Introduction

This paper revisits the problem of judicial retirements. The standard approach to this phenomenon is that judges weigh their prospective utility either by remaining on the bench or by retiring such that they will depart once their expected utility in retirement outweighs that of any further service. Two considerations dominate academic analyses of the retirement calculus—judges' political and economic payoffs. On the one hand, judges may prefer to retire such that they are replaced by ideologically similar individuals (Barrow and Zuk, 1990; Hansford, Savchak and Songer, 2010; Nelson and Ringsmuth, 2009; Spriggs and Wahlbeck, 1995). On the other hand, they may prefer to time their departures such that they maximize their economic benefits—often in the form of pensions (e.g., Stolzenberg and Lindgren, 2010; Vining, 2009; Vining, Zorn and Smelcer, 2006; Ward, 2003; Yoon, 2006; Zorn and Van Winkle, 2000).

Despite a rich literature relating to federal judicial retirements, little is known about state court departures. This is an important deficiency. States contain the preponderance of American jurists, and these individuals face important constraints that federal judges do not. Recent work finds that both elected and appointed state supreme court judges engage in politically sophisticated departures from their courts (Curry and Hurwitz, 2016; Hall, 2001*b*). What we know from the small amount of research conducted on these institutions is that judges on appointed state courts behave like their federal counterparts by timing their departures when they are co-partisan with appointing elites. But the electoral connection constrains these efforts. To the extent that elected judges are politically sophisticated in their departures, it is to avoid the prospect of losing an upcoming election.

That the electoral connection would constrain a judge's ability to engage in politically strategic retirements is perhaps to be expected, but what are we to conclude regarding her economic incentives to leave the bench? A large body of scholarly research details how federal judges are motivated to retire upon becoming pension eligible. But to date, no work has assessed whether state court judges behave in such a manner, whether the electoral connection constrains their ability to do so, or whether these economic considerations (to the extent that they are present) are substantively comparable to their political motivations. Because nearly every examination of federal judges finds

that pension eligibility affects the retirement calculus, it may be that previous studies of state court retirements suffer from omitted variable bias.

In this article, I begin to address these shortcomings in the scholarly literature. I theorize that state judges, like their federal counterparts, should time their departures such that they secure retirement benefits. Nevertheless, I argue that the electoral connection and the attendant risk of defeat might constrain these efforts. To test these ideas, I gather new data relating to 18 state supreme courts' public pension plans and 388 justices' retirement benefits between 1980 and 2005. I estimate Cox proportional hazards models that weigh justices' political-economic incentives to leave the bench. Results indicate that both elected and unelected state supreme court justices delay their retirements until becoming pension eligible but that the electoral connection constrains elected justices' ability to increase these benefits. Upon controlling for pension benefits, I find little evidence that these individuals engage in politically strategic departures.

The political economy of judicial retirements

Judges are rational, utility maximizers who have personal and professional preferences related to their well-being (Ward, 2003). First, judges are policy-interested individuals (e.g., Epstein and Knight, 1998; Hall, 1992; Segal and Spaeth, 2002). The judicial process gives judges numerous opportunities to put their political imprimatur upon the law (Epstein and Knight, 1998; Hammond, Bonneau and Sheehan, 2005; Maltzman, Spriggs and Wahlbeck, 2000). Therefore, they forfeit opportunities to do so once they decide to retire. A forward-looking judge might depart such that she is replaced by someone similar and thereby reap the benefits of having her preferences continue to work on the bench even without having to invest effort in the work herself.

The present state of the literature leaves it somewhat uncertain as to what role politics plays in judges' retirements. Squire (1988), Brenner (1999), and Zorn and Van Winkle (2000) find little evidence that U.S. Supreme Court justices engage in politically strategic retirements. Boylan (2004) uncovers little support for the hypothesis of strategic departures among federal district judges. Pérez-Liñán and Araya (2017) examine strategic departures from a comparative perspective and also note scant support for the strategic theory of departures in a sample of six countries that use presidential nominations.

Stacked up against these findings, scholars such as Fairman (1938), Hagle (1993), Ward (2003), and Nelson and Ringsmuth (2009) conclude that U.S. Supreme Court justices do engage in politically strategic retirements. Barrow and Zuk (1990), Spriggs and Wahlbeck (1995), Nixon and Haskin (2000), Vining (2009), and Hansford, Savchak and Songer (2010) find that lower federal court judges also engage in politically strategic retirements.

One possible explanation for these conflicting findings is that the incentives to retire have changed over the decades. Ward (2003) gives one of the most detailed accounts of U.S. Supreme Court retirements. He explains that congressional legislation affects judges' comfort on and off the bench. Judges' work-lives can be made less comfortable if Congress removes some of their job perquisites, leading to greater rates of turnover. During the 1790s, for example, turnover on the U.S. Supreme Court was high given that few individuals wanted to endure the hardship of "riding circuit," a physically demanding (and not too prestigious) means of employment (Ward, 2003). Similarly, larger salaries, lower caseloads, and greater discretion can lead to greater comfort on the bench and can therefore disincentivize earlier retirements (Boylan, 2004; Posner, 1985; Spriggs and Wahlbeck, 1995).[1] Like other employees, then, judges are more likely to stay in their positions when they enjoy their work and are well-compensated for it (Fields and Mitchell, 1984; Posner, 1993).

Just as Congress can make judges' professional lives more comfortable, so too can they make retirement more enticing. By far the most prominent means by which Congress can encourage judges to retire is to pay them to do so. Prior to 1868, the United States had no public pension plan for its judges. Consequently, during this period, approximately 88 percent of all U.S. Supreme Court vacancies were created by deaths instead of retirements (Vining, Zorn and Smelcer, 2006). After the war, Congress passed the 1869 Retirement Act, which provided judges a pension equal to their full-time salaries if they met certain age and service requirements.[2] The act prompted superannuated judges voluntarily to retire. More importantly, perhaps, the 1919 and 1937 Retirement Acts gave federal judges the opportunity to take senior status, which increased the incidence of partisan

---

[1]Even still, some judges derive "expressive" benefits from authoring opinions (e.g., Carrubba et al., 2012). These individuals engage in greater opinion-writing than their colleagues and are less likely to retire because they enjoy their work (Zorn and Van Winkle, 2000).

[2]See "An Act to Amend the Judicial System of the United States," Forty-First Congress, Sess. 1, Chapt. XXII (1869).

retirements (Hansford, Savchak and Songer, 2010; Vining, 2009; Vining, Zorn and Smelcer, 2006; Ward, 2003; Yoon, 2006).[3]

Another important factor that can affect judges' retirements is the ballot. This is because it can take the retirement decision out of the hands of the judge entirely. Scholars have been slow to consider this type of constraint. After all, studies of federal judges dominate academic analyses of departures. But Article III of the U.S. Constitution shields these individuals from electoral accountability, making them highly unique among America's judges. Only three states in the Union afford their judges a degree of independence that rivals that of the federal judiciary's.[4] And nearly half of all states hold competitive elections for their high courts akin to those for their legislatures.[5] Scholarly analysis finds that as the risk of involuntary removal from office increases, judges are more likely voluntarily to leave the bench (Curry and Hurwitz, 2016; Hall, 2001b).

Only two rigorous quantitative studies of judicial retirements have been conducted at the state-level, and each finds that elected and appointed judges are politically motivated in their retirements. First, Hall (2001b) found that state supreme court justices voluntarily retire when they are at risk of losing an upcoming election. She found little evidence that these individuals retire in order to be replaced by a co-partisan.[6] Nevertheless, Hall (2001b) did not analyze the retirement calculus of electorally unaccountable state court judges. Curry and Hurwitz (2016) helped to fill this scholarly gap. Like Hall (2001b), they found that elected judges were more prone to retire when they were at risk of losing an upcoming election, without regard to their replacement's politics. But they also found that appointed judges engaged in politically strategic retirements such that they waited to retire once they were co-partisan with the elites who would appoint their replacements—much like federal judges have been observed to do.

Clearly, elections can frustrate a judge's ability to engage in a sophisticated retirement strategy. Elections create uncertainty and risk for incumbents. Scholars therefore observe that elected justices tailor their retirement strategies upon the likelihood that they will lose an upcoming election. It is less clear, however, how (or whether) this uncertainty affects judges' other retirement con-

---

[3]See 28 U.S. Code §371.

[4]These states are Massachusetts, New Hampshire, and Rhode Island.

[5]Twenty-two states in total use competitive judicial elections.

[6]Even in states that use competitive elections, if a judge retires before finishing her term, a political elite (usually the governor) will appoint an interim judge who may run for a full term. This individual enjoys an incumbency advantage, even if it is not as great as the one an individual who was originally elected to her position does (e.g., Hall and Bonneau, 2006).

siderations. We neither know whether state court judges (elected or not) engage in economically sophisticated retirements, nor do we know whether the electoral connection hinders judges' ability to secure all of their benefits compared to individuals who are not subject to such constraints. In the following sections, I outline theoretical expectations that address these problems and rigorously test them with new data on state supreme court retirement benefits.

Theory and hypotheses

Every state offers its judges some sort of pension plan (Meyer, 1999). There is much heterogeneity among them. In order to qualify for a pension, every state requires its judges to have met certain age and service requirements. If they have, they are said to have "vested." Some states require more service or advanced age than others. Under the "Rule of 80," federal judges must have an age and creditable service that total at least 80 years in order to qualify for their pensions.[7] Compared to the United States government, states such such as Virginia allow for relatively early retirements with five years of service and age of at least 55.[8] Other states use a sliding scale of eligibility that permits earlier retirements but with greater service compared to older judges. In Michigan, for example, a judge who is 60 years old needs only 8 years of service to qualify for a pension, but a judge who is 55 needs at least 18.[9]

Once a judge is vested, he is entitled to a benefit that is worth a percentage of his active status salary. For federal judges, this figure is simply 100 percent.[10] Most states use a more variable benefit, however, rewarding greater service with larger benefits. In Nebraska, a retired judge's benefit is equal to the number of years she has served, multiplied by her active-status salary, multiplied by 3.5 percent.[11] Most states also limit a judge's possible benefit to be less than his active-status salary. While Kentucky permits its retired judges to earn a retirement benefit that equals their active status salary,[12] others like Missouri limit this payout to a maximum of 50 percent.[13] I present the retirement plans for 18 state courts of last resort in Table 1.

---

[7]See 28 U.S. Code §371.
[8]See Code of Virginia, Title 51, Ch. 3.
[9]See Michigan Code of Laws, Ch. 38, §2101-1670.
[10]See 28 U.S. Code §371.
[11]See Nebraska Revised Statutes, Ch. 24, §701-714.
[12]Kentucky Revised Statutes, Title IV, §21.347
[13]Missouri Revised Statutes, Title XXXII, Ch. 476, §530

Table 1: Retirement eligibility and benefits for 18 state supreme courts

State	Retirement statute	Age	Service	Benefit formula	Maximum benefit
Alabama	Title 12, §18	70	10	Salary × 75%	75% of Salary
		65	12		
		62	15		
		61	16		
		60	17		
		Any	24		
Iowa (Before 1998)	Title 15, Subtitle 2, Ch. 602, §9101-9116	65	4	Salary × Service × 3.25%	50% of Salary
		50	20		
Iowa (1998-2000)	Title 15, Subtitle 2, Ch. 602, §9101-9116	65	4	Salary × Service × 3.25%	52% of Salary
		50	20		
Iowa (2000-2001)	Title 15, Subtitle 2, Ch. 602, §9101-9116	65	4	Salary × Service × 3.25%	56% of Salary
		50	20		
Iowa (2001-2005)	Title 15, Subtitle 2, Ch. 602, §9101-9116	65	4	Salary × Service × 3.25%	60% of Salary
		50	20		
Kansas	Chapter 20, Article 2608	65	Any	Salary × Service (≤10 years) × 5% +	70% of Salary
		62	10	Salary × Service (>10 years) × 3.5%	
		Age + Service ≥ 85			
Kentucky (Joined before 1978)	Title 4, §21	65	8	Salary × Service × 5%	100% of Salary
		64	13		
		63	18		
		62	23		
		61	28		
		60	32		
Kentucky (Joined after 1978)	Title 4, §21	65	8	Salary × Service × 2.75%	100% of Salary
		64	13		
		63	18		
		62	23		
		61	28		
		60	32		
Louisiana	Title 11, §558	70	Any	Salary × Service × 3.5%	125% of Salary

State	Statute	Age	Service	Benefit Formula	Maximum
		65	10		
		55	12		
		Any	18		
Maine (Before 1984)	Title 4, Ch. 27	70	Any	Salary × 75%	70% of Salary
		65	5		
		60	10		
Maine (After 1984)	Title 4, Ch. 27	70	Any	(Salary×Service (1984-1998))/50 +	70% of Salary
		65	5	(Salary×Service (before 1984)×75%)/10 +	
		60	10	Salary×Service (after 1998)×3%	
Michigan	Ch. 38, §2101-2670	60	8	Salary × 60%	60% of Salary
		55	18		
		Any	25		
Nebraska	Ch. 24, §701-714	65	Any	Salary × Service × 3.5%	70% of Salary
		60	5		
New Jersey	Title 43, §6(a)	70	10	Salary × 75%	75% of Salary
		65	15		
		60	20		
Ohio (Joined before 1990)	Title 1, Ch. 145	60	5	Salary × Service ($\leq$30) × 2.2% +	100% of Salary
		55	25	Salary × Service (>30) × 2.5%	
		52	31		
		Any	32		
Ohio (Joined after 1990)	Title 1, Ch. 145	62	5	Salary × Service ($\leq$35) × 2.2% +	100% of Salary
		57	25	Salary × Service (>35) × 2.5%	
		52	35		
Oklahoma	Title 20, §1101-1111	67	8	Salary × Service × 4%	100% of Salary
		62	10		
Oregon	Ch. 238, §500-585	65	5	Salary × 65%	65% of Salary
		60	5†		
South Carolina	Title 9, Ch. 8	70	15	Salary × 71.3% +	90% of Salary
		65	20	Service (>25) × 2.67%	
		60	25		
Texas	Title 8, Ch. 831-835	65	10	Salary × (50% + 2.3% × Service)	90% of Salary
		Any	20		
		Age + Service $\geq$ 70‡			

Virginia	Title 51, Ch. 3	55	5	Salary × 78%	78% of Salary
Washington*	Title 41, Ch. 40	65	5	Salary × Service × 3.5%	75% of Salary
		50	20		
West Virginia	Ch. 51, §9	65	16	Salary × 75%	75% of Salary
		Any	24		
Wisconsin (Before 2000)	Ch. 40, Subch. 2	55	Any	Salary × 65%	65% of Salary
Wisconsin (After 2000)	Ch. 40, Subch. 2	55	Any	Salary × 70%	70% of Salary

Sources: State codes of law. All benefits are subject to limitation under 26 U.S. Code, §415(b). [†]If judges opt to retire at age 60, they are obligated to render 35 days of uncompensated judicial service each year, for five years. [‡]To vest by this method, a judge must have at least 12 years of service. [*]Washington has two retirement laws, but one ceased being applicable to judges after 1988 (R.C.W. 2.10.040).

Current literature leads me to believe that state judges, like their federal counterparts, will respond to economic incentives to leave the bench. An important, though not exclusive, inducement is the pension (Stolzenberg and Lindgren, 2010; Vining, 2009; Vining, Zorn and Smelcer, 2006; Ward, 2003; Yoon, 2006; Zorn and Van Winkle, 2000). Public pensions ensure individuals a steady source of income in their retirements, so securing these guarantees significantly lowers the barriers to departure. A pension benefit can free up a judge's time in order to pursue hobbies, travel, spend time with her family, etc. If she is younger or ambitious, it can allow her to pursue other forms of employment.[14] In short, the opportunity to earn a substantial proportion of one's active-status salary without putting in the same level of effort should lead many to choose to leave. Therefore, I suspect that as judges' retirement benefits are increasing, the likelihood they voluntarily retire will also be increasing.

That being said, not all state courts are created equal. A body of research shows that the electoral connection constrains judicial discretion (e.g., Brace and Boyea, 2008; Cann and Wilhelm, 2011; Hall, 1987). Like other representatives, electorally accountable judges are agents of their principal, the electorate (Ferejohn, 1986). All things being equal, judges prefer not to lose their jobs, and in a strategic environment, these individuals have incentives to tailor their decision-making such that they are aligned with their constituents. Nevertheless, judges might not always perceive voters' preferences, and voters may not always interpret judges' signals with perfect clarity (Maskin and Tirole, 2004). In games of asymmetric information, such miscommunications are what lead incumbent judges to lose their jobs. Indeed, between 1990 and 2000, over 15 percent of all incumbent state supreme court justices lost their reelection bids (Bonneau, 2005).

Uncertainty may not only condition judges' behavior on the bench but may also help to determine how they leave it. Scholars find that electoral risk hastens judges' departures from state courts of last resort (Curry and Hurwitz, 2016; Hall, 2001b). The pleasures one derives from public service are arguably diminishing as concerns over electoral margins are increasing, and not many are sufficiently quixotic to mount a doomed campaign for reelection, preferring instead a more dignified, voluntary departure (Hall and Van Houweling, 1995; Hibbing, 1982). For these reasons, hastened

---

[14]Indeed, if she chooses to pursue other work in her retirement, then a pension might even result in a pay raise if she can find a job for which her income when added to her pension benefit, exceeds her judicial salary.

departures often prevent elected judges from retiring when they are ideologically congruent with elected elites (Curry and Hurwitz, 2016; Hall, 2001b).

Because the electoral connection encourages earlier departures, retiring judges should not only be less able to engage in partisan retirements but also from qualifying for all of the benefits their unelected peers can. This is because states calculate benefits according to age and creditable service. When voters remove a judge from office, or when a judge retires because she fears an electoral loss, she arrests her accumulation of creditable service compared to one who might have otherwise continued on the bench. Indeed, a judge at risk of losing her job might retire simply upon qualifying for some of her pension benefits instead of investing in additional service that might lead to all of them. For these reasons, I suspect that the electoral connection will limit the benefits elected judges are able to secure upon their departures.

Data and statistical methodology

I gather new data relating to state supreme court justices' retirement benefits and examine the likelihood of departures across heterogeneous institutions. In what follows, I build most directly upon work by Hall (2001b) and Curry and Hurwitz (2016). The latter study gathered judge-level data from 18 state courts of last resort from 1980 to 2005.[15] I comport with theoretical and empirical insights from Curry and Hurwitz (2016) by classifying each state supreme court as having either been chosen by competitive election[16] or by elite appointment.[17] Like Curry and Hurwitz (2016, 1063), I classify Missouri Plan institutions with other elite appointment states (rather than with elected ones) because the vast majority of retention-eligible justices during this period faced minuscule odds of losing their seats.[18] In total, I examine the careers of 388 justices—146 appointed and 242 elected—across 26 years and 3,521 observations.[19]

---

[15]These courts were chosen for their institutional heterogeneity and due to the fact that none changed their methods for selecting judges during the period of analysis.

[16]Elected state supreme courts include partisan (Alabama, Louisiana, Texas, and West Virginia), nonpartisan (Kentucky, Oregon, Washington, and Wisconsin) and hybrid (Michigan and Ohio) institutions.

[17]Appointed state supreme courts include those selected by elected officials such as the governor or state legislature (Maine, New Jersey, South Carolina, and Virginia) in addition to those using commission-based recommendations (Iowa, Kansas, Nebraska, and Oklahoma).

[18]In fact, only one retention-eligible justice in the dataset–David Lanphier of Nebraska–failed to win a retention election.

[19]At most, I only have data from four states for each of the various types of elected or appointed courts represented in my sample of 18 states. Therefore, I am reluctant to over-generalize about what effects the independent variables have on judicial retirements in these institutions.

Voluntary retirements

I examine the timing of state supreme court justices' voluntary retirements. The unit of analysis is a justice-year. Therefore, I measure whether a justice voluntarily decided to retire in a given year ("1" if yes, "0" otherwise). Because I am interested in a given justice's decision voluntarily to retire, this approach is more akin to that in Hall (2001b) than in Curry and Hurwitz (2016), who study the hazards of judicial departures, including electoral losses. In the 18 state courts under analysis, 51.8 percent of justices voluntarily retired between 1980 and 2005.

Retirement benefits

The primary independent variables of interest relate to state supreme court justices' retirement benefits. For the 18 states under analysis, I located every state supreme court retirement plan using Meyer (1999). I then read these retirement plans from a state's code of laws, which specify retirement eligibility, benefits, and limits to these benefits. I collected variables relating to justices' pension eligibility, the size of their benefits, and their status in maximizing them. I present the results from this data collection process graphically in Figure 1.

First, I recorded whether a justice was eligible to receive a public pension in a given year. I did this by noting her age and then by calculating the number of years she had worked in the state's judiciary. This is important because age and creditable service are how every state determines pension eligibility. I then calculated whether, given her age and service, she was eligible to collect a pension in a given year ("Vested=1" if yes, "0" otherwise). Summary statistics for this new variable are presented in the top-left pane of Figure 1.

Note that among all state supreme court justices, over half in any given year are not pension eligible (53.0 percent). This means that if they were to retire without any further service, they would receive no benefit whatsoever. Furthermore, observe that appointed state supreme court justices are, on average, more likely to be pension eligible. In any given period, appointed justices are approximately 13 percent more likely to be vested in their pensions than are elected justices ($t = 3.52$).

Next, because states, unlike the federal government, determine the size of a judge's benefit according to her age and years of service, I calculated the percent of her active status salary she

would earn if she were to retire in a given year ("Percent salary").[20] I calculate the size of a justice's pension using the benefits formulas in Table 1. If a justice is not vested, then the percent of her salary for which she is eligible is zero. If a justice in, say, Louisiana is vested with 25 years of creditable service, then her retirement benefit would equal 87.5 percent of her current salary. I present summary statistics for this variable in the top-right pane of Figure 1 among all pension eligible justices.

The histogram shows the distribution of vested justices and the value of their retirement benefits in a given year. The solid line shows the density curve for all state supreme court justices. The dark bars show the distribution for appointed justices, and the grey bars show elected justices. On average, a vested justice can expect to earn approximately 69 percent of her salary if she retires in a given year. Appointed justices have, on average, secured approximately four percent more of their salary than elected justices at a given point ($t = 3.29$).

Because many states limit the size of judges' retirement benefits, I collected one final variable measuring whether a judge had maximized her retirement benefits in a given year ("Maximized pension=1" if yes, "0" otherwise). The logic here is straightforward: if a judge cannot increase the size of her benefit through further service, she might want to go ahead and retire. I present this variable graphically in the bottom-left pane of Figure 1, which shows the percent of all vested justices who have maximized their pension benefits. Overall, 46.9 percent of all pension eligible justices have yet to maximize their benefits. And as with the previous two variables, appointed justices fare slightly, though not significantly, better than their elected counterparts. On average, five percent more appointed justices had maximized their benefits in a given year compared to elected justices ($t = 1.05$).

In evaluating the validity of these new variables, there are two primary concerns. First, some states allow judges to purchase creditable service. Quite simply, it is impossible to know whether an individual opts for this particular strategy, and I cannot account for such behavior here. Second, some states also allow individuals to use other types of public employment in their calculation of creditable service. Such employment may include work as a public school teacher or as a member of the armed forces. Again, these other forms of service would be difficult if not impossible to account

---

[20]Under federal law, once a judge has vested, she is entitled to 100 percent of her active-status salary. No additional service can increase this percentage. Hence, such a variable would have been irrational in an analysis of federal judicial departures but is quite relevant here.
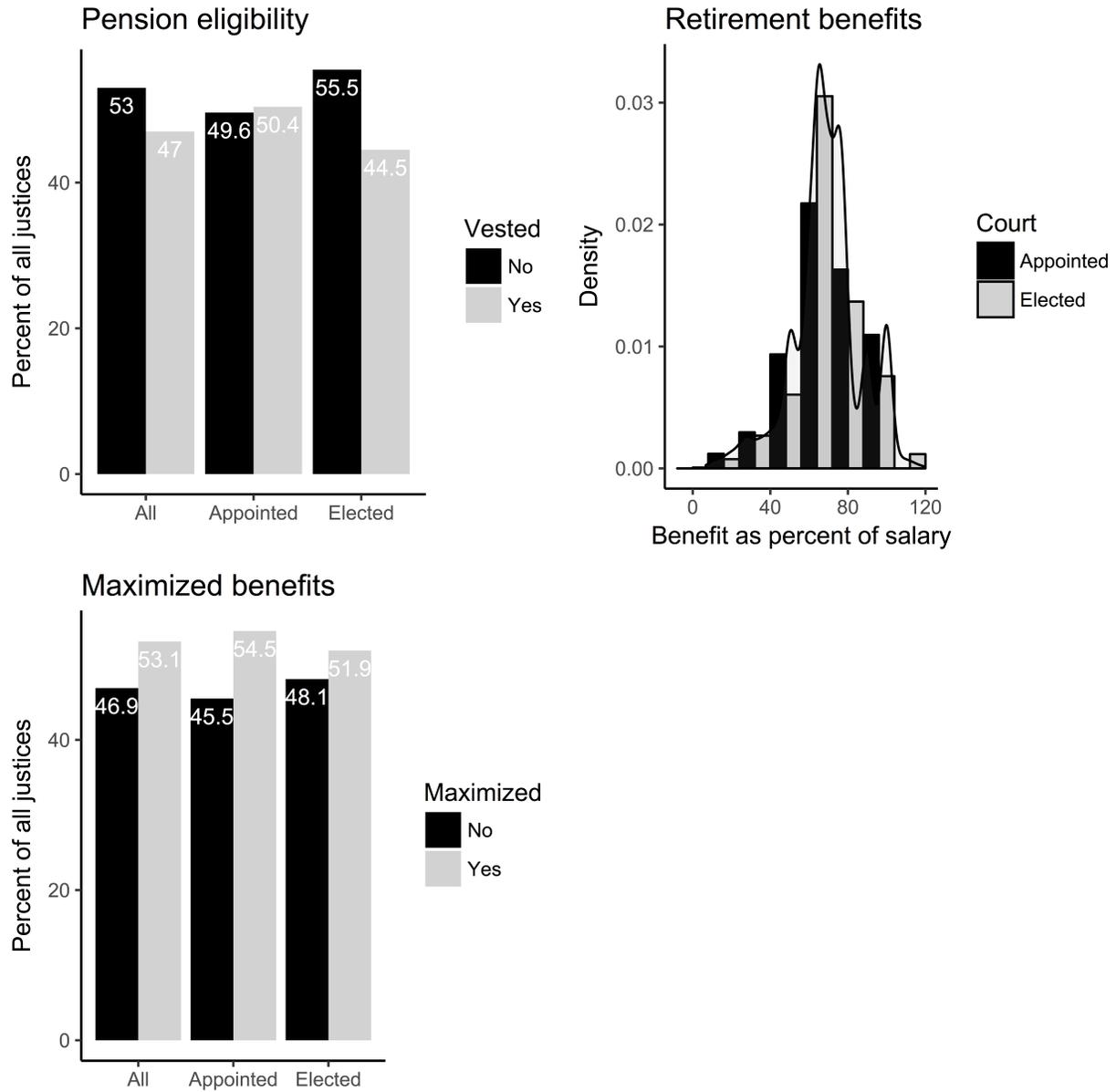
Figure 1: Descriptive statistics of justices' pension eligibility and benefits in 18 state courts of last resort (1980-2005). The top-right and bottom-left panes are solely with respect to pension eligible justices.

for. Nevertheless, for each of these shortcomings, any error introduced into the estimates should bias results in favor of the null hypothesis.

Political factors

Research finds that state judges prefer to retire for politically strategic reasons—either to avoid electoral defeat or to empower co-partisans to appoint their successors (Curry and Hurwitz, 2016; Hall, 2001b). To account for these factors, I measure justices' political congruity with both the electorate and the political elites in their states. To measure justices' political congruity with elites, I include a dichotomous variable for whether a justice is of the same political party as appointing elites in a given state and year ("Same party =1" if yes, "0" otherwise). Altogether, retiring justices were of the same political party of appointing elites 58.0 percent of the time. If judges engage in politically sophisticated retirements, then they should be more likely to retire when of the same party as these individuals.

Elected judges face additional constraints stemming from their relationship with the public. When judges are out of step with voters, they are more likely to lose their elections. To measure the ideological distance between elected justices and the public in a given state and year, I use PAJID scores from Brace, Langer and Hall (2000).[21] These scores are calculated using a state's political ideology (Berry et al., 1998), which is measured from 0 (most conservative) to 100 (most liberal), and are weighted by a state's method for selecting state supreme court justices. I measure the absolute distance between a justice's PAJID score and her state's Berry et al. (1998) score in that given period ("Voter distance"). If elected justices retire to avoid a politically incongruent public, then they should be more likely to do so as this ideological distance measure is increasing.

Likewise, elected justices may face additional political pressures to retire if their previous election efforts resulted in narrow victories. Therefore, I include a dichotomous variable that evaluates whether a justice's previous election was close ("Close election =1" if yes, "0" otherwise). For races with only two candidates, a close election is defined as one in which the incumbent won by

---

[21]While subsequent scholarship has demonstrated some weaknesses in the PAJID scores (Bonica and Woodruff, 2014; Windett, Harden and Hall, 2015), they remain the most comprehensive estimates of state supreme court ideology during the span of the study at hand. Windett, Harden and Hall (2015) only calculate ideological scores for justices dating back to 1995, and Bonica and Woodruff (2014) scores are either incomplete or induced for many of these years or individuals. Therefore, PAJID scores are the most appropriate alternative available, as already demonstrated by Curry and Hurwitz (2016).

fewer than 10 percentage points. For contests with more than two candidates, a close election is one in which the incumbent won less than $\frac{100}{N} + 3$ percent of the vote, where N is the total number of candidates for a seat.[22] In total, 31.4 percent of all contested elections proved close.

Work-related factors

I expect that a judge's workplace satisfaction will influence her retirement decision. For example, as her salary increases, she should be less likely to leave the bench. Therefore, I control for the salary a state supreme court justice earns in a given year ("Salary"). Nevertheless, inflation and the dollar's relative purchasing power from state-to-state require some additional calculations.

First, I took every justice's raw salary in a given year and adjusted it into 2007 dollars, thus making salary figures comparable across time.[23] Next, to account for the relative purchasing power of the dollar in various times and places, I adjusted these salary figures according to the cost of living in a given state and year. I did so using data from Berry, Fording and Hanson (2000), who calculated a cost of living index for each state and year for the observations under analysis. Their index reflects what a dollar is worth in a given state and year, measured as the percentage of the value of the U.S. dollar in 2007. I take the inflation-adjusted dollar figures and divide them by this percentage. The result is a ratio of a justice's salary-to-purchasing power in a given state and year, where larger figures reflect better pay. Finally, I log these salary estimates to normalize their distribution.

I also control for a justice's relative workload since increasing demands on a judge's time may incentivize earlier departures. To do so, I first measure the total number of cases a state supreme court disposed of in a given year, logged ("Workload"). Next, because state supreme courts have less discretion when there is no intermediate court in the judicial hierarchy, I also include a dichotomous variable for whether a state had an intermediate court in a given year ("Intermediate=1" if yes, "0" otherwise). I expect that justices will be more likely to retire when their workload is increasing or when there is no intermediate court to absorb some of these filings.

Justices' rank might also affect their retirement decisions. For example, chief justices might value their role as "first among equals" and therefore resist departing their courts longer than their

---

[22]See Curry and Hurwitz (2016, 1065) for a lengthier explanation of this method.

[23]I accounted for inflation using the U.S. Bureau of Labor Statistics inflation calculator at `goo.gl/JSYG6N`.

associates ("Chief justice=1" if yes, "0" otherwise). In many states, chief justices enjoy opinion assignment prerogatives and are the administrative heads of an entire branch of government (Hughes, Wilhelm and Vining, 2015; Vining et al., forthcoming). Opinion assignments allow individuals significantly to direct the course of the common law (Hammond, Bonneau and Sheehan, 2005; Lax and Cameron, 2007). And as the head of their branch of government, chief justices, enjoy a special relationship with the legislature, which can lead to significant policy victories (Vining et al., forthcoming).

Elected justices might face additional hurdles in the work place. For example, those who were appointed to their positions but have yet to stand for election could be at a greater risk of defeat and may voluntarily retire more quickly compared to incumbents who previously won their elections. Alternatively, interim appointed justices might resist departure as they seek to capitalize upon their newfound incumbency to secure a full term of office ("Interim = 1" if yes, "0" otherwise). Finally, in the immediate aftermath of the U.S. Supreme Court's decision in *Republican Party of Minnesota v. White*, which invalidated restrictions on judicial candidates' speech rights, attack advertising became more frequent, which not only mobilized voters but also helped lead to decreasing vote-shares among incumbents (Hall, 2015; Hall and Bonneau, 2013).[24] To account for this possible influence on justices' willingness to leave, I include a dichotomous variable for whether a justice's retirement decision occurred after the *White* decision ("*White* decision=1" if yes, "0" otherwise).

Institutional factors

I also control for institutional factors that might affect the duration of justices' careers. First, I include a measure of the length of a justice's term ("Term length"). Longer term lengths provide incumbent justices more job security and fewer risks or uncertainties and should be associated with less of a willingness to retire in a given period. Every judge in the dataset has a finite term, and these terms range from six to twelve years. Secondly, elected justices who are chosen from within discrete geographic districts may face fewer electoral uncertainties as these individuals often win with greater electoral margins compared to justices running statewide. Therefore, I include a dichotomous variable that measures whether a justice runs within a district ("District =1" if yes, "0" otherwise).

---

[24]See 536 U.S. 765 (2002).

Personal factors

Finally, personal factors specific to each justice might influence their retirement decisions. The first is a judge's age ("Age"). Clearly, older judges should be more likely to retire than younger ones. I also include controls for gender and race. These are dichotomous variables for "Female" ("1" if yes, "0" otherwise) and "Nonwhite" ("1" if yes, "0" otherwise).[25] Scholars find that race and gender are important in judicial selection and service. For example, female judicial candidates perform better than male candidates, but African American candidates earn fewer votes, on average, than Caucasians (Frederick and Streb, 2008; Goelzhauser, 2016; Hall, 2001a). Minority justices—particularly those who were trailblazers on their courts—may value their legacies and resist departure. Others still, due to discriminatory hiring practices or voter prejudice, may find high barriers either to entry in other professional pursuits or to retaining their seats. I summarize each of the quantitative variables in Table 2.

Estimation technique

Previous studies of judicial retirements have employed any number of estimation techniques.[26] In recent years, however, scholars have more consistently employed event history analysis to the study of judicial retirements (Curry and Hurwitz, 2016; Nelson and Ringsmuth, 2009; Vining, 2009; Yoon, 2006; Zorn and Van Winkle, 2000). Event histories examine the duration of phenomena and the likelihood that independent variables will either lengthen or shorten them (Box-Steffensmeier and Jones, 2004). These models are well-suited to the study of retirements. In this research, I analyze the the duration of state supreme court justices' careers. Failures are coded as voluntary retirements, and other types of departures such as electoral defeats or death are treated as right-censored. Cox proportional hazards models are an appropriate means of estimating the duration of justices' careers, especially given the minimal assumptions it makes on the underlying distribution of the data (Cox, 1972). The Cox model measures the proportional risk an individual does not

---

[25]Judges of Hispanic descent are classified as "Nonwhite."

[26]Hall (2001b) and Boylan (2004) use logistic and probit regressions. Barrow and Zuk (1990) use a multivariate analysis, while Hagle (1993) and Spriggs and Wahlbeck (1995) employ poisson regressions.

Table 2: Variables used in quantitative analyses and their descriptions

Variable	Description
Dependent variable	
Length of career	Number of years a judge serves in her state judiciary, where a voluntary retirement is a "failure" in the hazards models.
Independent variables	
Vested	Whether judge has vested in his retirement pension in a given year, "1" if yes, "0" otherwise.
Percent salary	Percent of judge's active-status salary she would earn if she retired in a given year.
Maximized pension	Whether judge has maximized his possible retirement pension benefit in a given year, "1" if yes, "0" otherwise.
Same party	Whether judge is of the same part as the those who would appoint her replacement in a given year, "1" if yes, "0" otherwise.
Voter distance	Absolute distance between a judge's PAJID score and a state's Berry score in a year (election models only).
Close election	Whether a judge won her previous election with less than 55 percent of the vote with two candidates or less than $\frac{N}{100} + 3$ percent with more than 2 candidates (elections models only).
Salary	Judge's salary in given year, adjusted for inflation, divided by the cost of living, and logged.
Workload	Number of cases a judge's court disposed of in a given year, logged.
Intermediate	Whether a state judiciary had an intermediate appellate court in a given year, "1" if yes, "0" otherwise.
Term length	Number of years in a judge's term.
District	Whether a judge is elected from geographic districts, "1" if yes, "0" otherwise (elections models only).
Interim	Whether a judge was appointed to an interim term, "1" if yes, "0" otherwise (elections model only).
Chief justice	Whether a judge was the chief of her court in a given year, "1" if yes, "0" otherwise.
White decision	Whether a judge's retirement decision occurred after the Supreme Court's *White* decision, "1" if yes, "0" otherwise (elections model only).
Age	Age of a justice in a given year.
Female	Whether a justice is female, "1" if yes, "0" otherwise.
Nonwhite	Whether a justice is nonwhite, "1" if yes, "0" otherwise.

"survive" into subsequent periods.[27] To address correlated errors across states and judges, I include fixed effects for each state and cluster standard errors at the level of the justice.

[27]Analysis of Schoenfeld residuals finds no evidence of non-proportionality among appointed courts (Grambsch and Therneau, 1994). Nevertheless, I do find some evidence of non-proportionality among elected institutions. Further

Results

I examine the duration of 388 justices' careers on 18 state courts of last resort. In this section, I present results from the Cox proportional hazards models, which consider how political, economic, institutional, and other factors affect justices' departures. I first consider whether retirement benefits affect voluntary retirements among appointed state supreme court justices. I then examine elected justices and the role elections play in conditioning their attempts to secure these benefits.

Appointed courts

I present results from the hazards models relating to appointed state supreme courts in Table 3.[28] Note that the results are presented across three models—one for each control on justices' retirement benefits. Estimates are hazard ratios, which are interpreted as the risk of a failure in light of some treatment, divided by the risk of failure absent that treatment. A hazard ratio of one indicates no effect of an independent variable on the duration of an event. Hazard ratios greater than one indicate an increasing risk of failure, and hazard ratios less than one indicate a decreasing risk of failure.

First, consider the effect of justices' retirement benefits. In two of the three models of Table 3, justices' are estimated to condition their retirements upon their pension benefits. In Model 1, we see that justices who are pension eligible are approximately 7.6 percent more likely voluntarily to retire than unvested justices, all things being equal. That is to say, becoming pension eligible increases the hazards of retirement, even when controlling for other factors such as age. This effect is presented graphically in the left-hand pane of Figure 2.

In Figure 2, I graph Kaplan-Meier failure estimates for every justice who has either vested in her retirement benefit or not. Failure estimates are plotted on the y-axis and are interpreted as the cumulative probability a justice retires before the next period. The x-axis is the number of years a justice has worked on a court. We see straightaway that pension vesting hastens justices' departures. For example, a justice with 20 years of experience but who has not vested in her pension has a failure estimate of approximately 0.14. A similarly experienced, vested justice has

---

analysis found that "Age" was the offending variable. Omitting justices' ages from the hazards models eliminates issues relating to non-proportionality, and the results are nearly identical.

[28]Replication materials, including data and code, are available at: `goo.gl/vpj9Hz`.

Table 3: Voluntary retirements from appointed state supreme courts (1980-2005)

Variable	Model 1	Model 2	Model 3
Retirement benefit			
Vested	1.076* (0.034)	—	—
Percent salary	—	1.001* (0.000)	—
Maximized pension	—	—	1.015 (0.019)
Political			
Same party	1.018 (0.012)	1.018 (0.012)	1.019 (0.012)
Work-related			
Salary	0.973 (0.022)	0.971 (0.023)	0.982 (0.023)
Workload	0.994 (0.009)	0.994 (0.010)	0.990 (0.010)
Intermediate	1.059* (0.015)	1.057* (0.015)	1.060* (0.017)
Chief justice	1.023* (0.011)	1.023* (0.011)	1.023* (0.011)
Institutional			
Term length	1.009 (0.115)	0.920 (0.119)	1.016 (0.121)
Personal			
Age	1.006* (0.002)	1.007* (0.044)	1.008* (0.002)
Female	0.410* (0.219)	0.432 (0.243)	0.394* (0.214)
Nonwhite	0.566 (0.384)	0.606 (0.411)	0.641 (0.400)
Fixed effects	*Included in every model*		
Wald χ^2	128.91*	133.08*	114.95*

Notes: Table entries are hazard ratios. Values in parentheses are robust standard errors clustered upon individual justices. $N = 1,531$. Asterisks denote statistical significance ($p < 0.05$, one-tailed).

a failure estimate of 0.54, representing a 286 percent increase in the likelihood of retirement. All things being equal, pension eligibility encourages voluntary departures from appointed courts.

Not only are appointed justices incentivized to vest in their pensions before retiring, but according to Model 2, they might also want to increase the value of their benefits. Recall that unlike federal judges who are eligible for 100 percent of their salaries upon vesting, many state justices must continue in service to increase the value of their benefits. In Model 2, we see that the hazard ratio on "Percent salary" is greater than one and statistically significant. This means that, all things being equal, for a one-percentage point increase in the size of a justice's retirement benefit, she is approximately one percent more likely voluntarily to retire. This effect might seem slight, but cumulatively it can be significant.

We see from the results in Model 2 that justices not only are interested in becoming pension eligible but also in increasing the value of their retirement benefits. Even still, the results from

Model 3 fail to reject the null hypothesis that by maximizing their pension benefits, appointed justices become more likely to retire. These results suggest that appointed justices are no more likely to retire upon maximizing the value of their pension than before it.[29]

Results from the hazards models suggest that appointed state supreme court justices time their departures according to not only whether they are pension eligible but also according to the size of their benefits. This is good evidence that justices engage in economically strategic retirements. But what can be said for other theories of judicial departure? Previous research suggests that appointed judges might also retire when they are of the same party as appointing elites. The results from Table 3, however, provide little support for this hypothesis. While the hazard ratio for the variable, "Same party" is greater than one (as hypothesized), it narrowly falls short of rejecting the null hypothesis ($p = 0.07$). But even if we were to use a more liberal rule for statistical significance (e.g., $\alpha = 0.10$), the substantive effect of partisan agreement is minimal. All things being equal, a justice who is of the same party as appointing elites is only 1.8 percent more likely to retire compared to when she belongs to another party—an effect that is only about one-fourth as large as that for pension eligibility and is dwarfed by the effect of a large benefit.

Alternative hypotheses predicting state supreme court retirements produce mixed results from the models presented in Table 3. To begin, I find little evidence that appointed state supreme court justices condition their retirements upon the quality of their employment. Neither the estimates for justices' salaries nor the number of cases they dispose of attain statistical significance. And while "Intermediate court" attains statistical significance, it is signed in the opposite direction than that which was hypothesized.[30] Similarly, I find in all three models in Table 3 that becoming chief justice actually hastens one's decision to retire. This was counter to expectations but could reflect at least two constraints upon these individuals. First, chief justices are, on average, five years older than their associates ($t = 8.44$). This could be because some states such as Kansas select their chief justices according to seniority. Second, chief justices generally have more administrative responsibilities compared to their colleagues. This, coupled with their age, could encourage them to hasten their departures.

---

[29]To ensure that states such as Virginia that award a constant benefit, regardless of years served, are not biasing these null results, I re-estimated Model 3 without them. The results, however, were unchanged.

[30]As a robustness check, I re-estimated the proportional hazards models including only those states that, between 1980 and 2005, switched from not having any intermediate court to having one. The results were similar to those in Table 3, though the effect of "Intermediate court" was no longer statistically significant.
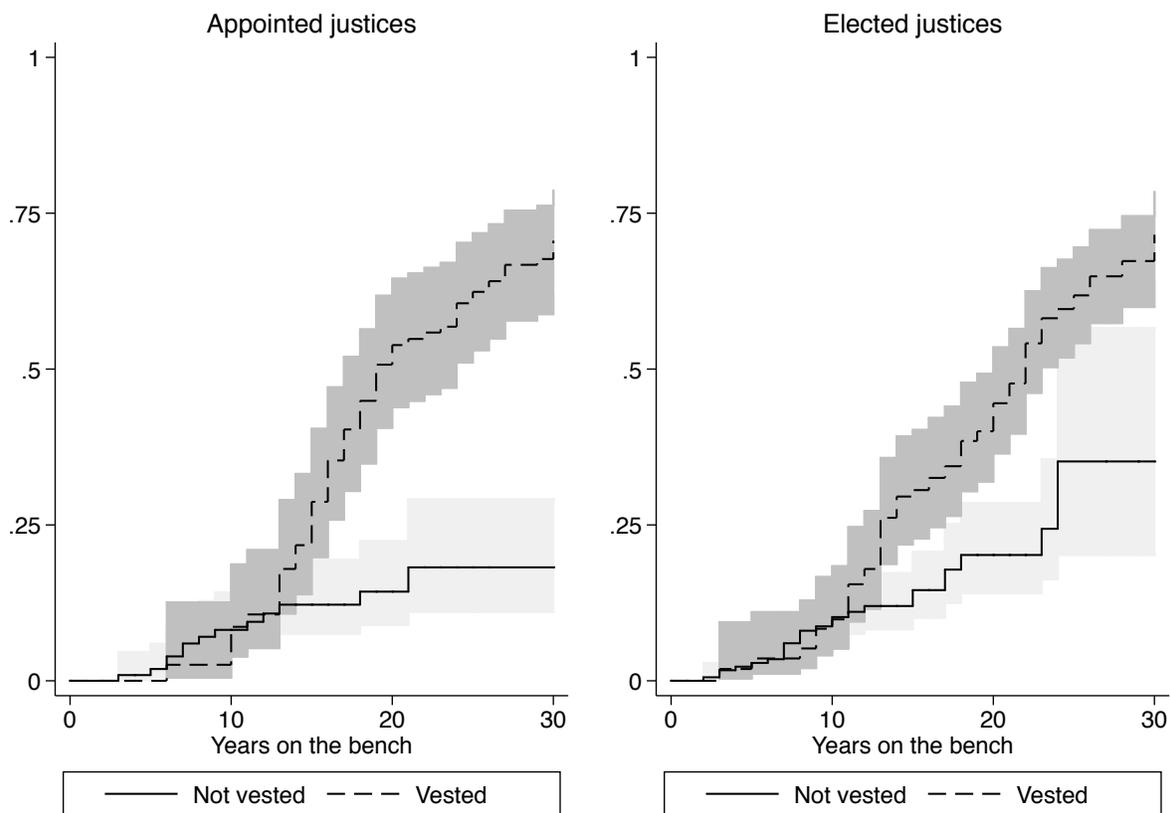
Figure 2: Kaplan-Meier failure estimates for the effects of pension vesting in appointed and elected state supreme courts (1980-2005)

Personal factors such as age play an important role in appointed justices' retirement decisions. In all three models in Table 3, increased age is associated with a greater likelihood of departing, as anticipated. According to Model 2, a one-unit increase in a justice's age results in a 0.7 percent greater likelihood of retiring, all things being equal. Additionally, two of the three models find that gender plays a significant role in how justices leave the bench. According to Model 1 in Table 3, the risk of a voluntary retirement for women is 59 percent lower than it is among men, all things being equal. Again, age could play a factor in these results. On average, women on appointed courts are 5.3 years younger than men ($t = -9.12$). Even still, the age difference between nonwhite and white justices is even higher at 8.2 years ($t = -7.19$), but the effect of race has no statistically significant effect upon justices' retirements. Finally, I find no evidence that an appointed justice's term length affects her decision to retire. Among the eight appointed courts under analysis, no

justice is totally immune from accountability. Nevertheless, these individuals, possibly due to high rates of retention and reappointment, do not condition their departures upon their terms of office.

In this section, I considered the voluntary retirement decisions of 146 state supreme court justices across eight states and 26 years. The results shed new light on how members of appointed state supreme courts strategize over their departures. Previous research found that these individuals engage in politically strategic retirements such that they retire when they are of the same party as appointing elites (Curry and Hurwitz, 2016). Nevertheless, these studies did not consider the role pension benefits might play in structuring justices' incentives to leave. In Table 3, I presented results from three Cox proportional hazards models that did control for such economic considerations. I found that not only do unelected state supreme court justices condition their retirements upon vesting in their pensions, but so too do they seek to increase the value of their benefits before they leave the bench. Finally, the results from this section indicate that, upon controlling for justices' retirement benefits, other political and work-related factors play a minimal role in departures.

Elected courts

The previous section examined how pension benefits among appointed state supreme court justices affect their retirement decisions. Now I consider the case of elected state supreme court justices. As before, I estimate Cox proportional hazards models that examine the duration of elected state supreme court justices' careers. I present the results from these models in Table 4. Results are presented across three models—one for each measure of justices' retirement benefits.

Let us first examine the effect of justices' benefits upon their decision voluntarily to retire. In Model 1, we see that elected justices who are pension eligible are approximately 4.6 percent more likely than their peers who are not voluntarily to retire, all things being equal. I plot this effect in the right-hand pane of Figure 2. The dashed line shows the Kaplan-Meier failure estimates for pension eligible justices, and the solid line shows those for the ineligible. We see from the figure that, like the case of appointed justices, elected justices who have vested in their retirement pensions are more likely voluntarily to retire. Taking the case of an elected justice with 20 years of creditable service, pension eligibility leads to a failure estimate of 0.45 compared to 0.20 for the ineligible. This means that a vested justice with 20 years of service is 125 percent more likely to retire before the next period compared to a pension ineligible justice.

Table 4: Voluntary retirements from elected state supreme courts (1980-2005)

Variable	Model 1	Model 2	Model 3
Retirement benefit			
Vested	1.046* (0.028)	—	—
Percent salary	—	1.000 (0.000)	—
Maximized pension	—	—	1.004 (0.015)
Political			
Same party	1.010 (0.010)	1.011 (0.010)	1.010 (0.011)
Voter distance	1.001 (0.001)	1.001 (0.001)	1.001 (0.001)
Close election	1.002 (0.011)	1.001 (0.011)	1.003 (0.012)
Work-related			
Salary	0.931* (0.023)	0.931* (0.023)	0.937* (0.022)
Workload	1.042* (0.023)	1.040* (0.024)	1.040* (0.024)
Intermediate	1.044 (0.038)	1.038 (0.037)	1.037 (0.039)
Chief justice	0.995 (0.013)	0.994 (0.012)	0.994 (0.012)
Interim	0.878* (0.052)	0.873* (0.051)	0.867* (0.050)
White decision	0.965* (0.015)	0.964* (0.015)	0.964* (0.016)
Institutional			
Term length	0.872 (0.108)	0.891 (0.108)	0.891 (0.112)
District	0.313* (0.202)	0.264* (0.191)	0.364 (0.238)
Personal			
Age	1.005* (0.001)	1.005* (0.001)	1.006* (0.001)
Female	0.627 (0.244)	0.635 (0.245)	0.661 (0.245)
Nonwhite	1.245 (0.595)	1.236 (0.589)	1.133 (0.554)
Fixed effects	*Included in every model*		
Wald χ^2	81.68*	79.68*	84.72*

Notes: Table entries are hazard ratios. Values in parentheses are robust standard errors clustered upon individual justices. $N = 1,990$. Asterisks denote statistical significance ($p < 0.05$, one-tailed).

Recall that the increase in the risk of retirement between pension eligible and ineligible appointed justices with 20 years of experience was 286 percent. While the Kaplan-Meier failure estimates for vested justices looks rather similar between appointed and elected justices, the observed disparity is due to the fact that elected justices who are pension ineligible are generally at greater risk of departing their courts than are their appointed counterparts. Consider a justice with 25 years of creditable service. On an appointed supreme court, her cumulative risk of departure without having vested is 0.18—0.62 if she has. Among elected justices who are vested, the cumulative risk of retirement is 0.61, but for those who are pension ineligible, it is 0.35. Therefore, a pension ineligible, elected justice with 25 years of service is at approximately 94 percent greater hazard of retiring

than her peer on an appointed court. These results suggest that elected justices face hazards that unelected justices do not, and appointed justices who have yet to vest in their retirement benefits can afford to exhibit greater patience over the long term than can those who are elected to their positions.

While the results from Table 4 indicate that elected justices invest in sufficient creditable service to secure their pensions, I find little evidence that they time their departures upon either increasing or maximizing their total benefits. Unlike the case with appointed courts, the variable "Percent salary" fails to reject the null hypothesis, suggesting that the electoral connection may prevent individuals from securing greater benefits as compared to their appointed counterparts. Finally, note that, like the case of appointed justices, I find no significant evidence that elected justices remain on their courts until they have maximized the potential value of their pension benefits.

Given that retirement benefits play an attenuated role in elected justices' departures, what role do other factors play? First, note that none of the political variables of interest attained statistical significance in Table 4. While Hall (2001b) and Curry and Hurwitz (2016) found evidence that justices retire when their electoral risks are increasing, I find virtually none. Elected justices are no more likely voluntarily to retire when they are ideologically more distant to the electorate, when their previous election was relatively a close one, or when they are of the same political party as elites.[31] It is important to recall, however, that unlike Curry and Hurwitz (2016), I have not directly modeled the risks of removal from office.

Unlike the case of appointed state supreme courts, I find good evidence that elected justices time their departures based upon the quality of their work. In all three models of Table 4, I find that as justices' salaries are increasing, they are less likely voluntarily to retire. Recall that I adjusted salaries for inflation and for cost of living. This approach differs from those taken in both Hall (2001b) and Curry and Hurwitz (2016), which helps to account for the difference in findings. According to Model 3, a change from one standard deviation below to one standard deviation above the average justice's adjusted salary decreases the risks of voluntary retirement by approximately 2.8 percent, all things being equal.

Likewise, I find that the workload of elected courts affects the risks of departure. This differs from some of the results presented in Hall (2001b) and Curry and Hurwitz (2016). While the latter

---

[31]This last finding on partisanship is, however, consistent with previous scholarship.

study found no effect for elected justices' workload on the likelihood of retirement, the former found that increased case filings could—at least in nonpartisan institutions. Further analysis finds that the differences between the models in Table 4 and those in Curry and Hurwitz (2016) stem from estimation technique. Curry and Hurwitz (2016) estimated a multinomial logistic regression, while the present analysis employs Cox proportional hazards models. According to Model 3, a change from one standard deviation less than the average number of annually disposed cases to one standard deviation above this mean increases the risks of retirement by 4.6 percent, all things being equal. I find no evidence, however, that the presence of an intermediate court affects the risks of departure.

Other work-related factors produce mixed results. Unlike with appointed courts, elected chief justices are not found to depart any more quickly than are their associates. While the coefficient for this variable is signed in the hypothesized direction, it fails to attain statistical significance. As in Curry and Hurwitz (2016), I find in each of the three models that interim-appointed justices are less likely to retire in the short term compared to other justices who won their terms outright. These results suggest that these newly appointed individuals intend to gain a full term rather than to retire before standing for election.

Finally, while the coefficient for "*White* decision" is statistically significant, it is signed in the opposite direction as that which was hypothesized. All things being equal, elected justices are at approximately 3.5 percent less risk of retiring between 2002 and 2005 than between 1980 and 2002. These results are counterintuitive. Justices during this latter period are no younger than their earlier peers (58 for each group), and the risks of removal appear to be greater during the post-*White* environment. Between 2002 and 2005, 43 percent of elected justices' previous election was coded as close compared to only 29 percent of justices between 1980 and 2002 ($t = 4.89$). Ultimately, this finding is based upon only 305 justice-year observations and will likely require additional scrutiny before firm generalizations can be drawn.

I find mixed results in Table 4 that institutional factors beyond those already discussed affect elected justices' retirements. In two of the three models, I find that selecting justices from geographic districts lowers the risk of voluntary departures by approximately 40 percent compared to states in which justices are elected statewide. Nevertheless, counter to expectations, I found

no significant evidence that longer terms of office reduce the likelihood of departure—a pattern consistent with those from the appointed courts models.

Finally, I find only limited evidence that personal factors influence the duration of elected justices' tenure on the bench. By far the most significant personal factor affecting elected justices' retirement decisions is their age. A one-unit increase in a justice's age increases the risks of retirement by approximately 0.5 percent, all things being equal. Unlike the case with appointed courts, however, I find no evidence that female justices are any less likely to retire in a given period than are male justices. And as with appointed courts, I find no evidence that minority justices are more likely voluntarily to retire before their white counterparts.

In this section, I examined the retirement calculus of elected state supreme court justices. I considered their political-economic incentives to leave the bench and drew comparisons to their counterparts on appointed state supreme courts. I found that, like appointed justices, those who are elected to their positions are incentivized to become pension eligible before deciding to leave. Nevertheless, the results suggest that elected justices are not likely to continue in service long enough to significantly increase these benefits. Additionally, I found that elected justices were not predicted to time their departures upon political considerations. Rather, I found that key work-related, institutional, and personal factors such as salary, workload, size of district, and age affected justices' retirements. In the following section, I further review the key findings of this research, their importance, and offer advice for additional work in this area.

Discussion

This article contributes to a growing body of literature on judicial retirements. Previous analyses considered how politics affect state court departures, but none to date have examined whether pension benefits induce voluntary departures or whether the electoral connection affects the decisional calculus. In addressing these issues, I gathered new data relating to 18 state supreme courts' pension plans and examined voluntary retirements among 388 justices. I found that appointed justices not only delay their departures such that they secure their pensions but also that even once they have vested, they continue in service such that they increase the value of their retirement benefits. Elected justices, by comparison, likewise delay their departures until vesting, but unlike

appointed justices, these individuals do not similarly postpone retirement such that they increase their retirement benefits. These are new contributions to the scholarly literature and compliment existing research that elections constrain judges' ability to engage in sophisticated departures.

Unlike previous research, however, I found little evidence that state supreme court justices engage in politically strategic departures. Curry and Hurwitz (2016) found that appointed state supreme court justices time their retirements based upon the partisanship of those who would replace them. And both Hall (2001b) and Curry and Hurwitz (2016) concluded that electoral factors such as ideological incongruence or the closeness of previous elections hasten retirements. The results presented here, however, are more skeptical about political departures. Among appointed courts, I found some slight evidence (though it requires a generous definition of statistical significance) that co-partisanship increases the hazards of voluntary retirement. But I found virtually no evidence that electoral risks increase the likelihood of voluntary departures.

One explanation for these discrepancies could relate to omitted variable bias. Previous analyses of state supreme court departures did not account for justices' retirement benefits. The statistical models above clearly suggest that controlling for a justice's pension eligibility improves model fit— findings consistent with a large body of literature on federal judicial retirements (e.g., Stolzenberg and Lindgren, 2010; Vining, 2009; Vining, Zorn and Smelcer, 2006; Ward, 2003; Yoon, 2006; Zorn and Van Winkle, 2000). Because this study employs such similar statistical methods on the same set of appointed state supreme courts, justices, and years as does Curry and Hurwitz (2016), such a perspective gains credence.[32] Nevertheless, methodological deviations among this, Curry and Hurwitz's (2016), and Hall's (2001b) work on elected courts could help to account for some of the differences in our findings.[33]

That this research finds minimal evidence for politically strategic retirements contributes to what one might describe as scholarly ambivalence on the topic. Other work on federal and international courts has come to relatively mixed results in recent years (e.g., Hansford, Savchak and Songer, 2010; Pérez-Liñán and Araya, 2017; Stolzenberg and Lindgren, 2010; Yoon, 2006). But because this is the first research on state courts to cast doubt on the hypothesis of politically

---

[32]This study did, however, control for some additional variables (such as chief justice status) and operationalized some concepts such as judicial pay slightly differently than Curry and Hurwitz (2016) did. Therefore, one study is not, strictly speaking, a subset of the other.

[33]Hall (2001b) employed probit regressions; Curry and Hurwitz (2016) used multinomial logistic regression; and this study estimated Cox proportional hazards models.

strategic departures, it is important that we keep in mind some of its limitations. Chief among them is the fact that only 18 state supreme courts are under analysis, leaving us to speculate over what role politics plays in the many institutions not included here. Second, the time-series ends in 2005. As others have shown, this was near the height of the new-style revolution in competitive state supreme court elections and was still years before retention elections became hotly contested (Bonneau and Hall, 2009; Hughes, forthcoming). How political factors influence retirements when elections are more expensive, when voter participation is high, and when incumbent vote-shares are low, will require additional scrutiny. Finally, state courts of last resort are among the only courts for which incumbents are likely to be challenged (Streb et al., 2017). Future research will need to determine whether politically strategic retirements are more likely in lower courts where electoral pressures are less intense.

This article highlights a few additional avenues for future research. A large body of scholarly research finds that electoral accountability conditions judges' voting behavior toward majoritarian preferences (e.g., Brace and Boyea, 2008; Canes-Wrone, Clark and Kelly, 2014; Hall, 1987). This research hints at another incentive state judges might have to pander for their jobs—retirement benefits. If elected judges have yet to secure their retirement benefits, they might be tempted to cast more popular votes compared to their peers who could better afford to lose their jobs (and hence enjoy greater independence). Of course, judges do not operate in a vacuum. A sophisticated legislature could also incentivize earlier (later) retirements by increasing (reducing) retirement benefits or by lowering (increasing) the age and service requirements for eligibility. Future scholarship should consider the mutually strategic incentives legislators and judges have over case outcomes and retirement benefits.

Finally, this study examined the effect of pension qualifications upon state supreme court justices' retirement decisions. But like the federal government, many states allow judges to assume senior status or qualified retirement. This means that judges cease to hear cases on a full-time basis, but they retain their title as judge, hear cases part-time, and earn a pension. Scholars of the federal courts find that qualified retirement legislation increases turnover (Vining, 2009). Future research on state retirements should consider similar incentives to terminate active status.

Acknowledgements

References

Barrow, Deborah J. and Gary Zuk. 1990. "An Institutional Analysis of Turnover in the Lower Federal Courts, 1900-1987." *The Journal of Politics* 52:457–476.

Berry, William D., Evan J. Ringquist, Richard C. Fording and Russell L. Hanson. 1998. "Measuring Citizen and Government Ideology in the American States, 1960-93." *American Journal of Political Science* 42:327–348.

Berry, William D., Richard C. Fording and Russell L Hanson. 2000. "An Annual Cost of Living Index for the American States, 1960-1995." *Journal of Politics* 62:550–567.

Bonica, Adam and Michael J. Woodruff. 2014. "A Common-Space Measure of State Supreme Court Ideology." *Journal of Law, Economics, and Organization* p. doi:10.1093/jleo/ewu016.

Bonneau, Chris W. 2005. "Electoral Verdicts: Incumbent Defeats in State Supreme Court Elections." *American Politics Research* 33:818–841.

Bonneau, Chris W. and Melinda Gann Hall. 2009. *In Defense of Judicial Elections*. New York: Routledge.

Box-Steffensmeier, Janet M. and Bradford S. Jones. 2004. *Event History Modeling: A Guide for Social Scientists*. New York: Cambridge University Press.

Boylan, Richard T. 2004. "Do the Sentencing Guidelines Influence the Retirement Decisions of Federal Judges?" *The Journal of Legal Studies* 33:231–253.

Brace, Paul and Brent D Boyea. 2008. "State Public Opinion, the Death Penalty, and the Practice of Electing Judges." *American Journal of Political Science* 52:360–372.

Brace, Paul, Laura Langer and Melinda Gann Hall. 2000. "Measuring the Preferences of State Supreme Court Judges." *The Journal of Politics* 62:387–413.

Brenner, Saul. 1999. "The Myth that Justices Strategically Retire." *The Social Science Journal* 36:431–439.

Canes-Wrone, Brandice, Tom S. Clark and Jason P Kelly. 2014. "Judicial Selection and Death Penalty Decisions." *American Political Science Review* 108:23–39.

Cann, Damon M. and Teena Wilhelm. 2011. "Case Visibility and the Electoral Connection in State Supreme Courts." *American Politics Research* 39:557–581.

Carrubba, Cliff, Barry Friedman, Andrew D. Martin and Georg Vanberg. 2012. "Who Controls the Content of Supreme Court Opinions?" *American Journal of Political Science* 56:400–412.

Cox, David R. 1972. "Regression Models and Life Tables." *Journal of the Royal Statistical Academy* 34:187–220.

Curry, Todd A. and Mark S. Hurwitz. 2016. "Strategic Retirements of Elected and Appointed Justices: A Hazard Model Approach." *The Journal of Politics* 78:1061–1075.

Epstein, Lee and Jack Knight. 1998. *The Choices Justices Make.* Washington, D.C..: CQ Press.

Fairman, Charles. 1938. "The Retirement of Federal Judges." *Harvard Law Review* 51:397–443.

Ferejohn, John. 1986. "Incumbent Performance and Electoral Control." *Public Choice* 50:5–25.

Fields, Gary S. and Olivia S. Mitchell. 1984. *Retirement, Pensions, and Social Security.* Cambridge: MIT Press.

Frederick, Brian and Matthew J. Streb. 2008. "Women Running for Judge: The Impact of Sex on Candidate Success in State Intermediate Appellate Court Elections." *Social Science Quarterly* pp. 937–954.

Goelzhauser, Greg. 2016. *Choosing State Supreme Court Justices: Merit Selection and the Consequences of Institutional Reform.* Philadelphia: Temple University Press.

Grambsch, Patricia M. and Terry M. Therneau. 1994. "Proportional Hazards Tests and Diagnostics Based on Weighted Residuals." *Biometrika* 81:515–526.

Hagle, Timothy M. 1993. "Strategic Retirements: A Political Model of Turnover on the United States Supreme Court." *Political Behavior* 15:25–48.

Hall, Melinda Gann. 1987. "Constituent Influence in State Supreme Courts: Conceptual Notes and a Case Study." *Journal of Politics* 49:1117–1124.

Hall, Melinda Gann. 1992. "Electoral Politics and Strategic Voting in State Supreme Courts." *The Journal of Politics* 54:427–446.

Hall, Melinda Gann. 2001*a*. "State Supreme Courts in American Democracy: Probing the Myths of Judicial Reform." *American Political Science Review* 95:315–330.

Hall, Melinda Gann. 2001*b*. "Voluntary Retirements from State Supreme Courts: Assessing Democratic Pressures to Relinquish the Bench." *Journal of Politics* 63:1112–1140.

Hall, Melinda Gann. 2015. *Attacking Judges: How Campaign Advertising Influences State Supreme Court Elections.* Stanford: Stanford Law Books.

Hall, Melinda Gann and Chris W. Bonneau. 2006. "Does Quality Matter? Challengers in State Supreme Court Elections." *American Journal of Political Science* 50:20–33.

Hall, Melinda Gann and Chris W Bonneau. 2013. "Attack Advertising, the *White* Decision, and Voter Participation in State Supreme Court Elections." *Political Research Quarterly* 66:115–126.

Hall, Richard L. and Robert P. Van Houweling. 1995. "Avarice and Ambition in Congress: Representatives' Decisions to Run or Retire from the U.S. House." *American Political Science Review* 89:121–136.

Hammond, Thomas H., Chris W. Bonneau and Reginald S. Sheehan. 2005. *Strategic Behavior and Policy Choice on the U.S. Supreme Court*. Stanford: Stanford University Press.

Hansford, Thomas, Savchak and Donald Songer. 2010. "Politics, Careerism, and the Voluntary Departures of U.S. District Judges." *American Politics Research* 38:986–1014.

Hibbing, John R. 1982. "Voluntary Retirement from the U.S. House of Representatives: Who Quits?" *American Journal of Political Science* 26:467–484.

Hughes, David A. forthcoming. "New-Style Campaigns in State Supreme Court Retention Elections." *State Politics & Policy Quarterly* .

Hughes, David A., Teena Wilhelm and Richard L. Jr Vining. 2015. "Deliberation Rules and Opinion Assignment Procedures in State Supreme Courts: A Replication." *Justice System Journal* 36:395–410.

Lax, Jeffrey R. and Charles M. Cameron. 2007. "Bargaining and Opinion Assignment on the US Supreme Court." *Journal of Law, Economics, and Organization* 23:276–302.

Maltzman, Forrest, James F. Spriggs and Paul J. Wahlbeck. 2000. *Crafting Law on the Supreme Court: The Collegial Game*. New York: Cambridge University Press.

Maskin, Eric and Jean Tirole. 2004. "The Politician and the Judge: Accountability in Government." *American Economic Review* 94:1034–1054.

Meyer, Bernard D. 1999. *Judicial Retirement Laws of the Fifty States and the District of Columbia*. New York: Fordham University Press.

Nelson, Kjersten R. and Eve M. Ringsmuth. 2009. "Departures from the Court: The Political Landscape and Institutional Constraints." *American Politics Research* 37:486–507.

Nixon, David and Haskin. 2000. "Judicial Retirement Strategies: The Judge's Role in Influencing Party Control of the Appellate Courts." *American Politics Quarterly* 28:458–89.

Pérez-Liñán, Aníbal and Ignacio Arana Araya. 2017. "Strategic Retirement in Comparative Perspective: Supreme Court Justices in Presidential Regimes." *Journal of Law and Courts* 5:173–197.

Posner, Richard A. 1985. *The Federal Courts: Crisis and Reform*. Cambridge: Harvard University Press.

Posner, Richard A. 1993. "What do Judges and Justices Maximize? (The Same Thing Everybody Else Does)." *Supreme Court Economic Review* 3:1–41.

Segal, Jeffrey A. and Harold J. Spaeth. 2002. *The Supreme Court and the Aattitudinal Model Revisited*. Cambridge: Cambridge University Press.

Spriggs, 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.

Squire, Peverill. 1988. "Politics and Personal Factors in Retirement from the United States Supreme Court." *Political Behavior* 10:180–190.

Stolzenberg and Lindgren. 2010. "Retirement and Death in Office of U.S. Supreme Court Justices." *Demography* .

Streb, Matthew J., Brian Frederick, Casey LaFrance and Kimberly Rice. 2017. The Latest Trends in Intermediate Appellate Court Elections. In *Judicial Elections in the 21st Century*, ed. Chris W. Bonneau and Melinda Gann Hall. New York: Routledge pp. 141–57.

Vining, Richard L. Jr. 2009. "Politics, Pragmatism, and Departures from the US Courts of Appeals, 1954-2004." *Social Science Quarterly* 90:834–853.

Vining, Richard L. Jr., Christopher Zorn and Susan Navarro Smelcer. 2006. "Judicial Tenure on the US Supreme Court, 1790-1868: Frustration, Resignation, and Expiration on the Bench." *Studies in American Political Development* 20:198–210.

Vining, Richard L. Jr., Teena Wilhelm, Ethan Boldt and Bryan Black. forthcoming. "Judicial Reform in the American States: The Chief Justice as Political Advocate." *State Politics & Policy Quarterly* .

Ward, Artemus. 2003. *Deciding to Leave: The Politics of Retirement from the United States Supreme Court*. New York: State University of New York.

Windett, Jason H., Jeffrey J. Harden and Matthew E.K. Hall. 2015. "Estimating Dynamic Ideal Points for State Supreme Courts." *Political Analysis* 23:461–469.

Yoon, Albert. 2006. "Pensions, Politics, and Judicial Tenure: An Empirical Study of Federal Judges, 1869-2002." *American Law and Economics Review* 8:143–80.

Zorn, Christopher and Steven R. Van Winkle. 2000. "A Competing Risks Model of Supreme Court Vacancies, 1789-1992." *Political Behavior* 22:145–166.