How Much Should We Trust Estimates from Multiplicative Interaction Models? Simple Tools to Improve Empirical Practice

Jens Hainmueller Jonathan Mummolo Yiqing Xu*

B Supplementary Information (updated on 12/29/2019)

In this online appendix we present detailed results for the interaction effects we identified in the current literature for use in our replication analysis. For each case, we present: the excerpt(s) from the replicated study that contains the relevant substantive claim, the replication results of the original model, our diagnostic plots, and the estimates from the binning and kernel estimator that relax the linear interaction effect assumption. GAM plots are also included when both interacted variables are continuous.

Updates: Blackwell and Olson (2019) recently point out that, with observational data, missing interaction terms between the moderator and covariates can potentially lead to significant biases in the causal estimates. In light of their finding, we conduct additional analysis with on 22 papers we originally replicated. With the kernel estimator, we also introduce *adaptive bandwidth* which increases when there are fewer observations in the neighborhood of an evaluation point. These two modifications lead to 6 combinations of model specifications for the binning and kernel estimators, which we explore for each case.[1] We find that our original results are robust to "fully moderated" models and using adaptive bandwidth.

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[1] We also increase the number of folds in cross-validation from 5 to 10 to test the robustness of our findings.

Appendix: Table of Contents

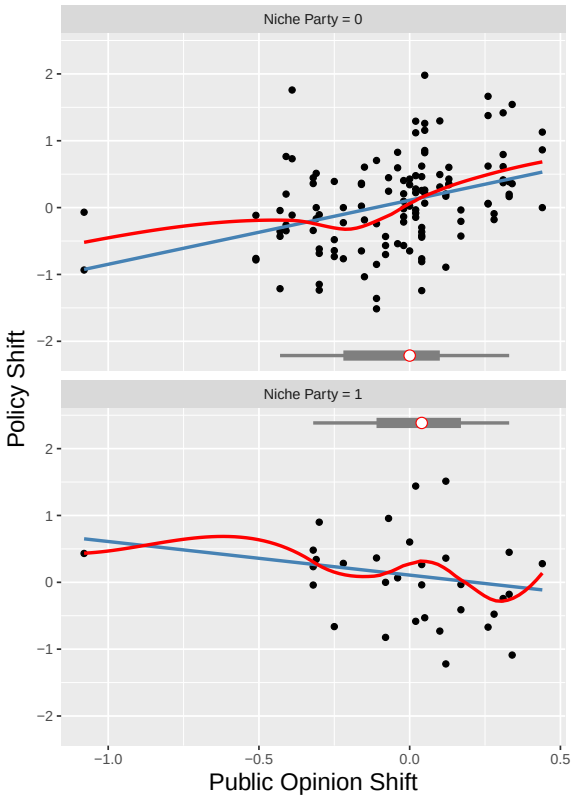
.1 Adams et al. (2006) AJPS

Claim on conditionality (Table 1 in manuscript): *"We find no evidence that niche parties responded to shifts in public opinion, while mainstream parties displayed consistent tendencies to respond to public opinion shifts"* (Abstract).

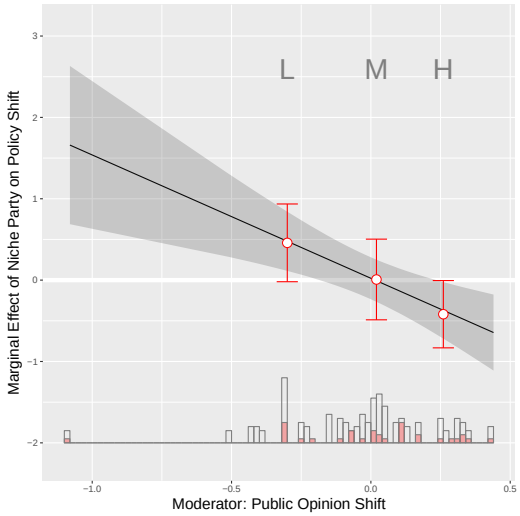
Key variables for the conditional relationship: Outcome Y: "party policy shift" (`pshift2`); treatment D: "public opinion shift" (`vshift`); moderator X: "niche parties" (`idparty`).

Note: In this replication, we treat "niche parties" as D and "public opinion shift" as X because the former is dichotomous. The interpretation of the interaction effect remains unchanged.

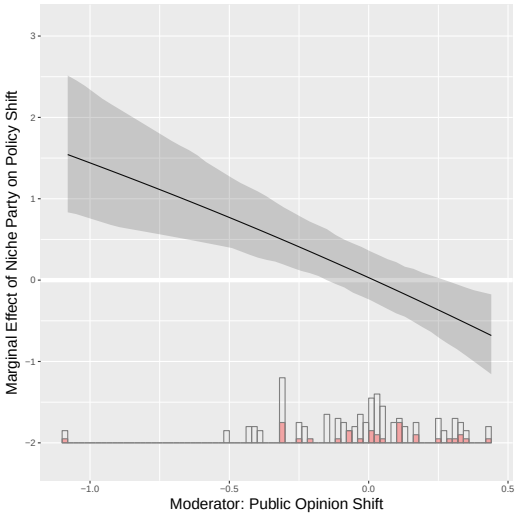
FIGURE B1. RESULTS FROM ADAMS ET AL. (2006)



(a) Raw data

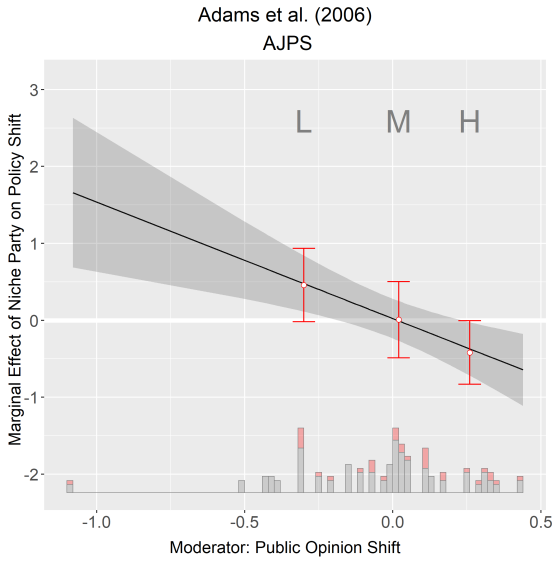


(b) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

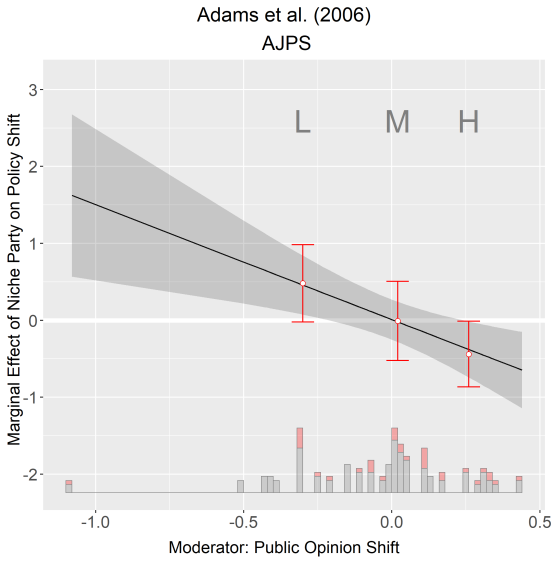


(c) Marginal Effects from Kernel Estimator

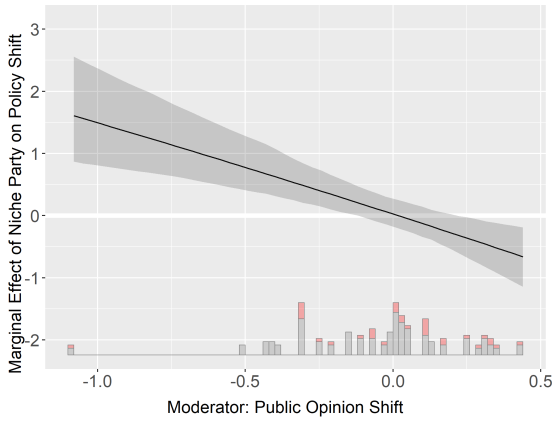
Figure B2. Marginal Effects



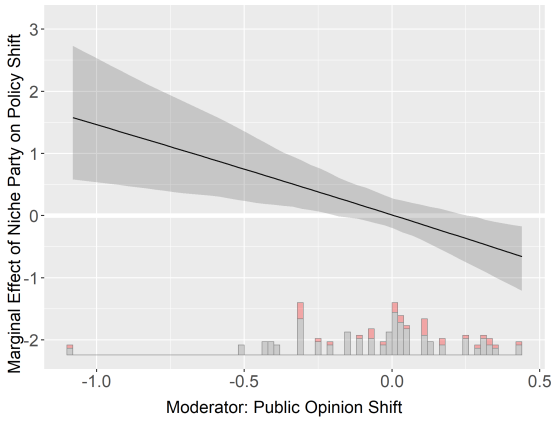
(a) Binning



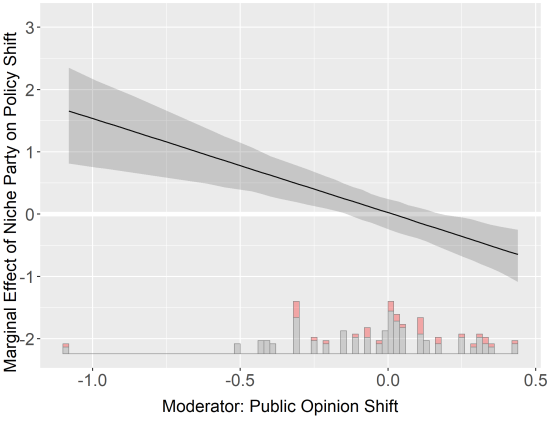
(b) Binning: Fully moderated model



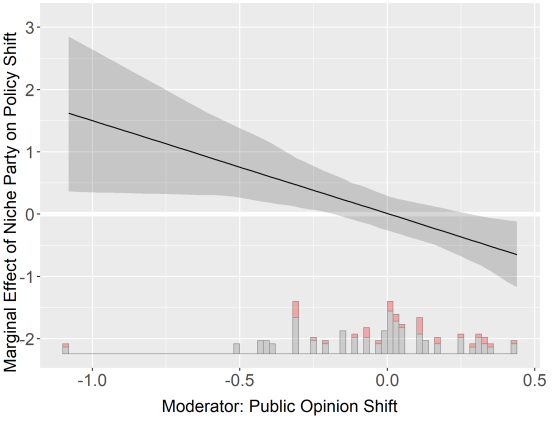
(c) Kernel



(d) Kernel: Fully moderated model

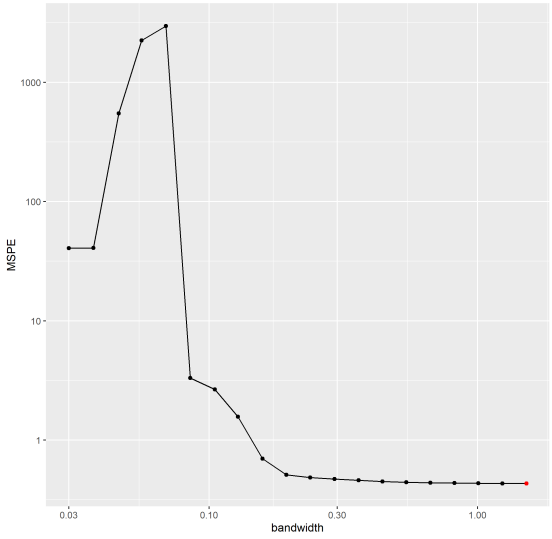


(e) Kernel: Adaptive bandwidth

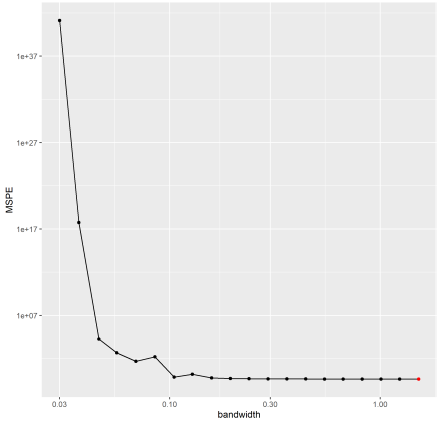


(f) Kernel: Fully moderated model with adaptive bandwidth

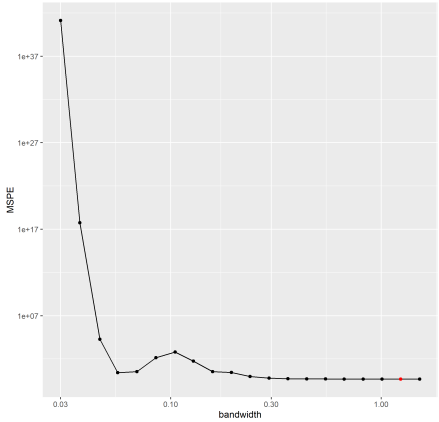
FIGURE B3. MSPE-BANDWIDTH



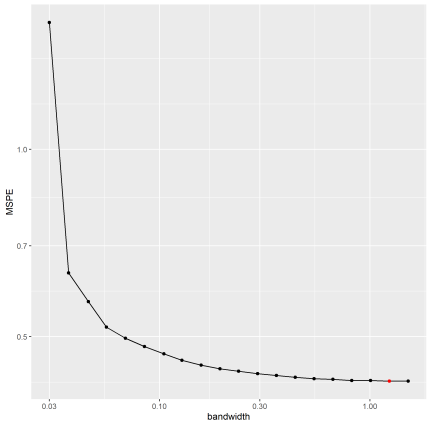
(a) Kernel: Original Command 5-fold



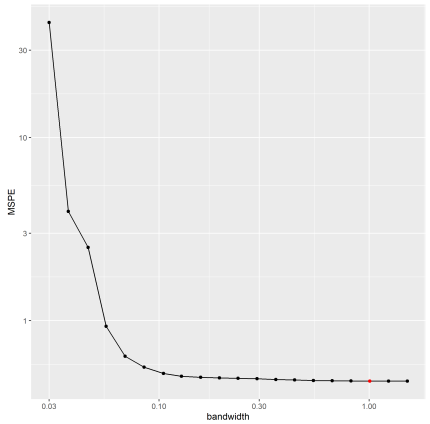
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

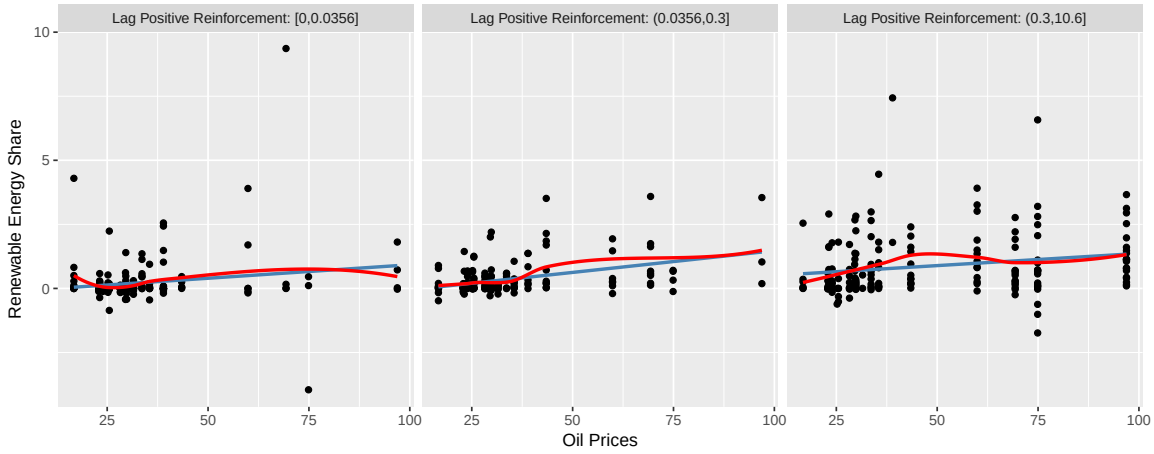
.2 Aklin and Urpelainen (2013) AJPS

First interaction:

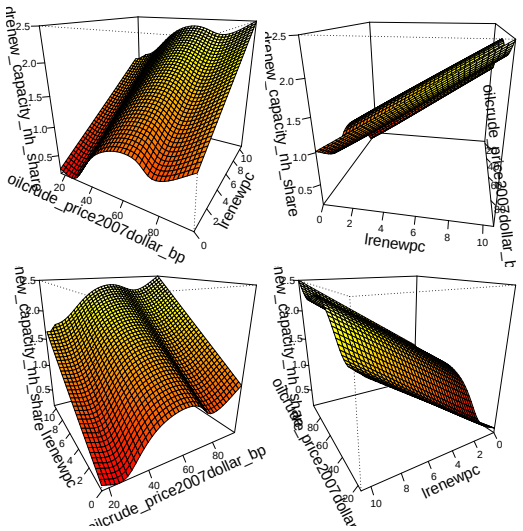
Claim on conditionality (Figure 1, left panel in manuscript): *"We examine formally how exogenous shocks, such as changes in international energy prices, interact with positive reinforcement factors, such as the growing strength of the renewables advocacy coalition. We find that political competition modifies the effect of path dependence on policy and outcomes. ... The effect of positive reinforcement also decreases with international energy prices."* (Abstract).

Key variables for the conditional relationship: Outcome Y: "renewable share" (first differenced) (`drenew_capacity_nh_share`); treatment D: "oil prices" (`oilcrude_price2007dollar_bp`); moderator X: 'lag positive reinforcement" (`lrenewpc`)

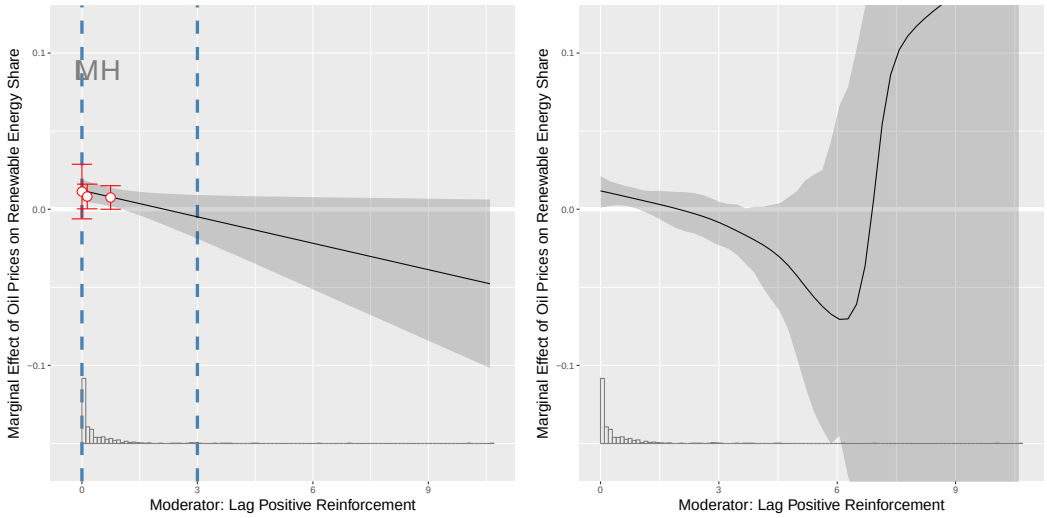
FIGURE B4. RESULTS FROM AKLIN AND URPELAINEN (2013)



(a) Raw data



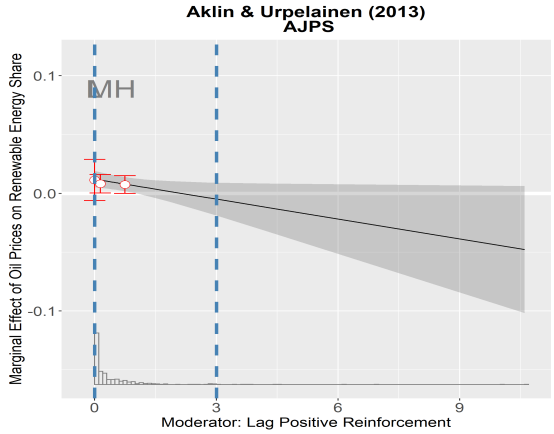
(b) GAM Plot



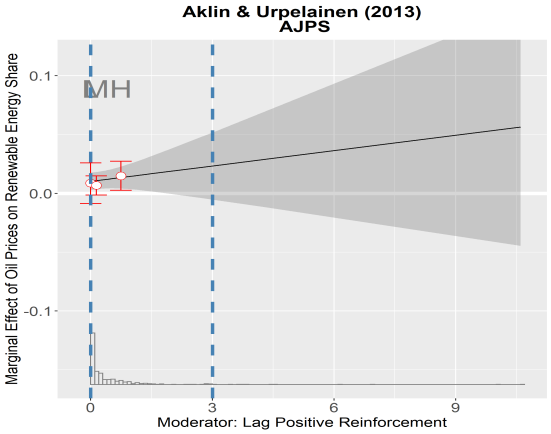
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

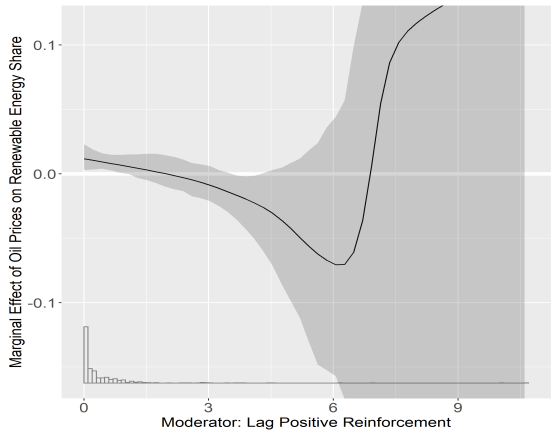
Figure B5. Marginal Effects



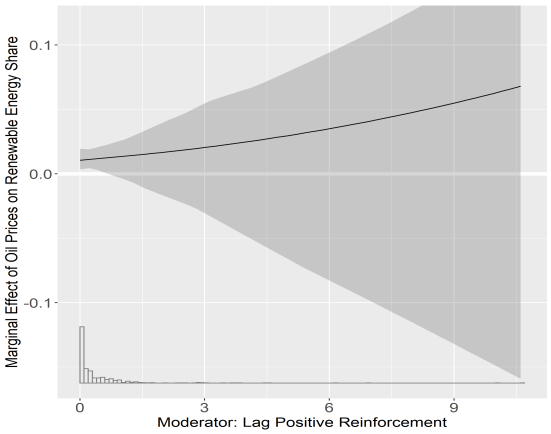
(a) Binning



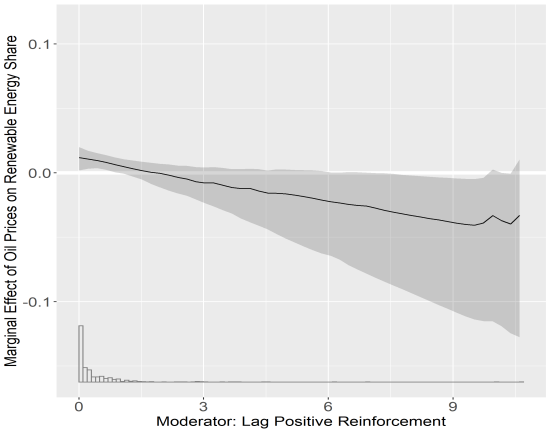
(b) Binning: Fully moderated model



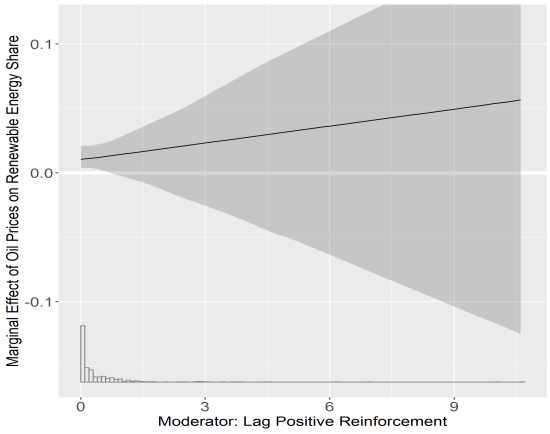
(c) Kernel



(d) Kernel: Fully moderated model

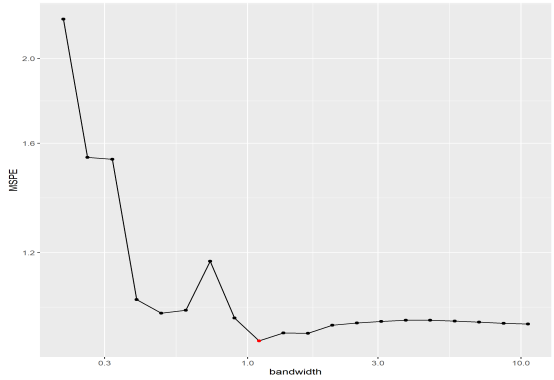


(e) Kernel: Adaptive bandwidth

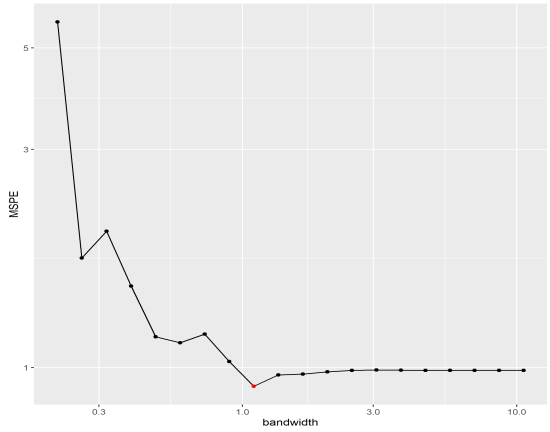


(f) Kernel: Fully moderated model with adaptive bandwidth

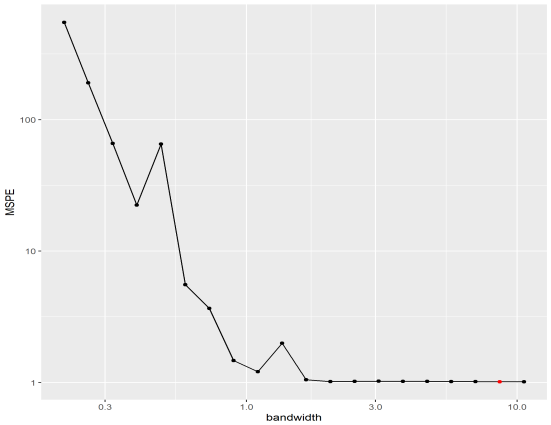
FIGURE B6. MSPE-BANDWIDTH



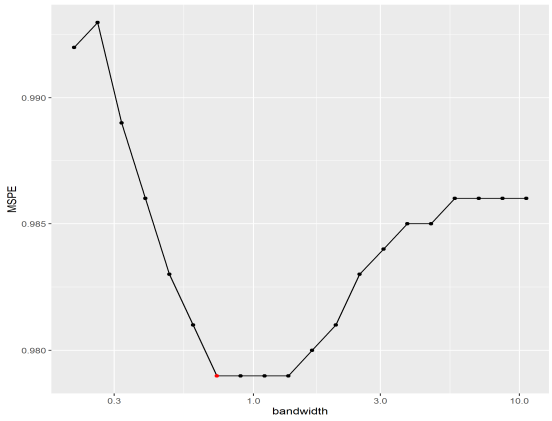
(a) Kernel: Original Command 5-fold



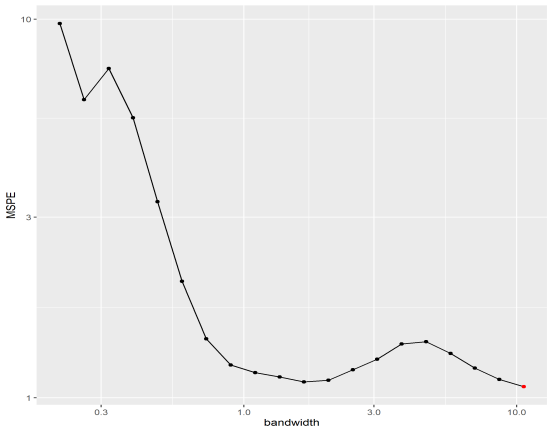
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

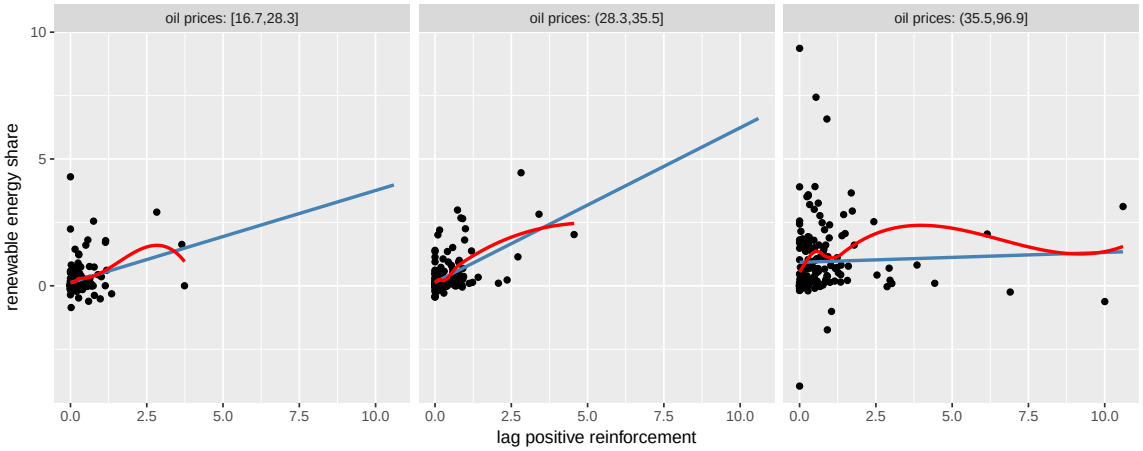
Second interaction:

Claim on conditionality (Figure 1, right panel in manuscript): *"We examine formally how exogenous shocks, such as changes in international energy prices, interact with positive reinforcement factors, such as the growing strength of the renewables advocacy coalition. We find that political competition modifies the effect of path dependence on policy and outcomes. ... The effect of positive reinforcement also decreases with international energy prices."* (Abstract).

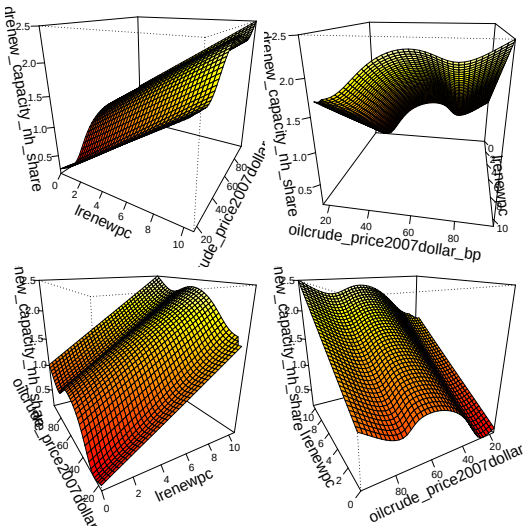
Key variables for the conditional relationship: Outcome Y: "renewable share" (first differenced) (`drenew_capacity_nh_share`); treatment D: "lag positive reinforcement" (`lrenewpc`); moderator X: "oil prices" (`oilcrude_price2007dollar_bp`).

Note: The dashed vertical line indicates the truncated interval of the moderator shown in the original marginal effect plot.

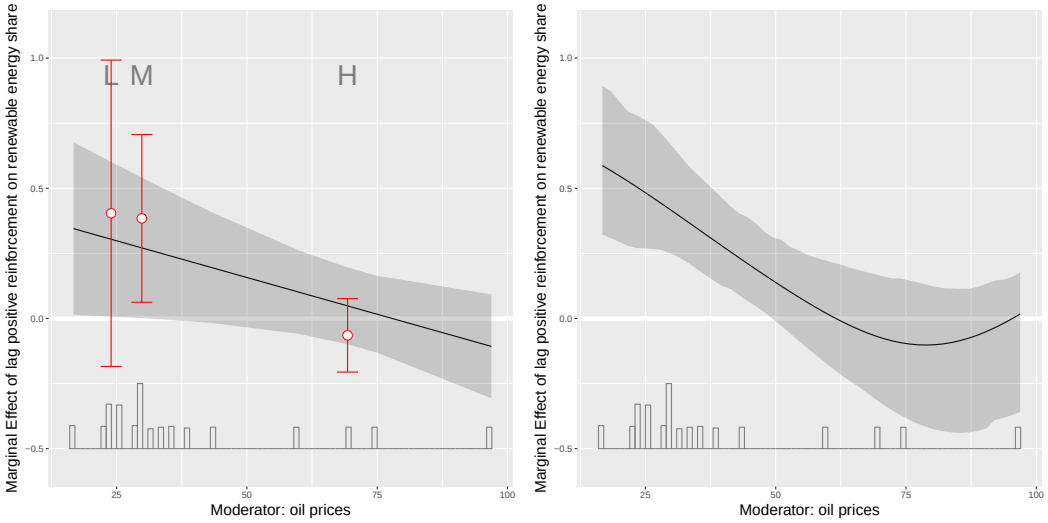
FIGURE B7. RESULTS FROM AKLIN AND URPELAINEN (2013)



(a) Raw data



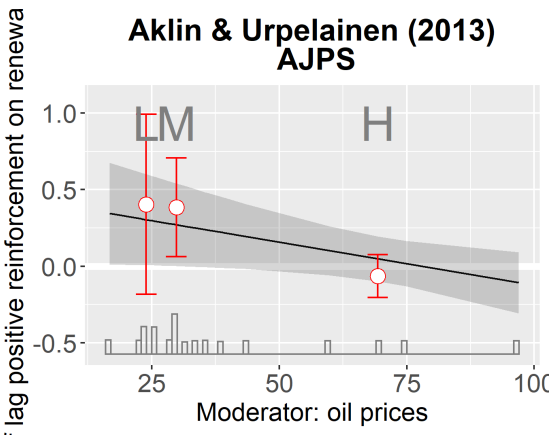
(b) GAM



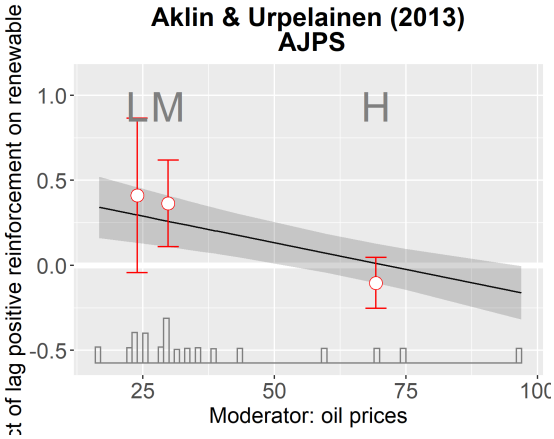
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

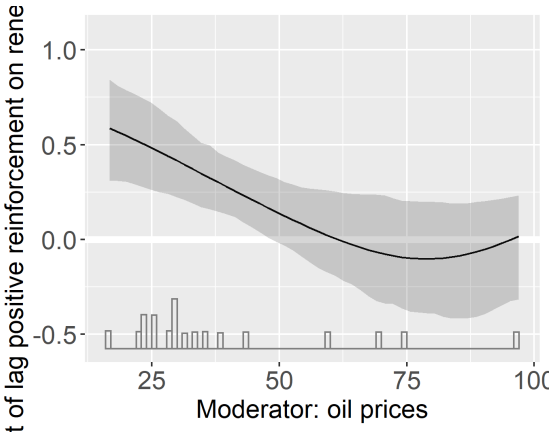
FIGURE B8. MARGINAL EFFECTS



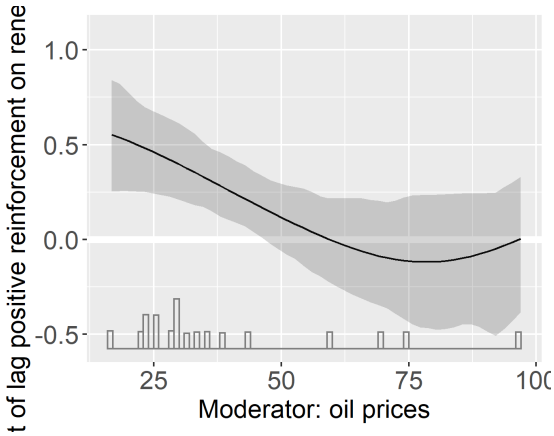
(a) Binning



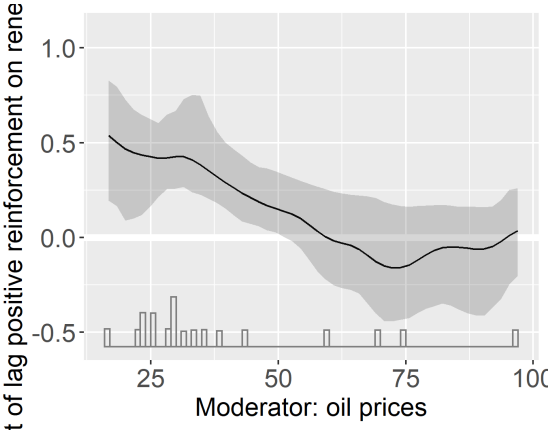
(b) Binning: Fully moderated model (vartype='robust')



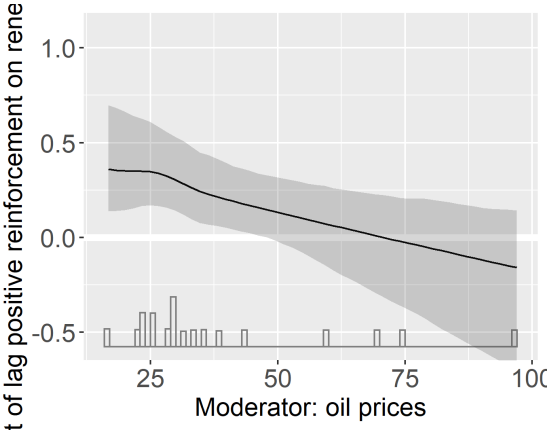
(c) Kernel



(d) Kernel: Fully moderated model

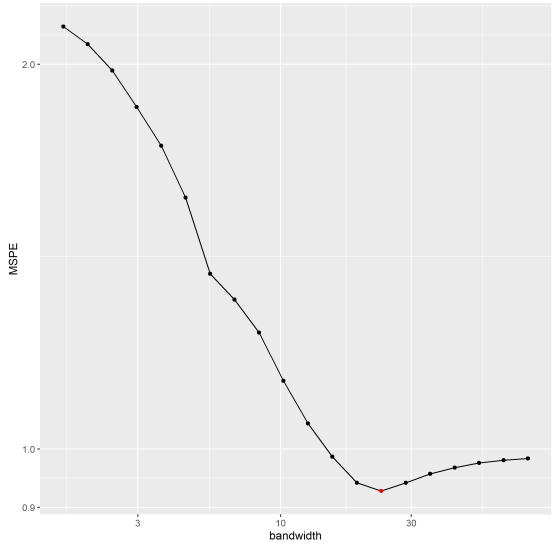


(e) Kernel: Adaptive bandwidth

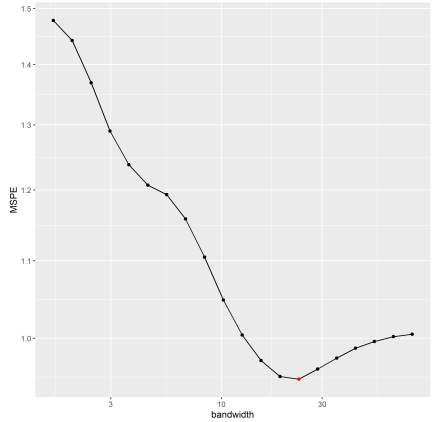


(f) Kernel: Fully moderated model with adaptive bandwidth

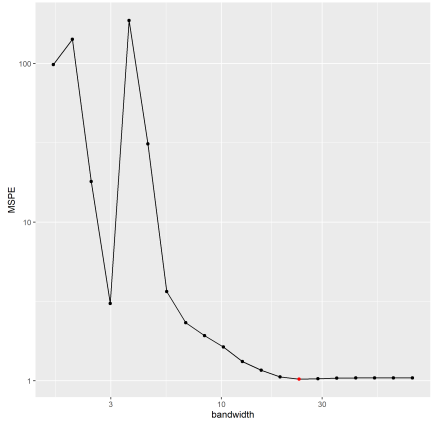
FIGURE B9. MSPE-BANDWIDTH



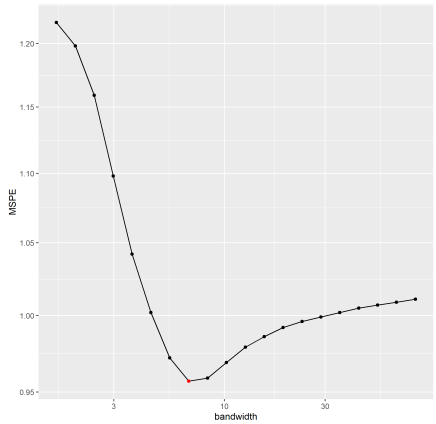
(a) Kernel: Original Command 5-fold



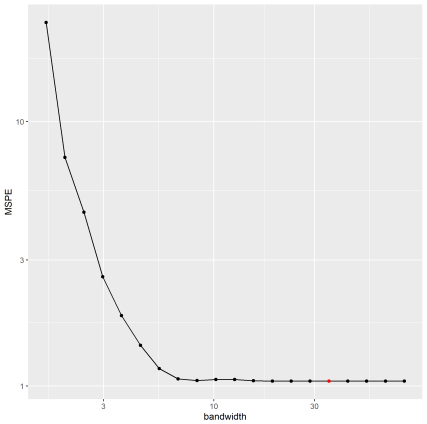
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

.3 Banks and Valentino (2012) AJPS

First interaction:

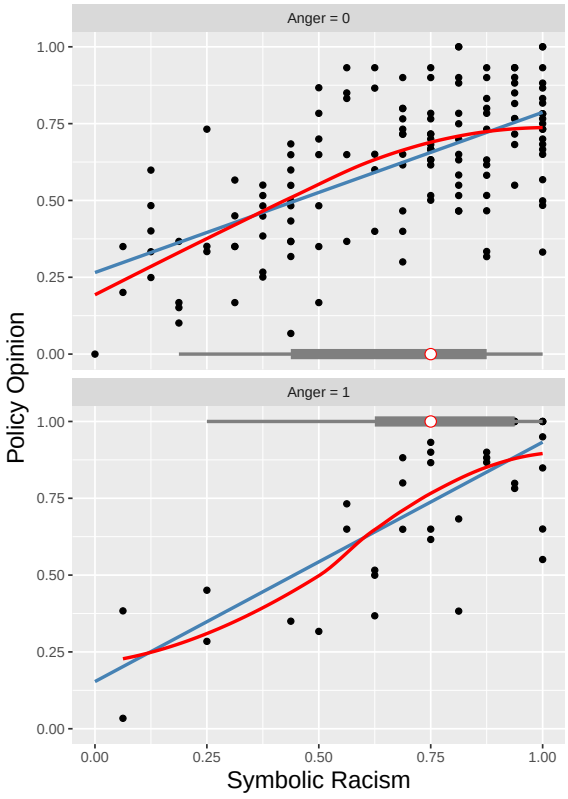
Claim on conditionality (Figure 1 in manuscript): *"One explanation for this is that a new racial belief system referred to as symbolic racism or racial resentment has replaced 'old-fashioned racism.' ... as a result, anger now serves as the primary emotional trigger of whites' negative racial attitudes"* (Abstract).

"Figure 1 illustrates the marginal effect of each emotion on racial policy opinions across levels of symbolic racism (SR) ... As we predict, as SR increases, anger increasingly boosts opposition to racial policies such as affirmative action" (p. 292).

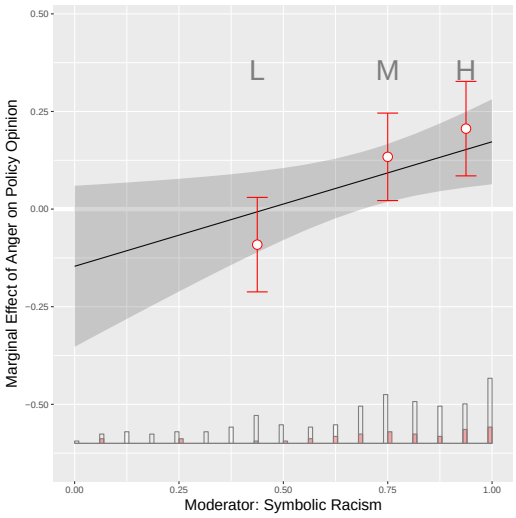
Key variables for conditional relationship: Outcome Y: "policy opinion" (`racpolicy`); treatment D: "anger" (`anger`); moderator X: "symbolic racism" (`racresent1`).

Note: Due to coding errors in the authors' original analysis, the marginal effects plots we present here feature different intercepts than those in the published paper We corrected the errors before applying our diagnostic functions.

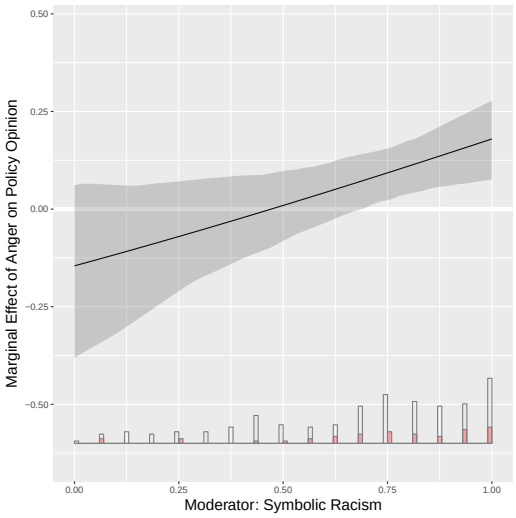
FIGURE B10. RESULTS FROM BANKS AND VALENTINO (2012)



(a) Raw data

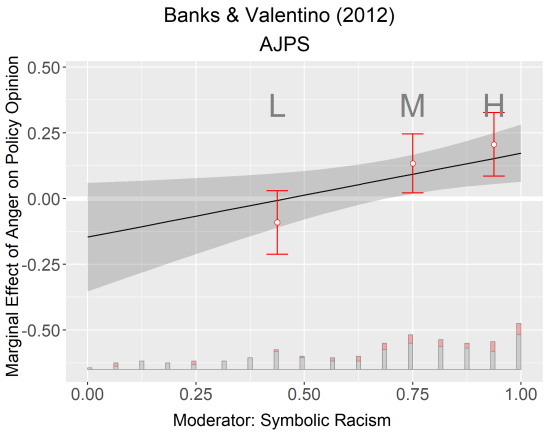


(b) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

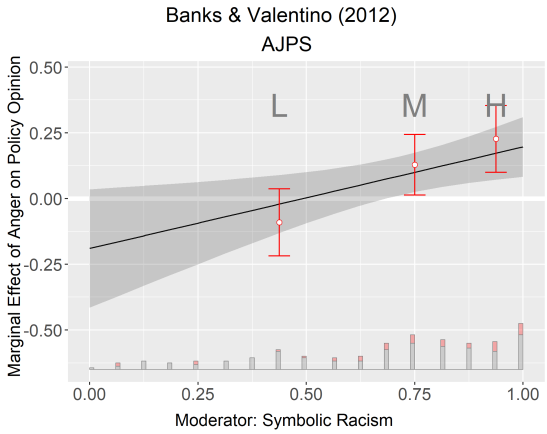


(c) Marginal Effects from Kernel Estimator

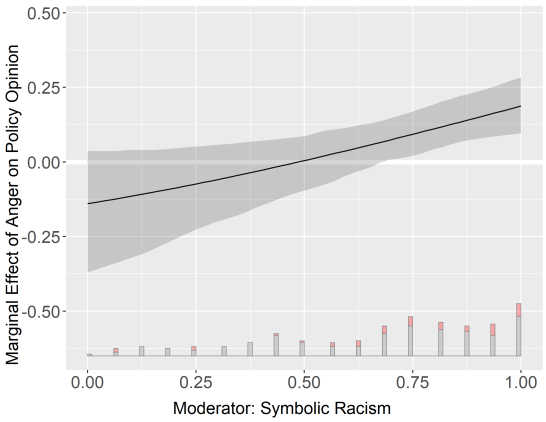
Figure B11. Marginal Effects



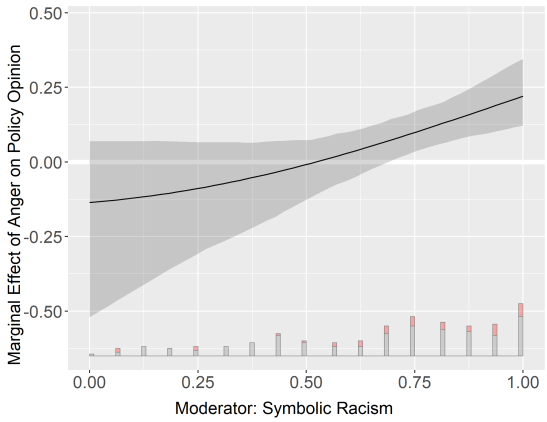
(a) Binning



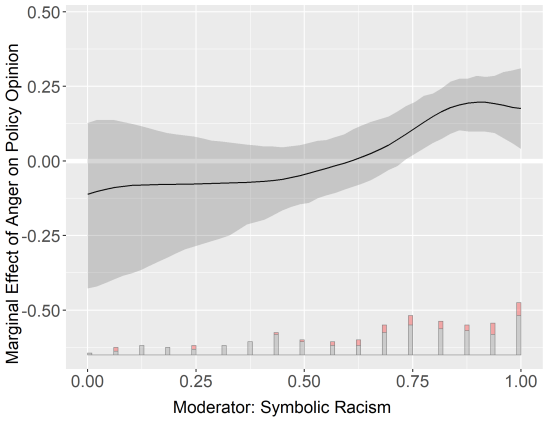
(b) Binning: Fully moderated model



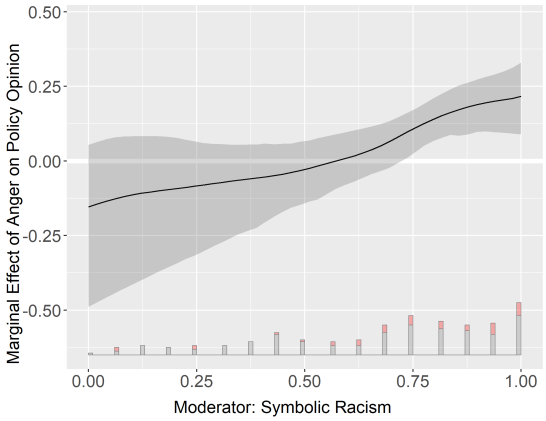
(c) Kernel



(d) Kernel: Fully moderated model

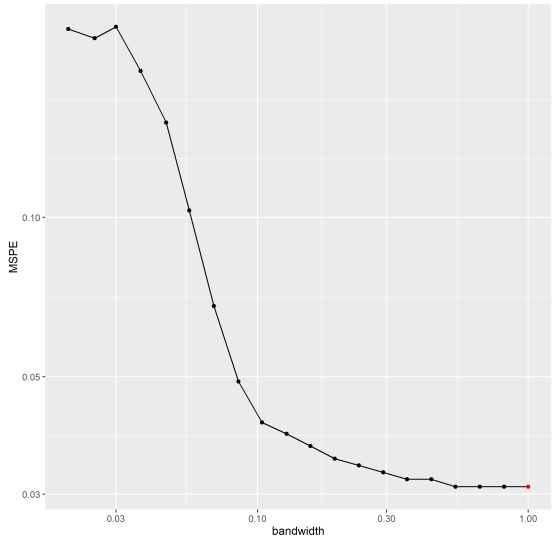


(e) Kernel: Adaptive bandwidth

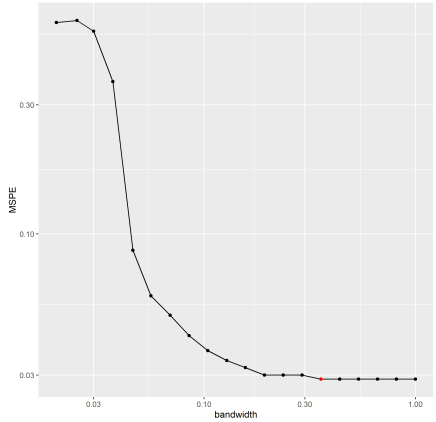


(f) Kernel: Fully moderated model with adaptive bandwidth

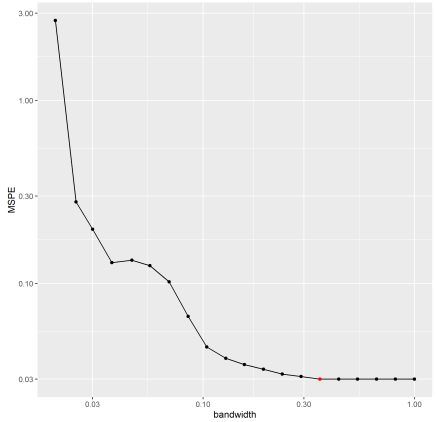
FIGURE B12. MSPE-BANDWIDTH



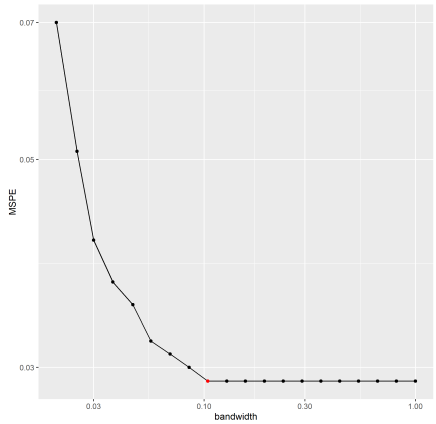
(a) Kernel: Original Command 5-fold



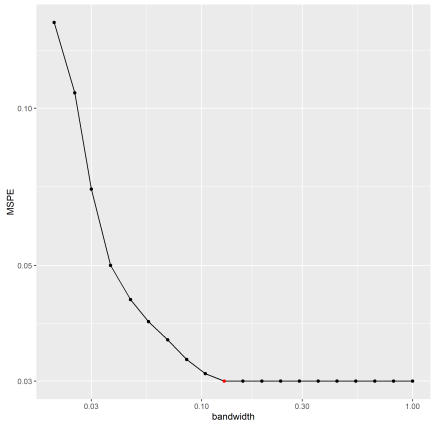
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



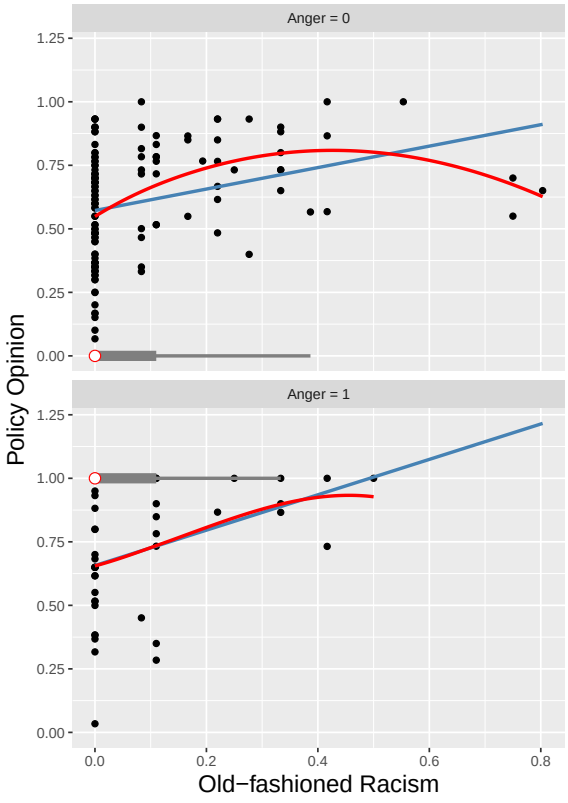
(e) Kernel: Fully moderated model with adaptive bandwidth

Second interaction:

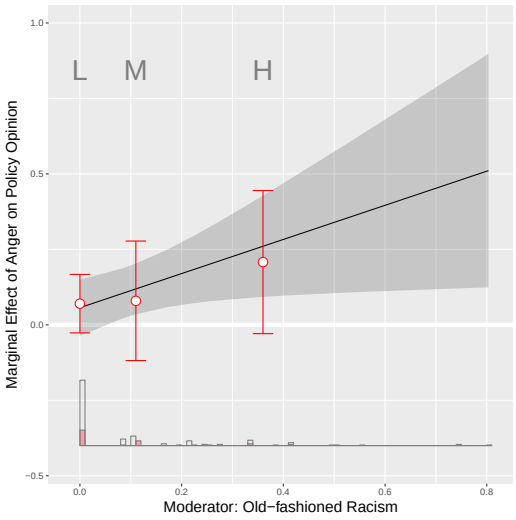
Claim on conditionality (Figure 2 in manuscript): *"Figure 2 displays these interactions visually and shows that the effects of anger and disgust are larger than that of fear, but these differences are not as large or statistically distinct. However, as OFR increases, both anger and disgust boost opposition to racial policies. At very high levels of OFR, both anger and disgust boost opposition significantly more than that in the (relaxed) control group."* (p. 292)

Key variables for conditional relationship: Outcome Y: "policy opinion" (`racpolicy`); treatment D: "anger" (`anger`); moderator X: "old-fashioned racism" (`jimcrow13`).

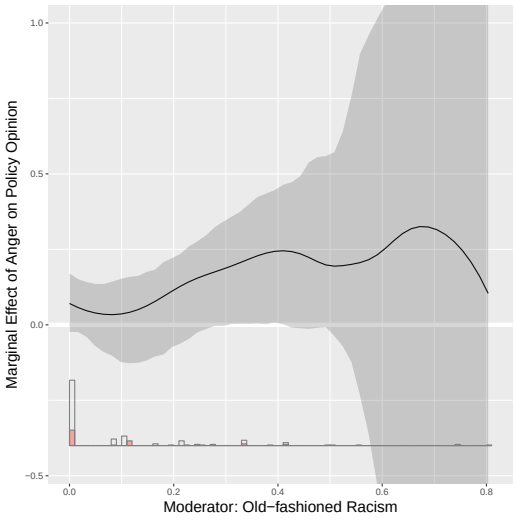
FIGURE B13. RESULTS FROM BANKS AND VALENTINO (2012)



(a) Raw data

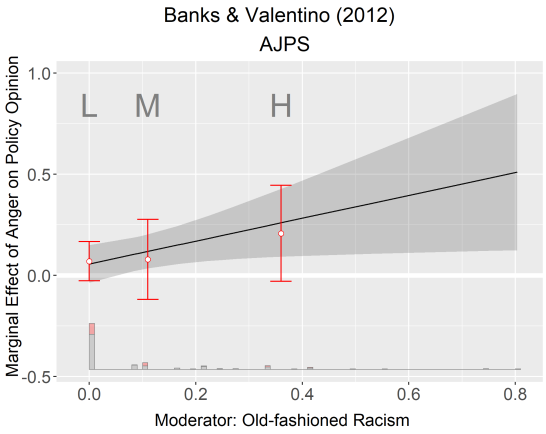


(b) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

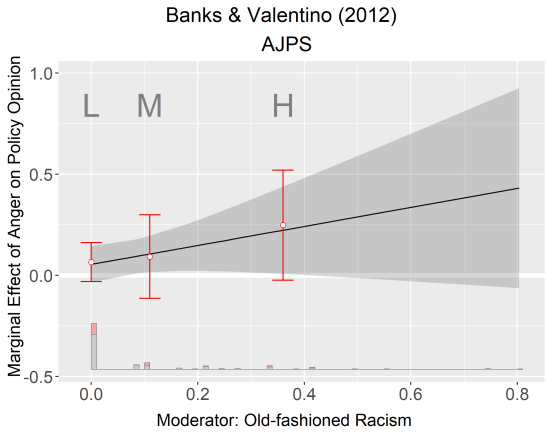


(c) Marginal Effects from Kernel Estimator

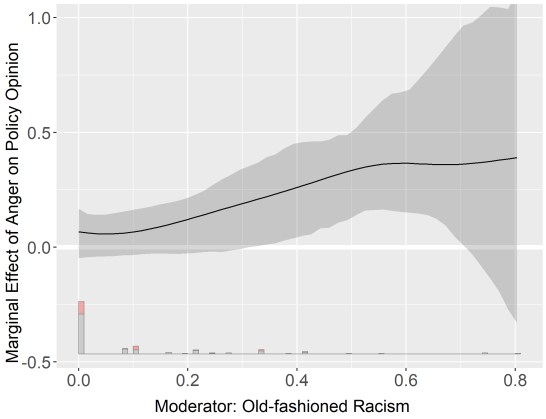
Figure B14. Marginal Effects



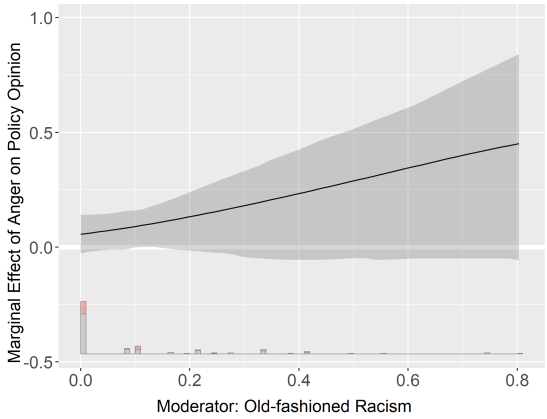
(a) Binning



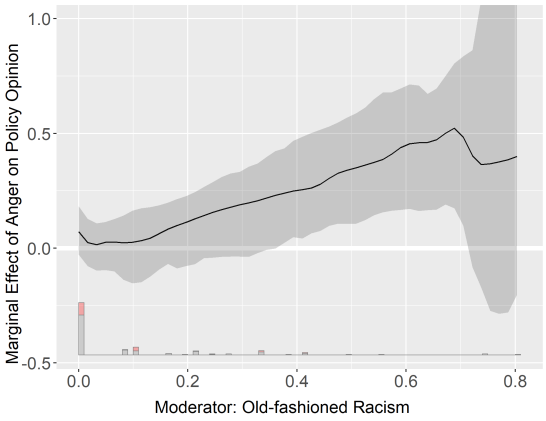
(b) Binning: Fully moderated model



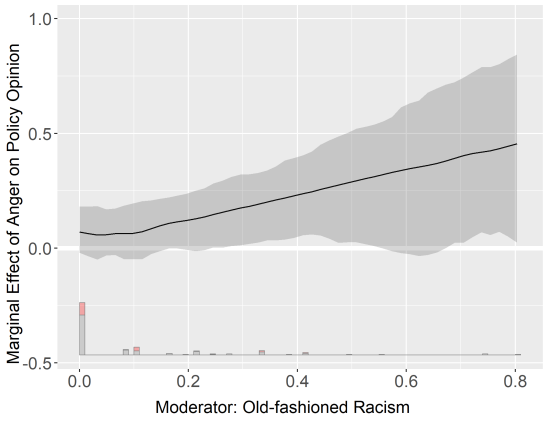
(c) Kernel



(d) Kernel: Fully moderated model

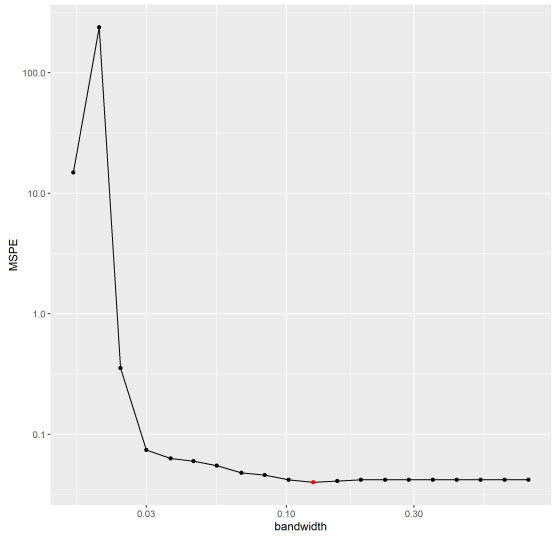


(e) Kernel: Adaptive bandwidth

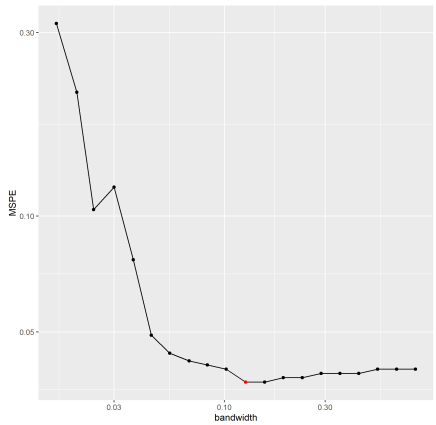


(f) Kernel: Fully moderated model with adaptive bandwidth

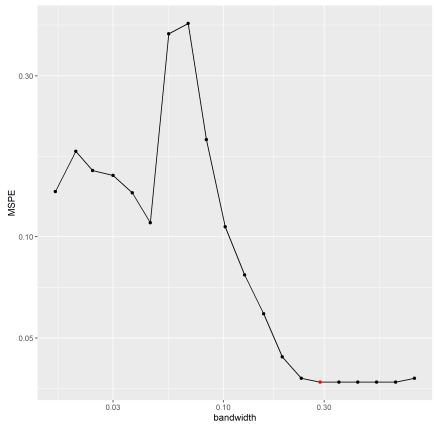
FIGURE B15. MSPE-BANDWIDTH



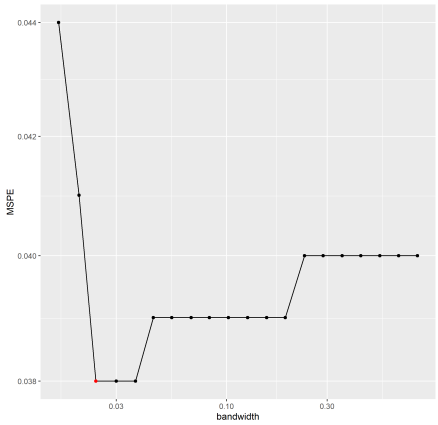
(a) Kernel: Original Command 5-fold



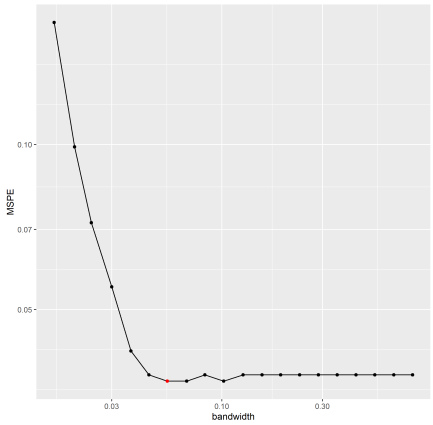
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



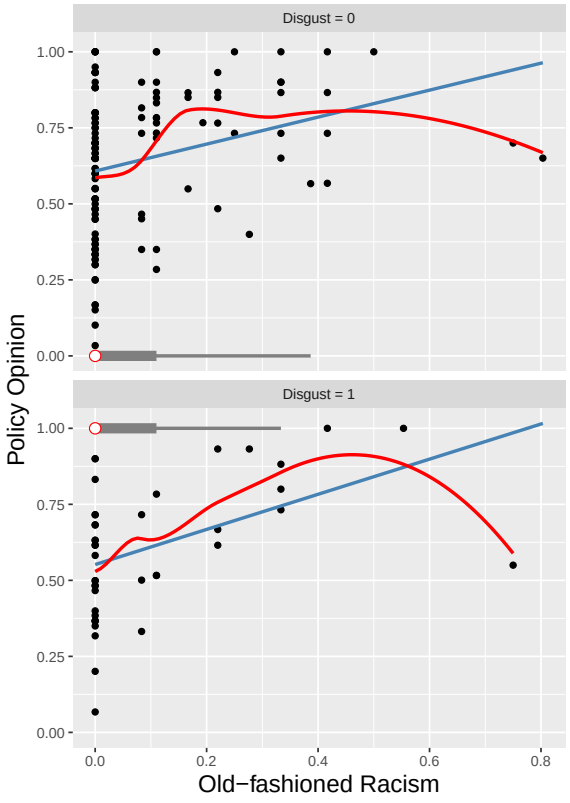
(e) Kernel: Fully moderated model with adaptive bandwidth

Third interaction:

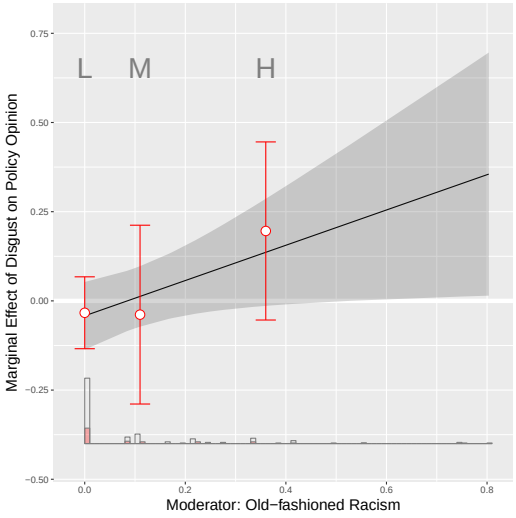
Claim on conditionality (Figure 2 in manuscript): *"Figure 2 displays these interactions visually and shows that the effects of anger and disgust are larger than that of fear, but these differences are not as large or statistically distinct. However, as OFR increases, both anger and disgust boost opposition to racial policies. At very high levels of OFR, both anger and disgust boost opposition significantly more than that in the (relaxed) control group."* (p. 292)

Key variables for conditional relationship: Outcome Y: "policy opinion" (`racpolicy`); treatment D: "disgust" (`disgust`); moderator X: "old-fashioned racism" (`jimcrow13`).

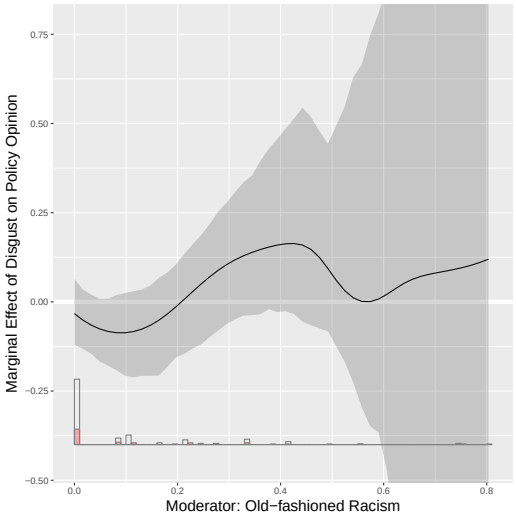
FIGURE B16. RESULTS FROM BANKS AND VALENTINO (2012)



(a) Raw data

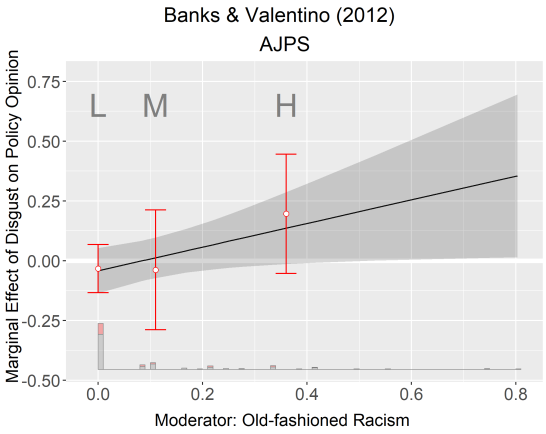


(b) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

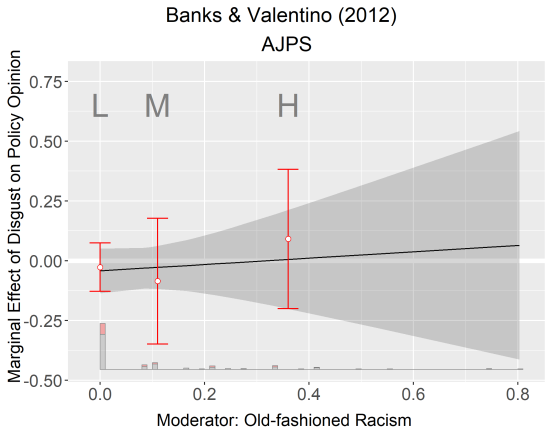


(c) Marginal Effects from Kernel Estimator

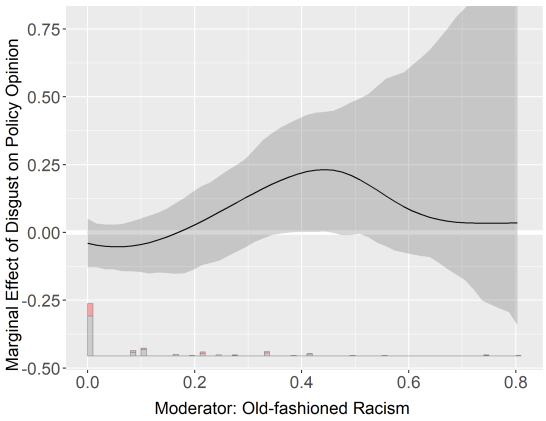
Figure B17. Marginal Effects



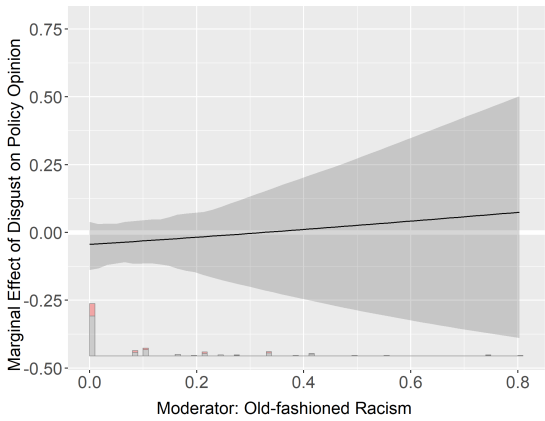
(a) Binning



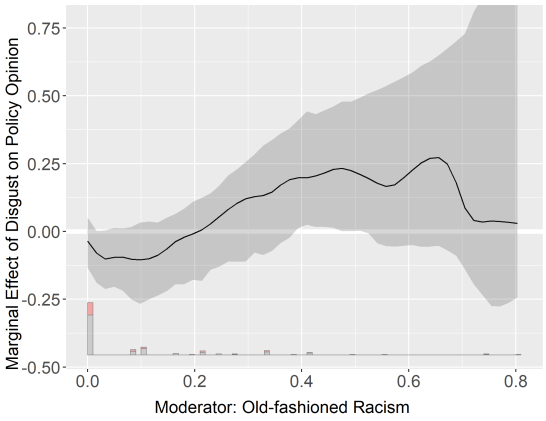
(b) Binning: Fully moderated model



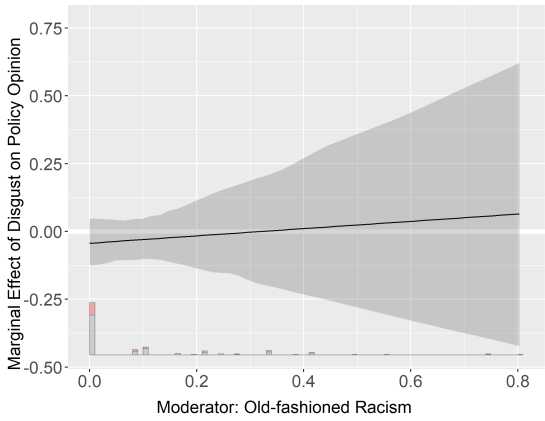
(c) Kernel



(d) Kernel: Fully moderated model

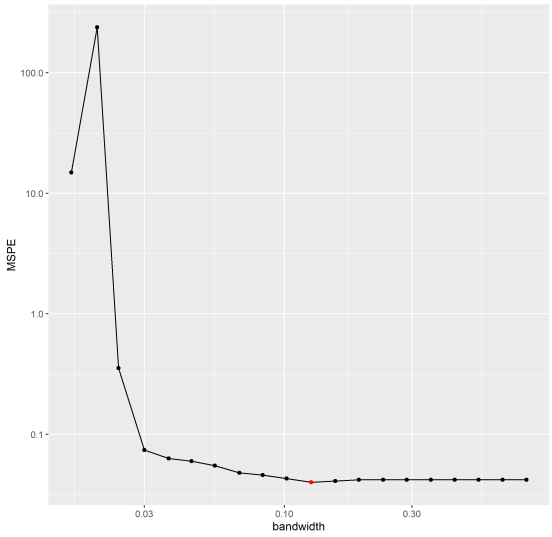


(e) Kernel: Adaptive bandwidth

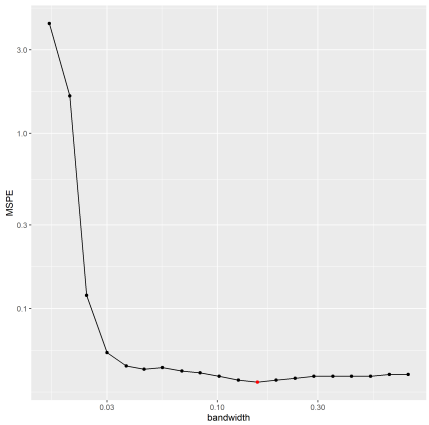


(f) Kernel: Fully moderated model with adaptive bandwidth

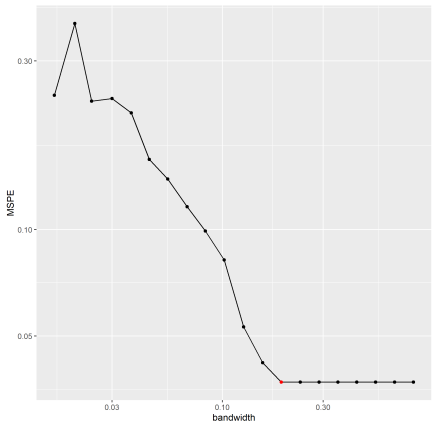
FIGURE B18. MSPE-BANDWIDTH



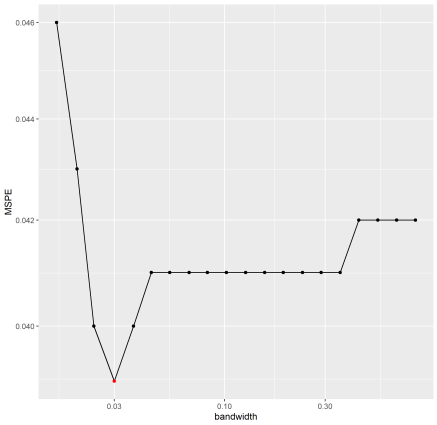
(a) Kernel: Original Command 5-fold



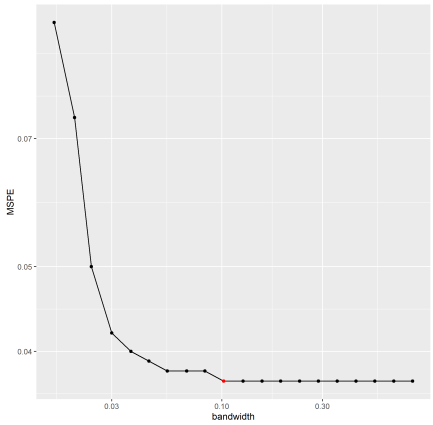
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

.4 Bodea and Hicks (2015*a*) JOP

First interaction:

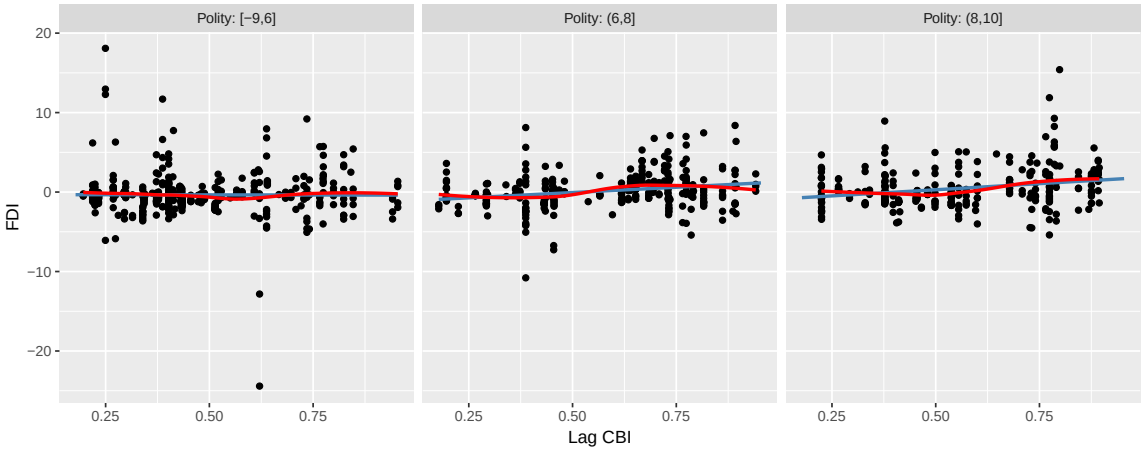
Claim on conditionality (Figure 1a in manuscript): *"In addition, we show that CBI affects the flow and cost of capital in non-OECD countries ... where political institutions allow the central bank to de facto be credible."* (Abstract).

"We plot the marginal effect of CBI as democracy increases in non-OECD countries in Figure 1(a). The marginal effect is significant only at high levels of Polity, supporting Hypothesis 2.1" (p. 278).

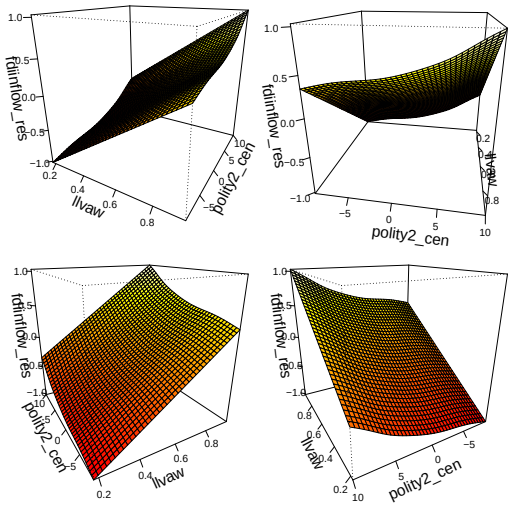
Key variables for the conditional relationship: Outcome Y: "FDI" (`fdiinflow`, demeaned); treatment D: "lag CBI"' (`llvaw`); moderator X: "Polity" (`polity2_cen`).

Note: The authors show 90% confidence intervals in the paper, while in both the binning plot and the kernel smoothing plot, we use 95% confidence intervals.

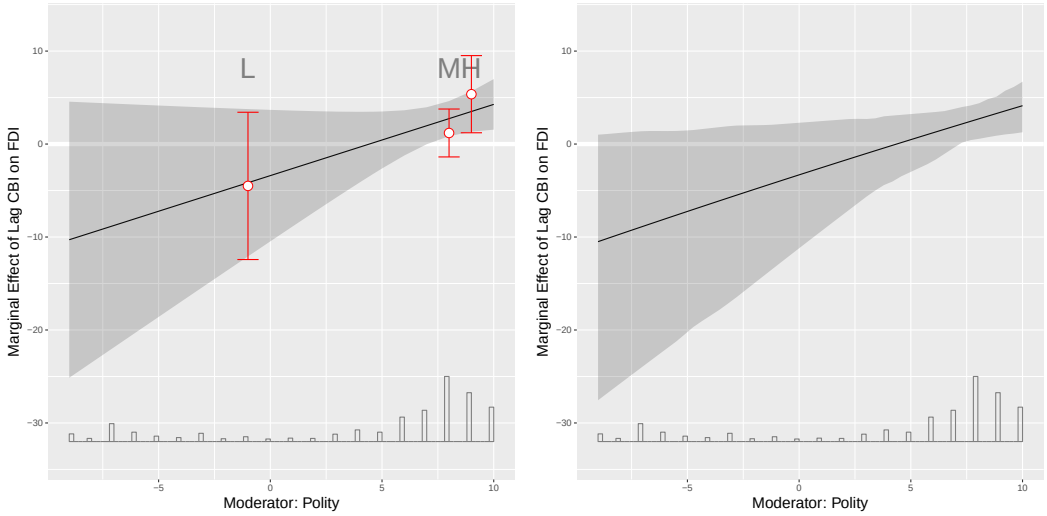
FIGURE B19. RESULTS FROM BODEA AND HICKS (2015*a*)



(a) Raw data



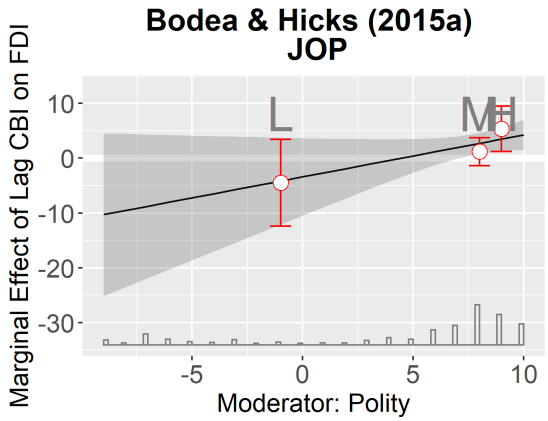
(b) GAM



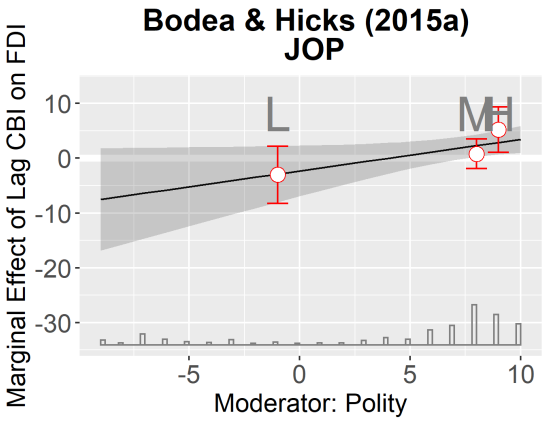
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

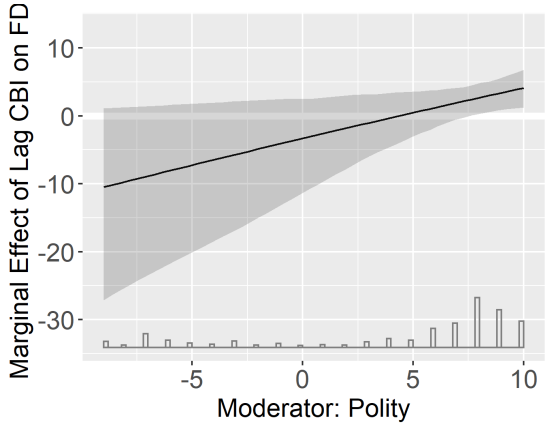
FIGURE B20. MARGINAL EFFECTS



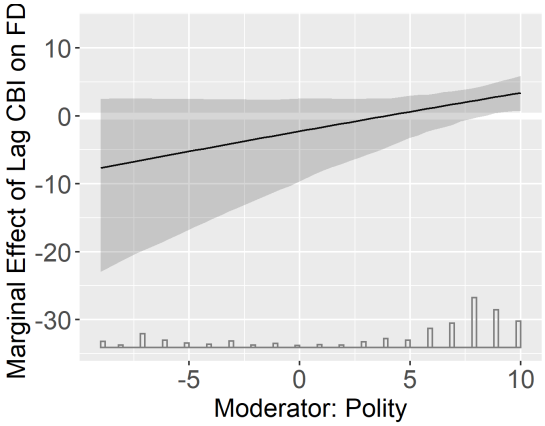
(a) Binning



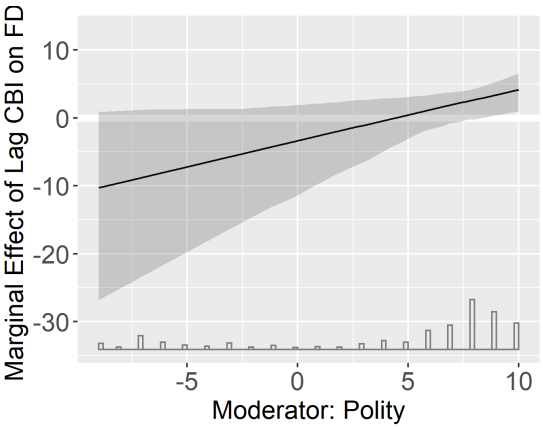
(b) Binning: Fully moderated model



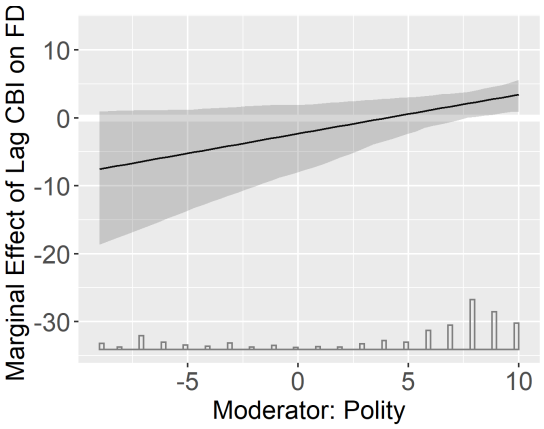
(c) Kernel



(d) Kernel: Fully moderated model

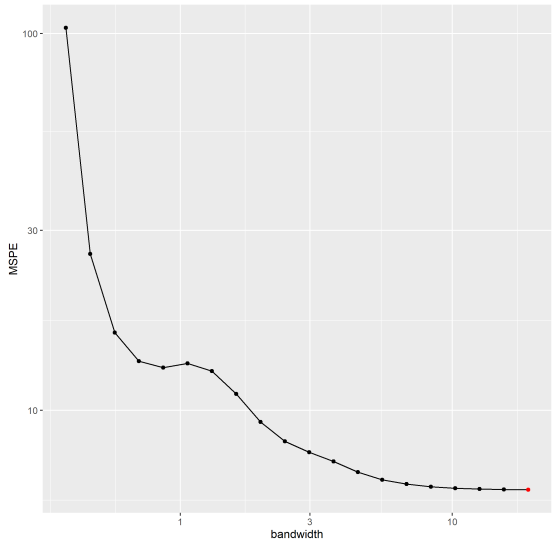


(e) Kernel: Adaptive bandwidth

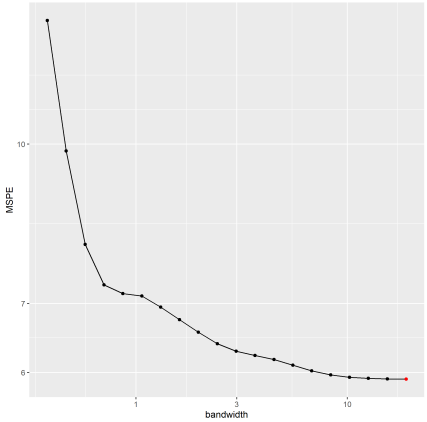


(f) Kernel: Fully moderated model with adaptive bandwidth

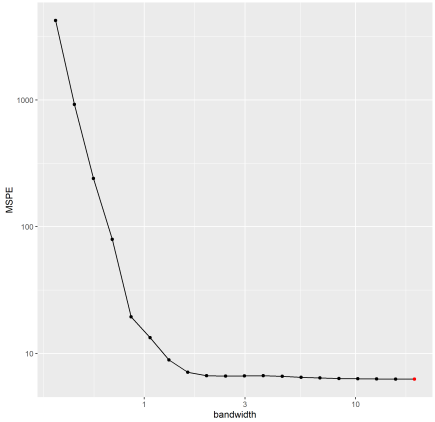
Figure B21. MSPE-Bandwidth



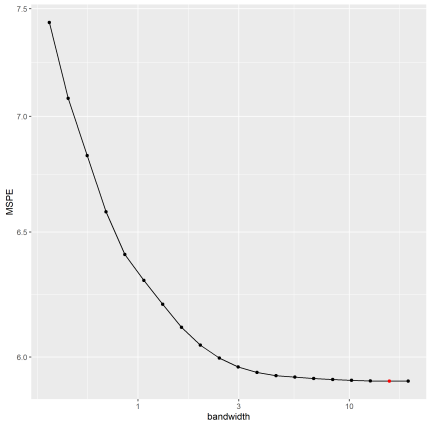
(a) Kernel: Original Command 5-fold



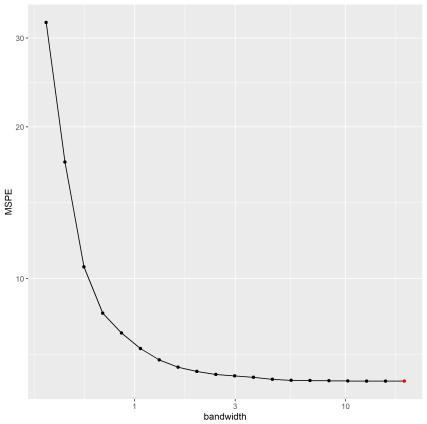
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

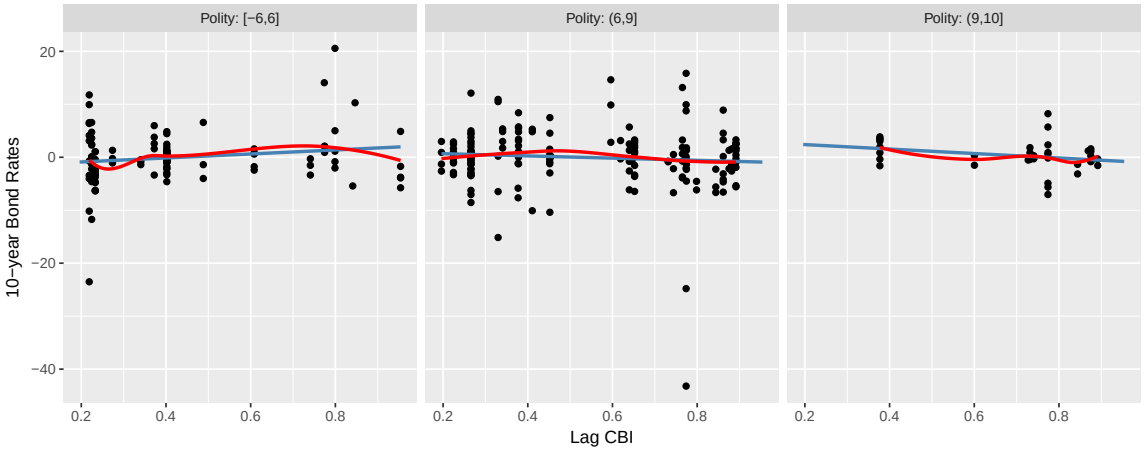
Second interaction:

Claim on conditionality: *Figure 1(c) shows that the marginal effect of CBI is downward sloping and negative at higher levels of democracy. For the 10-year bonds, more independent central banks reduce borrowing costs for democratic governments but have no effect in nondemocracies.* (p. 279)

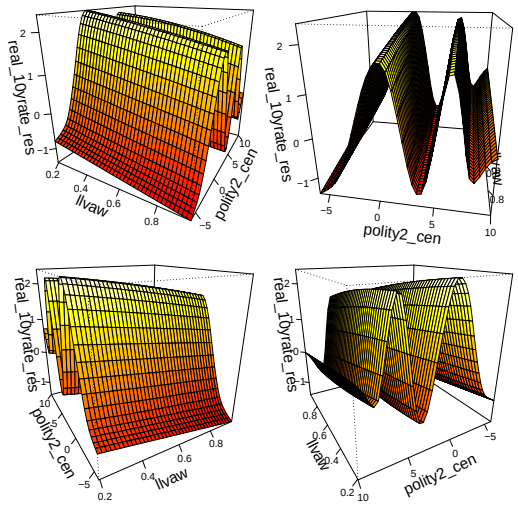
Key variables for the conditional relationship (Figure 1c): Outcome Y: "10-year bond rates " (`real_10yrate`, demeaned); treatment D: "lag CBI" (`llvaw`); moderator X: "Polity" (`polity2_cen`).

Note: The authors show 90% confidence intervals in the paper, while in both the binning plot and the kernel smoothing plot, we use 95% confidence intervals.

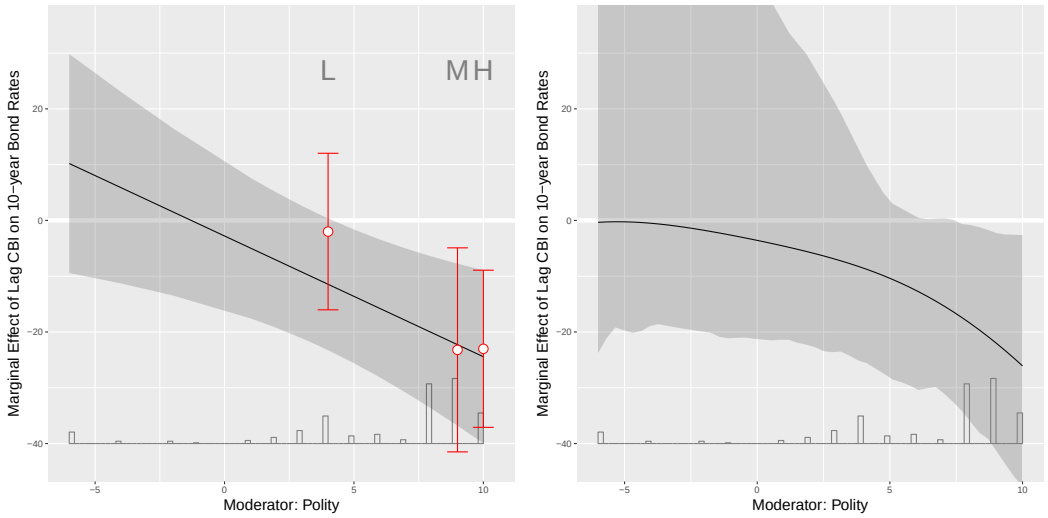
FIGURE B22. RESULTS FROM BODEA AND HICKS (2015*a*)



(a) Raw data



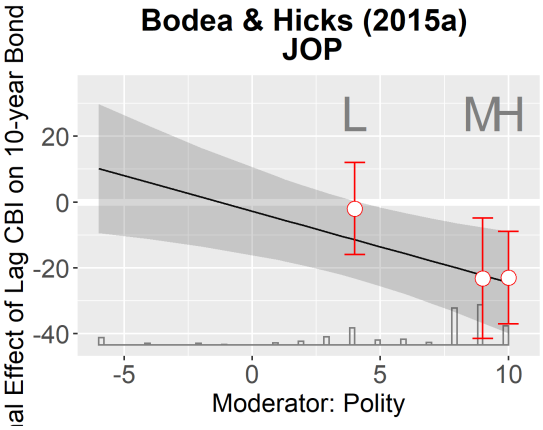
(b) GAM



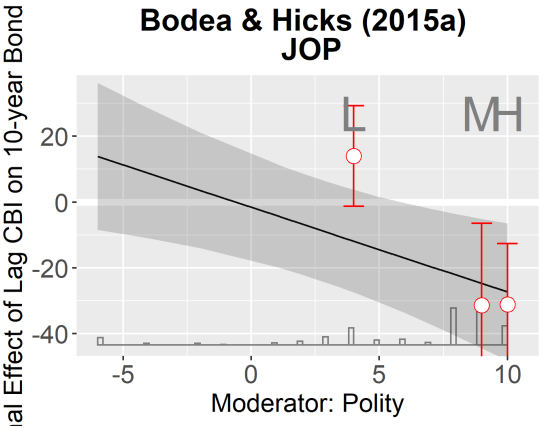
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

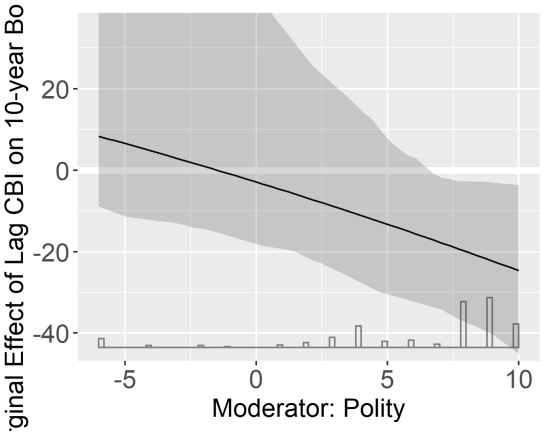
FIGURE B23. MARGINAL EFFECTS



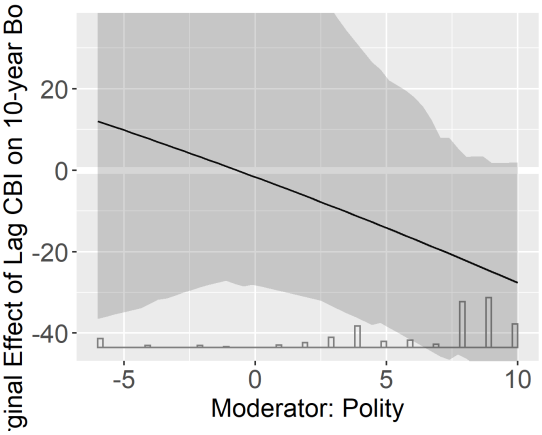
(a) Binning



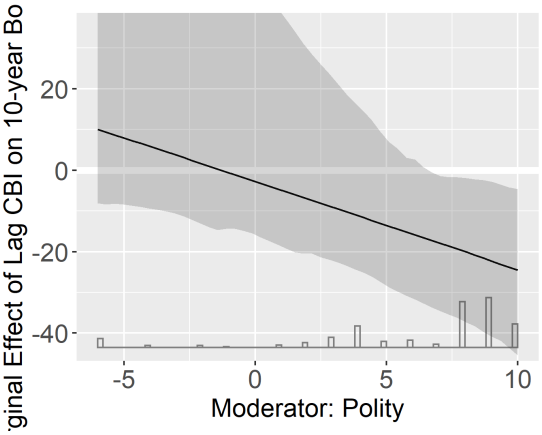
(b) Binning: Fully moderated model



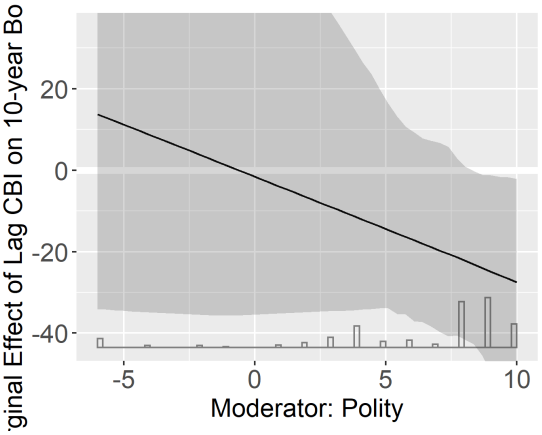
(c) Kernel



(d) Kernel: Fully moderated model

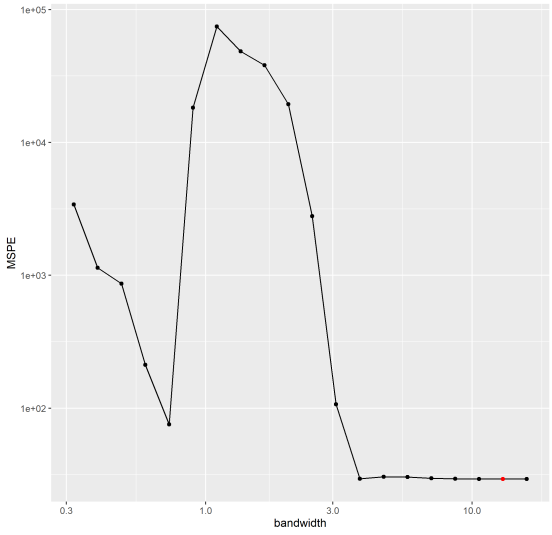


(e) Kernel: Adaptive bandwidth

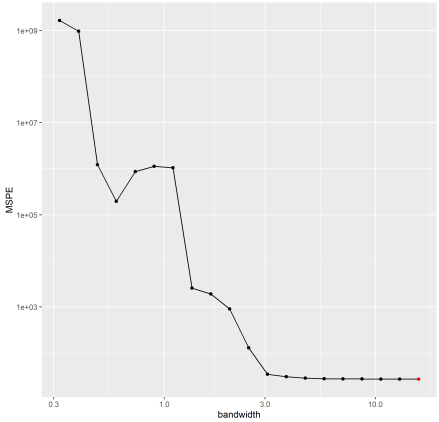


(f) Kernel: Fully moderated model with adaptive bandwidth

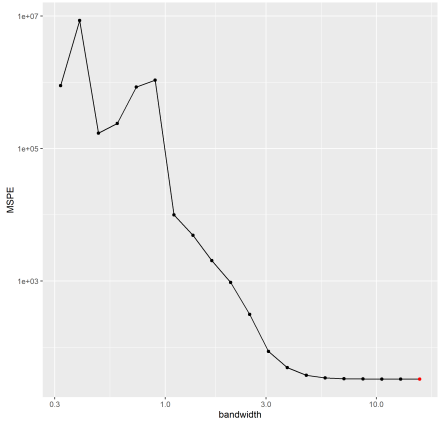
FIGURE B24. MSPE-BANDWIDTH



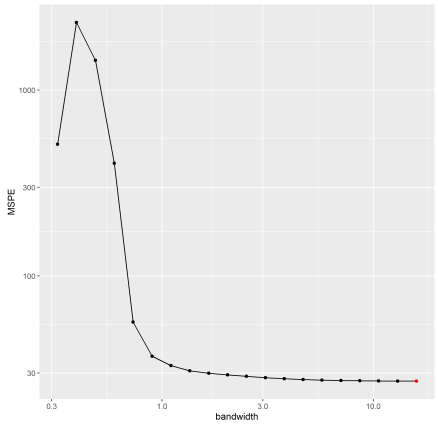
(a) Kernel: Original Command 5-fold



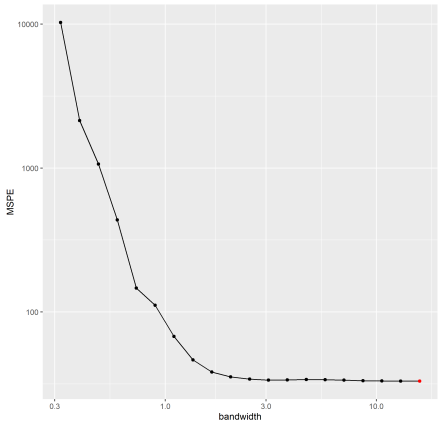
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

.5 Bodea and Hicks (2015*b*) IO

First Interaction:

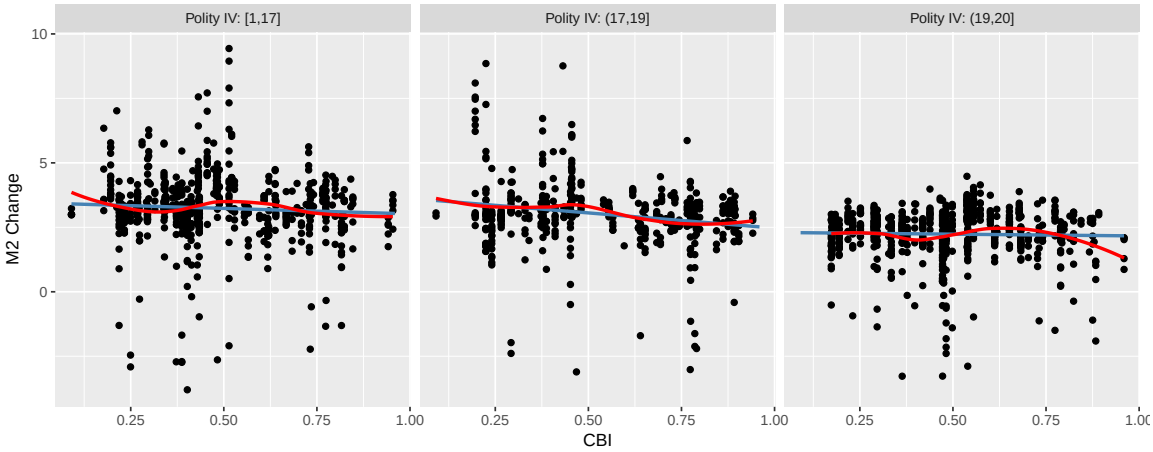
Claim on conditionality (Figure 2 in manuscript): *"Despite mixed empirical evidence, in the past two decades central bank independence (CBI) has been on the rise under the assumption that it ensures price stability. ... Empirical results are robust and support a discipline effect conditioned by political institutions, as well as a credibility effect."* (Abstract)

"Figure 2 shows the marginal effect of CBI as POLITY and FREEDOM HOUSE democracy vary. The graphs confirm our expectations; the marginal effect of CBI is downward sloping but it is negative and statistically significant at high levels of democracy only (POLITY scores above 16). At low levels of POLITY, the marginal effect of CBI is positive but statistically insignificant. Similarly, the marginal effect of CBI is negative and significant only when the FREEDOM HOUSE score is greater than about 5." (p. 49)

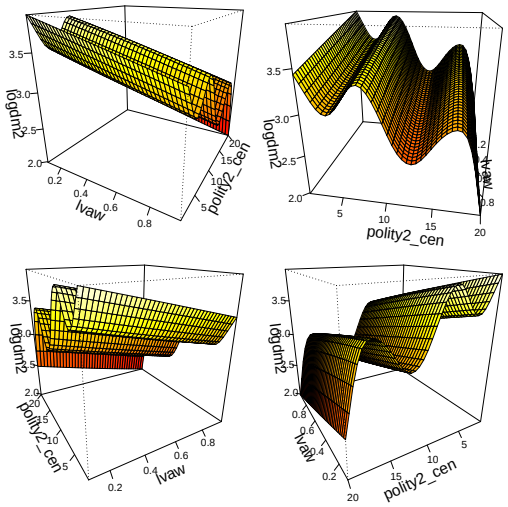
Key variables for conditional relationship 1: Outcome Y: "M2 growth" (`logdm2`); treatment D: "central bank independence" (`CBI`); moderator X: "Polity IV score" (`polity2_cen`).

Note: The authors show 90% confidence intervals in the paper, while in both the binning plot and the kernel smoothing plot, we use 95% confidence intervals.

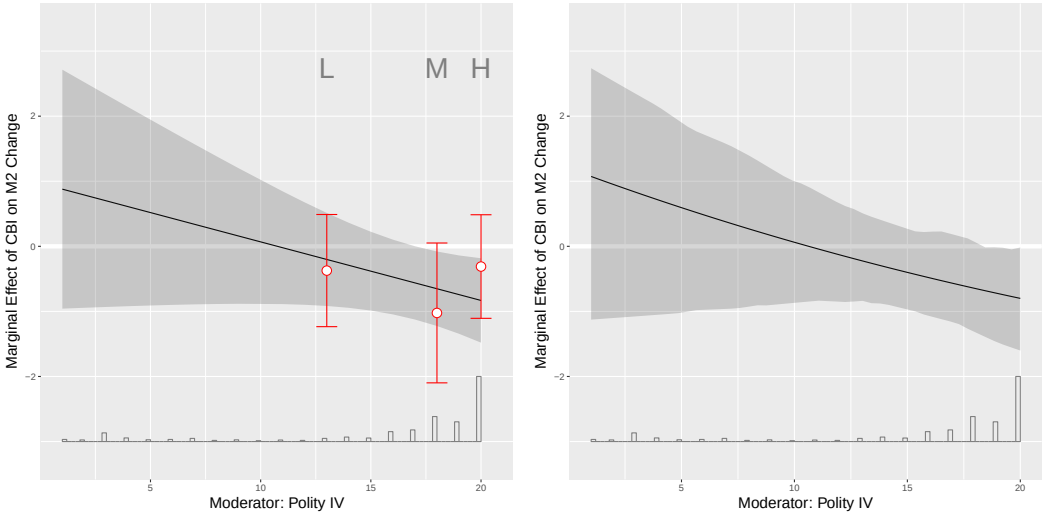
FIGURE B25. RESULTS FROM BODEA AND HICKS (2015*b*)



(a) Raw data



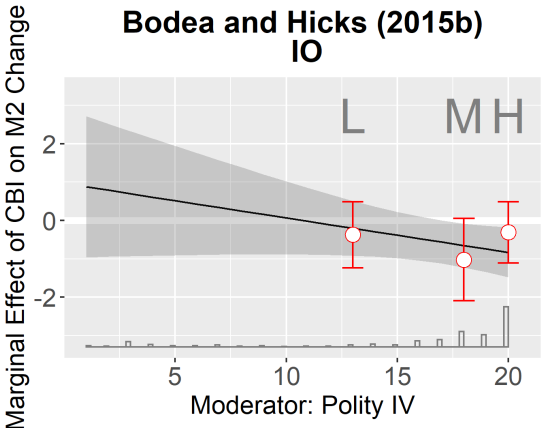
(b) GAM



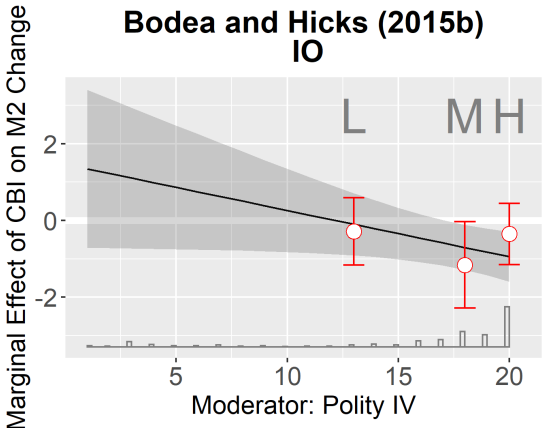
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

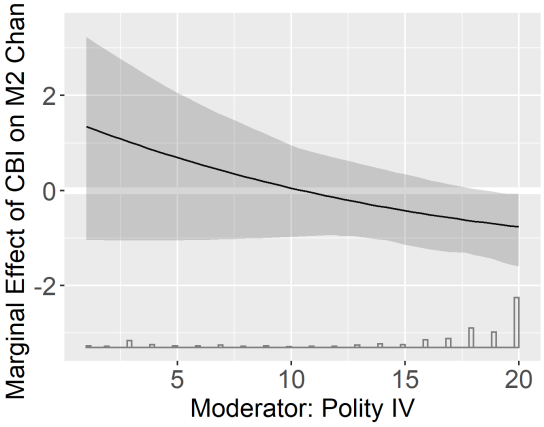
FIGURE B26. MARGINAL EFFECTS



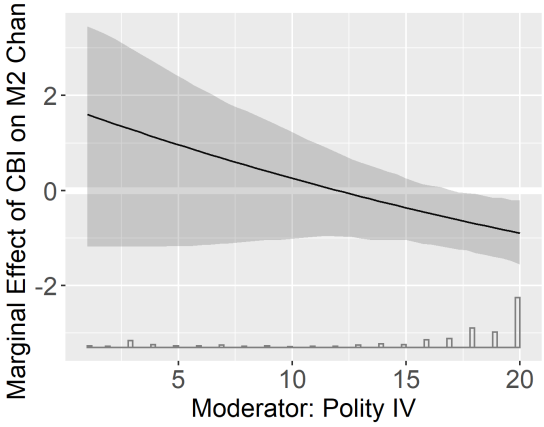
(a) Binning



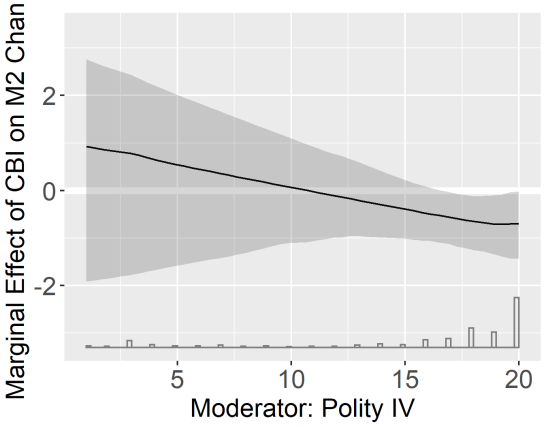
(b) Binning: Fully moderated model



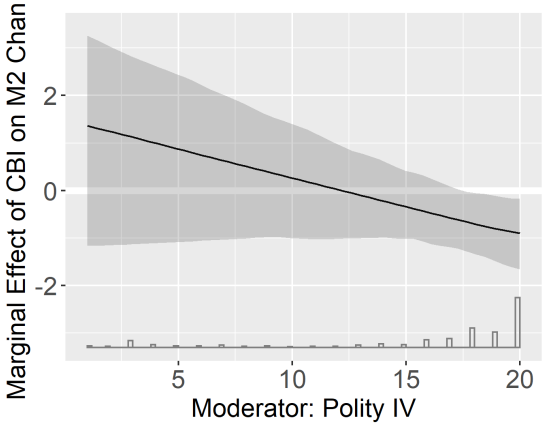
(c) Kernel



(d) Kernel: Fully moderated model

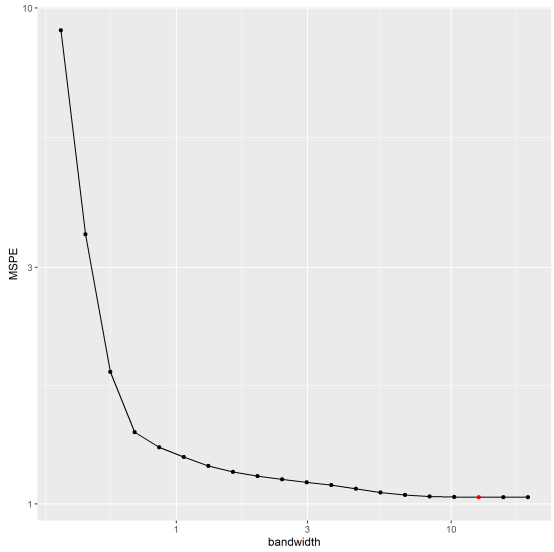


(e) Kernel: Adaptive bandwidth

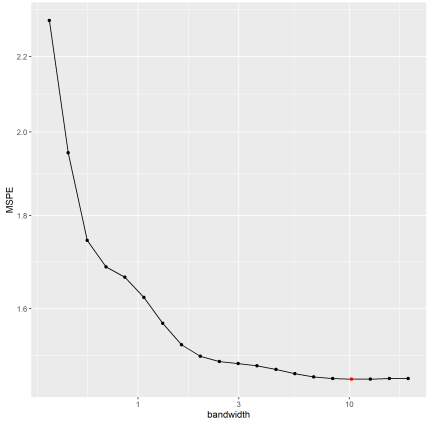


(f) Kernel: Fully moderated model with adaptive bandwidth

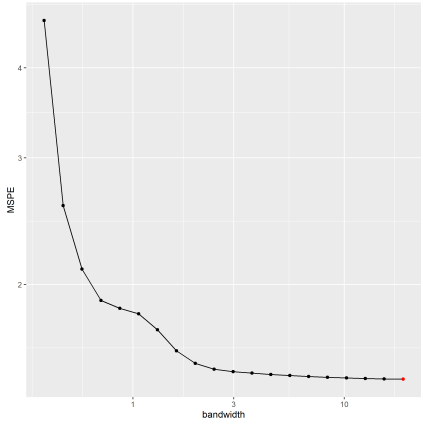
FIGURE B27. MSPE-BANDWIDTH



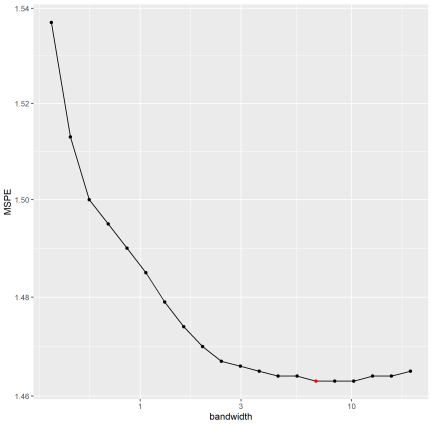
(a) Kernel: Original Command 5-fold



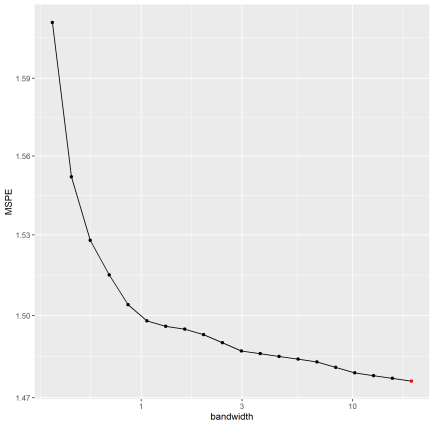
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

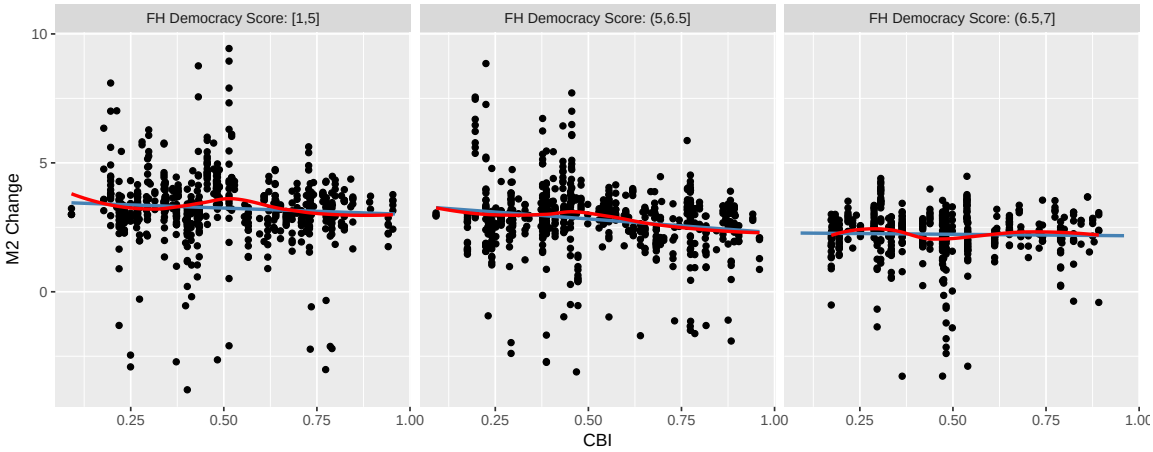
Second Interaction:

Claim on conditionality (Figure 2 in manuscript): *"Figure 2 shows the marginal effect of CBI as POLITY and FREEDOM HOUSE democracy vary. The graphs confirm our expectations; the marginal effect of CBI is downward sloping but it is negative and statistically significant at high levels of democracy only (POLITY scores above 16). At low levels of POLITY, the marginal effect of CBI is positive but statistically insignificant. Similarly, the marginal effect of CBI is negative and significant only when the FREEDOM HOUSE score is greater than about 5."* (p. 49)

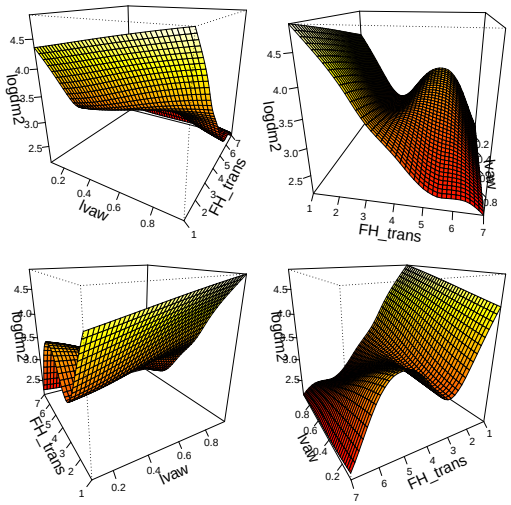
Key variables for conditional relationship 2 : Outcome Y: "M2 growth" (`logdm2`); treatment D: "central bank independence" (`CBI`); moderator X: "Freedom House democracy score" (`FH_trans`).

Note: The authors show 90% confidence intervals in the paper, while in both the binning plot and the kernel smoothing plot, we use 95% confidence intervals.

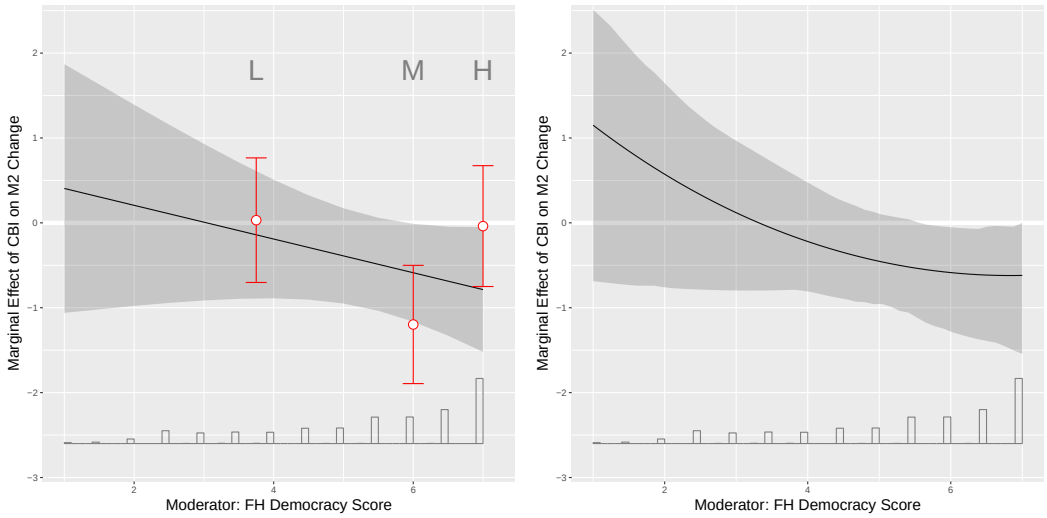
FIGURE B28. RESULTS FROM BODEA AND HICKS (2015*b*)



(a) Raw data



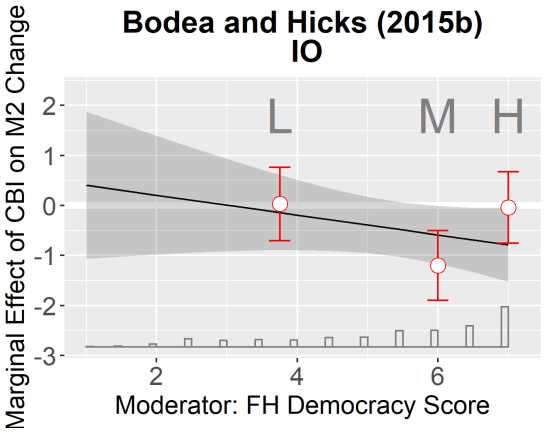
(b) GAM



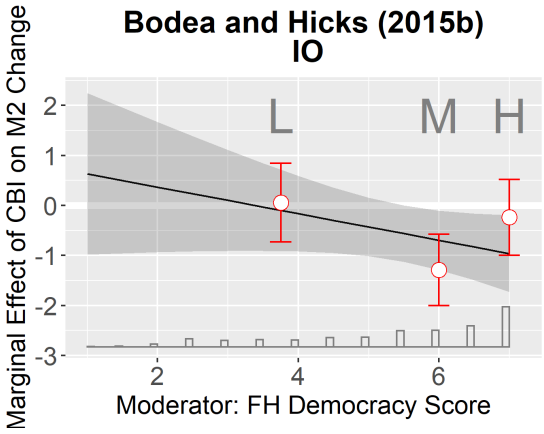
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

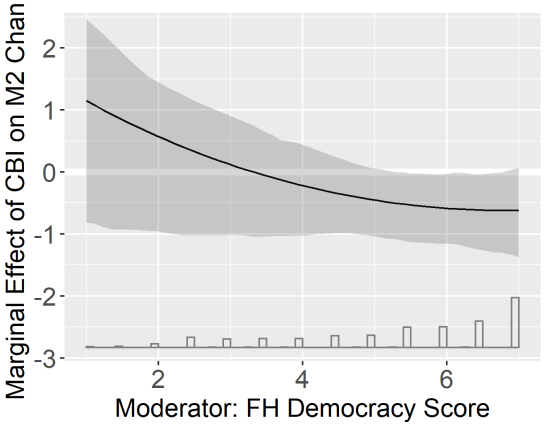
FIGURE B29. MARGINAL EFFECTS



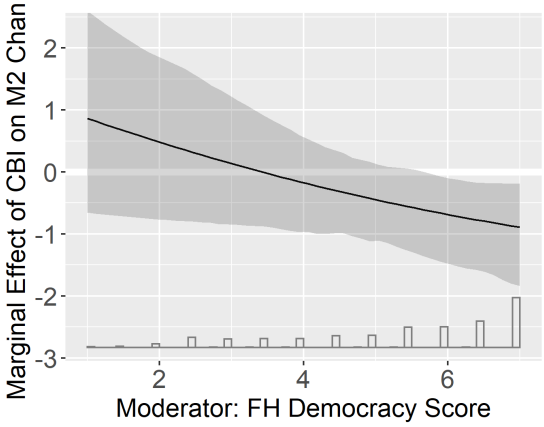
(a) Binning



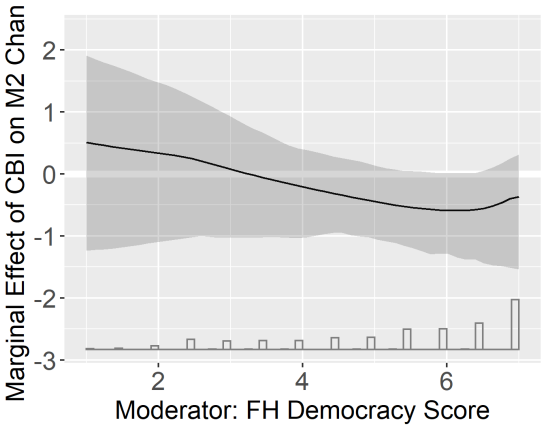
(b) Binning: Fully moderated model



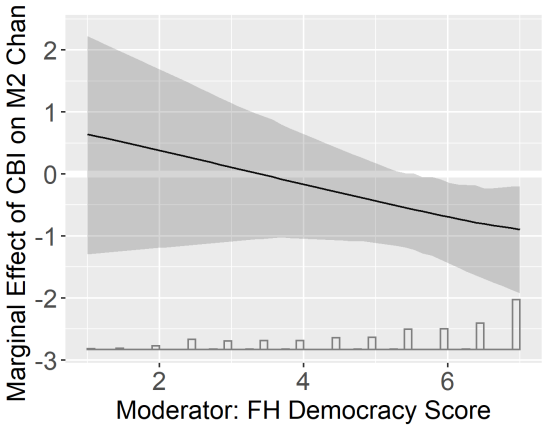
(c) Kernel



(d) Kernel: Fully moderated model

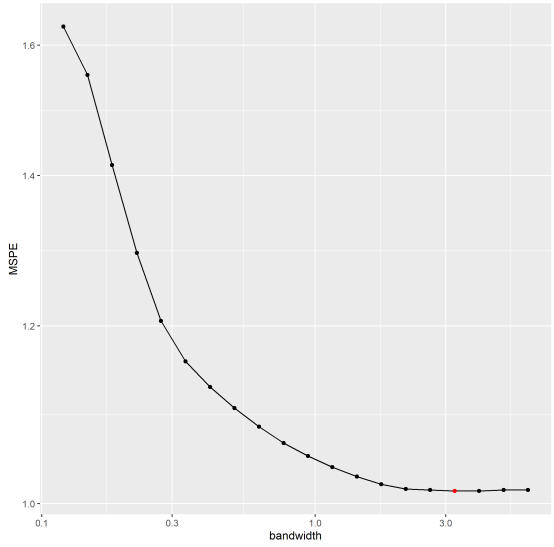


(e) Kernel: Adaptive bandwidth

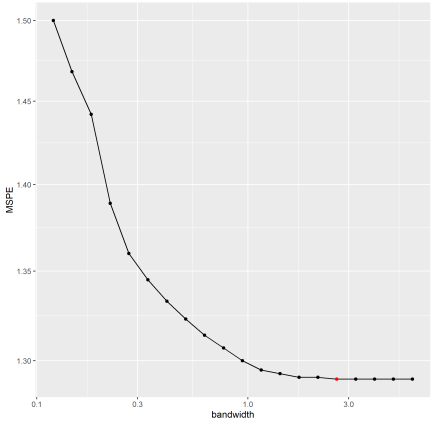


(f) Kernel: Fully moderated model with adaptive bandwidth

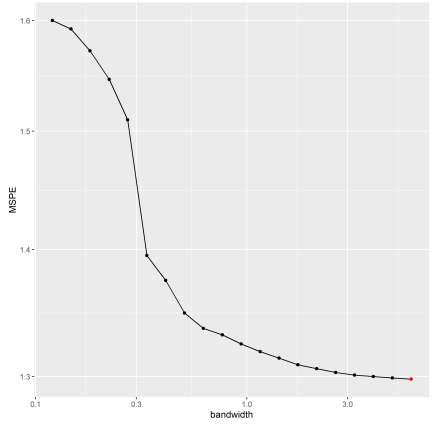
FIGURE B30. MSPE-BANDWIDTH



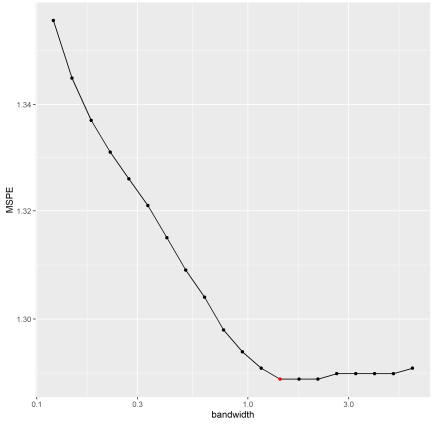
(a) Kernel: Original Command 5-fold



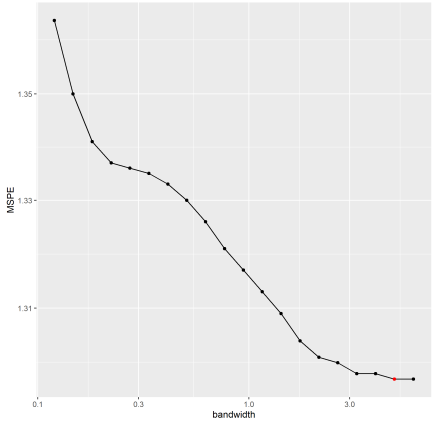
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

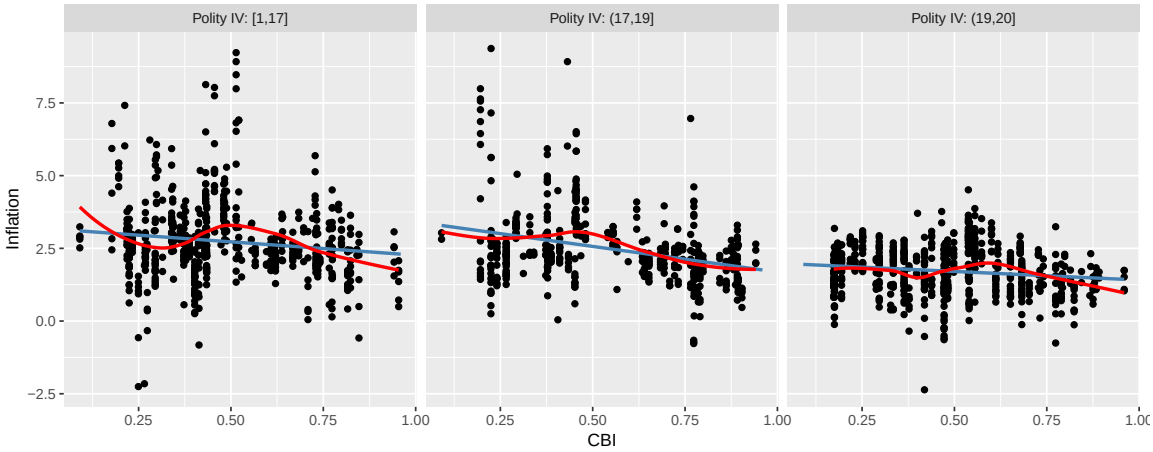
Third Interaction:

Claim on conditionality (Figure 4 in manuscript): *"Figure 4 shows, however, that the marginal effect of CBI is significant only at high levels of Polity and FREEDOM HOUSE. The marginal effect line is downward sloping, suggesting that only for Polity scores greater than about 14 (FREEDOM HOUSE scores greater than about 4.5) does CBI significantly reduce inflation."* (p. 52)

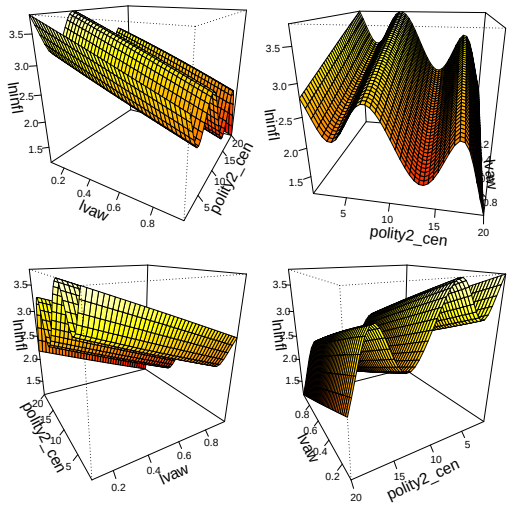
Key variables for conditional relationship: Outcome Y: "inflation" (`lninfl`); treatment D: "central bank independence" (`CBI`); moderator X: "Polity IV score" (`polity2_cen`).

Note: The authors show 90% confidence intervals in the paper, while in both the binning plot and the kernel smoothing plot, we use 95% confidence intervals.

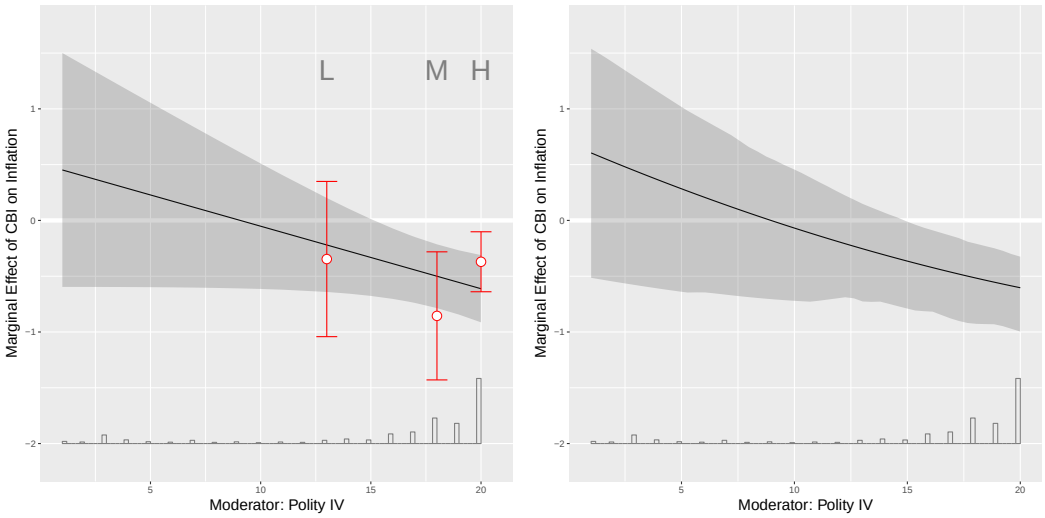
FIGURE B31. RESULTS FROM BODEA AND HICKS (2015*b*)



(a) Raw data



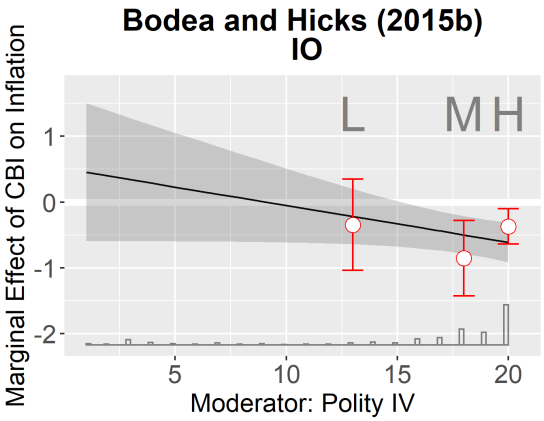
(b) GAM



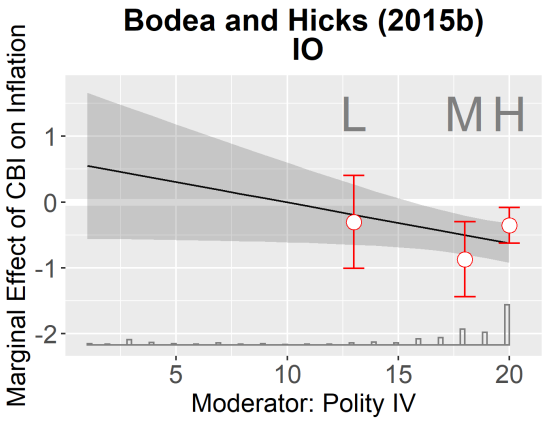
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

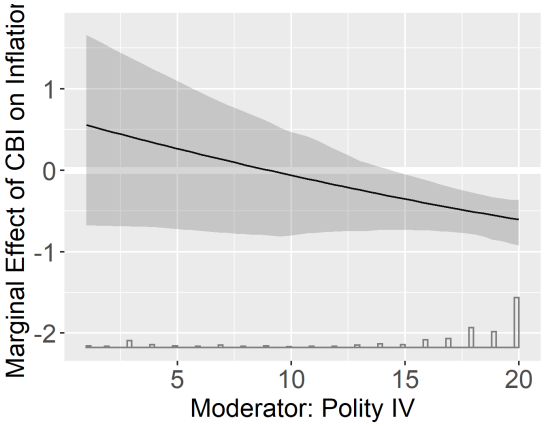
FIGURE B32. MARGINAL EFFECTS



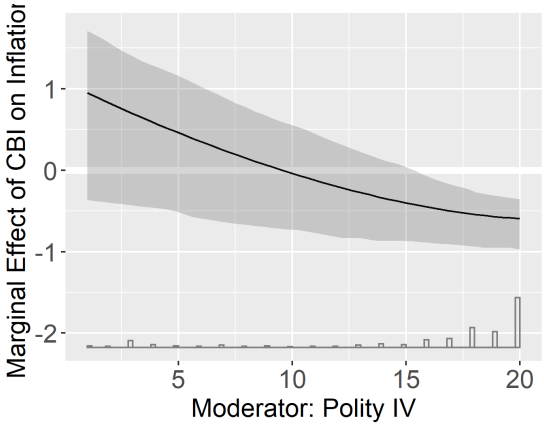
(a) Binning



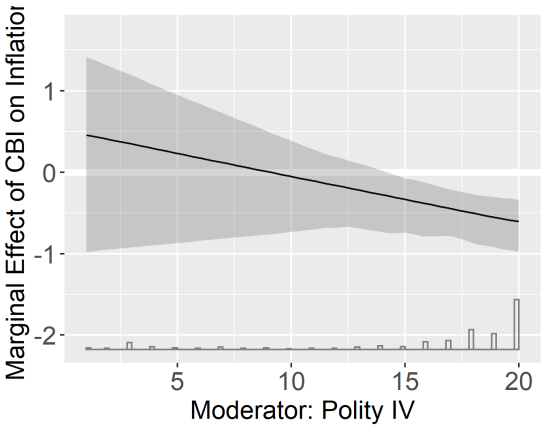
(b) Binning: Fully moderated model



(c) Kernel



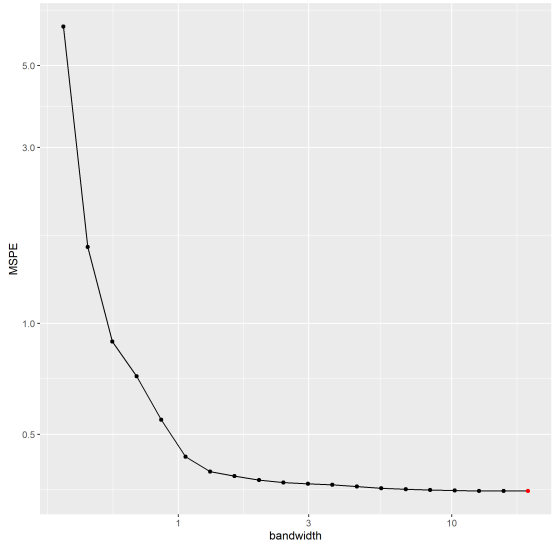
(d) Kernel: Fully moderated model



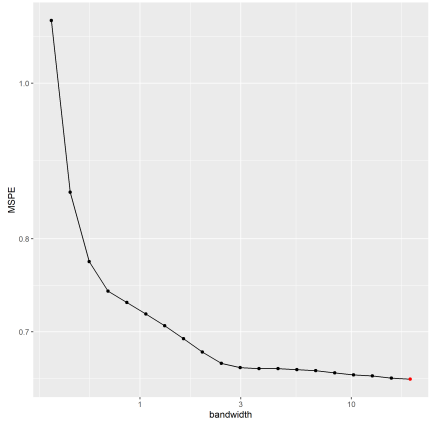
(e) Kernel: Adaptive bandwidth

(f) Kernel: Fully moderated model with adaptive bandwidth

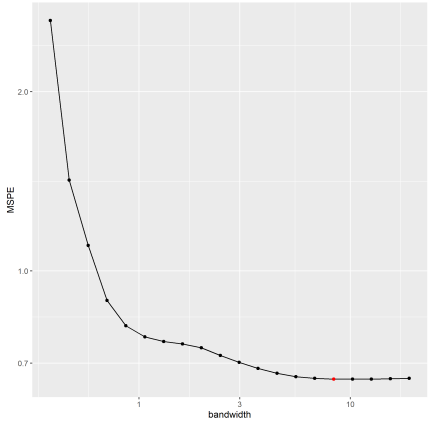
FIGURE B33. MSPE-BANDWIDTH



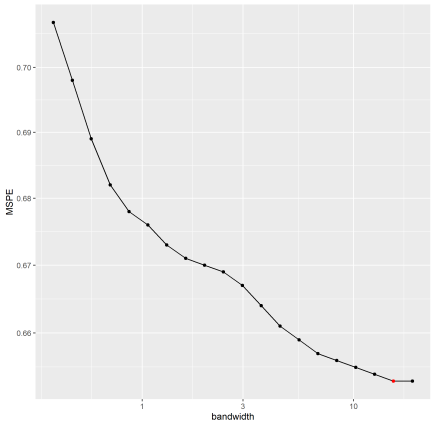
(a) Kernel: Original Command 5-fold



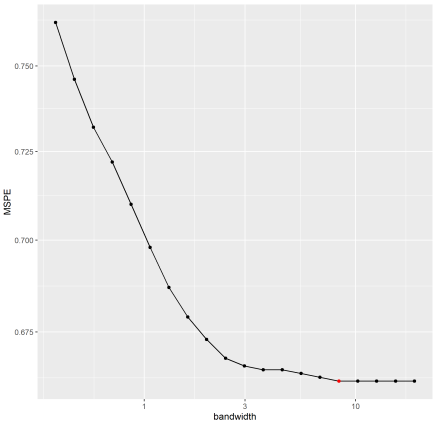
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

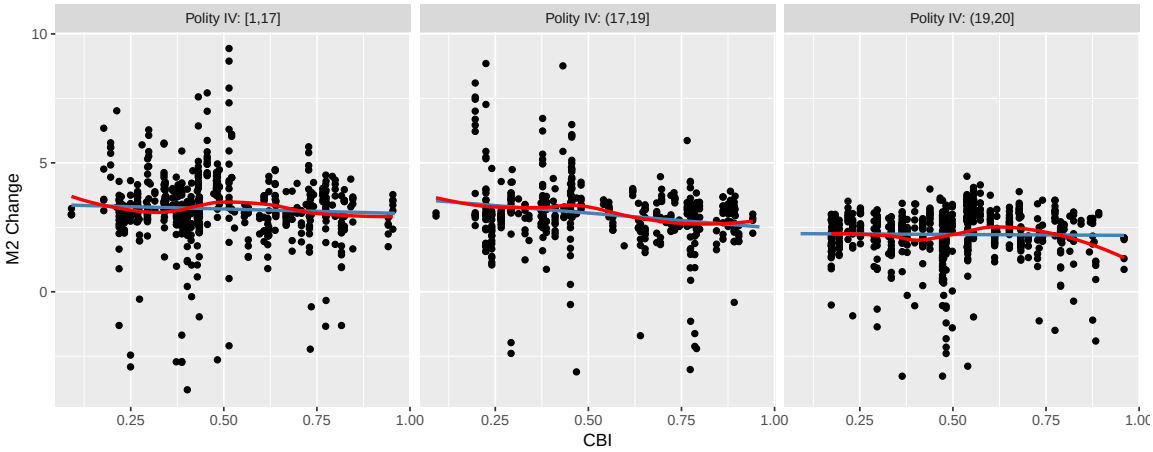
Fourth Interaction:

Claim on conditionality (Figure 4 in manuscript): *"Figure 4 shows, however, that the marginal effect of CBI is significant only at high levels of Polity and FREEDOM HOUSE. The marginal effect line is downward sloping, suggesting that only for Polity scores greater than about 14 (FREEDOM HOUSE scores greater than about 4.5) does CBI significantly reduce inflation."* (p. 52)

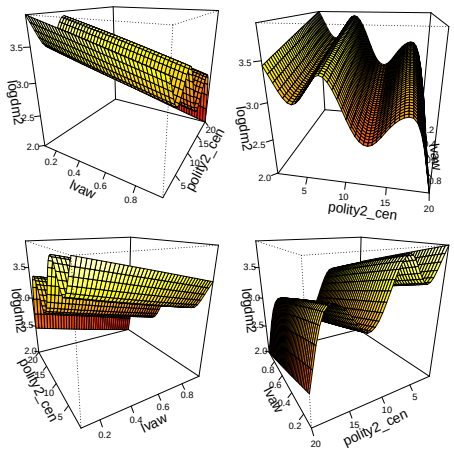
Key variables for conditional relationship: Outcome Y: "inflation" (`lninfl`); treatment D: "central bank independence" (`CBI`); moderator X: "Freedom House democracy score" (`FH_trans`).

Note: The authors show 90% confidence intervals in the paper, while in both the binning plot and the kernel smoothing plot, we use 95% confidence intervals.

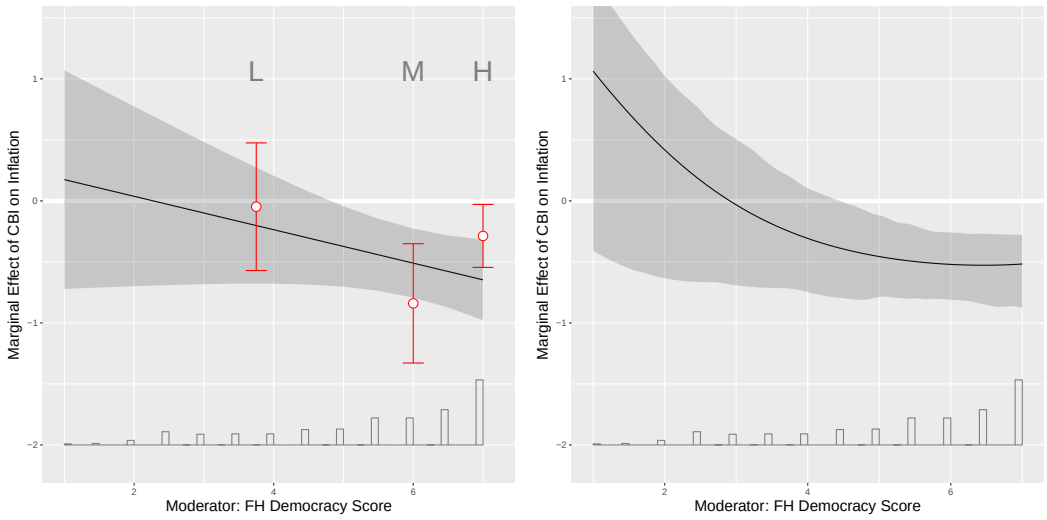
FIGURE B34. RESULTS FROM BODEA AND HICKS (2015*b*)



(a) Raw data



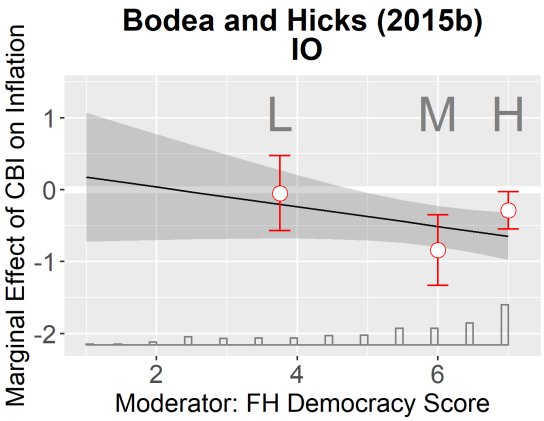
(b) GAM



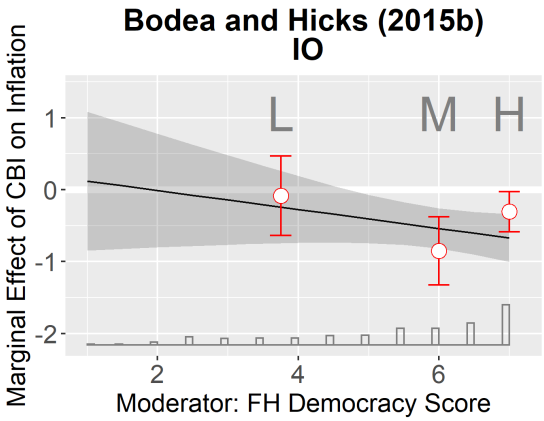
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

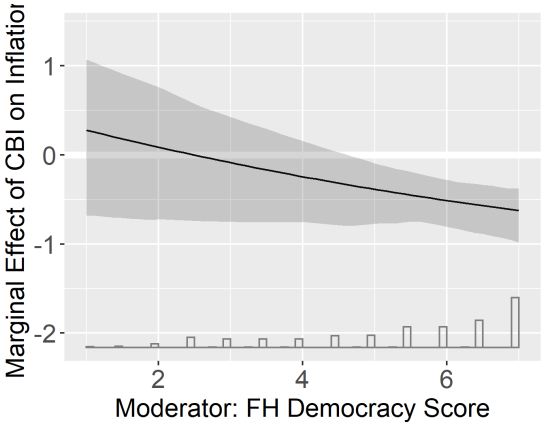
FIGURE B35. MARGINAL EFFECTS



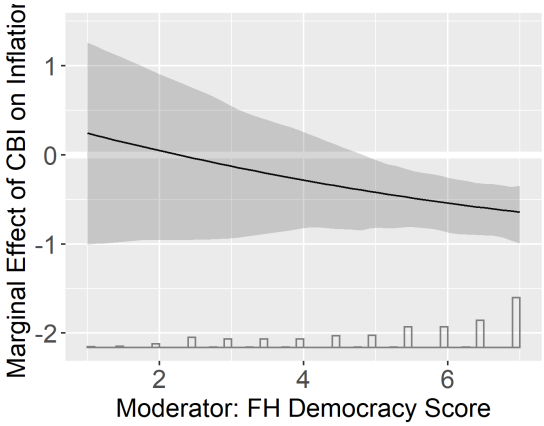
(a) Binning



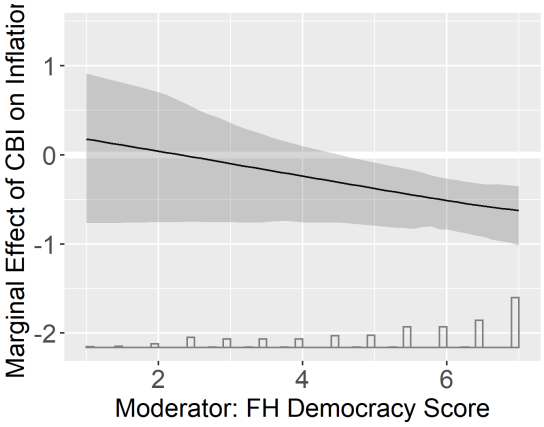
(b) Binning: Fully moderated model



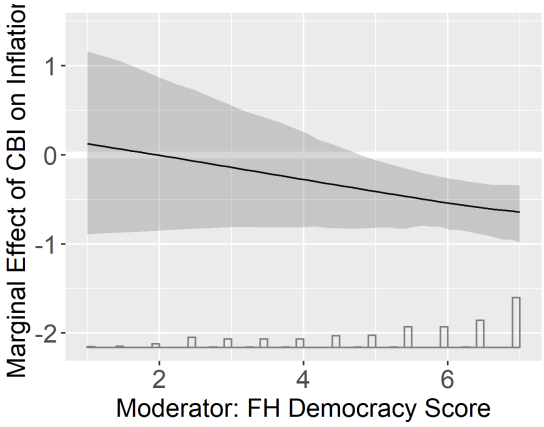
(c) Kernel



(d) Kernel: Fully moderated model

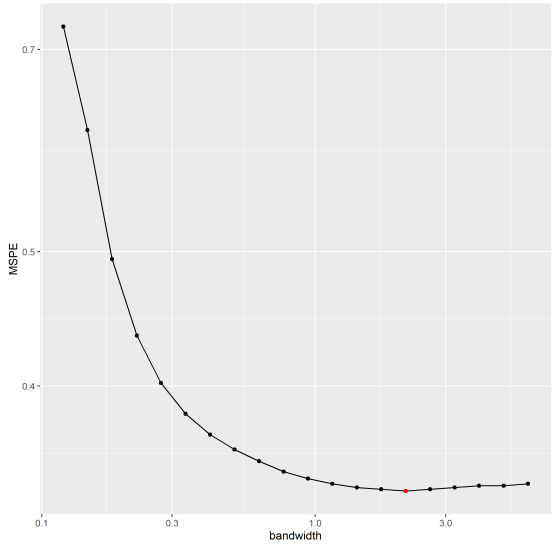


(e) Kernel: Adaptive bandwidth

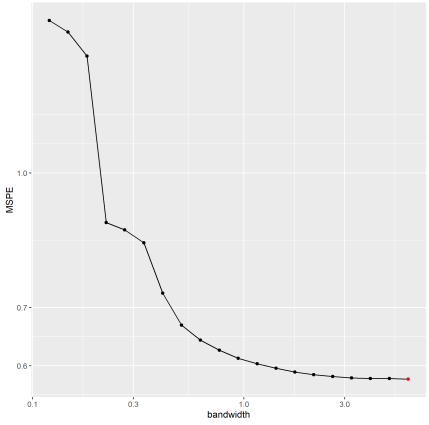


(f) Kernel: Fully moderated model with adaptive bandwidth

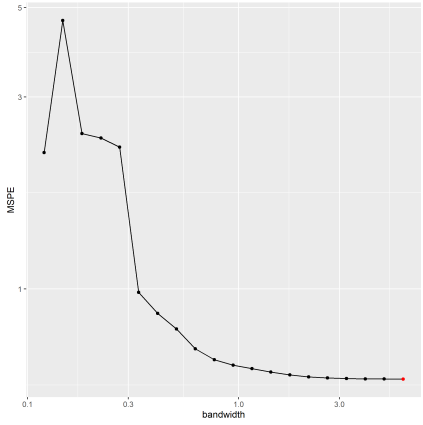
FIGURE B36. MSPE-BANDWIDTH



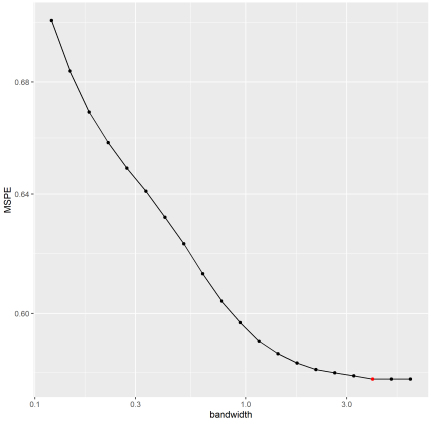
(a) Kernel: Original Command 5-fold



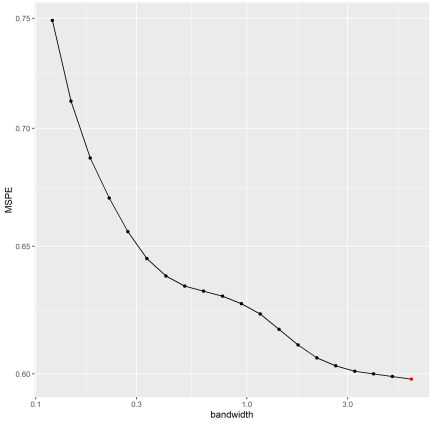
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



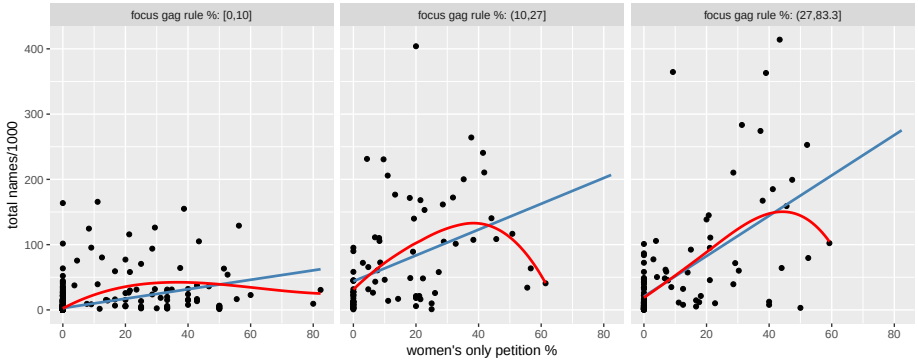
(e) Kernel: Fully moderated model with adaptive bandwidth

.6 Carpenter and Moore (2014) APSR

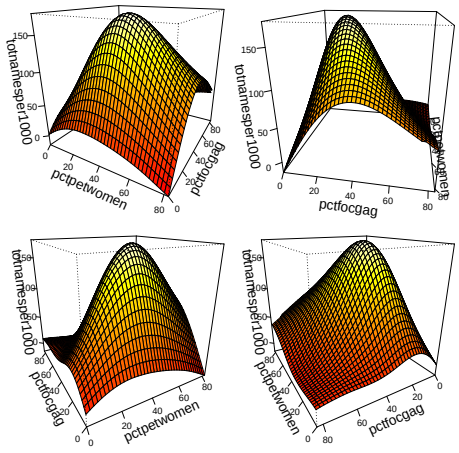
Claim on conditionality (Figure 4 in manuscript): *"[W]e note that women's canvassing was far more efficacious when the prayer of the petition contained a protest against the gag rule. Figure 4 presents the marginal effect of the percentage of county petitions canvassed by women (in terms of additional signatures per 1,000 county population) as a function of the percentage of county petitions whose prayer focuses on the gag rule. ...The marginal-effects plot demonstrates that the effect of women's canvassing is positive and statistically differentiable from zero for all values of the gag-rule focus variable."* (pp. 490-91).

Key variables for the conditional relationship: Outcome Y: "total names per 1000" (`totnamesper1000`); treatment D: "percent women's only petition" (`pctpetwomen`); moderator X: "percent focus gag rule" (`pctfocgag`).

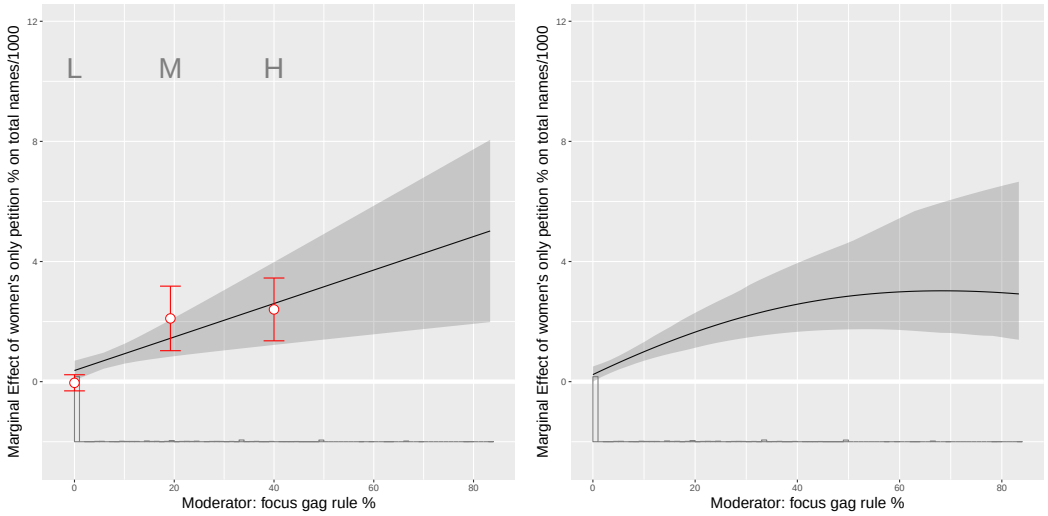
FIGURE B37. RESULTS FROM CARPENTER AND MOORE (2014)



(a) Raw data



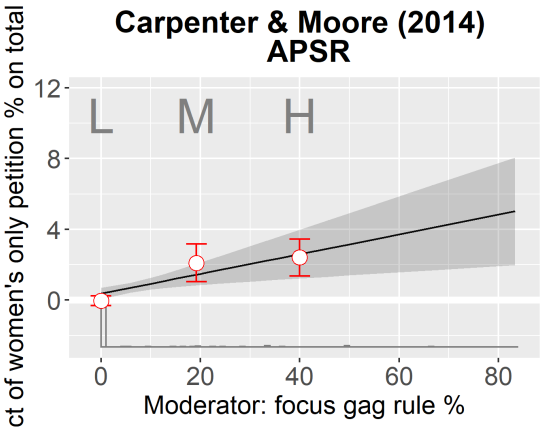
(b) GAM



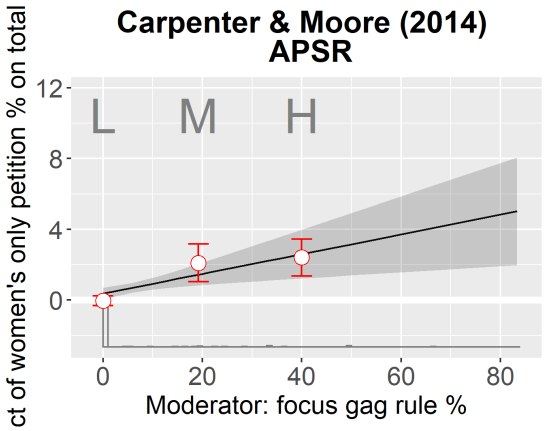
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

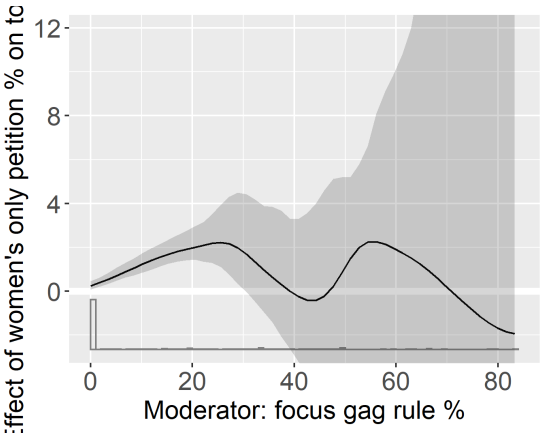
FIGURE B38. MARGINAL EFFECTS



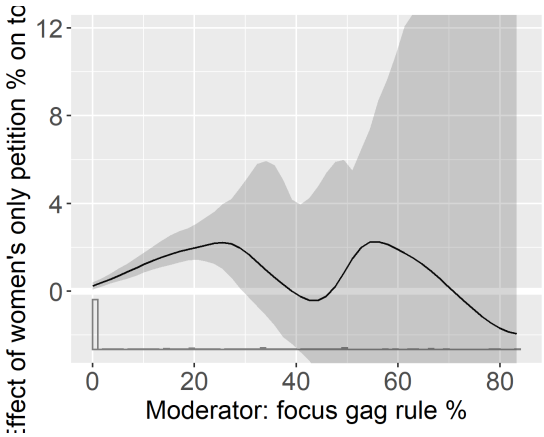
(a) Binning



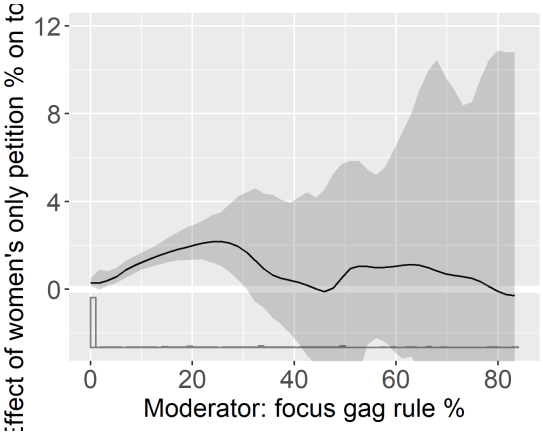
(b) Binning: Fully moderated model



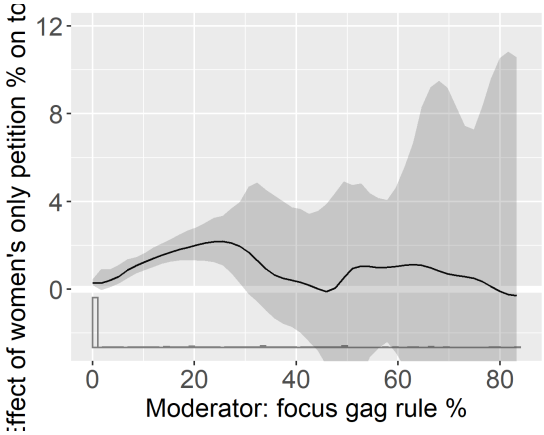
(c) Kernel



(d) Kernel: Fully moderated model

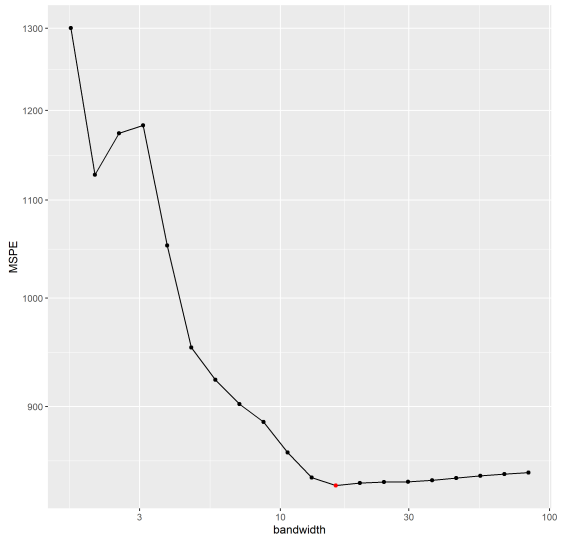


(e) Kernel: Adaptive bandwidth

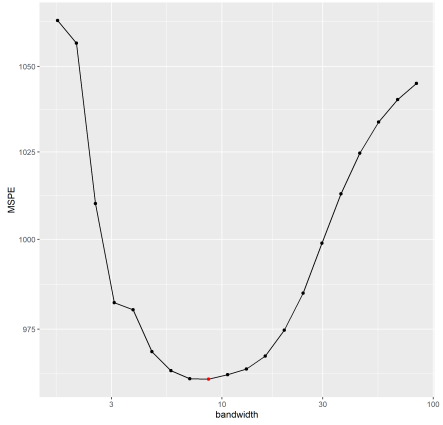


(f) Kernel: Fully moderated model with adaptive bandwidth

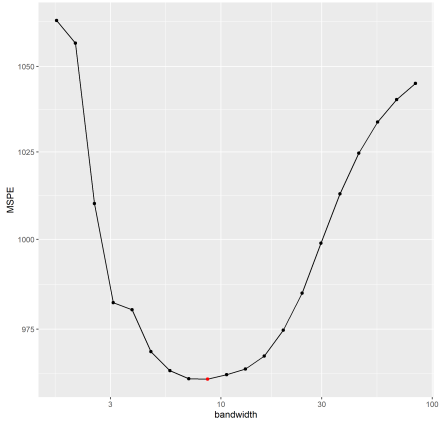
FIGURE B39. MSPE-BANDWIDTH



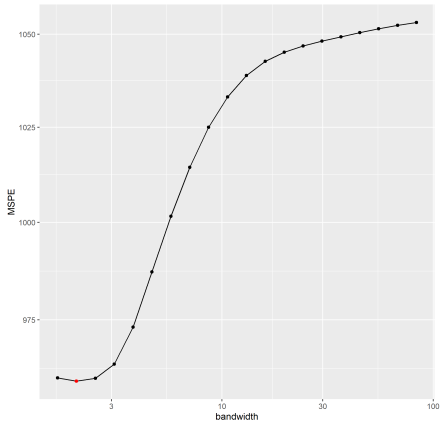
(a) Kernel: Original Command 5-fold



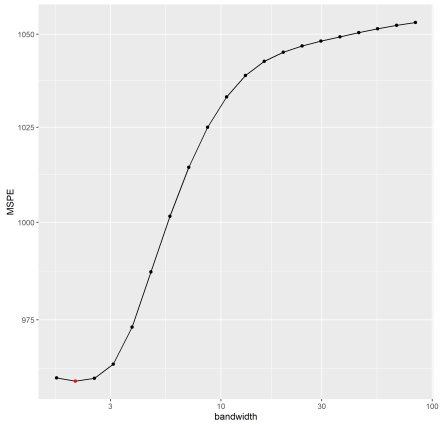
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

.7 Chapman (2009) IO

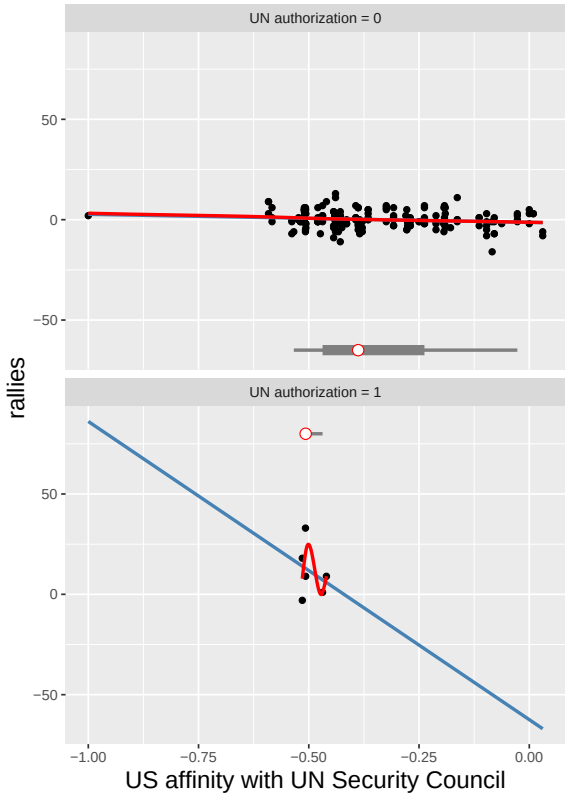
Claim on conditionality: *"This article tests this conditional relationship in the context of changes in presidential approval surrounding military disputes, using a measure of preference distance between the United States and veto-wielding members of the UN Security Council. Findings indicate that short-term changes in presidential approval surrounding the onset of military disputes in the United States between 1946 and 2001 have been significantly large when accompanied by a positive resolution for a Security Council that is more distant in terms of foreign policy preferences"* (Abstract).

"Rallies with UN authorization are only larger than average when the pivotal member is ideologically distant from the United States... Clearly, the effect of authorization on rallies decreases as similarity increases: foreign policy actions that receive authorization from a less conservative institution receive similar rallies to those that do not receive authorization from an IO" (p. 756)

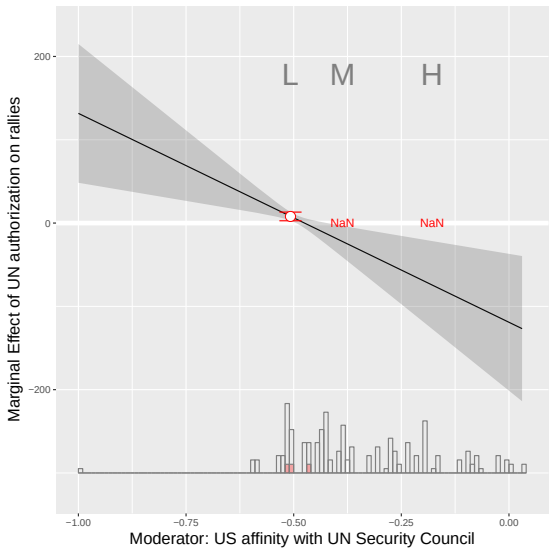
Key variables for the conditional relationship: Outcome Y: "rallies" (`rally`); treatment D: "UN authorization" (`unauth`); moderator X: "US affinity with UN Security Council " (`S`).

Note: Among 196 observations, there are only 6 positive cases (`unauth=1`).

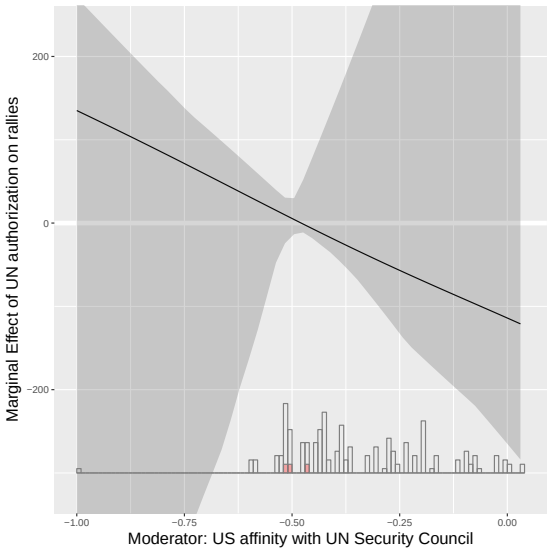
FIGURE B40. RESULTS FROM CHAPMAN (2009)



(a) Raw data

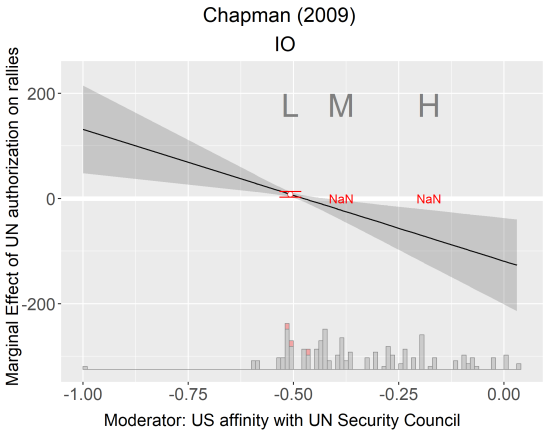


(b) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

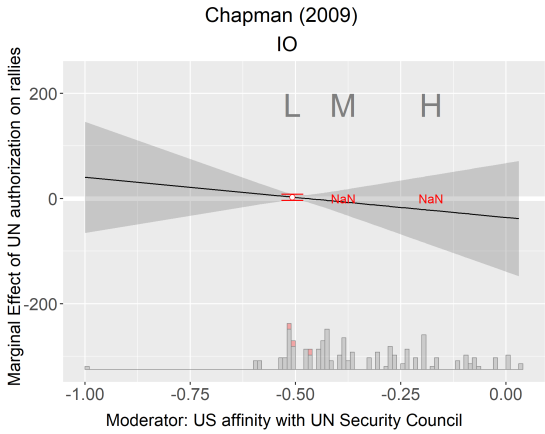


(c) Marginal Effects from Kernel Estimator

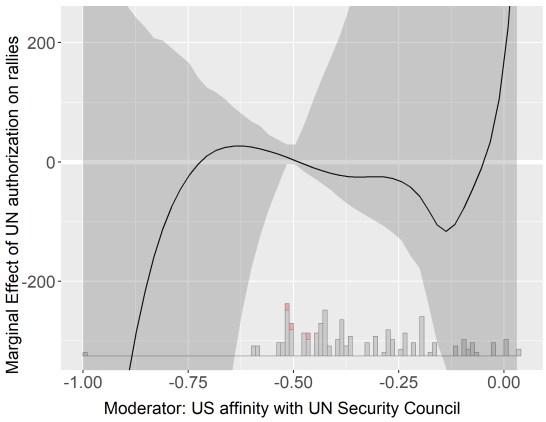
Figure B41. Marginal Effects



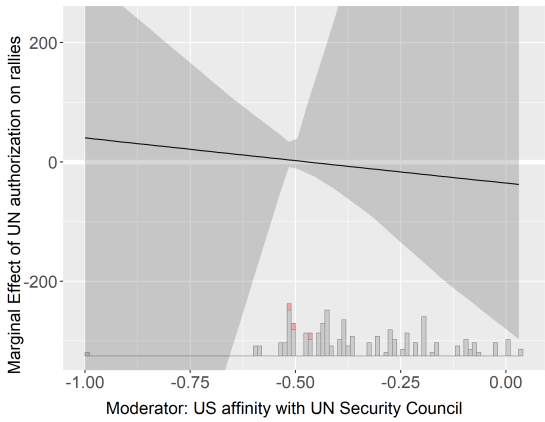
(a) Binning



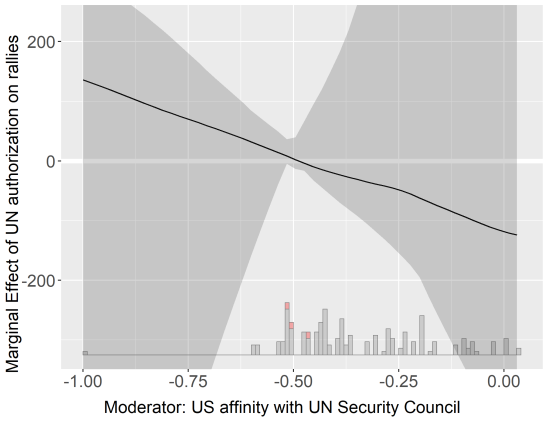
(b) Binning: Fully moderated model



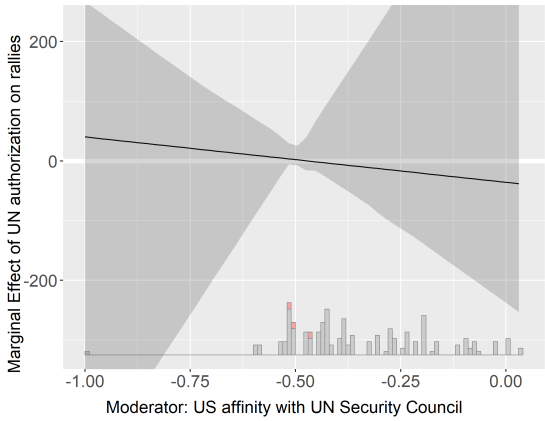
(c) Kernel



(d) Kernel: Fully moderated model

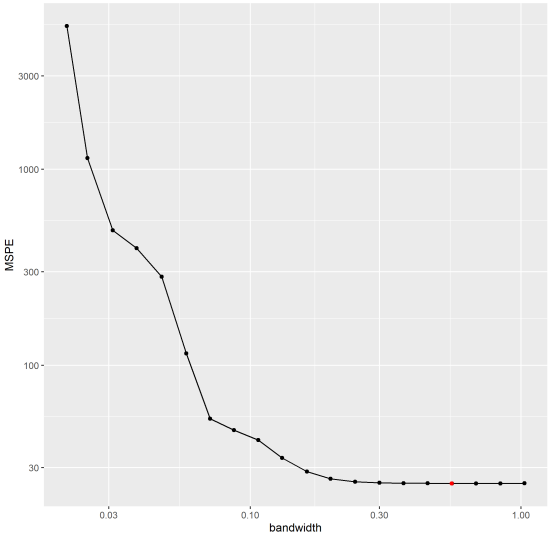


(e) Kernel: Adaptive bandwidth

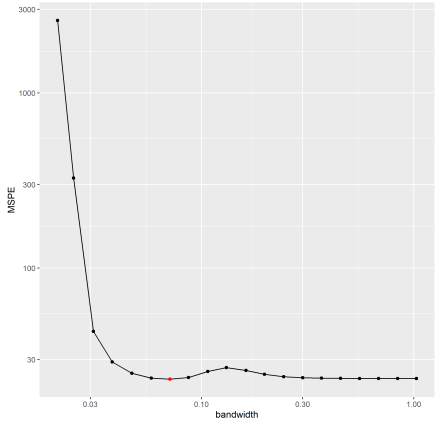


(f) Kernel: Fully moderated model with adaptive bandwidth

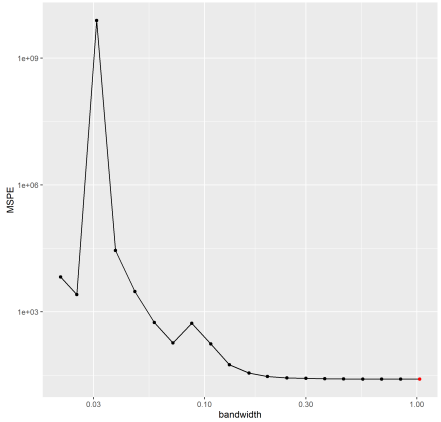
FIGURE B42. MSPE-BANDWIDTH



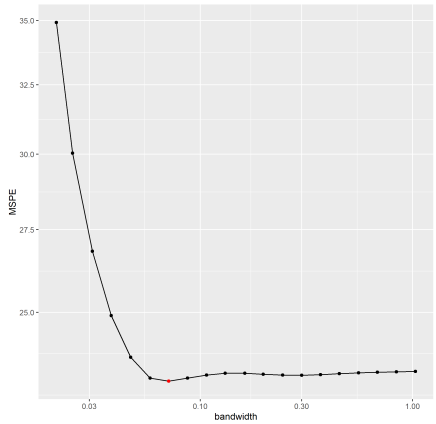
(a) Kernel: Original Command 5-fold



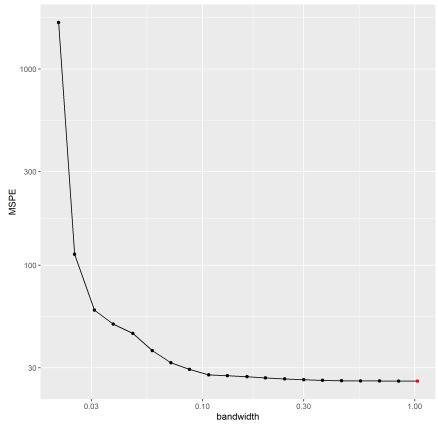
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

.8 Clark and Golder (2006) CPS

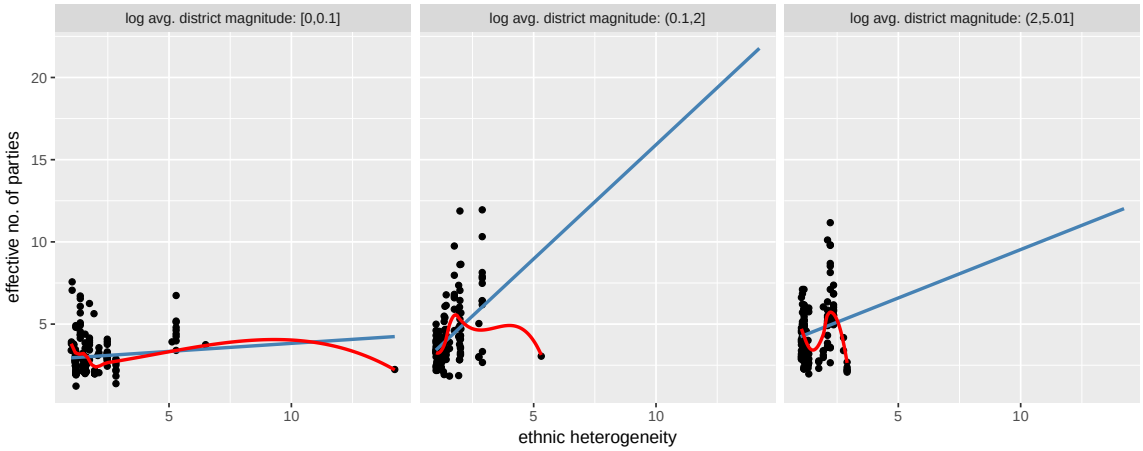
First Interaction:

Claims on conditionality (Figure 1 in manuscript): *"All three figures (in Figure 1) clearly illustrate that in established democracies, ethnic heterogeneity significantly increases the number of parties once the electoral system is sufficiently permissive. This is exactly what Duverger's theory predicts"* (p. 700).

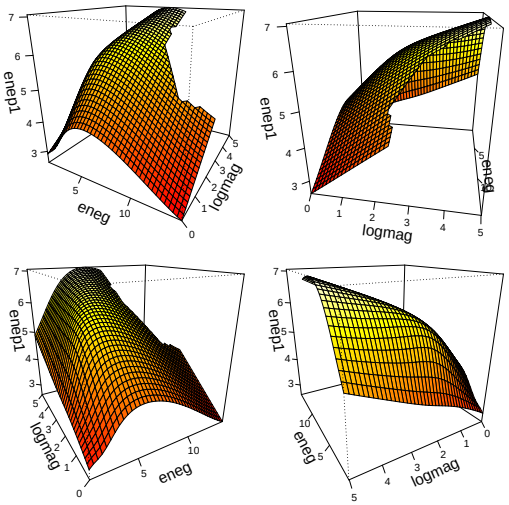
Key variables for the first conditional relationship: Outcome Y: "effective number of parties" (`enepl`); treatment D: "ethnic heterogeneity" (`eneg`); moderator X: "log average district magnitude" (`logmag`).

Note: The authors show 90% confidence intervals in the paper, while in both the binning plot and the kernel smoothing plot, we use 95% confidence intervals.

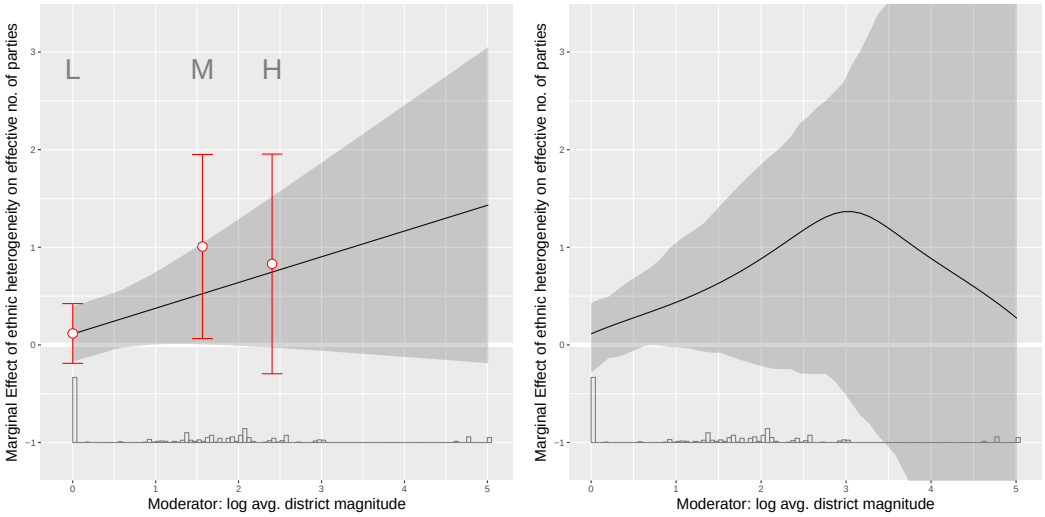
FIGURE B43. RESULTS FROM CLARK AND GOLDER (2006)



(a) Raw data



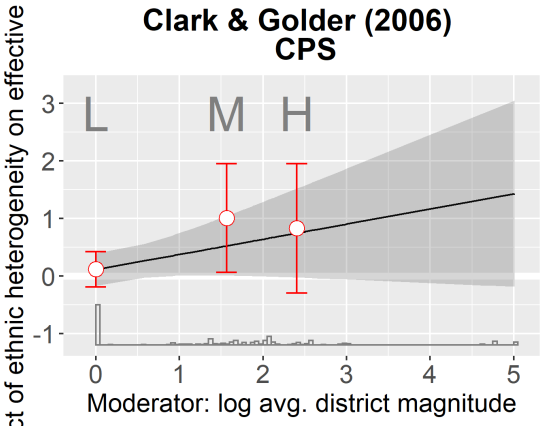
(b) GAM



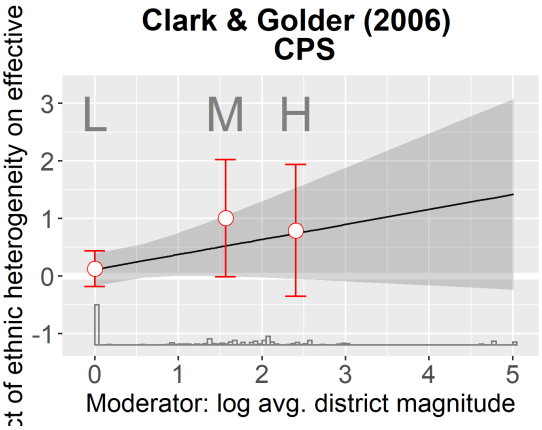
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

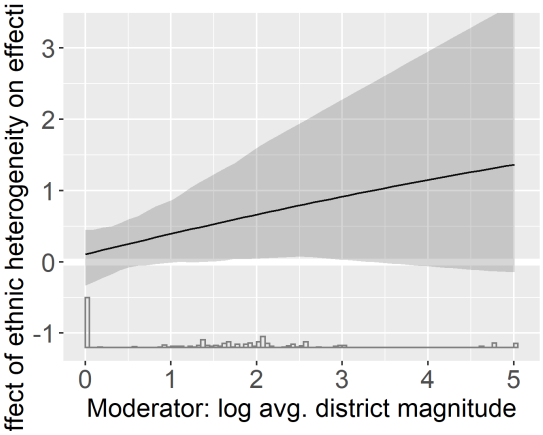
FIGURE B44. MARGINAL EFFECTS



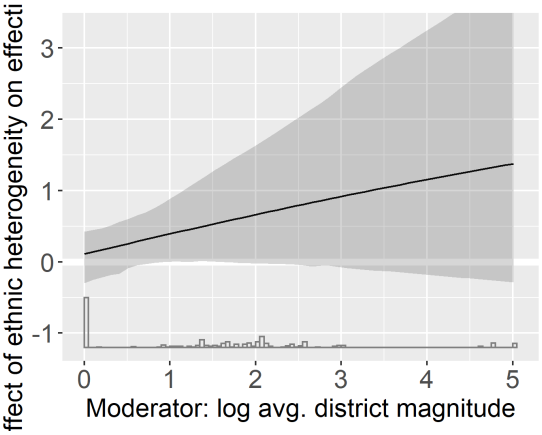
(a) Binning



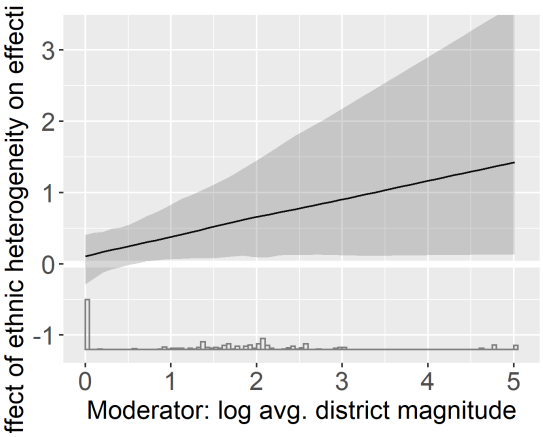
(b) Binning: Fully moderated model



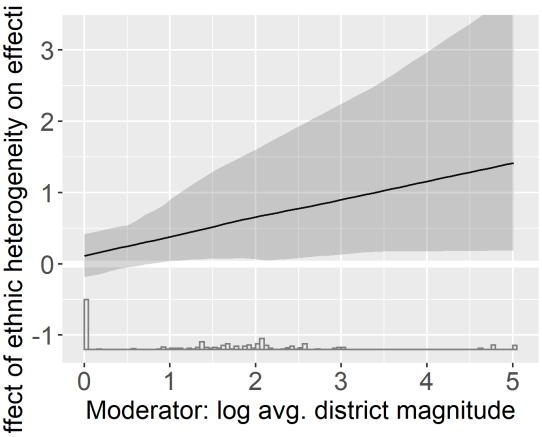
(c) Kernel



(d) Kernel: Fully moderated model

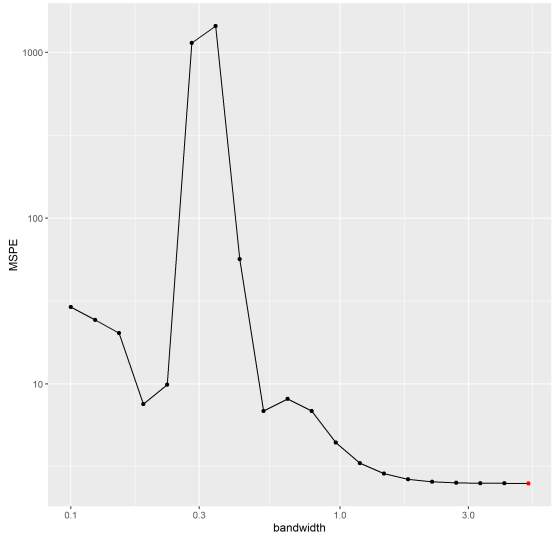


(e) Kernel: Adaptive bandwidth

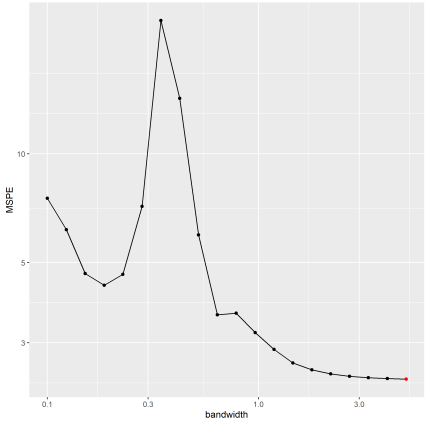


(f) Kernel: Fully moderated model with adaptive bandwidth

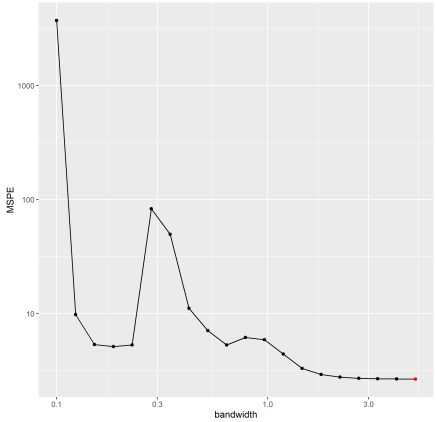
FIGURE B45. MSPE-BANDWIDTH



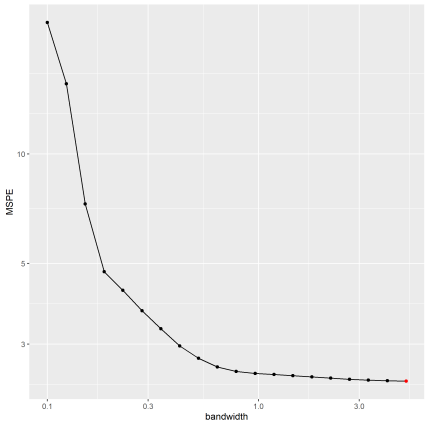
(a) Kernel: Original Command 5-fold



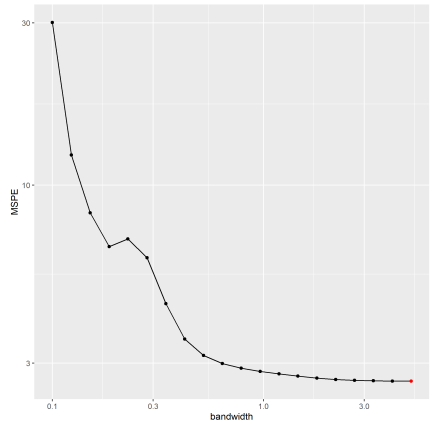
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

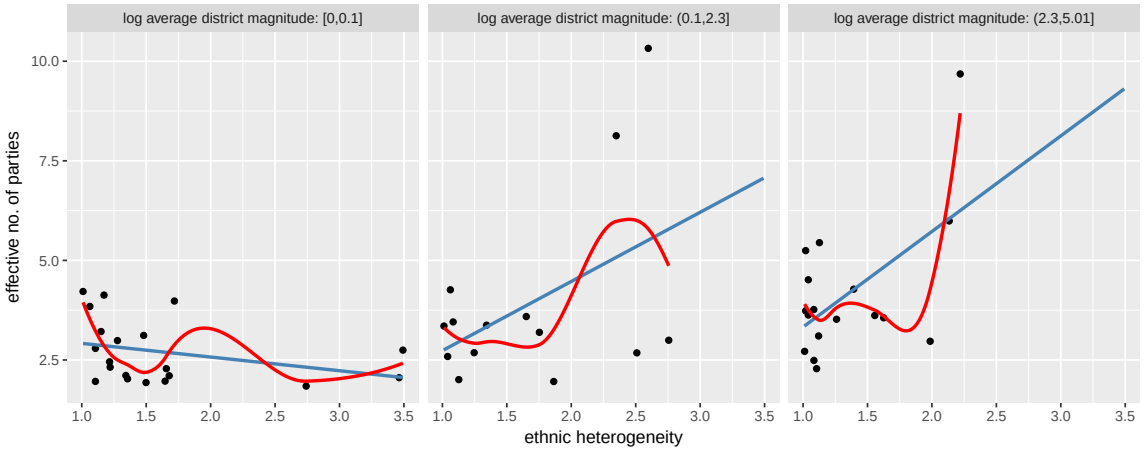
Second Interaction:

Claims on conditionality (Figure 1 in manuscript, middle panel): *"All three figures (in Figure 1) clearly illustrate that in established democracies, ethnic heterogeneity significantly increases the number of parties once the electoral system is sufficiently permissive. This is exactly what Duverger's theory predicts"* (p. 700).

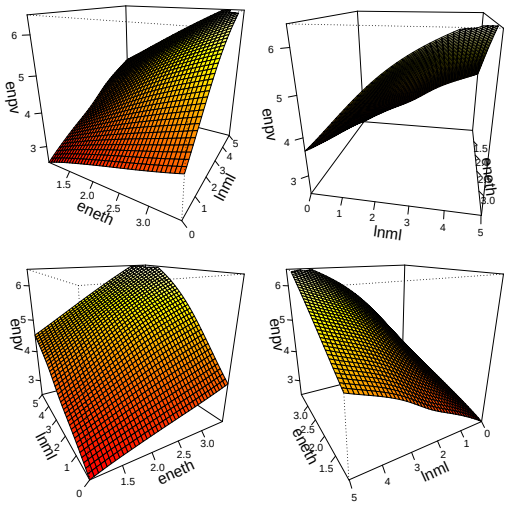
Key variables for the first conditional relationship: Outcome Y: "effective number of parties" (`enpv`); treatment D: "ethnic heterogeneity" (`eneth`); moderator X: "log average district magnitude" (`lnml`).

Note: The authors show 90% confidence intervals in the paper, while in both the binning plot and the kernel smoothing plot, we use 95% confidence intervals.

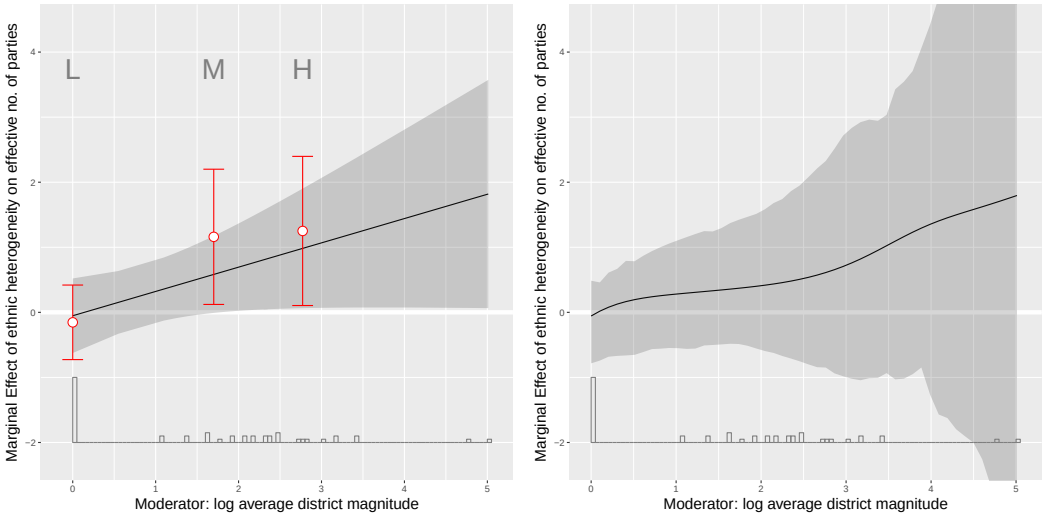
FIGURE B46. RESULTS FROM CLARK AND GOLDER (2006)



(a) Raw data



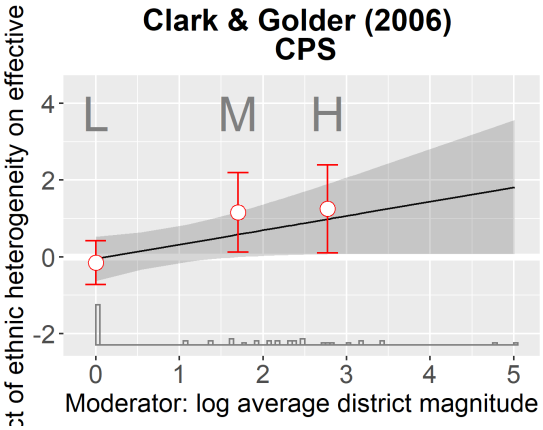
(b) GAM



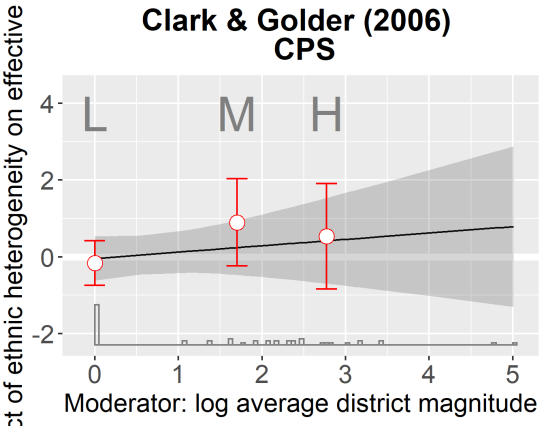
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

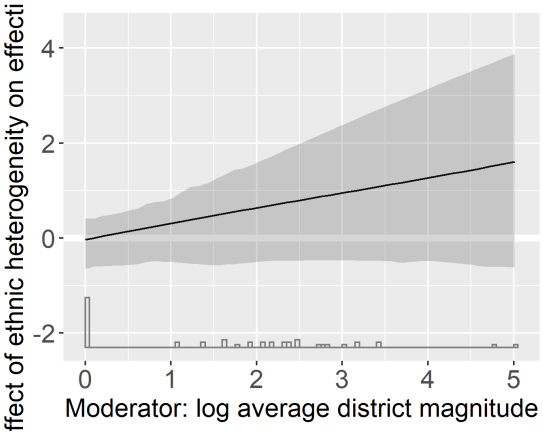
FIGURE B47. MARGINAL EFFECTS



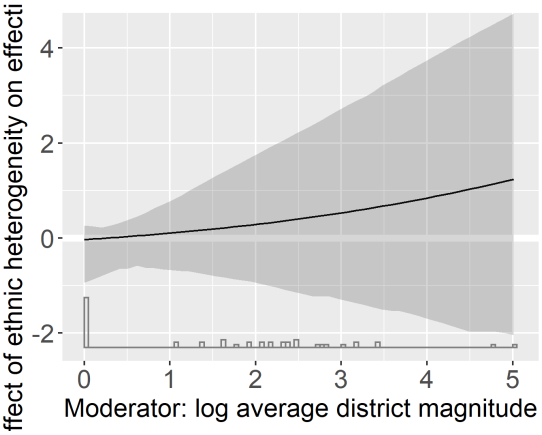
(a) Binning



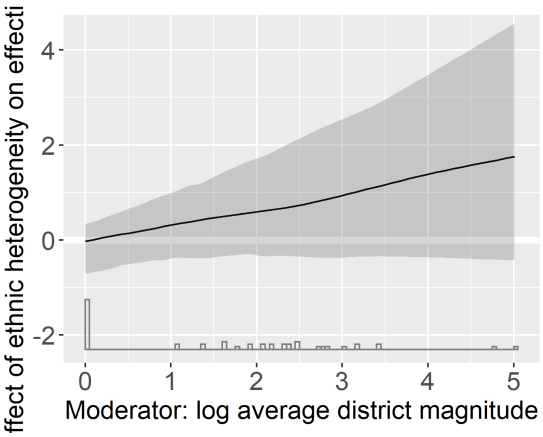
(b) Binning: Fully moderated model



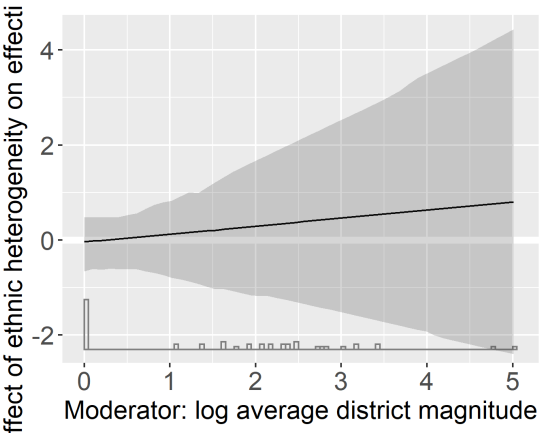
(c) Kernel



(d) Kernel: Fully moderated model

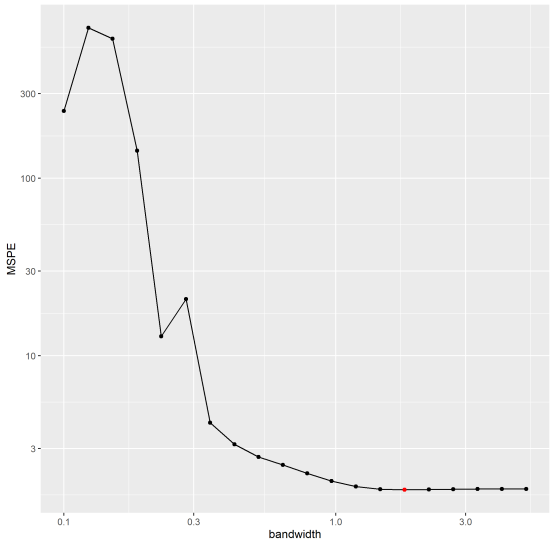


(e) Kernel: Adaptive bandwidth

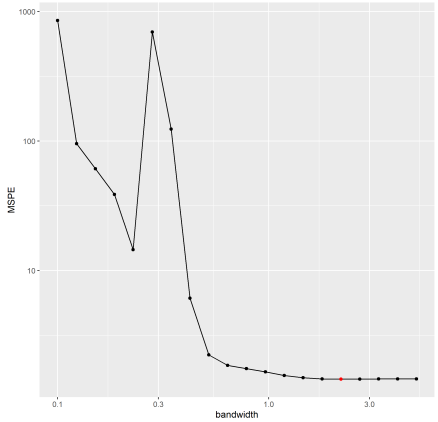


(f) Kernel: Fully moderated model with adaptive bandwidth

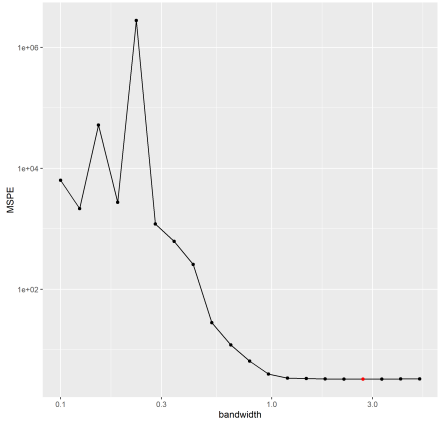
FIGURE B48. MSPE-BANDWIDTH



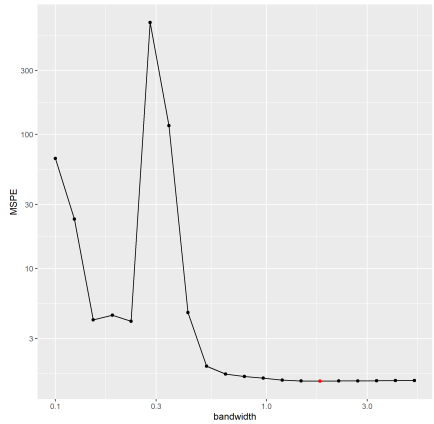
(a) Kernel: Original Command 5-fold



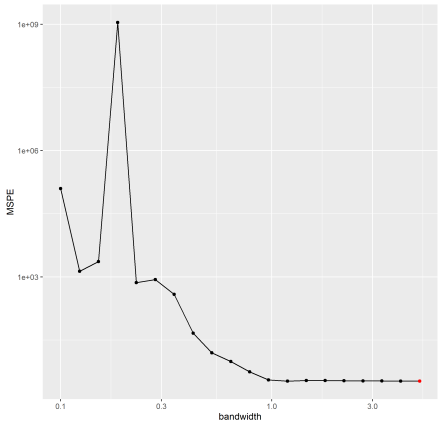
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

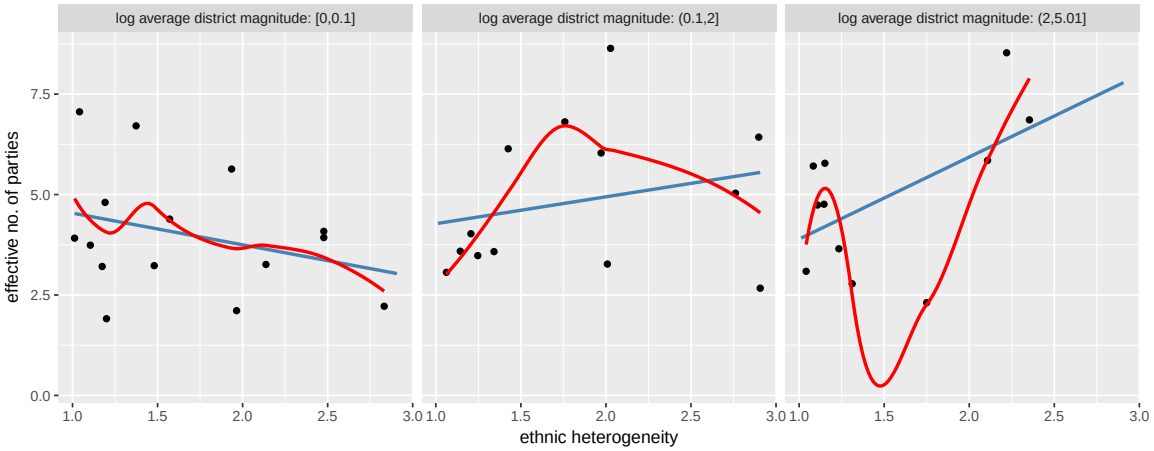
Third Interaction:

Claims on conditionality (Figure 1 in manuscript, bottom panel): *"All three figures (in Figure 1) clearly illustrate that in established democracies, ethnic heterogeneity significantly increases the number of parties once the electoral system is sufficiently permissive. This is exactly what Duverger's theory predicts"* (p. 700).

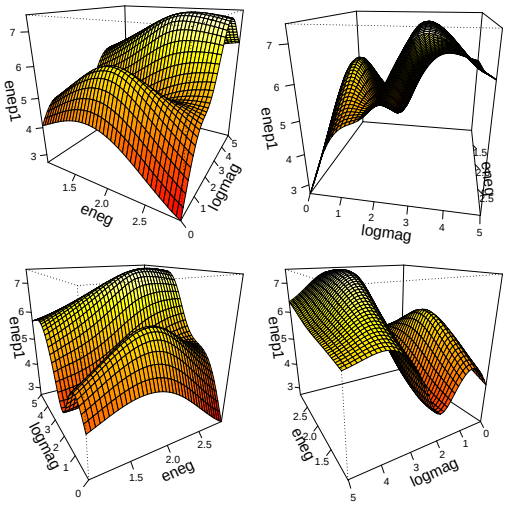
Key variables for the first conditional relationship: Outcome Y: "effective number of parties" (`enep1`); treatment D: "ethnic heterogeneity" (`eneg`); moderator X: "log average district magnitude" (`logmag`).

Note: The authors show 90% confidence intervals in the paper, while in both the binning plot and the kernel smoothing plot, we use 95% confidence intervals.

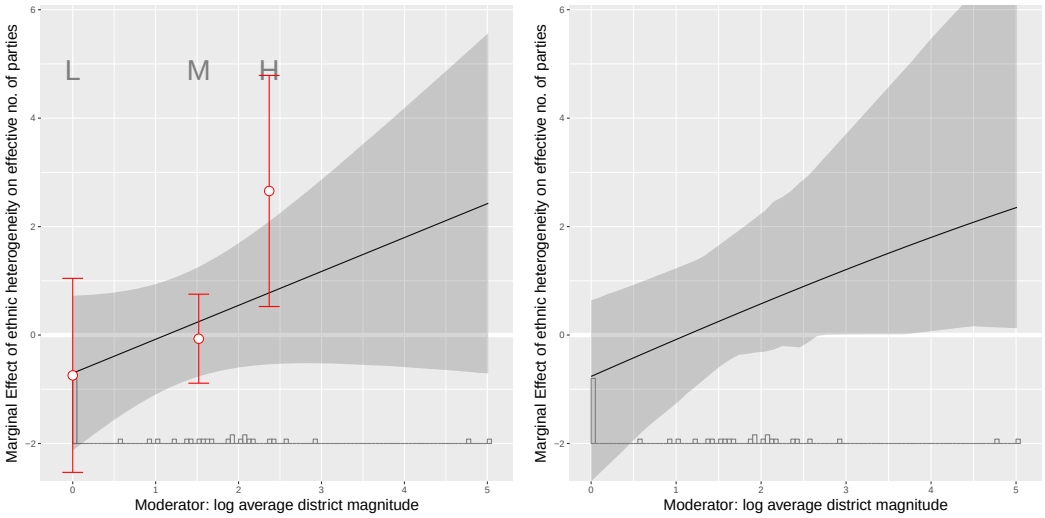
FIGURE B49. RESULTS FROM CLARK AND GOLDER (2006)



(a) Raw data



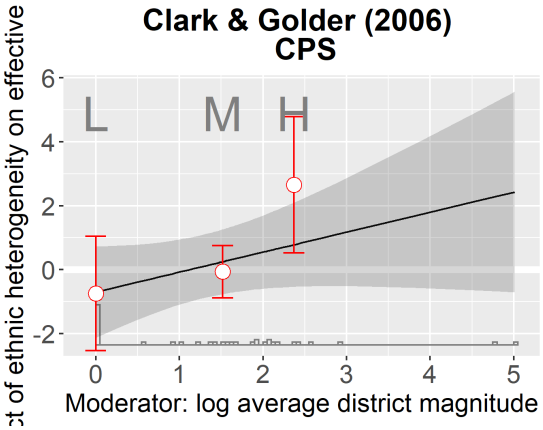
(b) GAM



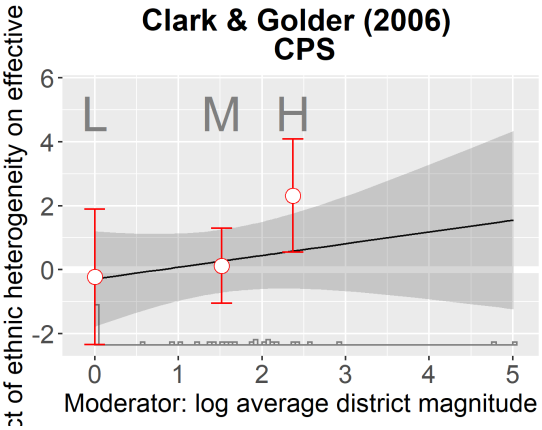
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

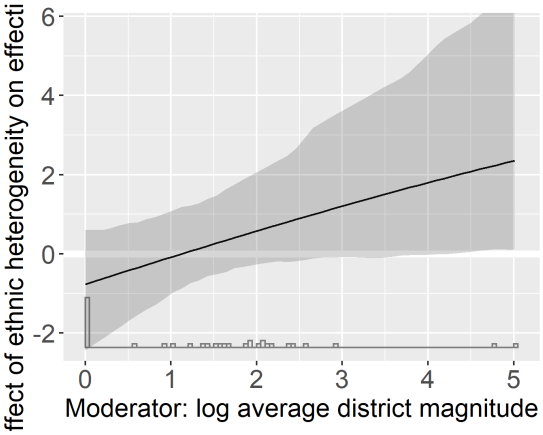
FIGURE B50. MARGINAL EFFECTS



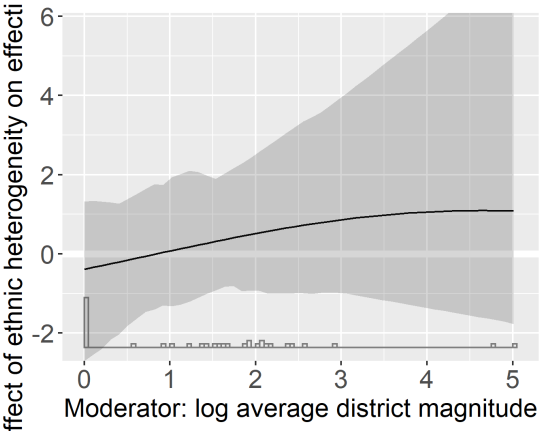
(a) Binning



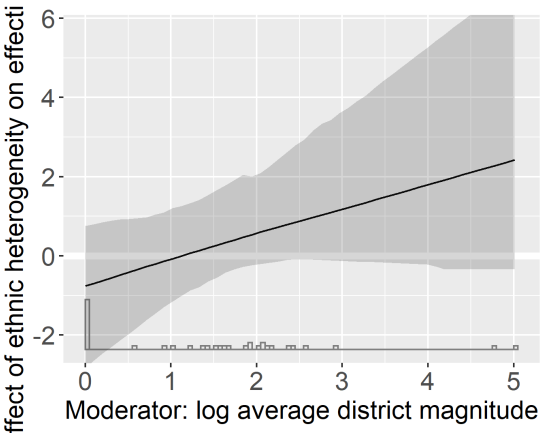
(b) Binning: Fully moderated model



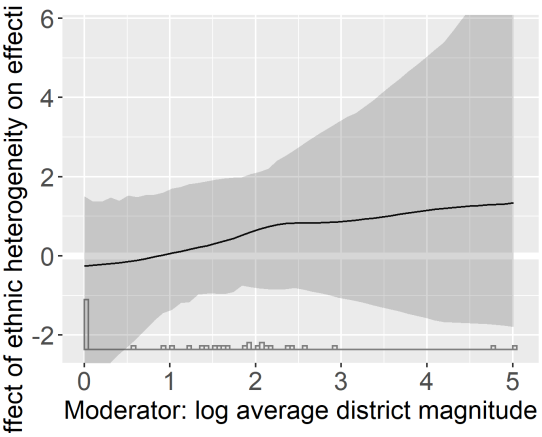
(c) Kernel



(d) Kernel: Fully moderated model

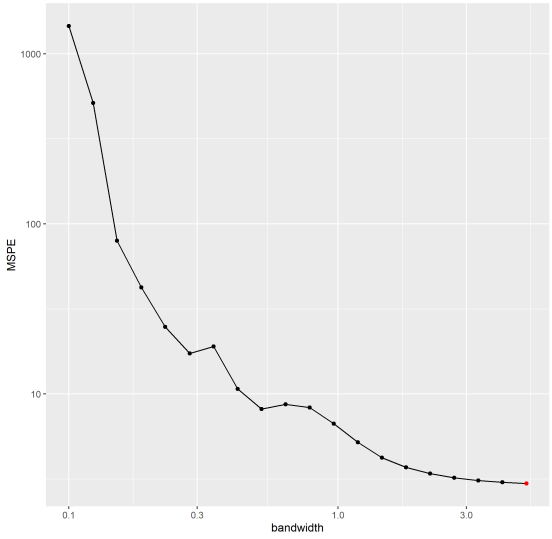


(e) Kernel: Adaptive bandwidth

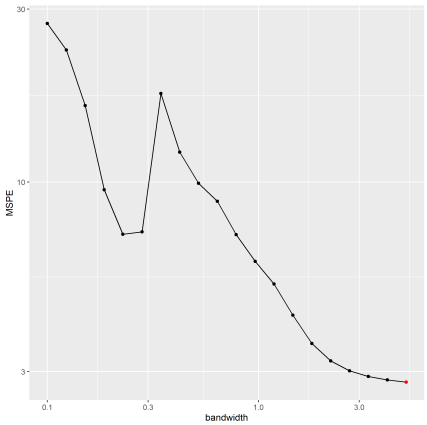


(f) Kernel: Fully moderated model with adaptive bandwidth

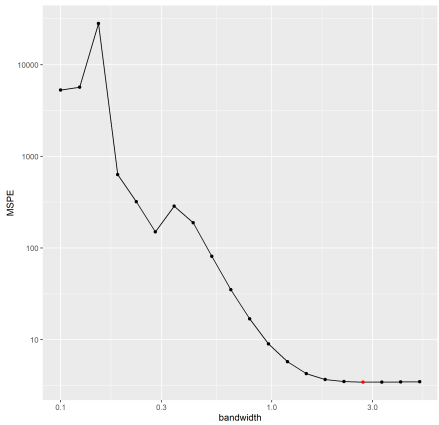
FIGURE B51. MSPE-BANDWIDTH



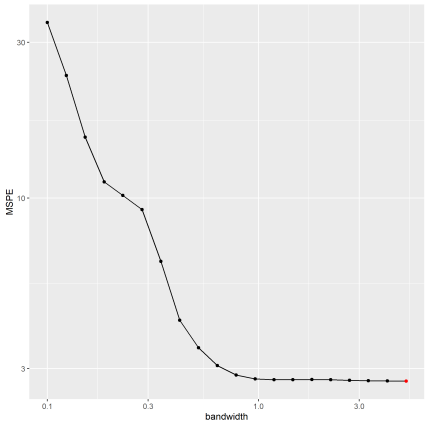
(a) Kernel: Original Command 5-fold



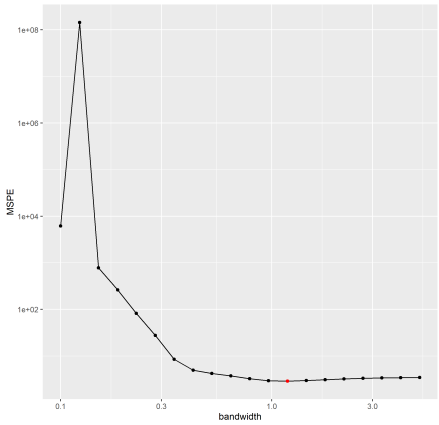
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

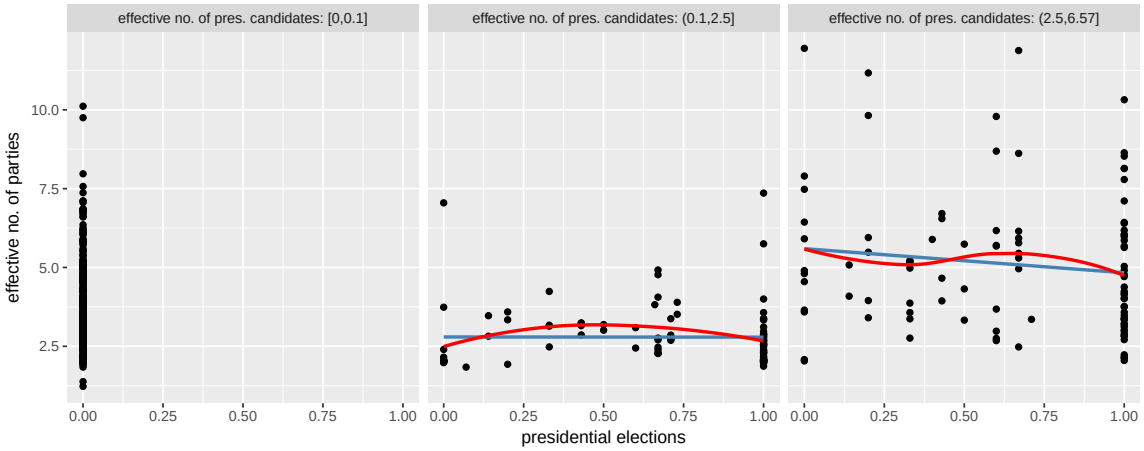
Fourth Interaction:

Claims on conditionality (Figure 2 in manuscript): *"Figure 2 plots the marginal effect of temporally proximate presidential elections. . . . It should be clear that temporally proximate presidential elections have a strong reductive effect on the number of parties when there are few presidential candidates"* (p. 702).

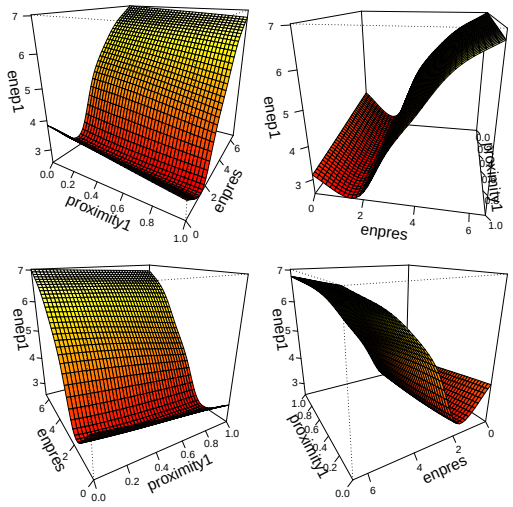
Key variables for the second conditional relationship: Outcome Y: "effective number of parties" (`enepl`); treatment D: "proximate presidential elections" (`proximityl`); moderator X: "effective number of pres. candidates" (`enpres`).

Note: The authors show 90% confidence intervals in the paper, while in both the binning plot and the kernel smoothing plot, we use 95% confidence intervals.

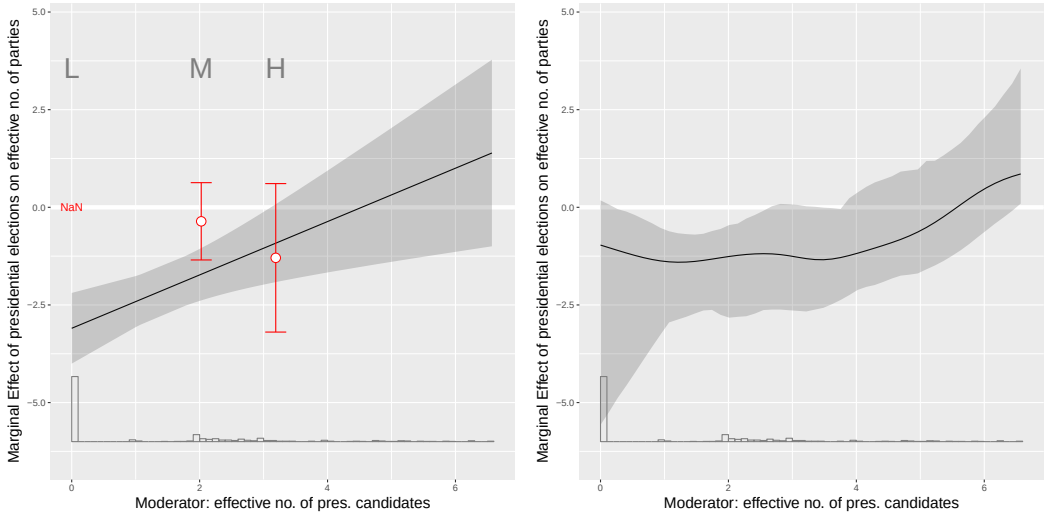
FIGURE B52. RESULTS FROM CLARK AND GOLDER (2006)



(a) Raw data



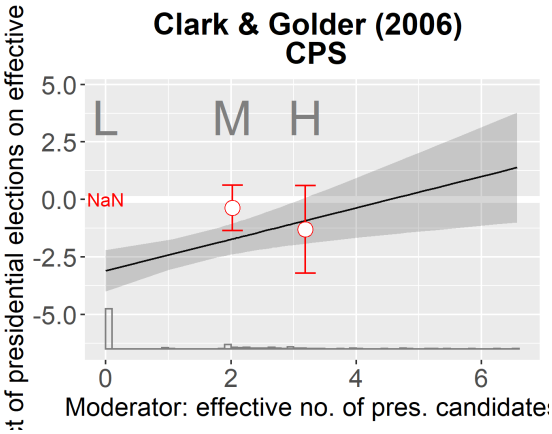
(b) GAM



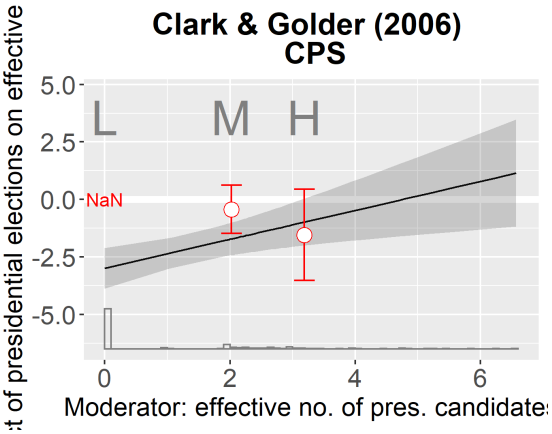
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

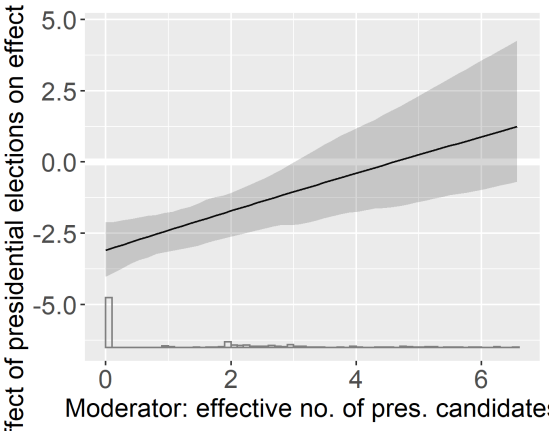
FIGURE B53. MARGINAL EFFECTS



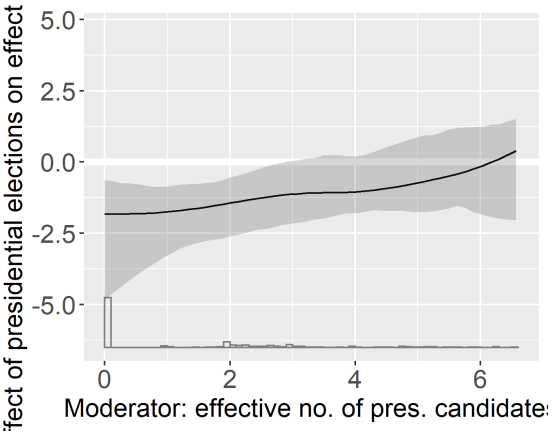
(a) Binning



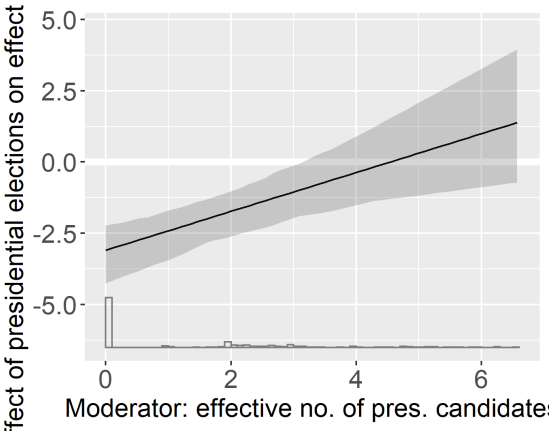
(b) Binning: Fully moderated model



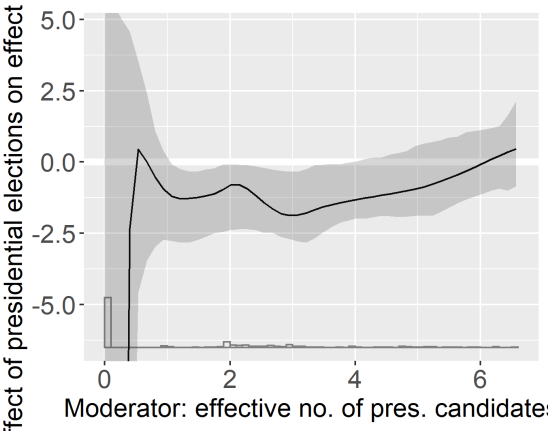
(c) Kernel



(d) Kernel: Fully moderated model

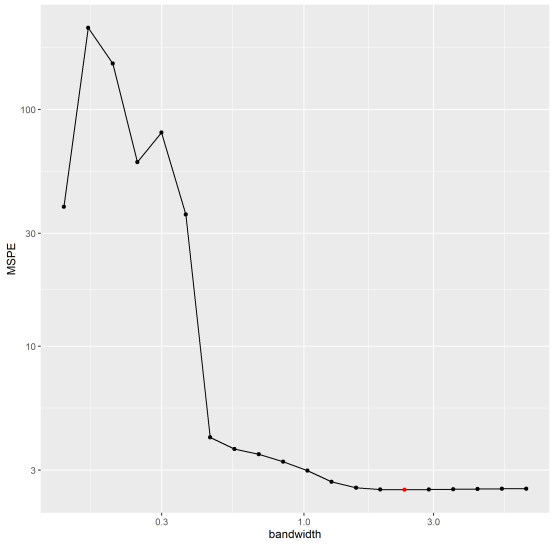


(e) Kernel: Adaptive bandwidth

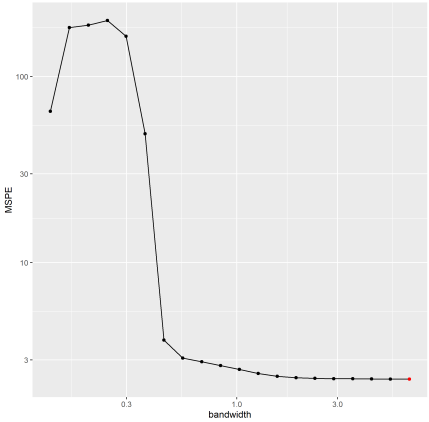


(f) Kernel: Fully moderated model with adaptive bandwidth

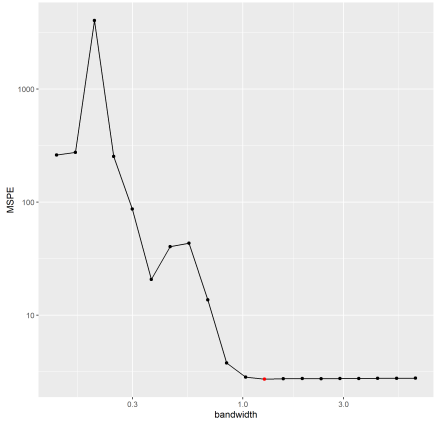
FIGURE B54. MSPE-BANDWIDTH



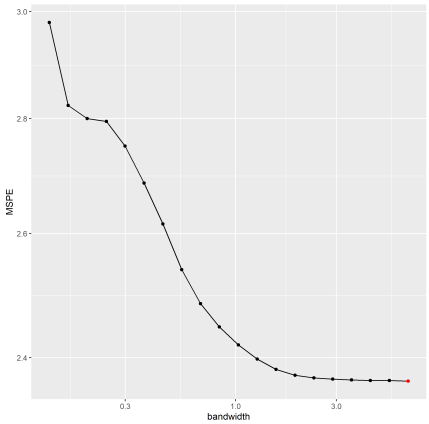
(a) Kernel: Original Command 5-fold



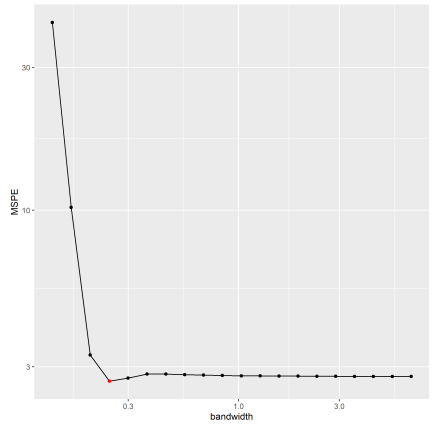
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

.9 Clark and Leiter (2014) CPS

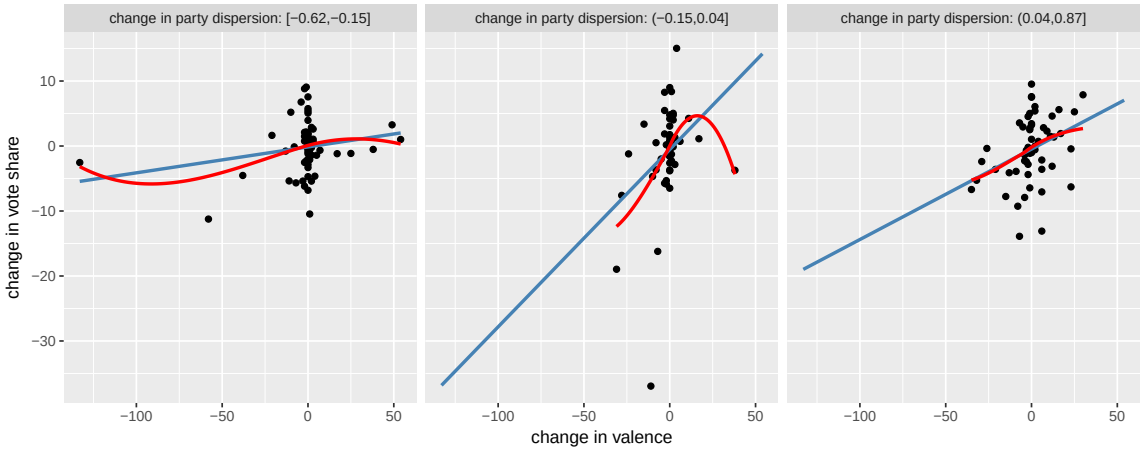
Claim on conditionality (Figure 2 in manuscript): *"We perform empirical analyses . . . and test the hypothesis that when parties are more ideologically proximate to the mean voter position, character-based valence attributes will be of greater significance in determining parties' electoral fortunes. Surprisingly, we find no support for this hypothesis. Instead, our analyses suggest that the more ideologically dispersed parties are, the more likely it is that character-based valence attributes will affect parties' vote shares."* (Abstract).

"This relationship indicates that, as parties become more dispersed on the left-right spectrum, voters weigh changes in parties' character-based valence attributes more heavily in their voting decisions." (p. 185).

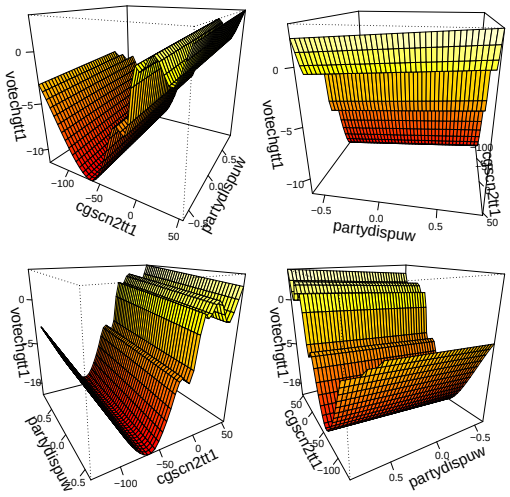
Key variables for the conditional relationship: Outcome Y: "change in vote share" (`res_votechgtt1`); treatment D: "change in valence" (`cgscn2tt1`); moderator X: "change in party dispersion" (`partydispuw`).

Note: The dashed vertical line indicates the truncated interval of the moderator shown in the original marginal effect plot.

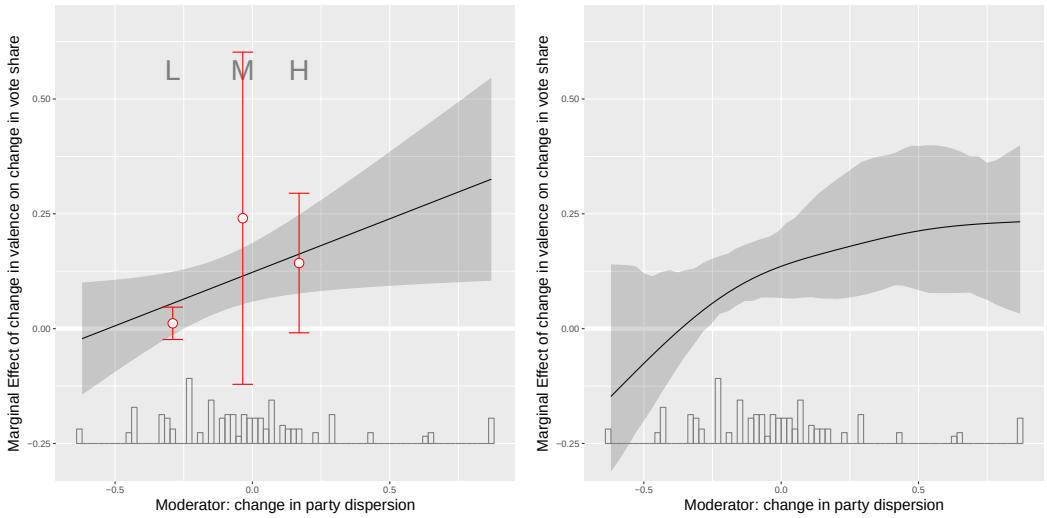
FIGURE B55. RESULTS FROM CLARK AND LEITER (2014)



(a) Raw data



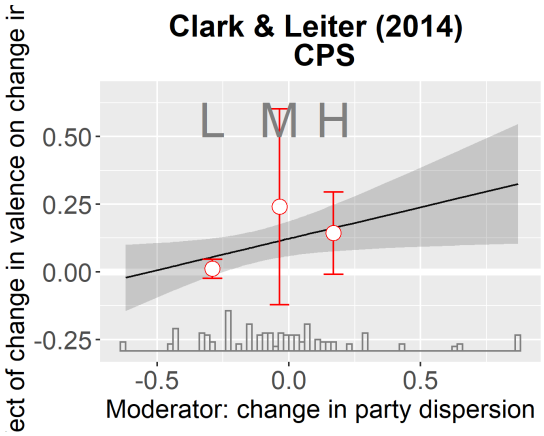
(b) GAM



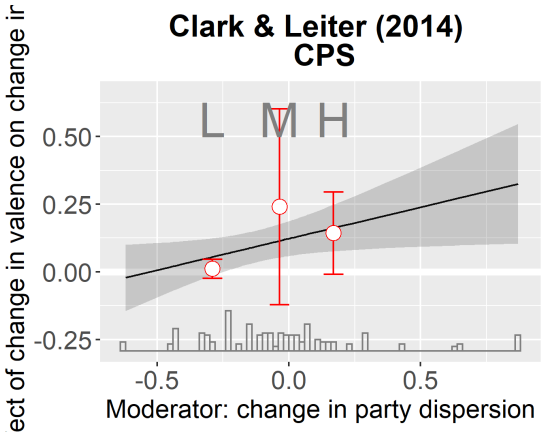
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

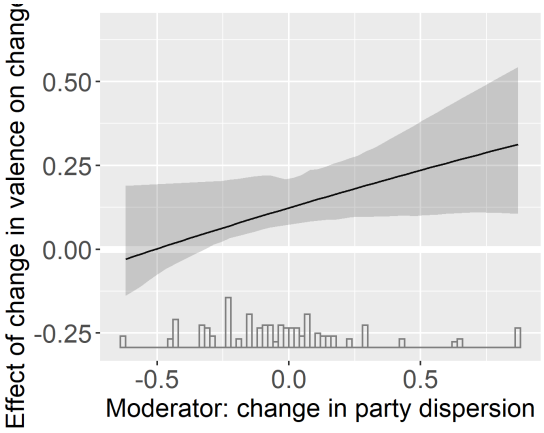
FIGURE B56. MARGINAL EFFECTS



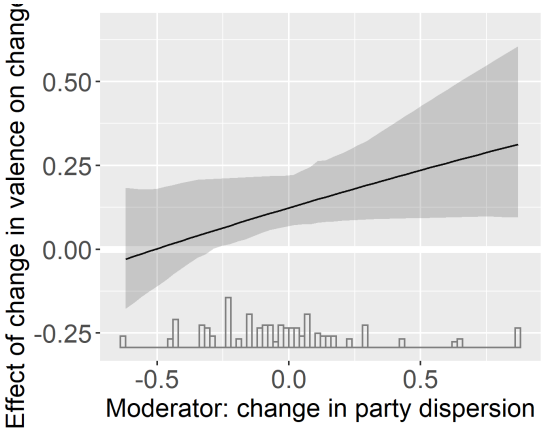
(a) Binning



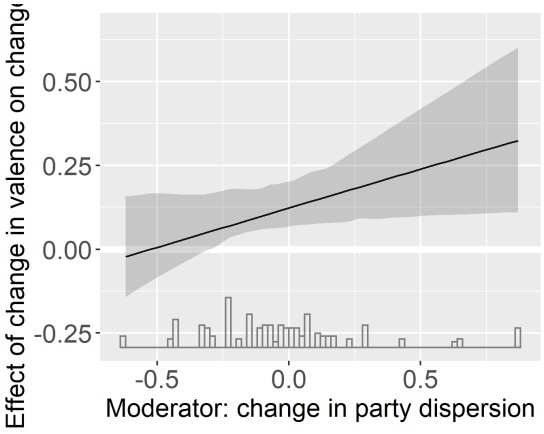
(b) Binning: Fully moderated model



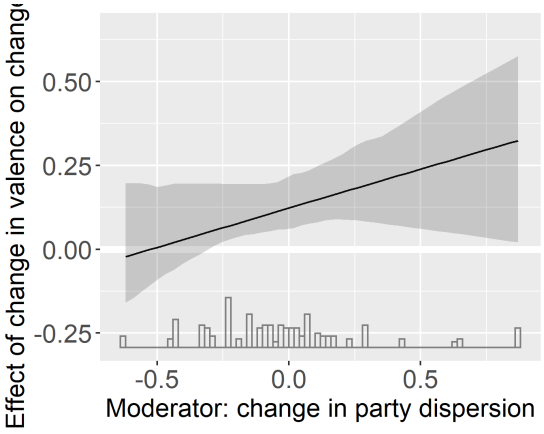
(c) Kernel



(d) Kernel: Fully moderated model

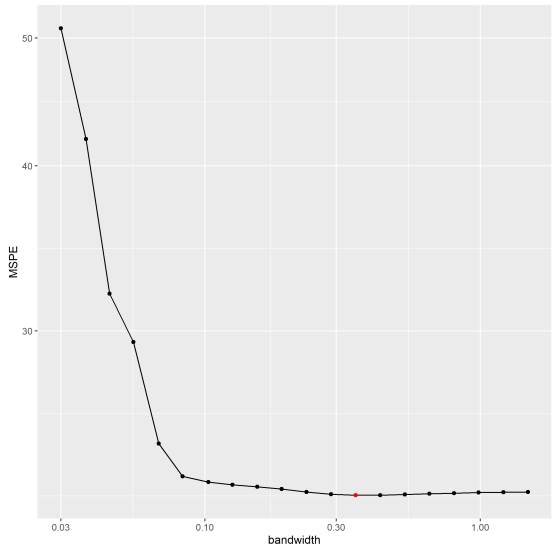


(e) Kernel: Adaptive bandwidth

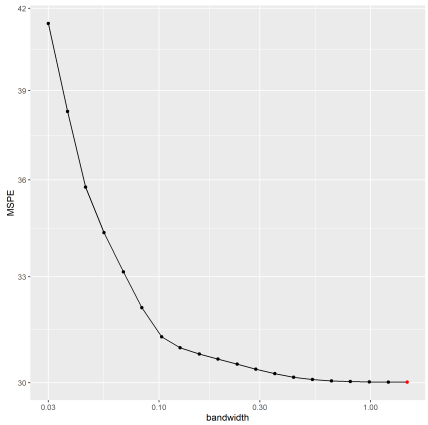


(f) Kernel: Fully moderated model with adaptive bandwidth

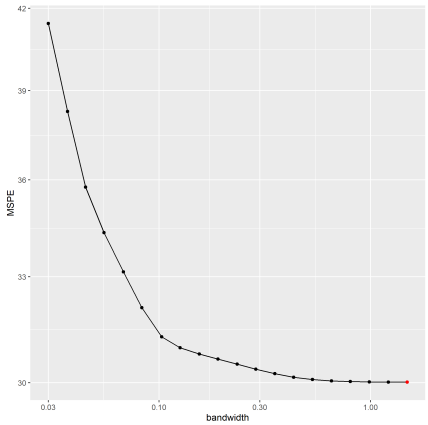
Figure B57. MSPE-Bandwidth



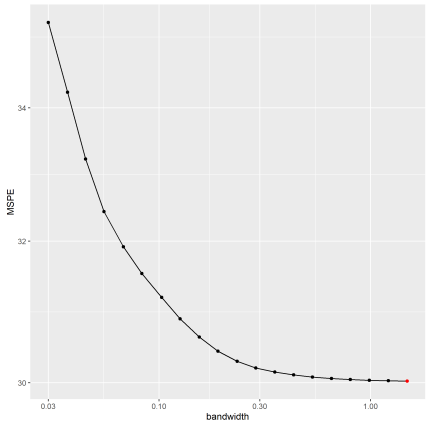
(a) Kernel: Original Command 5-fold



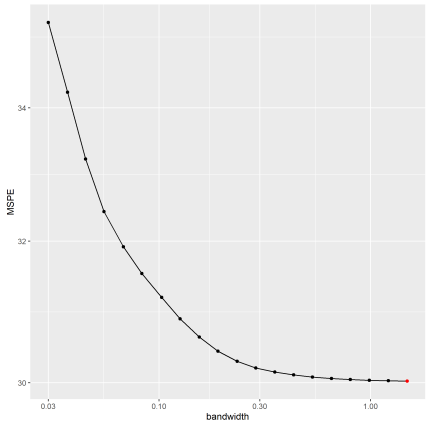
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

.10 Hellwig and Samuels (2007) CPS

First Interaction:

Claims on conditionality (Figure 1 in manuscript): *"Results support a government constraint hypothesis: Exposure to the world economy weakens connections between economic performance and support for political incumbents"* (Abstract).

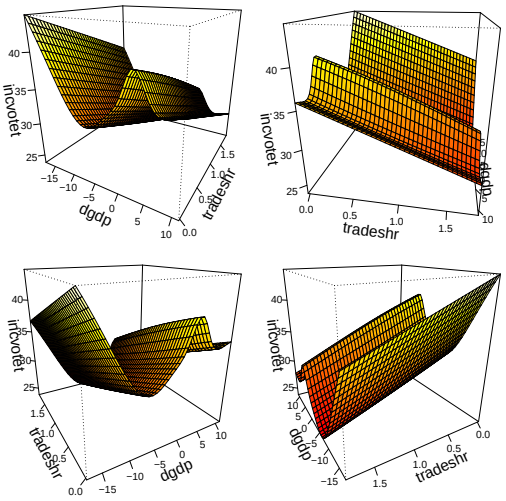
"Figure 1 shows that trade openness reduces the positive relationship between economic performance and vote share for the incumbent." (p. 294).

Key variables for the conditional relationships: Outcome Y: "election" (`incvotet`); treatment D: "economy" (`dgdp`); moderator X: "trade as share of GDP " (`tradeshr`, in Figure 1).

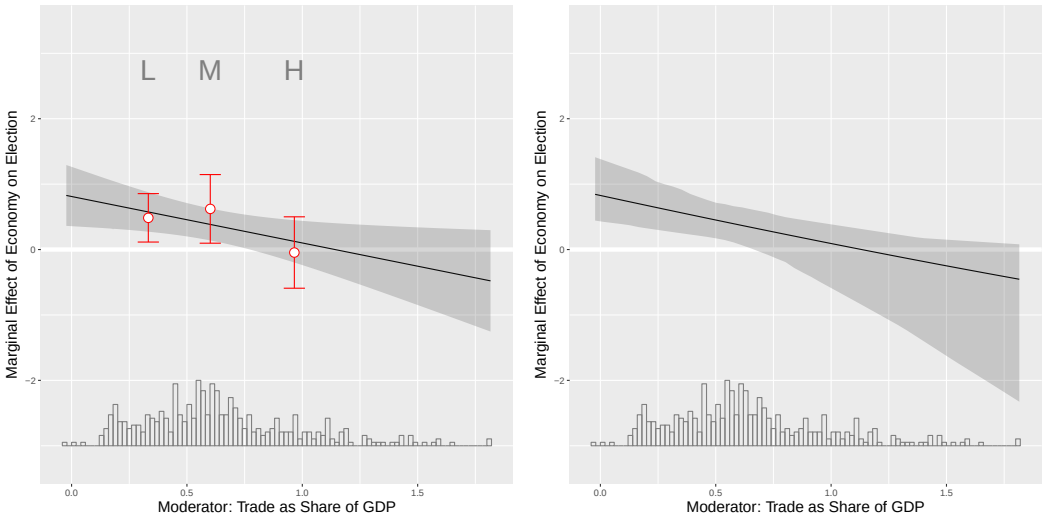
Note: The dashed vertical line indicates the truncated interval of the moderator shown in the original marginal effect plot.

FIGURE B58. RESULTS FROM HELLWIG AND SAMUELS (2007)

(a) Raw data



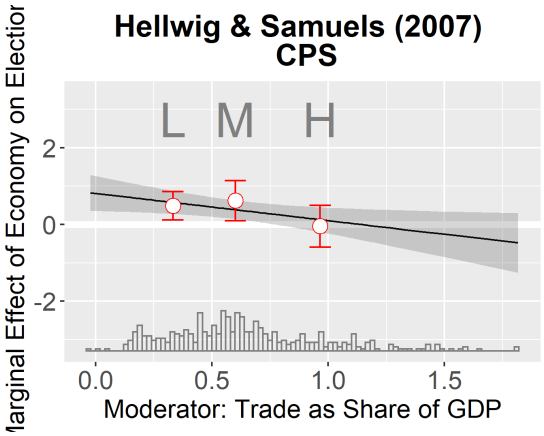
(b) GAM



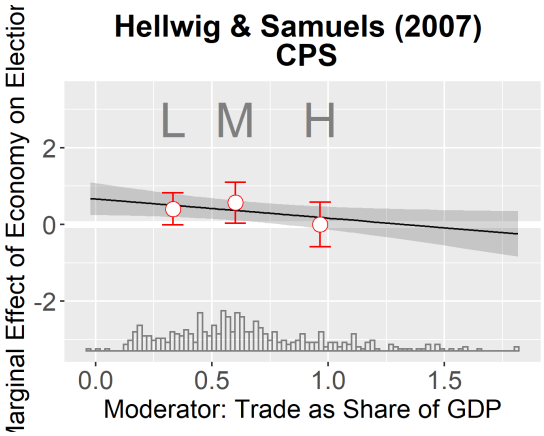
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

FIGURE B59. MARGINAL EFFECTS



(a) Binning

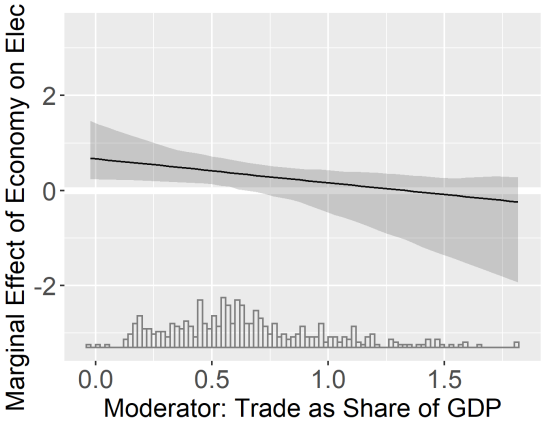


(b) Binning: Fully moderated model

(c) Kernel

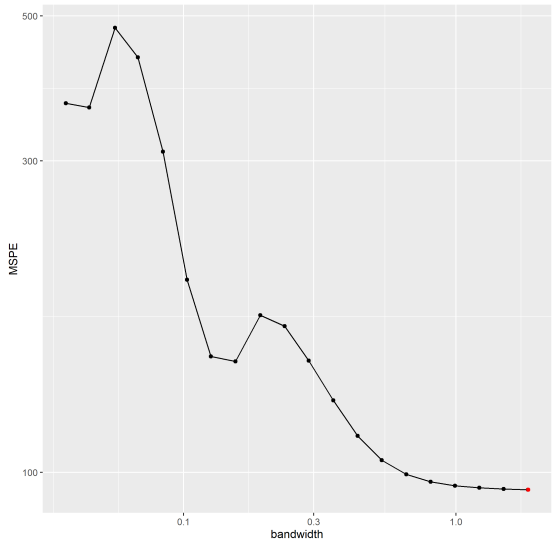
(d) Kernel: Fully moderated model

(e) Kernel: Adaptive bandwidth

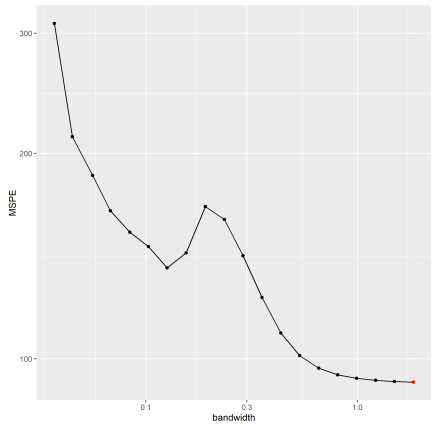


(f) Kernel: Fully moderated model with adaptive bandwidth

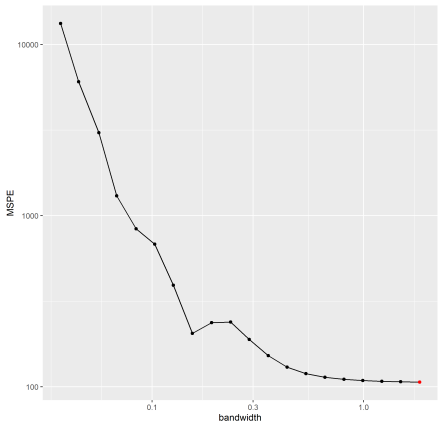
FIGURE B60. MSPE-BANDWIDTH



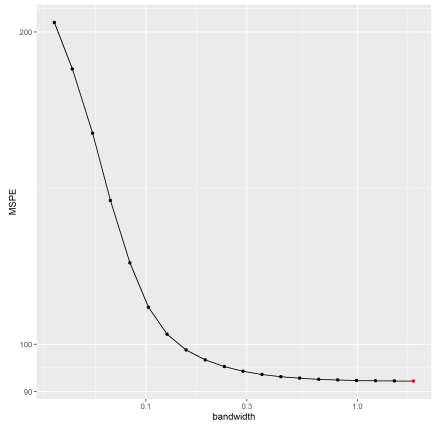
(a) Kernel: Original Command 5-fold



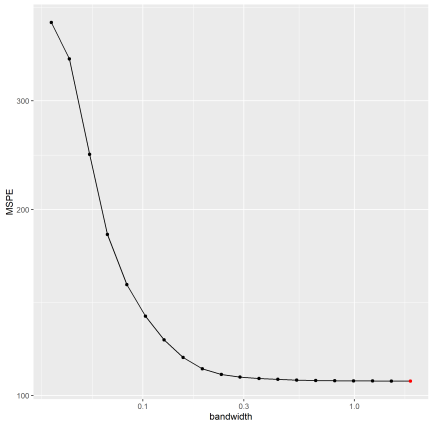
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

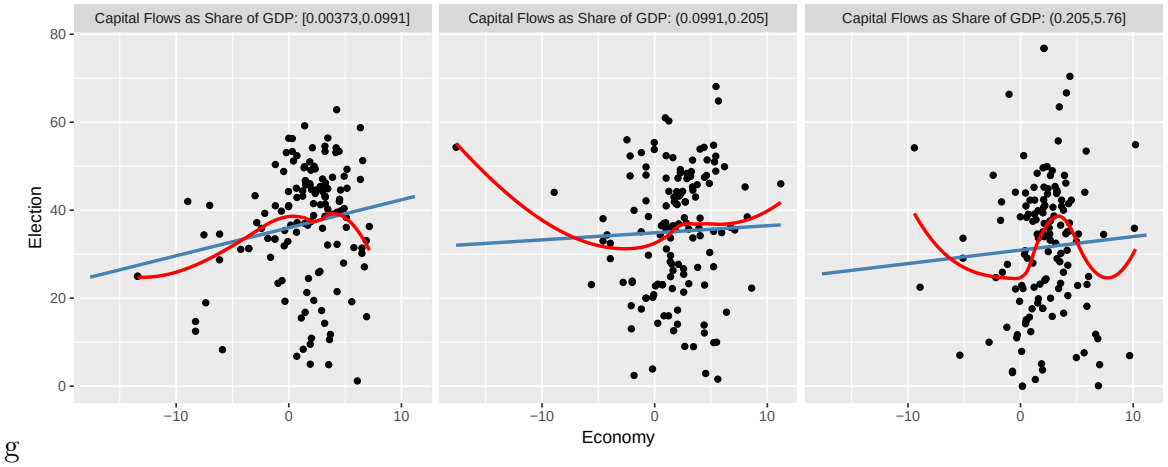
Second Interaction:

Claims on conditionality (Figure 2 in manuscript): *"Figure 2 shows that the exposure to international capital flows also reduces the relationship between economic performance and election outcomes"* (p. 294).

Key variables for the conditional relationships: Outcome Y: "election" (`incvotet`); treatment D: "economy" (`dgdp`); moderator X: "capital flows as share of GDP" (`grosscap`) .

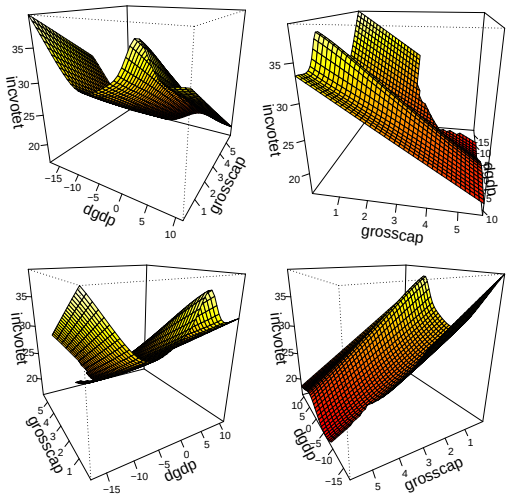
Note: The dashed vertical line indicates the truncated interval of the moderator shown in the original marginal effect plot.

FIGURE B61. RESULTS FROM HELLWIG AND SAMUELS (2007)

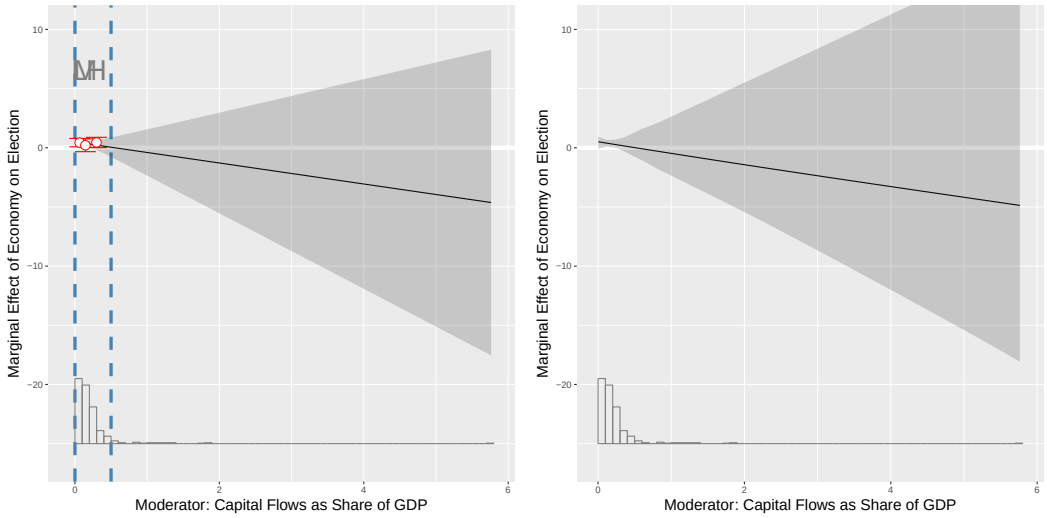


g

(a) Raw data



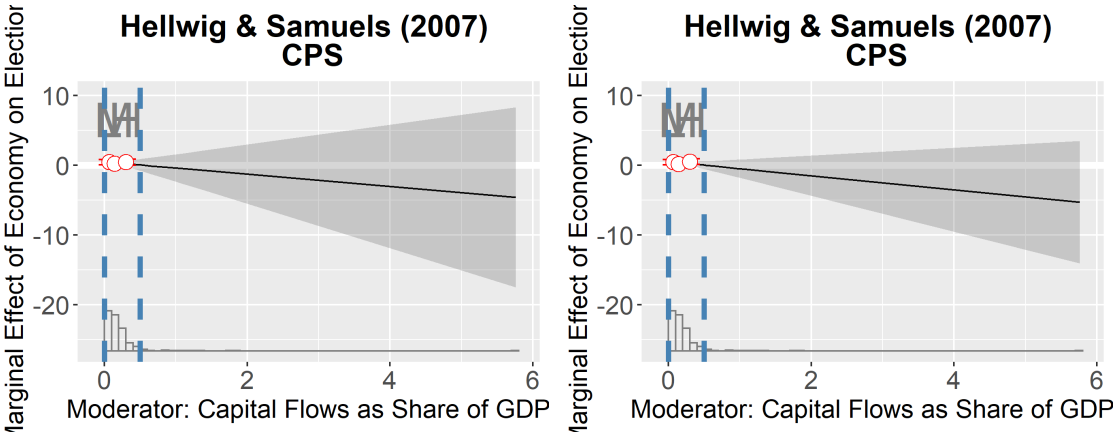
(b) GAM



(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

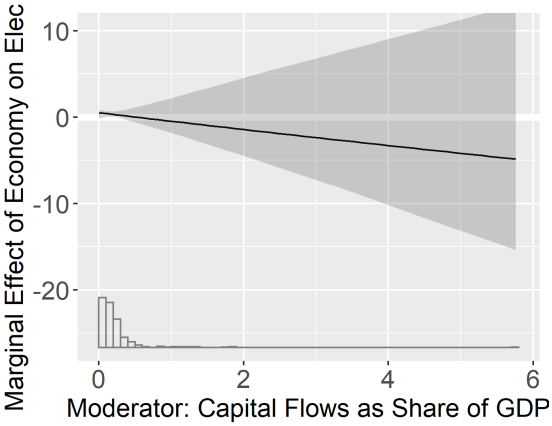
(d) Marginal Effects from Kernel Estimator

FIGURE B62. MARGINAL EFFECTS

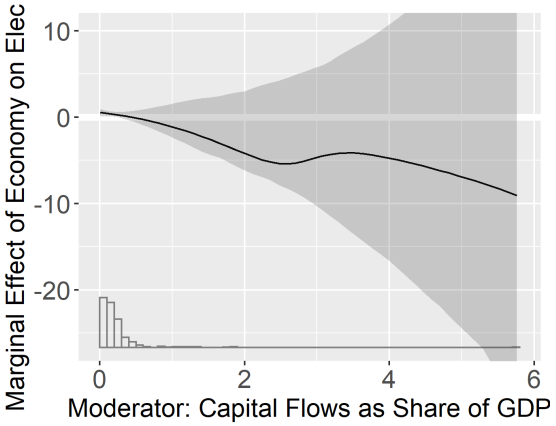


(a) Binning

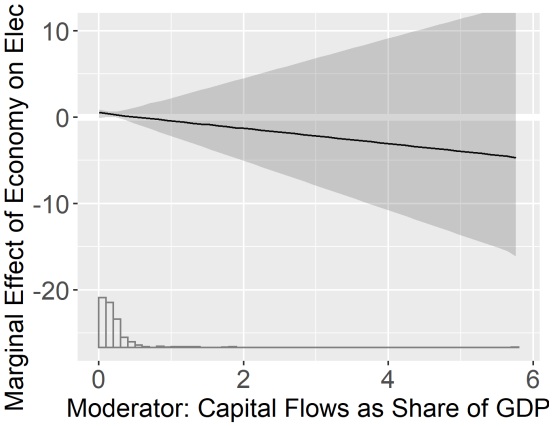
(b) Binning: Fully moderated model



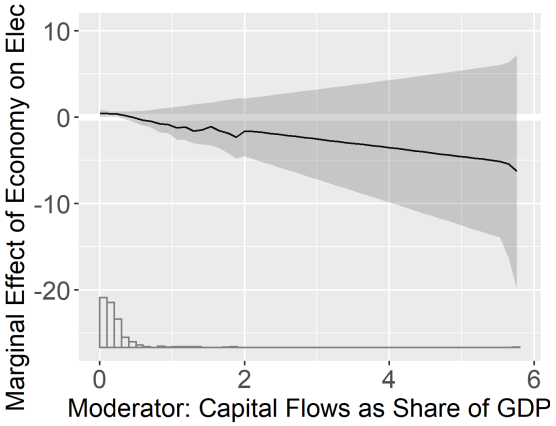
(c) Kernel



(d) Kernel: Fully moderated model

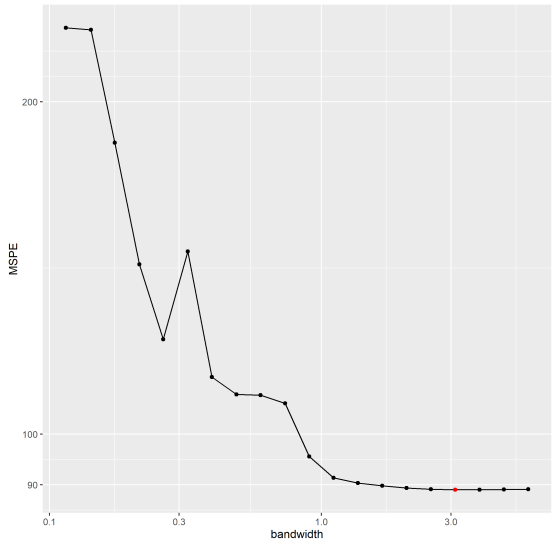


(e) Kernel: Adaptive bandwidth

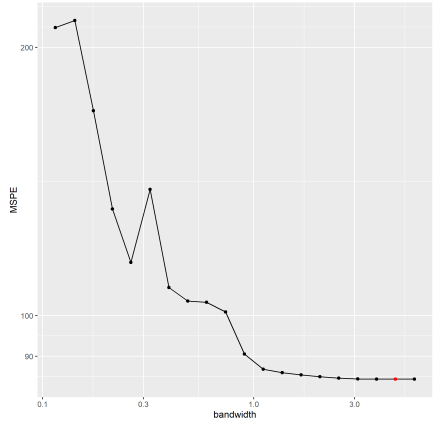


(f) Kernel: Fully moderated model with adaptive bandwidth

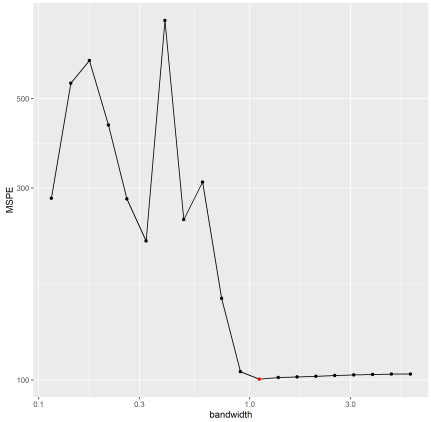
FIGURE B63. MSPE-BANDWIDTH



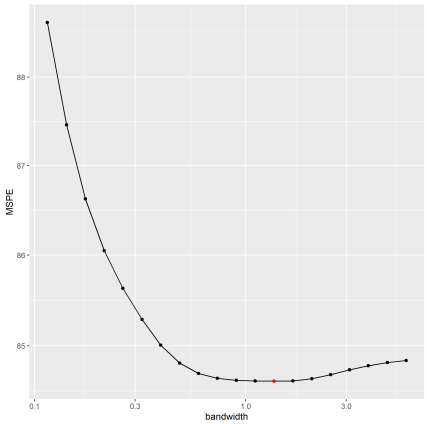
(a) Kernel: Original Command 5-fold



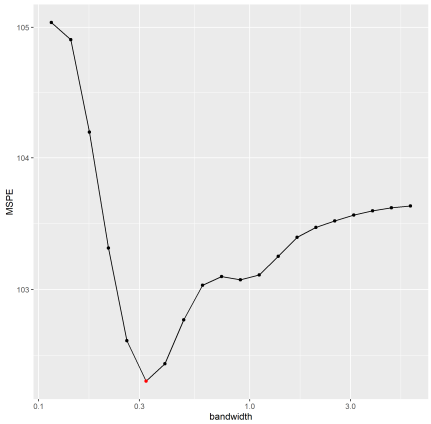
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

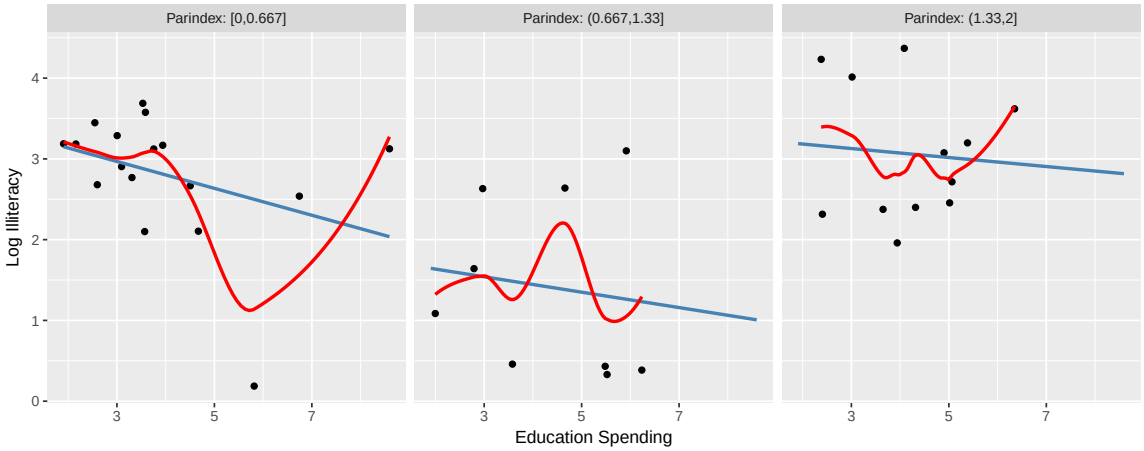
.11 Hicken and Simmons (2008) AJPS

Claim on conditionality (Figure 1, top left panel in manuscript): *"We find that though personal vote systems spend just as much on education as party vote systems, particularism in personal vote systems dampens the marginal effect of increased education spending on illiteracy and at its highest levels, incentives to cultivate a personal vote completely undermine the positive effects of increased education spending on literacy"* (Abstract).

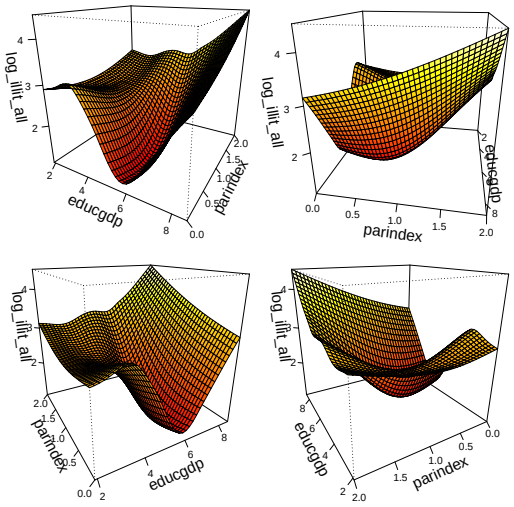
Key variables for the conditional relationship: Outcome Y: "log illiteracy" (`log_illit_all`); treatment D: "education spending" (`educgdp`); moderator X: "parindex" (`parindex`), which is the average of three institutional variables: "Ballot", "Pool", and "Vote". We also use the three variables as moderators and investigate the conditional relationships separately.

Note: The authors show 90% confidence intervals in the paper, while in both the binning plot and the kernel smoothing plot, we use 95% confidence intervals.

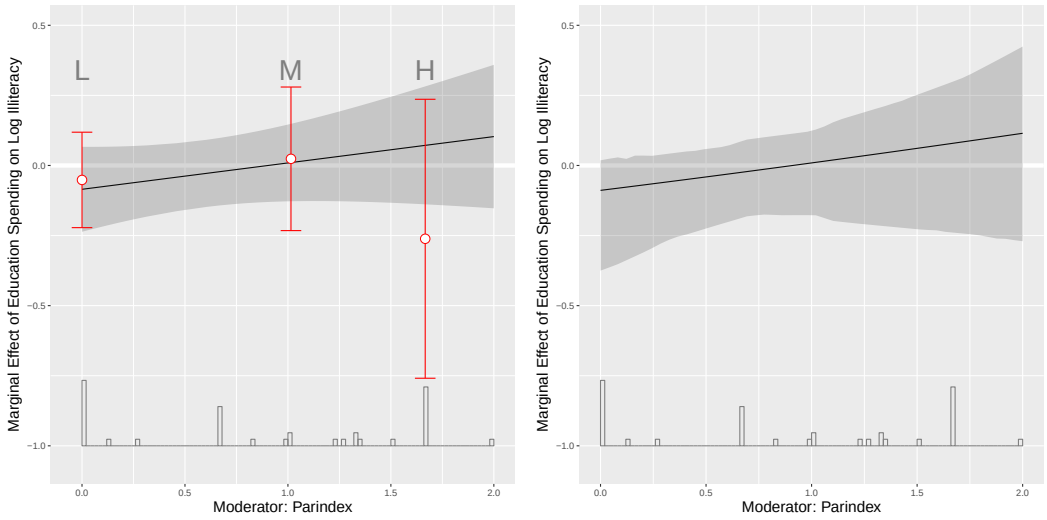
FIGURE B64. RESULTS FROM HICKEN AND SIMMONS (2008)



(a) Raw data



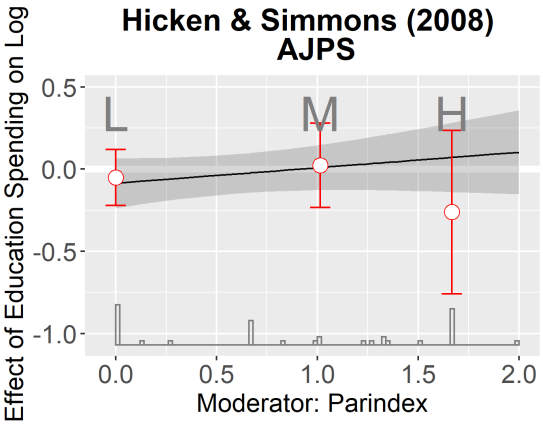
(b) GAM



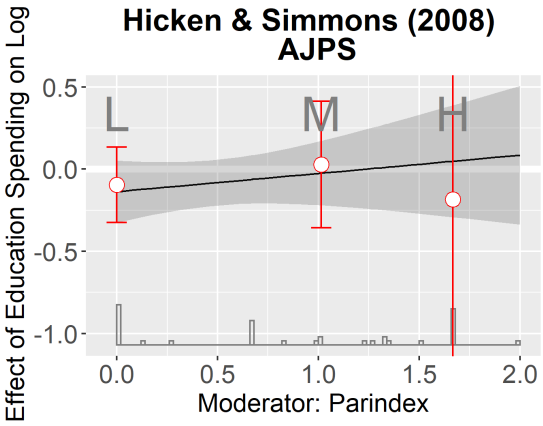
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

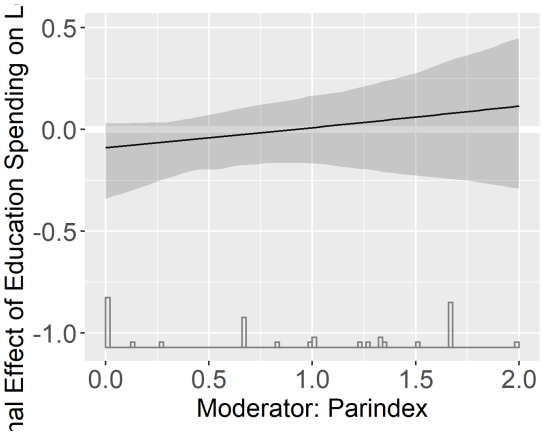
FIGURE B65. MARGINAL EFFECTS



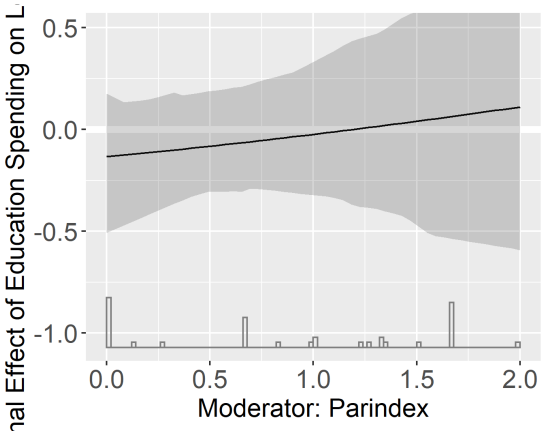
(a) Binning



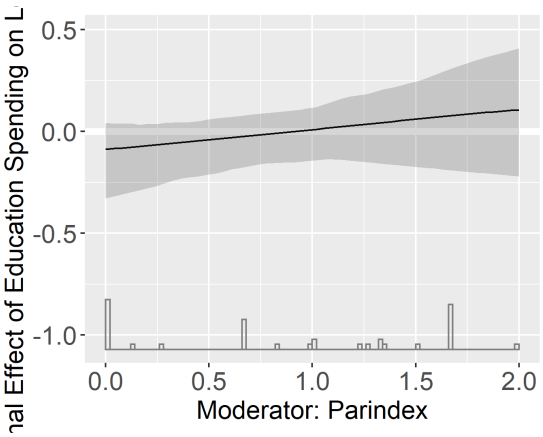
(b) Binning: Fully moderated model



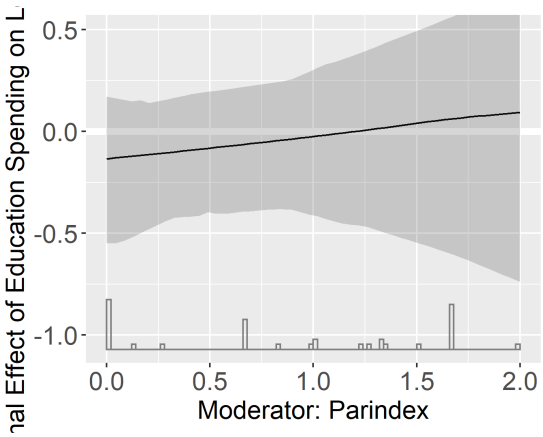
(c) Kernel



(d) Kernel: Fully moderated model

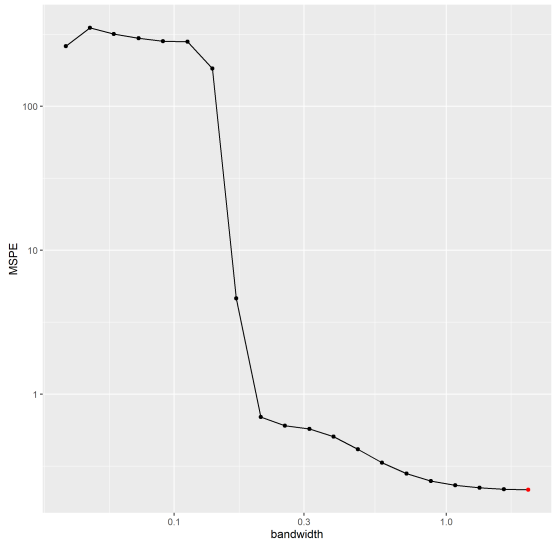


(e) Kernel: Adaptive bandwidth

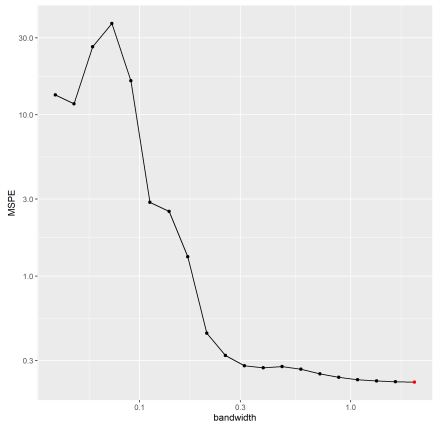


(f) Kernel: Fully moderated model with adaptive bandwidth

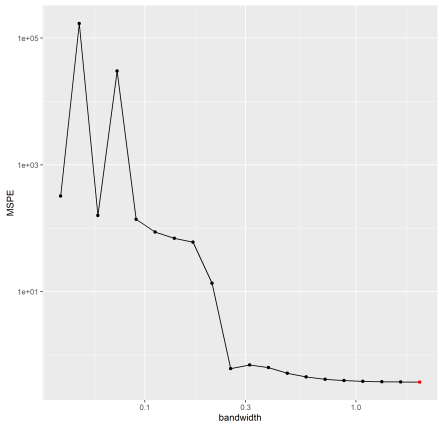
FIGURE B66. MSPE-BANDWIDTH



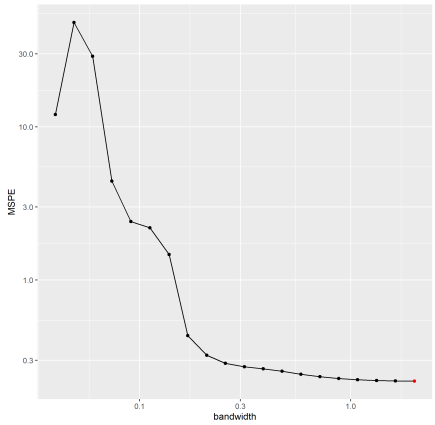
(a) Kernel: Original Command 5-fold



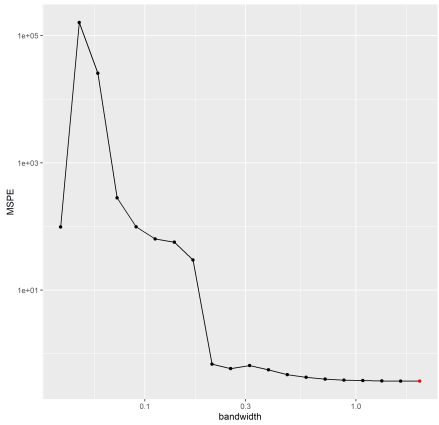
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

.12 Huddy, Mason and Aarøe (2015) APSR

First Interaction:

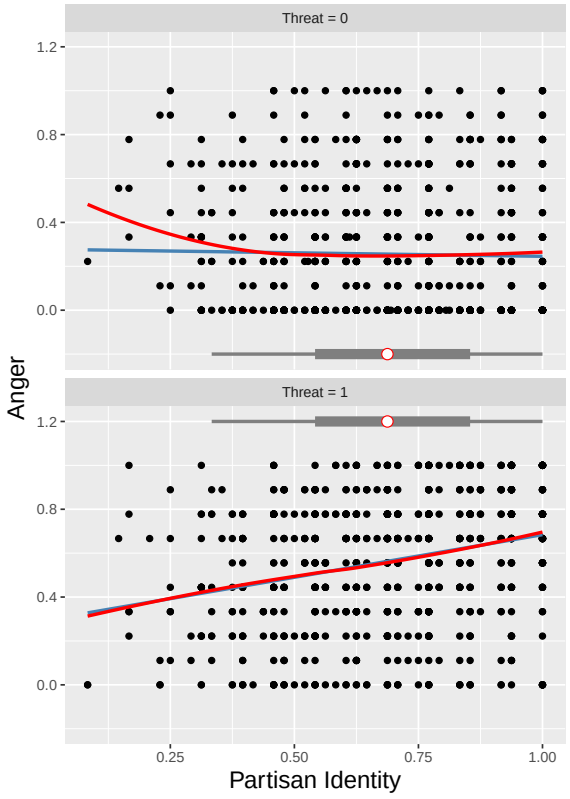
Claim on conditionality (Figure 2, top left panel in manuscript): *"A series of experiments underscore the power of partisan identity to generate action-oriented emotions that drive campaign activity. Strongly identified partisans feel angrier than weaker partisans when threatened with electoral loss and more positive when reassured of victory"* (Abstract).

"The figure (Figure 2) shows clearly that threat and reassurance arouse the most powerful emotion among the strongest partisan identifiers in the blog study." (p. 12).

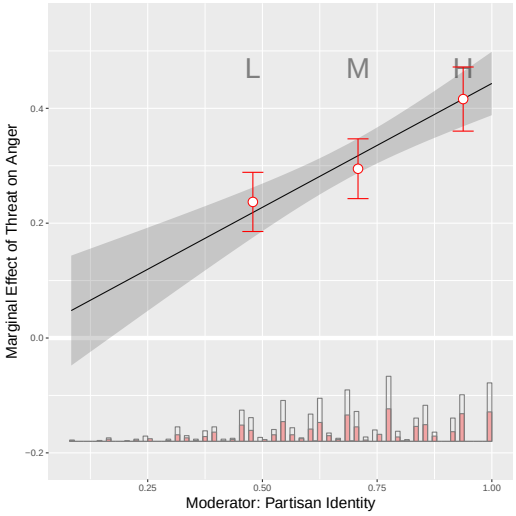
Key variables for the conditional relationship: Outcome Y: "anger" (`totangry`); treatment D: "threat" (`threat`); moderator X: "partisan identity " (`pidentity`).

Key variables for the conditional relationship 2 (Figure 2B): Outcome Y: "enthusiasm" (`totpos`); treatment D: "support" (`support`); moderator X: "partisan identity " (`pidentity`).

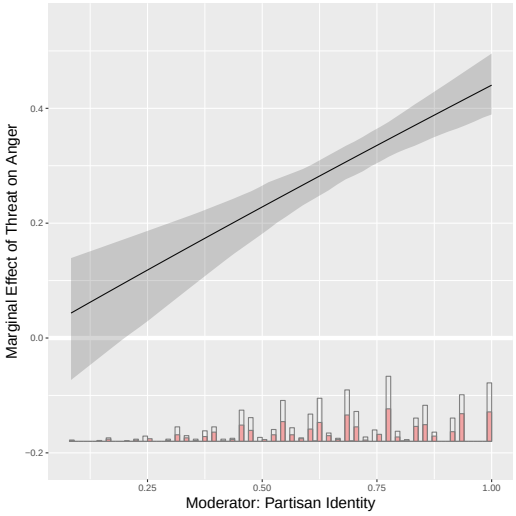
FIGURE B67. RESULTS FROM HUDDY, MASON AND AARØE (2015)



(a) Raw data

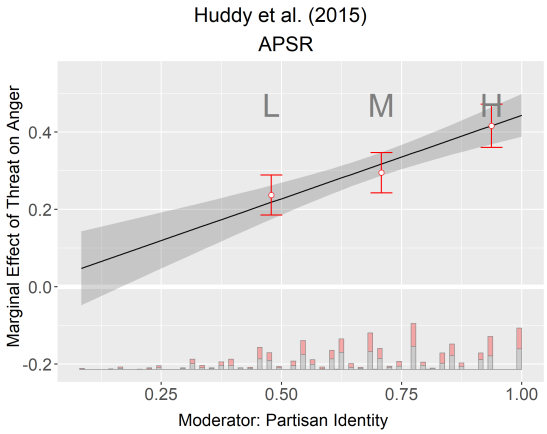


(b) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

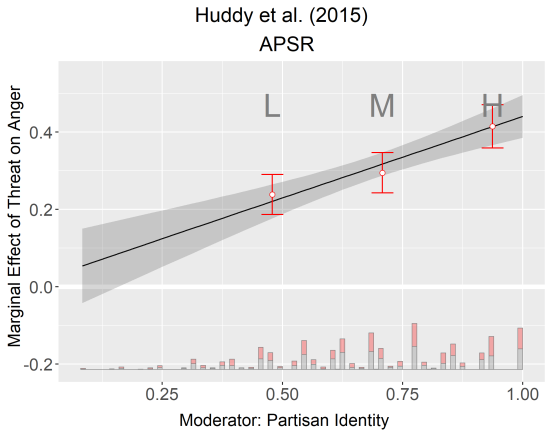


(c) Marginal Effects from Kernel Estimator

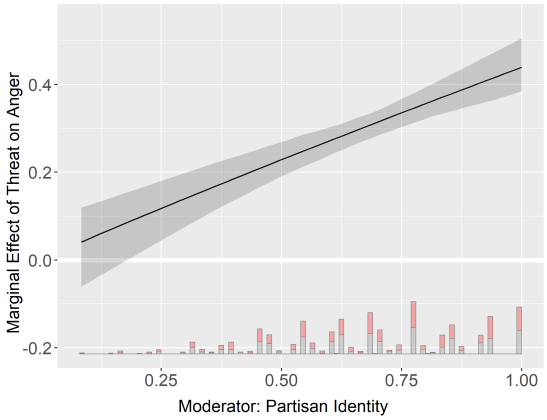
Figure B68. Marginal Effects



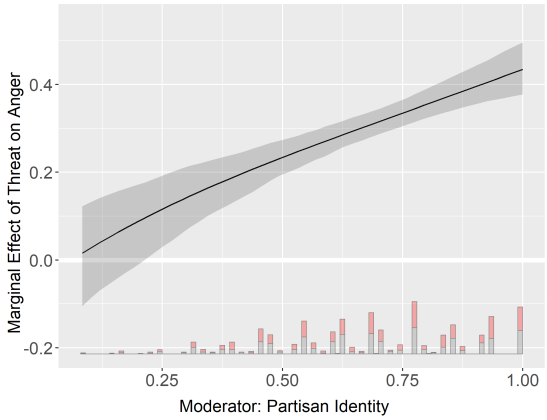
(a) Binning



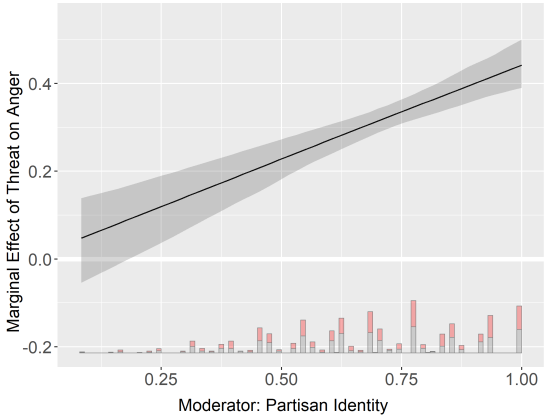
(b) Binning: Fully moderated model



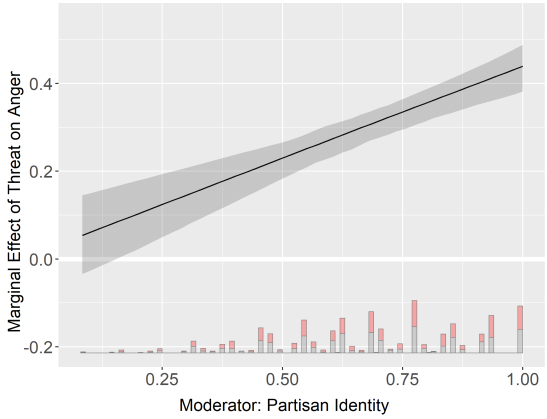
(c) Kernel



(d) Kernel: Fully moderated model

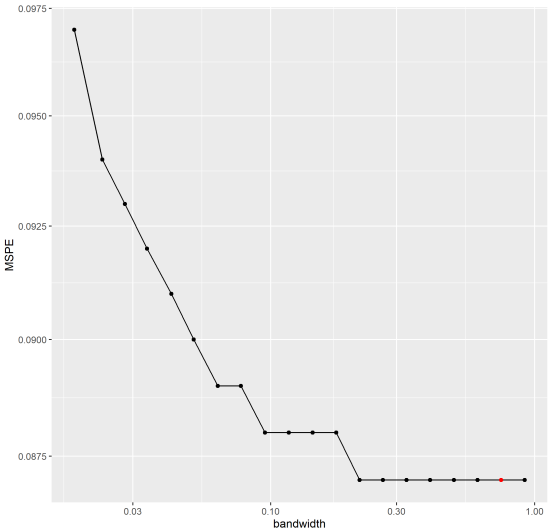


(e) Kernel: Adaptive bandwidth

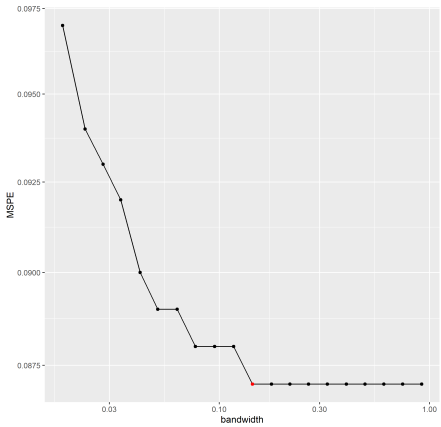


(f) Kernel: Fully moderated model with adaptive bandwidth

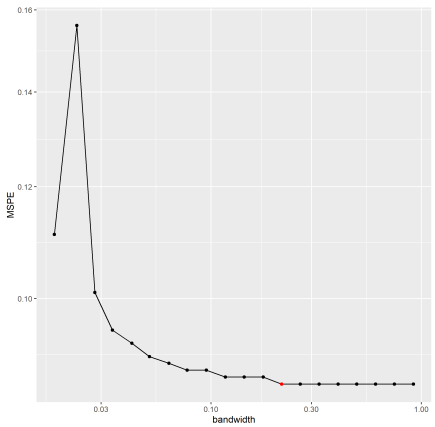
FIGURE B69. MSPE-BANDWIDTH



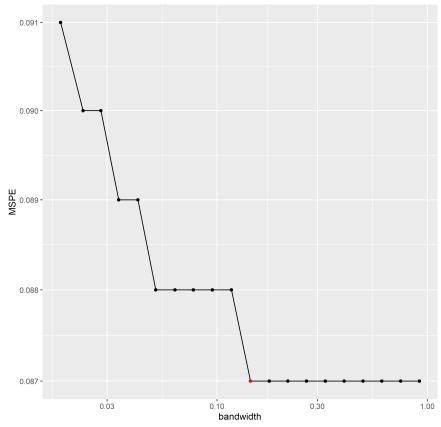
(a) Kernel: Original Command 5-fold



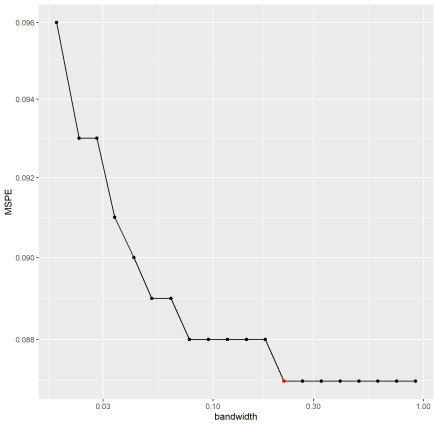
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

Second Interaction:

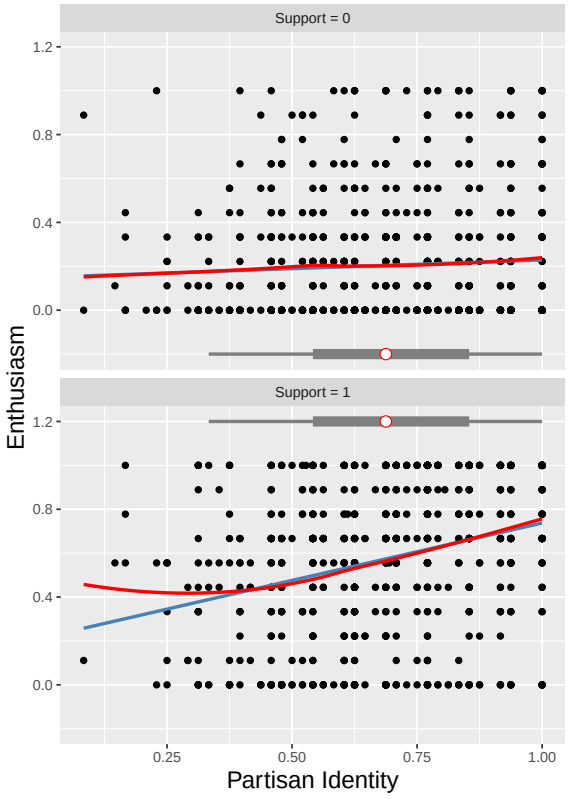
Claim on conditionality (Figure 2, top right panel in manuscript): *"A series of experiments underscore the power of partisan identity to generate action-oriented emotions that drive campaign activity. Strongly identified partisans feel angrier than weaker partisans when threatened with electoral loss and more positive when reassured of victory"* (Abstract).

"The figure (Figure 2) shows clearly that threat and reassurance arouse the most powerful emotion among the strongest partisan identifiers in the blog study." (p. 12).

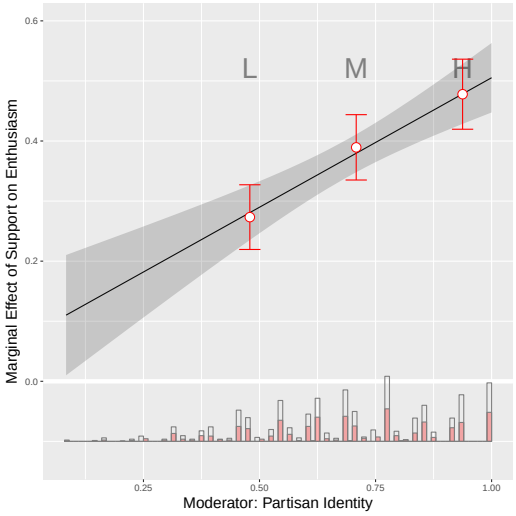
Key variables for the conditional relationship: Outcome Y: "anger" (`totangry`); treatment D: "threat" (`threat`); moderator X: "partisan identity " (`pidentity`).

Key variables for the conditional relationship: Outcome Y: "enthusiasm" (`totpos`); treatment D: "support" (`support`); moderator X: "partisan identity " (`pidentity`).

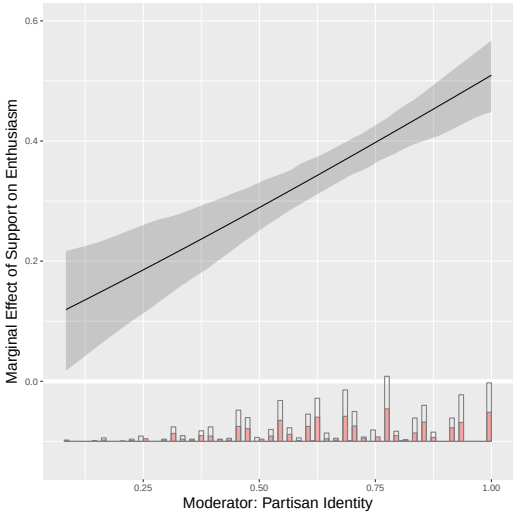
FIGURE B70. RESULTS FROM HUDDY, MASON AND AARØE (2015)



(a) Raw data

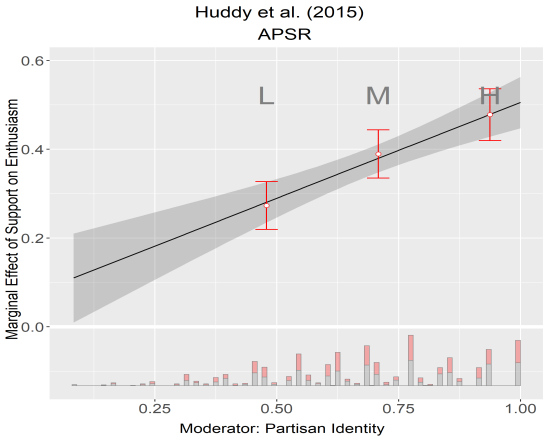


(b) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

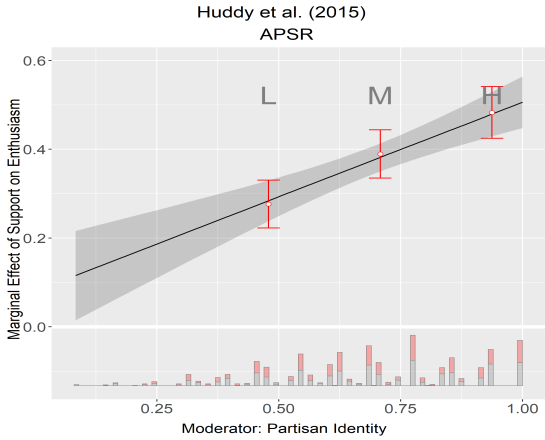


(c) Marginal Effects from Kernel Estimator

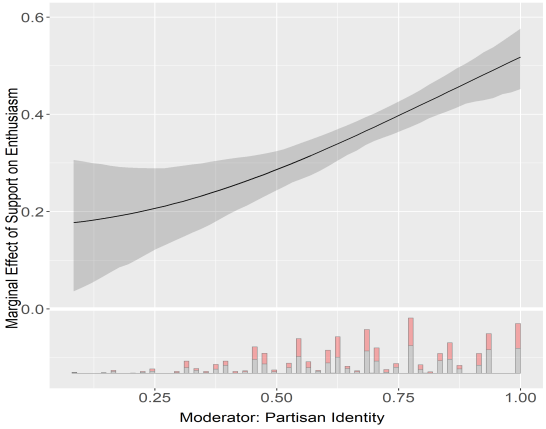
Figure B71. Marginal Effects



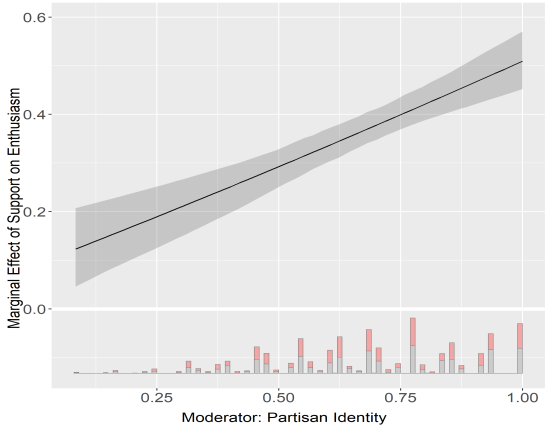
(a) Binning



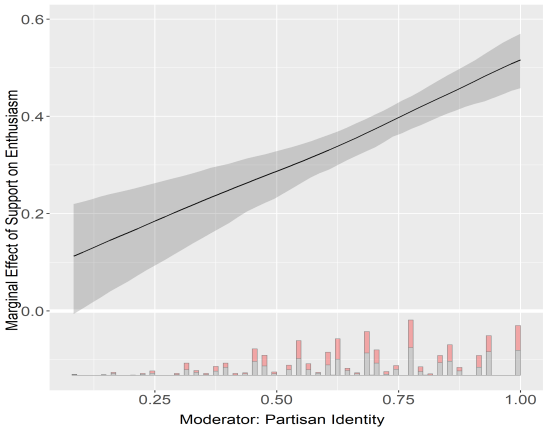
(b) Binning: Fully moderated model



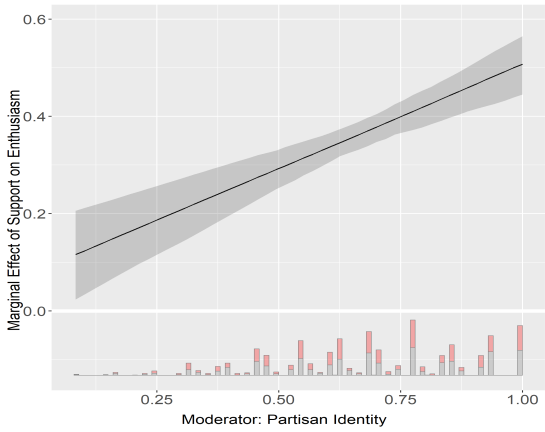
(c) Kernel



(d) Kernel: Fully moderated model

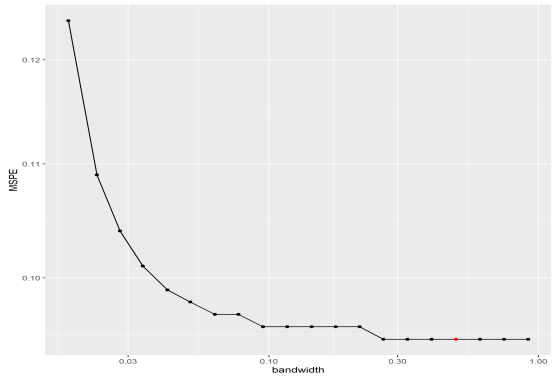


(e) Kernel: Adaptive bandwidth

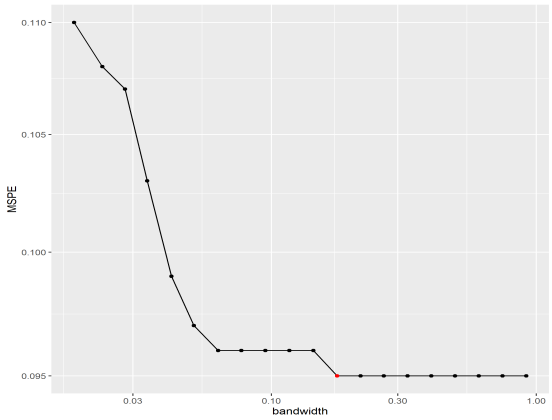


(f) Kernel: Fully moderated model with adaptive bandwidth

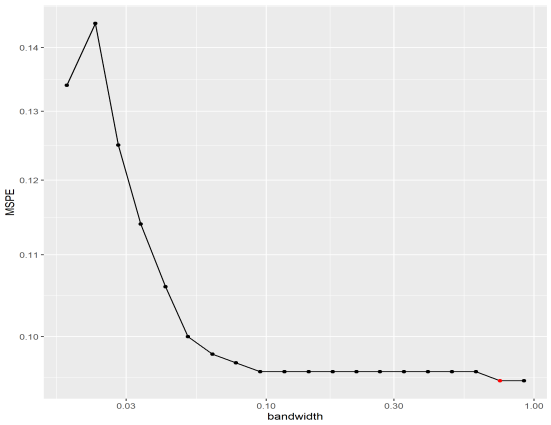
Figure B72. MSPE-Bandwidth



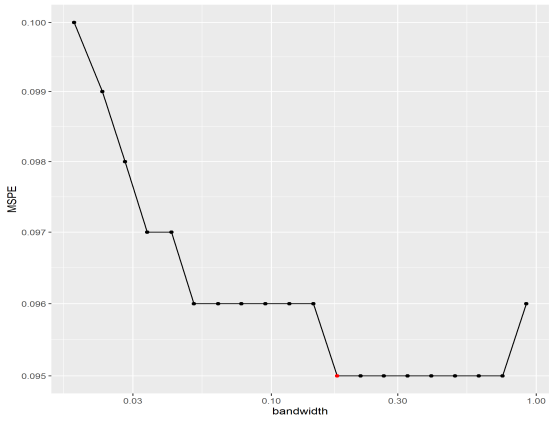
(a) Kernel: Original Command 5-fold



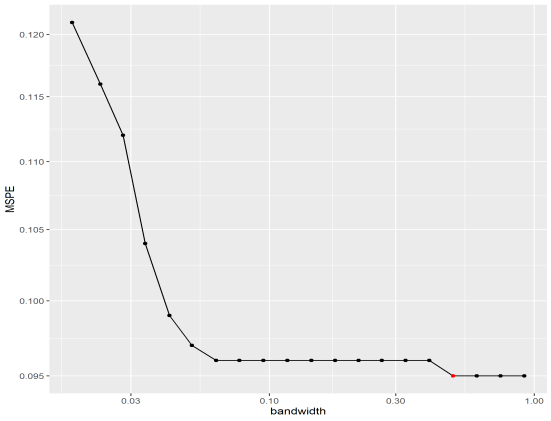
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

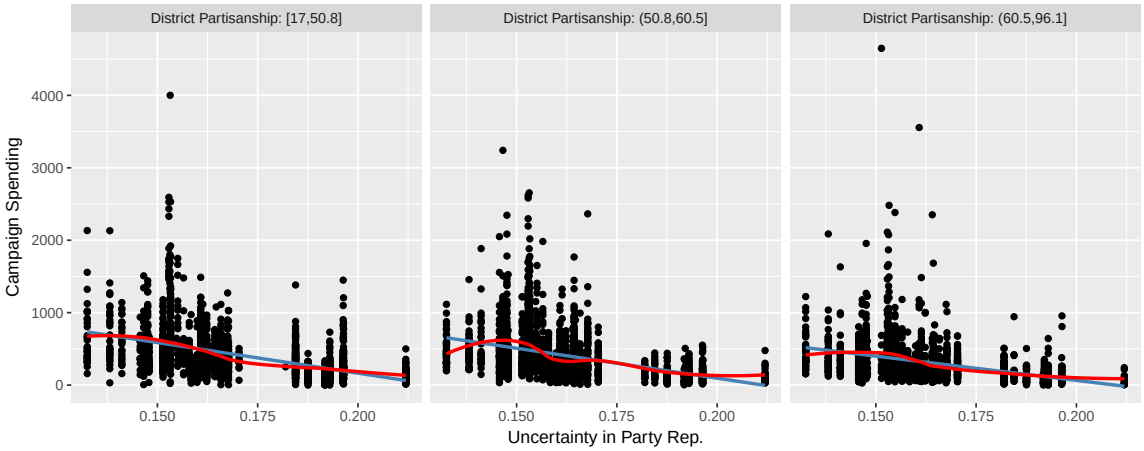
.13 Kim and LeVeck (2013) APSR

First interaction:

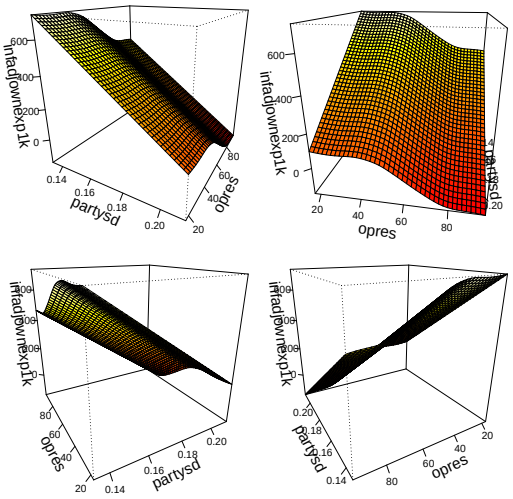
Claim on conditionality (Figure 2 in manuscript): *"Figure 2 shows that the effect of the greater uncertainty in the incumbent party's reputation on campaign spending attenuates as districts become less marginal. Indeed, greater uncertainty in the incumbent's party reputation seems to actually increase spending in the least marginal districts."* (499).

Key variables for the conditional relationship: Outcome Y: "Campaign Spending" (`infadjownexp1k`); treatment D: "uncertainty in incumbent party's position" (`partysd`); moderator X: "district partisanship" (`opres`).

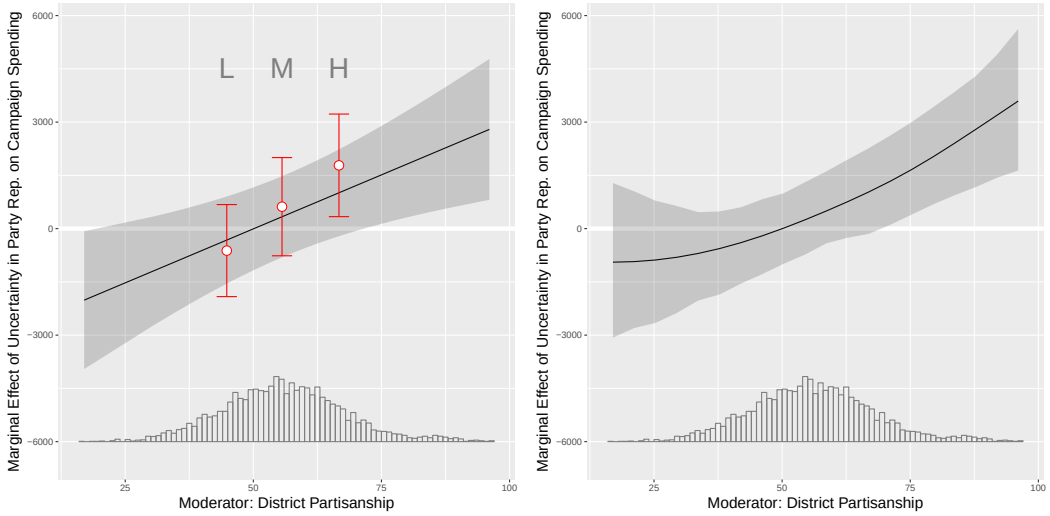
FIGURE B73. RESULTS FROM KIM AND LEVECK (2013)



(a) Raw data



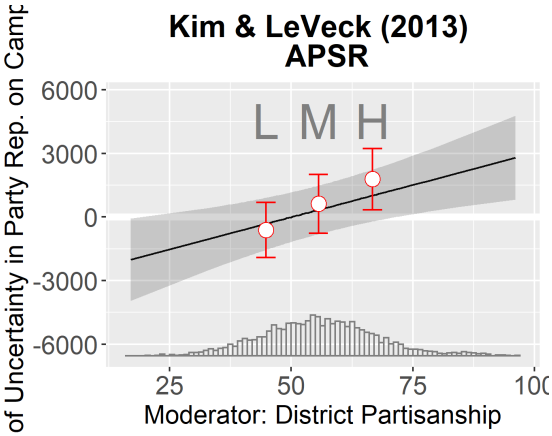
(b) GAM plot



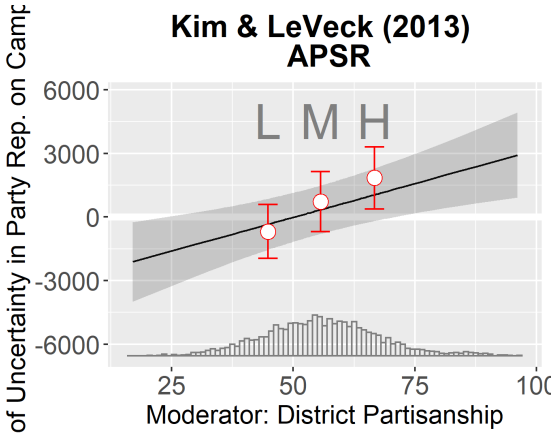
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

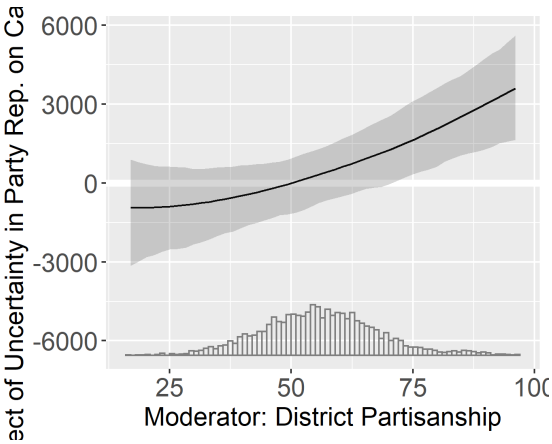
FIGURE B74. MARGINAL EFFECTS



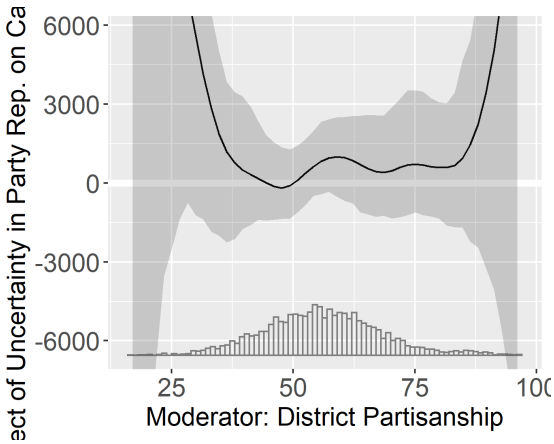
(a) Binning



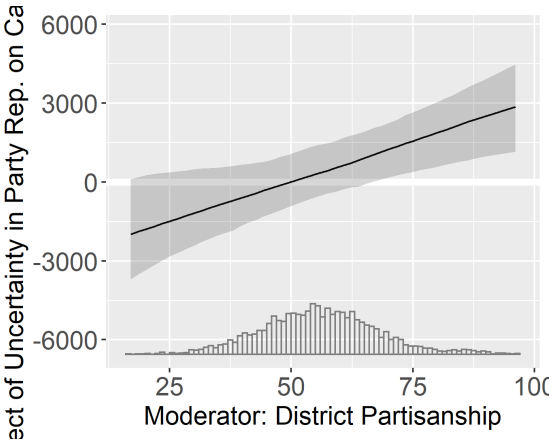
(b) Binning: Fully moderated model



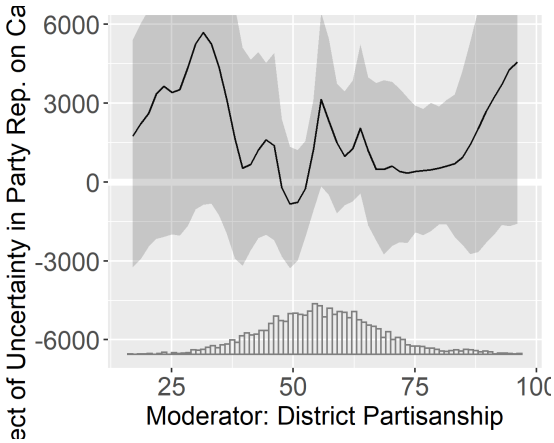
(c) Kernel



(d) Kernel: Fully moderated model

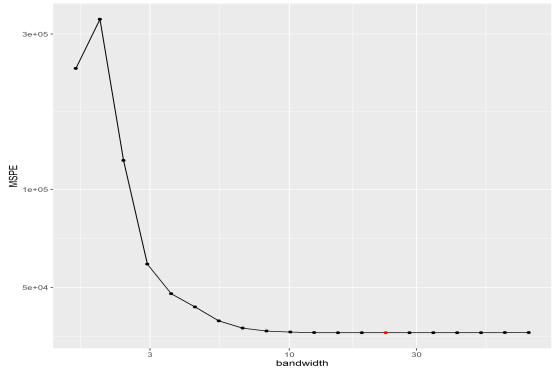


(e) Kernel: Adaptive bandwidth

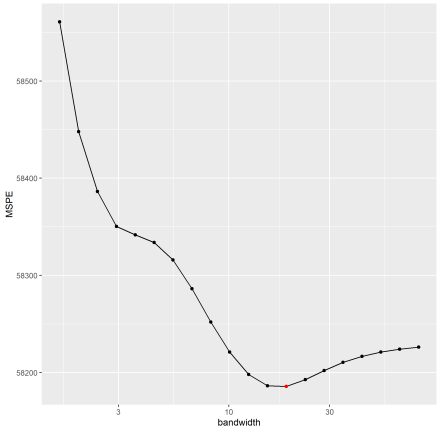


(f) Kernel: Fully moderated model with adaptive bandwidth

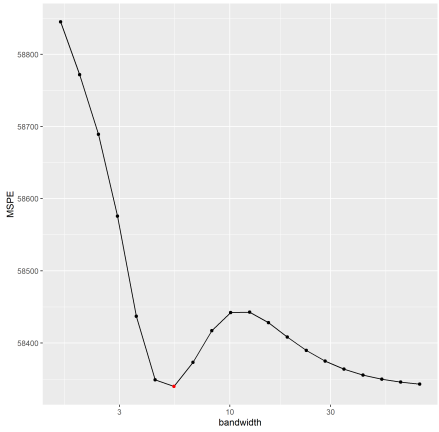
Figure B75. MSPE-Bandwidth



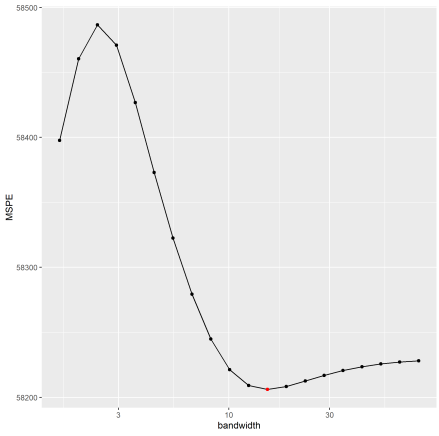
(a) Kernel: Original Command 5-fold



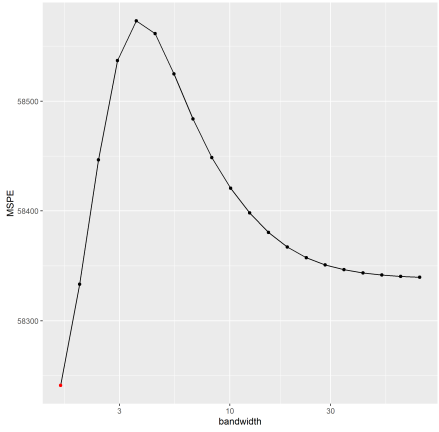
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



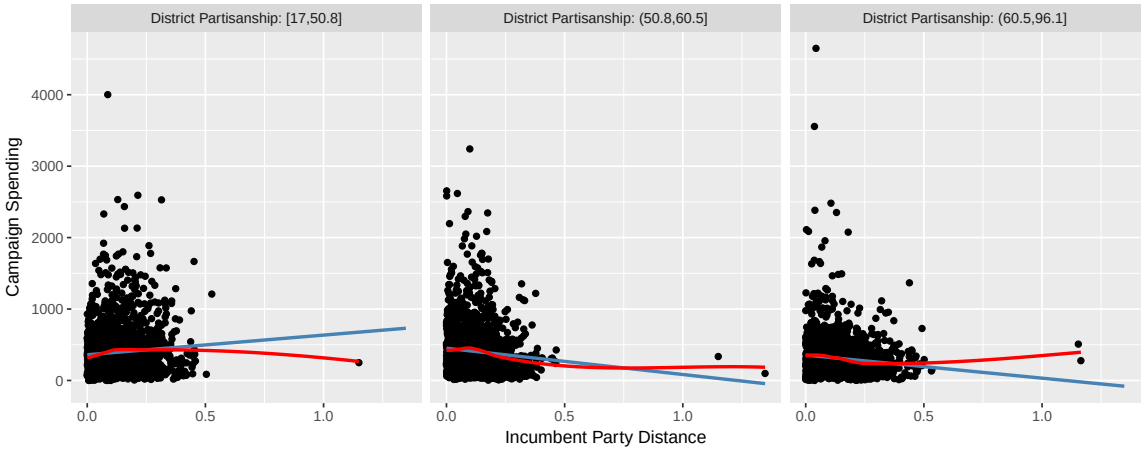
(e) Kernel: Fully moderated model with adaptive bandwidth

Second interaction:

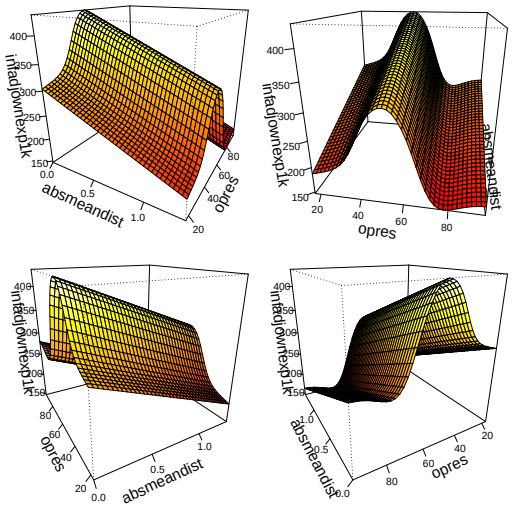
Claim on conditionality (Figure 3 in manuscript): *"On the other hand, it is less helpful for the incumbent to be far from his party in less marginal districts. Accordingly, the positive coefficient on Incumbent-Party Distance x District Partisanship shows that distance from the party decreases incumbent spending less as a district becomes less marginal."* (500).

Key variables for the conditional relationship: Outcome Y: "Campaign Spending" (`infadjownexp1k`); treatment D: "incumbent party distance" (`absmeandist`); moderator X: "district partisanship" (`opres`).

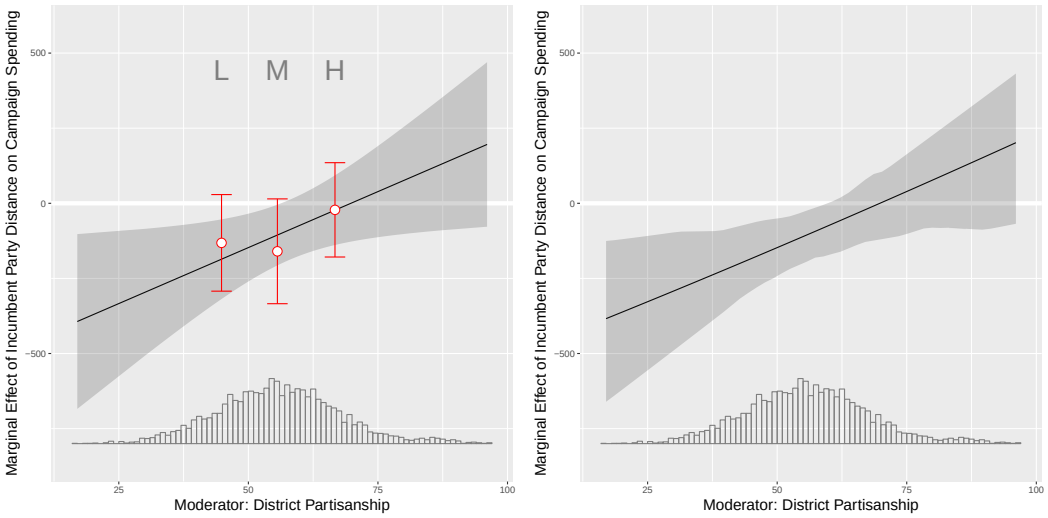
FIGURE B76. RESULTS FROM KIM AND LEVECK (2013)



(a) Raw data



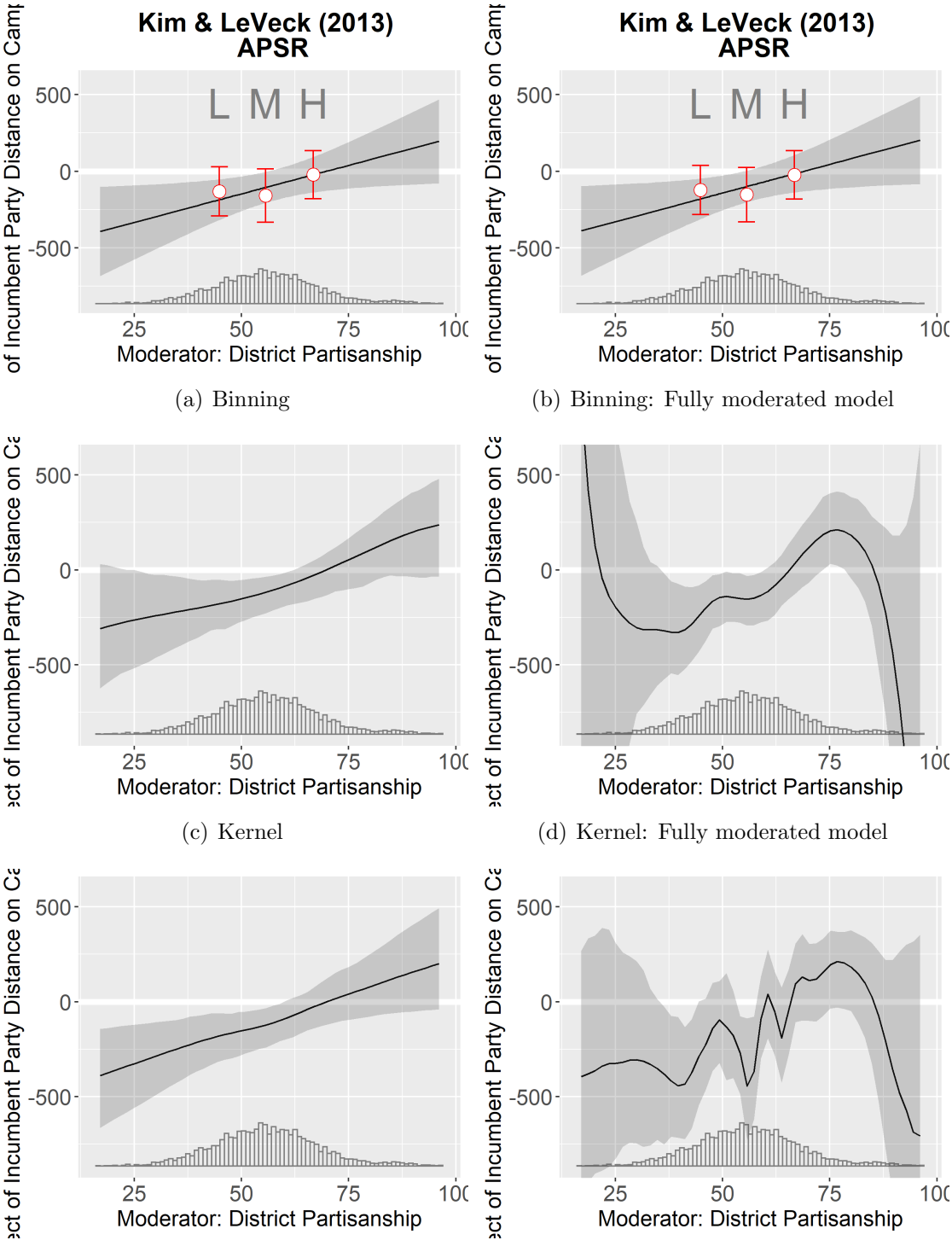
(b) GAM plot



(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

FIGURE B77. MARGINAL EFFECTS



(a) Binning

(b) Binning: Fully moderated model

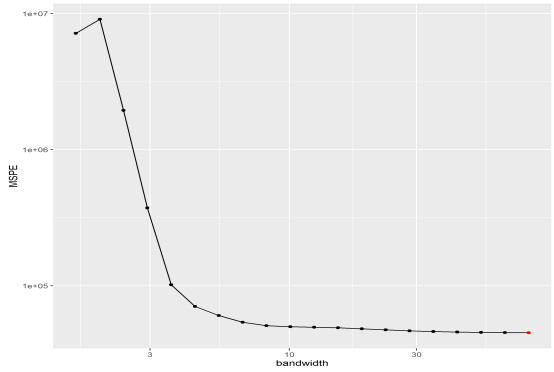
(c) Kernel

(d) Kernel: Fully moderated model

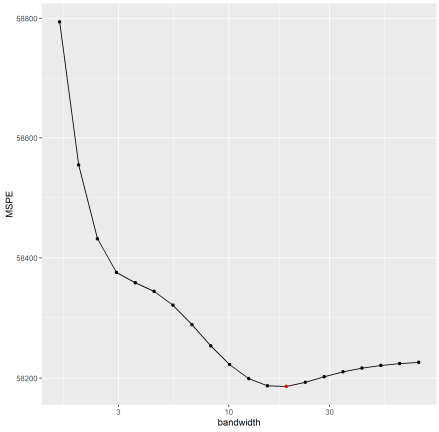
(e) Kernel: Adaptive bandwidth

(f) Kernel: Fully moderated model with adaptive bandwidth

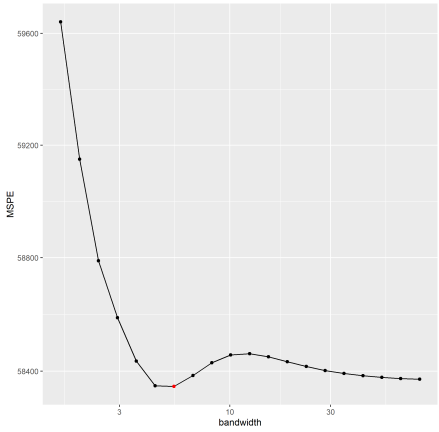
FIGURE B78. MSPE-BANDWIDTH



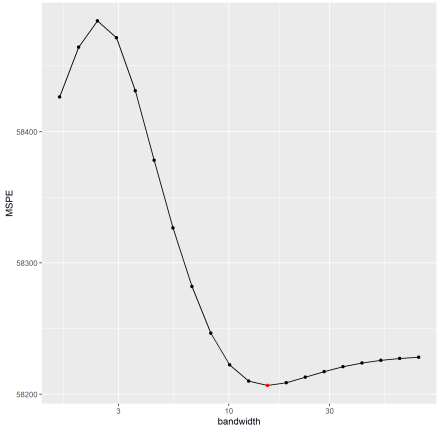
(a) Kernel: Original Command 5-fold



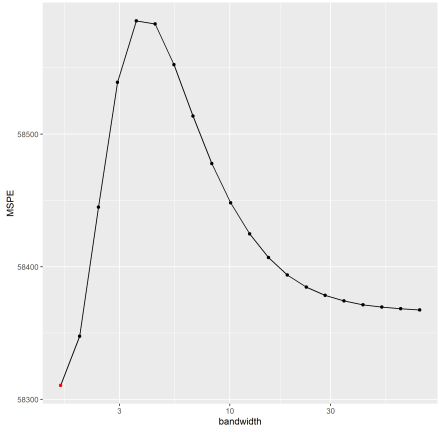
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



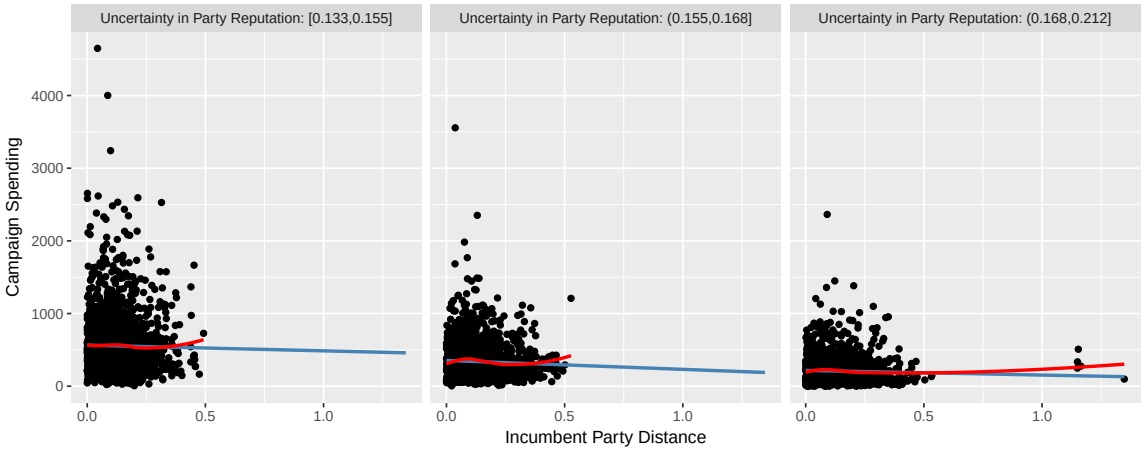
(e) Kernel: Fully moderated model with adaptive bandwidth

Third interaction:

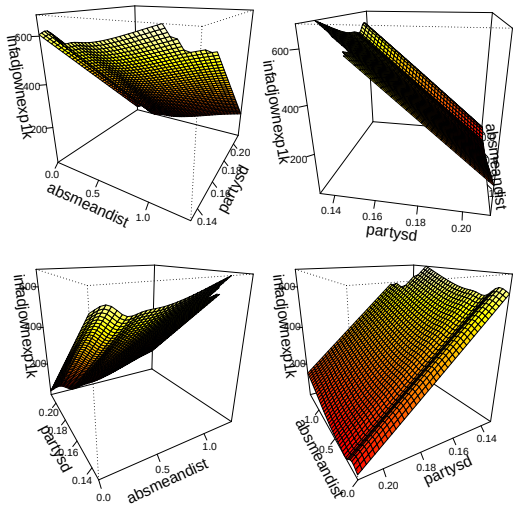
Claim on conditionality (Figure 4 in manuscript): *"Figure 4 indicates that in 1972, deviating from the party did not decrease an incumbent's spending. Distancing oneself from the party only reduced incumbents' spending once the parties become sufficiently unified in their voting behavior."* (500).

Key variables for the conditional relationship: Outcome Y: "Campaign Spending" (`infadjownexp1k`); treatment D: "incumbent party distance" (`absmeandist`); moderator X: "uncertainty in party reputation" (`partysd`).

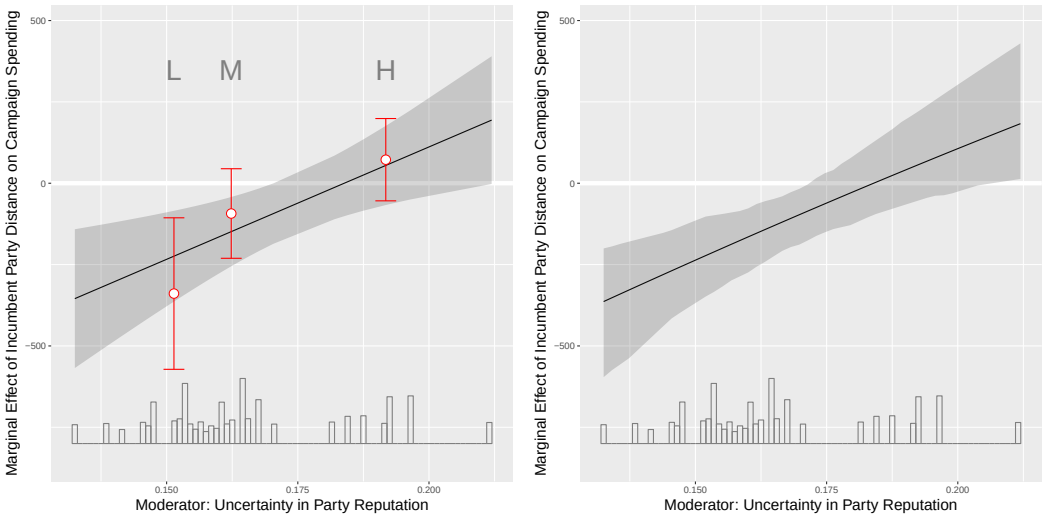
FIGURE B79. RESULTS FROM KIM AND LEVECK (2013)



(a) Raw data



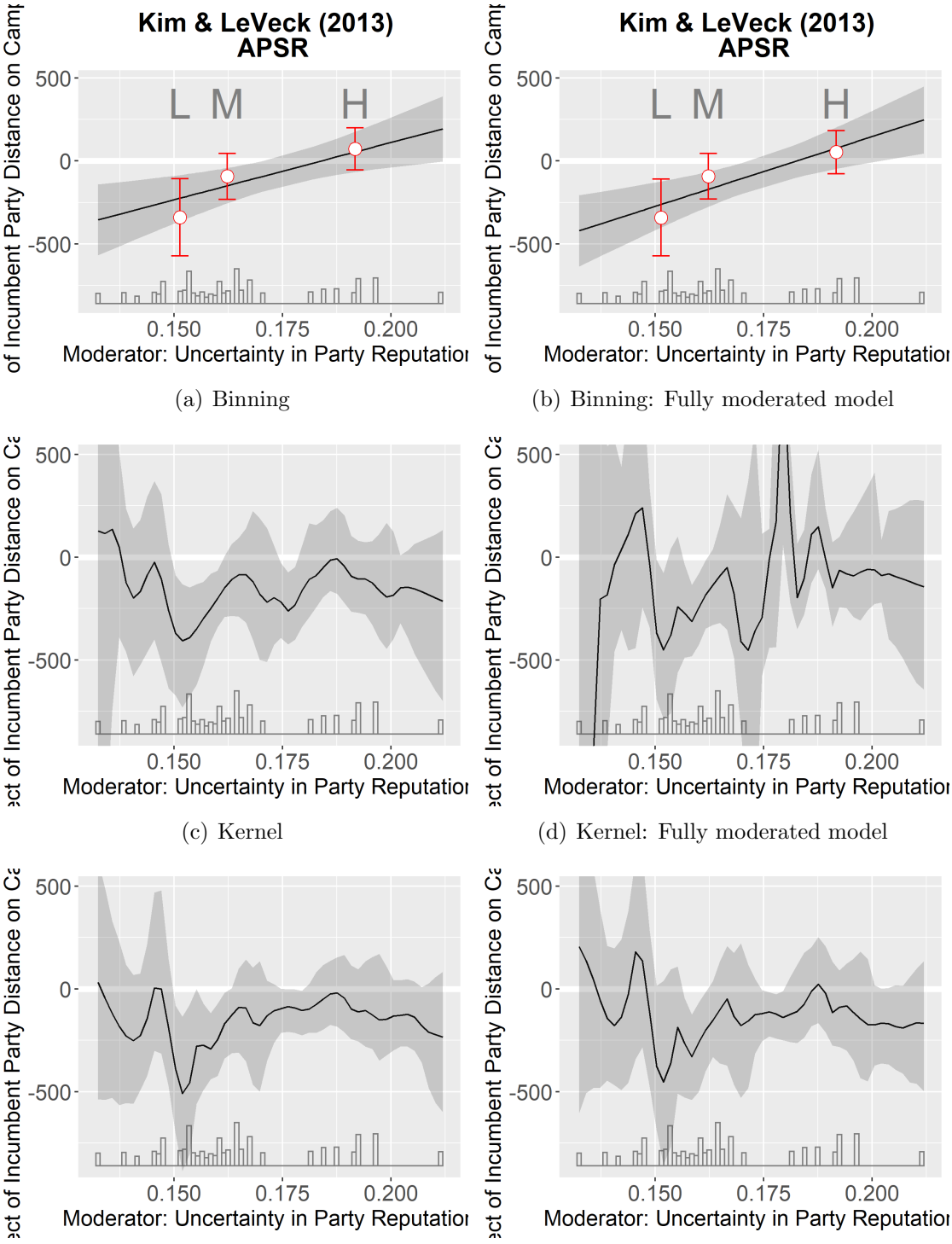
(b) GAM plot



(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

FIGURE B80. MARGINAL EFFECTS



(a) Binning

(b) Binning: Fully moderated model

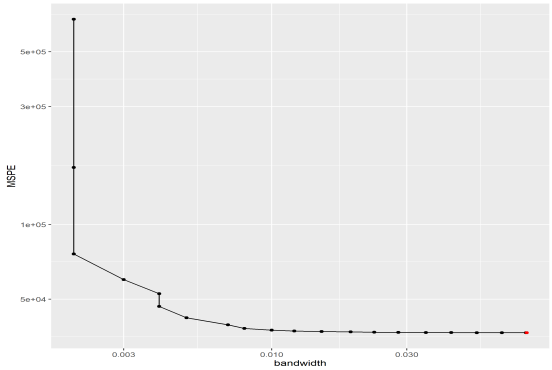
(c) Kernel

(d) Kernel: Fully moderated model

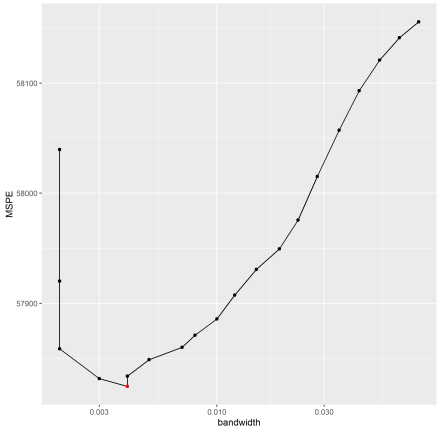
(e) Kernel: Adaptive bandwidth

(f) Kernel: Fully moderated model with adaptive bandwidth

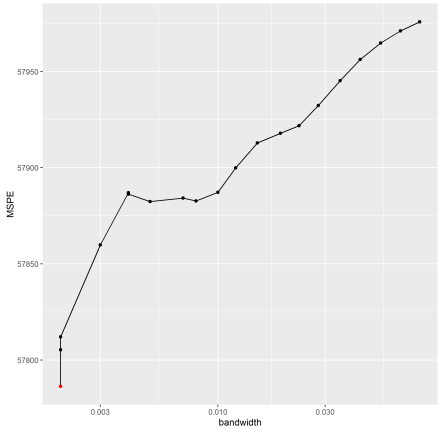
FIGURE B81. MSPE-BANDWIDTH



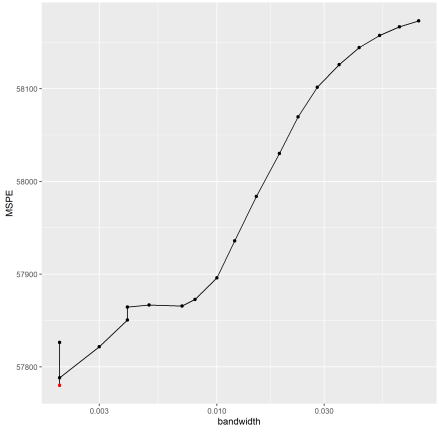
(a) Kernel: Original Command 5-fold



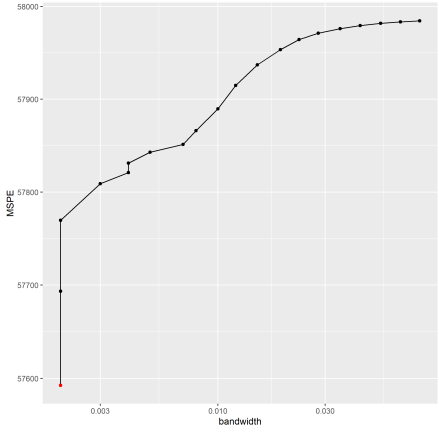
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

.14 Malesky, Schuler and Tran (2012) APSR

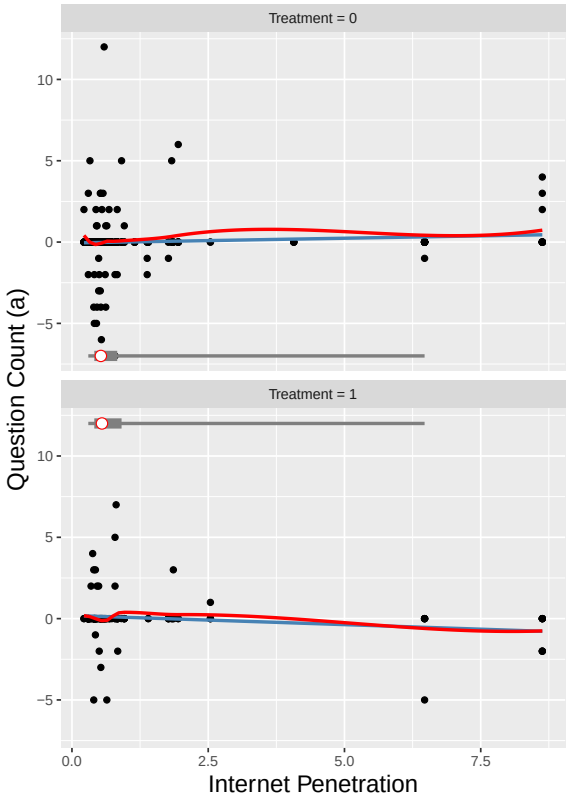
First interaction:

Claim on conditionality (Figure 1, top left panel in manuscript): *"We find no evidence of a direct effect of the transparency treatment on delegate performance; however, further analysis reveals that delegates subjected to high treatment intensity demonstrate robust evidence of curtailed participation and damaged reelection prospects. These results make us cautious about the export of transparency without electoral sanctioning."* (Abstract).

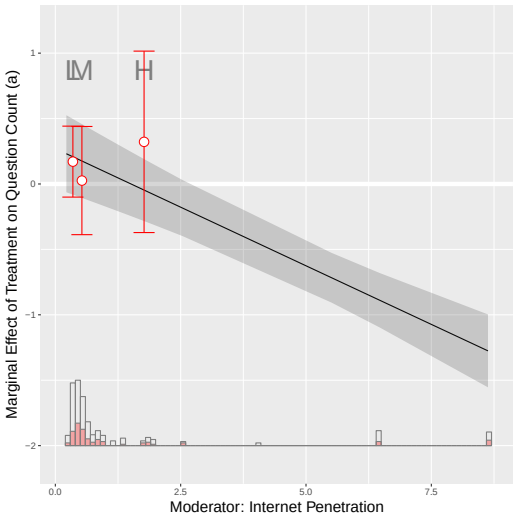
Key variables for the conditional relationship: Outcome Y: "change in questions asked" (`d.question_count`); treatment D: "sunshine" (`t2`); moderator X: "internet penetration" (`internet_users100`).

Note: The authors show 90% confidence intervals in the paper, while in both the binning plot and the kernel smoothing plot, we use 95% confidence intervals.

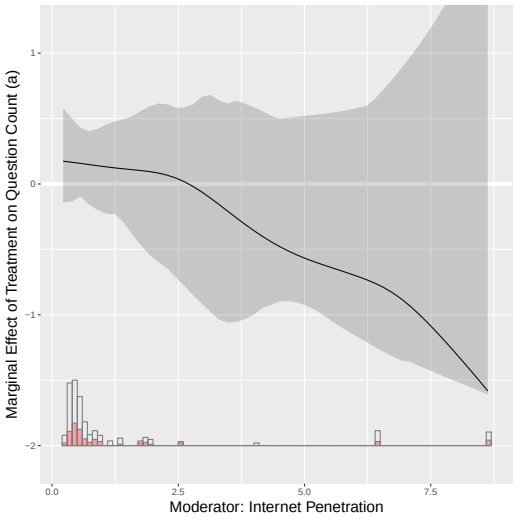
FIGURE B82. RESULTS FROM MALESKY, SCHULER AND TRAN (2012)



(a) Raw data

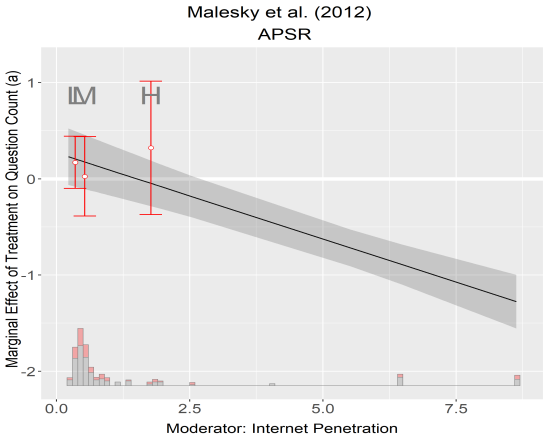


(b) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

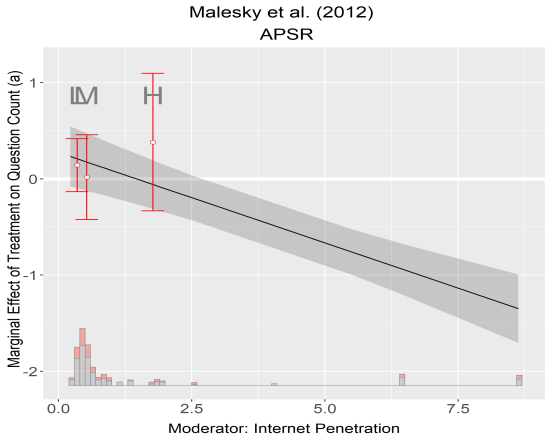


(c) Marginal Effects from Kernel Estimator

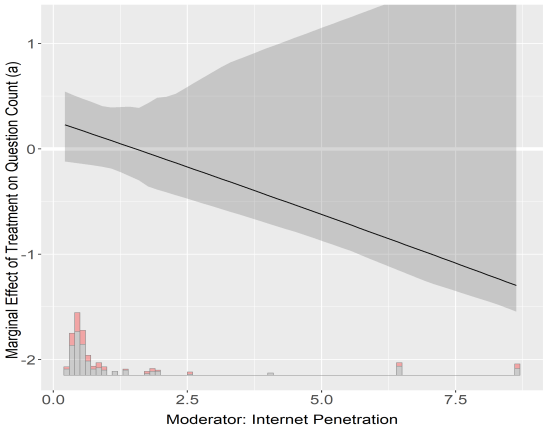
Figure B83. Marginal Effects



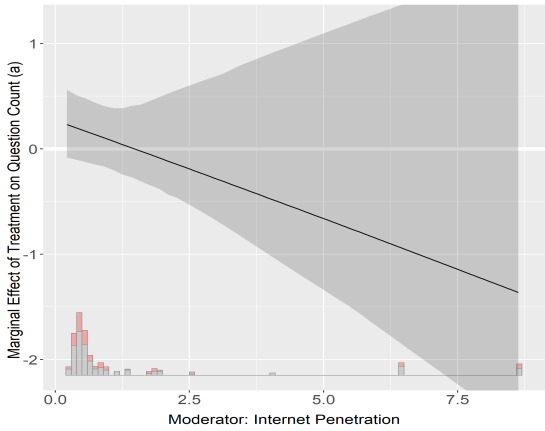
(a) Binning



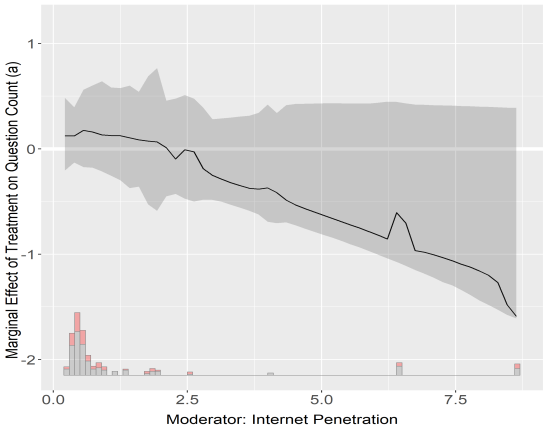
(b) Binning: Fully moderated model



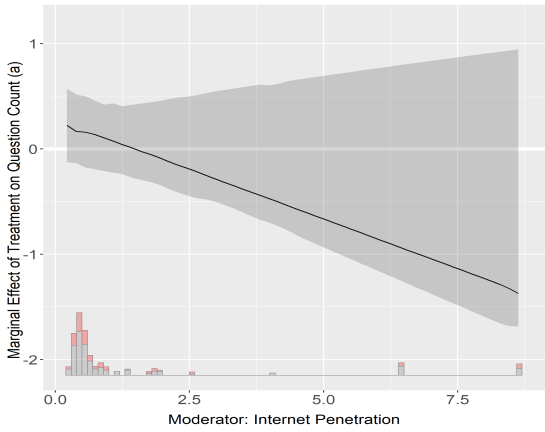
(c) Kernel



(d) Kernel: Fully moderated model

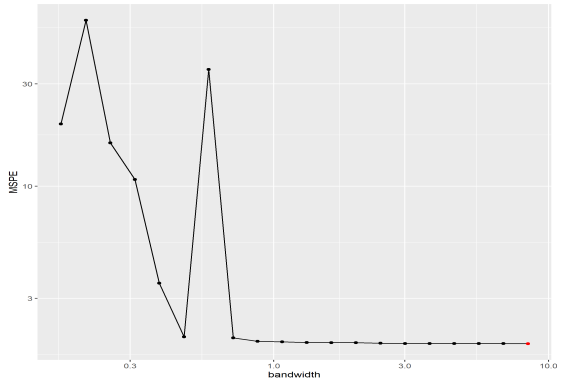


(e) Kernel: Adaptive bandwidth

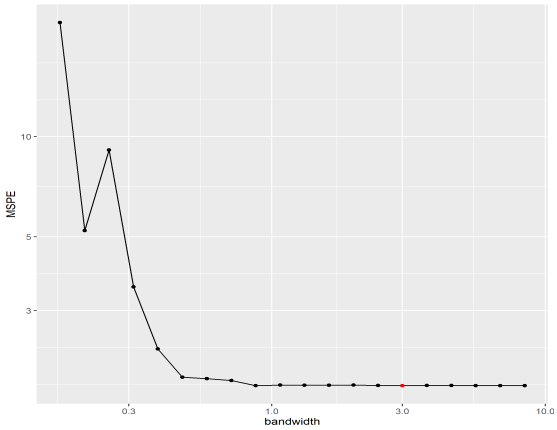


(f) Kernel: Fully moderated model with adaptive bandwidth

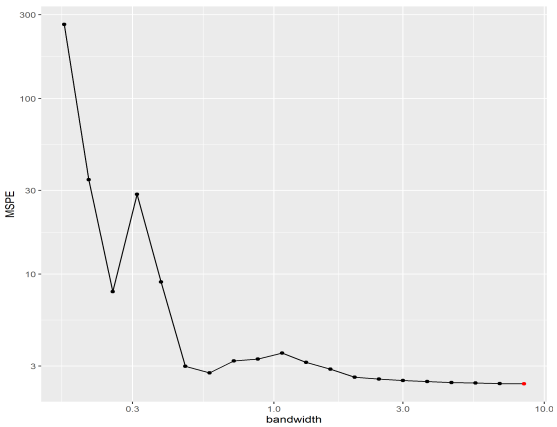
FIGURE B84. MSPE-BANDWIDTH



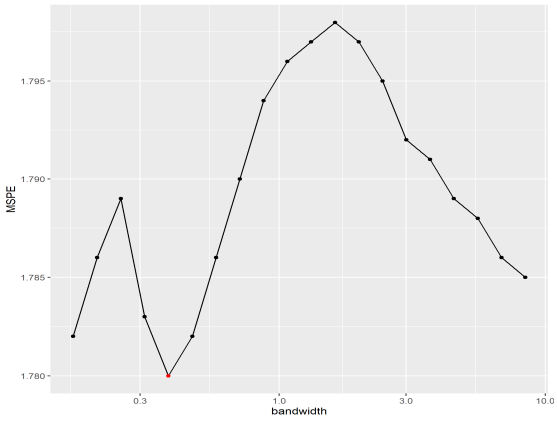
(a) Kernel: Original Command 5-fold



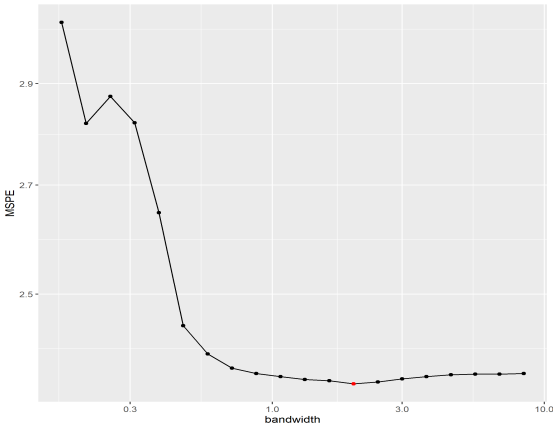
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

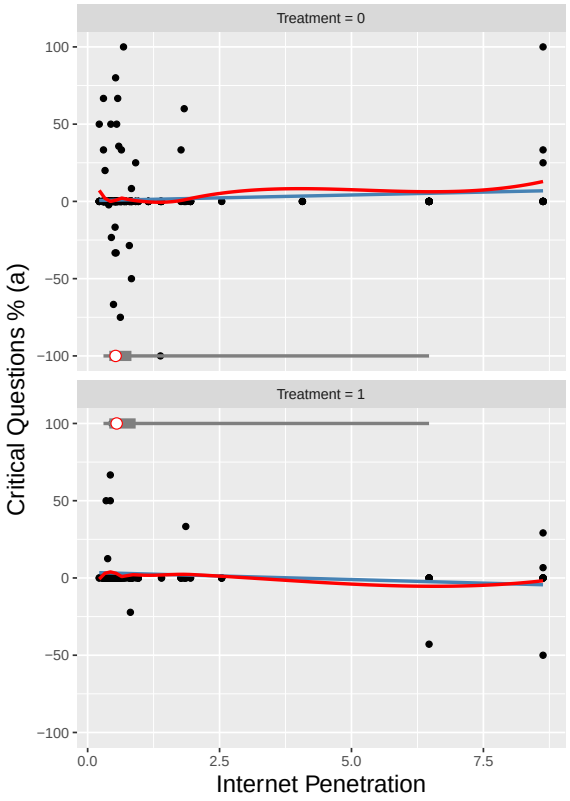
Second interaction:

Claim on conditionality (Figure 1, bottom left panel in manuscript): *"We find no evidence of a direct effect of the transparency treatment on delegate performance; however, further analysis reveals that delegates subjected to high treatment intensity demonstrate robust evidence of curtailed participation and damaged reelection prospects. These results make us cautious about the export of transparency without electoral sanctioning."* (Abstract).

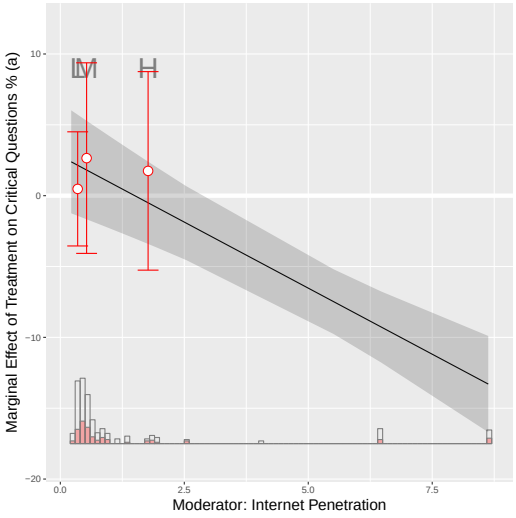
Key variables for the conditional relationship: Outcome Y: "change in critical questions (%)" (`d.criticize_total_per`); treatment D: "sunshine" (`t2`); moderator X: "internet penetration" (`internet_users100`).

Note: The authors show 90% confidence intervals in the paper, while in both the binning plot and the kernel smoothing plot, we use 95% confidence intervals.

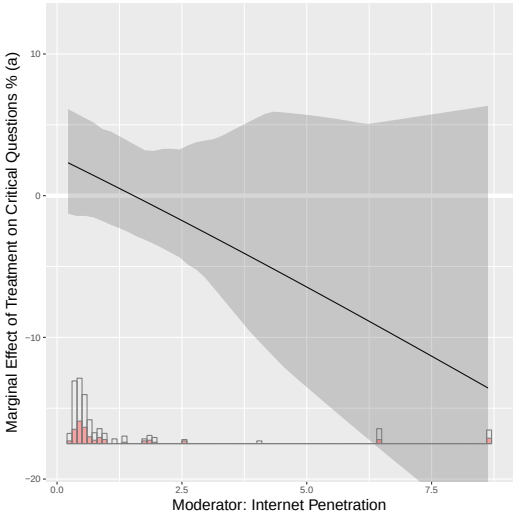
FIGURE B85. RESULTS FROM MALESKY, SCHULER AND TRAN (2012)



(a) Raw data

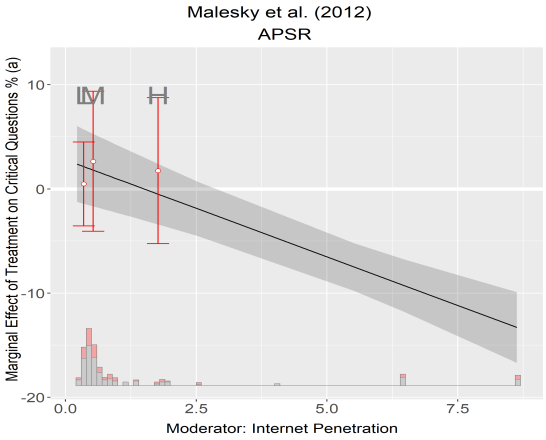


(b) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

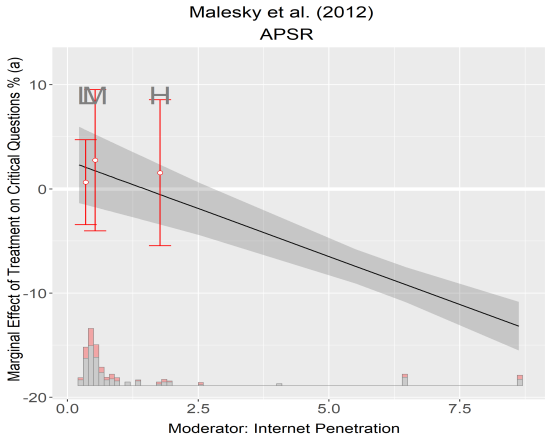


(c) Marginal Effects from Kernel Estimator

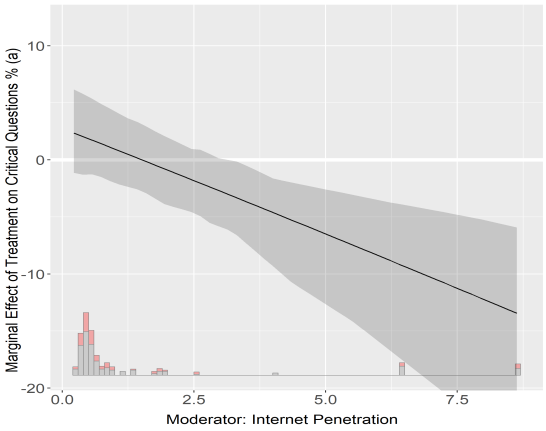
Figure B86. Marginal Effects



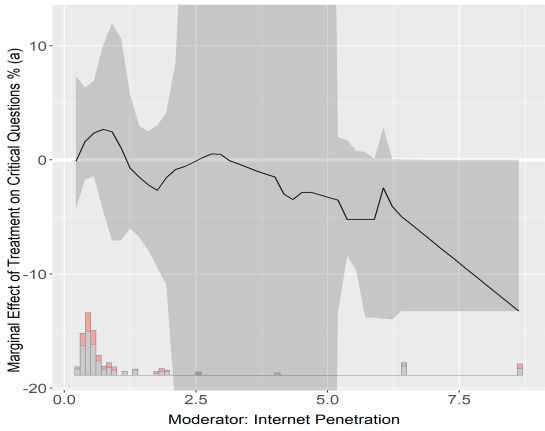
(a) Binning



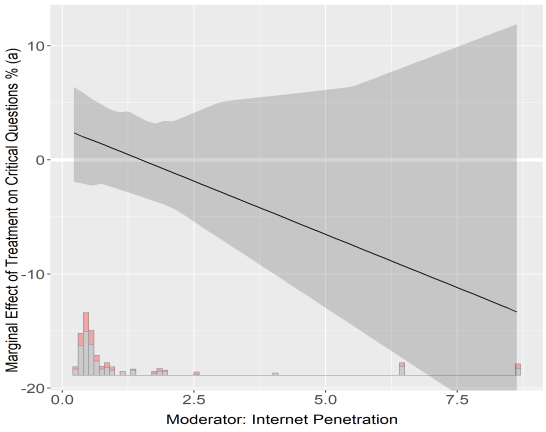
(b) Binning: Fully moderated model



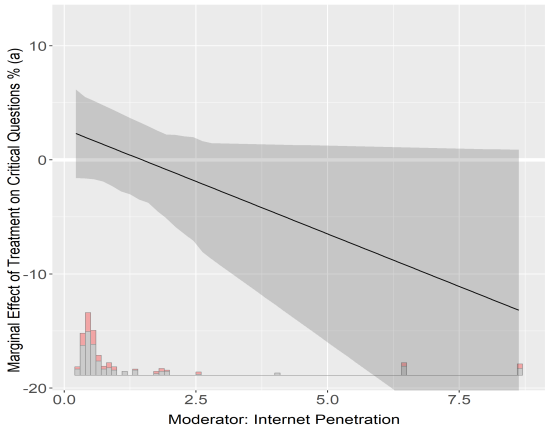
(c) Kernel



(d) Kernel: Fully moderated model

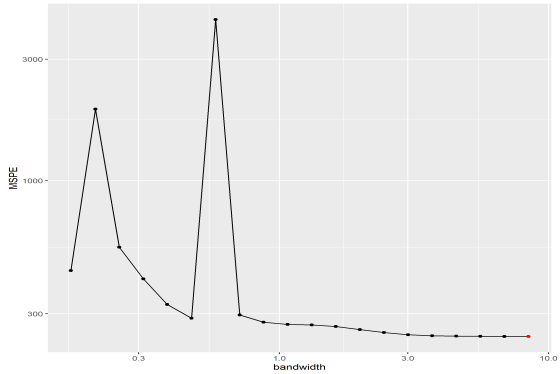


(e) Kernel: Adaptive bandwidth

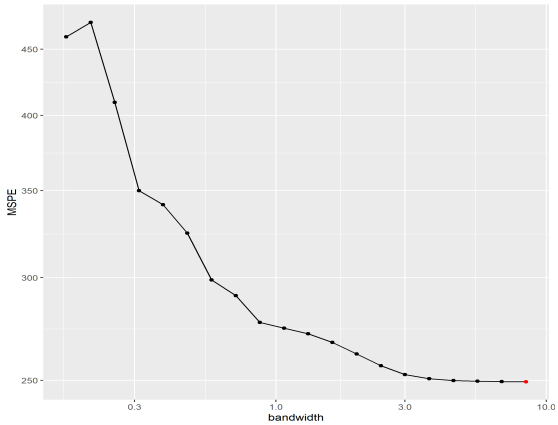


(f) Kernel: Fully moderated model with adaptive bandwidth

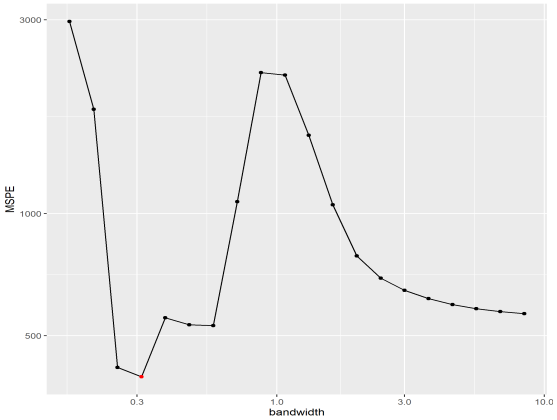
FIGURE B87. MSPE-BANDWIDTH



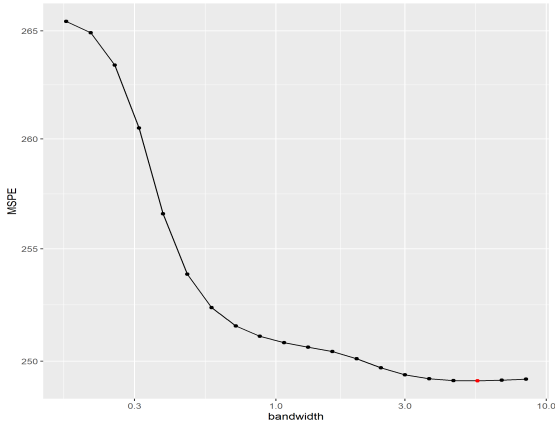
(a) Kernel: Original Command 5-fold



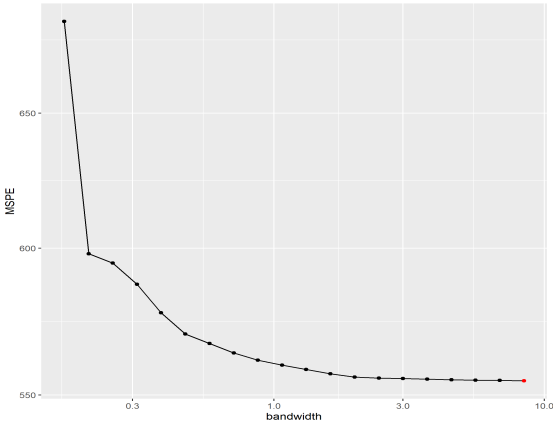
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

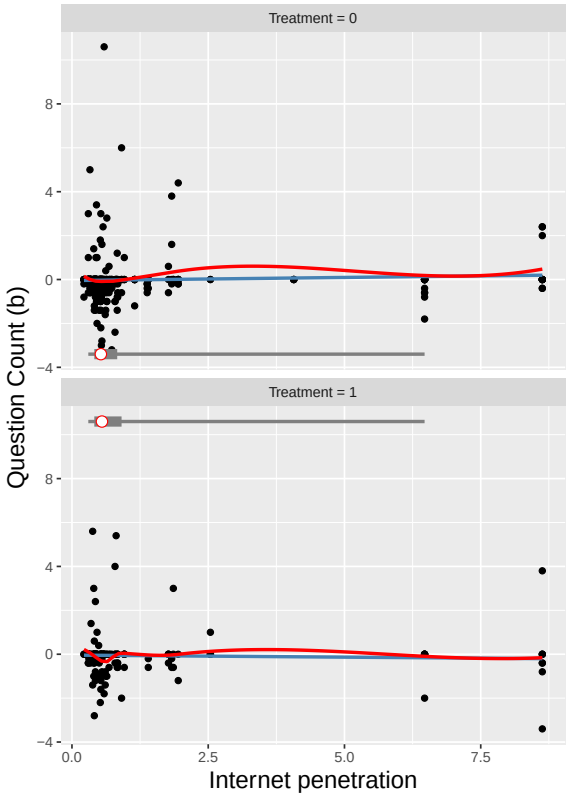
Third interaction:

Claim on conditionality (Figure 1, top right panel in manuscript): *"We find no evidence of a direct effect of the transparency treatment on delegate performance; however, further analysis reveals that delegates subjected to high treatment intensity demonstrate robust evidence of curtailed participation and damaged reelection prospects. These results make us cautious about the export of transparency without electoral sanctioning."* (Abstract).

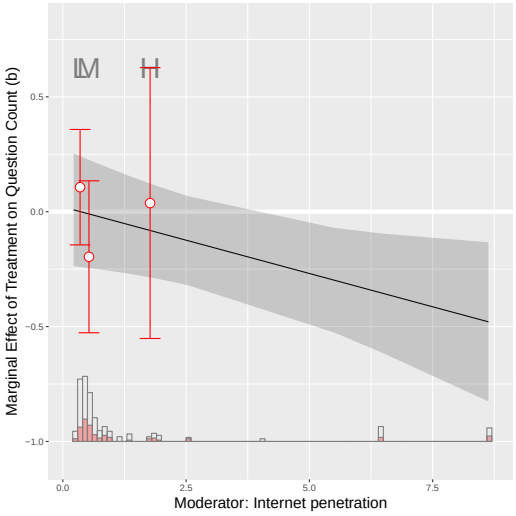
Key variables for the conditional relationship: Outcome Y: "change in questions asked" (`diff_quest`); treatment D: "sunshine" (`t2`); moderator X: "internet penetration" (`internet_users100`).

Note: The authors show 90% confidence intervals in the paper, while in both the binning plot and the kernel smoothing plot, we use 95% confidence intervals.

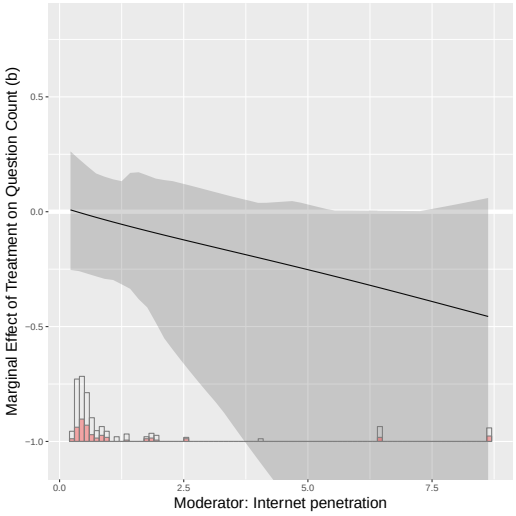
FIGURE B88. RESULTS FROM MALESKY, SCHULER AND TRAN (2012)



(a) Raw data

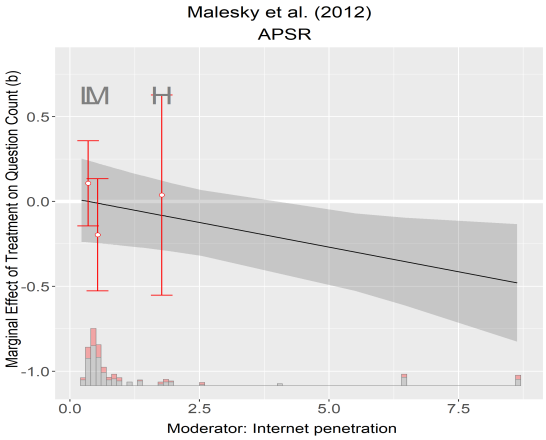


(b) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

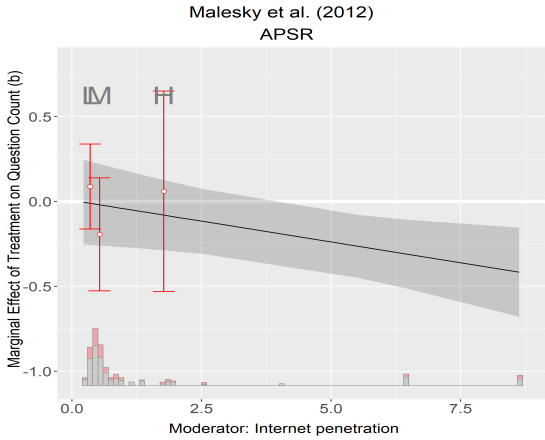


(c) Marginal Effects from Kernel Estimator

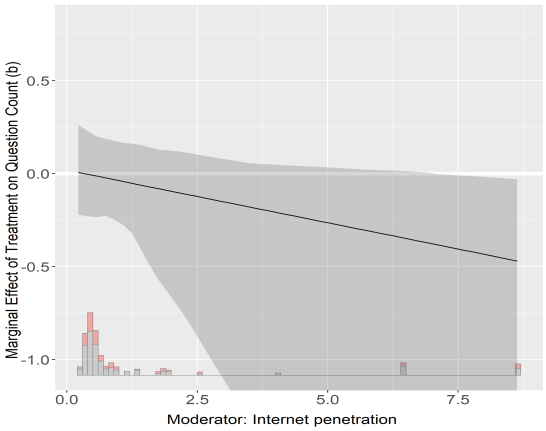
Figure B89. Marginal Effects



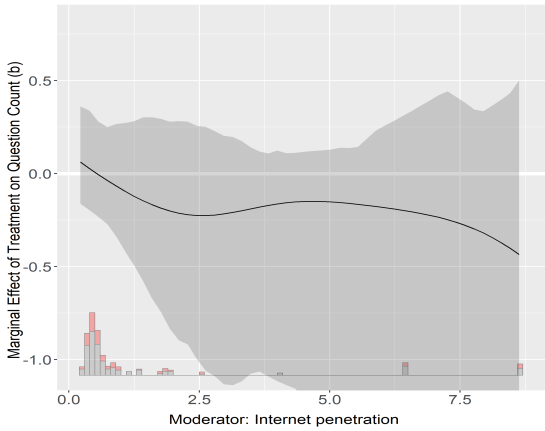
(a) Binning



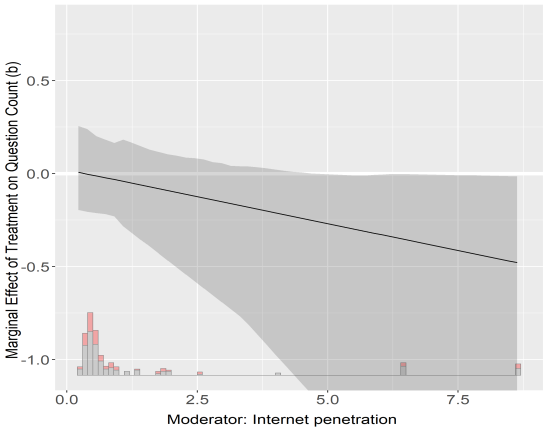
(b) Binning: Fully moderated model



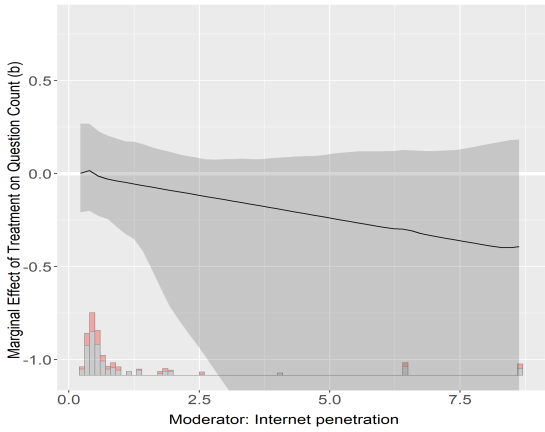
(c) Kernel



(d) Kernel: Fully moderated model

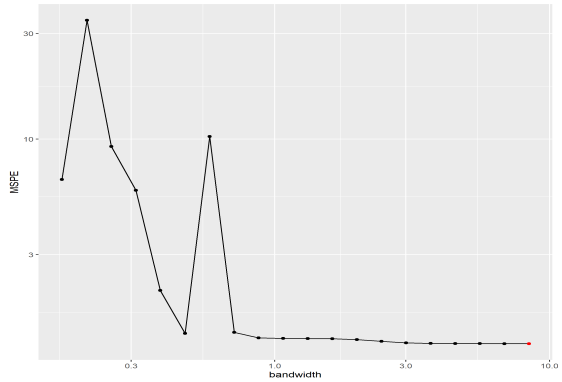


(e) Kernel: Adaptive bandwidth

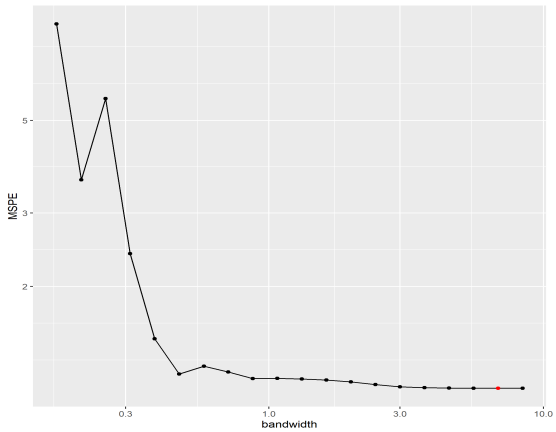


(f) Kernel: Fully moderated model with adaptive bandwidth

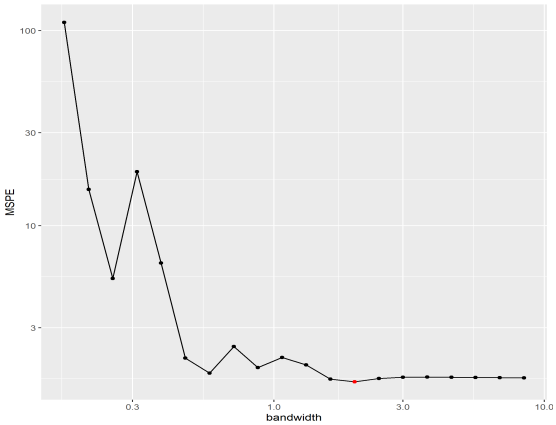
FIGURE B90. MSPE-BANDWIDTH



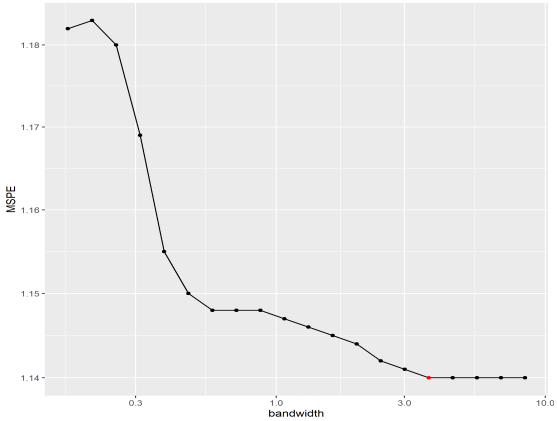
(a) Kernel: Original Command 5-fold



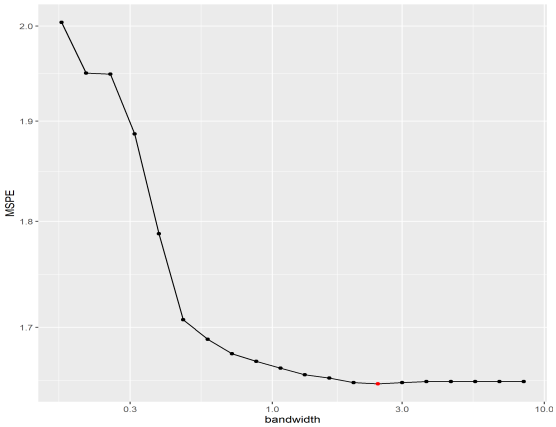
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

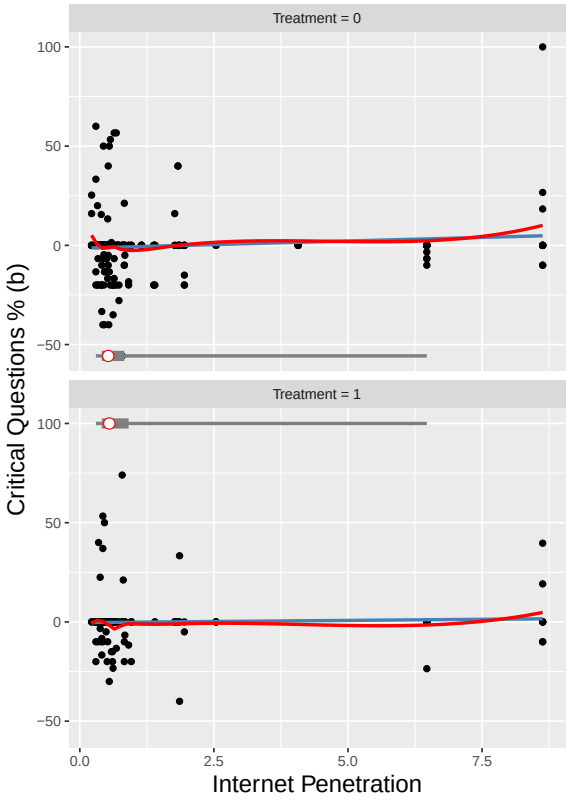
Fourth interaction:

Claim on conditionality (Figure 1, bottom right panel in manuscript): *"We find no evidence of a direct effect of the transparency treatment on delegate performance; however, further analysis reveals that delegates subjected to high treatment intensity demonstrate robust evidence of curtailed participation and damaged reelection prospects. These results make us cautious about the export of transparency without electoral sanctioning."* (Abstract).

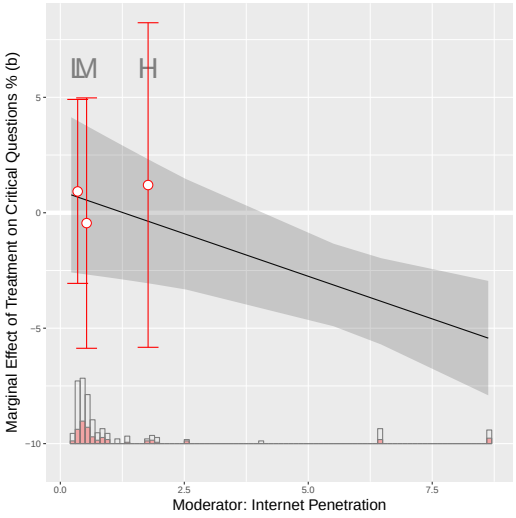
Key variables for the conditional relationship: Outcome Y: "change in critical questions (%)" (`diff_crit`); treatment D: "sunshine" (`t2`); moderator X: "internet penetration" (`internet_users100`).

Note: The authors show 90% confidence intervals in the paper, while in both the binning plot and the kernel smoothing plot, we use 95% confidence intervals.

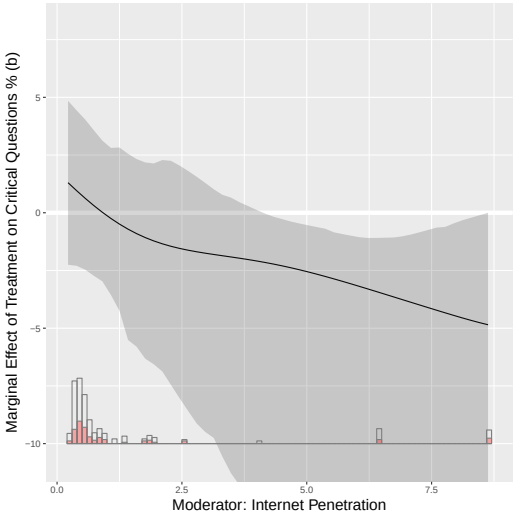
FIGURE B91. RESULTS FROM MALESKY, SCHULER AND TRAN (2012)



(a) Raw data

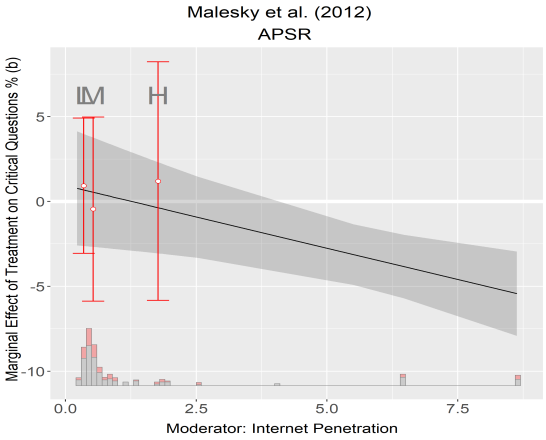


(b) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

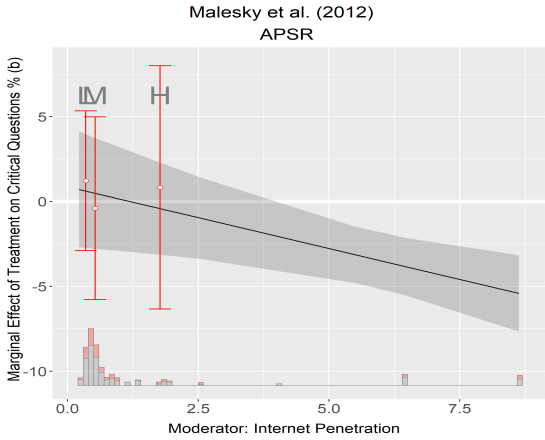


(c) Marginal Effects from Kernel Estimator

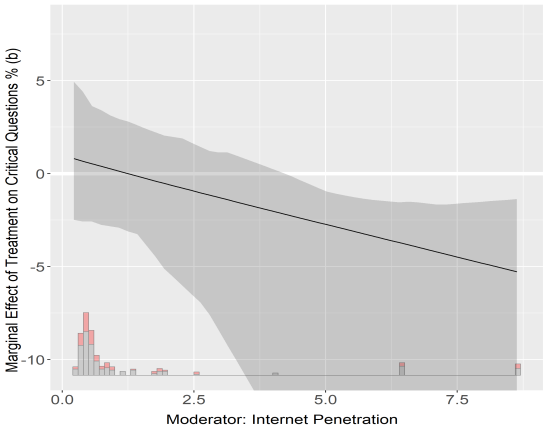
Figure B92. Marginal Effects



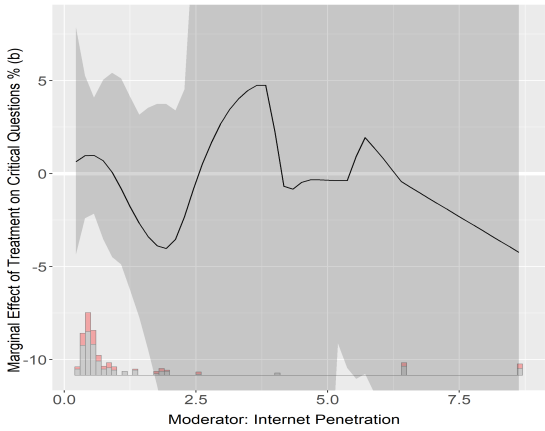
(a) Binning



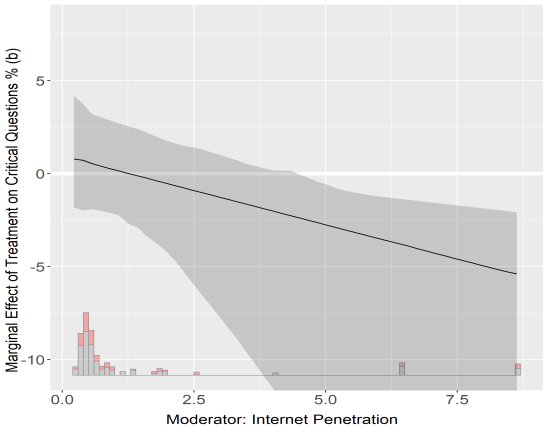
(b) Binning: Fully moderated model



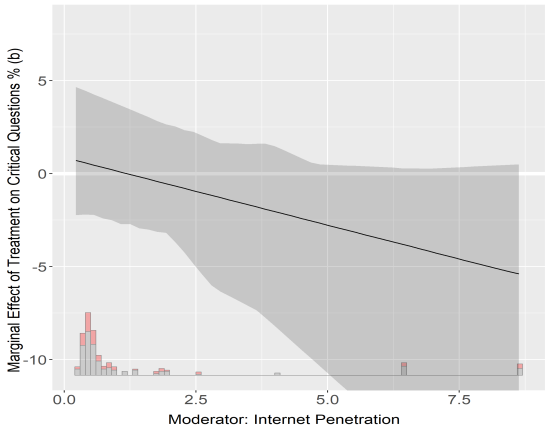
(c) Kernel



(d) Kernel: Fully moderated model

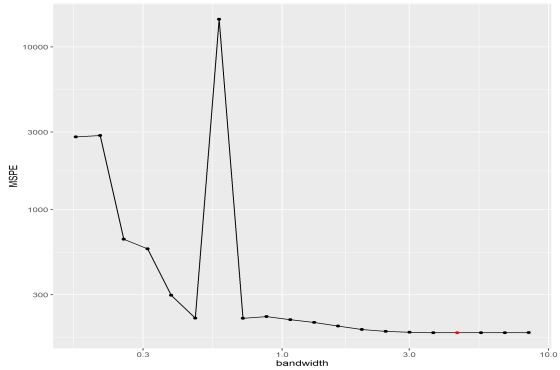


(e) Kernel: Adaptive bandwidth

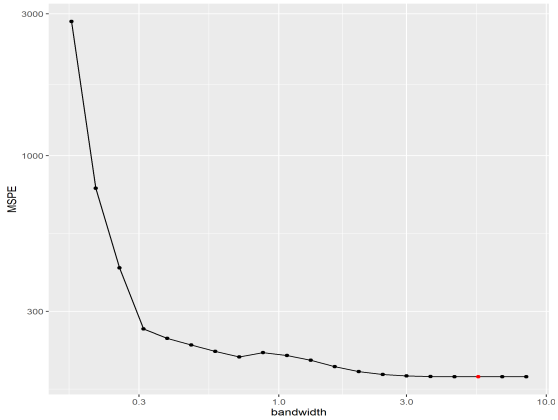


(f) Kernel: Fully moderated model with adaptive bandwidth

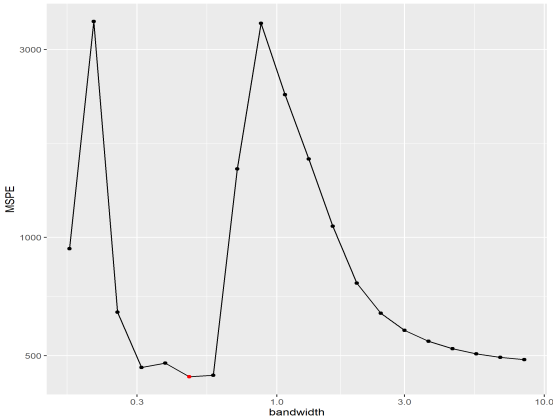
FIGURE B93. MSPE-BANDWIDTH



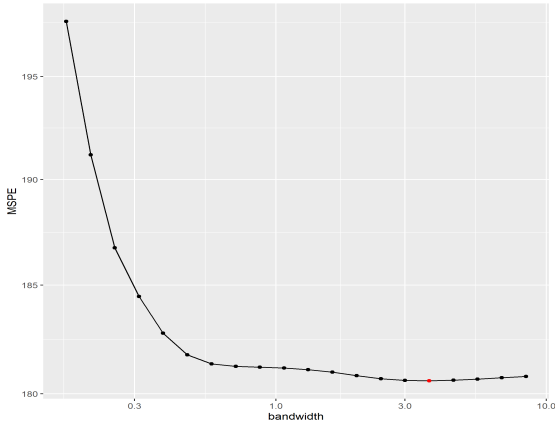
(a) Kernel: Original Command 5-fold



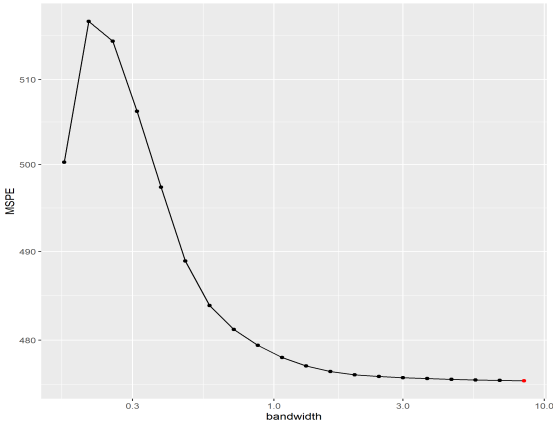
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



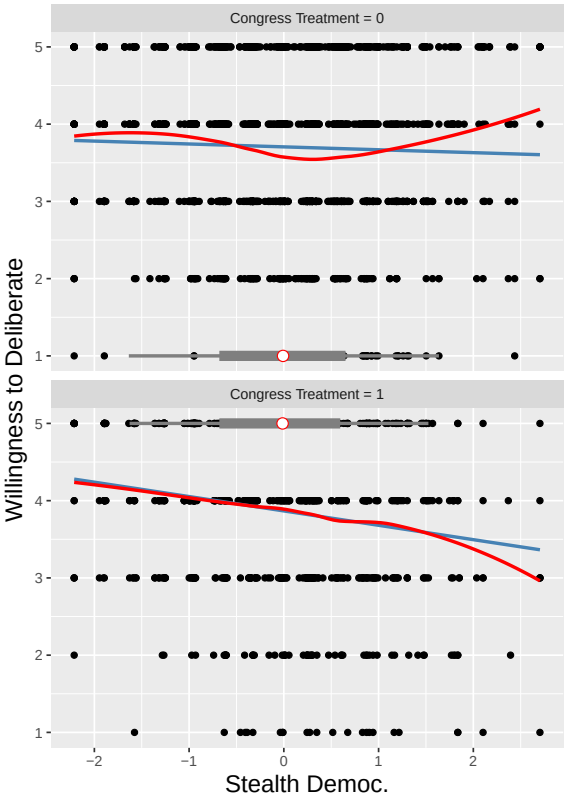
(e) Kernel: Fully moderated model with adaptive bandwidth

.15 Neblo et al. (2010) APSR

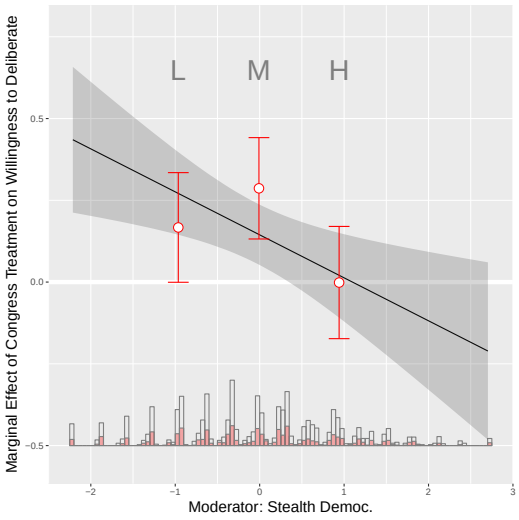
Claim on conditionality (Table 1 in manuscript): *"...[T]he interaction between stealth and the experimental 'Congress' condition was negative and highly significant, indicating that, with the other variables controlled, people high on stealth were not s attracted as were others by the hypothetical prospect of talking with their (presumptively corrupt) members of Congress."* (574).

Key variables for the conditional relationship: Outcome Y: "willingness to deliberate" (`willing`); treatment D: "Congress treatment" (`treatcong2`); moderator X: "stealth democracy" (`stealth2_ct`).

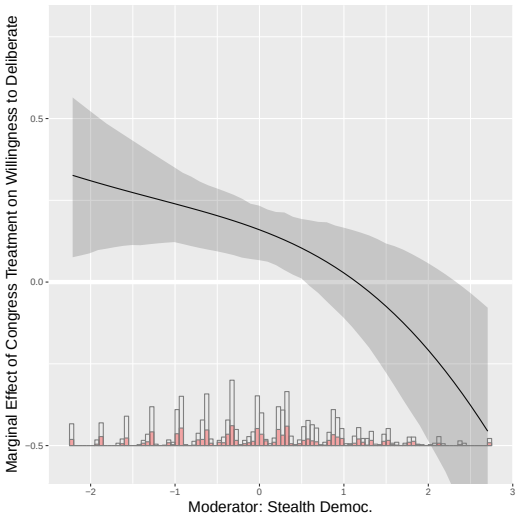
FIGURE B94. RESULTS FROM NEBLO ET AL. (2010)



(a) Raw data

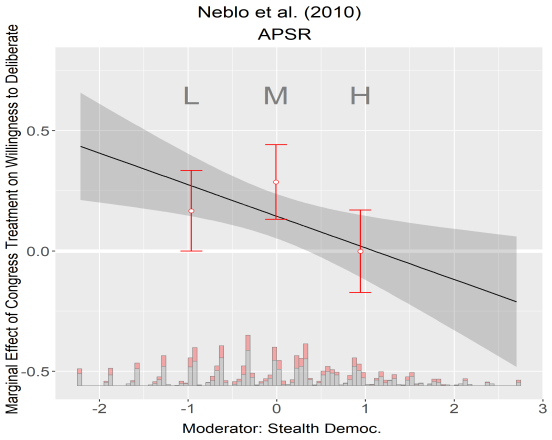


(b) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

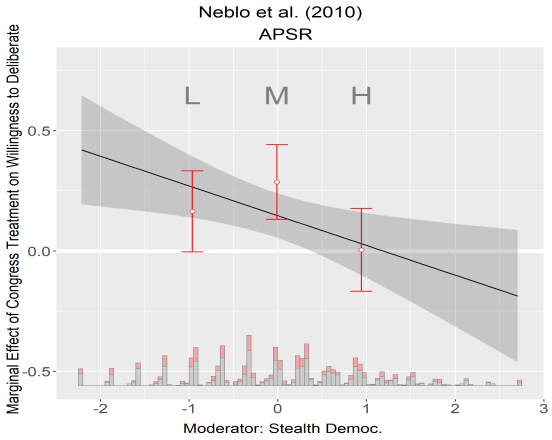


(c) Marginal Effects from Kernel Estimator

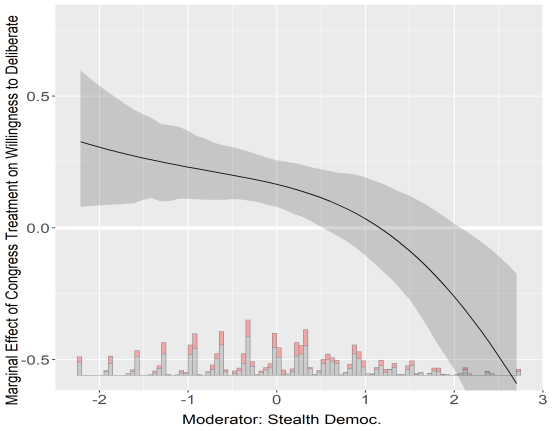
Figure B95. Marginal Effects



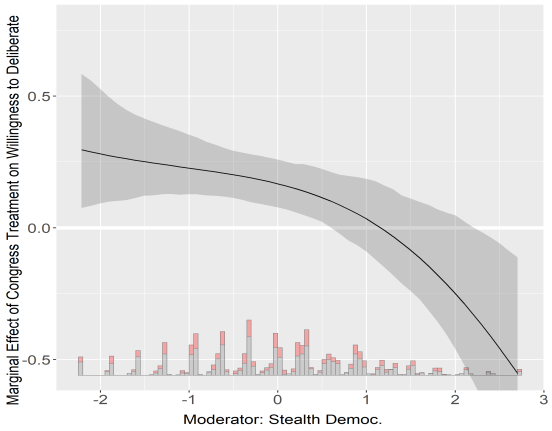
(a) Binning



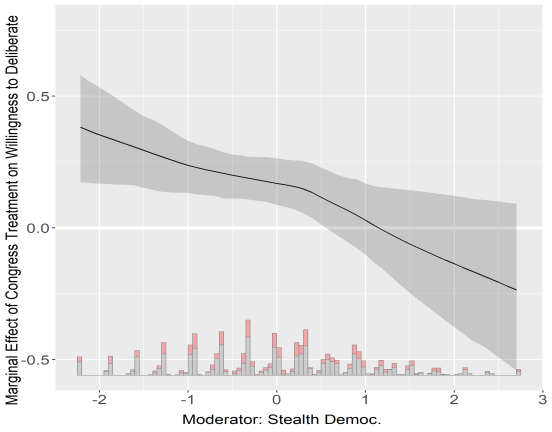
(b) Binning: Fully moderated model



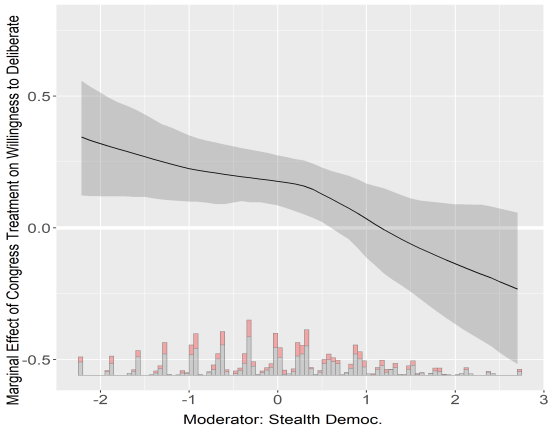
(c) Kernel



(d) Kernel: Fully moderated model

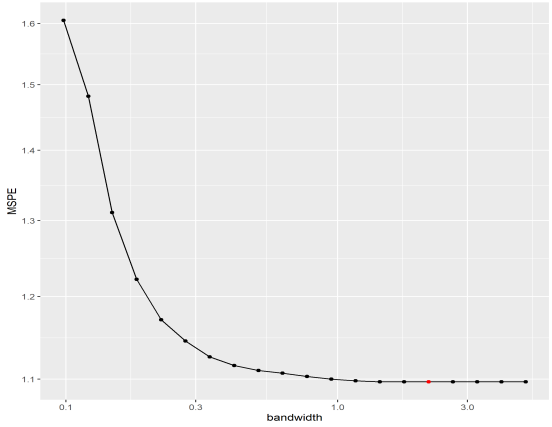


(e) Kernel: Adaptive bandwidth

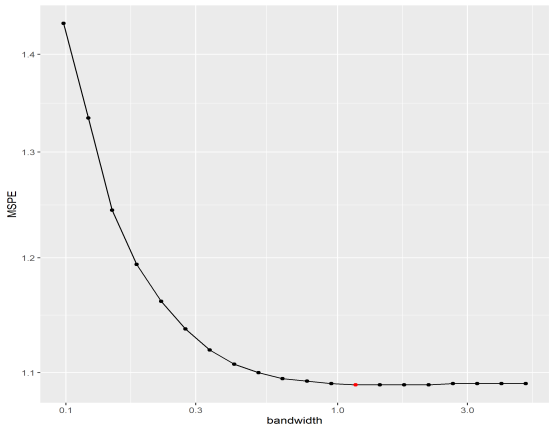


(f) Kernel: Fully moderated model with adaptive bandwidth

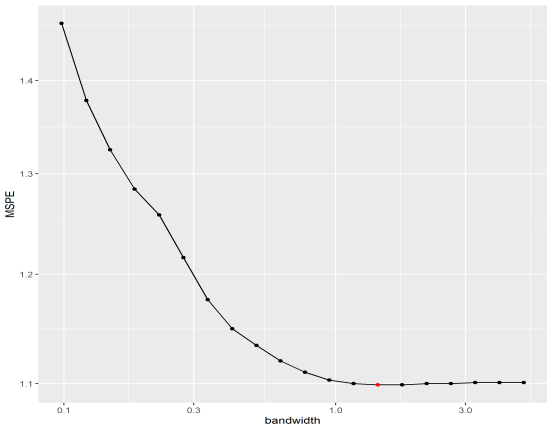
FIGURE B96. MSPE-BANDWIDTH



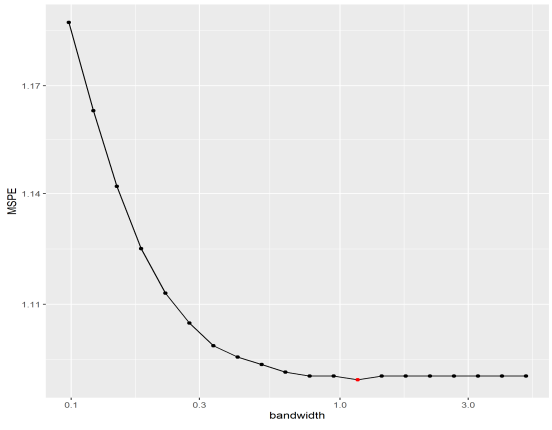
(a) Kernel: Original Command 5-fold



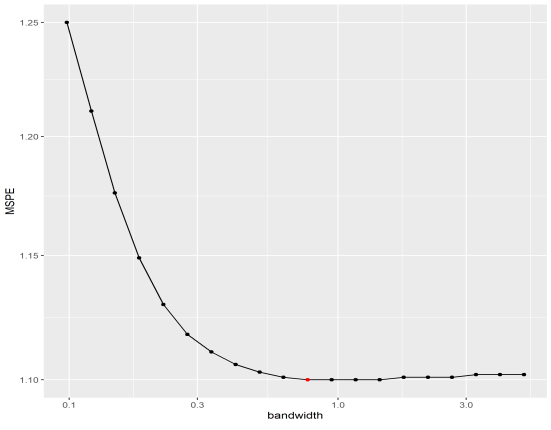
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

.16 Pelc (2011) IO

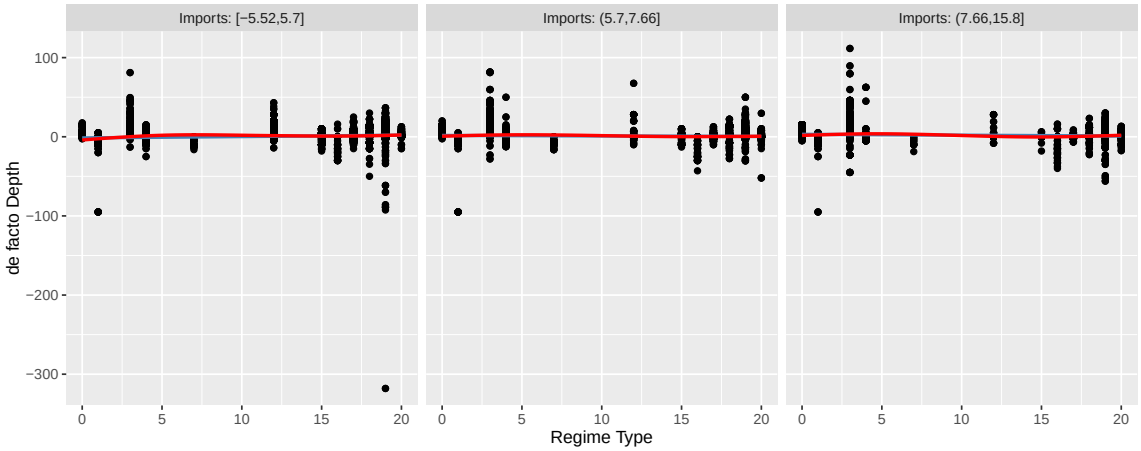
First interaction:

Claim on conditionality (Table 4, column 2 in manuscript): *"The interaction term between regime type and industry imports is substantively and significantly negative. . . . Democracies still display far greater de facto depth across all products looking at the regime coefficient, but those industries that are most valuable to members, and that have thus faced the greatest pressure during talks, exhibit considerable push-back in the form of hiked tariffs."* (pp. 663-664).

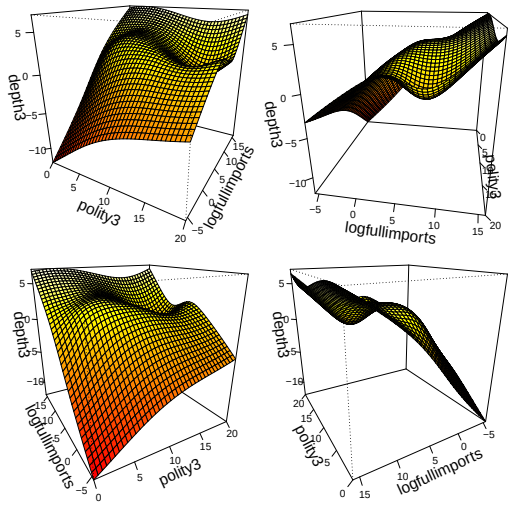
Key variables for the conditional relationship: Outcome Y: "de facto depth" (`depth3`); treatment D: "regime type" (`polity3`); moderator X: "imports" (`logfullimports`).

Note: The reason why the confidence intervals in the kernel plot are huge and highly asymmetric is because in the original analysis the standard errors are clustered on the reporter variable and there are only 17 clusters. Our replications use a block bootstrap to mimic this choice. We do correct for the potential problem of poor finite sample properties given the small number of clusters.

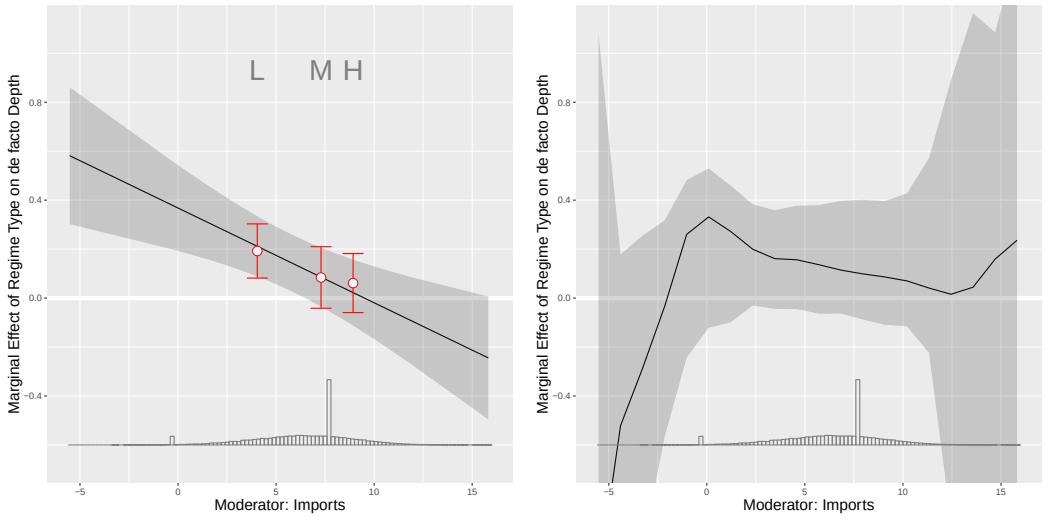
FIGURE B97. RESULTS FROM PELC (2011)



(a) Raw data



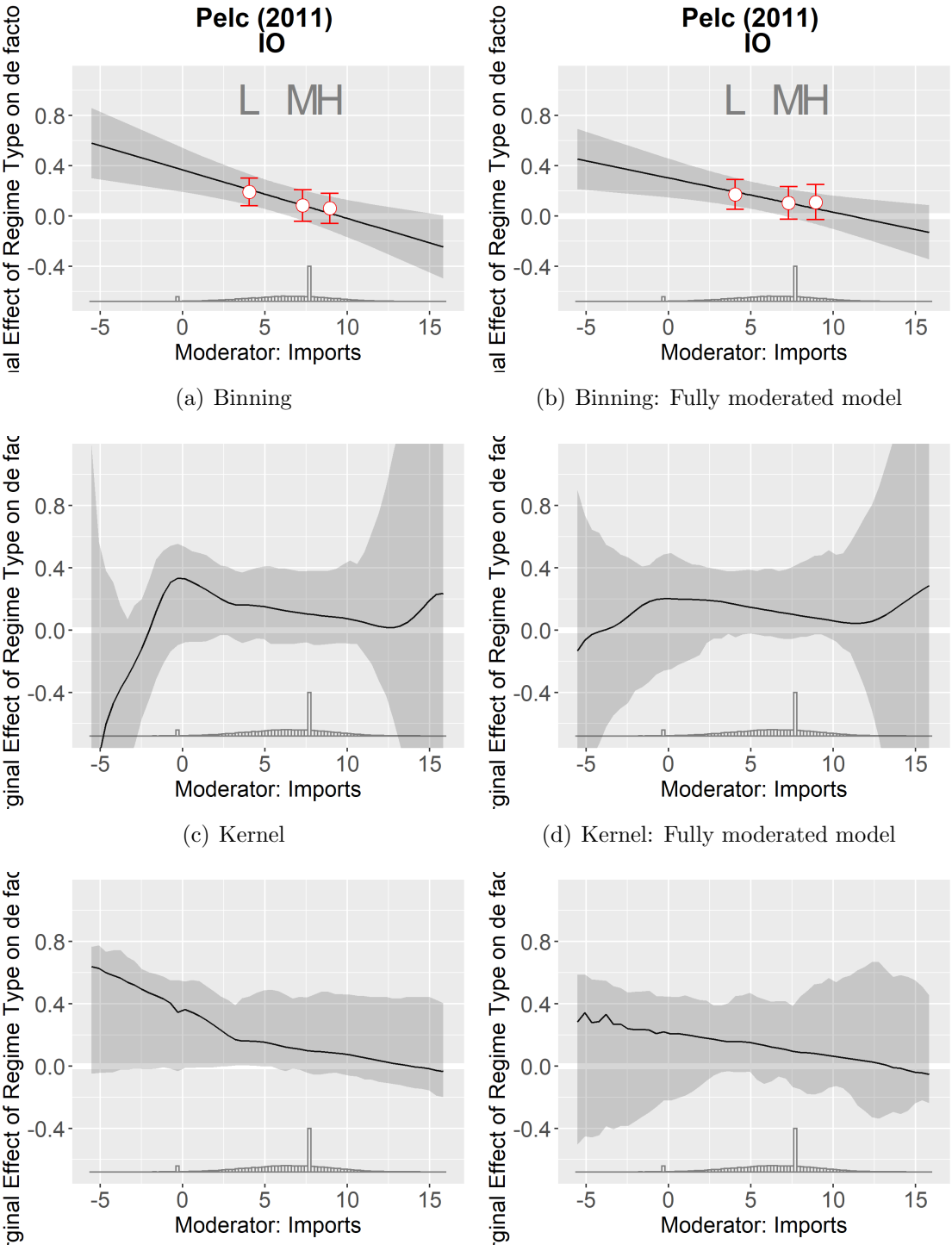
(b) GAM plot



(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

FIGURE B98. MARGINAL EFFECTS



(a) Binning

(b) Binning: Fully moderated model

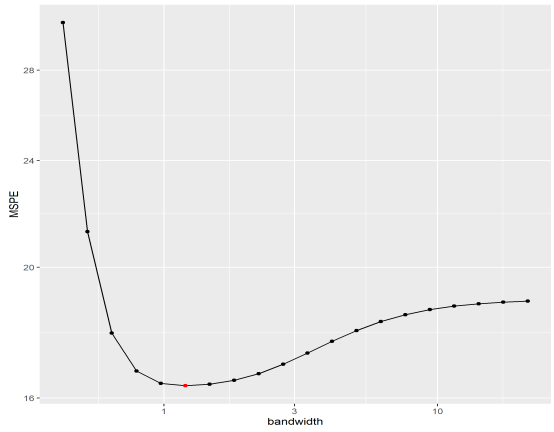
(c) Kernel

(d) Kernel: Fully moderated model

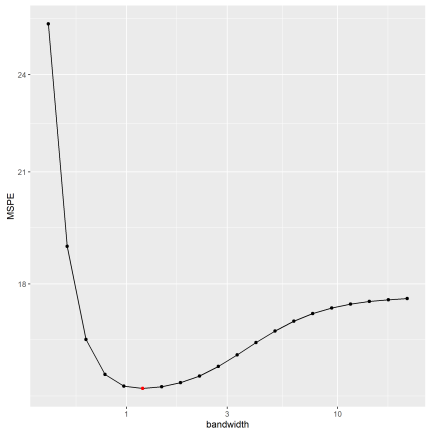
(e) Kernel: Adaptive bandwidth

(f) Kernel: Fully moderated model with adaptive bandwidth

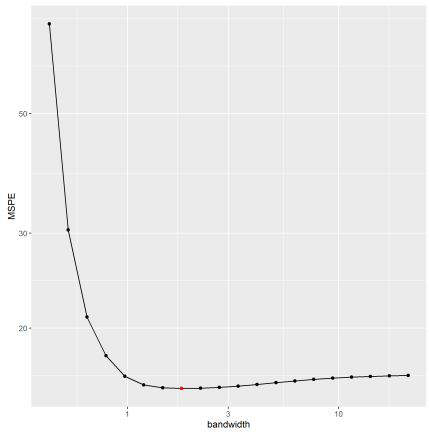
FIGURE B99. MSPE-BANDWIDTH



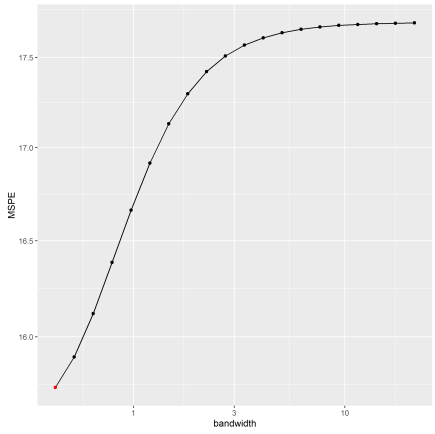
(a) Kernel: Original Command 5-fold



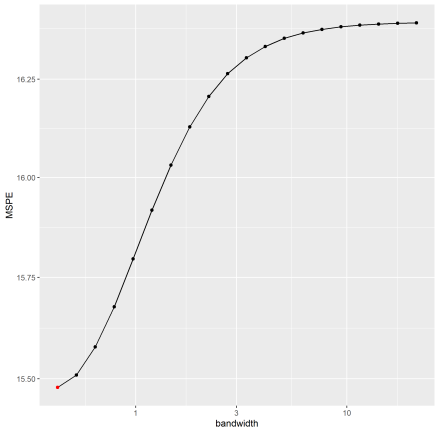
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

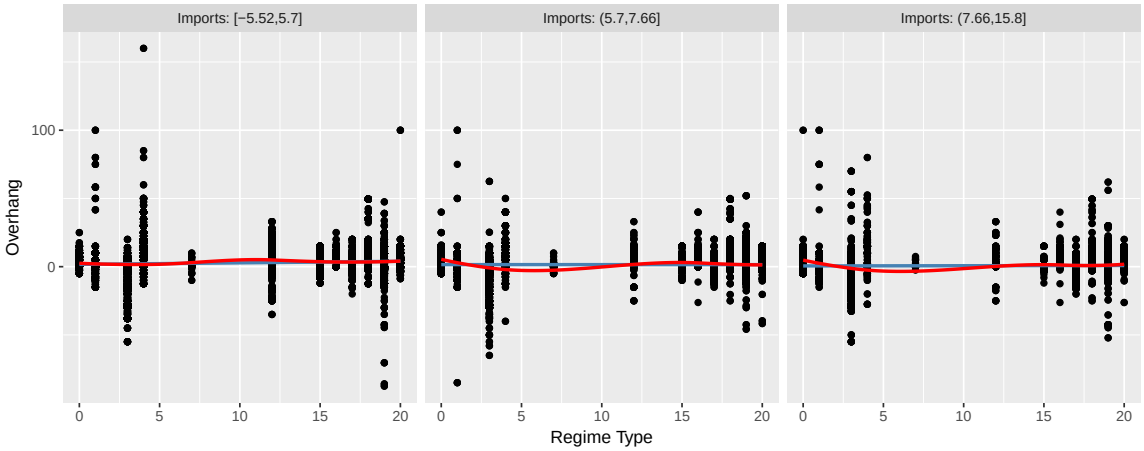
Second Interaction:

Claim on conditionality (Table 4, column 3 in manuscript): *'Democratic countries, more vulnerable to interest group pressure, are observed "spending" their flexibility in these key industries. As a result, binding overhang is significantly decreased for these valuable democratic industries, as can be seen in the third column."* (664).

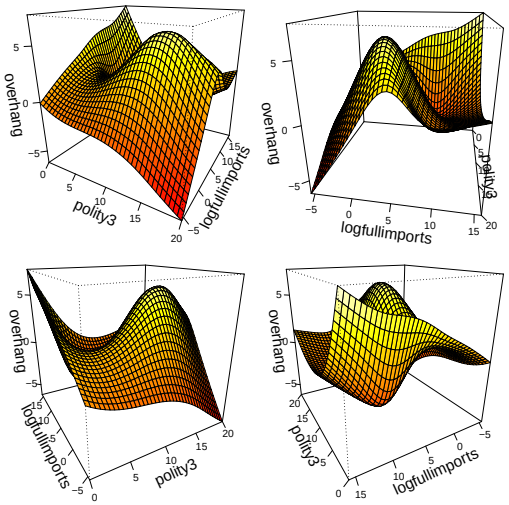
Key variables for the conditional relationship: Outcome Y: "overhang" (`overhang`); treatment D: "regime type" (`polity3`); moderator X: "imports" (`logfullimports`).

Note: The reason why the confidence intervals in the kernel plot are huge and highly asymmetric is because in the original analysis the standard errors are clustered on the reporter variable and there are only 17 clusters. Our replications use a block bootstrap to mimic this choice. We do correct for the potential problem of poor finite sample properties given the small number of clusters.

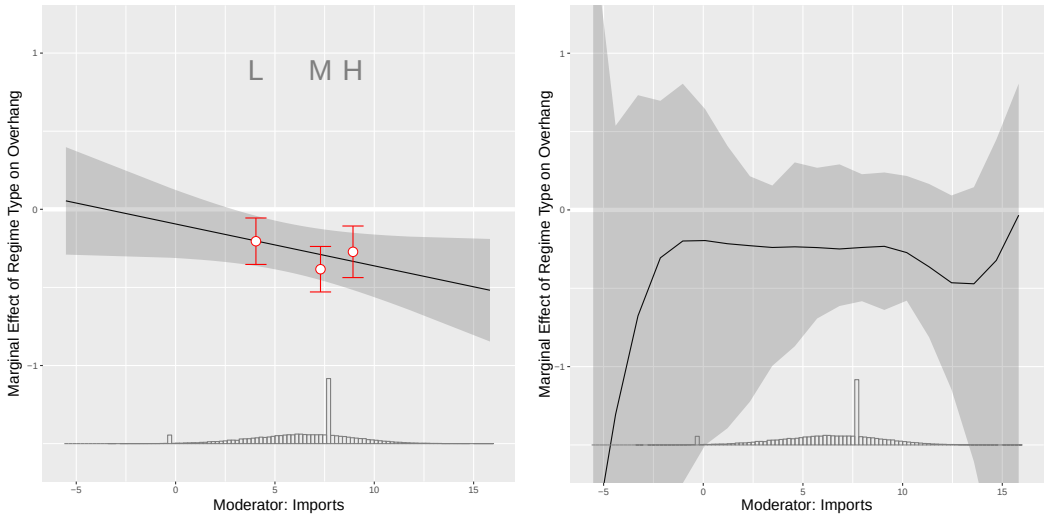
FIGURE B100. RESULTS FROM PELC (2011)



(a) Raw data



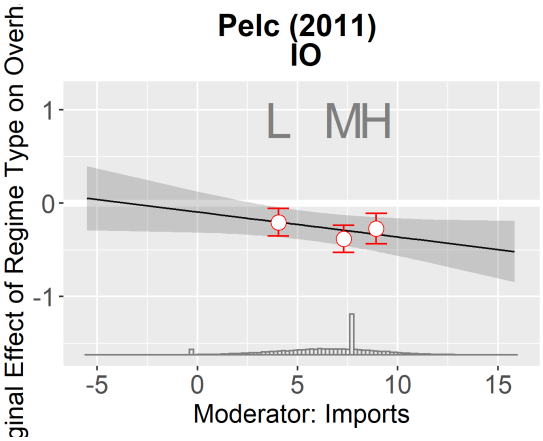
(b) GAM plot



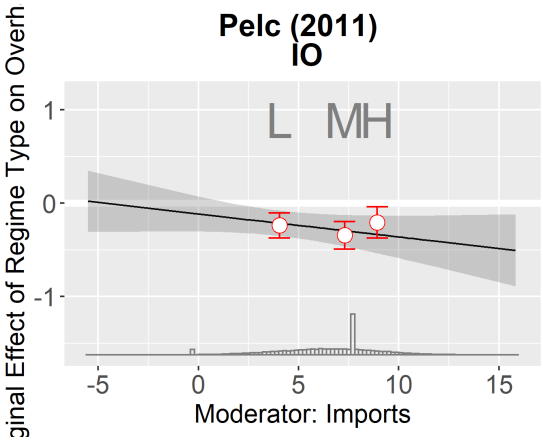
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

FIGURE B101. MARGINAL EFFECTS

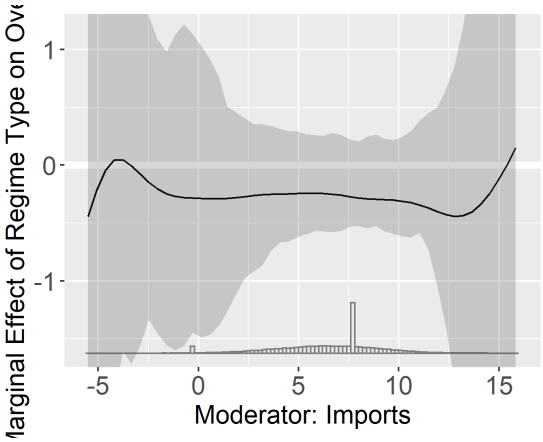


(a) Binning

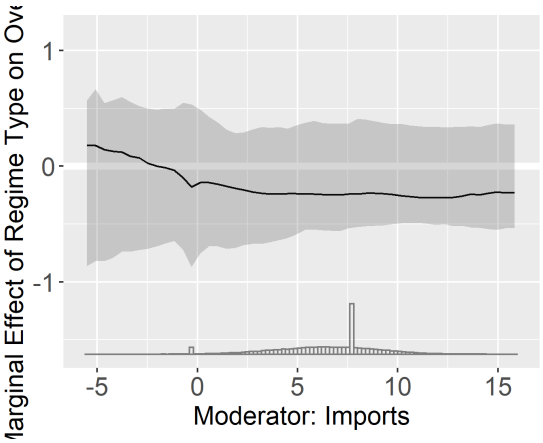


(b) Binning: Fully moderated model

(c) Kernel



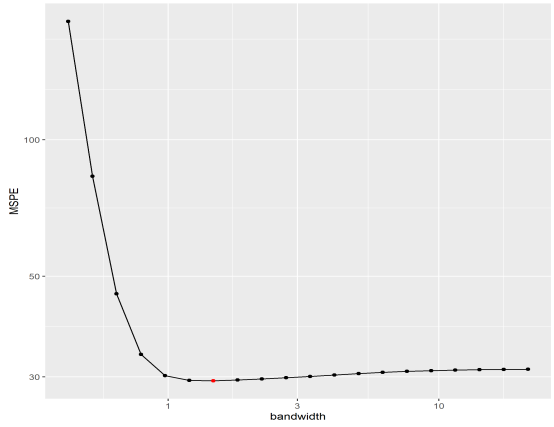
(d) Kernel: Fully moderated model



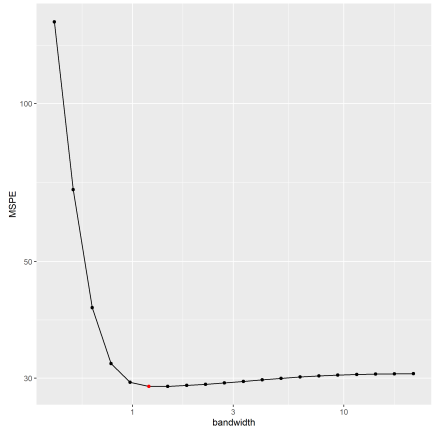
(e) Kernel: Adaptive bandwidth

(f) Kernel: Fully moderated model with adaptive bandwidth

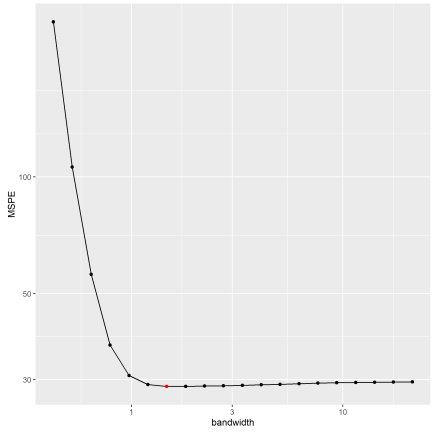
FIGURE B102. MSPE-BANDWIDTH



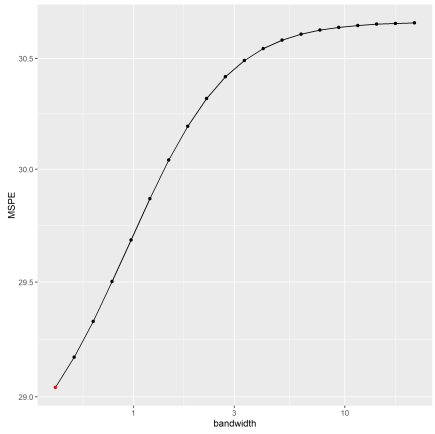
(a) Kernel: Original Command 5-fold



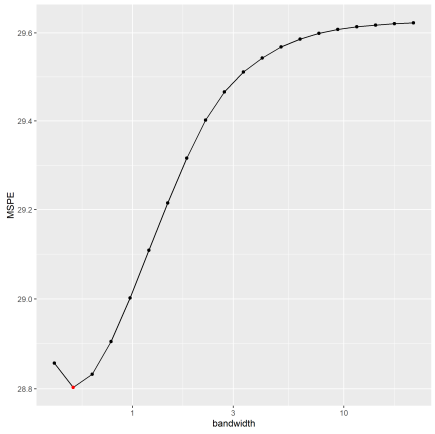
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

.17 Petersen and Aarøe (2013) APSR

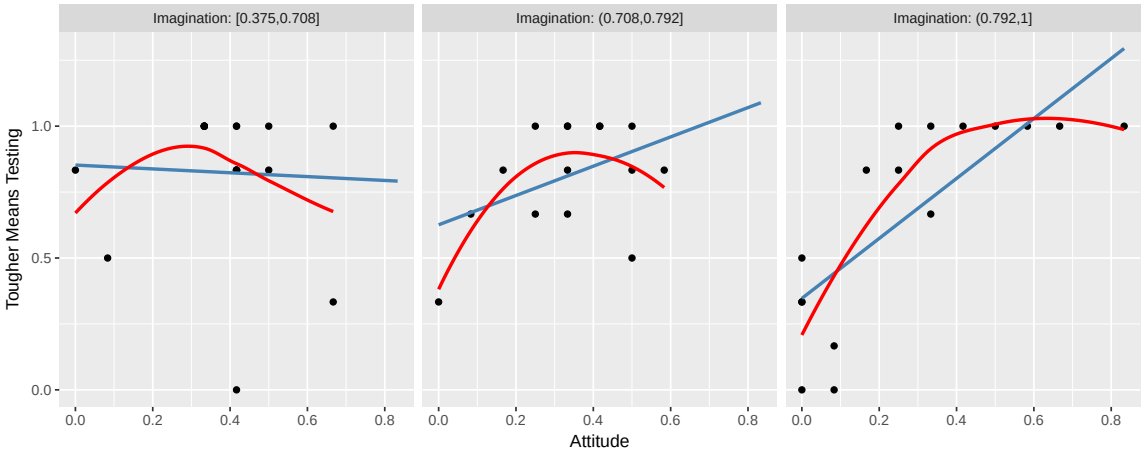
First interaction:

Claim on conditionality (Figure 1A in manuscript): *"As can be observed in the low-vividness condition (panel A), when vivid social cues were lacking, we found a strong tendency for imaginative people to filter in their own stereotypes to a greater extent than did unimaginative people. That is, as imagination increases, the predicted marginal effect of prior stereotypes on support for tougher means testing increases as well (as indicated by the positively sloped line), and as the associated confidence intervals cease to include zero, this increase becomes significant."* (p. 286).

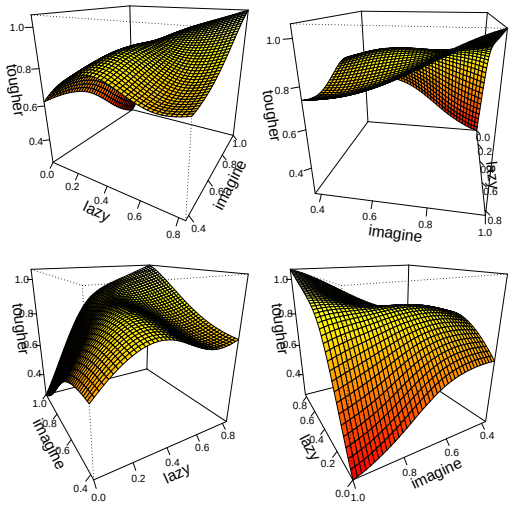
Key variables for the conditional relationship: Outcome Y: "support for means testing" (`tougher`); treatment D: "attitude (prior stereotypes)" (`lazy`); moderator X: "imagination" (`imagine`).

Note: The dashed vertical line indicates the truncated interval of the moderator shown in the original marginal effect plot.

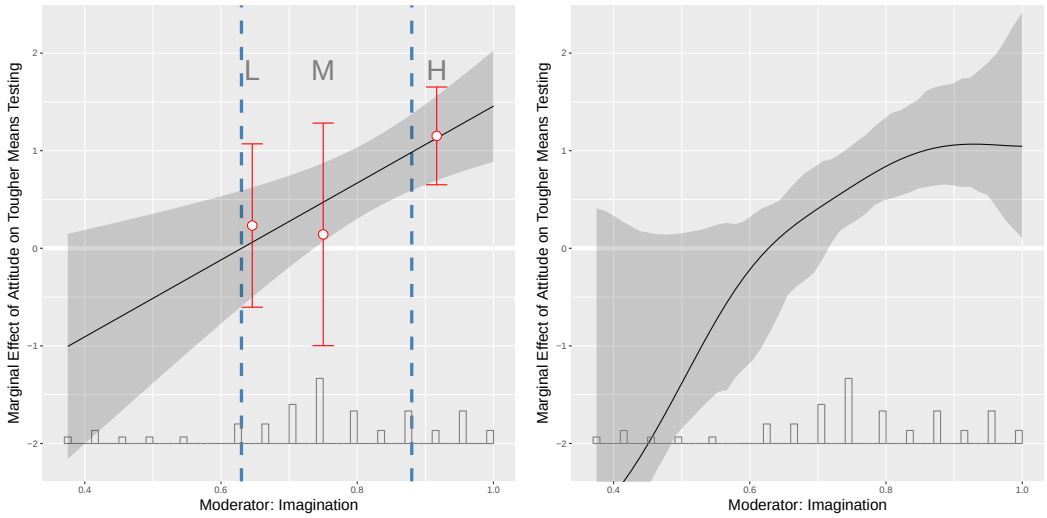
FIGURE B103. RESULTS FROM PETERSEN AND AARØE (2013)



(a) Raw data



(b) GAM plot



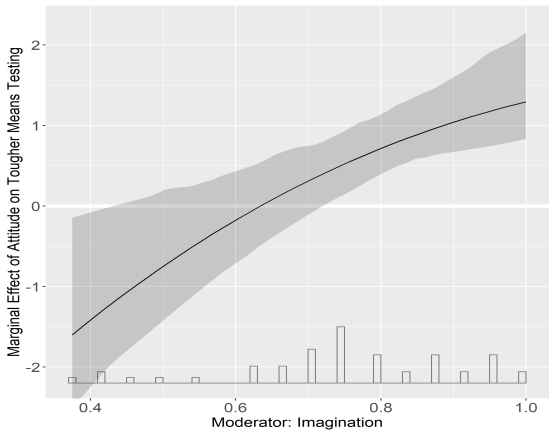
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

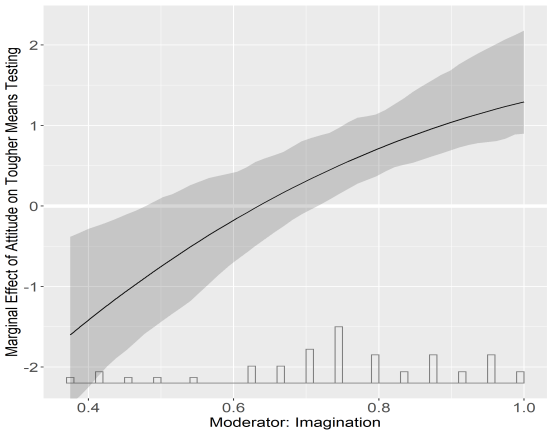
Figure B104. Marginal Effects

(a) Binning

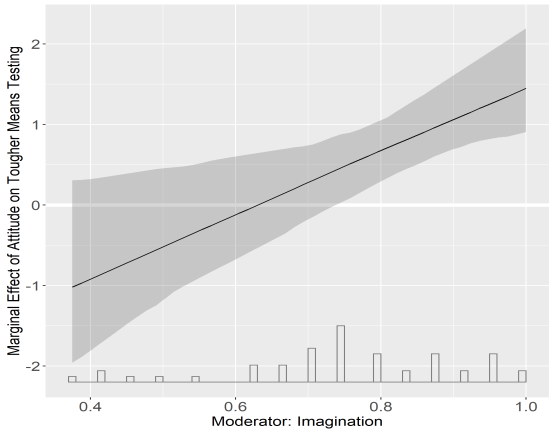
(b) Binning: Fully moderated model



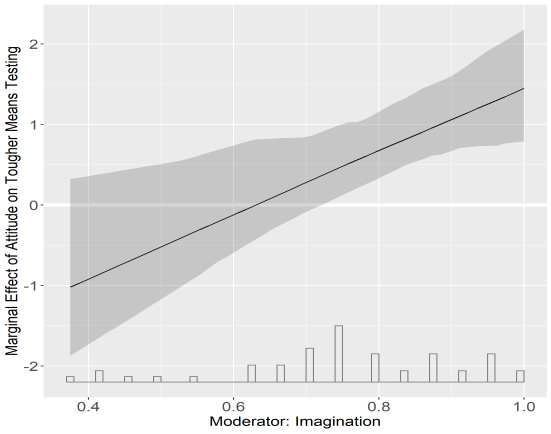
(c) Kernel



(d) Kernel: Fully moderated model

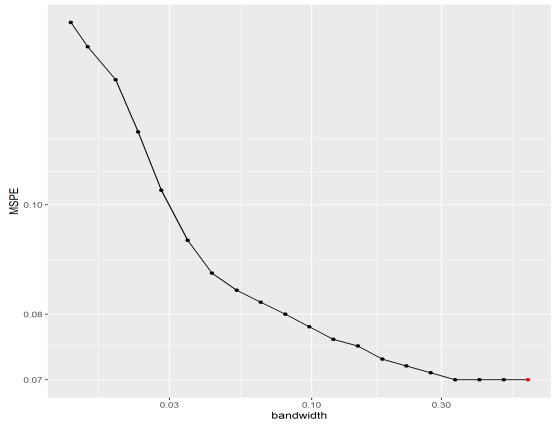


(e) Kernel: Adaptive bandwidth

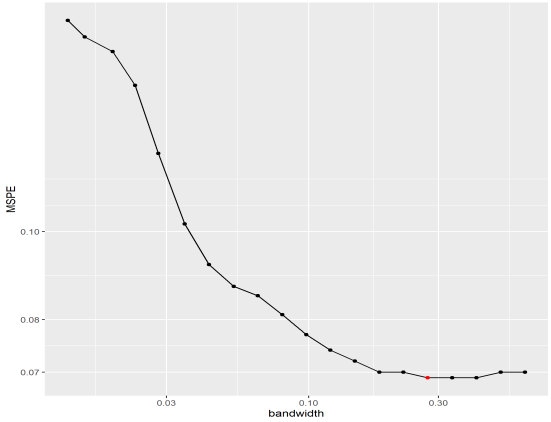


(f) Kernel: Fully moderated model with adaptive bandwidth

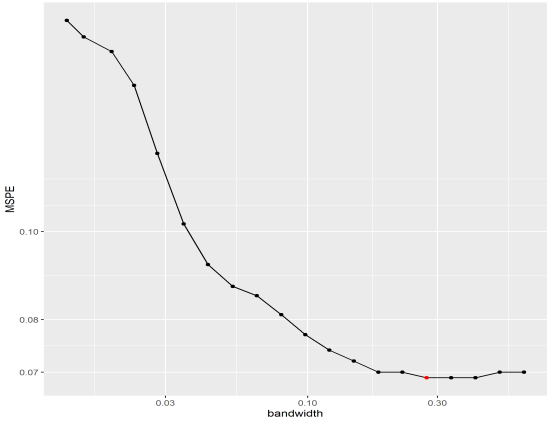
FIGURE B105. MSPE-BANDWIDTH



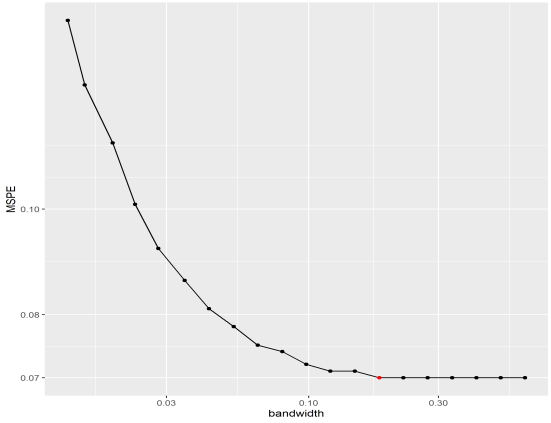
(a) Kernel: Original Command 5-fold



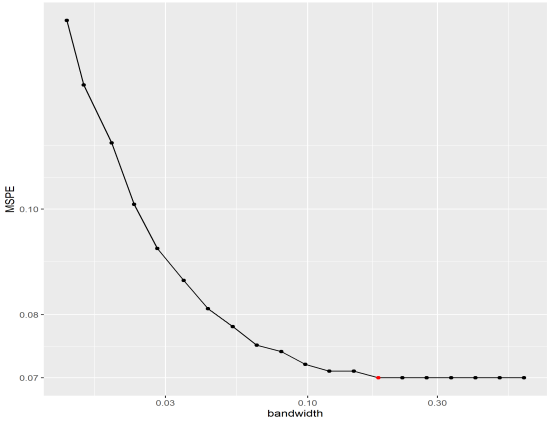
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



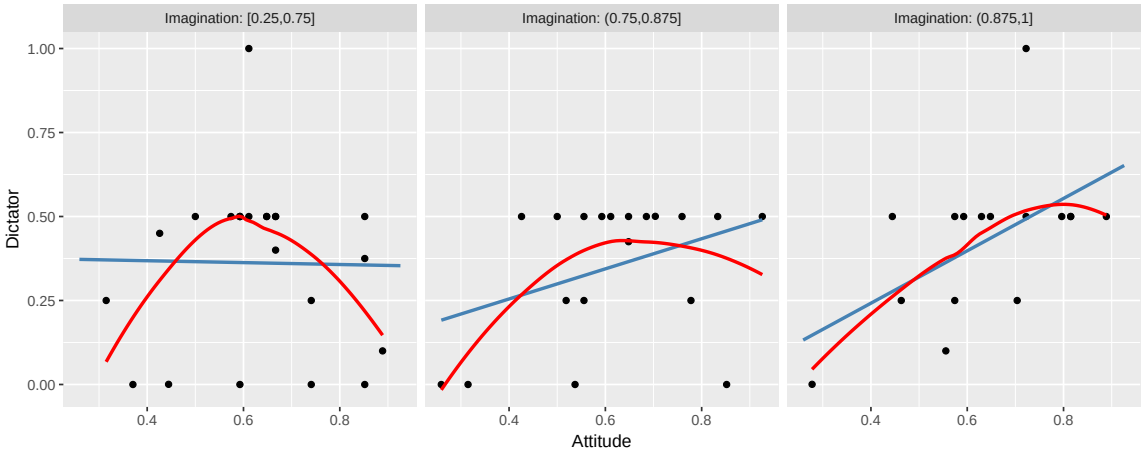
(e) Kernel: Fully moderated model with adaptive bandwidth

Second interaction:

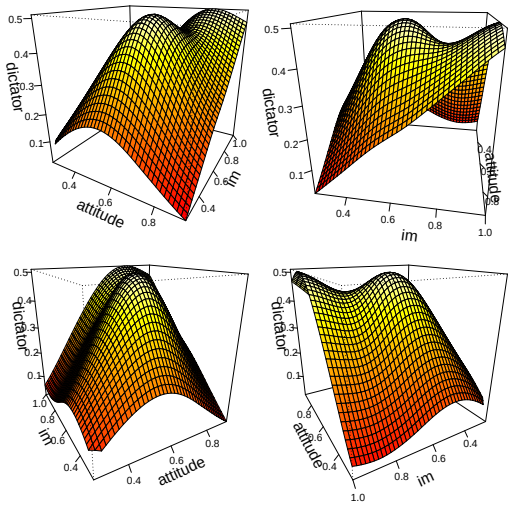
Claim on conditionality (Figure 2A in manuscript): *"As can be seen, imagination significantly increases the effect of people's political principles on incentivized behavior such that the imaginative are more likely to stick to their principles (i.e., donate if they are supportive of welfare) in the face of short-term temptations to sacrifice their principles for money"* (p. 288).

Key variables for the conditional relationship: Outcome Y: "donation in dictator game" (`dictator`); treatment D: "attitude (support for welfare)" (`attitude`); moderator X: "imagination" (`im`).

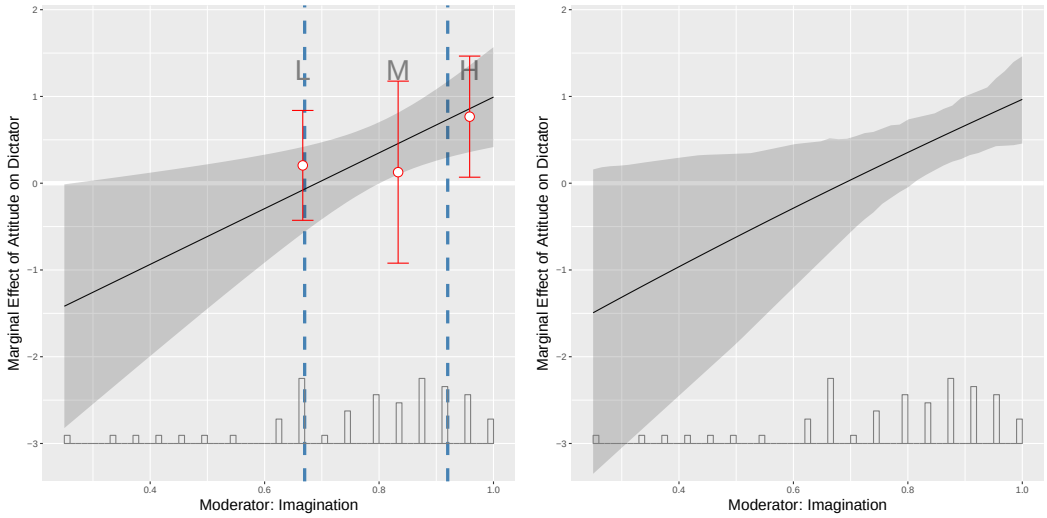
FIGURE B106. RESULTS FROM PETERSEN AND AARØE (2013)



(a) Raw data



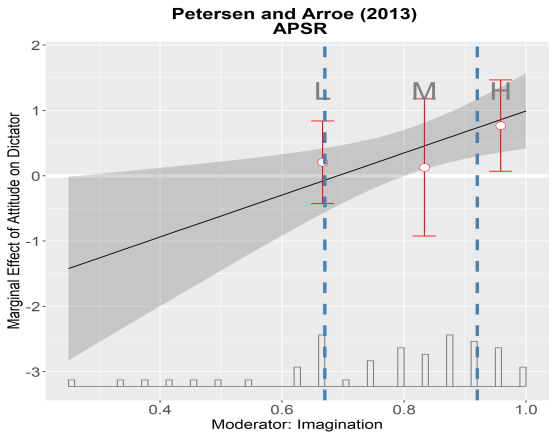
(b) GAM plot



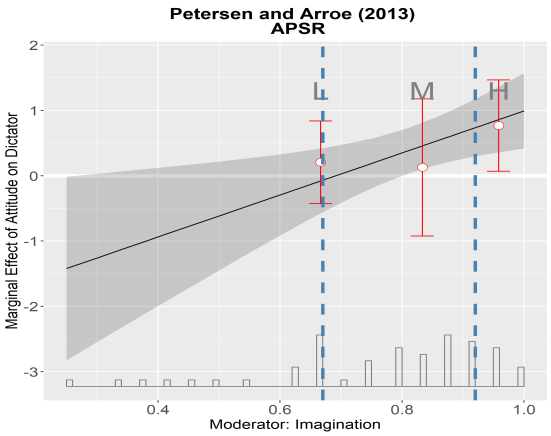
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

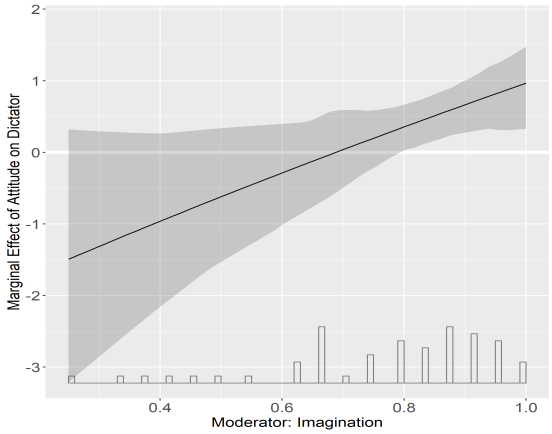
Figure B107. Marginal Effects



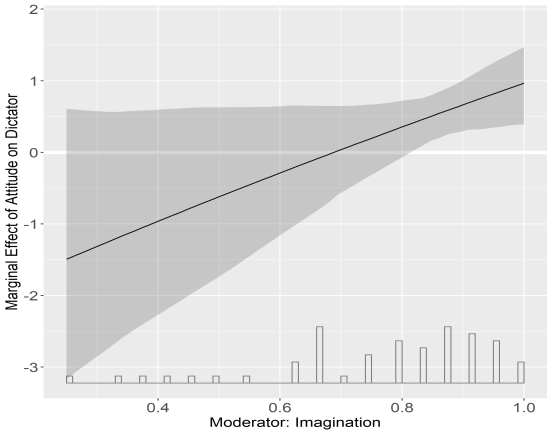
(a) Binning



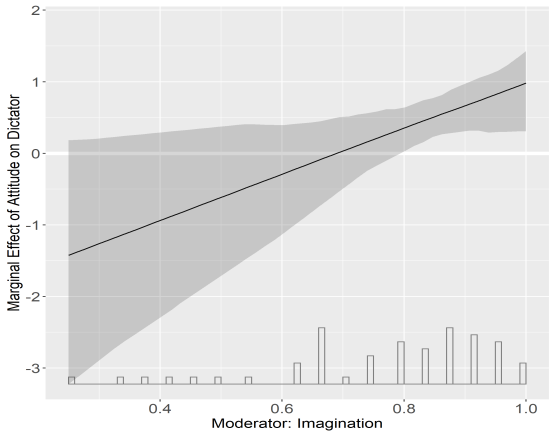
(b) Binning: Fully moderated model



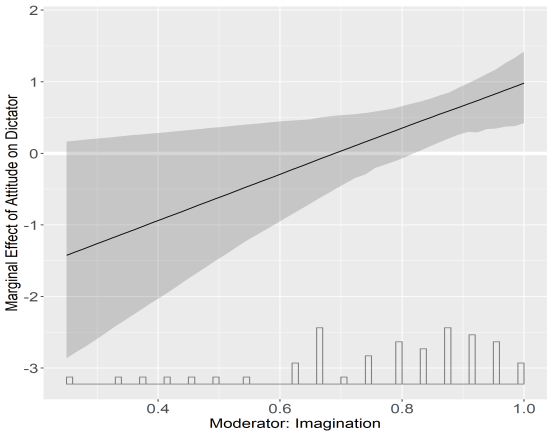
(c) Kernel



(d) Kernel: Fully moderated model

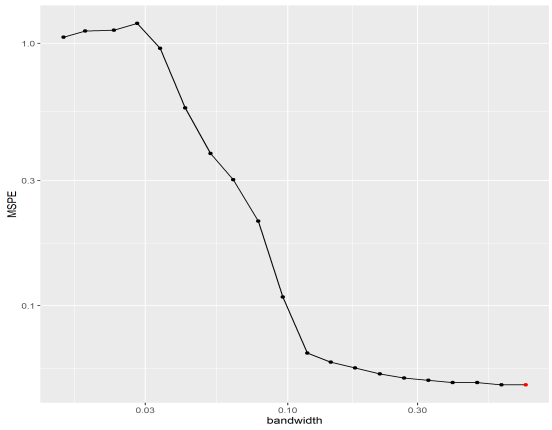


(e) Kernel: Adaptive bandwidth

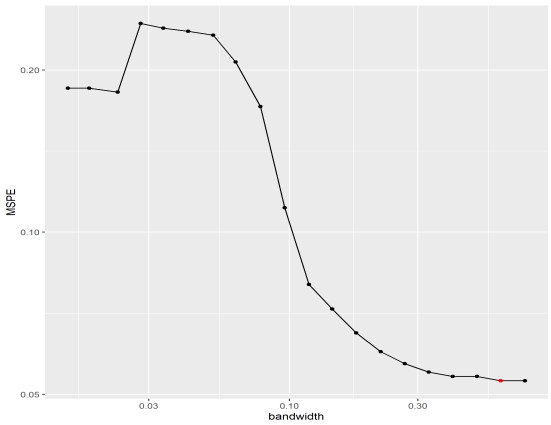


(f) Kernel: Fully moderated model with adaptive bandwidth

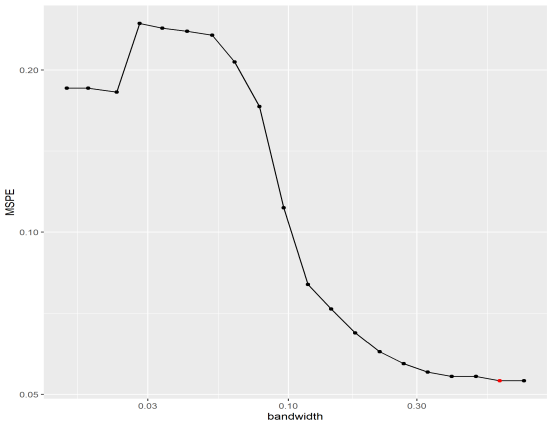
FIGURE B108. MSPE-BANDWIDTH



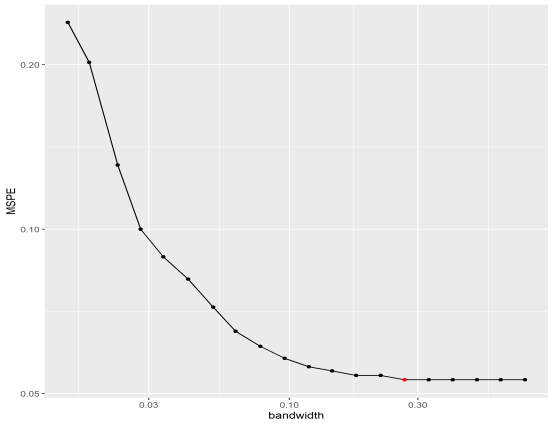
(a) Kernel: Original Command 5-fold



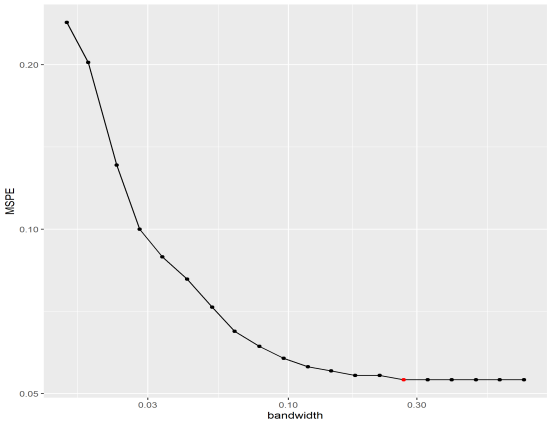
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



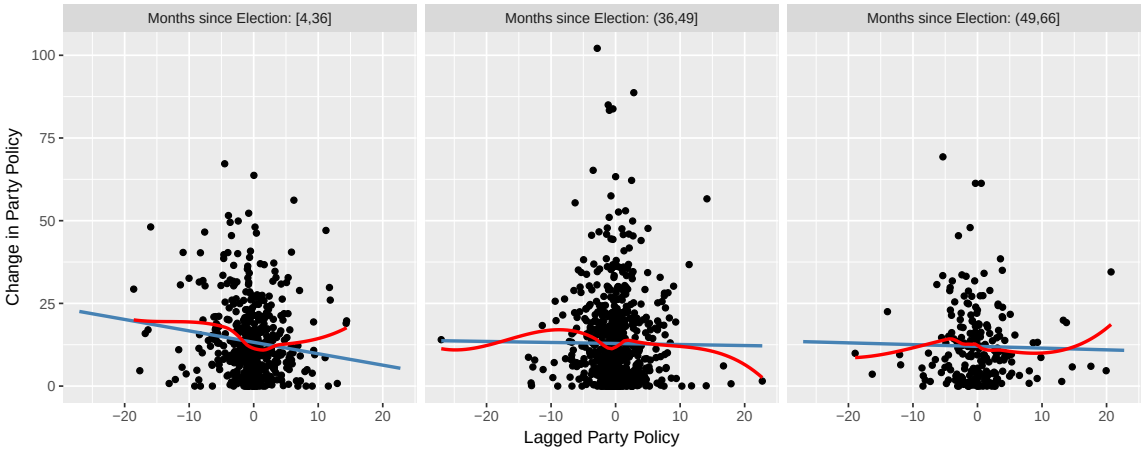
(e) Kernel: Fully moderated model with adaptive bandwidth

.18 Somer-Topcu (2009) JOP

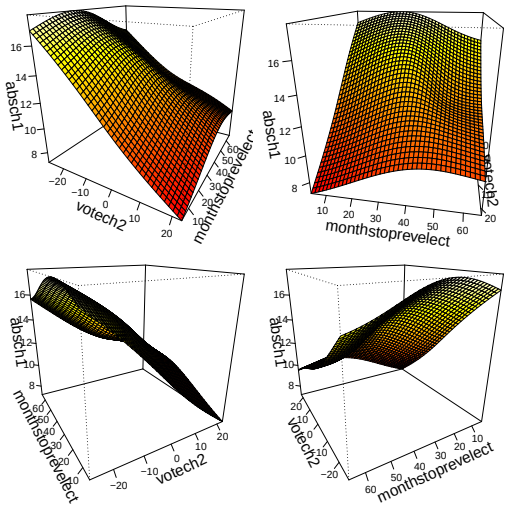
Claim on conditionality (Figure 2 in manuscript): *"As can be seen, parties change their positions if they lose votes, and the effect dissipates as time (x-axis) elapses."* (244).

Key variables for the conditional relationship: Outcome Y: "change in party policy" (`absch1`); treatment D: "lagged party policy" (`votech2`); moderator X: "months since election" (`monthstoprevelect`).

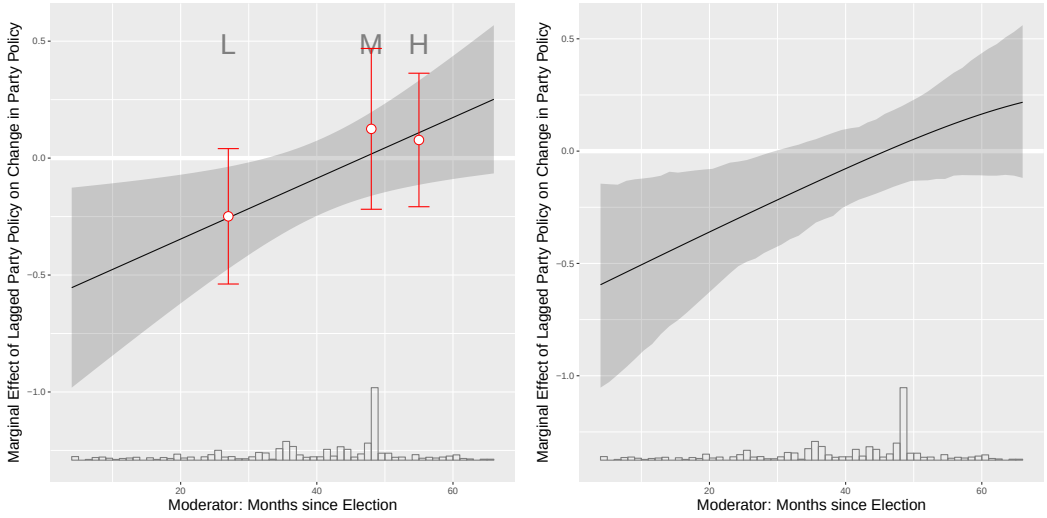
FIGURE B109. RESULTS FROM SOMER-TOPCU (2009)



(a) Raw data



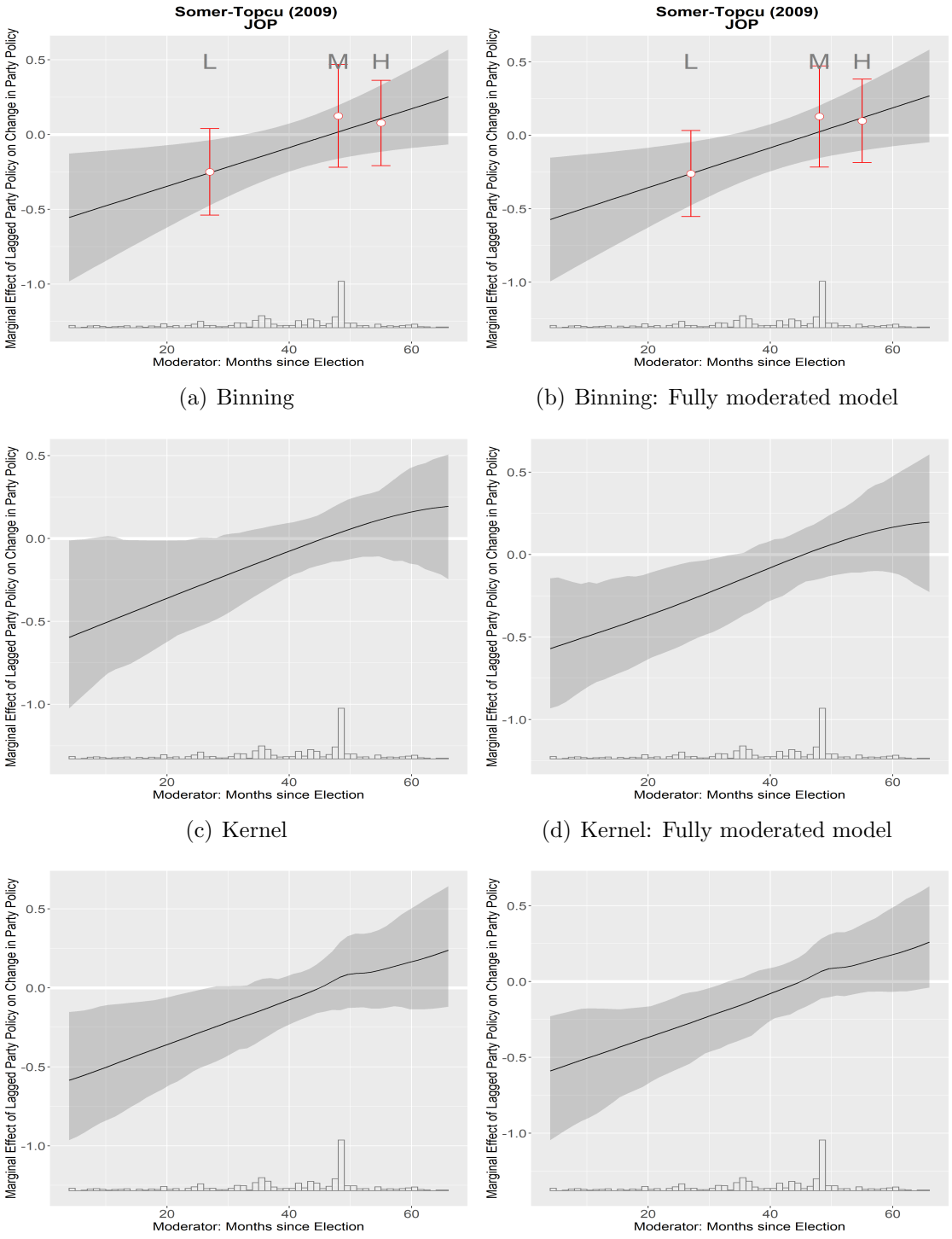
(b) GAM plot



(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

FIGURE B110. MARGINAL EFFECTS



(a) Binning

(b) Binning: Fully moderated model

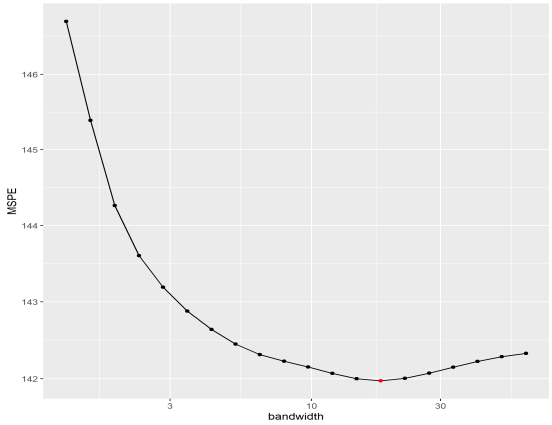
(c) Kernel

(d) Kernel: Fully moderated model

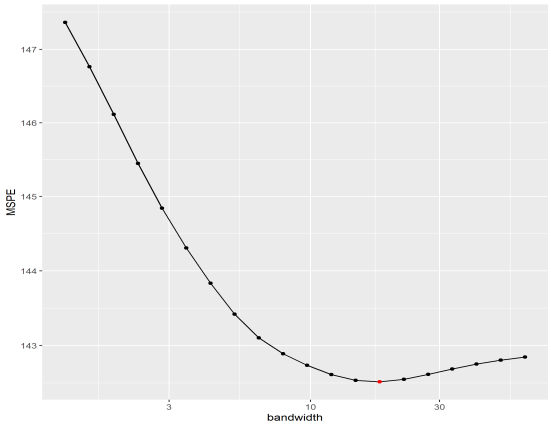
(e) Kernel: Adaptive bandwidth

(f) Kernel: Fully moderated model with adaptive bandwidth

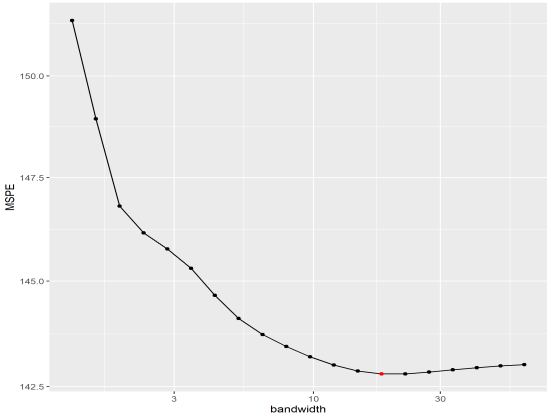
FIGURE B111. MSPE-BANDWIDTH



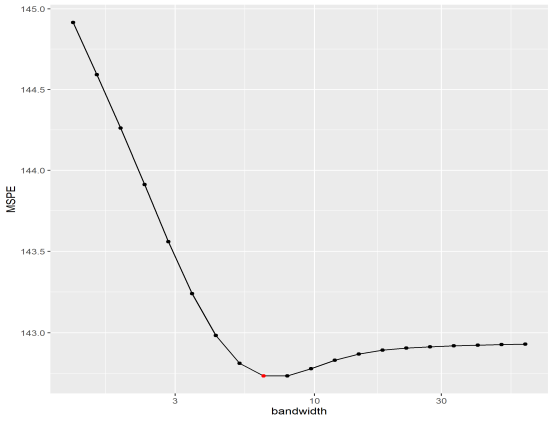
(a) Kernel: Original Command 5-fold



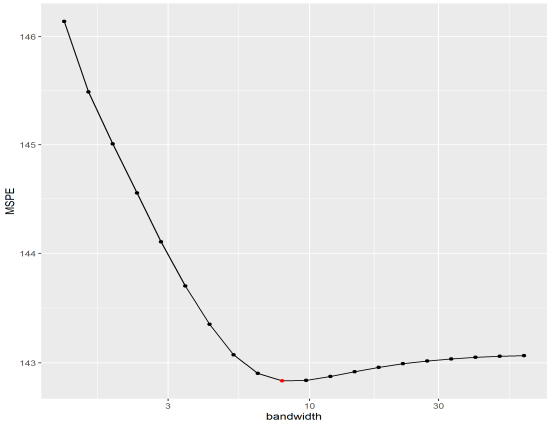
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



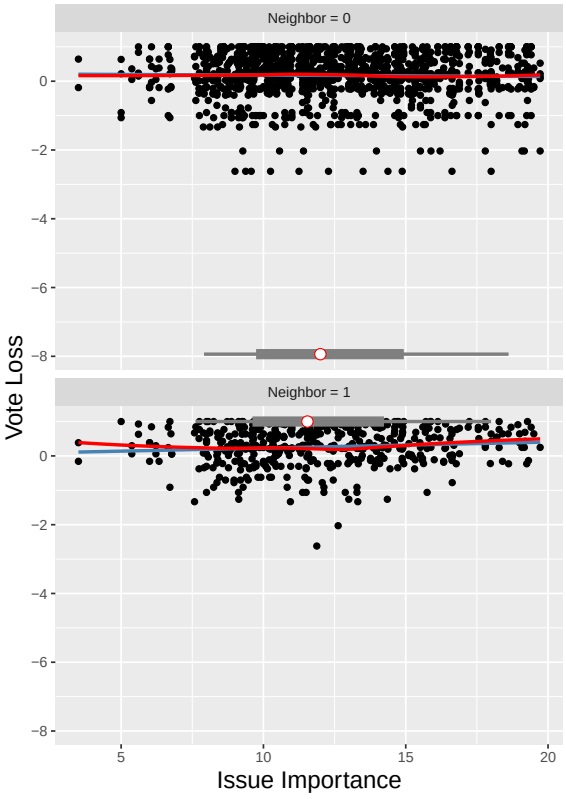
(e) Kernel: Fully moderated model with adaptive bandwidth

.19 Tavits (2008) CPS

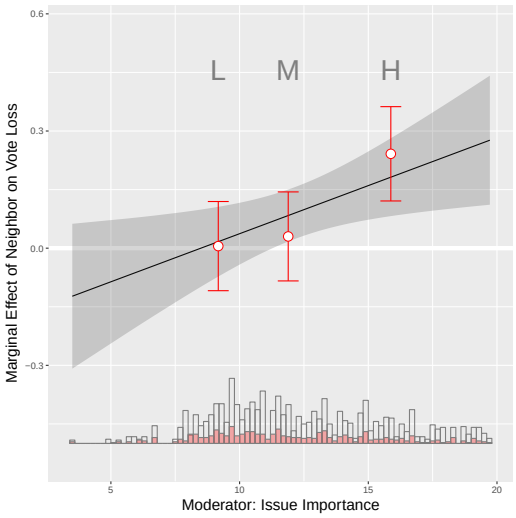
Claim on conditionality (Figure 1 in manuscript): *"As the graph shows, neighbors to the new party start to lose significantly more votes compared to other parties when the issue importance reaches 11, and the effect becomes stronger as issue importance increases. The vote loss of neighbors is the highest on the most important issue to the new party."* (9).

Key variables for the conditional relationship: Outcome Y: "vote loss" (`voteslost`); treatment D: "neighbor" (`neighbor`); moderator X: "issue importance" (`importance`).

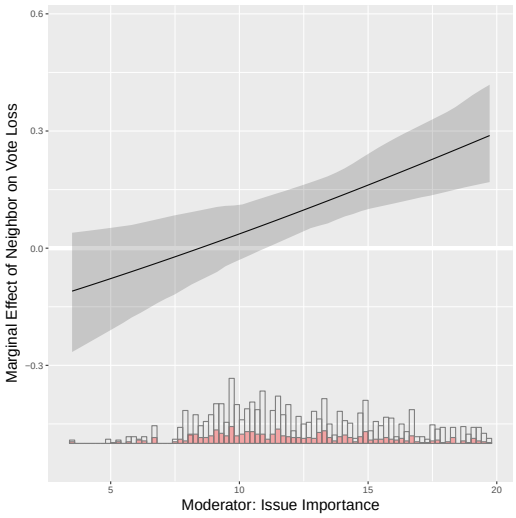
FIGURE B112. RESULTS FROM TAVITS (2008)



(a) Raw data

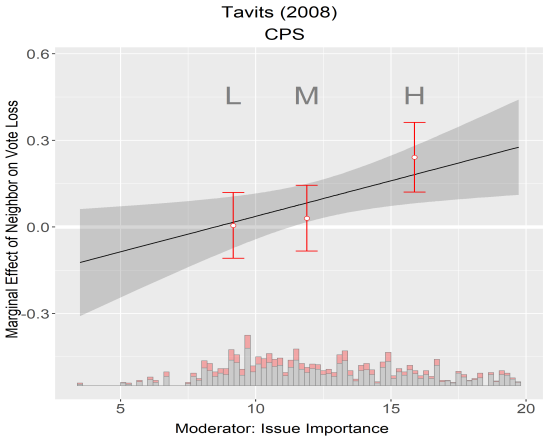


(b) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

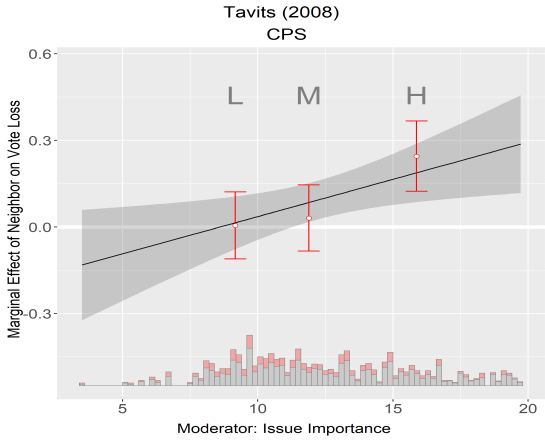


(c) Marginal Effects from Kernel Estimator

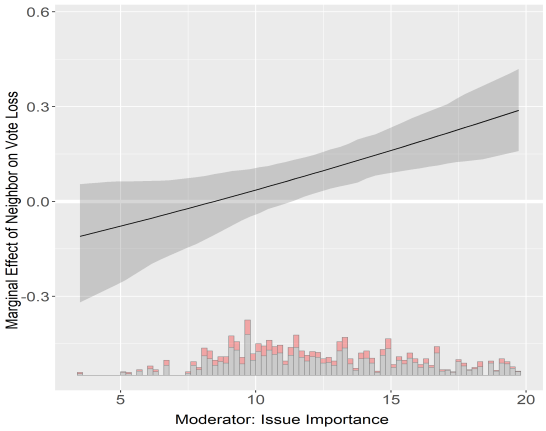
Figure B113. Marginal Effects



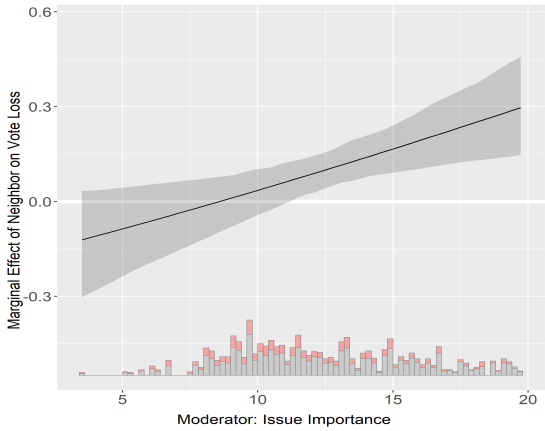
(a) Binning



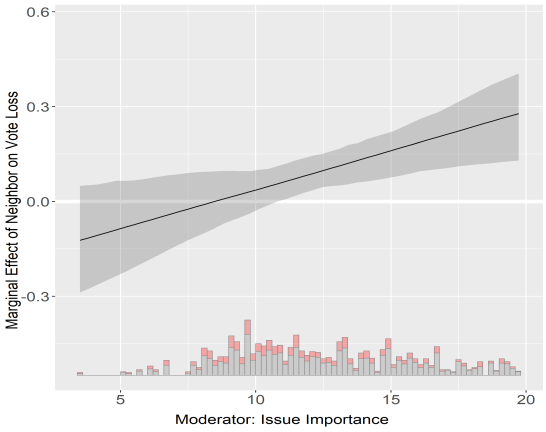
(b) Binning: Fully moderated model



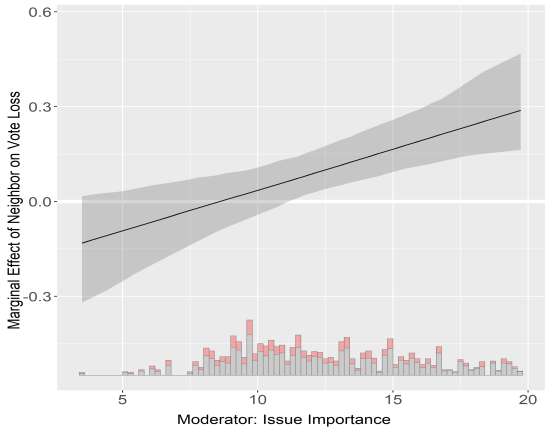
(c) Kernel



(d) Kernel: Fully moderated model

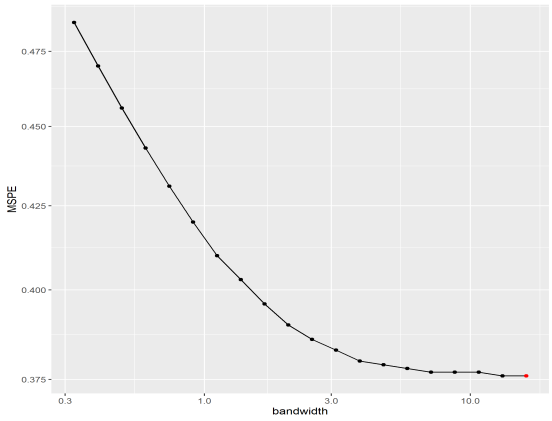


(e) Kernel: Adaptive bandwidth

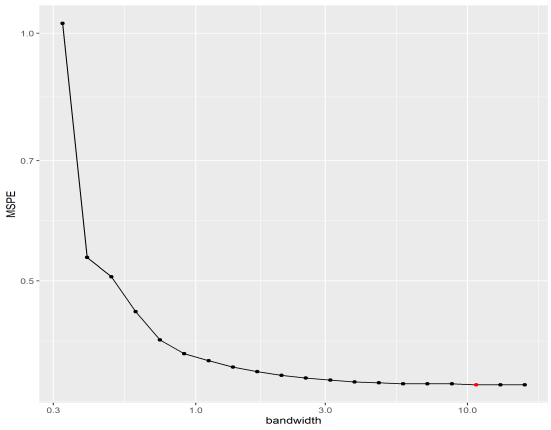


(f) Kernel: Fully moderated model with adaptive bandwidth

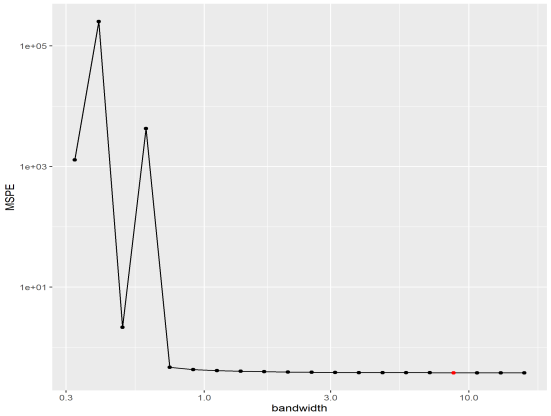
FIGURE B114. MSPE-BANDWIDTH



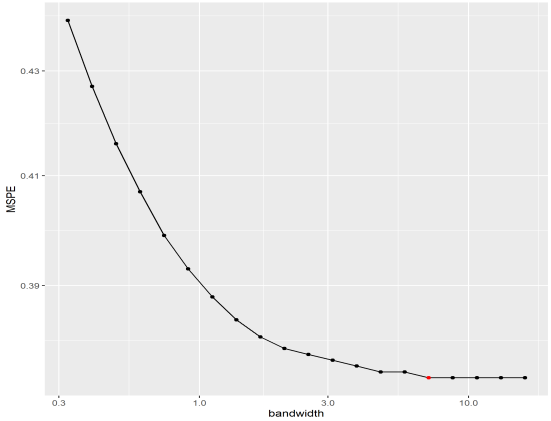
(a) Kernel: Original Command 5-fold



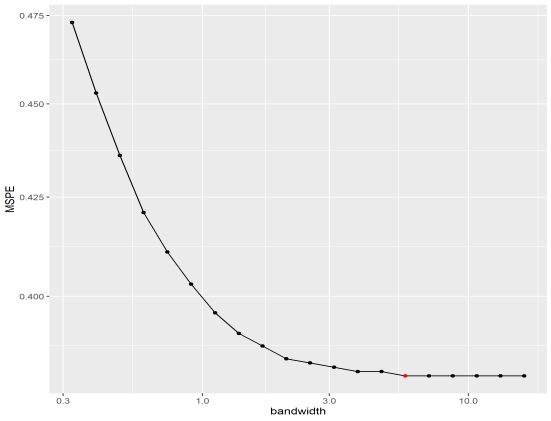
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

.20 Truex (2014) APSR

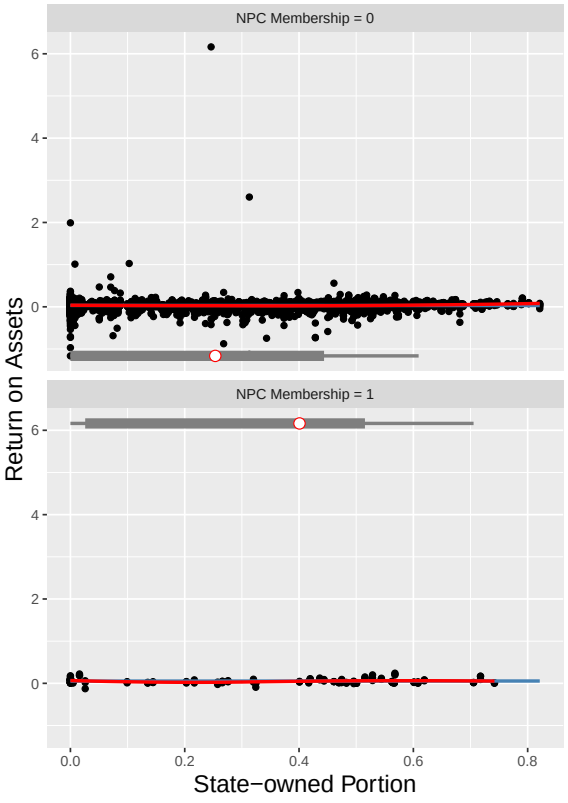
First Interaction:

Claim on conditionality (Figure 3, top left panel in manuscript): *"For a firm with no shares owned by the state, the marginal effect of NPC membership on ROA is about 2.4 percentage points, and 4.3 points for MARGIN. For firms with greater than 50% shares state owned, the effect appears negligible. We observe a similar conditional relationship for revenue, with the benefits of membership decreasing substantially with firm size. The 'returns to office' appear greatest for smaller, private firms."* (243).

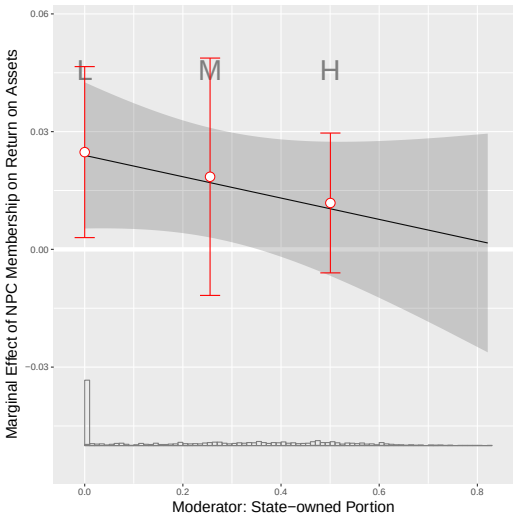
Key variables for the conditional relationship: Outcome Y: "return on assets" (`roa`); treatment D: "NPC membership" (`npc`); moderator X: "state-owned portion" (`so_portion`).

Note: We reweight the data as the author does.

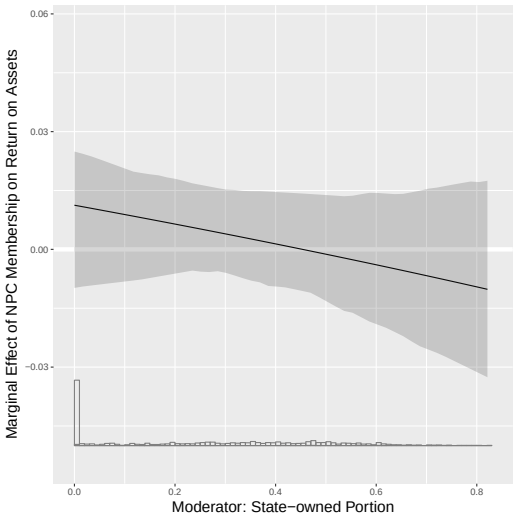
FIGURE B115. RESULTS FROM TRUEX (2014)



(a) Raw data

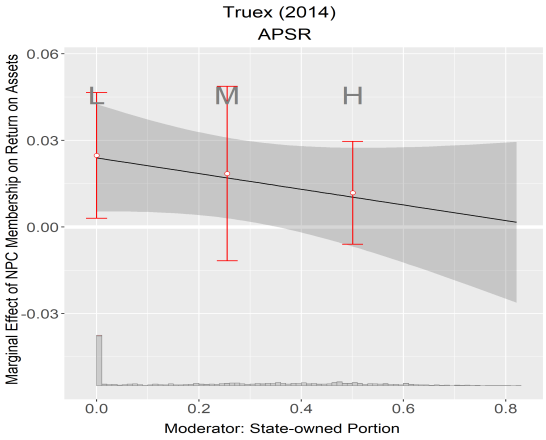


(b) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

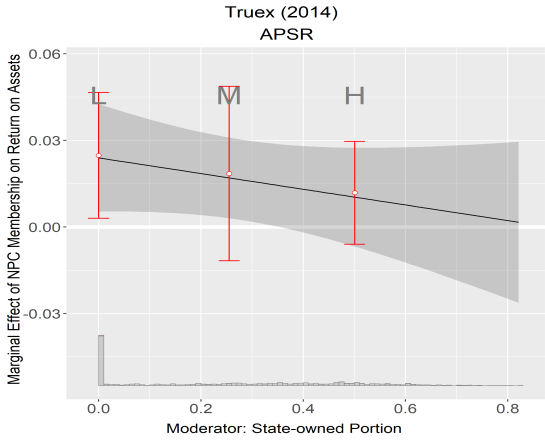


(c) Marginal Effects from Kernel Estimator

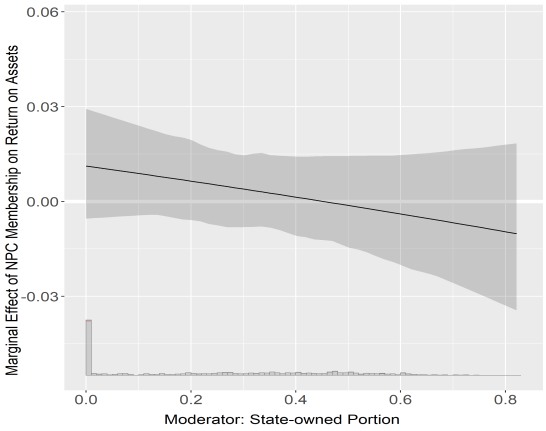
Figure B116. Marginal Effects



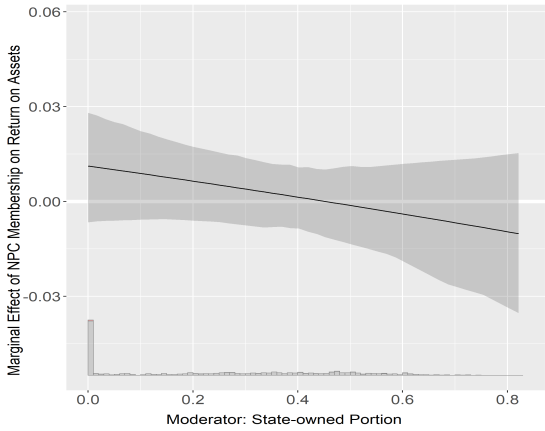
(a) Binning



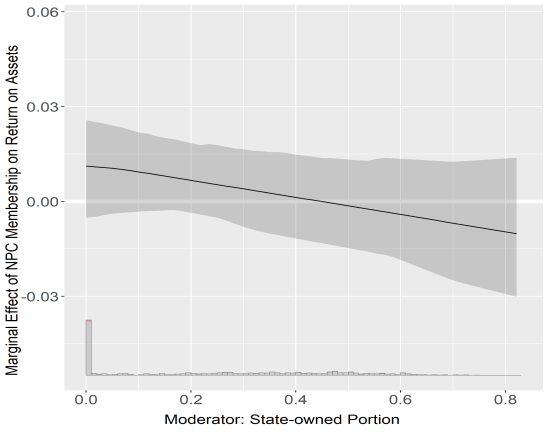
(b) Binning: Fully moderated model



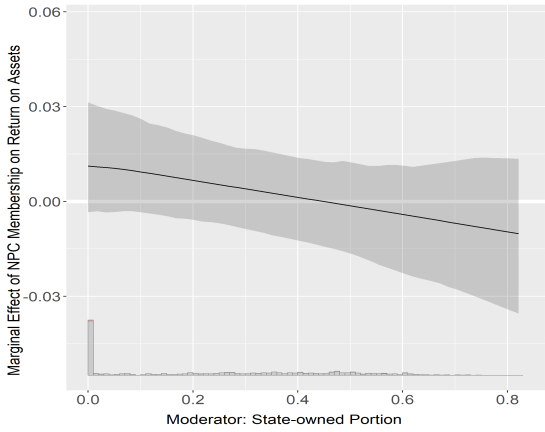
(c) Kernel



(d) Kernel: Fully moderated model

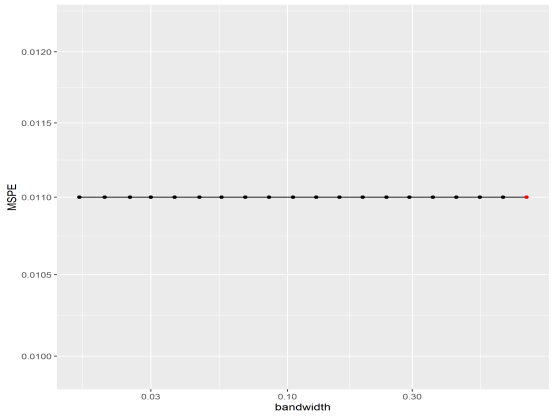


(e) Kernel: Adaptive bandwidth

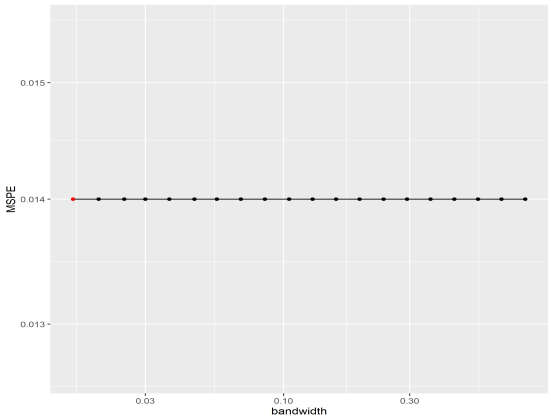


(f) Kernel: Fully moderated model with adaptive bandwidth

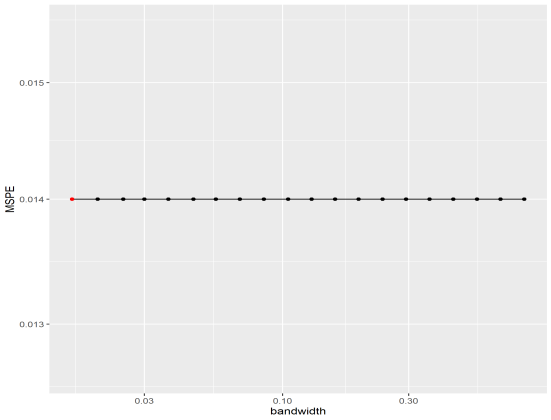
FIGURE B117. MSPE-BANDWIDTH



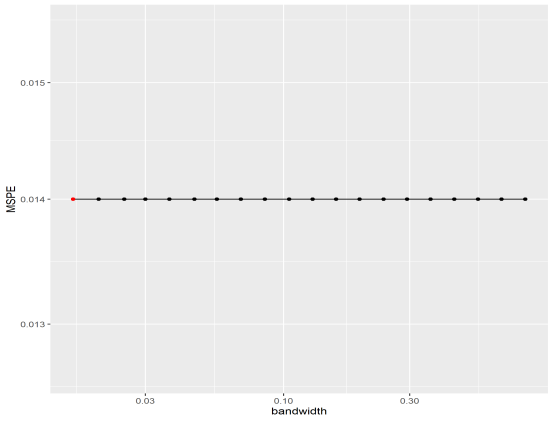
(a) Kernel: Original Command 5-fold



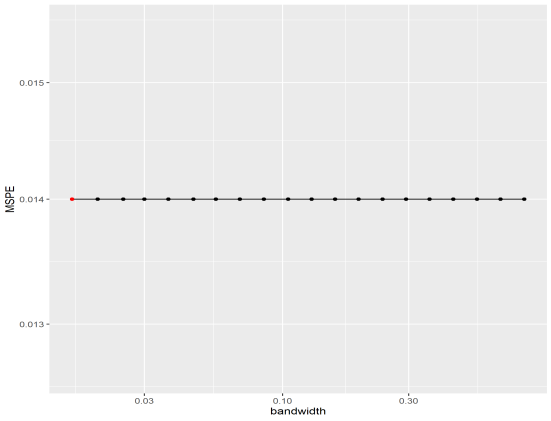
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

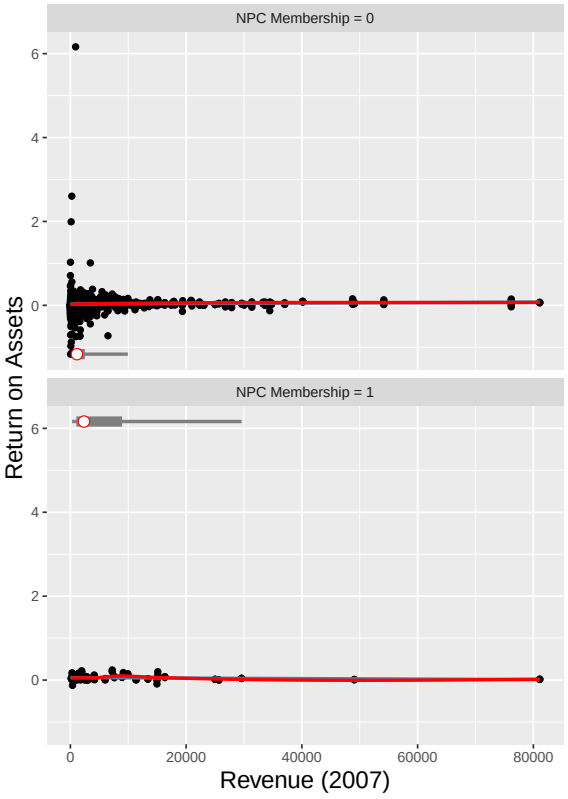
Second Interaction:

Claim on conditionality (Figure 3, top right panel in manuscript): *"For a firm with no shares owned by the state, the marginal effect of NPC membership on ROA is about 2.4 percentage points, and 4.3 points for MARGIN. For firms with greater than 50%shares state owned, the effect appears negligible.We observe a similar conditional relationship for revenue, with the benefits of membership decreasing substantially with firm size. The 'returns to office' appear greatest for smaller, private firms."* (243).

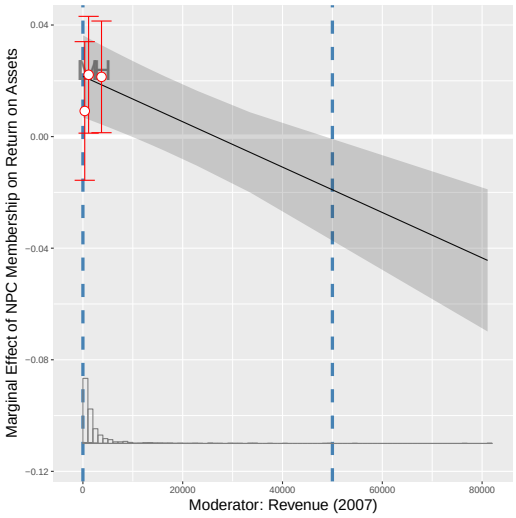
Key variables for the conditional relationship: Outcome Y: "return on assets" (`roa`); treatment D: "NPC membership" (`npc`); moderator X: "revenue (2007)" (`rev2007`).

Note: In the binning plot below, the dashed vertical lines indicate the range of the moderator displayed in the original manuscript. We reweight the data as the author does.

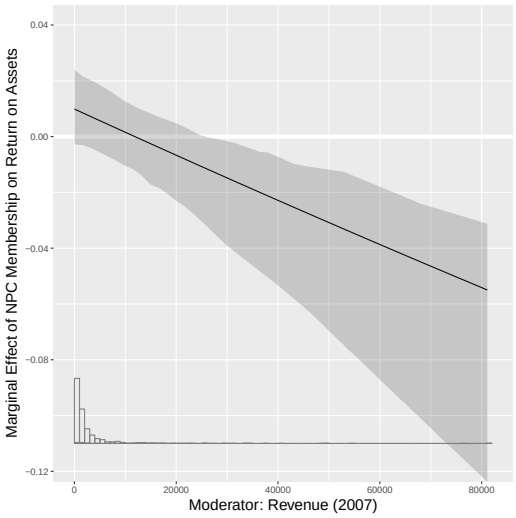
FIGURE B118. RESULTS FROM TRUEX (2014)



(a) Raw data

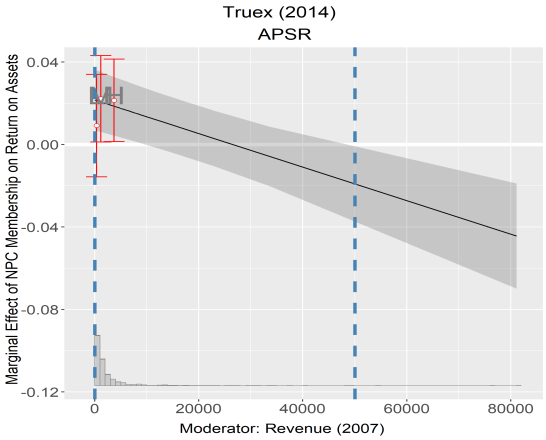


(b) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

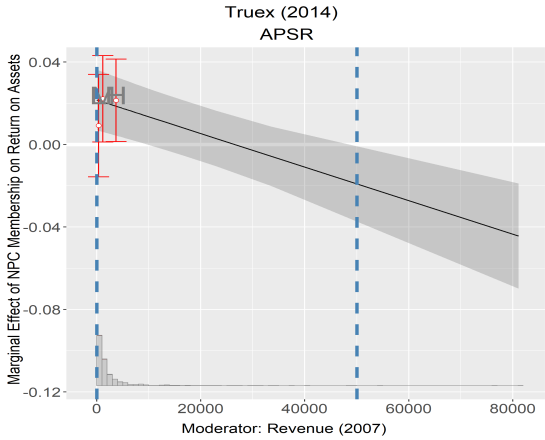


(c) Marginal Effects from Kernel Estimator

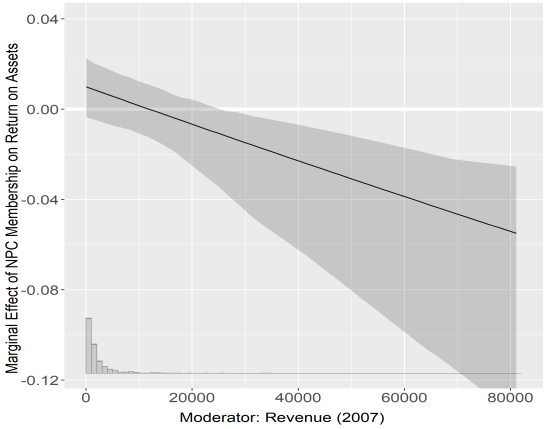
Figure B119. Marginal Effects



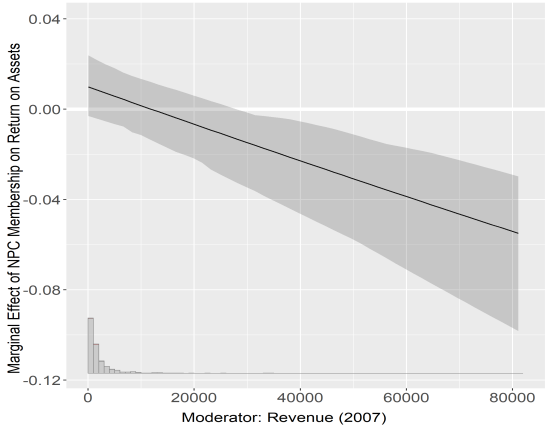
(a) Binning



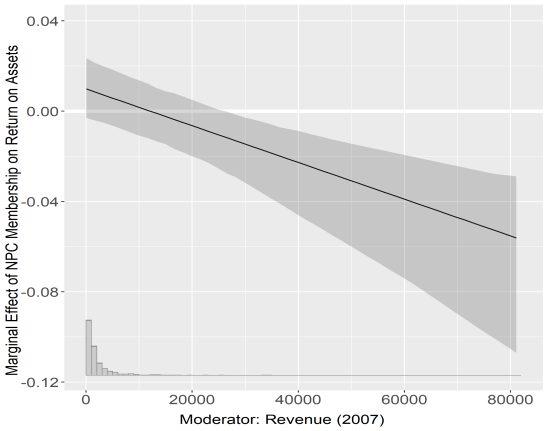
(b) Binning: Fully moderated model



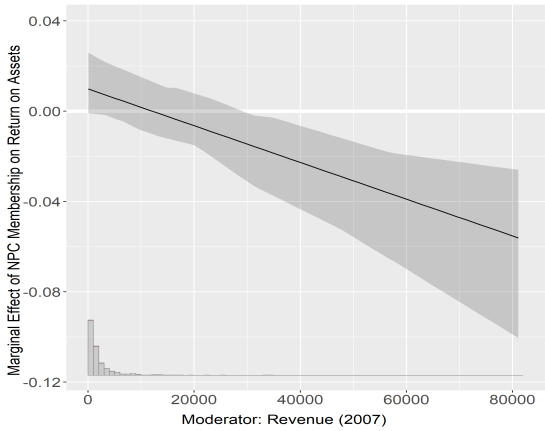
(c) Kernel



(d) Kernel: Fully moderated model

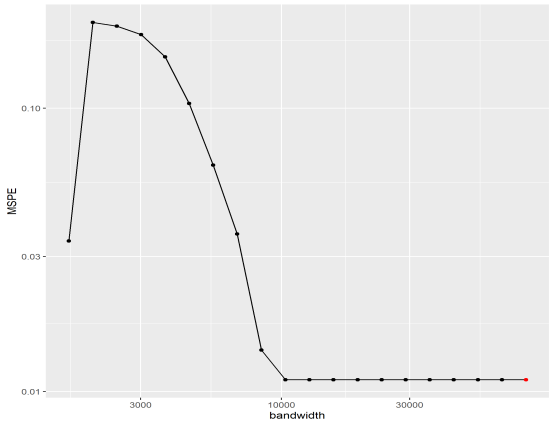


(e) Kernel: Adaptive bandwidth

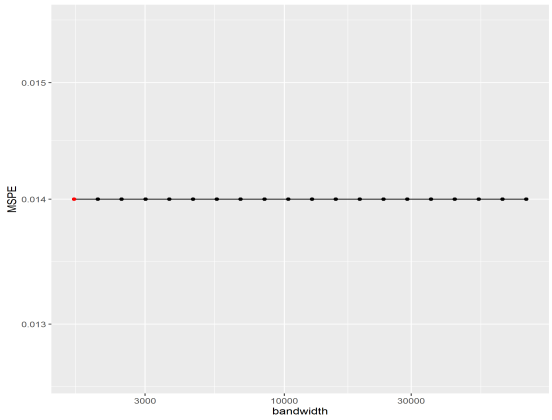


(f) Kernel: Fully moderated model with adaptive bandwidth

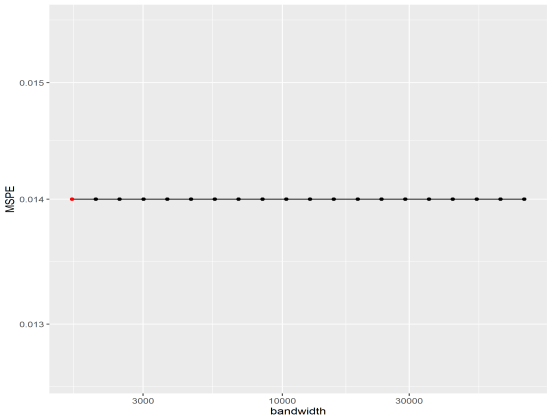
FIGURE B120. MSPE-BANDWIDTH



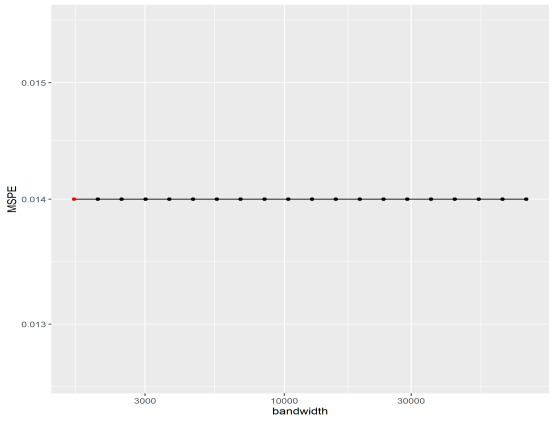
(a) Kernel: Original Command 5-fold



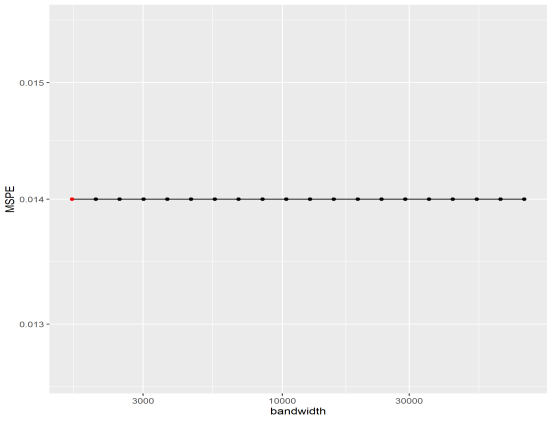
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

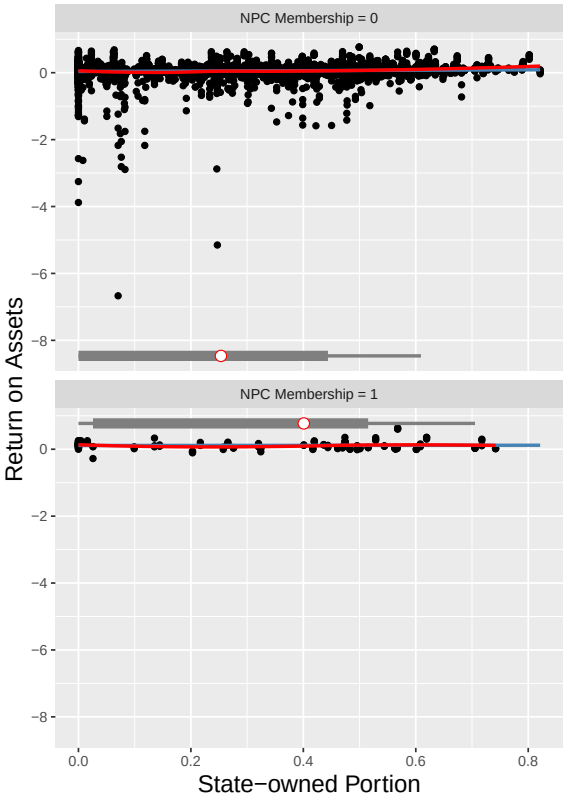
Third Interaction:

Claim on conditionality (Figure 3, bottom left panel in manuscript): *"For a firm with no shares owned by the state, the marginal effect of NPC membership on ROA is about 2.4 percentage points, and 4.3 points for MARGIN. For firms with greater than 50% shares state owned, the effect appears negligible.We observe a similar conditional relationship for revenue, with the benefits of membership decreasing substantially with firm size. The 'returns to office' appear greatest for smaller, private firms."* (243).

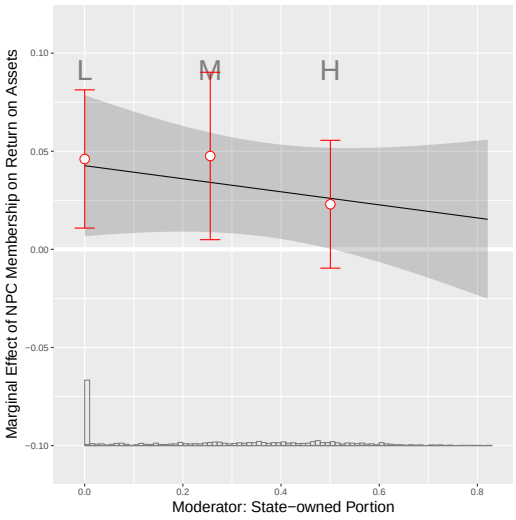
Key variables for the conditional relationship: Outcome Y: "profit margin" (`margin`); treatment D: "NPC membership" (`npc`); moderator X: "state-owned portion" (`so_portion`).

Note: The dashed vertical line indicates the truncated interval of the moderator shown in the original marginal effect plot. We reweight the data as the author does.

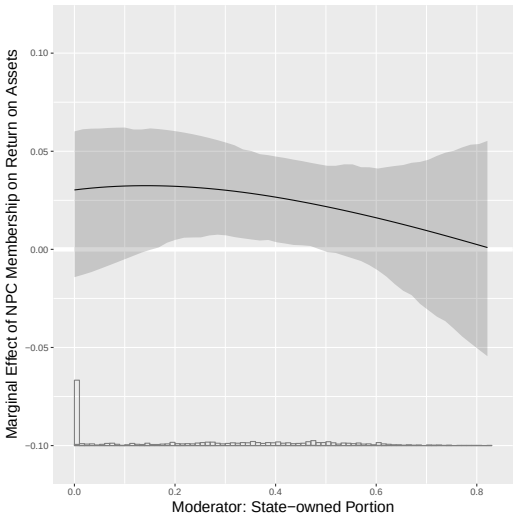
FIGURE B121. RESULTS FROM TRUEX (2014)



(a) Raw data

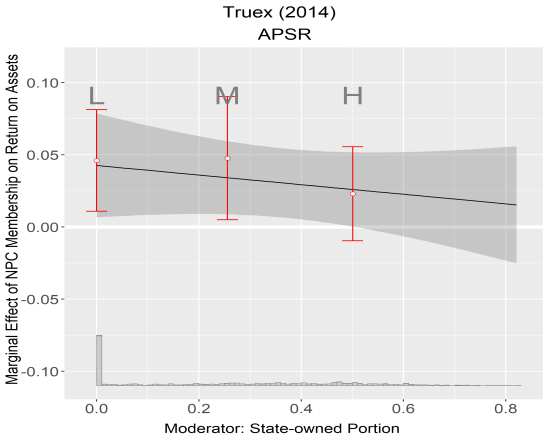


(b) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

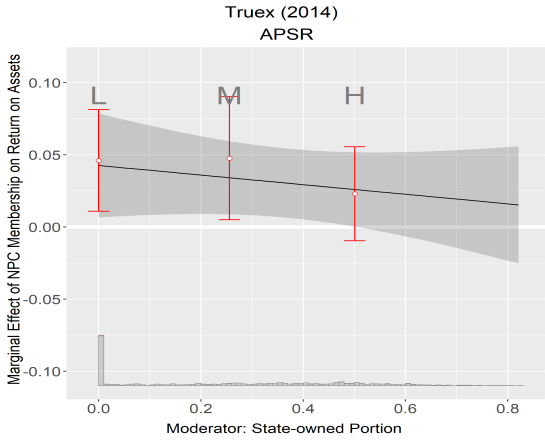


(c) Marginal Effects from Kernel Estimator

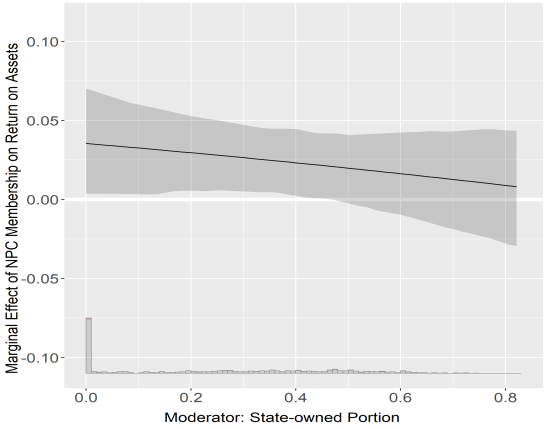
Figure B122. Marginal Effects



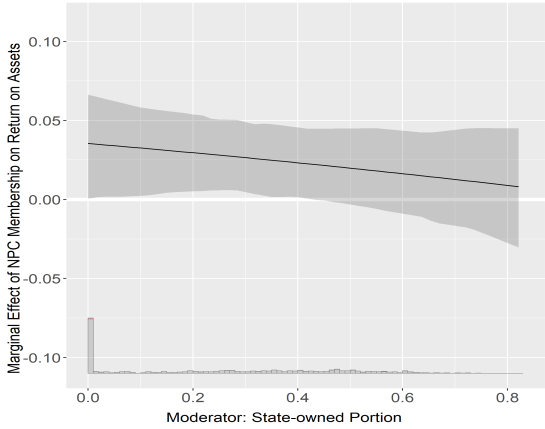
(a) Binning



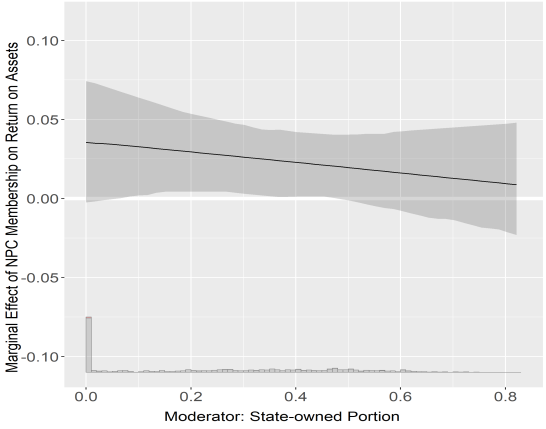
(b) Binning: Fully moderated model



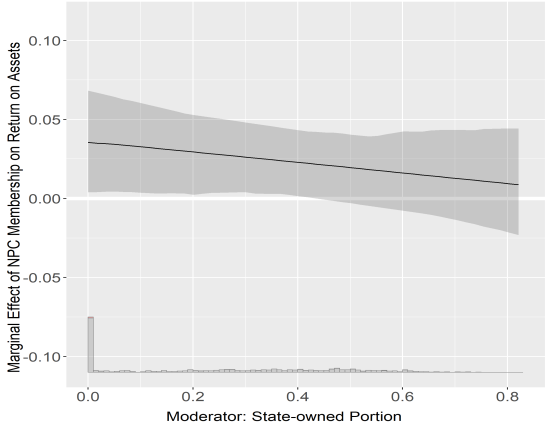
(c) Kernel



(d) Kernel: Fully moderated model

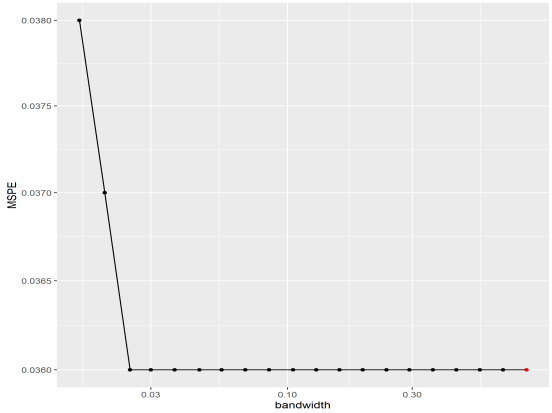


(e) Kernel: Adaptive bandwidth

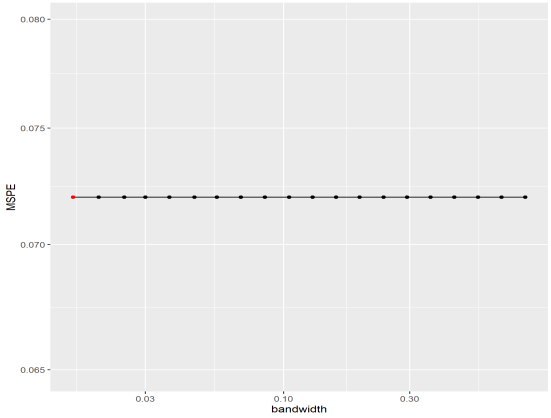


(f) Kernel: Fully moderated model with adaptive bandwidth

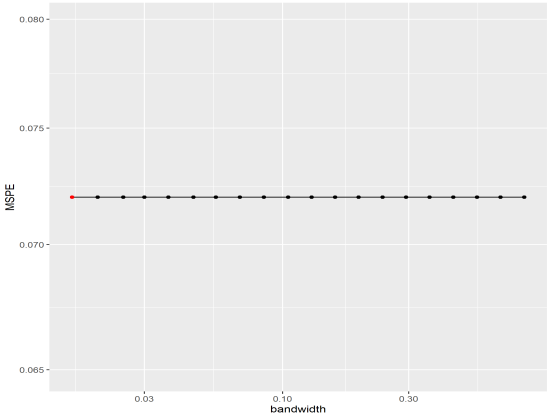
FIGURE B123. MSPE-BANDWIDTH



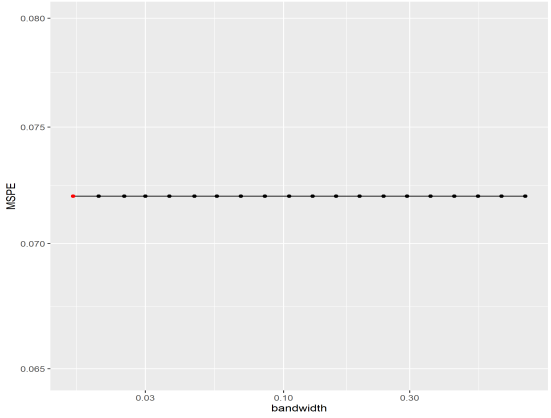
(a) Kernel: Original Command 5-fold



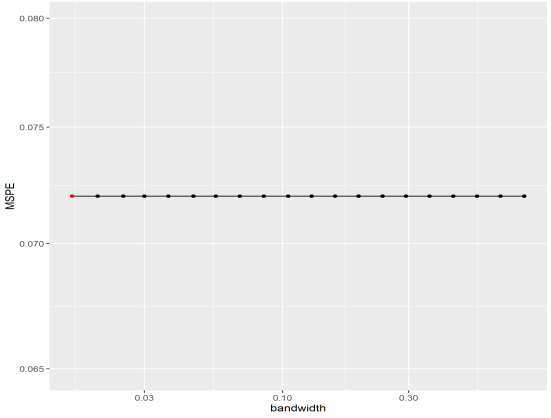
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

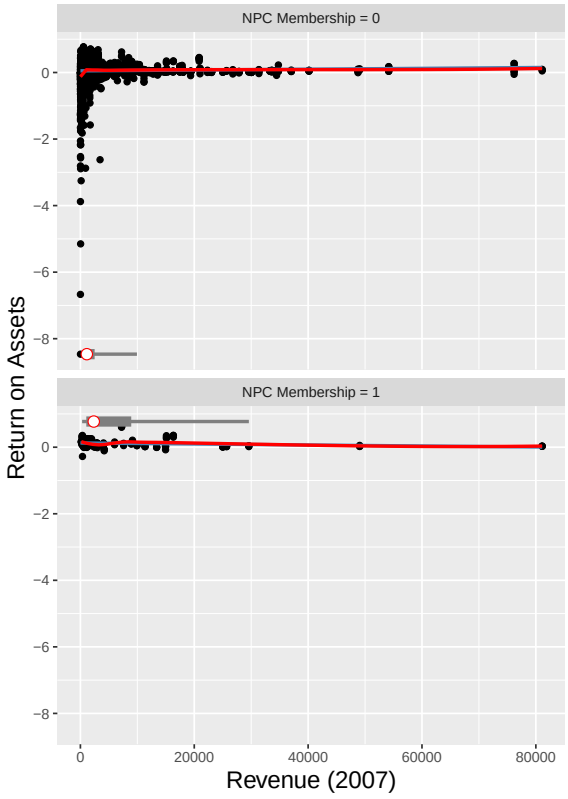
Fourth Interaction:

Claim on conditionality (Figure 3, bottom right panel in manuscript): *"For a firm with no shares owned by the state, the marginal effect of NPC membership on ROA is about 2.4 percentage points, and 4.3 points for MARGIN. For firms with greater than 50% shares state owned, the effect appears negligible.We observe a similar conditional relationship for revenue, with the benefits of membership decreasing substantially with firm size. The 'returns to office' appear greatest for smaller, private firms."* (243).

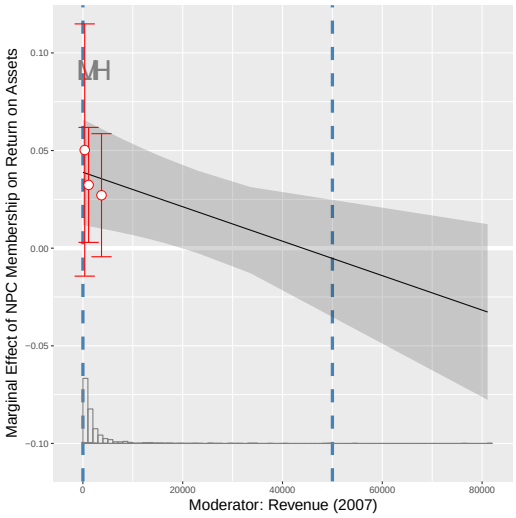
Key variables for the conditional relationship: Outcome Y: "profit margin" (`rev2007`); treatment D: "NPC membership" (`margin`); moderator X: "revenue (2007)" (`npc`).

Note: In the binning plot below, the dashed vertical lines indicate the range of the moderator displayed in the original manuscript. We reweight the data as the author does.

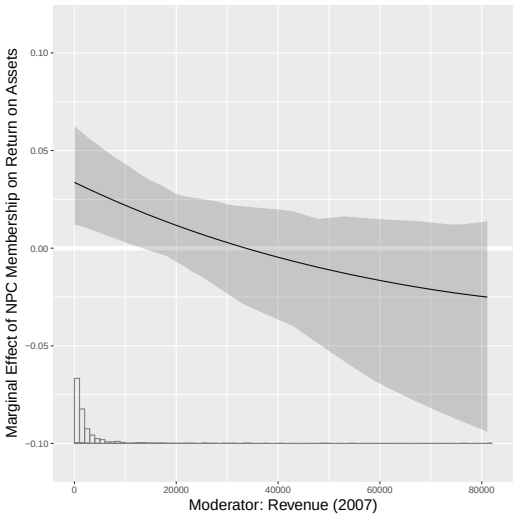
FIGURE B124. RESULTS FROM TRUEX (2014)



(a) Raw data

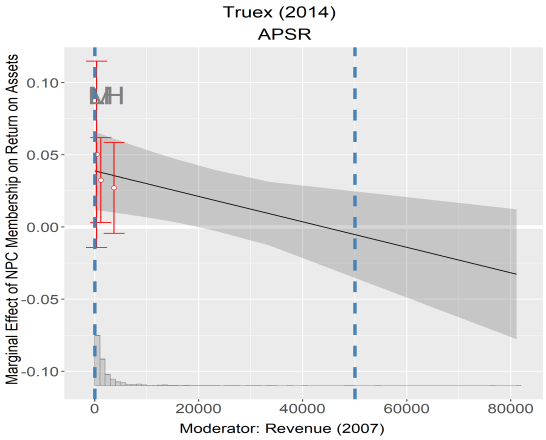


(b) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

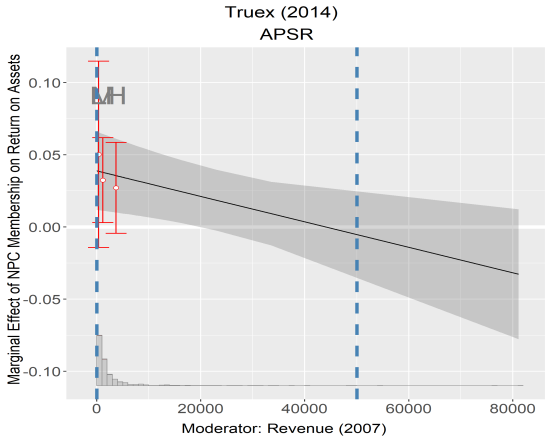


(c) Marginal Effects from Kernel Estimator

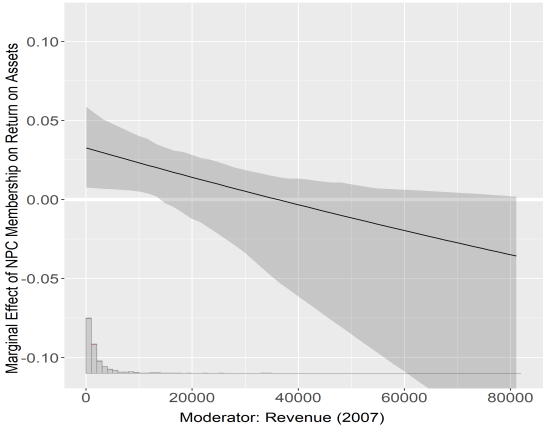
Figure B125. Marginal Effects



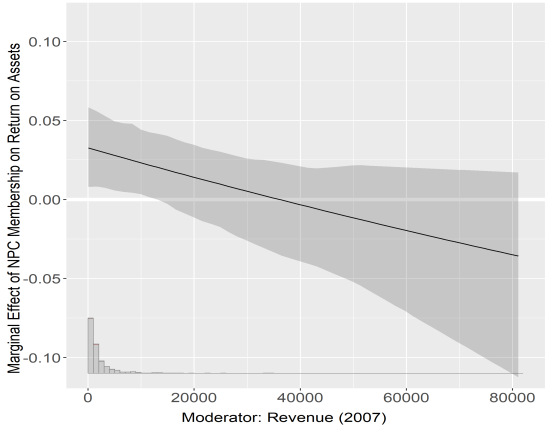
(a) Binning



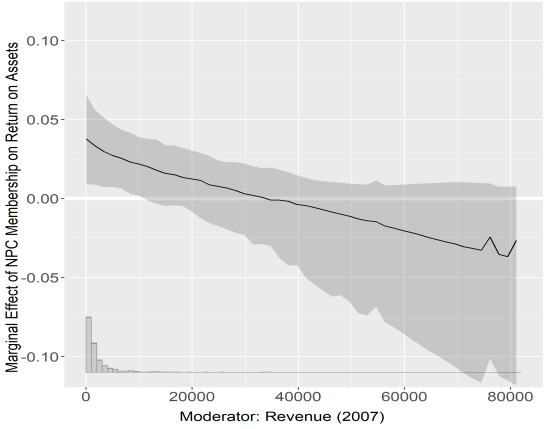
(b) Binning: Fully moderated model



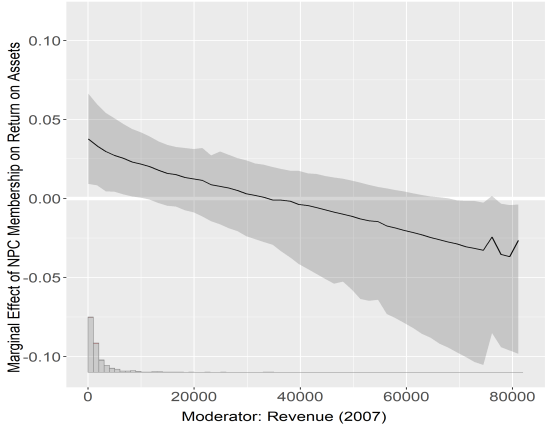
(c) Kernel



(d) Kernel: Fully moderated model

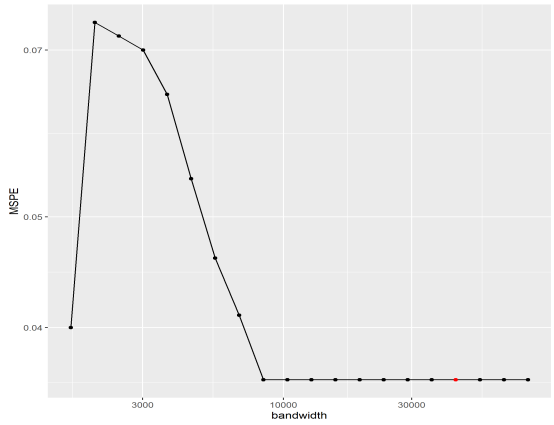


(e) Kernel: Adaptive bandwidth

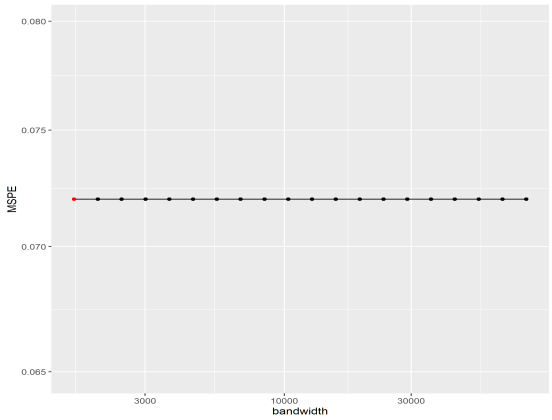


(f) Kernel: Fully moderated model with adaptive bandwidth

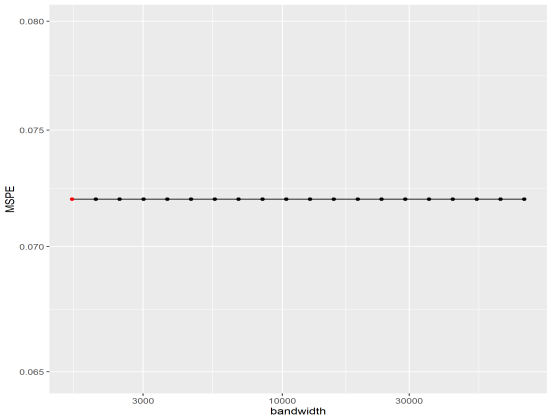
FIGURE B126. MSPE-BANDWIDTH



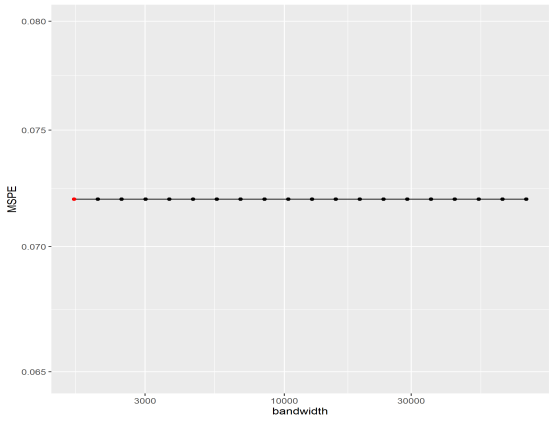
(a) Kernel: Original Command 5-fold



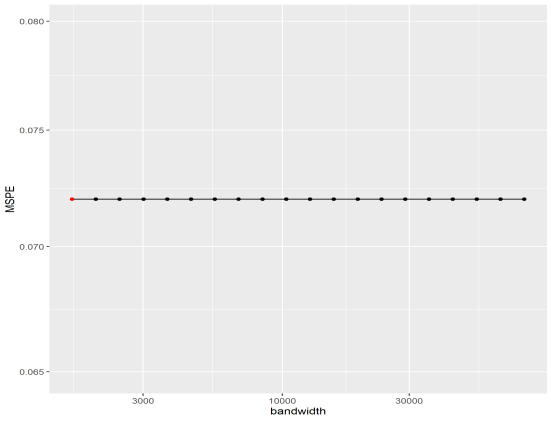
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

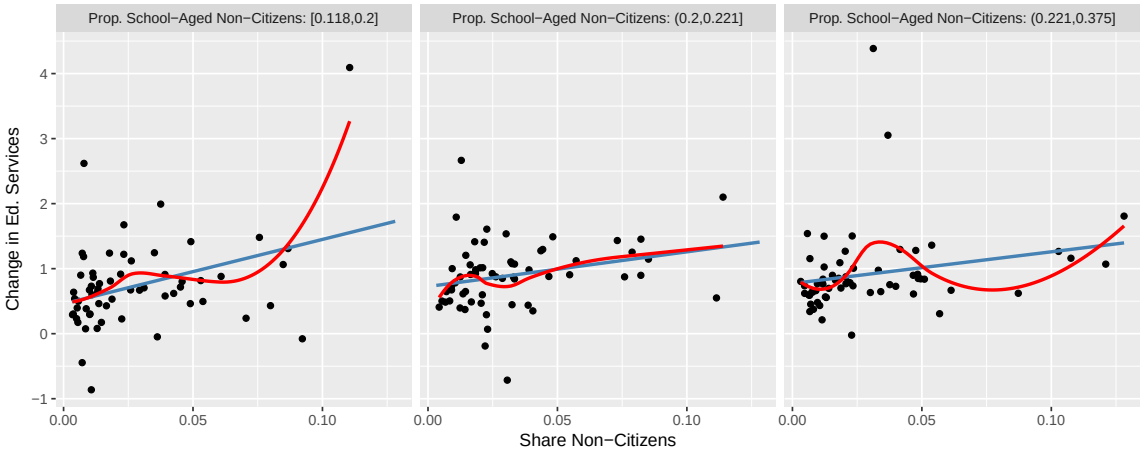
.21 Vernby (2013) AJPS

First interaction:

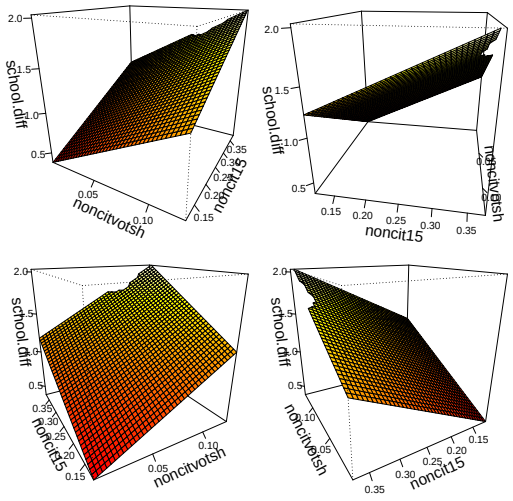
Claim on conditionality (Figure 2, left panel in manuscript): *"The impact of the reform on education services was larger where many noncitizens were school-aged, even if the interaction term is not statistically significant. . . . In the case of education services, the marginal effect increases more than tenfold as we go from a situation where 8% (the empirical minimum) of noncitizens are school-aged, to a situation where 38% (the empirical maximum) are school-aged. However, the 95% confidence interval is fairly wide and the marginal effect is only statistically significant when more than 18% of noncitizens are school-aged."* (p. 23).

Key variables for the conditional relationship: Outcome Y: "change in ed. services" (`school.diff`); treatment D: "share noncitizens in electorate" (`noncitvotsh`); moderator X: "Proportion school aged noncitizens" (`noncit15`).

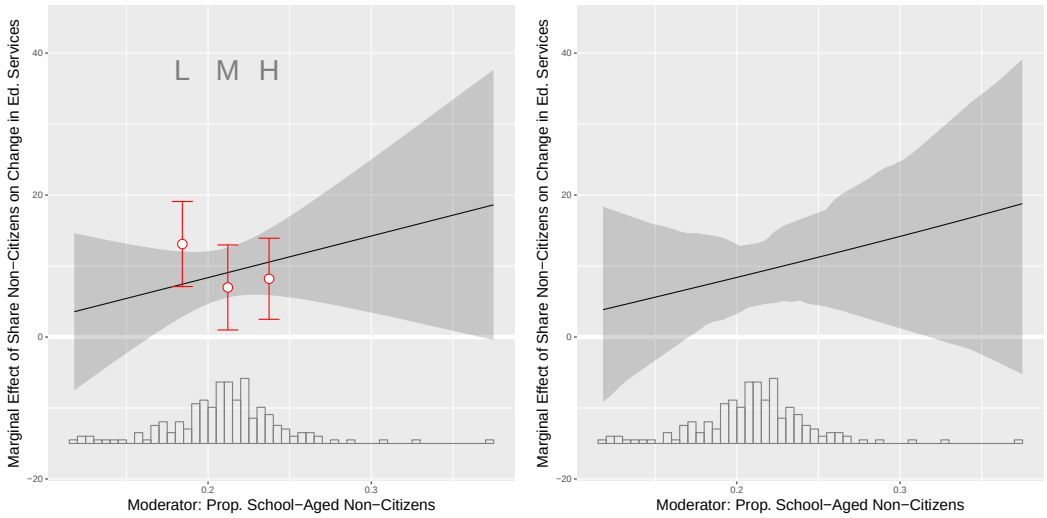
FIGURE B127. RESULTS FROM VERNBY (2013)



(a) Raw data



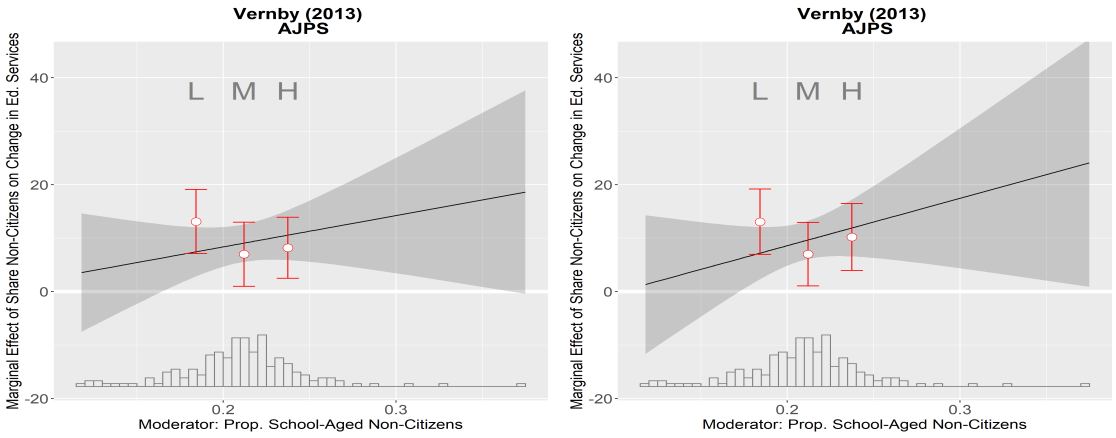
(b) GAM plot



(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

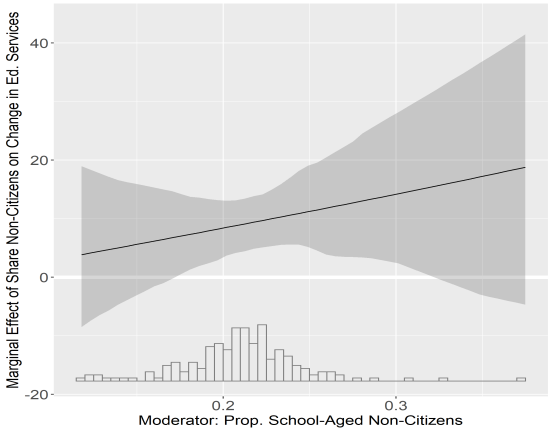
(d) Marginal Effects from Kernel Estimator

Figure B128. Marginal Effects

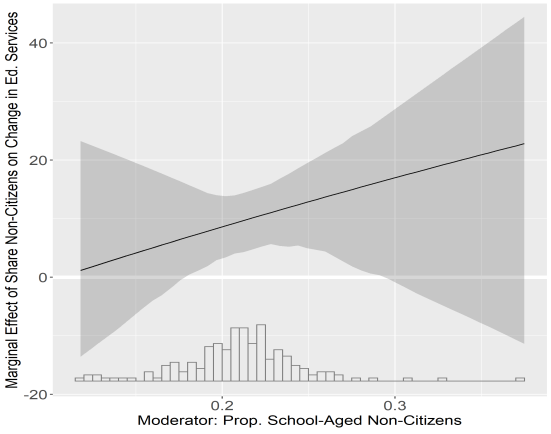


(a) Binning

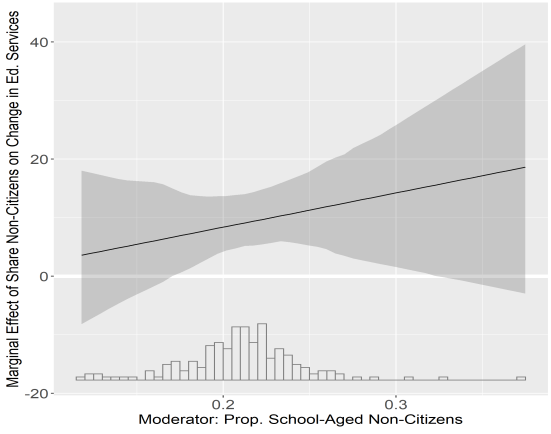
(b) Binning: Fully moderated model



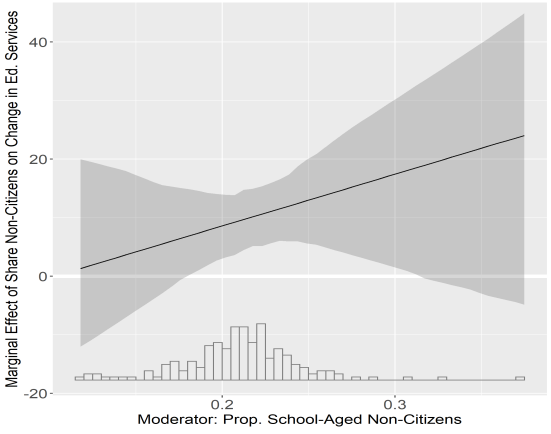
(c) Kernel



(d) Kernel: Fully moderated model

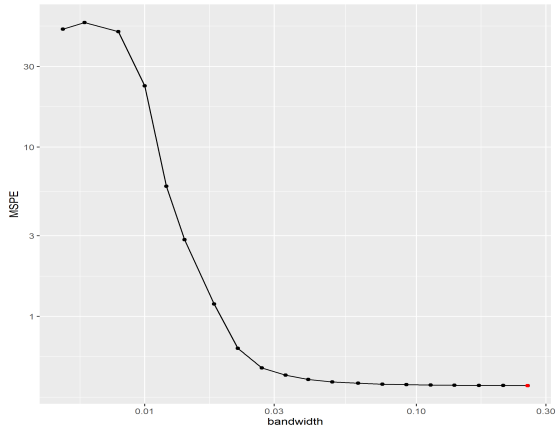


(e) Kernel: Adaptive bandwidth

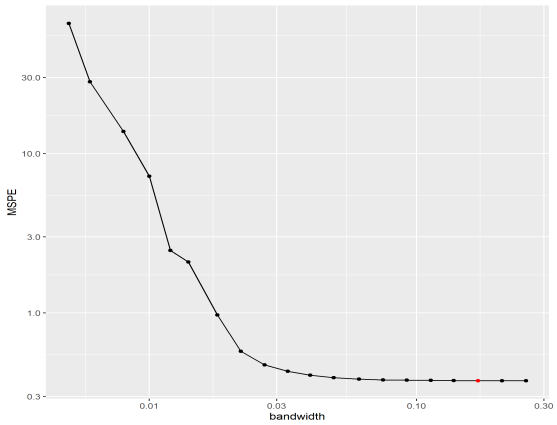


(f) Kernel: Fully moderated model with adaptive bandwidth

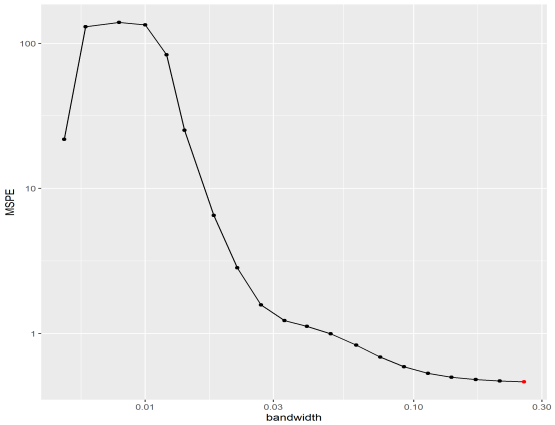
FIGURE B129. MSPE-BANDWIDTH



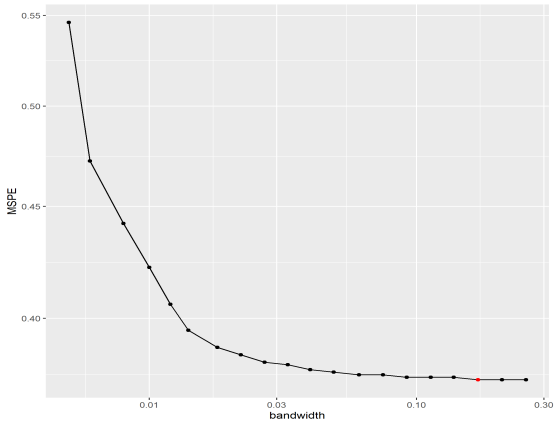
(a) Kernel: Original Command 5-fold



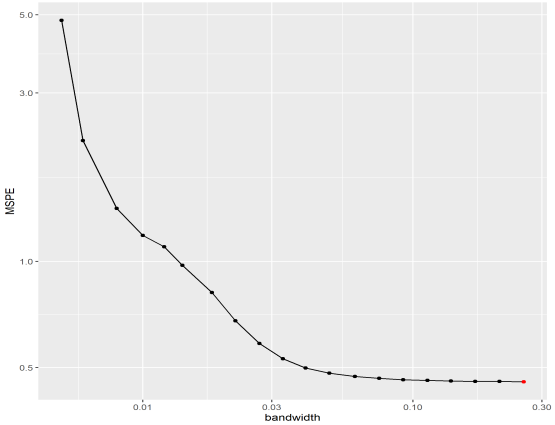
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



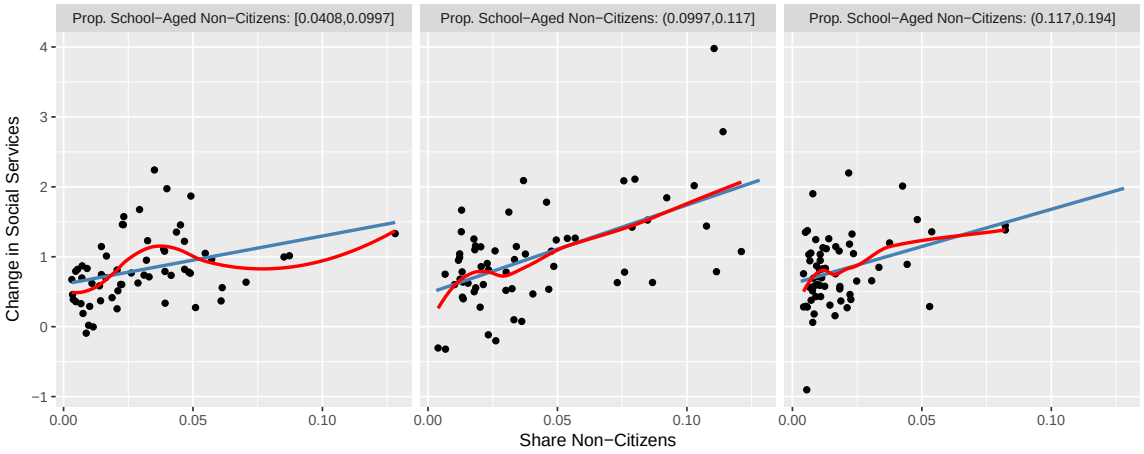
(e) Kernel: Fully moderated model with adaptive bandwidth

Second interaction:

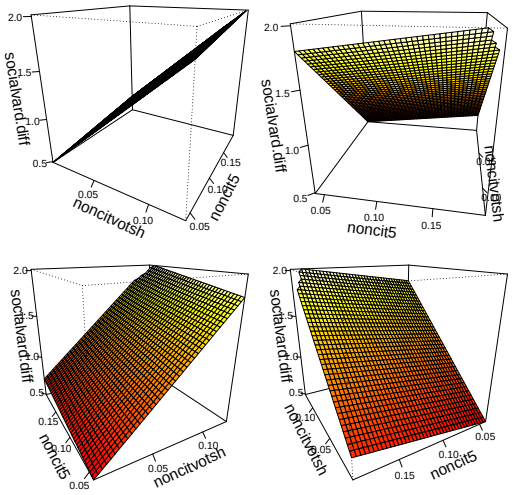
Claim on conditionality (Figure 2, right panel in manuscript): *"From the second column, it can be seen that the reform's impact on social and family services was larger where a large share of noncitizens were preschool aged. ... Turning to spending on social and family services, a move from a situation where 4% of noncitizens are school-aged, to a situation where 20% are, leads to an almost threefold increase in the marginal effect of the share of noncitizens in the electorate. Again, the 95% confidence interval is wide, and the marginal effect becomes statistically significant where the preschool-aged make up 6% or more of the municipal noncitizen population."* (23).

Key variables for the conditional relationship: Outcome Y: "change in social services" (`socialvard.diff`); treatment D: "share noncitizens in electorate" (`noncitvotsh`); moderator X: "Proportion school aged noncitizens" (`noncit15`).

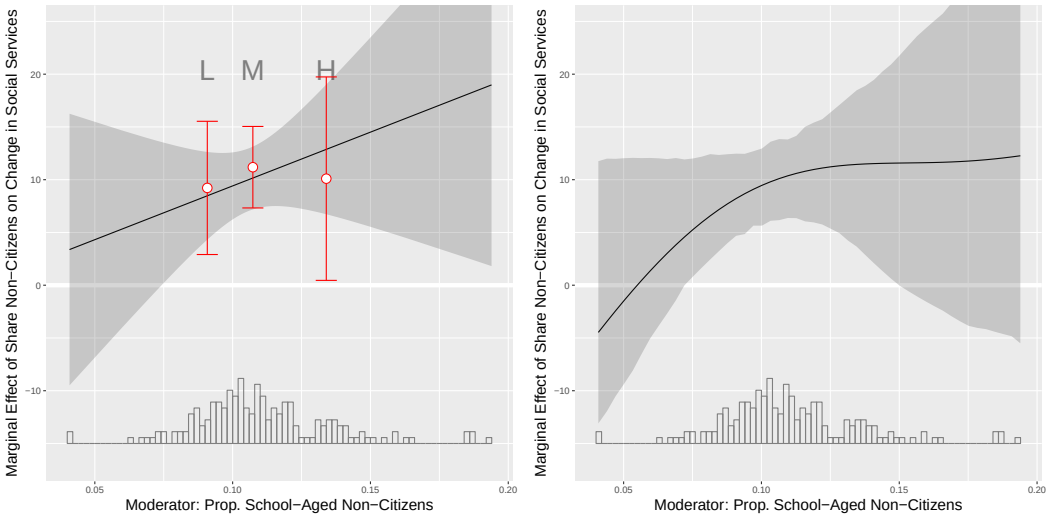
FIGURE B130. RESULTS FROM VERNBY (2013)



(a) Raw data



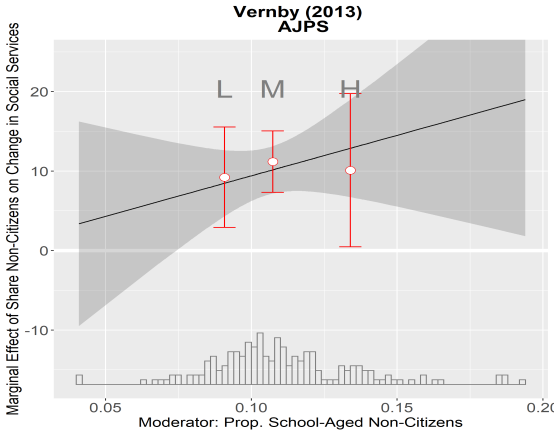
(b) GAM plot



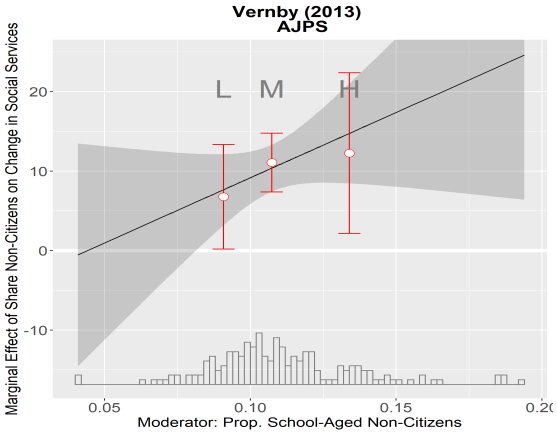
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

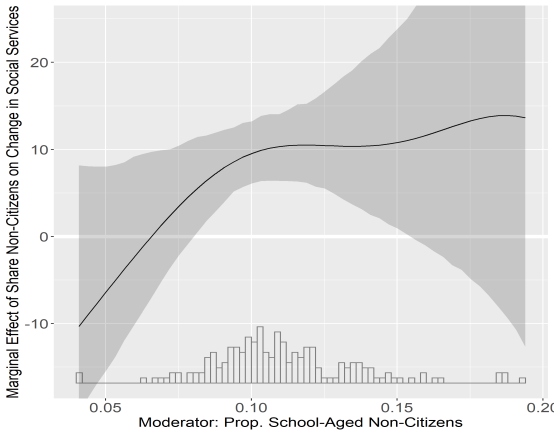
Figure B131. Marginal Effects



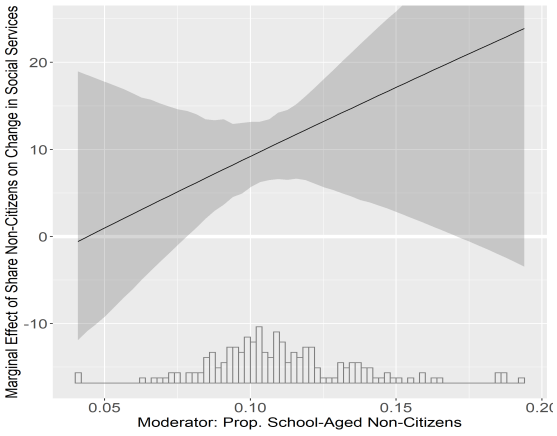
(a) Binning



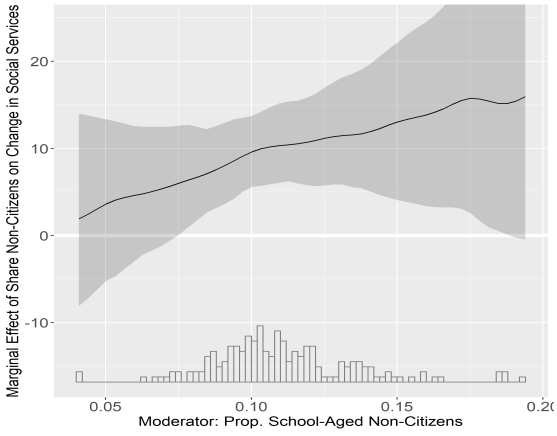
(b) Binning: Fully moderated model



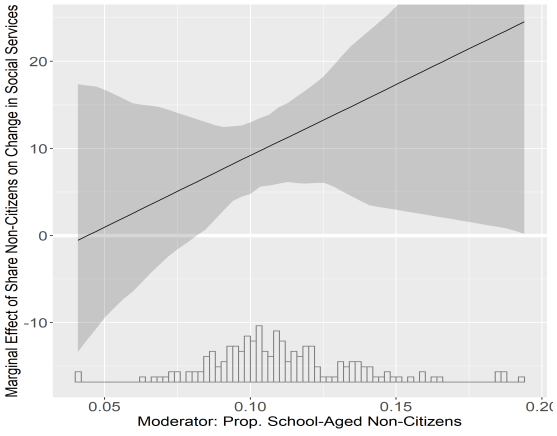
(c) Kernel



(d) Kernel: Fully moderated model

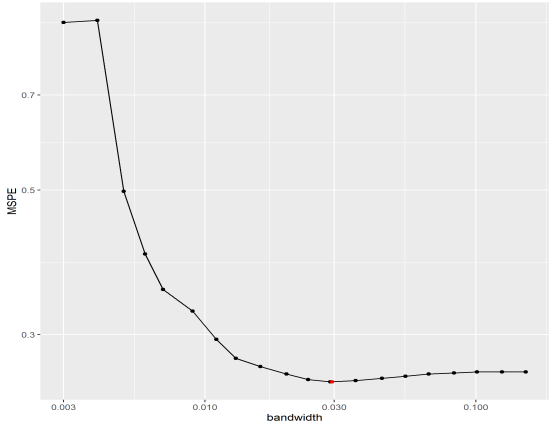


(e) Kernel: Adaptive bandwidth

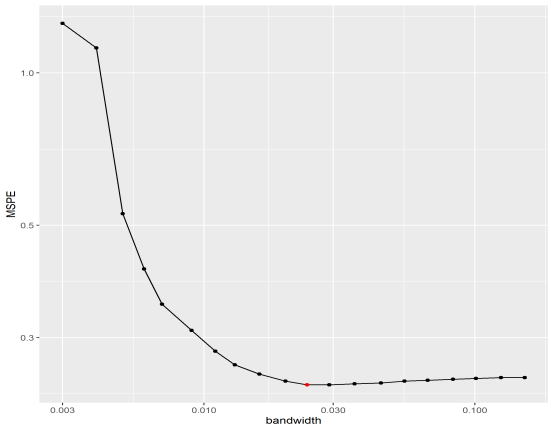


(f) Kernel: Fully moderated model with adaptive bandwidth

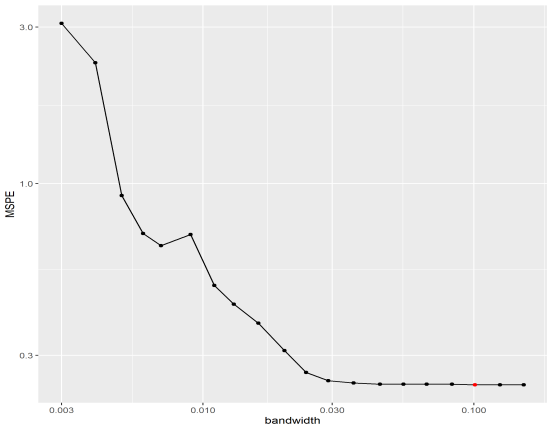
FIGURE B132. MSPE-BANDWIDTH



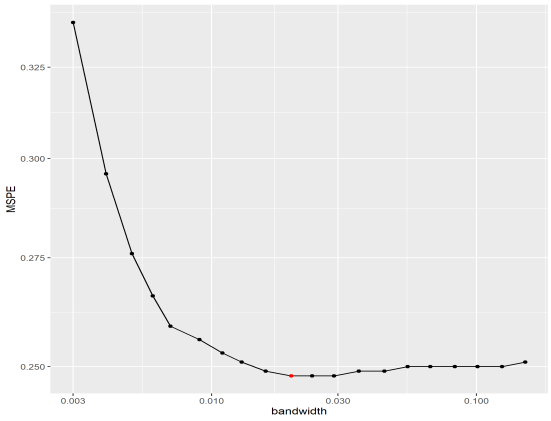
(a) Kernel: Original Command 5-fold



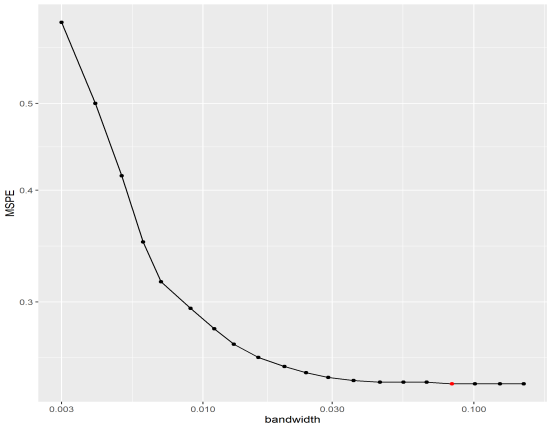
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

.22 Williams (2011) CPS

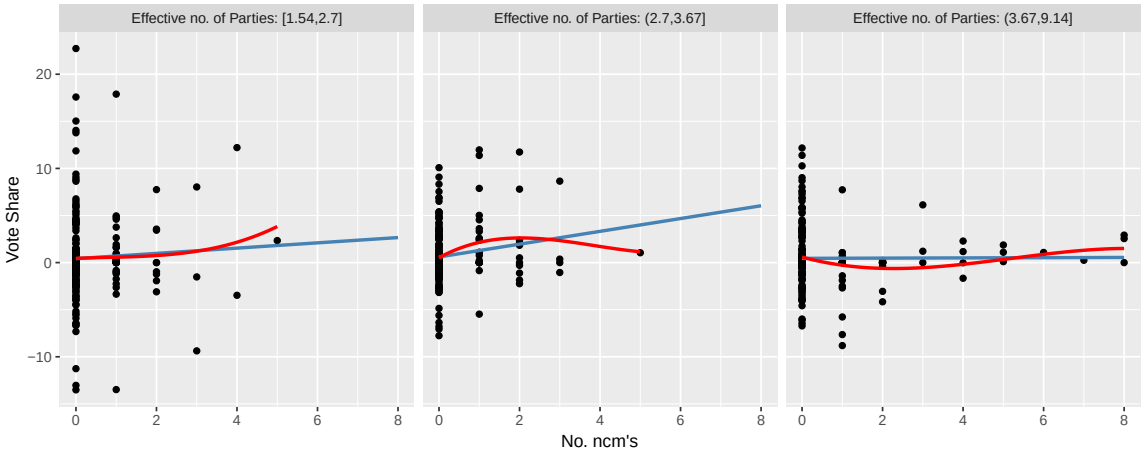
First Interaction:

Claim on conditionality (Figure 3 in manuscript): *"As the effective number of parties increases (to more than five effective parties), the beneficial electoral impacts of NCMs disappear."* (19).

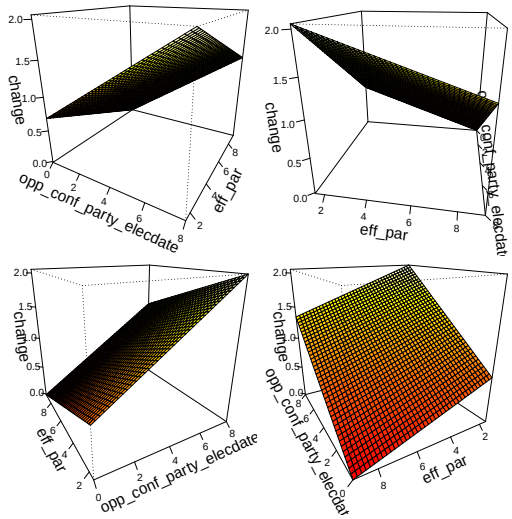
Key variables for the conditional relationship: Outcome Y: "vote change" (`change`); treatment D: "no confidence motion" (`opp_conf_party_elecdate`); moderator X: "effective no. of parties" (`eff_par`).

Note: In the binning plot below, the dashed vertical lines indicate the range of the moderator displayed in the original manuscript. The authors show 90% confidence intervals in the paper, while in both the binning plot and the kernel smoothing plot, we use 95% confidence intervals.

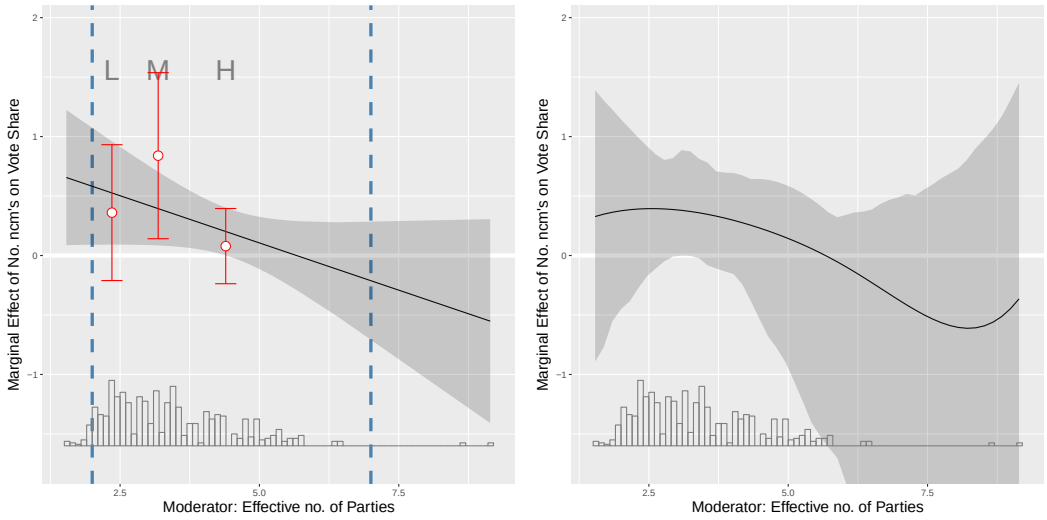
FIGURE B133. RESULTS FROM WILLIAMS (2011)



(a) Raw data



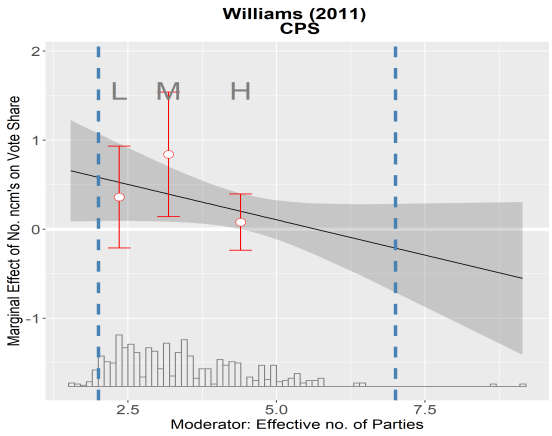
(b) GAM plot



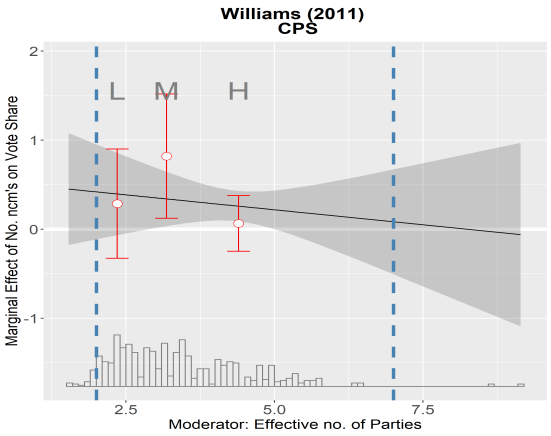
(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

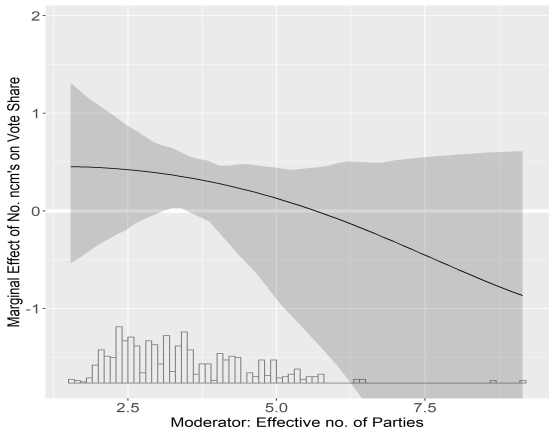
FIGURE B134. MARGINAL EFFECTS



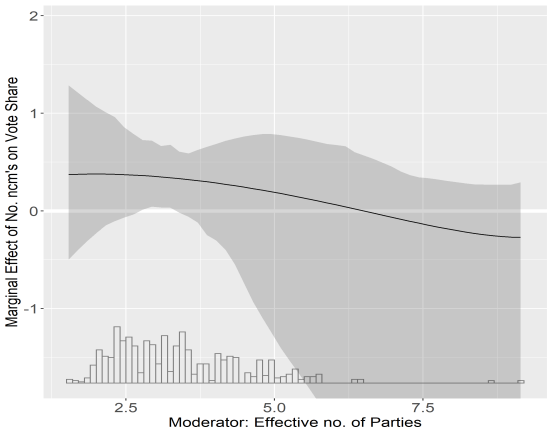
(a) Binning



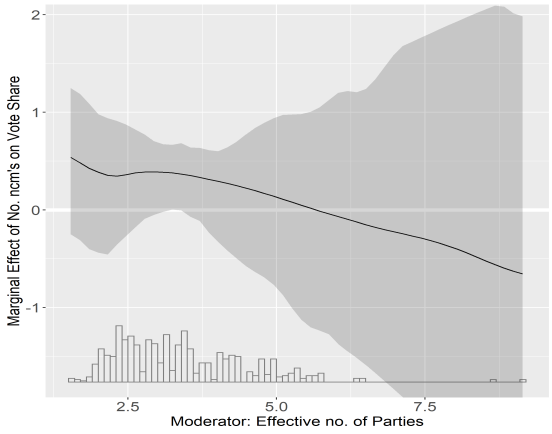
(b) Binning: Fully moderated model



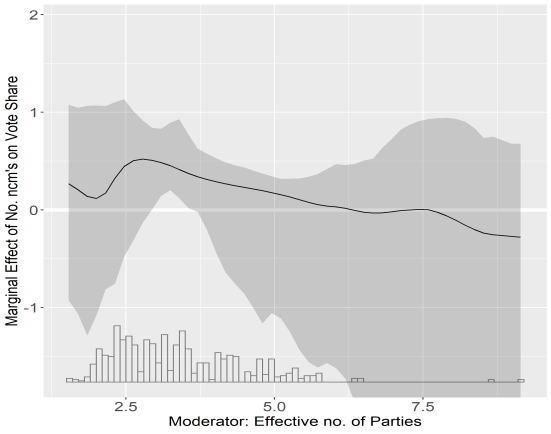
(c) Kernel



(d) Kernel: Fully moderated model

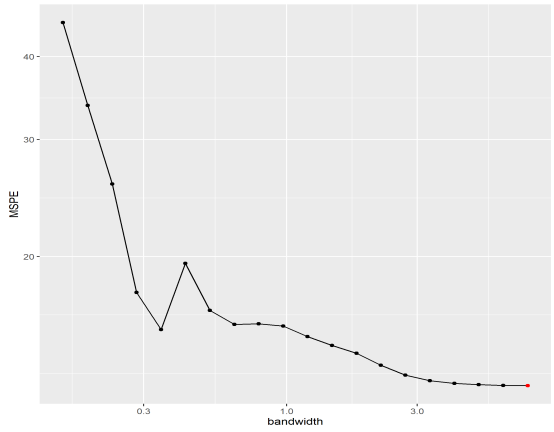


(e) Kernel: Adaptive bandwidth

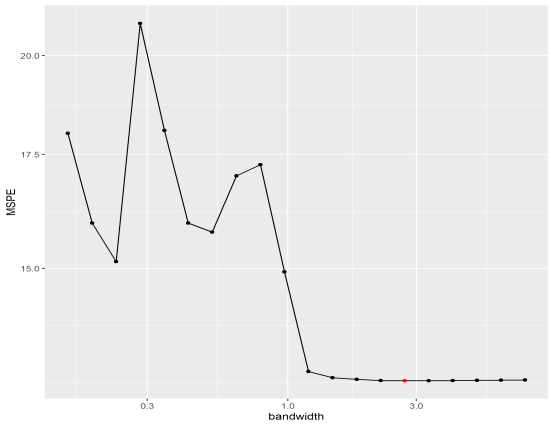


(f) Kernel: Fully moderated model with adaptive bandwidth

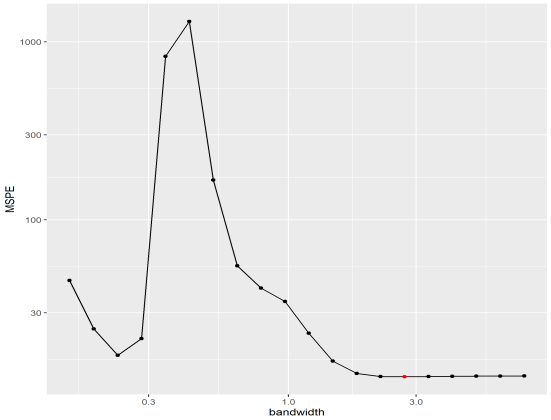
FIGURE B135. MSPE-BANDWIDTH



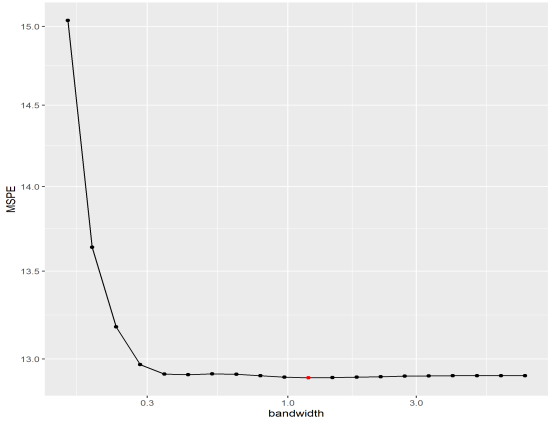
(a) Kernel: Original Command 5-fold



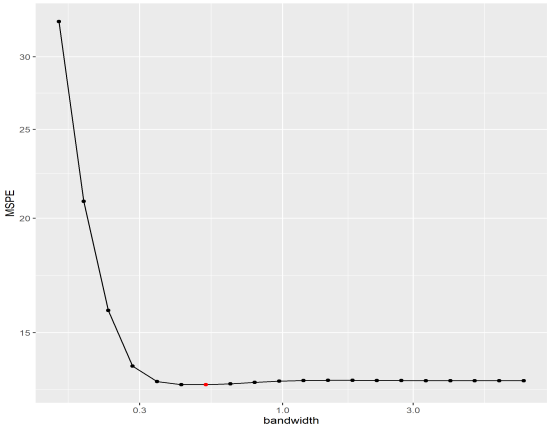
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

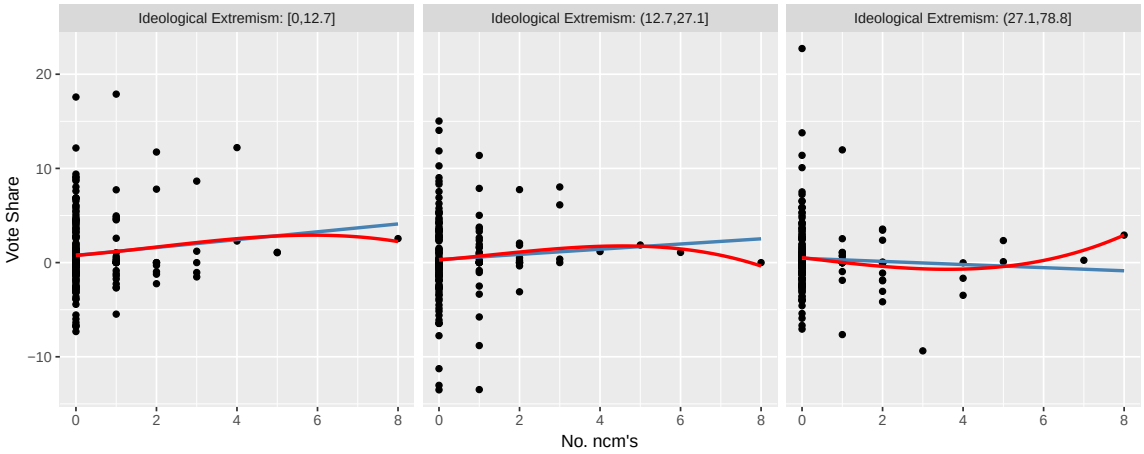
Second Interaction:

Claim on conditionality (Figure 4 in manuscript): *"For ideologically moderate parties (those with absolute ideology scores lower than 30), proposing NCMs increases their vote shares by as much as 0.75%. These marginal effects are statistically significant at the 90% confidence level. However, as the proposing party's ideology becomes more extreme and farther from the median voter, the beneficial impacts of NCMs are eliminated because voters view these signals as 'cheap talk.' For parties located 30 or more points from the center, proposing NCMs have no significant effect on vote choice. This supports the notion that the capturable voter will change her or his vote to viable government alternatives only based on credible signals."* (20).

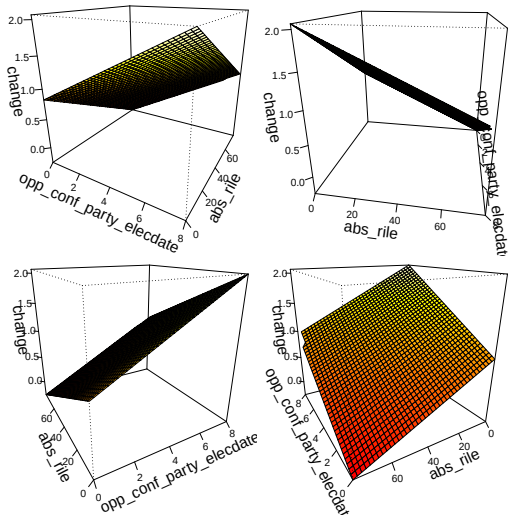
Key variables for the conditional relationship: Outcome Y: "vote change" (`change`); treatment D: "no confidence motion" (`opp_conf_party_elecdate`); moderator X: "ideological extremism" (`abs_rile`).

Note: In the binning plot below, the dashed vertical lines indicate the range of the moderator displayed in the original manuscript. The authors show 90% confidence intervals in the paper, while in both the binning plot and the kernel smoothing plot, we use 95% confidence intervals.

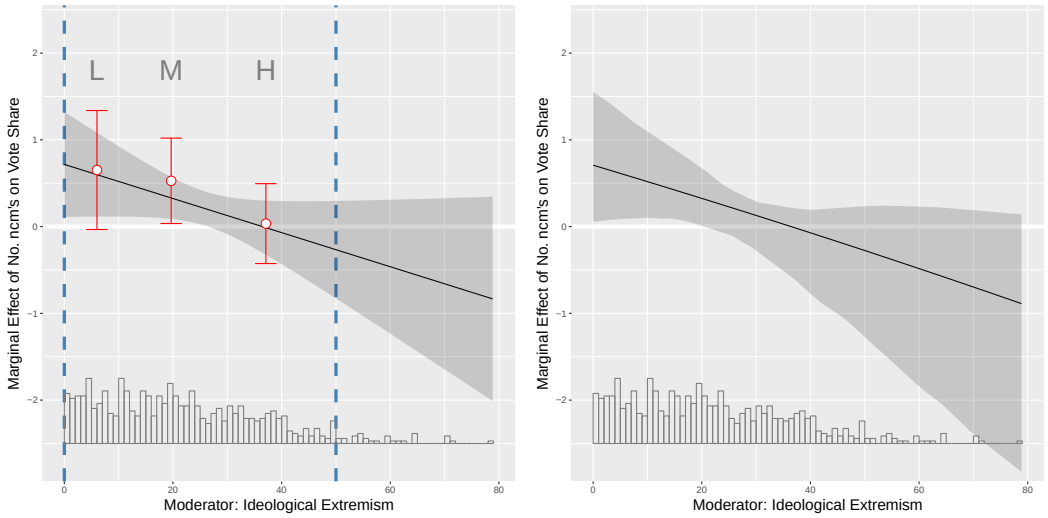
FIGURE B136. RESULTS FROM WILLIAMS (2011)



(a) Raw data



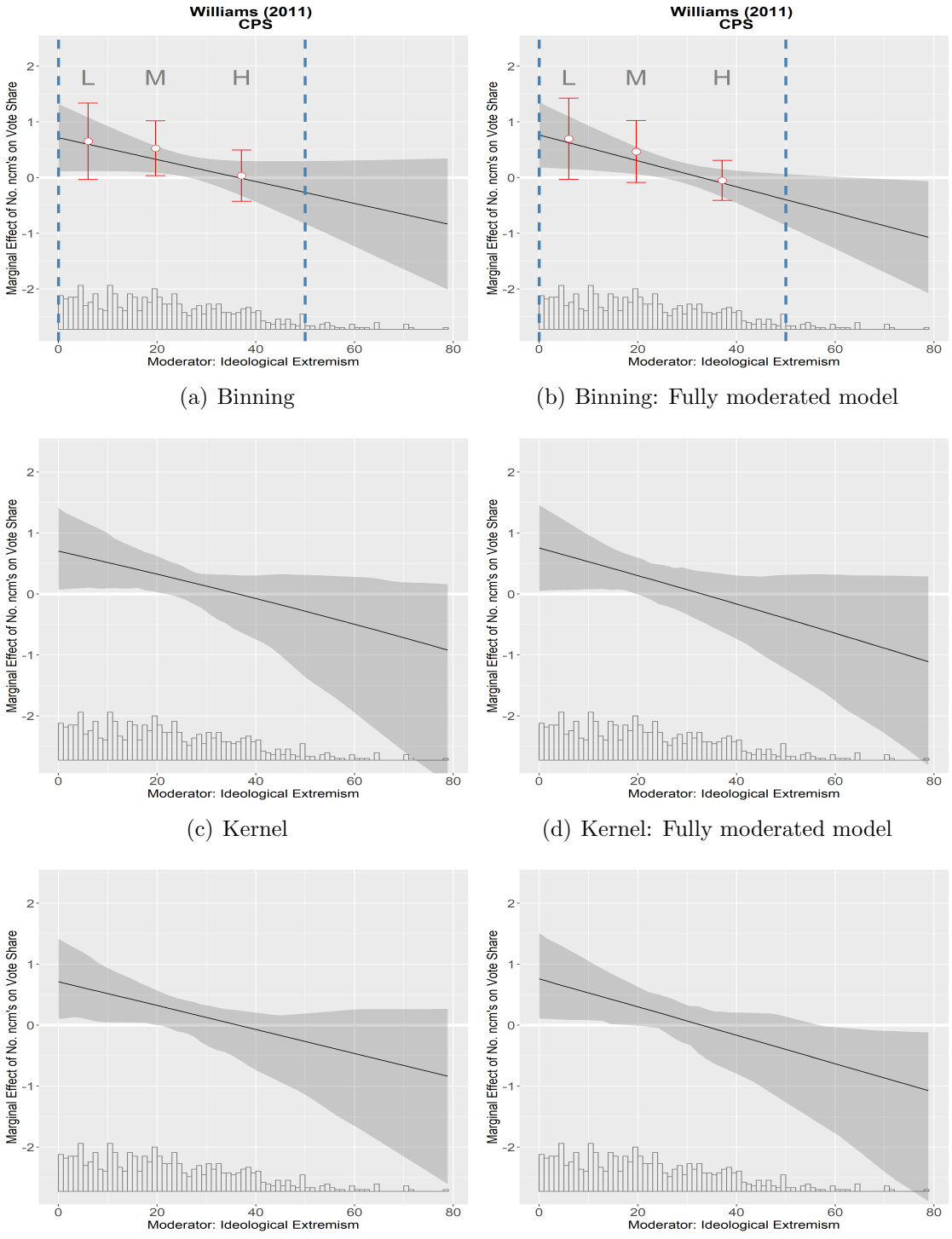
(b) GAM plot



(c) Marginal Effects from Replicated Model (black line) and from Binning Estimator (white dots)

(d) Marginal Effects from Kernel Estimator

FIGURE B137. MARGINAL EFFECTS



(a) Binning

(b) Binning: Fully moderated model

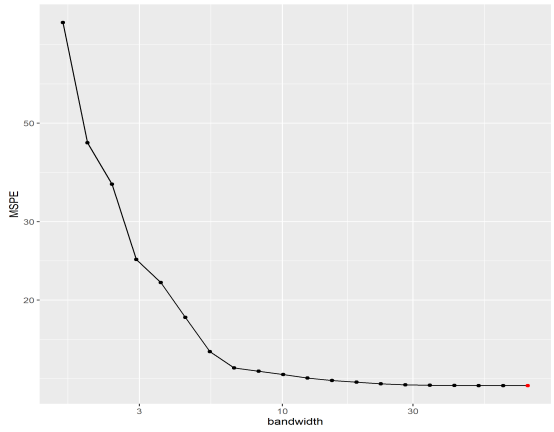
(c) Kernel

(d) Kernel: Fully moderated model

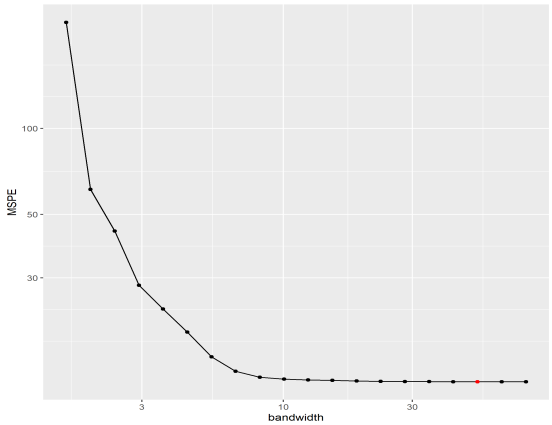
(e) Kernel: Adaptive bandwidth

(f) Kernel: Fully moderated model with adaptive bandwidth

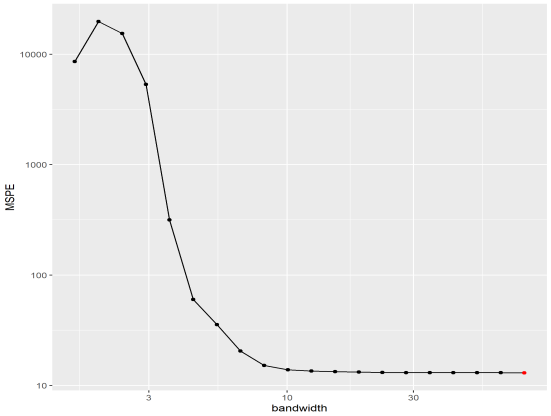
FIGURE B138. MSPE-BANDWIDTH



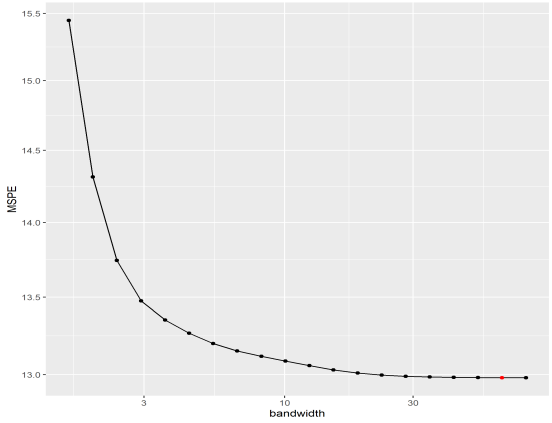
(a) Kernel: Original Command 5-fold



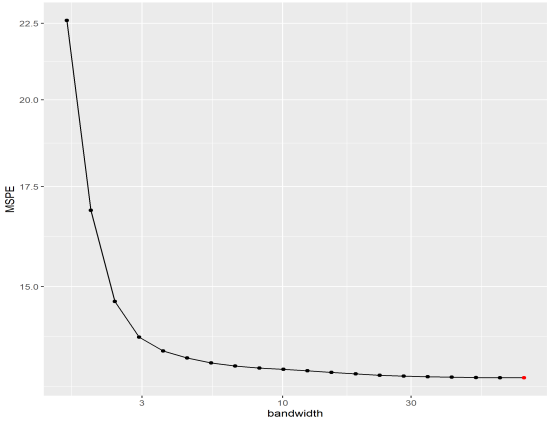
(b) Kernel: 10-fold



(c) Kernel: Fully moderated model



(d) Kernel: Adaptive bandwidth



(e) Kernel: Fully moderated model with adaptive bandwidth

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