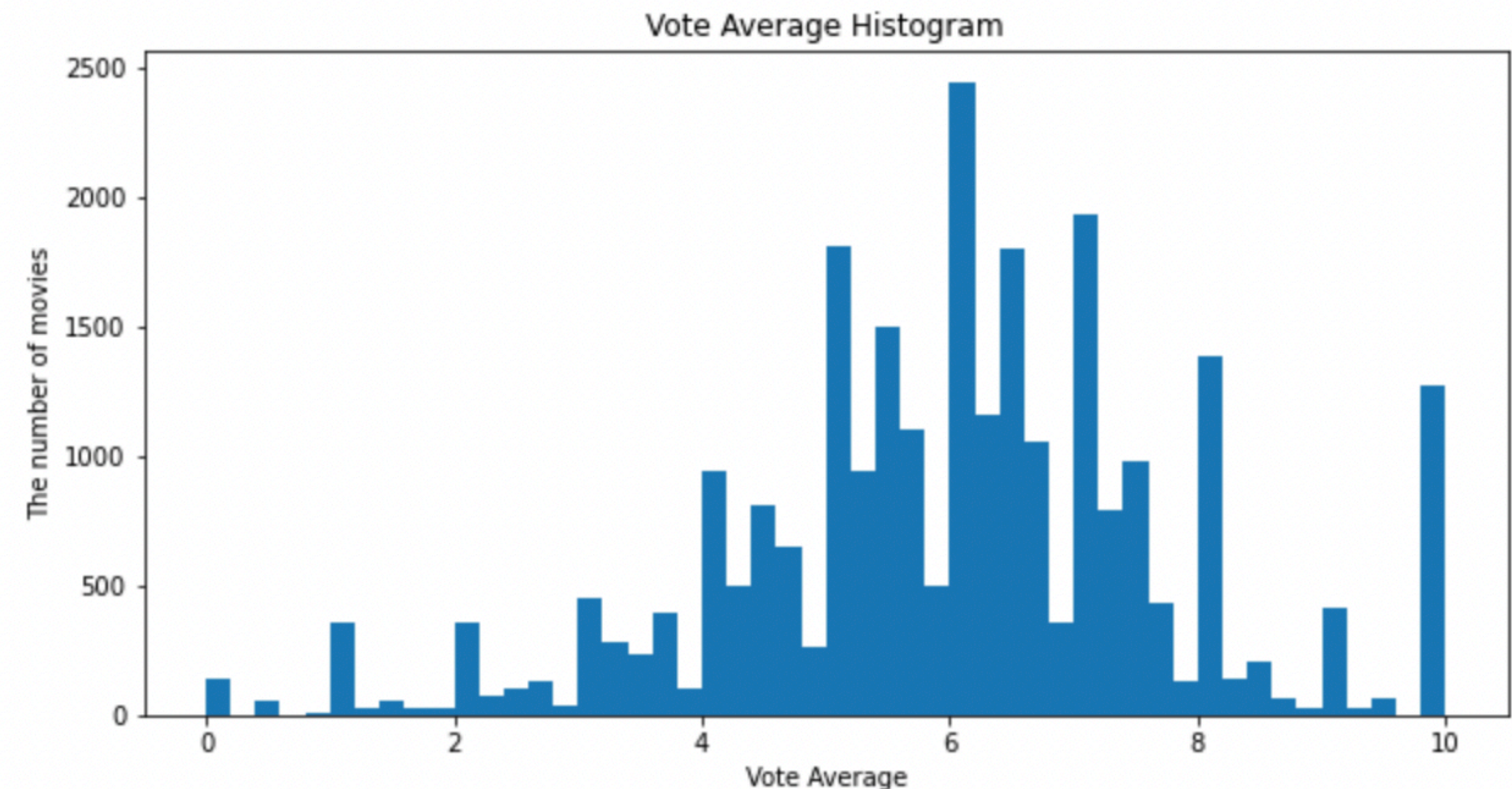
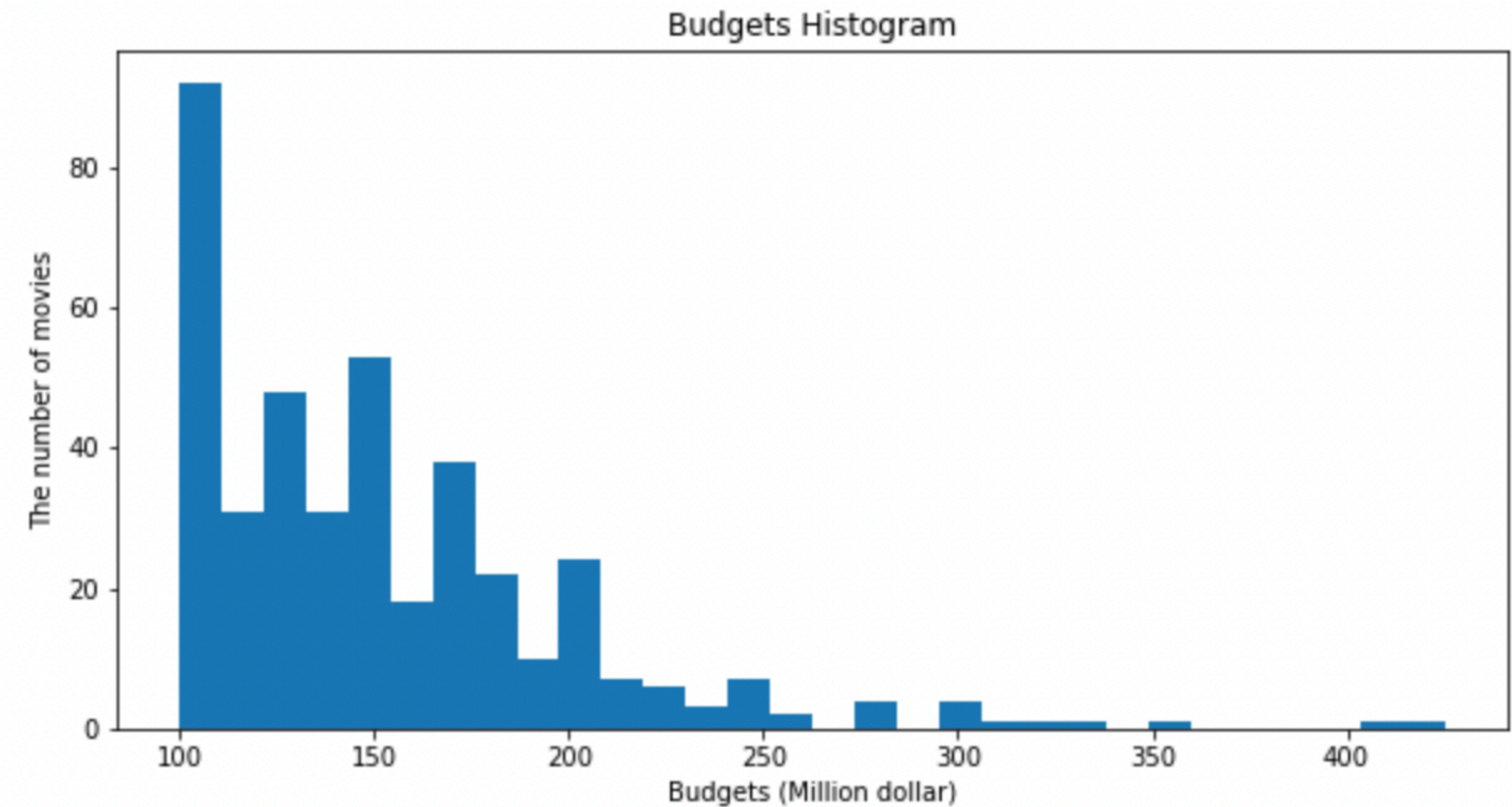
Business Problem 1

- Figure out successful movies in the world wide movie market.
- Understand appropriate budgets to develop movies.
- Set a goal to be remembered to people that the movie is successful.



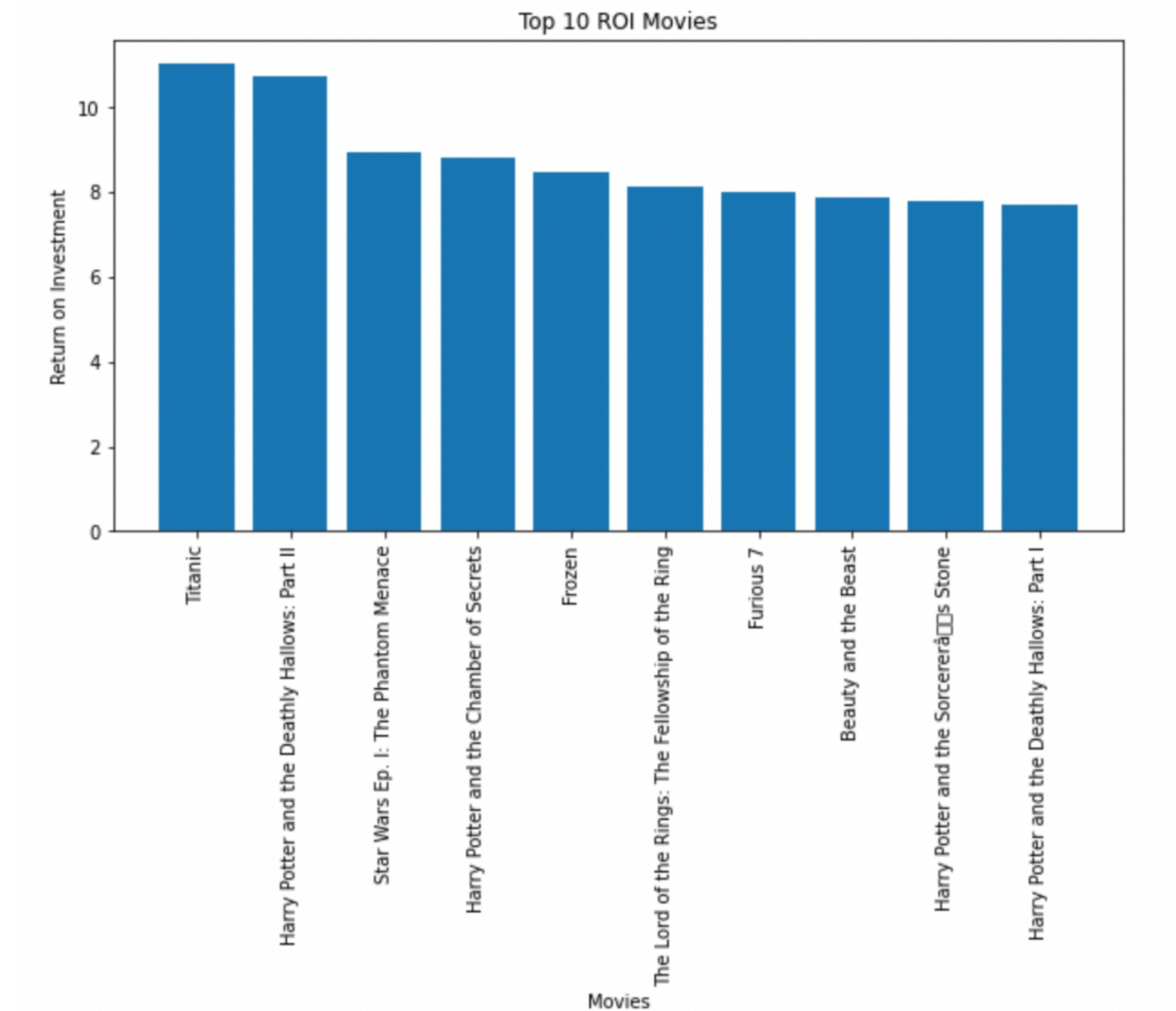
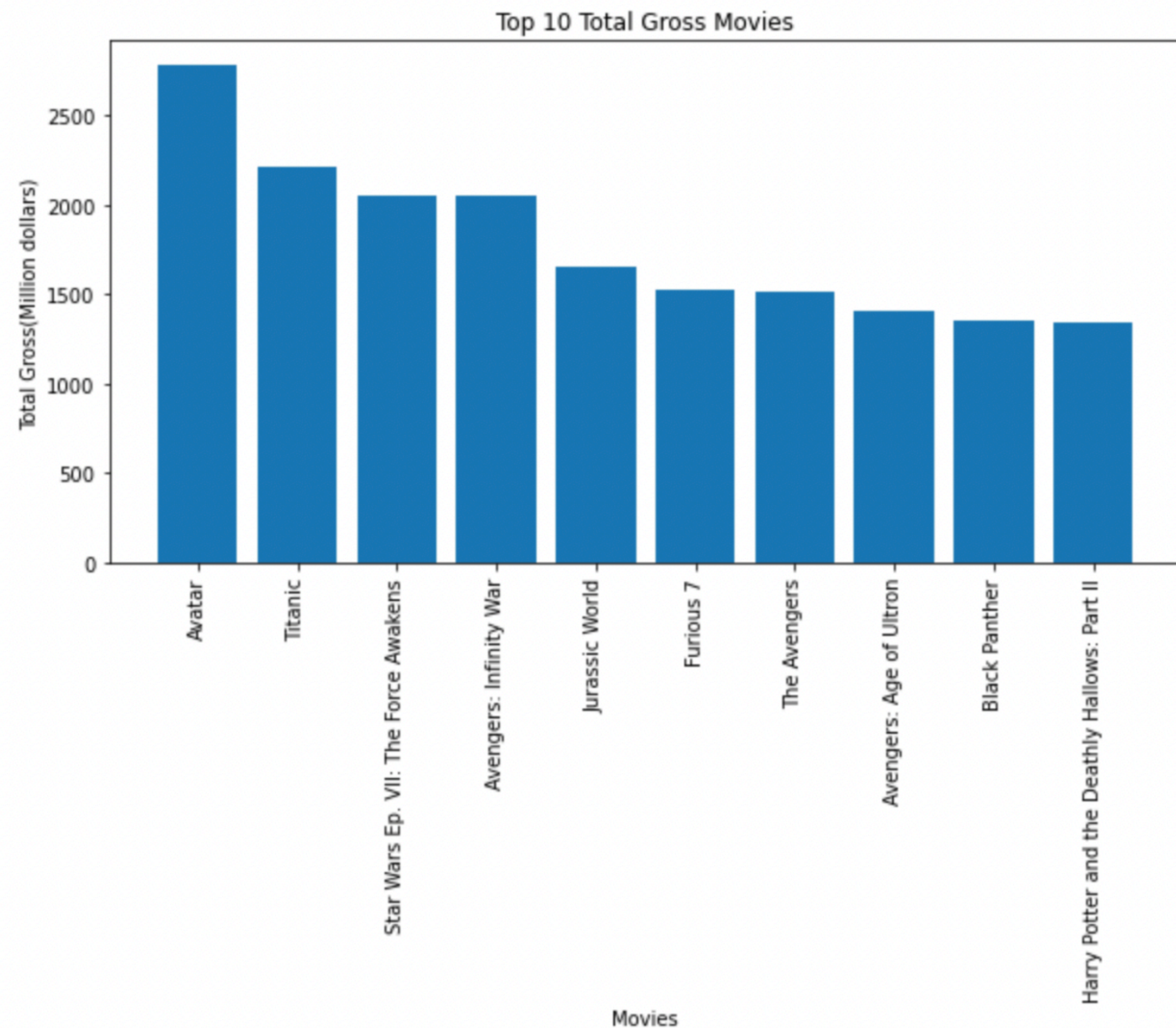
Data & Methods

- **Numbers data** from Apr 1st, 1975 to Sep 9th, 2016, and includes movie names, production_budgets, domestic_grosses, and worldwide_grosses.
- **Vote data** includes records from Apr 29th, 1930 to Dec 25th, 2020 and includes title, vote_average, and vote_count.

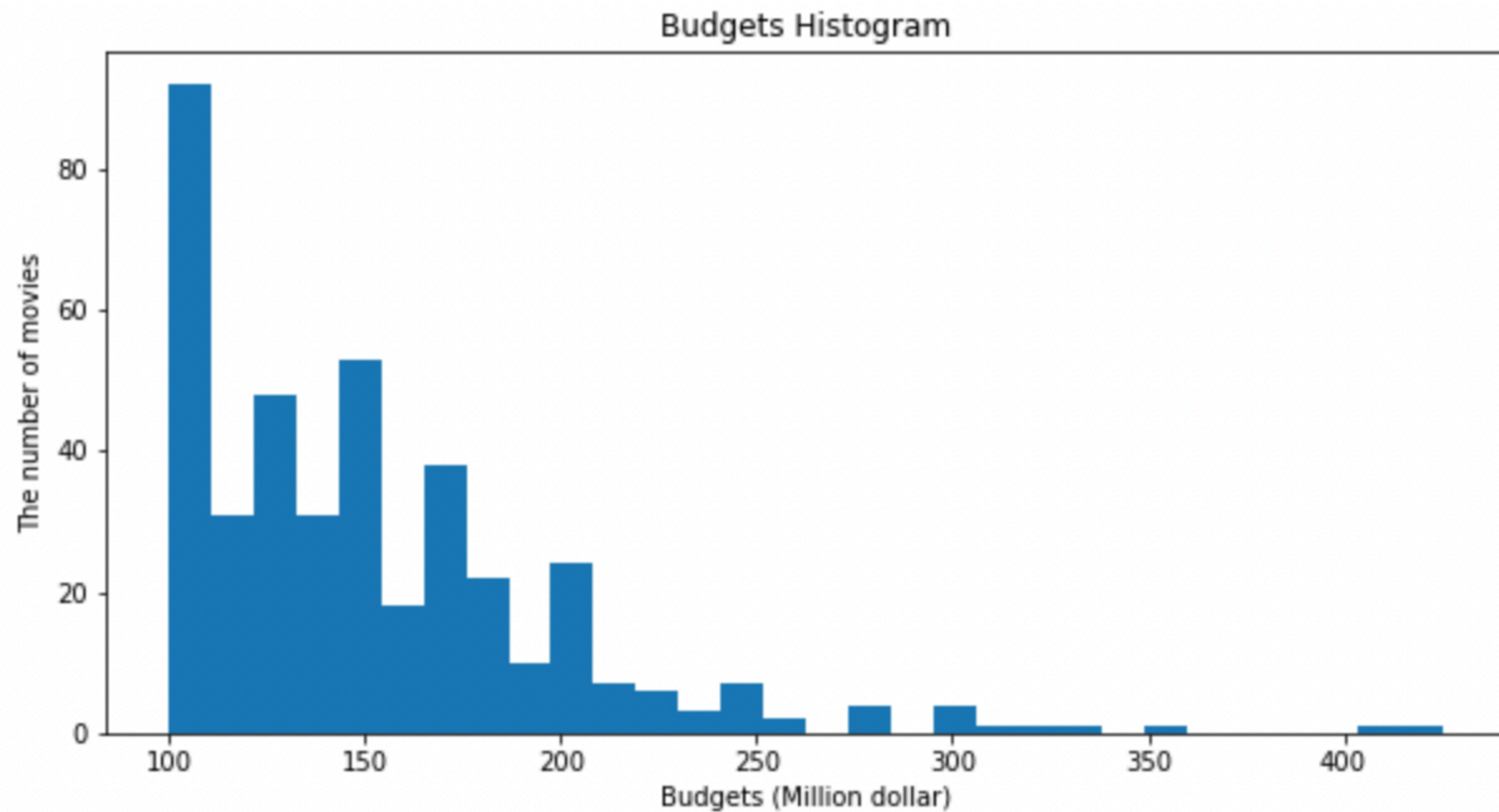


Results

- Most of the movies are high CG, Action and Magic Movies.



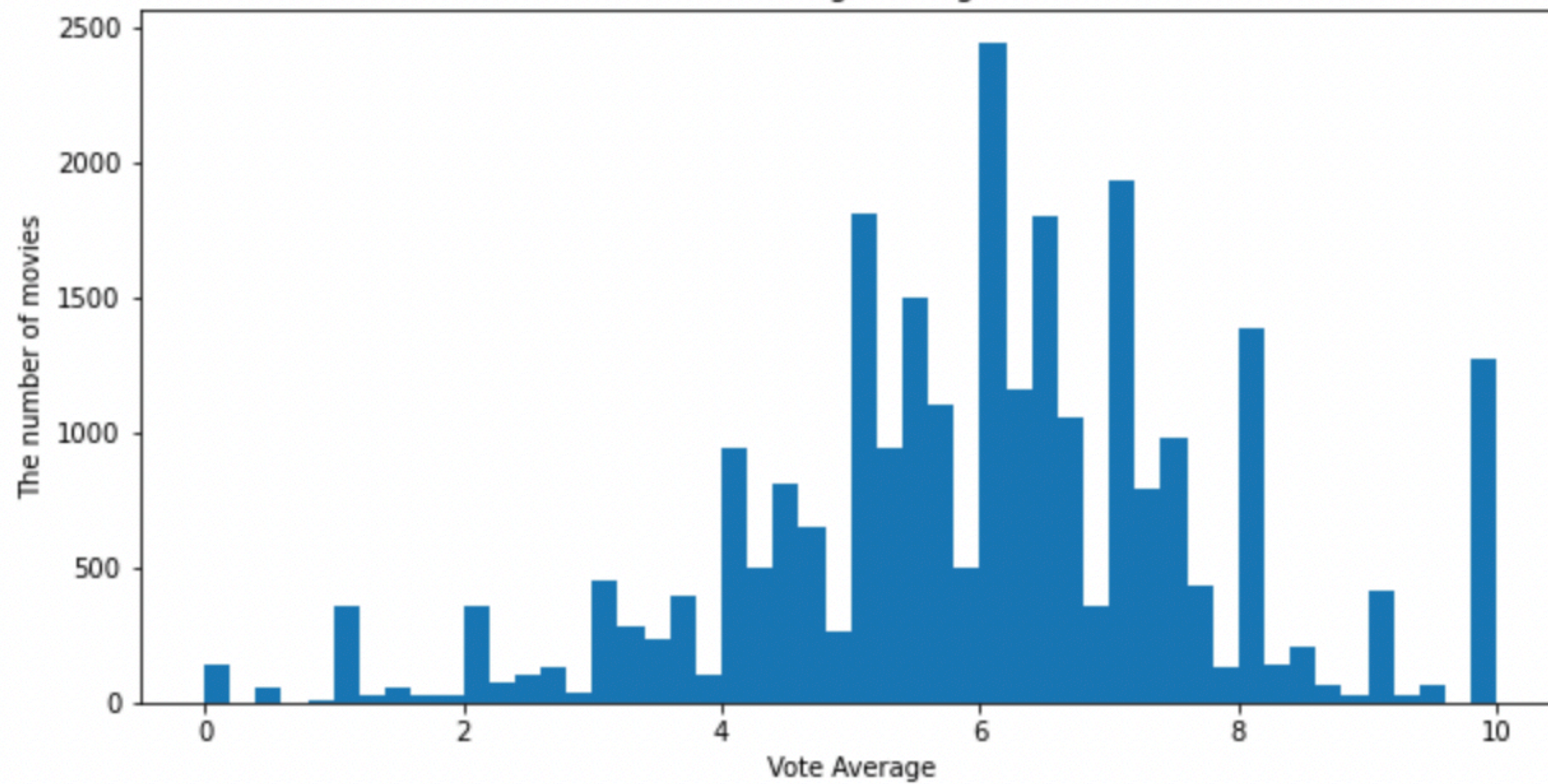
Results



- Most movies's budget ranges are located from 100 to 200 million dollars.

Results

Vote Average Histogram



- More than 6 vote average can explain whether your movie is successful.

Business Problem 2

How to choose the correct production studio?

- Production studios provide value to a film by lending logistical help, hiring assistance and location scouting.
- Production studios play an integral roll in pre and post production that can make or break a film.
- Using our metric that shows the average return on investment by studio, identify production studios with a track record of success.



Data and Methods

Budgets and Studios

- I used the 'budgets' data frame and the 'movie_gross' data frame to merge on a common column 'Movie'
- This new data frame allows me to look at how a studio typically performs based on their production budget versus their worldwide gross.



Results

	studio	production_budget	worldwide_gross	movies_by_studio	roi_by_studio
0	UTV	21400000	306434791	3	14.319383
1	Orch.	2500000	23845533	1	9.538213
2	GrtIndia	30000000	263502914	1	8.783430
3	Eros	37000000	206015876	4	5.567997
4	Neon	11000000	53797409	1	4.890674
...
94	IVP	2000000	102645	1	0.051323
95	Alc	10000000	161097	1	0.016110
96	BBC	600000	7943	1	0.013238
97	First	9000000	85527	1	0.009503
98	KE	18000000	94953	1	0.005275

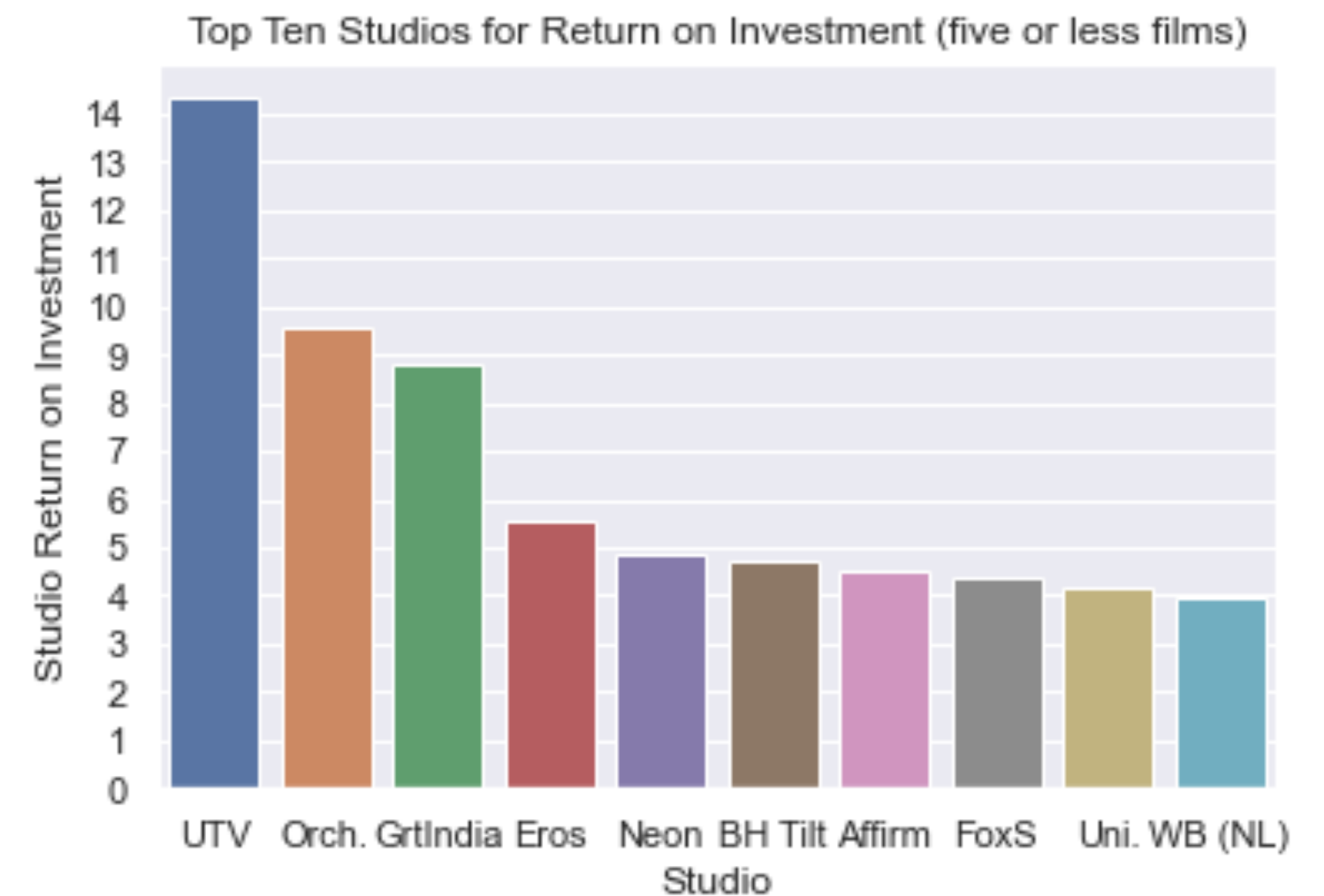
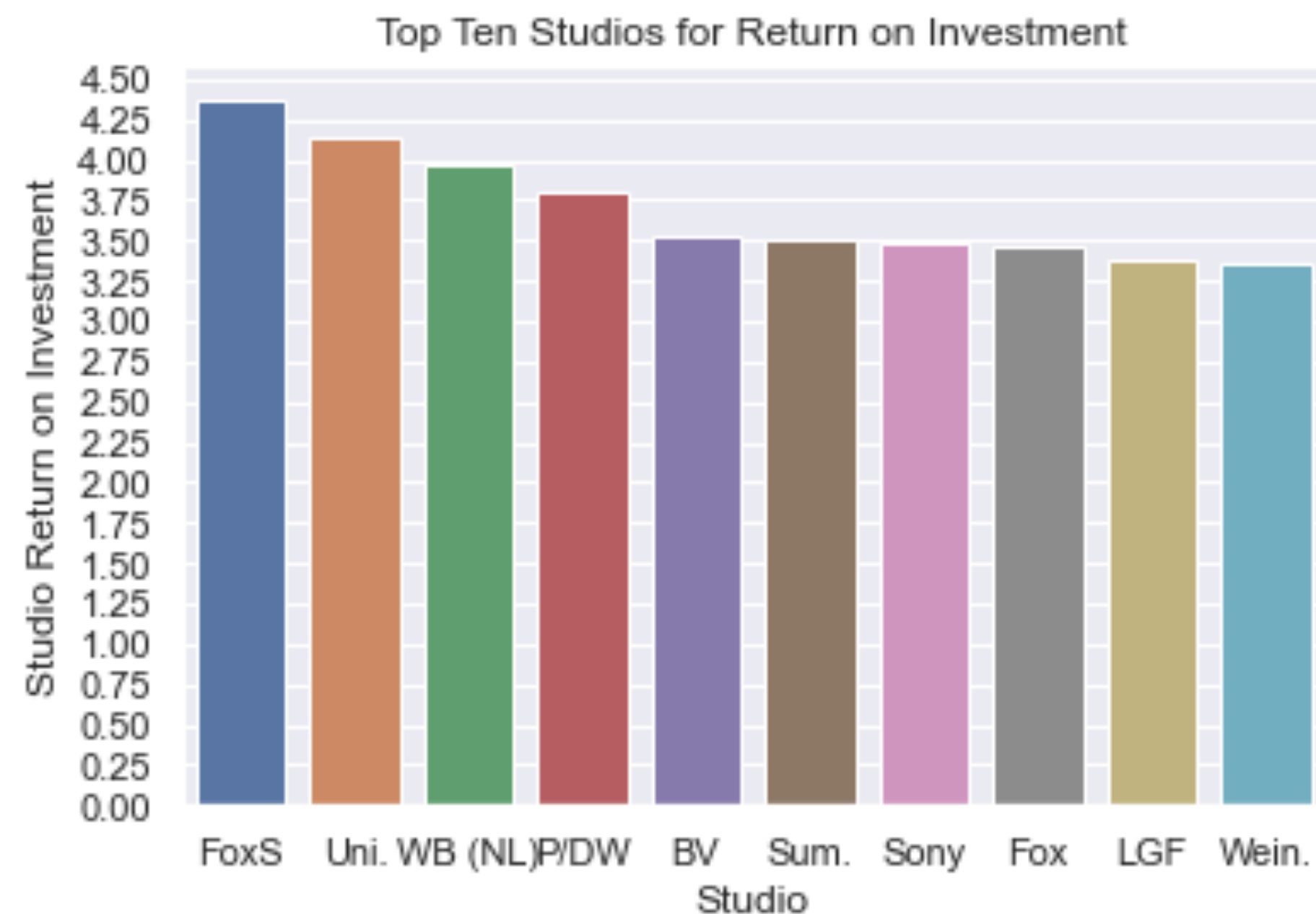
99 rows x 5 columns

- Return on investment is not 1 : 1 in this scenario.
- Production budget does not include costs such as marketing and advertisement.
- It is a safe bet that in order to break even you need your worldwide gross to yield at least twice the amount of the production budget.
- Our metric for return on investment takes a studio's total worldwide gross and divides that by total production budget.
- The metric is a float value that shows a studio is viable if the roi is greater than 2.00.

Results

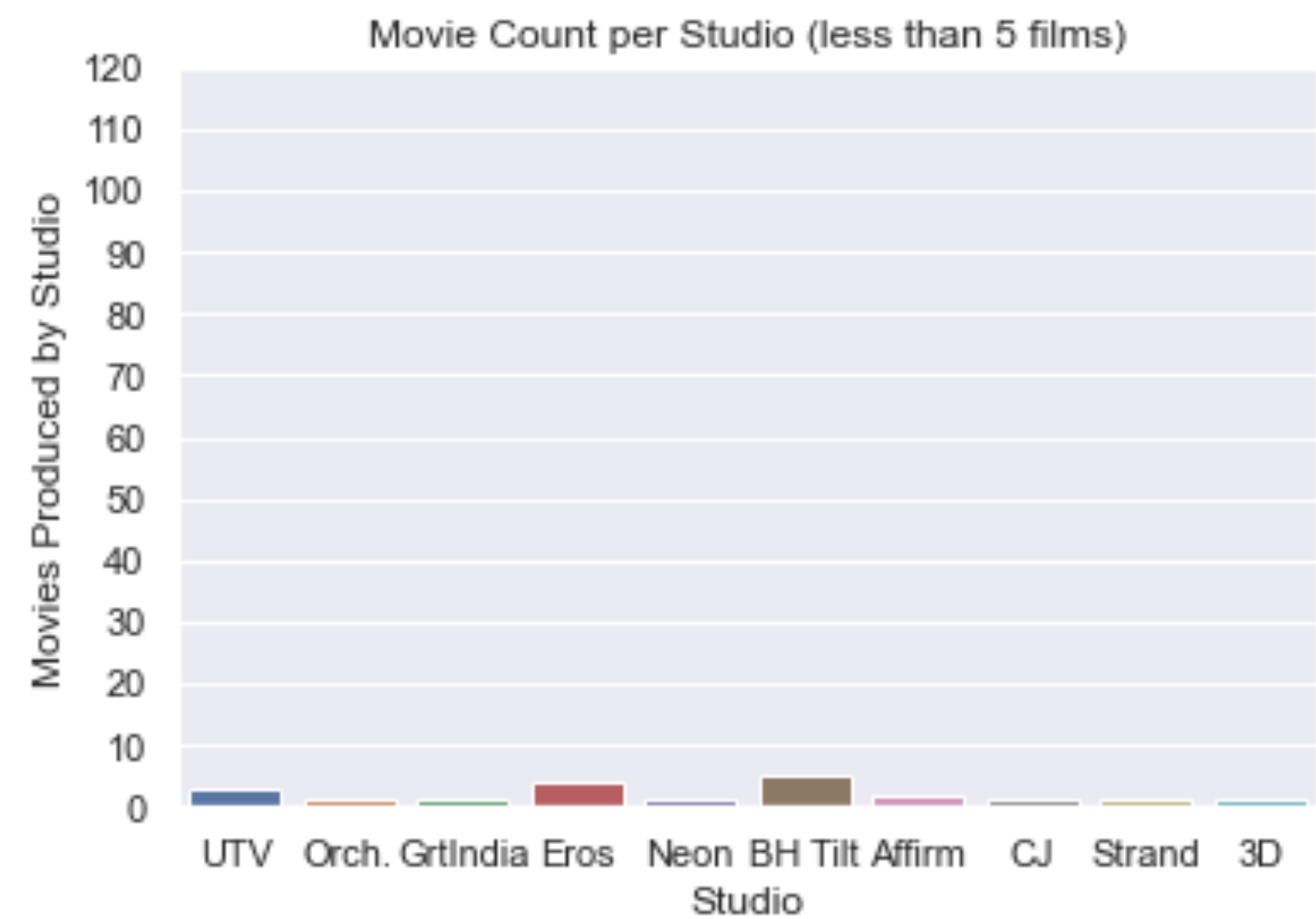
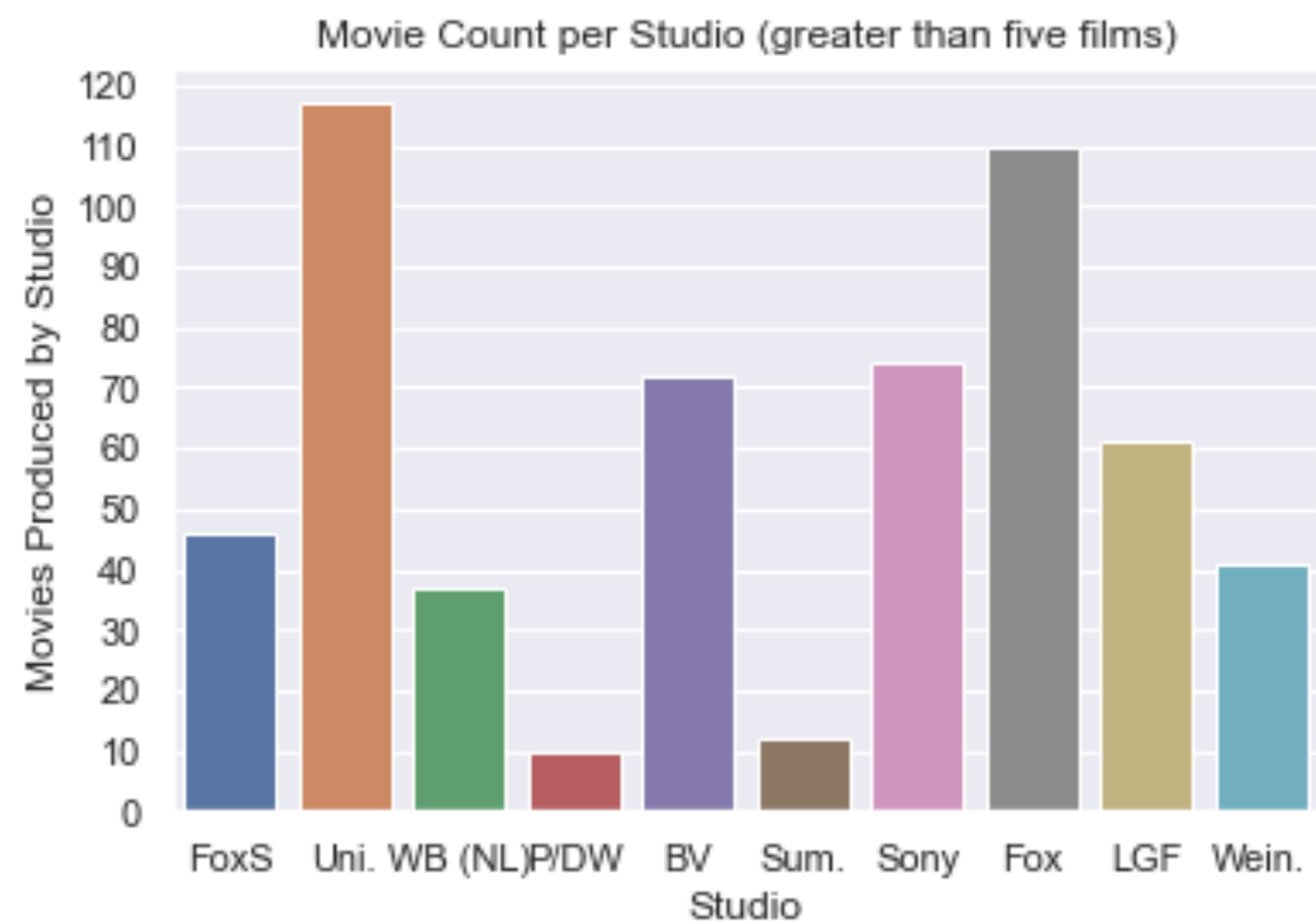
Sample Size

- The number of movies a studio has produced is affectively its sample size and will affect the roi metric.
- Looking at the previous data frame, you can see that studios with less than five movies produced had the highest roi.



Movie Count

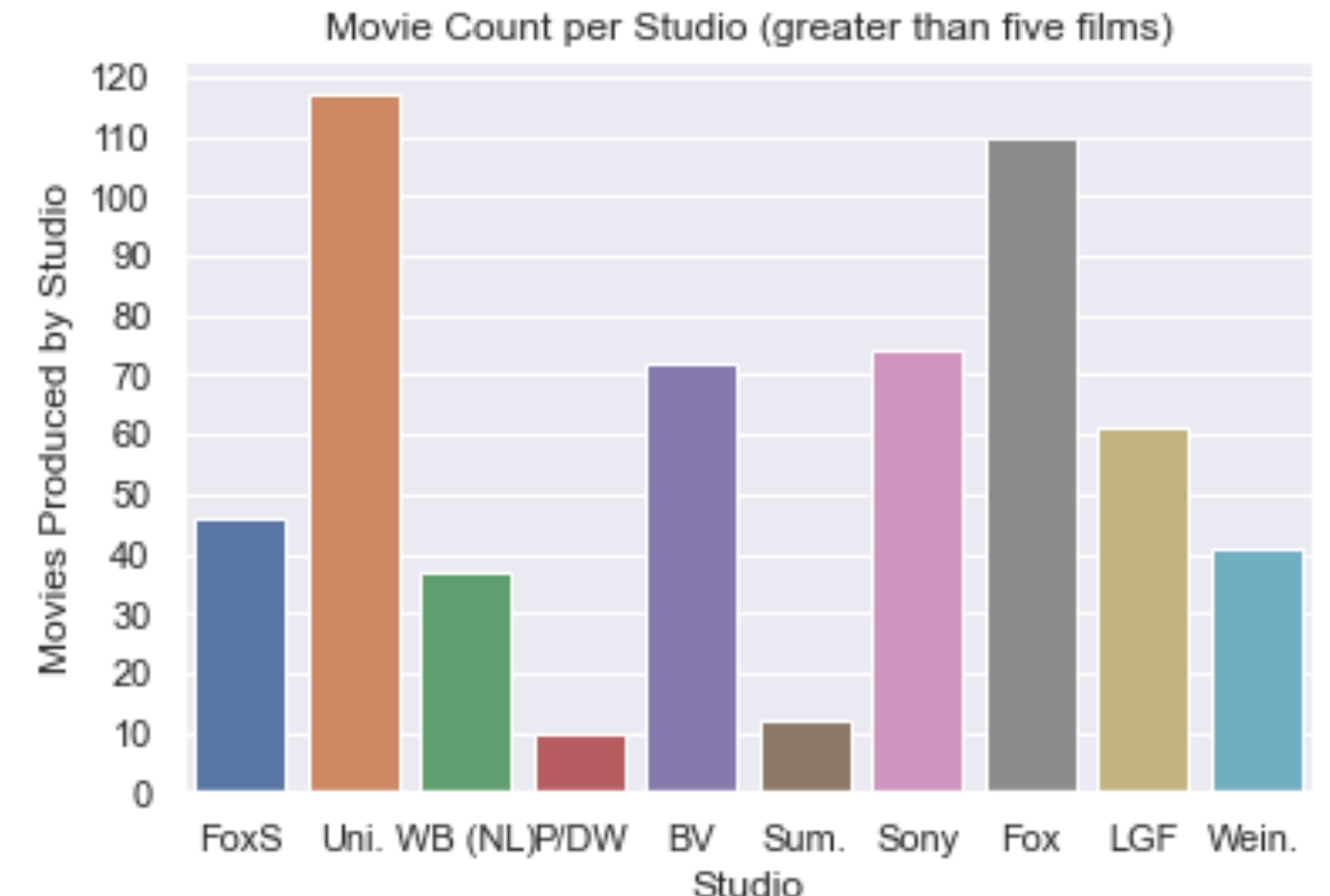
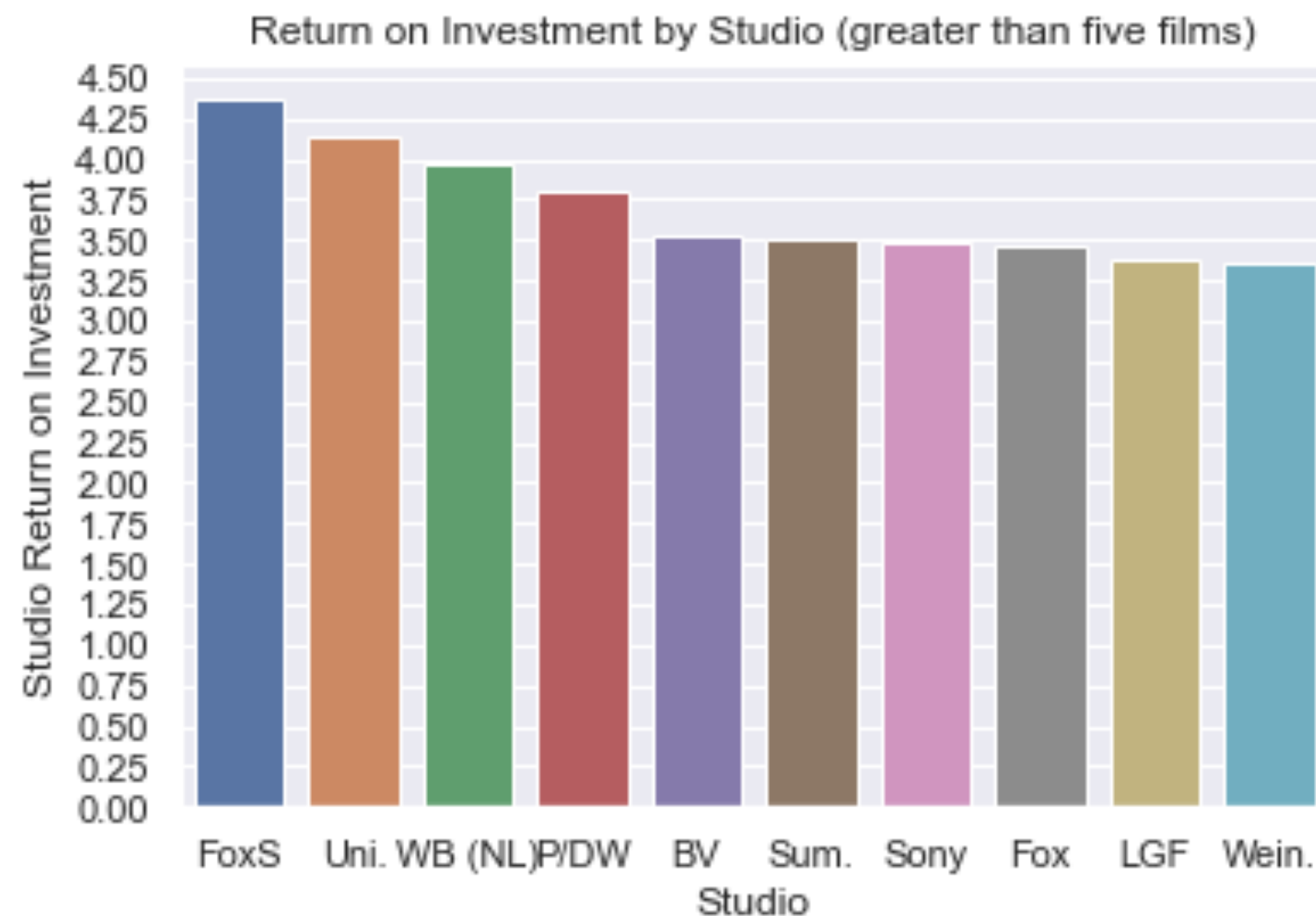
- High ROI paired with high movie count shows a studio with a track record for creating profitable films.



Results

How to use roi by studio metric

- Studios such as universal fall in the zone of successful studios where the roi and number of movies produced both are high numbers.
- You can also use this metric to verify studios you'd like to avoid.
- If roi is lower than 2 and they have many movies produced this studio has a record of producing unprofitable films.



Conclusions

This analysis leads to three recommendations for developing movies for best expected profits:

- **Suggestion for choosing movie kinds from top 10 movies selection from the market.** There are top 10 movies from the market choice. Most of the movies are high level CG action and magic movies.
- **Analysis of budgets that most movies spend.** I suggest to use the budgets from 100 to 200 million dollars, that most movies spent. That's because the budgets don't have correlation with ROI.
- **Get the goals with vote average.** Most movies have vote average more than 6 rating. If your movie fits in this goal, market tell you 'your movie is successful.'
- **Analyze studios to consider based on ROI.** Only consider studios that average at least 2.0 return on investment to better align your production with a studio that has a record of breaking even. Feel free to boost your ROI filter to above 4.0
- **Use ROI metric to filter out studios to consider.** Any studio with an ROI less than 2.0 is not viable. Depending on your teams goal or budget, all studios with less than six movies produced may not be considered at all.