

Supplemental Information for “Examining Repressive and Oppressive State Violence using the Ill-Treatment and Torture Data”

15 August 2019

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Additional control variable choices

For additional robustness checks, we considered the following indicators:

- Media freedom, from Whitten-Woodring and Van Belle (2017), via http://faculty.uml.edu/Jenifer_whittenwoodring/MediaFreedomData_000.aspx. Per the authors recommendations we collapsed the 3-valued media freedom indicator into a binary “functionally free” and “not free” version.
- IGO membership as an indicator of political globalization, from the COW IGO state unit dataset (Pevehouse, Nordstrom, and Warnke 2004).
- Linear and squared year trends
- Human rights organization membership (`hro_n`) and secretariat locations (`hro_secloc`). From Murdie and Davis (2012), <http://amandamurdie.org/research.html>, where the original variable names are `hrfilled` and `HRsecretariatlocation`.
- Trade as % of GDP as an economic globalization indicator. From the World Bank WDI.

The trade and HRO data contain missing values. The number of observations in a model depend on the particular combination of the 3 indicators impacted in a given specification, such that:

Variables	N	Fraction
None	1654	100
NE.TRD.GNFS.ZS	1552	94
hro_n	1209	73
hro_secloc	1208	73
hro_n, NE.TRD.GNFS.ZS	1136	69
hro_n, hro_secloc	971	59
hro_n, hro_secloc, NE.TRD.GNFS.ZS	947	57

Since any coefficient estimate differences between a model that includes one or more of these three variables with missing values and another without, we decided to not use them. Thus we restrict our sensitivity analysis to the first three items in the list above.

Sensitivity analysis

To conduct the robustness / sensitivity analysis, we followed the “reasonable specification” approach outlined in Simonsohn, Simmons, and Nelson (2015). This is a method that fits in the space between estimating a limited number of additional models for robustness checks and extreme bounds analysis where we estimate all possible combinations of specifications given a set of variables. Instead, they suggest listing a set of reasonable modeling and specification choices, where each choice is a decision between two or more alternatives, and then estimating all combinations of those choices. In the language of Gelman’s garden of forking paths (2013), we try to follow all paths a reasonable modeller might take.

In spirit this is a restricted version of extreme bounds analysis, that seeks to eliminate unreasonable specifications. For example it makes no sense to estimate a model including both raw and logged GDP, rather we would only want to examine one at a time.

We included the following choices in our sensitivity analysis:

- Model type: 2 alternatives; either a regular Poisson count model (GLM) or a Poisson count model with random country intercepts (GLMER).
- Base terms: 2 alternatives; intercept(s) only or the basic controls, as discussed in the main paper.
- Media freedom: 2 alternatives; no control or the global media freedom index
- Political globalization: 3 alternatives; no control or a count of IGO memberships or the proportion of IGOs in existence in a year that a country is member of.
- Year trend: 3 alternatives; no trend, linear trend, or squared trend

Altogether this represents 72 possible specifications. The one we report in the paper is a Poisson GLMER model with random country intercepts, includes the base control set, but does not include any other control variables. We examined each of the 72 specifications for each of the 14 variables of interest using each of the 3 dependent variables.

Altogether this comes out to 3,024 estimated models. Simonsohn et al use specification plots as the first step in interpreting the findings. Since this still leaves us with 42 specification plots overall (14 variables \times 3 DVs each), we skip this and first summarize even further by tallying, for each VOI, the number of coefficient estimates that are negative and statistically significant ($p < 0.05$), negative but $p > 0.05$, positive but $p > 0.05$ and lastly positive and significant. This is shown below in Table 1, and next we will highlight findings regarding the main results we present in the paper. After that will be a section where we show what specification plots are, followed by a list of all 42.

Summary of findings

The sensitivity results overall are consistent with the results of the core specifications reported in the paper. There are some instances where the sensitivity results are stronger than those reported in the paper, e.g. in

the same direction but with a larger proportion of statistically significant estimates (both of the EPR power variables). And there are some instances where the results tend towards but are not clearly in the other direction, e.g. for CCP Habeas Corpus we noted a negative but insignificant estimate while includes more positive estimates, although still many insignificant. We note either kind of divergence below.

Negative relationship for “Democracy 0/1”

We report a negative relationship between this and all three outcomes. This largely holds up, with significant negative estimates in all 72 specs for “dissidents”, 66 for “criminal”, and 51 for “marginalized”

Negative relationship for constitutional provisions

Negative relationships for the binary constitutional provision indicators, except one negative but insignificant estimate for “CCP Habeas Corpus” on “Criminal” in the main paper.

In the sensitivity analysis:

- the finding for “CCP Habeas Corpus” on “Criminal” actually leans towards positive or inconsistent (insignificant).
- for the remaining indicators and outcomes, they either tend to be consistent with the main paper results, or, when there are deviations, they appear to mostly be due to the model and intercept choice. Particularly, when using a regular Poisson count model without country random effects there are several sign reversals.

Positive relationships for EPR excluded groups

In the paper we note positive effects and that the effect, surprisingly, appears to be the largest for criminal victims.

These findings hold up well in the sensitivity analysis.

- for “Marignalized” victims, there are some insignificant estimates, although mostly still with positive point estimates.
- the estimate size is still overall quite large for “Criminal” victims, however, the estimate size for “Dissident” victims in the sensitivity analyses is generally larger than those in the paper, and approaching rough equality with the overall average “Criminal” victims effect sizes.

Negative but sometimes insignificant associations for V-Dem indicators

In the paper, the estimates for the V-Dem variables have negative signs, except one positive but insignificant estimate (for Legislative Constraints - Criminal victim type). Four of the negative sign coefficients do not have statistical significance, the remaining do. The sensitivity analysis is again largely consistent with these results.

Notable divergences are:

- The negative but insignificant effects for Power by socioeconomic position and social group on Criminal victim type are actually more strongly negative and significant in the sensitivity analysis.
- For judicial constraints and criminal victim types, the paper estimates are negative but insignificant, whereas in the sensitivity analysis the estimates more strongly lean towards clearly negative, especially in the global intercept only regular Poisson count models.
- For legislative constraints the paper results are slightly positive but insignificant; the sensitivity results are quite divergent. The country random intercept Poisson GLMER model produces mostly positive but insignificant estimates, while out of the global intercept only Poisson GLM's 36 estimates all were significant but 6 with positive signs and 30 with negative signs. The 6 Poisson GLM estimates with positive signs all exclude the basic controls, i.e. “Intercept(s) only” and exclude either of the political globalization indicators, i.e. have “None”. Changing either of those two choices flips the sign to negative.

Table 1: Summary of sensitivity analysis estimates

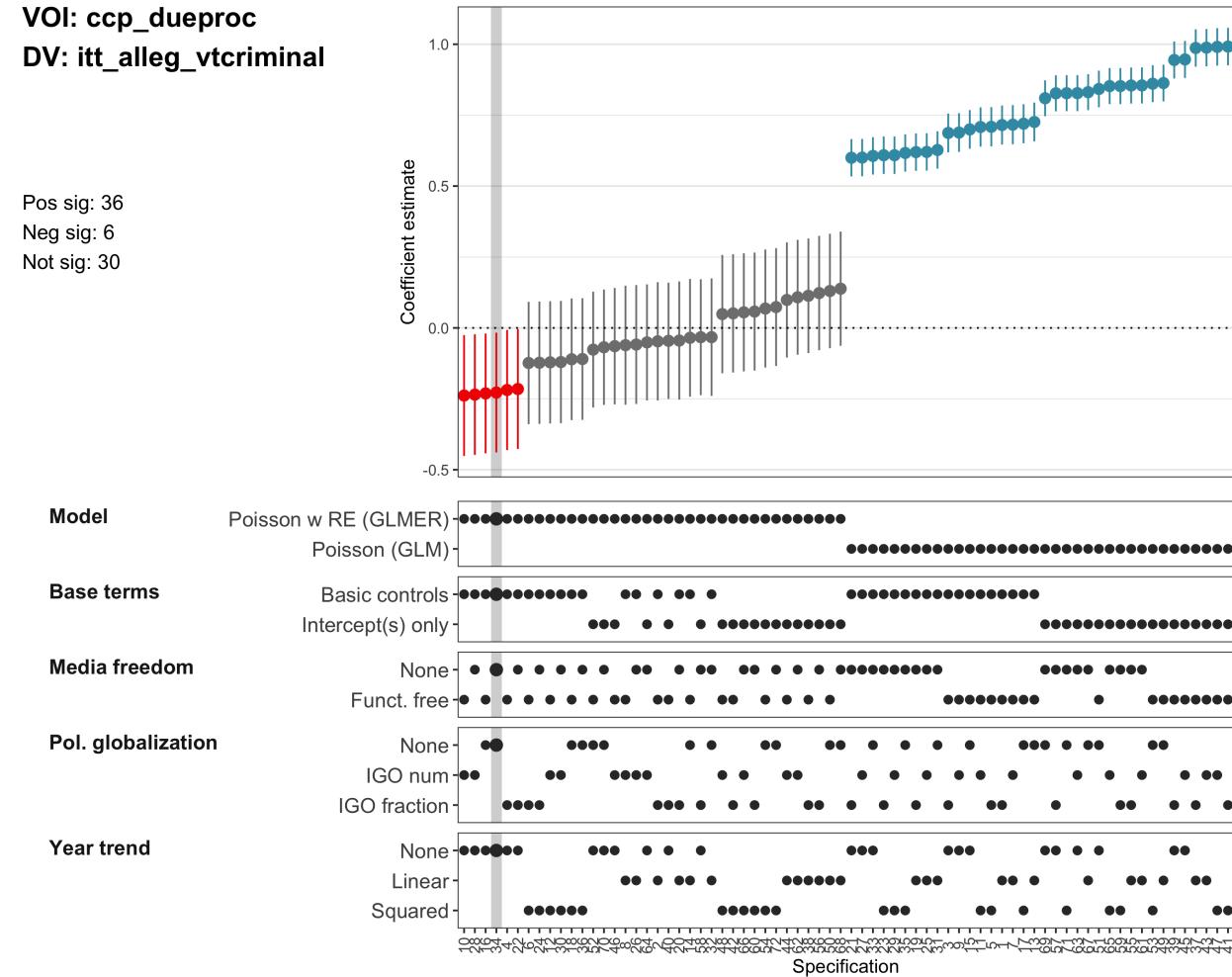
Variable	Outcome	β			
		$p > 0.05$			
		-	-	+	+
Democracy, 0/1	Criminal	66	0	3	3
	Dissident	72	0	0	0
	Marginalized	51	0	1	20
CCP Due process	Criminal	6	18	12	36
	Dissident	39	15	0	18
	Marginalized	45	5	4	18
CCP Habeas corpus	Criminal	0	7	18	47
	Dissident	72	0	0	0
	Marginalized	36	5	26	5
CCP Pretrial release	Criminal	36	0	0	36
	Dissident	63	0	0	9
	Marginalized	36	9	3	24
CCP Speedy trial	Criminal	36	0	0	36
	Dissident	64	6	2	0
	Marginalized	29	25	0	18
CCP Torture	Criminal	30	13	14	15
	Dissident	66	6	0	0
	Marginalized	45	12	13	2
EPR Excluded groups (% of total pop)	Criminal	0	0	0	72
	Dissident	0	0	0	72
	Marginalized	0	0	12	60
EPR Excluded groups (count)	Criminal	0	0	0	72
	Dissident	0	0	0	72
	Marginalized	0	2	26	44
VDem Civil liberty social class equality	Criminal	72	0	0	0
	Dissident	72	0	0	0
	Marginalized	72	0	0	0
VDem Civil liberty social group equality	Criminal	60	12	0	0
	Dissident	72	0	0	0
	Marginalized	72	0	0	0
VDem Judicial constraints on executive	Criminal	51	21	0	0
	Dissident	72	0	0	0
	Marginalized	69	0	0	3
VDem Legislative constraints on executive	Criminal	30	4	32	6
	Dissident	72	0	0	0
	Marginalized	36	22	11	3
VDem Power by social group	Criminal	41	30	1	0
	Dissident	72	0	0	0
	Marginalized	69	0	0	3
VDem Power by socioeconomic position	Criminal	61	11	0	0
	Dissident	72	0	0	0
	Marginalized	70	2	0	0

Specification plots

The specification plots provide more details than our summary above does, and also make it possible to identify, to some extent, which specification choices lead to certain findings. Thus we include them here for anyone interested in more detail.

Introduction

This is an example of a specification plot for the indicator of whether a country constitution includes a due process provision (`ccp_dueproc`) and where the DV is ITT allegations of criminal torture (`itt_alleg_vtcriminal`).



The plot consists of two main elements. The panel on the top shows the coefficient estimates for the variable of interest over a number of different specification on the x-axis. The points and lines show point estimates and 95% confidence intervals; they are colored red and blue for statistically significant ($p\text{-value} < 0.05$) negative and positive effects and grey for statistically insignificant estimates.

The second panel at the bottom shows details for each specification. All the way on the left are the labels for each specification choice; the elements from which one could choose are in the next column. For example for “Model” we made a choice between a regular Poisson count model with global intercept only, versus a GLMER Poisson model that also includes country random effects (RE). The x-axis are still specifications, and the dots in the plot mark what choices were made in each specification.

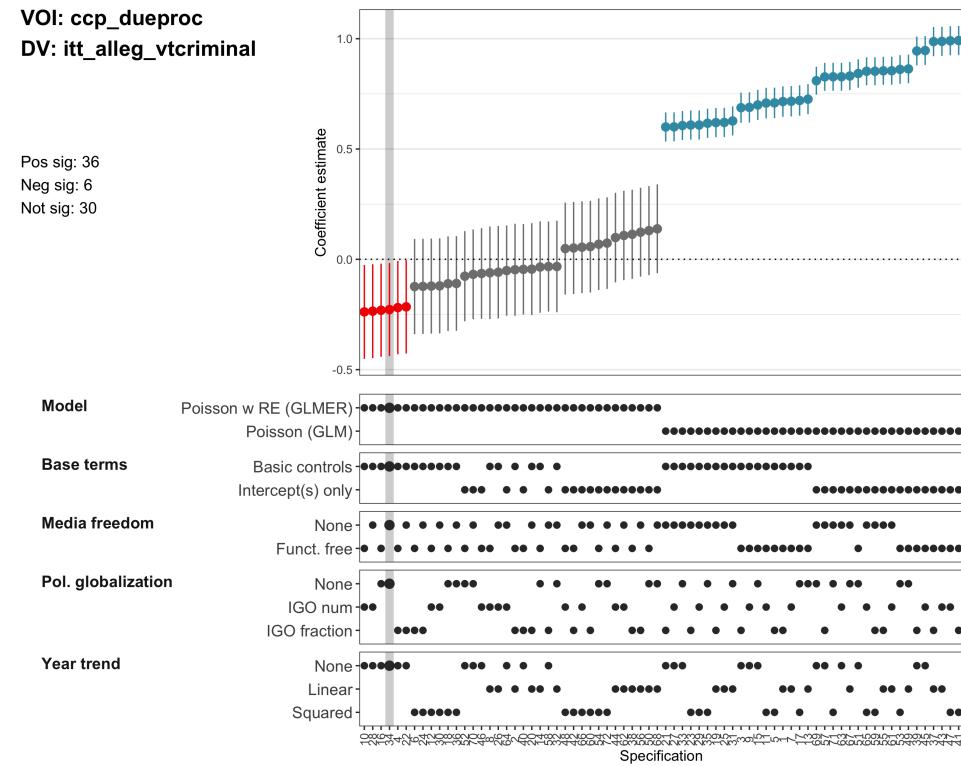
The specification we used in the main paper are highlighted in both blots with the grey rectangles. We’ve also

annotated each plot with text in the top left that summarizes the number of significant positive or negative, as well as insignificant, estimates.

In terms of interpretation, we can firstly see that a large but not overwhelming proportion of estimates are positive and significant. The patterns of dots in the specification bottom plot can give some hints at what is driven estimate patterns. Long sequences like that for “Model” indicate that a specification choice is strongly related to estimates, and indeed the positive and significant estimates are entirely due to using a model with only a global, not country random, intercepts. Uniform spacing on the other hand indicates that a choice plays only a small role. This is for example the case with Media freedom when using a Poisson RE model—the estimates change only slightly as the media freedom indicator changes.

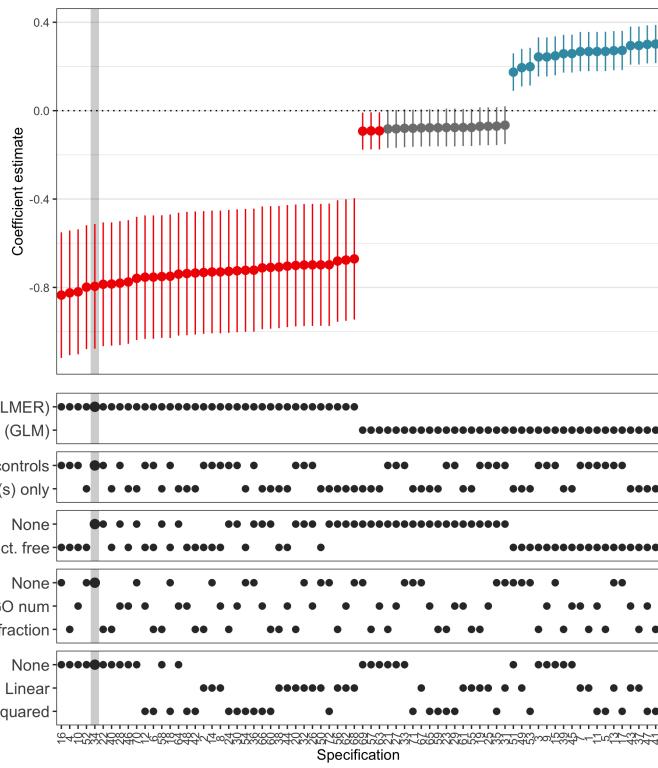
List of all specification plots, by VOI

VOI: ccp_dueproc



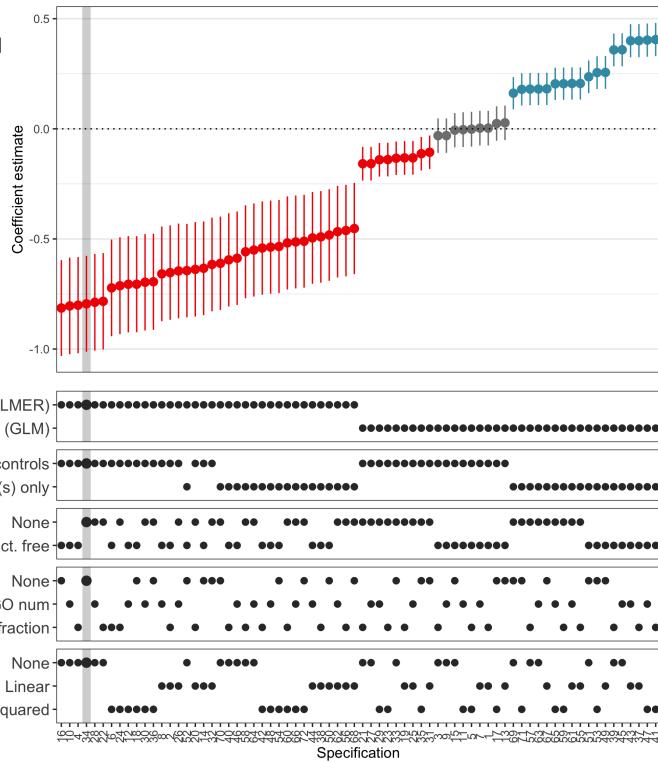
VOI: ccp_dueproc
DV: itt_alleg_vtdissident

Pos sig: 18
 Neg sig: 39
 Not sig: 15



VOI: ccp_dueproc
DV: itt_alleg_vtmarginalized

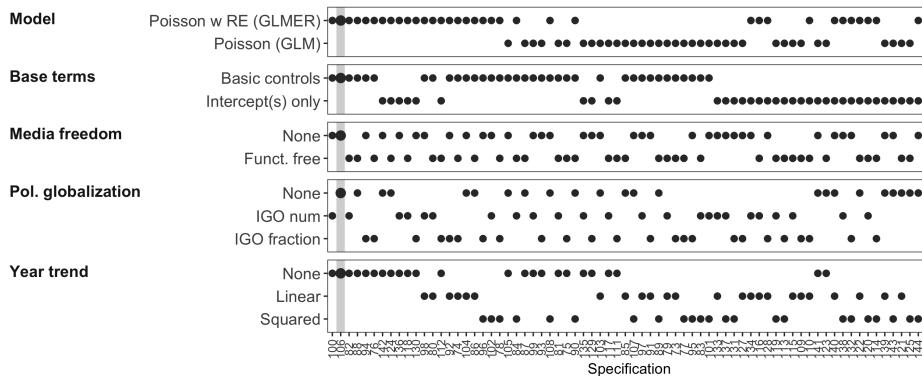
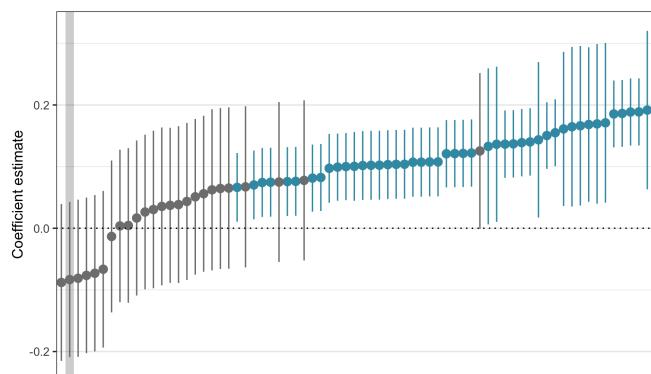
Pos sig: 18
 Neg sig: 45
 Not sig: 9



VOI: ccp_habcorp

VOI: ccp_habcorp
DV: itt_alleg_vtcriminal

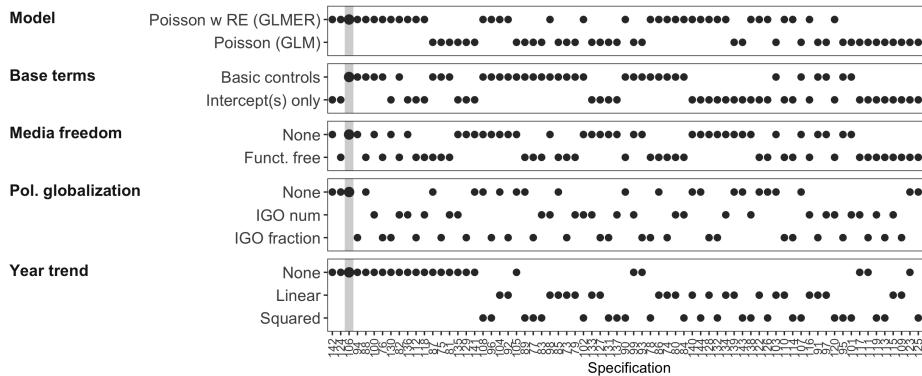
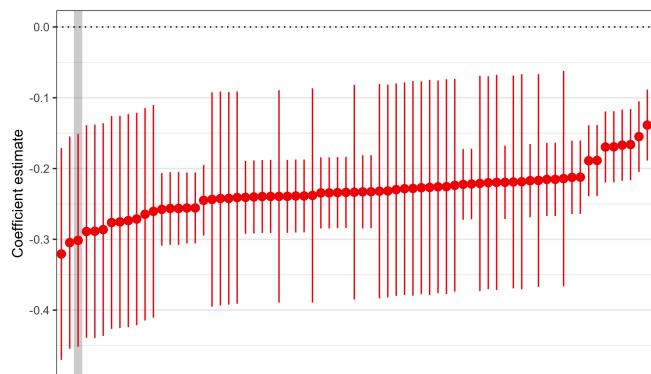
Pos sig: 47
Neg sig: 0
Not sig: 25



VOI: ccp_habcorp

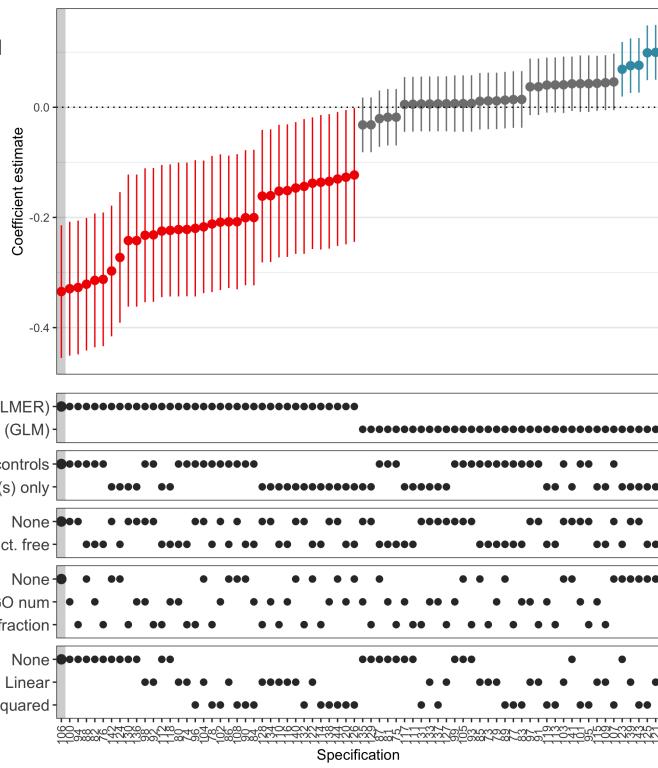
DV: itt_alleg_vtdissident

Pos sig: 0
Neg sig: 72
Not sig: 0



VOI: ccp_habcorp
DV: itt_alleg_vtmarginalized

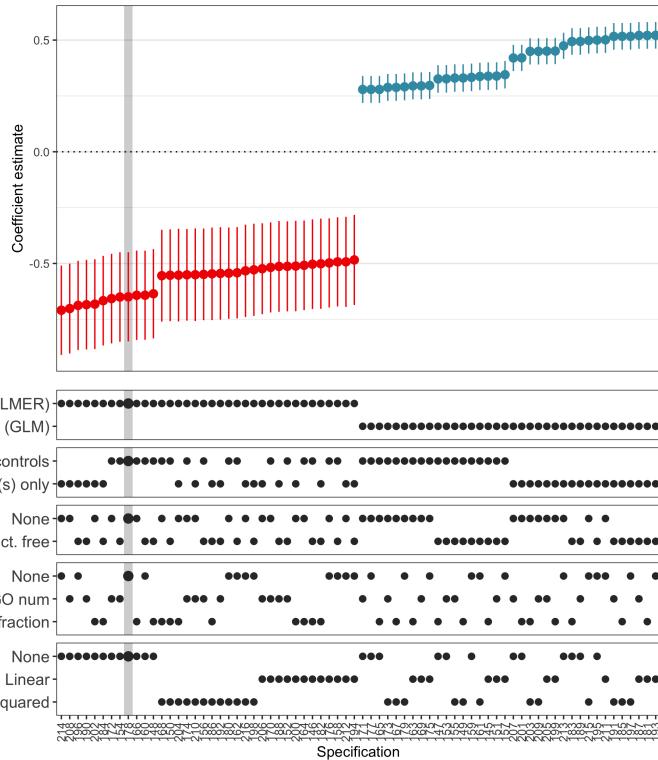
Pos sig: 5
 Neg sig: 36
 Not sig: 31



VOI: ccp_prerel

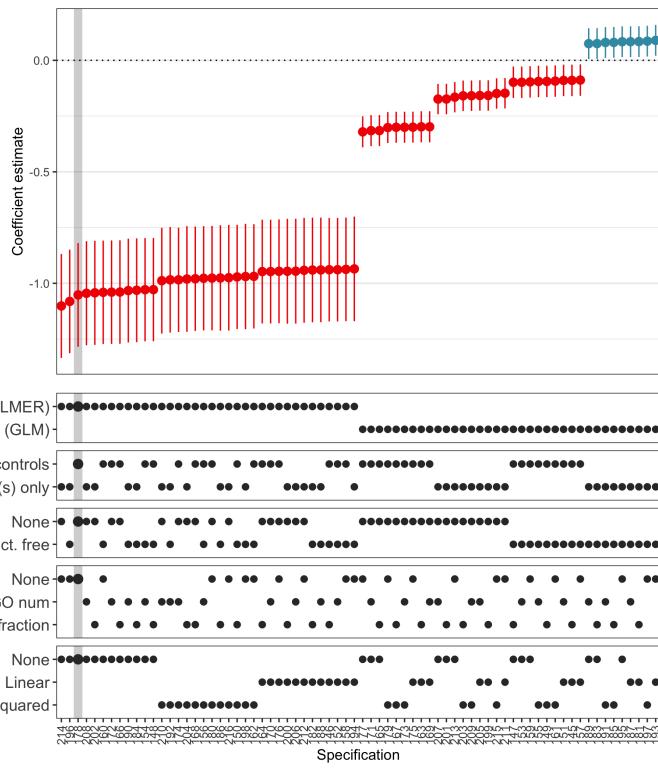
VOI: ccp_prerel
DV: itt_alleg_vtcriminal

Pos sig: 36
 Neg sig: 36
 Not sig: 0



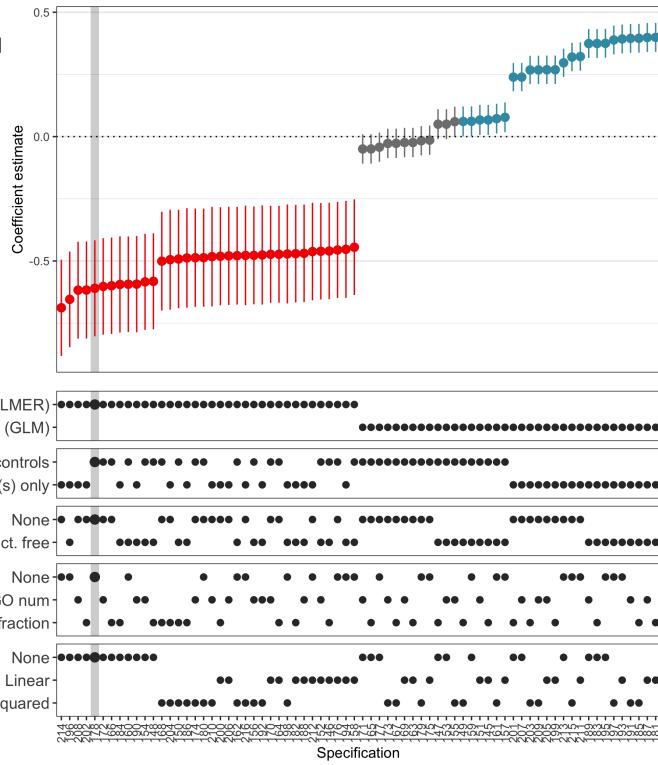
VOI: ccp_prerel
DV: itt_alleg_vtdissident

Pos sig: 9
 Neg sig: 63
 Not sig: 0



VOI: ccp_prerel
DV: itt_alleg_vtmarginalized

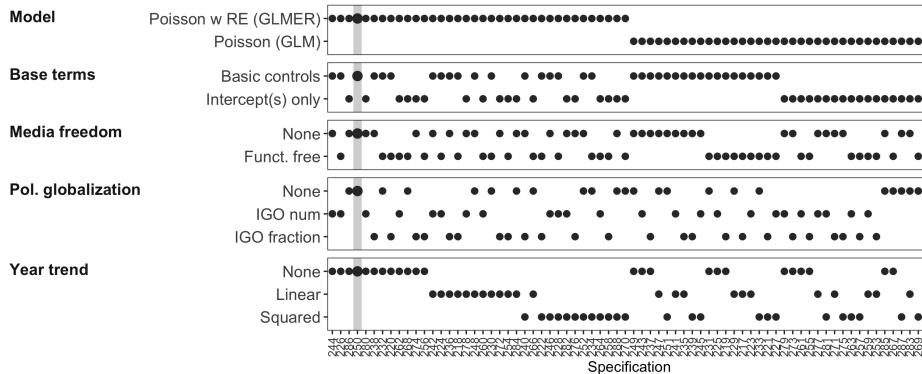
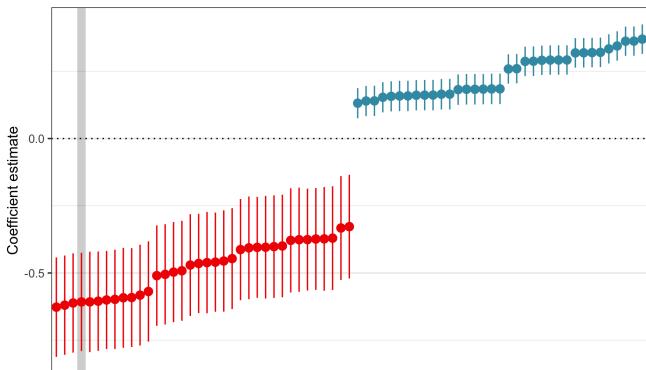
Pos sig: 24
 Neg sig: 36
 Not sig: 12



VOI: ccp_speedtri

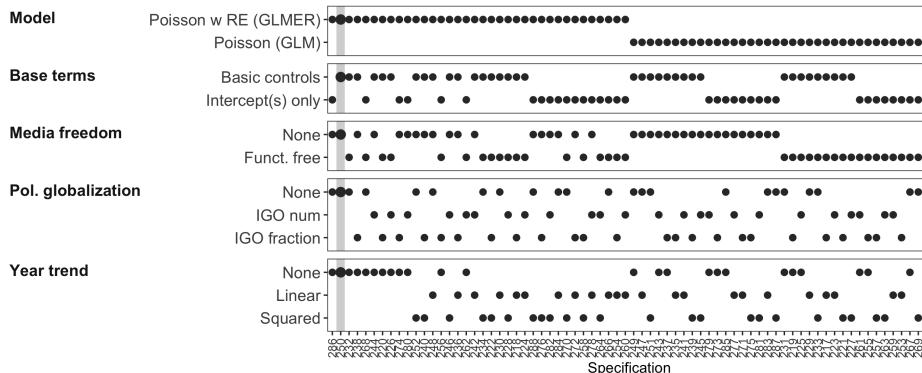
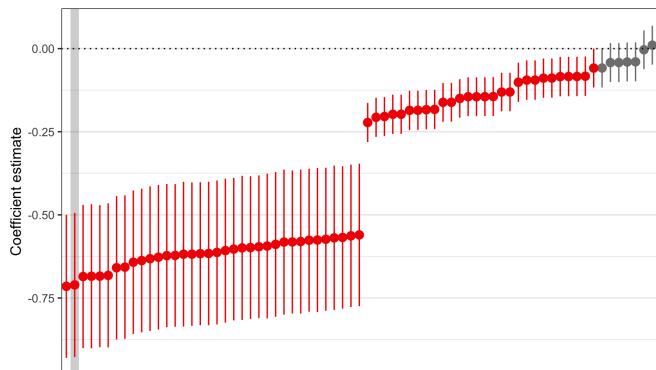
VOI: ccp_speedtri
DV: itt_alleg_vtcriminal

Pos sig: 36
Neg sig: 36
Not sig: 0



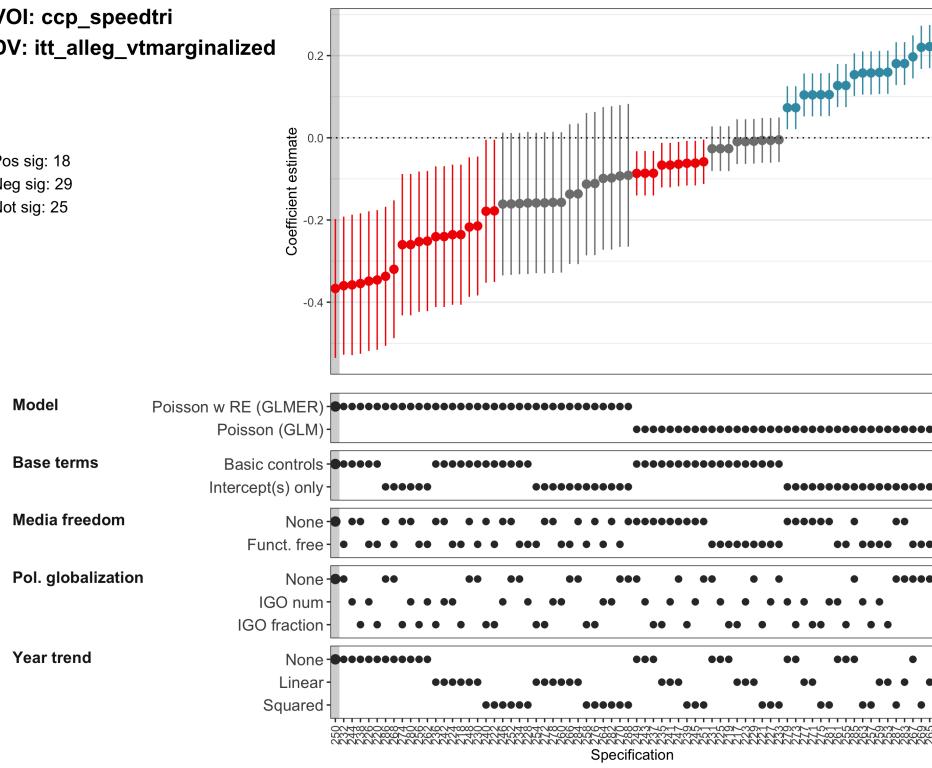
VOI: ccp_speedtri
DV: itt_alleg_vtdissident

Pos sig: 0
Neg sig: 64
Not sig: 8



VOI: ccp_speedtri
DV: itt_alleg_vtmarginalized

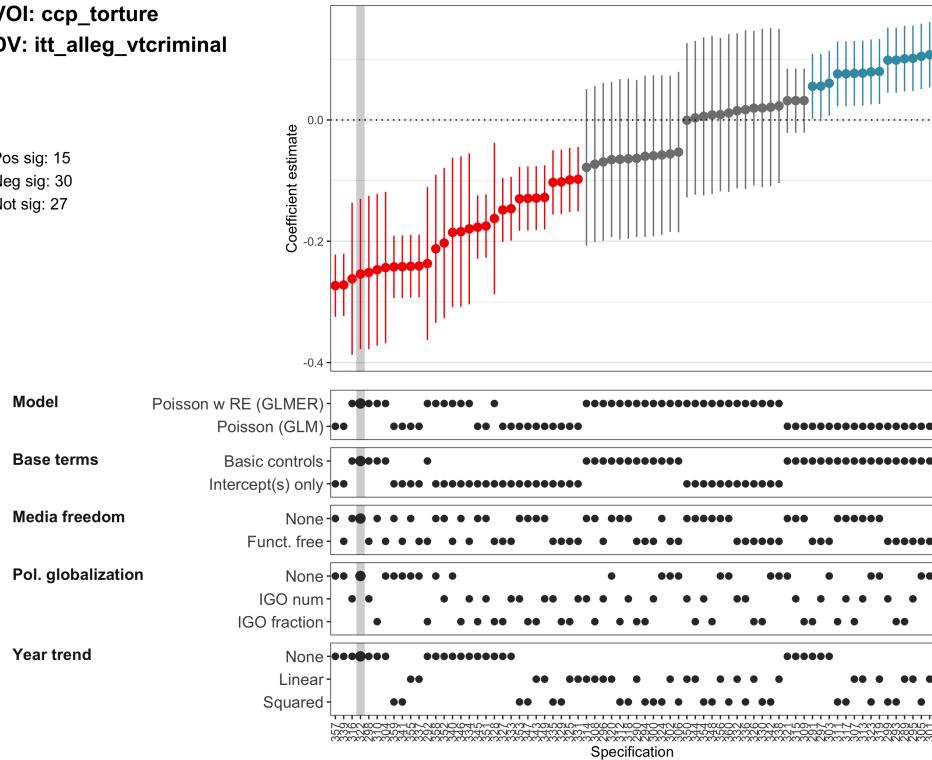
Pos sig: 18
 Neg sig: 29
 Not sig: 25



VOI: ccp_torture

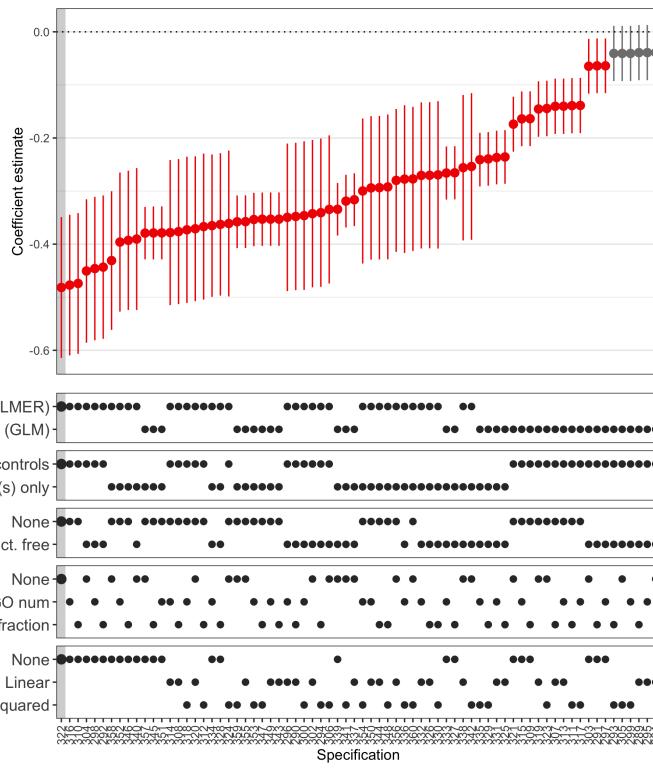
VOI: ccp_torture
DV: itt_alleg_vtcriminal

Pos sig: 15
 Neg sig: 30
 Not sig: 27



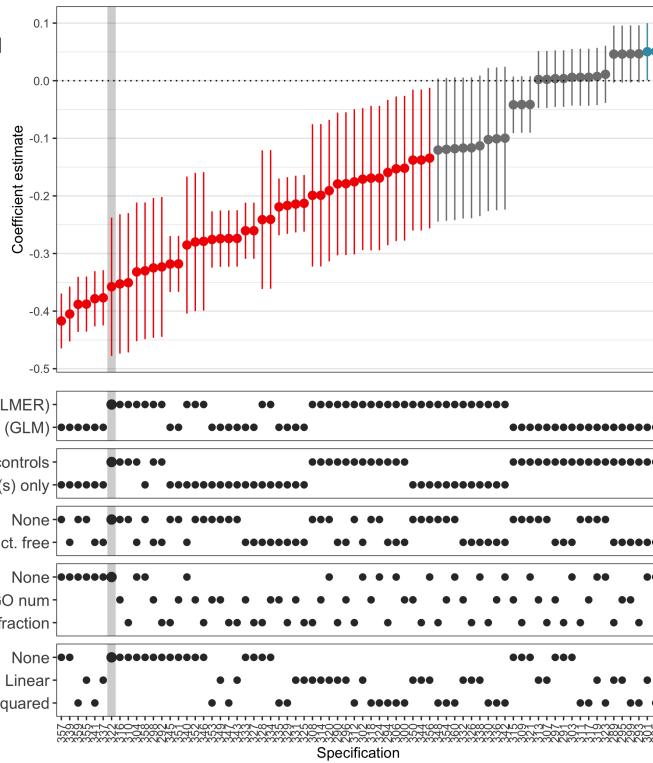
VOI: ccp_torture
DV: itt_alleg_vtdissident

Pos sig: 0
 Neg sig: 66
 Not sig: 6



VOI: ccp_torture
DV: itt_alleg_vtmarginalized

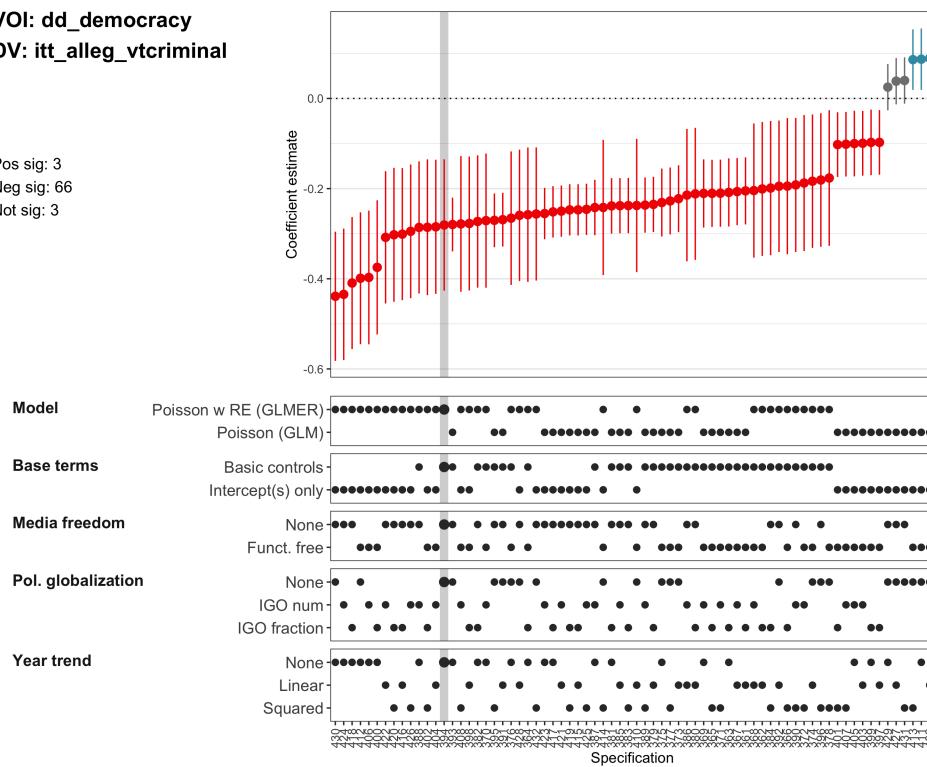
Pos sig: 2
 Neg sig: 45
 Not sig: 25



VOI: dd_democracy

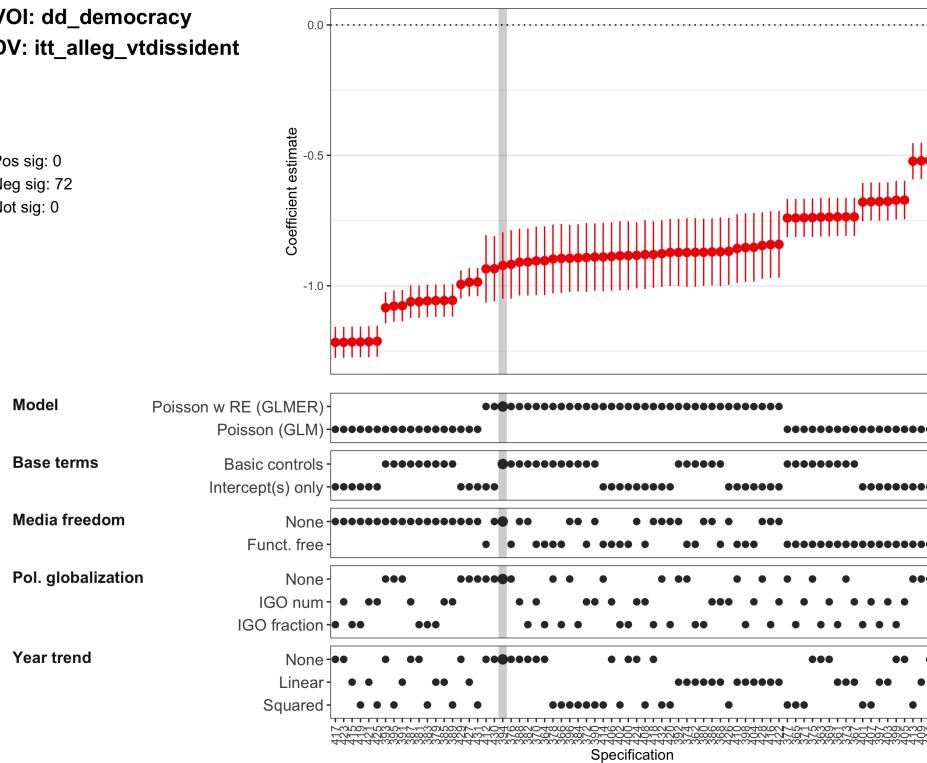
VOI: dd_democracy
DV: itt_alleg_vtcriminal

Pos sig: 3
Neg sig: 66
Not sig: 3



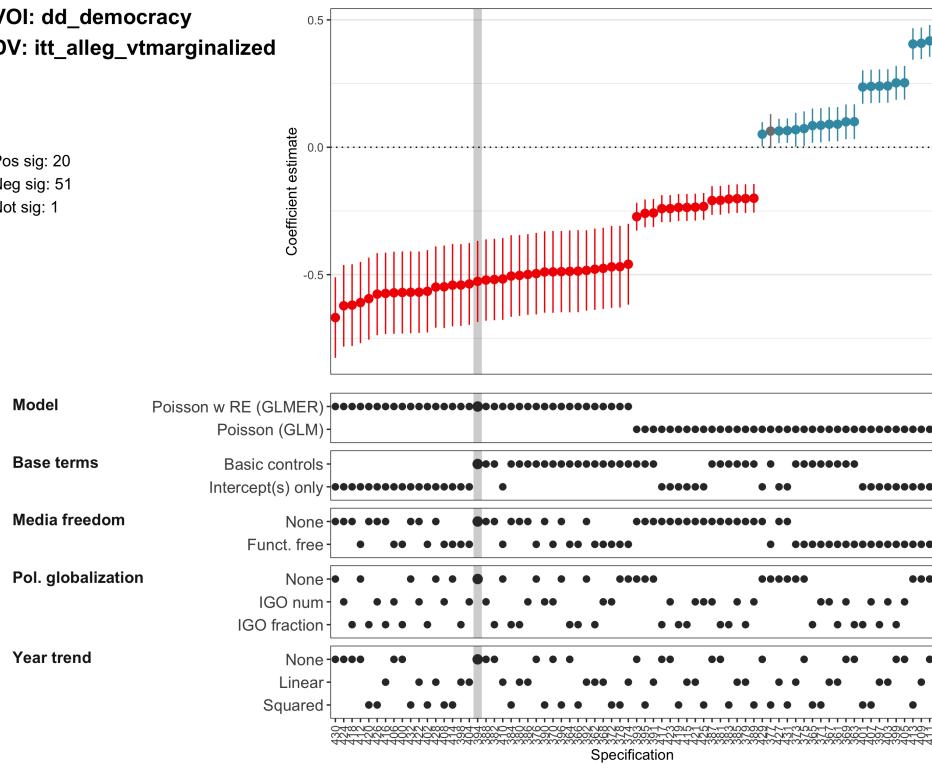
VOI: dd_democracy
DV: itt_alleg_vtdissident

Pos sig: 0
Neg sig: 72
Not sig: 0



VOI: dd_democracy
DV: itt_alleg_vtmarginalized

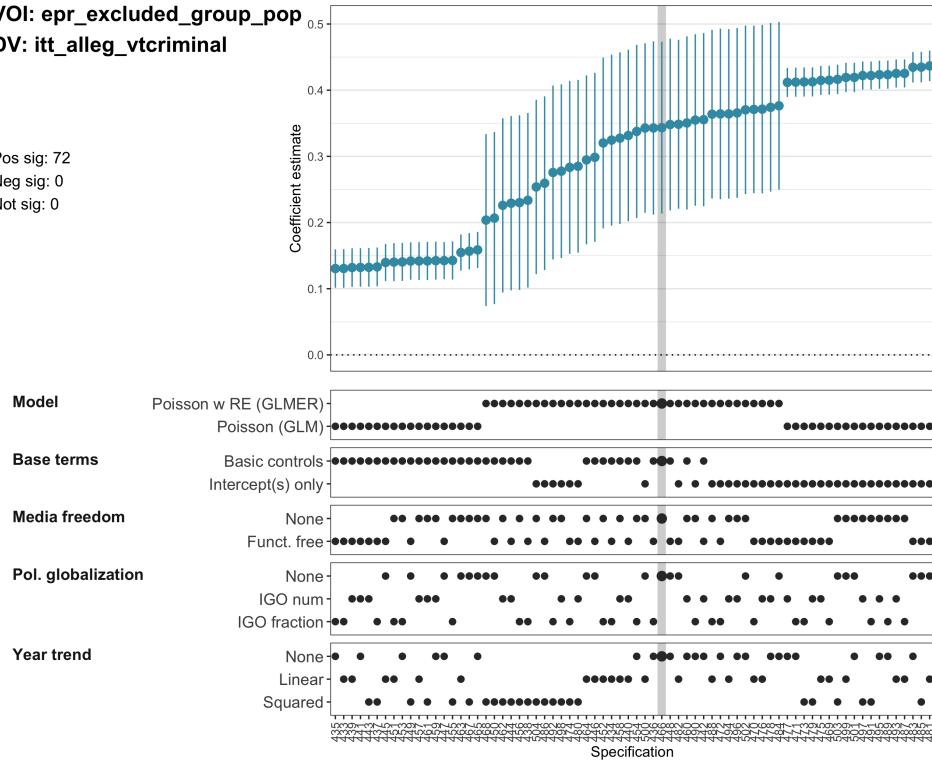
Pos sig: 20
 Neg sig: 51
 Not sig: 1

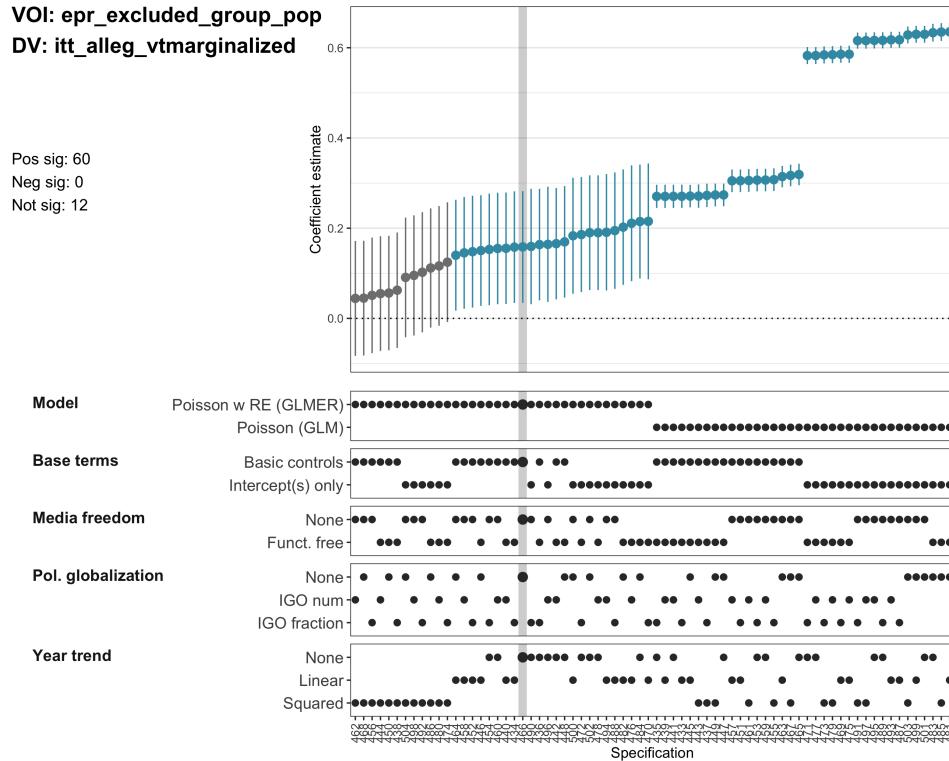
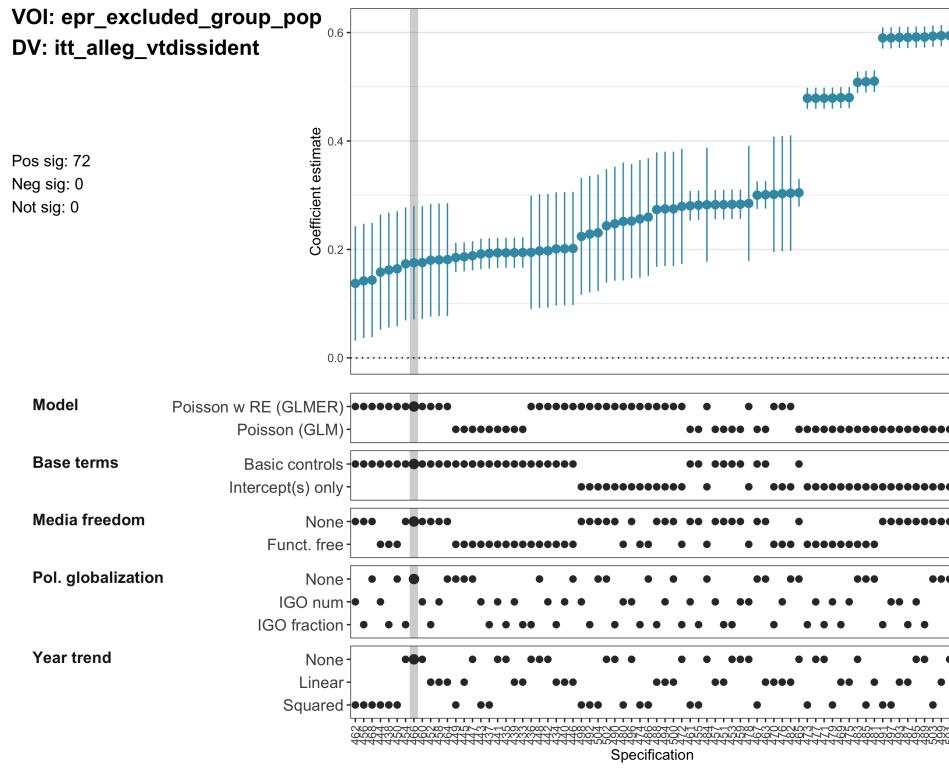


VOI: epr_excluded_group_pop

VOI: epr_excluded_group_pop
DV: itt_alleg_vtcriminal

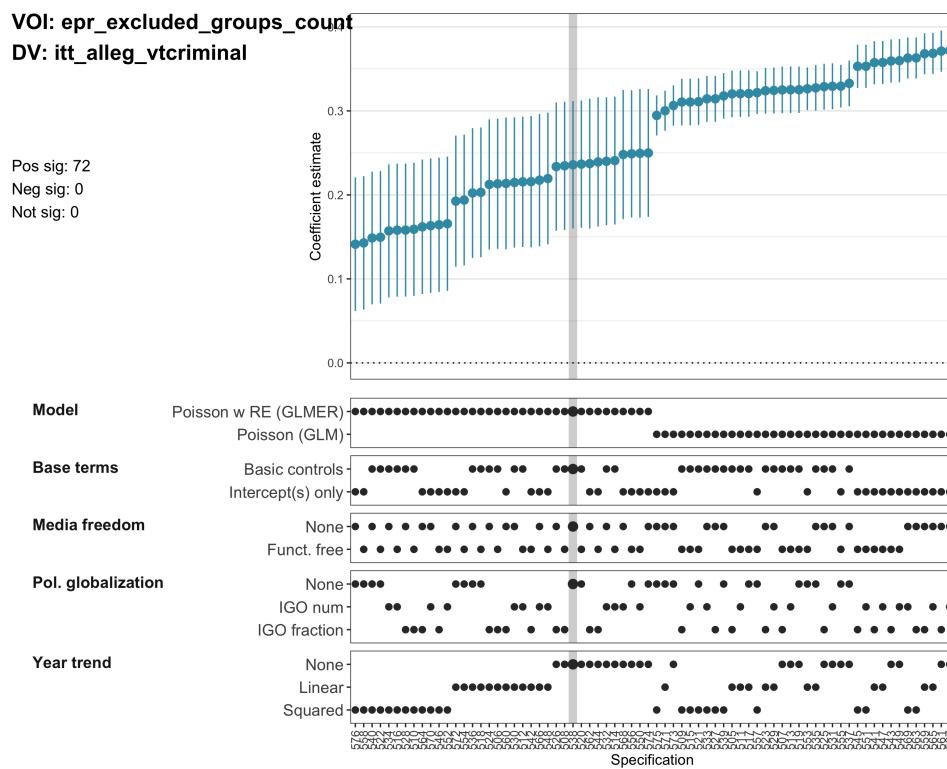
Pos sig: 72
 Neg sig: 0
 Not sig: 0



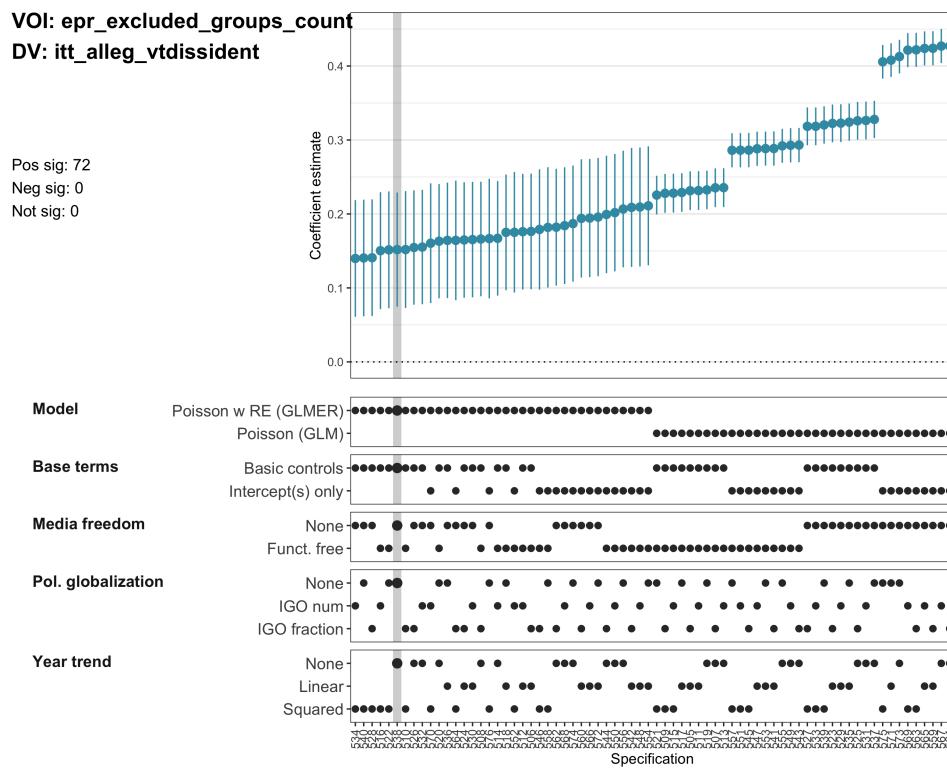


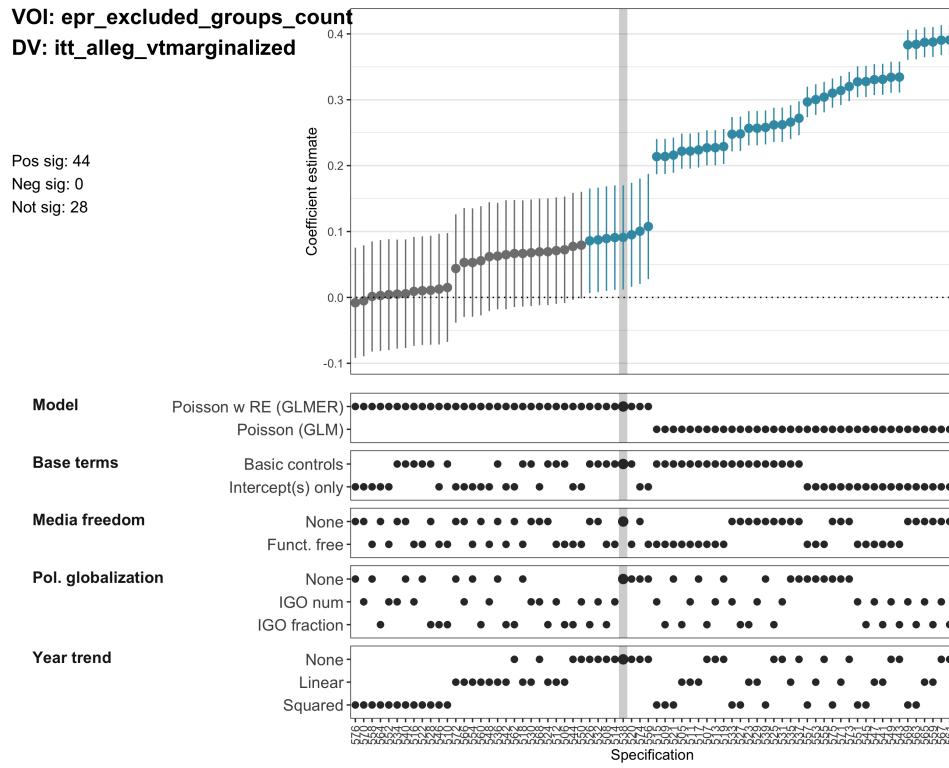
VOI: epr_excluded_groups_count

VOI: epr_excluded_groups_count
DV: itt_alleg_vtcriminal

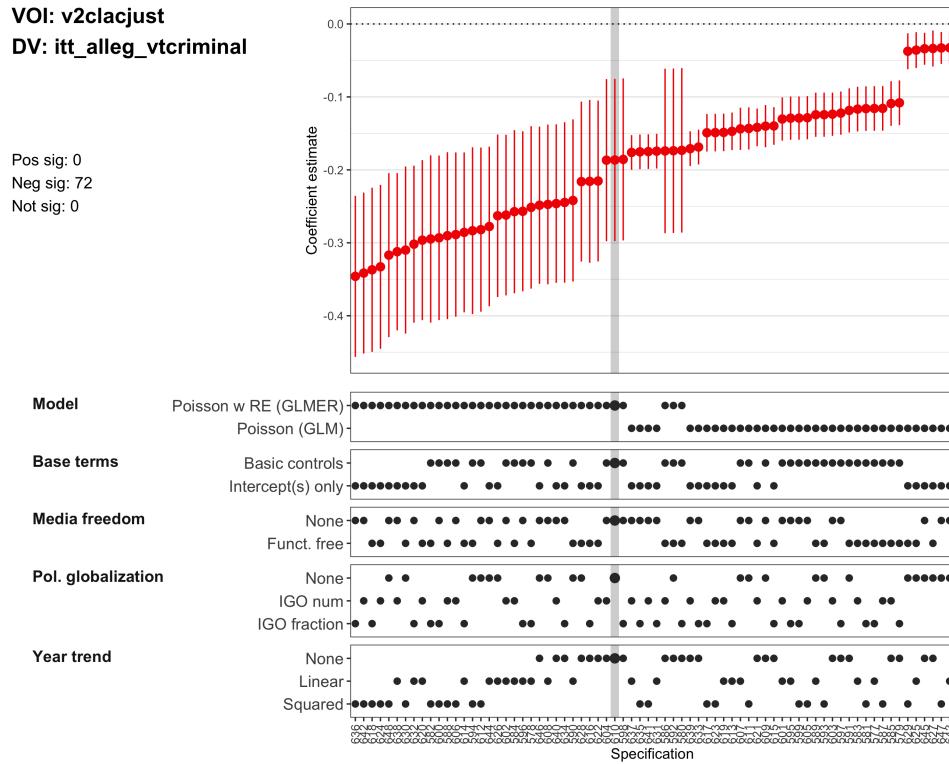


VOI: epr_excluded_groups_count
DV: itt_alleg_vtdissident



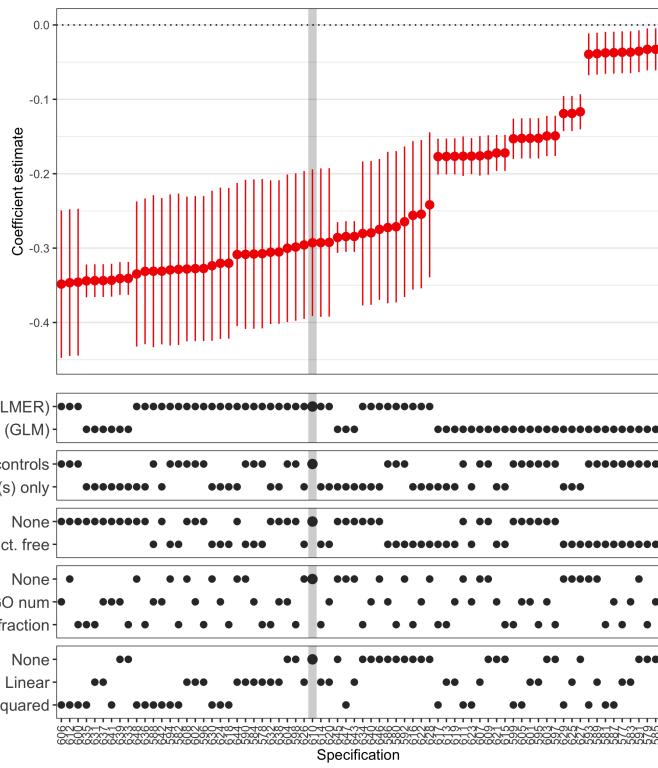


VOI: v2clacjust



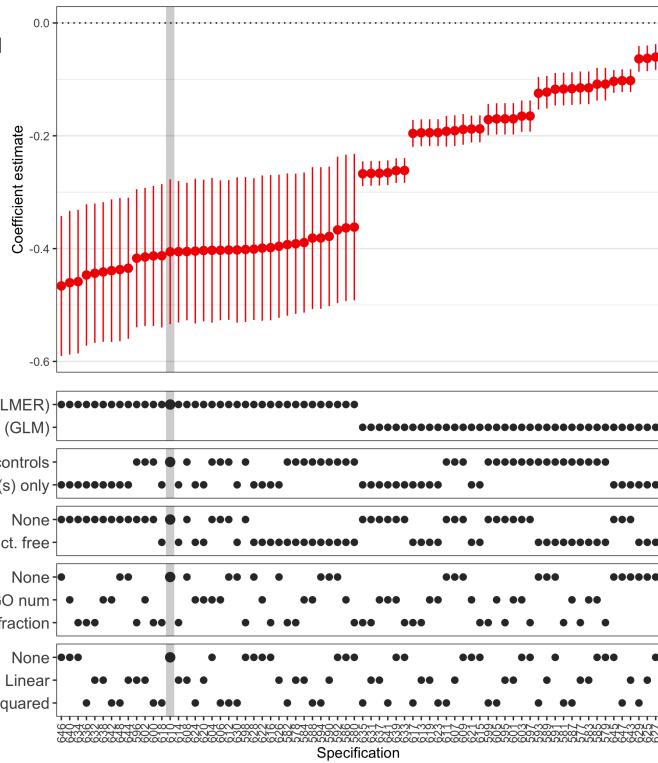
VOI: v2cladjust
DV: itt_alleg_vtdissident

Pos sig: 0
 Neg sig: 72
 Not sig: 0



VOI: v2cladjust
DV: itt_alleg_vtmarginalized

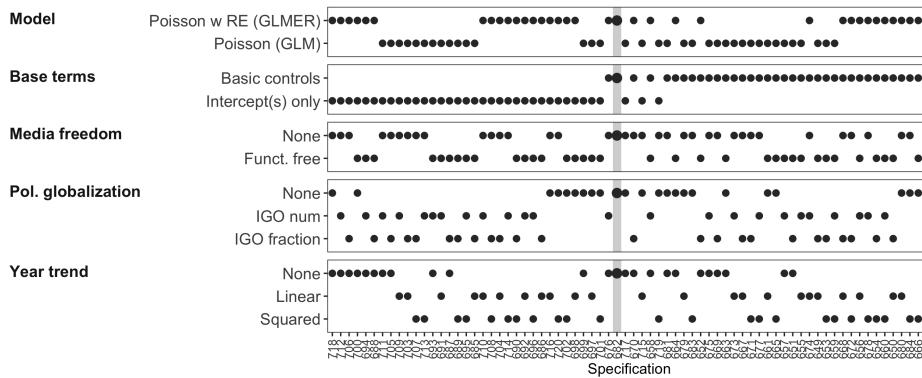
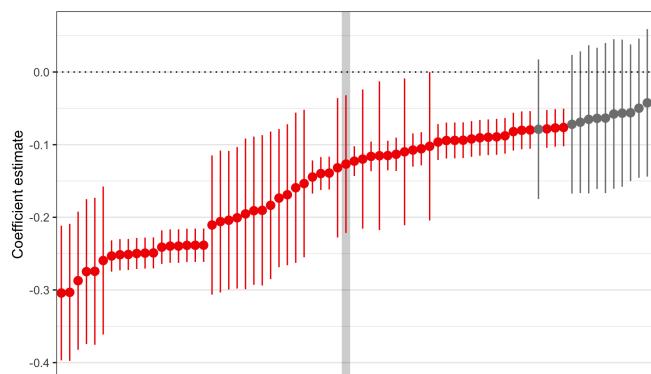
Pos sig: 0
 Neg sig: 72
 Not sig: 0



VOI: v2clsocgrp

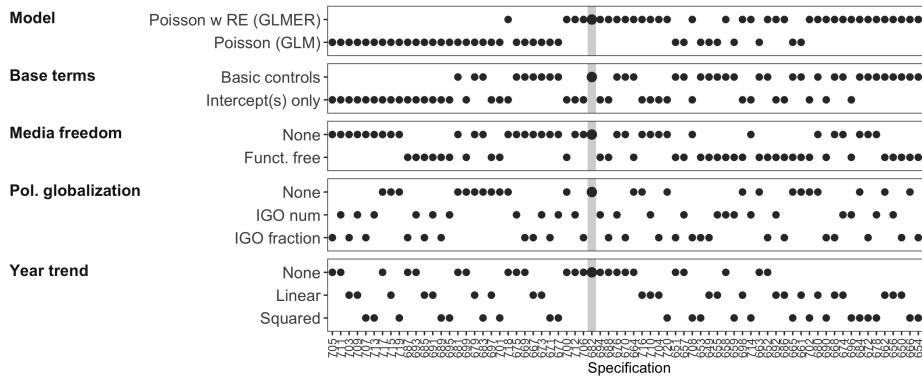
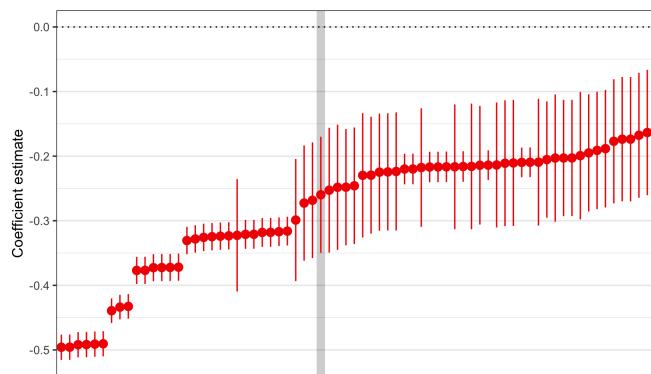
VOI: v2clsocgrp
DV: itt_alleg_vtcriminal

Pos sig: 0
Neg sig: 60
Not sig: 12



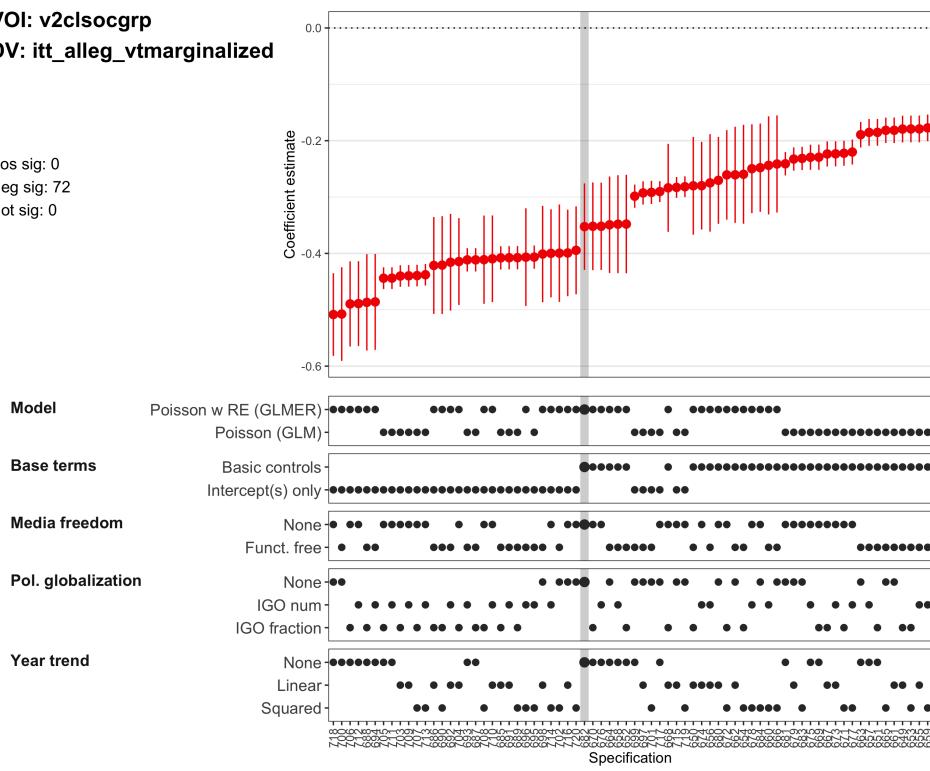
VOI: v2clsocgrp
DV: itt_alleg_vtdissident

Pos sig: 0
Neg sig: 72
Not sig: 0



VOI: v2clsocgrp
DV: itt_alleg_vtmarginalized

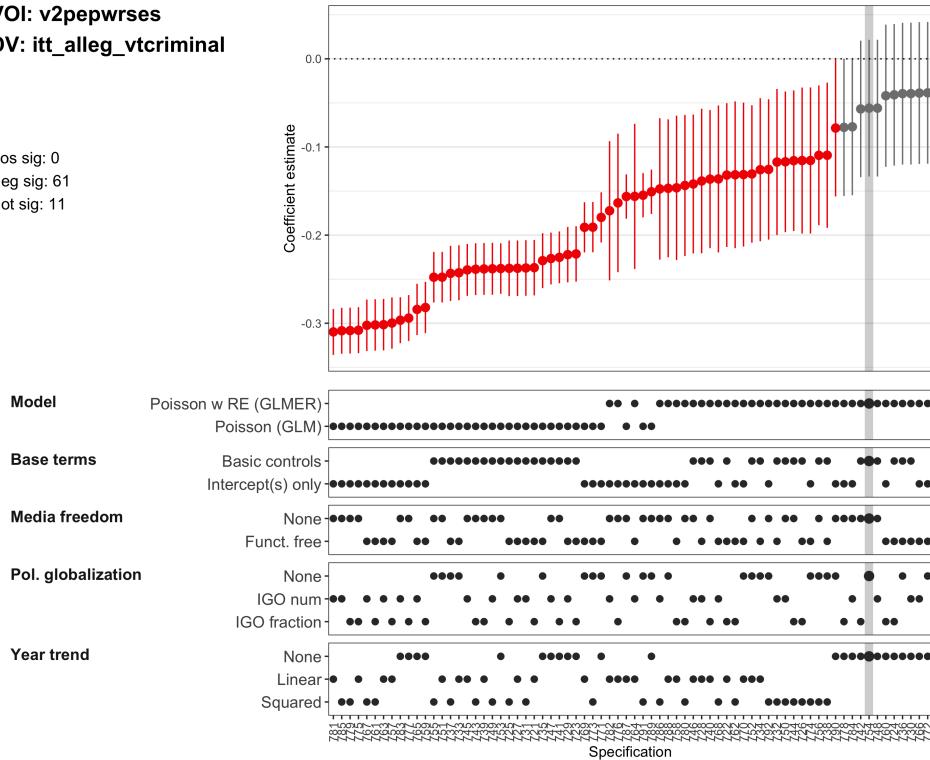
Pos sig: 0
 Neg sig: 72
 Not sig: 0



VOI: v2pepwrses

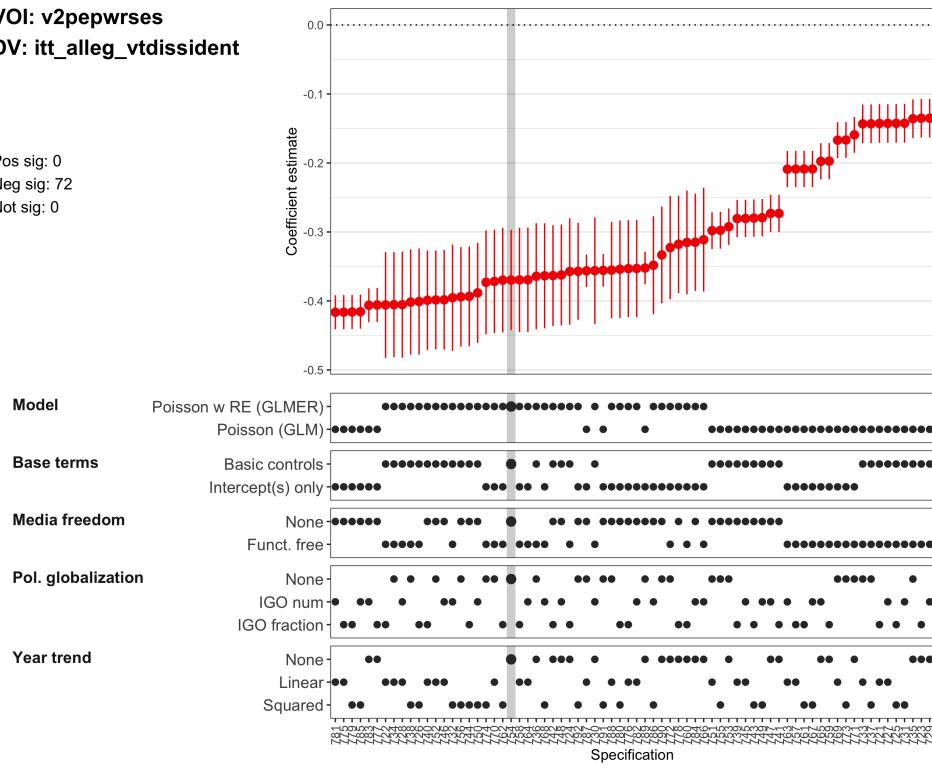
VOI: v2pepwrses
DV: itt_alleg_vtcriminal

Pos sig: 0
 Neg sig: 61
 Not sig: 11



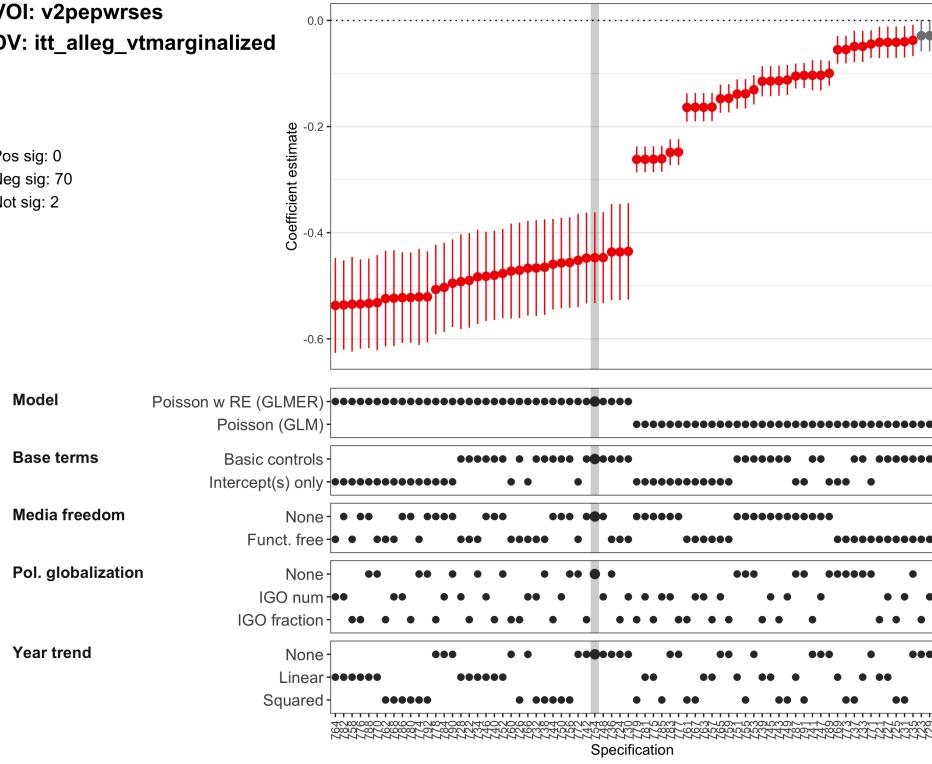
VOI: v2pepwrses
DV: itt_alleg_vtdissident

Pos sig: 0
 Neg sig: 72
 Not sig: 0



VOI: v2pepwrses
DV: itt_alleg_vtmarginalized

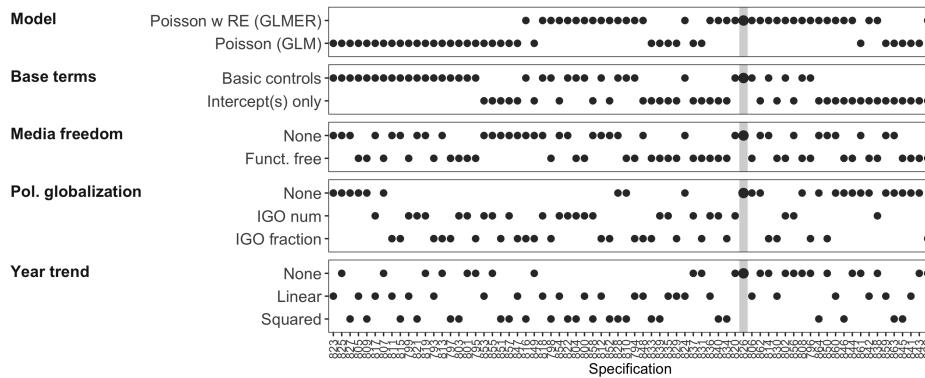
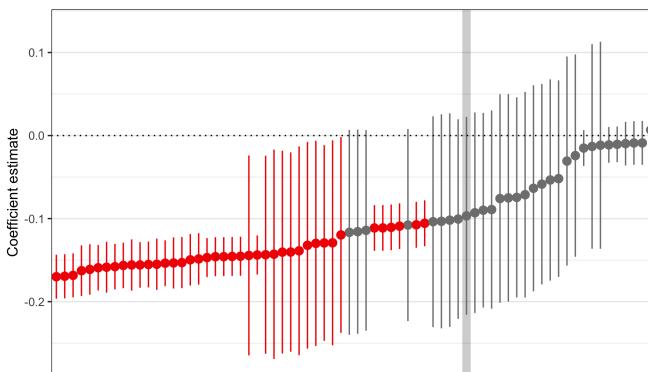
Pos sig: 0
 Neg sig: 70
 Not sig: 2



VOI: v2pepwrsoc

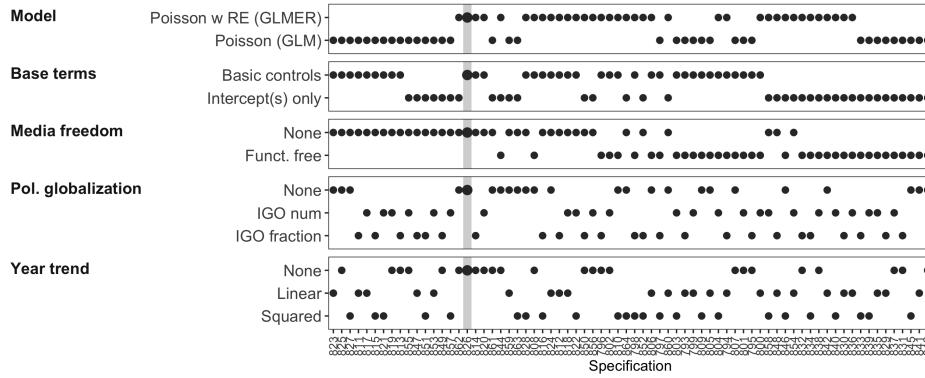
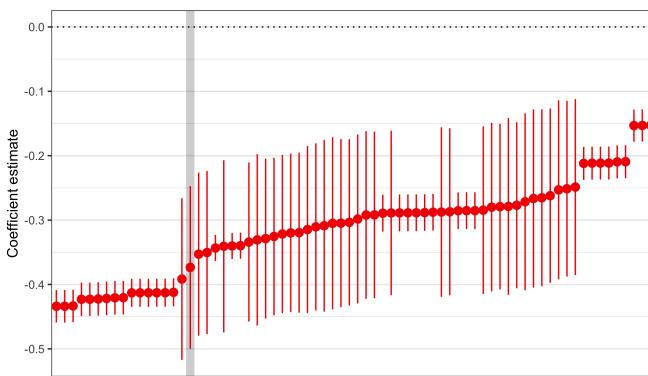
VOI: v2pepwrsoc
DV: itt_alleg_vtcriminal

Pos sig: 0
Neg sig: 41
Not sig: 31



VOI: v2pepwrsoc
DV: itt_alleg_vtdissident

Pos sig: 0
Neg sig: 72
Not sig: 0



VOI: v2pepwrsoc
DV: itt_alleg_vtmarginalized

Pos sig: 3
 Neg sig: 69
 Not sig: 0

Model

Poisson w RE (GLMER)
 Poisson (GLM)

Base terms

Basic controls
 Intercept(s) only

Media freedom

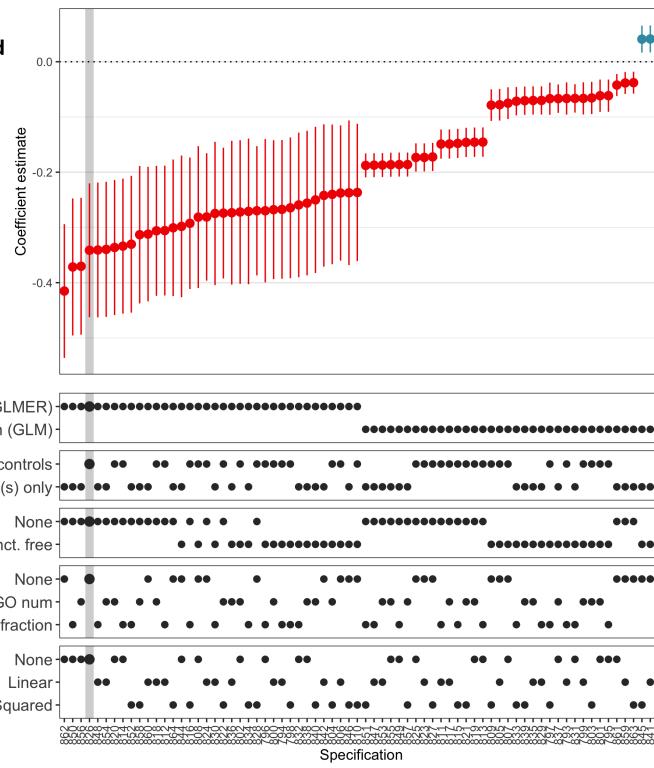
None
 Funct. free

Pol. globalization

None
 IGO num
 IGO fraction

Year trend

None
 Linear
 Squared



VOI: v2x_jucon

VOI: v2x_jucon
DV: itt_alleg_vtcriminal

Pos sig: 0
 Neg sig: 51
 Not sig: 21

Model

Poisson w RE (GLMER)
 Poisson (GLM)

Base terms

Basic controls
 Intercept(s) only

Media freedom

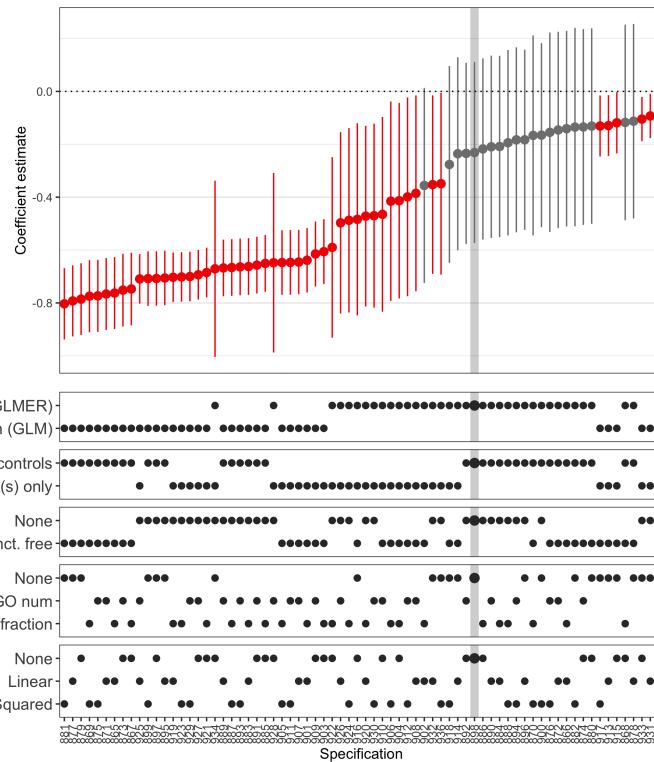
None
 Funct. free

Pol. globalization

None
 IGO num
 IGO fraction

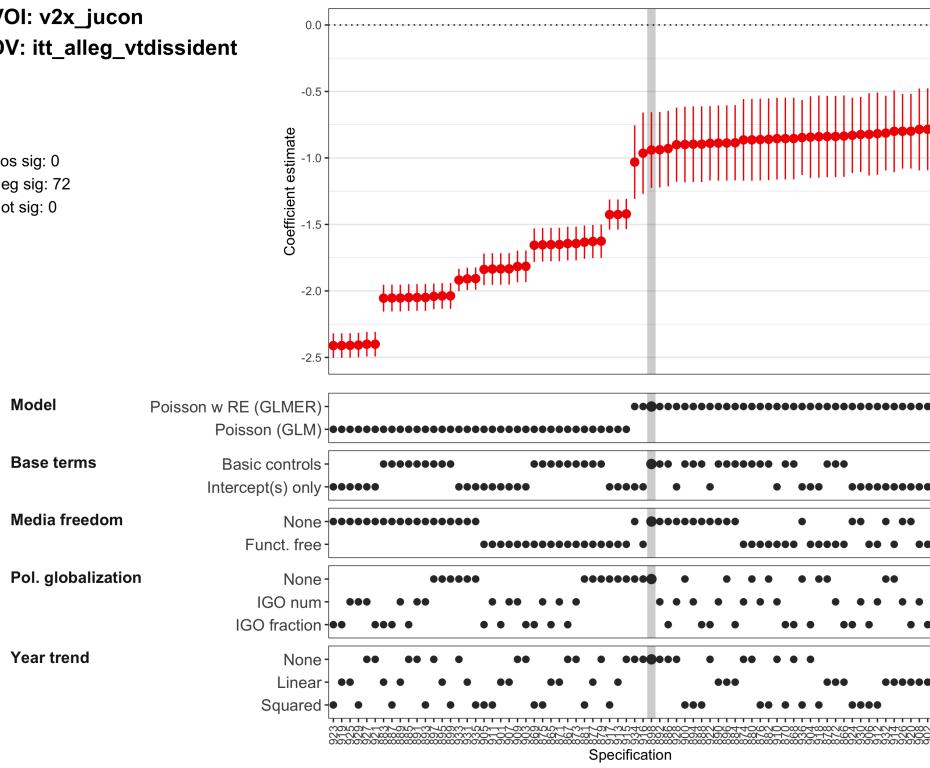
Year trend

None
 Linear
 Squared



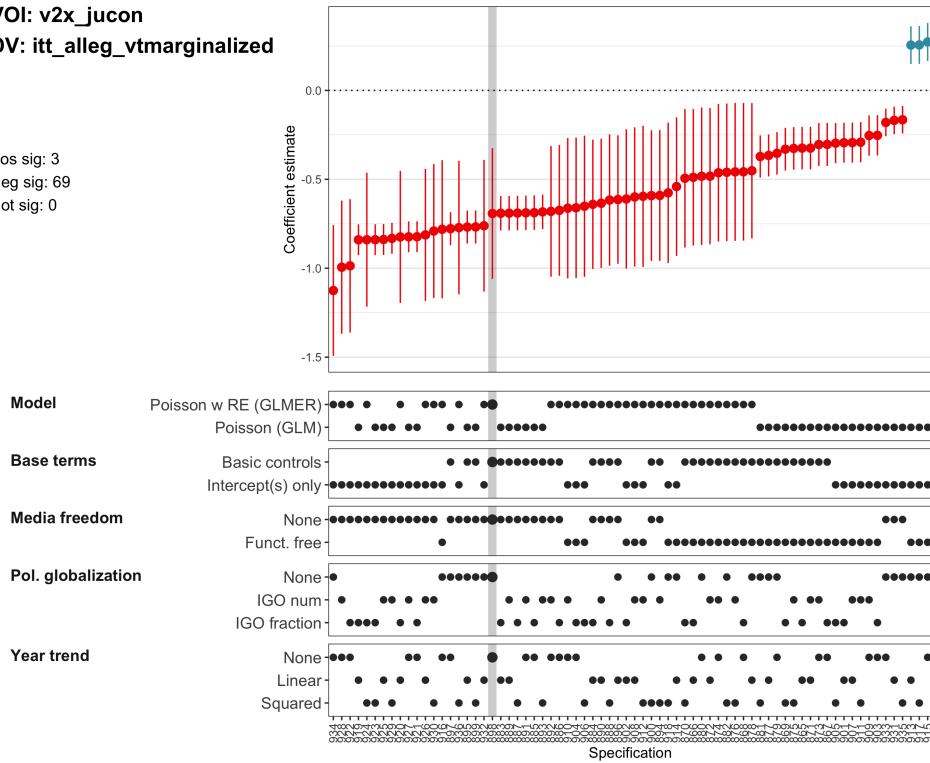
VOI: v2x_jucon
DV: itt_alleg_vtdissident

Pos sig: 0
 Neg sig: 72
 Not sig: 0



VOI: v2x_jucon
DV: itt_alleg_vtmarginalized

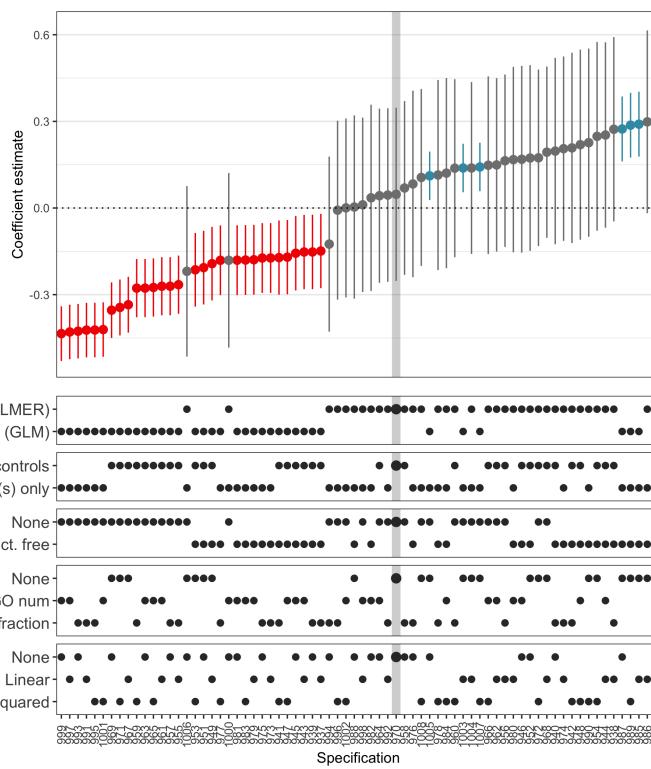
Pos sig: 3
 Neg sig: 69
 Not sig: 0



VOI: v2xlg_legcon

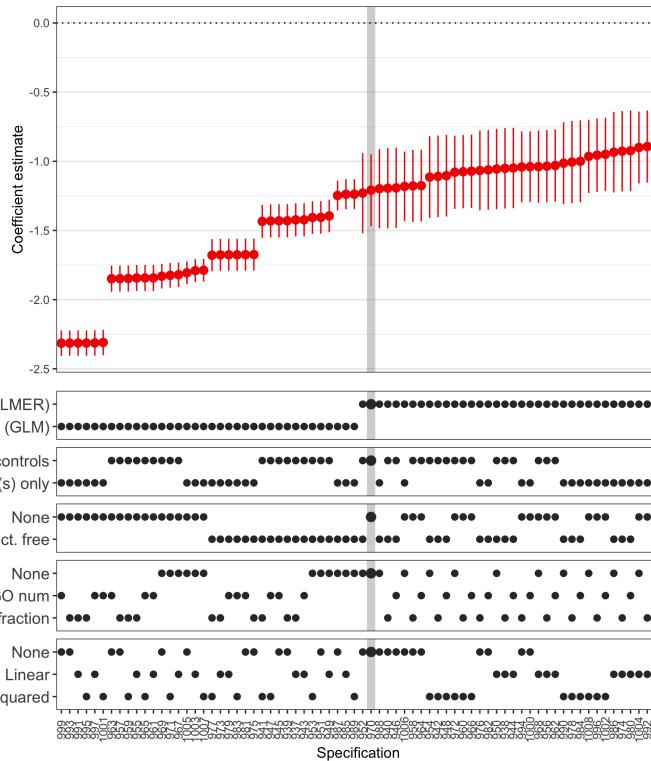
VOI: v2xlg_legcon
DV: itt_alleg_vtcriminal

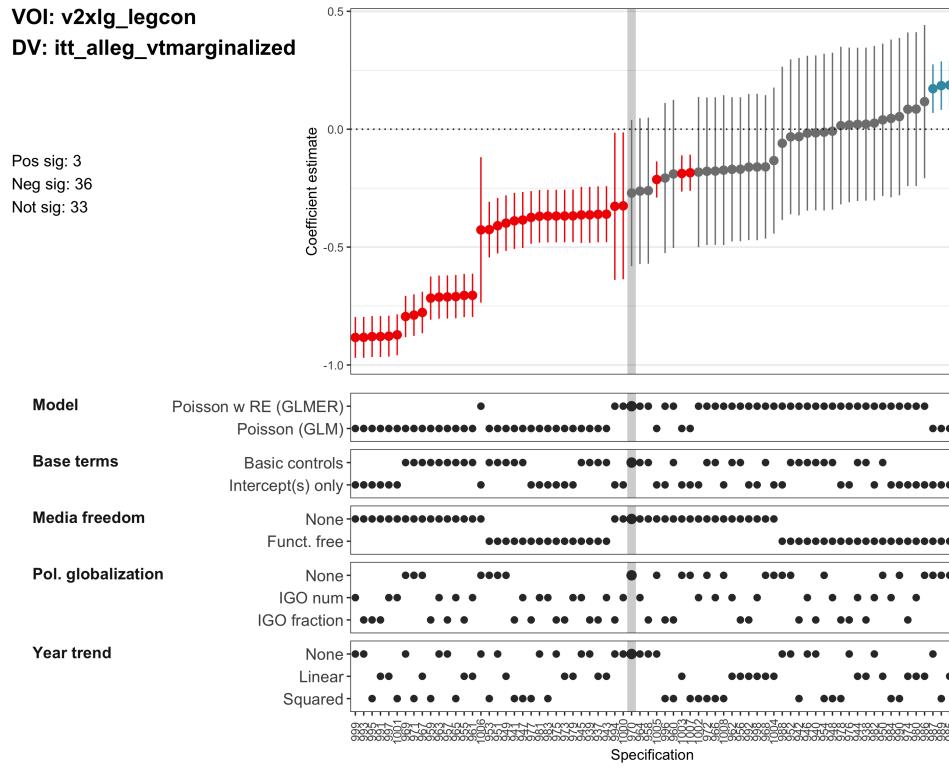
Pos sig: 6
Neg sig: 30
Not sig: 36



VOI: v2xlg_legcon
DV: itt_alleg_vtdissident

Pos sig: 0
Neg sig: 72
Not sig: 0





References

- Gelman, Andrew, and Eric Loken. 2013. “The garden of forking paths.” http://www.stat.columbia.edu/~gelman/research/unpublished/p_hacking.pdf.
- Murdie, Amanda M, and David R Davis. 2012. “Shaming and Blaming: Using Events Data to Assess the Impact of Human Rights Ingos.” *International Studies Quarterly* 56 (1). Blackwell Publishing Ltd Oxford, UK: 1–16.
- Pevehouse, Jon, Timothy Nordstrom, and Kevin Warnke. 2004. “The Correlates of War 2 International Governmental Organizations Data Version 2.0.” *Conflict Management and Peace Science* 21 (2). SAGE Publications Sage UK: London, England: 101–19.
- Simonsohn, Uri, Joseph P Simmons, and Leif D Nelson. 2015. “Specification Curve: Descriptive and Inferential Statistics on All Reasonable Specifications.” *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2694998>.
- Whitten-Woodring, Jenifer, and Douglas A Van Belle. 2017. “The Correlates of Media Freedom: An Introduction of the Global Media Freedom Dataset.” *Political Science Research and Methods* 5 (1). Cambridge University Press: 179–88.