

Data Science

A white L-shaped line that starts below the 'Data Science' text, extends horizontally to the right, and then turns 90 degrees downward to extend vertically.

The Movie Industry

A white L-shaped line that starts to the left of the 'Bao Tram Duong' text, extends horizontally to the left, and then turns 90 degrees upward to extend vertically.

Bao Tram Duong

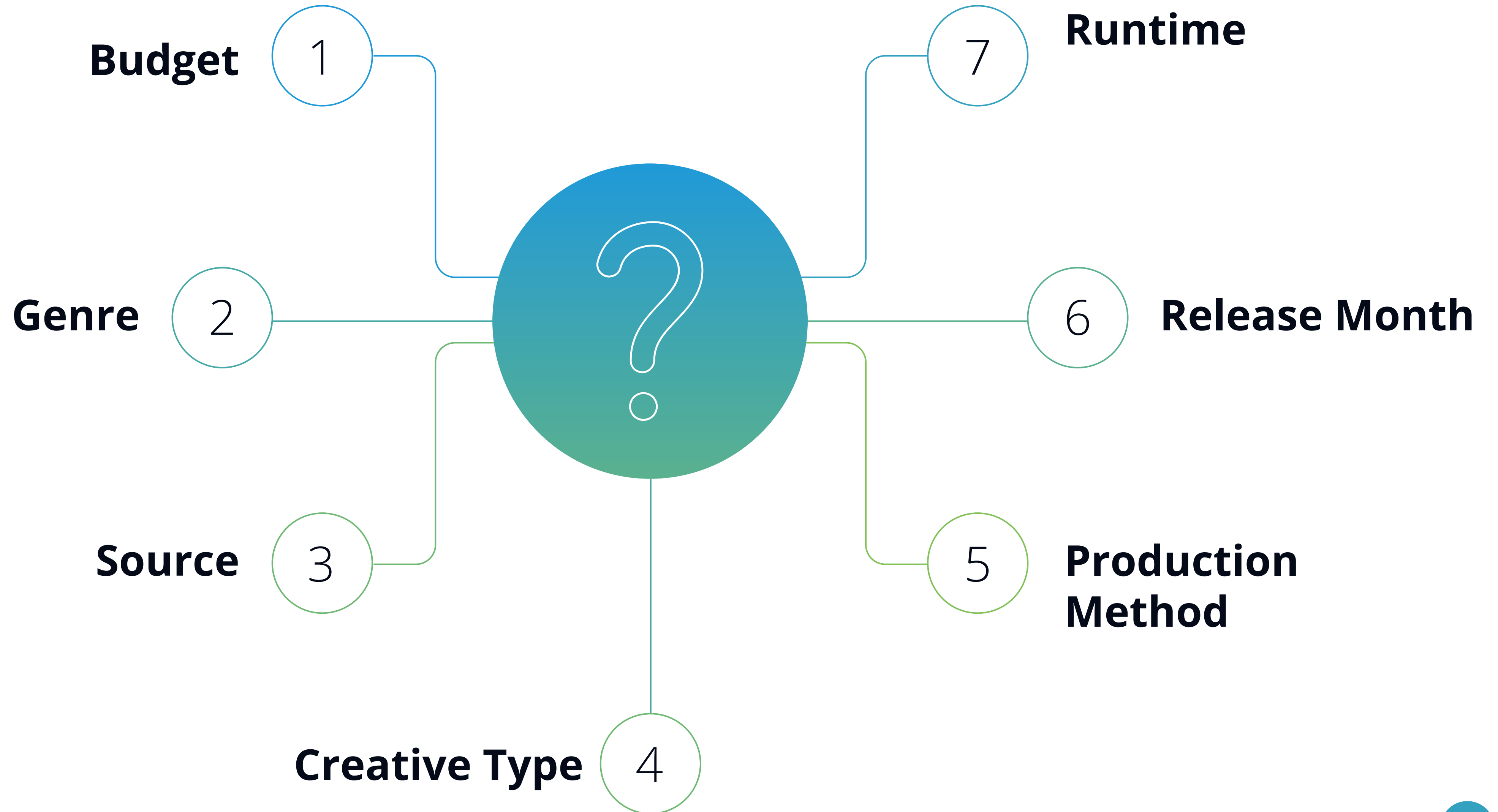


Introduction

- The movie industry generated \$35.3B in revenue in 2019
- The U.S is among the biggest film industries in the world

We are here to help **Microsoft** to become a powerful contributor in this industry.

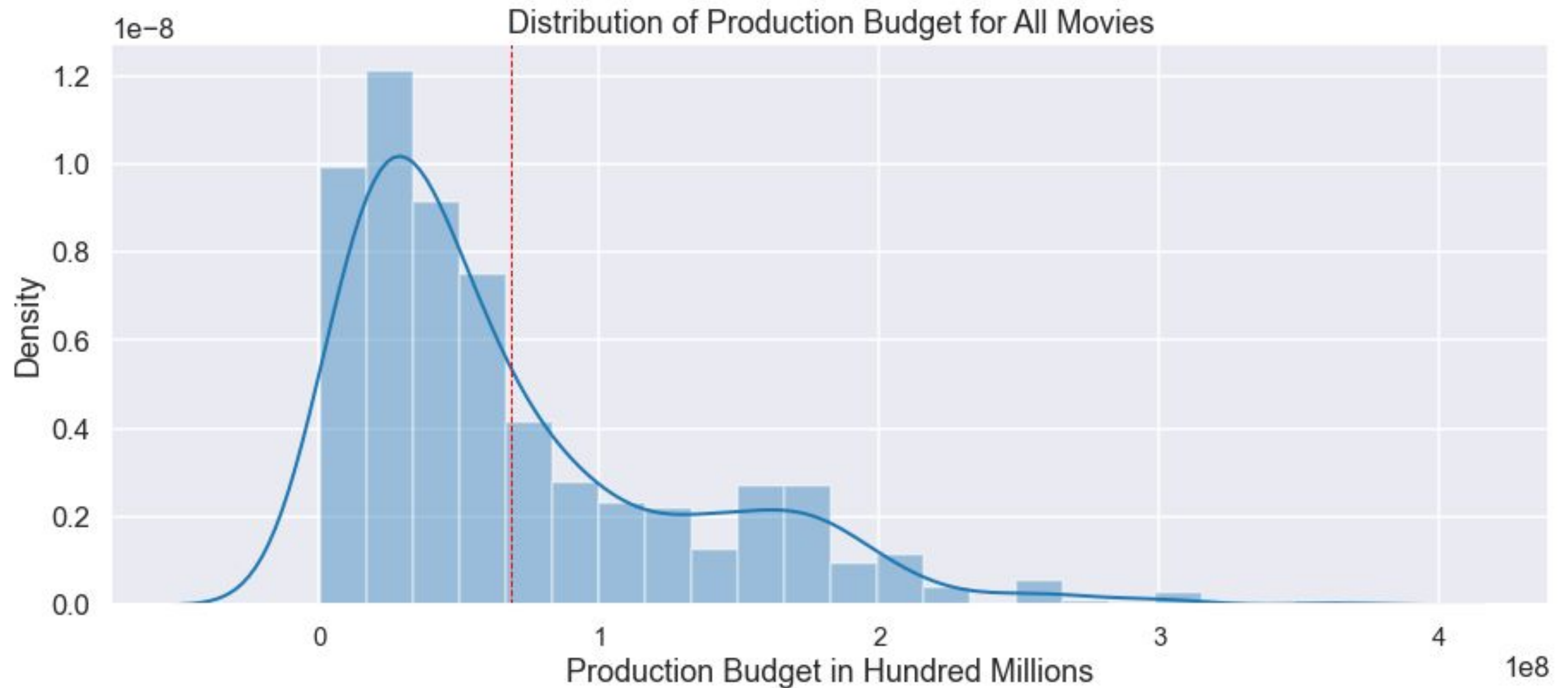
Business Problems





Business Problems

- Q1.** Is there a correlation between production budget and profit? If so, how much should Microsoft invest into production?
- Q2.** What kind of movie contents, in terms of genre, source, creative type, production method, perform the best?
- Q3.** When is the best time of year to release a movie?
- Q4.** Is there a correlation between runtime and profit? What is the best runtime?



- **\$68M** to produce a major studio movie
- **\$35M** for marketing and distributions

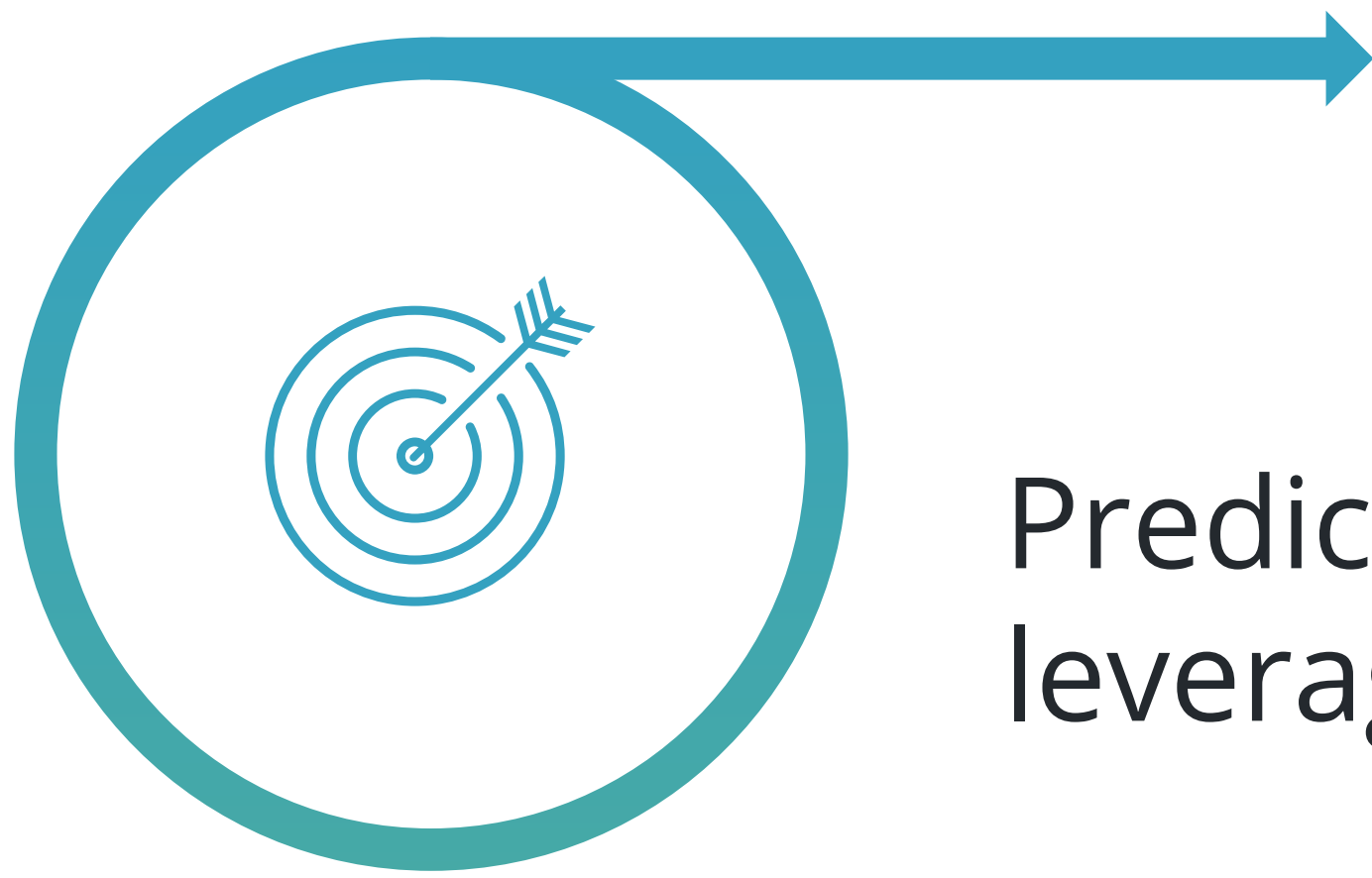


Methodology

We split our dataset into 2 groups:

- The **General Movies** group contains all 625 movies in the dataset.
- The **Top 100 Movies** group contains the top 100 movies that generate the highest worldwide profit.

Compare & observe what the Top 100 Movies are doing differently to set themselves apart

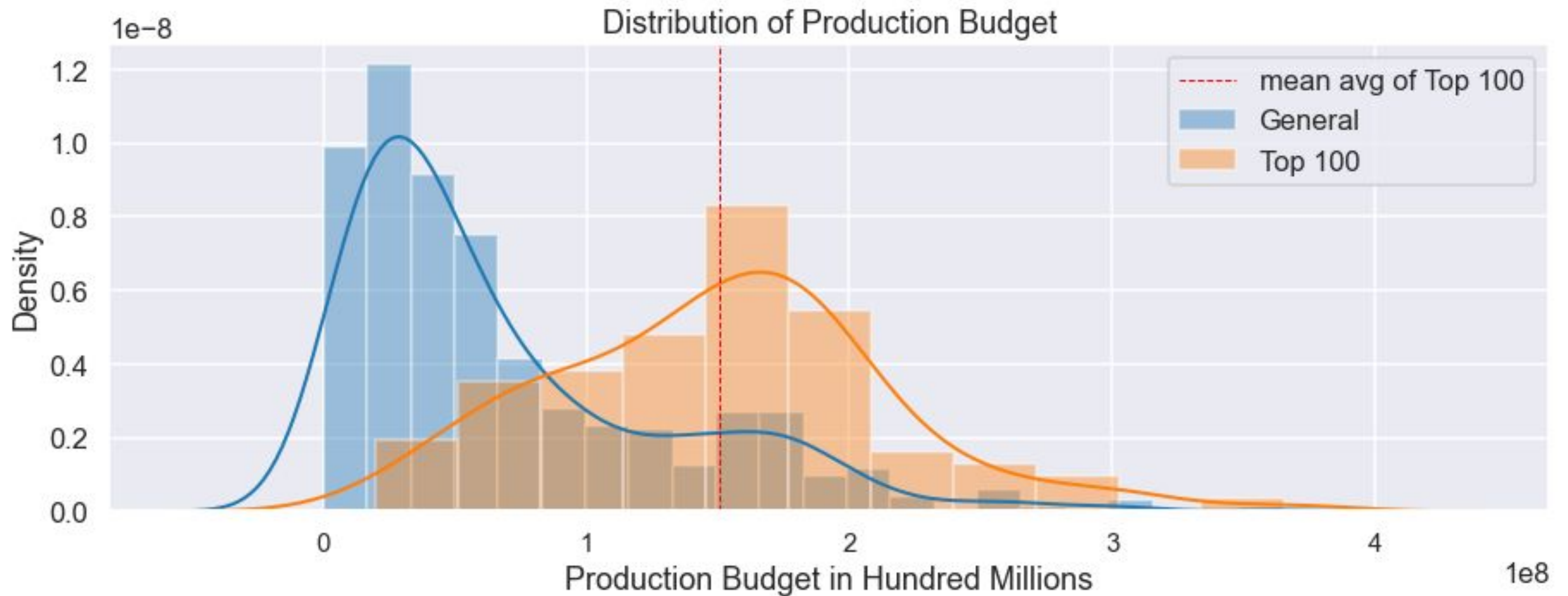


Data Sources

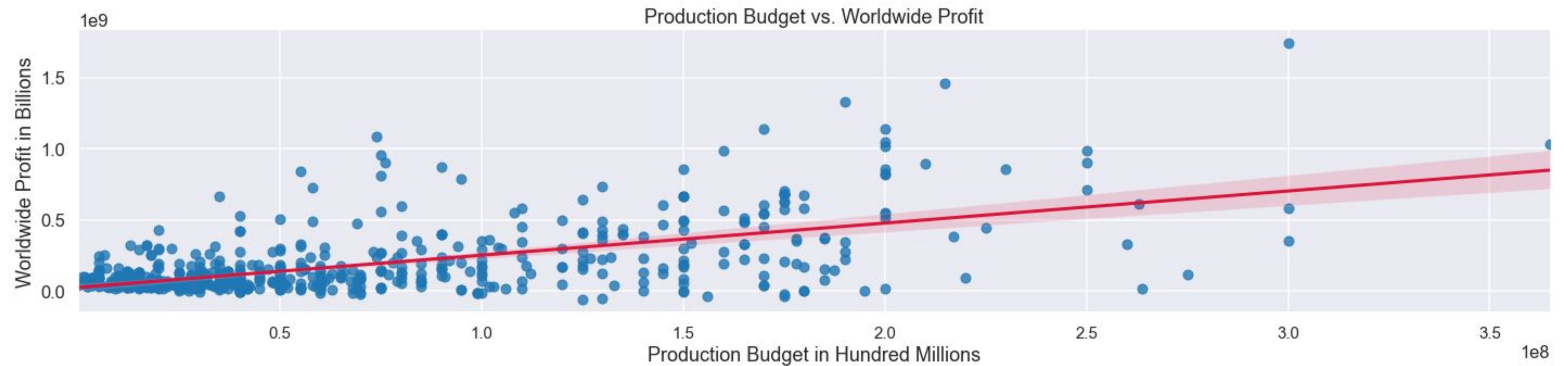
Predict the success of a movie based on its profitability by leveraging historical data from various sources:

1. Box Office Mojo
2. IMDB
3. Rotten Tomatoes
4. TheMovieDB.org
5. The-Numbers.com





- The average production budget in the General Movies group is **\$68M**.
- The average production budget in Top 100 Movies group is **\$150M**.

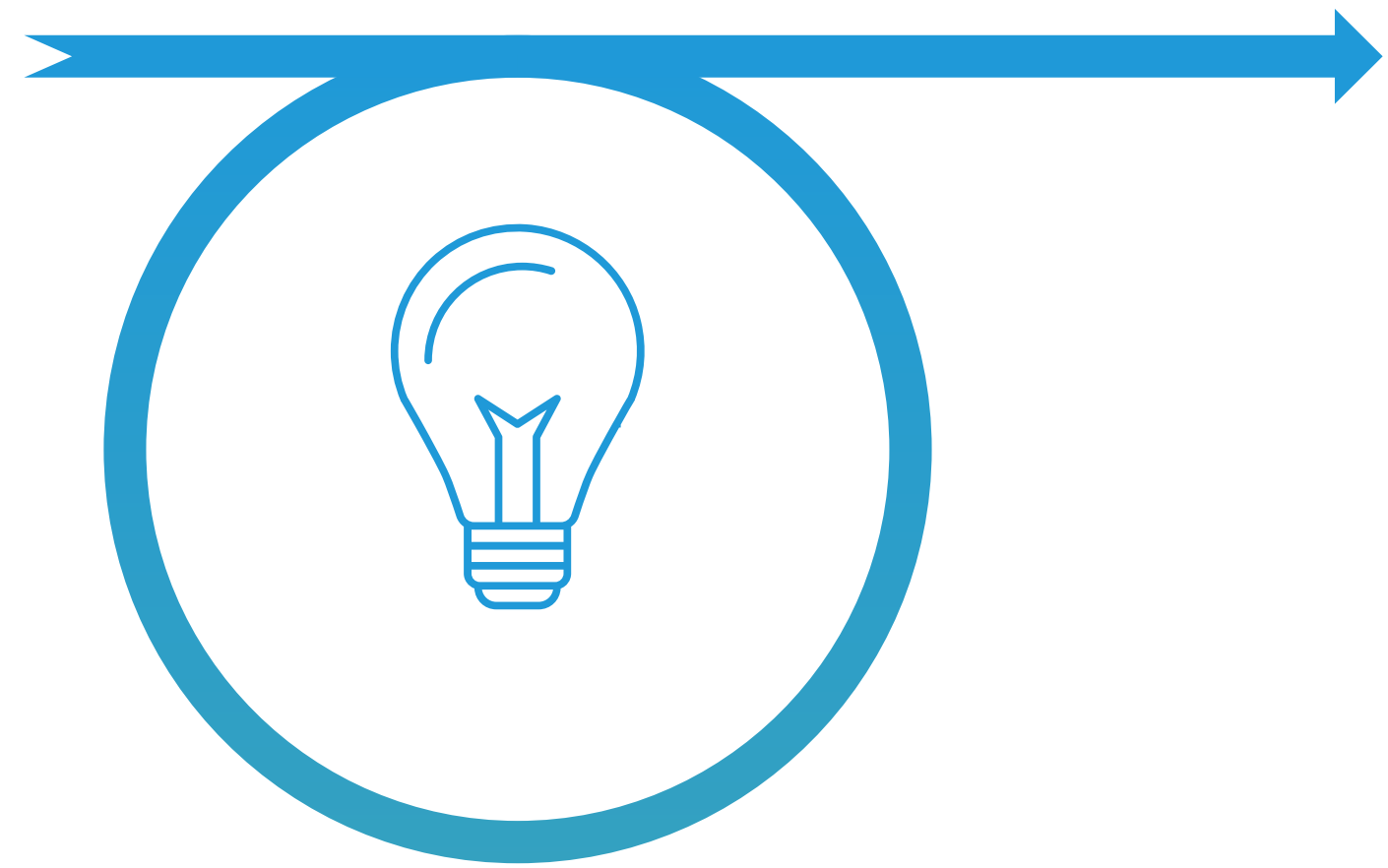


- The average worldwide profit in General Movies group is **\$179M**.
- The average worldwide profit of the Top 100 Movies group is **\$624M**.



Conclusion

\$150+ M



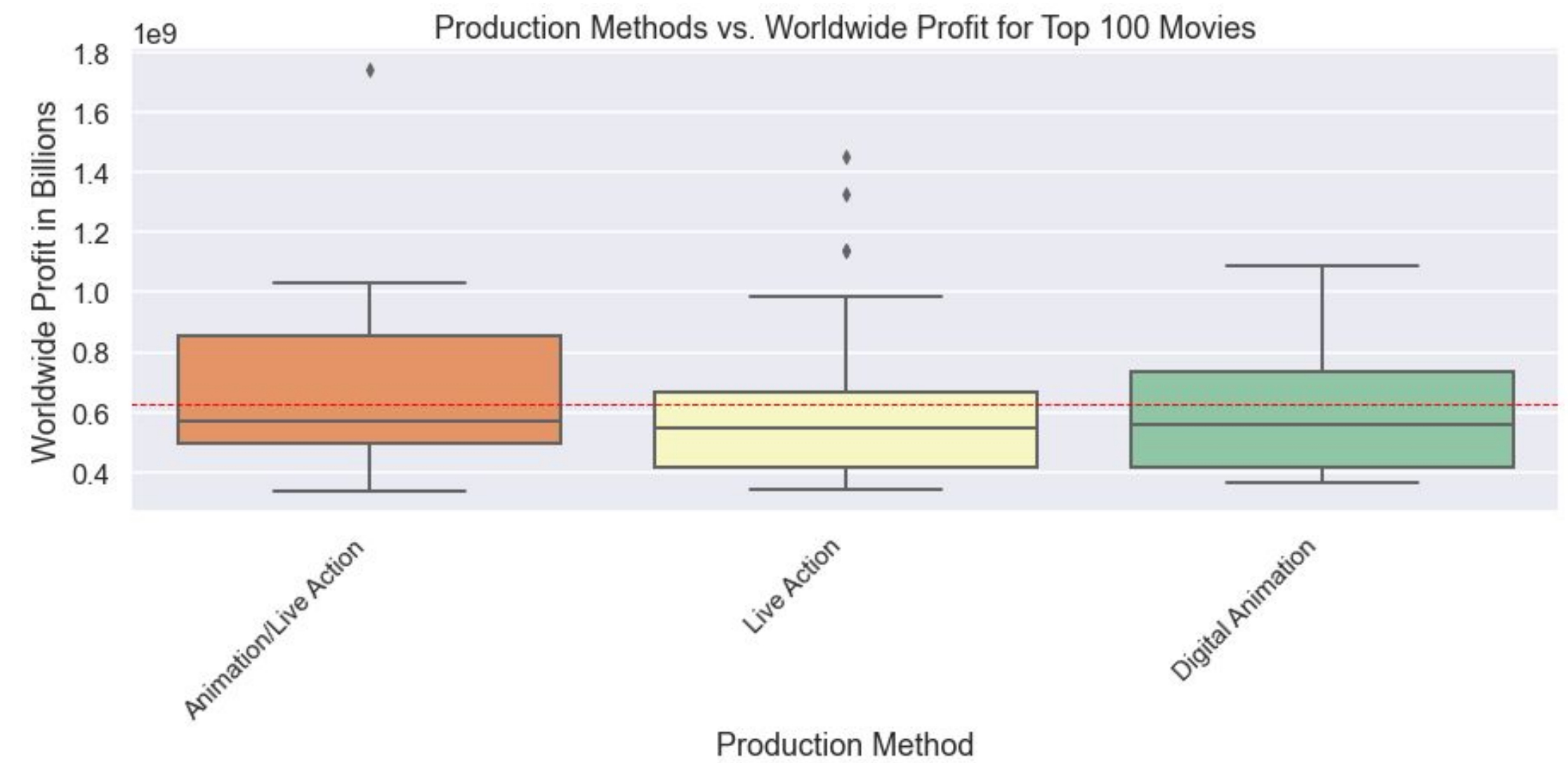
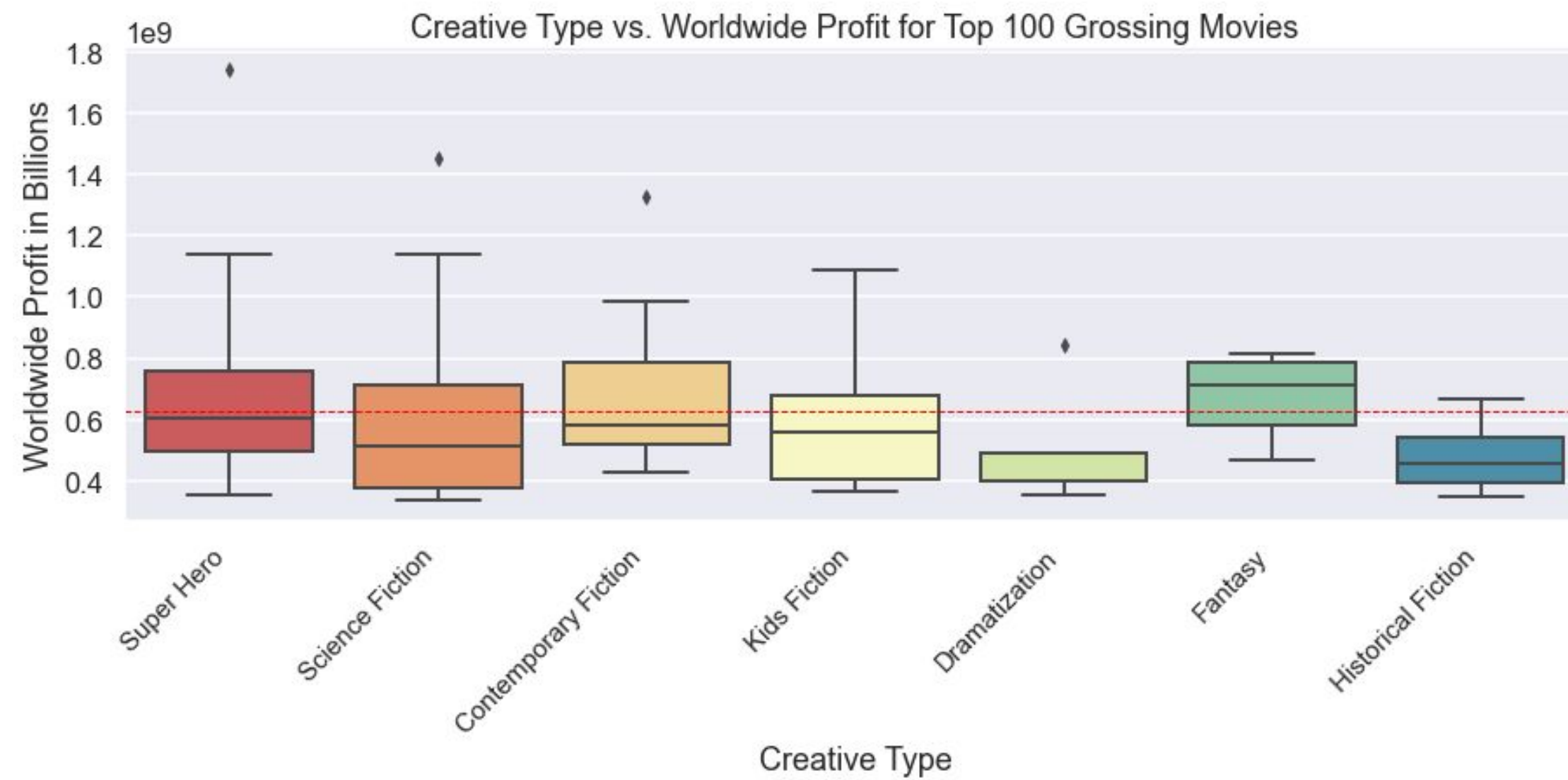
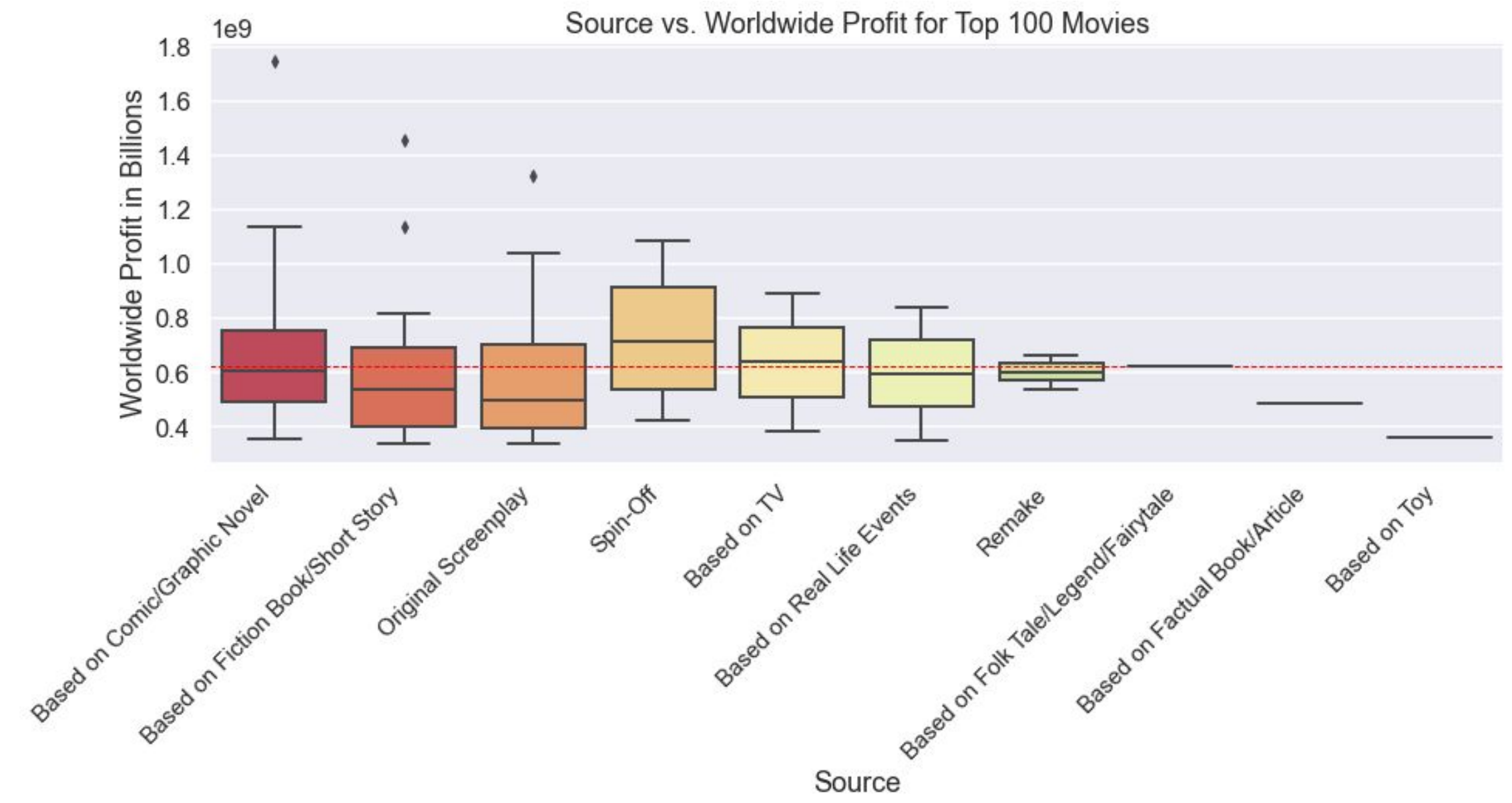
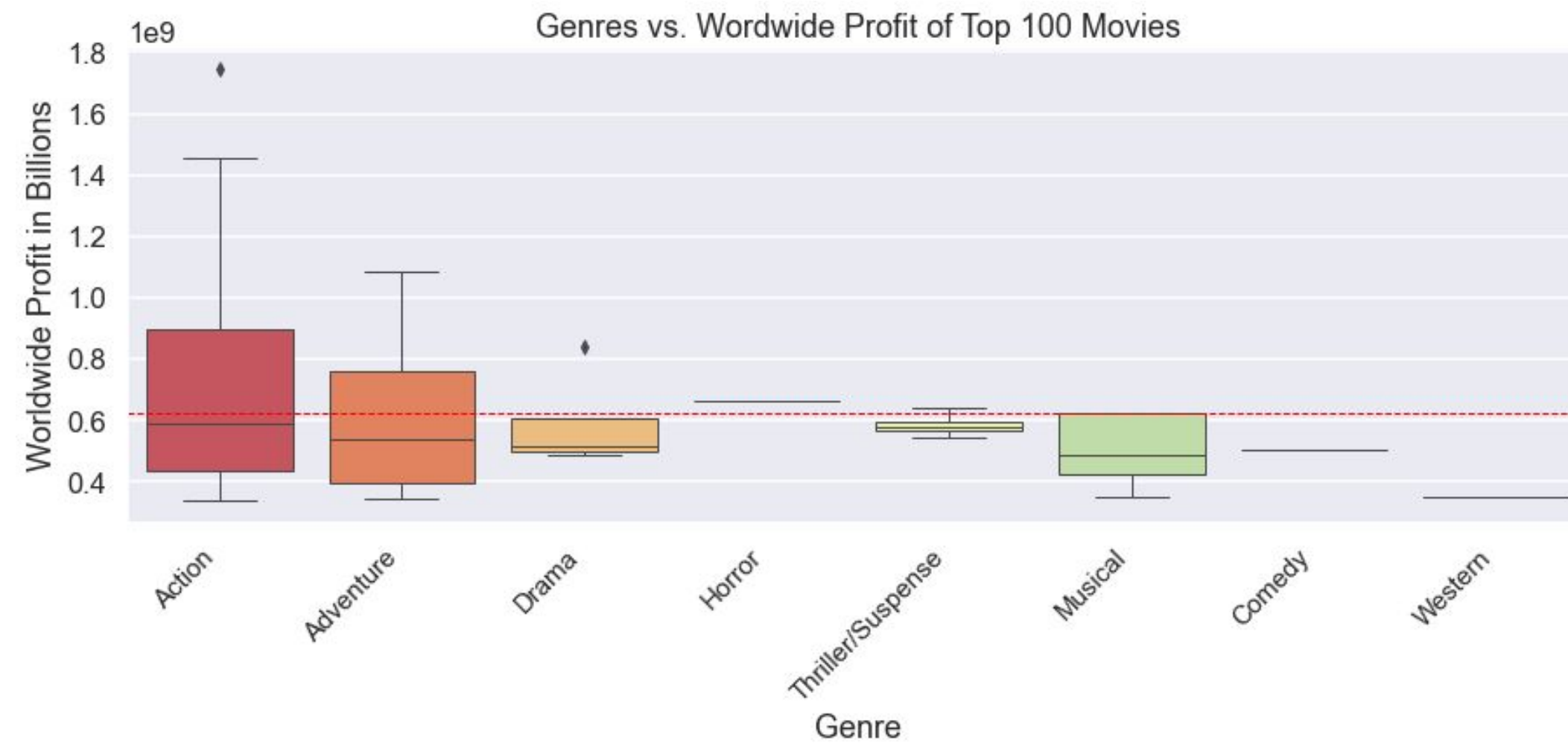
Business Solution

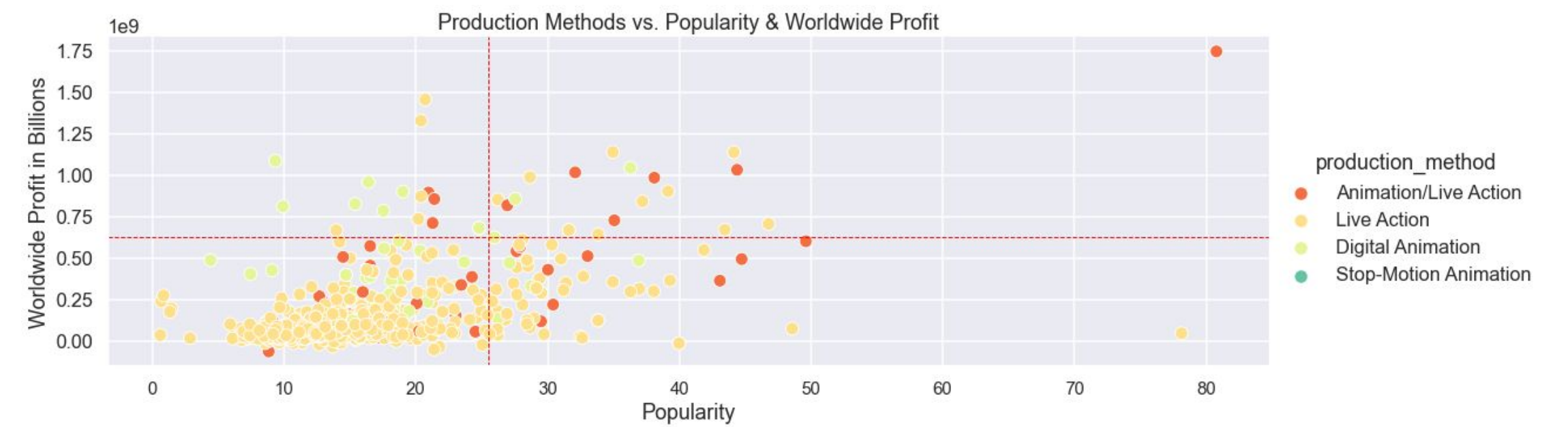
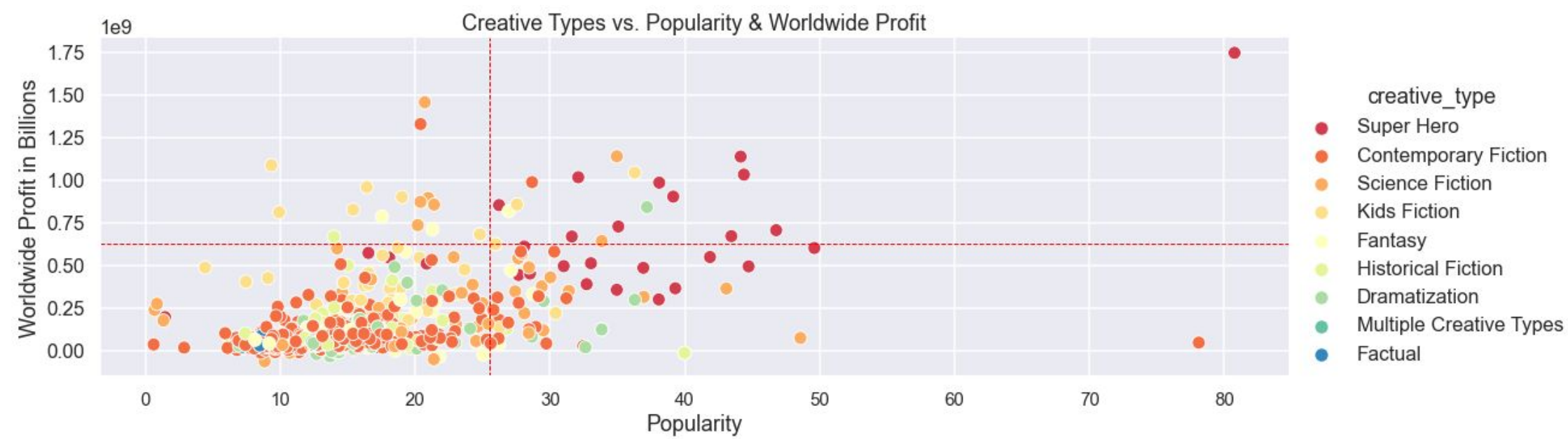
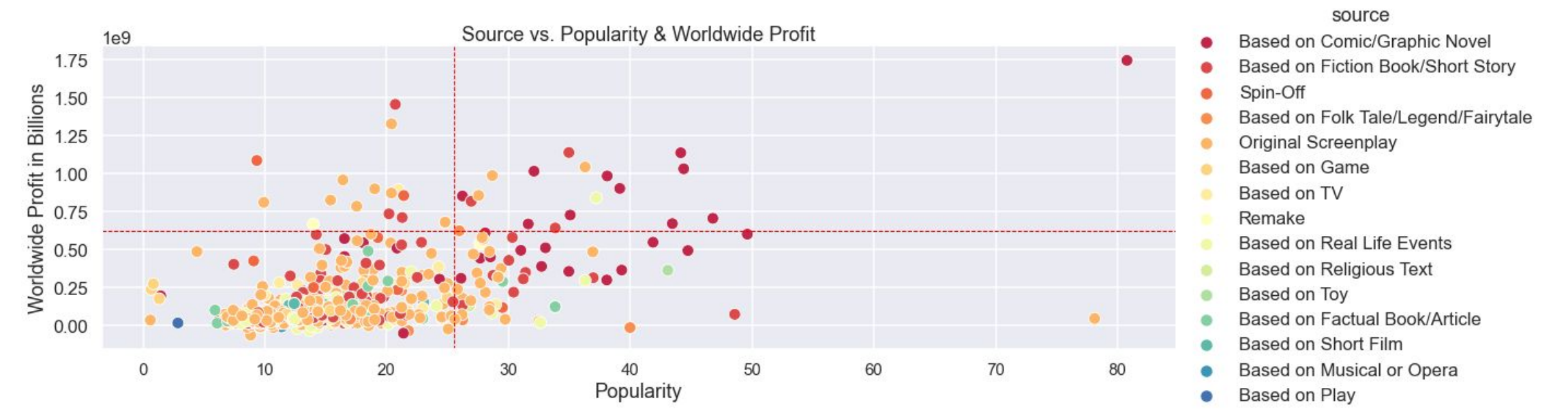
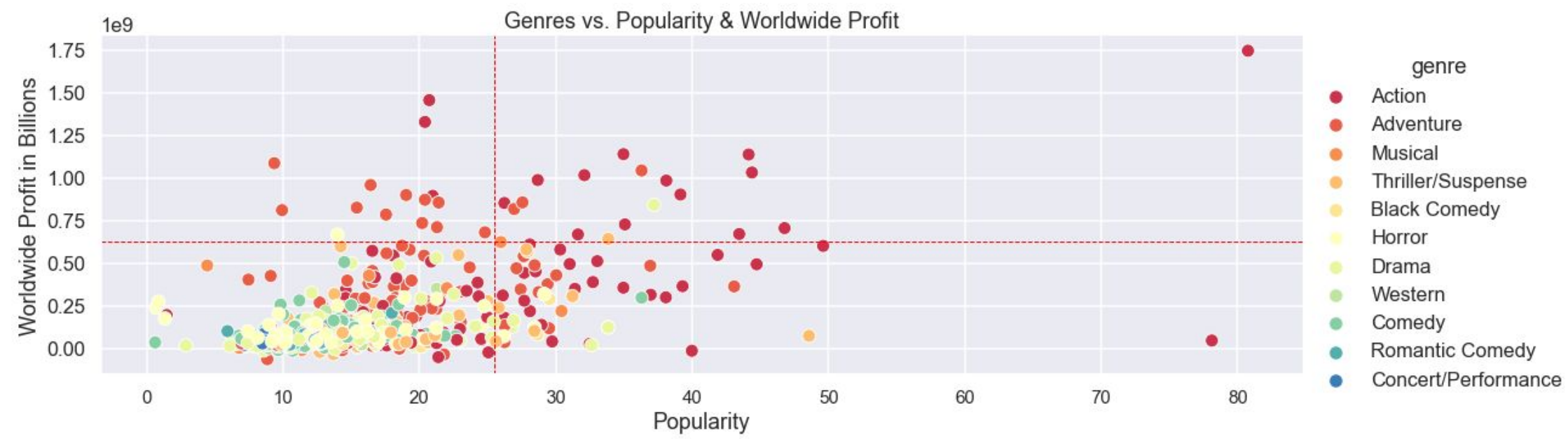
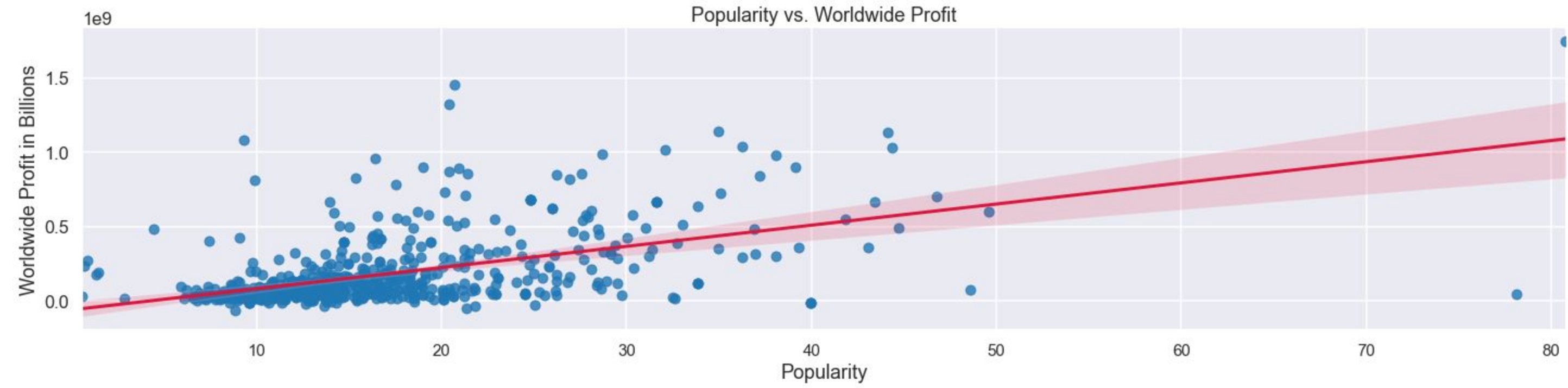
Genre

Source

Creative Type

Production Method







Conclusion

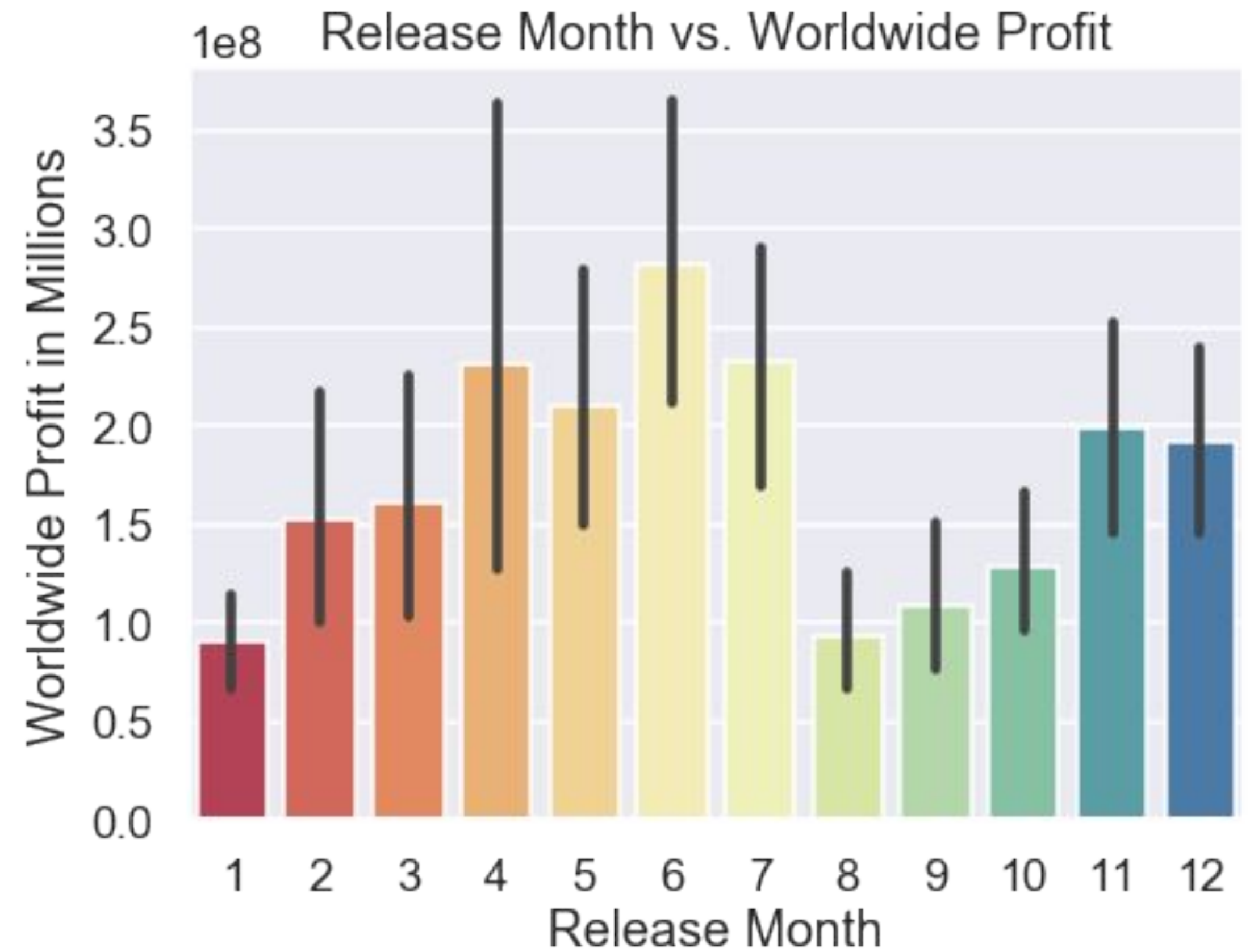
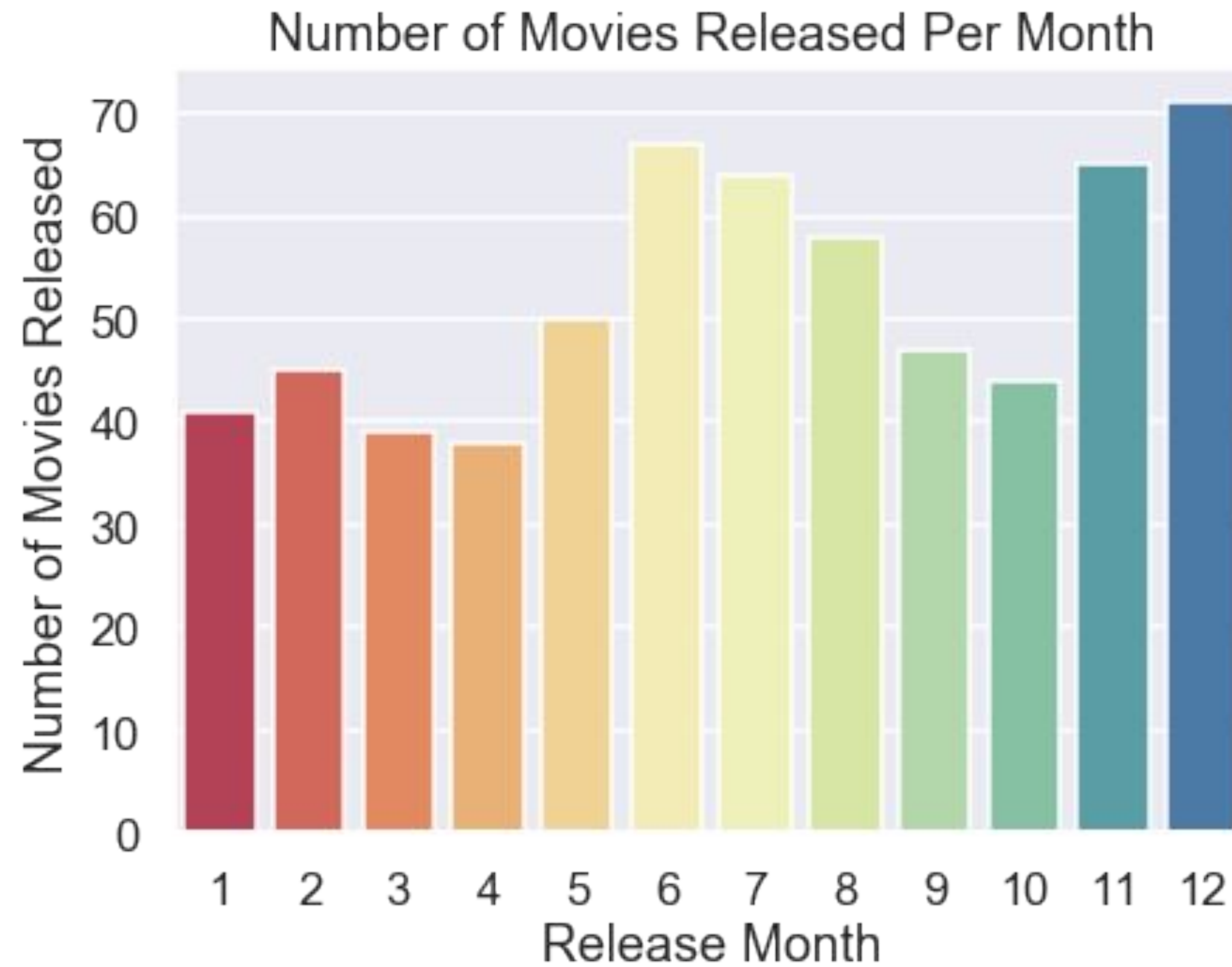
Action

Based on Comic Graphic/ Novel

Super Hero

Animation/ Live Action





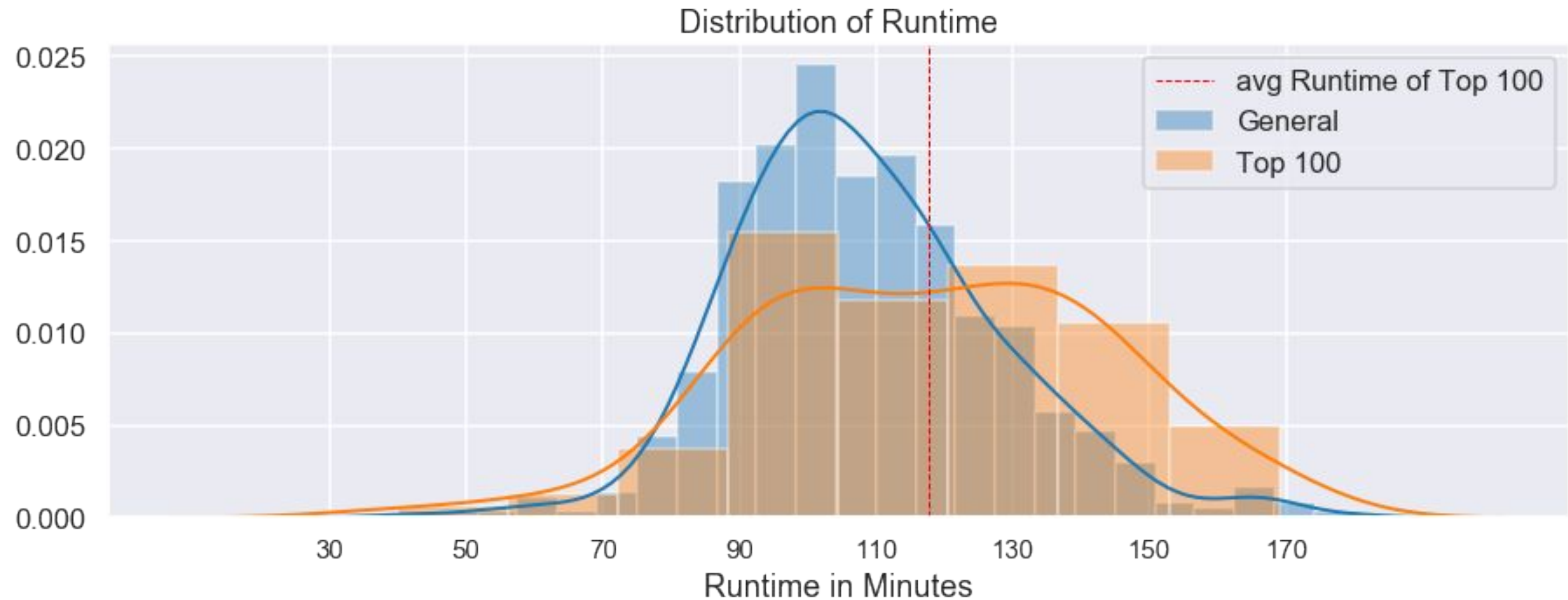
- Most release = June, December
- Most profit = June



Conclusion

June





- The average runtime in General Movies is 108 minutes.
- The average runtime in Top 100 Movies is 118 minutes.

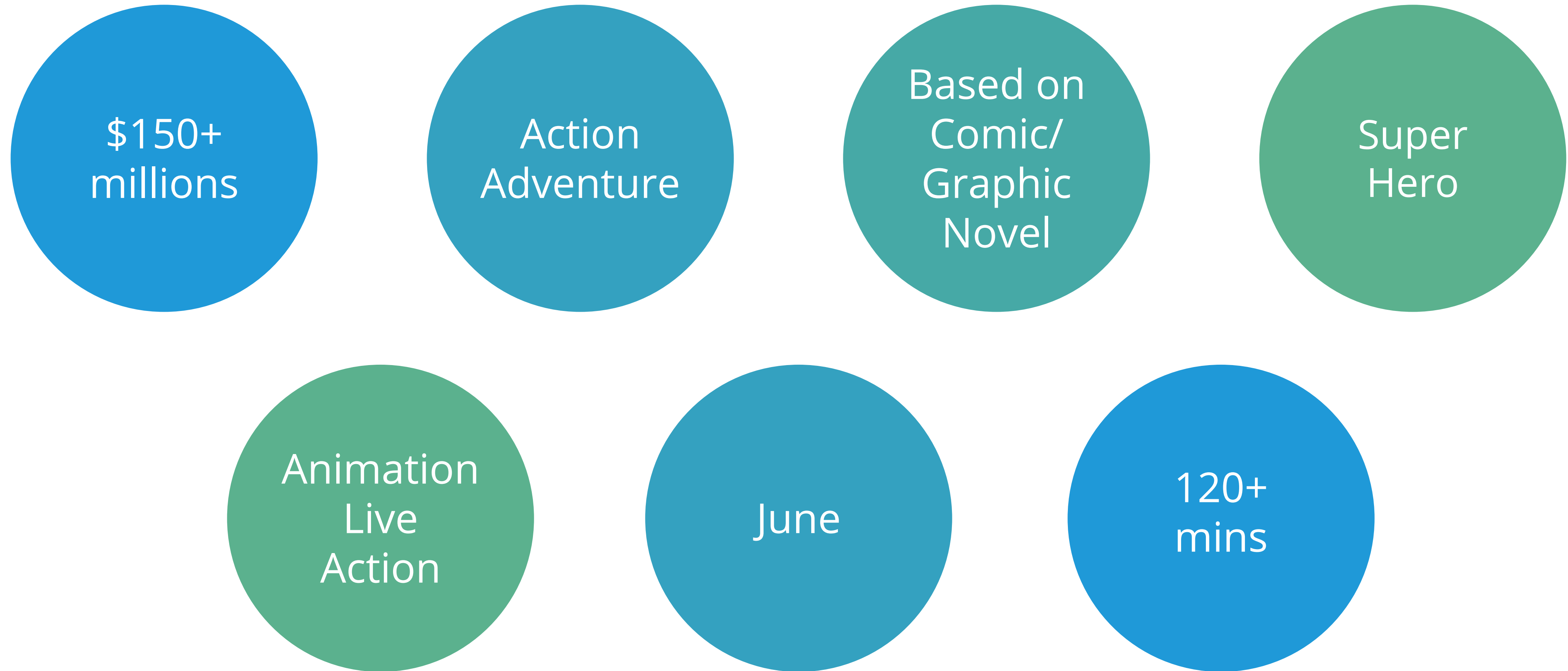


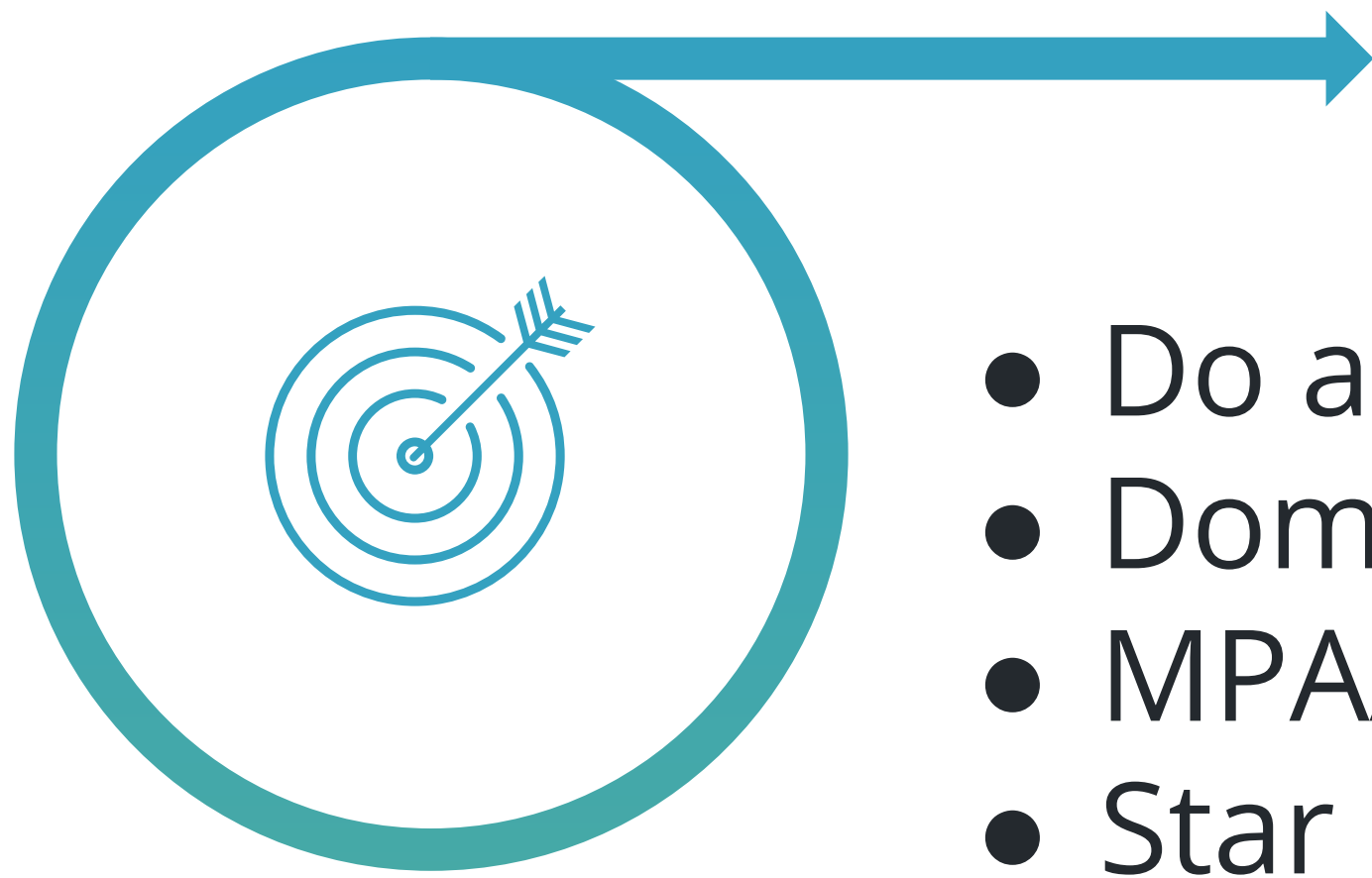
Conclusion

120+ MINS

Our Recommendations

What Makes a Movie Successful





Future Works

- Do analysis in term of ROI
- Domestic market and international market
- MPAA rating
- Star quality
- Script quality
- Special effects, sound design, music
- Marketing campaign
- Popularity of the film preceding it (if it's a sequel)
- Directors
- Writers
- Critics
- Diversity: female directors, women of color, Black Lives Matter movement, LGBTQ+, etc.



Thank You





Q & A





Appendix





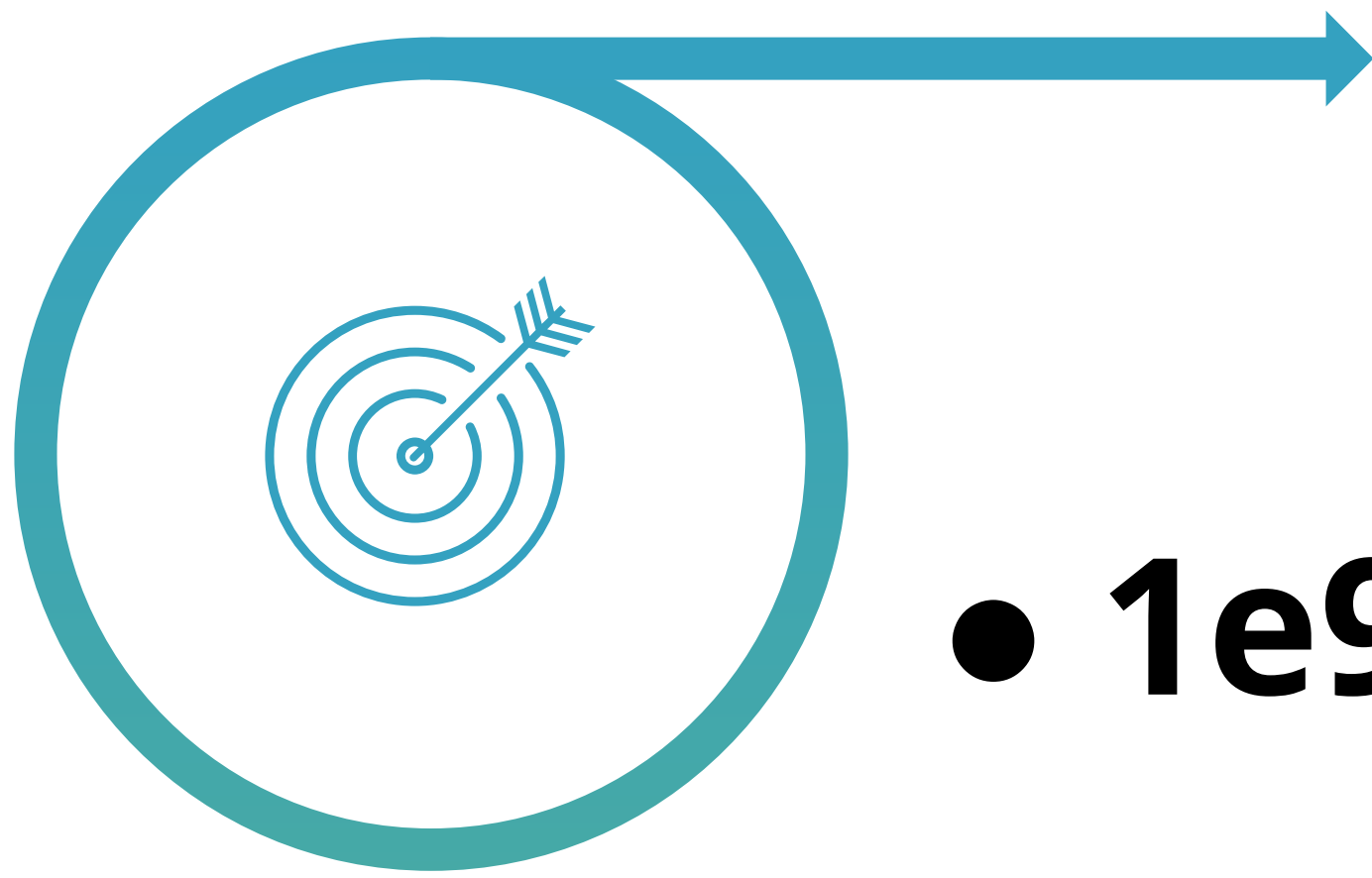
Examples

- ***Pirates of the Caribbean: On Stranger Tides*** (2011) - \$379M budget, \$1 B earned
- ***Avenger: Age of Ultron*** (2015) - \$365M budget, \$1.3B earned
- ***Spectre*** (1997) - \$300M budget, \$879M earned



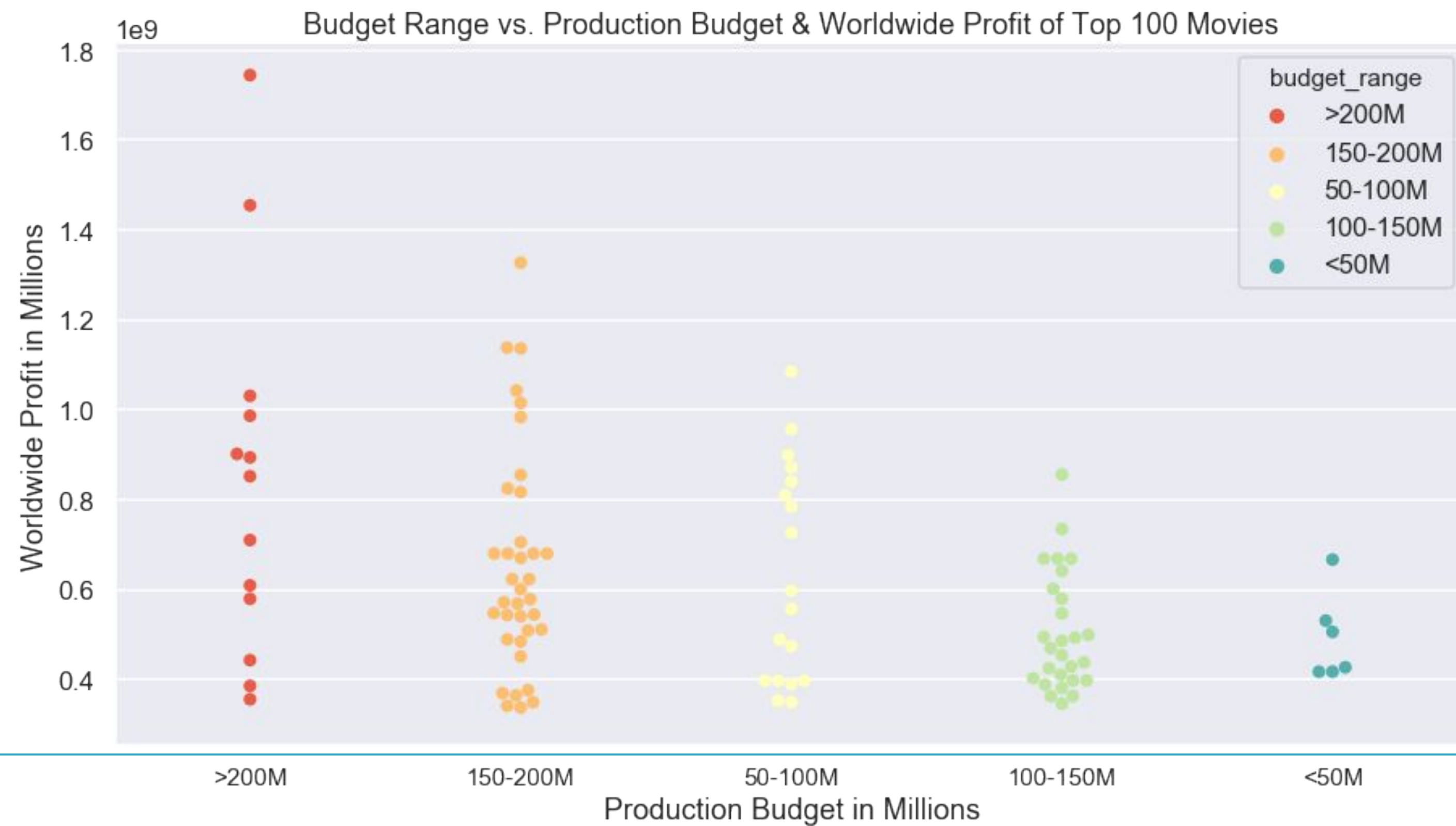
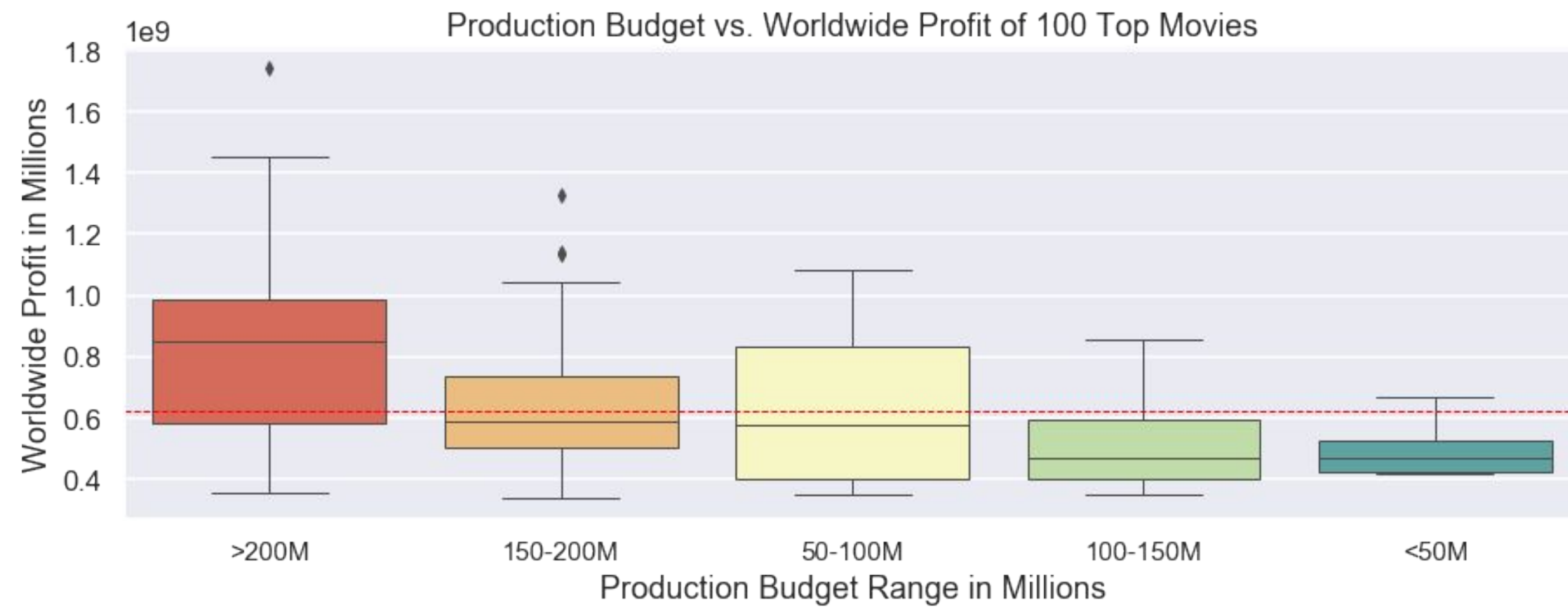
Examples

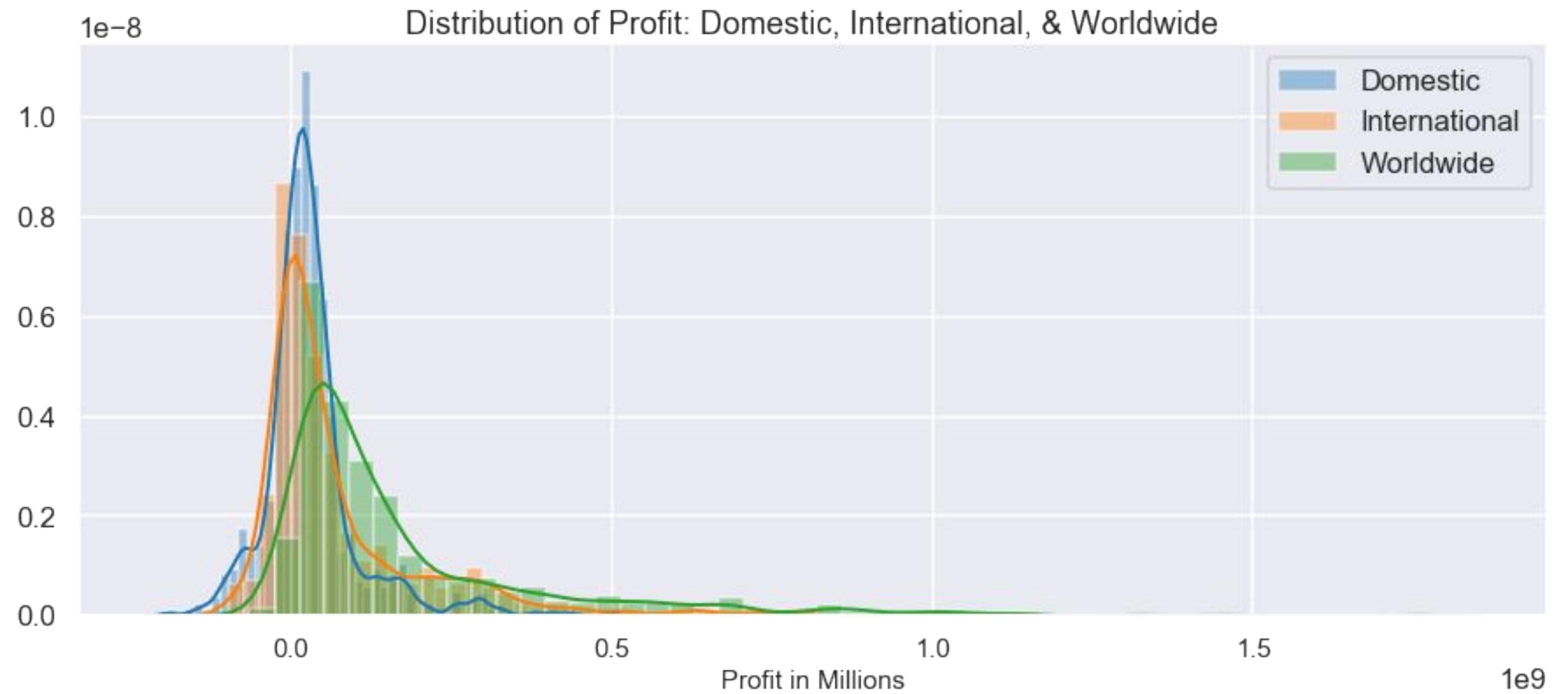
- ***Facing the Giants*** (2006) - \$100,000 budget, \$24.4M earned
- ***Once*** (2007) - \$150,000 budget, Oscar nominations, \$19M earned
- ***Mad Max*** (1980), \$200,000 budget, \$49.6M earned

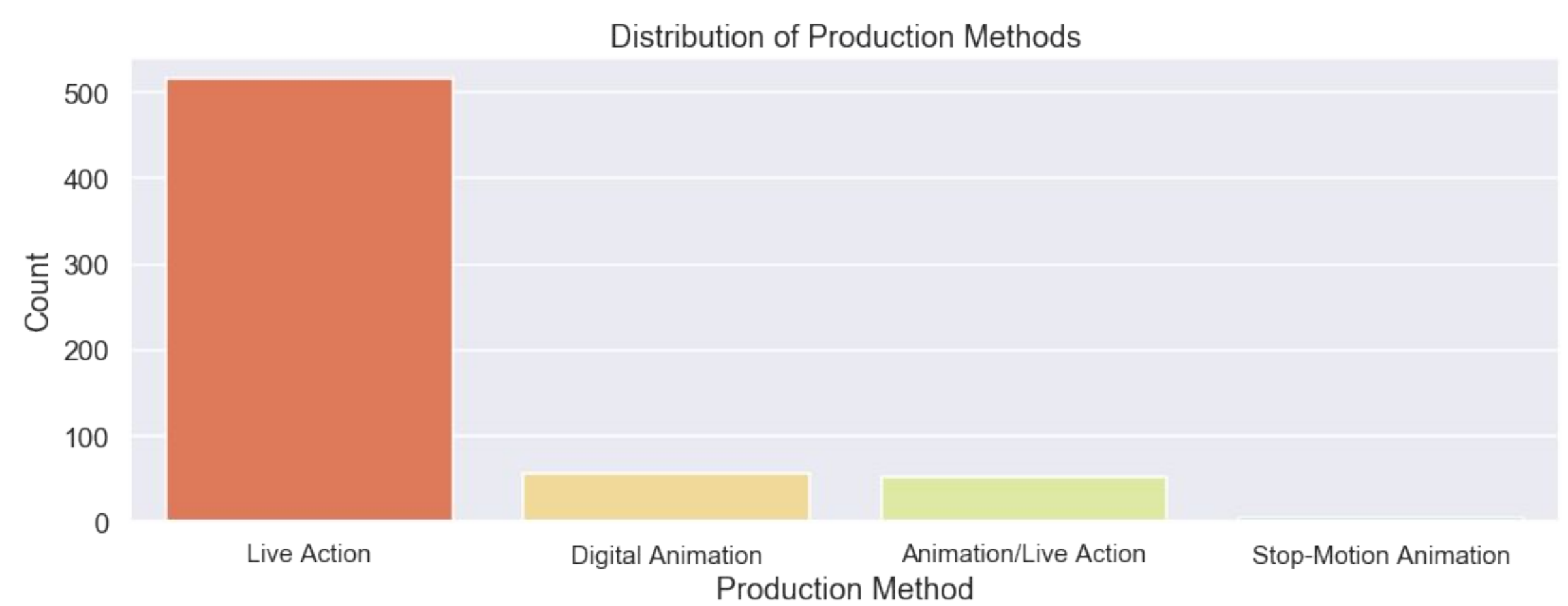
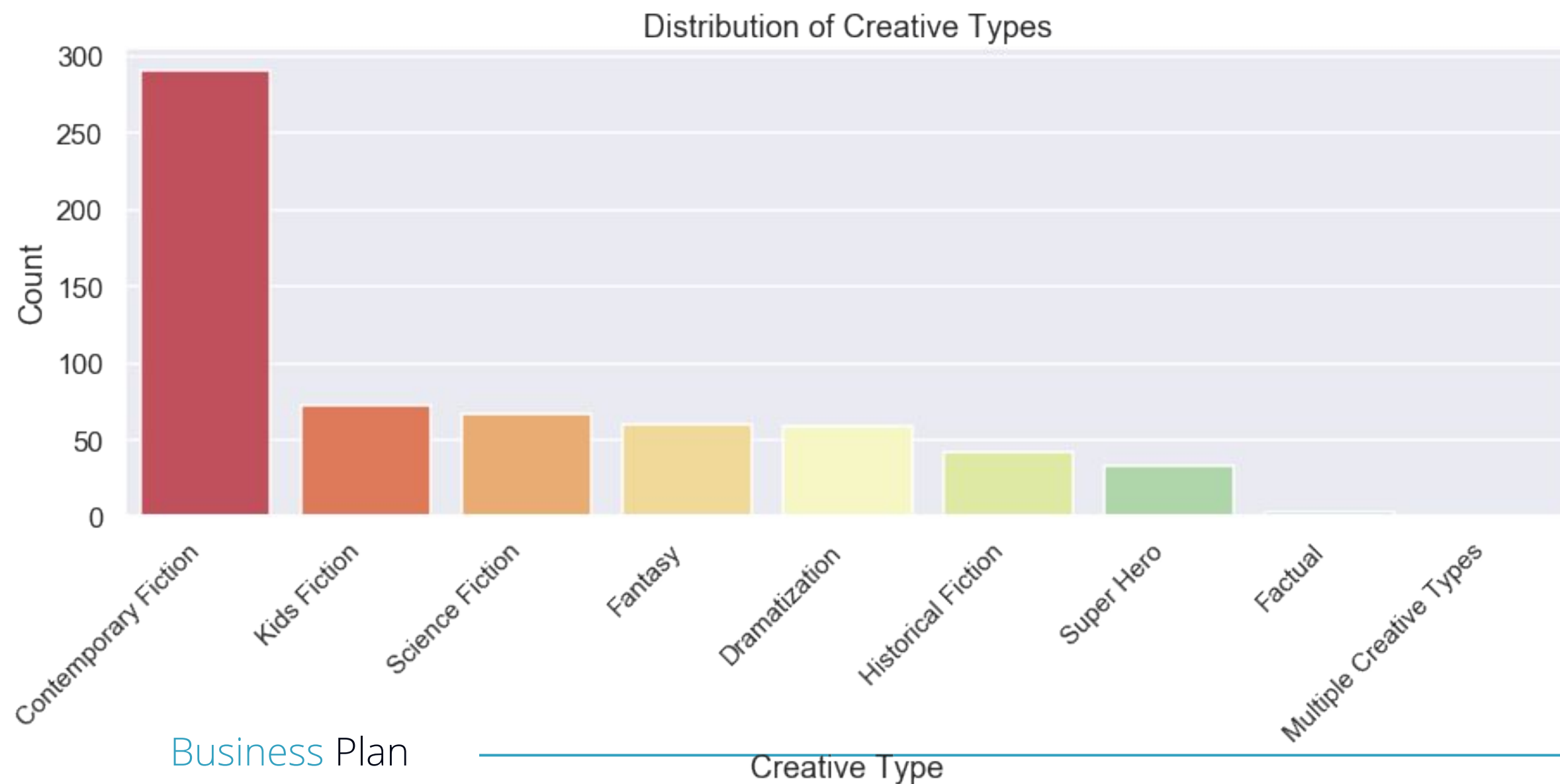
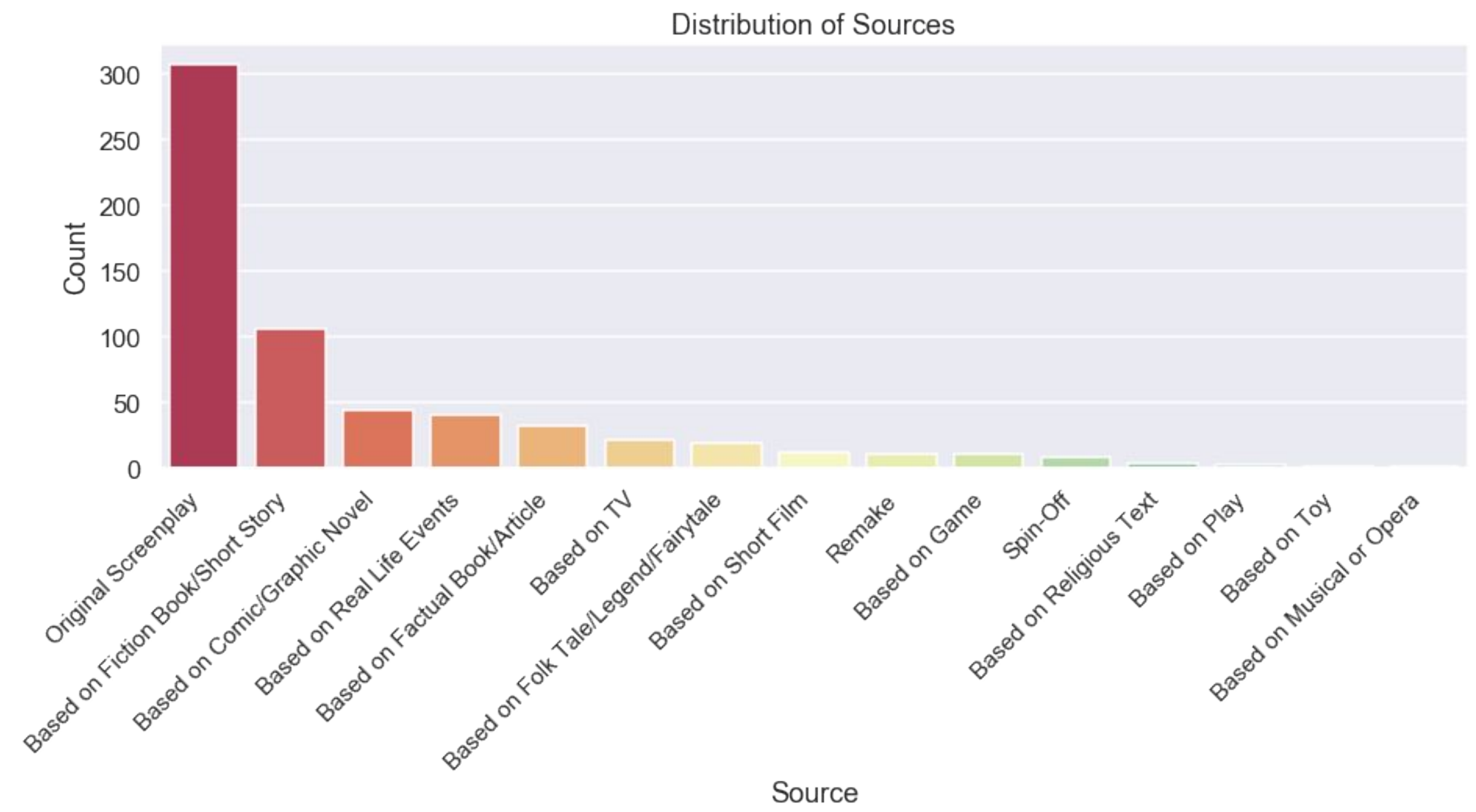
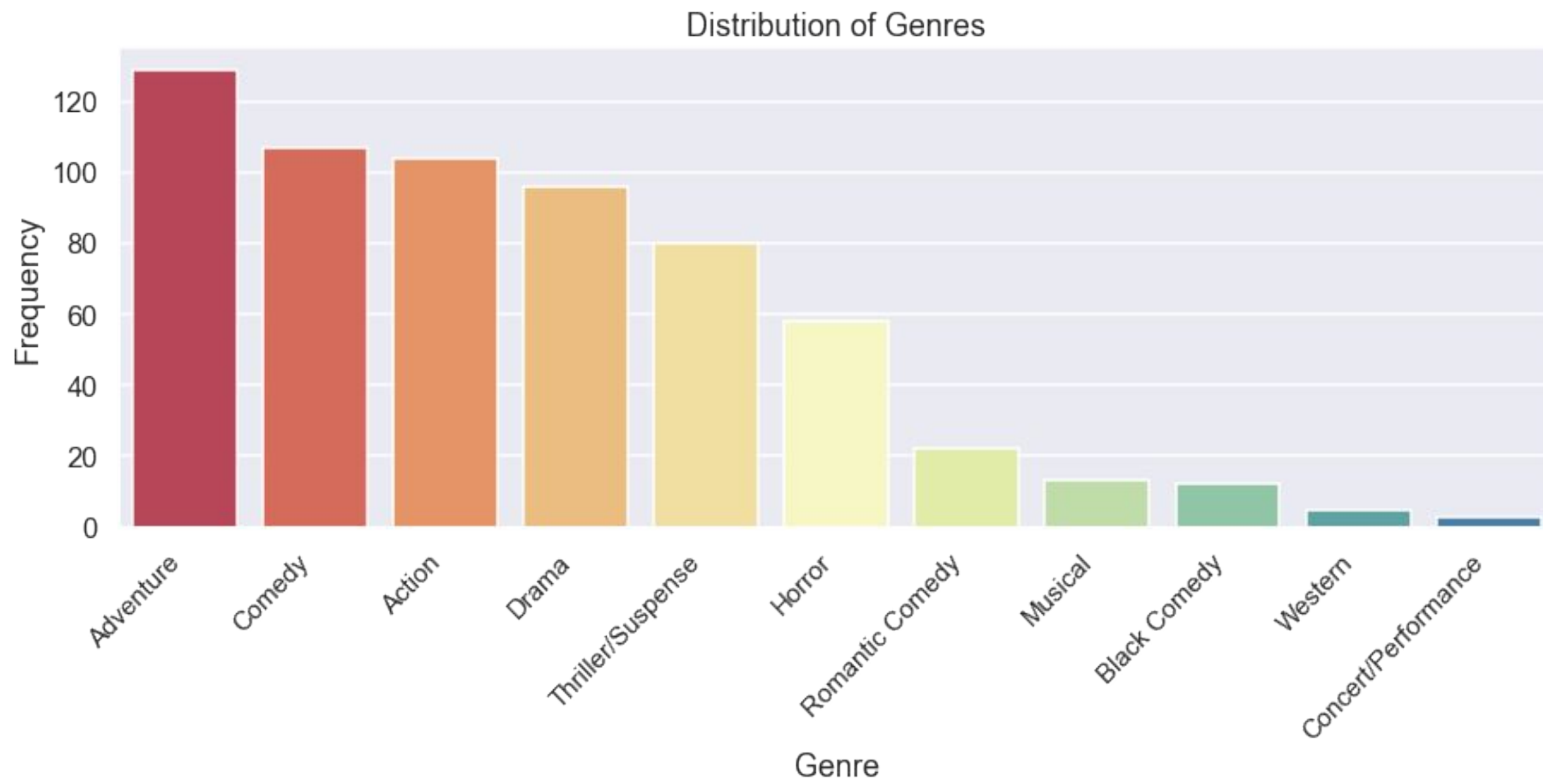


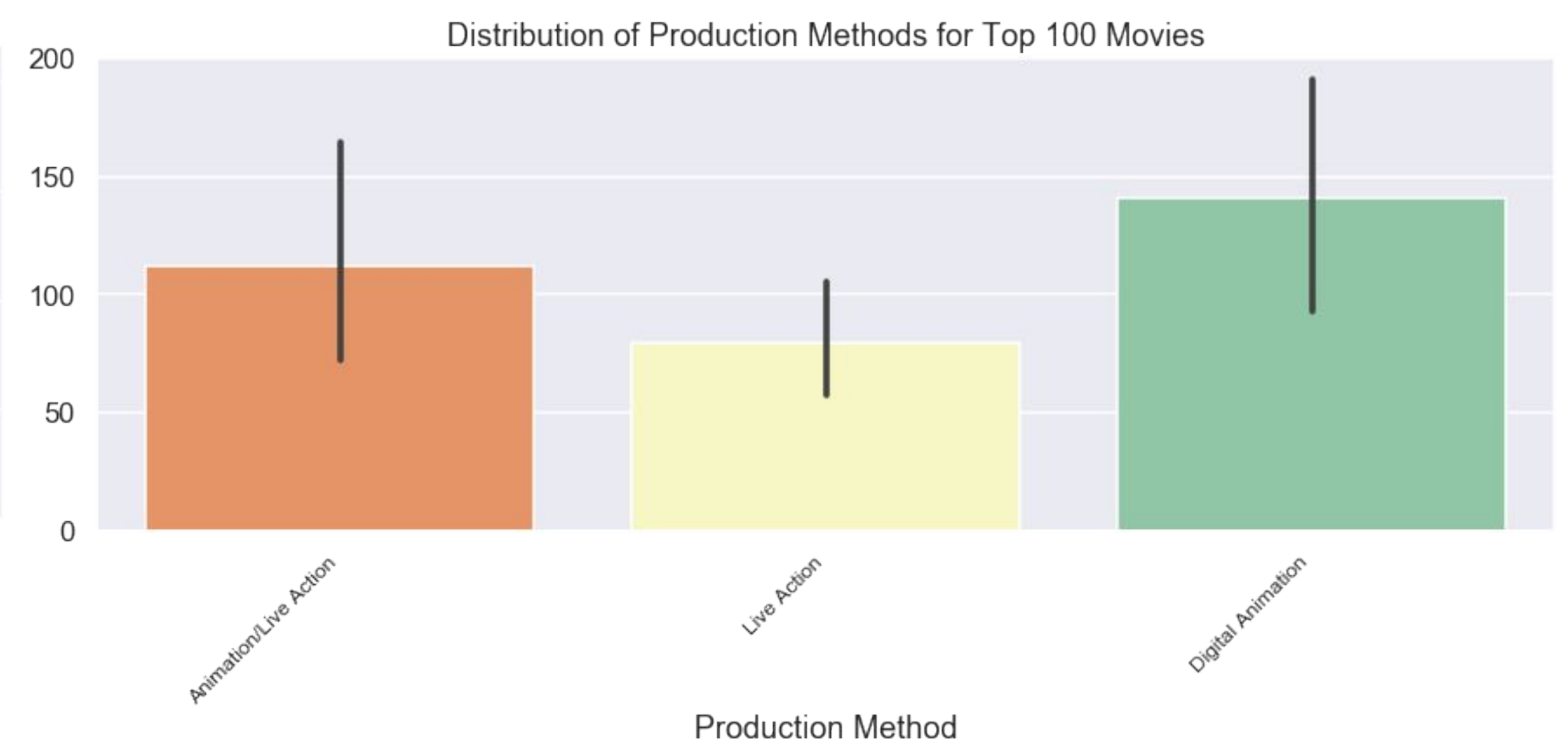
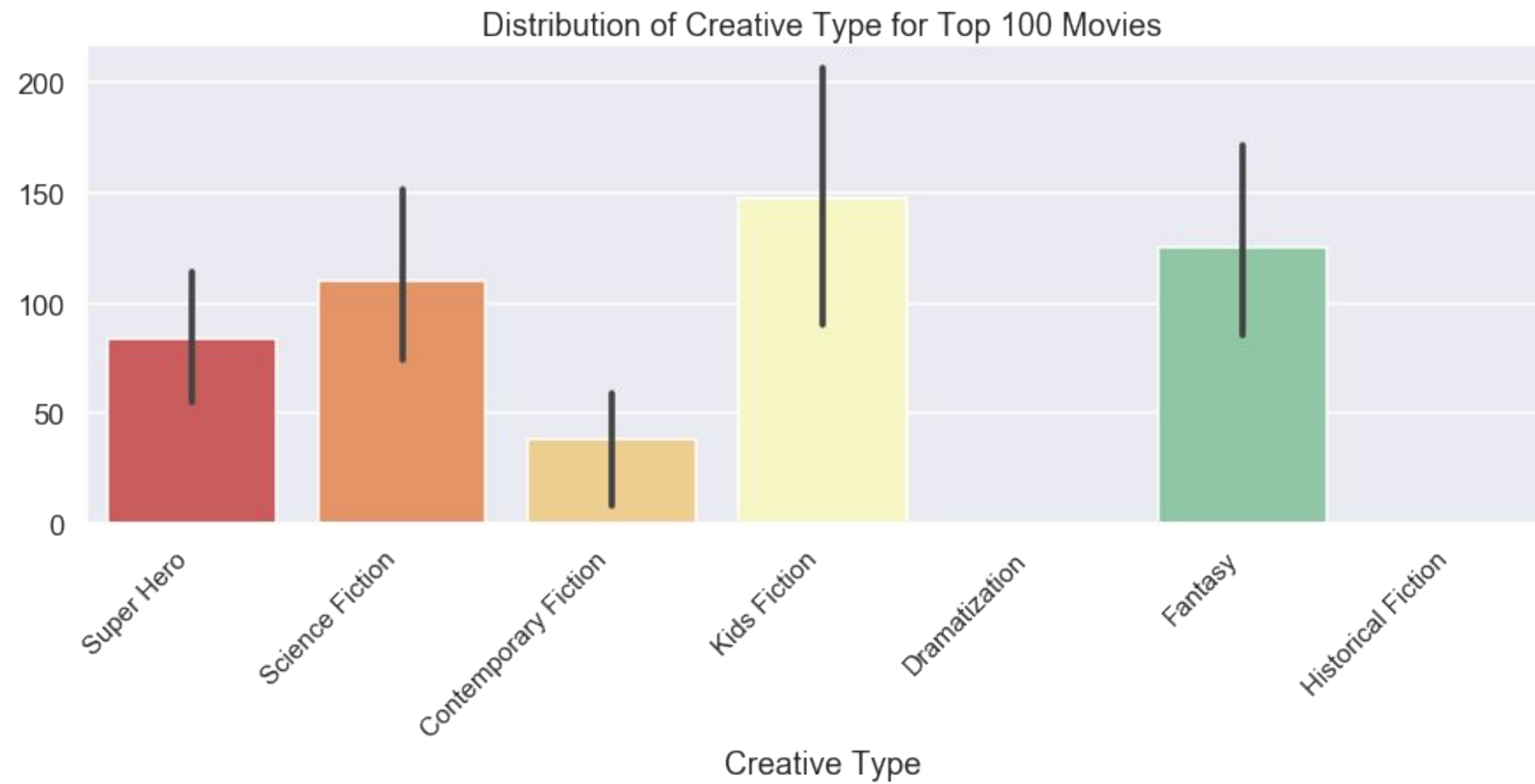
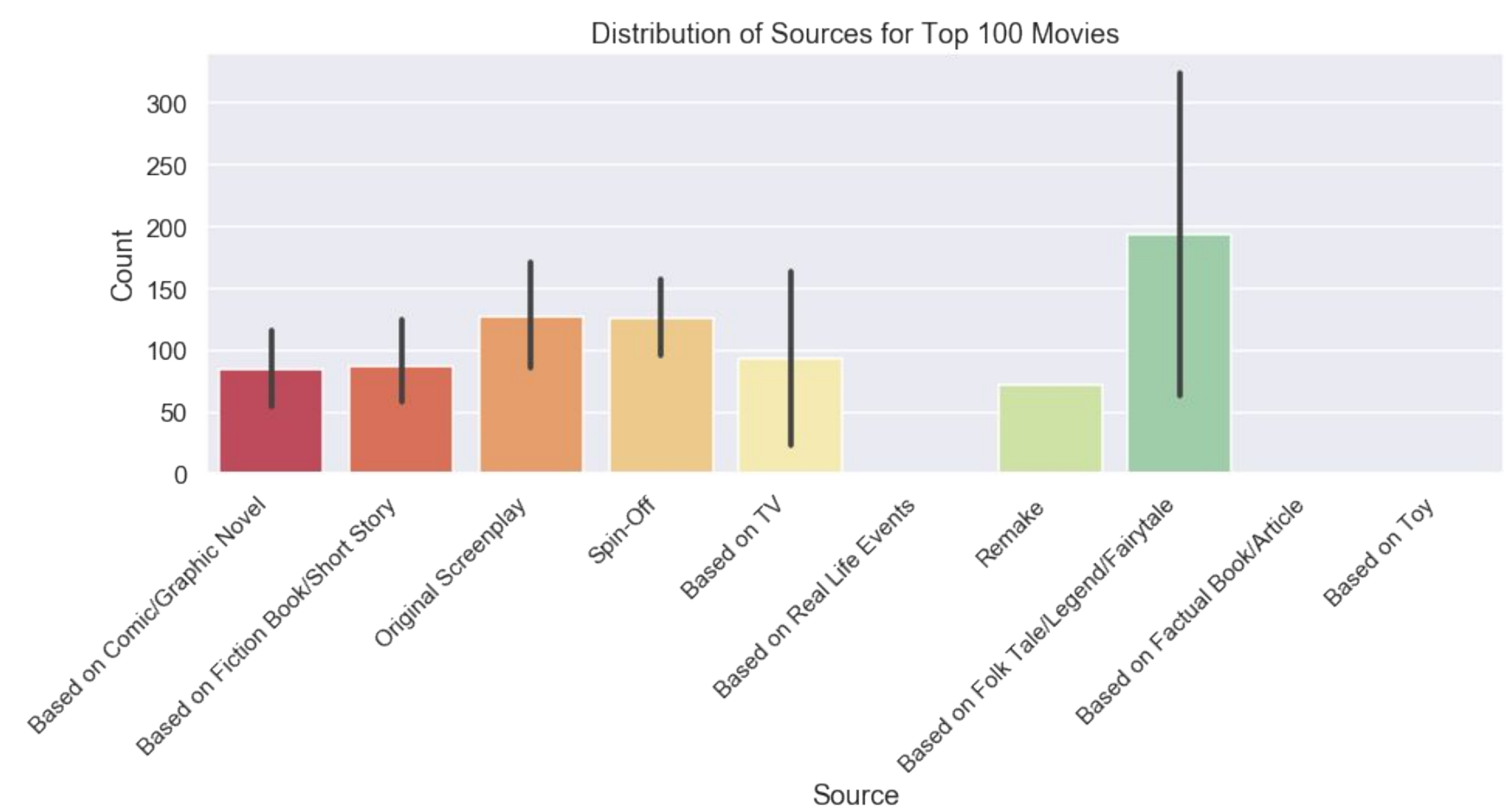
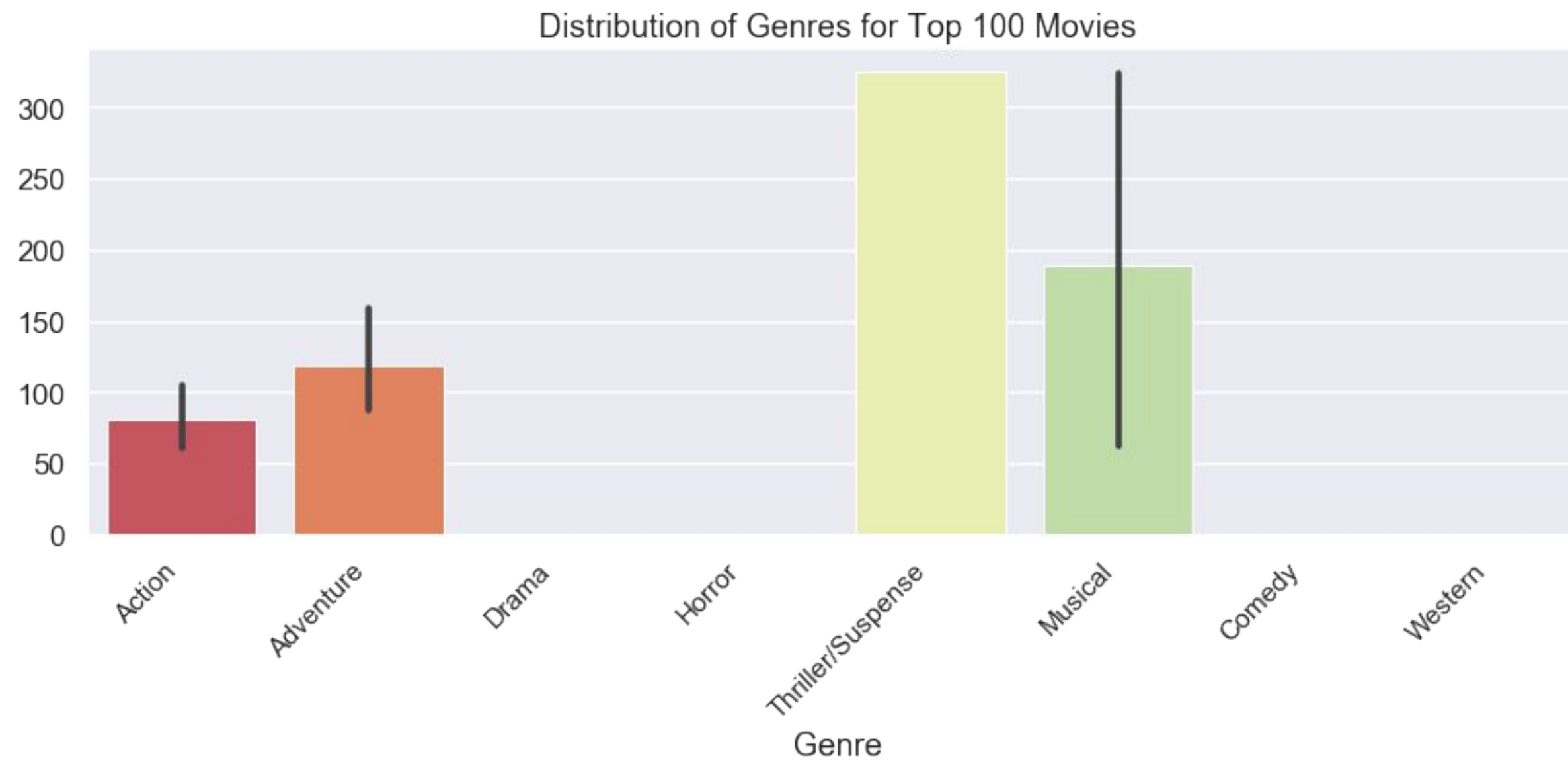
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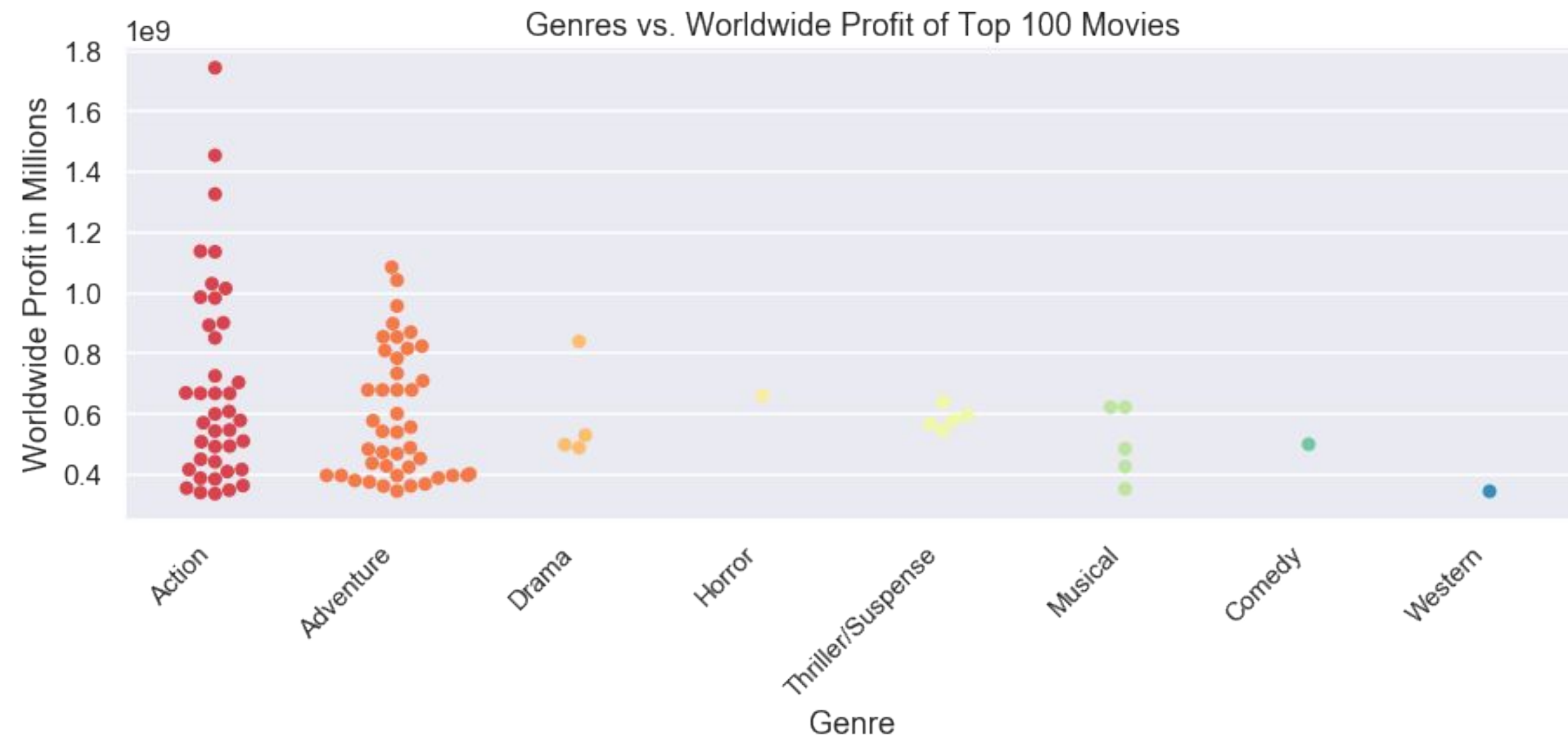
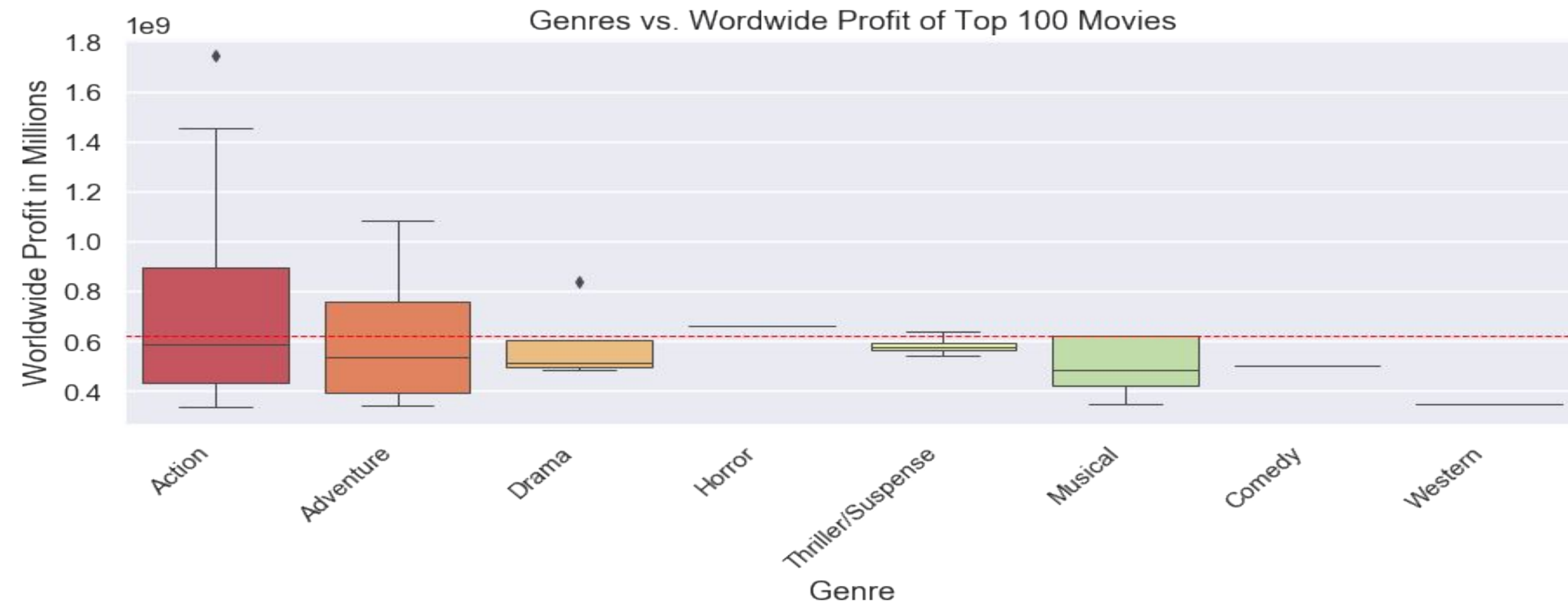
- **1e9** = in Billions
- **1e8** = in Hundred Millions

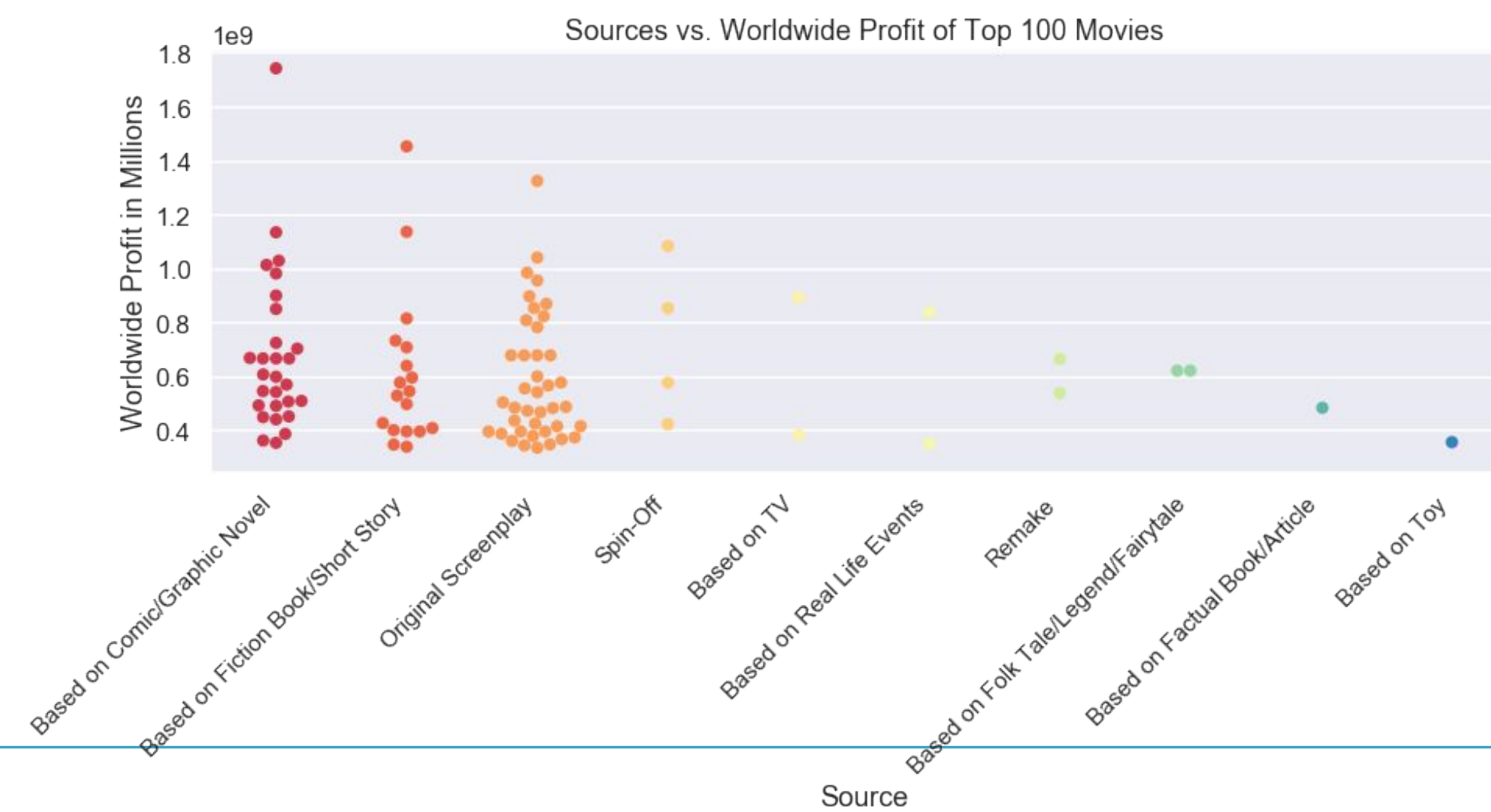
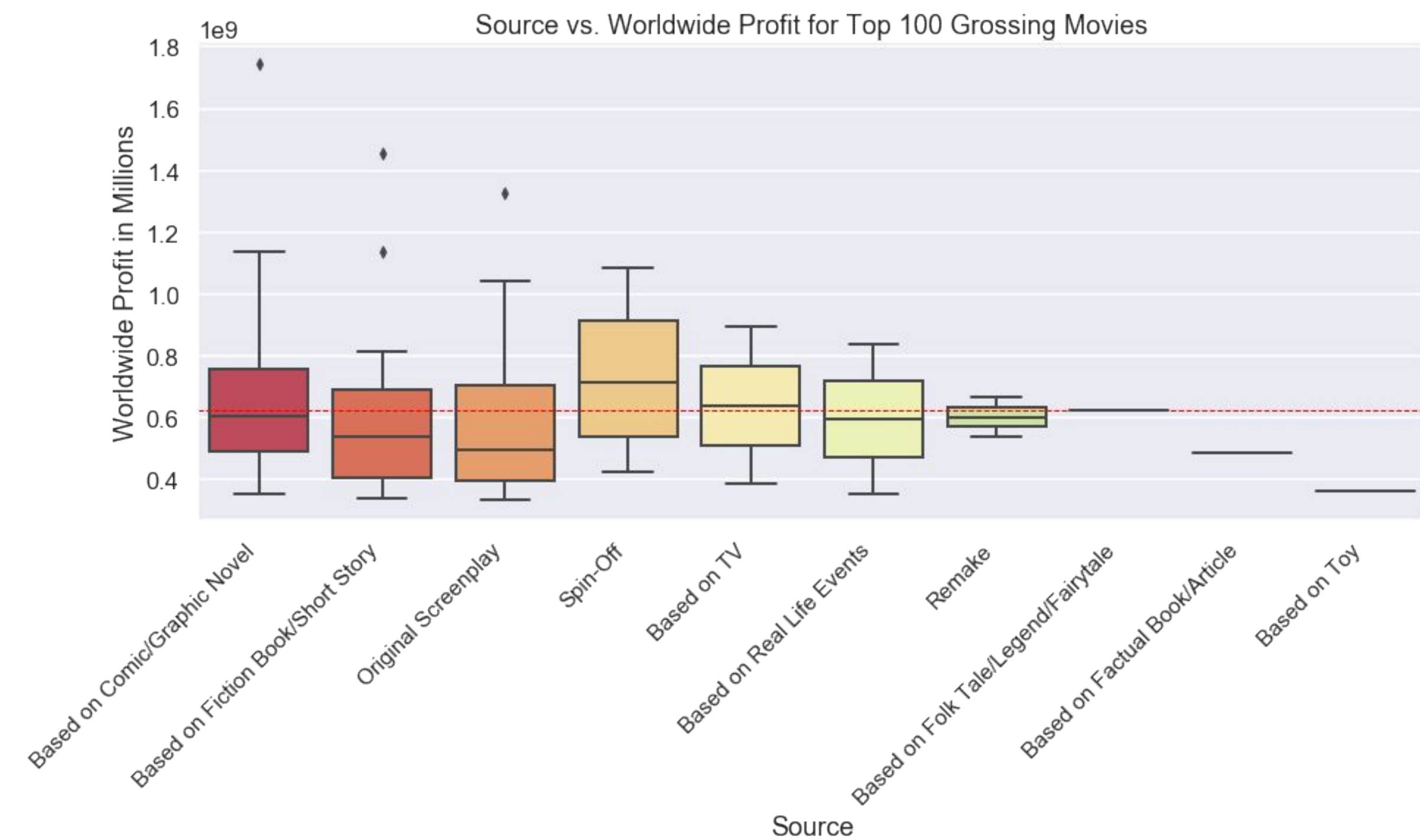


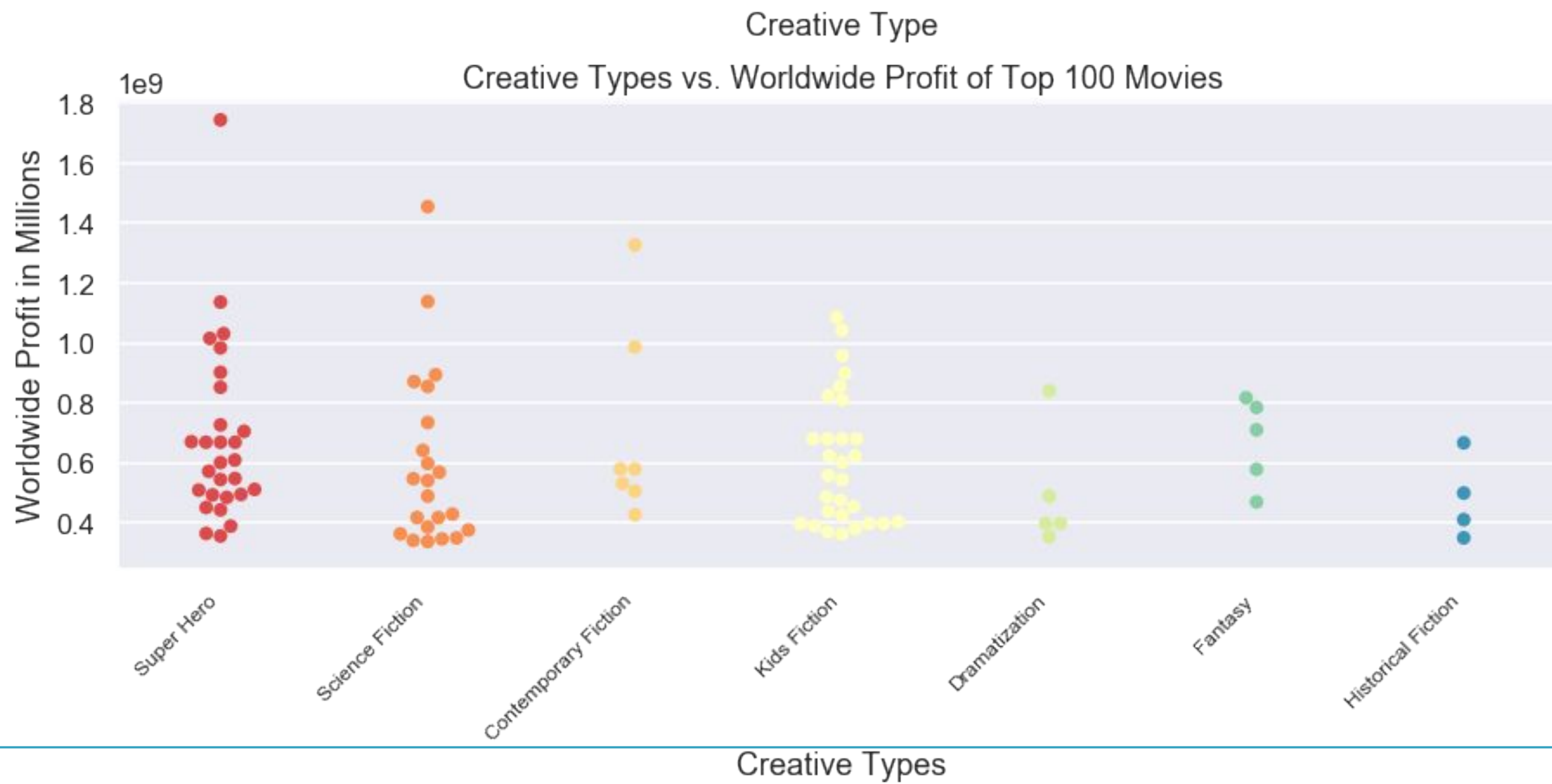
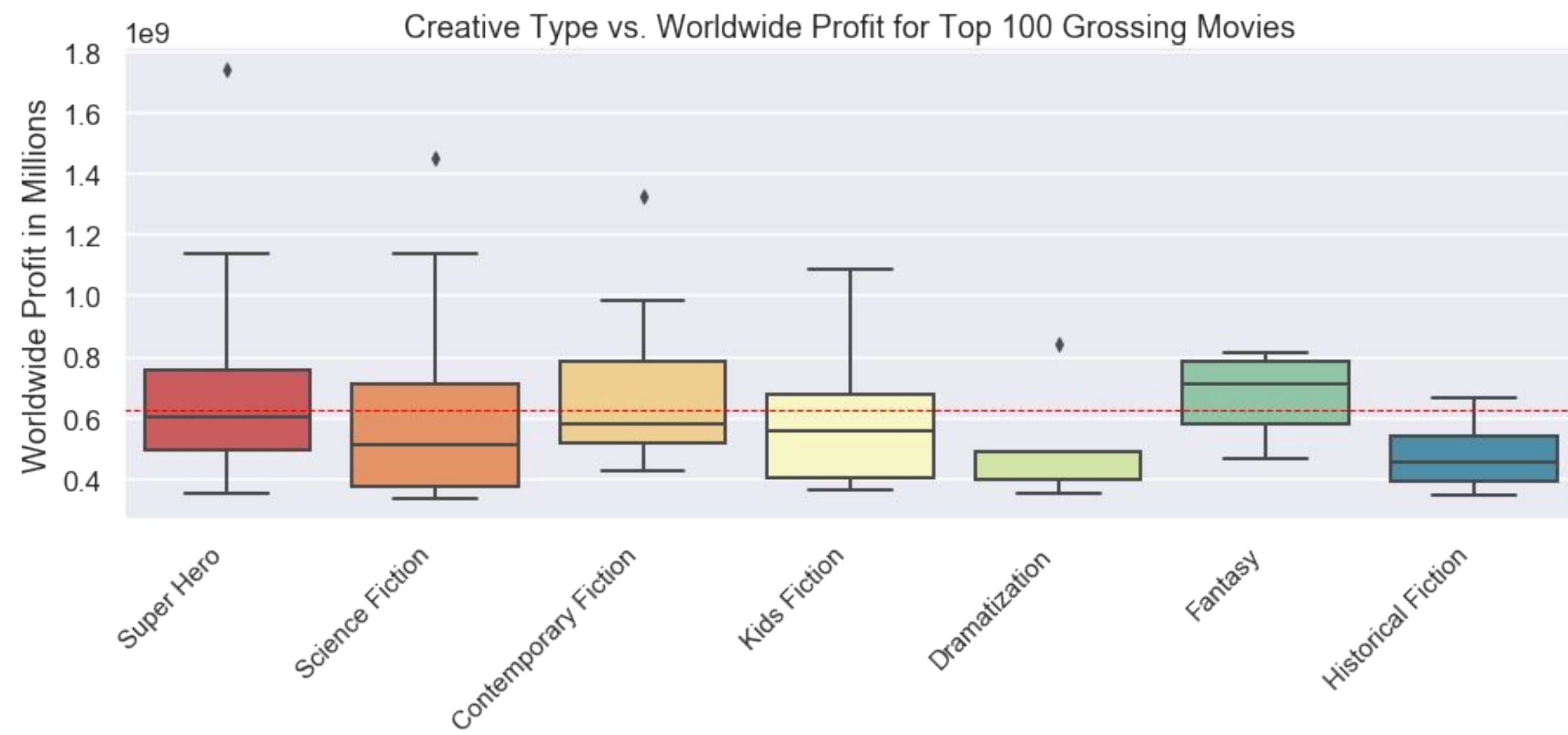


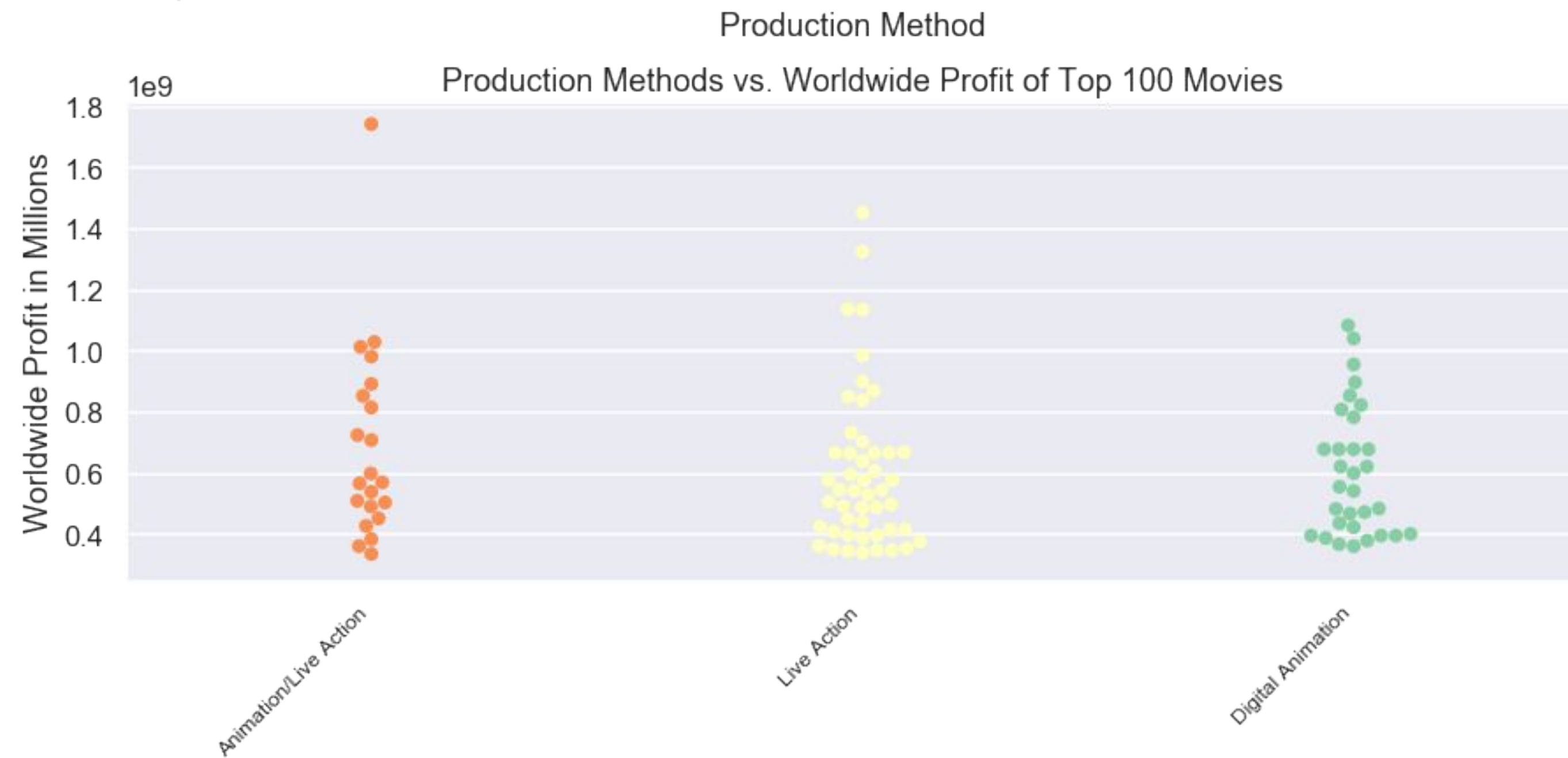
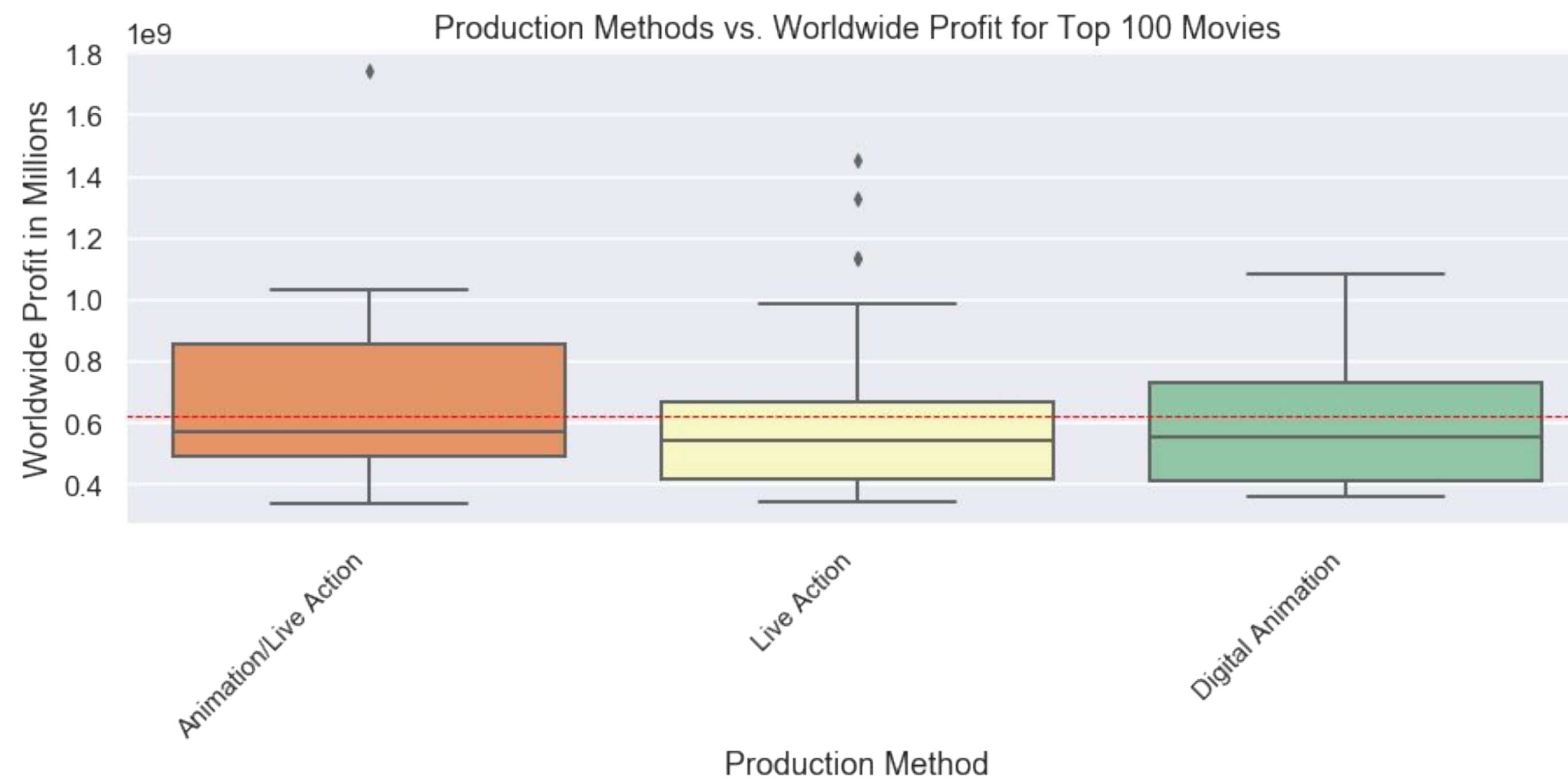


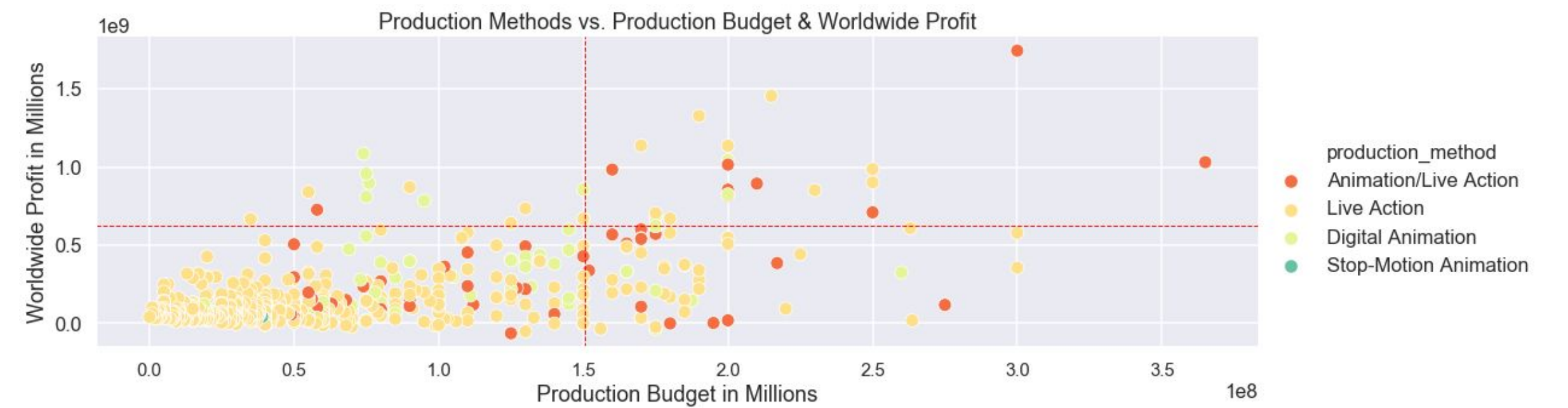
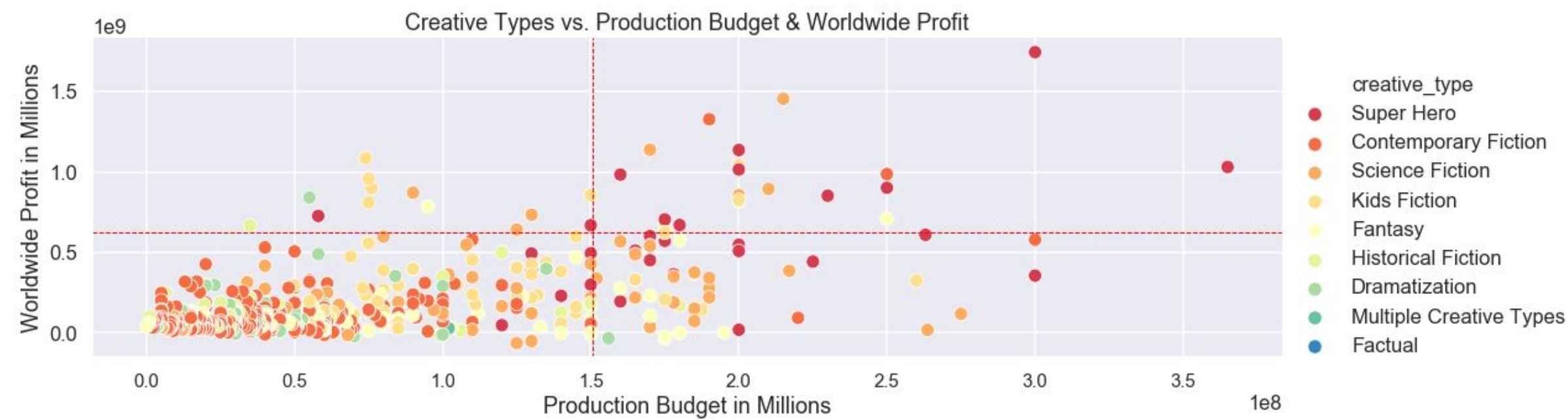
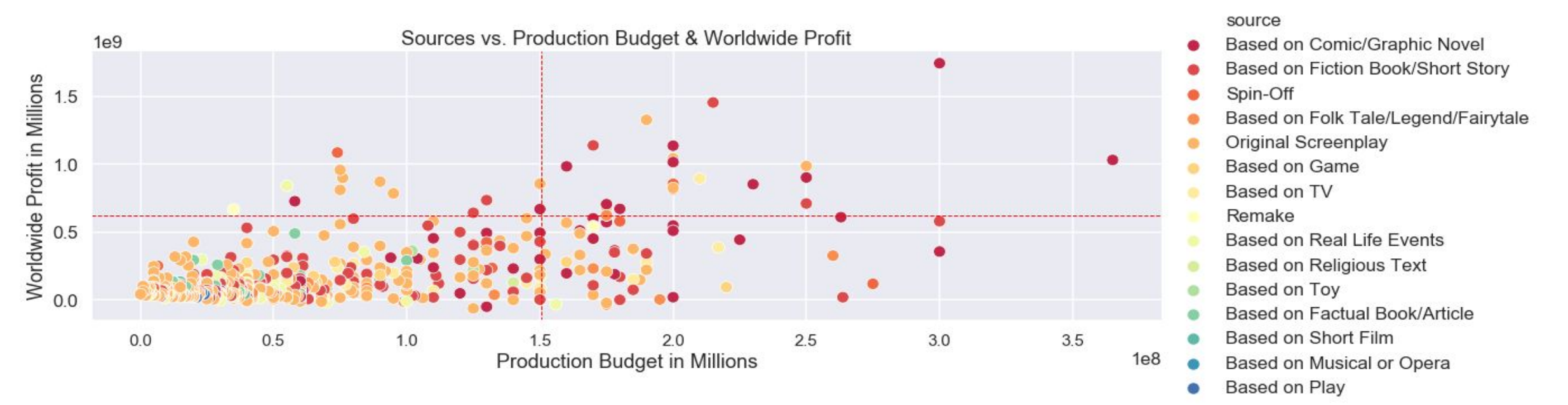
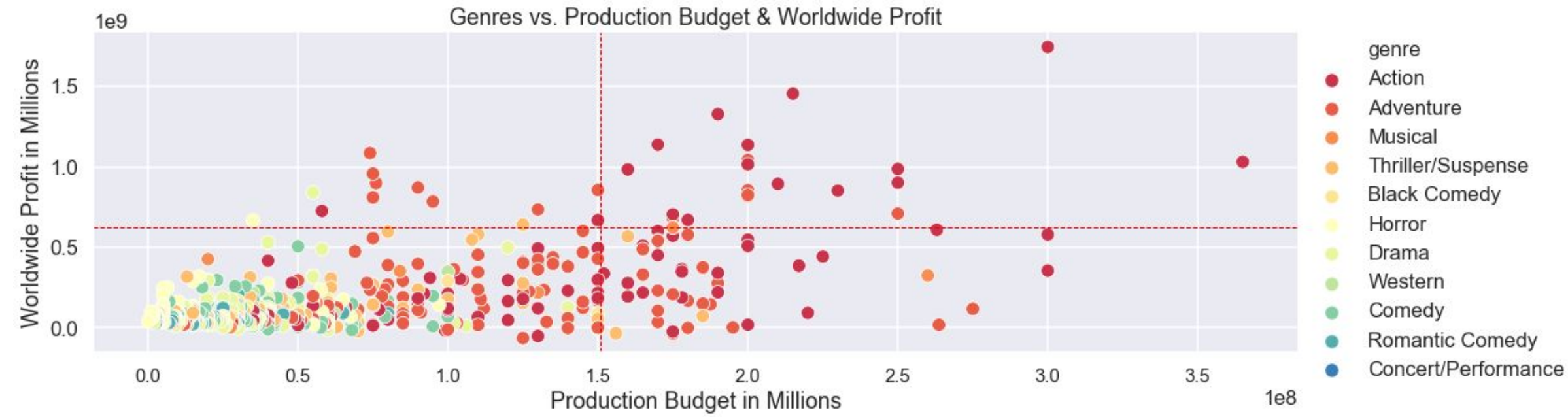
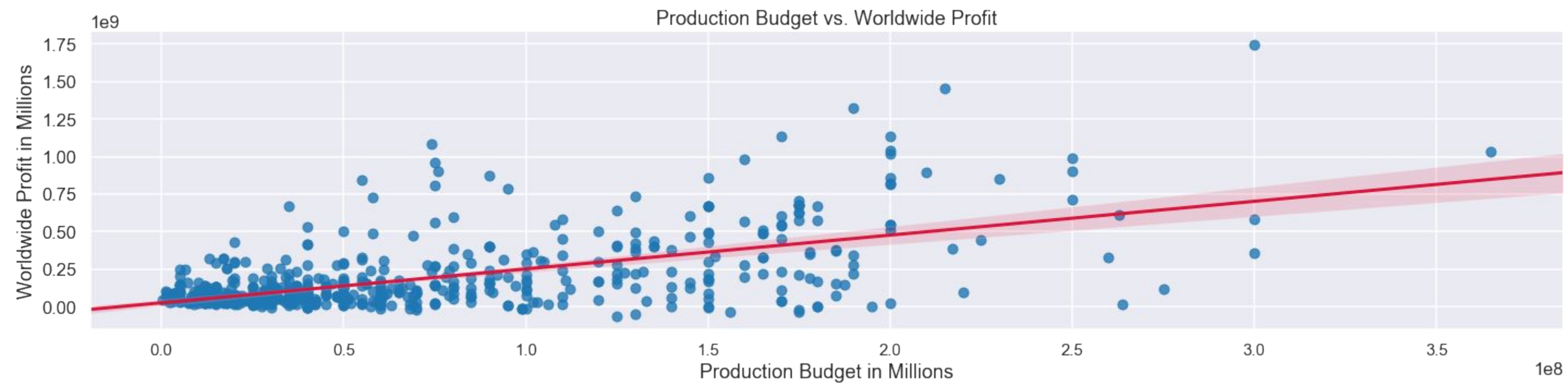


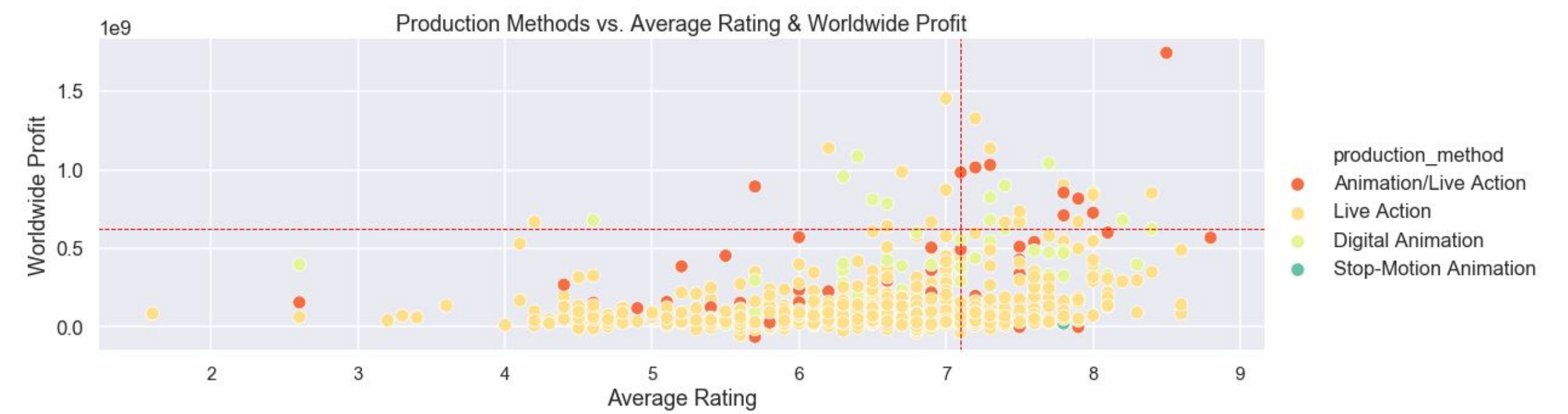
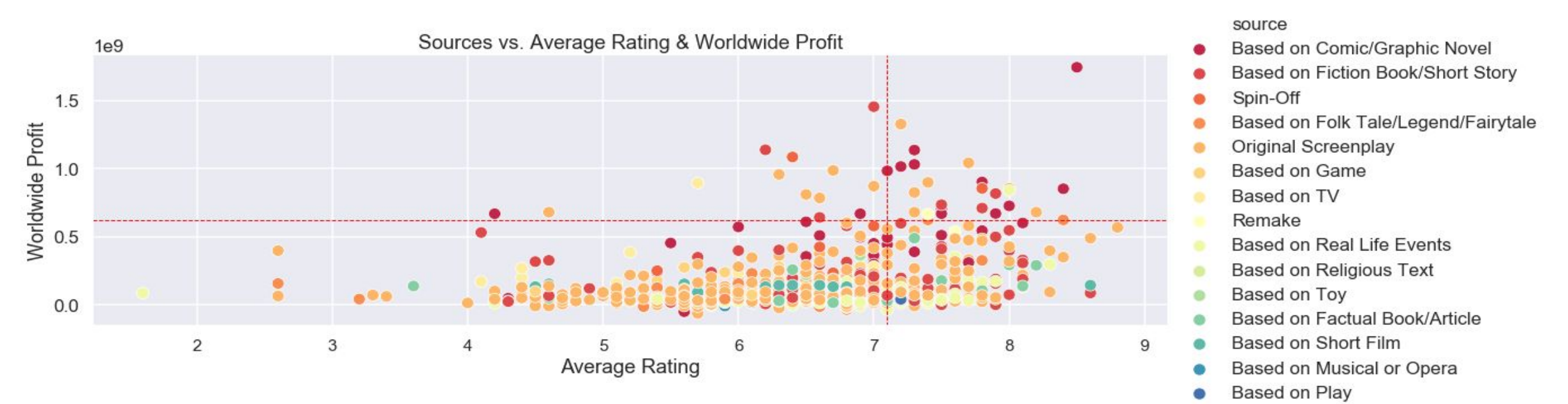
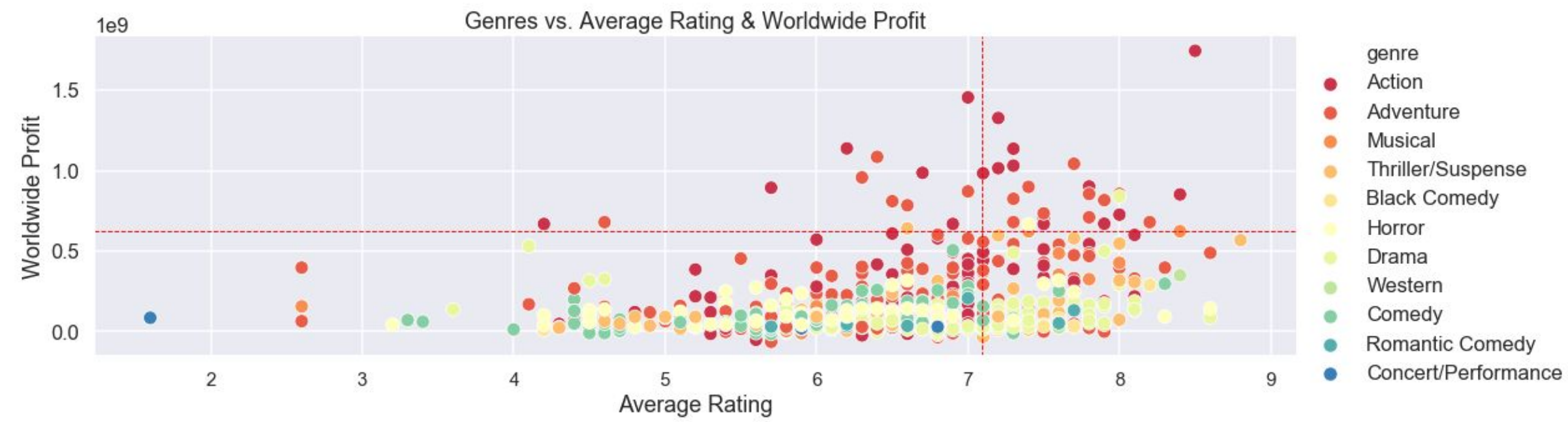
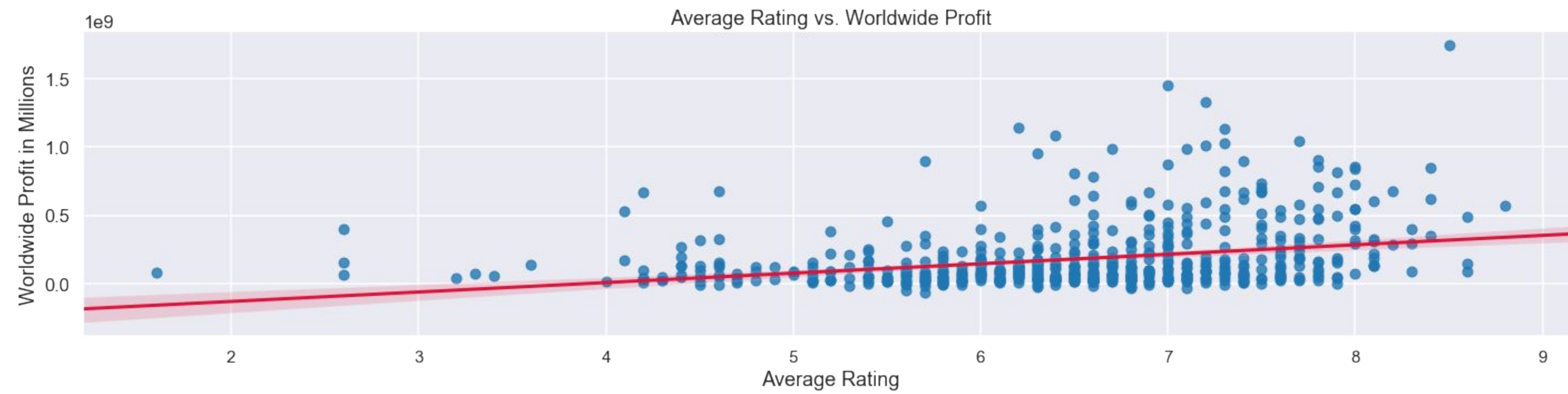


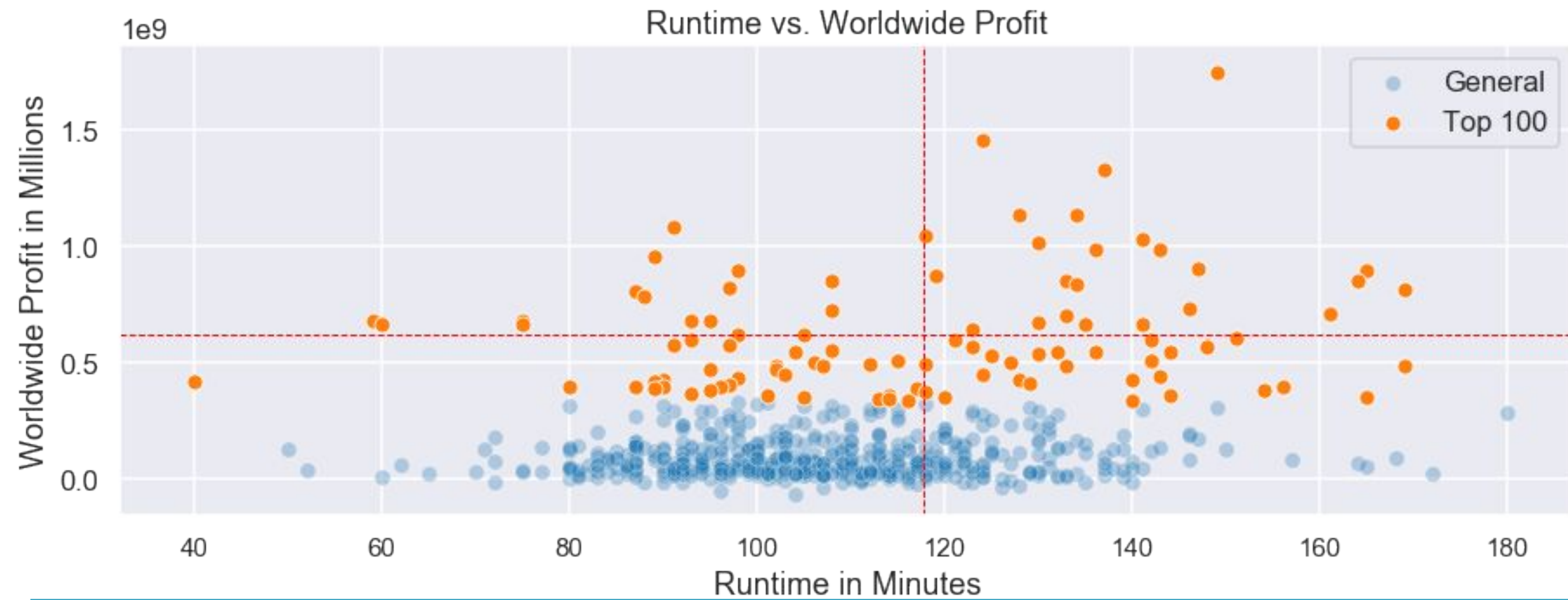
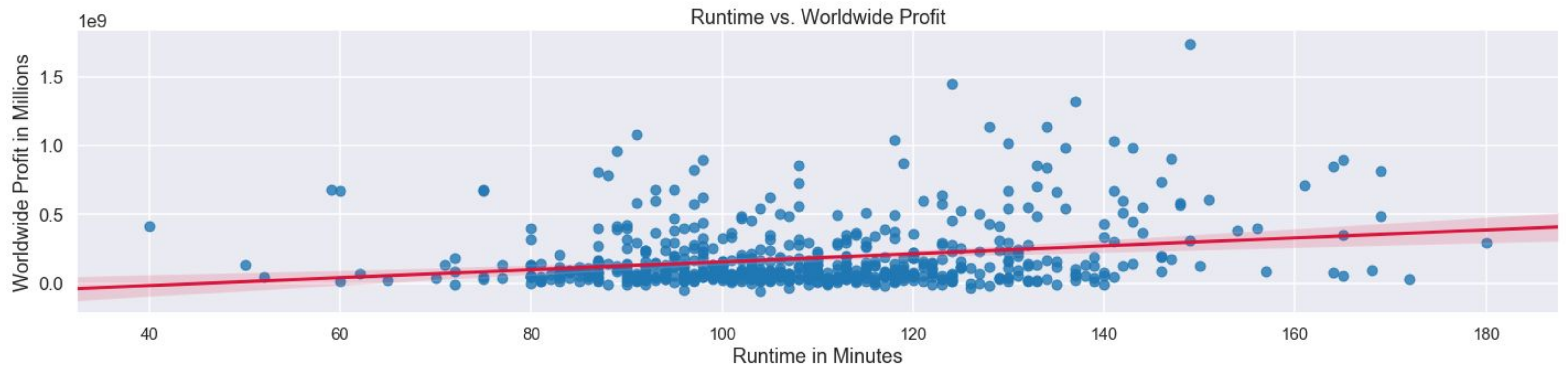


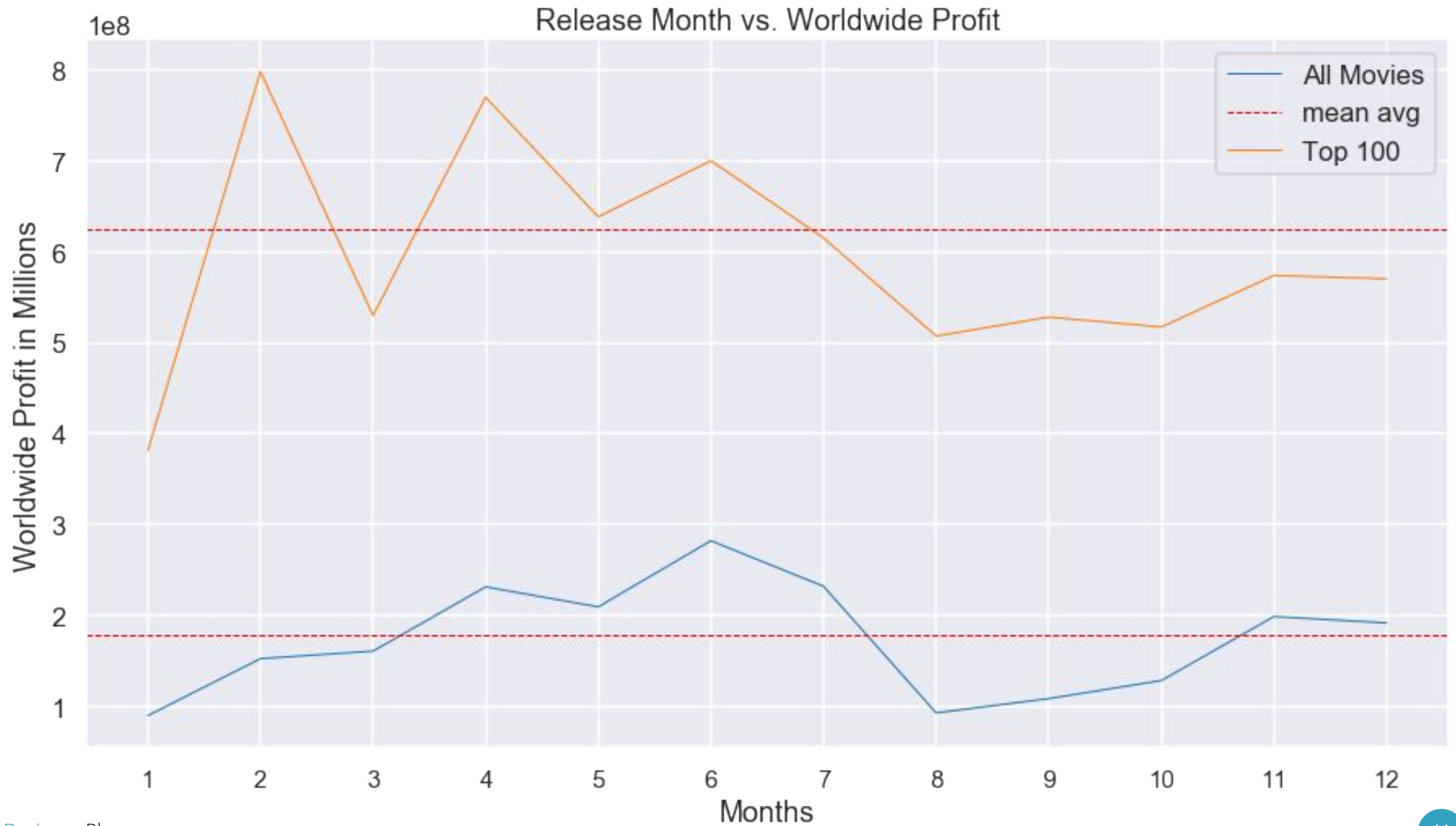


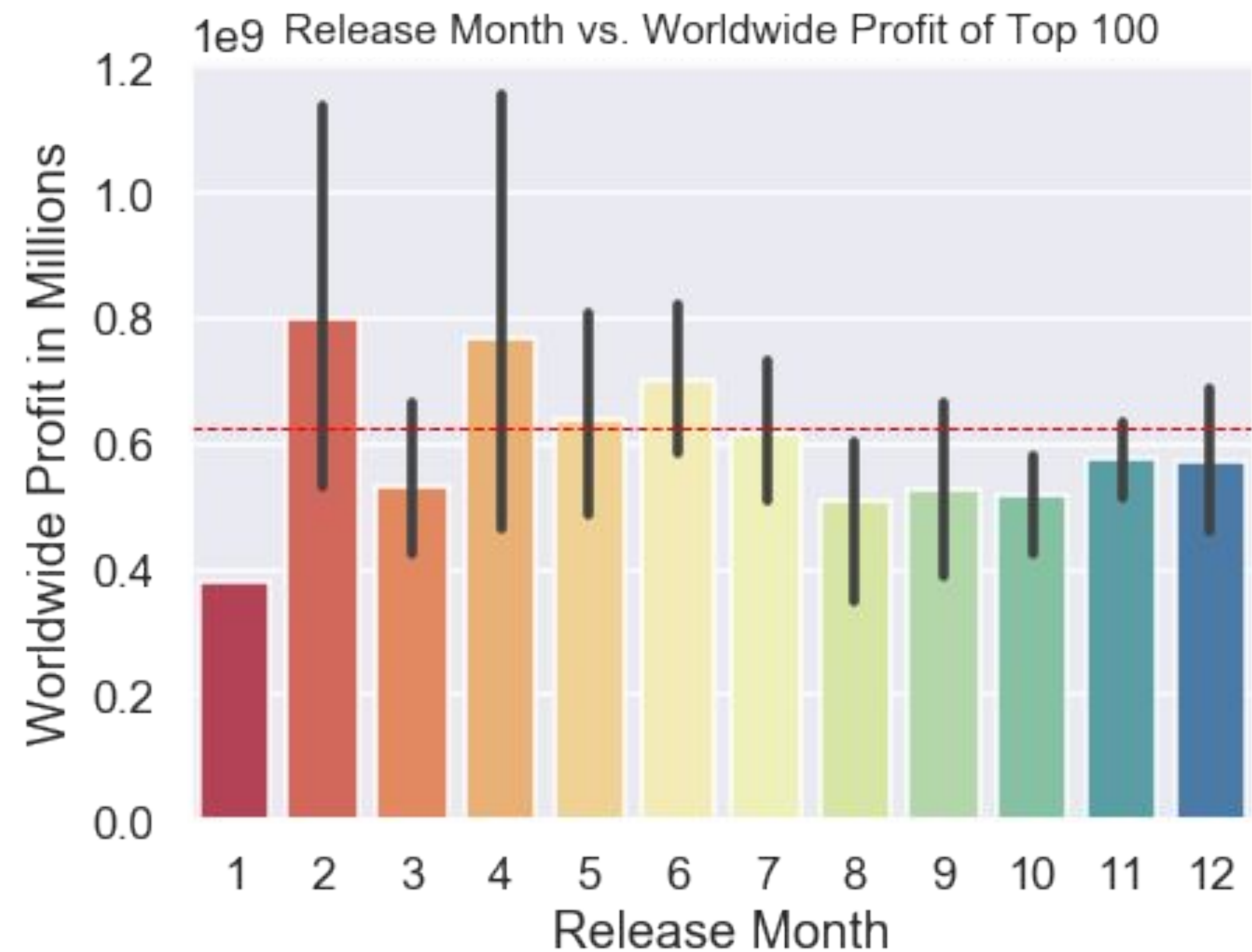
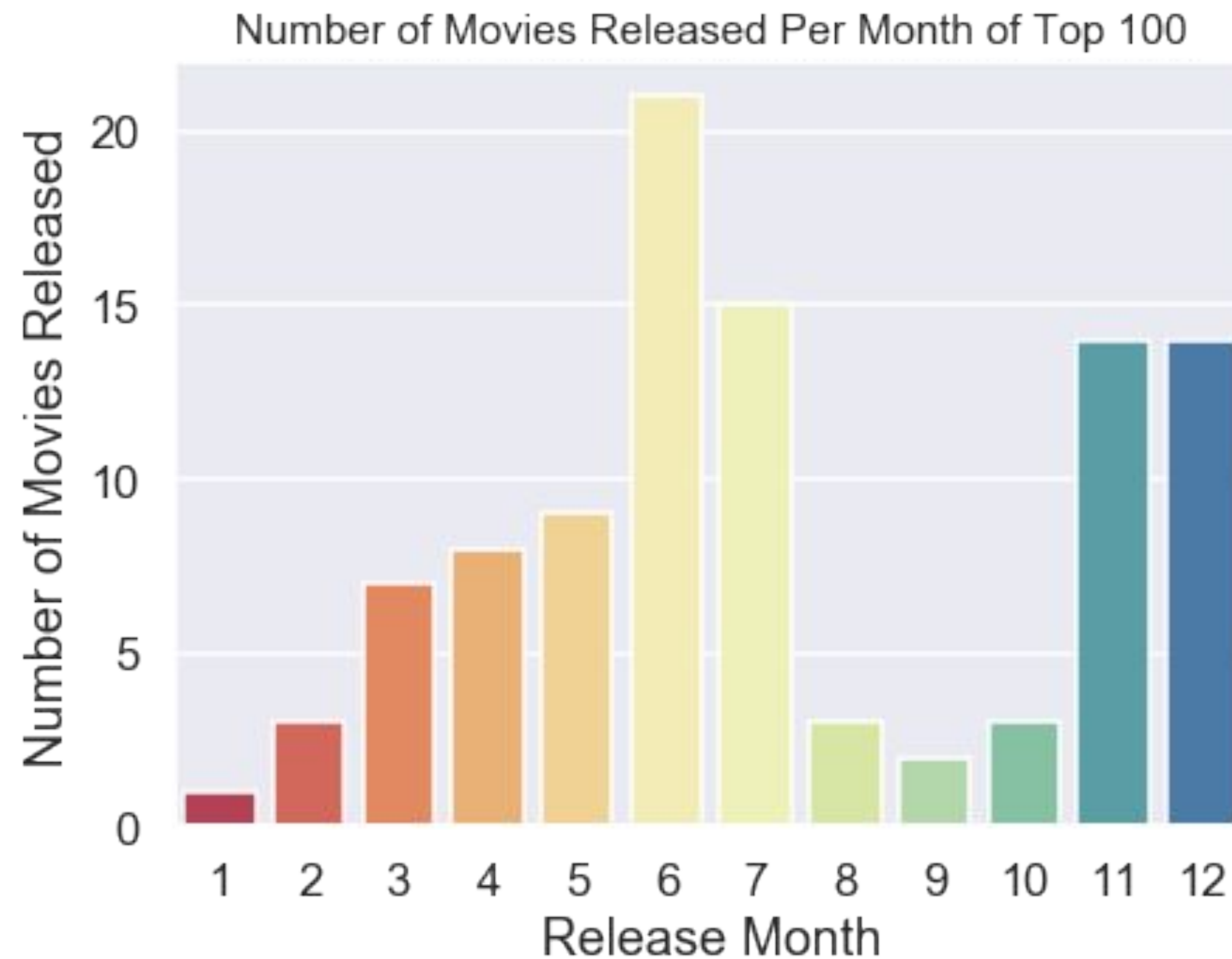




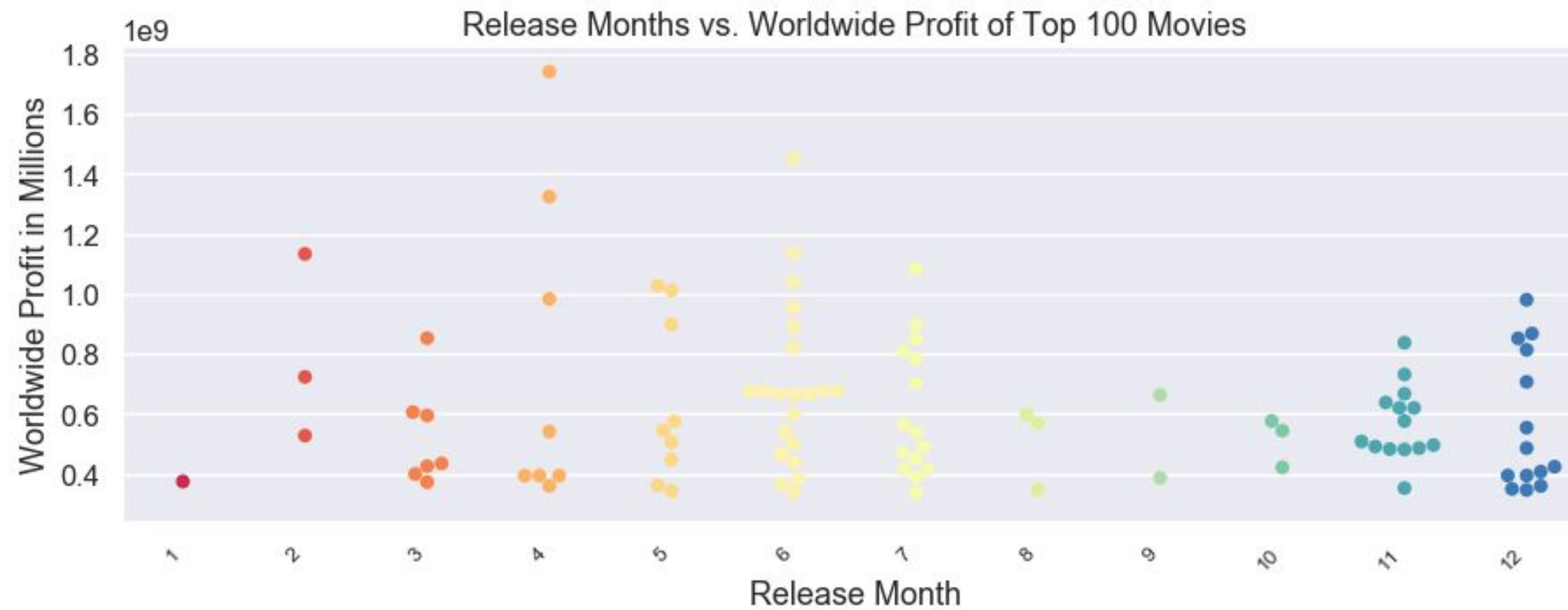
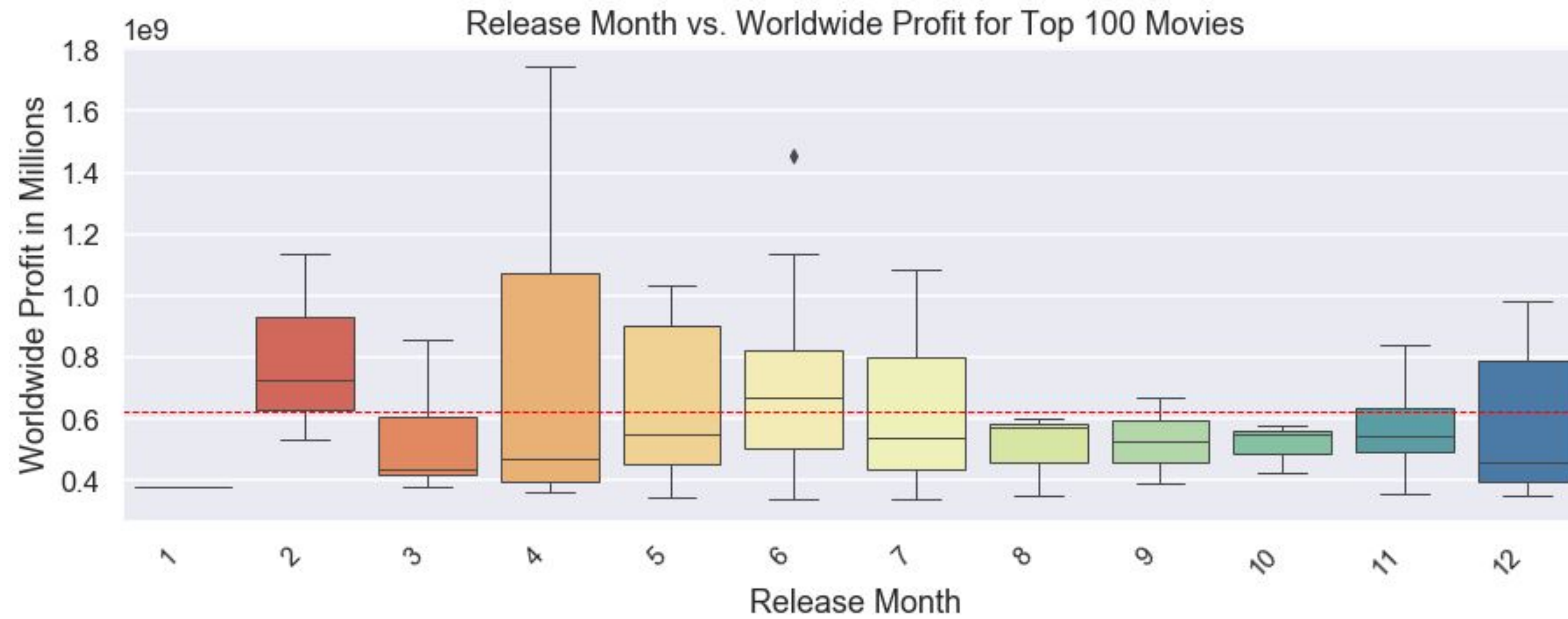


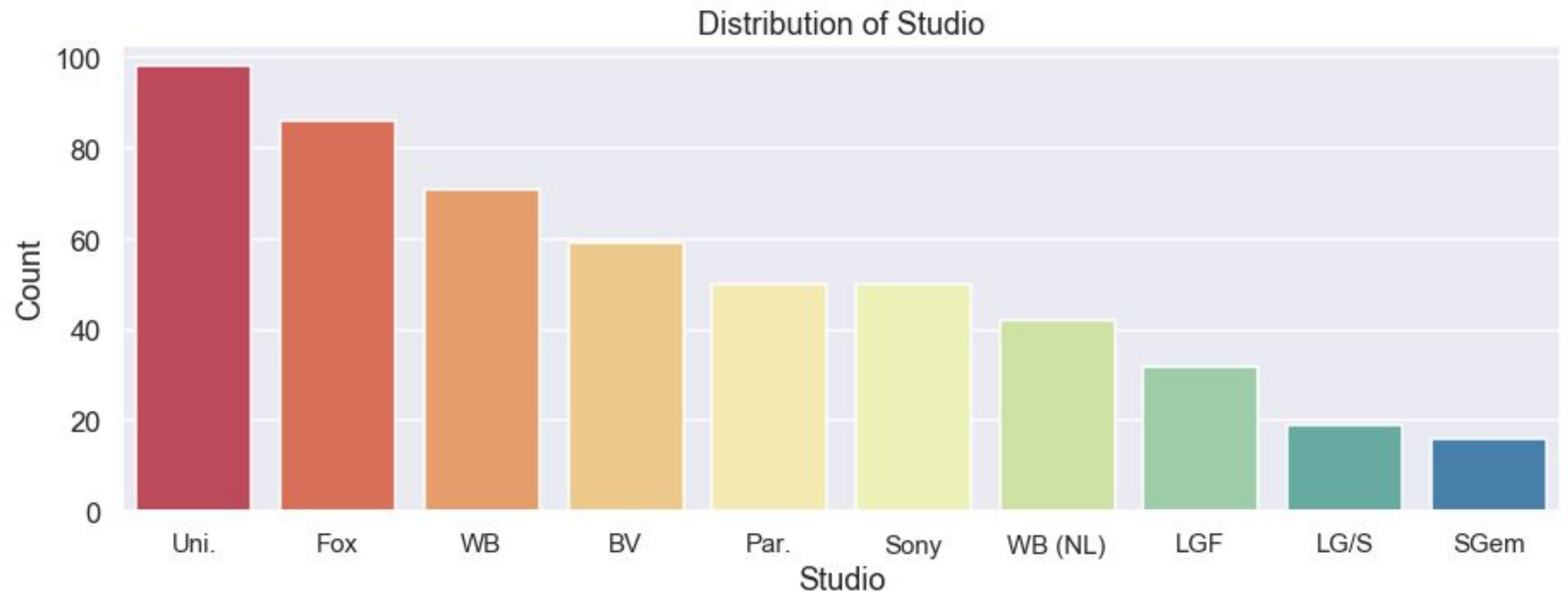


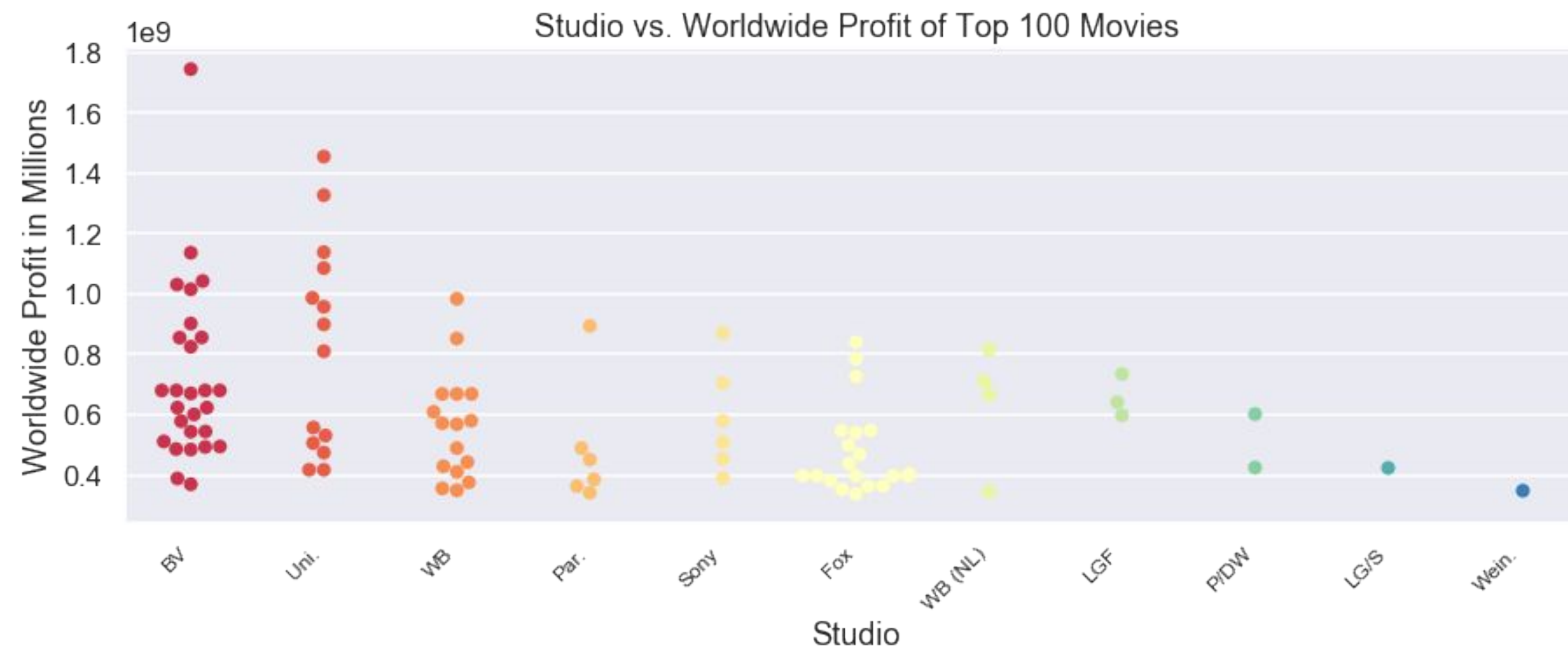
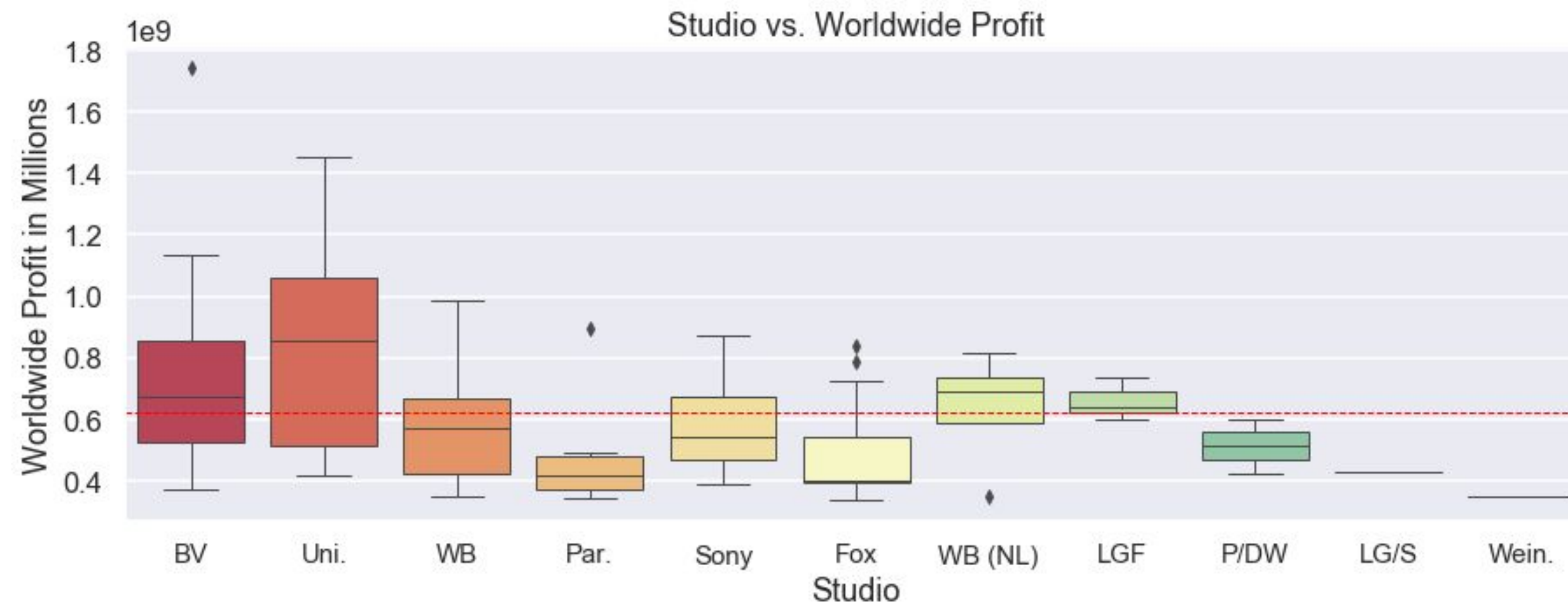


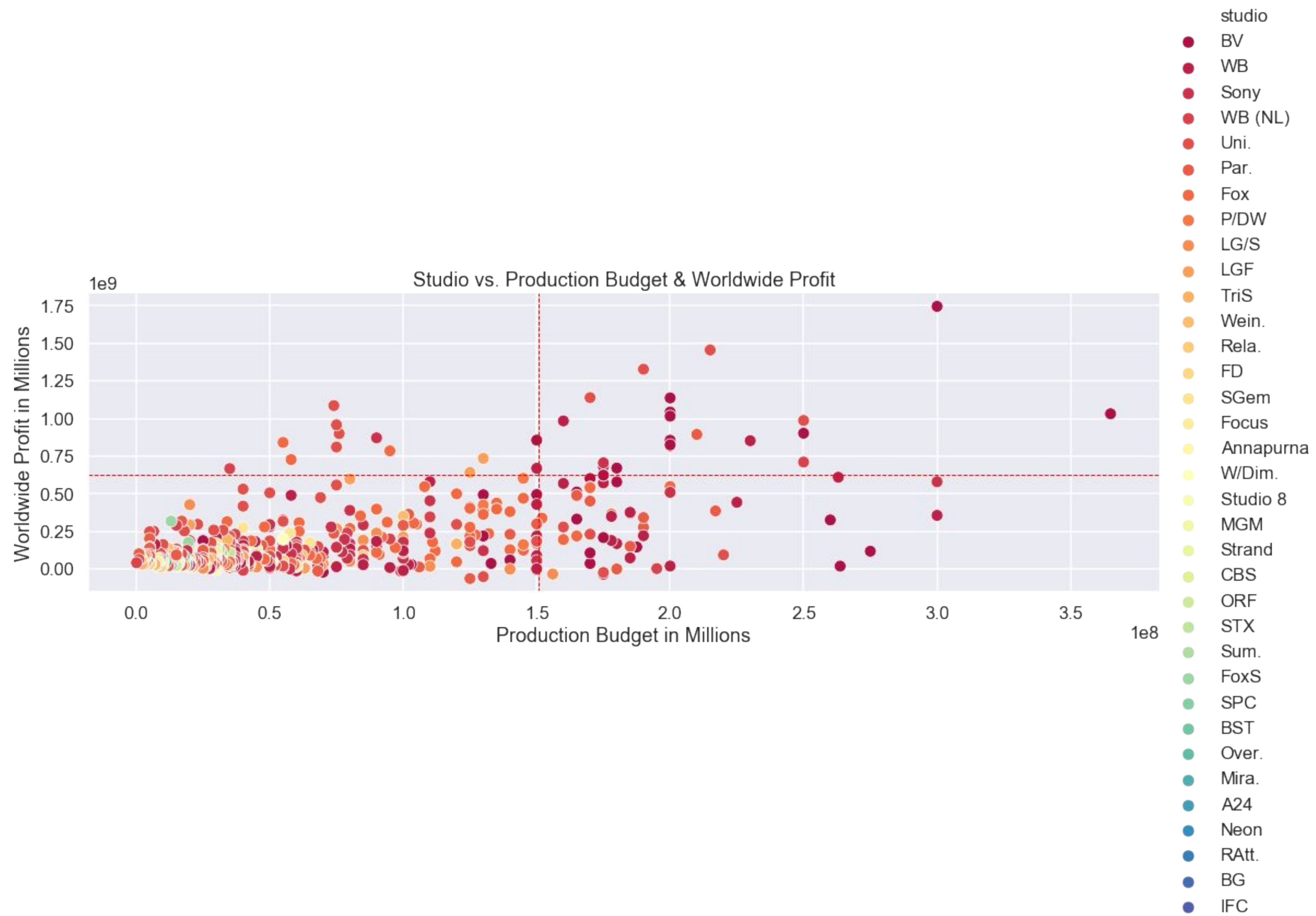


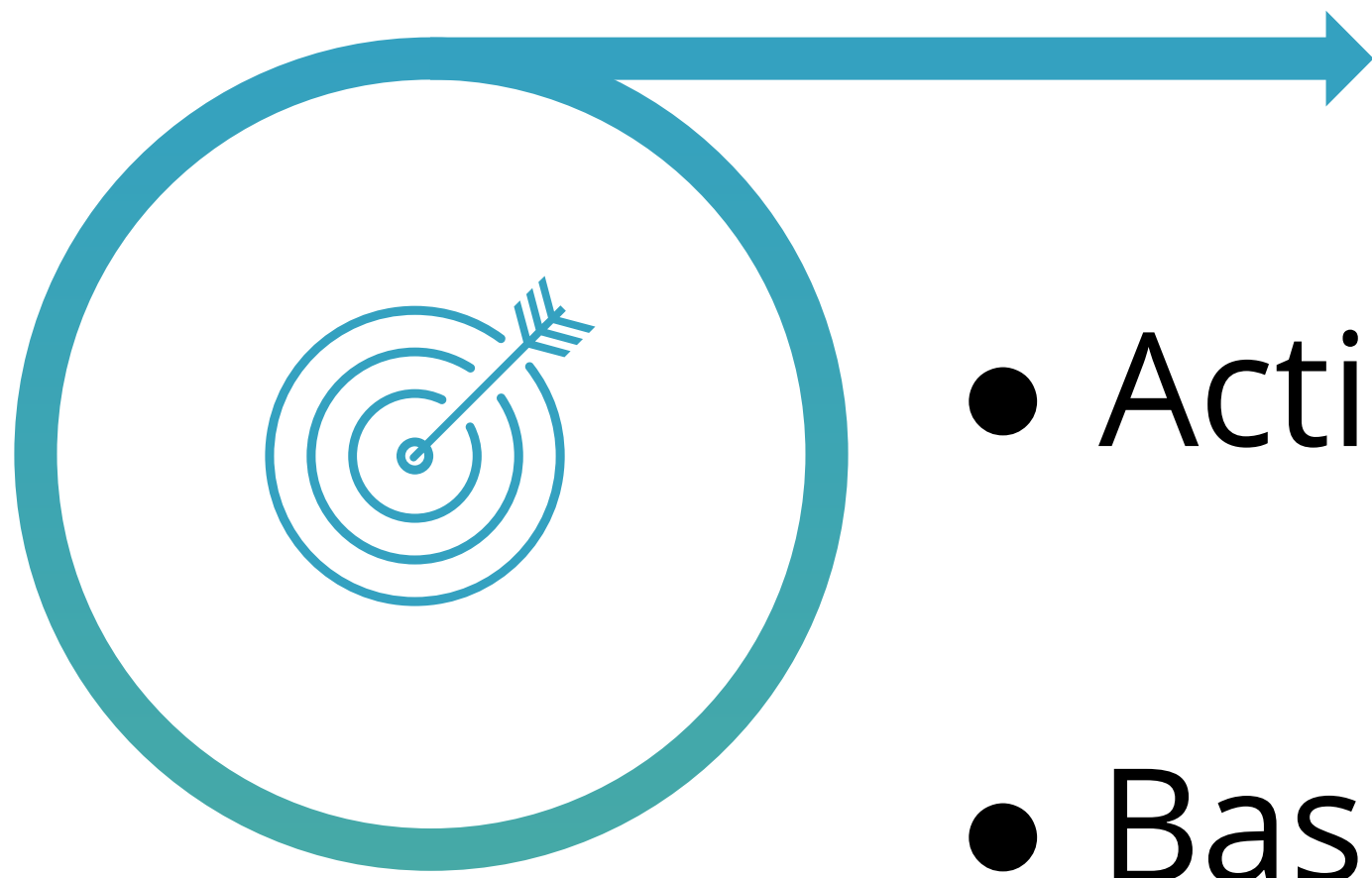
- Most release = June, December
- Most profit = February, April but not by much











Examples

- Action + Science Fiction
- Based on a popular book
- Star power: Jennifer Lawrence
- Underserved need for strong female protagonists

