

## **Formal Response to Review**

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### **Response to Introduction**

Feedback: What have previous researchers done (if anything) regarding predicting Olympic medal counts?

Within the introduction, we added another reference to previous research on Bayesian methods predicting probability of success in the Olympics—citing Wu et. al, 2021 in a paper predicting success in elite swimming in the 2020 and 2024 Olympics.

### **Response to Methodology**

Feedback: However, were there any checks to ensure that it made sense such as posterior predictive checks overlaying the posterior predictive density (or even a prior predictive check) over results? What did your posterior distributions look like, and did they tend to model your data well in terms of the individual competitors?

We originally included a visualization of the posterior predictive density overlaid on top of the results in the appendix section for the high bar apparatus, but in our final version we were more clear about referencing it within our methodology. Furthermore, we also added more visualizations in the relevant appendix section to further inform the reader about the Bayesian process. Based on the visualizations in the section “Posterior Predictive Checks” of our appendix, the overlaid density curves show that the posterior distributions for each gender and apparatus generally model the data well and follow the same overall trends.

### **Response to Results**

Feedback: Most results were professionally presented, but make sure even those in the appendix are held to the same standard (e.g., with table headers, etc.).

For our final results section and for visualizations and tables in the appendix, we updated all of the headers and text. We made sure to update the athletes names in the appendix tables so that they are consistently referenced throughout the report. All results, including the appendix are now professionally and consistently presented throughout the entirety of the report.