

Microsoft Studios

How can Microsoft maximize profits from their start-up movie/television studio?

What metrics are worth taking into account?

The Problem

Company

Microsoft is looking to begin working in the movie and television business, having no prior experience. **How can we ensure profitability and success?**

Context

The idea of “personal brands” is growing through social media - actors & actresses have been able to advertise their projects more than ever before. We will focus on **movie casts and their overall public brands for this analysis.**

Strategic Analysis

Different metrics of success of an actor's personal brand such as salary, social media following, and overall popularity ranking will be used in order to determine if these metrics have an impact on profitability and success of a movie, what that impact may be, and which actors will improve the chance of producing a successful movie.

Process

Scrape

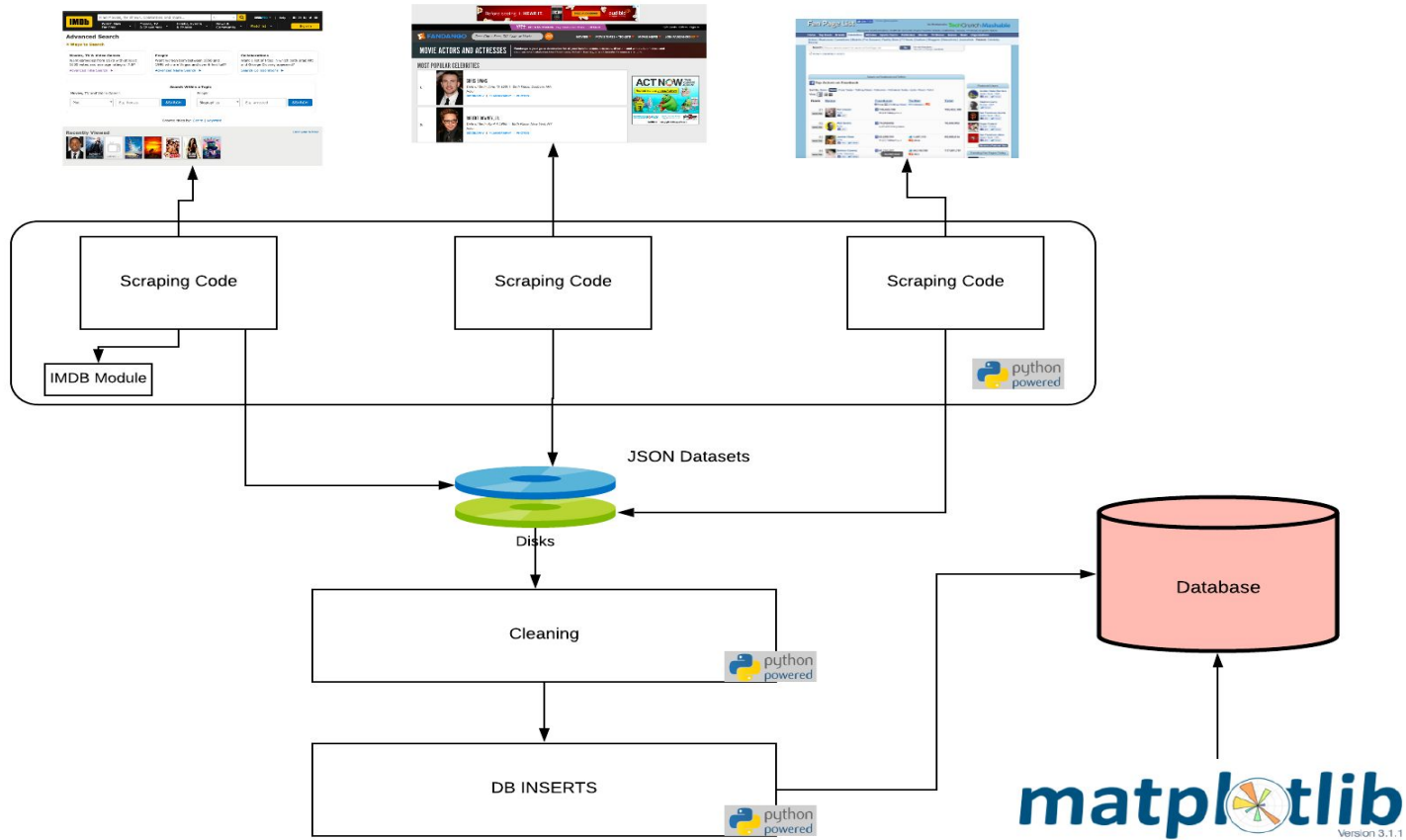
Clean

Load

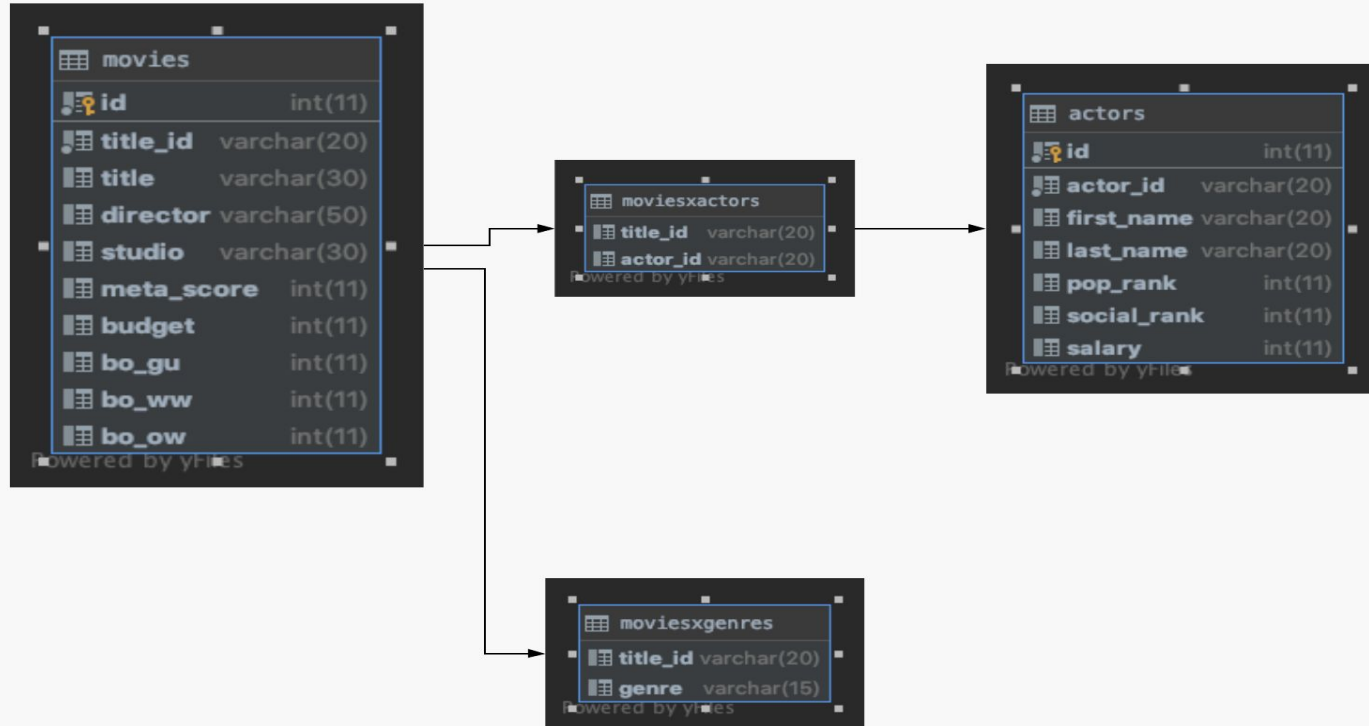
Visualize



Data Pipeline



Database Data Model



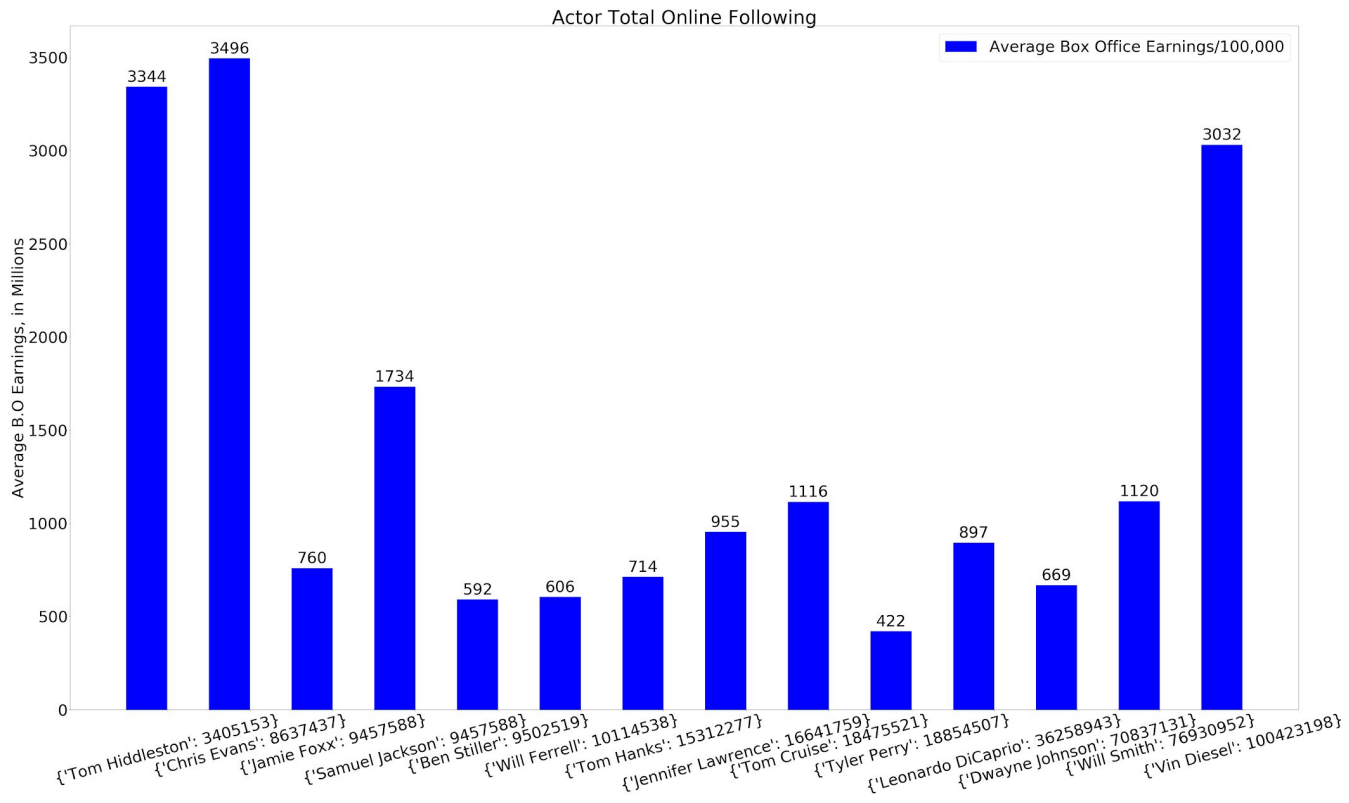
Analysis

Does the personal brand of an actor affect the success or profit of a film?



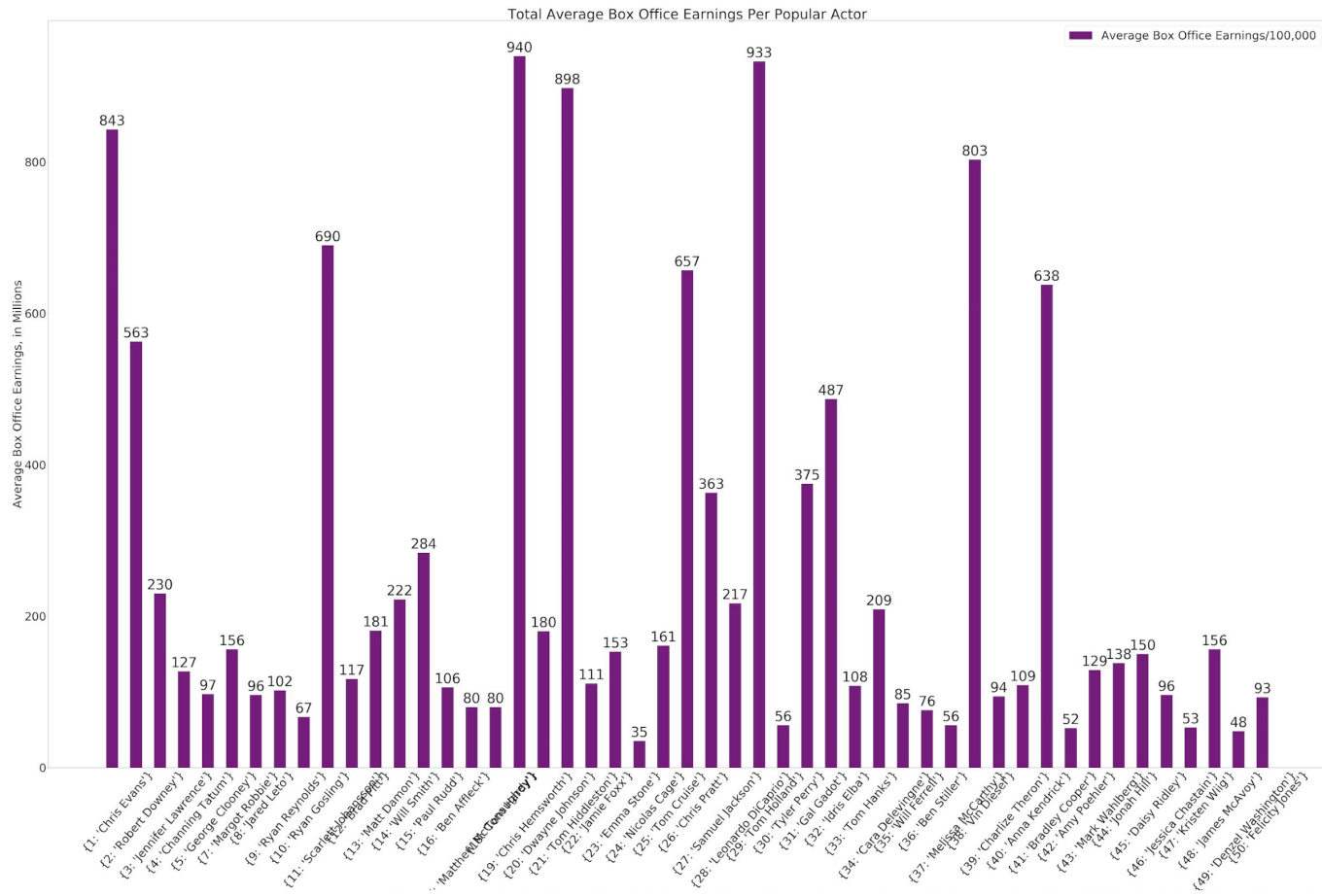
Impact of Actor Online Presence

- The higher the online following of the actor, the lower the box office earnings, suggesting a **negative correlation** between an actor's online following and the box office earnings for their movies
- For further analysis, perhaps the actors who star in series of movies, such as Vin Diesel and Tom Hiddleston, should be removed



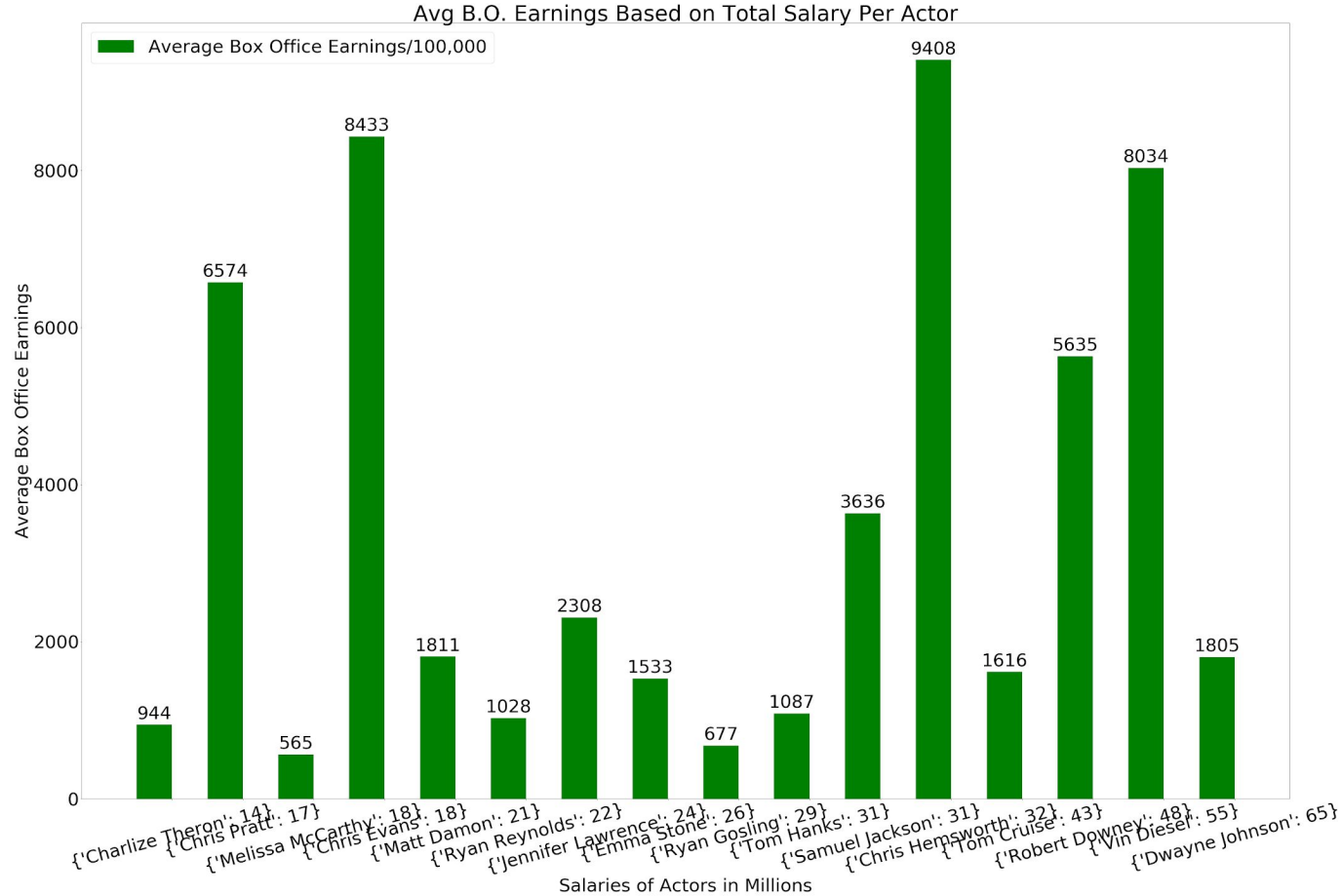
Impact of Actor Popularity

- A more popular actor should produce higher box office earnings
- Earnings decrease sharply if a cast does not include one of the top 25 ranked actors
- Tom Cruise has produced the most box office earnings, with his popularity rank at the median popularity of 25

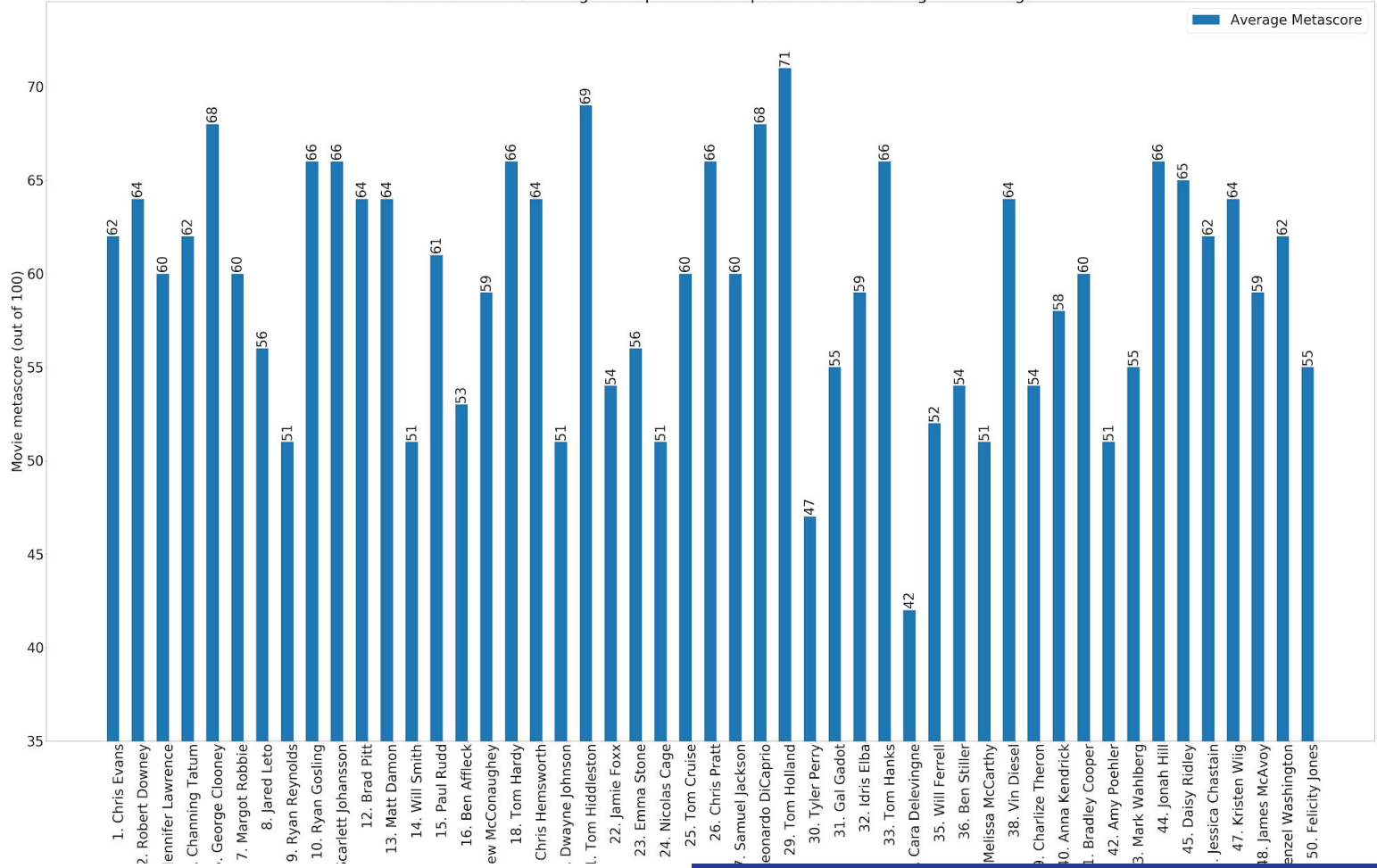


Impact of Actor Salary

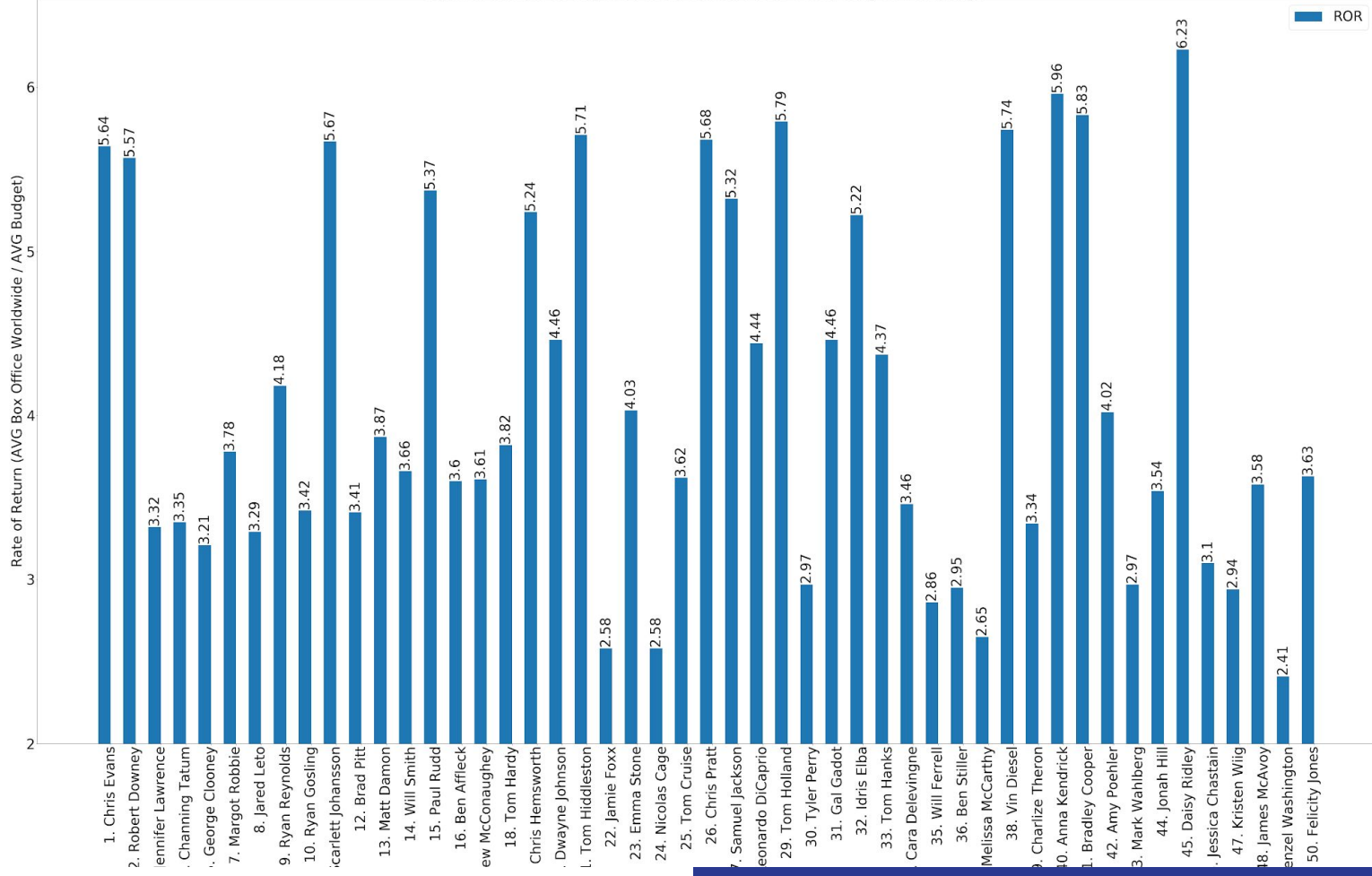
- An actor's salary seems to be loosely **positively correlated** to box office earnings
- Some good choices of high salary actors for studios looking to optimize box office returns against their payroll budgets are either **Chris Pratt** or **Matt Damon**



Movie metascore Average of Top 50 Most Popular Actor According to Fandango



Rate of Return of Top 50 Most Popular Actor According to Fandango



Revenue/Budget Ratios By Top Actors (Social Media Rank)

First	Last	Popularity Rank	Social Media	Budget:Revenue
Vin	Diesel	38	100423198	5.6
Will	Smith	14	76930952	3.44
Dwayne	Johnson	20	70837131	4.22
Leonardo	DiCaprio	28	36258943	3.79
Tyler	Perry	30	18854507	2.14
Tom	Cruise	25	18475521	2.79
Jennifer	Lawrence	3	16641759	3.13
Tom	Hanks	33	15312277	2.69
Will	Ferrell	35	10114538	2.48
Ben	Stiller	36	9502519	2.46

Revenue/Budget Ratios By Top Actors (Social Media Rank)

First	Last	Popularity Rank	Social Media	Budget:Revenue
Chris	Evans	1	8,637,437	5.62
Robert	Downey	2	0	5.57
Jennifer	Lawrence	3	16,641,759	3.32
Channing	Tatum	4	0	3.35
George	Clooney	5	0	3.17
Margot	Robbie	7	0	3.77
Jared	Leto	8	0	3.29
Ryan	Reynolds	9	0	4.15
Ryan	Gosling	10	0	3.42
Scarlett	Johansson	11	0	5.67

Insights

How does an actor's online presence, popularity ranking, and salary affect box office earnings?



Insights

Broadly speaking, popular actors contribute **positively** to a movie's box office revenues.

An actor's social media following does not necessarily factor into their ability to increase a movie's revenues. In fact, this factor seems to be slightly **negatively correlated** to box office earnings.

An actor's salary may be a factor in predicting a movie's box office earnings, but our analysis does not conclusively prove this. Our analysis shows there to be a **positive correlation** between box office earnings and an actor's salary.

