Dr. Larsens,

I plan on sending an email to both of you each Friday to let you know what I have been working on during the week and to let you know of any progress I have made. I figure Friday is the best time to do this because it is right between when we meet. I mentioned this in the email I sent out last Friday, but since it seems that its attachment kept it from sending I though it was best I let you both know again.

I believe I have been able to get the optimization to work. I did not end up using the optim function but instead using the optimx function from the optimx package. It is written by the same person and functions nearly identically, but it returns the new parameters in more accessible format. The main reason the function wasn't working when we were looking at it before was it was finding the minimal optimized value, when the optimized values Dr. W. Larsen had previously calculated were the maximized optimizations.

Related to the above, I am pretty sure I got the optimization to work for the additional three scenarios you sent me data for. However, I am not positive. If you could let me know what the optimized values for those scenarios should be then I can check them with greater confidence. If you don't get those to me I can possibly work on deriving them by hand sometime next week.

I uploaded the file with the optimization work to the google drive folder. It is BradleyTerryOptimization.R let me know if you want me to send a copy or if you have any trouble accessing or using it. I will add

comments to the code sometime next week.

I also wrote another function that converts the NBA data into a data frame that is in a similar format to that of the sample we used with columns for team's names, strengths, wins, and how much they play each other team. The function just take the data frame created from the data scrape file and outputs the new data frame. I will comment this code next week as well. It is also in the google drive folder and is named DataConfigure.R

Next week I will work on the things I mentioned above and the optimization for the Mosteller model. I think that model will take me a little bit more time than the Bradley-Terry did because of the lack of checks and background work done for it but I am hopeful that I will be able to get it figured out by the end of next week. Let me know if there is anything else I can work on before our meeting next Tuesday.

Until then, best wishes to the both of you. I hope you have a great weekend!