

Climbing the Political Ladder: A Causal Examination of State Legislative Experience and Success in the U.S. House

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Introduction

This research investigates the impact of prior state legislative experience on the performance of the U.S. House legislators, specifically in terms of creating and passing bills. The central question addressed is: **Does prior state legislative experience causally affect a legislator's performance in the U.S. House?**

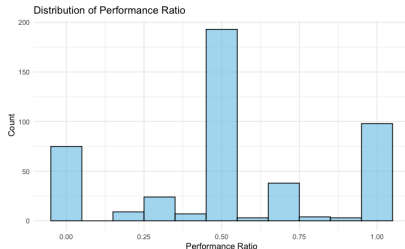
Data

- ▶ Data is from the *Center for Effective Lawmaking* to analyze legislative effectiveness in the 117th Congress.
- ▶ **Dependent Variable:** `performance_ratio`
- ▶ **Independent Variable:** `prior_experience`
- ▶ **Covariates:** `party_affiliation`, `seniority`, `ideological_position`, `gender`
- ▶ **Control Variables:** `state`, leadership positions (`speaker`, `comm_chair`, etc.), ...

Summary Statistics

Table: Summary Statistics

Variable	Min	Median	Mean
performance_ratio	0.0000	0.5473	0.5473
prior_experience	0.0000	0.0000	0.4626
dis_from_floor_median	0.0015	0.4365	0.4390
dist_from_majority_party_median	0.0000	0.4814	0.4814
...			



Propensity Score Matching and Balance Check

- ▶ **Propensity Score:** The probability of having prior legislative experience (`prior_experience`) given observed covariates.

$$P(\text{prior_experience}|\text{covariates})$$

- ▶ **Matching Method:** Nearest-Neighbor
 - ▶ Pair each legislator with prior experience (**T: treated**) with the legislator without prior experience (**C: control**) having the nearest propensity score
- ▶ **Balancing Covariates:** Ensure similarity in covariate distributions between treated and control groups after matching.

Statistical Checks:

- ▶ Use standardized mean differences, $SMD = \frac{\text{Mean}(T) - \text{Mean}(C)}{\sqrt{\frac{SD(C)^2 + SD(T)^2}{2}}}$, to assess covariate balance before and after matching

Balance Check Before and After Matching

Table: **Before** Propensity Score Matching

Variable	Mean (T)	Mean (C)	Std. Mean Diff.
seniority	5.5571	5.0369	0.1242
ideological_position	0.0381	0.0381	-0.0001
gender	0.2619	0.3074	-0.1034
...			

Table: **After** Propensity Score Matching

Variable	Mean (T)	Mean (C)	Std. Mean Diff.
seniority	5.5571	5.2524	0.0727
ideological_position	0.0381	0.0353	0.0092
gender	0.2619	0.2476	0.0325
...			

Balance Check Before and After Matching

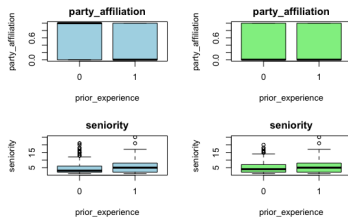


Figure: Covariate Balance Graph

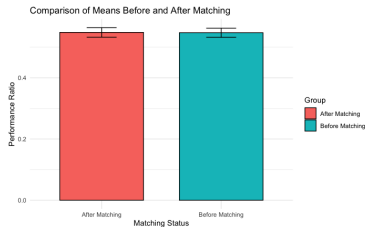


Figure: Means Before and After Matching

Regression Results

Table: Regression Results

Variable	Coefficient	Std. Error	P-Value
Intercept	0.5693	0.0465	$< 2 \times 10^{-16}$
prior_experience	0.0261	0.0314	0.4070
party_affiliation	0.0025	0.0636	0.9681
seniority	-0.0025	0.0038	0.5223
ideological_position	-0.0630	0.1099	0.5666
gender	-0.0769	0.0382	0.0451*

Regression Equation:

$$\text{performance_ratio} = 0.5693 + 0.0261 \times \text{prior_experience} + \dots + \epsilon \quad (1)$$

Significant Findings: Intercept is significantly different from zero, suggesting that the performance_ratio is not zero when all predictors are zero. However, the coefficient for prior_experience is not statistically significant ($p = 0.4070$),

Conclusion

- ▶ Did **not find statistically significant evidence** supporting the notion that prior legislative experience has a substantial impact on legislative effectiveness, as indicated by the `performance_ratio`
 - ▶ Challenges the conventional wisdom that prior experience in legislatures significantly contributes to a legislator's effectiveness in the U.S. House of Representatives
- ▶ **Lack of statistical significance** for `prior_experience` suggests that the covariates may play more influential roles in shaping legislative effectiveness
 - ▶ gender emerged as statistically significant, implying that **gender-related factors may be worth exploring further in understanding legislative outcomes.**
- ▶ Important policy implications
 - ▶ Policymakers may benefit from considering a broader set of factors beyond `prior_experience` when evaluating **legislative effectiveness** and making decisions related to legislative responsibilities and assignments