Online Appendix

Appellate Court Influence over District Courts in the United States

Michael P. Olson and Albert H. Rivero

Contents

A Full Results

A.1 Heterogeneity by Type of Case

Table A.1: Predicting liberal district court voting with the mean liberalism of appellate panels, interacted by category of case. The omitted category is criminal cases. Coefficients are from linear fixed effect models with standard errors clustered by circuit.

	Liberal Vote				
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Mean Liberalism of Panels	−0.05	−0.07	−0.08**	−0.04	−0.005
	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)
Civil Rights/Civil Liberties	−0.01	0.01	0.01		
	(0.02)	(0.02)	(0.02)		
Economics	0.17***	0.18***	0.18***		
	(0.03)	(0.03)	(0.03)		
Mean Liberalism × CR/CL	0.27***	0.23***	0.23***	0.18***	0.13***
	(0.04)	(0.03)	(0.02)	(0.03)	(0.03)
Mean Liberalism × Economics	0.19***	0.16***	0.16***	0.07	0.02
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)
Constant	0.32***				
	(0.02)				
Judge Fixed Effects		✓	✓	✓	
Judge-Category Fixed Effects					✓
Year Fixed Effects			✓	✓	✓
Case Type Fixed Effects				✓	✓
N	99188	99188	99188	99188	99188
Adj. R-squared	0.04	0.10	0.10	0.13	0.14

***p < .01; **p < .05; *p < .1

A.2 Heterogeneity by Rates of Review and Reversal

We construct this measure using the Federal Judicial Center's Integrated Database (Federal Judicial Center 2020). For simplicity, we take the district court data as-is. We use as our denominator every case that is terminated in a district-year, even if that particular case could not be appealed (for example, because it settled or transferred). The Integrated Database contains many missing values in the fields that would allow us to refine this measure, particularly in the earlier years, so we chose to cast the widest net possible. These measures thus should be interpreted as the ratio of review or reversal to the litigation volume in particular district-years. We think this is an interpretable measure, since this is the universe of cases that in principle could have ended in a review or reversal, even if in practice they ended up being terminated another way. The numerator represents appeals or reversals, depending on the measure. For both measures, we use a series of codes to eliminate cases that did not come from district courts. (Until 2007, we include APPTYPE codes 3-5, 7-8, and 12-17; from 2008 on, we add to those codes 18-21.) For the reversal measure, we limit the data to those where OUTCOME is 2 or 3 (reversed in whole or in part) and where DISP is 1, 2, or 3.[1] For the first three years of our data, the Integrated Database used the same code for Alaska as Arizona, so Arizona mistakenly will include some Alaska cases. For judges who cross districts and are coded as such in the Carp-Manning data, we don't have measures of appellate review and reversal and they are excluded; we assume that the few cases where we have no evidence of a reversal for that year means there were zero reversals for that district and year.

[1] As noted by the codebook, this is required for the OUTCOME variable to be valid. While the meanings of the DISP codes change over time, we decided to include all codes we thought could potentially include actual reversals on the merits.

Table A.2: Predicting liberal district court voting with the mean liberalism of appellate panels, interacted with a measure of the rate of appellate review for the previous calendar year. The data are limited to years after 1970. Coefficients are from linear fixed effect models with standard errors clustered by circuit.

	Liberal Vote				
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Mean Liberalism of Panels	0.12	0.03	−0.02	−0.01	−0.01
	(0.08)	(0.07)	(0.05)	(0.04)	(0.05)
Rate of Appellate Review	−0.17	−0.47***	−0.34**	−0.23*	−0.23*
	(0.15)	(0.17)	(0.14)	(0.13)	(0.12)
Mean Liberalism × Rate of Review	−0.004	0.46	0.86**	0.62**	0.56*
	(0.81)	(0.56)	(0.42)	(0.31)	(0.31)
Constant	0.40***				
	(0.03)				
Judge Fixed Effects		✓	✓	✓	
Judge-Category Fixed Effects					✓
Year Fixed Effects			✓	✓	✓
Case Type Fixed Effects				✓	✓
N	91587	91587	91587	91587	91587
Adj. R-squared	0.002	0.06	0.06	0.12	0.14

***p < .01; **p < .05; *p < .1

Table A.3: Predicting liberal district court voting with the mean liberalism of appellate panels, interacted with a measure of the rate of appellate review for the previous calendar year which is also interacted with an indicator for the judge's party. The data are limited to years after 1970. Coefficients are from linear fixed effect models with standard errors clustered by circuit.

	Liberal Vote				
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Mean Liberalism of Panels	0.03	0.01	−0.02	−0.03	−0.02
	(0.10)	(0.07)	(0.05)	(0.05)	(0.05)
Rate of Appellate Review	−0.38*	−0.34*	−0.21	−0.13	−0.14
	(0.20)	(0.18)	(0.16)	(0.15)	(0.15)
Judge is a Democrat	0.10***				
	(0.02)				
Mean Liberalism × Rate of Review	0.45	0.49	0.84*	0.70**	0.61*
	(0.84)	(0.56)	(0.43)	(0.32)	(0.34)
Judge is a Democrat × Rate of Review	0.03	−0.34**	−0.34**	−0.34**	−0.29*
	(0.14)	(0.15)	(0.15)	(0.16)	(0.16)
Constant	0.39***				
	(0.04)				
Judge Fixed Effects		✓	✓	✓	
Judge-Category Fixed Effects					✓
Year Fixed Effects			✓	✓	✓
Case Type Fixed Effects				✓	✓
N	81923	81923	81923	81923	81923
Adj. R-squared	0.01	0.06	0.06	0.12	0.14

***p < .01; **p < .05; *p < .1

Table A.4: Predicting liberal district court voting with the mean liberalism of appellate panels, interacted with a measure of the rate of appellate reversal for the previous calendar year. The data are limited to years after 1970. Coefficients are from linear fixed effect models with standard errors clustered by circuit.

	Liberal Vote				
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Mean Liberalism of Panels	0.05	0.05	0.06*	0.05*	0.05
	(0.07)	(0.05)	(0.03)	(0.03)	(0.04)
Rate of Appellate Reversal	−0.74	−0.77	−0.70***	−0.37	−0.28
	(0.52)	(0.47)	(0.27)	(0.40)	(0.41)
Mean Liberalism × Rate of Reversal	7.40**	4.20**	2.56***	1.69**	1.32*
	(3.41)	(2.09)	(0.86)	(0.67)	(0.80)
Constant	0.38***				
	(0.02)				
Judge Fixed Effects		✓	✓	✓	
Judge-Category Fixed Effects					✓
Year Fixed Effects			✓	✓	✓
Case Type Fixed Effects				✓	✓
N	91559	91559	91559	91559	91559
Adj. R-squared	0.003	0.06	0.06	0.12	0.14

***p $<$ .01; **p $<$ .05; *p $<$ .1

Table A.5: Predicting liberal district court voting with the mean liberalism of appellate panels, interacted with a measure of the rate of appellate reversal for the previous calendar year which is also interacted with an indicator for the judge's party. The data are limited to years after 1970. Coefficients are from linear fixed effect models with standard errors clustered by circuit.

	Liberal Vote				
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Mean Liberalism of Panels	0.01	0.05	0.07**	0.05*	0.05
	(0.07)	(0.05)	(0.03)	(0.03)	(0.03)
Rate of Appellate Reversal	−1.97**	−0.58	−0.68**	−0.49	−0.34
	(0.81)	(0.44)	(0.30)	(0.34)	(0.35)
Judge is a Democrat	0.09***				
	(0.02)				
Mean Liberalism × Rate of Reversal	7.87**	3.45*	1.86*	1.29*	0.85
	(3.77)	(1.98)	(0.98)	(0.68)	(0.90)
Judge is a Democrat × Rate of Reversal	1.31	−0.20	0.05	0.16	0.16
	(0.94)	(0.62)	(0.61)	(0.58)	(0.55)
Constant	0.36***				
	(0.03)				
Judge Fixed Effects		✓	✓	✓	
Judge-Category Fixed Effects					✓
Year Fixed Effects			✓	✓	✓
Case Type Fixed Effects				✓	✓
N	81923	81923	81923	81923	81923
Adj. R-squared	0.01	0.06	0.06	0.12	0.14

***p < .01; **p < .05; *p < .1

A.3 Progressive Ambition

Table A.6: Predicting liberal district court voting with the mean liberalism of appellate panels, interacted with time on bench. Coefficients are from linear fixed effect models with standard errors clustered by circuit.

	Liberal Vote				
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Mean Liberalism of Panels	0.11^{**}	0.06	0.07^{**}	0.05^{**}	0.05^{**}
	(0.05)	(0.04)	(0.03)	(0.02)	(0.03)
Time on Bench (mean-centered)	0.002	-0.003^{**}			
	(0.001)	(0.001)			
Mean Liberalism × Time on Bench	-0.01^{*}	0.005	0.004	0.003	0.003
	(0.003)	(0.004)	(0.003)	(0.003)	(0.003)
Constant	0.38^{***}				
	(0.02)				
Judge Fixed Effects		✓	✓	✓	
Judge-Category Fixed Effects					✓
Year Fixed Effects			✓	✓	✓
Case Type Fixed Effects				✓	✓
N	99188	99188	99188	99188	99188
Adj. R-squared	0.002	0.06	0.07	0.13	0.14

$^{***}p < .01$; $^{**}p < .05$; $^{*}p < .1$

Table A.7: Predicting liberal district court voting with the mean liberalism of appellate panels, interacted with co-partisanship with president. Coefficients are from linear fixed effect models with standard errors clustered by circuit.

	Liberal Vote				
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Mean Liberalism of Panels	0.15^{**}	0.09^{**}	0.08^{**}	0.06^{**}	0.06^{**}
	(0.06)	(0.04)	(0.03)	(0.03)	(0.03)
Same Party as President	0.004	0.0002	−0.003	−0.004	−0.003
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Mean Liberalism × Same Party	-0.08^{**}	−0.02	−0.01	−0.01	−0.01
	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)
Constant	0.38^{***}				
	(0.02)				
Judge Fixed Effects		✓	✓	✓	
Judge-Category Fixed Effects					✓
Year Fixed Effects			✓	✓	✓
Case Type Fixed Effects				✓	✓
N	99188	99188	99188	99188	99188
Adj. R-squared	0.003	0.06	0.07	0.13	0.14

$^{***}p < .01$; $^{**}p < .05$; $^{*}p < .1$

A.4 Workload

Table A.8: Predicting liberal district court voting with the mean liberalism of appellate panels, interacted with a measure of district court judges' workloads. Coefficients are from linear fixed effect models with standard errors clustered by circuit.

	Liberal Vote				
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Mean Liberalism of Panels	0.26	0.31	0.16	0.05	0.05
	(0.31)	(0.27)	(0.29)	(0.19)	(0.21)
ln(Workload)	0.01	0.02*	0.01	0.002	0.004
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)
Mean Liberalism × Workload	−0.03	−0.04	−0.01	0.004	0.003
	(0.05)	(0.04)	(0.04)	(0.03)	(0.03)
Constant	0.30***				
	(0.09)				
Judge Fixed Effects		✓	✓	✓	
Judge-Category Fixed Effects					✓
Year Fixed Effects			✓	✓	✓
Case Type Fixed Effects				✓	✓
N	95681	95681	95681	95681	95681
Adj. R-squared	0.002	0.06	0.07	0.13	0.14

***p $<$ .01; **p $<$ .05; *p $<$ .1

B Robustness Checks

B.1 Alternative Methods of Inference

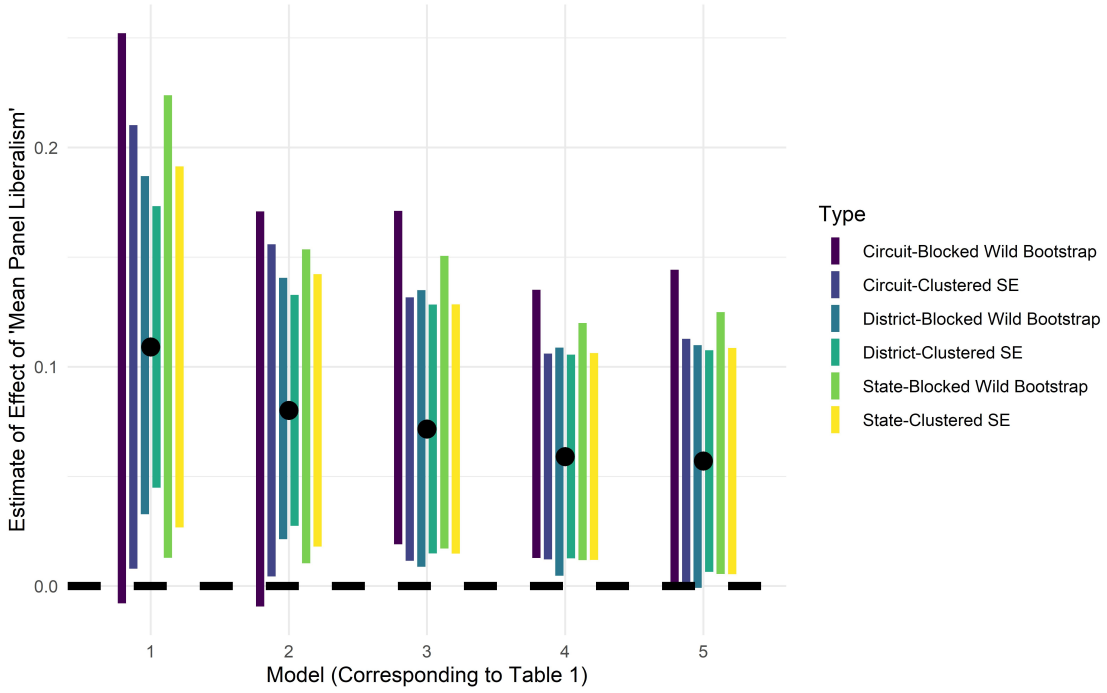

Figure B.1: Alternative Methods of Inference for Main Results

FIGURE PLOTS THE COEFFICIENTS ON "MEAN PANEL LIBERALISM" FROM TABLE 1, WITH 95% CONFIDENCE INTERVALS BASED ON A VARIETY OF INFERENTIAL TECHNIQUES. CLUSTERED STANDARD ERRORS ARE ESTIMATED USING FELM IN R; WILD BLOCK BOOTSTRAP ESTIMATED USING BOOTTEST IN STATA.

B.2 Logit Results

Table B.1: Predicting liberal district court voting with the mean liberalism of appellate panels, coefficients from logit models (standard errors clustered by circuit)

	Liberal Vote				
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Mean Liberalism of Panels	0.45^{**}	0.35^{**}	0.31^{**}	0.28^{**}	0.28^{**}
	(0.21)	(0.17)	(0.13)	(0.11)	(0.14)
Constant	-0.49^{***}				
	(0.06)				
Judge Indicators		✓	✓	✓	
Judge-Category Indicators					✓
Year Indicators			✓	✓	✓
Case Type Indicators				✓	✓
N	99188	98672	98672	98672	96542
Pseudo Adj. R^2	0.001	0.033	0.034	0.082	0.068

$^{***}p < .01$; $^{**}p < .05$; $^{*}p < .1$

B.3 Controlling for Democratic Presidential Vote Share

To create the Democratic presidential vote share measure, we needed to merge county-level election returns (from Leip 2020) to judicial districts.[2] We obtained the county names for judicial districts from PACER's website.[3] We connected the county names to FIPS codes using a USDA website.[4] Some districts changed boundaries over the course of our time period; we obtained the older district boundaries from the U.S. Statutes at Large.[5] When districts span entire states, we used the state-level election returns assembled by the *Daily Kos* (Wolf 2021).[6,7]

[2]Several FIPS codes were missing from the election returns data for Virginia, so we use state-level returns for both the Western District and the Eastern District. The Wisconsin data does not include Menominee County; as this is a very small county, we calculate the Eastern District of Wisconsin's vote share excluding this county.

[3]We used https://www.pacer.gov/psco/cgi-bin/county.pl, which is no longer available. PACER currently has this information at https://pacer.uscourts.gov/file-case/court-cmecf-lookup.

[4]https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/home/?cid=nrcs143_013697.

[5]24 Stat. 308, 21 Stat. 507, 33 Stat. 992, and 36 Stat. 1087. For four counties in South Carolina missing in the statute that were formed out of other counties (Allendale, Dillon, Jasper, and McCormick), we used Wikipedia to determine what other counties they were carved out of to assign them the correct judicial district.

[6]The Carp-Manning database assigns some district codes to entire states even when there are multiple districts in the state; these appear to be judges who are assigned to multiple districts. For these districts, we also used state-level returns.

[7]tinyurl.com/fjr5ef7w.

Table B.2: Predicting liberal district court voting with the mean liberalism of appellate panels, controlling for Democratic presidential vote share; coefficients from linear fixed effect models (standard errors clustered by circuit)

	Liberal Vote				
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Mean Liberalism of Panels	0.10^{*}	0.07^{*}	0.07^{**}	0.06^{***}	0.06^{**}
	(0.06)	(0.04)	(0.03)	(0.02)	(0.03)
Dem. Pres. Vote Share	-0.01	-0.12^{*}	0.06	0.04	0.05
	(0.07)	(0.06)	(0.06)	(0.06)	(0.06)
Constant	0.39^{***}				
	(0.05)				
Judge Fixed Effects		✓	✓	✓	
Judge-Category Fixed Effects					✓
Year Fixed Effects			✓	✓	✓
Case Type Fixed Effects				✓	✓
N	96746	96746	96746	96746	96746
Adj. R-squared	0.001	0.06	0.07	0.13	0.14

$^{***}p < .01$; $^{**}p < .05$; $^{*}p < .1$

B.4 Alternative Levels of Aggregation

Table B.3: Predicting liberal district court voting with the mean liberalism of appellate panels; coefficients from linear fixed effect models at different levels of aggregation (standard errors clustered by circuit)

	Judge-Year Level	**District-Year Level**	**Circuit-Year Level**
	Model 1	**Model 2**	**Model 3**
Mean Liberalism of Circuit Panels	0.08*	0.16***	0.15***
	(0.04)	(0.06)	(0.03)
Judge Fixed Effects	✓		
District Fixed Effects		✓	
Circuit Fixed Effects			✓
Year Fixed Effects	✓	✓	✓
N	22788	4449	561
Adj. R-squared	0.12	0.10	0.38

$^{***}p < .01$; $^{**}p < .05$; $^{*}p < .1$

B.5 Alternative Specifications

Table B.4: Predicting liberal district court voting with the mean liberalism of appellate panels; coefficients from linear models with alternative methods of controlling for unobservables (standard errors clustered by circuit)

	Judge-Decision	**Circuit-Year**		
	Model 1	**Model 2**	**Model 3**	**Model 4**
Mean Liberalism of Circuit Panels	0.04**	0.09*	0.06**	0.10***
	(0.02)	(0.05)	(0.03)	(0.02)
Lagged DV			0.53***	0.36***
			(0.05)	(0.06)
Judge Fixed Effects	✓			
Circuit Fixed Effects		✓		✓
Circuit Linear Trends	✓	✓		
Year Fixed Effects	✓	✓	✓	✓
N	99188	561	548	548
Adj. R-squared	0.13	0.43	0.43	0.48

***p < .01; **p < .05; *p < .1

Table B.5: Predicting liberal district court voting with the mean liberalism of appellate panels; coefficients from linear fixed effect models including time trends by appointing president (standard errors clustered by circuit)

	District Court Judge Liberal Vote
Mean Liberalism of Circuit Panels	0.06**
	(0.02)
Judge Fixed Effects	✓
Year Fixed Effects	✓
Case Type Fixed Effects	✓
Appointing President Time Trends	✓
N	99188
Adj. R-squared	0.13

***p < .01; **p < .05; *p < .1

B.6 Alternative Measures of Circuit Court Ideology

Table B.6: Predicting liberal district court voting with alternative measures of circuit court liberalism; coefficients from linear fixed effect models (standard errors clustered by circuit)

	Liberal Vote	
	Model 1	**Model 2**
Median Liberalism of Circuit Judges	0.01	
	(0.02)	
Mean Liberalism of Circuit Judges		0.07***
		(0.03)
Judge Fixed Effects	✓	✓
Year Fixed Effects	✓	✓
Case Type Fixed Effects	✓	✓
N	99188	99188
Adj. R-squared	0.13	0.13

***p < .01; **p < .05; *p < .1

Table B.7: Predicting liberal district court voting with the mean liberalism of appellate panels (senior judges included); coefficients from linear fixed effect models (standard errors clustered by circuit)

	Liberal Vote				
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Mean Liberalism of Panels	0.10*	0.14**	0.14**	0.10*	0.11**
	(0.06)	(0.06)	(0.07)	(0.06)	(0.06)
Constant	0.38***				
	(0.02)				
Judge Fixed Effects		✓	✓	✓	
Judge-Category Fixed Effects					✓
Year Fixed Effects			✓	✓	✓
Case Type Fixed Effects				✓	✓
N	99188	99188	99188	99188	99188
Adj. R-squared	0.001	0.06	0.07	0.13	0.14

***p < .01; **p < .05; *p < .1

The departure dates for senior judges were obtained from (Federal Judicial Center 2021). We excluded Joseph Chappell Hutcheson, Jr. because, as noted in the main text, he was nominated

by Herbert Hoover, who does not have a NOMINATE score.

B.7 Omitting Circuits, Decades, and Issue Areas

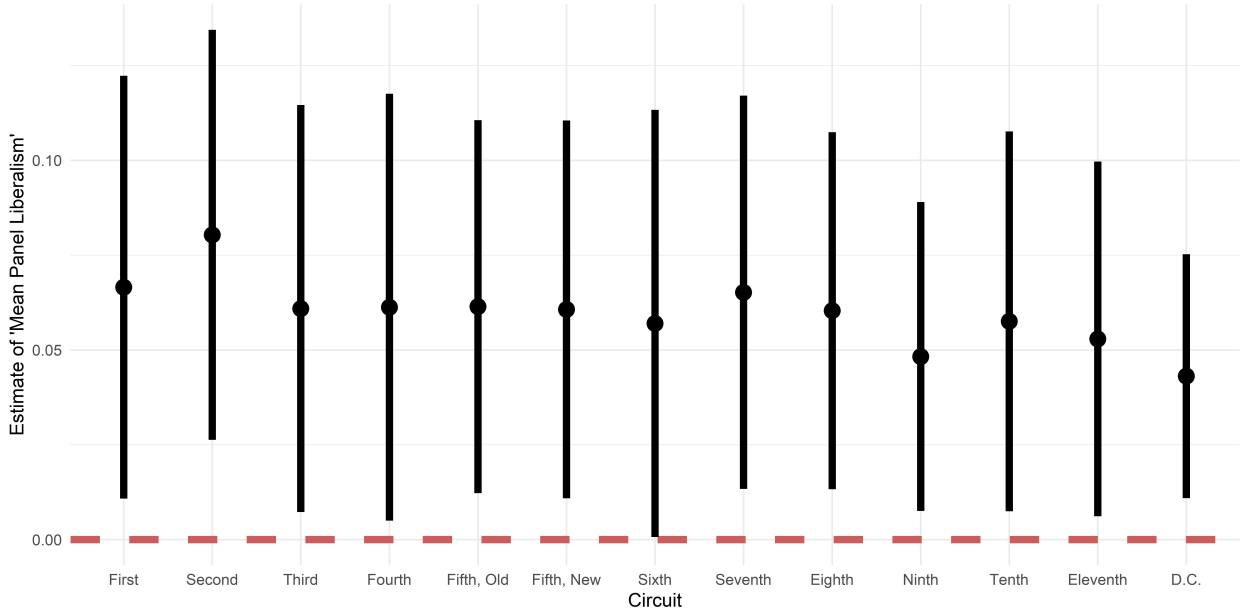

Figure B.2: Iteratively Dropping Circuits

FIGURE PRESENTS ESTIMATES BASED ON SPECIFICATION FROM MODEL 4 IN TABLE 1, ESTIMATED WHILE ITERATIVELY OMITTING INDIVIDUAL CIRCUITS. X-AXIS INDICATES OMITTED CIRCUIT. 95% CONFIDENCE INTERVALS BASED ON CIRCUIT-CLUSTERED STANDARD ERRORS.

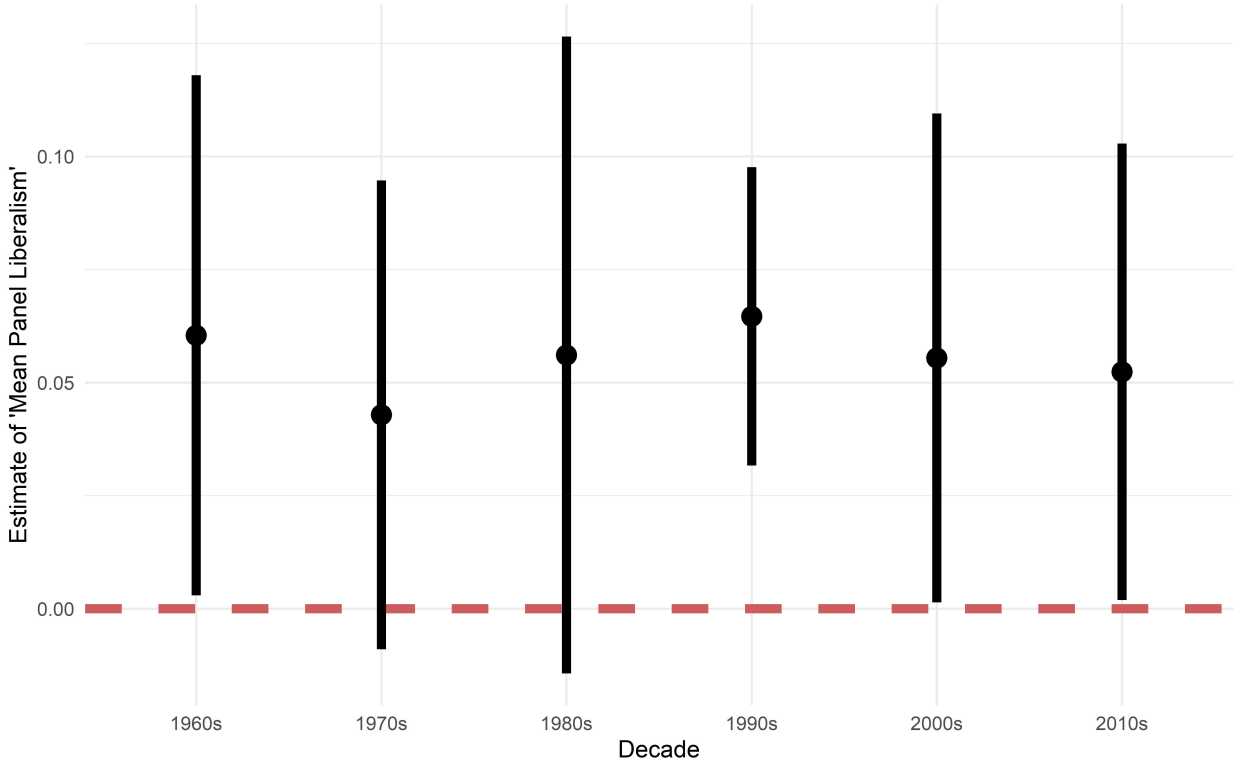

Figure B.3: Iteratively Dropping Decades

FIGURE PRESENTS ESTIMATES BASED ON SPECIFICATION FROM MODEL 4 IN TABLE 1, ESTIMATED WHILE ITERATIVELY OMITTING INDIVIDUAL DECADES. X-AXIS INDICATES OMITTED DECADE. 95% CONFIDENCE INTERVALS BASED ON CIRCUIT-CLUSTERED STANDARD ERRORS.

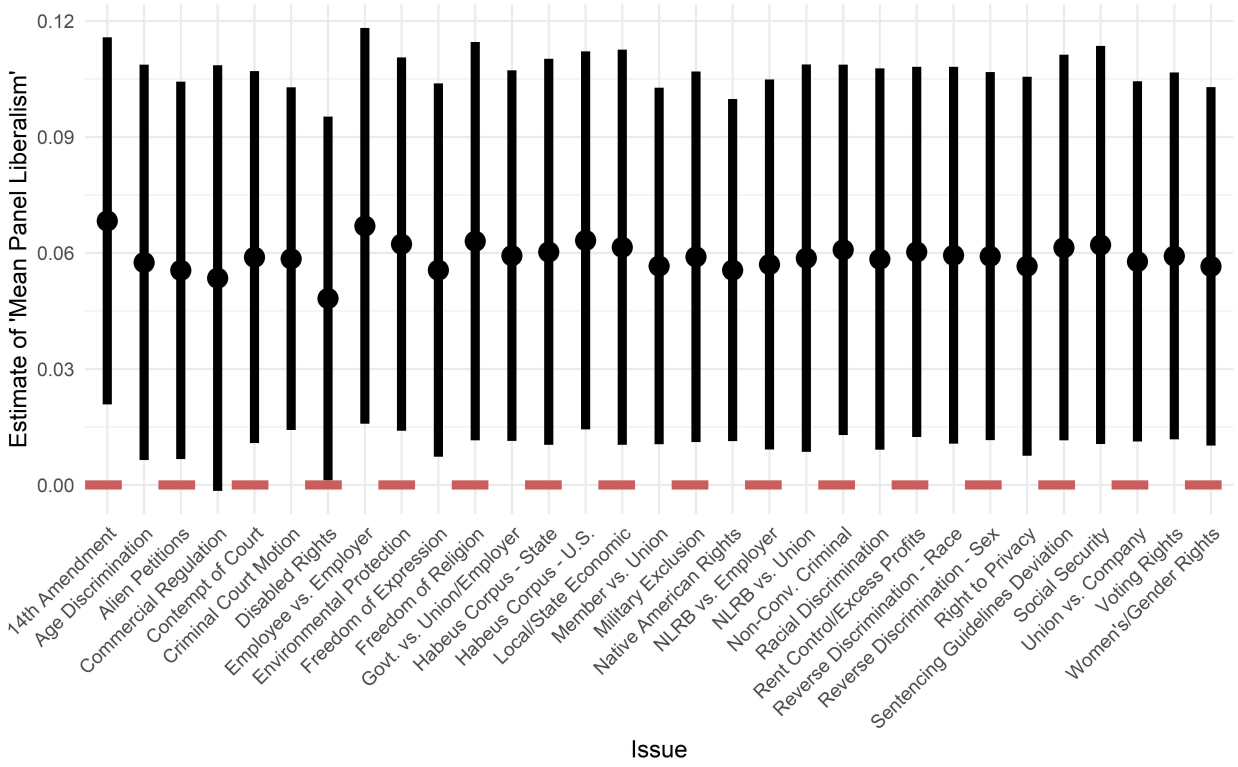

Figure B.4: Iteratively Dropping Issue Areas

FIGURE PRESENTS ESTIMATES BASED ON SPECIFICATION FROM MODEL 4 IN TABLE 1, ESTIMATED WHILE ITERATIVELY OMITTING INDIVIDUAL ISSUE AREAS, BASED ON CLASSIFICATIONS IN CARP AND MANNING (2016). X-AXIS INDICATES OMITTED ISSUE AREA. 95% CONFIDENCE INTERVALS BASED ON CIRCUIT-CLUSTERED STANDARD ERRORS.

References

Carp, Robert A., and Kenneth L. Manning. 2016. "U.S. District Court Database. 2016 version n = 110977." http://districtcourtdatabase.org.

Federal Judicial Center. 2020. "Integrated Database." https://www.fjc.gov/research/idb.

Federal Judicial Center. 2021. "History of the Federal Judiciary . http://www.fjc.gov . Web site of the Federal Judicial Center, Washington, DC." https://www.fjc.gov/history/judges.

Leip, Dave. 2020. "County-Level Presidential Vote Shares, 1932 - 2012." *Dave Leip's Atlas of U.S. Presidential Elections* .

Wolf, Stephen. 2021. "Our New Spreadsheet Catalogs Every State's Presidential Election Results from 1828 to 2020." *Daily Kos*. Published Online March 15, 2021. Accessed at tinyurl.com/fjr5ef7w.