

Data Science

A decorative graphic consisting of white lines on a teal-to-green gradient background. It includes a horizontal line under 'Data Science', a vertical line extending down from its end, and another vertical line on the right side that connects to a horizontal line under the name 'Bao Tram Duong'.

The Movie Industry

Bao Tram Duong

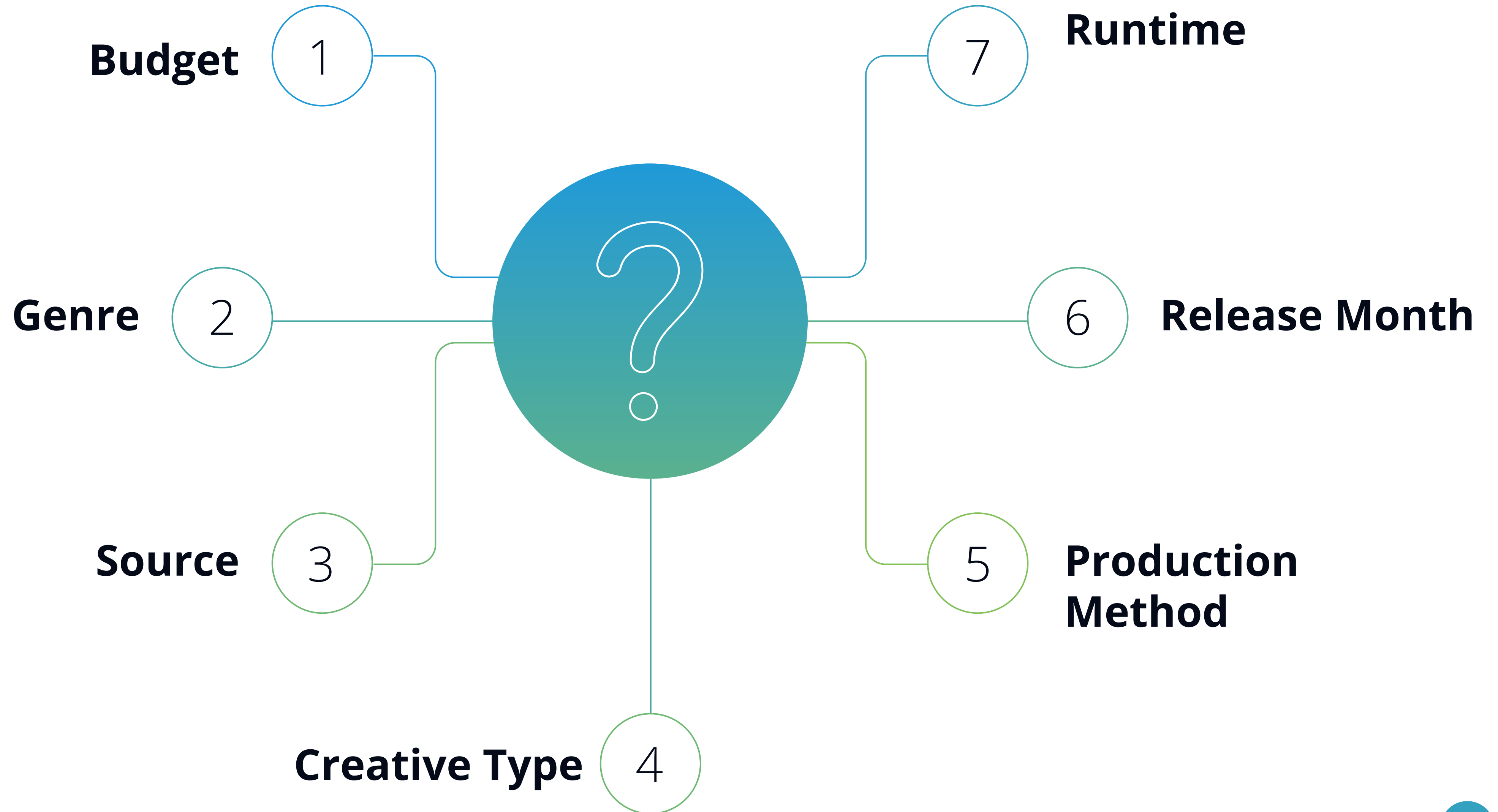


Introduction

- 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





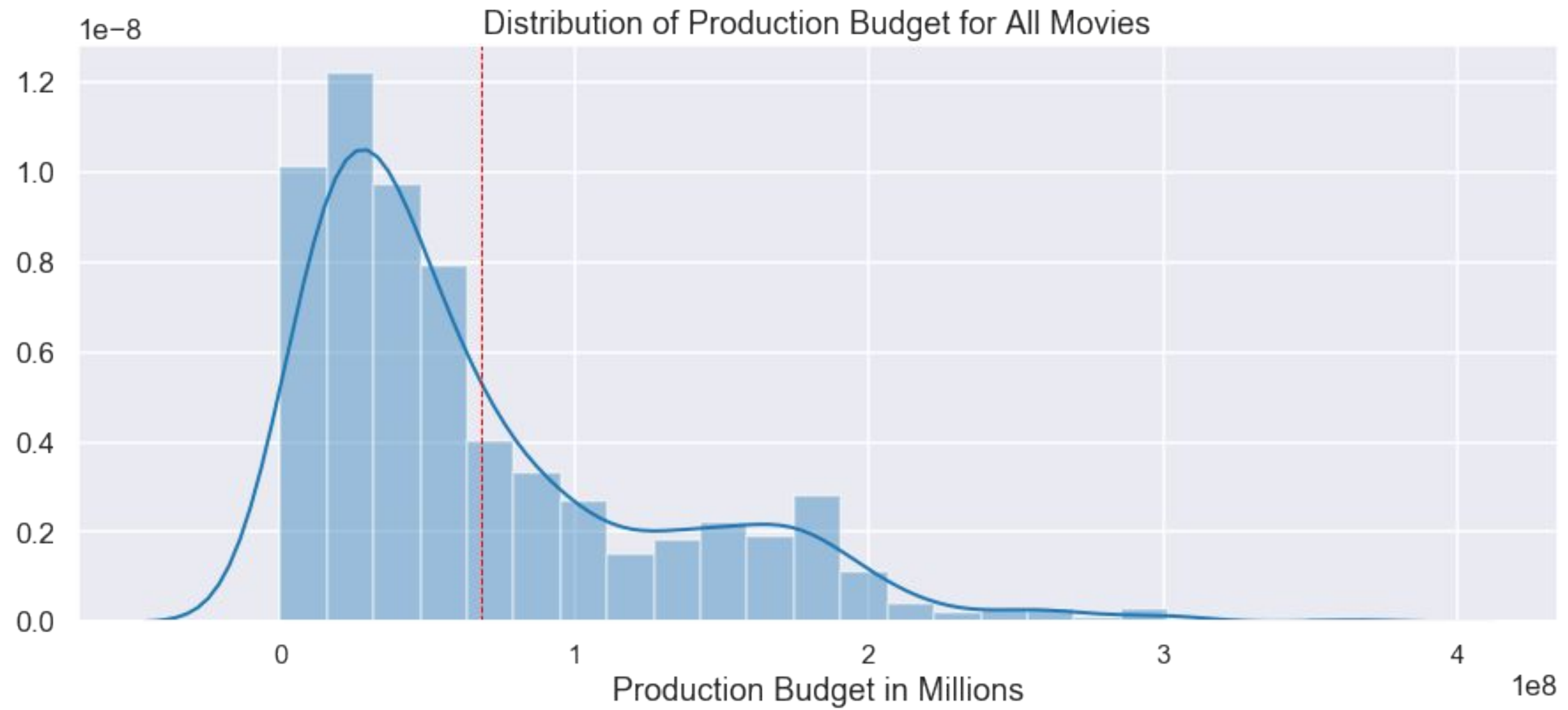
Business Problems

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?

Q4. When is the best time of year to release a movie?

Q5. 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.

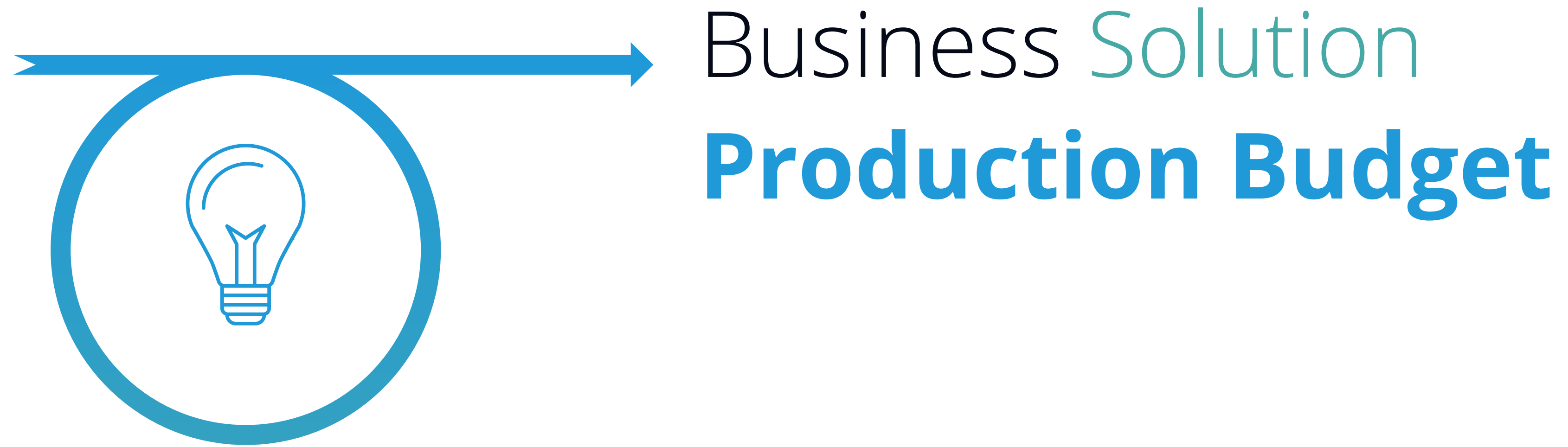
Compare & observe what the Top 100 Movies are doing differently to set themselves apart

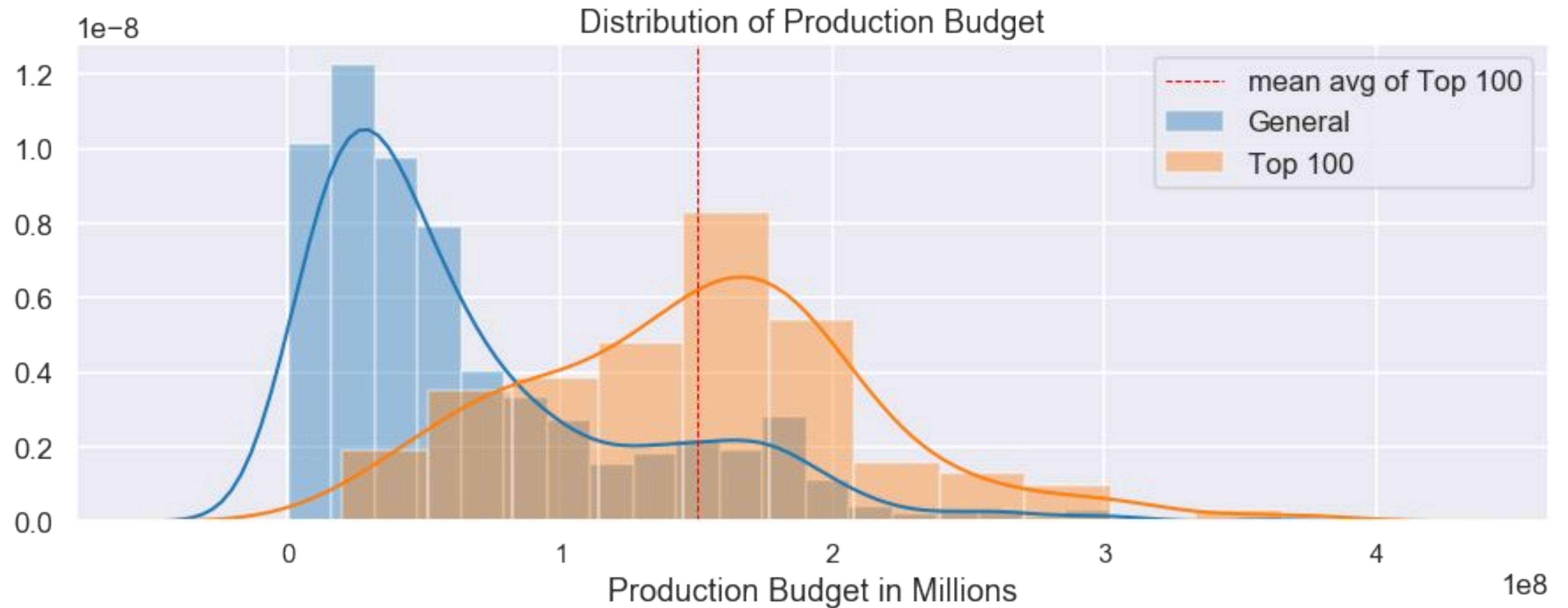


Data Sources

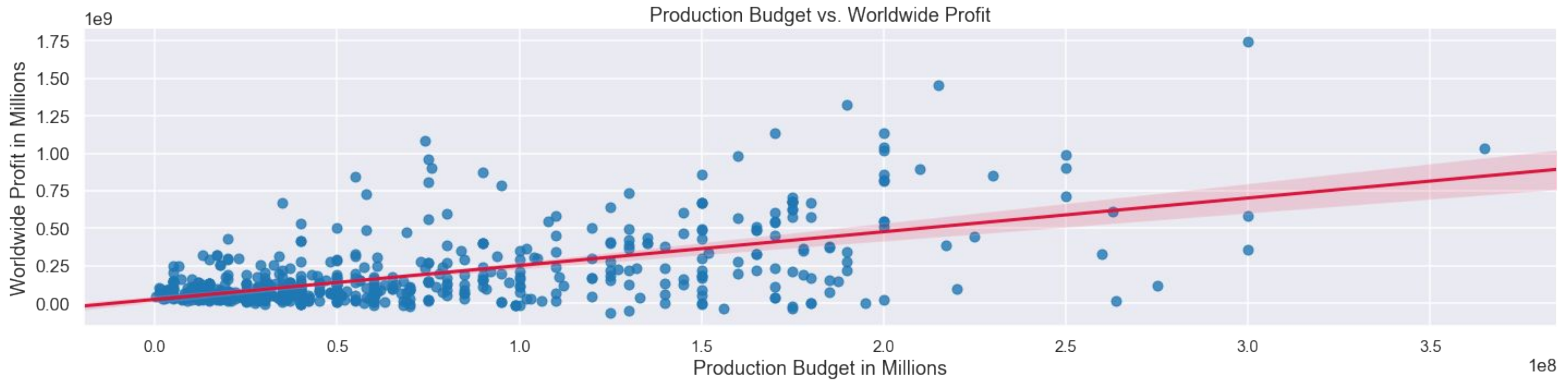
Predict the success of a movie based on its profitability by leveraging historical data from various sources:

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**.

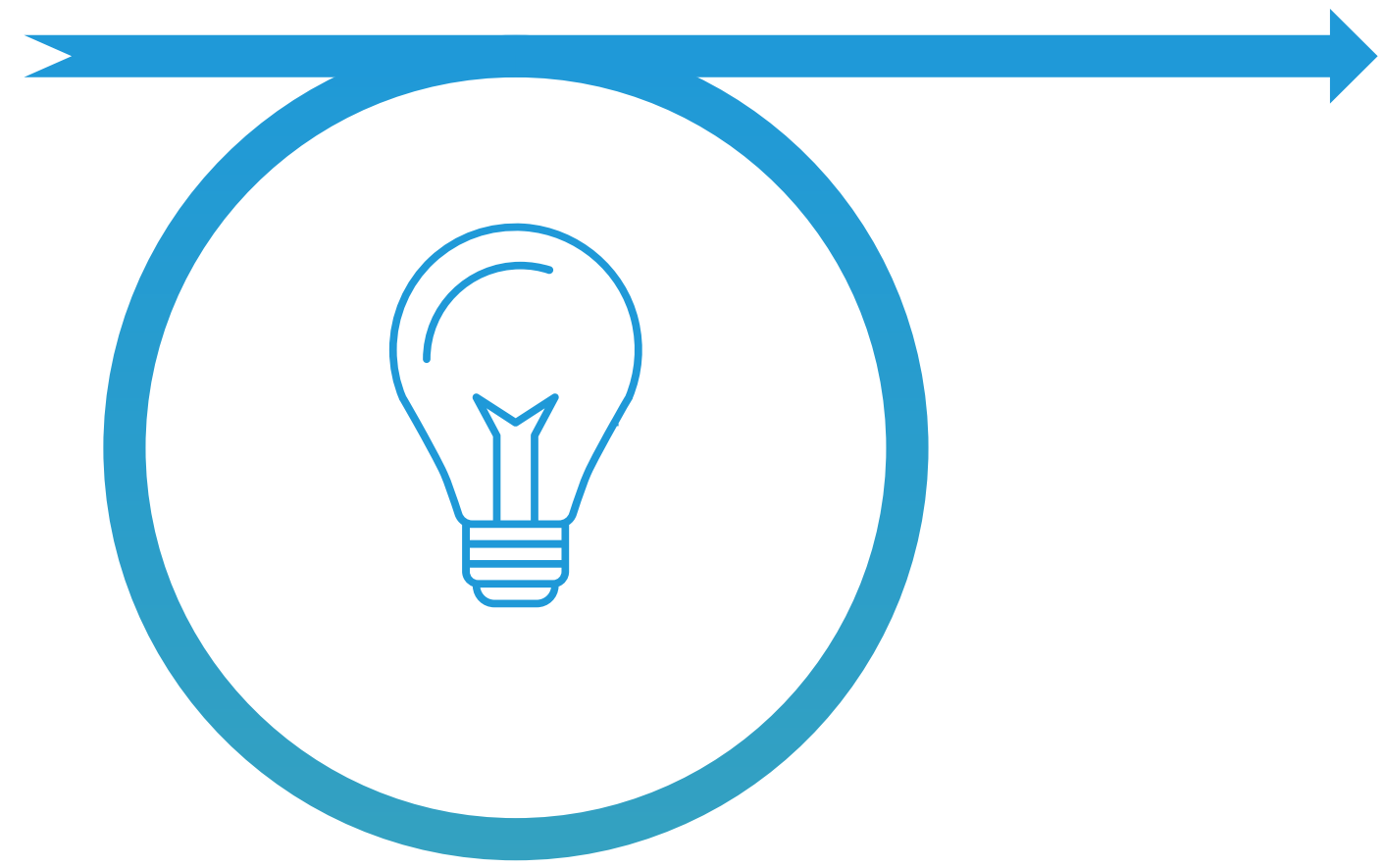


- The average worldwide profit in General Movies group is **\$179M**.
- The average worldwide profit of the Top 100 Movies group is **\$624M**.



Conclusion

\$150+ M



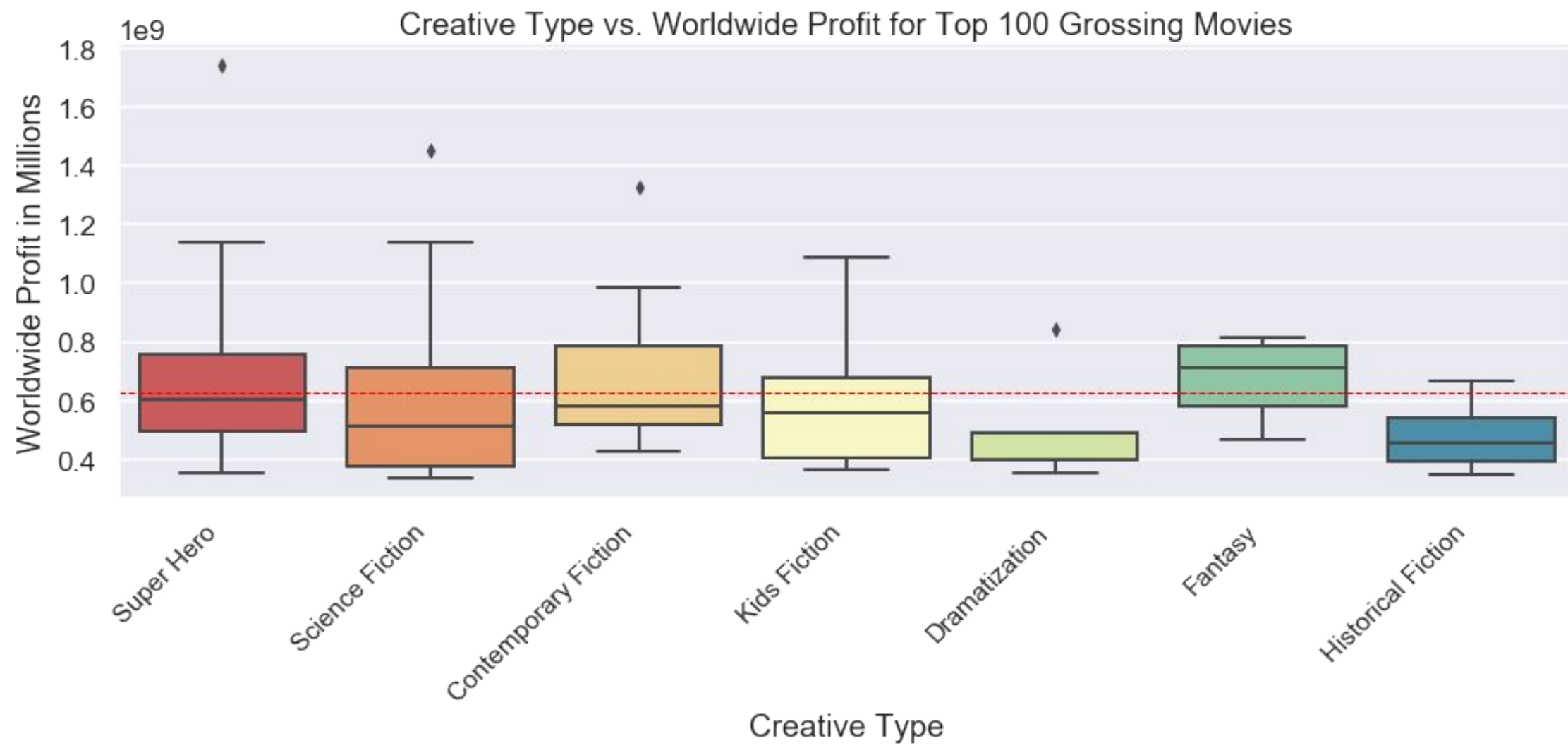
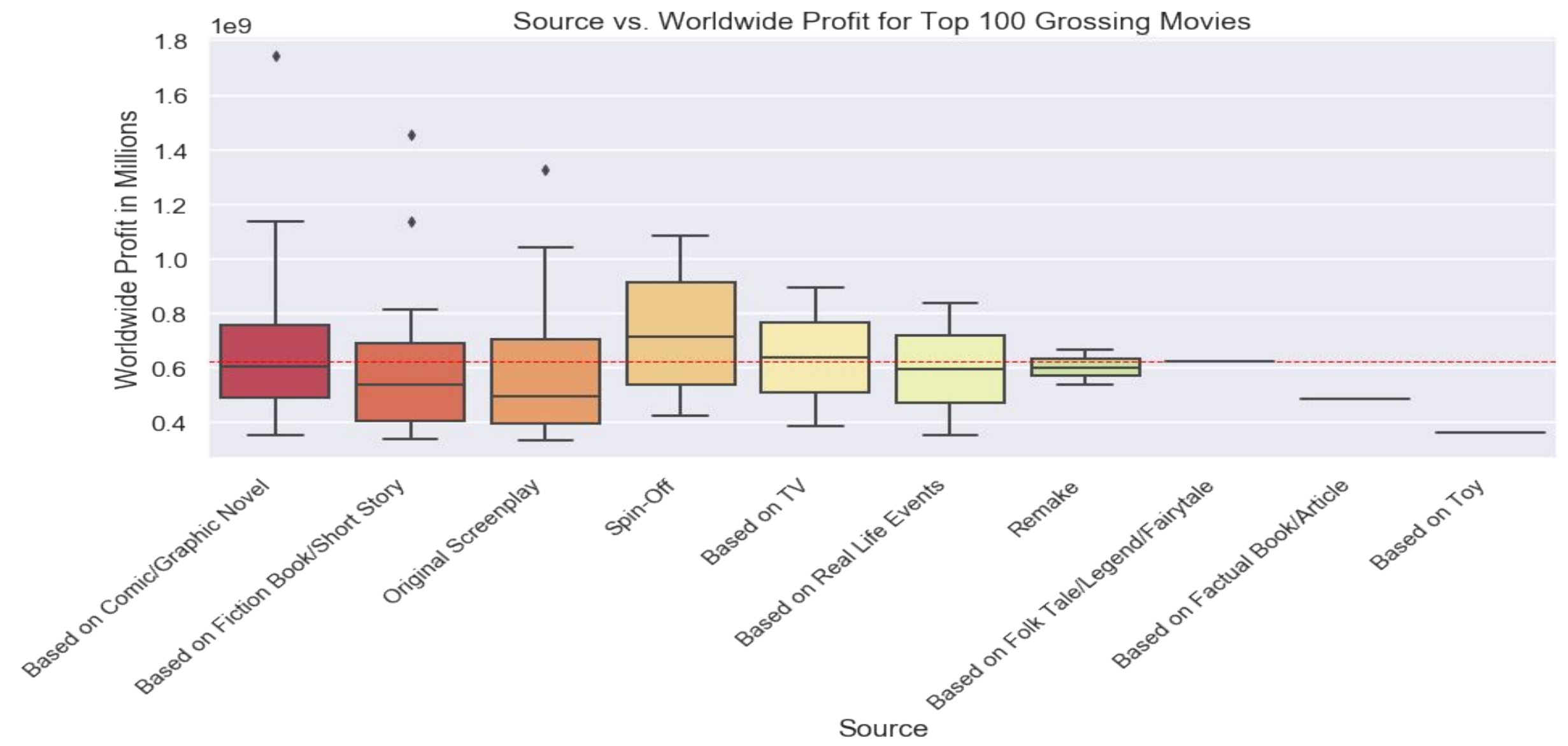
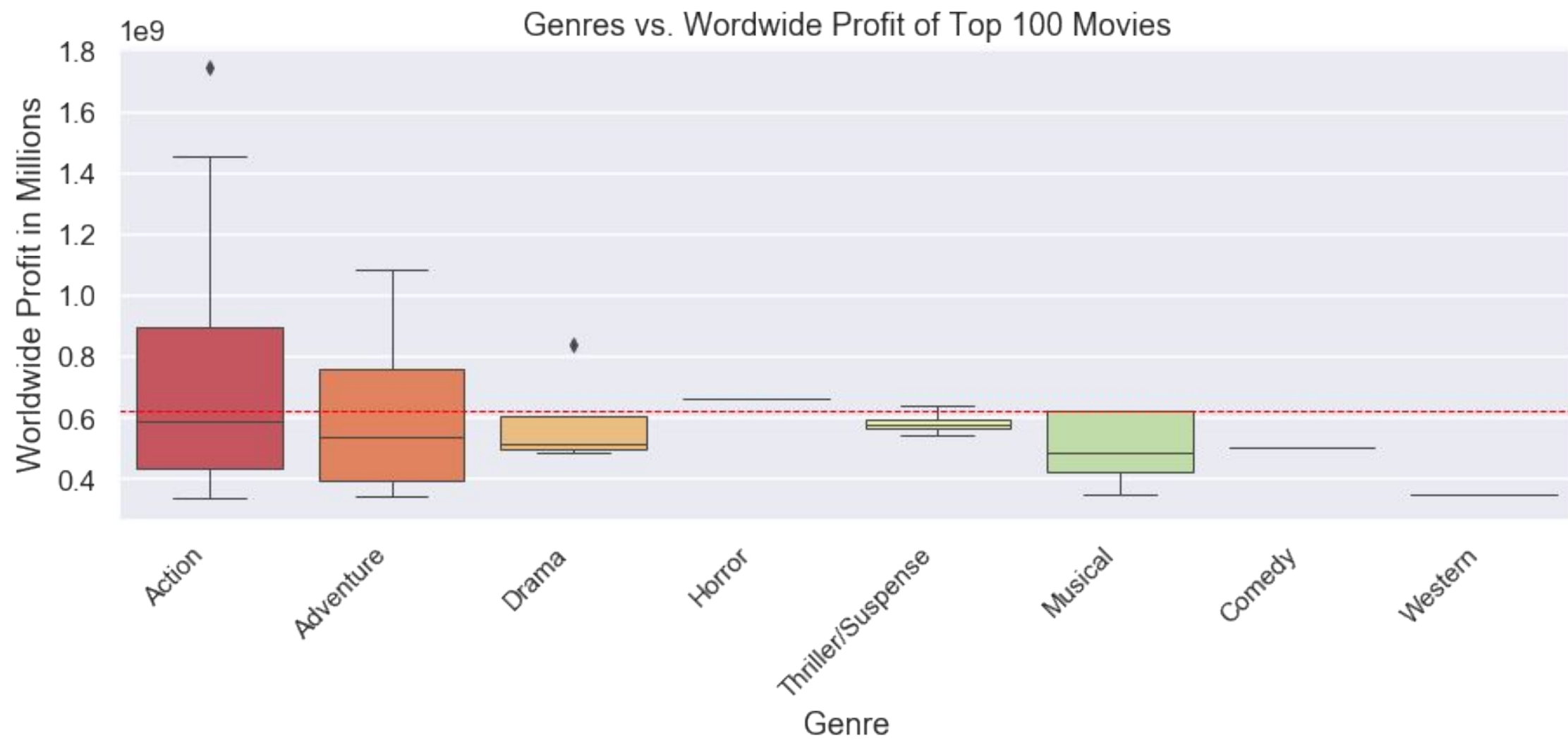
Business **Solution**

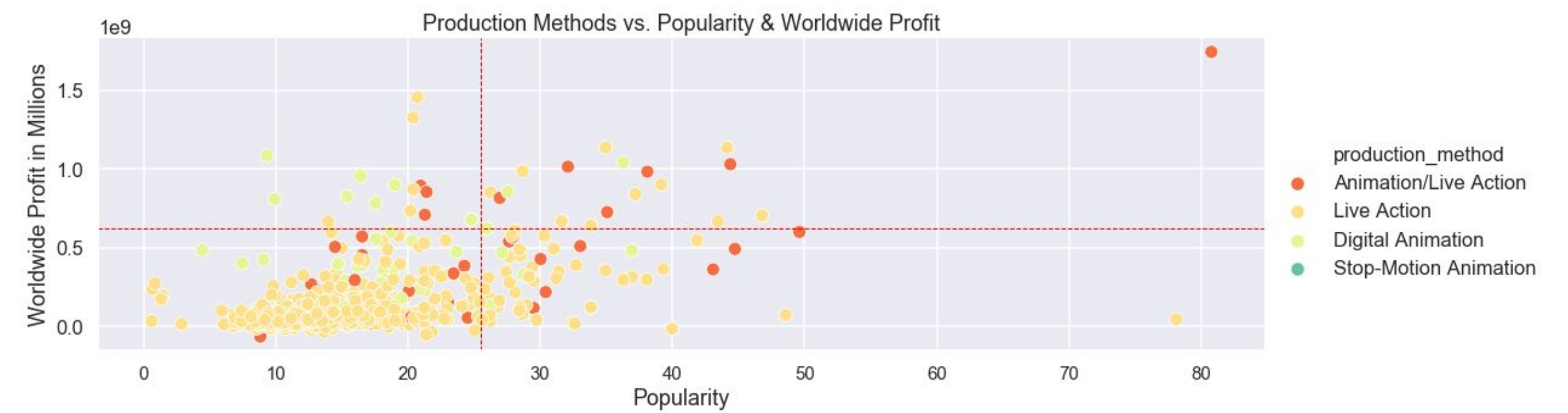
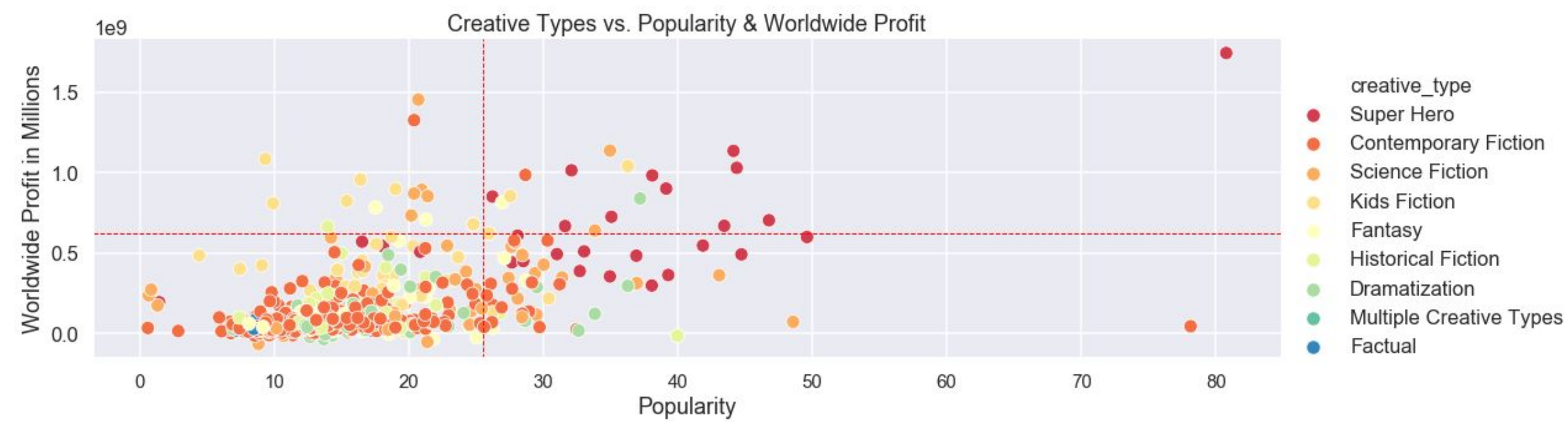
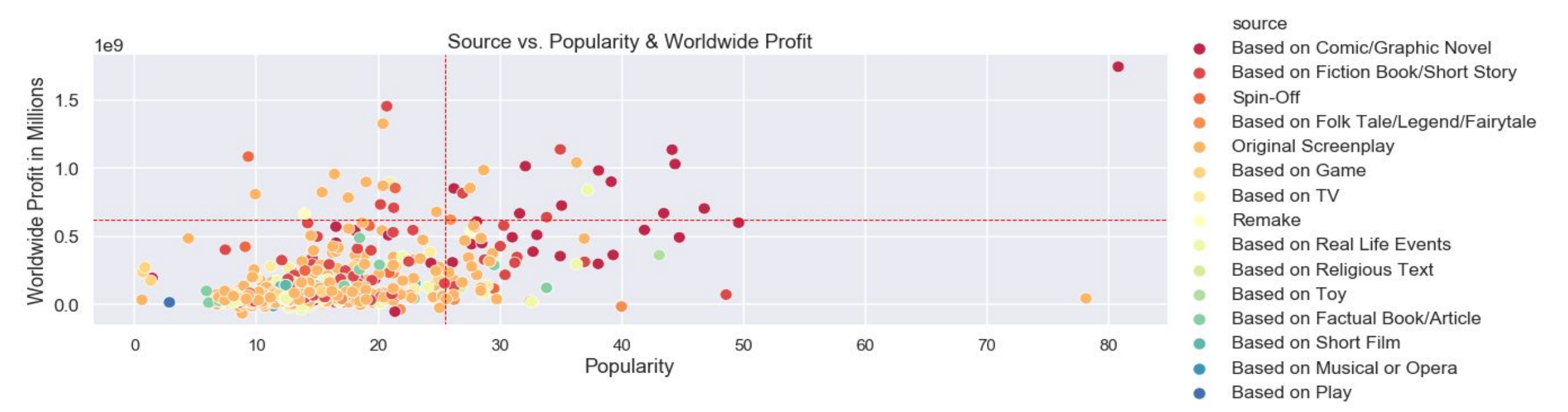
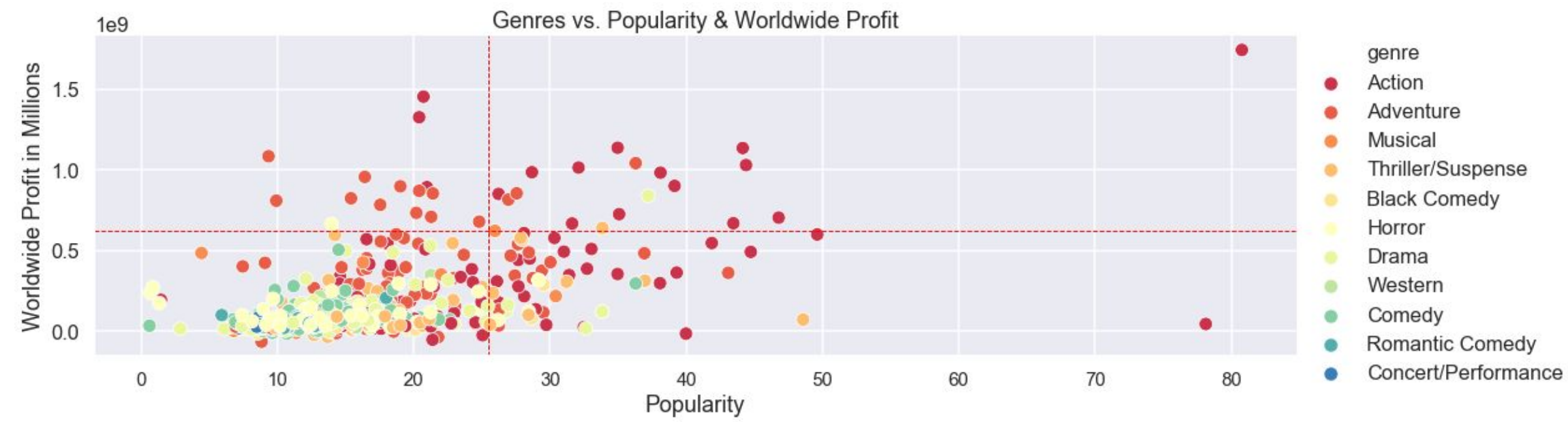
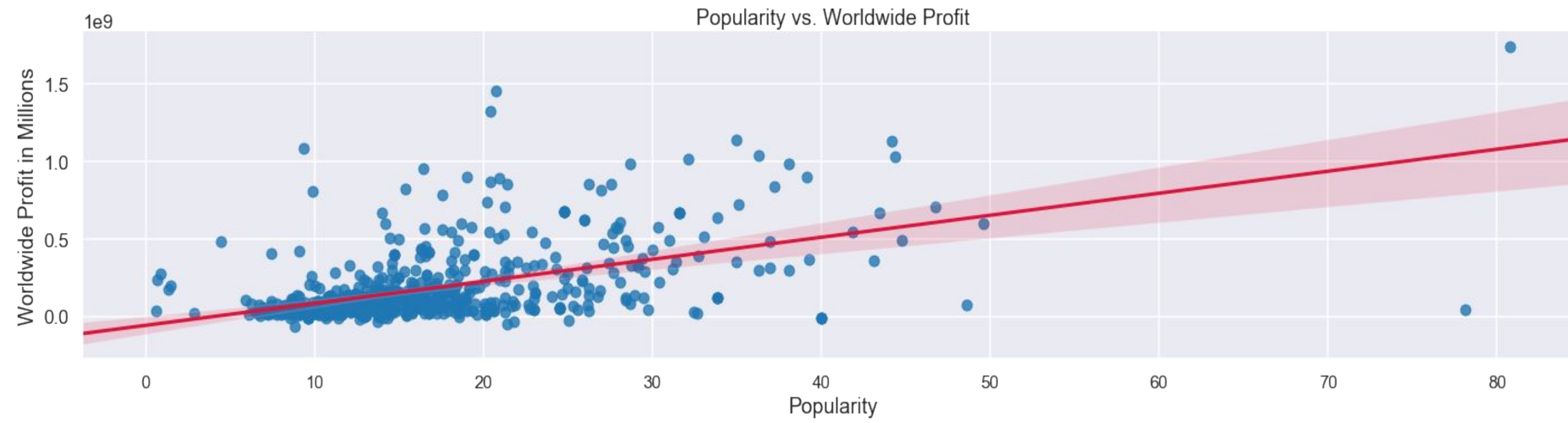
Genre

Source

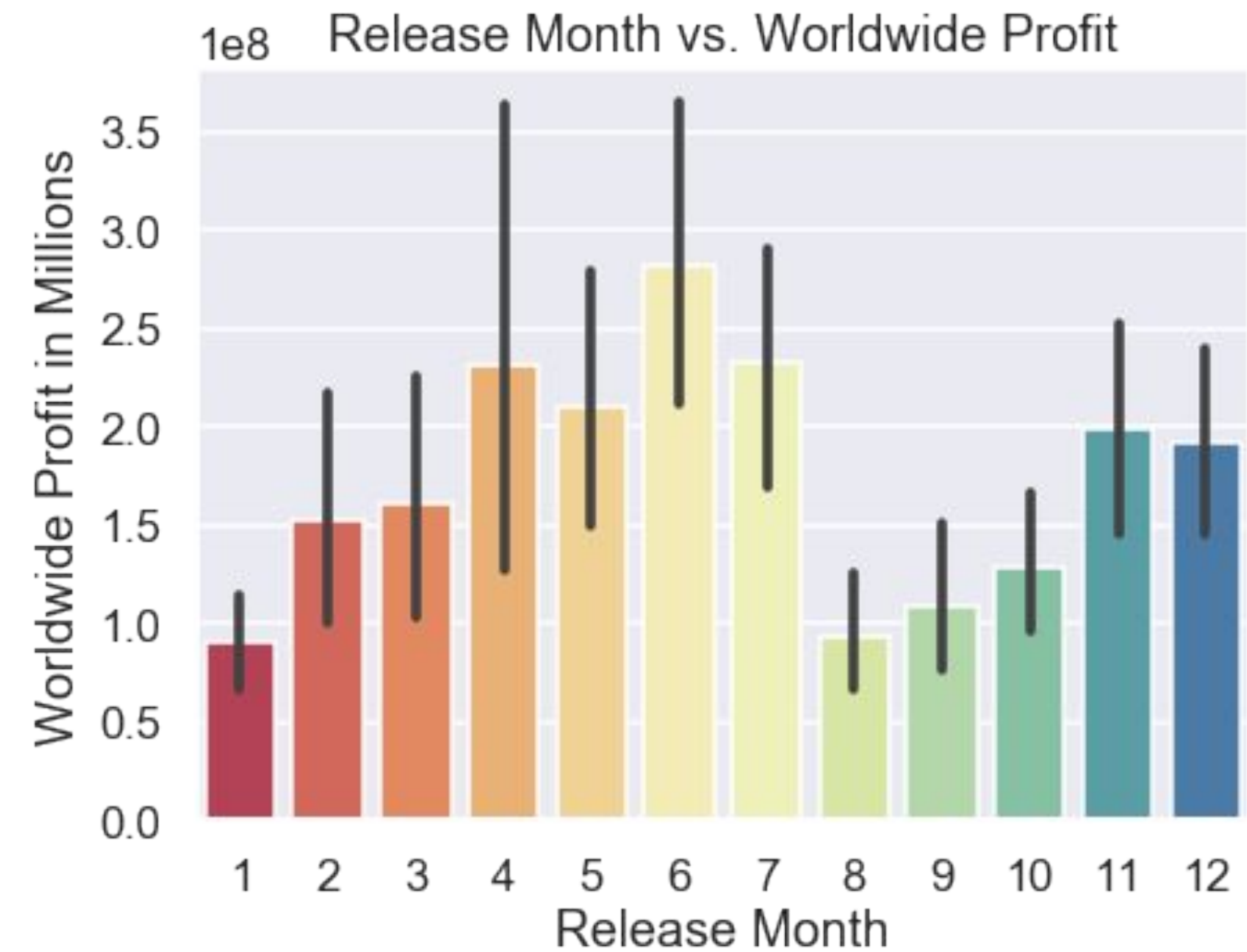
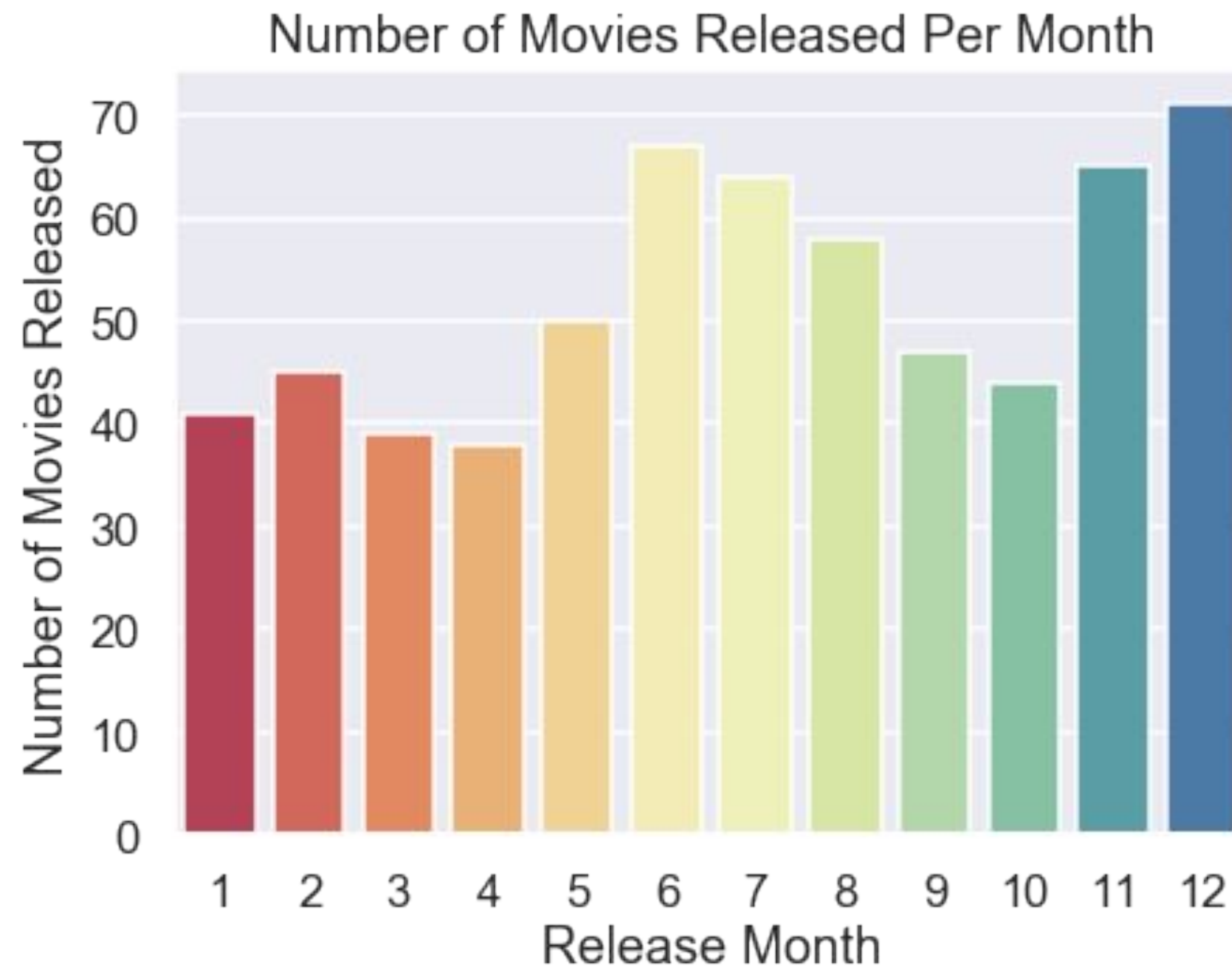
Creative Type

Production Method









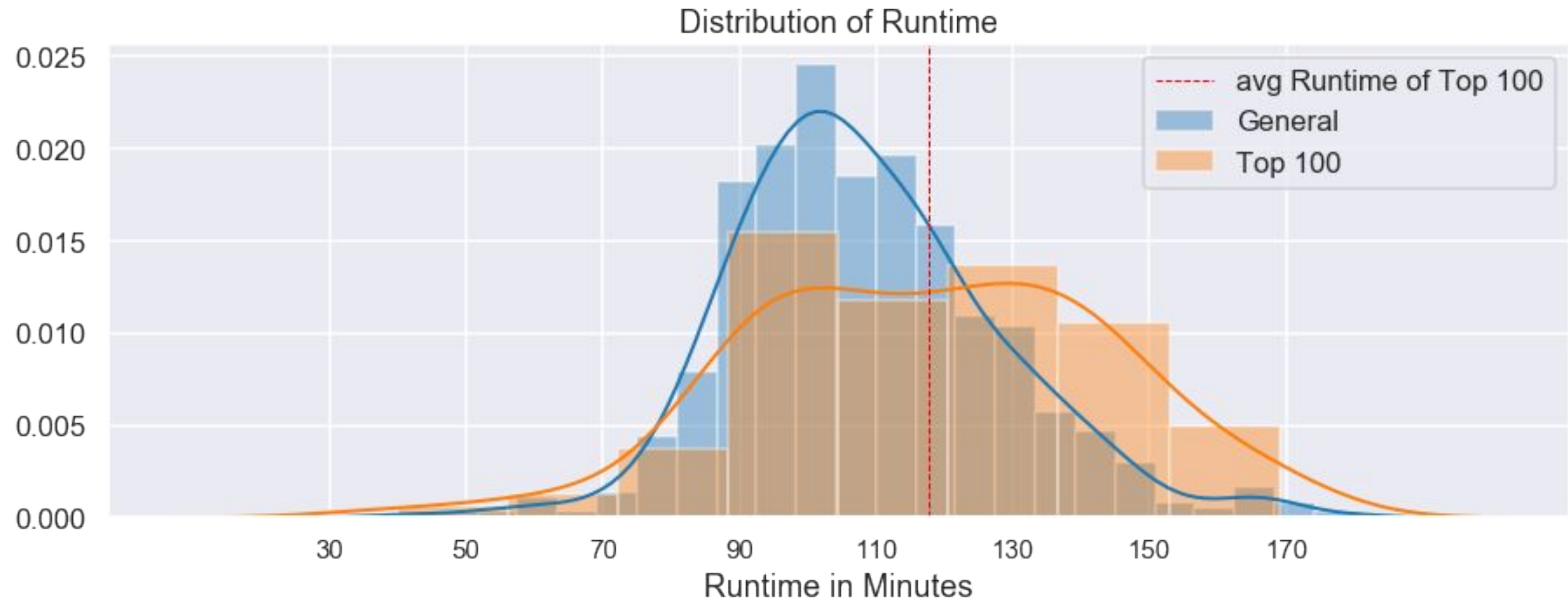
- Most release = June, December
- Most profit = June



Conclusion

June





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

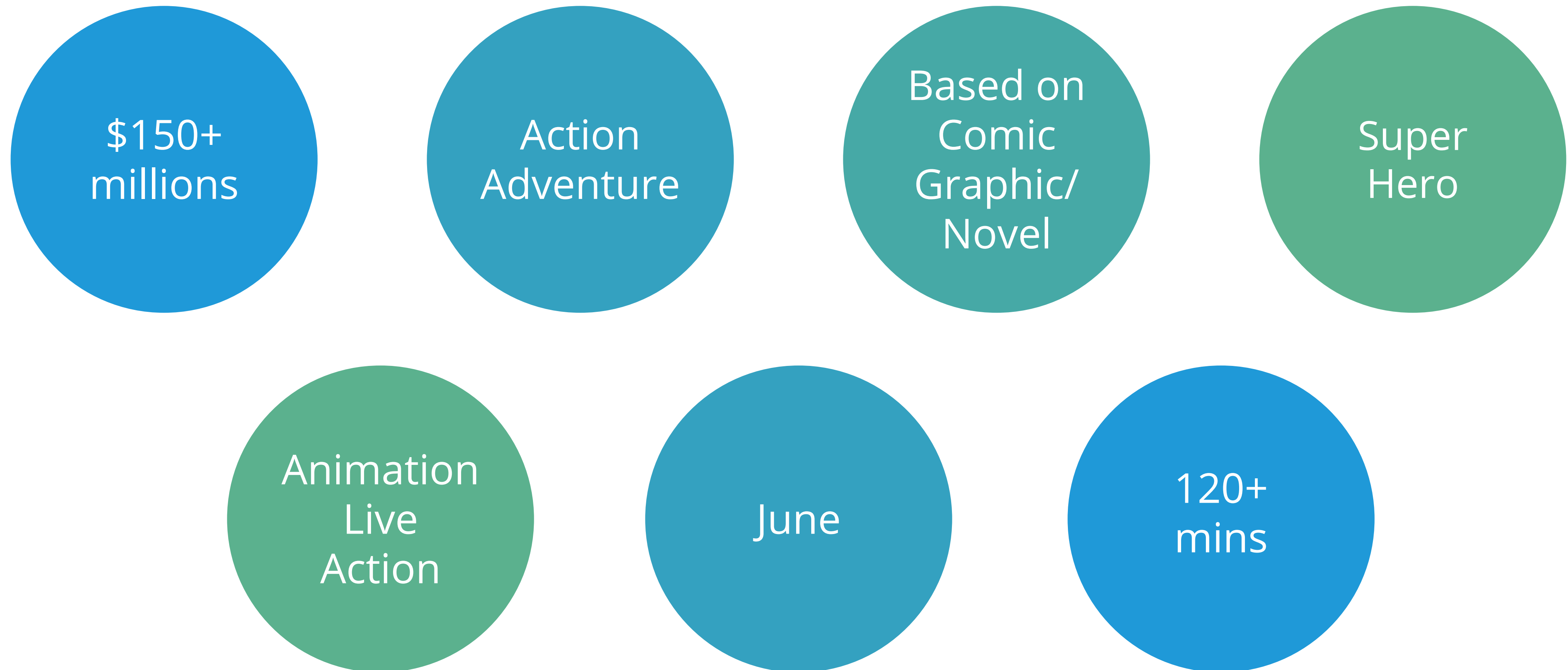


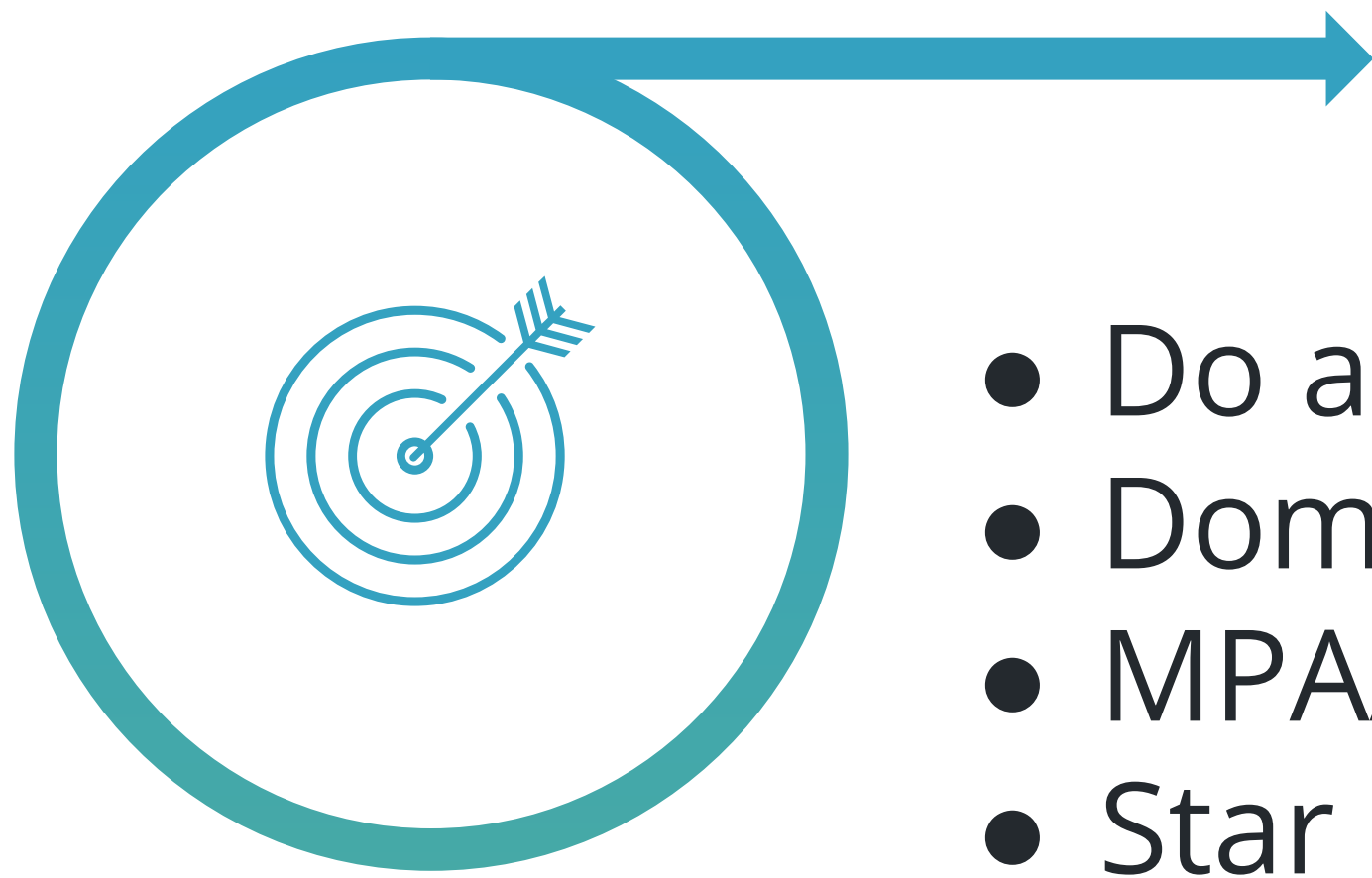
Conclusion

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.



Q & A





Thank You





Appendix





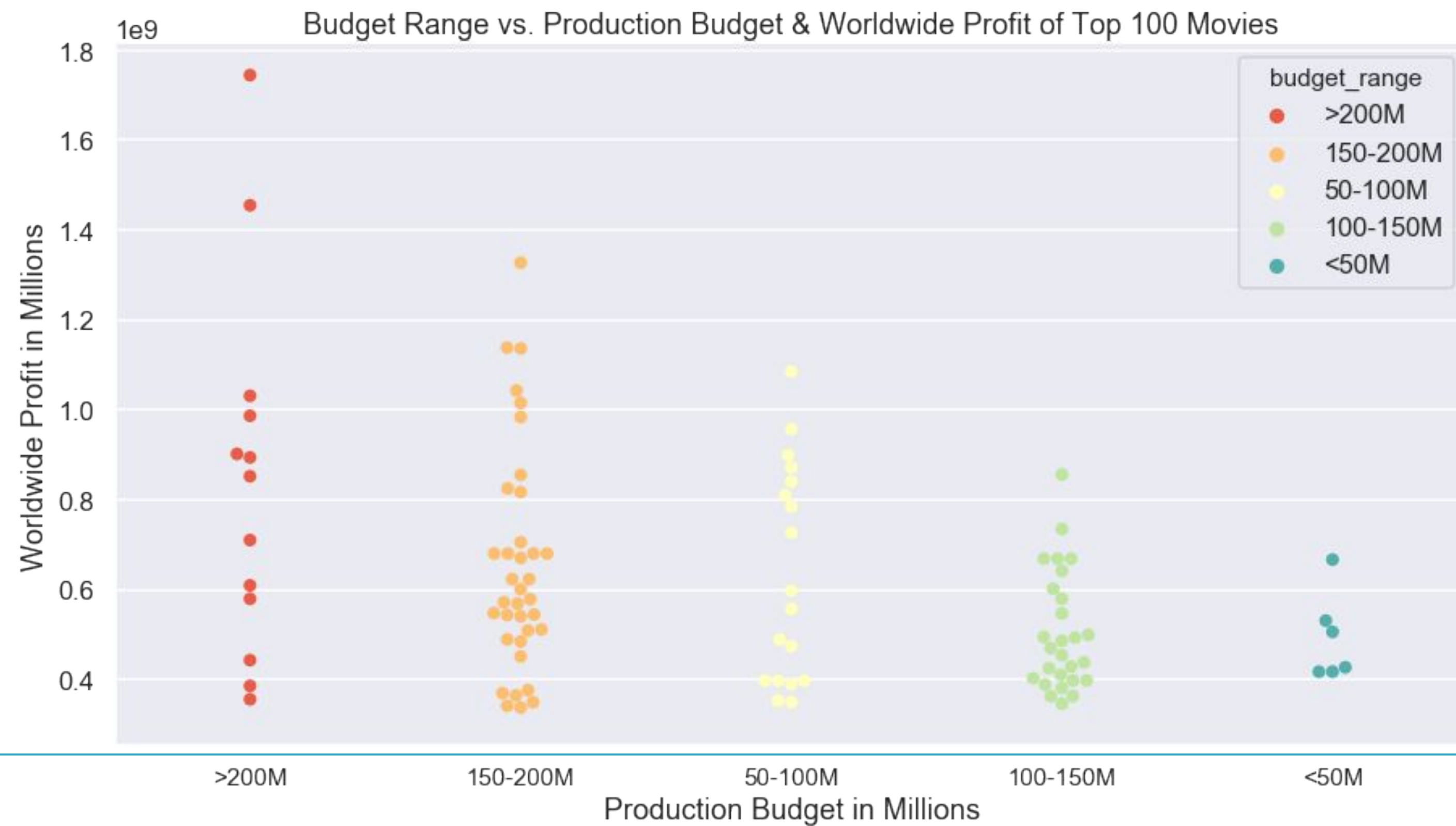
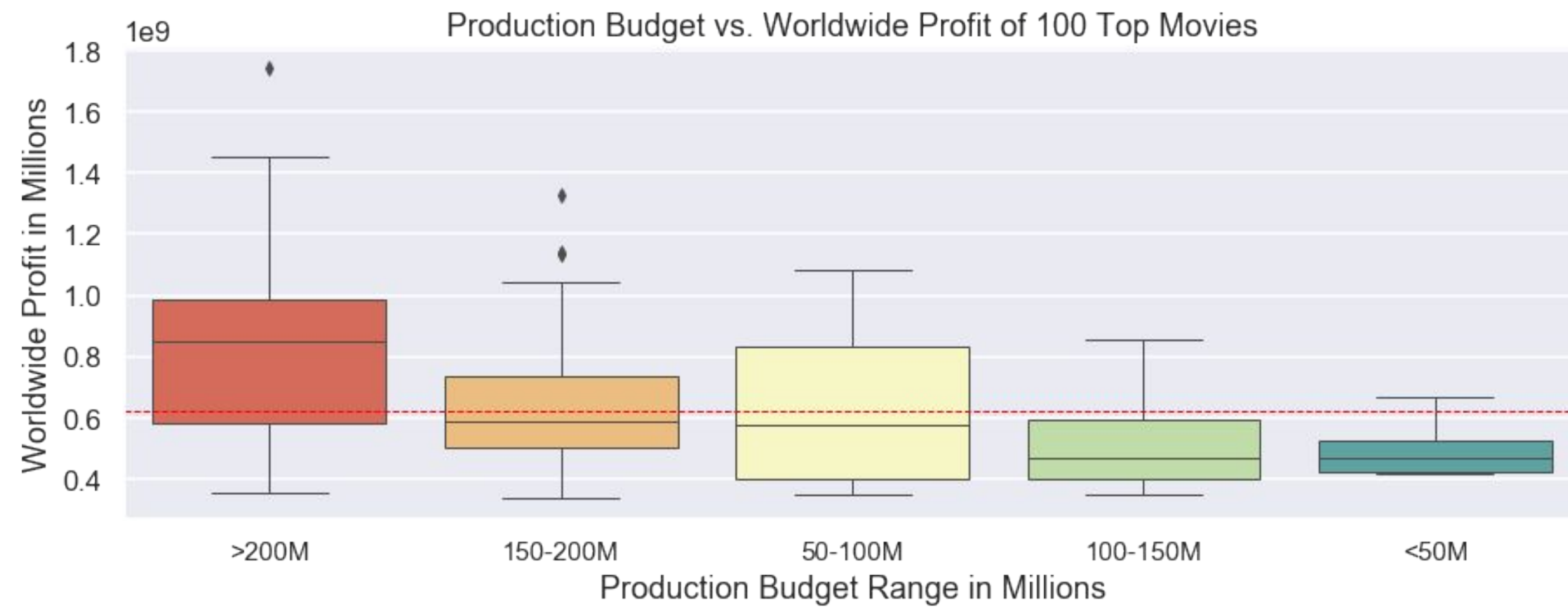
Examples

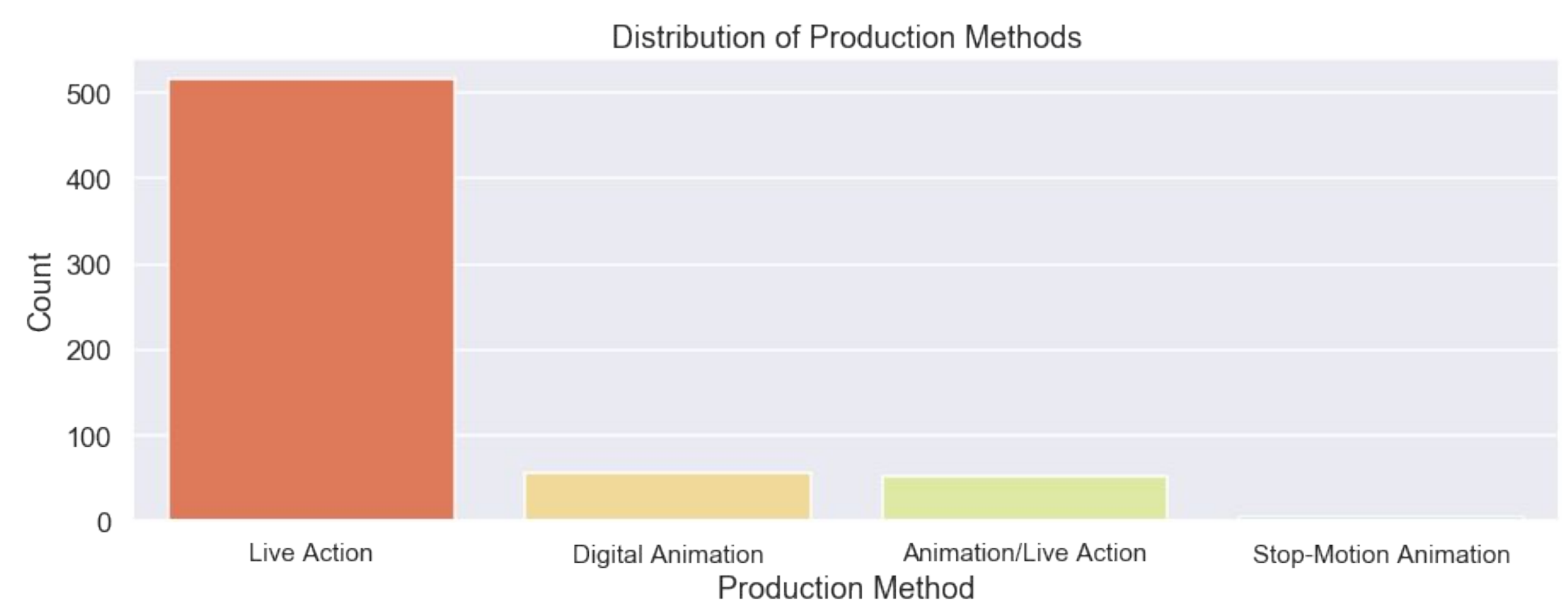
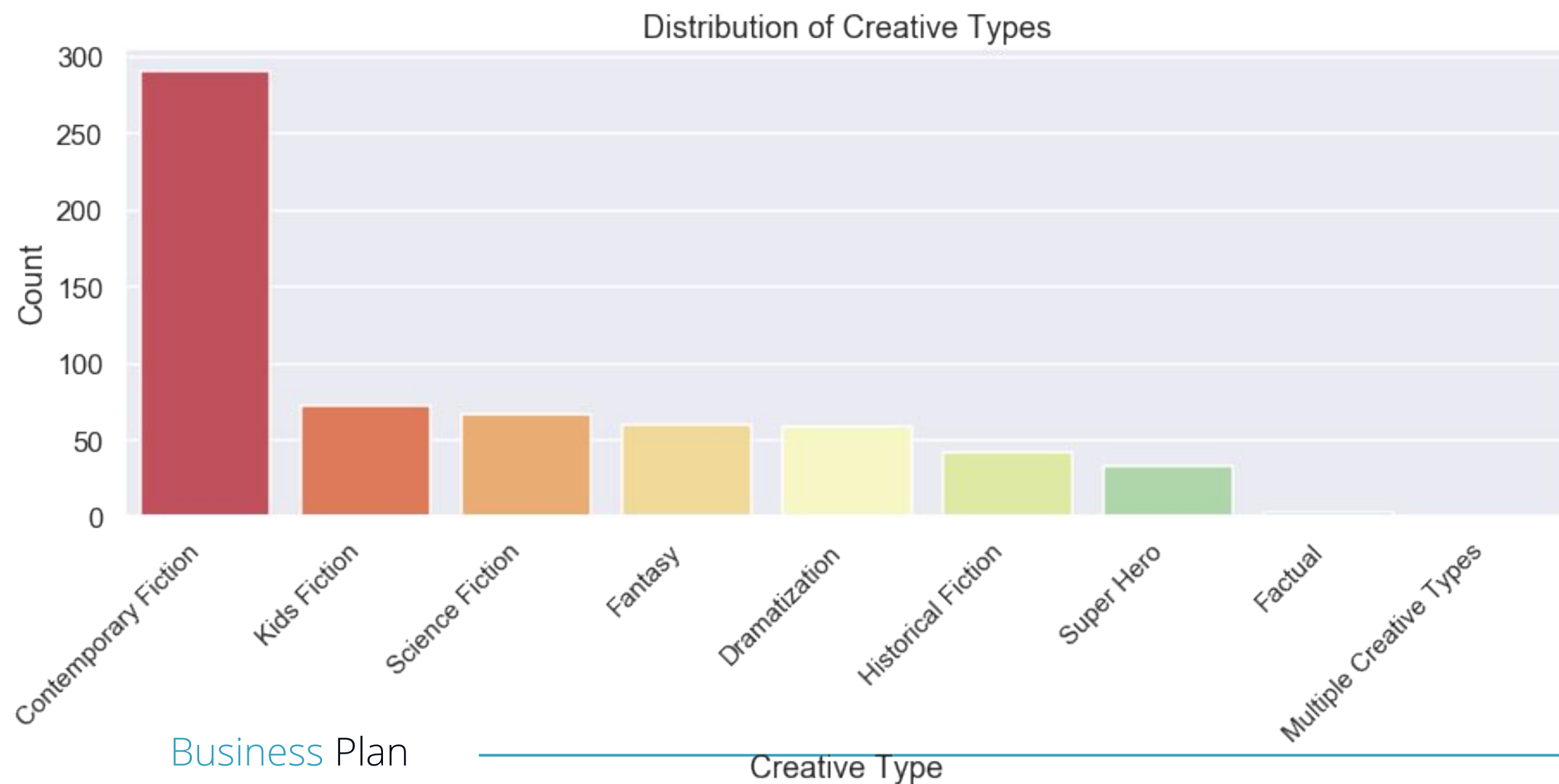
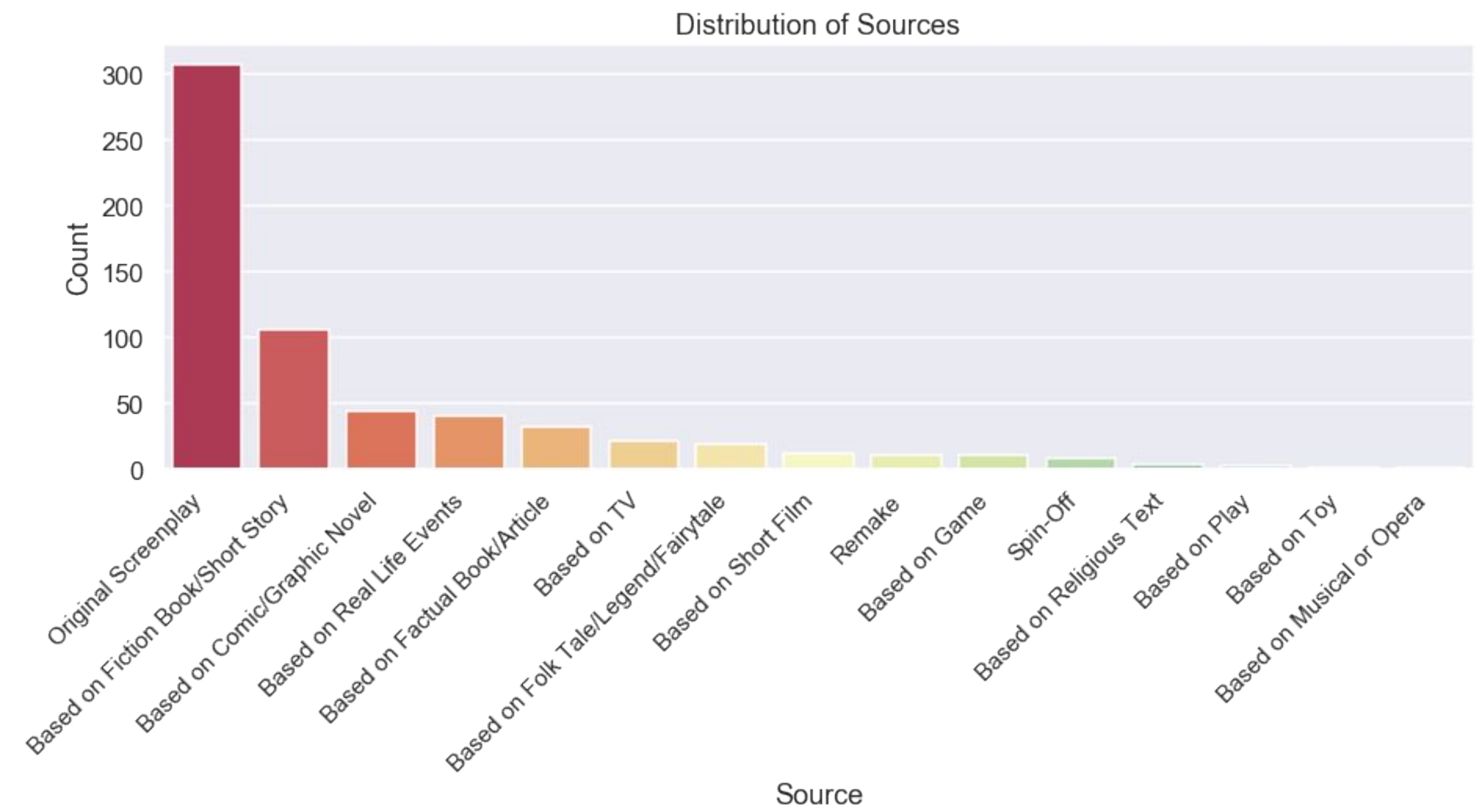
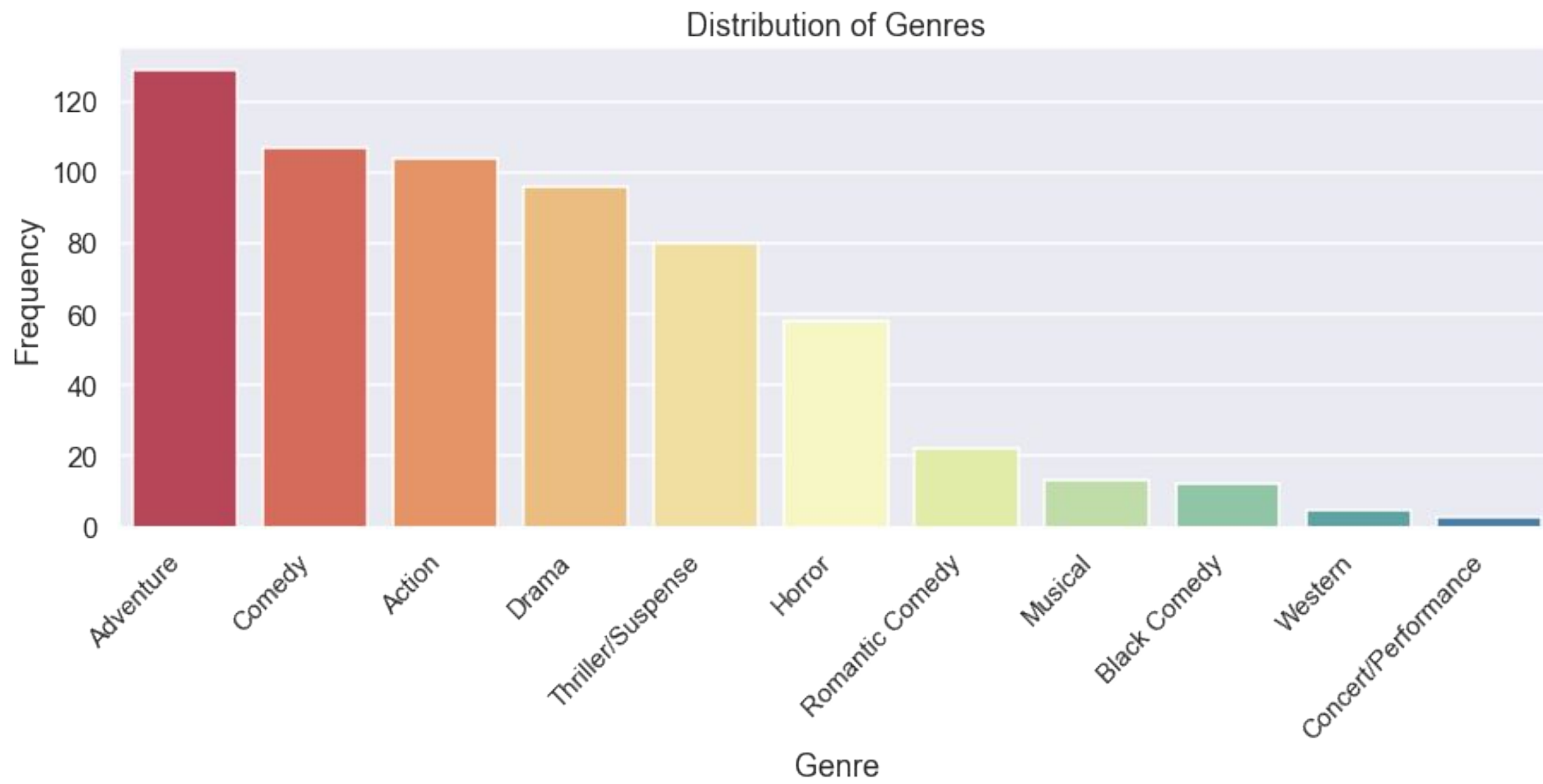
- ***Pirates of the Caribbean: On Stranger Tides*** (2011) - \$379M budget, \$1 B earned
- ***Avenger: Age of Ultron*** (2015) - \$365M budget, \$1.3B earned
- ***Spectre*** (1997) - \$300M budget, \$879M earned

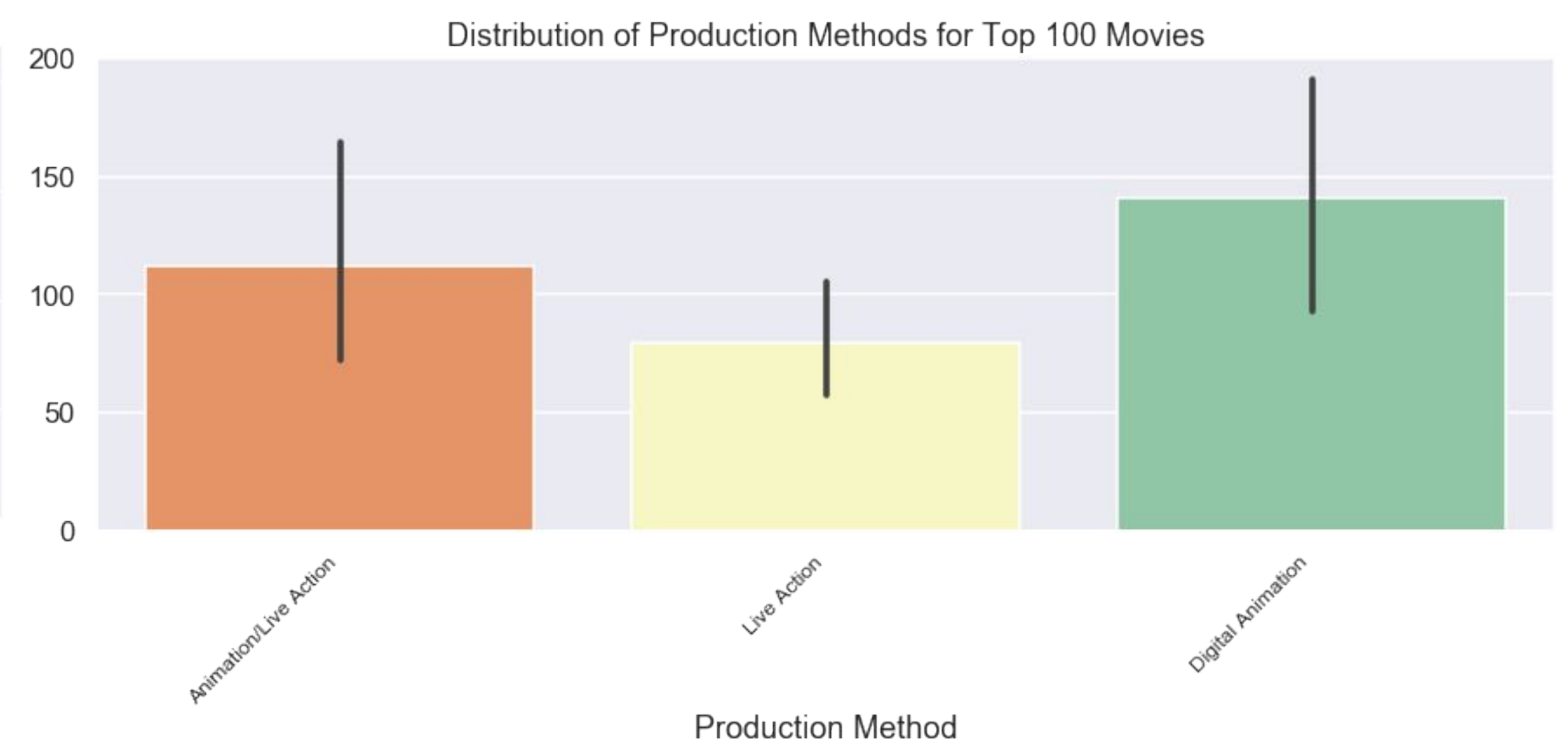
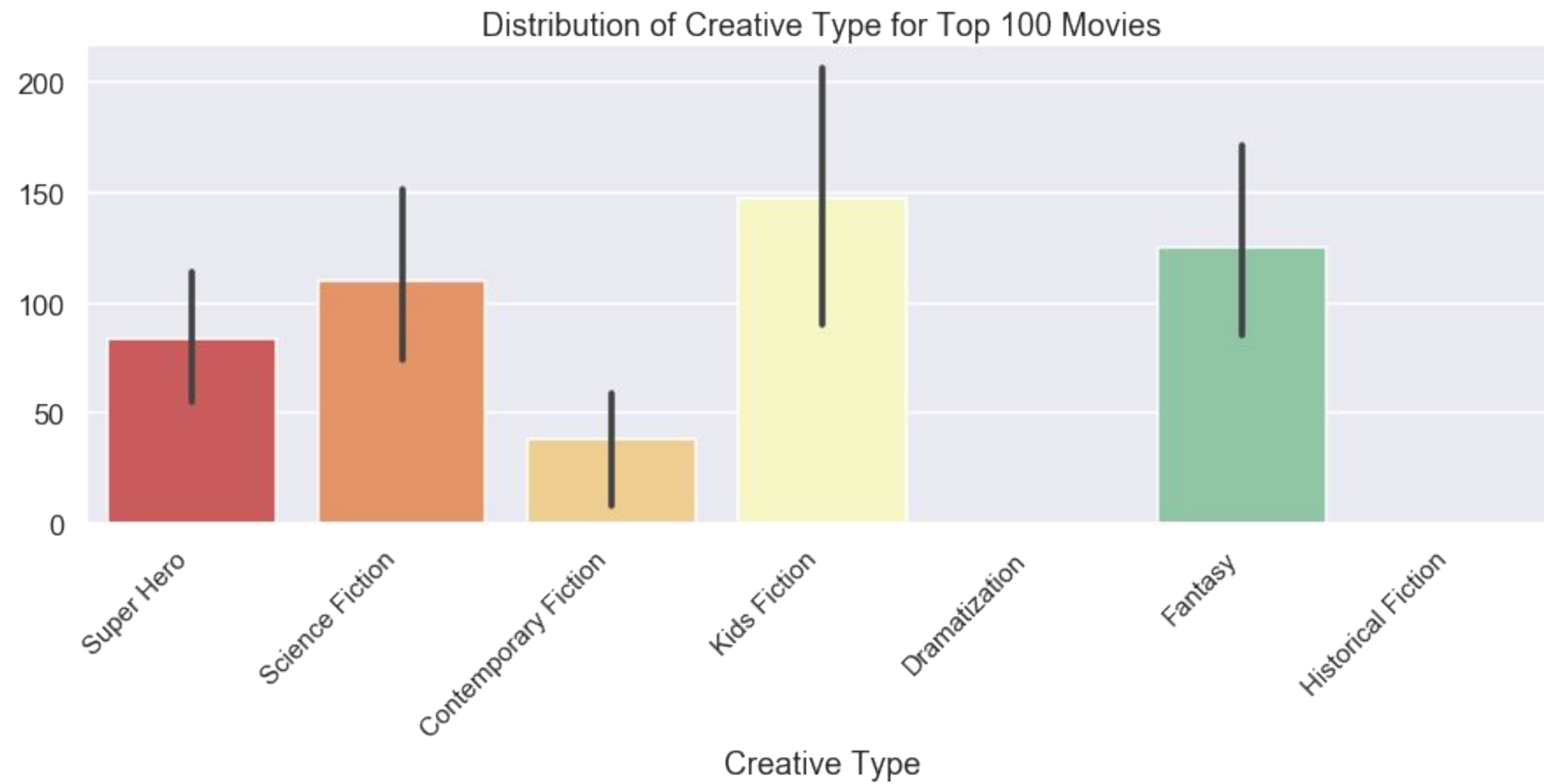
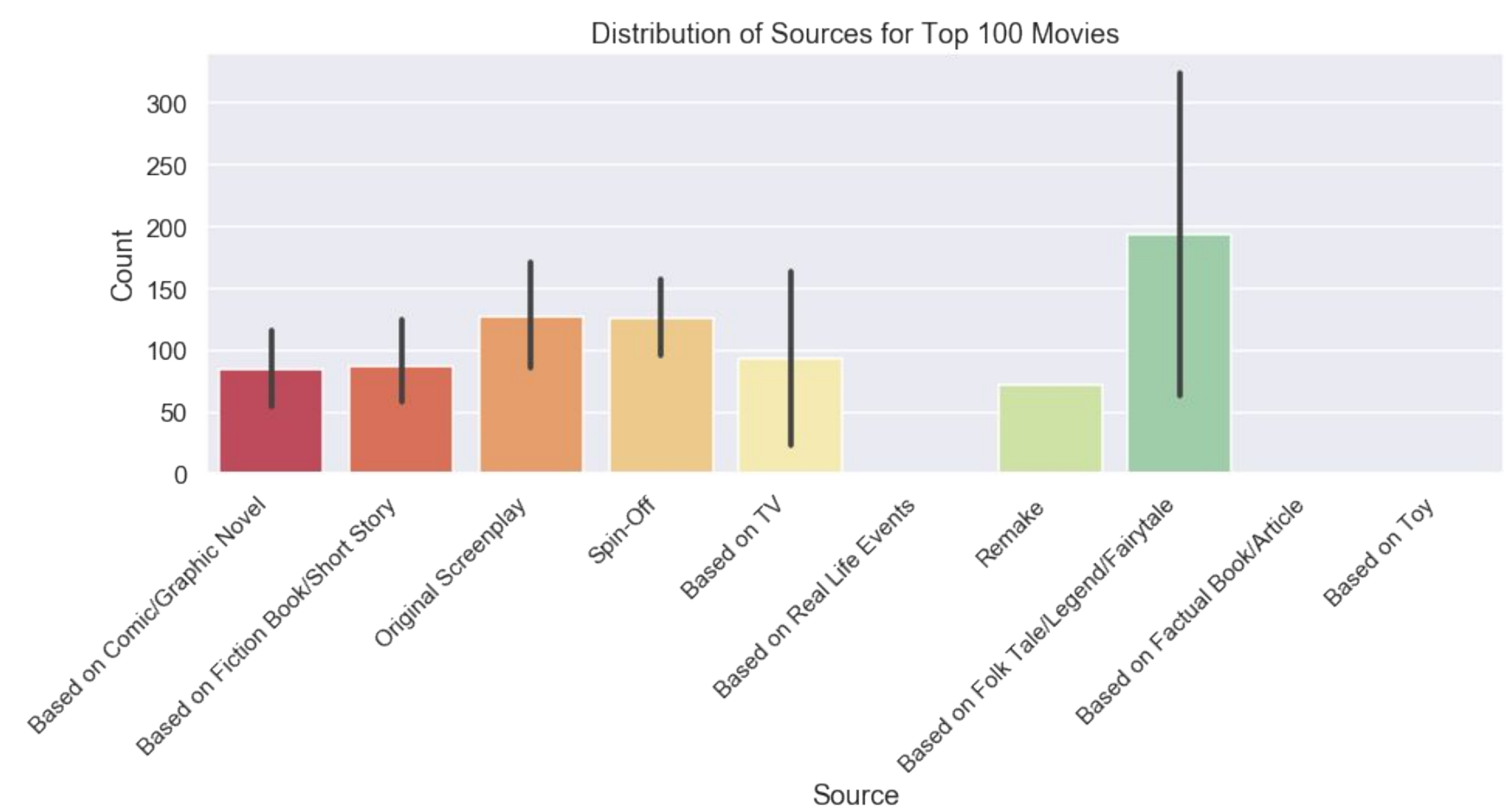
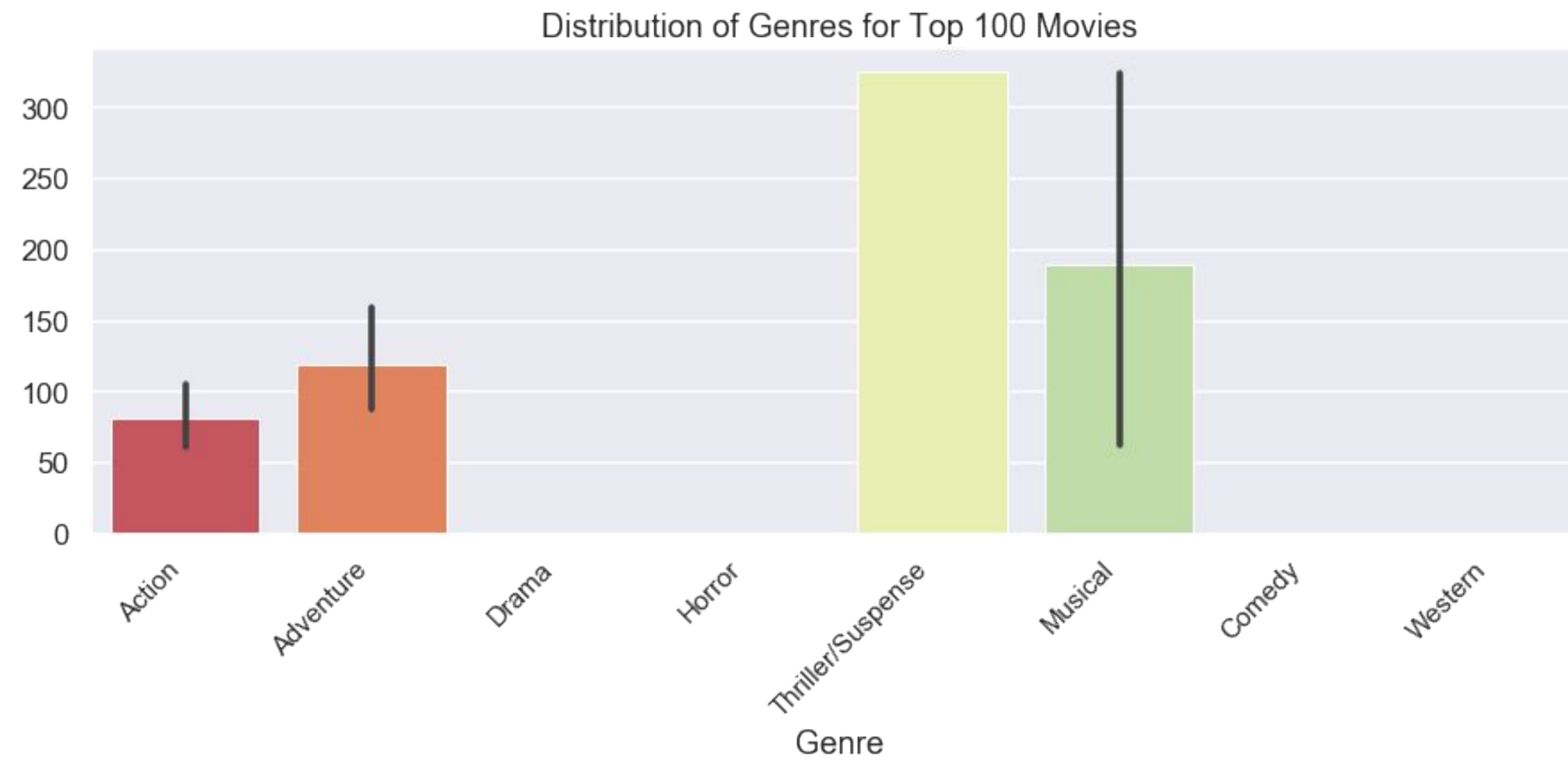


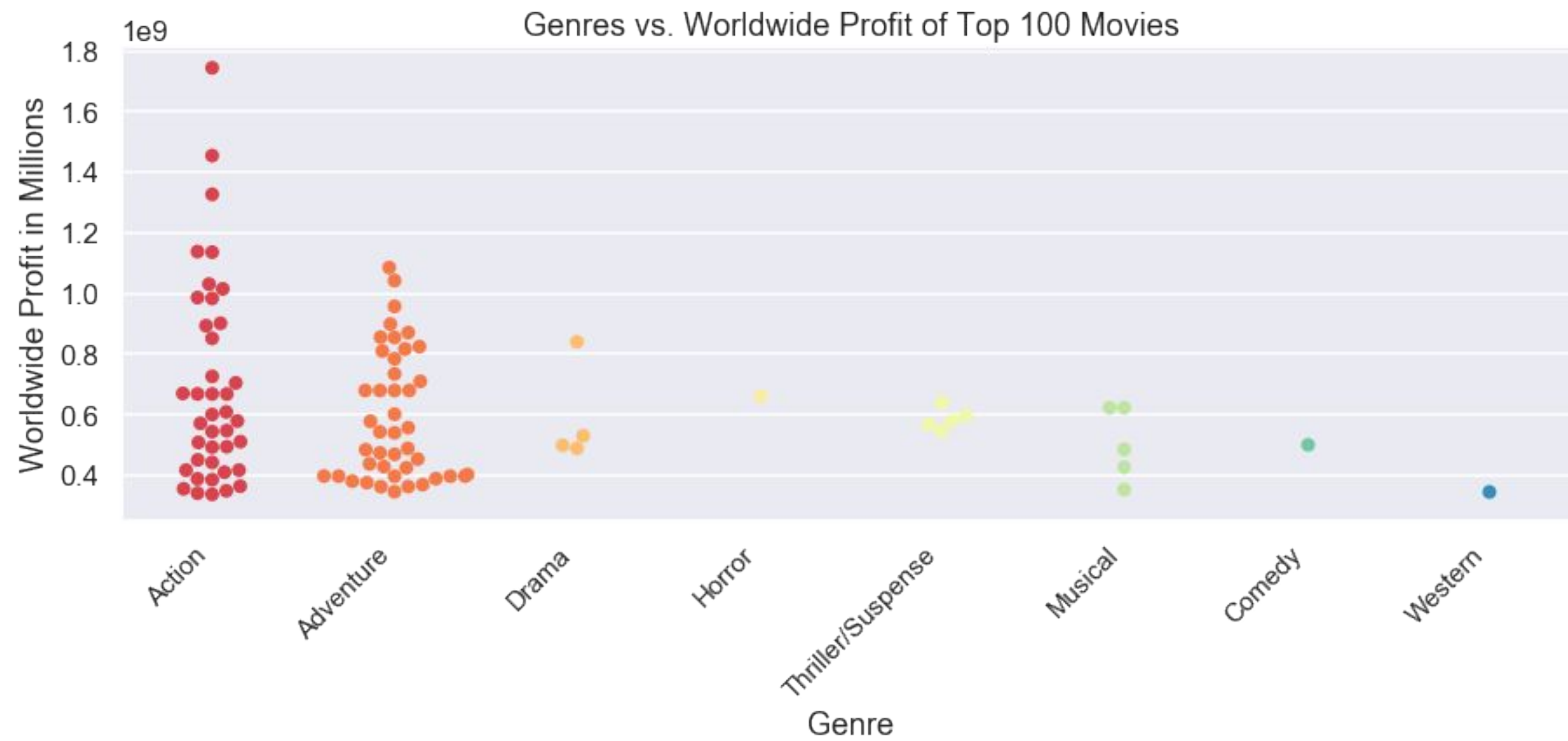
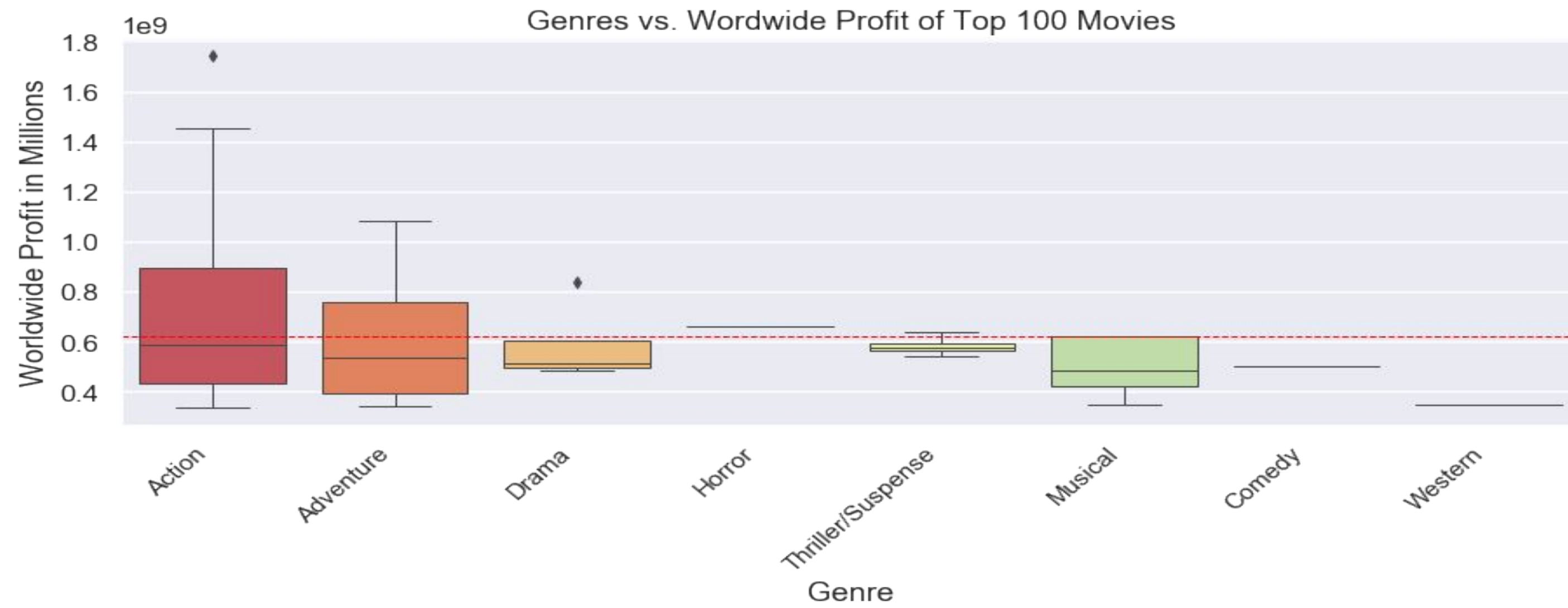
Examples

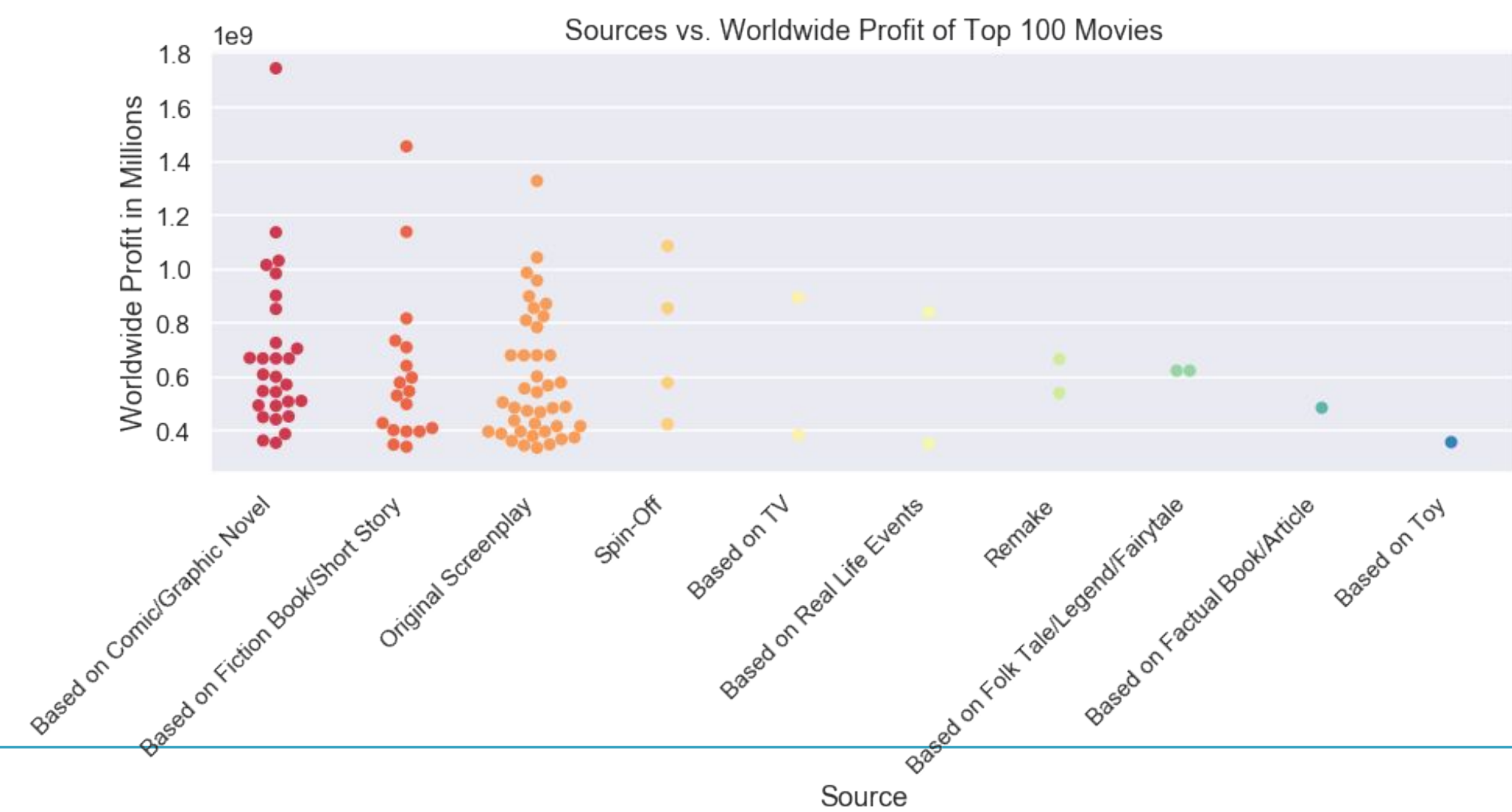
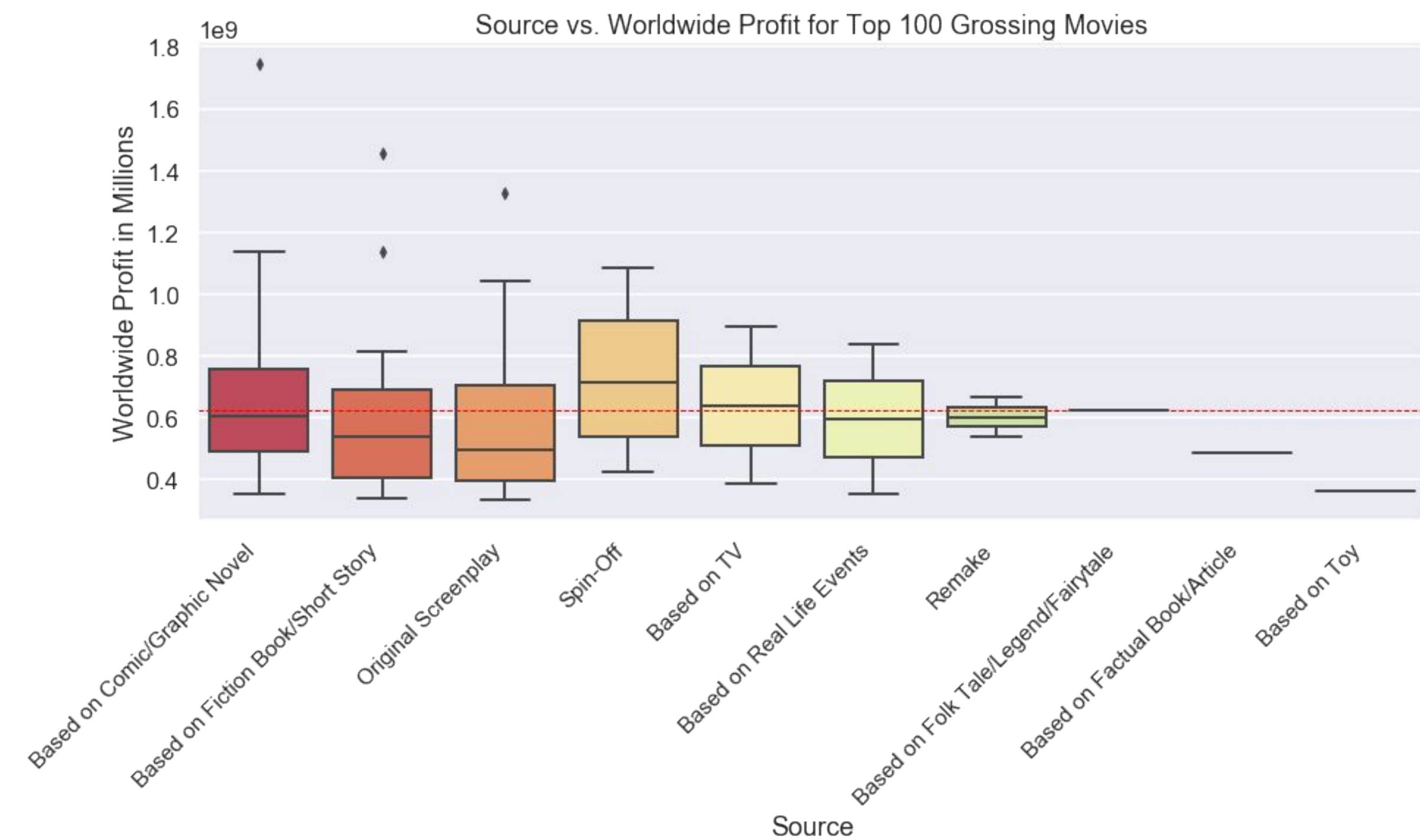
- ***Facing the Giants*** (2006) - \$100,000 budget, \$24.4M earned
- ***Once*** (2007) - \$150,000 budget, Oscar nominations, \$19M earned
- ***Mad Max*** (1980), \$200,000 budget, \$49.6M earned

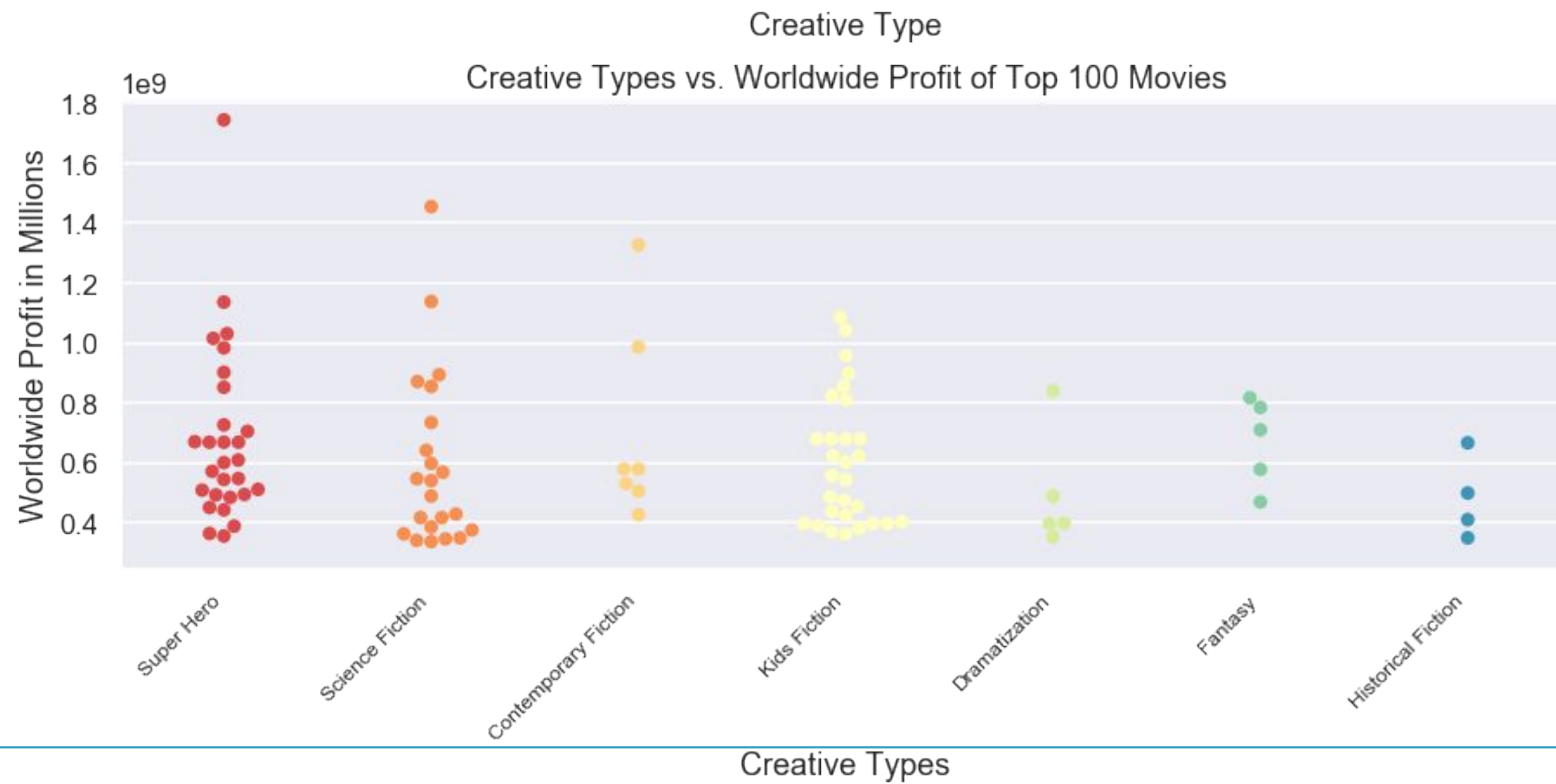
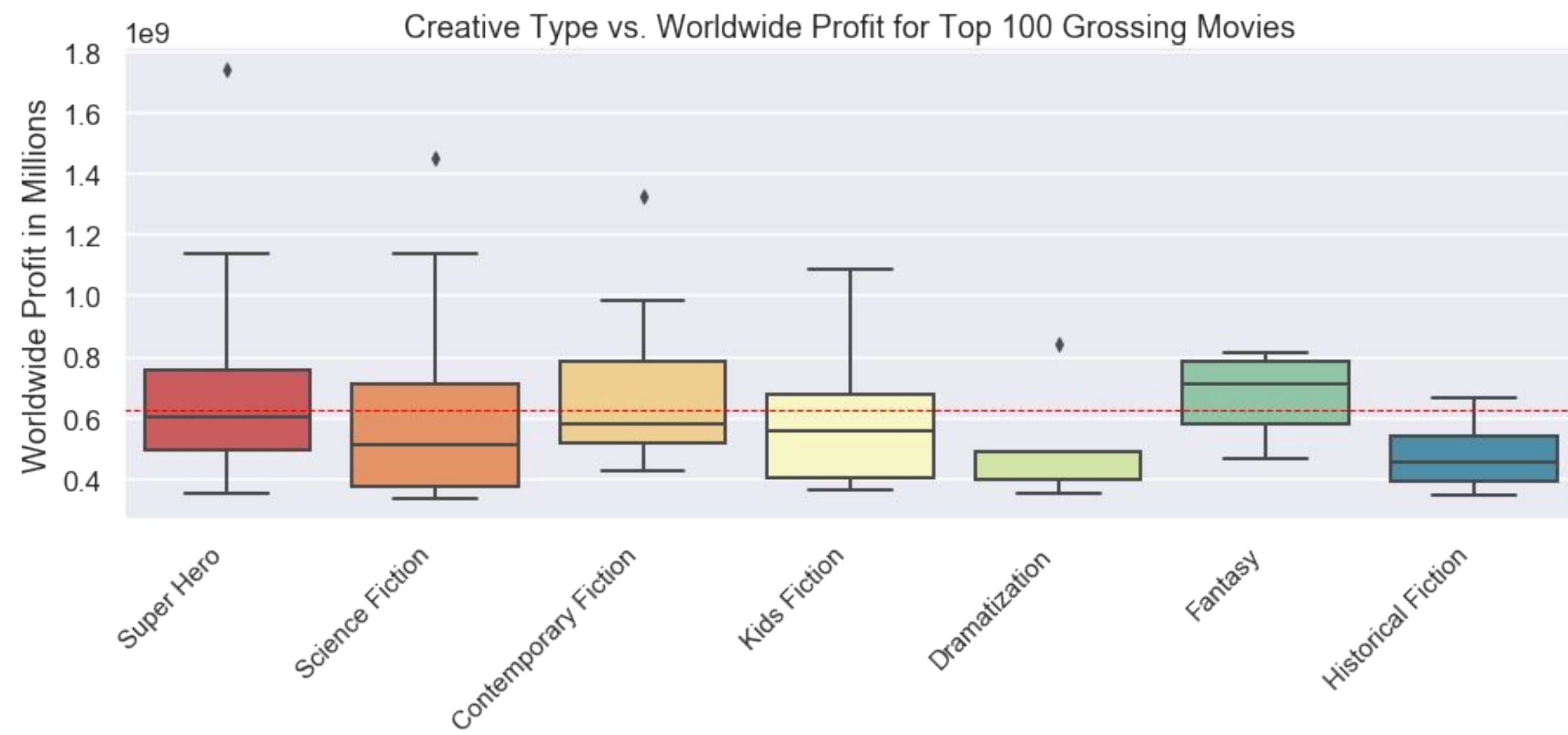


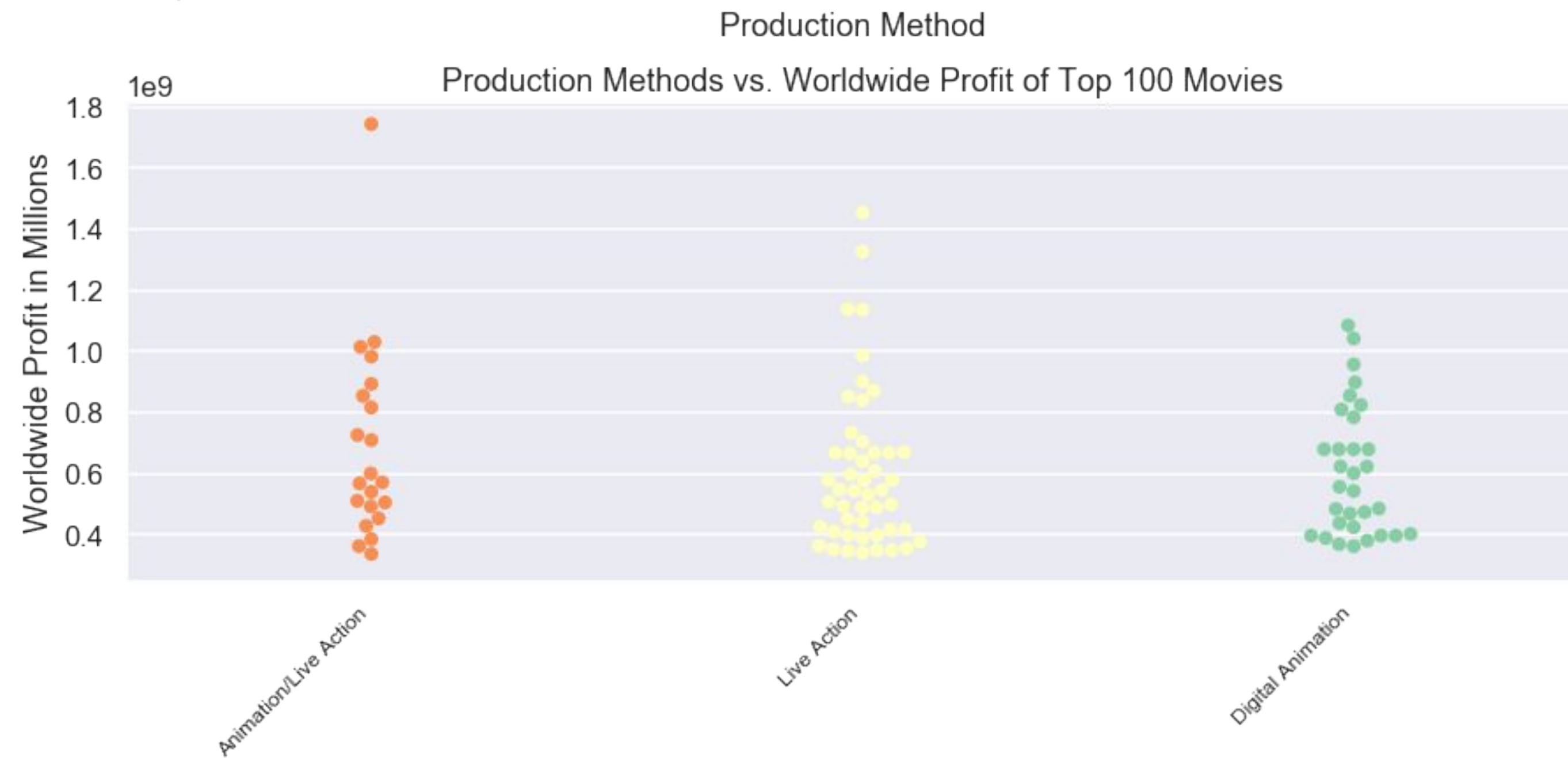
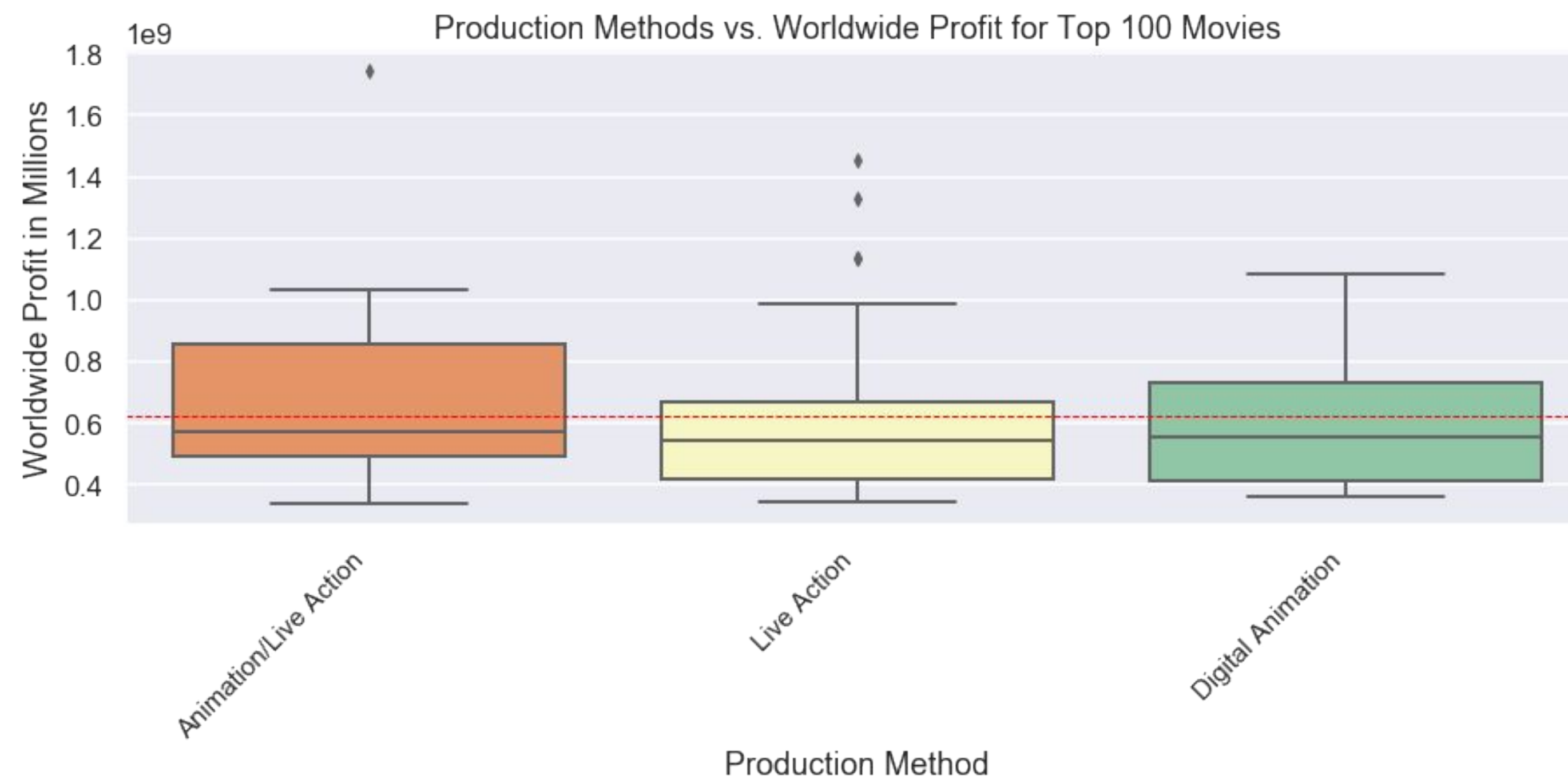


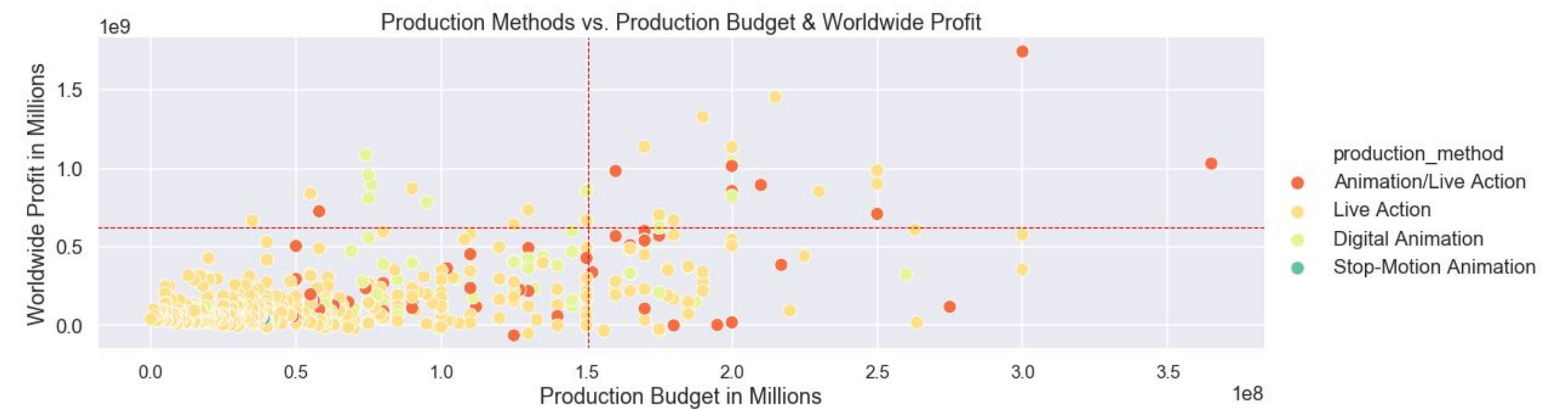
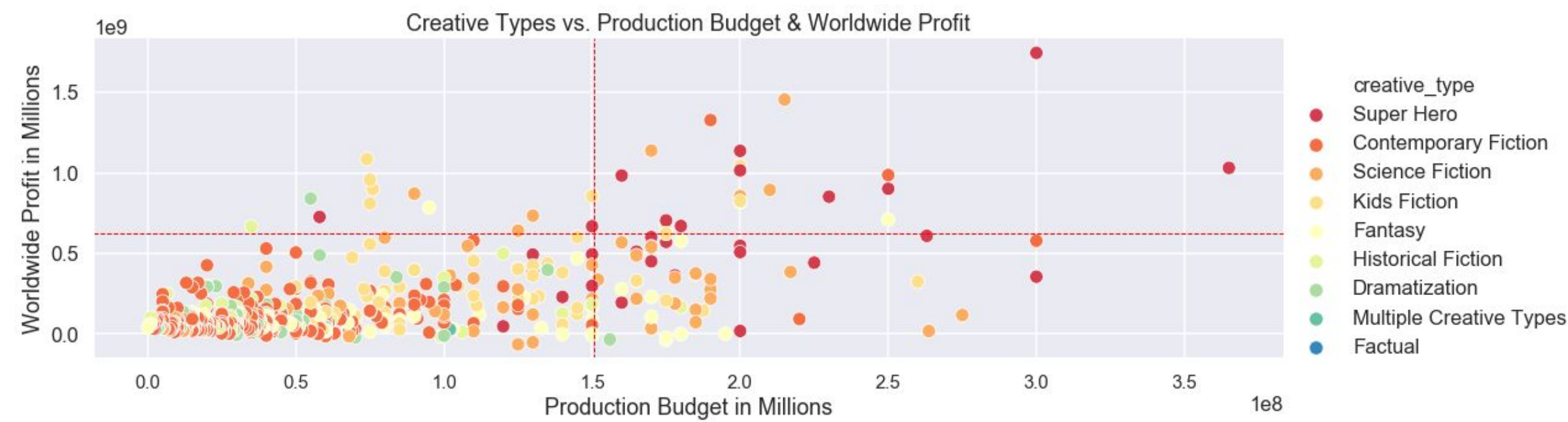
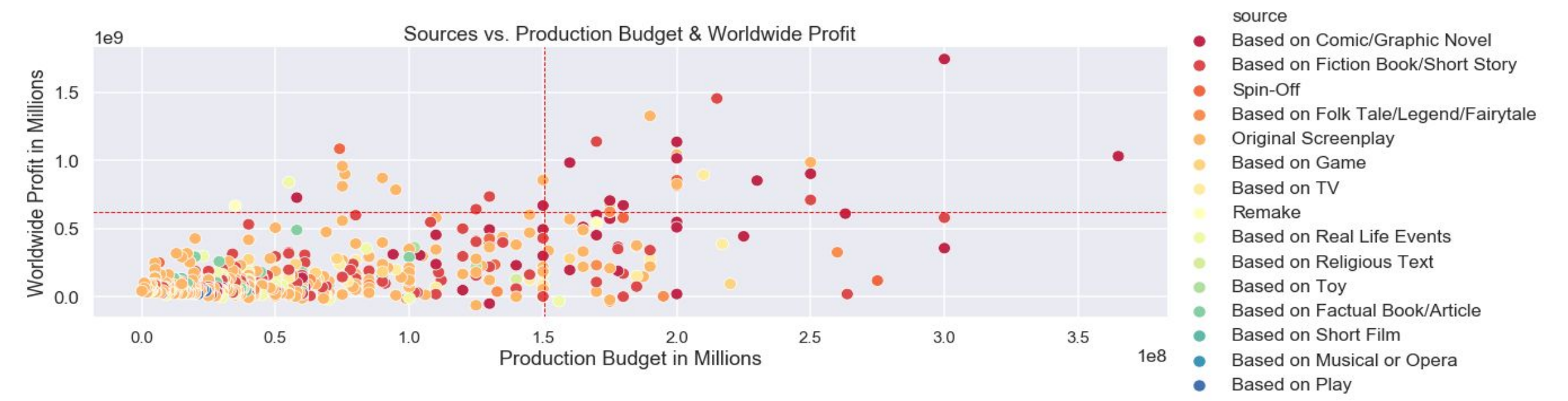
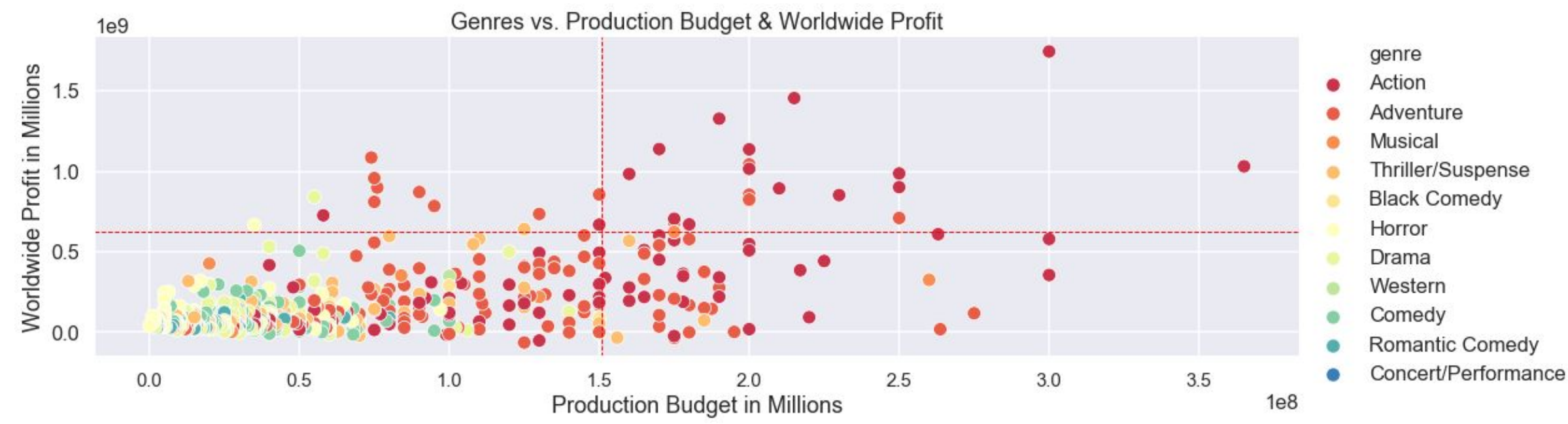


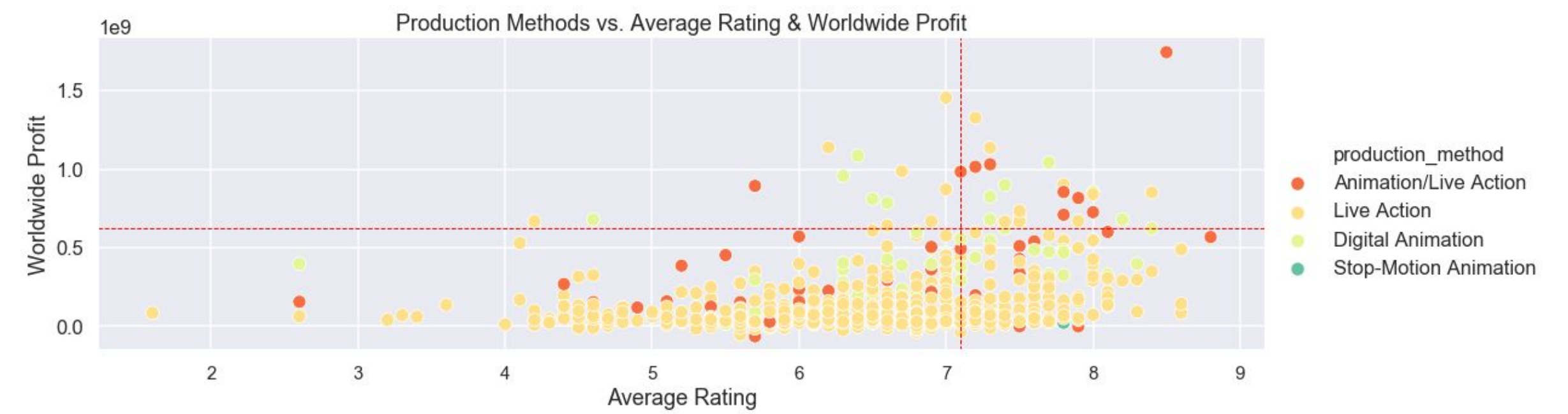
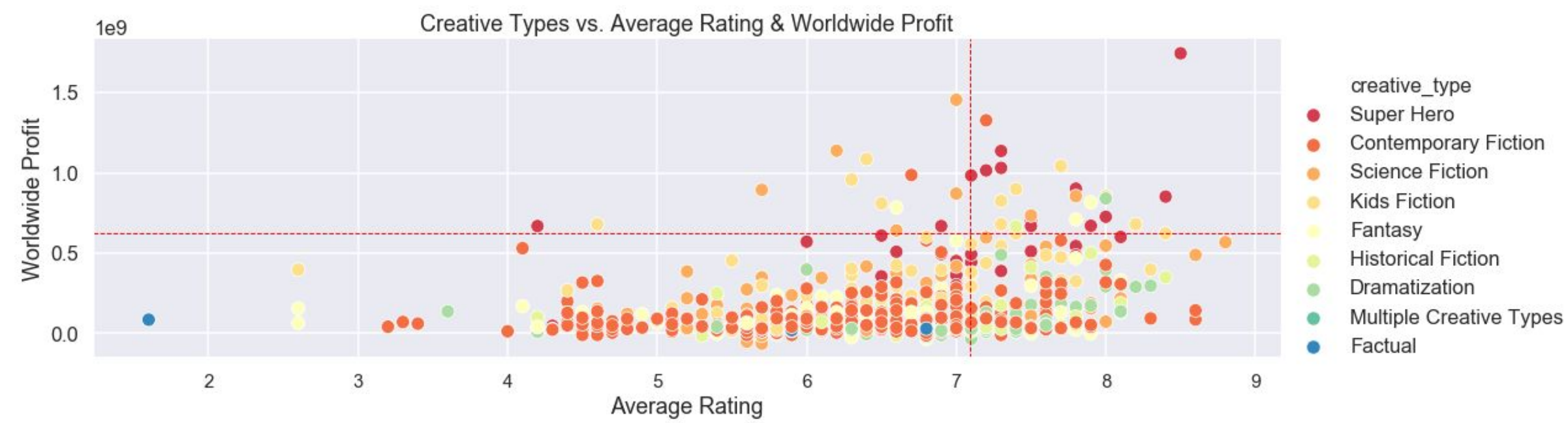
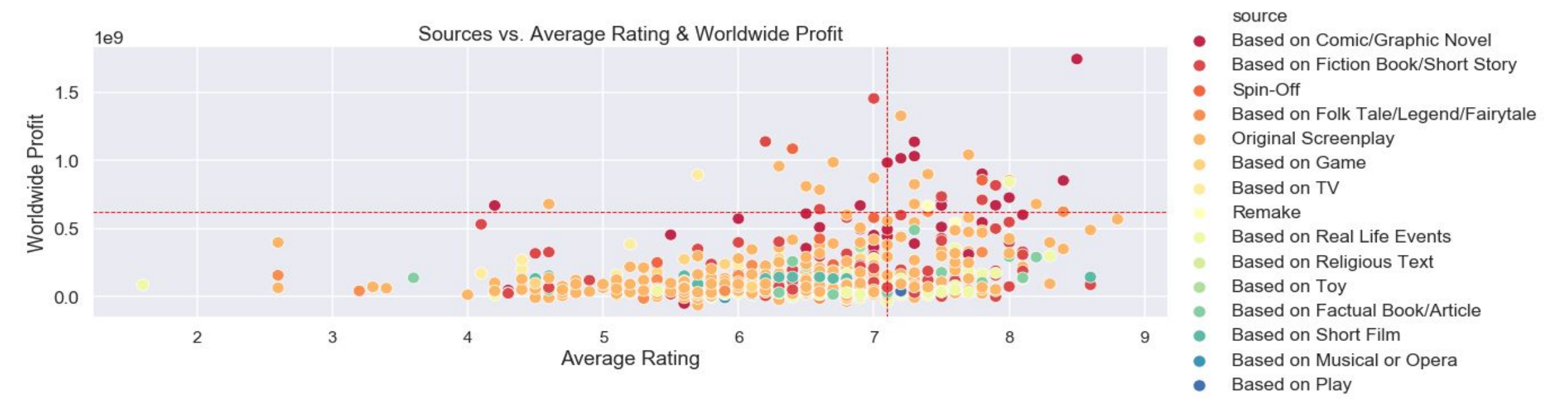
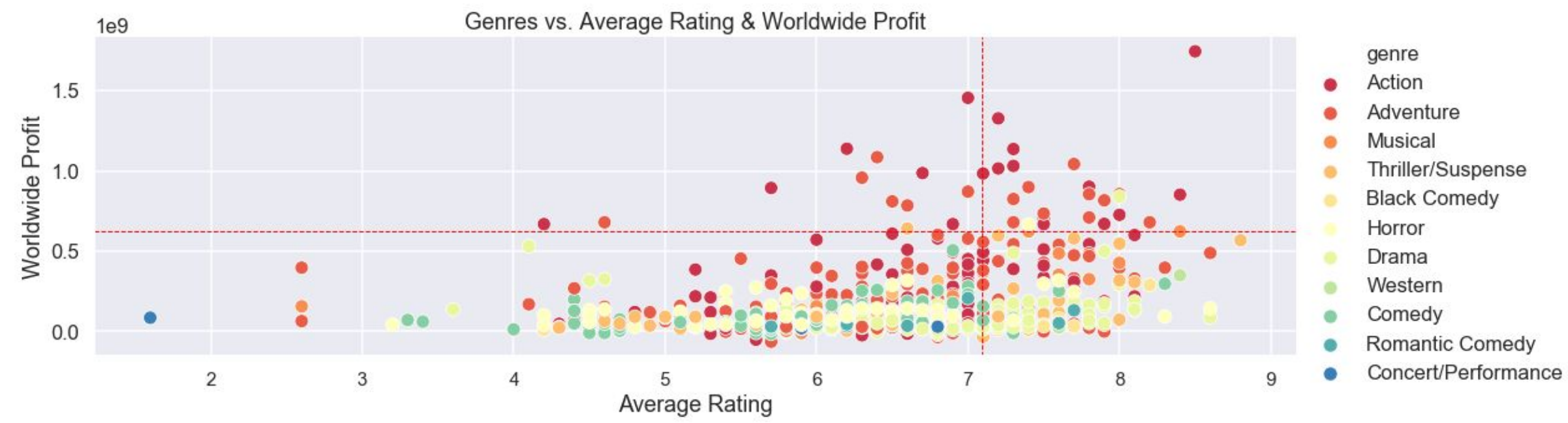


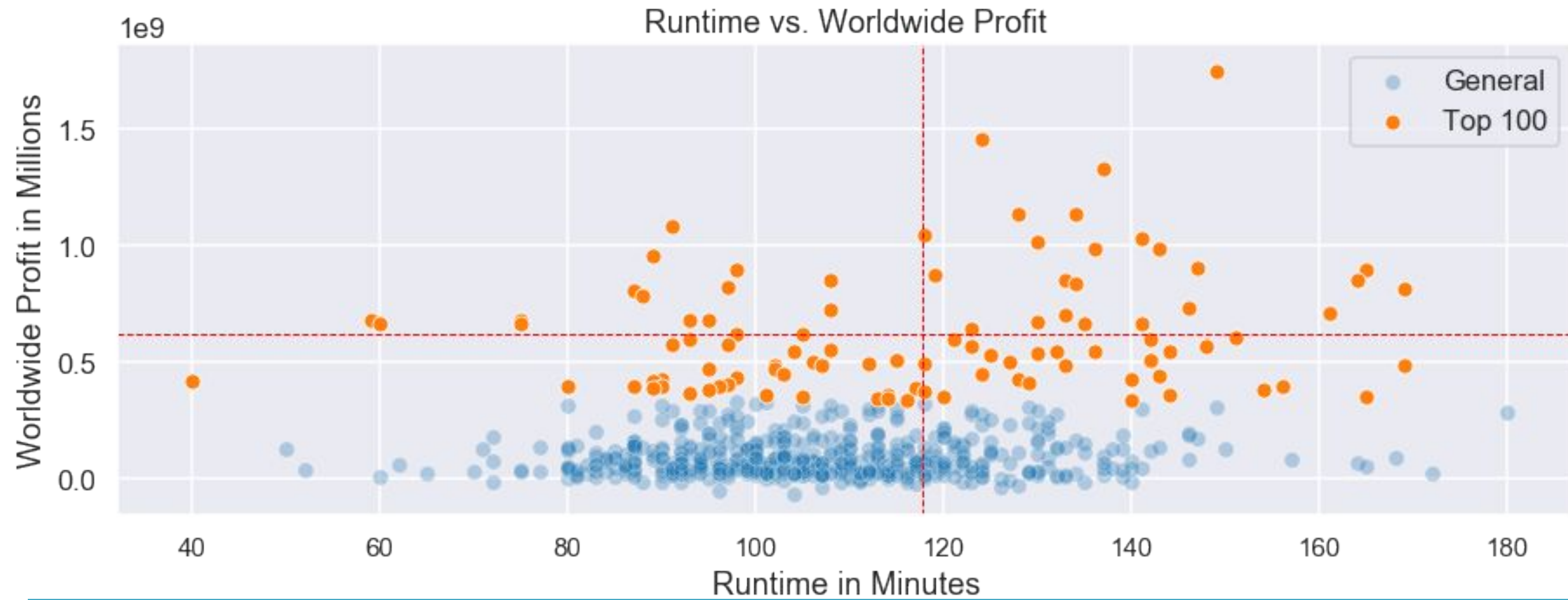
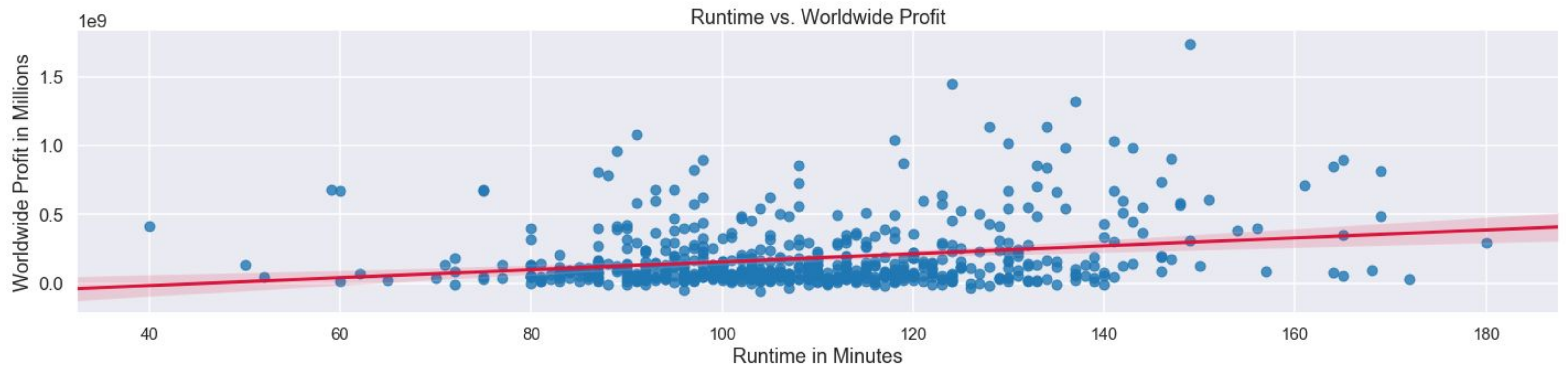


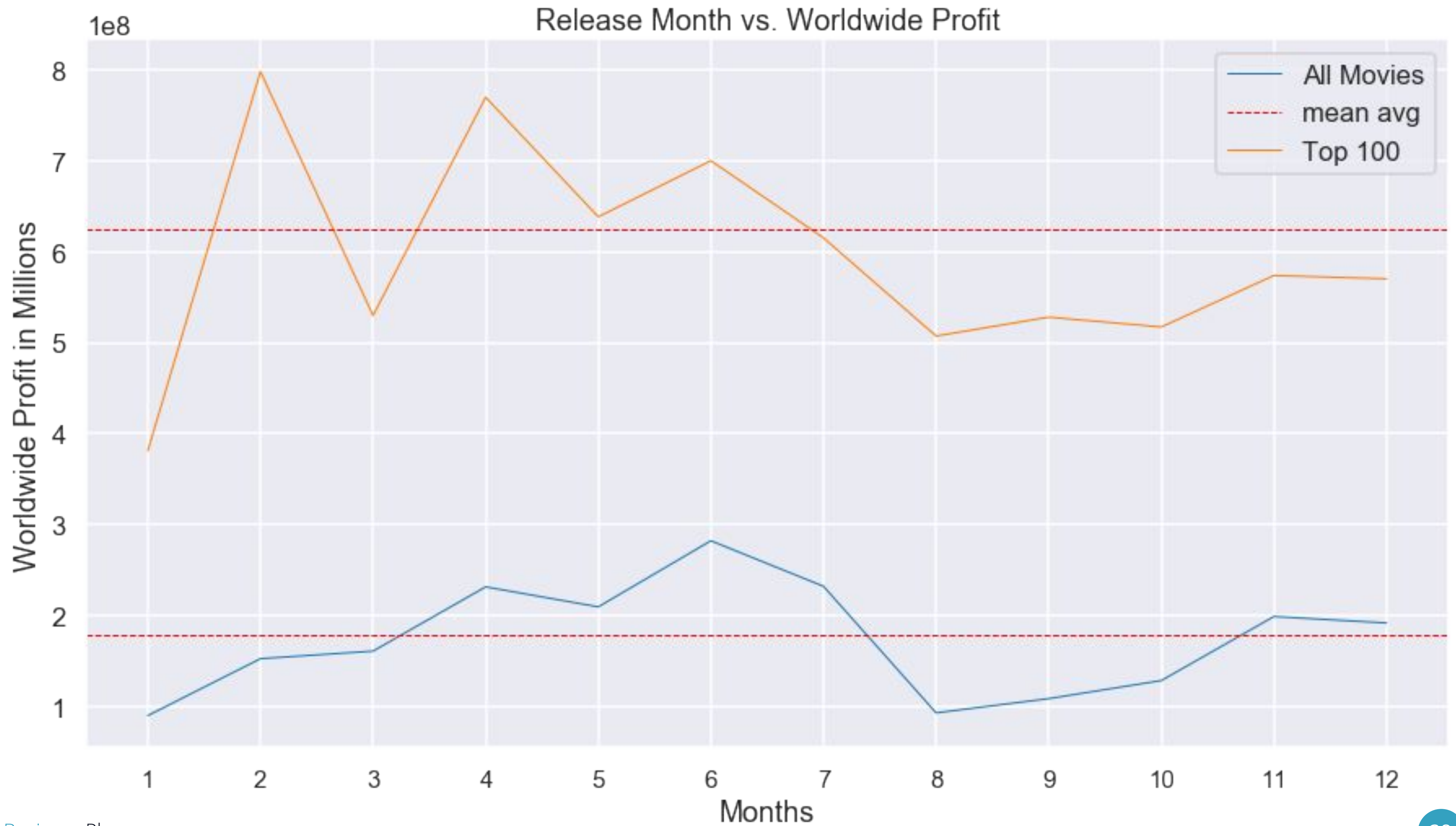


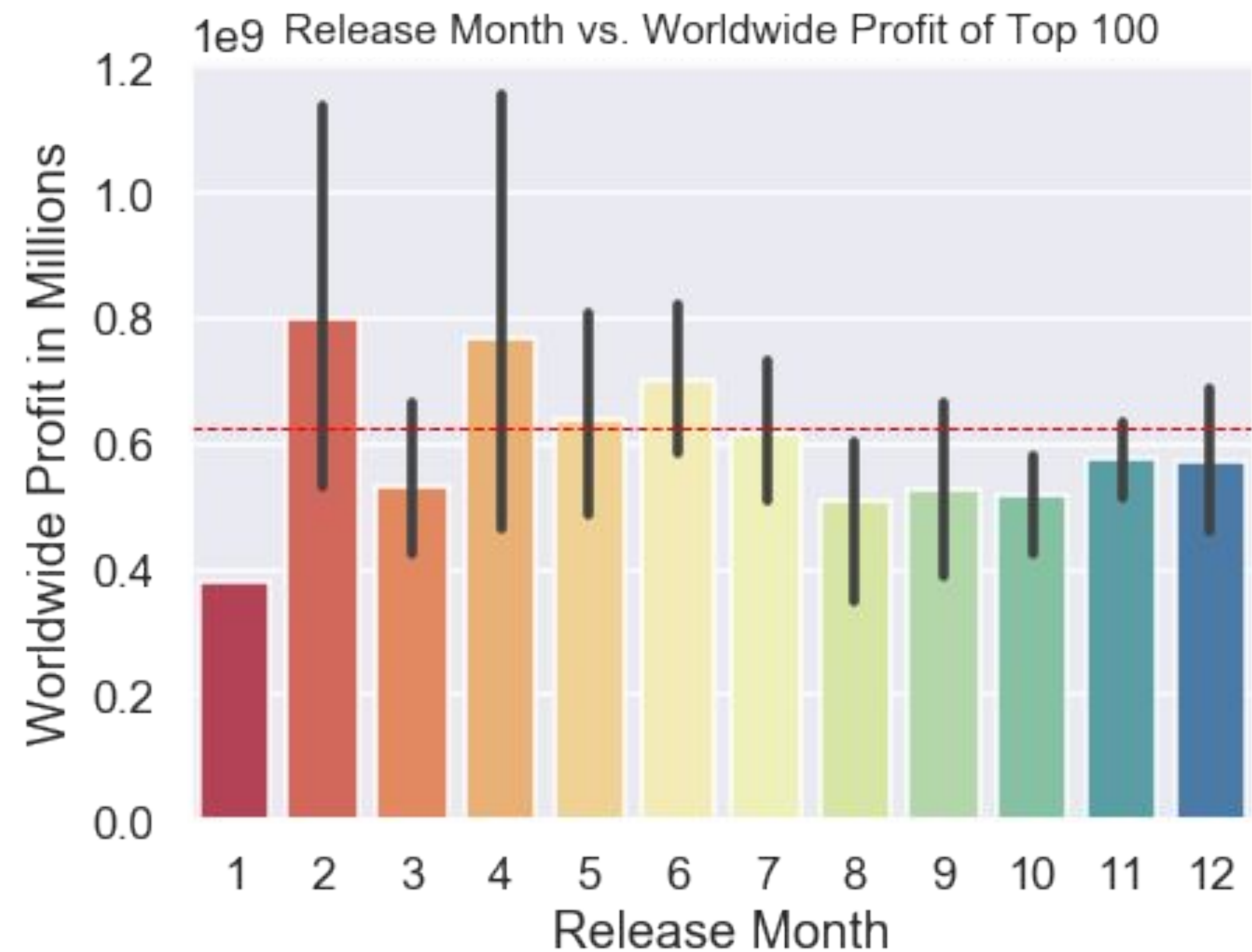
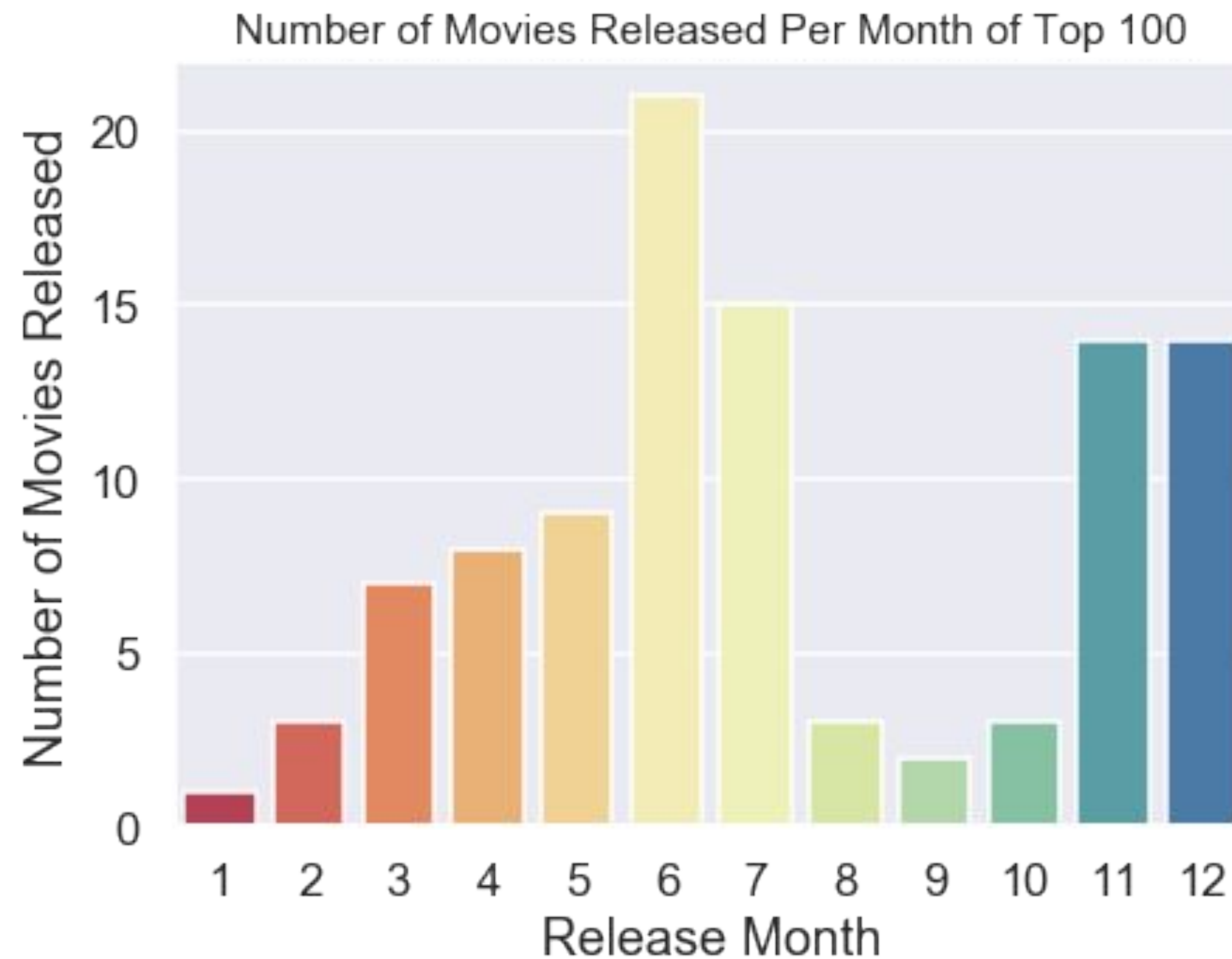




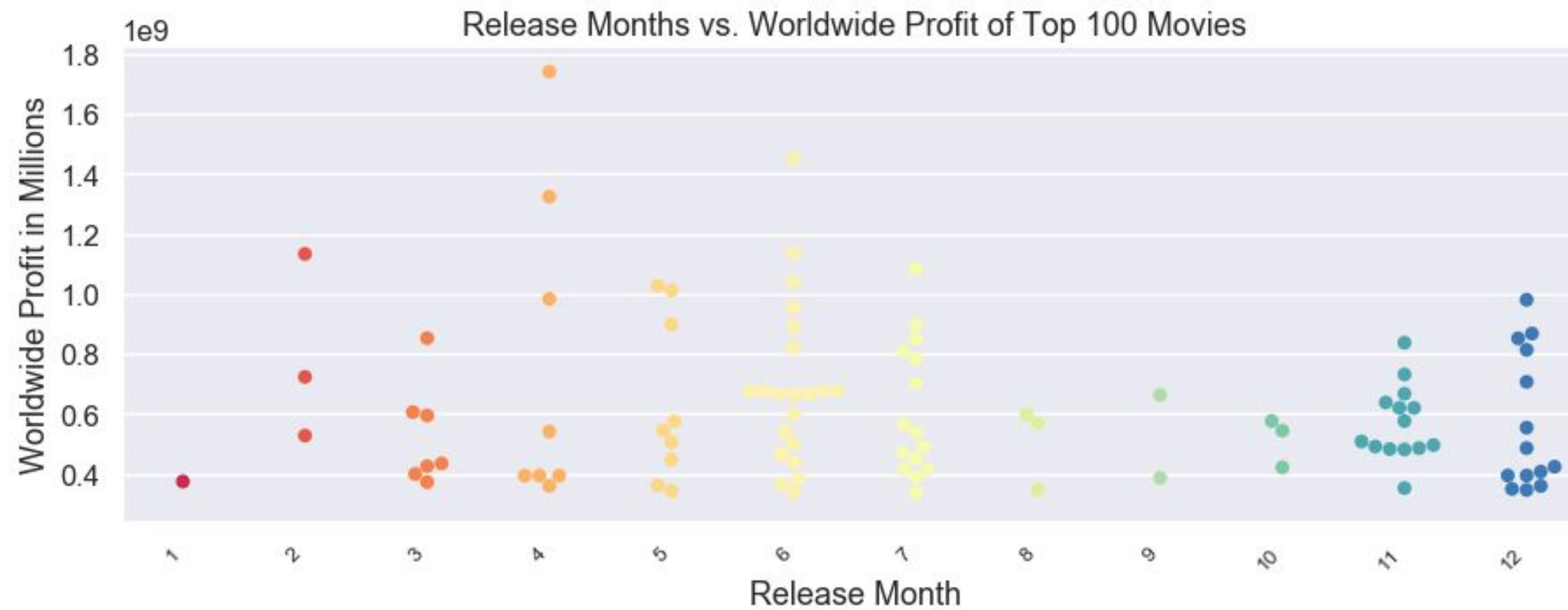
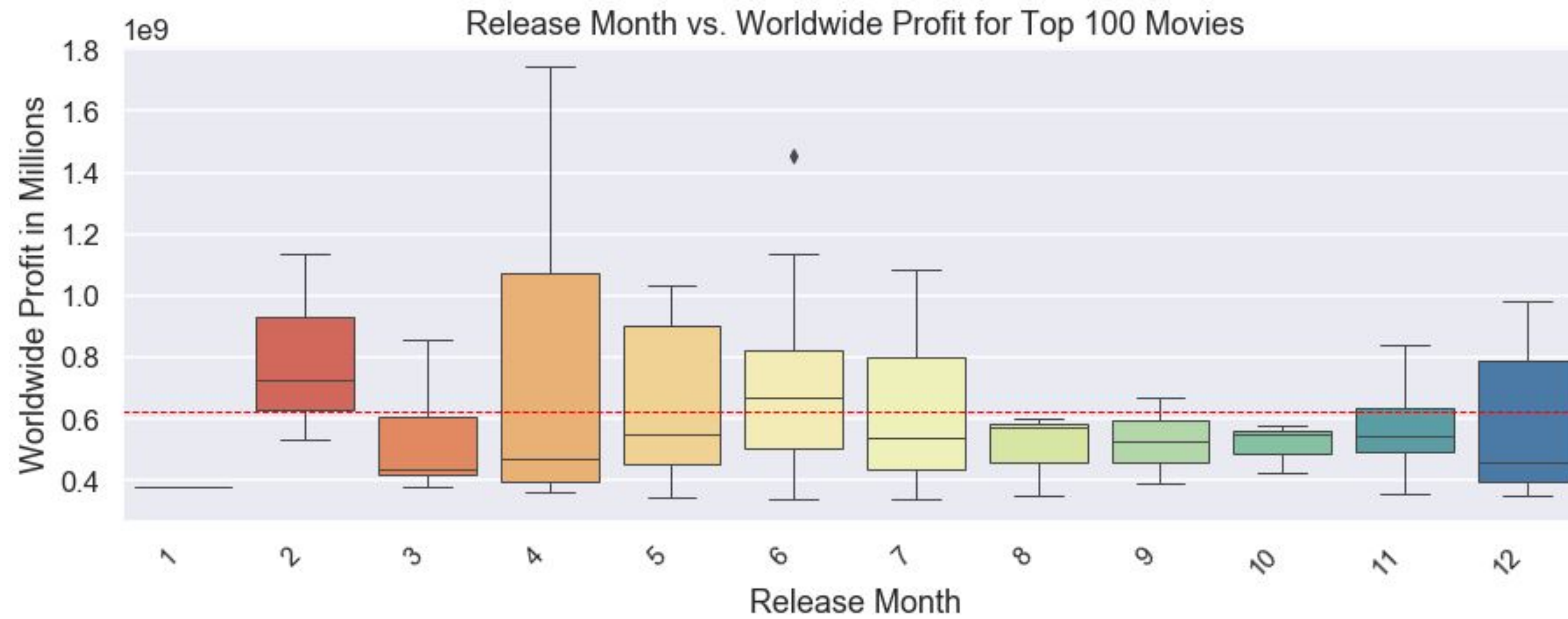


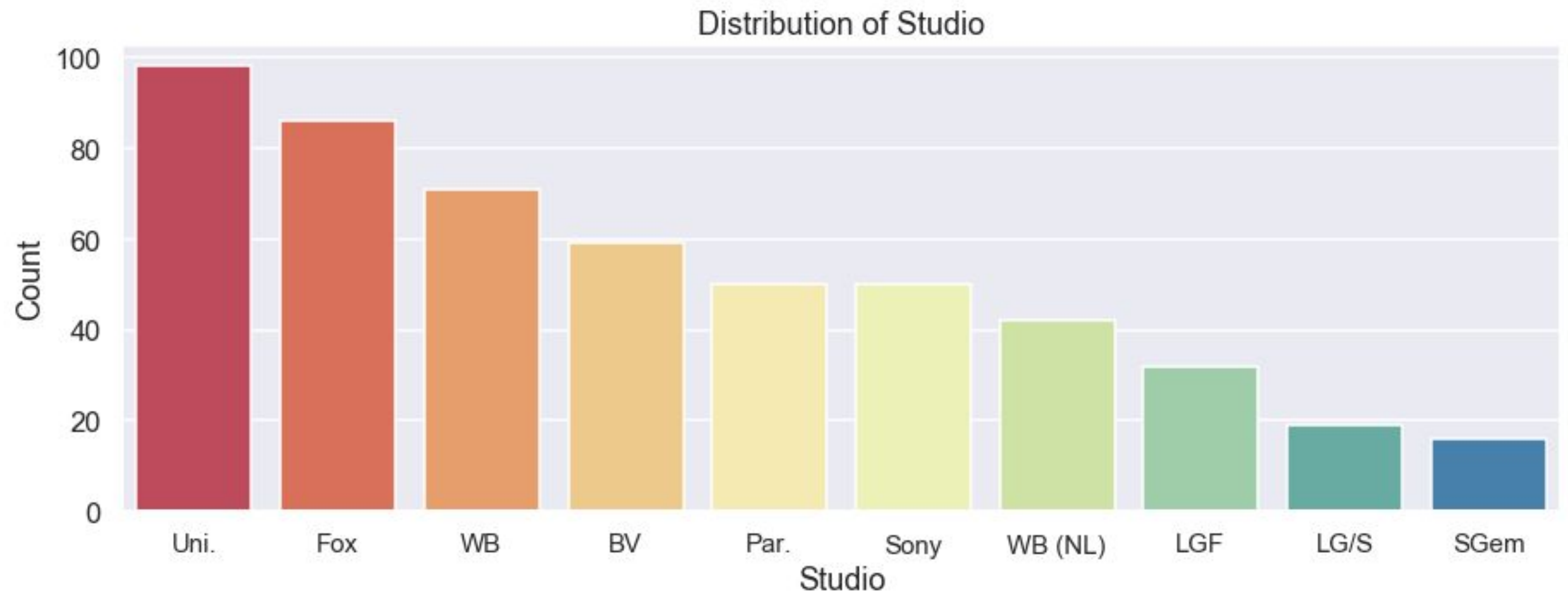


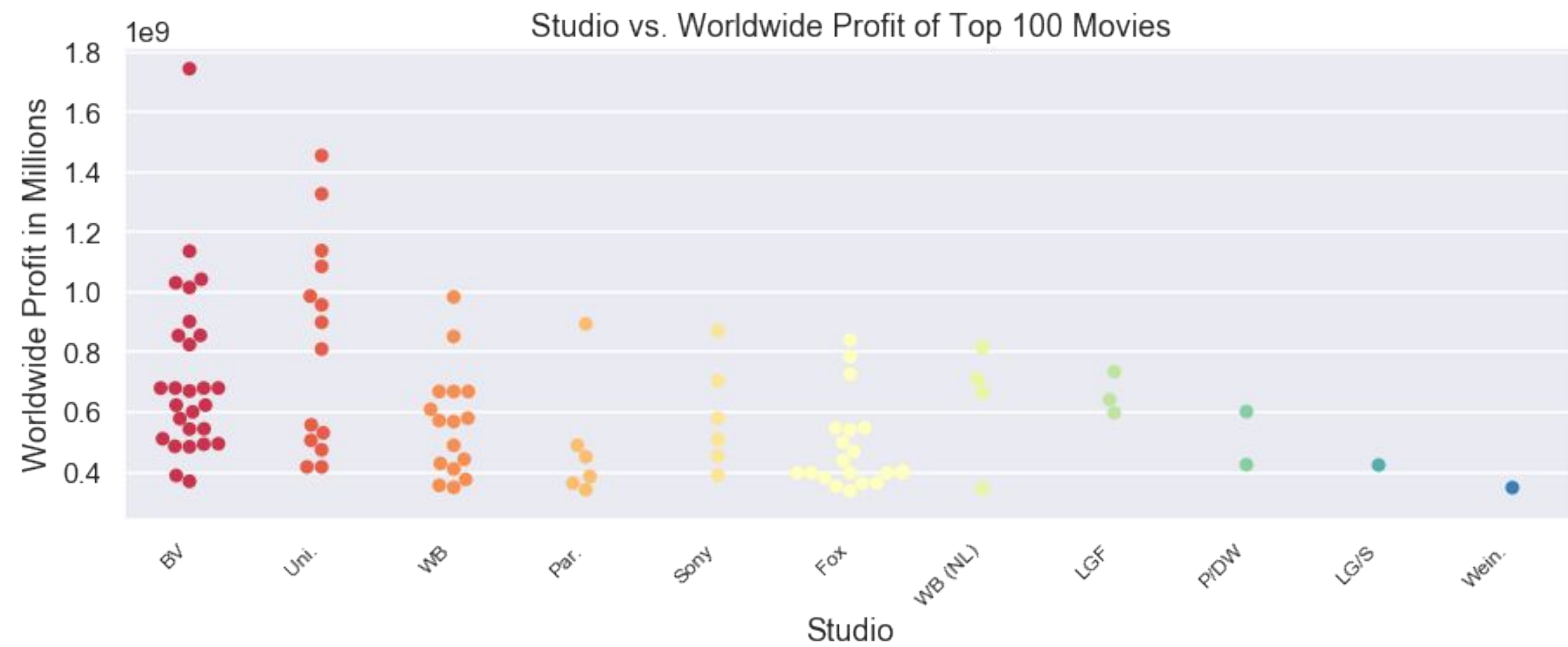
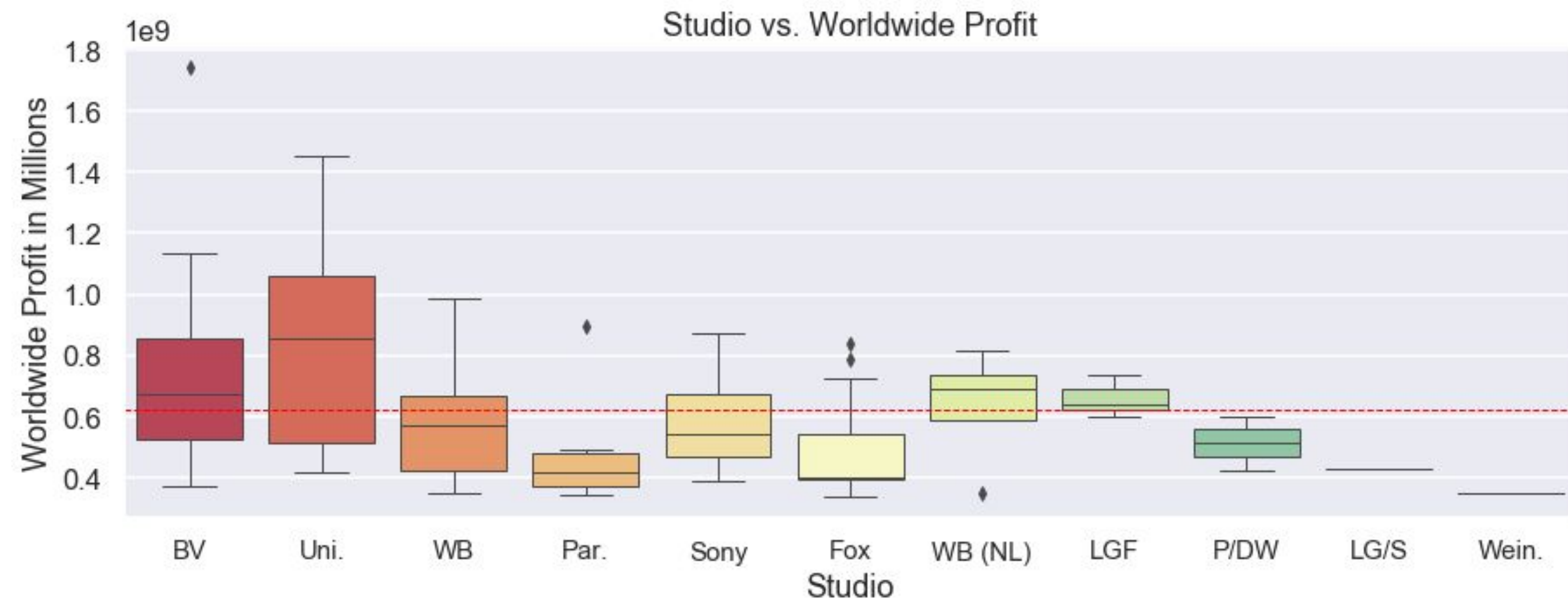


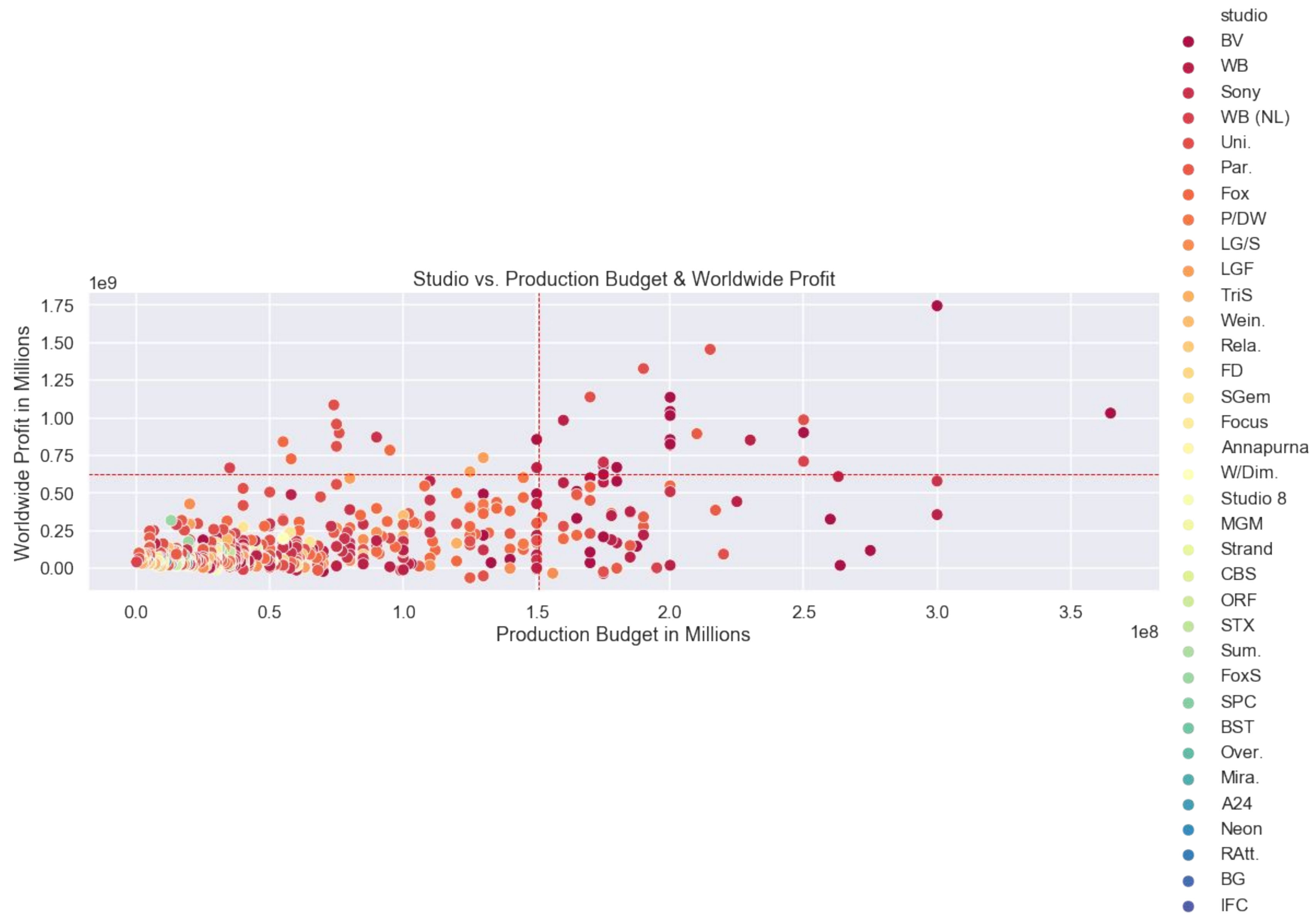


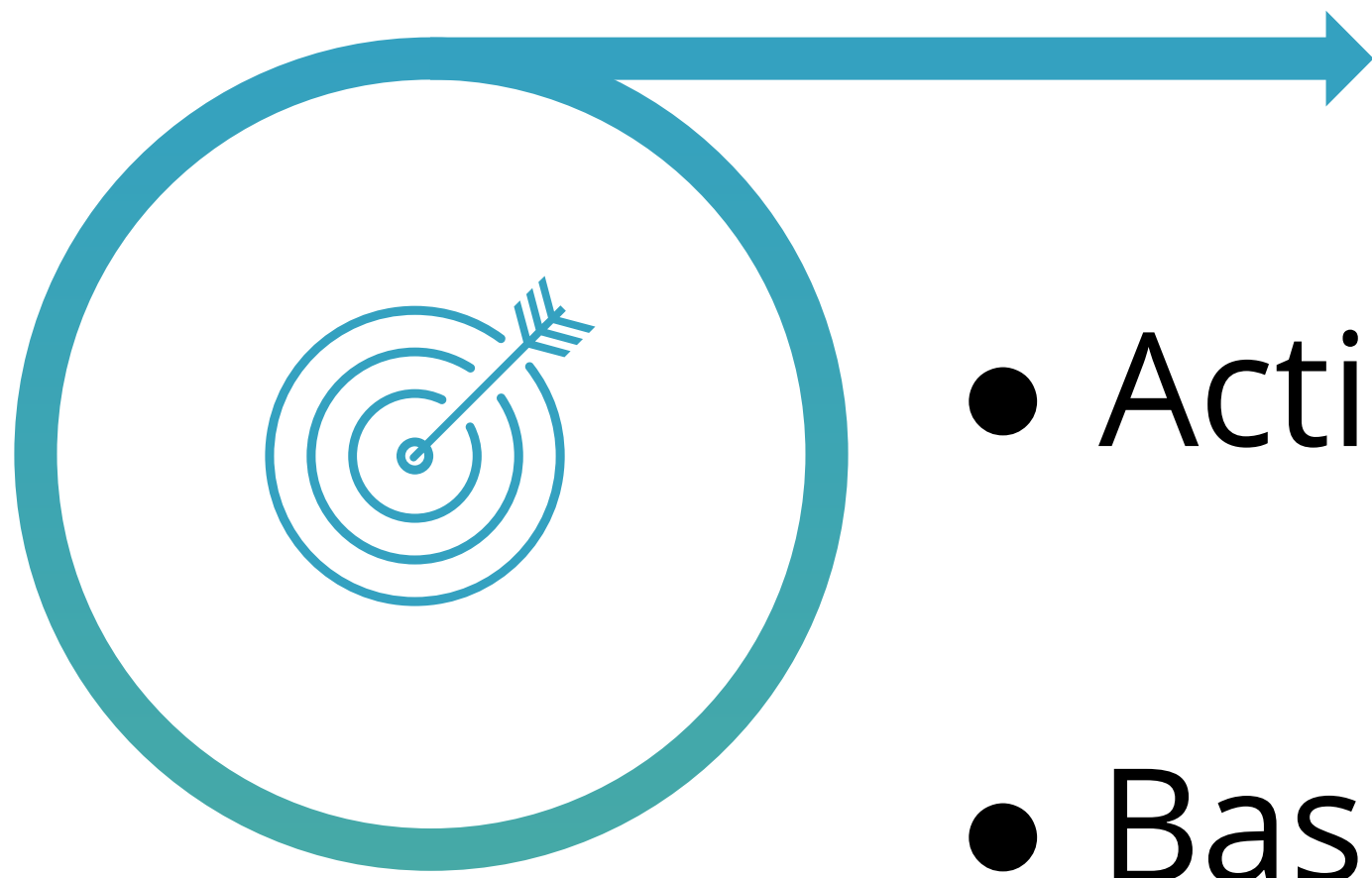
- Most release = June, December
- Most profit = February, April but not by much











Examples

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

