THE DISAVOWAL OF DECISIONISM: POLITICALLY MOTIVATED EXITS FROM THE U.S. COURTS OF APPEALS

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Abstract

Principles of apoliticality and personal disinterestedness subtend the American judiciary's claims to legitimacy and the liberal constitutional legal system it upholds. Less than 1% of U.S. Federal judges report political motivations for retirement and resignation. Our data suggest political motivation in the judiciary is far more common. From 1802 to 2019, 11% of retirements and 23% of resignations from the U.S. Courts of Appeals appear to have been motivated by political cycles. When the President comes from a different political party than the judge's party of appointment, judges are less likely to retire in each of the three quarters before a Presidential election. In contrast, judges are more likely to resign in each of the four quarters after a Presidential election when the President comes from the judge's party of appointment. Politically motivated exits have increased significantly in recent years to constitute 14% of retirements since 1975, suggesting an increasingly politically interested and polarized judiciary. Prior research has relied on self-reports or yearly analyses that have obscured political dynamics in the timing of judges' exits from the bench. By analyzing data at the quarter-to-election level, our results suggest that highly consequential decisions by Federal judges are frequently inflected by either unconscious bias or conscious partisan loyalties—either of which undermine the premise of judicial impartiality and the common law precedents for which these judges are responsible. Our findings support increasing concerns about undemocratic political power exercised via the courts—that is, the ascent of juristocracy: the practice of politics through legal dissimulations.

Keywords: judicial tenure; political polarization; juristocracy; legitimacy; court reform

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1 Introduction

Legal theorists and historians have long debated the relationship between constitutional law, politics, legitimacy, and the function of jurisprudential appearance and mythology. Antidemocratic theorists, such as Carl Schmitt, have argued in favor of jurisprudential decisionism—a direct embrace of the principle that might makes right and that judicial decisionmaking should leverage its authority to shore up sovereign power (Schmitt 1969, 1985, 2005). But most scholars in Euro-American constitutional legal traditions have emphasized the importance of a separation between political interests and legal procedure, understanding this gap as fundamental for the law's legitimacy and, by extension, that of the state it supports. Against this backdrop, some scholars, including Ran Hirschl and Samuel Moyn, have point to the covert ascent of anti-democratic power within liberal state systems via an increasing constitutionalization of rights adjudicated by judicial review, arguing that constitutional-legal proceduralism has been exploited as a means of concentrating the power of an elite politicaleconomic minority against democratic movements and redistributive, universalist aims (Berger 1997; Hirschl 2009; Levinson 2006; Doerfler and Moyn 2020). Such debates over the political role of the judiciary have intensified in recent years in the United States, particularly since the obstruction of Merrick Garland's consideration for nomination to the U.S. Supreme Court in 2016 and the pronounced rightward shift of the Federal judiciary under the administration of Donald Trump. This has prompted the recent creation of The Presidential Commission on the Supreme Court of the United States that has been charged with evaluating "the Court's role in the Constitutional system; the length of service and turnover of justices on the Court; the membership and size of the Court; and the Court's case selection, rules, and practices." 1

In the context of these ongoing debates and associated theoretical and historical scholarship on the proper role of the judiciary, this paper contributes a quantitative analysis of the political motivations of United States Federal judges as reflected in their retirement and resignation patterns from 1802 to 2019. Federal judges are appointed for life by the U.S. President and

 $^{^{1}} https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/09/president-biden-to-sign-executive-order-creating-the-presidential-commission-on-the-supreme-court-of-the-united-states/$

they are subject to Senate confirmation. In each court, the U.S. President can nominate a new judge only when a judge retires or resigns. This has historically been regarded as a political opportunity for the party in power at time of appointment, even as confirmation hearings require nominees to declare that they will adhere to personal political disinterestedness in their judicial capacity.

How the political party of appointment may inflect judicial decision-making patterns, including their retirement and resignation decisions, has been an important area of research in legal studies. Previous large-scale quantitative studies of the relationship between politics and judicial exits in the U.S. Courts of Appeals have not found electoral cycles in judicial turnover rates using a research design conducted at the yearly level (Yoon 2006; Spriggs II. and Wahlbeck 1995; Stolzenberg and Lindgren 2010; Zuk et al. 1993). (Of note, retirement differs from resignation in the following sense. Retired judges remain in the court and hear a smaller number of cases; on average, it drops from 100 to 30 per year. In contrast, after resignation, judges do not carry any judicial activity.) Claims to the absence of partisanship in the judiciary have also been supported by a recent comprehensive survey of Federal judges (Burbank et al. 2012). Less than 1% reported political motivations—defined as waiting for a different political administration to nominate their successor—to be central to their decision (Pfander 2012).

Defenders of the U.S. Federal judiciary's impartiality have additionally appealed to analyses of legal decisions. According to one federal appellate judge, only 5–15% of cases are legally indeterminate and, even in these difficult cases, the courts understand which legal reasonings have greater plausibility (Edwards and Livermore 2008). After all, 70% of panels have both Republicans and Democrats²—yet only 8% of panels—not 70%—have dissents, i.e., 2-1 decisions, suggesting that judges usually agree. According to this view, even if Democrats and Republicans vote differently, they could simply be following different philosophies, i.e., rules or reasonings, rather than being biased towards particular outcomes (Posner 1973; Cameron

 $^{^2}$ For brevity, judges appointed by Democratic or Republican Presidents are called "Democrats" or "Republicans".

1993; Kornhauser 1999).³ For instance, a judge can derive from first principles an adherence to a strict interpretation of the Constitution, while not necessarily hewing to the preferences of a political party for a certain policy outcome. Strategic retirement cycles would be inconsistent with the view that judges are simply following different philosophies.

One of the difficulties in ascertaining political motivation in the judiciary follows from uncertainty as to a judge's true ideological-political convictions. When asked to report in a survey context, an individual may have at least two (potentially) conflicting motives. On the one hand, she may derive some intrinsic utility from reporting her "true" opinions. This might derive from expressive benefits (e.g. "I am happy to tell you who I am or for what I stand.") or owe to a psychological cost of deceit. On the other hand, she may also cars about how her answer will be read and interpreted by other people. For example, the respondent may want to signal socially desirable traits such as being altruistic or tolerant or just. Various psychometric methods thus exist for trying to ascertain a respondents' actual positions. One of these is use of Likert scale in administration of a survey—a method that was used in a recent comprehensive survey of judges inquired whether political motivations were central to Federal judges' decisions to retire or resign (Burbank et al. 2012). The survey allowed judges to express an opinion between two extreme positions via choice of a real number in the interval [1, 7], where the positions 1 and 7 denote perfect agreement with one the extreme views. Judges were asked questions to ascertain how they regard political motivations in their decision to retire or resign, where 1 means "not at all important or not applicable" and 7 means "very important." The survey queried 317 senior (retired) judges, 52 resigned judges, and 41 active sitting judges. Only 3 judges reported political motivations—defined as waiting for a different political administration to nominate their successor—as central to their decision (Pfander 2012). Most judges reported a 1 on a Likert scale of 1-7 for questions like "I plan to take senior status but am waiting for a different appointing authority (i.e., a different political administration) to nominate my successor" or "I intend to retire but am waiting for a different

³Indeed, an active experimental literature tries to distinguish decisions motivated by outcomes from the decisions motivated by principles (Sobel 2005).

appointing authority (i.e., a different political administration) to nominate my successor," where 1 meant "not at all important or not applicable" and 7 meant "very important." The mean response for Courts of Appeals judges was 2.1 and 1.5 for these two questions (numbers are obtained from Burbank et al. (2012) and Pfander (2012)).

In order to investigate whether judicial exits have political cycles, we explore whether judges who may not share the same political views of the President whose term is about to expire are less likely to exit before the election. If this were the case, one could argue that the decrease in the number of judges voluntarily leaving at the end of a presidential electoral cycle is likely to be driven by political considerations (e.g., a judge may hold out for the President-elect to appoint someone from judge's own party of appointment). To address this question, we separately examine the relationship between the number of judges voluntarily leaving—when the party of the President in power is the same as the party of the President who appointed the judge—and the electoral proximity measure. We examine again the relationship using the number of judges voluntarily leaving—when the party of the President in power is different from the party of the President who appointed the judge as the dependent variable. We do the same analysis for retirements and for resignations. Our results suggest that 11% of retirement decisions and 23% of resignation decisions from 1802 to 2019 follow political cycles, and the share of political cycles in judicial exits has been increasing in recent years, such that 14% of retirement decisions since 1975 are politically motivated.

Previous large-scale quantitative studies of the relationship between politics and judicial exits in the U.S. Courts of Appeals have *not* found electoral cycles in judicial turnover rates using a research design conducted at the yearly level (Yoon 2006; Spriggs II. and Wahlbeck 1995; Stolzenberg and Lindgren 2010; Zuk et al. 1993). When we account for judicial retirement decisions at monthly intervals, we measure more precisely the impact of politics (and, most importantly, of particular events such as presidential elections) on a judge's decision to leave the bench. We show that significant political cycles emerge, not only in parametric specifications that model the time until the next election linearly, but also in non-parametric

specifications conducted at a quarter-to-election level. This result indicates that election cycles exist in judicial turnover, contravening the self-reported surveys from judges.

The final analysis shows in sharp relief that the last four election cycles display a pattern of partisan retirements. Simply calculating the share of retirements that occur under the party of the President that appointed the judge shows a significant elevation of partisanship in the recent time period. Put differently, since 2004, 64% (75%) of retirements (resignations) occur when a judge's party of appointment is also holding the presidency, and 36% (25%) otherwise. Back of the envelope calculations suggest roughly 6,000 verdicts might have been decided the other way had judicial exits not been partisan.

To be sure, much has been written about the political motivations of U.S. Supreme Court Justices in timing their leaving the bench (Calabresi and Lindgren 2005) to the point that Justices are perceived to partake in "strategic dying" (trying to hold out so as to strategically time their death in a manner that benefits particular interests). However, only a tiny fraction of judges admit to political motivations in their decision to retire or resign. Indeed, Courts of Appeals judges are appointed for life and are forbidden from any semblance of impropriety or political involvement. If Courts of Appeals judges have strong commitments to be unbiased, the evidence is consistent with unconscious bias (Bénabou and Tirole 2011; Grossman 2015; Schwardmann and Van der Weele 2016; Chen and Schonger 2013, 2014). It is also possible that judges—who profess to be unbiased and are expressly tasked with making normative decisions and enforcing honesty—are motivated by conscious, deliberate partisan intent that is in express violation of their legal duties. In either case, the data suggest that law juristocracy—that is, politics enacted by means of legal procedures and enabled by judicial claims to apoliticality—is on the ascent, blurring the fragile line between law and political power upon which liberal political systems have been thought to depend.

2 U.S. Courts of Appeals

The U.S. Federal Courts are a system of local level (District Court), intermediate level (Circuit Court), and national level (Supreme Court) councils. Members of these are appointed

for life by the U.S. President and confirmed by the U.S. Senate. Courts of Appeals, which are the empirical focus of this paper, rule on the application of Federal law, such as the constitutional validity of state laws, among other things. 98% of their decisions are final.⁴ The Courts of Appeals decide cases that provide new interpretations of prior precedents, which expand or contract the space of actions under which an actor can be found liable (Gennaioli and Shleifer 2007).

Their decisions establish precedent for adjudication in future cases in the same court and in lower courts within its geographic boundaries. Each state has 1–4 District Courts. The 94 U.S. District Courts serve as trial courts with juries. The 12 U.S. Circuit Courts (Courts of Appeals) take cases appealed from the District Courts. The Circuit Courts have no juries. Each Circuit Court presides over 3–9 states. State officials regularly update a set of guidelines to identify actions and regulations that may result in costly litigation after Courts of Appeals decisions (Frost and Lindquist 2010; Pollak 2001). Figure 1 displays District Court boundaries in dotted lines and Circuit Court boundaries in solid lines.

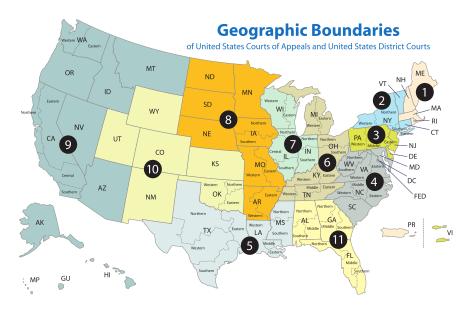


FIGURE 1.— Geographical Boundaries of U.S. Federal Courts

Notes: Boundaries of the 94 District Courts are represented in dotted lines. Numbers indicate the 12 Circuit Courts, with the Washington, D.C. Circuit being the 12th.

⁴In the remaining 2% that are appealed to the Supreme Court, 30% are affirmed.

Federal judges are restricted from any semblance of impropriety. Judges are prohibited from receiving honoraria for speeches, appearances, or articles and are prohibited from receiving compensation for their service to a profit or non-profit organization.⁵ They are also prohibited from making speeches for political organizations, publicly endorsing or opposing candidates, soliciting funds, making contributions, or attending or purchasing tickets for events sponsored by political organizations or candidates.⁶ They are further prohibited from personally participating in any fund-raising activities, soliciting funds for any organization, or using or permitting the use of the prestige of their judicial office for fund-raising purposes.⁷

In defining a judge's leaving the bench, we consider two events: the assumption of senior status (i.e., retirement) and resignation (i.e., complete retirement) from the bench. Retirement differs from resignation in that, by assuming senior status a judge allows for the President to appoint a new member to the court, but can also remain in the court and continue to hear cases. The assumption of senior status implies a reduced caseload.⁸

3 Methods

Our analysis uses data from 1802 to 2019 from the Federal Judiciary Center and the Multi-User Data Base on the Attributes of U.S. Appeals Court Judges to sum up the number of retirements or resignations per month.

We begin by creating an unbalanced panel of all judges in all time periods. Thus, for any particular judge, variables are not defined for the period of time preceding that judge's appointment and the period of time following the judge's complete retirement. We sum up the number of these events per month to conduct the analyses that follow.

Table 1 estimates:

(1)
$$Exit_i = F(t) + \alpha_1 \mathbf{Proximity}_i + \epsilon_i$$

 $[\]overline{^5 \textit{Guide to Judiciary Policy} \, \text{Canon 4H. http://www.uscourts.gov/uscourts/rules} \\ and policies/conduct/vol02a-ch02.pdf}$

⁶Guide to Judiciary Policy Canon 5.

⁷Guide to Judiciary Policy Canon 4C.

⁸For example, Chen et al. (2015) show using the universe of cases from 1950-2007 that the yearly caseload per judge drops from roughly 100 per year to 30 per year. The average caseload per judge continues to gradually fall to around 20 per year, even 20 years after retirement.

where the outcome variable $Exit_i$ is the number of judicial retirements or resignations for the month i; the explanatory variable of interest, **Proximity**_i, is a set of quarter-to-election fixed effects; F(t) includes a set of year-specific fixed effects a set of fixed effects for each quarter of the year (e.g., January through March, April through June, etc.); in finally ϵ_i is a mean-zero stochastic error term. In all regressions, the unit of analysis is the month in order to control for seasonality. 11

Because many of the regressions include fixed effects (e.g., roughly 200 dummy variables to control for year, 15 quarter-to-election dummies, and 4 season dummies), we estimate all specifications using the linear model as suggested by Angrist and Pischke (2008). However, we recognize there is debate in the econometrics literature concerning the relative merits of various linear or non-linear models. We reestimate all baseline results using negative binomial models. We also estimate interaction models that examine whether retirements and resignations work differently after the creation of the modern Courts of Appeals. In another robustness check, we report the analysis with linear quarters-to-next election rather than with quarter-to-election dummies.

Figure 2 visualizes the results without any covariates. When the party in power is different, retirements dip in a pronounced manner before presidential elections. This would be consistent with judges intending to retire but waiting for a different appointing authority (i.e., a different political administration) to nominate their successor, contra what the survey evidence indicates. The quantity of resignations is a small fraction of the quantity of retirements. If retirements were politically timed, we should see an increase in resignations after the election when the appointing authority is from the same political party as the one to nominate their successor.

⁹We compare to quarter 16, i.e., the quarter immediately following an election, which is the omitted quarter, so the interpretation is akin to a regression discontinuity design.

¹⁰The set of year-specific fixed effects is intended to capture shocks or trends affecting judicial retirement that are common to all judges in a given year, while the quarterly fixed effects control for seasonal variation in judges' retirement decisions.

¹¹In all calculations of statistical significance in this section, robust standard errors are used.

0.16 Presidential Election 0.14 Average Monthly Voluntary Judicial Leaving Rate 0.1 0.08 Retirements if Different Party is in Power 0.06 0.04 0.02 Resignations if Same Party is in Power Resignations if Different Party in Power 15 8 6 13 12 11 10 9 -0.02 -0.04 Number of quarters until next Presidential Election

FIGURE 2.— Judicial Exit across the Political Cycle

4 Political Cycles in Judicial Exits

In order to calculate the share of judicial exits that are politically motivated, we assume that the benchmark is essentially random retirements or resignations, spread evenly over 16 quarters between elections and evenly without regards to the party of the appointing President. In other words, we use as a baseline the fact that on average, 0.18 judges voluntarily leave the bench each month in our sample; of these, 0.16 are retirements and 0.02 are resignations. All other factors (like salary, age, tenure) are assumed to be uncorrelated with the exact month of retirement.

Next, we would like to calculate the deviation from the baseline in the quarters before or after an election when the party in power is such that it would be politically strategic to exit. In each of the three quarters before a Presidential election, the number of retirements for judges when the party in power is different drops by 0.08-0.10 per month (Table 1 Column 2). This is rather large—summary statistics displayed on the first row of numbers in Table 1 indicate that when the party in power is different from the party of the appointing President of the judge, 0.085 judges retire per month. The magnitudes are invariant to the controls as one might

expect from the unconditional visualization. These effects are also statistically significant and much larger in magnitude than the other quarters.¹² Estimates from the negative binomial model also indicate statistically significant reductions in retirements when the party in power is different (at the 1% or 5% level) for each of the three quarters preceding a Presidential election.

Finally, to interpret the magnitudes, assuming that we should expect 0.157*48 = 7.5 judges to retire every 4 years, a back-of-the-envelope comparison yields the abnormal number of judges not retiring before the election. Regression coefficients in the three quarters (each containing 3 months) prior to election indicates that (0.089+0.075+0.103)*3 = 0.80 judges are missing, which suggests at least 11% of judicial retirements are politically motivated.

¹²All significance tests are two-tailed with respect to the null hypothesis of no effect. There is one quarter that is significant at the 10% level when the party in power is the same (Column 1). One might expect another quarter to be statistically significant after many tests.

TABLE I
POLITICAL CYCLES IN JUDICIAL EXITS

	(1)	(2)	(3)	(4)
	Number of Retirements		Number of Resignations	
Party in Power	Same	Different	Same	Different
Mean of dep. var.	0.073	0.085	0.016	0.008
Quarter to elect = 1	-0.0210	-0.0885	-0.0140	-0.00362
	[0.0356]	[0.0391]**	[0.0118]	[0.00510]
Quarter to elect = 2	-0.0434	-0.0746	0.00537	0.00716
	[0.0329]	[0.0404]*	[0.0174]	[0.00956]
Quarter to elect = 3	-0.0433	-0.103	-0.00375	0.0126
	[0.0310]	[0.0398]***	[0.0181]	[0.0103]
Quarter to elect = 4	0.0175	-0.00520	0.00735	-0.00373
	[0.0525]	[0.0534]	[0.0241]	[0.00591]
Quarter to elect = 5	-0.0285	0.00259	0.00313	-0.000969
	[0.0565]	[0.0621]	[0.0280]	[0.0115]
Quarter to elect = 6	0.0466	-0.0132	-0.00957	0.00341
	[0.0602]	[0.0626]	[0.0269]	[0.0115]
Quarter to elect = 7	0.00887	-0.0685	-0.0317	-0.00414
	[0.0564]	[0.0593]	[0.0250]	[0.00996]
Quarter to elect = 8	0.00412	-0.0142	0.0240	-0.00738
	[0.0499]	[0.0589]	[0.0249]	[0.0107]
Quarter to elect = 9	-0.0111	-0.0223	0.0249	-0.00476
	[0.0522]	[0.0621]	[0.0244]	[0.0138]
Quarter to elect = 10	0.0104	0.000519	0.0332	0.0126
	[0.0571]	[0.0678]	[0.0250]	[0.0182]
Quarter to elect = 11	-0.0246	-0.0815	0.0321	0.0115
	[0.0480]	[0.0633]	[0.0238]	[0.0183]
Quarter to elect = 12	-0.0526	-0.0536	0.0196	-0.0110
	[0.0415]	[0.0565]	[0.0134]	[0.0153]
Quarter to elect = 13	-0.0708	-0.0551	0.0353	-0.00486
	[0.0486]	[0.0595]	[0.0147]**	[0.0184]
Quarter to elect = 14	-0.0700	-0.00562	0.0290	0.00116
	[0.0477]	[0.0641]	[0.0149]*	[0.0204]
Quarter to elect = 15	-0.0832	-0.0562	0.0262	0.00804
	[0.0433]*	[0.0647]	[0.0138]*	[0.0219]
Year FE	Y	Y	Y	Y
Season FE	Y	Y	Y	Y
Observations	2505	2505	2505	2505
R-squared	0.346	0.309	0.105	0.098

Notes: Robust OLS standard errors in brackets (* p < 0.10; *** p < 0.05; **** p < 0.01). The outcome variables are the number judges that retire in a particular month (Columns 1-2) and the number judges that resign in a particular month (Columns 3-4).

We also see a politically motivated pattern for resignations. As noted above, the baseline is 0.02 judges resigning per month. In each of the three quarters after a Presidential election, the

number of resignations for judges when the party in power is the same increases by 0.02-0.04 per month (Column 3). These numbers are again large relative to the mean—when the party in power is the same as the party of the appointing President of the judge, 0.016 judges resign per month (and when the party in power is different from the party of the appointing President of the judge, 0.008 judges resign per month). These effects are statistically significant at the 5 or 10% level and much larger in magnitude than the other quarters. Estimates from the negative binomial model also indicate increases in resignations when the party in power is the same, increases that are statistically significant at the 1% level for the significant quarters in the linear model.

To interpret the magnitudes, assuming that we should expect 0.024 * 48 = 1.15 judges to resign every four years, the extra (0.035 + 0.029 + 0.026) * 3 = 0.27 judges calculated by summing the three quarters-to-election coefficients suggests that at least 23% of judicial resignations follow political cycles. The larger share may be related to political opportunities afforded when a judge resigns rather than merely retires (i.e., takes senior status).

It is clear these rates for retirements and resignations fluctuate across the political cycle. This general pattern shown in the visualization could explain why using yearly retirement data (which would combine these pre and post-election periods) may lead to the wrong conclusion that politics are insignificant in judges' retirement decisions (Yoon 2006; Spriggs II. and Wahlbeck 1995; Stolzenberg and Lindgren 2010; Zuk et al. 1993).¹³

The patterns are robust to alternative measures of electoral proximity (i.e., linear quarters-to-next election rather than with quarter-to-election dummies) and dropping one Circuit at a time (Table 2).¹⁴

¹³Quarter 16 contains November, December, and January. Thus, for instance, in Column 3, the coefficients on quarters 12-15 are estimated to be significant relative to Quarter 16. Figure 1 displays the raw means of every quarter.

¹⁴Table 2 Column 2 suggests the retirement cycles are a bit stronger in Circuits 5, 9, and 12. The results are also robust to a specification that employs disaggregated data using the number of retirements per Circuitmonth, including Circuit fixed effects, and clustering the standard errors at the Circuit level.

TABLE II

POLITICAL CYCLES IN JUDICIAL EXITS - ROBUSTNESS CHECKS
(1) (2)

	Number of Retirements		
	Each coefficient represents a separate re-		
		p 1 Circuit at a time	
Quarters to Election	0.00569		
	[0.00282]**		
After Election		0.0871	
(Entire Sample)		[0.0435]**	
After Election		0.0819	
(Drop Circuit 1)		[0.0413]**	
After Election		0.103	
(Drop Circuit 2)		[0.0449]**	
After Election		0.0994	
(Drop Circuit 3)		[0.0443]**	
After Election		0.0956	
(Drop Circuit 4)		[0.0437]**	
After Election		0.0524	
(Drop Circuit 5)		[0.0373]	
After Election		0.0956	
(Drop Circuit 6)		[0.0433]**	
After Election		0.0920	
(Drop Circuit 7)		[0.0428]**	
After Election		0.0741	
(Drop Circuit 8)		[0.0440]*	
After Election		0.0523	
(Drop Circuit 9)		[0.0325]	
After Election		0.0726	
(Drop Circuit 10)		[0.0421]*	
After Election		0.0776	
(Drop Circuit 11)		[0.0436]*	
After Election		0.0573	
(Drop Circuit 12)		[0.0414]	

Notes: Robust standard errors in brackets (* significant at 10%; *** significant at 5%; *** significant at 1%). Voluntary judicial leavings are the number of judges that retire or resign in a particular month. The explanatory variables of interest are dummy variables indicating whether it is after an election or not (the first three quarters after an election count as "after" while the three quarters before an election count as "before"). Each coefficient represents a separate regression. The regression also includes year fixed effects and seasonly quarter fixed effects (only in Column (1), whose explanatory variable of interest is a linear number of quarters to the election).

These patterns are slightly more pronounced for Republican appointees (Table 3). The resignation cycles of Republican judges seem to follow the pattern of politically motivated exits,

significantly more so than that of the Democrat judges. The retirement cycles for Republicans are somewhat larger than the retirement cycles for Democrats.

 ${\bf TABLE~III} \\ {\bf Who~Does~Political~Cycles~in~Judicial~Exits~-~Party~of~Appointment}$

	(1)	(2)	(3)	(4)
	Number of	Number of Retirements		Resignations
	of Democrat Judges	of Republican Judges	of Democrat Judges	of Republican Judges
Quarter to elect = 1	-0.0356	-0.0619	-0.0131	-0.00210
	[0.0319]	[0.0394]	[0.0102]	[0.00759]
Quarter to elect = 2	-0.0314	-0.0735	-0.00931	0.0266
	[0.0331]	[0.0400]*	[0.0124]	[0.0151]*
Quarter to elect = 3	-0.0493	-0.0843	-0.00538	0.0185
	[0.0303]	[0.0384]**	[0.0140]	[0.0150]
Quarter to elect = 4	0.0178	0.00656	0.000681	0.00822
	[0.0433]	[0.0589]	[0.0176]	[0.0171]
Quarter to elect = 5	-0.0452	0.0339	0.000514	0.00928
	[0.0506]	[0.0655]	[0.0210]	[0.0210]
Quarter to elect = 6	-0.00311	0.0520	-0.0149	0.0188
	[0.0535]	[0.0671]	[0.0187]	[0.0214]
Quarter to elect = 7	-0.0376	-0.00708	-0.0176	-0.00872
	[0.0523]	[0.0622]	[0.0182]	[0.0183]
Quarter to elect = 8	0.00235	-0.0173	0.00117	0.0260
	[0.0496]	[0.0591]	[0.0181]	[0.0182]
Quarter to elect = 9	-0.0487	0.000389	0.00436	0.0287
	[0.0529]	[0.0628]	[0.0188]	[0.0180]
Quarter to elect = 10	-0.0156	0.0253	0.0210	0.0403
	[0.0564]	[0.0705]	[0.0217]	[0.0187]**
Quarter to elect = 11	-0.0620	-0.0459	-0.000790	0.0513
	[0.0513]	[0.0637]	[0.0182]	[0.0196]***
Quarter to elect = 12	-0.0462	-0.0625	-0.0101	0.0135
	[0.0438]	[0.0566]	[0.0166]	[0.0114]
Quarter to elect = 13	-0.0633	-0.0626	0.00571	0.0218
	[0.0462]	[0.0634]	[0.0194]	[0.0133]
Quarter to elect = 14	-0.0248	-0.0497	-0.00339	0.0331
	[0.0500]	[0.0652]	[0.0202]	[0.0150]**
Quarter to elect = 15	-0.0408	-0.0980	-0.00601	0.0393
	[0.0467]	[0.0647]	[0.0207]	[0.0151]***
Year FE	Y	Y	Y	Y
Season FE	Y	Y	Y	Y
Observations	2505	2505	2505	2505
R-squared	0.243	0.335	0.094	0.122

Notes: Robust standard errors in brackets (* significant at 10%; ** significant at 5%; *** significant at 1%). Outcome variables are the number of judges that retire or resign in a particular month. The explanatory variables of interest are dummy variables indicating the number of quarters remaining before the upcoming presidential election (16 quarters to the election is the omitted dummy variable). The regression also includes year fixed effects and seasonly quarter fixed effects.

5 Political Cycles in Judicial Exits Over Time

We now investigate whether the results presented above hold for the entire period we analyze (1802-2019) or if our results are mostly driven by the recent trend in political polarization. Increase in polarization has been found in studies of the U.S. Congress (McCarty et al. 2006; Bernhard et al. 2012; Gentzkow et al. 2015). Cross (2003) finds evidence that the Reagan and George W. Bush judicial appointees have been the most ideological of any judicial appointees since the late 1940s. Chen (2016) finds evidence that Reagan, George W. Bush, and Clinton appointees are the most likely to increase dissents before Presidential elections. After 1975, sixteen-year moving averages of the (four-year) electoral cycle in dissents become statistically significant. The increase in dissents around elections is consistent with the increasing role of political polarization in the judiciary.

To investigate whether political cycles in judicial exits have increased, we accordingly divide the dataset into pre- and post-1975 periods. We compare judicial retirements in the three quarters immediately following an election with the three quarters immediately preceding an election (analogizing to a regression discontinuity framework). This specification is also motivated by the three significant quarter-to-election coefficients before and after the election. We regress the number of voluntary judge retirements on a dummy that indicates whether the retirement occurred after an election (after), a dummy indicating whether the retirement occurred after 1975 (recent), and an interaction between these two indicators.

We find that these electoral cycles have been increasing after 1975. We estimate:

(2)
$$Exit_i = F(t) + \beta_1 After_i * Recent_i + \beta_2 After_i + \beta_3 Recent_i + \varepsilon_i$$

where F(t) are year and quarter fixed effects; $After_i$ is an indicator equal to 1 for the three quarters immediately following a Presidential election; and $Recent_i$ is an indicator variable equal to 1 for the period of time after 1975. The higher rate of voluntary retirements following an election appears entirely attributable to the post-1975 period (Table 4).

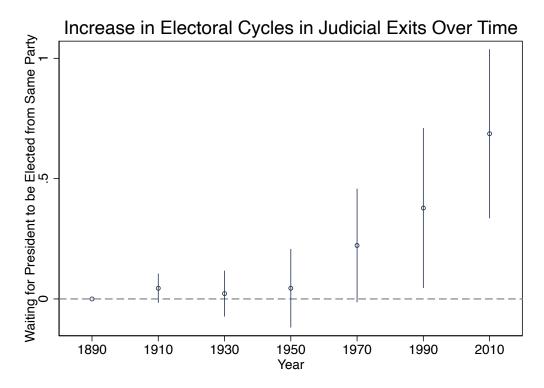
TABLE IV
POLITICAL CYCLES IN JUDICIAL EXITS OVER TIME

	(1)	(2)	
_	Number of Judicial Retirements		
After Election	-0.0178	-0.0125	
	[0.0429]	[0.0367]	
After Election * Year > 1975	0.498		
	[0.198]**		
After Election * Year > 1900		0.167	
		[0.0820]**	
Year FE	Yes	Yes	
Season FE	Yes	Yes	
Observations	937	937	
R-squared	0.449	0.436	

Notes: Robust standard errors in brackets (* significant at 10%; ** significant at 5%; *** significant at 1%). The explanator variables of interest are dummy variables indicating whether it is after an election or not (the first three quarters after an elect count as "after" while the three quarters before an election count as "before") and whether it is recent (before or after 1975; before or after 1900) and the regressions also include year fixed effects and seasonly quarter fixed effects.

In fact, the 20-year moving average correlation between retirement decision and whether it is three quarters after an election (Figure 3) suggests that the electoral cycles we observe in judicial retirement decisions may be entirely a recent phenomenon. This figure presents estimates from equation (2) where the $Recent_i$ indicator is replaced by a full sequence of dummy indicators for 20-year periods. The figure also suggests that political cycles may explain a much larger proportion of judicial exits in recent years.

FIGURE 3.— Increase in Electoral Cycles in Judicial Exits Over Time



Our final analysis repeats the presentation of Table 1, but only include judicial exits after 1975. This sample is more relevant to the Burbank et al. (2012) survey. Table 5 exhibits political cycles in judicial retirements. The baseline is now 0.65 judges retiring per month. Assuming that we should expect 0.65 * 48 = 31.2 judges to retire every 4 years, a back-of-the-envelope comparison with the regression coefficients in the three quarters prior to election suggests that an abnormal number of judges are not retiring before the election—the missing (0.43 + 0.42 + 0.69) * 3 = 4.62 judges who are not retiring would render 14% of judicial retirements to be politically motivated, which is 1.5 times the share from the calculation for the whole time period.

TABLE V
POLITICAL CYCLES IN JUDICIAL EXITS AFTER 1975

	(1)	(2)	(3)	(4)
	Number of Retirements		Number of Resignations	
Party in Power	Same	Different	Same	Different
Mean of dep. var.	0.279	0.371	0.021	0.014
Quartertoelect = 1	-0.156	-0.431	0.0284	-0.00748
	[0.173]	[0.191]**	[0.0143]**	[0.0166]
Quarter to elect = 2	-0.233	-0.423	0.0312	-0.0184
	[0.161]	[0.199]**	[0.0196]	[0.0234]
Quarter to elect = 3	-0.275	-0.687	0.0449	0.0710
	[0.154]*	[0.188]***	[0.0430]	[0.0556]
Quarter to elect = 4	0.112	-0.138	0.0159	0.00716
	[0.288]	[0.263]	[0.0209]	[0.0160]
Quarter to elect = 5	0.00887	-0.246	-0.0137	-0.00307
	[0.303]	[0.320]	[0.0448]	[0.0211]
Quarter to elect = 6	0.143	-0.252	-0.00671	0.0251
	[0.297]	[0.318]	[0.0402]	[0.0439]
Quarter to elect = 7	-0.0498	-0.363	-0.0351	-0.00353
	[0.279]	[0.313]	[0.0369]	[0.0206]
Quarter to elect = 8	0.130	-0.0331	-0.0240	0.0127
	[0.248]	[0.316]	[0.0357]	[0.0214]
Quarter to elect = 9	0.102	-0.0851	-0.000215	0.0435
	[0.248]	[0.333]	[0.0386]	[0.0406]
Quarter to elect = 10	0.256	-0.00586	0.0914	-0.00742
	[0.284]	[0.364]	[0.0651]	[0.0313]
Quarter to elect = 11	-0.0414	-0.364	0.0258	0.0444
	[0.202]	[0.342]	[0.0540]	[0.0487]
Quarter to elect = 12	-0.108	-0.231	-0.0270	0.0205
	[0.166]	[0.312]	[0.0253]	[0.0257]
Quarter to elect = 13	-0.279	-0.340	0.00103	0.0346
	[0.204]	[0.316]	[0.0250]	[0.0408]
Quarter to elect = 14	-0.220	-0.162	0.0463	-0.00688
	[0.180]	[0.338]	[0.0452]	[0.0338]
Quarter to elect = 15	-0.376	-0.390	0.0978	0.0122
	[0.149]**	[0.352]	[0.0619]	[0.0294]
Year FE	Yes	Yes	Yes	Yes
Season FE	Yes	Yes	Yes	Yes
Observations	420	420	420	420
R-squared	0.346	0.238	0.160	0.136

Notes: Robust OLS standard errors in brackets (* p < 0.10; ** p < 0.05; *** p < 0.01). The outcome variables are the number judges that retire in a particular month (Columns 1-2) and the number judges that resign in a particular month (Columns 3-4). Data is restricted to years after 1975.

Table 6 presents the results excluding exits after 1975. Here, only political cycles in resignations are observed, suggesting that retirements and resignations are two different ways to be politically motivated in judicial exits.

TABLE VI POLITICAL CYCLES IN JUDICIAL EXITS BEFORE 1975

	(1)	(2)	(3)	(4)
	Number of Retirements		Number of Resignations	
Party in Power	Same	Different	Same	Different
Mean of dep. var.	0.032	0.027	0.015	0.007
Quarter to elect = 1	0.00995	-0.0116	-0.0229	-0.00312
	[0.0206]	[0.0187]	[0.0141]	[0.00505]
Quarter to elect = 2	-0.000559	0.00219	0.000767	0.0121
	[0.0207]	[0.0222]	[0.0207]	[0.0105]
Quarter to elect = 3	0.00444	0.0161	-0.0130	0.00119
	[0.0197]	[0.0240]	[0.0200]	[0.00592]
Quarter to elect = 4	0.00270	0.0260	0.00551	-0.00580
	[0.0245]	[0.0348]	[0.0284]	[0.00633]
Quarter to elect = 5	-0.0331	0.0566	0.00568	-0.00130
	[0.0315]	[0.0400]	[0.0320]	[0.0129]
Quarter to elect = 6	0.0325	0.0397	-0.00928	-0.00144
	[0.0405]	[0.0381]	[0.0309]	[0.0108]
Quarter to elect = 7	0.0223	-0.00759	-0.0304	-0.00458
	[0.0376]	[0.0326]	[0.0287]	[0.0113]
Quarter to elect = 8	-0.0172	-0.00555	0.0330	-0.0115
	[0.0320]	[0.0306]	[0.0287]	[0.0121]
Quarter to elect = 9	-0.0303	-0.00528	0.0294	-0.0146
	[0.0366]	[0.0328]	[0.0279]	[0.0144]
Quarter to elect = 10	-0.0329	0.00813	0.0220	0.0156
	[0.0374]	[0.0355]	[0.0268]	[0.0209]
Quarter to elect = 11	-0.0204	-0.0241	0.0332	0.00504
	[0.0377]	[0.0307]	[0.0265]	[0.0198]
Quarter to elect = 12	-0.0376	-0.0144	0.0294	-0.0175
	[0.0332]	[0.0237]	[0.0151]*	[0.0176]
Quarter to elect = 13	-0.0238	0.00896	0.0414	-0.0128
	[0.0369]	[0.0271]	[0.0167]**	[0.0206]
Quarter to elect = 14	-0.0343	0.0305	0.0263	0.00237
	[0.0402]	[0.0314]	[0.0154]*	[0.0235]
Quarter to elect = 15	-0.0215	0.0133	0.0125	0.00699
	[0.0366]	[0.0276]	[0.0111]	[0.0255]
Year FE	Yes	Yes	Yes	Yes
Season FE	Yes	Yes	Yes	Yes
Observations	2085	2085	2085	2085
R-squared	0.211	0.138	0.104	0.098

Notes: Robust OLS standard errors in brackets (* p < 0.10; ** p < 0.05; *** p < 0.01). The outcome variables are the number judges that retire in a particular month (Columns 1-2) and the number judges that resign in a particular month (Columns 3-4). Data is restricted to years before and including 1975. 21

The final three figures explores partisan retirements and resignations reflected in the average rate at which judges choose to make a seat available for a president from appointing party to appoint the replacement. Figure 4 shows that a pattern of partisan retirement is present. Each retirement is coded as +1 if it occurred under a president from the judge's appointing party and -1 if not. The figure reports the coefficients and standard errors from a set of dummy indicators representing each election cycle (four-year period beginning with November). If judges are retiring without partisan motives, we would expect a roughly equal number of Democrats and Republicans each election cycle-that is, we would expect mostly 0s, but we do not. Summing the positive coefficients indicate that roughly 76 judges retired under partisan motivations.¹⁵ Put differently, this is 20% of all retirements.

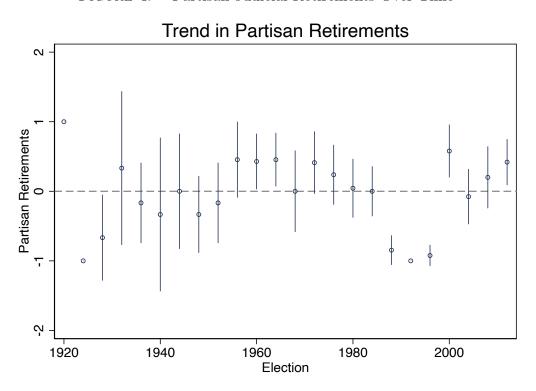


FIGURE 4.— Partisan Judicial Retirements Over Time

Since 2004, 64% (75%) of retirements (resignations) occur when a judge's party of appointment is also holding the presidency, and 36% (25%) otherwise. Interestingly, in the preceding

¹⁵This number is rendered by the dot product of the vector of positive coefficients and the vector of number of retirements for the election cycles beginning in 1960, 1964, 1968, 1976, 1980, 2004, 2012, and 2016.

three election cycles, judges were actually anti-partisan, being more likely to retire when the president was from the opposite party.

Figure 5 shows that partisan retirements are somewhat more elevated for Republicans but this is largely due to a twenty-year time period when Democrat judges were anti-partisan.

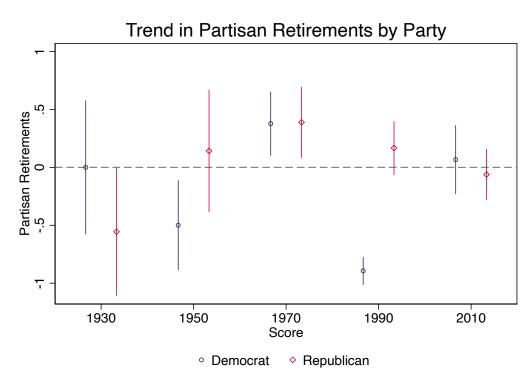
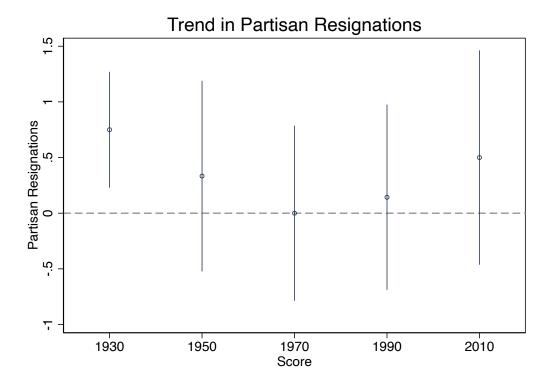


FIGURE 5.— Partisan Judicial Retirements Over Time by Party

Figure 6 shows the pattern for partisan resignations. While it is somewhat elevated in the most recent twenty-year time period, it was even more significantly different from equipoise (defined as a 0 in these graphs, when it is equally likely to resign under a same or different party president) in the beginning of the 1900s. This echoes the pattern of resignation cycles only being observed in the early time period (pre 1975 - Table VI) and not the recent time period (post 1975 - Table V).

FIGURE 6.— Partisan Judicial Resignations Over Time



6 Benchmarks

We benchmark these effects in terms of number of votes and verdicts that differ due to partisan judicial retirements building on the correlations documented in Chen (2016), which finds that Republican judges are 5 percentage points more likely to cast conservative votes than Democrat judges. Assuming that a total of 31% of judicial retirements might have resulted in the appointment of a judge by the opposing party, then roughly 1.5% of votes might have differed if judicial retirements were not partisan. With roughly 380,000 cases since 1890, this results in approximately 17,000 votes cast that would have differed.

To calculate the number of verdicts that might have been affected, if roughly one-third of the pool of judges might have been appointed by the opposing party, then assuming a majority shift of a panel yields 5% of verdicts changing, then perhaps 1.5% of 380,000 cases or roughly

¹⁶Multiplying 5 percentage points by 31% yields 1.5%. It could be that some of the judges who are retiring in the quarters just before an election are also contributing to the "excess" judges retiring under the same party president, in which case, a smaller number would be computed.

6,000 cases would have been decided the other way.¹⁷

This might be an underestimate of the true effect if judges who replace judges who strategically retire for a political replacement are more politically motivated than the average judge, or it might be an overestimate of the true effect if the judges being replaced are more politically motivated than the average judge.

7 Conclusion

U.S. Courts of Appeals judges make the vast majority of decisions that set precedent in the U.S. common law system. Our central results are that Courts of Appeals judges are less likely to retire in the three quarters preceding a presidential election when the party of the President at the time the judge leaves is different from the party of the President that appointed the judge. They are also more likely to resign in the four quarters after a presidential election, when the party of the President at the time the judge leaves is the same as the party of the President that appointed the judge. Strategically partisan decision patterns in the normal churning of judges undermines the non-partisanship of the judiciary and the apoliticality of the U.S. legal system that subtends its constitutionally sanctioned role. If judges wait to have their replacements selected by a President from the same party, and if judges observe others appointed by the opposing party are also waiting, they may choose to wait as well, creating a positive feedback for the judiciary to become more polarized over time, eroding the perceived separation between the three branches of U.S. government. Indeed, Cross (2003) reports that, among U.S. Courts of Appeals judges, Reagan and Bush judicial appointees have been the most ideological relative to any judicial appointee since the late 1940s. Our results, showing that politically motivated exits from the courts have only increased since the

¹⁷The complete calculation is a bit more complicated. Panels with judges appointed from both parties might switch majority to become a panel mostly appointed by the other party. Panels with judges appointed from a single party might become a divided panel. Panels with judges appointed from both parties might become a panel appointed by one party. If one applies the 5 percentage point shift in vote valence equally in all situations, then a panel switching the party in majority might switch panel verdict 5% of the time, and a panel adding one judge from the opposing party might also switch verdicts 5% of the time. A full simulation is beyond the scope of the paper. Note that verdicts being predecents may also affect future verdicts that need to cite the earlier precedent.

1970s, suggest that this ideological inflection is likely to have continued intensifying since. Increasing political cycles in judicial exits appear to mirror increasing polarization in the U.S. Congress (McCarty et al. 2006; Bernhard et al. 2012; Gentzkow et al. 2015), suggesting that reliance on the judicial branch to acts as an independent check and balance on the other two branches of U.S. government may be naive and premised on a denial of the reality of the courts' political complicities. Our data suggest that changes to the constitution and operation of the Federal courts—such as, at minimum, the imposition of judicial term limits and/or the staggering of retirements via a random element—may be vital for their legitimacy and the integrity of the liberal democratic system of government they are intended to support.

References

- Angrist, Joshua D., and Jörn-Steffen Pischke, 2008, Mostly Harmless Econometrics: An Empiricist's Companion (Princeton University Press).
- Bénabou, Roland, and Jean Tirole, 2011, Identity, Morals, and Taboos: Beliefs as Assets, *The Quarterly Journal of Economics* 126, 805–855.
- Berger, Raoul, 1997, Government by judiciary (Liberty Fund).
- Bernhard, William, Timothy P. Nokken, and Brian R. Sala, 2012, Strategic Shifting: Reelection Seeking and Ideological Adjustment in the US Senate, 1952-98.
- Burbank, Stephen B, S Jay Plager, and Gregory Ablavsky, 2012, Leaving the Bench, 1970-2009: The Choices Federal Judges Make, What Influences Those Choices, and Their Consequences, U. Pa. L. Rev. 161, 1.
- Calabresi, Steven G, and James Lindgren, 2005, Term limits for the Supreme Court: Life tenure reconsidered, Harv. JL & Pub. Pol'y 29, 769.
- Cameron, Charles M., 1993, New Avenues for Modeling Judicial Politics, in Conference on the Political Economy of Public Law, W. Allen Wallis Institute of Political Economy, University of Rochester, Rochester, NY.
- Chen, Daniel L., 2016, Priming Ideology: Why Presidential Elections Affect U.S. Courts of Appeals Judges, Technical report.
- Chen, Daniel L., Moti Michaeli, and Daniel Spiro, 2015, Preferences for Perfection: Public vs. Private Truths on Judicial Panels, Working paper, ETH Zurich, Mimeo.
- Chen, Daniel L., and Martin Schonger, 2013, Social Preferences or Sacred Values? Theory and Evidence of Deontological Motivations, Working paper, ETH Zurich, Mimeo.
- Chen, Daniel L., and Martin Schonger, 2014, A Theory of Experiments: Invariance of Equilibrium to the Method of Elicitation and Implications for Social Preferences, Working paper, ETH Zurich, Mimeo.
- Cross, Frank B., 2003, Decisionmaking in the U.S. Circuit Courts of Appeals, *California Law Review* 91, 1457–1515.
- Doerfler, Ryan, and Samuel Moyn, 2020, Democratizing the Supreme Court, Available at SSRN, $https://papers.ssrn.com/sol3/papers.cfm?abstract_id = 3665032$.
- Edwards, Harry T., and Michael A. Livermore, 2008, Pitfalls of Empirical Studies That Attempt to Understand the Factors Affecting Appellate Decisionmaking, *Duke Law Journal* 58, 1895–1989.
- Frost, Amanda, and Stefanie Lindquist, 2010, Countering the Majoritarian Difficulty, Virginia Law Review 96, 719–797.
- Gennaioli, Nicola, and Andrei Shleifer, 2007, The Evolution of Common Law, *The Journal of Political Economy* 115, 43–68.
- Gentzkow, Matthew, Jesse M Shapiro, and Matt Taddy, 2015, Measuring Polarization in High-dimensional Data: Method and Application to Congressional Speech .
- Grossman, Zachary, 2015, Self-signaling and social-signaling in giving, Journal of Economic Behavior & Organization 117, 26–39.
- Hirschl, Ran, 2009, Towards juristocracy: the origins and consequences of the new constitutionalism (Harvard University Press).
- Kornhauser, Lewis A., 1999, Judicial Organization and Administration, in Chris William Sanchirico, ed., Encyclopedia of Law and Economics, volume 5, chapter 11, 27–44.
- Levinson, Sanford, 2006, Our undemocratic Constitution: Where the Constitution goes wrong (and how we the people can correct it) (Oxford University Press).
- McCarty, Nolan M., Keith T. Poole, and Howard Rosenthal, 2006, *Polarized America: The Dance of Ideology and Unequal Riches*, Walras-Pareto lectures (The MIT Press).
- Pfander, James E, 2012, Why Judges Leave the Bench, Jotwell: J. Things We Like 107.
- Pollak, Daniel, 2001, Have the U. S. Supreme Court's 5th Amendment Takings Decisions Changed Land Use Planning in California? (Diane Publishing Company).
- Posner, Richard A., 1973, An Economic Approach to Legal Procedure and Judicial Administration, *Journal of Legal Studies* 2, 399–458.
- Schmitt, Carl, 1969, Gesetz und Urteil: Eine Untersuchung zum Problem der Rechtspraxis.
- Schmitt, Carl, 1985, The Crisis of Parliamentary Democracy [1923], Trans. E. Kennedy.
- Schmitt, Carl, 2005, Political theology: Four chapters on the concept of sovereignty (University of Chicago Press).

- Schwardmann, Peter, and Joel J Van der Weele, 2016, Deception and self-deception .
- Sobel, Joel, 2005, Interdependent preferences and reciprocity, Journal of economic literature 43, 392–436.
- Spriggs II., James F., and Paul J. Wahlbeck, 1995, Calling It Quits: Strategic Retirement on the Federal Courts of Appeals, 1893-1991, *Political Research Quarterly* 48, 573–597.
- Stolzenberg, Ross M., and James Lindgren, 2010, Retirement and Death in Office of U.S. Supreme Court Justices, *Demography* 47, 269–298.
- Yoon, A., 2006, Pensions, Politics, and Judicial Tenure: An Empirical Study of Federal Judges, 1869-2002, American Law and Economics Review 8, 143–180.
- Zuk, Gary, Gerard S. Gryski, and Deborah J. Barrow, 1993, Partisan Transformation of the Federal Judiciary, 1869-1992, American Politics Quarterly 21, 439–457.