**2022 Monte Carlo Observations**

The findings were that the Monte Carlo model did about 50% worse than our baseline predictions which were made without any statistics and minimal knowledge about how college basketball teams performed in the season. The only knowledge that the baseline predictions were made from were watching some conference tournament games and having watched past March Madness tournaments. This led to the massive difference as my own intuition about how March Madness tournament games usually went led to some unlikely upsets being correctly picked (most notably the baseline predictions bracket picked 15 seed Saint Peter’s to beat number 2 Kentucky; our Monte Carlo model predicted Kentucky to go to the Final Four.)

There are many insights into what could have made the predictions go better. The big question going into this challenge was knowing that unlikely teams would win against the odds. How do you predict unlikely teams to win? Season data was what was used for the Monte Carlo model only, but it would seem more beneficial to use historical data to see trends. Season data is what ranks teams, so it would make sense that most of the time the better seed is going to get picked to win the matchup.

In conclusion, this challenge has brought up the idea with forecasting that some predictions are just that. How do you predict a statistic for an event that has never happened before? Never has a 15 seed gone to the Elite 8, but this year they did. The probability of that happening according to a reputable statistical forecasting website FiveThirtyEight was <1%. Were there hidden statistics that made it more likely for them to be a 15 seed that were strong enough to get to the Elite 8 than past 15 seeds? Possibly. It is possible, and more likely, that the hard to measure factors, emotion and momentum play a very important part in these tournament games.

The one thing I wish I had done for this challenge was make a final prediction based off the statistics and my own judgement and seen how that would have gone. With more time I would have looked a little further into historical March Madness data. This challenge has brought interesting insight into the world of forecasting and new thoughts about what went wrong and how that can be improved upon in future models.