Movie Actor Linear Regression
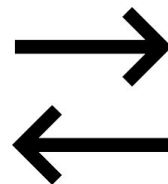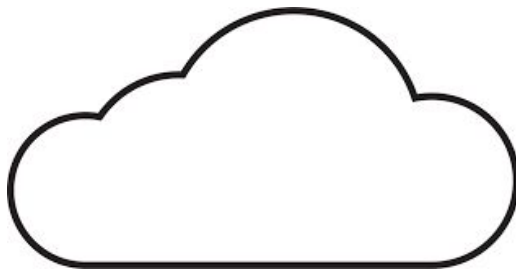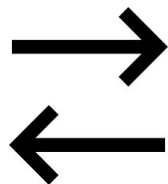
Capstone 1

Which star should you hire for your next big movie?
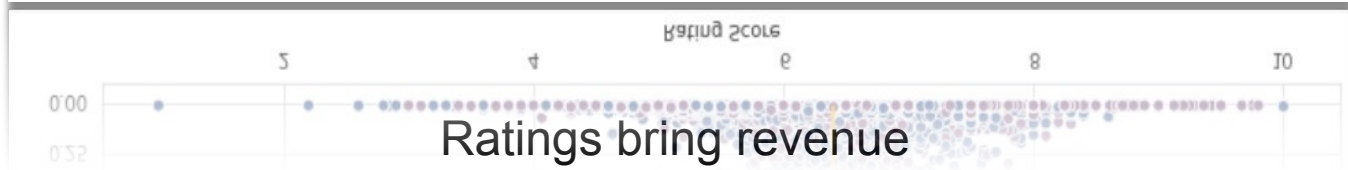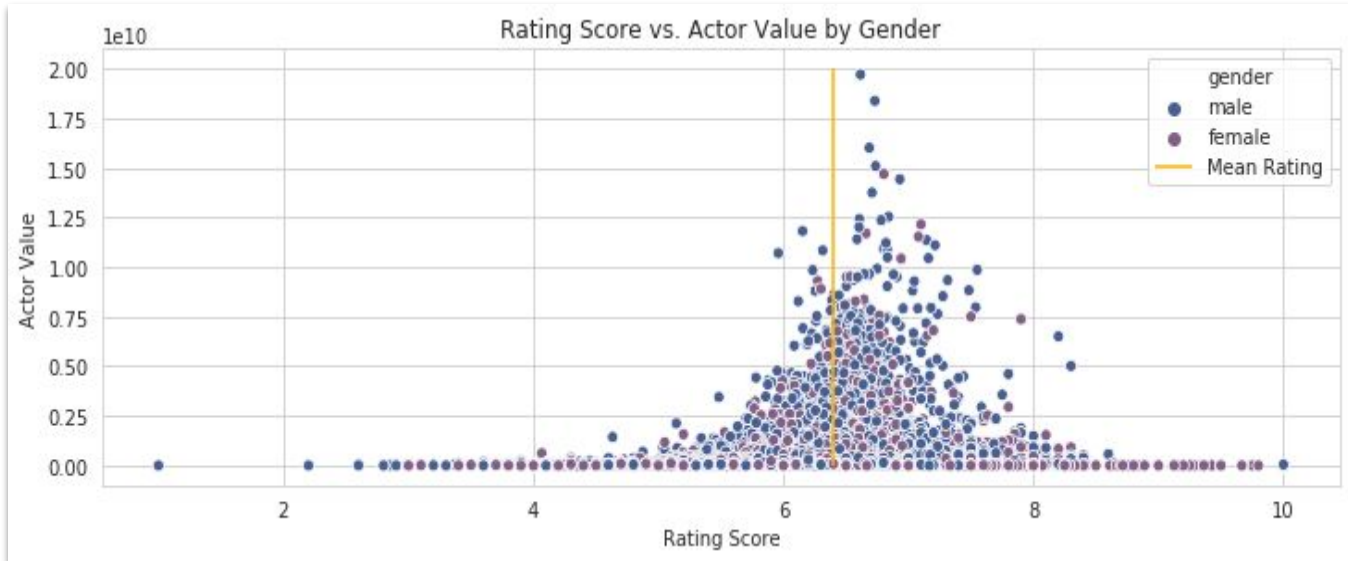
API Requests
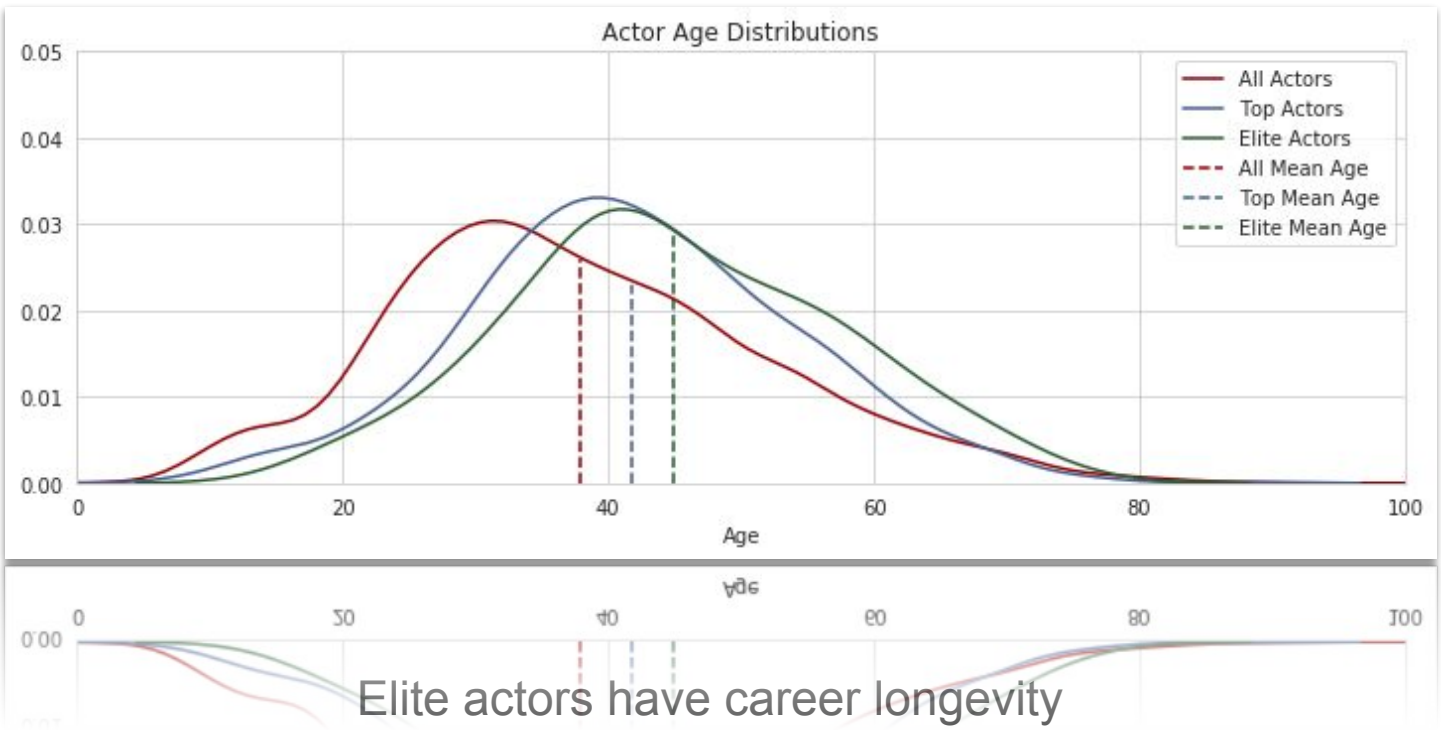

150 hours later

Data Story

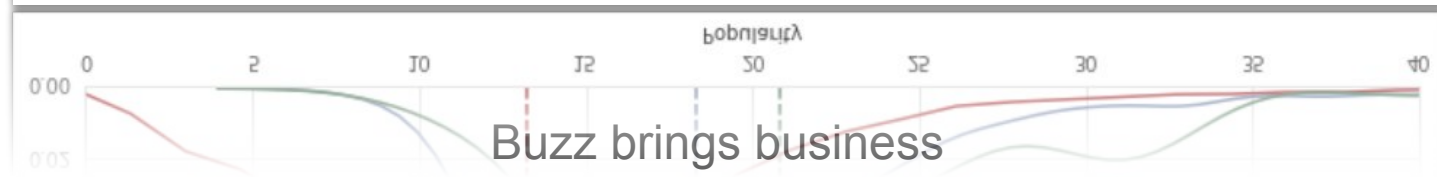Rating Score vs. Actor Value by Gender

Ratings bring revenue

Movie Budget Distributions
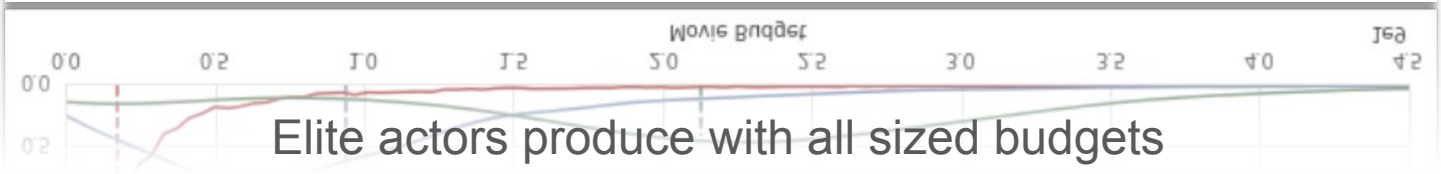
Elite actors produce with all sized budgets

Actor Age Distributions

Elite actors have career longevity

Actor Billing Order Distributions
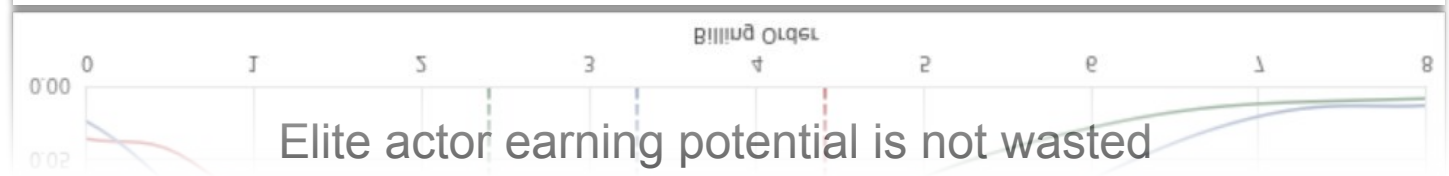
Elite actor earning potential is not wasted
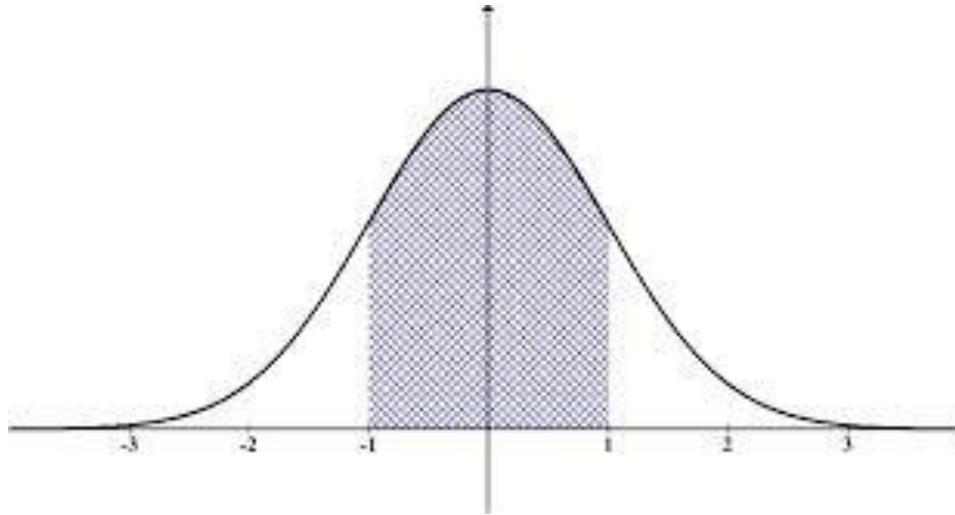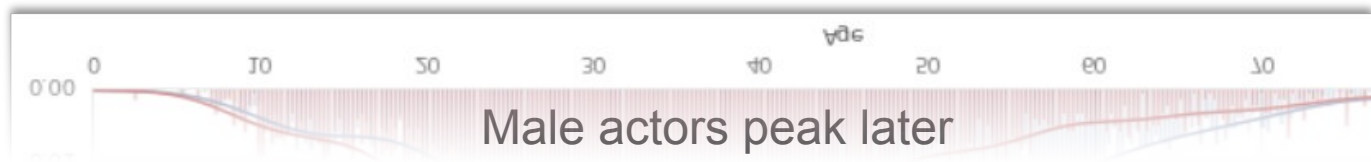
Actor Popularity Distributions

Buzz brings business

Movie Genres by Actor Tier
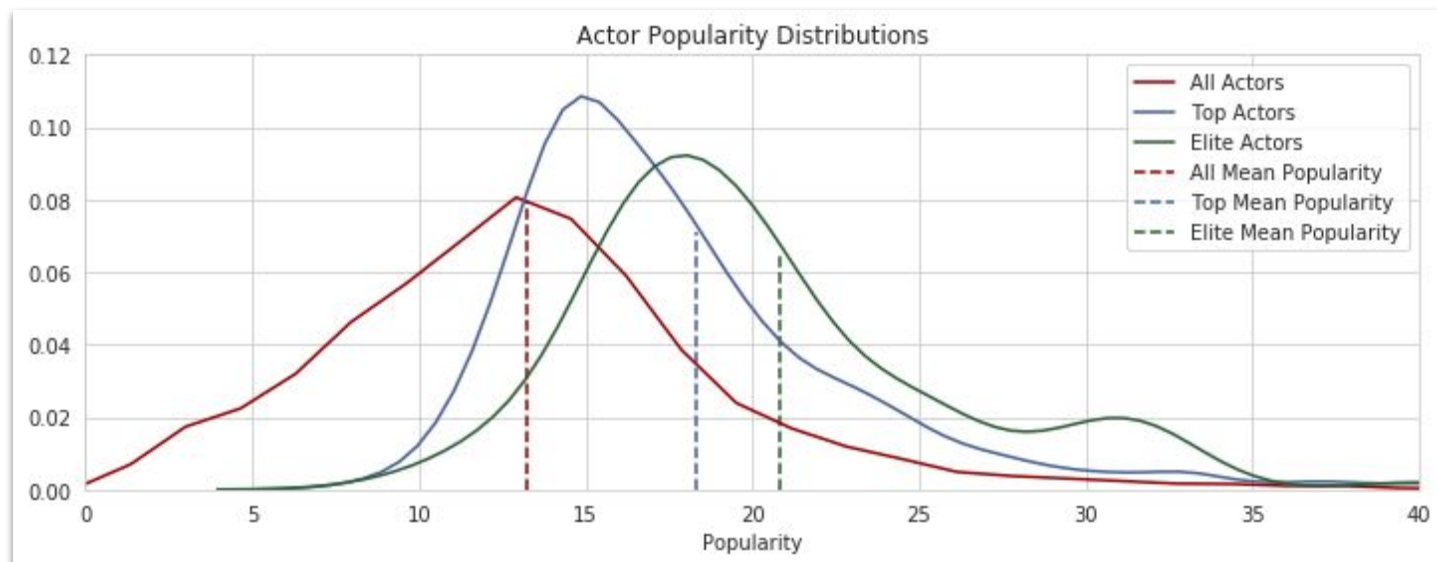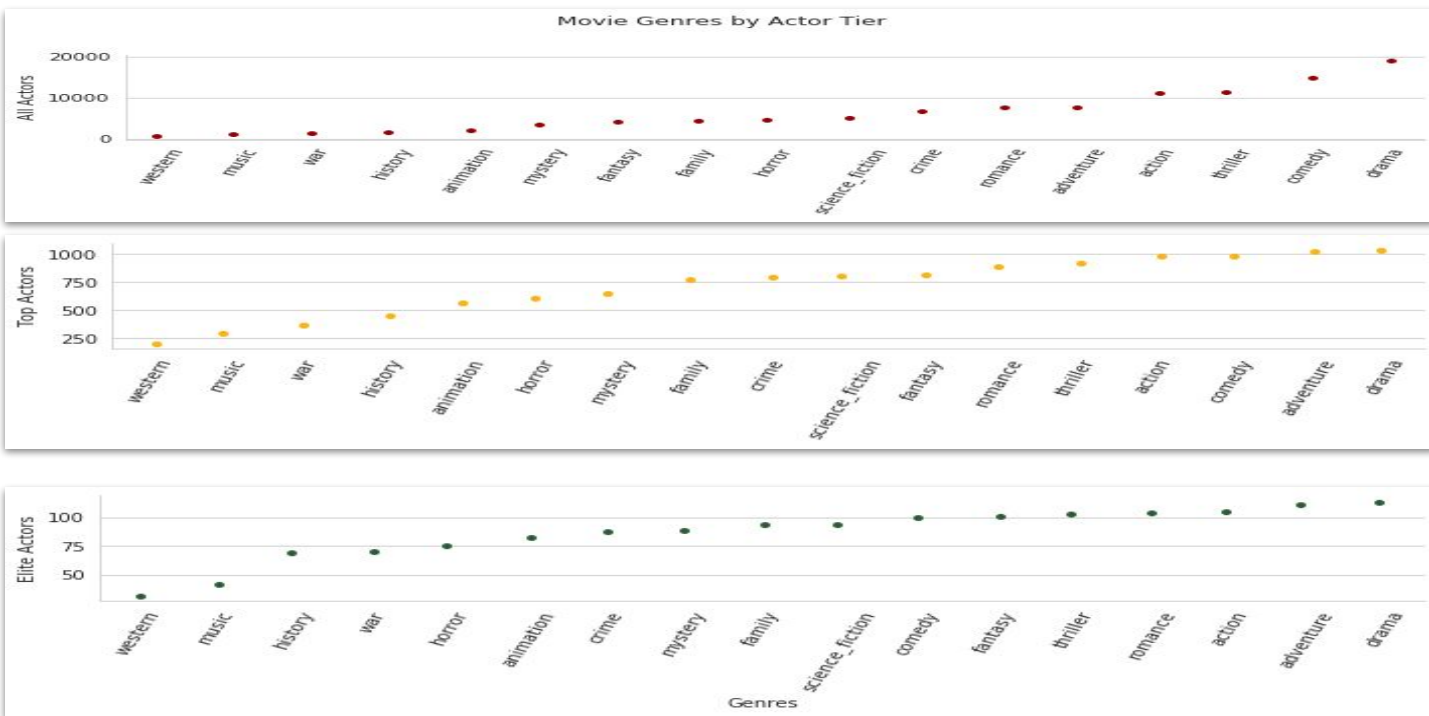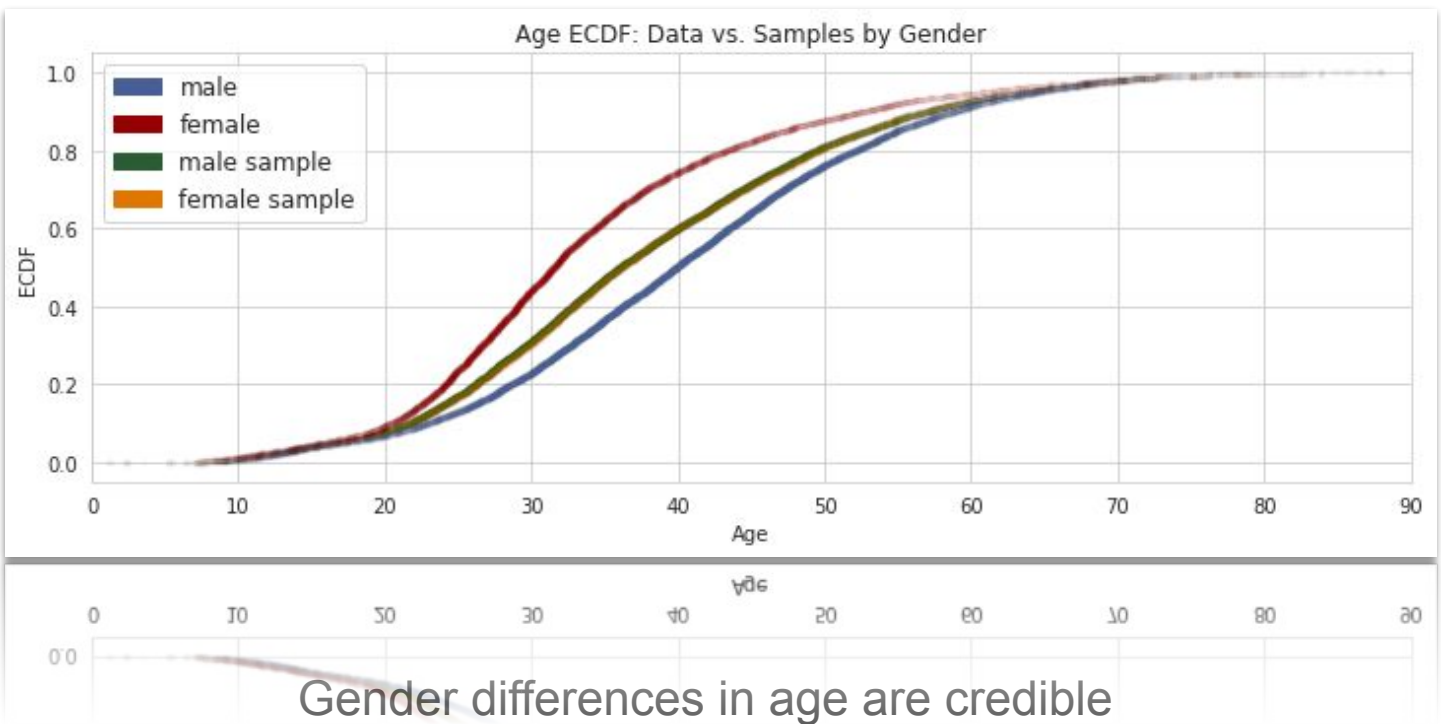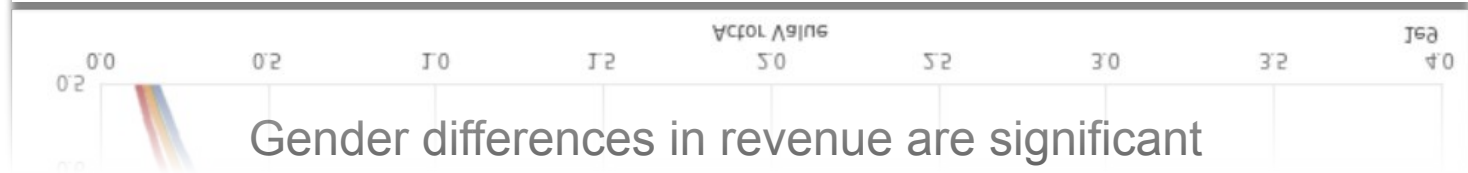
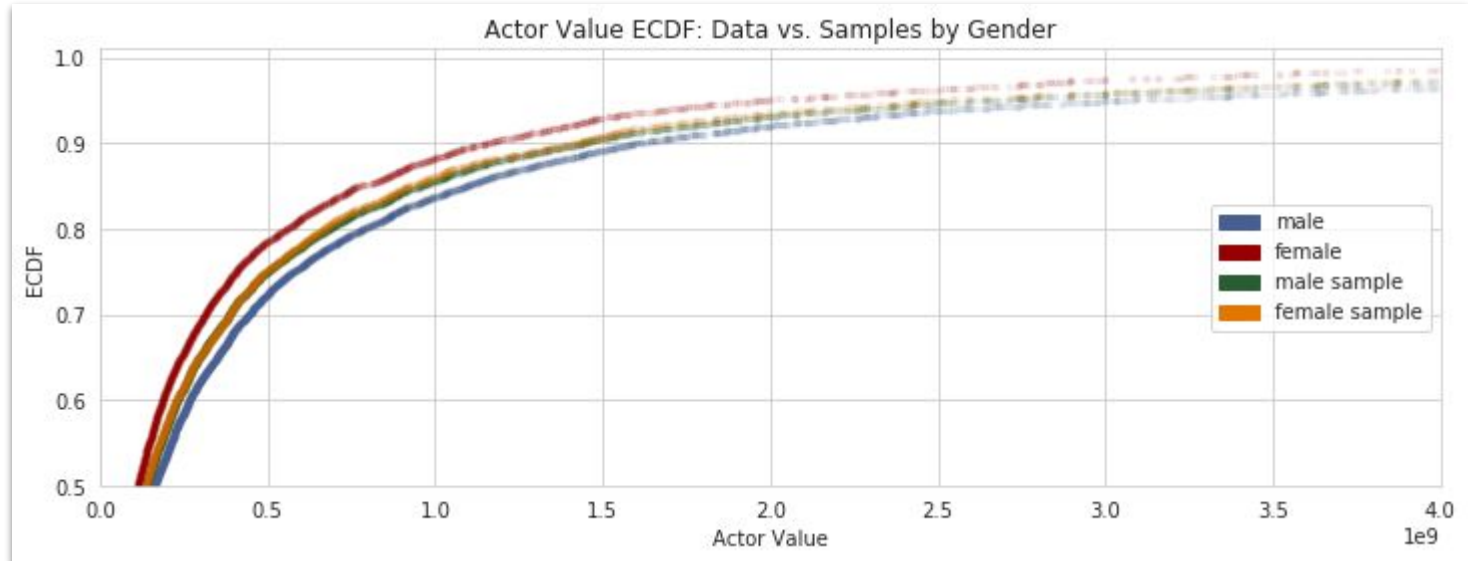Drama movies benefit all tiers

Movie Genres by Actor Rank
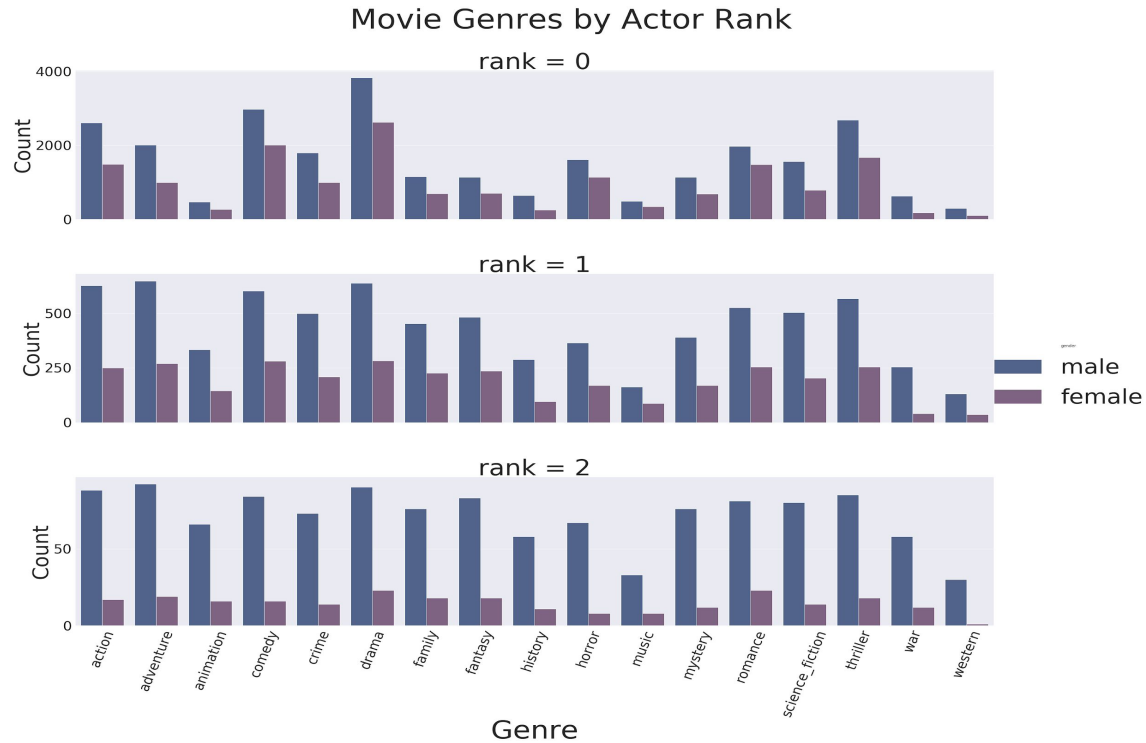
Male actors dominate the elite earning category

Statistical Analysis

Actor Age by Gender

Male actors peak later

Age ECDF: Data vs. Samples by Gender

Gender differences in age are credible

Actor Value ECDF: Data vs. Samples by Gender

Gender differences in revenue are significant
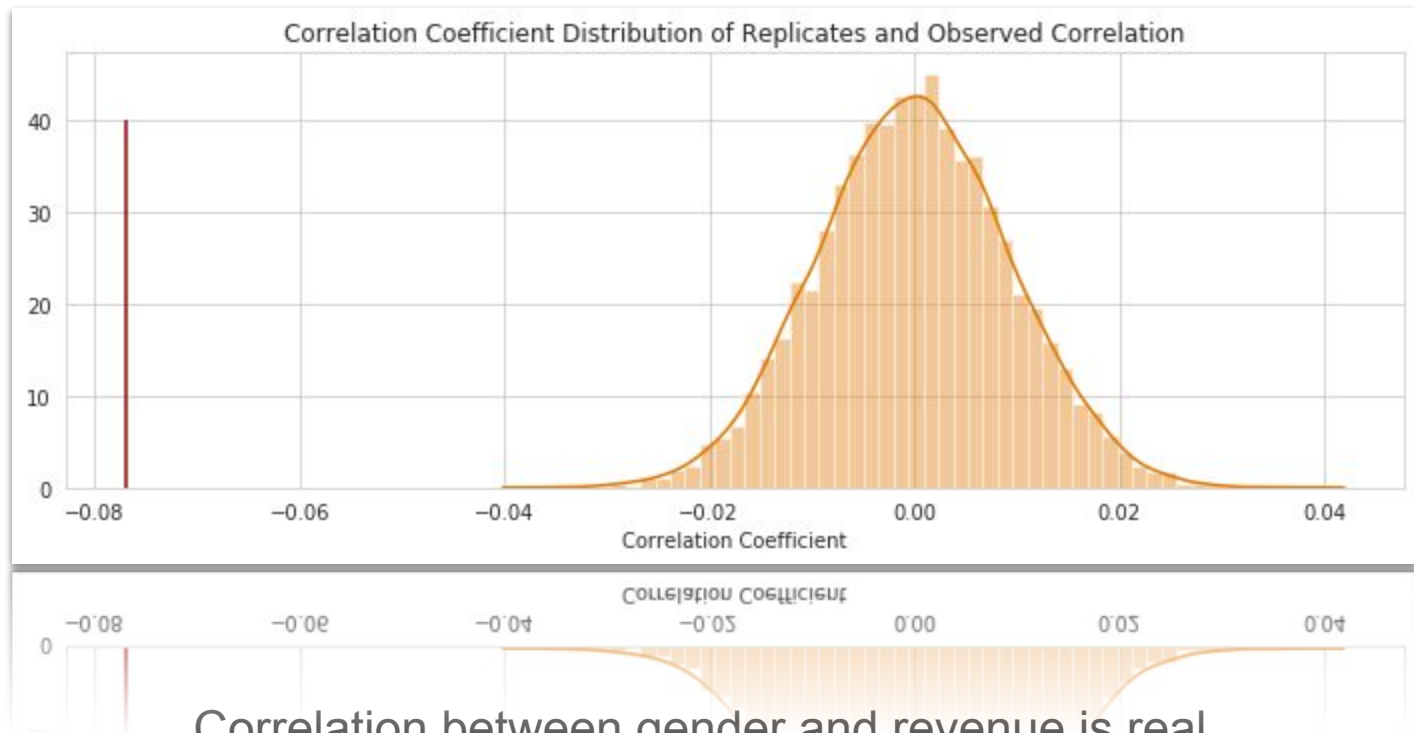
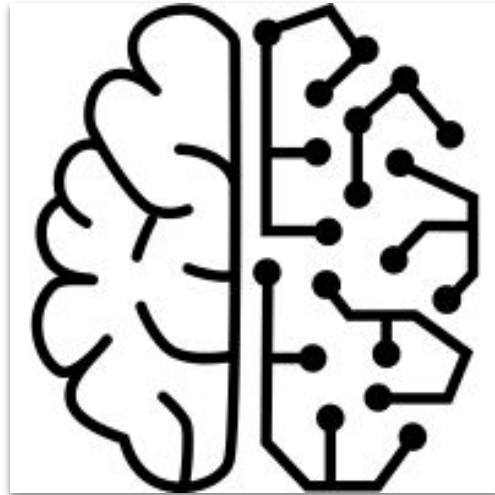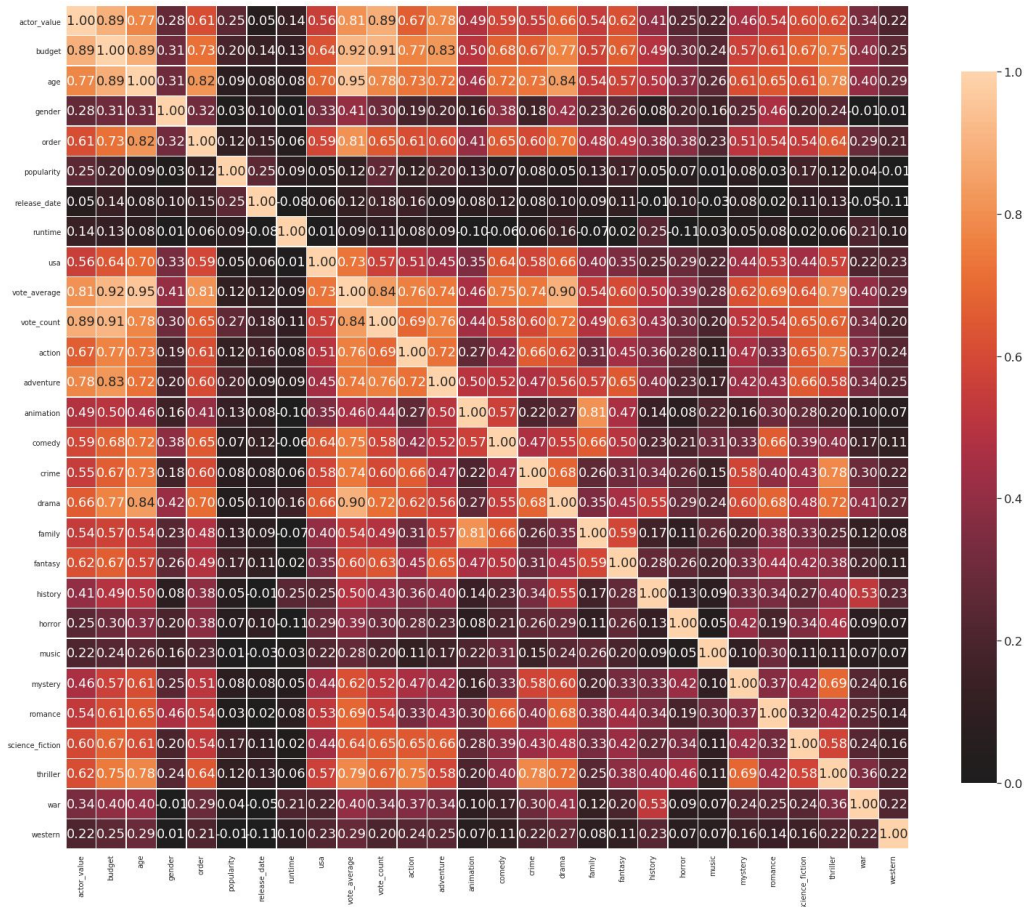Correlation Coefficient Distribution of Replicates and Observed Correlation
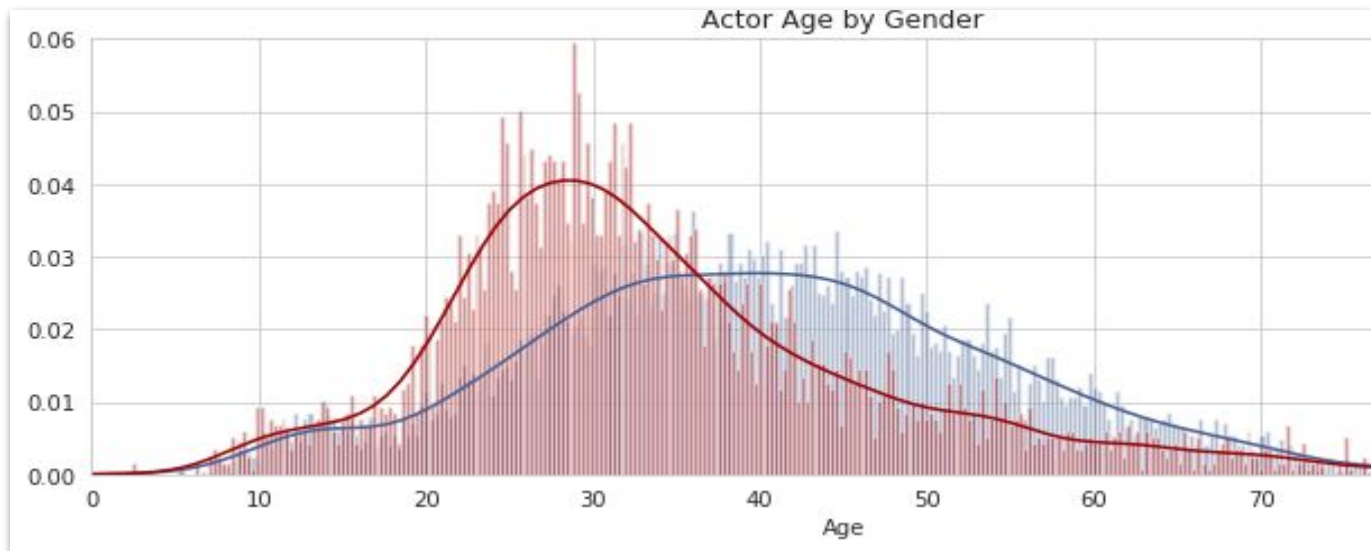
Correlation between gender and revenue is real

In-depth Analysis

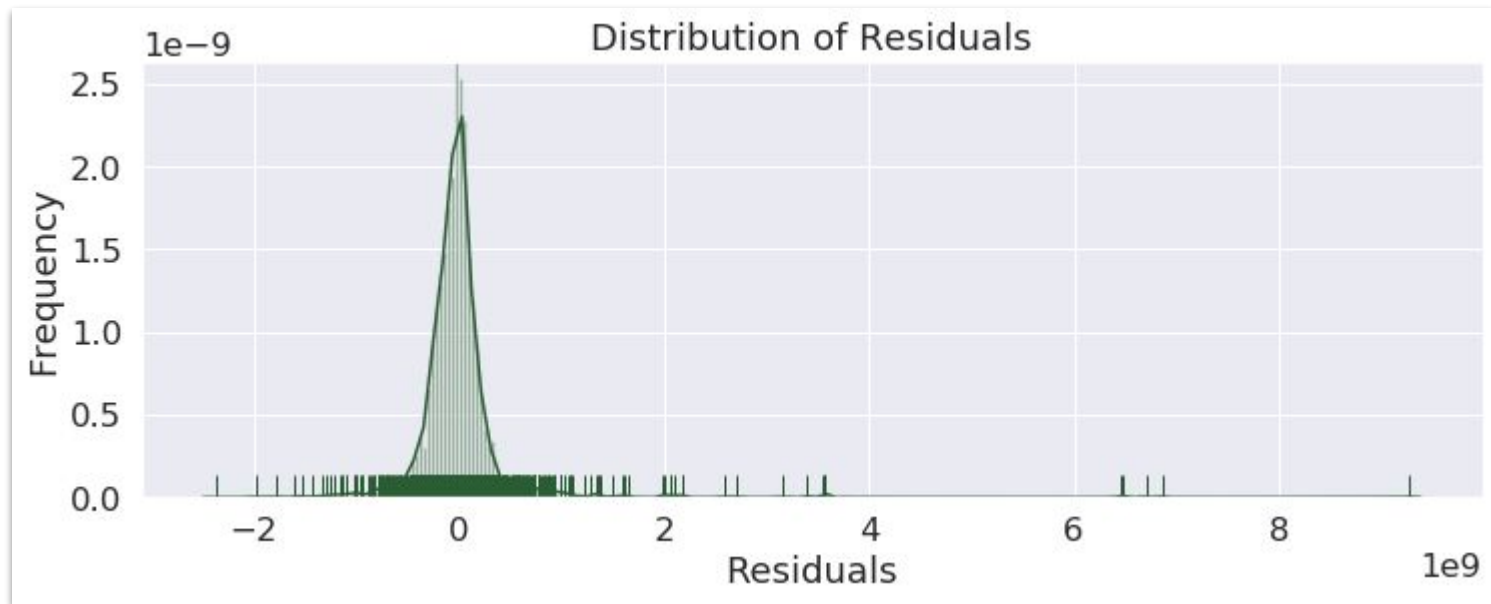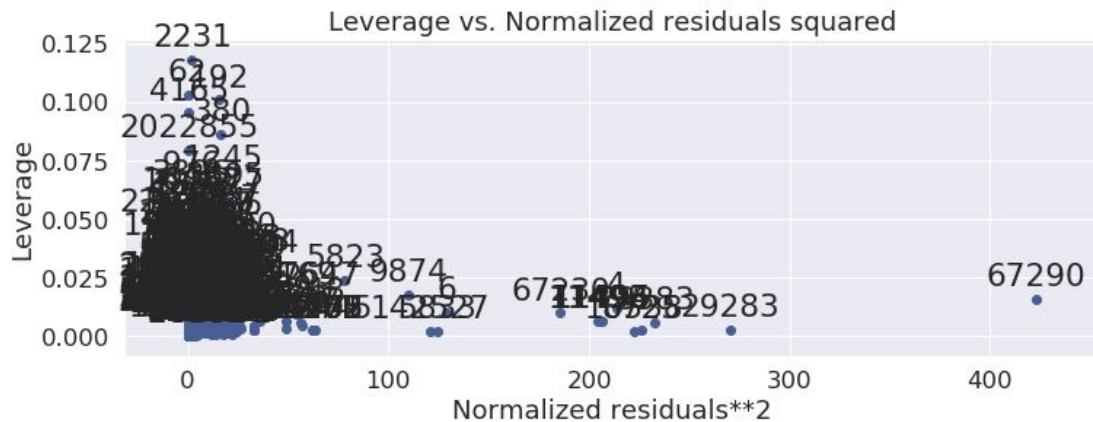# Correlations are found

Ground Truth vs Predicted
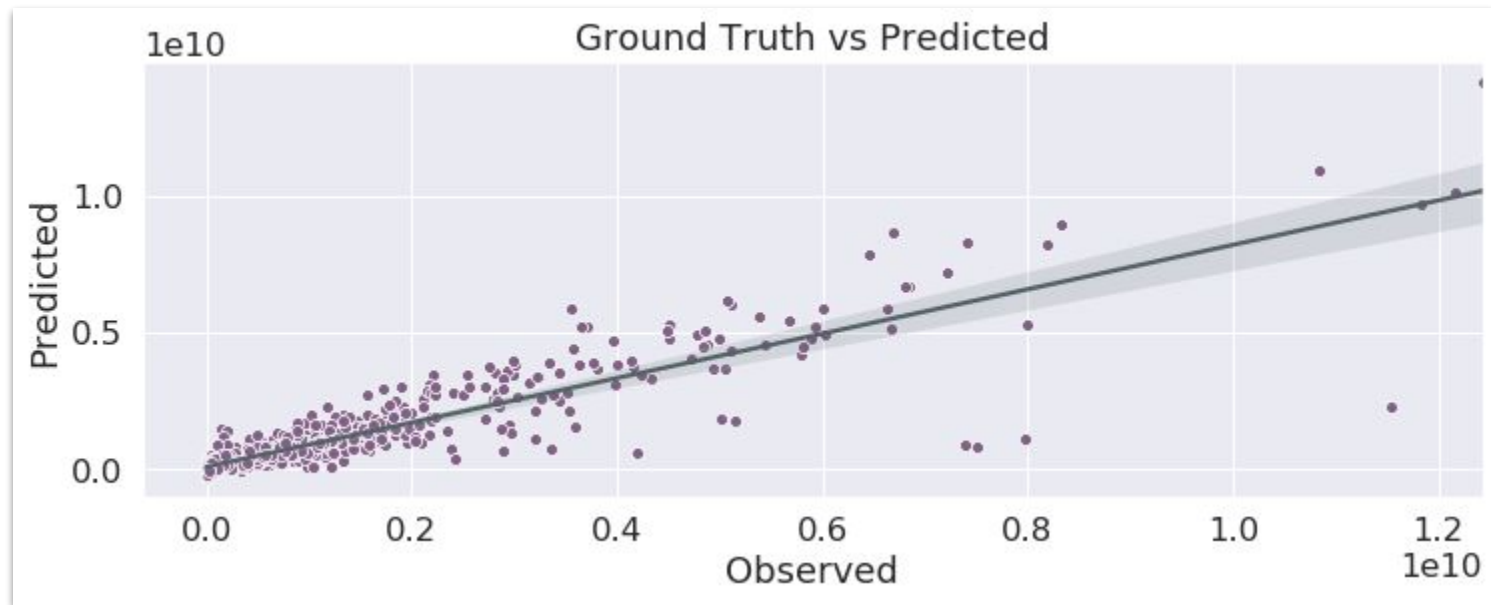
Prediction variance is fairly close to ground truth
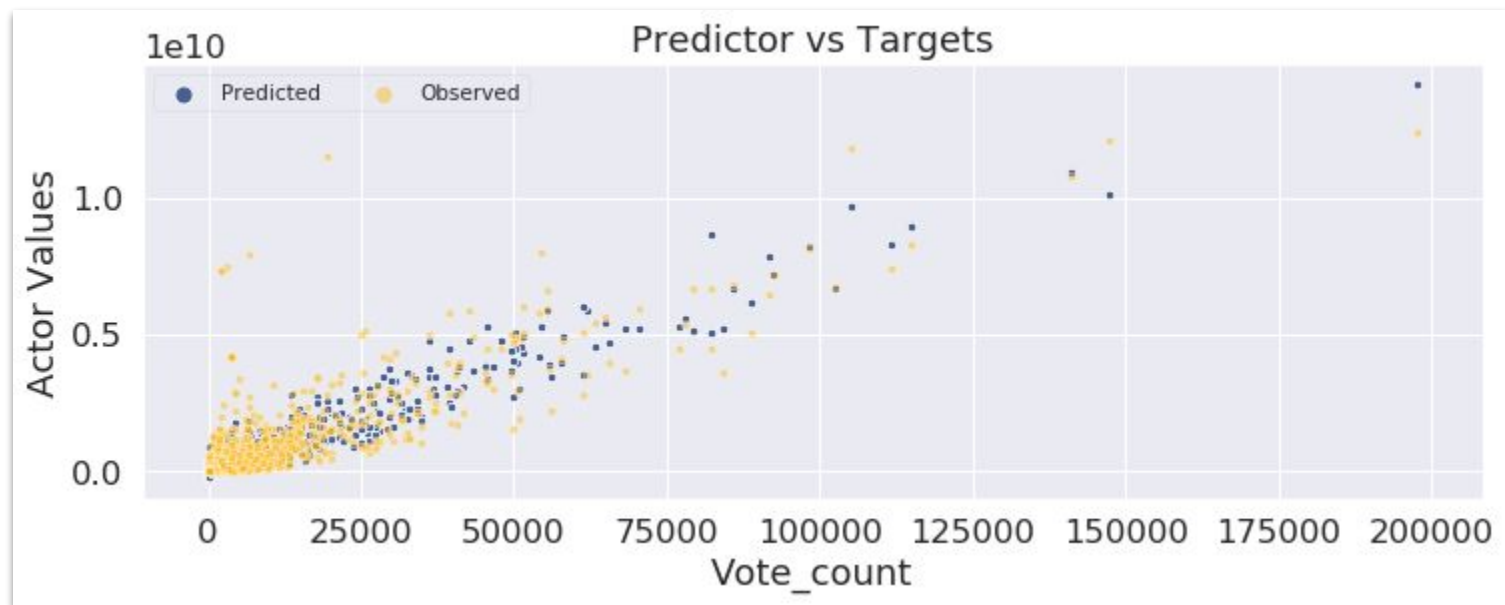
Residuals are fairly normal

Leverage vs. Normalized residuals squared

Verna Felton is unpredictable

Total votes cast feature is a strong predictor

The moment of truth