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# Reboots & Remakes

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# Overview

# Problem

- New IP can be risky
- Can we identify potential IP to revisit?  
(Either through Remakes or Reboots)
- What factors contribute the most to success? (Gross)

# Data & Methodology

# Data

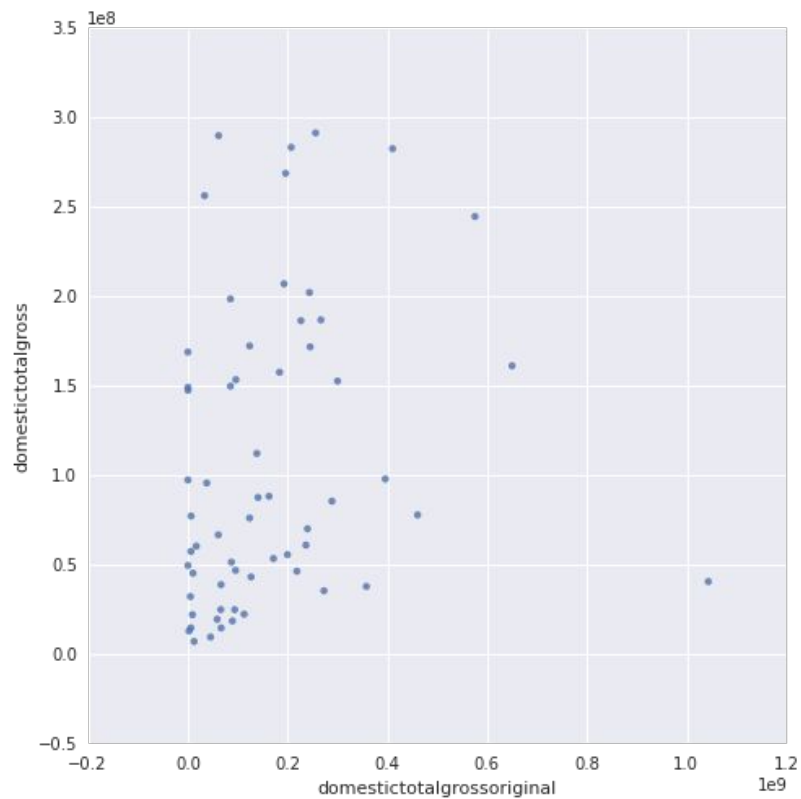
- Scraped Box Office Mojo
- Collected information about movies including Gross, Budget, Release Dating, MPAA Rating, and Genre
- Ended up with 70 pairs of movies
- Lots of missing data from older movies

# Methodology

- Selected features from scraped data
- Modeled Gross vs each of the features
- Combined Features into one model to see improvements

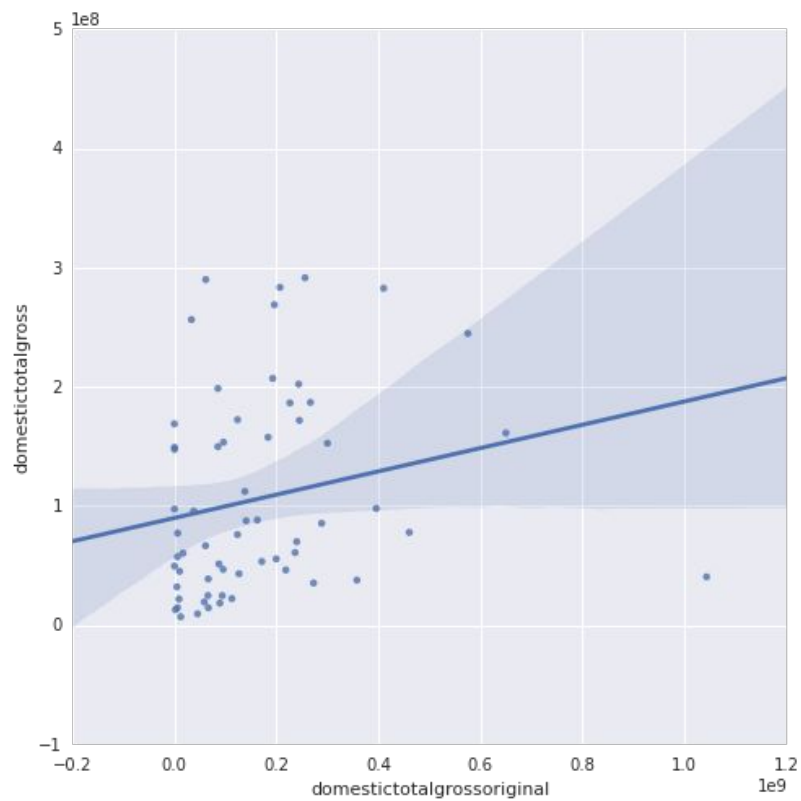
# Modeling & Analysis

# Original Gross

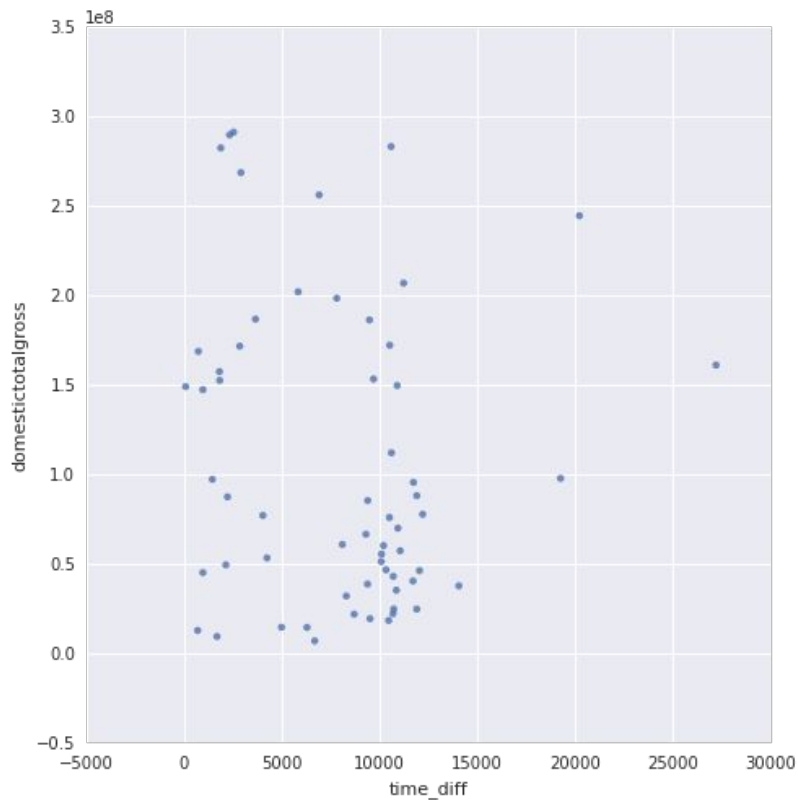




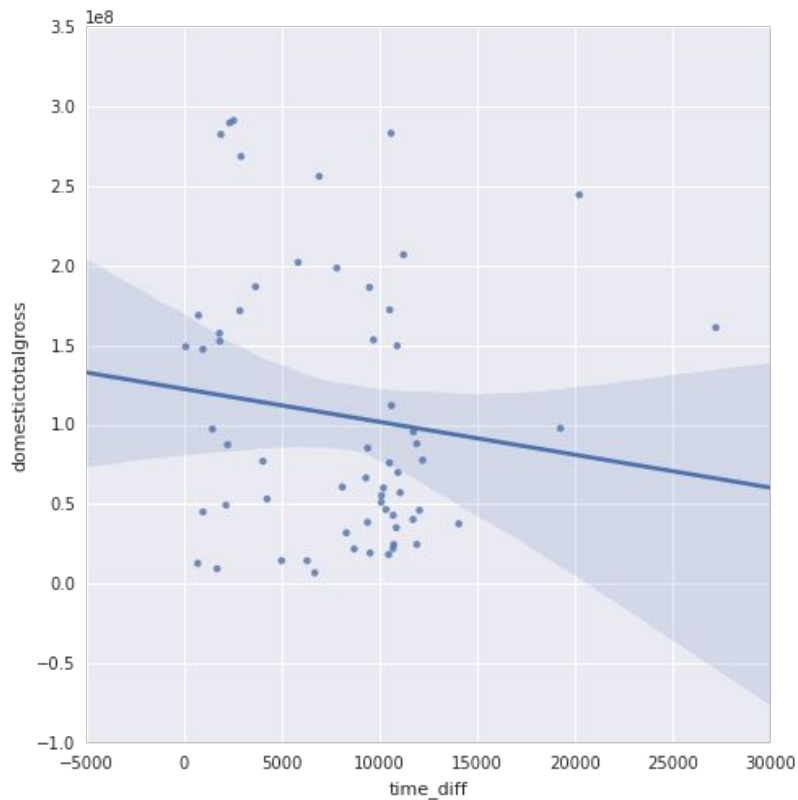
# Original Gross



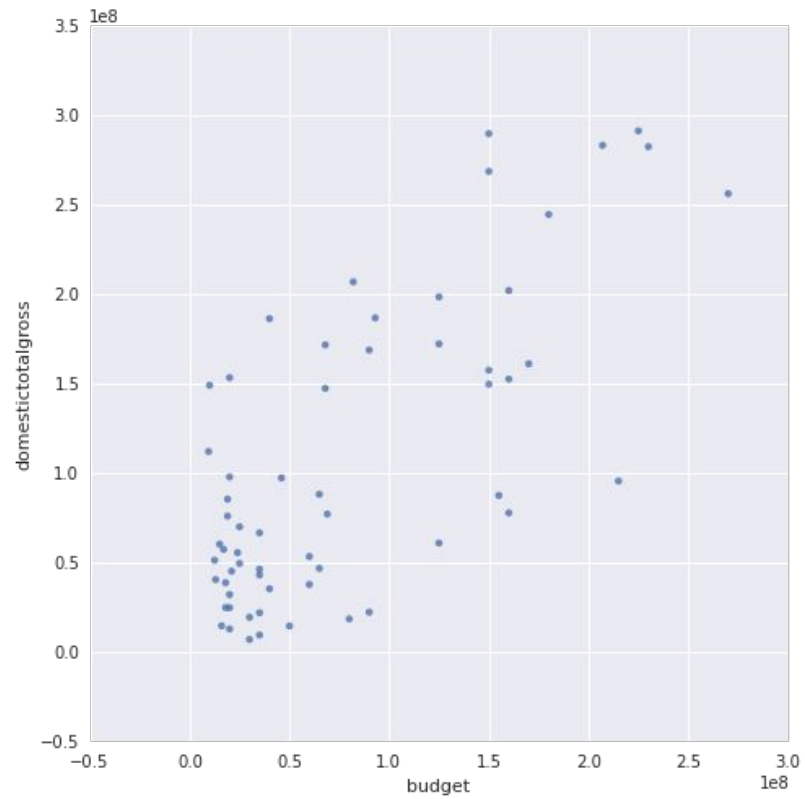
# Time Difference Between Release Dates



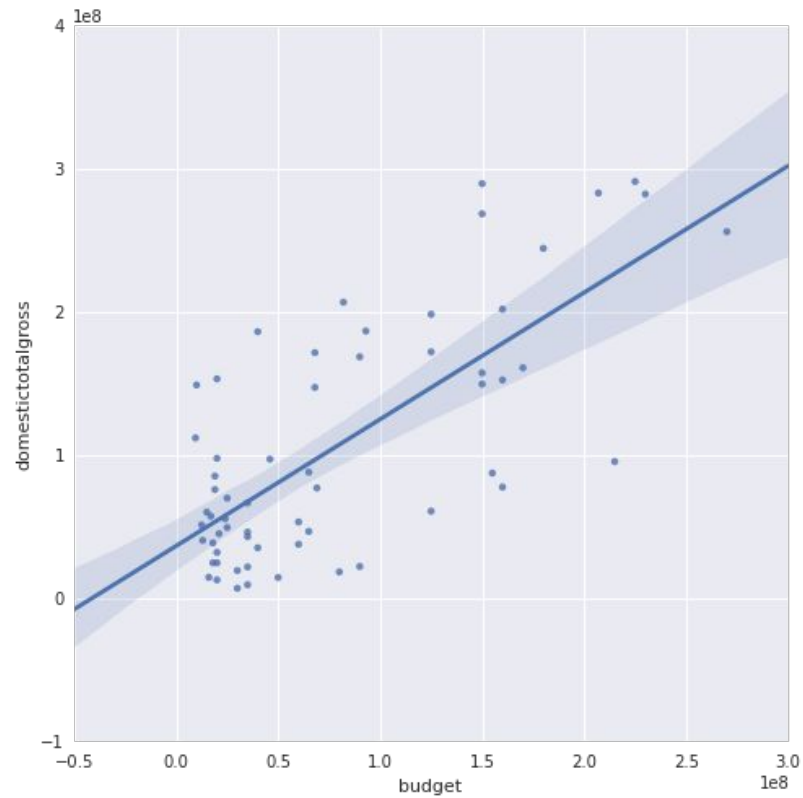
# Time Difference Between Release Dates



# Budget



# Budget



# Budget vs Budget, Original DTG, and Time Diff

Features	R <sup>2</sup>	Adjusted R <sup>2</sup>	Mean Squared Error
Original Gross	0.046	0.030	$6.55 \times 10^{15}$
Time Difference	0.017	0	$6.75 \times 10^{15}$
Budget	0.528	0.520	$3.24 \times 10^{15}$
Budget & Gross & Time Diff	0.552	0.528	$3.07 \times 10^{15}$

# Conclusions

# Conclusions

- Movies are complex nonlinear systems
- Need more data!
- Budget is a somewhat reasonable indicator of DTG



## Next Steps

- More Complex Models - Decision Trees/Adaboost/SVR
- Collect More Data
- Engineer better features

**Questions?**