### Randomized experiments from non-random selection in U.S. House elections

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### Abstract

Short Summary of the report. This paper argues that under certain conditions, causal inferences from regression—discontinuity (RD) analyses are as reliable as those from randomized experiments, especially when examining discontinuities in baseline variables at the RD threshold. By analyzing U.S. House elections, it demonstrates that outcomes in closely contested elections can be considered randomized, allowing for near-experimental causal estimates of the incumbency advantage.

### Introduction

The report by David S. Lee investigates whether regression-discontinuity (RD) designs can yield causal inferences as reliable as randomized experiments in the context of U.S. House elections. It examines the effect of narrowly won elections on incumbency advantage, hypothesizing that near the electoral threshold, election outcomes can be considered as randomly assigned, thereby allowing for near-experimental causal estimates of incumbency on electoral success.

### Literature Review

Summarize relevant theories and previous research related to your topic. Identify gaps in existing research to justify your study. (Content generated using PlusMind ChatGPT. Editable on www.plusmind.ai)

## Methodology

The study utilized a regression-discontinuity (RD) design, leveraging the naturally occurring "randomization" in close U.S. House elections to examine the impact of incumbency on electoral success. Data collection focused on U.S. House election results over several decades, identifying narrowly decided contests. Analytical techniques included econometric analysis, particularly local linear regression methods, to estimate the causal effect of incumbency near the electoral threshold where the assignment to treatment (winning or losing an election) mimics random assignment

# Findings

The study's findings, presented through regression-discontinuity analysis of U.S. House elections data, demonstrate a significant incumbency advantage for narrowly elected officials, indicating that winning by a small margin increases the likelihood of future electoral success. Graphs and tables in the report illustrate the causal impact of incumbency on election outcomes, showing a clear discontinuity at the electoral threshold, which supports the hypothesis that incumbency provides a measurable advantage. The data reveal that incumbents in close races are significantly more likely to win subsequent elections compared to non-incumbents

### Discussion

The findings align with the hypothesis that incumbency confers a significant electoral advantage, as demonstrated through the regression-discontinuity analysis. This incumbency advantage, indicated by the increased probability of electoral success for narrowly elected incumbents, corroborates existing literature on the subject. However, by employing a quasi-experimental RD design, this study provides a more robust causal inference of incumbency effects compared to traditional observational studies. Thus, it enriches the understanding of electoral dynamics and the strategic implications of incumbency in political science.

### Conclusions

The key finding from David S. Lee's study is the significant electoral advantage of incumbency in U.S. House elections, evidenced by a regression-discontinuity analysis of narrowly decided contests. This underscores the quasi-random effect of winning by a small margin on future electoral success. In real-world terms, this suggests strategies focusing on incumbent positioning could be crucial for political campaigns. Further research could explore the incumbency advantage across different political systems and levels of government, or investigate the mechanisms through which incumbency influences voter behavior and election outcomes.

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