Attention to Precedent in a Judicial Hierarchy

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We contend that variation in attention paid to precedents is an important component of agenda setting in federal judicial hierarchy. Using decades-worth of Supreme Court, appeals court, and district court citations to 30 randomly selected landmark precedents, we estimate a series of vector autoregression models that allow us to identify how each level of court initiates or responds to variation in the attention to a given precedent in other levels of court. The results reveal that while the Supreme Court may exert some limited top-down control of the federal judicial agenda, lower courts play an important role in influencing attention to precedent at the Court.

Research on agenda setting at the U.S. Supreme Court usually conceptualizes the Court's agenda in either terms of the selection of specific cases (e.g., Caldeira and Wright 1988; Tanenhaus et al. 1963) or the Court's attentiveness to broad issue areas (e.g., Baird 2004; Pacelle 1991).[1] To better understand how agenda setting choices made by the Supreme Court might reverberate throughout the U.S. judicial hierarchy, scholars employ these two approaches and study the connection between cert. decisions and appeals court decision making (e.g., Cameron, Segal, and Songer 2000; Owens and Black 2012) or test how attention to broad legal issue areas at the Supreme Court is related to attention to these issues in the appeals courts (Hurwitz 2006).

We examine a different form of agenda setting in the federal judicial hierarchy. Rather than focus on the selection of specific cases or the predominance of broad issue areas, we examine judicial attention to legal rules or policies - i.e., legal precedents. There are thousands of Supreme Court precedents which constitute "good law" in the sense that they have never been overruled or overridden by the Court, Congress, or Constitutional Amendment. These precedents ought to govern decisions throughout the judicial hierarchy, but the extent to which these precedents are actually used varies dramatically by precedent and over time.[2] It is this variation in the judicial attention to precedents, and how this attention moves up or down the hierarchy, in which we are interested. Thus, instead of trying to assess whether an increase in the number of civil liberties cases in one level of court leads to an increase in the number of civil liberties cases heard in another level (e.g., Hurwitz 2006), we focus on the dynamics of variation in the attention paid by federal judges to, for example, the *Miranda* precedent. More precisely,

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[1] Research on issue fluidity could also be considered a taking a distinct approach to agenda setting (see Epstein, Segal, and Johnson 1996; McGuire and Palmer 1995). There are also a handful of studies examining the Court's role in interbranch agenda setting (Flemming, Bohte, and Wood 1997; Flemming, Wood, and Bohte 1999)

[2] Hansford and Spriggs (2006) find that how the Supreme Court treats of existing precedent affects lower court usage of that precedent, but they do not seek to disentangle the potential dynamics of the attention to specific precedents in the federal judicial hierarchy.

we seek to determine whether attention to existing landmark precedents is dictated by the Supreme Court (i.e., a top-down model of agenda setting) or by a bottom-up process in which lower court judges, perhaps spurred by litigants, drive attention to precedent in the federal judicial hierarchy.

Using decades-worth of Supreme Court, appeals court, and district court citations to 30 randomly selected landmark precedents, we estimate a series of vector autoregression models that allow us to identify how each level of court initiates or responds to variation in the attention to a given precedent in other levels of court. The results reveal that while the Supreme Court may exert some top-down control of the federal judicial agenda, there is at least as much evidence of lower courts, district courts in particular, playing an important role in influencing attention to precedent at the Court. Thus, while a good deal of research demonstrates that the Supreme Court has some top-down control over *how* the lower courts decide cases, it appears that attention to precedent can flow upward in the judicial hierarchy.

Simple Models of Precedent Salience in a Judicial Hierarchy

Who determines the amount of attention paid to a particular legal precedent? To begin to answer this question it is useful to consider that there are multiple information flows within a judicial hierarchy. The traditional view of judicial hierarchies implies that: 1) information about disputes and initial resolutions of these disputes flows upward from low court to high court (Clark and Kastellec 2013) and 2) information about how the legal questions arising in these disputes should be answered flows from high court to low.[3] In other words, disputes move up the hierarchy while legal precedent flows downward. These two information flows suggest two distinct possibilities for agenda setting in the judicial hierarchy: a top-down, Supreme Court

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[3] Recent research also suggests a third type of information flow - information regarding the current ideological location of specific precedents can flow upward from lower court to high court (Hansford, Spriggs, and Stenger N.d.).

driven model and a bottom-up model in which the Court responds to the attention paid to precedents in the lower courts.

The Top-Down Model

The federal court system is often approached from a principal-agent perspective in which the Supreme Court is the policy-making principal and the lower courts are its agents of implementation. Lower courts will decide cases based on either Supreme Court precedent or contemporary Supreme Court preferences, though there is always the potential for some agency loss if lower court judges decide cases in ways that diverge from the precedent or preferences of the high court.[4] Numerous studies provide evidence that lower federal courts are responsive to changes in Supreme Court preferences (e.g., Haire, Songer, and Lindquist 2003; Owens and Black 2012; Randazzo 2008; Westerland et al. 2010) or precedent (Baum 1980; Benesh and Reddick 2002; Hansford and Spriggs 2006; Songer, Segal, and Cameron 1994).

The principal-agent model implies that the Supreme Court should exert a good deal of control over the federal judicial agenda. To the extent that lower court judges can reasonably be viewed as agents of the Court, then it should be expected that these judges are responsive to agenda signals sent by the Court regarding the importance of legal questions, precedents, or issues. Though lower courts have much less control over their agendas in terms of the cases to be decided or fundamental questions to be addressed, judges can emphasize or deemphasize aspects of a dispute and choose the precedents to be used to decide a legal question.

Alternatively, Supreme Court signals about its agenda preferences could indirectly control the agendas of the lower courts through the mobilization of litigants. Baird (2004) argues that when the Supreme Court issues a salient decision in a particular issue area it is effectively

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[4] Goldman (1975) and Klein (2002), for example, find that appeals court judges are influenced by the policy preferences when making decisions, which can lead to agency loss.

signaling its interest in this issue area to potential litigants. These salient decisions thus lead to subsequent, related litigation in the federal courts, some fraction of which ultimately ends up before the Court.

Based on the principal-agent model, evidence that lower court decision making is responsive to the Court's directives, and Baird's (2004) work on the mobilizing effect of salient Court decisions, the top-down hypothesis of attention to precedent is that the Supreme Court controls the degree to which any given precedent receives attention throughout the judicial system. Increases (decreases) in the attention paid to a precedent at the Court will lead to increases (decreases) in the attention paid to this precedent in the district and appeals courts. Tentative evidence for this hypothesis is provided by Benesh and Reddick (2002) and Hansford and Spriggs (2006), who find that *how* the Supreme Court treats a precedent affects the extent to which lower courts use that precedent. These studies, however, do not allow for the possibility that lower court attention to a precedent might, in turn, influence the Court.

The Bottom-Up Model

Though there is a good deal of evidence that the Supreme Court exerts some control over lower court decision making, it is a good deal less clear that the Court will necessarily control the federal judicial agenda. After all, legal cases and controversies move up the judicial hierarchy, which logically implies that the changes to the federal judicial agenda may be initiated in the lower courts. Legal mobilization efforts, for instance, must begin in the lower courts.

Furthermore, recent studies provide evidence of the informational importance of the lower courts to the Supreme Court. Lower court usage of precedent can provide information to the justices about the contemporary ideological location of the precedent (Hansford, Spriggs, and Stenger N.d.). The legal opinions crafted by lower court judges can shape the language

4

ultimately used in Supreme Court opinions (Corley, Collins, and Calvin 2011). Clark and Kastellec (2013) find evidence of the usefulness of the "percolation" of issues in lower courts to the Supreme Court's agenda setting decisions.

The justices on the Court want to resolve or address particularly important legal issues and often rely on external information about the importance of an issue or a case when deciding whether to hear a case (Caldeira and Wright 1988; Tanenhaus et al. 1963). Likewise, the justices want to allocate the Court's limited agenda space in a manner that allows them to address precedents that are of particular current importance (Hansford and Spriggs 2006). One obvious source of information about the importance of a legal issue or precedent is the extent to which lower courts are dealing with the issue or precedent.

There is thus both evidence and theory for an important "bottom-up" component to the federal judicial hierarchy. The accompanying hypothesis regarding attention to precedent is that the Supreme Court will be responsive to the relative attention paid to a precedent in the lower courts. An increase (decrease) in lower court attention to a given precedent will subsequently lead to an increase (decrease) in attention to this precedent at the Court. Note that increases in attention paid to a precedent in the lower courts need not necessarily result from conscious choices by lower court judges. The extent to which a precedent is on the agenda of the lower courts will be a function of choices made by litigants (the decision to rely on the precedent in argumentation) and judges (i.e., the decision to cite the precedent in opinions).

A Mixed Model of Agenda Dynamics

A third possibility is that the agenda of the federal judicial hierarchy has both top-down and bottom-up components. This is essentially the point made by Pacelle (1991) when he argues that the Supreme Court's agenda can be divided into "volitional" and "exigent" parts. The

former contains legal issues that the Court wants to address while the latter contains issues that the Court must deal with, perhaps owing to the Court's involvement in this issue area in the past. Hurwitz (2006) examines the attention to broad issue areas at the Supreme Court and the appeals courts and finds that attention to economics moves upwards from the appeals courts while attention to civil liberties moves downwards from the Court. Using time series language, it could very well be the case that "shocks" or "innovations" in the attention to a given precedent in any of the three levels of federal court could lead to responses in the other levels. The modeling strategy we employ will allow for this possibility.

Analyzing the Dynamics of the Attention to Precedent

As mentioned earlier, prior work on the dynamics of agenda setting in the federal judicial hierarchy examines attention to broad issue areas, such as economics or civil liberties (Baird 2004; Hurwitz 2006; Peters 2007). While the allocation of agenda space to broad issue areas is clearly important, there are three related downsides to this approach. First, these issue areas are very broad. Lumping all economics cases into one category, for example, can mask important variation in the types of economic issues being litigated. Second, this type of issue typology is researcher-imposed and is thus artificial in the sense that it does not track with "natural" differences across cases. Third, it is very difficult and time-consuming to reliably code the issues dealt with in the tens of thousands of decisions handed down in the three levels of the federal judiciary over any meaningful time span. For this reason, researchers have excluded district courts from their analyses (e.g., Hurwitz 2006).

We employ a very different conceptualization of the judicial agenda. Instead of examining attention to broad issue areas, we focus on attention to specific legal precedents. This approach remedies the disadvantages of the issue-based approach. Precedents are much finer-

6

grained than broad issue areas; compare the civil liberties issue area with *Miranda v. Arizona*. There is no researcher-imposed artificiality as precedents and their subsequent citations are judge-determined and are fundamental components of judicial decision making. Finally, thanks to citation services such as Lexis there are highly reliable citation data that can be used to assess attention to specific precedents throughout the federal court system.

In order to test whether attention to precedent flows downward from the Supreme Court, upward from the lower courts, or both directions, we analyze citations to landmark precedents over time in the district courts, appeals courts, and Supreme Court. We sample 30 landmark Supreme Court precedents decided during the 1946 through 1974 Court Terms. We do not sample any precedents from more recent terms since the resulting time series would be too short to analyze in a meaningful sense. These 30 precedents were randomly sampled from Congressional Quarterly's list of landmark decisions and are listed in Table 1.

*** Table 1 Here ***

We view citations to a precedent as representing judicial attention to that precedent. The more that courts cite a precedent, the more attention that precedent is receiving, and the more that this precedent is on the judicial agenda. *Shepard's Citations* codes these citations and classifies some of them as being substantive treatments of precedent (e.g., the following of precedent or the criticizing of precedent, see Hansford and Spriggs 2006), but here we are simply interested in the degree to which courts are paying attention to a precedent.[5]

We construct three time series for each of these landmark precedents: annual Supreme Court citations to the precedent (*Supreme Court Cites*), annual appeals court citations to the

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[5] We thus include in our data any and all citations to a precedent, regardless of whether there was also a substantive treatment coded by *Shepard's*. As Cross et al. (2010) argue, all citations to precedent are important as they represent the operationalization of *stare decisis*.

precedent (*Appeals Court Cites*), and annual district court citations (*District Court Cites*).[6] For

each precedent, these three time series begin the year the precedent was established by the

Supreme Court and end in 2005. On average, a landmark precedent in our sample was annually

cited twice by the Supreme Court, 12 times in the appeals courts, and 11 times in the district

courts.

       To provide specific illustrations of these citation time series, Figures 1A and 1B depict

the time series for *Baker v. Carr* (1962) and *Ker v. California* (1963), respectively.[7] These

figures reveal quite different citation patterns, with cites to *Ker* declining over time while cites to

Baker hold quite steady. Interestingly, the appeals courts cited *Ker* more frequently than district

courts while the opposite holds true for *Baker*.

<div align="center">*** Figure 1 Here ***</div>

       Fundamental differences in the patterns of citations to the landmark precedents implies

that the best approach is to analyze each precedent separately, instead of pooling them all into a

single model. Specifically, we estimate 30 vector autoregression models (VAR models); one for

each landmark precedent. We are interested in assessing whether attention to precedent moves

up or down the judicial hierarchy. Do changes in *Supreme Court Cites* drive changes in *Appeals

Court Cites* and *District Court Cites*? Or, is the opposite true? The VAR models allow us to

consider all three time series as potentially endogenous.[8] For a given landmark precedent, the

VAR model treats *Supreme Court Cites*, *Appeals Court Cites*, and *District Court Cites* as

dependent variables to be explained by lagged values of all three variables. We can then conduct

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[6] We obtain the citation data from Fowler et al. (2007) and Black and Spriggs (2013), who gathered them from *Shepard's Citations*.

[7] *Baker* dealt with the justiciability of legislative malapportionment suits brought under the Equal Protection Clause while *Ker* helped incorporate the Fourth Amendment.

[8] See Freeman, Williams, and Lin (1989) for an introduction to VAR models in political science.

Granger causality tests to determine whether any one time series is caused by any of the other time series (Granger 1969). We can also generate impulse-response functions revealing what these effects look like. In short, the data and models used will allow us to assess whether a "shock" in the level of attention paid to a precedent at one level of the judicial hierarchy has an effect on the subsequent levels of attention paid to the precedent in the other levels of the hierarchy.

It is important for us to note that we are not interested here in determining whether any lower court responsiveness to the Supreme Court's attention to a precedent is fundamentally a function of litigant behavior (e.g., Baird 2004) or the lower court judges themselves. The same is true for any effect that lower court attention to precedent might have on the Court. We are simply interested in examining whether this form of agenda setting is driven by the Supreme Court or by the lower courts, whose citations to precedent could be a function of the choices made by both litigants and judges.

Before further discussion of the specification of the VAR models, we first need to address the issue of stationarity since VAR models assume that the endogenous time series are stationary. We conducted augmented Dickey-Fuller tests on all 90 time series (30 precedents each with three time series) and rejected the null hypothesis that the series contains a unit root for 74 of them.[9] For 16 of the time series we were unable to reject the null that the series contained a unit root, though additional analyses suggest that none of these series are I(1).[10] We

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[9] For all of the these unit root tests we include a time trend.

[10] *Rochin v. California* (1952), *Bolling v. Sharpe* (1954), *Mapp v. Ohio* (1961), *Elfbrandt v. Russell* (1966), *Keyishian v. Board of Regents of the University of the State of New York* (1967), and *U.S. v. Robel* (1967) are the precedents for which we could not reject the unit root null for at least two of the time series. Further analyses suggest that these series are only fractionally integrated and do not contain unit roots.

are therefore relatively comfortable using VAR models for all 30 precedents and for consistency's sake prefer this to using a mix of VAR and vector error correction models.

With consistency and parsimony in mind, we opt to use the same number of lags for all 30 models. How many lags to use? We ultimately include three lags (t-1, t-2, t-3) for the endogenous variables in all of our models. Lag selection statistics are satisfied by three lags for many of the precedents and while additional lags could be included for some of the precedents doing so would necessitate the unfortunate loss of additional observations.

Though VAR models often include only the lagged endogenous variables as explanatory variables, we err on the side of caution and also include three exogenous variables. First, we include *Precedent - Court Distance*, which is measured as the absolute value of difference between the Martin-Quinn score for the median justice in the majority opinion coalition for the landmark precedent and the score for the median justice on the Supreme Court in the year under analysis (Martin and Quinn 2002).[11] This variable is intended to control for any effect that the Court's orientation towards a precedent might have on attention to the precedent throughout the system. Second, given the evidence that citations to a precedent typically decrease over time (Black and Spriggs 2013), we include the age of the precedent in years (*Precedent Age*). Third, a few of the landmark precedents in our sample experienced some sort of formal reversal by either the Supreme Court or Congress. For these precedents, *Altered Precedent* equals one on the year of the reversal and then for every subsequent year.[12]

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[11] Evidence provided by Clark and Lauderdale (2010) and Carrubba et al. (2012) indicates that the median justice in the precedent-setting majority has the most influence over the content of the precedent.

[12] We employ a conservative approach here and include any *Shepard's*-based indication of an override (judicial or legislative) in our models. There are five such instances in our data: *Stack v. Boyle* (1951) was overridden by the Bail Reform Act of 1984; *Rochin v. California* (1952) was overruled, or at least replaced, by *Mapp v. Ohio* (1961); *Lassiter v. Northampton County Board* (1959) was considered to be overridden by the Voting Rights Act of 1965; *Fay v. Noia* (1963) was overruled in part by *Coleman v. Thompson* (1991); and *Miranda v. Arizona* (1966) was nominally overridden by the Omnibus Crime Control and Safe Streets Act of 1968. We cannot include *Altered*

Results

Each of the 30 VAR models includes at least 33 coefficient estimates (the models with the *Altered Precedent* control variable include a total of 36 estimates), making it impractical to present here the full, detailed results for all the models. We are fundamentally interested in whether the Supreme Court or lower courts dictate attention to landmark precedents. To answer this question, we use Granger causality tests to distill the results of the 30 VAR models. These tests assess whether the lagged values of one endogenous variable, as a set, are statistically significant predictors of the values of another endogenous variable at time t (while controlling for lagged values of this second endogenous variable).

Before turning to a summary of these tests for all 30 models, it is useful to first return to the *Baker* and *Ker* examples. Table 2 presents the results of the Granger causality tests for the VAR models of attention to the *Baker* precedent and attention to the *Ker* precedent. The table lists all six possible causal relationships and asterisks indicate whether the Granger test provides evidence for this relationship.[13]

*** Table 2 Here ***

The Granger causality tests for these two landmark precedents reveal very different patterns. Attention to the *Baker* precedent is clearly driven by the district courts. Increases in cites to *Baker* in the district courts, which could be due either to legal mobilization efforts or legal innovations by district court judges, lead to subsequent increases in cites to *Baker* in the appeals courts and the Supreme Court. Attention to the *Ker* precedent, on the other hand, is led by the Supreme Court. Increases in cites to *Ker* by the Court leads to increases in cites to *Ker* in

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Precedent in the *Miranda* model, however, since *Altered Precedent* equals one for all of the years under analysis (we lose 1966 and 1967 due to the inclusion of lags).

[13] The Appendix contains the full results for the *Baker* and *Ker* models.

the appeals courts and district courts. *Baker* is thus a clear example of the bottom-up model of attention to precedent while *Ker* is an example of the top-down model.

Are the results for *Baker* or *Ker* typical for the sample of landmark precedents? To answer this question, Figure 2 summarizes the results of the Granger causality tests for all 30 precedents. The six possible causal relationships are presented with arrows that vary in thickness depending upon the number of precedents for which the relationship in question is statistically significant according to the Granger test. The precise number of precedents for which the relationship is significant is indicated in the middle of each arrow.

*** Figure 2 Here ***

Figure 2 reveals that evidence exists for all six causal relationships. The Supreme Court influences attention to precedent in the district courts for 13 of the precedents but the opposite is true for nearly as many precedents. Similarly, there is a good deal of balance between the number of precedents for which the appeals courts influence the district courts and vice versa. Interestingly, there is less evidence of a connection between the Supreme Court and the appeals courts. In particular, for only six precedents out of 30 do shifts in Court attention to a precedent result in shifts in appeals court attention.

To further assess the dynamics of attention to precedent in the different levels of the U.S. federal judicial hierarchy, we use our VAR results to generate orthogonalized impulse-response functions (IRFs). An IRF reveals the effect of a one standard deviation "impulse" in one endogenous variable at time *t* on future values of another endogenous variable (the response variable). We again look to the *Baker* and *Ker* models as specific illustrations of the IRF results before summarizing these results for all 30 models. Figure 3 displays a pair of IRFs for the *Baker* model: one for the effect of *District Court Cites* on *Supreme Court Cites* and one for the

effect of *District Court Cites* on *Appeals Court Cites*. Per the Granger causality tests, these are

the two statistically significant relationships for this precedent. Units of time (in years) since the

one standard deviation impulse in *District Court Cites* are plotted on the *x*-axes and increases in

the number of *Supreme Court Cites* and *Appeals Court Cites* are plotted on the *y*-axes of Figures

3A and 3B, respectively. The solid lines contain the predicted responses and the surrounding

90% confidence intervals are indicated by the gray regions.

*** Figure 3 Here ***

Both IRFs reveal a similar pattern. A "shock" in the number of cites to *Baker* in the

district courts leads to an increase in cites in both the Supreme Court and the appeals courts. In

both IRFs, this effect peaks in the second year after the shock. An increase in district court

attention to the *Baker* precedent leads to an increase in attention to this precedent in higher courts

and the lag to this effect is not particularly long.

Figure 4 presents two IRFs for the *Ker* model: one for the effect of *Supreme Court Cites*

on *Appeals Court Cites* and one for the effect of *Supreme Court Cites* on *District Court Cites*.

These are two statistically significant relationships in this model. Here, increases in Supreme

Court attention to *Ker* lead to increases in lower court attention to this Fourth Amendment

precedent and these increases peak three years after the impulse from the Supreme Court.

*** Figure 4 Here ***

Figure 5 summarizes the IRFs for all 30 models. For each IRF, we plot only the

statistically significant responses. For example, the *Ker* model contributes only one point, at

time $t = 3$, for the effect of *Supreme Court Cites* on *District Court Cites*. We then plot the mean

statistically significant response as a solid line.

*** Figure 5 Here ***

The effects of *Supreme Court Cites* on the citations of the lower courts are surprisingly

mixed. There are quite a few negative responses and the mean significant response fluctuates

around zero. Thus, it does not appear to be the case that there are many precedents for which the

Ker pattern holds. These summary IRFs do not provide particularly clear, consistent evidence of

a positive top-down relationship when it comes to the attention to landmark precedents in the

federal court system.

The IRFs for the effect of an increase in appeals court usage of a precedent are somewhat

more consistent. Statistically significant responses are almost always positive in direction and

most of these responses occur one to four years after the appeals court "impulse." Likewise the

IRFs for the effect of increases in the number of cites to a precedent in the district courts reveal

that this effect is generally positive through the first four years after the impulse.

In sum, the IRFs suggest that attention to precedent in the appeals and district courts

often has a positive effect on attention to precedent at the Supreme Court. There is also a

reciprocal relationship between the district and appeals courts when it comes to this type of

agenda setting as increases in cites to a precedent in one level of court can lead to increases in

cites in the other. It is much less clear that the Supreme Court has any sort of consistent effect

on the extent to which the lower courts cite these landmark precedents, though it should of

course be noted that these precedents originated at the Court. Once the precedent has been

established, however, subsequent attention to this precedent appears to be primarily driven by the

lower courts.

All of our VAR models also contain two control variables: *Court - Precedent Distance*

and *Precedent Age*. The appendix provides figures containing all of the coefficients for all three

of these control variables, but the important takeaway is that these estimates are generally not

statistically significant. The ideological distance between the precedent and the Court at time *t* does not exert a consistent effect on the attention to precedent across all the models. The age of the precedent is also not a consistently significant predictor of citation rates, though this may be due to the fact that only landmark precedents are analyzed. None of the estimates for *Altered Precedent* are statistically significant, indicating that whether a precedent has been overridden or overruled has no effect on the attention paid to the precedent. These precedents may no long serve as good law, but they are still on the judicial agenda. Again, these estimates are graphically presented in the appendix.

Conclusion

Which level(s) of the federal judicial hierarchy set the federal judicial agenda? We argue that one way to answer this question is to examine the dynamics of attention to precedent between the three levels of court. Our analysis of citations to 30 landmark precedents demonstrates that there are precedents, such as *Ker v. California*, in which the Supreme Court exerts top-down control of the judicial agenda. The more general pattern, however, is that the lower courts drive attention to precedent. It appears that for most of the precedents studied the Supreme Court's attention to a precedent has little effect on the extent to which the lower courts cite the precedent.

These results have several implications. First, they reinforce the relatively passive nature of agenda setting at the Supreme Court. The Court deals with precedents made salient by the activity in the lower courts (c.f., Baird 2004). A second, related implication is that while studies of the federal judicial hierarchy find that the Supreme Court exerts control over *how* the lower courts decide cases (Baum 1980; Haire, Songer, and Lindquist 2003; Owens and Black 2012; Randazzo 2008; Songer, Segal, and Cameron 1994; Westerland et al. 2010), it is not at all clear

15

that the Court exerts the same sort of control over an important element of the agenda of the lower courts - the relative attention paid to landmark precedents. Third, studies of the effect of the Supreme Court's substantive legal treatment of precedent find that these treatments affect how lower courts use these precedents (Benesh and Reddick 2002; Hansford and Spriggs 2006). The overall level of attention paid to a precedent by the Court, however, is more a function of lower court usage than the other way around. Finally, our results offer an interesting contrast to the evidence that the Court can put issues on the national agenda (Flemming, Bohte, and Wood 1997). It is interesting that the Court's inter-branch agenda influence may be greater than its intra-branch influence, given that principal-agent theory would suggest the opposite.

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Table 1. Landmark Precedents Analyzed

American Communications Association v. Douds (1950)

Kunz v. New York (1951)

Stack v. Boyle (1951)

Rochin v. California (1952)

Rosenberg v. United States (1953)

Bolling v. Sharpe (1954)

Wiener v. United States (1958)

Lassiter v. Northampton County Board Of Elections (1959)

Gomillion v. Lightfoot (1960)

Communist Party Of The United States v. Subversive Activities Control Board (1961)

Scales v. United States (1961)

Mapp v. Ohio (1961)

Baker v. Carr (1962)

Engel v. Vitale (1962)

Fay v. Noia (1963)

Ker v. California (1963)

Heart of Atlanta Motel v. United States (1964)

Harper v. Virginia Board of Elections (1966)

Elfbrandt v. Russell (1966)

Miranda v. Arizona (1966)

Keyishian v. Board of Regents of the University Of the State Of New York (1967)

Warden v. Hayden (1967)

United States v. Wade (1967)

United States v. Robel (1967)

Benton v. Maryland (1969)

Harris v. New York (1971)

Swann v. Charlotte-Mecklenburg Board of Education (1971)

Miller v. California (1973)

New York State Department of Social Services v. Dublino (1973)

Weinberger v. Wiesenfeld (1975)

Note: These precedents were randomly sampled from the Congressional Quarterly list of landmark decisions.

Table 2. Granger Causality Tests for *Baker* and *Ker*

Relationship	*Baker v. Carr*	*Ker v. California*
Supreme Ct Cites → Appeals Ct Cites		*
Supreme Ct Cites → District Ct Cites		**
Appeals Ct Cites → Supreme Ct Cites		
Appeals Ct Cites → District Ct Cites		
District Ct Cites → Supreme Ct Cites	**	
District Ct Cites → Appeals Ct Cites	**	

* p ≤ .10 (two-tailed) ** p ≤ .05 (two-tailed)

Figure 1. Citations to *Baker* and *Ker*

A. *Baker v. Carr*
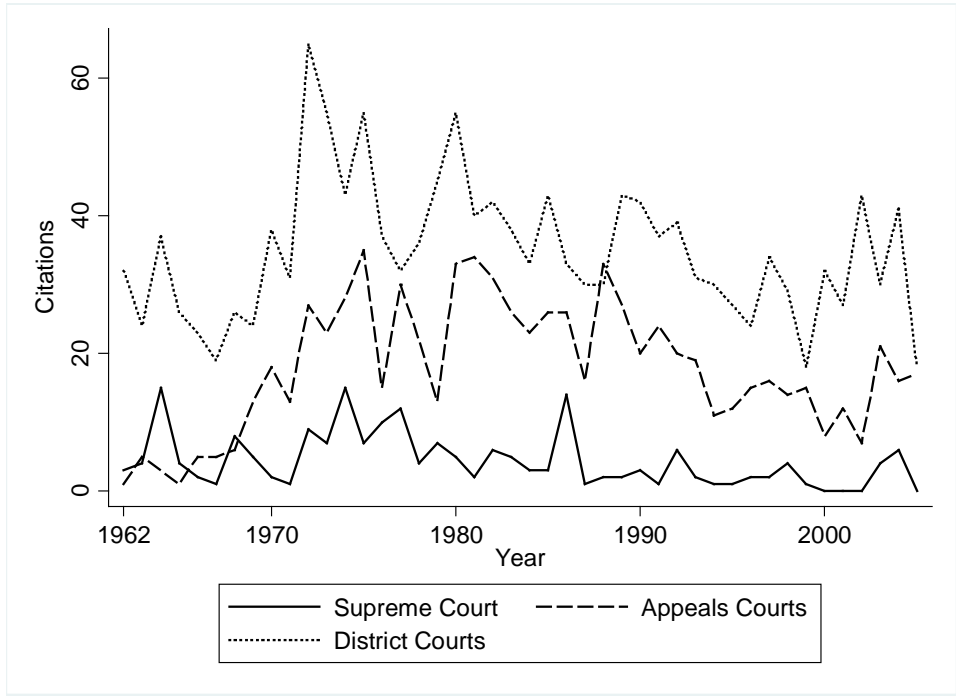
B. *Ker v. California*
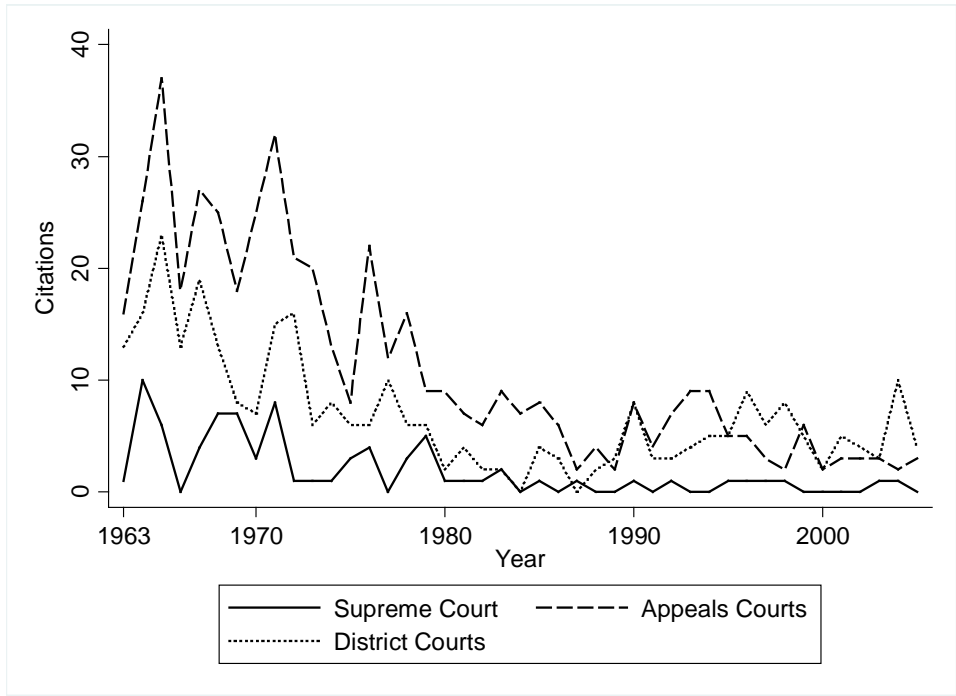
Figure 2. Summary of Granger Causality Tests
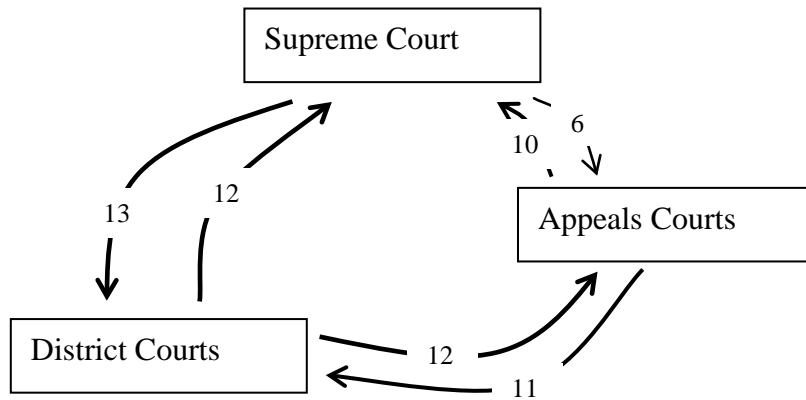
Note: Line thickness and associated number correspond with number of precedents for which the given causal pathway is statistically significant (p ≤ .05) based on a Granger causality test.

Figure 3. Impulse-Response Functions for *Baker*

A. Effect of District Court Cites (Impulse) on Supreme Court Cites (Response)
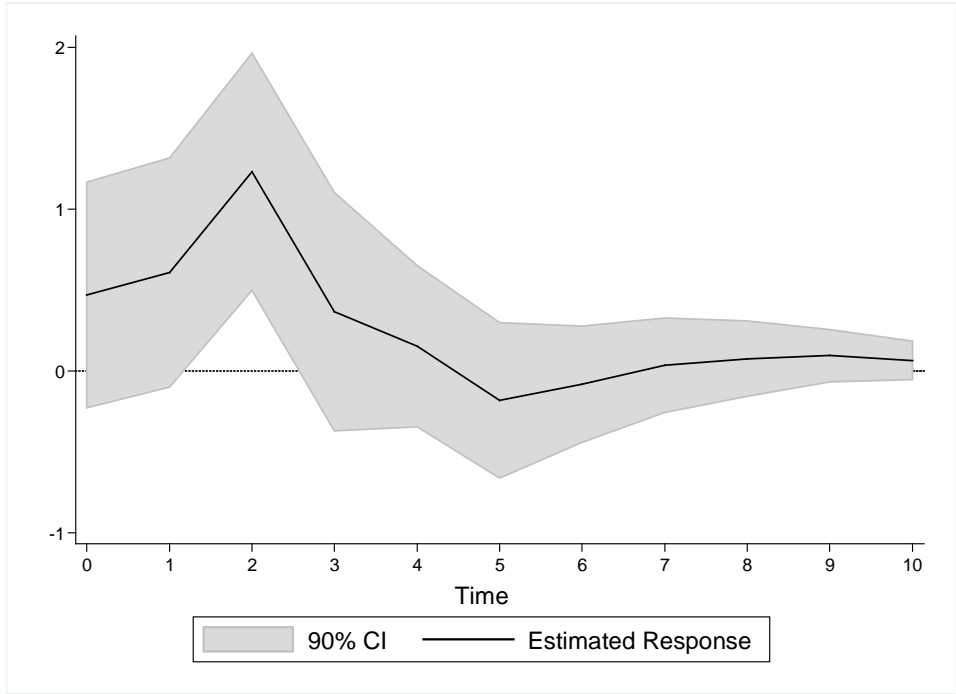
B. Effect of District Court Cites (Impulse) on Appeals Court Cites (Response)
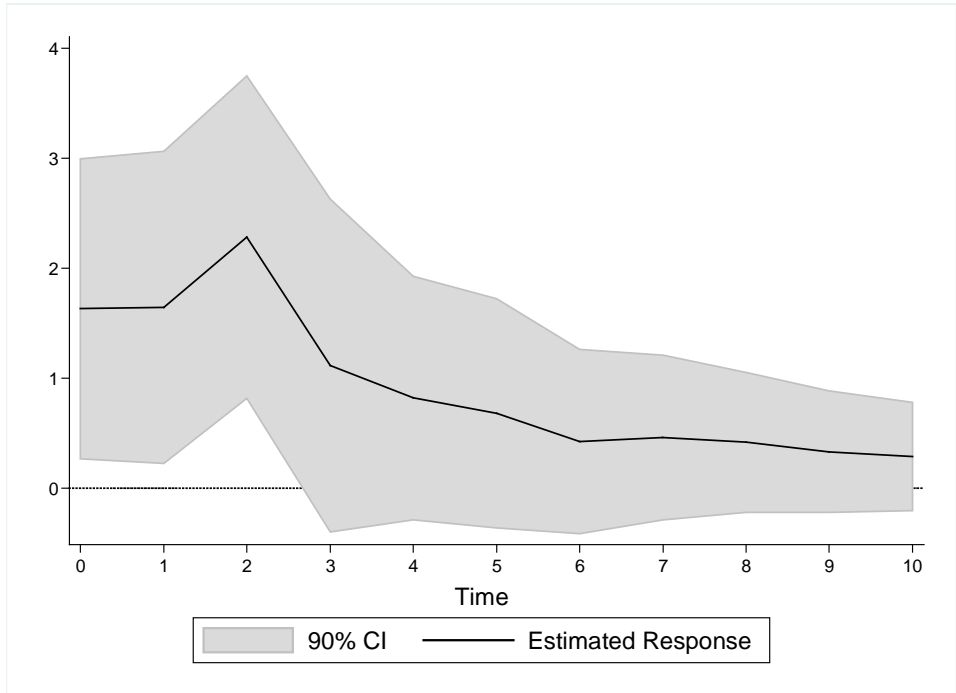
Figure 4. Impulse-Response Functions for *Ker*

A. Effect of Supreme Court Cites (Impulse) on Appeals Court Cites (Response)
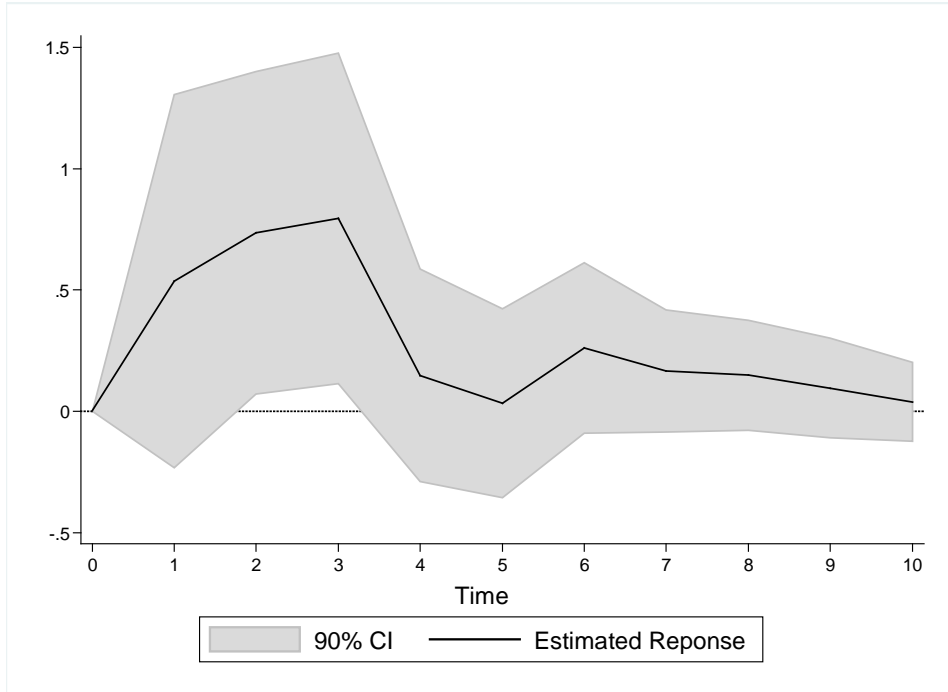
B. Effect of Supreme Court Cites (Impulse) on District Court Cites (Response)
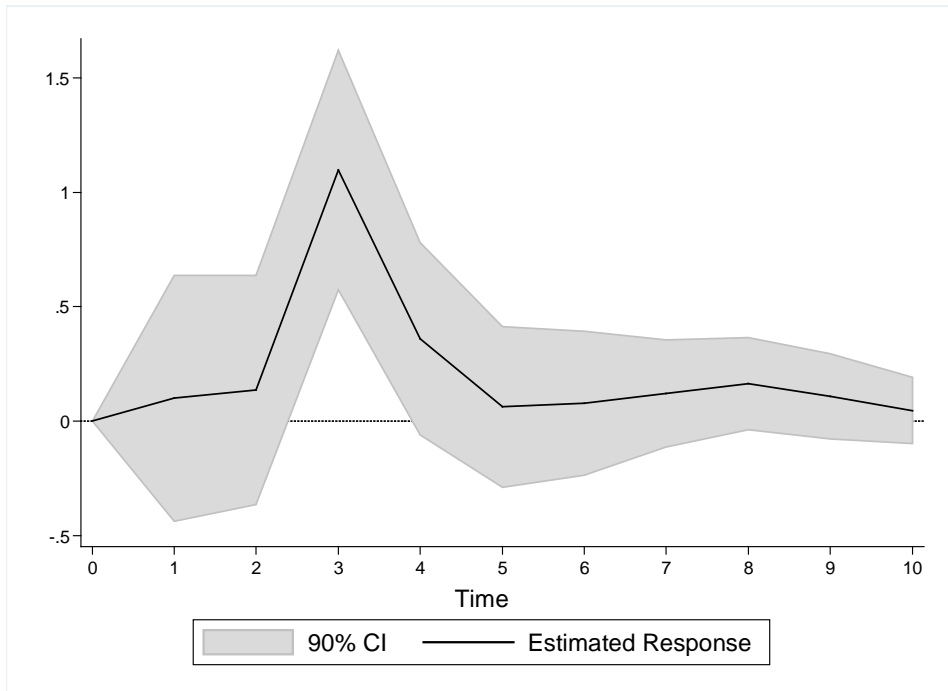
Figure 5. Summary of Impulse-Response Functions

A. Effect of Supreme Court Cites (Impulse) on Appeals Court Cites (Response)
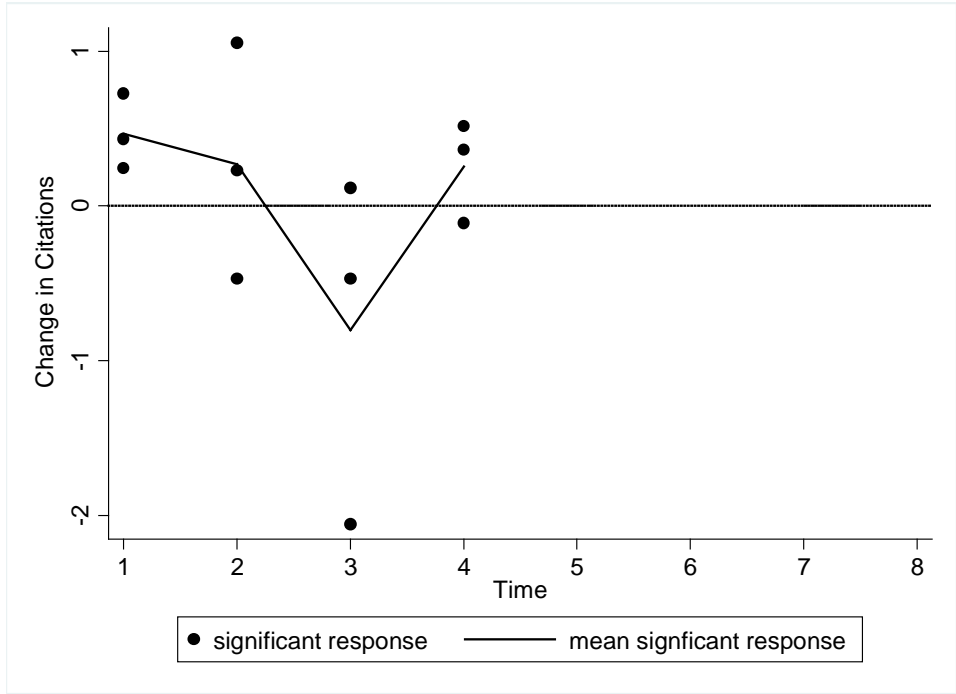
B. Effect of Supreme Court Cites (Impulse) on District Court Cites (Response)
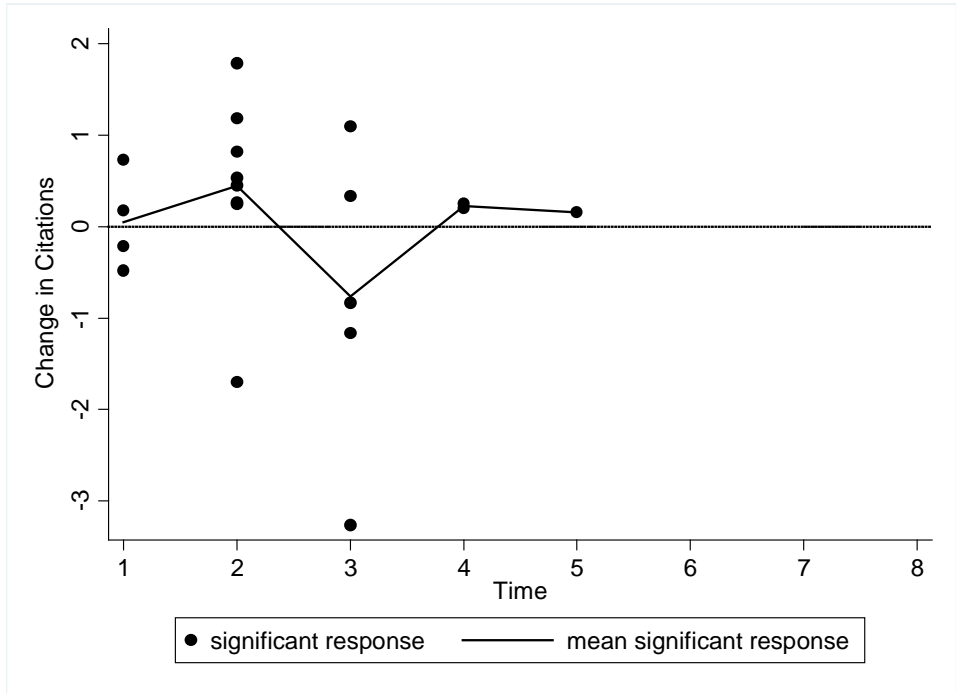
Figure 5. Summary of Impulse-Response Functions, continued

C. Effect of Appeals Court Cites (Impulse) on Supreme Court Cites (Response)
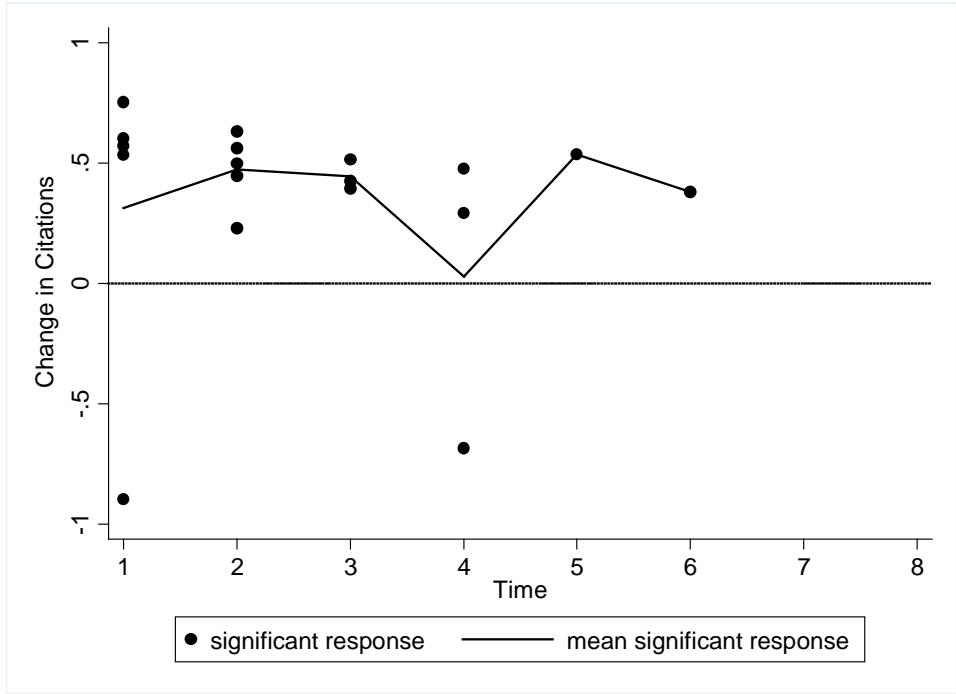
D. Effect of Appeals Court Cites (Impulse) on District Court Cites (Response)
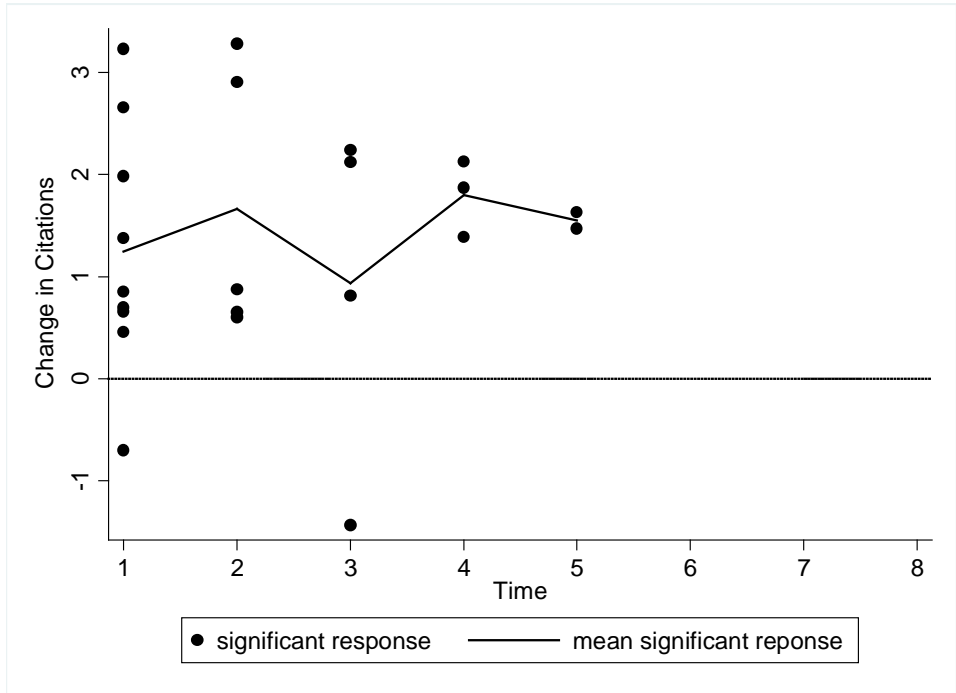
Figure 5. Summary of Impulse-Response Functions, continued

E. Effect of District Court Cites (Impulse) on Supreme Court Cites (Response)
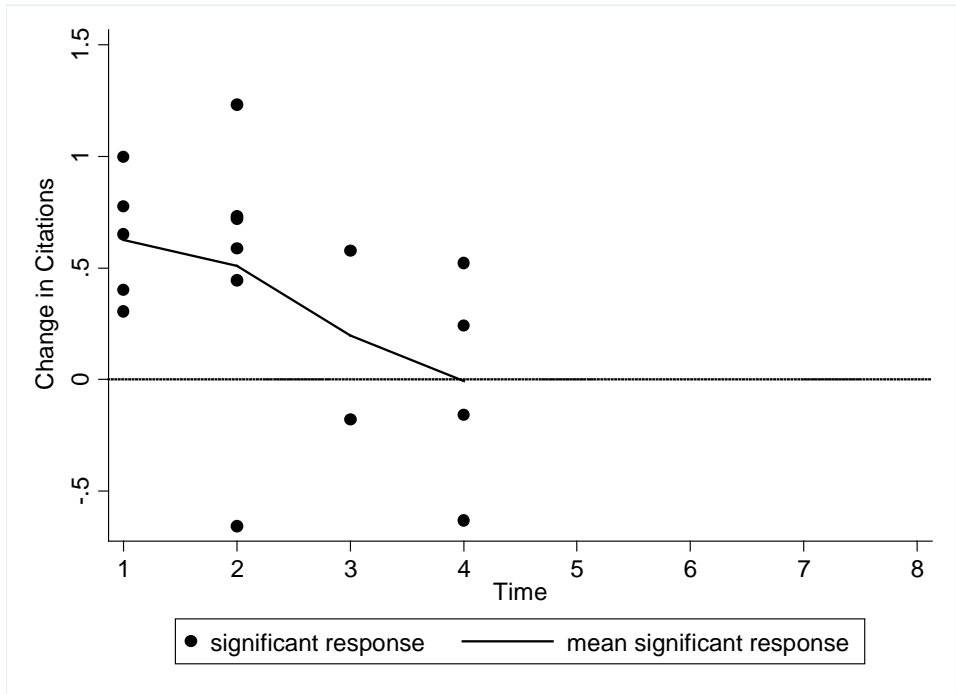
F. Effect of District Court Cites (Impulse) on Appeals Court Cites (Response)
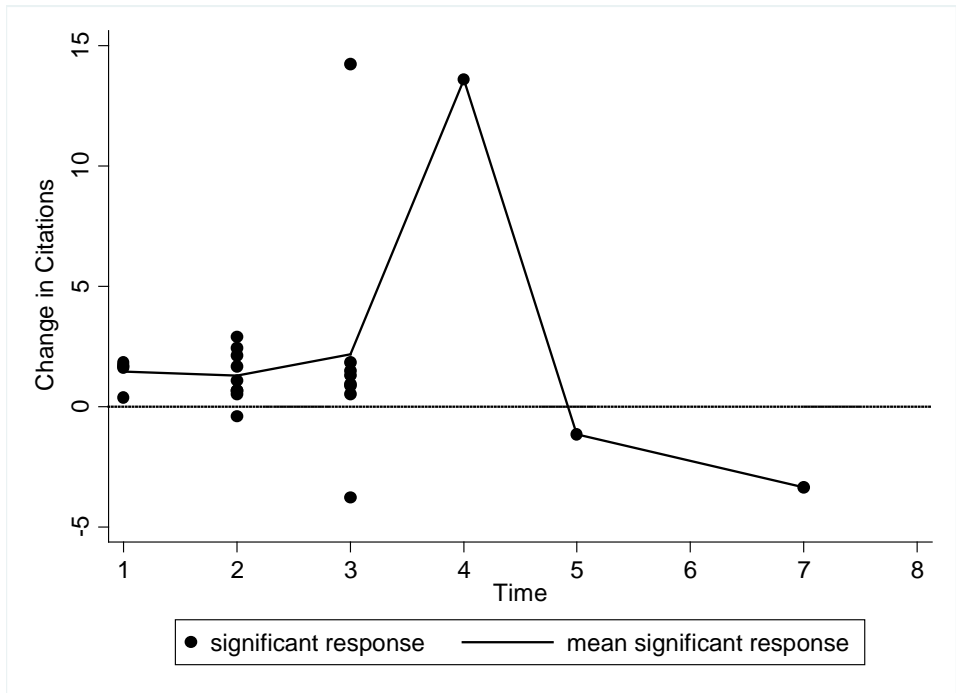
Note: A point represents a precedent for which the impulse variable had a statistically significant effect ($p \leq .05$) on the response variable at the indicated period of time. The lines connect the means of these effects.

Appendix

Contents   Page

1

Table A1. VAR Results for *Baker v. Carr* Model

Independent Variable	Supreme Court Cites	Appeals Court Cites	District Court Cites
Supreme Court Cites$_{t-1}$	-.125	-.288	-.330
	(.142)	(.281)	(.393)
Supreme Court Cites$_{t-2}$	-.143	-.269	-.579
	(.135)	(.268)	(.375)
Supreme Court Cites$_{t-3}$	.003	.209	.179
	(.136)	(.270)	(.378)
Appeals Court Cites$_{t-1}$	-.034	.079	.299
	(.078)	(.155)	(.217)
Appeals Court Cites $_{t-2}$	.081	.072	-.132
	(.075)	(.148)	(.207)
Appeals Court Cites $_{t-3}$	-.051	.293**	.175
	(.075)	(.149)	(.208)
District Court Cites$_{t-1}$	.095	.217*	.200
	(.059)	(.116)	(.163)
District Court Cites$_{t-2}$	.148**	.254**	.262
	(.060)	(.118)	(.166)
District Court Cites$_{t-3}$	.021	-.023	-.198
	(.068)	(.135)	(.189)
Precedent - Court Dist.$_t$	-.348	1.02	5.10
	(1.36)	(2.69)	(3.76)
Precedent Age$_t$	-.133**	-.101	-.373**
	(.059)	(.117)	(.163)
Constant	-.184	-2.50	24.0
	(2.79)	(5.89)	(8.23)
R^2	.454	.607	.456
N	41	41	41

* $p \le .10$ (two-tailed test) ** $p \le .05$ (two-tailed test)

Table A2. VAR Results for *Ker v. California* Model

| Independent Variable	Supreme Court Cites	Appeals Court Cites	District Court Cites
Supreme Court Cites$_{t-1}$	.021	.500	.093
	(.167)	(.432)	(.305)
Supreme Court Cites$_{t-2}$	-.112	.695*	-.009
	(.143)	(.370)	(.261)
Supreme Court Cites$_{t-3}$	-.013	.778**	.812**
	(.142)	(.368)	(.260)
Appeals Court Cites$_{t-1}$	-.018	-.059	.246*
	(.070)	(.181)	(.128)
Appeals Court Cites$_{t-2}$	.023	.092	.068
	(.070)	(.181)	(.127)
Appeals Court Cites$_{t-3}$	.132**	.151	-.086
	(.067)	(.173)	(.122)
District Court Cites$_{t-1}$	-.061	.126	.112
	(.086)	(.224)	(.158)
District Court Cites$_{t-2}$	.012	-.078	.081
	(.090)	(.233)	(.164)
District Court Cites$_{t-3}$	-.045	.097	.095
	(.085)	(.221)	(.156)
Precedent - Court Dist.$_t$	-1.78**	.445	-.210
	(.673)	(1.75)	(1.23)
Precedent Age$_t$	-.026	-.157	.166
	(.056)	(.145)	(.102)
Constant	3.80	6.23	-3.58
	(2.11)	(5.48)	(3.87)
R^2	.566	.805	.660
N	40	40	40

* $p \le .10$ (two-tailed test) ** $p \le .05$ (two-tailed test)

Figure A1. Coefficient Estimates for *Court - Precedent Distance*
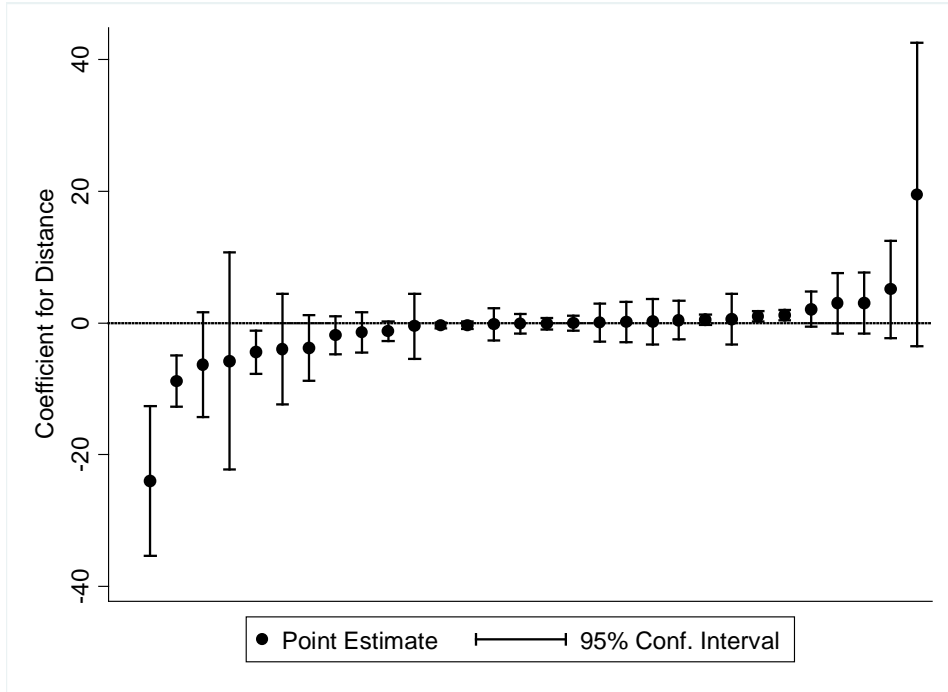
A. Supreme Court Cites
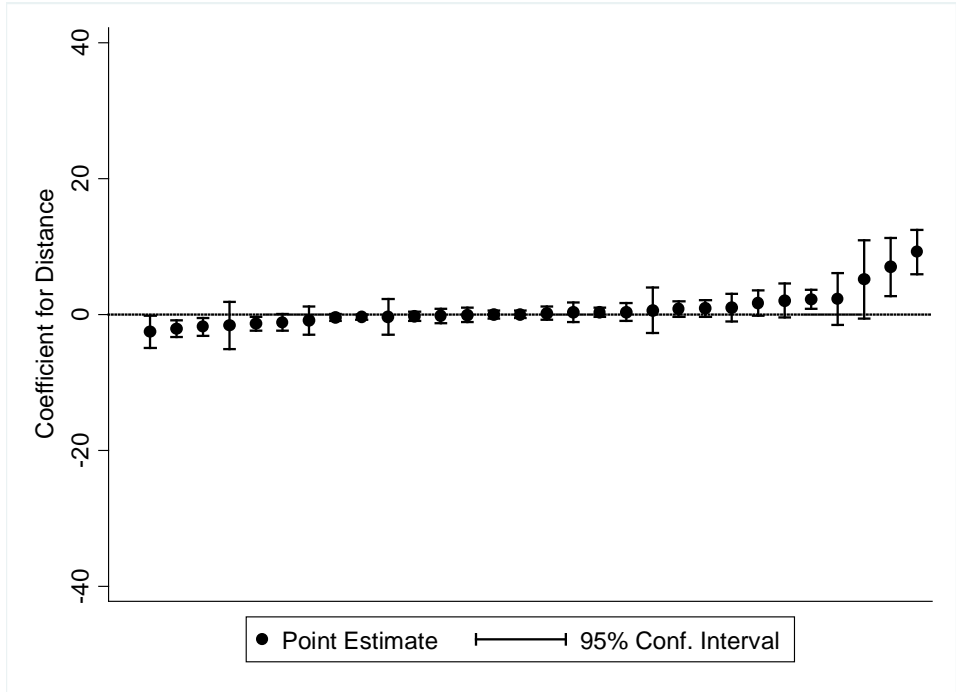
B. Appeals Courts Cites
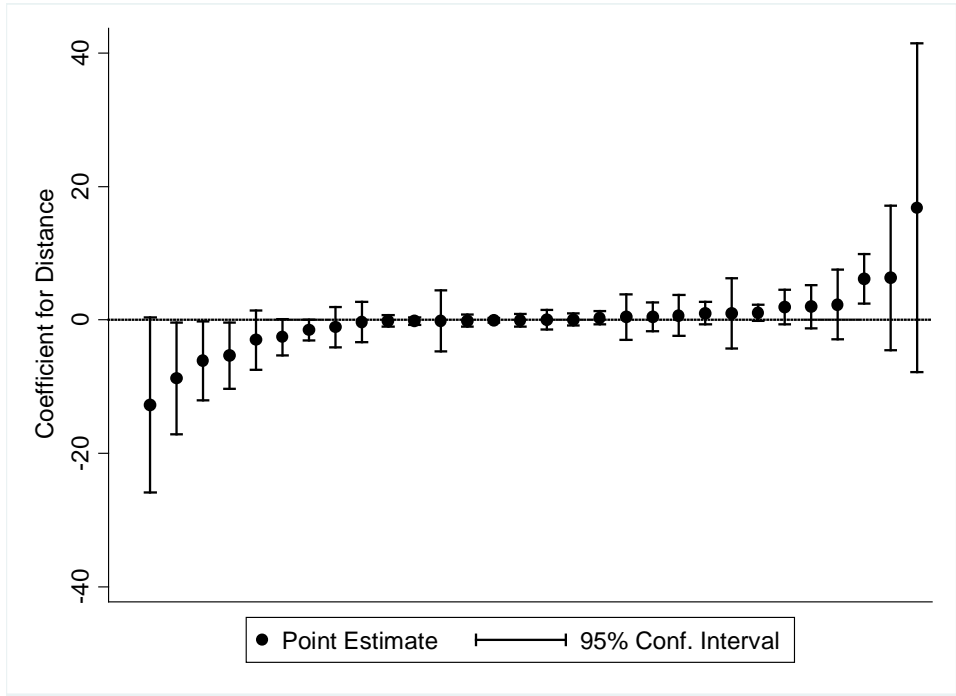
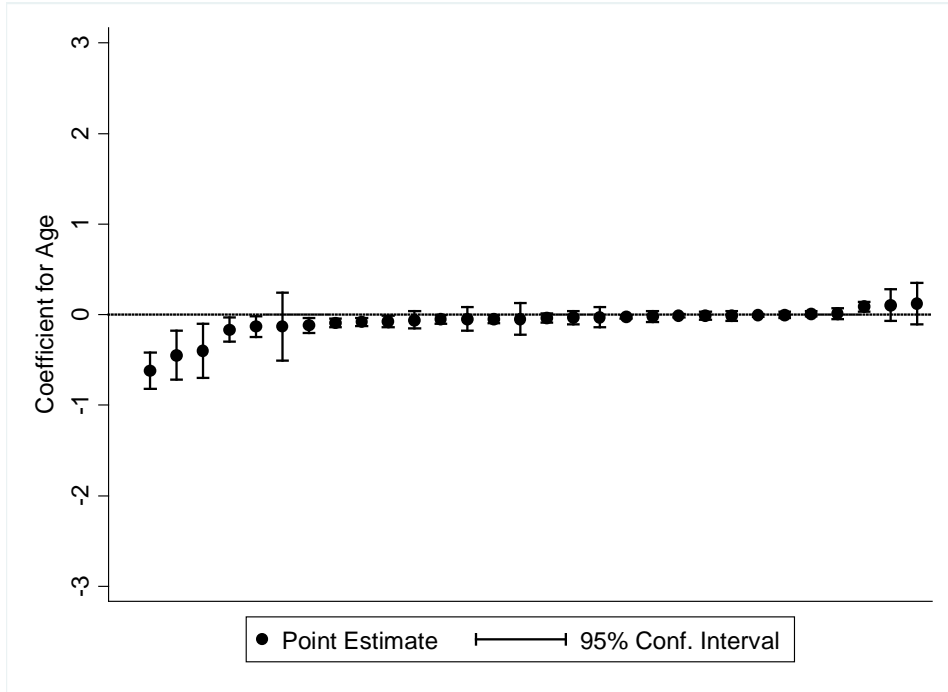**Figure A1. Coefficient Estimates for *Court - Precedent Distance*, continued**

C. District Court Cites
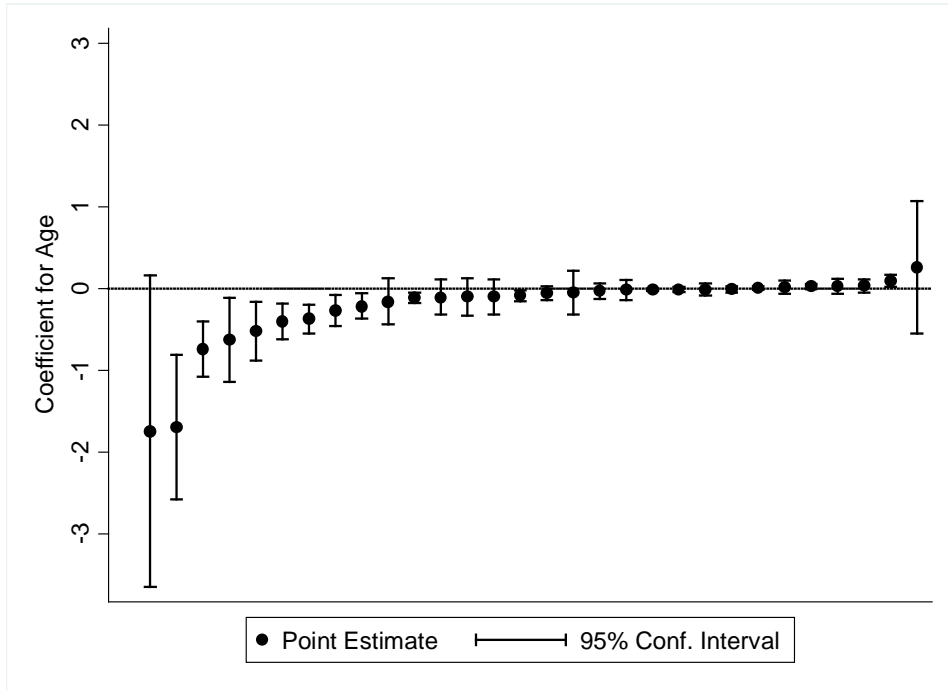

Note: Coefficient estimates are displayed from smallest to largest.

Figure A2. Coefficient Estimates for *Precedent Age*

A. Supreme Court Cites

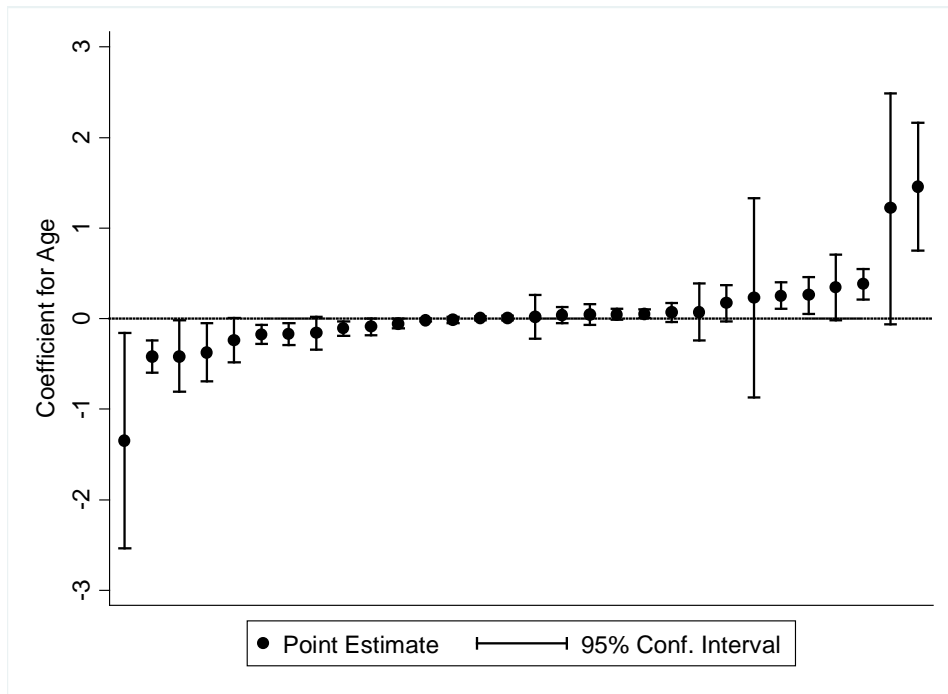
B. Appeals Court Cites

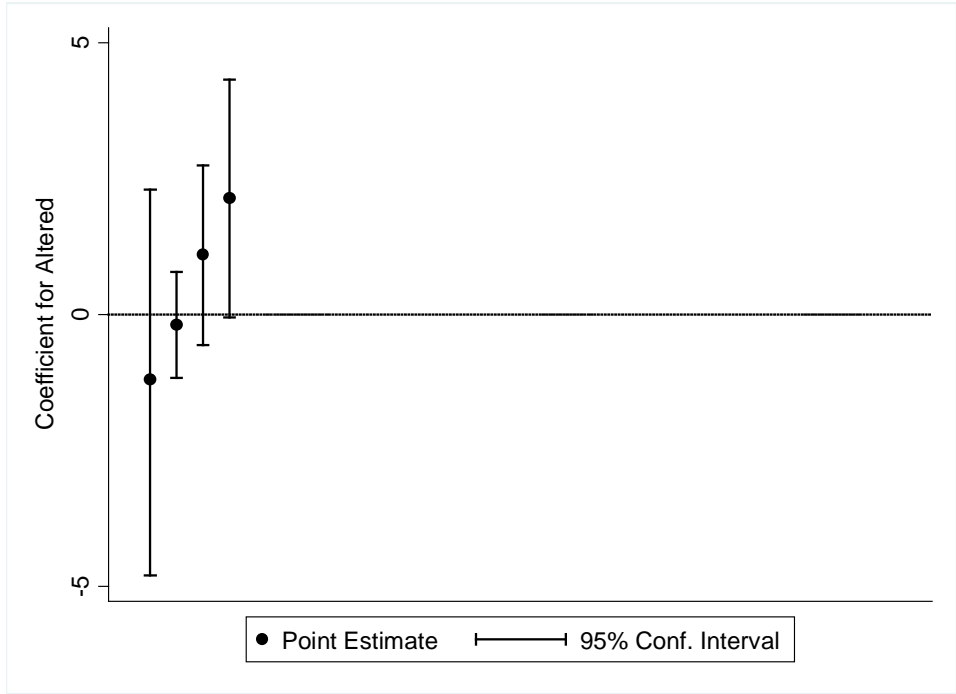**Figure A2. Coefficient Estimates for *Precedent Age*, continued**

C. District Court Cites

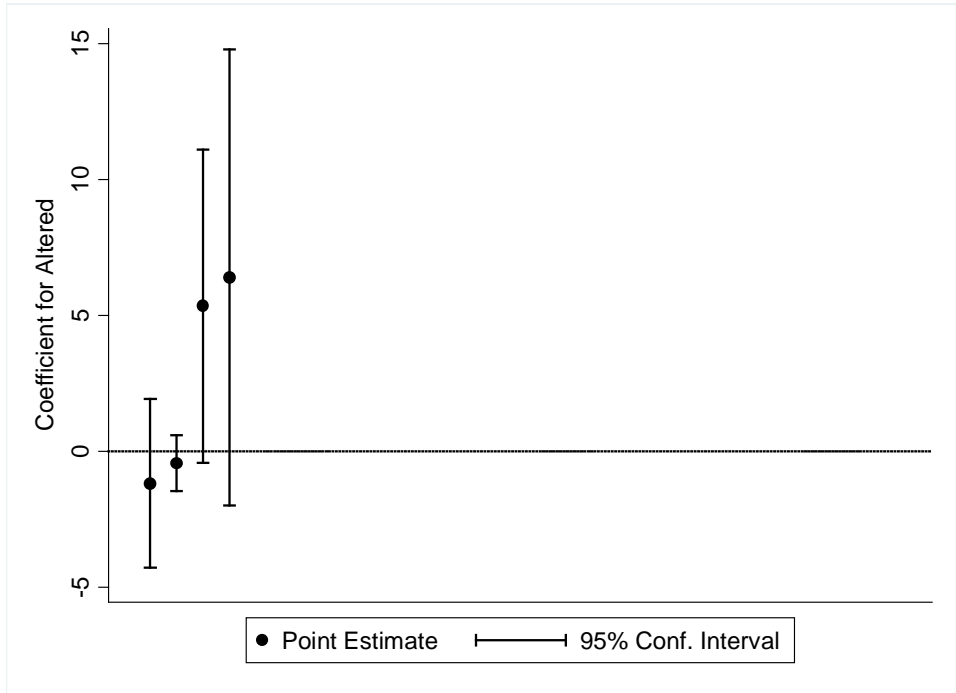
Note: Coefficient estimates are displayed from smallest to largest.

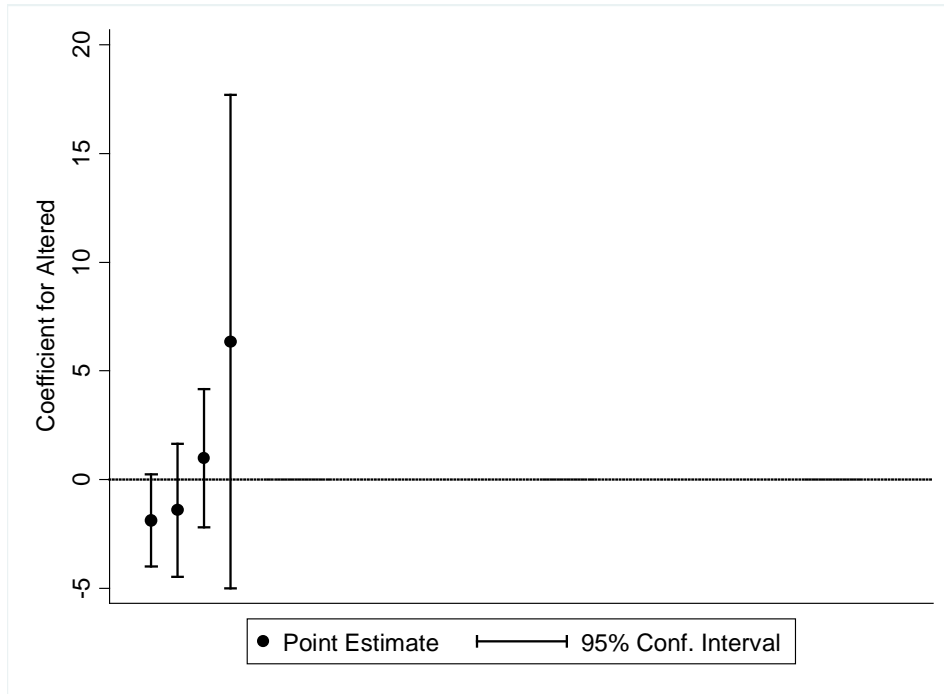**Figure A3. Coefficient Estimates for *Altered Precedent***

A. Supreme Court Cites

B. Appeals Court Cites

Figure A3. Coefficient Estimates for *Altered Precedent*, continued

C. District Court Cites

Note: Coefficient estimates are displayed from smallest to largest.