Which Monopoly Space Is Most Profitable Based on Probability?

Guggenheim , Collin (School: John Curtis Christian School)

The purpose of this project was to calculate how often each "space" is landed on while playing Monopoly. This would allow me to better my chances of winning each game. The project had three main starting points (Go, short-term jail, long-term jail). Using a spreadsheet, I calculated the number of spaces moved in the first 800 moves of the game. From the spreadsheet, I determined the frequency of the sum of both die which then allowed me to calculate the experimental probability of each sum (frequency / total amount of sums). I played the Monopoly game by following the sequence of moves indicated on the spreadsheet. There is a 1/10 probability of landing of Chance or Community Chest space that would send the player directly to jail. The probability of landing on any given space was calculated from two scenarios- short-term jail and long-term jail. This allowed me to determine the specifics of each property. I was able to see the aspects of the property as well as gain a better understanding of how much money each property could possibly generate. I concluded that the long-term and short-term jail had very similar results of which space is landed on the most. I also learned that Illinois Avenue is the most profitable property based on having the highest probability of being landed on as well as having the best cost-to-rent ratio.

Awards Won: