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Beyond Oscar
Proposal

Does running time really affect movie to win an Oscar Best Picture award? Intuitively, I do not think this would relate it at all. However, after reading Brendan Bettinger's paper *Cinemath: What Makes a Best Picture, A Look at Rating, Runtime, and Genre Over 80 Years of Oscars*, he found that the majority of movies are in the range of 90 to 120, but the Best Pictures tend to be much longer. This surprising founding sort of encouraging me to invest on some other elements that might seem unrelated by our gut feelings. Many scholars insist that budget does not affect winning an Oscar Best Picture. On a course project from stat 157, I have taken a 20 years set of data to see if the budget has a correlation with winnings. My founding shows that the budget of the majority films is below 50 million, and there is not much significant correlation between budget and winning. However, a natural question has risen up for the fairness of putting budget of all the nominees together, and makes such a conclusion that there is not a significant correlation? Now I want to go a little bit deeper, to see within the same genre that if budget would contribute as a big determinant on winning. The motivation is that different films have different standard in terms of budget, it would be unfair to put all films together without considering the deviation between each genre. Also, the scattered plot I made for the course project of the gross within a month for each nominee suggest that winning has no relation with this element at all. I wonder if I should condition on the genre of each film and the budget. Addition to that, I also want to see how the changes of the public taste for the films over time. Will this reflect some psychological issue? What is the future investment on movie business based on box office revenue and the public responses?

Instead of studying that 20 years data, I will look the entire Oscar history in 88 years span. Find a way to compare these data, which also counts inflation. The data will continue collecting from Wikipedia, IMDb. Budget within a genre would involve conditional probability. The linear algebra course I took in the spring gave me a little taste of what Markov Chain process look like when calculating the probability of an object from a state i to j. Here I can treat the genre of the film as an object, and see that genre would stay in popular for how long, and what is the probability that such a genre would worth to invest next year, in a decade and so on.