PHASE 1 PRESENTATION

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Overview

- Microsoft stakeholders are trying to get into the movie business

- Initial decisions likely include

  - choice of cast

  - genre

  - hiring of cast

- This presentation is designed to inform such basic decisions

How are the recommendations based?

- Measures of success

  - ROI – total movie gross divided by budget

  - Profitable/not profitable

    - TRUE if ROI > 100%

    - FALSE if ROI <= 100%

Datasets used

- Two datasets

  - TheNumbers dataset

    - Contained budget & gross data

    - Enabled the creation of ROI & profitable boolean variable

    - Informed all three of our recommendations

  - IMDB datasets

    - Contained genre & individual person data

   - Informed our genre & cast recommendations

Recommendations in this presentation

- Advertising (areas to prioritize)

- Genre (which to avoid and which are safe bets)

- Cast (which members to prioritize)

Domestic & Foreign Advertising

- Domestic advertising – advertising in the country of movie release

- Foreign advertising – advertising in other countries

  - Often involves translating the movie into different languages

- We will look at:

  - The percentage of total movie gross that foreign and domestic gross have

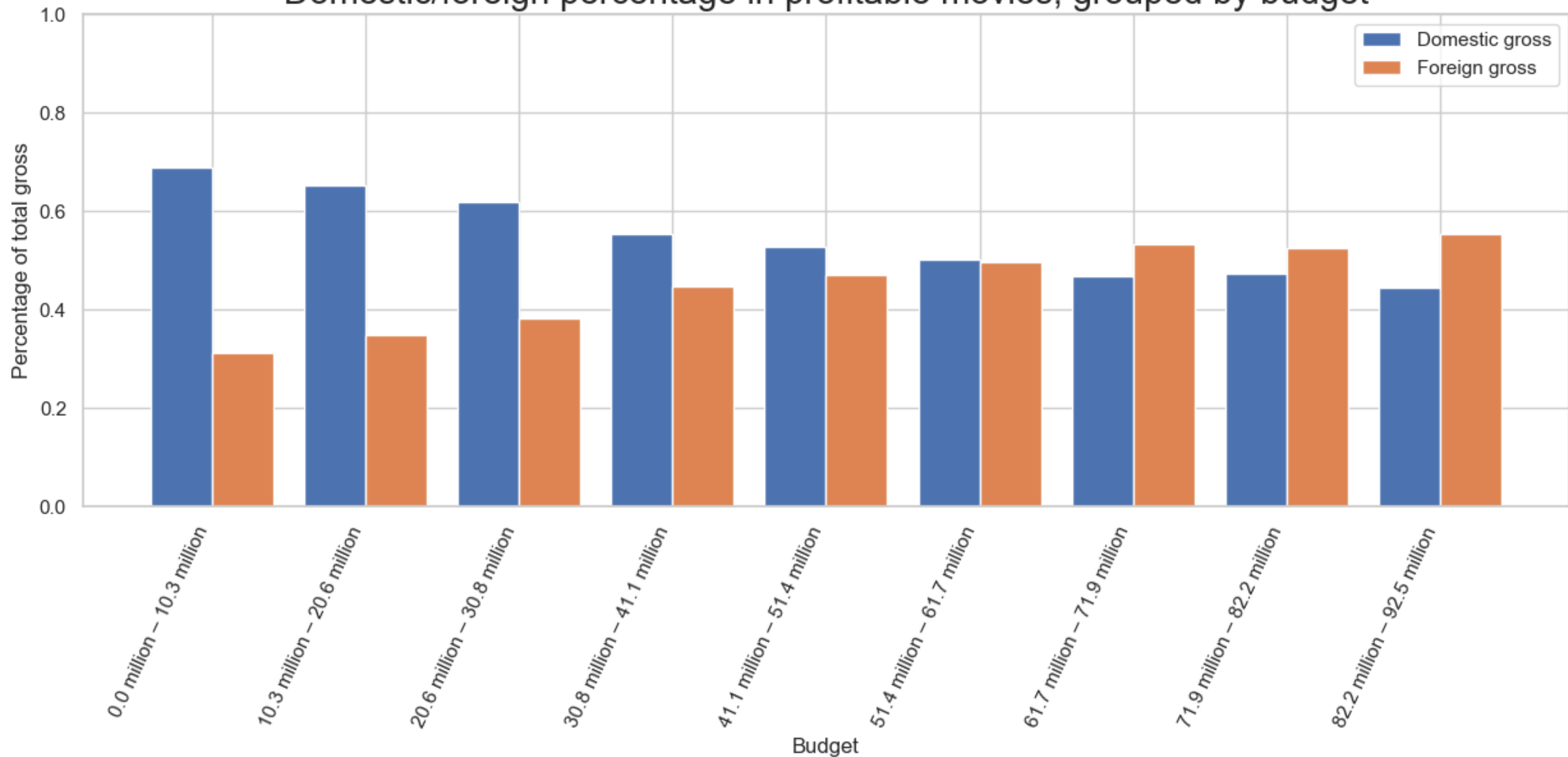 - Broken down by ROI, budget, and movie profitability

Domestic/foreign percentage of total gross, grouped by ROI
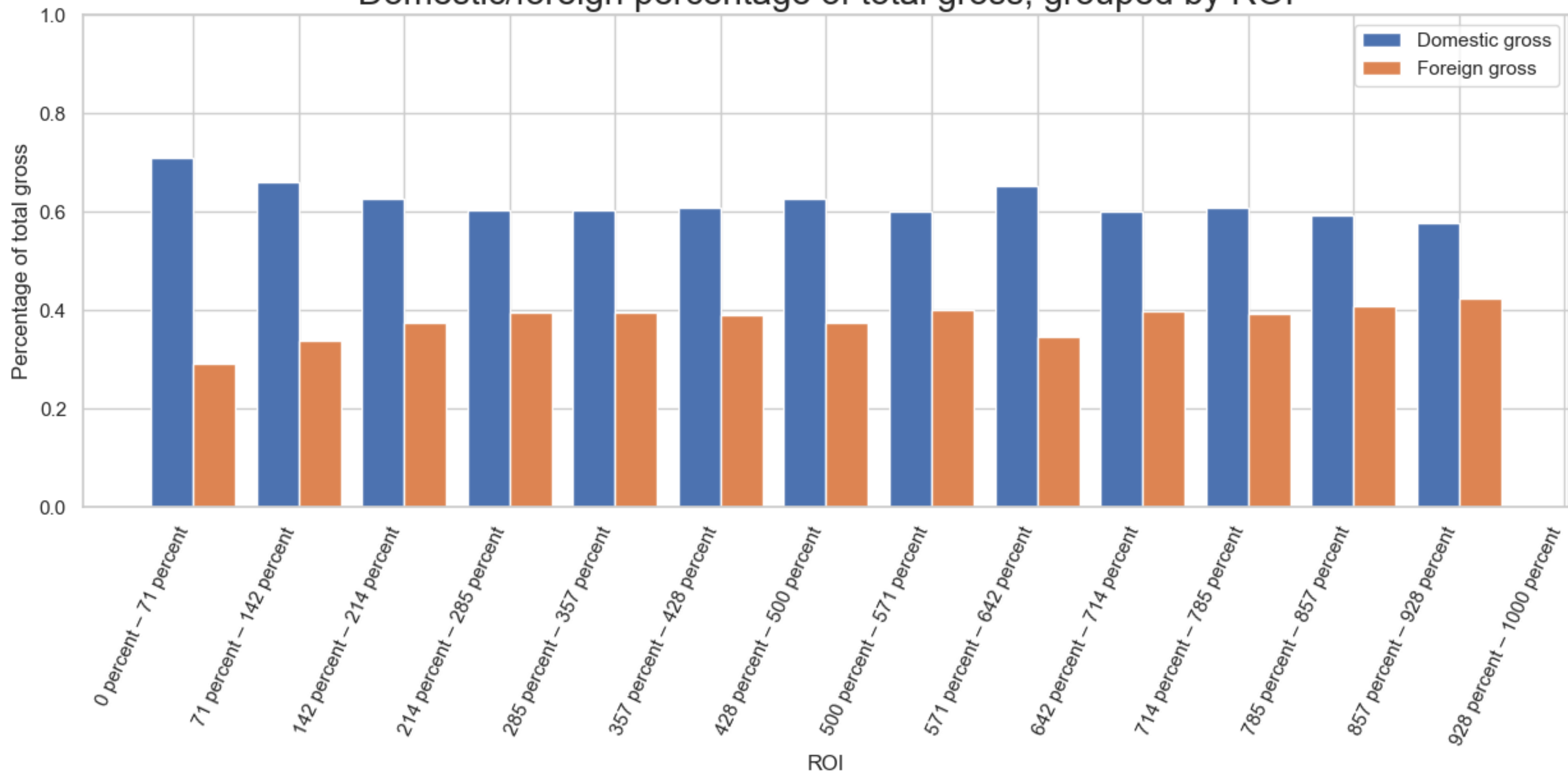
Domestic/foreign percentage in unprofitable movies, grouped by budget
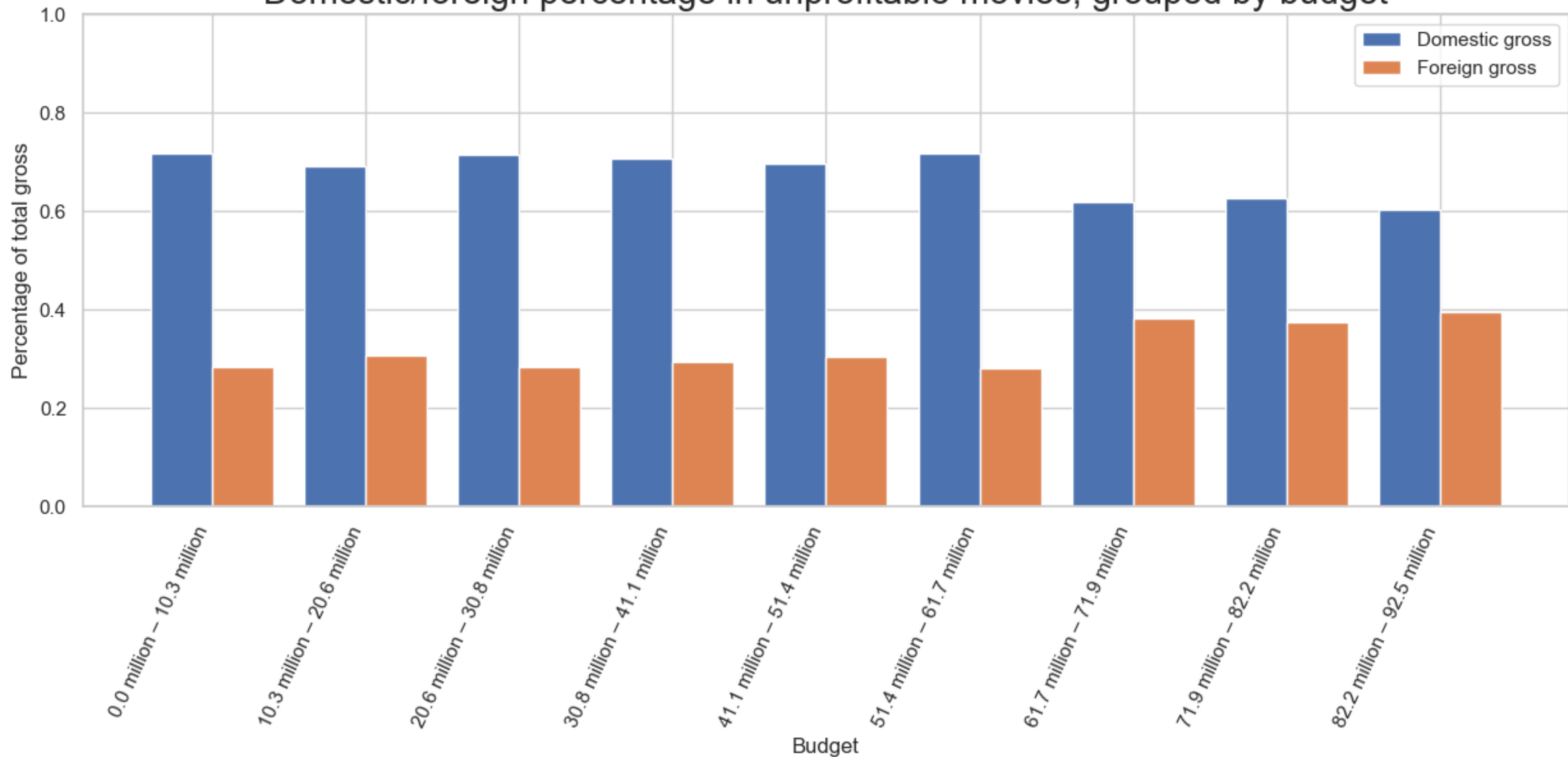
Domestic/foreign percentage in profitable movies, grouped by budget

Advertising – Recommendation

- Prioritize domestic advertising

- As you increase budget, compensate with a greater focus on foreign advertising

- Despite a priority on domestic advertising, do not neglect foreign advertising

Genre Prioritization

- Action, Adventure, Animation, Biography, Comedy, Crime, Documentary, Drama, Family, Fantasy, History, Horror, Music, Musical, Mystery, News, Reality-TV, Romance, Sci-Fi, Sport, Thriller, War, Western

- Which one to choose?

- We will examine:

  - Average ROI and rate of profitability for each genre

Genre ROI with errorbars & average movie ROI
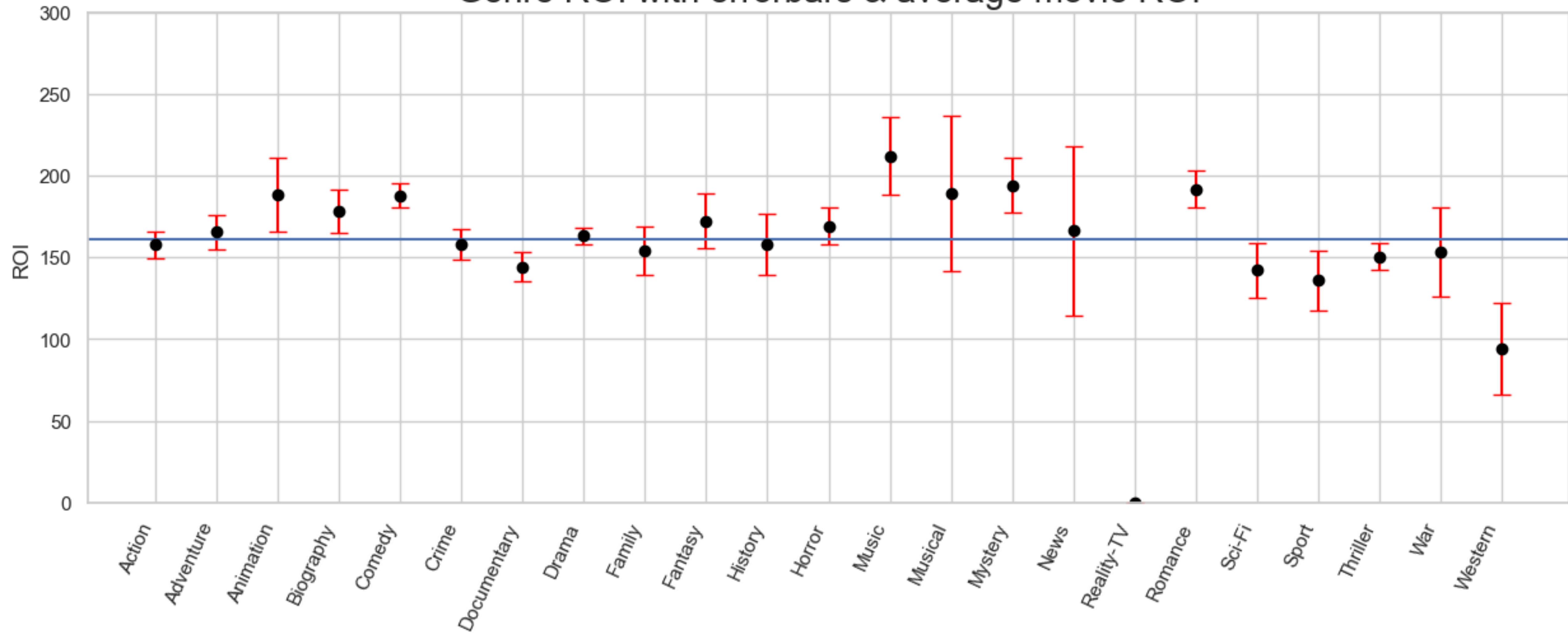
Genre hitrate with errorbars & average hitrate
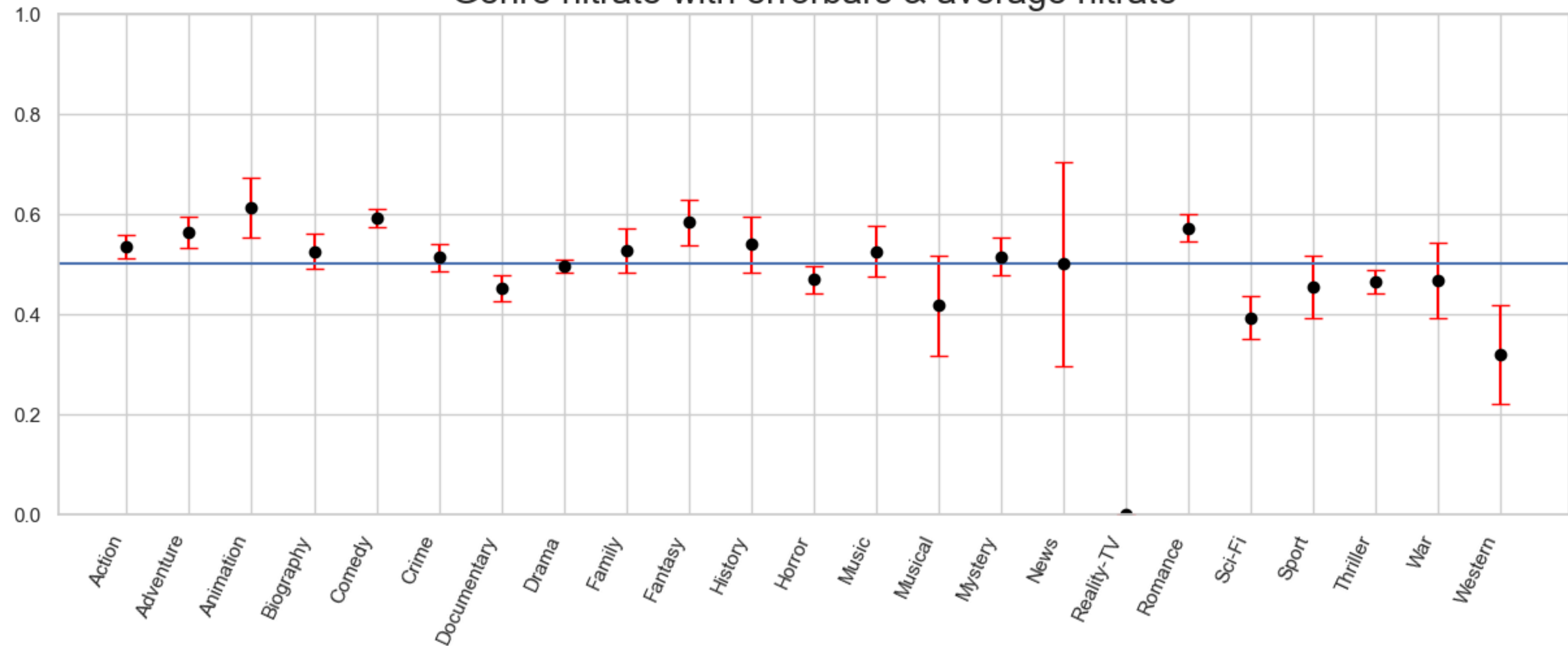
Genre – Recommendation

- Above average (safe bets)

  - Comedy, Fantasy, Romance

- Avoid (bad choices)

  - Documentary, Reality TV, Sci-Fi, Sport, Thriller, Western, News

- Average

  - Action, Adventure, Biography, Crime, Drama, Family, History, Horror, Music, Musical, Mystery, War

Cast

- Many different crew members hired in a movie

  - Actors

  - Actresses

  - Writers

  - Producers

  - Directors

  - Cinematographers

  - Editors

  - Composers

  - And more.

Cast

- Which people should you prioritize?

- Which profession correlates most highly with movie success?

- If you hire one director rather than another, what resulting changes will you observe in the movie's success?

- Split the dataset down a year to simulate a hire

  - Look at people of a certain category pre-2013

 - Look at the success of movies that hired them in 2013

Variables included in analysis

- Profession: ROI, rate of profitability (hitrate)
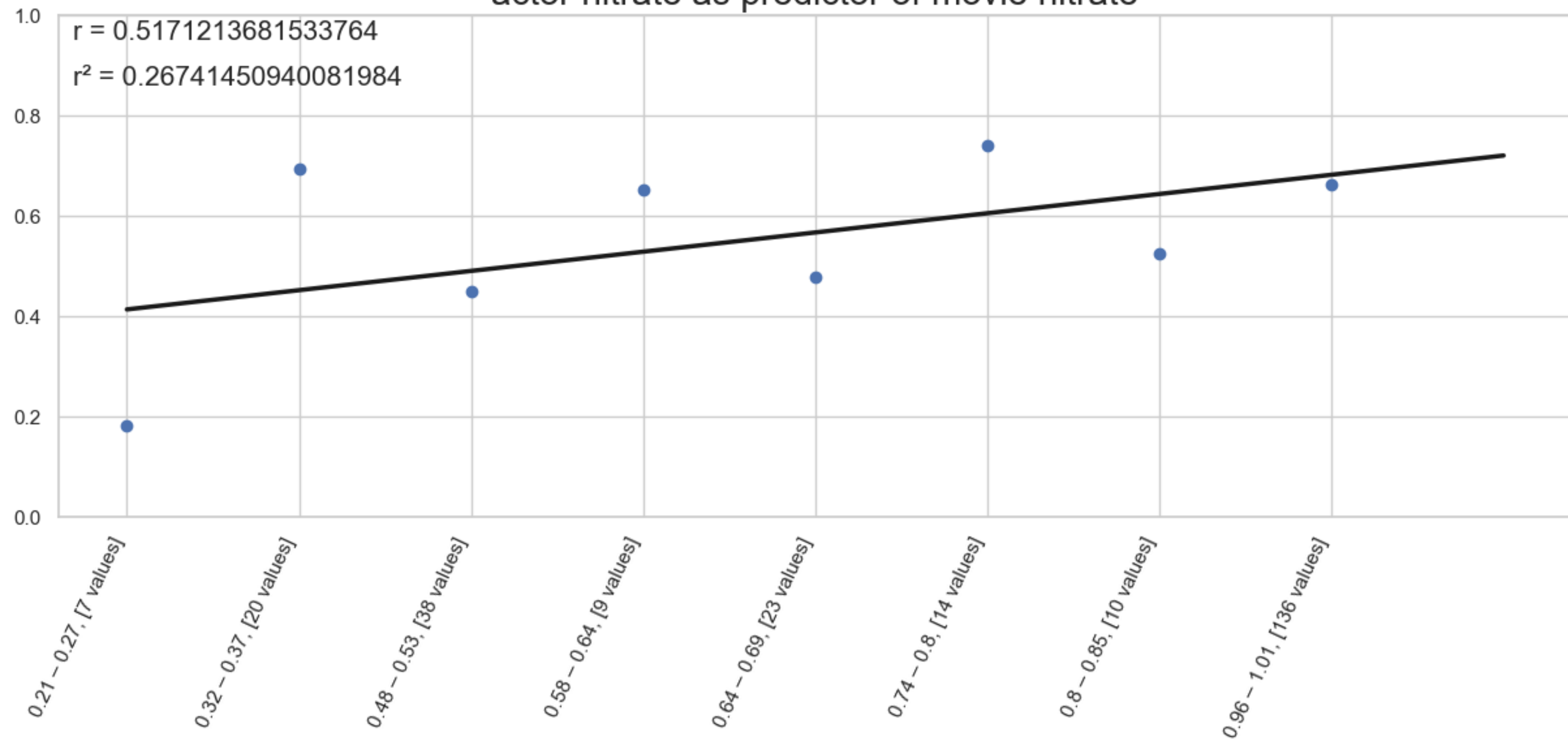
- Movie: ROI, rate of profitability (hitrate)

Correlations in this analysis

- Profession ROI – movie ROI

- Profession ROI – movie hitrate

- Profession hitrate – movie ROI

- Profession hitrate – movie hitrate

actor ROI as predictor of movie ROI

r = 0.622865936912414

r² = 0.38796197536577925
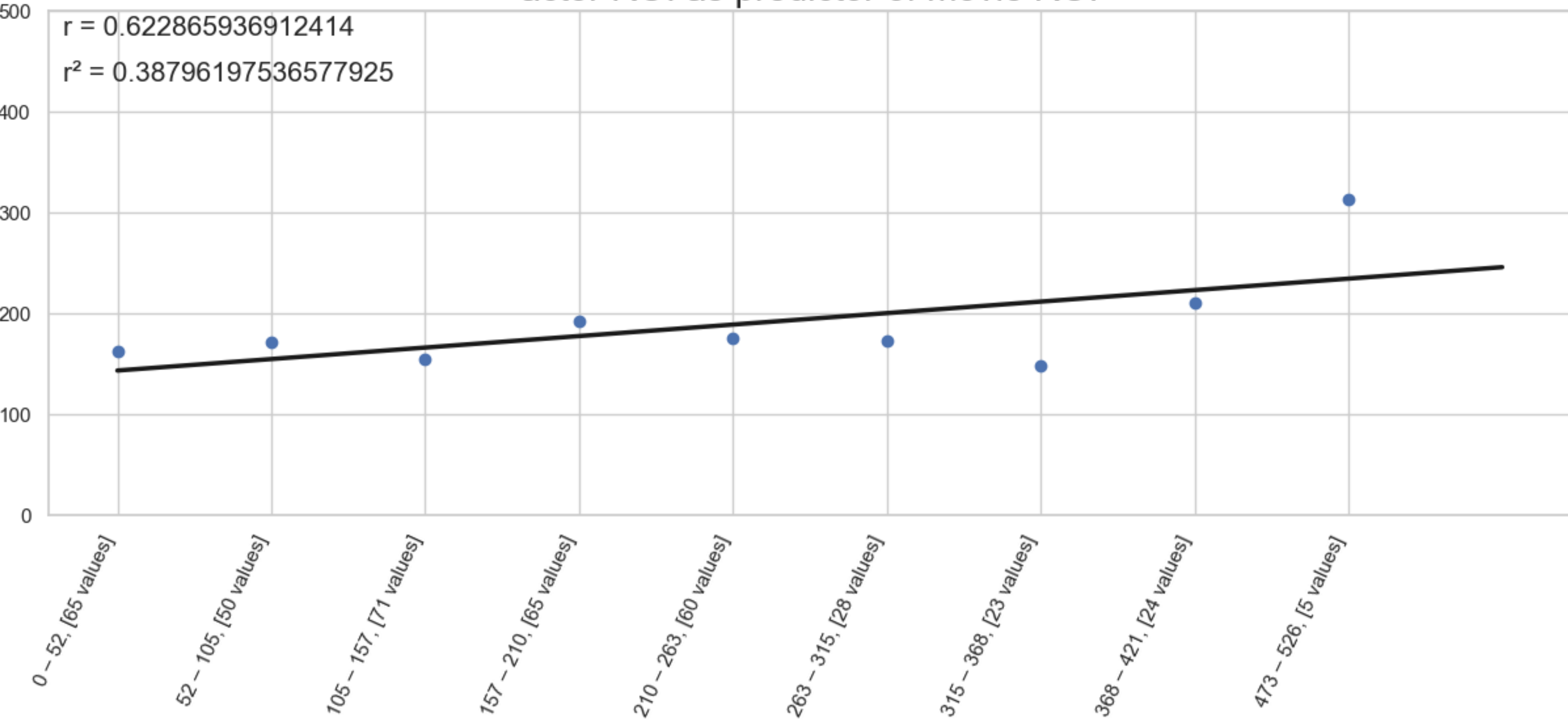
actor hitrate as predictor of movie hitrate

r = 0.51712136815533764

r² = 0.26741450940081984

Years included

- 2011

- 2012

- 2013

- 2014

- 2015

- Splitting down any of these years yielded a large number of people in common between datasets and thus more confidence in the results
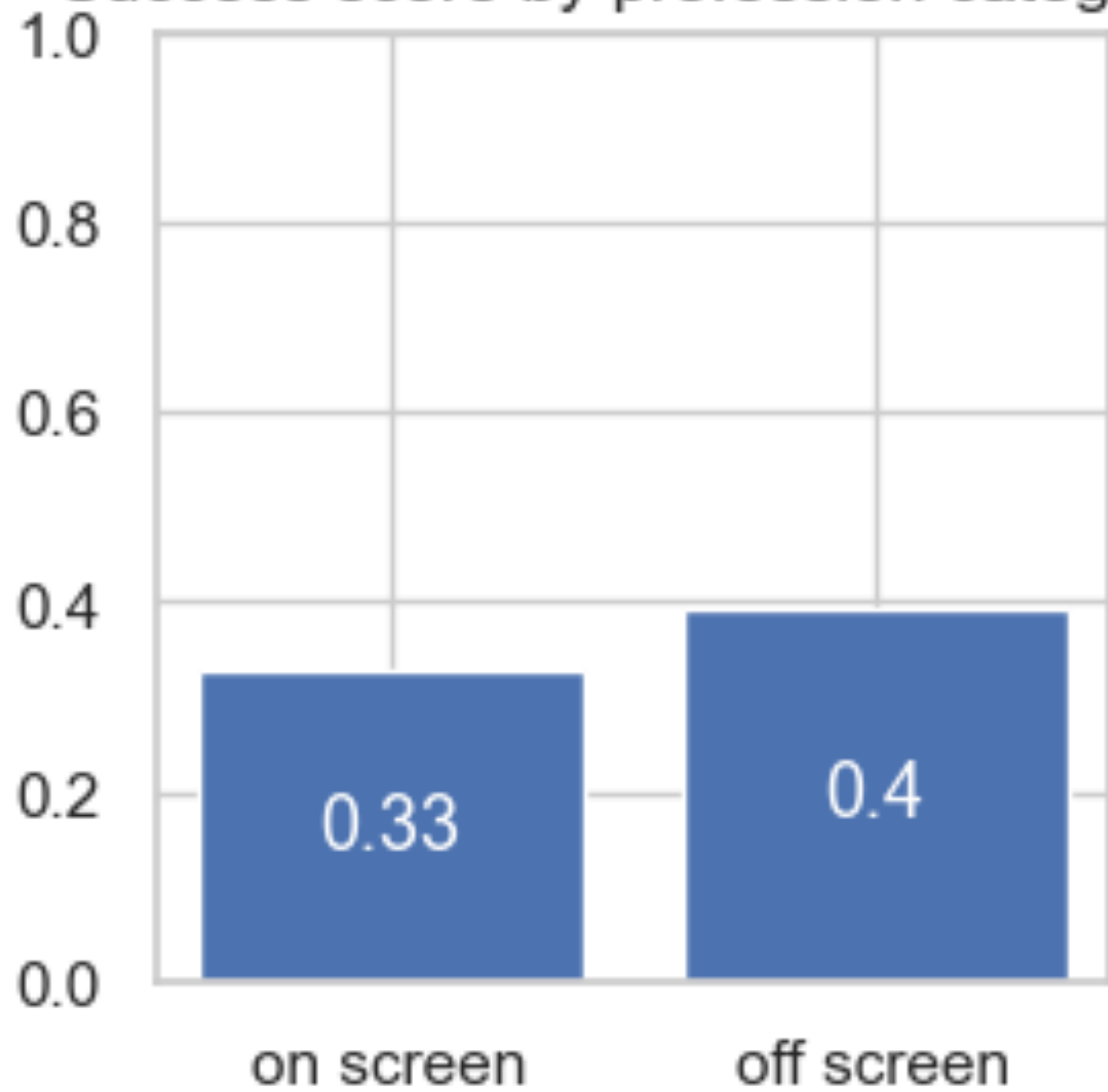
Methods justification

- Aggregating across multiple years and measures of success gives us a more accurate answer

Success score by profession
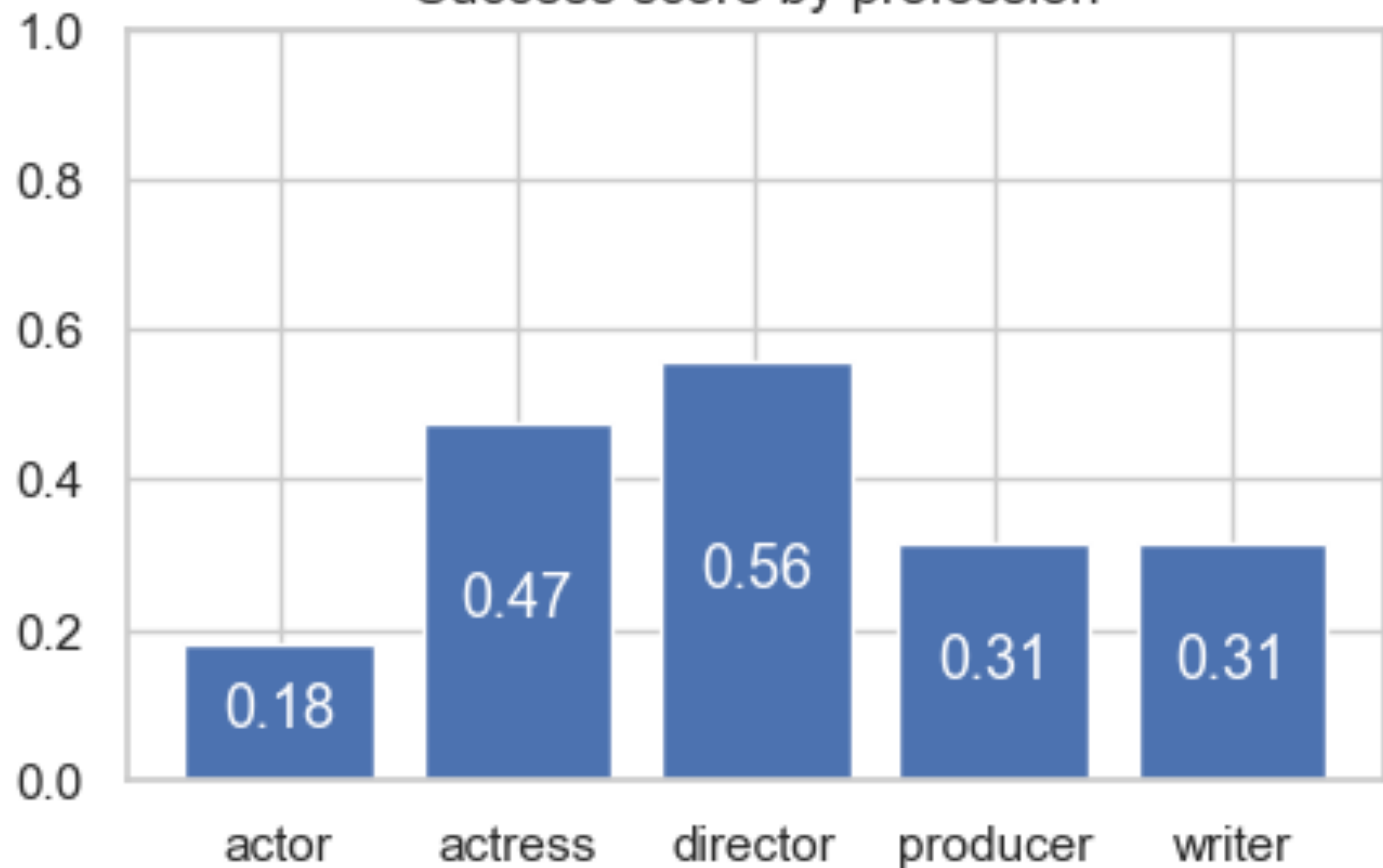
Success score by profession category

Cast Recommendation

- Prioritize your off-screen crew

- Among your off-screen crew, your director[s] are the most important

- Make sure you get a good director

- Makes sense that off-screen crew would be more more influential in a movie's success than the on-screen crew

  - They make decisions on the cast and financial side of a movie

Thank you!