

Microsoft Movie Recommendations

**Rachel Beery with the Flatiron
Data Science Program**

Methods

- Data were gathered from IMDB, TMDB, and The Numbers
- Information about movie title, profit, domestic and worldwide gross, runtime, and IMDB user ratings was collected.



\$42.5B

2019 Global Box Office

46,504,883

Mean Budget

148,474,440

Mean Gross Profit

Recommendations



What genres
are the most
profitable?

Do movie
ratings
affect
profitability?

Does a movie's
runtime affect
profitability?

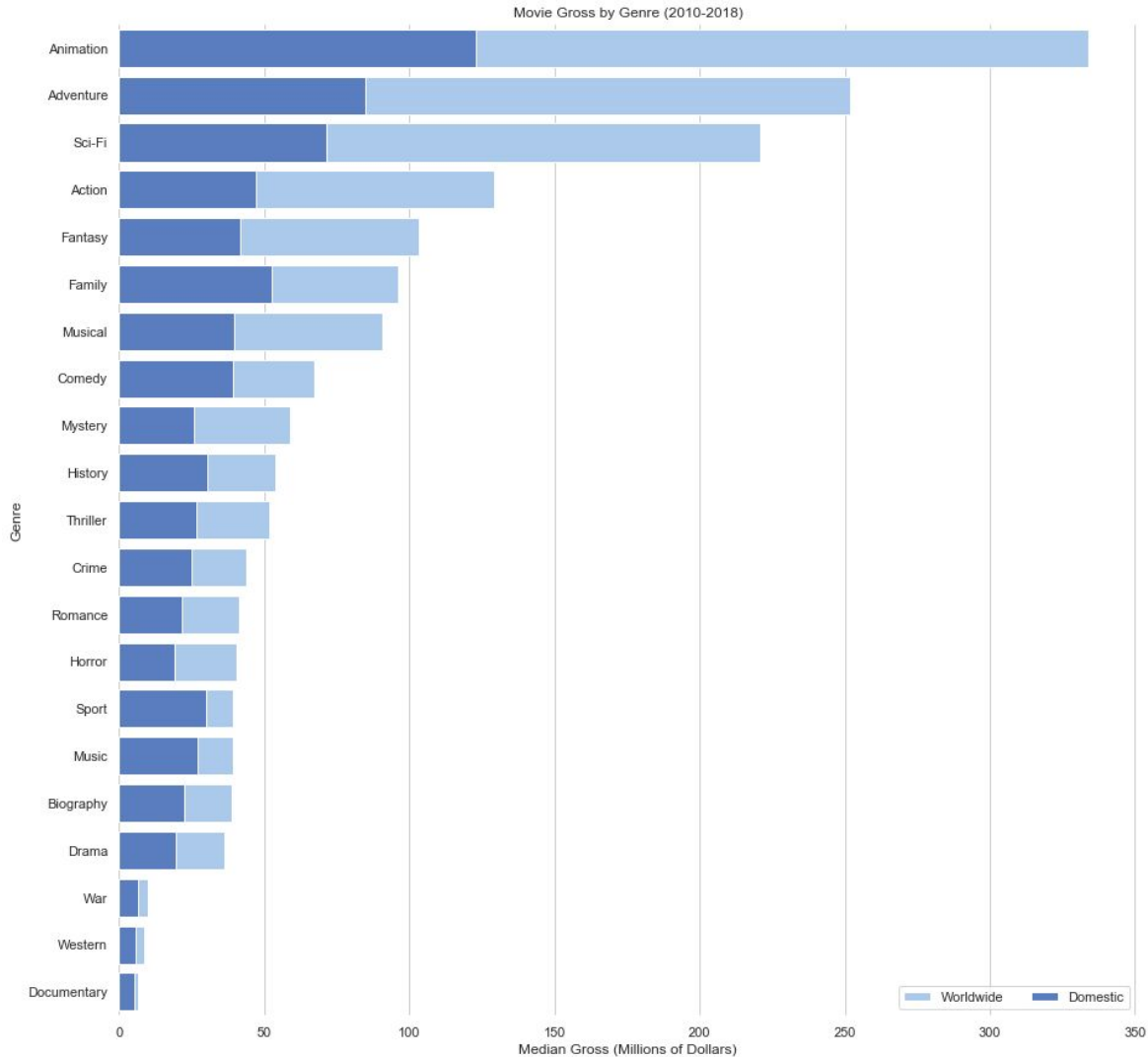


1

**What genres are the
most profitable?**

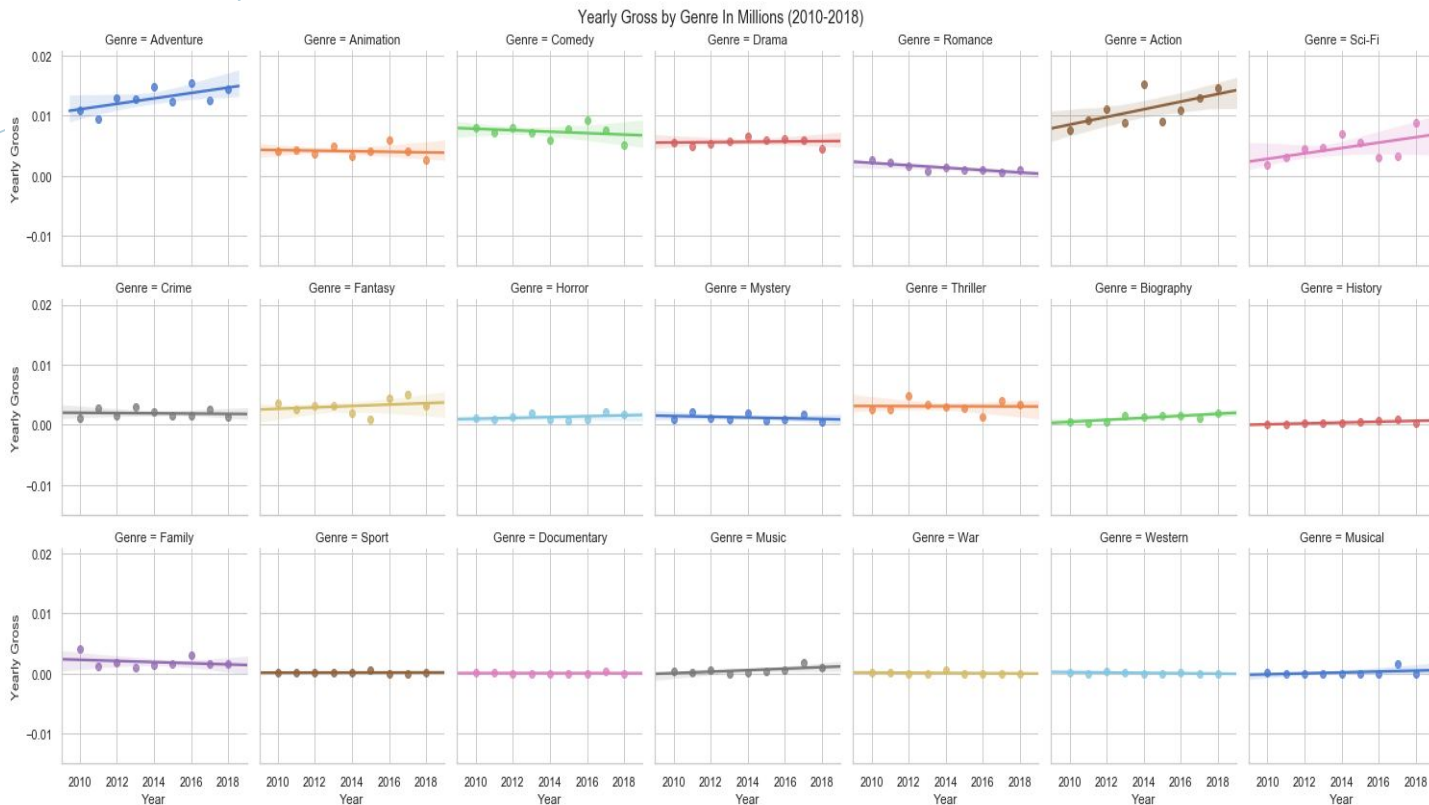
How much money has each genre made?

- Adventure and action are the most profitable genres domestically and internationally.
- I recommend focusing on action and adventure movies to make the majority of your profit.



The current highest grossing genres are on track to continue their profitability.

- I recommend making movies in these genres in order to maximize profits.



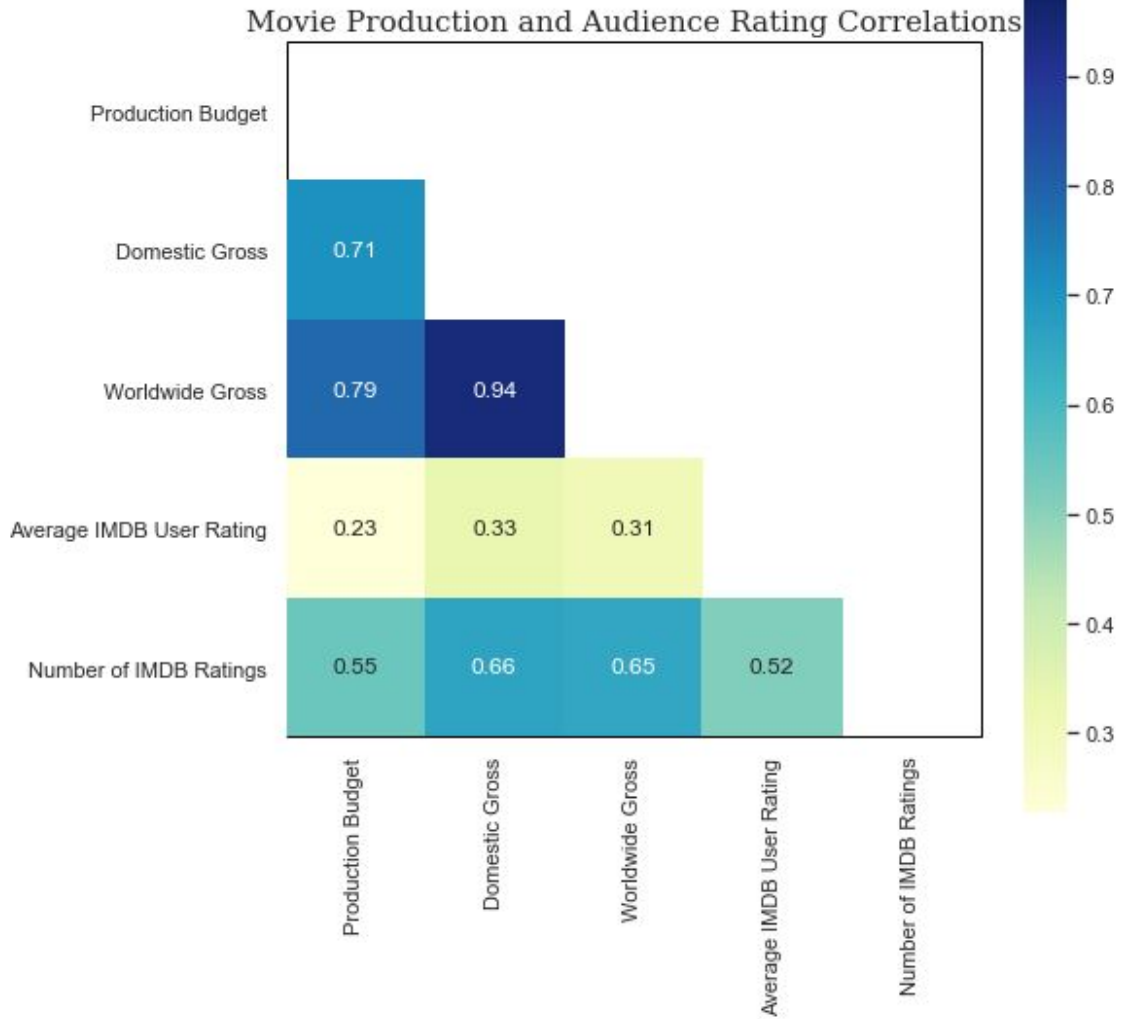


2

**Do movie ratings
affect profitability?**

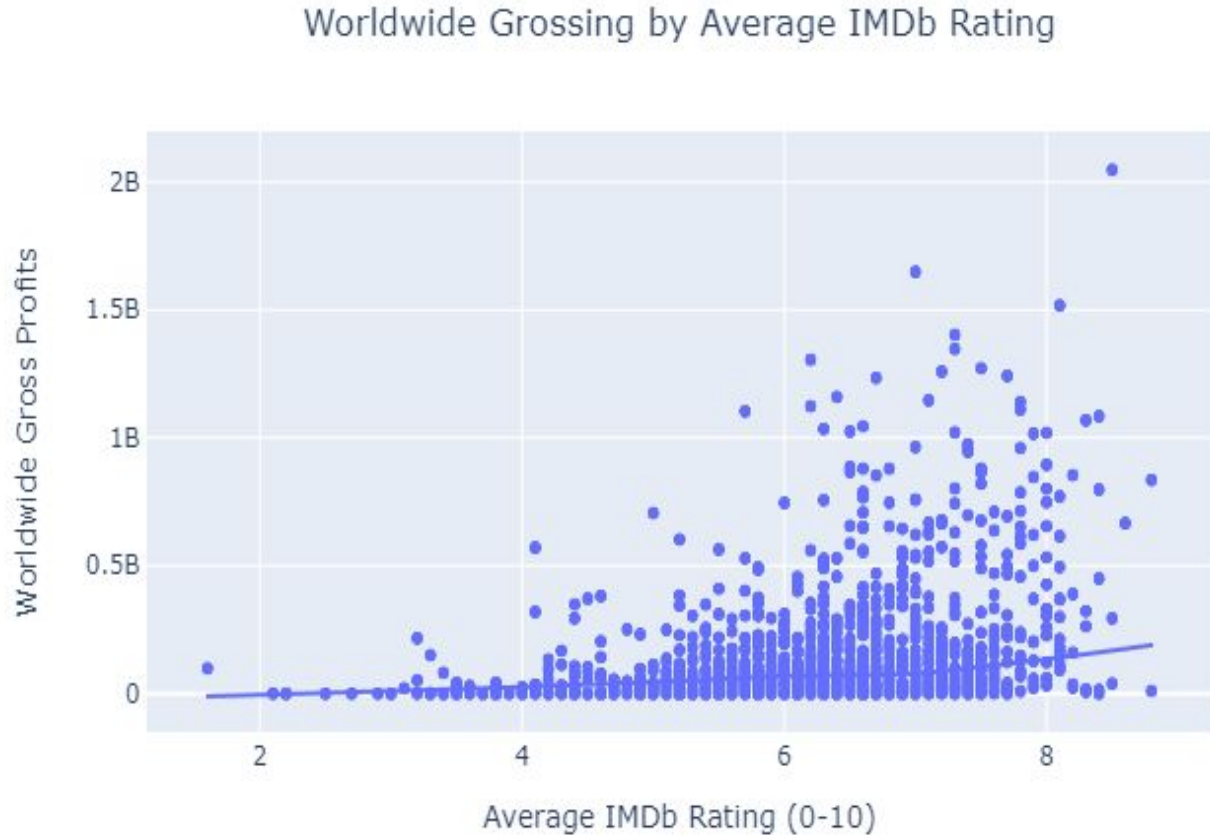
User Ratings (i.e. whether people think the movie is good) are not strongly related to profit or increased budget.

- I do not recommend using subjective user ratings, which consist of a small portion of moviegoers, to make decisions.



Overall ratings of movies do not have a significant effect on profit

- This supports not basing movie-making choices on online ratings





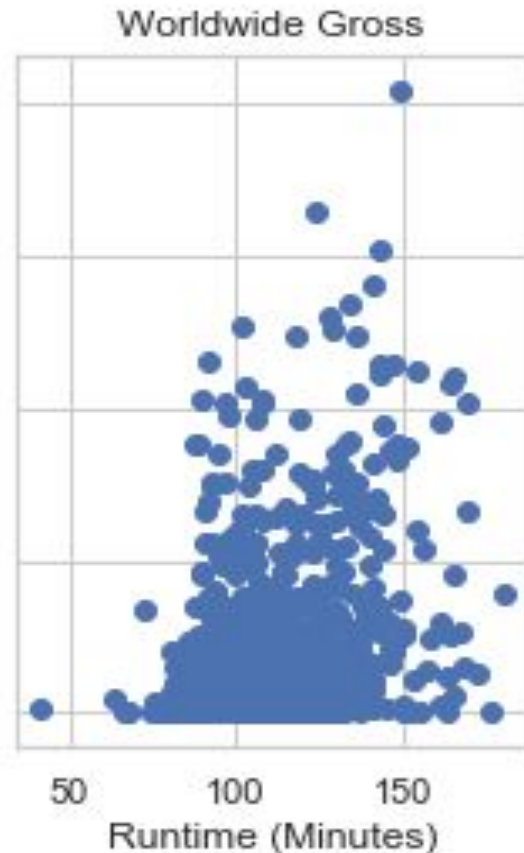
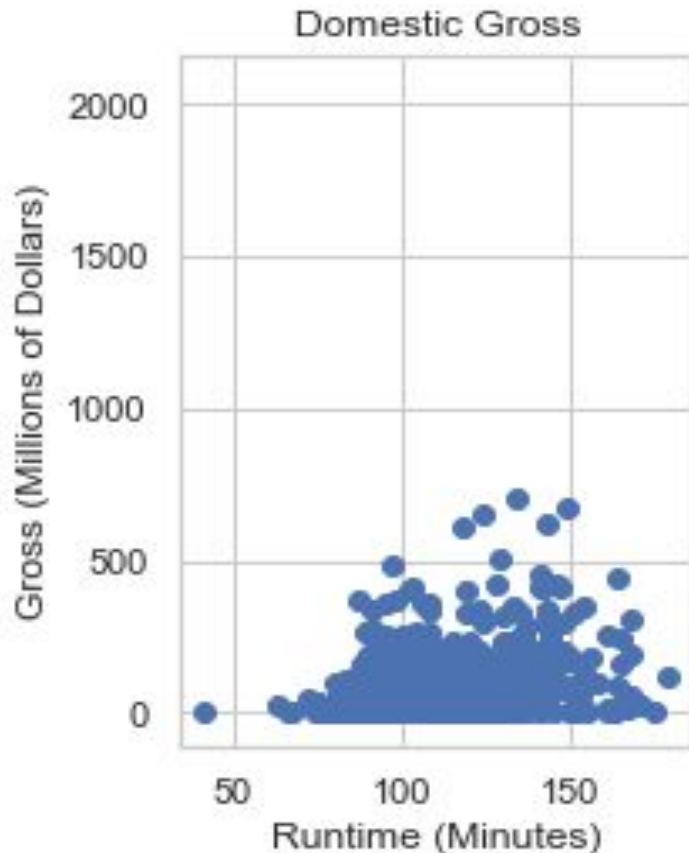
3

**Does a movie's
runtime affect
profitability?**

As long as a movie is more than 75 minutes long, length does not seem to impact profit.

- I recommend only considering length when making a movie to ensure that it is more than 75 minutes long.

Gross by Runtime




Conclusion

- Making action and/or adventure movies increases the likelihood of making large profits. However multiple other genres are also continuing to bring in impressive box offices.
- Online rating systems such as IMDB do not accurately reflect the viability of a movie.
- Once runtime hits approximately 75 minutes, it is not an important predictor of profit.

Future Work

14



Franchises are an integral part of the movie industry's profit. What attributes do successful franchises share?

Which audiences prefer what types of movies? Does this differ between domestic and international moviegoers?

What story attributes beyond genre are related to higher movie profitability?



Thanks!

Credits



Special thanks to all the people who made and released these awesome resources for free:

- Presentation template by [SlidesCarnival](#)
- Photographs by [Unsplash](#)

Special thanks also to Charlotte Basch, my partner in this project.

-



Appendix

How many movies of each genre are getting made?

