



Predicting Movie Success- Gross Revenue

Christopher Guerrero - Linear Regression

Background on the Cinema Industry

Market Size:

2021: \$17.4 billion

COVID

~20% drop since 2019

Movies Released / Year:

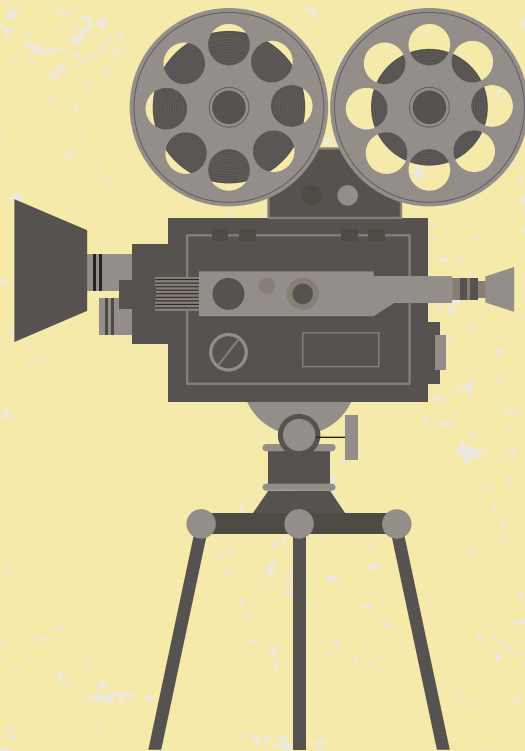
*~ 850 (Average)
2020: 350*

Streaming

*Theatres: Drop from 43% to
15% of global entertainment*

Project OutLine

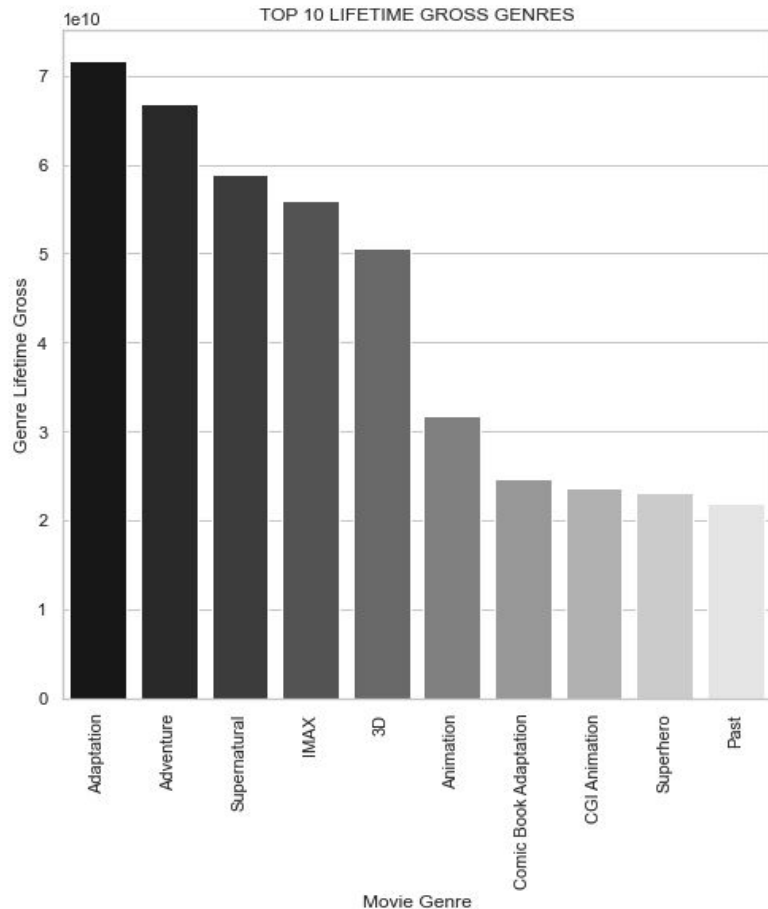
- Data Gathered-
BoxOfficeMojo.com
- Features Observed:
 - Duration
 - MPAA Rating
 - Movie Budget
 - Month Released
 - Genres
 - Distributors



Initial Hypothesis

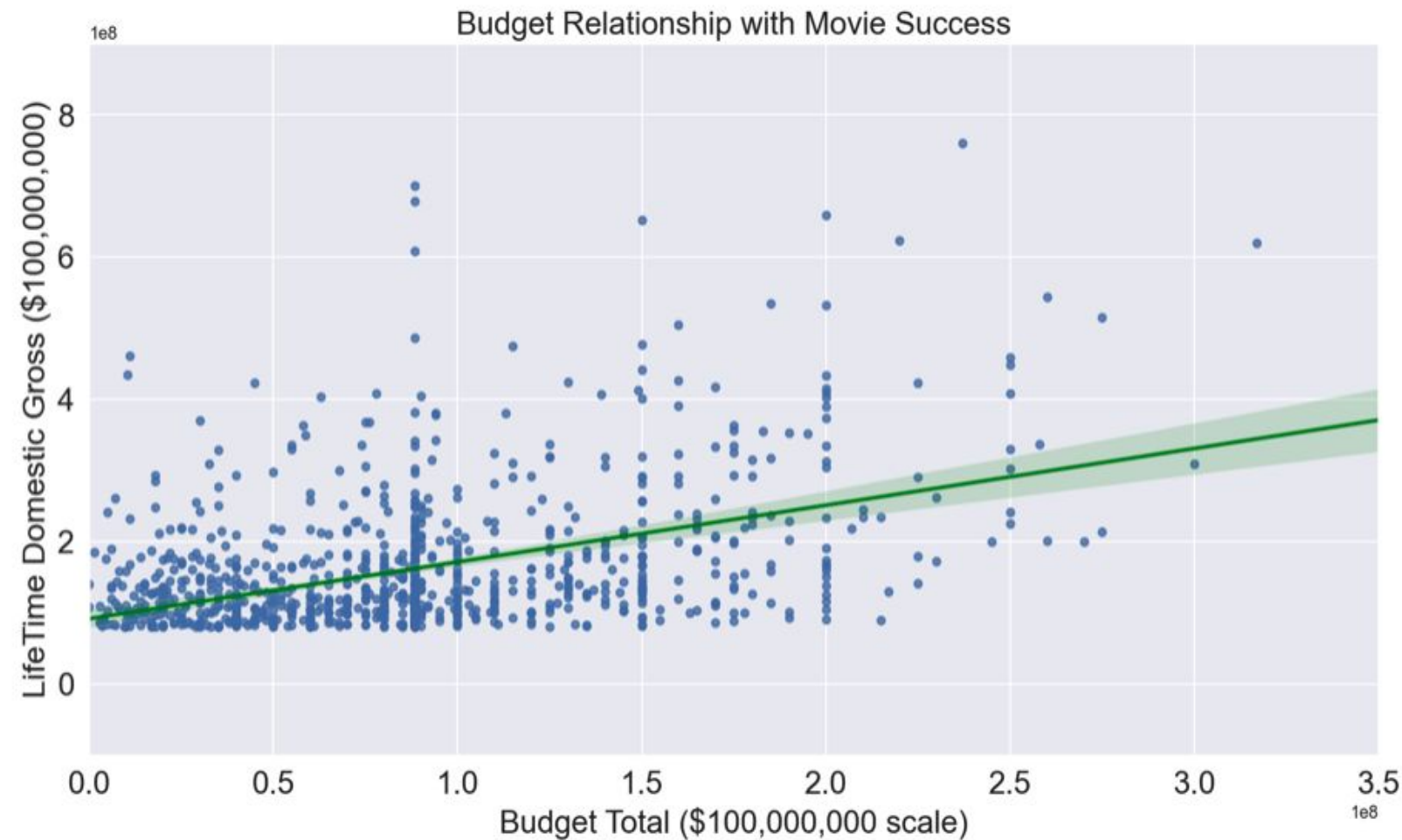
Movie Genres

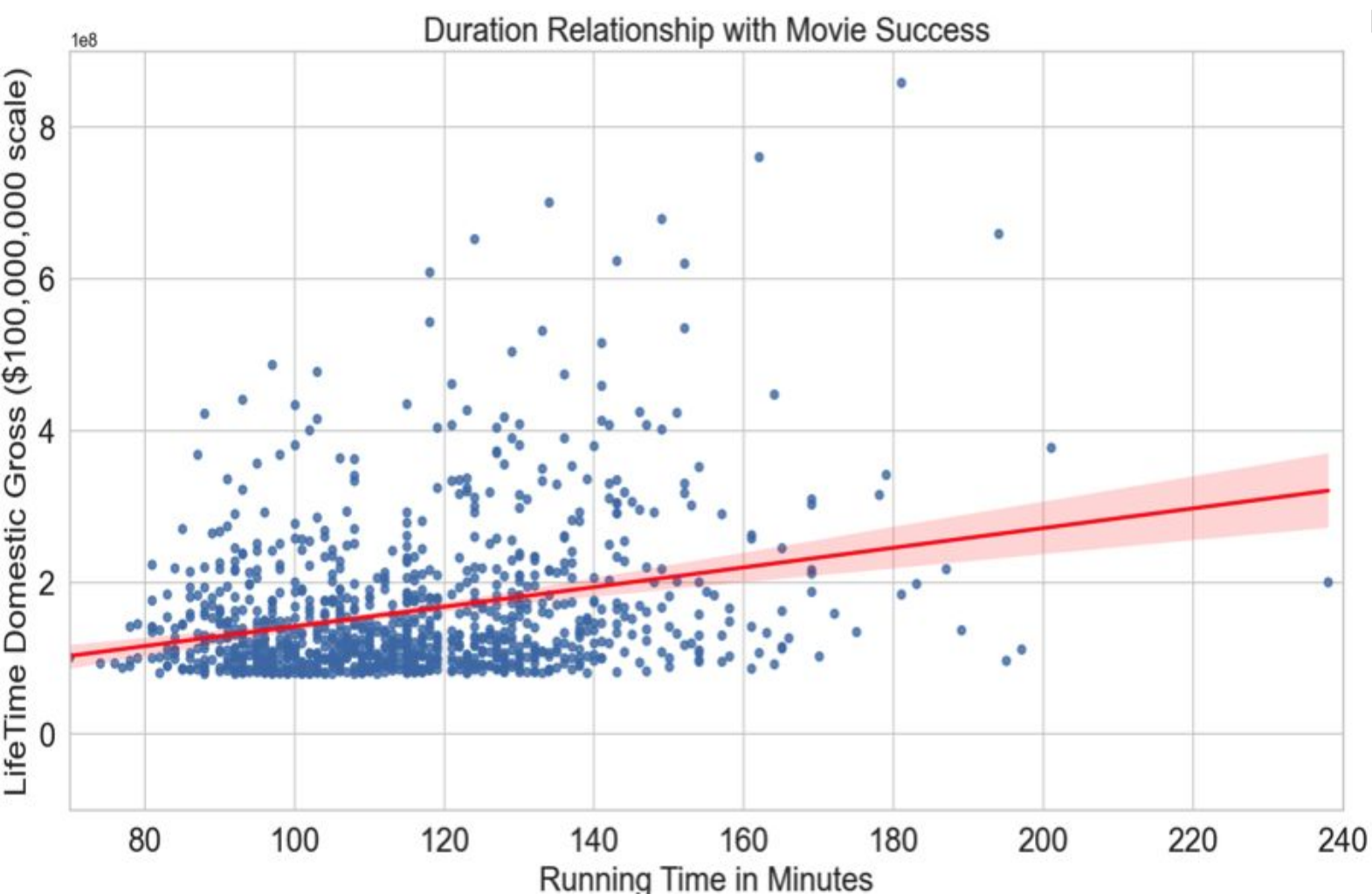
The type of movie has one of the largest impacts on revenue



$R^2 : .44$

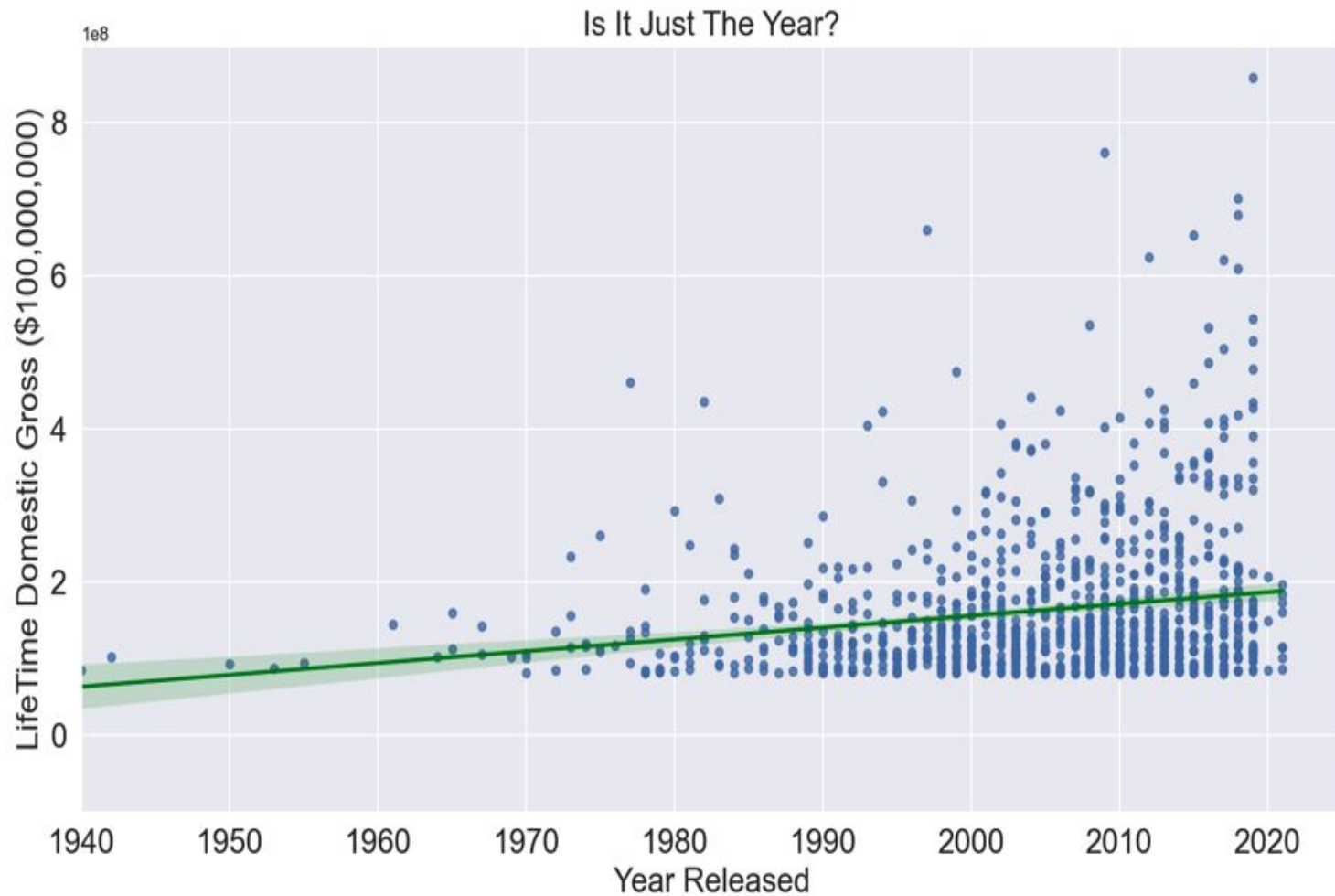
-Highest
correlation
with
domestic
gross





R^2 : .310

- Not quite as impactful, but highly correlated compared to the rest of the data

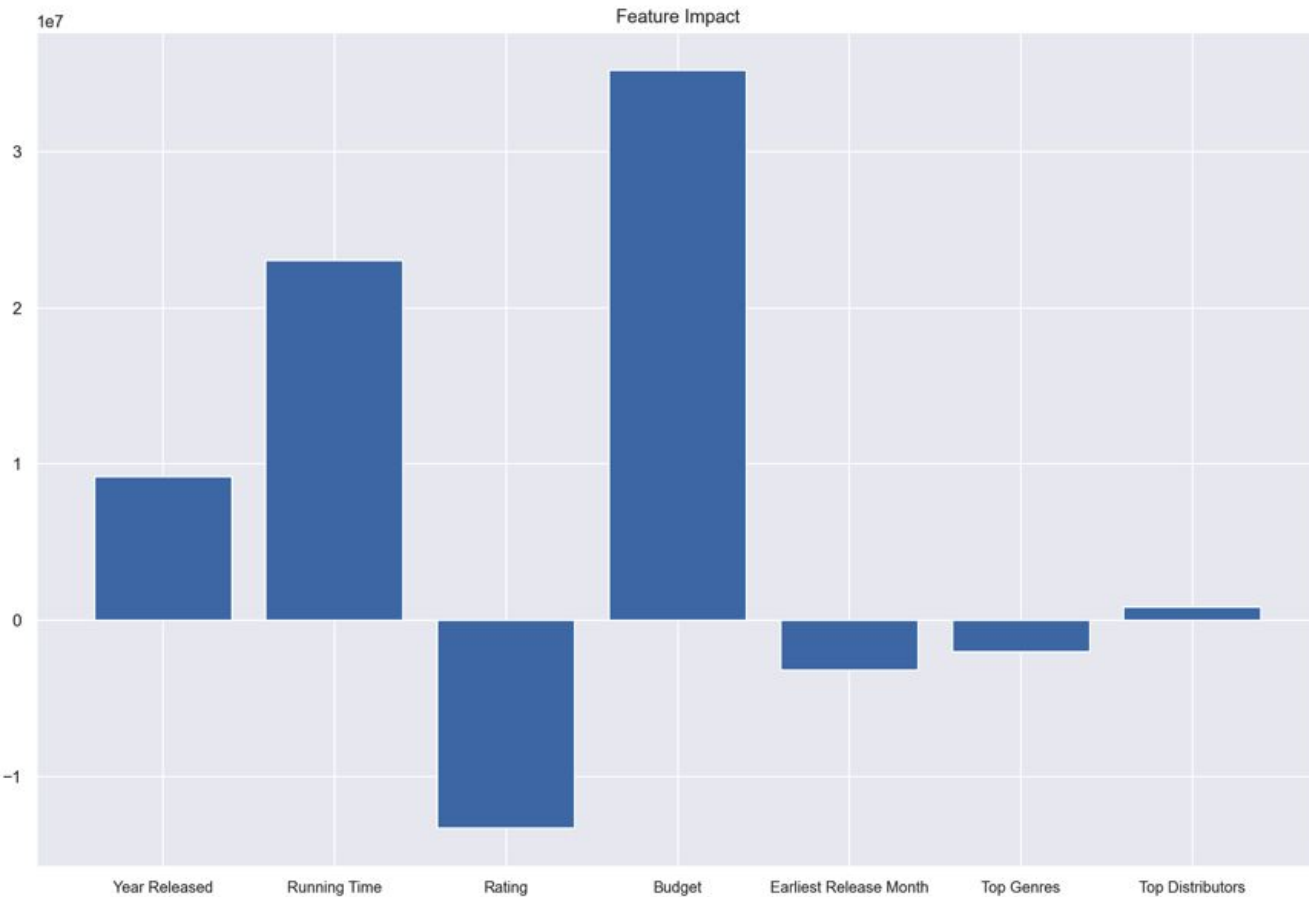


$R^2: 2$

New Movies have
mostly outliers

COVID/ Pandemic
impacts will skew the
data

Features that Impacted Lifetime Gross Revenue The Most



Highest Impact:

- Budget
- Running Time
- Year Released
- Top Distributor

Least Impactful:

- Rating
- Month Released
- Genres

Conclusions

- Correlations vary widely across different movie features
- Budget / Production Value is a strong indicator of a movie's success
- Data can vary due to technology difference over time and accessibility
- It also appears that the cinema industry can vary significantly with outliers

Future Work

- Look further into Genre category
- Analyze the differences/impact of international success
- Re-acquire Data to see how the theatre industry has changed
- How has/will the streaming industry continue to impact 'box office success'
- Other methods of measuring "success"

Appendix

