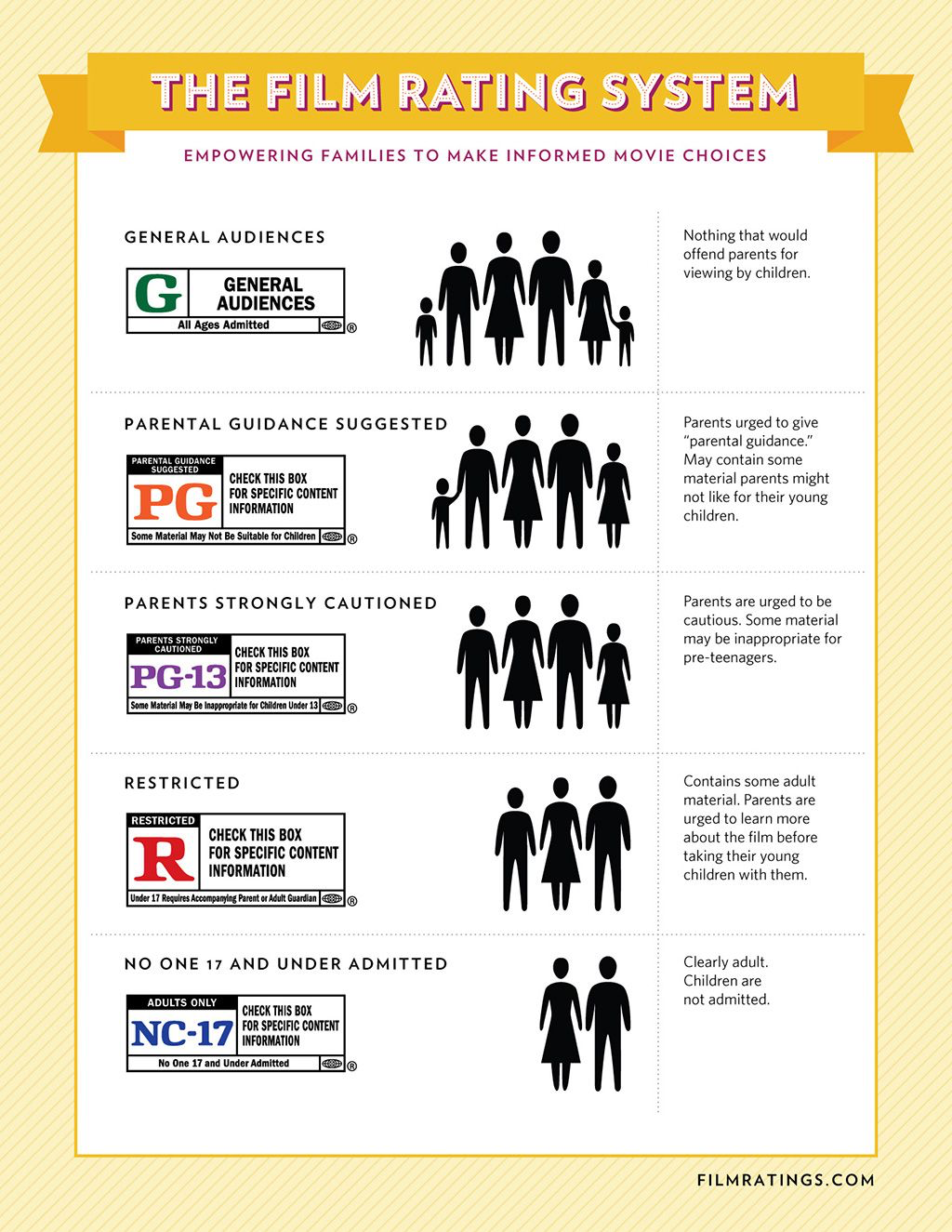
MPAA Film Ratings

source: <http://www.mpaa.org/wp-content/uploads/2013/11/film_ratings1.jpg>

Recode = [G, PG, PG-13, R, NC-17] ==> categorical

if MPAA rating data is missing, check against this database: <http://filmratings.com/>

Top Movie of Each Year

source: <http://www.the-numbers.com/market/>

- Year, Movie, Creative Type, Production Method, Source, Genre, MPAA rating, Distributor, Total for Year, Total in 2012 dollars, Tickets Sold

additional features:

- can check top 10 films for each year, and see relative proportions of ratings (e.g. how many films were PG for that year)

Movie Budgets: <http://www.the-numbers.com/movie/budgets/all>

fieds: Release Date, Movie, Production Budget, Domestic Gross, Worldwide Gross

- can do ROI as a function of

Domestic Grosses – Adjusted for Ticket Price Inflation (Top 200 Movies)

source: <http://www.boxofficemojo.com/alltime/adjusted.htm?sort=adjustedgross&order=DESC&adjust_yr=2016&p=.htm>

- the 'Unadjusted Gross' from this table (BOM) are pretty close to the 'Domestic Gross' from the-numbers (<http://www.the-numbers.com/movie/budgets/all>)

Question: Do certain MPAA ratings have better return on investment?

Strategy:

- use the BOM Domestic Grosses table as baseline (n = 200)

- scrape that table (<http://www.boxofficemojo.com/alltime/adjusted.htm?sort=adjustedgross&order=DESC&adjust_yr=2016&p=.htm>)

- scrape the Movie Budget table (<http://www.the-numbers.com/movie/budgets/all>)

- convert both tables into dfs

- merge/join on title ('Movie' field in Movie Budgets table, Title in BOM Domestic Grosses table)

- sanity check: the 'Domestic Gross' from Movie Budgets should be pretty close to 'Unadjusted Gross'

feature engineering

- compute ROI = (Net Profit = Worldwide Gross – Production Budget) / Production Budget

(from Movie Budgets table)

- control for time (Year from BOM table)

ROI = f(Year, MPAA, studio,

price adjuster (by year) in BOM

http://www.boxofficemojo.com/about/adjuster.htm

check genre (and drill down to each movie page)

http://www.boxofficemojo.com/genres/