Problem Set 4

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Question 1

The results indicate that the estimated model is the following:

$$f_m(b,t) = 1x1_{bm}y1_{tm} + 0.4x2_{bm}y1_{tm} - 0.212625distance_{btm}$$

The estimated parameters of the payoff functions represents the positive effect the size of the corporate ownership and negative effect of the distance between matched radio stations with new targets. More precisely for every additional increase in corporate sizes we can expect the payoff of the matches increase by average 0.4, and for every additional distance in miles we can expect the payoff of the matches decrease by 0.212.
The estimated value for the payoff function: -1440.0.

Question 2

$f_m(b,t) = 0.8159x1_{bm}y1_{tm}+0.38799103x2_{bm}y1_{tm}+0.61711998HHI_m-0.1737973distance_{btm}+\epsilon_{btm}$

In this model we see additionally the positive impact of market concentration. The payoff is predicted to increase by 0.8159 when the size of the stations goes up by one unit; increase 0.3878 when the size of the corporate ownership goes up by one unit, increase by 0.61711998 when the market concentration increase a unit, is predicted to decrease by 0.173 when the distance increase, and is predicted to be 0.16 when size of stations and corporate, market concentration and the distance are zero. Note that the sizes of stations and corporates are scaled in millions in both models.
The estimated value for the payoff function: -337.0.