

Box Office Analysis for Film Production

entry points into the commerical film production sector



Summary

Identify the genres of film that will be most profitable for initial film production initiatives.

Analysis is based upon movie ratings databases (IMDB) and box office data (Box Office Mojo, The Numbers).

Recommendations are to:

- Focus heavily on Drama and Comedy films (popular, most profitable, best ROI)
- Focus production on mid-sized budget films
- Focus production on films with longer run times

Outline

- Business Problem
- Data
- Methods
- Results
- Conclusions



Business Problem

Identify the types of movies that offer the most profit for initial production runs.

Gain a clear understanding of the relevant variables (genre popularity, yearly trends, profit, ROI).

Data

data sets: Internet Movie Database - IMDB (genre, ratings)
[+73k movies from 2010 - 2019]

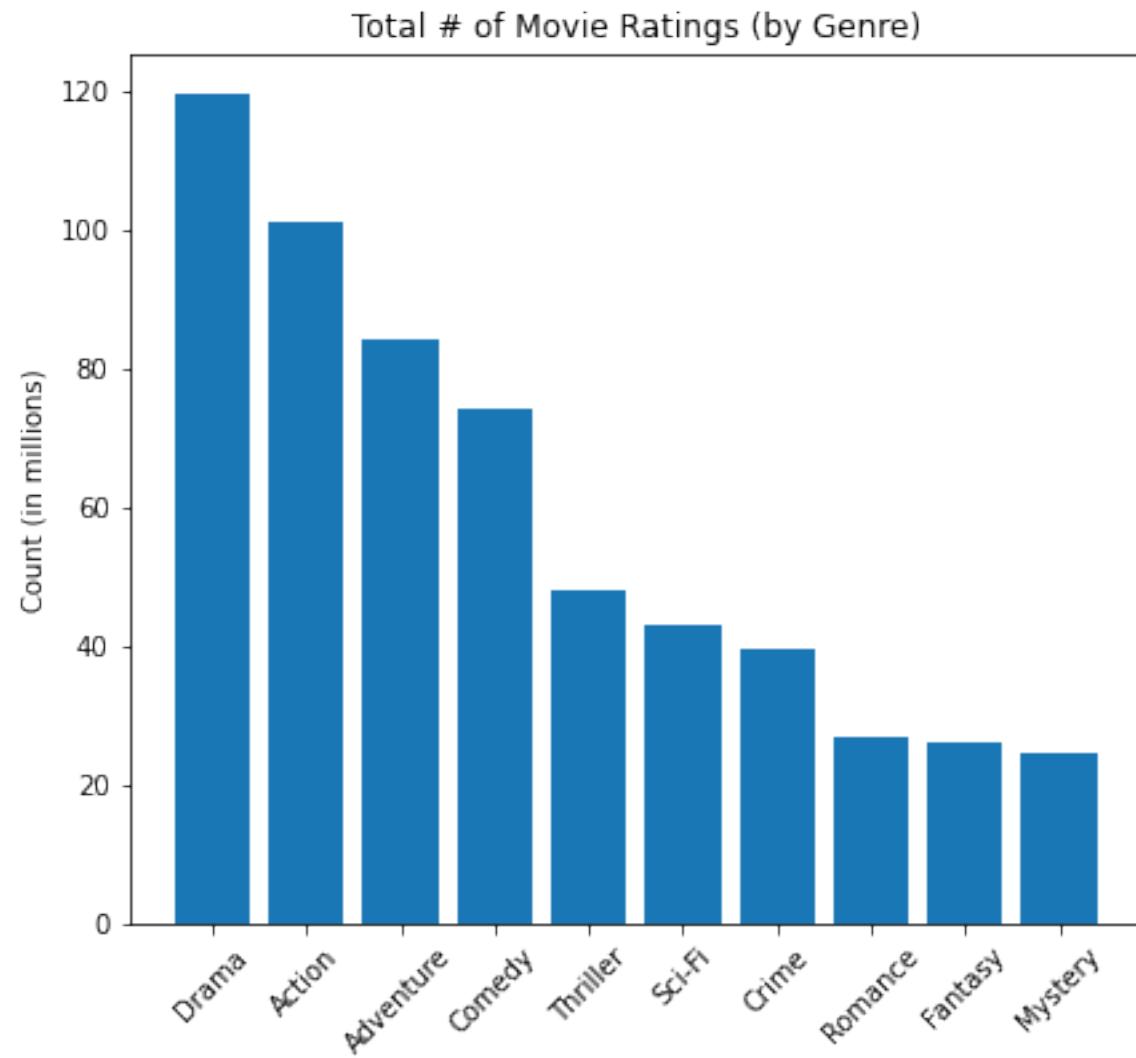
Box Office Mojo, The Numbers (budget, revenue)
[3661 films, 700 with sufficient data for ROI]

entries: each entry is one film

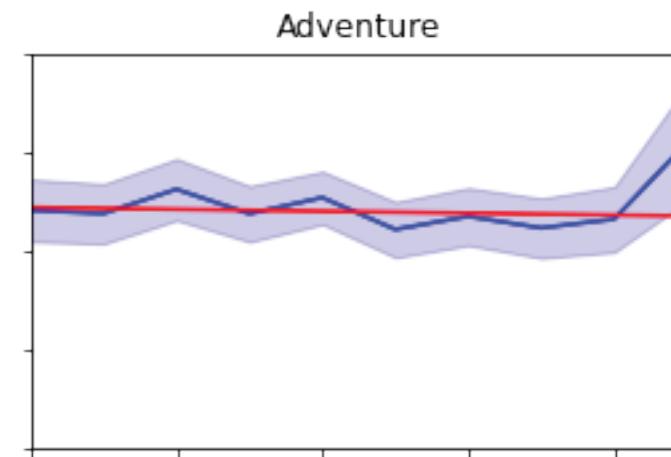
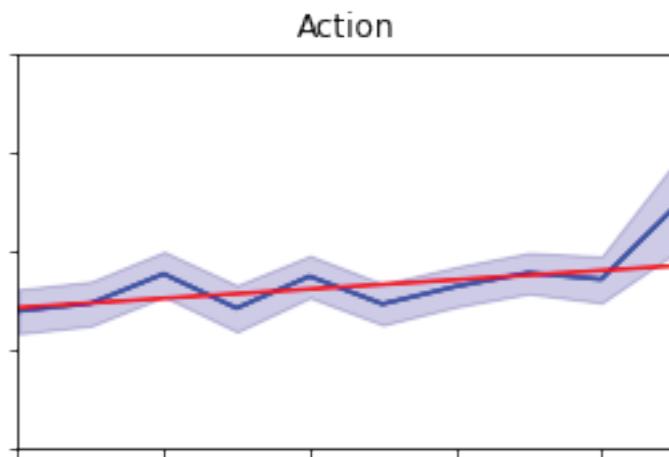
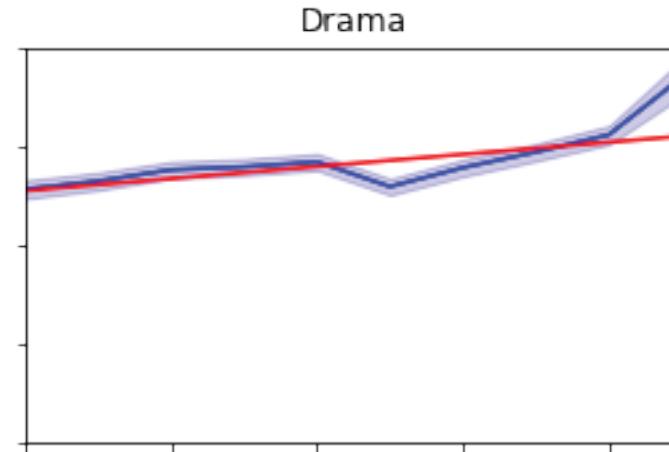
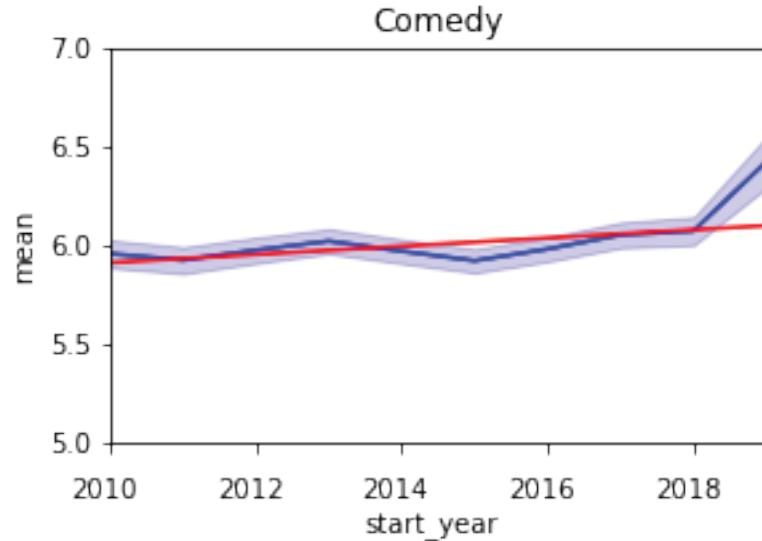
methods: SQL, pandas, statsmodels, summary statistics

target variables: genre, ratings, domestic profits, ROI

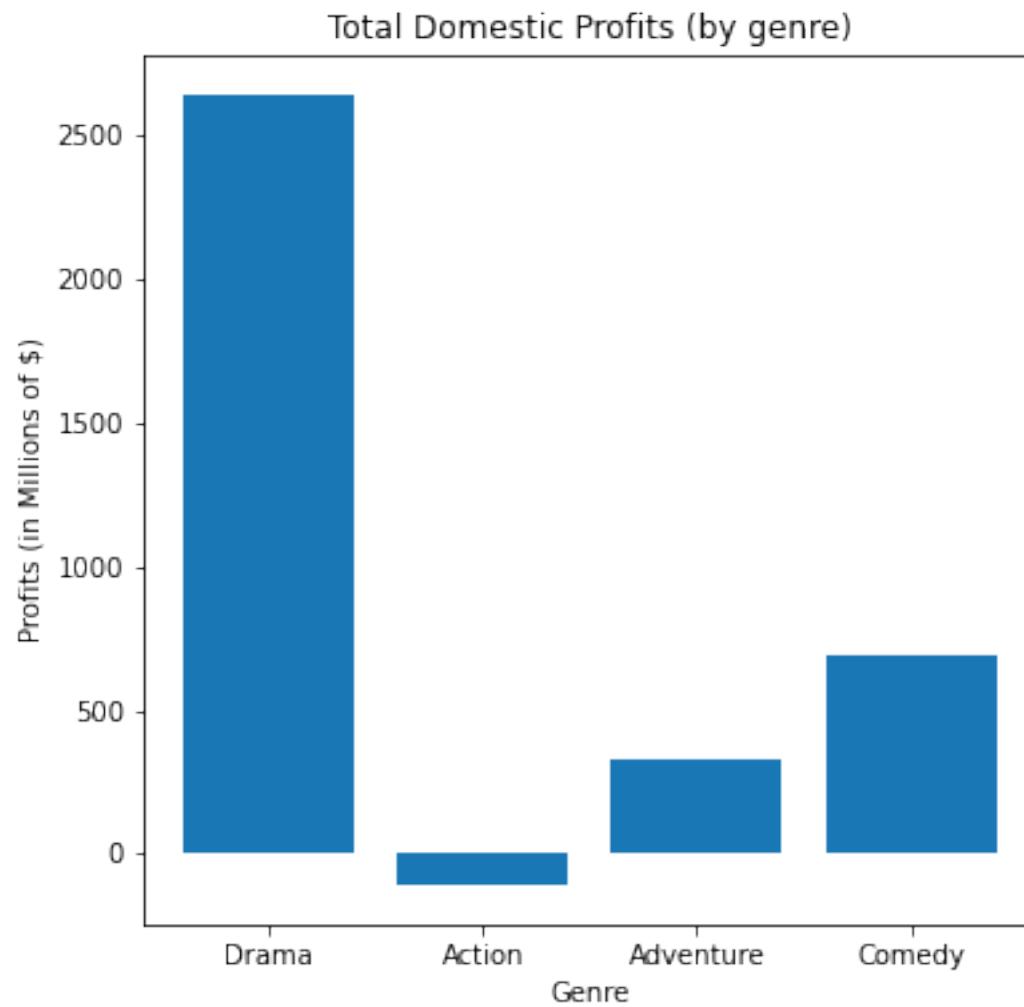
Drama, Action, Adventure, Comedy films are most popular (by number of ratings)



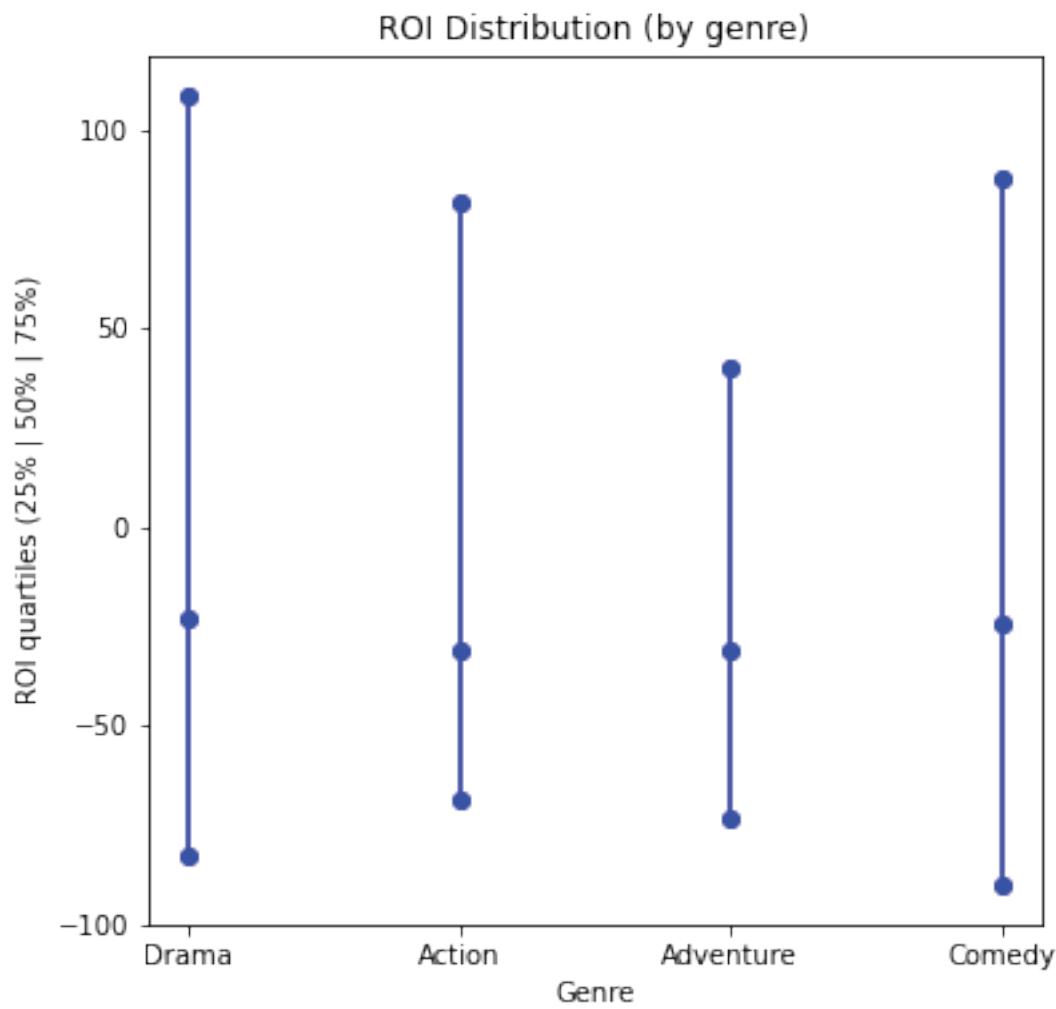
Comedy & Drama have high ratings, trending upward



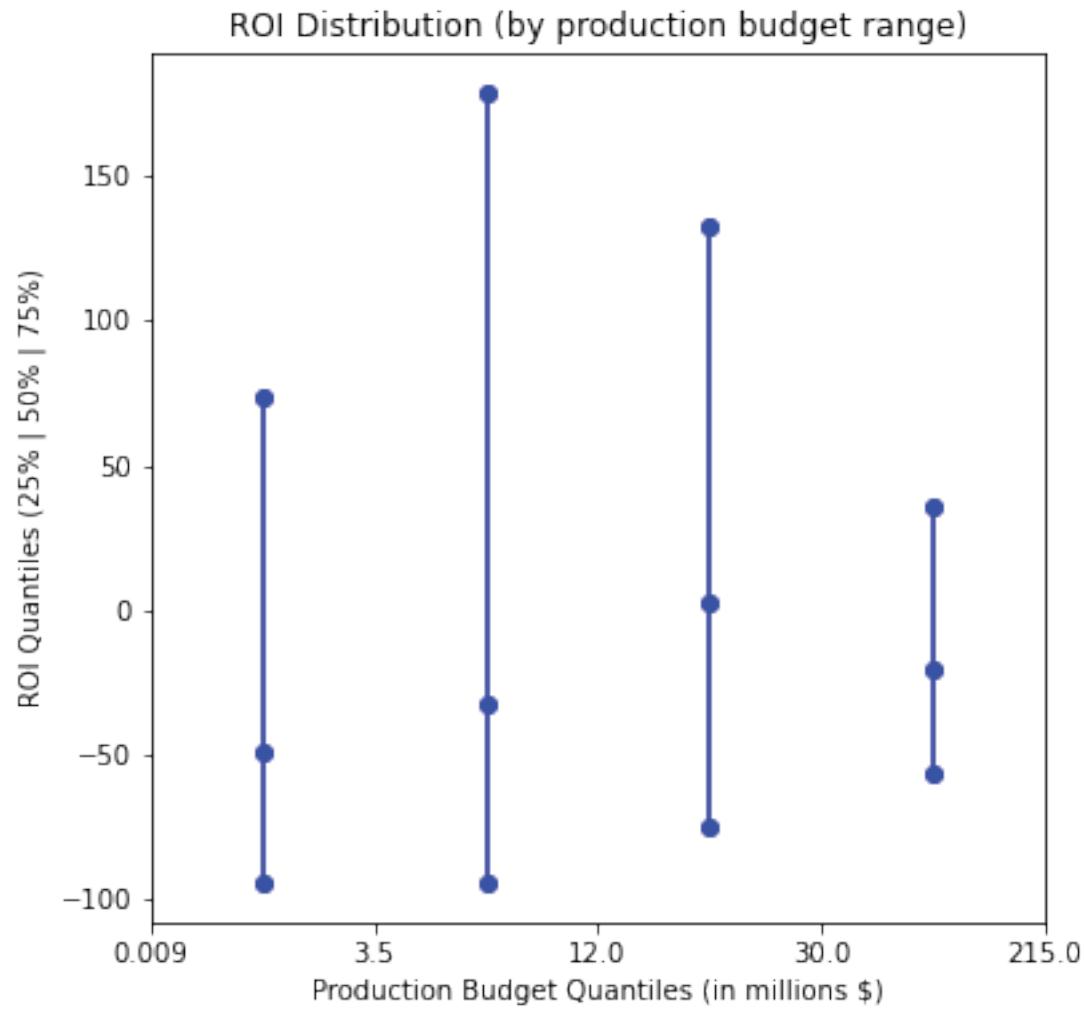
Comedy and Drama films yield largest domestic profits



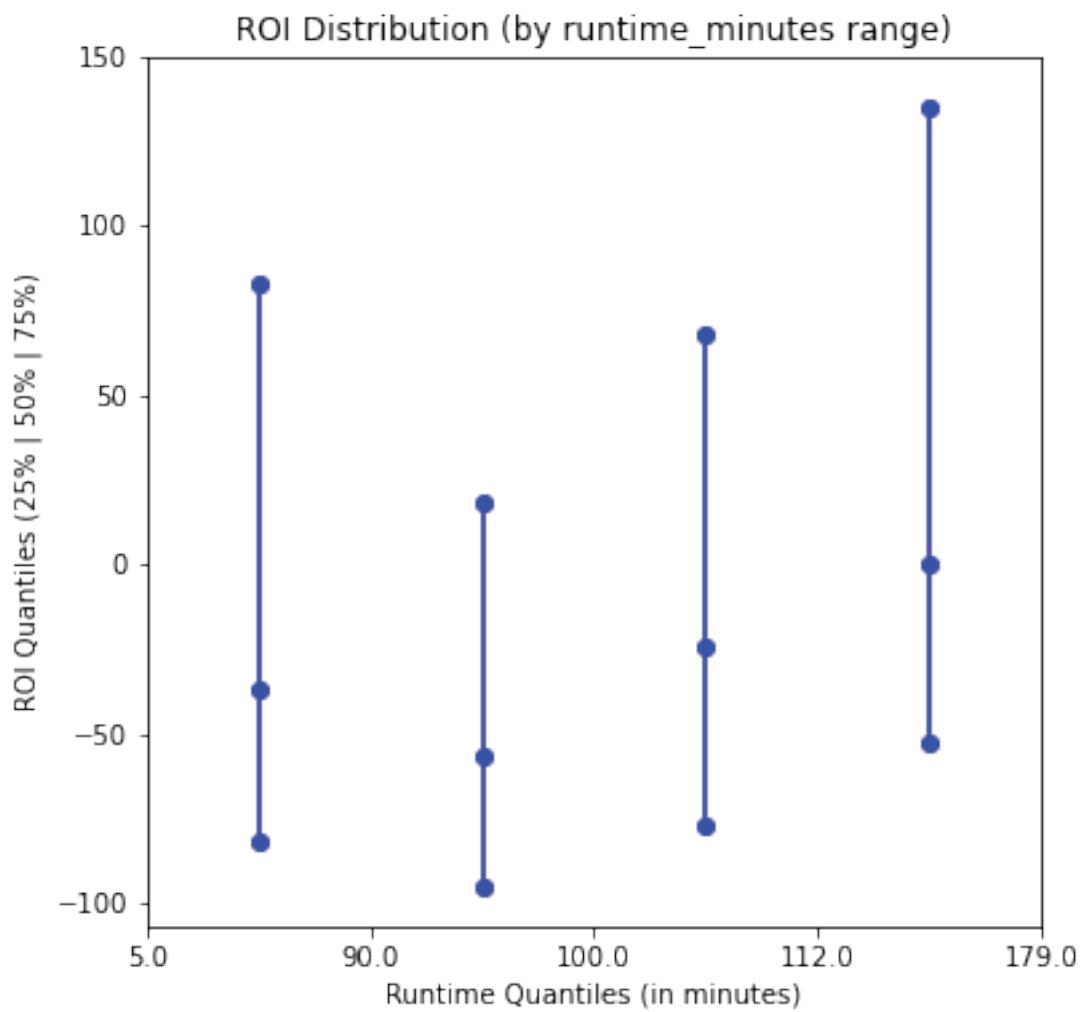
Higher ROI distributions for Comedy, Drama films



Mid-sized budget films yield higher ROIs



Films with longer run times have higher ROIs



Conclusions

For first films slated for production, the company should focus on:

- The most popular genres, particularly Comedy and Drama (best rating trends, profit, ROIs)
- Focus on mid-sized budget films in the range of \$3.5 - 30 M
- Focus on films with run times > 100 min (best ROI)

Future Steps



We might ask:

- Best movie release times
- Identify key role players (producer, director, actors)

Thanks for your attention.



Christopher Henry

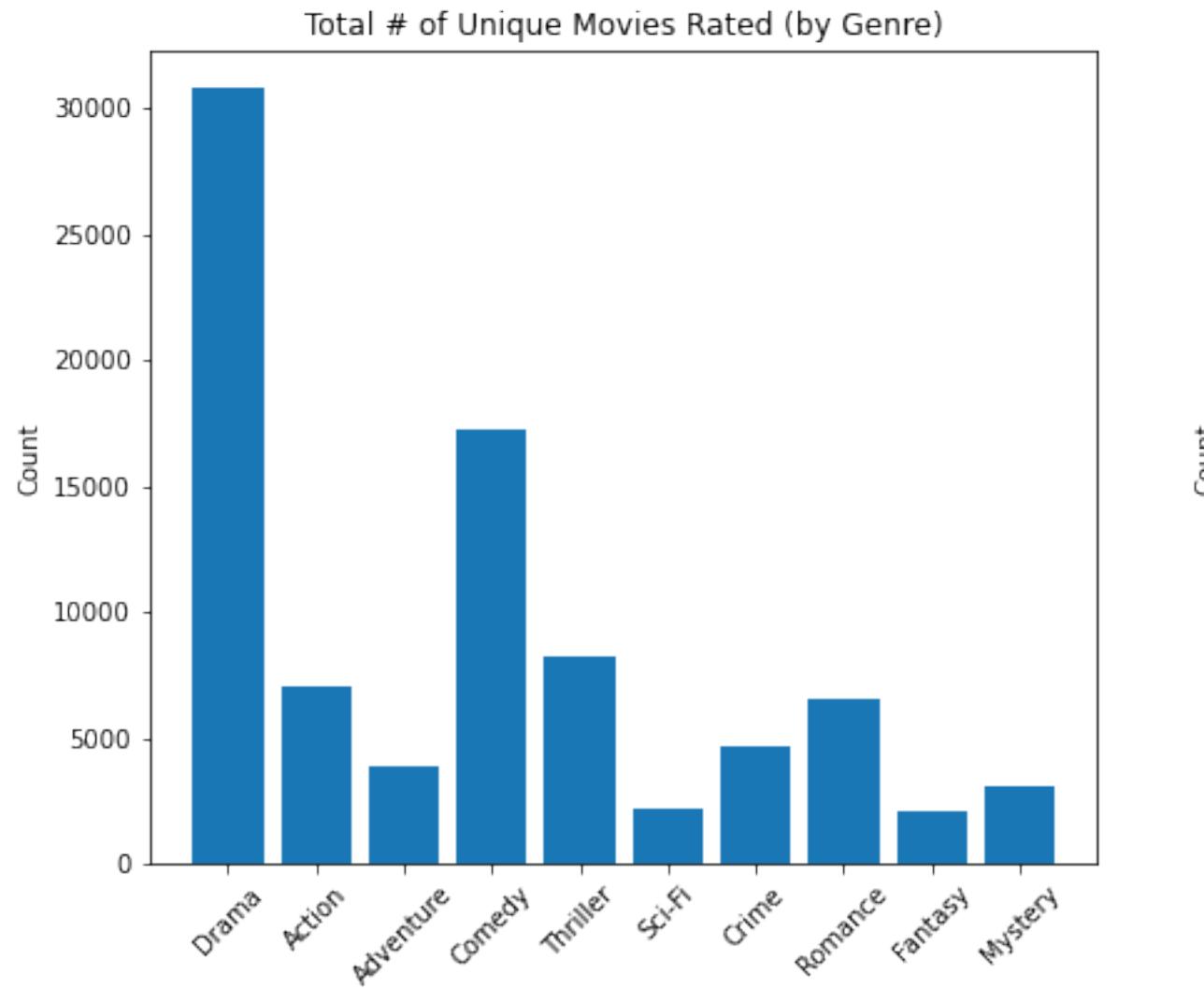
Email: chenrynyc@gmail.com

GitHub: @christopheraaronhenry

LinkedIn: <https://www.linkedin.com/in/christopher-a-henry/>

Supplemental Analyses:

Drama and Comedy are genres with most movie releases



Total sum production budgets comparable across genres

