1. **Double robust estimators**: does the PS model and outcome model affect the final estimates symetrically? The construction and theory of DR suggests that the PS and outcome model play a symmetric role, i.e. if outcome model fails, a good PS model would save you, and vice versa. However, my experience in practice has always been that the outcome model is more dominate. That is, if the outcome model is wrong, even if PS is correct, the estimate is much worse than the other way around (outcome model is correct, but PS is wrong). You can do some simulations to explore this.

**Role of PS model and outcome model in consistency of double robust estimators**

This project aims to investigate the conventionally assumed symmetric role of propensity score model and outcome model in consistency of double robust estimator. The causal inference literature on double robust estimator postulates that propensity score model and outcome model play a symmetric role in consistency of double robust estimators. If either of the models is correct, it corrects the bias in causal estimate to ensure its consistency given large sample size. We investigate this assumed symmetric role of PS model and outcome model