

# PREDICTING DOMESTIC BOX OFFICE SUCCESS

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## CAN WE PREDICT DOMESTIC GROSS BOX OFFICE RESULTS?

“No one can tell you how a movie is going to do in the marketplace... not until the film opens in darkened theatre and sparks fly up between the screen and the audience”



The movie business is considered one of the riskiest endeavors for investors.

Jack Valenti, president and  
CEO of MPAA (198)



## DATA USED

**IMDB: 2,000 movies from 1996  
to 2016**

**Wikipedia: Oscar  
nominations**

**U.S. Dept of Labor BLS:  
Consumer Price Index**



# MODEL FEATURES



## Movie Budget

Estimated movie budget in U.S. dollars adjusted for inflation.



## Academy Award Nominations

Total academy award nominations for director, writer, and top three billed actors/actresses.



## Genre

21 genres were considered with the possibility movies were categorized based multiple genres.



## MPAA rating

Based on the Motion Picture Association of America rating system



## Release Month

Month the movie was originally released.



## Runtime

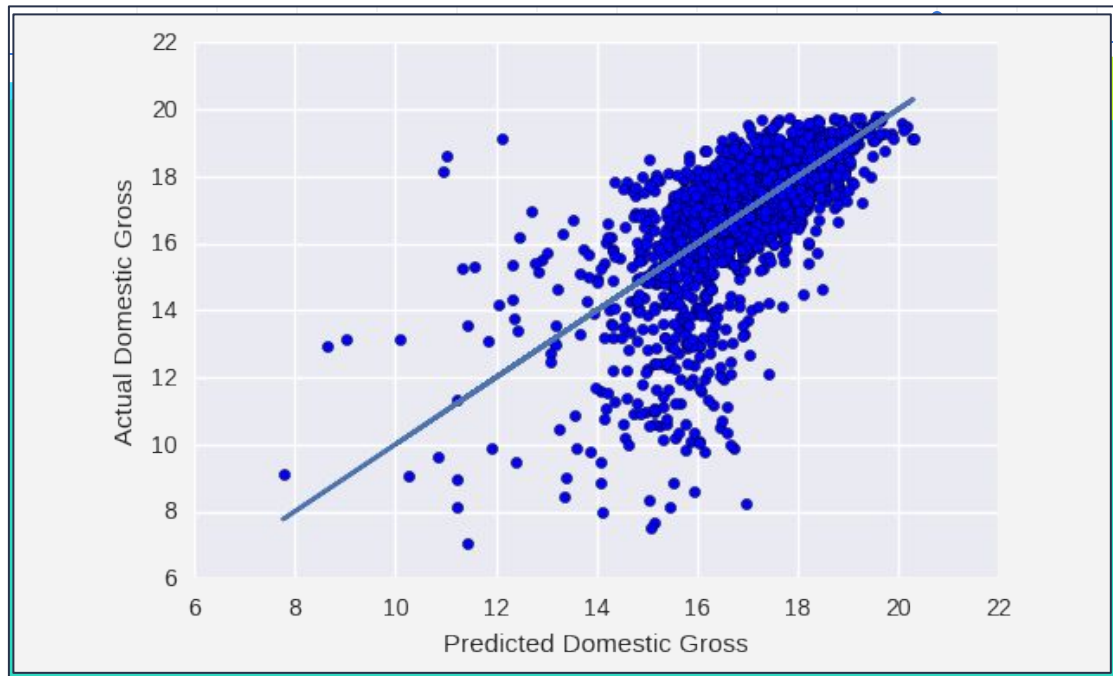
Total runtime of the movie in minutes.



## MODEL PERFORMANCE

	OLS	Lasso
Features	49	49
$R^2$ (Test)	0.426	0.426

# Model Performance

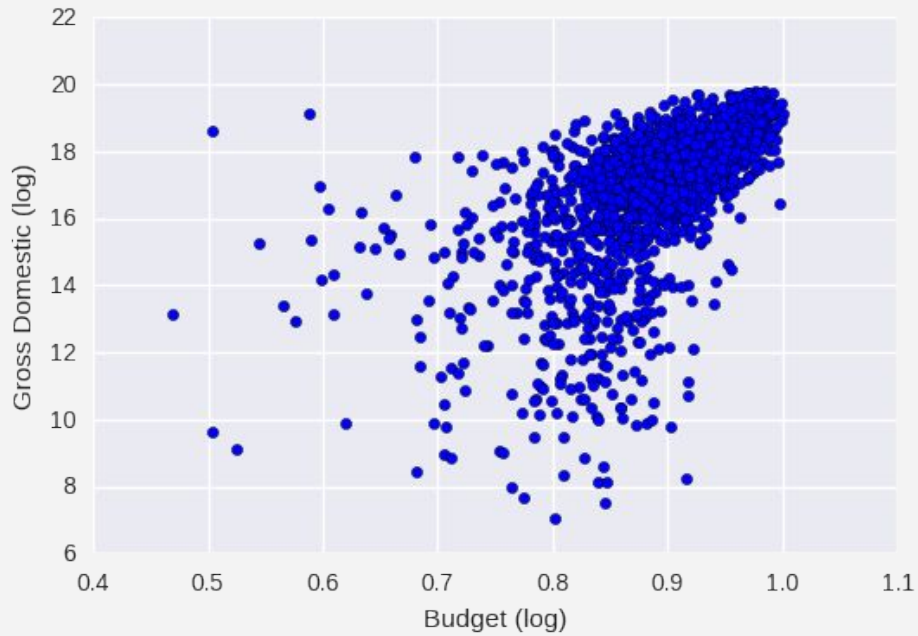




# BUDGET

**No way! Who would have thought?**

## Budget v Gross Domestic





## OTHER IMPORTANT FEATURES

### MPAA-Rating

Family friendly movies  
(G, PG, PG- 13)

Negative correlation  
for unrated movies

### Nominations

Actors - more nominations

Director and writers:

- 1 to 4 nominations +
- 5 or more -

### Genres

Positive:

- Documentary
- Horror
- Comedy

Negative:

- Western
- Drama
- Crime

### Month

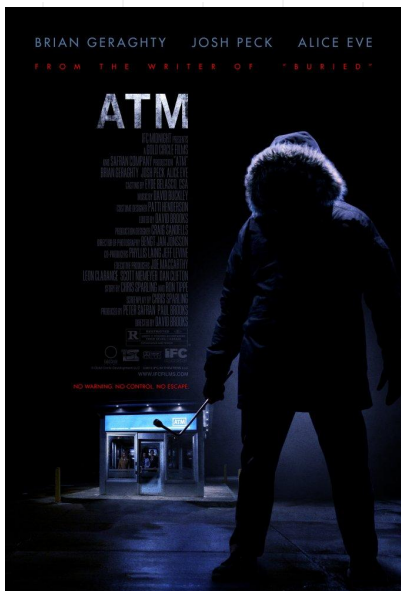
Positive:

- January
- November
- July

Negative:

- October
- August
- May

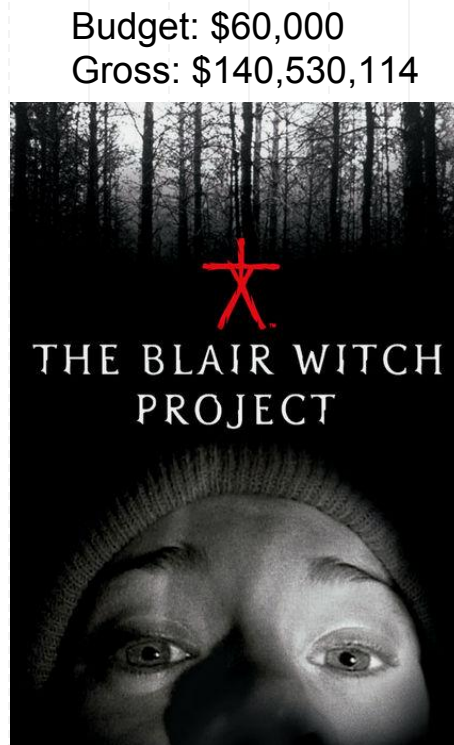




Budget: \$3,000,000  
Gross: \$3,010



Budget: \$15,000  
Gross: \$107,917,283



Budget: \$60,000  
Gross: \$140,530,114

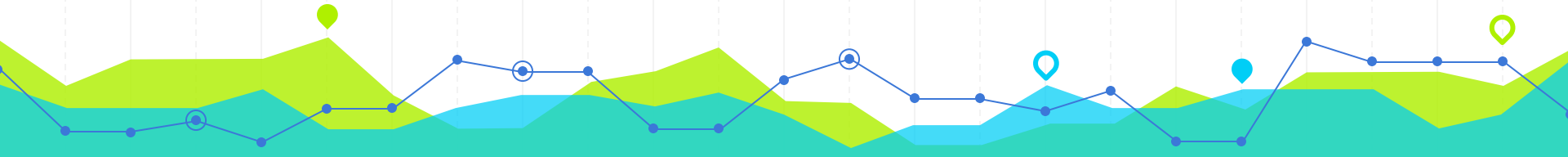
*Always make the audience  
suffer as much as possible.*

*-Alfred Hitchcock*



# ADDITIONAL CONSIDERATIONS

## STAR POWER FRANCHISE STUDIO



# THANK YOU!

Questions?

