

Film production recommendations

Microsoft Studios - August 2020

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Problem statement

- To help guide the launch of Microsoft's new content production business, Microsoft Studios, the in-house analytics team was tasked with using historic film financials and associated metadata to develop strategic recommendations
- The following presentation will detail our analytical process and describe our findings

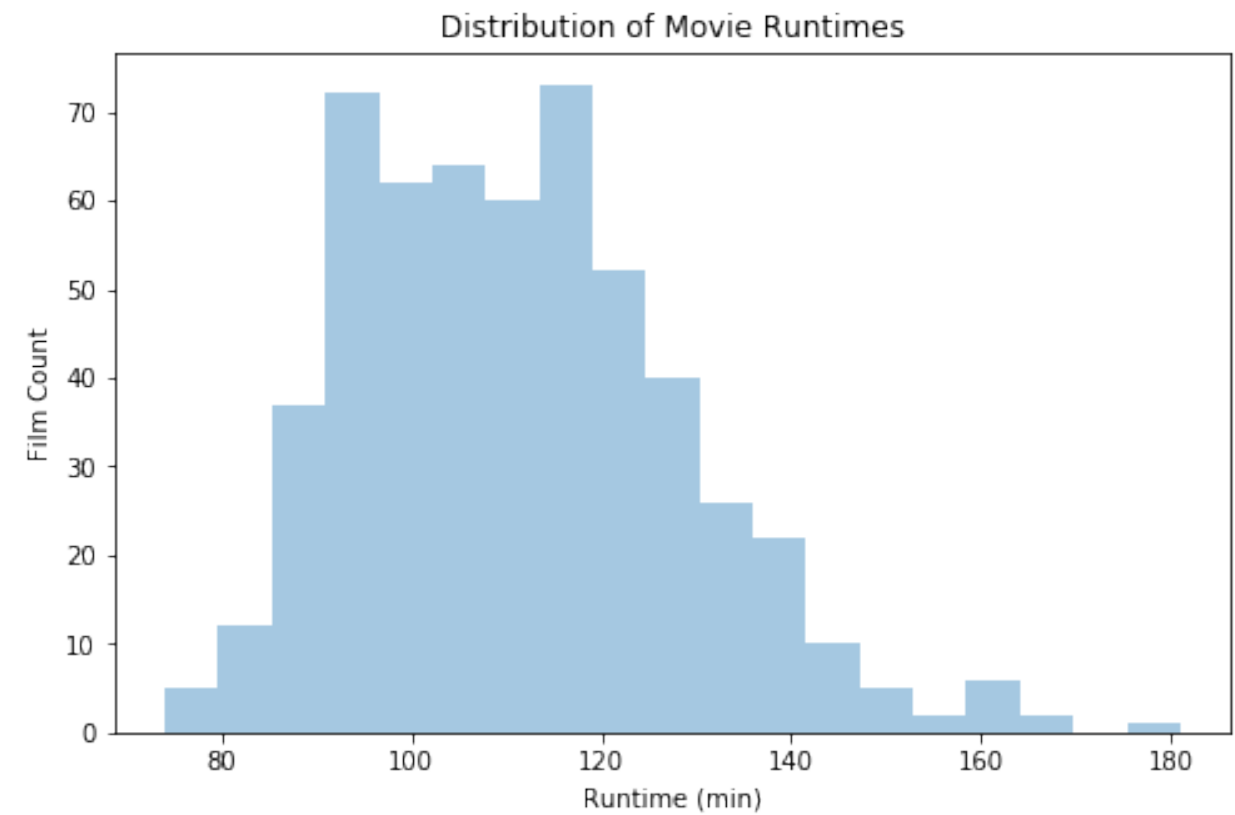
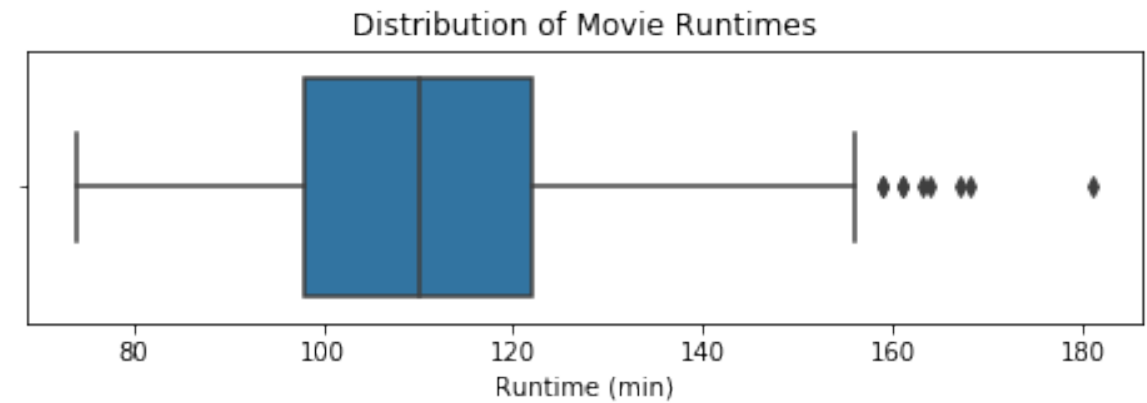
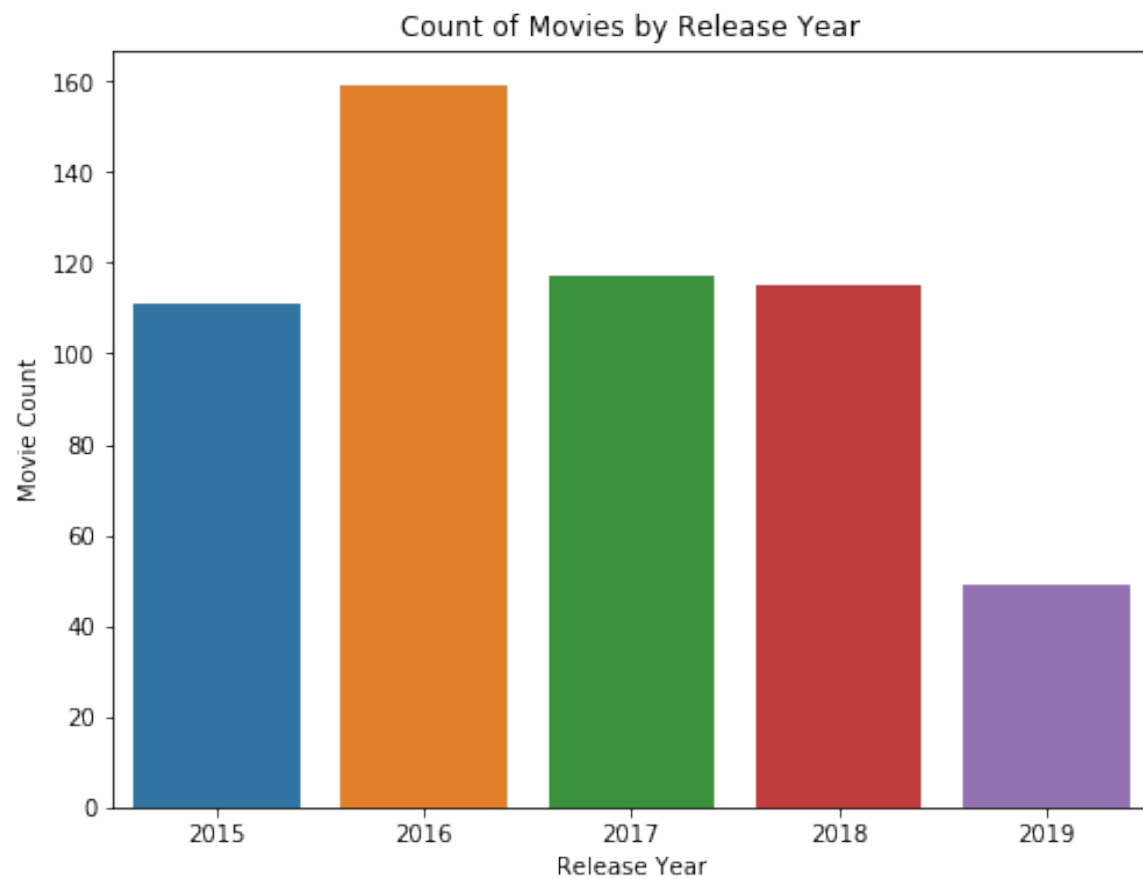
Methodology

- Initial datasets were provided from IMDB, Rotten Tomatoes, Box Office Mojo, and TheMovieDB.org
- Additional data was scraped from IMDB during the analysis process
- Data was cleaned and sorted into one of four following categories for analysis:
 - Movie metadata
 - Ratings and reviews
 - Cast and crew
 - Financials

Questions for analysis:

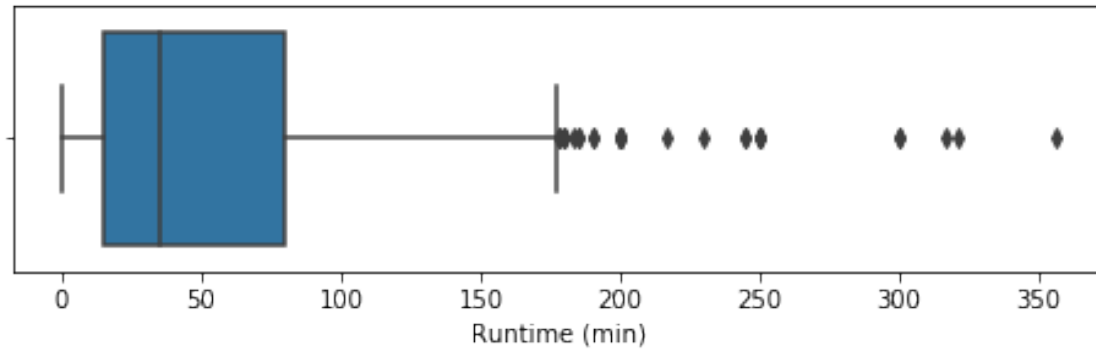
- What should the film's rating be?
- What should the film's genre be?
- Who should Microsoft hire to compose the soundtrack?

Dataset overview

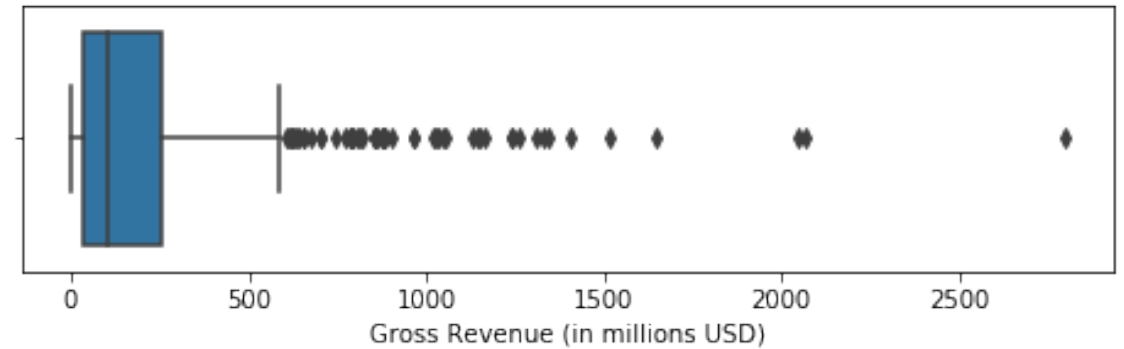


Dataset overview

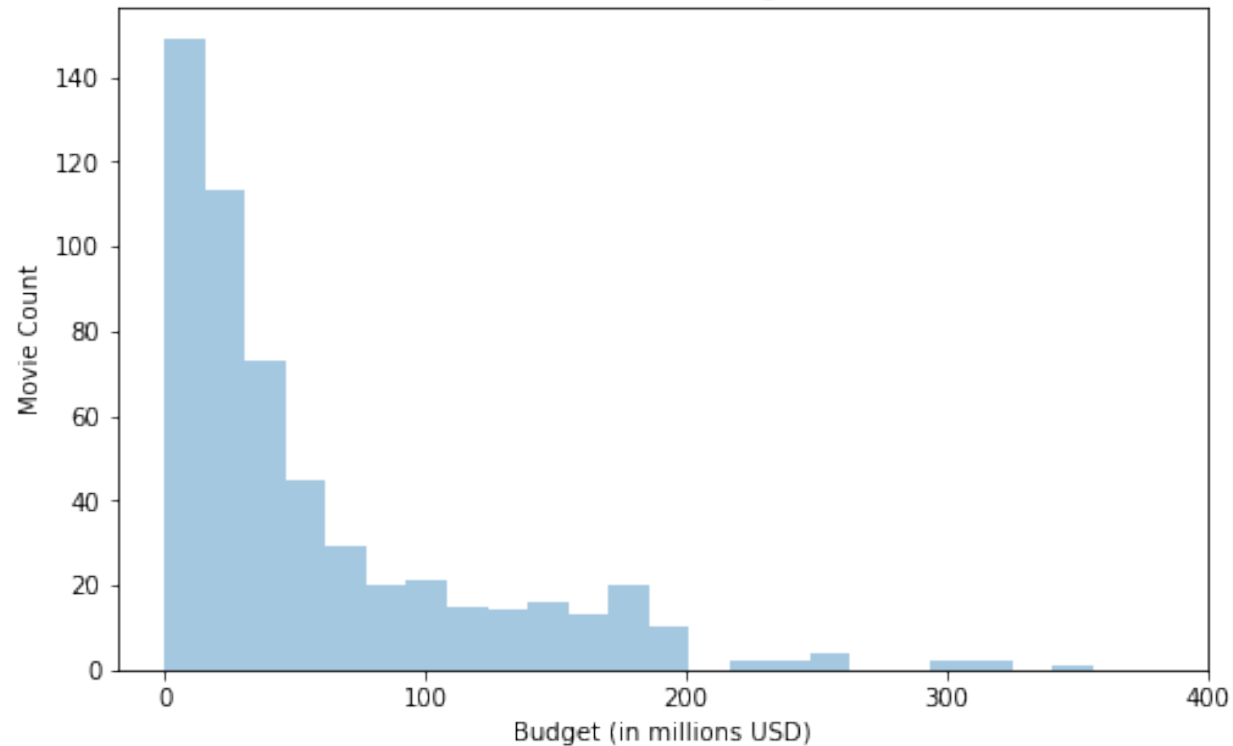
Distribution of Production Budgets



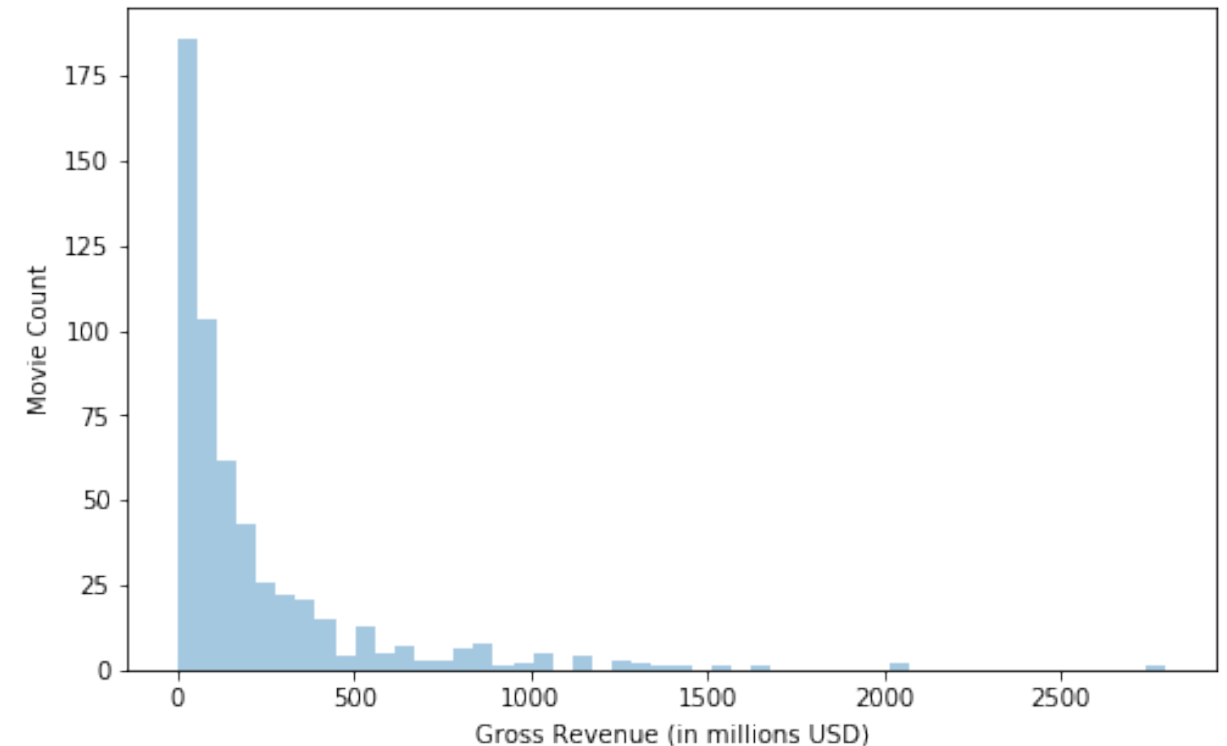
Distribution of Gross Movie Revenue (in mil)



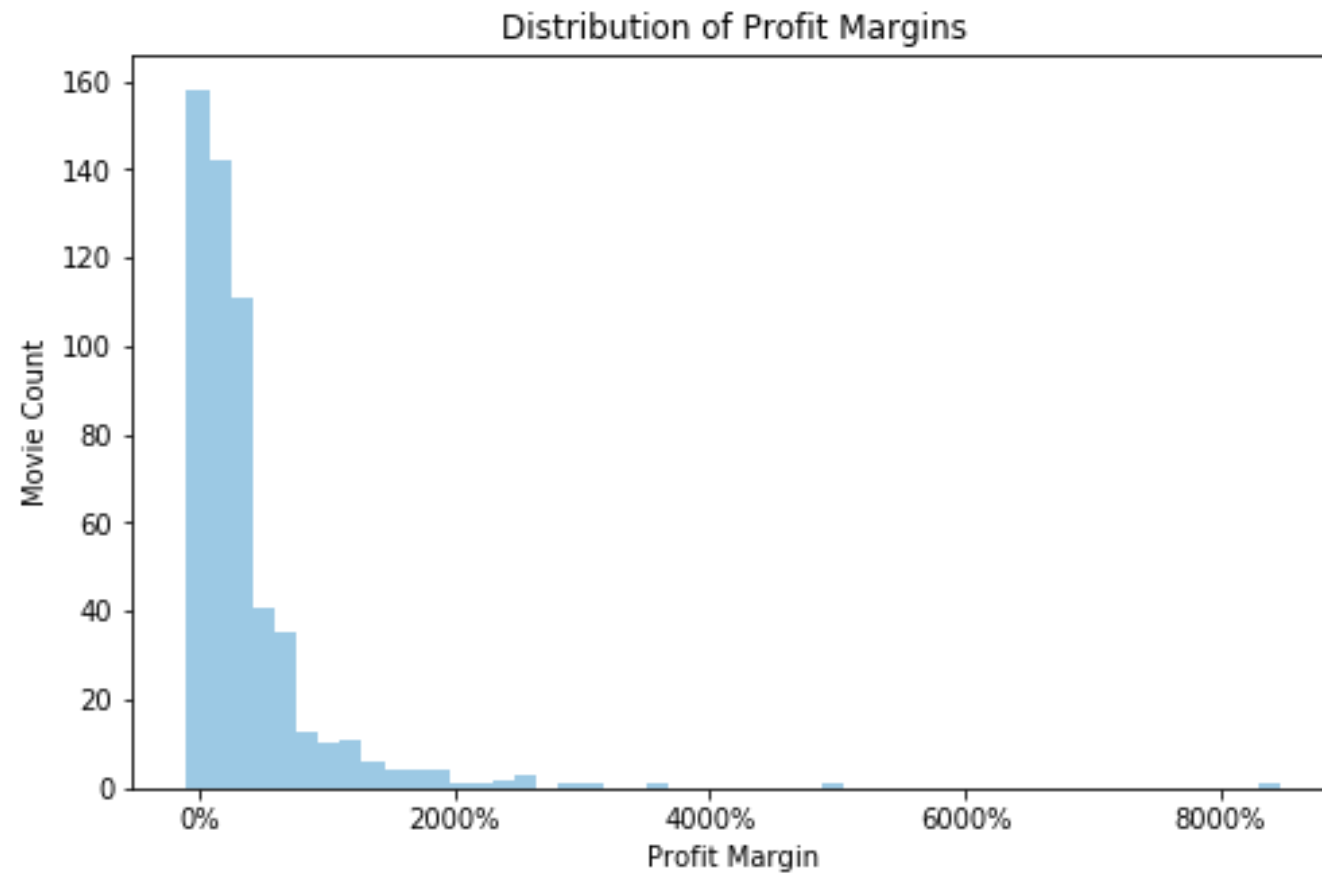
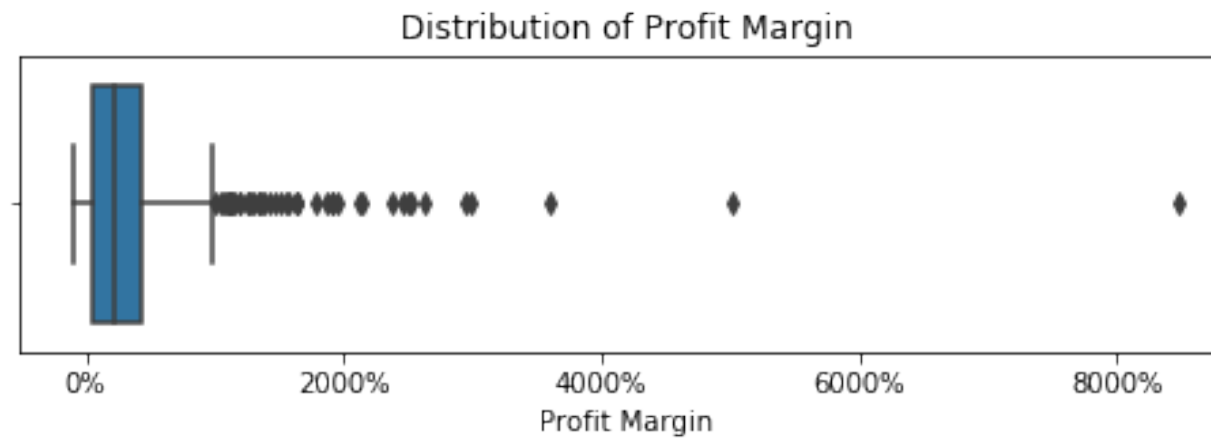
Distribution of Movie Budgets (in mil)



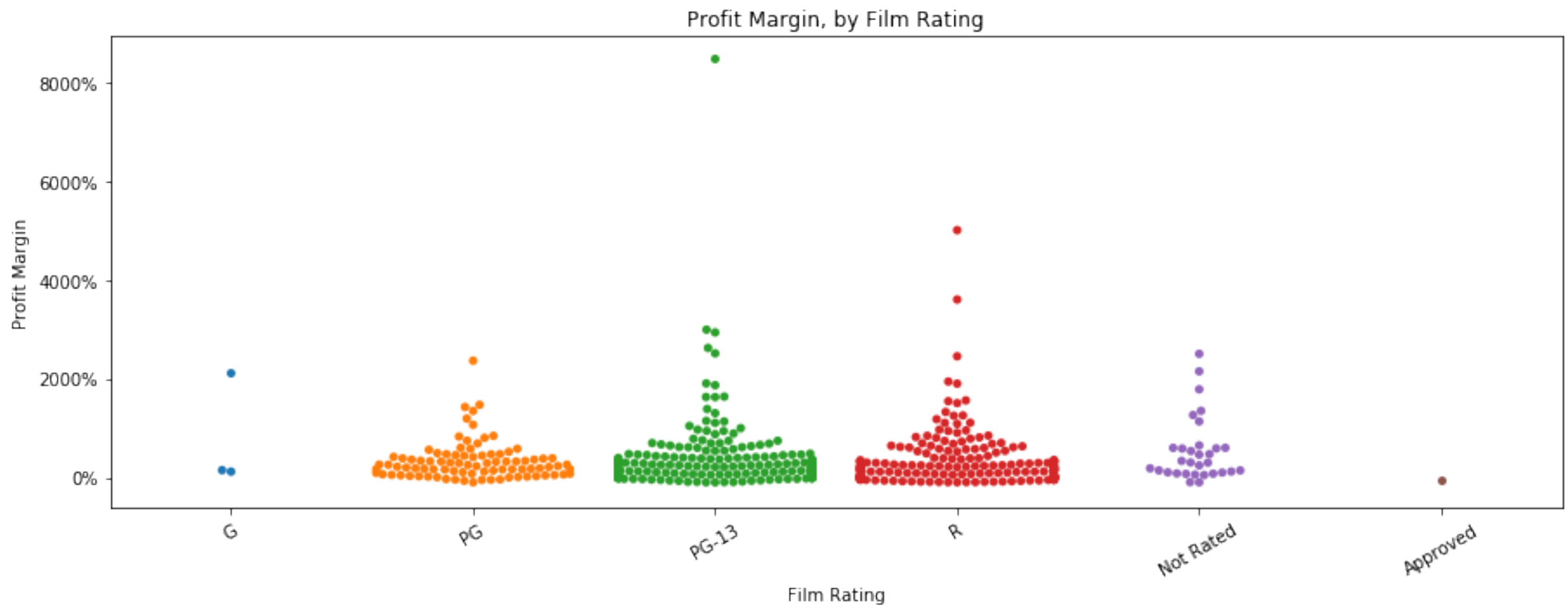
Distribution of Gross Movie Revenue (in mil)



Dataset overview

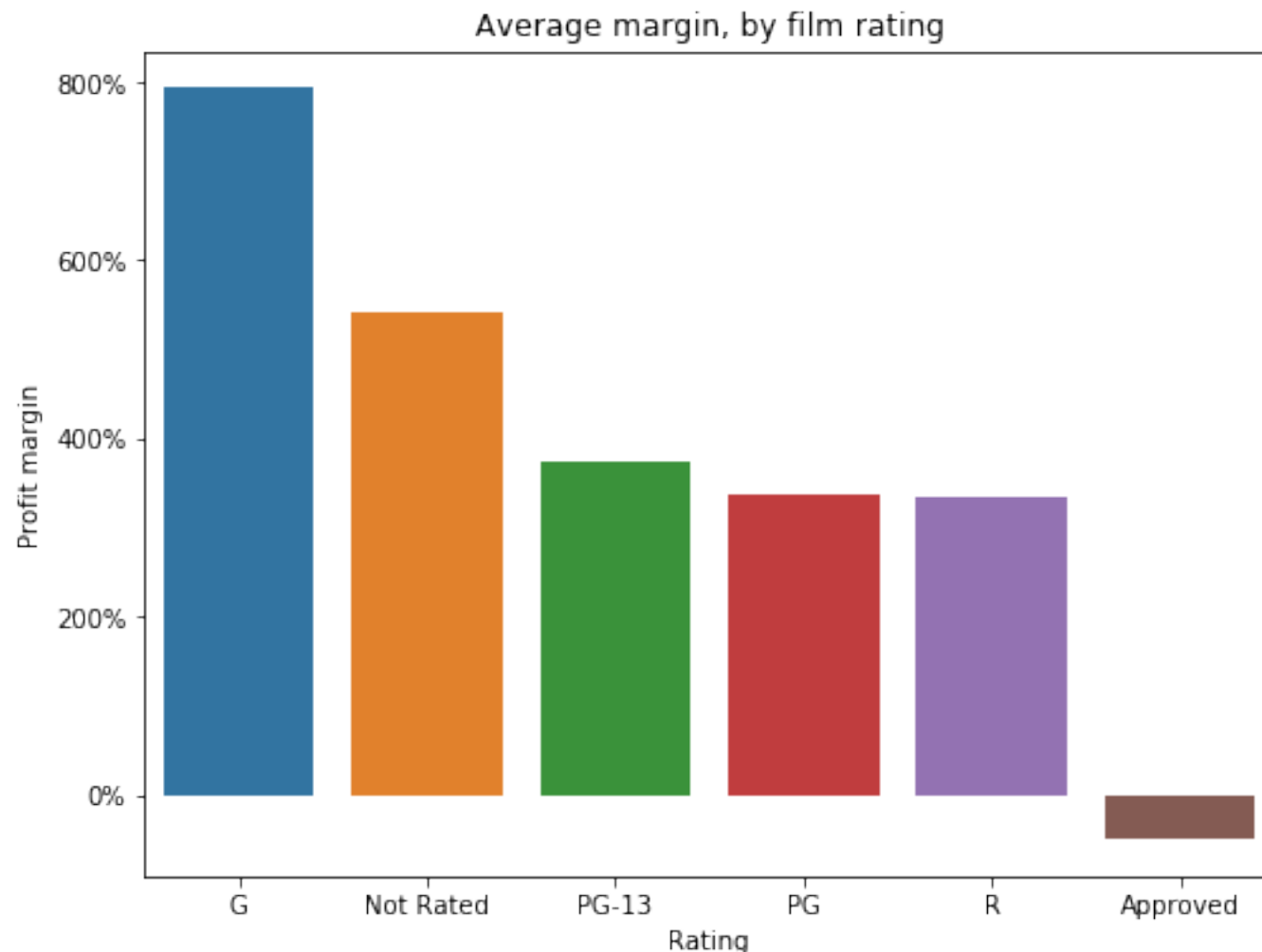


1. What should the target film rating be?



- Within our dataset, PG-13 and R-rated movies earned the highest individual returns at the box office

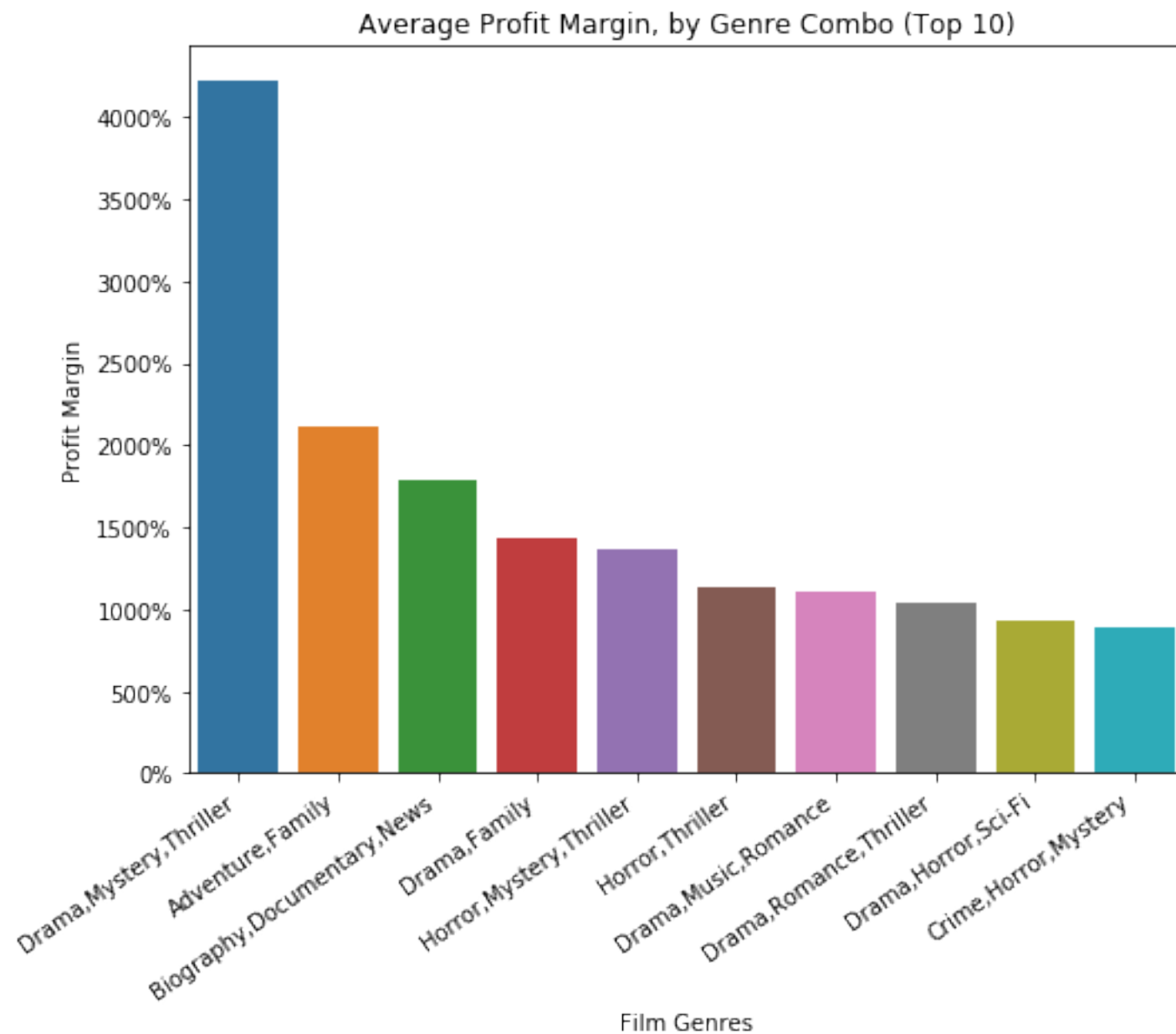
1. What should the target film rating be?



- Looking at the average profitability of films in our dataset when grouped by film rating, we see that G-rated movies earn the most followed by Not Rated and PG-13
- **However**, we only have 3 G-rated films in our dataset, which is not a representative sample of G-rated film profits
- **Also**, it does not seem appropriate for Microsoft's first film to be an unrated film

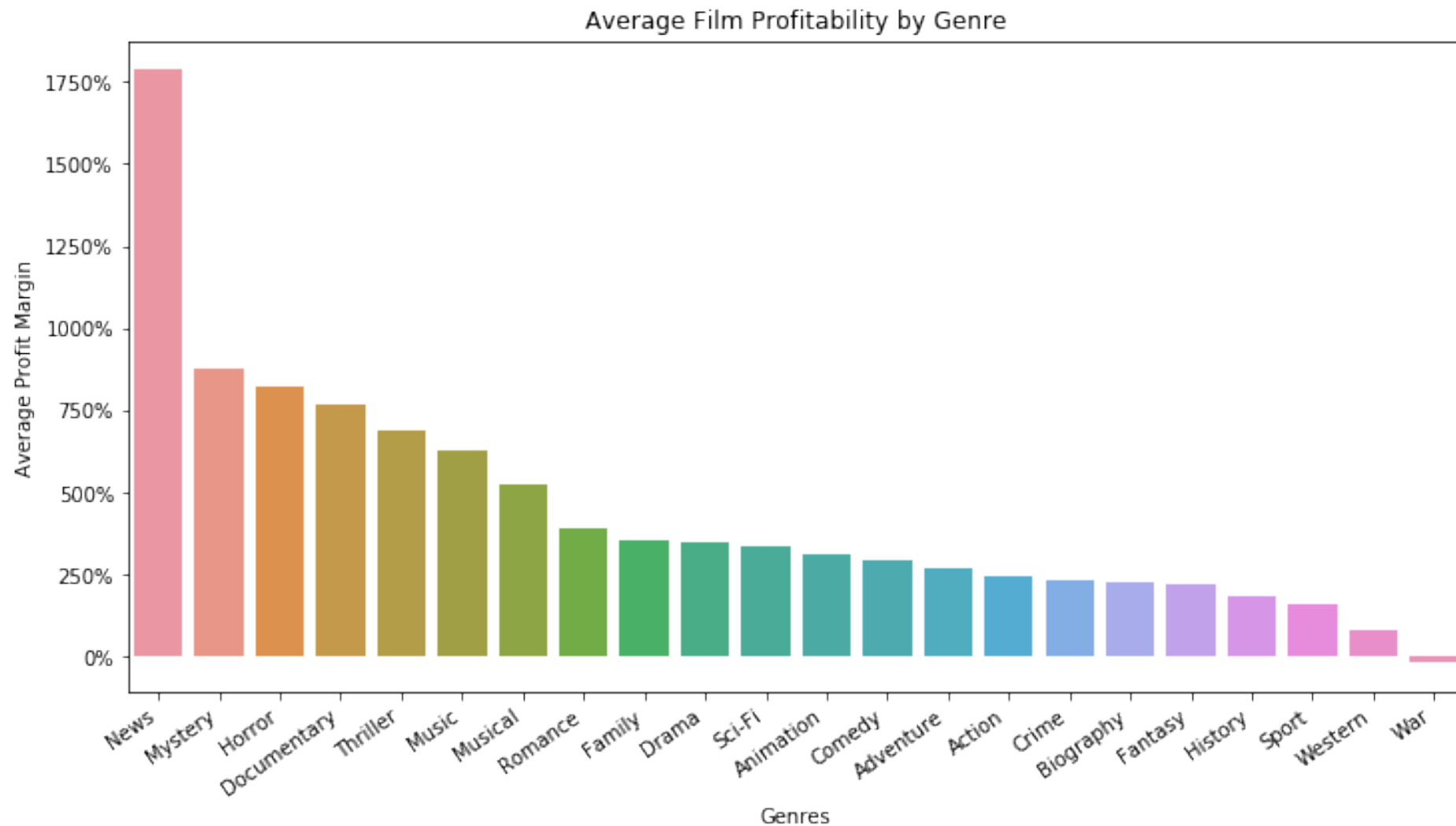
Recommendation: Microsoft should make a PG-13 film.

2. What should the film genre be?



- Films tagged with the genres Drama, Mystery, and Thriller averaged a 40x return on budget at the box office
- Drama and Thriller are the two most common genres included within the top ten, making these two genres the prime candidates

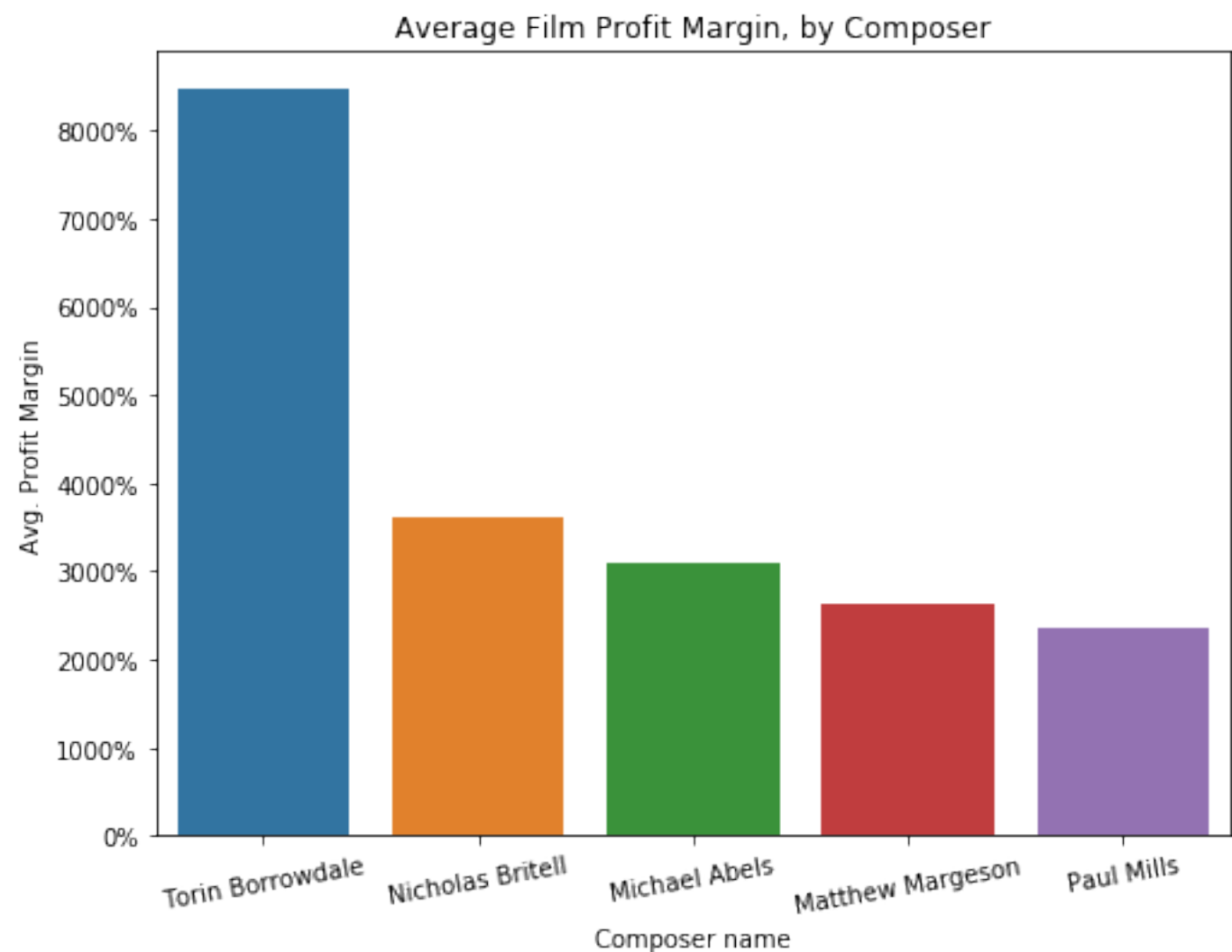
2. What should the film genre be?



- Looking at average profitability by individual genre, Thrillers outperform Dramas fairly significantly

Recommendation: Microsoft should make a thriller.

3. Who should compose the film's soundtrack?



- Films with scores composed by Torin Borrowdale had the highest returns on average (as a multiple of budget)
- Torin only scored one film in our dataset, which happened to be a thriller, making him a perfect up-and-coming candidate to score Microsoft's new thriller film

Recommendation: Hire Torin Borrowdale to compose the soundtrack.

Recap of Conclusions

1. Microsoft should make a PG-13 film.
2. Microsoft should make a Thriller.
3. Microsoft should hire Torin Borrowdale to compose the film score.

Future work

- Demographics:
 - Should Microsoft make a Thriller that is broadly appealing or should they target a specific demographic? If so, which demographic?
- Actors, Actresses, Directors, and Writers:
 - Given a set of target demographics, which actors, actresses, directors, and writers should Microsoft approach to collaborate with?

Thank you!

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