

Movie Budget Risk Analysis

Data Scientists:

Claire Sarraile
Sam Whitehurst
Nick Tjandra

Overview

- Business Problem
- Data
- Recommendations
- Next Steps



MYSTERY

Claire
Sarraïlle

Nick
Tjandra

Sam
Whitehurst

IN CINEMAS OCTOBER 2023

Business Understanding

Which genres have the highest return based on a lean budget?

Who should direct our movies?



Executive Summary

Risk Level: Top Genre & Director

Risk **Level 1**: Mystery

- Dir: Lofing & Cluff

Risk **Level 2**: Horror

- Dir: John Leonetti

Risk **Level 3**: Horror

- Dir: Andy Muschietti



Data

Movie statistics from IMDb and The Numbers

- From 1990 to 2019
- Includes genre and director(s) of each movie
- Over 2,132 films analyzed



Key Statistics

Developed a 'Average Return Ratio' (ARR) using worldwide gross divided by production budget

	Movie	Production Budget	Worldwide Gross	Profitability	ARR
0	Paranormal Activity	450000	194183034	193733034	431.517853
1	The Gallows	100000	41656474	41556474	416.564740
2	The Blair Witch Project	600000	248300000	247700000	413.833333
3	Super Size Me	65000	22233808	22168808	342.058585
4	El Mariachi	7000	2041928	2034928	291.704000

Determining Risk Levels:

Investment ranges defined by production budget IQR.

Level 1: \$0 - \$5,575,000

Level 2: \$5,575,000 - \$ 20,000,000

Level 3: \$20,000,000 - \$45,000,000

Risk Level 1: \$0 - \$5,575,000

Mystery

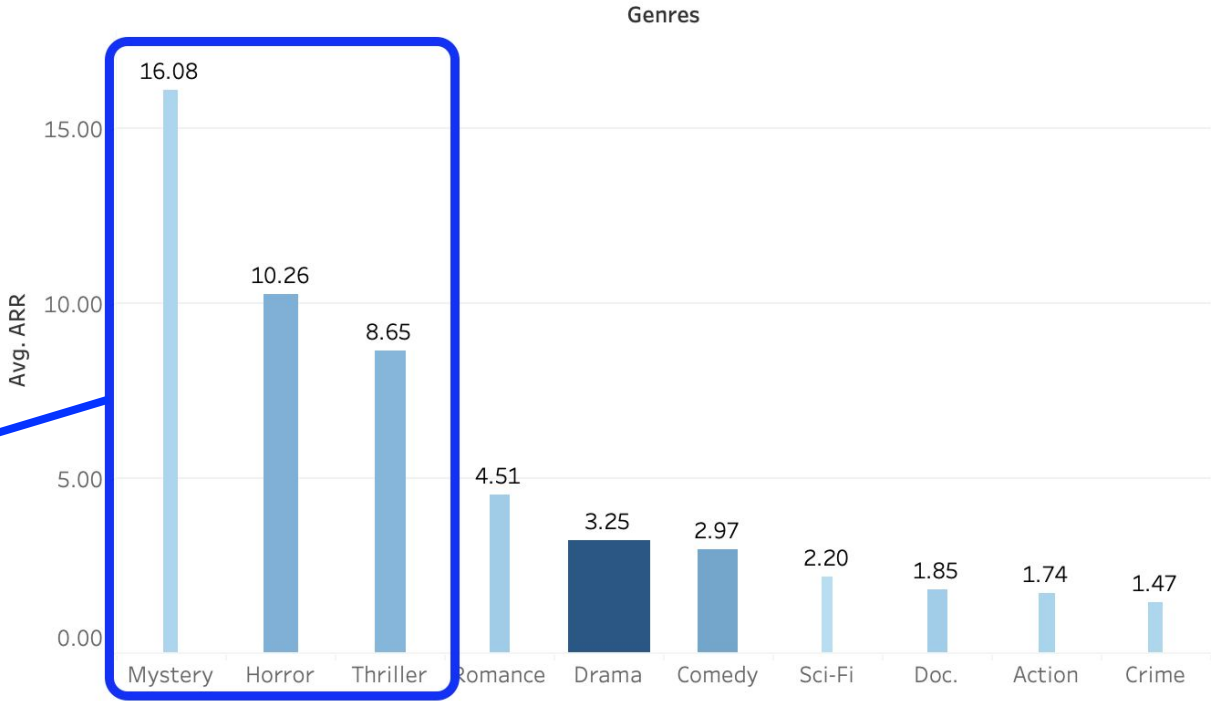
Horror

Thriller

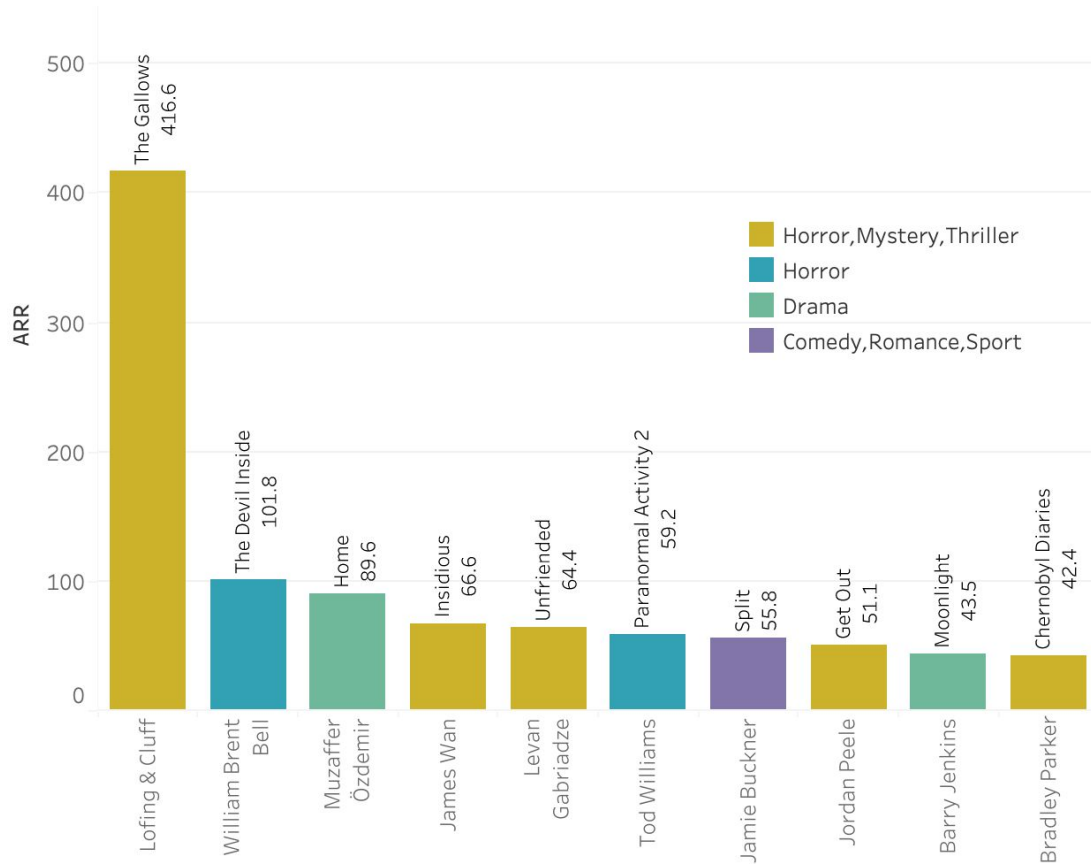
Linear Reg. Coefficients

C(Genres) [T.Mystery]	14.337213
C(Genres) [T.Horror]	8.518089
C(Genres) [T.Thriller]	6.909902
C(Genres) [T.Romance]	2.770073
Intercept	1.738472
C(Genres) [T.Drama]	1.510187
C(Genres) [T.Comedy]	1.227047
C(Genres) [T.Sci-Fi]	0.457131
C(Genres) [T.Documentary]	0.108990
C(Genres) [T.Crime]	-0.267550

Production Budget up to \$5.6 Million by ARR



Risk Level 1: Top Directors

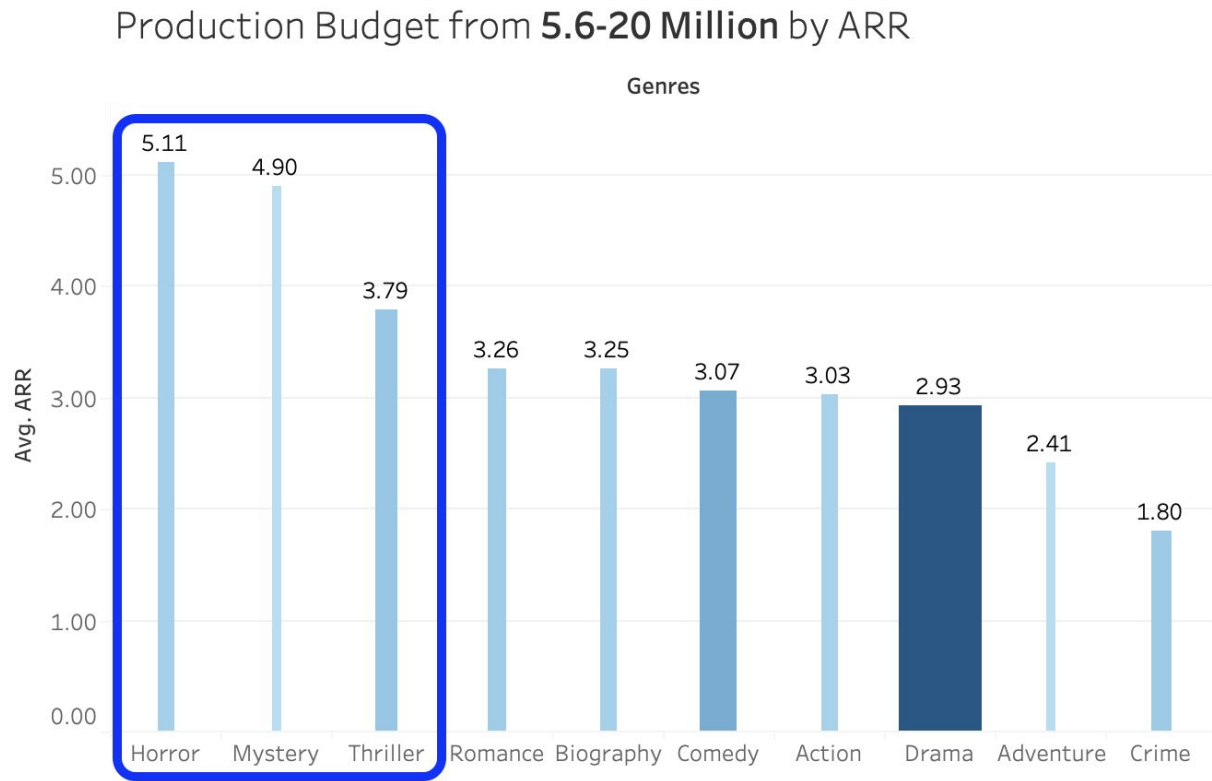


Risk Level 2: \$5,575,000 - \$20,000,000

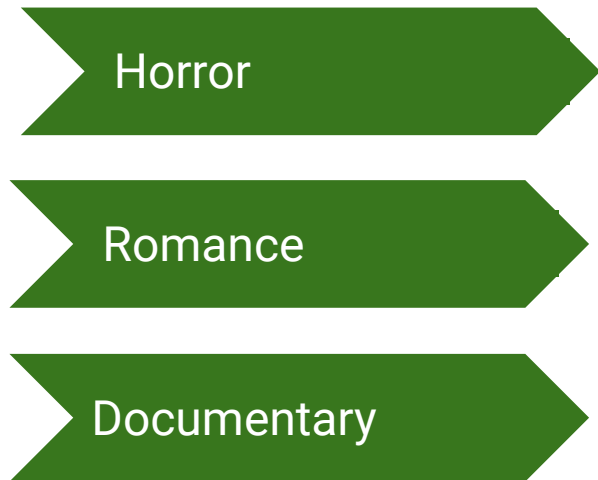
Horror

Mystery

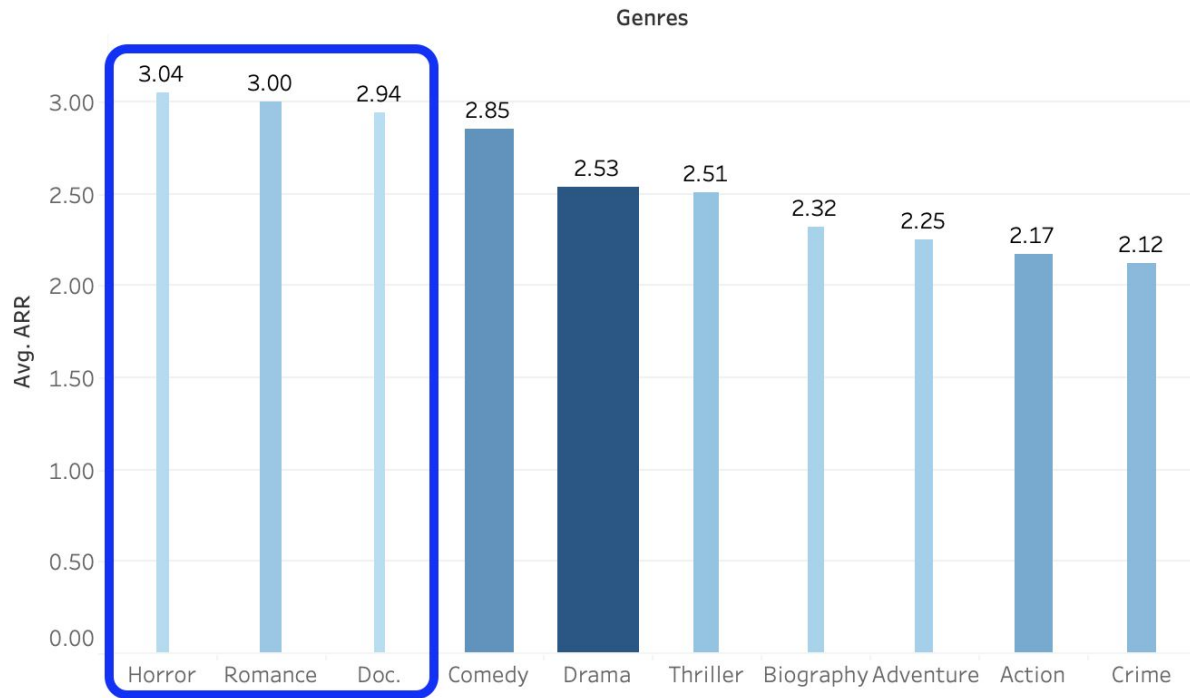
Thriller



Risk Level 3: \$20,000,000 - \$45,000,000



Production Budget from **20-45 Million** by ARR



Recommendations



Genres

- Levels 1 & 2
 - Mystery, Horror, Thriller
- Level 3
 - Horror, Romance, Documentary
- Directors
 - Lvl 1: Lofing/Cluff
 - Lvl 2: John R. Leonetti
 - Lvl 3: Andy Muschietti

Next Steps

- Explore top genres in higher risk levels (>45 mill)
 - Use multi-genre to fine-tune (i.e. horror-mystery-comedy)
 - Identify winning actor/director combos
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Thank you!

Questions?

Links:

[GitHub Repo](#)

[The Numbers Data](#)

[IMDb Data](#)

Contacts:

samwhitehurst23@gmail.com

sarrailleclaire@gmail.com

nicholastjandra1@gmail.com