

Initial Genre Recommendations for Microsoft

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Background

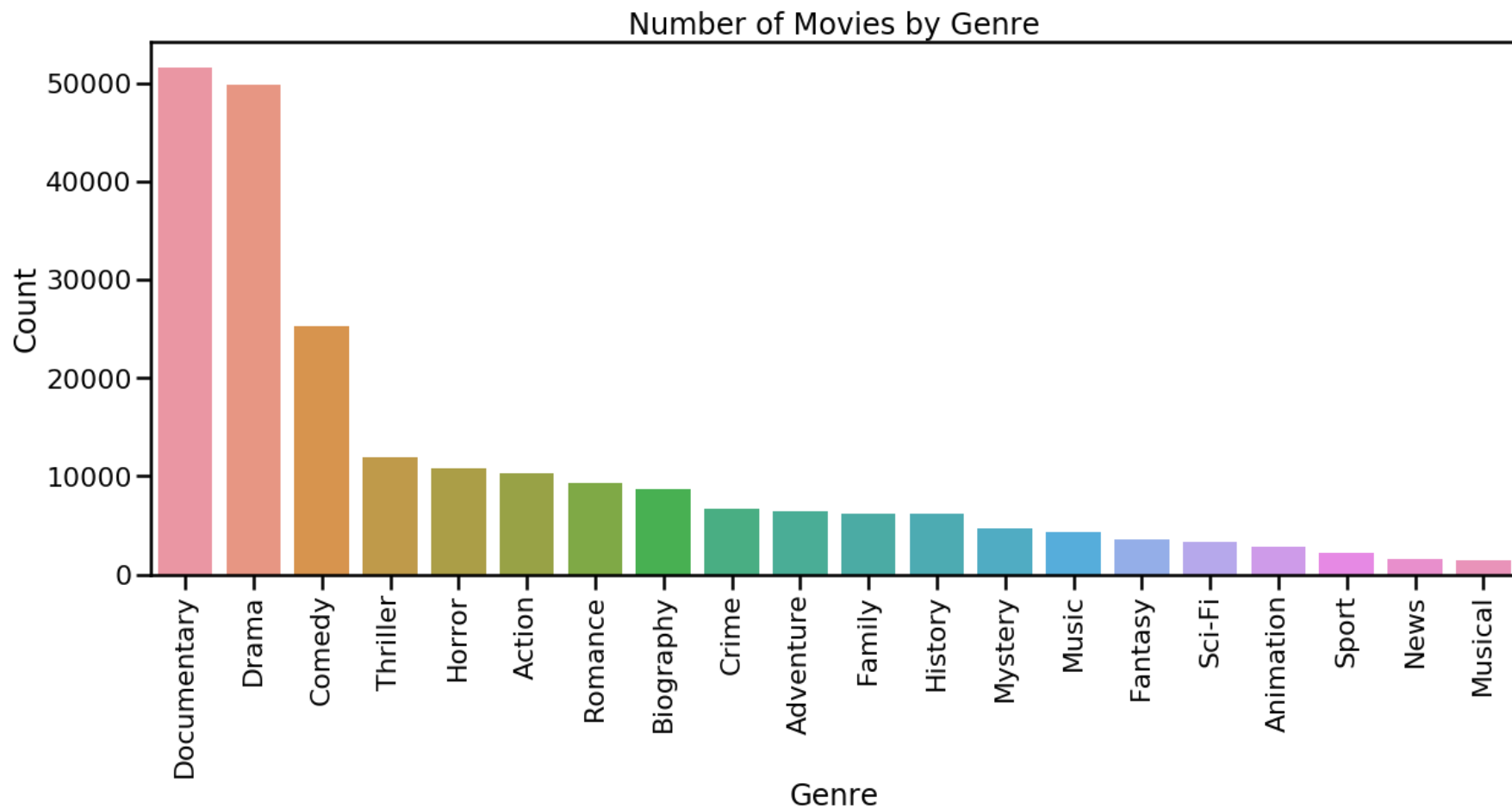
- Microsoft has decided to create a new movie studio
- They don't know anything about creating movies
- They have hired you to help them better understand the movie industry and explore what type of films are currently doing the best at the box office

Considerations & Questions

- When considering what genre to produce, it's important to ask:
 - What genre has the highest ROI?
 - What genre has a reasonable production cost?
 - What genre has the highest ratings?
- Starting out, it's important to produce a movie as inexpensively as possible in a genre with a solid ROI that's popular

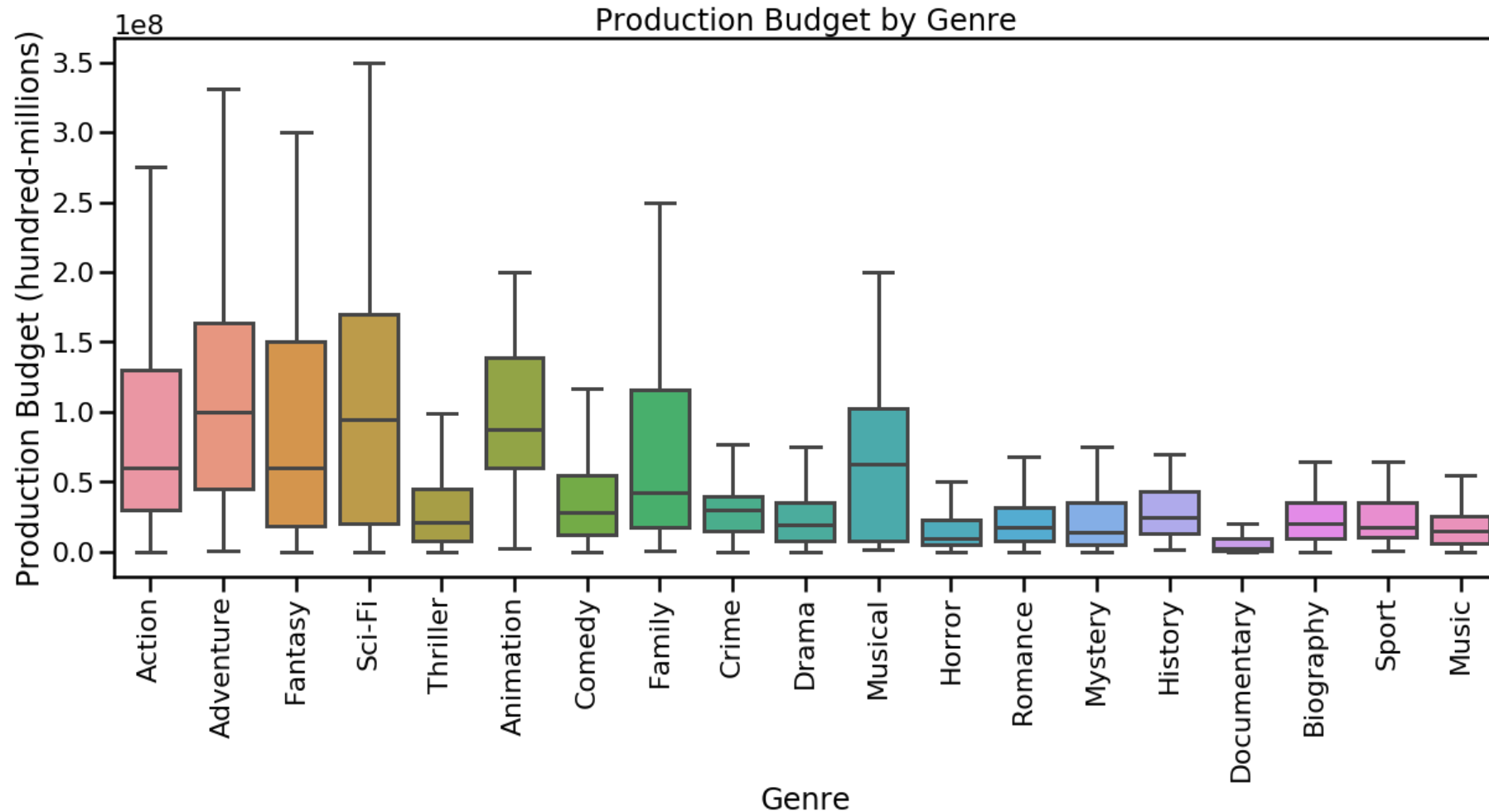
Initial Exploration

- Universe of movies: 146,144 worldwide, according to IMDB
- Vast majority are either a documentary or drama, with a steep drop-off after that



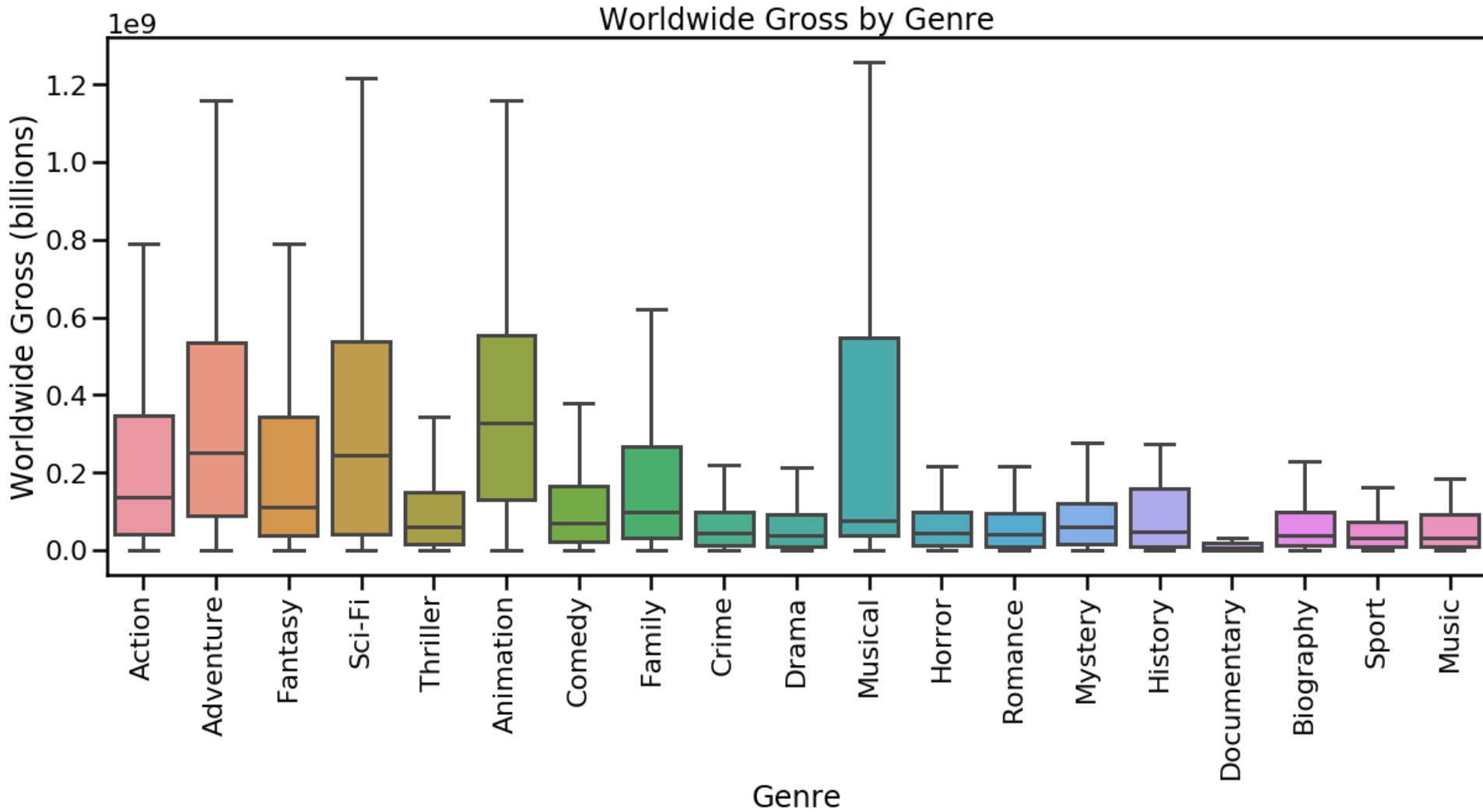
Production Costs

- The top 3 median production budgets are Adventure, Sci-Fi, and Animation, respectively
- The median production cost for Adventure films, for example, is \$100 million



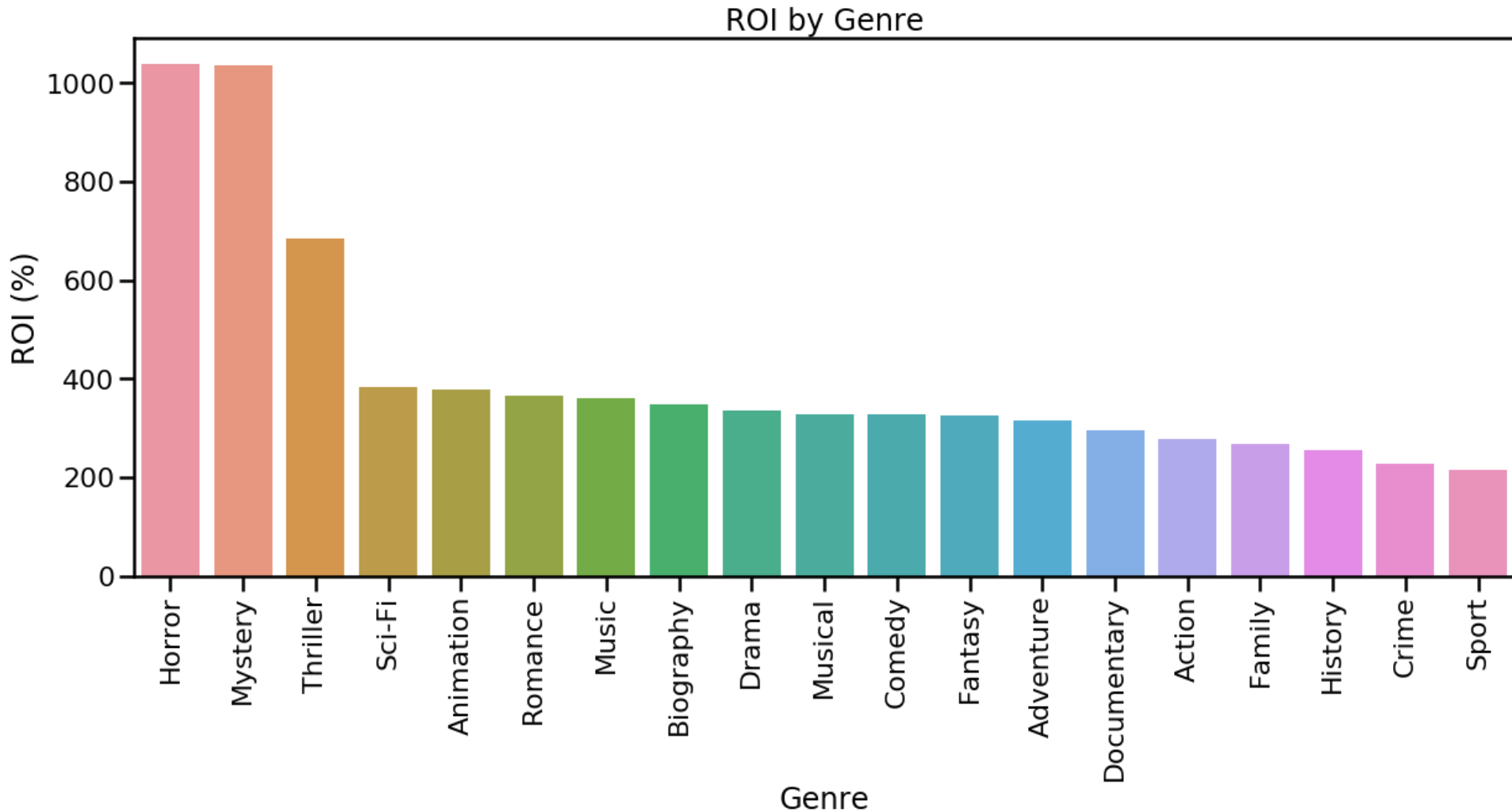
Worldwide Gross

- Similarly, the top 3 highest grossing genres are Animation, Adventure, and Sci-Fi, respectively
- Animation has the highest median worldwide gross of ~\$327 million



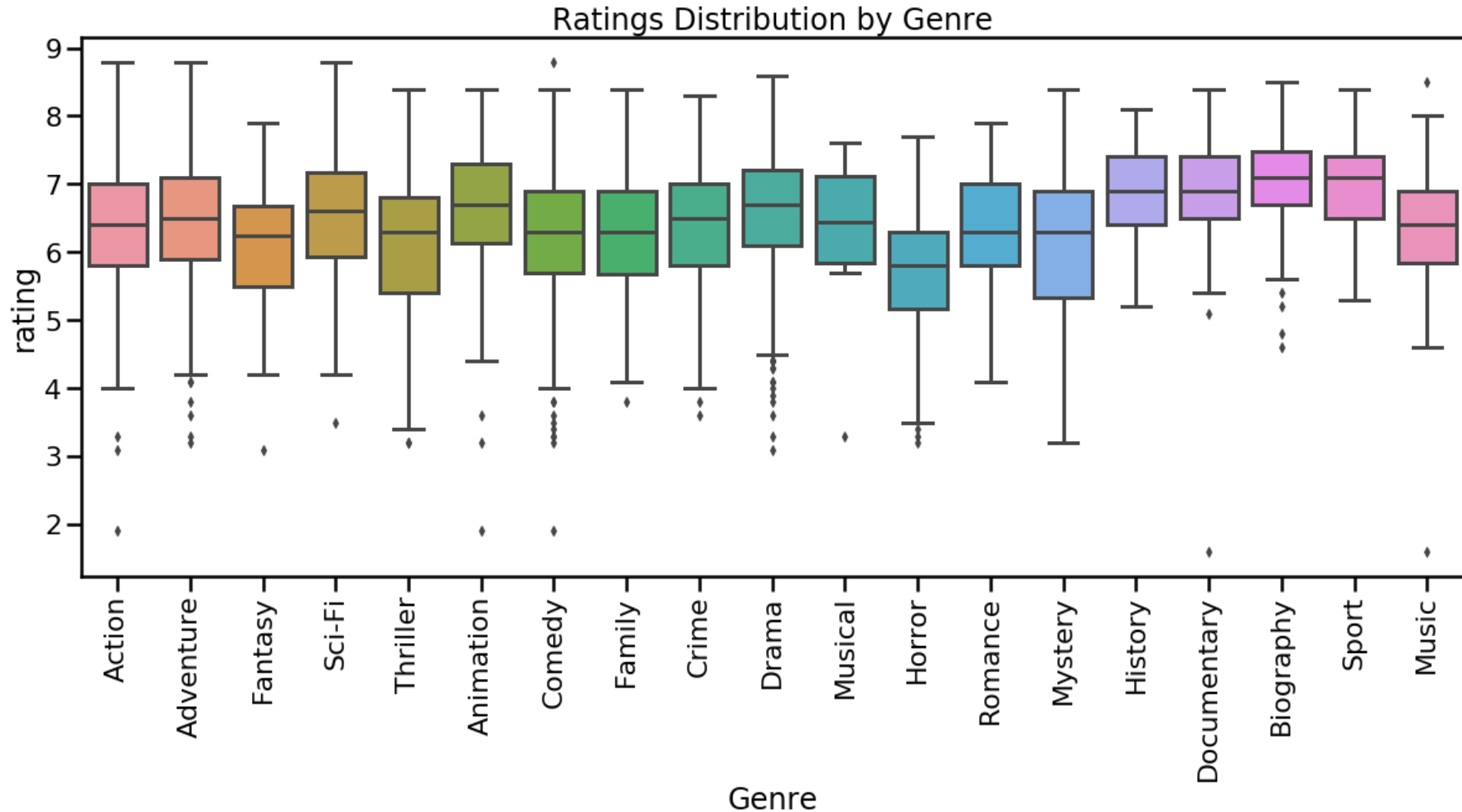
Return on Investment

- Looking at the return on investment, the top 3 genres are Horror, Mystery, and Thriller respectively



Ratings Distribution

- Ratings are consistent across the board, with most of the abnormal ratings on the low side versus abnormally high ratings



Recommendations

- I would recommend starting with either Mystery or Thriller films
- Mystery has the second highest ROI of over 1000% and a relatively modest median production cost of \$14 million
- Thriller has the third highest ROI of 685%, and a slightly higher median production budget of \$21 million
- Their average ratings are virtually identical, as 6.2 and 6.1, respectively
- However, Thriller is a much more crowded market with over 11 thousand movies, compared to 4.6 thousand Action films
- Horror may have the highest ROI, but compared to Mystery, has a broader appeal and higher ratings

Next Steps

- Determine if Microsoft wants to focus on domestic or international films
- Conduct further analyses to determine the relationship between ROI and run time/production budget
- Create a list of producers with the highest grossing and rated movies in our selected genre (potential collaborators or producers)

Thank you for you time!

Appendix

Fig. 1: Genre Financials

| | worldwide_gross | production_budget |
|-------------|-----------------|-------------------|
| Genre | | |
| Sci-Fi | 243,511,801.5 | 95,000,000 |
| Animation | 327,829,122.5 | 87,500,000 |
| Musical | 75,792,303.5 | 62,500,000 |
| Action | 135,965,960.0 | 60,000,000 |
| Fantasy | 110,635,328.0 | 60,000,000 |
| Family | 97,846,798.5 | 42,500,000 |
| Crime | 45,671,512.0 | 30,000,000 |
| Comedy | 68,848,446.0 | 28,000,000 |
| History | 46,734,733.0 | 25,000,000 |
| Thriller | 58,978,477.0 | 21,000,000 |
| Biography | 37,596,367.5 | 20,000,000 |
| Documentary | 7,241,309.0 | 2,500,000 |
| Drama | 36,964,656.0 | 19,000,000 |
| Romance | 41,334,735.0 | 18,000,000 |
| Sport | 30,138,912.0 | 18,000,000 |
| Music | 32,700,439.0 | 15,000,000 |
| Mystery | 61,166,295.5 | 14,000,000 |
| Adventure | 250,795,637.5 | 100,000,000 |
| Horror | 43,587,448.5 | 10,000,000 |

Appendix

Fig. 2: Genre ROI

| ROI | |
|-------------|------------|
| Genre | |
| Documentary | 173.121062 |
| Action | 111.171112 |
| Musical | 104.250647 |
| Comedy | 91.995824 |
| Drama | 72.827988 |
| Music | 41.551239 |
| Crime | 24.598919 |
| Family | 20.451557 |
| Sci-Fi | 17.372825 |
| Romance | 15.120420 |
| Thriller | 14.337796 |
| Horror | 12.517040 |
| Fantasy | 11.780952 |
| Adventure | 7.401090 |
| Animation | 6.721386 |
| Biography | 4.735828 |
| Mystery | 3.859088 |
| Sport | 3.749092 |
| History | 3.595131 |

Appendix

Fig. 3: Movie Count by Genre

| | Genre | Count |
|----|-------------|--------|
| 0 | Documentary | 51,639 |
| 1 | Drama | 49,882 |
| 2 | Comedy | 25,311 |
| 3 | Thriller | 11,882 |
| 4 | Horror | 10,804 |
| 5 | Action | 10,334 |
| 6 | Romance | 9,371 |
| 7 | Biography | 8,721 |
| 8 | Crime | 6,752 |
| 9 | Adventure | 6,464 |
| 10 | Family | 6,226 |
| 11 | History | 6,224 |
| 12 | Mystery | 4,658 |
| 13 | Music | 4,313 |
| 14 | Fantasy | 3,515 |
| 15 | Sci-Fi | 3,364 |
| 16 | Animation | 2,798 |
| 17 | Sport | 2,233 |
| 18 | News | 1,550 |
| 19 | Musical | 1,429 |

Appendix

Fig. 4: Average Rating by Genre

| rating | |
|-------------|----------|
| Genre | |
| Biography | 7.051538 |
| History | 6.946154 |
| Sport | 6.896970 |
| Documentary | 6.790909 |
| Drama | 6.603829 |
| Animation | 6.574490 |
| Sci-Fi | 6.565873 |
| Adventure | 6.489181 |
| Crime | 6.405882 |
| Music | 6.389362 |
| Action | 6.358810 |
| Romance | 6.326519 |
| Comedy | 6.248247 |
| Musical | 6.212500 |
| Family | 6.189773 |
| Mystery | 6.179661 |
| Fantasy | 6.134746 |
| Thriller | 6.122594 |
| Horror | 5.693590 |