How do merit commissions affect judicial behavior? Evidence from the Court of Justice of the European Union

Sivaram Cheruvu[1] Joshua C. Fjelstul[2]
Silje Synnøve Lyder Hermansen[3] Daniel Naurin[4]

Abstract

Governments create monitoring entities to ensure that policymakers are working effectively. Monitors' control over retaining and selecting policymakers, however, may create incentives that lead to sub-optimal outcomes. One such entity is a merit commission (also known as a judicial council) that evaluates judges subject to retention and (or) selection. How do merit commissions affect judicial behavior? We construct a formal model arguing that lower competence incumbent judges only subject to merit retention will complete cases more quickly at the expense of quality opinion-writing, as their productivity is a signal of their effort investment to the commission. Conversely, judges subject to merit selection and subsequent retention will not make the same tradeoff, as the commission's initial selection of them makes it more costly for the commission to negatively evaluate them upon retention. We provide evidence leveraging the Article 255 panel for (re)appointments to the Court of Justice of the European Union.

[1]Department of Economics, Political & Policy Sciences, University of Texas at Dallas, sivaram.cheruvu@utdallas.edu, sivaramcheruvu.com.

[2]Department of Political Science and International Relations, University of Geneva, ARENA Centre for European Studies, University of Oslo, joshua.fjelstul@unige.ch, joshuafjelstul.com.

[3]Department of Political Science, University of Copenhagen, silje.hermansen@ifs.ku.dk, siljehermansen.github.io.

[4]ARENA Centre for European Studies, University of Oslo, Department of Political Science, University of Gothenburg, daniel.naurin@arena.uio.no.

Introduction

Policy-making is an inherently difficult task. To alleviate this burden, governments divide policy-making responsibilities among different institutions. This division of labor, however, creates the practical concern of whether these institutions are properly fulfilling their policy-making mandates. One solution to this problem is to subject these institutions to monitoring by another entity that can sanction ineffective policymakers. Depending on the conditions, such monitoring can lead to sub-optimal outcomes (e.g., Bueno de Mesquita and Stephenson 2007). The monitor, for example, may reward more productive policymakers (i.e., those that complete more tasks). For policymakers that are not sufficiently competent, the pressure to be more productive may lead to policy of lower quality. In this paper, we analyze two monitoring functions: *ex post* retention and *ex ante* selection of policymakers. We argue policymakers only subject to *ex post* retention will prioritize productivity to avoid sanctioning from the monitor. In contrast, policymakers subject to *ex ante* selection and then retention will not feel as much pressure to be more productive, as the monitor's evaluation of them as fit to serve on the institution prior to their appointment makes it more costly for the monitor to sanction them upon retention.

The selection and retention of judges on courts illustrates this tension. A wide variety of mechanisms exist to select and retain judges including judicial elections, executive appointment, and legislative appointment (e.g., Driscoll and Nelson 2015; Tiede 2020; Voeten 2007). Given appointers' desire across all such systems to make informed appointment decisions, many governments have created merit commissions.[1] Such commissions evaluate whether a judge is suitable to serve on a court. Following this evaluation, the relevant appointing institution decides whether to appoint the judge to the court. In many civil law states, merit commissions — more commonly known as judicial councils (e.g., Garoupa and Ginsburg

[1] In New Mexico, a merit commission selects candidates that then immediately stand for partisan election (Canes-Wrone, Clark and Park 2012, 212). Merit commissions in South Carolina and Virginia select candidates that are then subject to legislative appointment (e.g., Tobias 2008).

2009) — often have the power to retain and promote judges. While scholars have evaluated how the presence of a merit commission affects judicial decision-making relative to other selection and retention mechanisms (e.g., Canes-Wrone, Clark and Kelly 2014; Gordon and Huber 2007), they have seldom considered how merit selection of a judge affects judicial decision-making in comparison to merit retention of a judge.

We argue that merit retention should affect judicial decision-making differently than merit selection. To provide the microfoundations of our argument, we formalize an account of judges' effort investments as a strategic decision to signal their competence to a merit commission. Less competent judges *only* subject to merit retention will complete cases more quickly to signal to the merit commission that they are a competent judge deserving of retention. Since these judges have lower competence, however, expending more effort to complete cases more quickly leads to lower quality opinion-writing. Judges subject to merit selection will not make the same tradeoff, as the commission's selection of them prior to their initial appointment makes it more costly for the commission evaluate them negatively upon retention. Put simply, if the commission provides a negative evaluation upon retention to a judge that they selected in the first place, it amounts to an admission that the initial selection was a mistake. As a result, relative to judges *only* subject to merit retention, judges subject to merit selection will complete cases more slowly, leading to higher quality opinion-writing.

To evaluate our hypotheses, we leverage the Article 255 Panel (255 Panel) for appointments to the two bodies Court of Justice of the European Union (CJEU): the Court of Justice (CJ), and the General Court (GC). The EU's Lisbon Treaty charged the 255 Panel with providing a positive or negative evaluation of incumbent judges subject to reappointment and new judges member states selected to serve their first term on the CJEU. The 255 Panel's creation in 2010 provides a unique opportunity: incumbent judges sitting on the CJEU prior to 2010 were subject to an evaluation upon retention. The 255 panel selected — i.e., gave a positive evaluation prior to appointment — all judges that started their term

after 2010. When comparing judges *only* subject to retention compared to judges subject to selection and then retention, we find judges *only* subject to retention at the GC wrote their judgments more quickly and less thoroughly, as the 255 panel's beliefs about their competence is lower relative to the CJ. Judges subject to selection and then retention at both the CJ and GC wrote their judgments more slowly, providing evidence for our hypotheses.

We organize our paper as follows. First, we examine the existing literature on judicial selection and retention, formally theorize over the process of merit selection and retention, and derive three testable hypothesis. Second, we describe the origins and operation of the 255 Panel for (re)appointments to the CJEU. Third, we provide our data and relevant model specifications to evaluate our hypotheses. Fourth, we present our results, which support our hypotheses. Lastly, we conclude by discussing our article's implications for the broader judicial politics literature.

Selection, Retention, and Judicial Decision-making

The procedures for selection and retention can directly impact how judges decide cases in the courtroom. Indeed, these choices in the design of judicial institutions attempt to balance insulating judges from external pressures with the norms of accountability in liberal democracies. In the American context, scholars have examined the effects of partisan, non-partisan, and non-competitive retention elections on a variety of outcomes including decisions in abortion cases, death penalty cases, and general criminal sentencing (e.g., Choi, Gulati and Posner 2010; Kritzer 2016). Similarly, scholars have examined the differences in partisan and non-partisan selection mechanisms on the composition of the judiciary (e.g., Bonica and Sen 2017). Institutional retention and selection procedures, thus, create direct incentives affecting judicial behavior in the face of retention and the types of judges appointers select to sit on a court in the first place.

Some such procedures involve the use of a merit commission — an independent commission made up of some combination of lawyers, academics, and bureaucrats — that has the power to evaluate the qualifications of a candidate to sit on a court. The candidate then faces retention at the expiration of their term. We refer to such systems as *merit selection*, irrespective of the body responsible for retention of the judge. The appeal of such a system is straightforward. By removing judges from the plebescitary pressures inherent in direct election or direct appointments, while also subjecting them to a rigorous evaluation, qualified judges can make decisions and be insulated from political pressure. For these ideals, merit selection is an institutional design that the American Bar Association, and the State Bar Association has highly praised (e.g., Goelzhauser 2018). In the presence of the "new style judicial campaign," whether merit selection lives up to these ideals is subject to scholarly debate (e.g., Canes-Wrone, Clark and Kelly 2014).

Outside of the United States, merit commissions — more commonly known as judicial councils – are also involved in the retention (and promotion) of judges. As Garoupa and Ginsburg (2009, 114) explain "Merit Commissions can be seen as analogous to judicial councils [...] Because in common law systems, the judiciary is not a 'career judiciary' in the civil law sense, there is less interest in having independent commissions handle discipline, promotions, and reassignments, and greater emphasis on initial appointments." In many civil law countries, law graduates must complete some form of public examination to accede to the judiciary and usually do not need to have experience. Entering the judiciary, thus, does not involve a rigorous evaluation by a merit commission. Nonetheless, the career pressures inherent in retention can affect judicial decision-making, as many such councils involve senior judges in the judicial hierarchy or bureaucrats with political interests making retention decisions (e.g., Ramseyer and Rasmusen 2003). We refer to such systems as *merit retention*.

Given this division in how merit commissions operate across contexts, scholars have seldom examined how and whether the mechanisms of merit selection and merit retention affect judicial decision-making differently. To provide the microfoundations of these mechanisms,

we present a formal model of the interaction between a merit commission and a judge seeking reappointment. Our model focuses on reappointment, rather than the decision of a commission to recommend a new judge for a first term, as all judges in systems with renewable terms face retention irrespective of whether they were subject to merit selection. Specifically, we examine how the incentives the merit commission's evaluation generates affects the output of judges who need a favorable recommendation to retain their seat on the court.

Formal Model

The objective of the merit commission is to give favorable recommendations to sufficiently competent judges and to give unfavorable recommendations to insufficiently competent judges. However, the merit commission cannot observe the competence of the judge directly. It would be infeasible for the commission to thoroughly evaluate the entire judicial output of a judge, given the large number of cases that judges hear at a court (e.g., Bielen et al. 2018). As such, merit commissions evaluate judges based on observable criteria — metrics on which sufficiently competent judges will preform well and insufficiently competent judges will not.

Our model captures the fundamental tension in the interaction between merit commissions and judges: a merit commission does not know the competence of a judge, although it has a belief about it, and bases its recommendation on the level of effort that judges expend to satisfy the reappointment criteria it establishes. Lower-competence judges have an incentive to mimic the level of effort expended by higher-competence judges in order to get a favorable recommendation. Therefore, to separate themselves from lower-competence judges, higher-competence judges have to expend a high enough level of effort to satisfy the commission's reappointment criteria that lower-competence judges, for whom expending effort is more costly, are unwilling to expend.

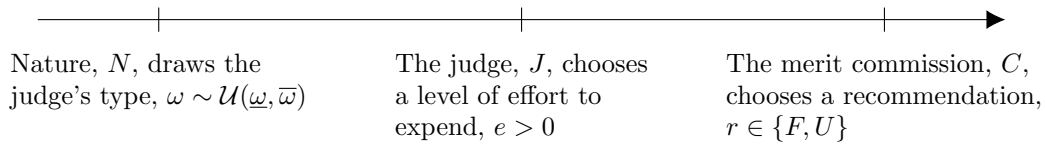

Figure 1. The order of play.

Note: This figure shows the order of play. The game has two choice variables: the level of effort that the judge chooses to expend and the recommendation of the merit commission.

Structure and Strategies

The model has two players: a judge, J, and a merit commission, C. The judge has a type, ω, which represents the competence of the judge. Figure 1 shows the order of play, and Table 1 summarizes the model's notation. Nature, N, starts the game by choosing the judge's type, ω. We assume that the judge's type is uniformly distributed between a lower bound and an upper bound, $\omega \sim \mathcal{U}(\underline{\omega}, \overline{\omega})$, where $\underline{\omega} > 0$ and $\overline{\omega} > \underline{\omega}$. Note that changing $\overline{\omega}$, relative to $\underline{\omega}$, manipulates the expected competence of the judge, $\mathbb{E}[\omega] = \frac{\overline{\omega}+\underline{\omega}}{2}$.

The judge's type is private information. The judge knows their own type as soon as Nature draws it, but the merit commission does not know their type until after the game has ended. However, the commission does know the distribution of the judge's type — that is, the players share a common understanding of the range of possibilities. The merit commission's uncertainty over the type of the judge is the central tension in the model. As we will see, the commission wants to give a favorable recommendation to sufficiently high types, representing high-competence judges, and an unfavorable recommendation to insufficiently high types, representing a low-competence judges.

After Nature selects the judge's type, the judge chooses a level of effort, $e > 0$, to expend on satisfying the criteria of the merit commission. The commission cannot directly observe the judge's type, but it can directly observe the level of effort that the judge expends. After observing the level of effort expended by the judge, the merit commission chooses a recommendation, $r \in \{F, U\}$. It can choose to give a favorable recommendation, F, or an unfavorable recommendation, U. The recommendation ends the game.

A strategy profile for a player proscribes an action for the player in response to all possible actions by the other player, regardless of whether the other player would actually play them in equilibrium. In equilibrium, each player's strategy profile is a best response to the other player's strategy profile. A strategy profile for the judge, $\sigma_{J|\omega}(\sigma_C)$, is a function that maps a level of effort, $e > 0$, conditional on their type, ω, to the action of the merit commission, $r \in \{F, U\}$. A strategy profile for the merit commission, $\sigma_C(\sigma_{J|\omega})$, is a function that maps a recommendation, $r \in \{F, U\}$, to the action of the judge, e.

Preferences

We make several reasonable assumptions about the preferences of the judge and the merit commission. First, we assume that the judge is career-motivated and wants to be reappointed to the court (e.g., Epstein, Landes and Posner 2011). The judge needs a favorable recommendation from the merit commission in order to be reappointed. Thus, the judge receives an expected personal benefit for getting a favorable recommendation. Second, we assume that merit commissions want to give favorable recommendations to sufficiently competent judges and unfavorable recommendations to insufficiently competent judges. The merit commission cares about recommending sufficiently competent judges, not about the level of effort that the judge expends on satisfying the commission's reappointment criteria, per se. As a result, the merit commission has a minimum standard of competence, which is known by the judge. The merit commission at the CJEU, for example, has publicly established clear criteria for reappointment. If the commission gives a favorable recommendation to a judge that meets or exceeds this standard, it receives a benefit. However, it incurs a cost if gives a favorable recommendation to a judge that falls short of this standard.

Third, we assume that expending effort to convince the merit commission to give a favorable recommendation is costly for the judge. Specifically, the cost of effort is directly proportional to the level of effort expended: a one-unit increase in effort is a one-unit increase in the cost of effort. This functional form is not critical to the equilibrium we analyze, but

Table 1. Model Notation

Random variables	
$\omega \sim \mathcal{U}(\underline{\omega}, \overline{\omega})$	The type of the judge, which represents their competence. This parameter is uniformly distributed between $\underline{\omega}$ and $\overline{\omega}$. It is private information to the judge.
Choice variables	
$e > 0$	The level of effort expended by the judge in order to convince the merit commission to give a favorable recommendation.
$r \in \{F, U\}$	The recommendation of the merit commission, where F is a favorable recommendation and U is an unfavorable recommendation.
Exogenous parameters	
$\underline{\omega} > 0$	The lower bound of the type distribution.
$\overline{\omega} > \underline{\omega}$	The upper bound of the type distribution. Changing this parameter relative to $\underline{\omega}$ changes the expected competence of the judge, $\mathbb{E}[\omega]$.
$b > 0$	The expected political benefit to the judge of receiving a favorable recommendation from the merit commission.
$c > 0$	The expected political cost to the merit commission for giving an unfavorable recommendation.
$\omega_i \in (\underline{\omega}, \overline{\omega})$	The minimum standard of competence that is acceptable to the merit commission. When $\omega > \omega_i$, giving a favorable recommendation is beneficial to the commission. Otherwise, it is costly.
Endogenous parameters	
$\underline{e}^* > 0$	The weak signal in equilibrium, sent by types $\omega < \omega^*$.
$\overline{e}^* > \underline{e}^*$	The strong signal in equilibrium, sent by types $\omega \geq \omega^*$.
$\omega^* \in (\underline{\omega}, \overline{\omega})$	The cut-point on the ω that determines whether a type plays the weak signal or strong signal in equilibrium.

provides analytical tractability. Fourth, we assume that expending effort is less costly for high-competence judges than for low-competence judges. In other words, the type of the judge influences the marginal cost of effort. In fact, this ability is precisely what makes a judge competent — they can expend more effort at a lower cost. Fifth, we assume that it is politically costly for the merit commission to issue a negative recommendation. Doing so is

likely to embarrass the government or politician who recommended or appointed the judge and risks upsetting other political actors who support the judge. The reason a negative recommendation is costly is that members of a merit commission have their own career concerns that could be harmed by rejecting a judge.

Based on these assumptions, we specify utility functions for both players. If the merit commission chooses to give a favorable recommendation, the judge receives a benefit, b. Regardless of whether the commission gives them a favorable recommendation, the judge pays a cost proportional to the level of effort they choose to expend, $-\frac{e}{\omega}$, and the marginal cost is smaller for more competence judges. This captures the intuition that higher-competence judges can put in more effort than lower-competence judges for the same cost.

$$u_{J|\omega}(F \mid e) = b - \frac{e}{\omega}$$

$$u_{J|\omega}(U \mid e) = -\frac{e}{\omega}$$

If the merit commission gives a favorable recommendation, the commission receives a cost or benefit, $\omega - \omega_i$, depending on how competent the judge is. The commission does not know the type of the judge, but it has a belief about it. If the type of the judge exceeds the minimum standard of competence expected by the commission, $\omega > \omega_i$, then the commission receives a benefit for giving a favorable recommendation. However, if the type of the judge falls short of that standard, $\omega < \omega_i$, the commission pays a cost. If the commission gives an unfavorable recommendation, it pays a political cost, $-c$, for calling out the government that appointed the judge. This cost would be higher if the merit commission was involved in selecting the judge, as giving an unfavorable recommendation is then also an implicit admission that the commission erred in its initial selection of the judge.

$$u_C(F \mid \omega) = \omega - \omega_i$$

$$u_C(U \mid \omega) = -c$$

These preferences capture the fundamental tension in the model. The merit commission is uncertain about the competence of the judge — that is, it does not precisely know the value of ω — and has to weigh the risk of giving a favorable recommendation to an insufficiently competent judge against the political cost of rejecting the judge. The judge wants to expend just enough effort to convince the commission to give a favorable recommendation, and no more, as effort is costly.

Equilibrium Analysis

We derive a unique semi-separating perfect Bayesian equilibrium (PBE) in cut-points with two on-path equilibrium signals.[2] Types below a cut-point send a weak signal and types above the cut-point send a strong signal. The merit commission gives a favorable or unfavorable recommendation based on the signal that it observes. See the Supporting Information for a more technical presentation of the equilibrium and formal proofs.

Proposition 1. There exists a unique semi-separating perfect Bayesian equilibrium (PBE) in cut-points with two on-path equilibrium signals. This equilibrium has the following properties:

1. **Strategy of the judge:** Types above a cut-point, $\omega \geq \omega^*$, send a strong signal, $\overline{e}^*$, and types below the cut-point, $\omega < \omega^*$, send a weak signal, $\underline{e}^*$.

2. **Strategy of the merit commission:** When the commission observes a sufficiently strong signal, $e \geq \overline{e}^*$, it gives a favorable recommendation. Otherwise, $e < \overline{e}^*$, it gives an unfavorable recommendation.

3. **On-path beliefs of the merit commission:** When the commission observes the strong signal, $\overline{e}^*$, it believes $\omega \sim \mathcal{U}(\omega^*, \overline{\omega})$. When it observes the weak signal, $\underline{e}^* = 0$, it believes $\omega \sim \mathcal{U}(\underline{\omega}, \omega^*)$.

[2] The equilibrium is a tuple: $\{\sigma_{J|\omega}(\sigma_C), \sigma_C(\sigma_{J|\omega}), \mu_C(\omega \mid e)\}$, where $\sigma_{J|\omega}(\sigma_C)$ is the strategy profile of the judge, $\sigma_C(\sigma_{J|\omega})$ is the strategy profile of the merit commission, and $\mu_C(\omega \mid x)$ are the beliefs of the merit commission, conditional on the signal it observes.

4. **Off-path beliefs of the merit commission:** When the commission observes an unexpectedly weak signal, $\underline{e}^* < e' < \overline{e}^*$, it believes $\omega \sim \mathcal{U}(\underline{\omega}', \overline{\omega}')$. When it observes an unexpectedly strong signal, $e'' > \overline{e}^*$, it believes $\omega \sim \mathcal{U}(\underline{\omega}'', \overline{\omega}'')$.

5. **Equilibrium cut-points:** The strong signal is $\overline{e}^* = b\big(2(\omega_i - c) - \overline{\omega}\big)$, the weak signal is $\underline{e}^* = 0$, and the cut-point on ω is $\omega^* = 2(\omega_i - c) - \overline{\omega}$.

6. **Equilibrium existence:** This semi-separating equilibrium exists if and only if (a) the expected competence of the judge is sufficiently low, $\overline{\omega} < 2(\omega_i - c) - \underline{\omega}$, and (b) the commission believes that an unexpectedly high signal is more likely to come from a higher-competence judge and an unexpectedly low signal is more likely to come from a lower-competence judge, $\underline{\omega}'' + \overline{\omega}'' > \underline{\omega}' + \overline{\omega}'$.

In equilibrium, sufficiently competent judges, $\omega \geq \omega^*$, send a strong signal by expending a high level of effort, $\overline{e}^*$, and insufficiently competent judges, $\omega < \omega^*$, send a weak signal by expending a low level of effort, $\underline{e}^* = 0$. The merit commission gives a favorable recommendation when it sees a sufficiently high level of effort, $e \geq \overline{e}^*$, and gives an unfavorable recommendation otherwise.[3]

In this equilibrium, the merit commission has on-path beliefs and off-path beliefs. The commission's on-path beliefs are the commission's beliefs when it sees a signal that the judge is supposed to send in equilibrium, which is either the strong signal, $\overline{e}^*$, or the weak signal, $\underline{e}^*$. The commission's off-path beliefs are its beliefs when it sees an unexpected signal, which could be any $0 < e' < \overline{e}^*$ or $e'' > \overline{e}^*$.

[3] To see why this is an equilibrium, from the perspective of the judge, we can check for profitable deviations. A type $\omega < \omega^*$ that plays $\underline{e}^* = 0$ in equilibrium will never deviate to any $0 < e' < \overline{e}^*$ because their utility would be strictly decreasing. The cost of effort would be increasing and they would still not receive b. A type $\omega \geq \omega^*$ that plays $\overline{e}^*$ would never deviate to any $e' > \overline{e}^*$, because their utility would be strictly decreasing. They already receive b and the cost of effort would be increasing. If a type $\omega \geq \omega^*$ did deviate from $\overline{e}^*$, it would be to $e' = 0$, the minimum value of e, as their utility is strictly decreasing in e. Thus, the only deviations that we have to prevent are a type $\omega < \omega^*$ deviating from $\underline{e}^* = 0$ to $\overline{e}^*$ and a type $\omega \geq \omega^*$ deviating from $\overline{e}^*$ to $\underline{e}^* = 0$. The equilibrium solutions for the cut-points prevent these deviations.

The commission's prior belief — its belief before it observes the judge's signal — is that the judge's type, ω, is uniformly distributed between a lower bound, $\underline{\omega}$, and an upper bound, $\overline{\omega}$: $\omega \sim \mathcal{U}(\underline{\omega}, \overline{\omega})$. The commission then updates its beliefs based on the judge's signal, and that change in beliefs determines whether or not the commission is willing to give a favorable recommendation. The strong signal, $\overline{e}^*$, leads the commission to give a favorable recommendation, and the weak signal, $\underline{e}^* = 0$, leads the commission to give an unfavorable recommendation.

Observing the strong signal, $\overline{e}^*$, causes the commission to believe that the type of the judge, ω, is uniformly distributed between a cut-point, ω^*, and the upper bound, $\overline{\omega}$: $\omega \sim \mathcal{U}(\omega^*, \overline{\omega})$. Thus, the commission believes that the judge is more competent than it did before, convincing it to give a favorable recommendation. Observing the weak signal, $\underline{e}^* = 0$, on the other hand, causes the commission believes that the type of the judge, ω, is uniformly distributed between the lower bound, $\underline{\omega}$, and a cut-point, ω^*: $\omega \sim \mathcal{U}(\omega^*, \overline{\omega})$. Thus, the commission believes that the judge is less competent than it did before, leading it to give an unfavorable recommendation.

This equilibrium is semi-separating in the sense that some lower-competence types, who fall short of the commission's minimum standard of competence, $\omega < \omega_i$, mimic higher-competence types, who do satisfy the standard, $\omega \geq \omega_i$. As long as sufficiently few lower-competence types are willing to do this, the commission is still willing to risk a positive recommendation when it sees the strong signal, $\overline{e}^*$. The level of effort expended by the judge, $\overline{e}^*$, has to be high enough that enough lower-competence judge are not willing to send that signal. The fact that the marginal cost of effort is more costly for lower-competence judges makes this possible.

There are two conditions that have to be satisfied for this semi-separating equilibrium to exist. First, the expected competence of the judge has to be sufficiently low.[4] If the judge

[4] Specifically, $\overline{\omega} < 2(\omega_i - c) - \underline{\omega}$ (see Proposition 1). Recall that changing $\overline{\omega}$ manipulates the expected competence of the judge, $\mathbb{E}[\omega] = \frac{\overline{\omega}+\underline{\omega}}{2}$.

is too competent in expectation, the merit commission will always prefer to give a favorable recommendation because the risk giving a favorable recommendation to an insufficiently competent judge is low compared to the expected political cost of giving a negative recommendation, which would embarrass the appointing government. If the commission expects that the judge is very competent, it does not need to worry about separating out enough higher-competence types from lower-competence types by requiring the judge to expend a high level of effort.

Second, the commission has to believe that an unexpectedly weak signal, $0 < e < \underline{e}^*$, is more likely to come from a lower-competence type and an unexpectedly strong signal, $e'' > \overline{e}^*$, is more likely to come from a higher-competence type.[5] In other words, the commission needs to believe that the judge is sufficiently competent when it sees a higher-than-expected level of effort and that the judge is insufficiently competent when it sees a lower-than-expected level of effort.

These off-path beliefs are plausible. Expending effort to satisfy the reappointment criteria of the merit commission is always costly, and if the judge does make a mistake, and sends an unexpected signal, they should be more likely to make low-cost mistakes than high-cost mistakes. Consequently, it makes sense for the commission to believe that stronger-than-expected signal, $e'' > \overline{e}^*$, is more likely to come from a relatively high-competence type than a relatively low-competence type, as such a mistake is relatively more costly for the lower-competence type. This is especially true because the marginal cost of effort is higher for lower-competence types. In addition, it makes sense for the commission to believe that a lower-competence judge would be more likely to make a mistake that would cause them not to be reappointed, $0 < e < \underline{e}^*$, than a higher-competence judge.

[5] Specifically, $\underline{\omega}'' + \overline{\omega}'' > \underline{\omega}' + \overline{\omega}'$ (see Proposition 1). The commission's off-path beliefs have to be such that the commission believes that the judge's type is sufficiently high when it sees a strong unexpected signal $e'' > \overline{e}^*$ and that the judge's type is sufficiently low when it sees a weak unexpected signal $0 < e' < \overline{e}^*$ or $e'' > \overline{e}^*$. This condition ensures that the range of possible types given an unexpectedly high signal is shifted further to the right than the range of possible types given an unexpectedly lower signal. This condition makes the panel willing to give a favorable recommendation given the former but not the latter.

Comparative statics

We derive comparative statics to identify the conditions under which the level of effort a judge has to expend in equilibrium on satisfying the reappointment criteria of the merit commission, in order to get a favorable recommendation from the merit commission, is higher or lower. The speaks to the question of when merit commissions will influence the behavior of judges on the bench to a greater or lesser degree.

Looking at Proposition 1, the level of effort that convinces the merit commission to give a favorable recommendation in equilibrium, $\overline{e}^*$, depends on four exogenous parameters: (1) the benefit to the judge of reappointment, b; (2) the political cost to the merit commission of giving an unfavorable recommendation, c; (3) the merit commission's minimum standard of competence, ω_i; and (4) the upper bound on the distribution of the judge's type, $\overline{\omega}$, which manipulates the judge's competence in expectation. In this section, we analyze how a change in each of these exogenous parameters affects the signal that the judge has to send in order to convince the merit commission to give a positive recommendation, $\overline{e}^*$. See the Supporting Information for formal proofs.

Note that we cannot derive testable predictions over the two other endogenous parameters in the model, $\underline{e}^*$ and ω^*. The weak signal in equilibrium is a constant, $\underline{e}^* = 0$, as expending effort is always costly for the judge, and therefore does not change with respect to the exogenous parameters. Three of these exogenous parameters also affect the cut-point on the judge's type in equilibrium, ω^*, and therefore which types send which signal. Furthermore, we cannot measure the cut-point empirically, unlike the level of effort that the judge expends, e^*.

Result 1. In equilibrium, the level of effort expended by the judge to satisfy the criteria of the merit commission, $\overline{e}^*$, is increasing in the benefit to the judge of being reappointed, b. As b increases, $\overline{e}^*$ increases.

Naturally, when the reappointment benefit increases, the judge expends more effort to convince the merit commission they are sufficiently competent. When the reappointment benefit, lower-competence judges have a greater incentive to mimic high-competence judges by sending the strong signal, despite the cost of the effort required. For the merit commission to still be willing to give a favorable recommendation, despite its uncertainty over the type of the judge, the signal that the judge sends has to become more costly. This specification allows the signal to continue to separate out lower-competence judges despite those judges' increasing incentive to mimic higher-competence judges.

Result 2. In equilibrium, the level of effort expended by the judge to satisfy the criteria of the merit commission, $\overline{e}^*$, is increasing in the minimum standard of competence expected by the merit commission, ω_i. As ω_i increases, $\overline{e}^*$ increases.

As the merit commission's minimum standard of competence goes up, the judge has to expend more effort to get a favorable recommendation. When a merit commission demands a higher standard of competence, it no longer prefers to give a favorable recommendation to some lower-competence judges, as doing so becomes costly. To still be willing to give a judge a favorable recommendation, despite its uncertainty over the type of the judge, the judge has to convince the commission that they are sufficiently competent, according to the new standard. To separate themselves from those lower-competence judges, a judge has to send an even stronger signal by expending a level of effort that would be too costly for the lower-competence types to mimic.

Result 3. In equilibrium, the level of effort expended by the judge to satisfy the criteria of the merit commission, $\overline{e}^*$, is decreasing in the cost of giving an unfavorable recommendation, c. As c increases, $\overline{e}^*$ decreases.

When giving an unfavorable recommendation is more costly, the commission is more willing to tolerate the risk of giving a favorable recommendation to some lower-quality judges

who fall just below its minimum standard of competence. In other words, the merit commission is willing to tolerate less separation. This condition means that the level of effort a judge has expend in order to separate themselves goes down. From the judge's perspective, when giving an unfavorable recommendation is more politically costly to the commission, the threat of an unfavorable recommendation is less credible. A judge can therefore expend less effort and still expect to get a favorable recommendation.

Result 4. In equilibrium, the level of effort expended by the judge to satisfy the criteria of the merit commission, $\overline{e}^*$, is decreasing in the upper bound of the distribution of the judge's type, $\overline{\omega}$, which manipulates the expected competence of the judge, $\mathbb{E}[\omega]$. As $\overline{\omega}$, and therefore $\mathbb{E}[\omega]$, increases, $\overline{e}^*$ decreases. If $\overline{\omega}$ becomes too large, $\overline{\omega} > 2(\omega_i - c) - \underline{\omega}$, the semi-separating equilibrium collapses into a pooling equilibrium in which the commission always gives a favorable recommendation.

As the competence of the judge increases in expectation, the level of effort the judge has to expend goes down. Furthermore, if the expected competence of the judge is sufficiently high, the judge need not expend any effort at all, in which case the semi-separating equilibrium collapses into a pooling equilibrium where all judges send the same signal and the merit commission always gives a favorable recommendation. In other words, the merit commission will not impact the behavior of the judge.

In interpreting this comparative static, which is on the upper bound of the distribution of the judge's type, $\overline{\omega}$, it is important to note that increasing or decreasing $\overline{\omega}$ manipulates the expected value of their type, $\mathbb{E}[\omega] = \frac{\overline{\omega}+\underline{\omega}}{2}$. As such, we can interpret a change in $\overline{\omega}$ as a change in the competence of the judge in expectation, $\mathbb{E}[\omega]$. Substantively, the expected competence of the judge would be higher, for example, if the pool of candidates were more qualified or if the court were a higher court, compared to a lower court.

When the expected competence of the judge is increasing, the merit commission needs to be less careful about giving a favorable recommendation. More lower-competence judges can mimic sufficiently high-competence judges by sending the strong signal, and the commission

will still be willing to give a favorable recommendation because the judge is sufficiently competent in expectation. Therefore, the judge can send a weaker signal and still convince the commission to do so. If the expected competence of the judge becomes too high, however, the semi-separating equilibrium collapses into a pooling equilibrium in which all types send the same signal and the merit commission always gives a favorable recommendation. Recalling Proposition 1, the upper bound of distribution of the judge's type, $\overline{\omega}$, and therefore the expected value of the judge's type, $\mathbb{E}[\omega]$, has to be sufficiently small for a semi-separating equilibrium to exist.

Intuitively, if the competence of the judge is sufficiently high in expectation, the merit commission is always willing to give a favorable recommendation because the expected cost of giving a favorable recommendation to an insufficiently competent judge, $\omega - \omega_i$, is always preferable to the political cost of giving an unfavorable recommendation, $-c$. Thus, if the merit commission believes that the judge is sufficiently competent, the judge does not need to exert effort to signal their competence. This result demonstrates the limit of merit commissions: if judges are sufficiently competent, merit commissions will not impact their behavior on the bench.

Empirical Analysis

We test the predictions of our model in the context of the CJEU — the high court of the EU. In 2010, the EU created a merit commission, called the Article 255 panel, to evaluate all candidates who are appointed for a first term at the CJEU and all current CJEU judges who are reappointed for subsequent terms. This panel evaluates appointees to both of the CJEU's constituent courts: the General Court (GC) and the Court of Justice (CJ). The CJ is the higher of the two courts. At the CJ, there is one judge per member state, whereas at the General Court, there are two per member state. Each member state has its own process for selecting its candidates (e.g., Dumbrovsky, Petkova and Van Der Sluis 2014).

We test our model using data on CJEU judgments from the IUROPA CJEU Database Platform, which includes comprehensive data on all CJEU judgments and judges, and the IUROPA CJEU Text Corpus, which includes the complete text of all judgments. Our sample includes all judgments at the General Court and at the Court of Justice from 1 January, 2000 to 31 December, 2019.

Application: The Article 255 Panel

On 1 March 2010, the EU established the Article 255 panel to evaluate appointees to the CJEU. According to Article 255 of the Treaty on the Functioning of the European Union (TFEU), the purpose of the panel is to "give an opinion on candidates' suitability to perform the duties of Judge and Advocate-General of the Court of Justice and the General Court before the governments of the Member States make the appointments." The panel evaluates all candidates for a first term of office and all current office-holders who are reappointed by their member states for subsequent terms.

The panel comprises seven members, who are former members of the CJ and the GC, members of national constitutional or supreme courts, or appropriately qualified jurisconsults. So far, the panel has issued 190 opinions: 71 for the position of Advocate General (AG) or judge at the Court of Justice and 119 for the position of judge at the General Court. AGs are judge-like legal experts at the Court of Justice who provide legal opinions on cases at the Court's request (e.g., Lenz 1988). In addition, 101 opinions were for candidates for a first term in office and 89 were for current Advocates-General or judges who were being reappointed. The panel has given 21 unfavorable recommendations, all of which were for candidates for a first term.[6] However, the panel has the ability to give an unfavorable rec-

[6] The sixth activity report of the panel provided for by Article 255 of the Treaty on the Functioning of the European Union, pages 7 to 9.

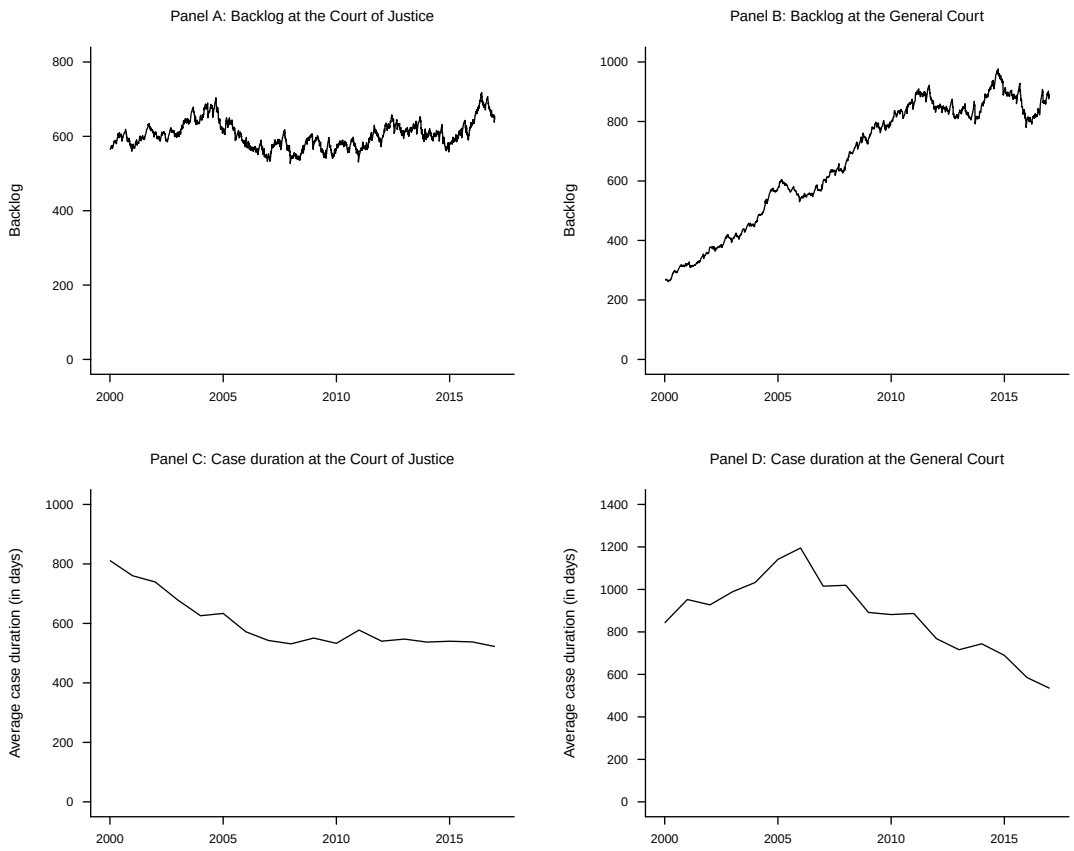

Figure 2. Backlog and case duration.

Note: Panel A shows the backlog at the Court of Justice. Panel B shows the backlog at the General Court. Panel C shows average case duration at the Court of Justice. Panel D shows average case duration at the General Court.

ommendation to a current judge that does not perform satisfactorily — and has publicly indicated a willingness to do so, if necessary.[7]

The primary criterion that the Article 255 panel uses to evaluate CJEU judges is their productivity. In assessing judges for reappointment, the panel specifically considers "the duration of proceedings in the cases dealt with by candidates in the context of the expected duration of proceedings in comparable cases and the indicative internal deadlines of the two

[7] The sixth activity report of the panel provided for by Article 255 of the Treaty on the Functioning of the European Union, page 14.

courts."[8] At the CJEU, cases are heard in chambers, which usually consist of 3 or 5 judges (e.g., Fjelstul 2022), but each case is managed by a judge-rapporteur (i.e., reporting judge), who also writes the judgment (e.g., Cheruvu 2019). Therefore, the panel evaluates each judge on their handling of cases in which they were the judge-rapporteur.

The panel's focus on productivity is an intentional response to the substantial backlog of cases at the CJEU. Unlike many constitutional courts, like the United States Supreme Court, CJEU does not have any discretion over its docket. It consequently struggles to keep up with its workload. Figure 2 shows the backlog of cases over time and the average duration of cases over time at each court since 2000. The backlog at the Court of Justice has remained steady around 600 cases, while the backlog at the General Court has increased from around 300 cases to around 800 cases. Average case duration is longer at the General Court, but is trending downward due to a variety of reforms.

Applying our model to the CJEU, a higher level of effort, $\overline{e}^*$, to signal competence corresponds to higher level of productivity. However, increasing productivity has side effects, which points to additional empirical implications. Generally, there is a tradeoff between productivity and quality such that increasing productivity decreases quality. Therefore, judges who expend more effort to satisfy the criteria of the Article 255 panel should work more quickly, but also produce lower-quality judgments.

Hypotheses

We develop three testable hypotheses based on our comparative statics, which focus on the level of effort expended by judges to signal their competence to the merit commission, $\overline{e}^*$. We operationalize $\overline{e}^*$ using three measures: the duration of the case in days (DURATION), the length of the judgment in words (WORD COUNT), and the number of case law citations in the judgment (CITATIONS). Since the tradeoff between productivity and quality exists,

[8] The sixth activity report of the panel provided for by Article 255 of the Treaty on the Functioning of the European Union, page 14.

each of these proxies is negatively correlated with productivity and positively correlated with quality. Therefore, e^* is negatively correlated with DURATION, WORD COUNT, and CITATIONS. Note that this correlation means the predicted signs of the marginal effects in our hypotheses will be the opposite of the predicted signs in our comparative statics.

We do not test Result 1 because we cannot observe the benefit to the judge of reappointment, b, which is a private preference. We are unable to identify a viable proxy that varies across judges that does not implicate other model parameters. In addition, we expect the benefit of reappointment at the CJEU to be largely constant across judges and over time, so we do not have leverage on this parameter.

Our first hypothesis is based on Result 2, which predicts that effort is increasing in a merit commission's minimum standard of competence, ω_i. At the CJEU, we expect the Article 255 panel to apply its minimum standard of competence equally across judges at the Court of Justice and at the General Court (although the standard is likely different at each court). We also expect the panel's standard to be constant over time. According to its public reports, its criteria has not changed, and no evidence exists that suggests it has changed. Consequently, we do not expect there to be empirical variation in this parameter that we can leverage to test this prediction of the model directly.

Nonetheless, we can use the intuition behind this comparative static to develop an observable expectation. The creation of the Article 255 panel increased the minimum standard of competence for reappointment, which is similar to increasing ω_i. Therefore, since effort corresponds to higher productivity and lower quality, we should expect that incumbent judges who were already in office when the Article 255 panel started evaluating judges will work more quickly and produce lower-quality judgments after the creation of the panel (RETENTION $= 1$) than before (RETENTION $= 0$), knowing that they now need to signal their competence to the panel.

Hypothesis 1. Judges who become subject to merit retention (i.e., who were already in office when the Article 255 panel was created) will work more quickly and will produce

lower-quality judgments after becoming subject to merit retention than before. The marginal effect of RETENTION on DURATION, WORD COUNT, and CITATIONS will be negative.

Our second hypothesis is based on Result 3, which predicts that effort is decreasing in the cost of an unfavorable recommendation, c. As mentioned previously, this cost will be higher when a judge has been subject to merit selection (i.e., when a merit committee has already approved the judge). For the Article 255 panel, giving an unfavorable recommendation to a judge it has previously recommended not only risks embarrassing the appointing member state, it also is an admission that the panel was wrong to recommend the judge in the first place. Therefore, we expect that judges who were subject to merit selection (SELECTION $= 1$) will be less productive and produce higher-quality judgments than judges who were appointed before the creation the panel and were not already been approved by it (SELECTION $= 0$).

Hypothesis 2. Judges who have been subject to merit selection (i.e., who were appointed after the creation of the Article 255 panel), will work more slowly and produce higher-quality judgments than judges who are only subject merit retention (i.e., who were appointed before the creation of the panel). The marginal effect of SELECTION on DURATION, WORD COUNT, and CITATIONS will be positive.

Our third hypothesis is based on Result 4, which predicts that effort is decreasing in the expected competence of the judge, $\overline{\omega}$. At the CJEU, we expect that the competence of judges at the CJe will he higher than at the GC. However, we cannot just compare the CJ to the GC because there are many institutional differences between them that would confound our ability to make an inference. However, Result 4 also states that our semi-separating equilibrium collapses when judges are too competent in expectation. This points to an empirical expectation.

There are several reasons to expect that CJ judges are more competent in expectation than GC judges. First, the Treaty on the Functioning of the European Union (TFEU)

explicitly requires a higher standard for CJ judges than for GC judges. Judges at the CJ "shall be chosen from persons whose independence is beyond doubt and who possess the qualifications required for appointment to the highest judicial offices in their respective countries" (Article 253 TFEU), whereas judges at the GC need only "possess the ability required for appointment to high judicial office." Second, the creation of the Article 255 panel was motivated by concerns about the competence of new appointees to the GC. These concerns were exacerbated by the enlargement of the GC, since 2016, from one judge per member state to two judges per member state. No real concerns exist about the competence of judges at the CJ.

Thus, according to Result 4, it is more likely that a semi-separating equilibrium exists at the General Court than at the Court of Justice. At the Court of Justice, a pooling equilibrium is more likely to exist, in which the panel is always willing to give a favorable recommendation because the competence of Court of Justice judges is high in expectation. The empirical implication is that we should expect the relationships in Hypotheses 1 and 2 to be weaker at the Court of Justice than at the General Court. In fact, if the expected competence of Court of Justice judges is sufficiently high, the model predicts that these relationships will not hold.

Hypothesis 3. The relationships in Hypotheses 1 and 2 are more likely to hold at the General Court (i.e., where the expected competence of judges is lower) than at the Court of Justice (i.e., where the expected competence of judges is higher).

Estimation Strategy

To test Hypothesis 1, we estimate the marginal effect of RETENTION on DURATION, WORD COUNT, and CITATIONS. For each dependent variable, we estimate linear models with heteroskedasticity-robust standard errors.[9] For this test, we restrict our sample to cases

[9] We estimate linear models so we can include fixed-effects without introducing bias due to the incidental parameters problem. We think controlling for unobserved heterogeneity is more important to the inferences

in which the judge-rapporteur served on the court both before and after the creation of the Article 255 panel on 1 March, 2010. We estimate separate models for the Court of Justice and the General Court. The sample for the Court of Justice includes 4,786 cases and the sample for the General Court includes 3,085 cases. Formally, the OLS model for our analysis where i indexes the case is:

$$\mathbf{Y}_i = \beta_0 + \beta_1 \cdot Retention + \delta\mathbf{X} + \psi + \lambda + \epsilon_{ipt} \tag{1}$$

with $\mathbf{Y}_i$ a vector of the dependent variables (DURATION, WORD COUNT, CITATIONS), $\delta\mathbf{X}_i$ a vector of control variables, ψ_p judge-rapporteur fixed-effects, λ_t year fixed-effects, and ϵ_{ipt} standard errors clustered by judge-rapporteur and year. The judge-rapporteur fixed-effects and year fixed-effects control for unobserved heterogeneity over time and across judge-rapporteurs. This specification only leverages within-judge variation to estimate the marginal effect of RETENTION. In this specification, we are comparing how each judge performs before and after the creation of the Article 255 panel, which captures the increase the standards for reappointment associated with the creation of the panel. Including year fixed-effects reduces that risk that our RETENTION dummy captures unobserved heterogeneity over time.

To test Hypothesis 2, we estimate the marginal effect of SELECTED on DURATION, WORD COUNT, and CITATIONS. Again, we estimate linear models with heteroskedasticity-robust standard errors. For this test, we restrict our sample to cases lodged after the creation of the panel. Thus, the sample includes all cases lodged between 1 March, 2010 and 31 December, 2019. Again, we estimate separate models for the Court of Justice and the General Court. The sample for the Court of Justice includes 2,497 cases, and the sample for the General Court includes 2,880 cases. Formally, the OLS model for our analysis where i indexes the

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we are interested in making than correctly modeling the distribution of the dependent variable. In addition, since our independent variables of interest are dichotomous, the assumption we make about the distribution of the dependent variable is not as critical.

case is:

$$\mathbf{Y}_i = \beta_0 + \beta_1 \cdot Selection + \delta\mathbf{X} + \mu + \lambda + \epsilon_{ist} \tag{2}$$

with $\mathbf{Y}_i$ a vector of the dependent variables (DURATION, WORD COUNT, CITATIONS), $\delta\mathbf{X}_i$ a vector of control variables, μ_s member state fixed-effects, λ_t year fixed-effects, and ϵ_{ist} standard errors clustered by member state and year. We include member state fixed-effects and year fixed-effects to control for unobserved heterogeneity over time and across member states. We cannot include judge-rapporteur fixed-effects in this specification. In this specification, we are comparing judge-rapporteurs appointed after the creation of the Article 255 panel to judge-rapporteurs appointed before the creation of the panel in the post-treatment period (i.e., after the creation of the panel), during which all judges are subject to merit retention.

In all of our models, we control for the complexity of the case, which we expect to be correlated with both our independent variables and our dependent variables. Not controlling for complexity could confound our estimates of the marginal effects of RETENTION and SELECTION. For the models on the CJ, we also control for whether the CJ requests an AG opinion (AG OPINION), which can prolong cases. We expect complexity to be positively correlated with DURATION, WORD COUNT, and CITATIONS, as complex cases are likely to take longer to decide, require longer judgments, and include more citations. We also expect that complexity will be positively correlated with our independent variables of interest, RETENTION and SELECTION. The complexity of cases has generally increased over time, leading to a positive correlation with RETENTION. In addition, the President of the Court, who decides which cases to assign to which judge-rapporteurs, could disproportionately assign more complex cases to judges who were appointed after the creation of the Article 255 panel. These judges were subject to merit selection, and may therefore be more competent (if less experienced) than existing judges. This could lead to a positively correlation with SELECTION.

We develop several measure of complexity that capture three major dimensions of the concept: political complexity, policy complexity, and legal complexity. First, we control for political complexity (or political salience) using the size of the panel that hears the case (PANEL SIZE), as the Court tends to reserve larger panels for more politically salient cases. Second we control for policy complexity using a count of the number of policies areas related the case, according to the EUR-Lex case law directory (POLICY AREAS).

Third, we control for legal complexity using a dummy that captures whether the case deals with fundamental principles of law (PRINCIPLES OF LAW), a dummy that captures whether the case deals with the legal order of the EU (LEGAL ORDER), and a count of the sources of law that the case deals with. Sources of law include primary law (the EU treaties), secondary law (legislation), and case law. Cases that deal with fundamental principles of law should be more straightforward, because the law is more established. Cases that deal with the legal order of the EU, including the relationship between EU law and national law, tend to be more complex. Cases that deal with multiple sources of law tend to be more complex because they require a greater degree of synthesis. Lastly, we include controls for the type of proceeding before the court PRELIMINARY RULING, ANNULMENTS, INFRINGEMENT, and APPEALS. Note, preliminary ruling and infringement cases are heard only at the CJ and not at the GC.

Findings

Tables 2, 3, and 4 present our full results. Figure 3 presents the marginal effects from our models. To test Hypothesis 1, the first column shows our estimated marginal effects for RETENTION. To test Hypothesis 2, the second column shows estimated marginal effects for SELECTION. The vertical labels on the right of the plot denote each dependent variable (DURATION, WORD COUNT, CITATIONS). To test Hypothesis 3, each panel compares estimated marginal effects for the CJ and the GC, which are labelled separately on the x-axis.

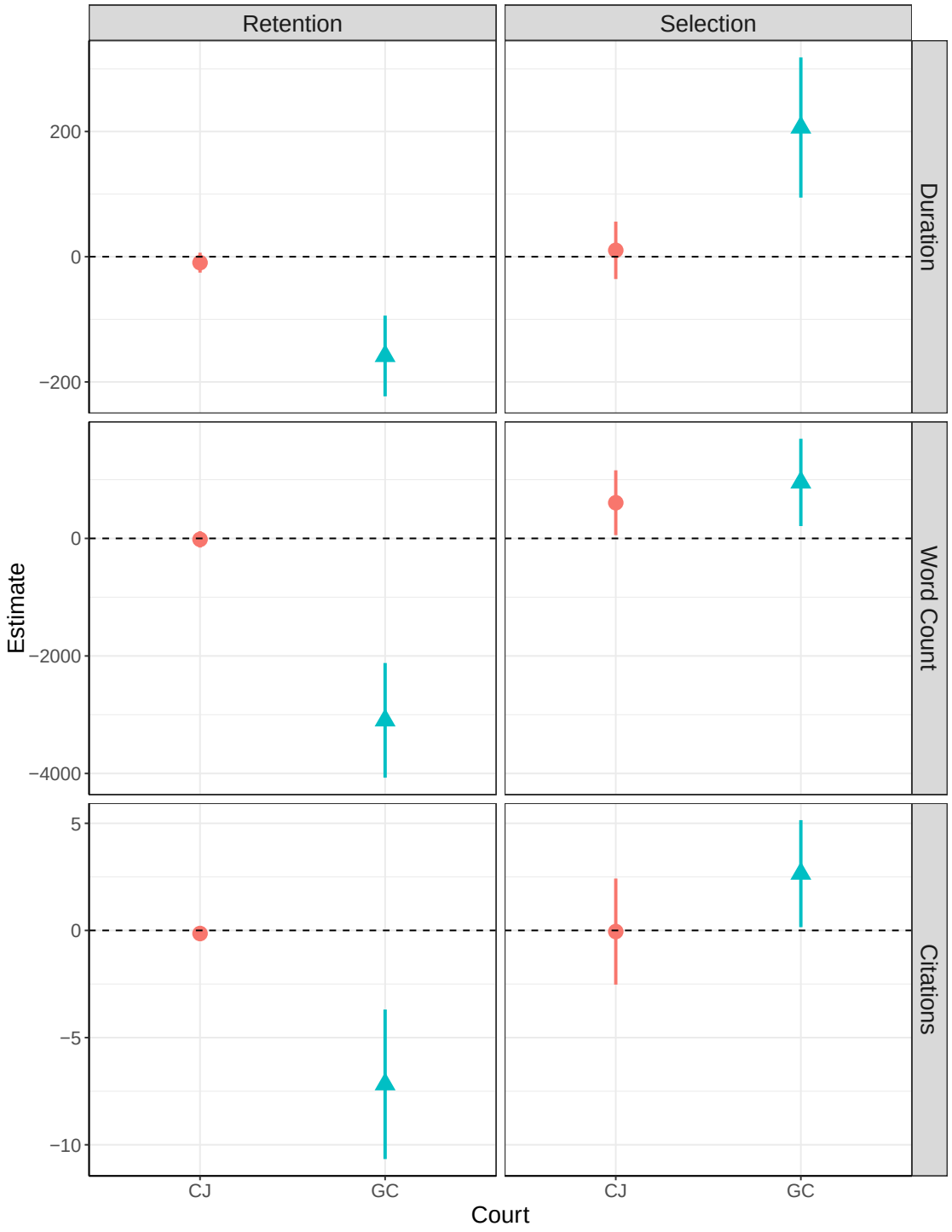

Figure 3. Estimated marginal effects.

Note: This figure shows the estimated marginal effects of RETENTION and SELECTION on our three dependent variables: DURATION, WORD COUNT, and CITATIONS.

Table 2. Duration as the Dependent Variable

Dependent Variable:	Duration			
Court:	CJ	GC	CJ	GC
Model:	(1)	(2)	(3)	(4)
Variables				
Retention	-9.470	-158.6***		
	(8.109)	(32.88)		
Selection			10.25	206.4***
			(23.41)	(57.12)
Panel Size	13.82***	22.23	5.393***	105.1***
	(2.691)	(23.50)	(1.232)	(24.83)
Policy Areas	62.54***	38.38*	36.50**	26.94
	(10.05)	(20.20)	(12.61)	(19.70)
Principles of Law	-0.4640	3.808	3.941	60.55*
	(14.84)	(39.04)	(9.212)	(27.06)
Legal Order	22.32	246.2***	10.47	137.9***
	(17.11)	(28.75)	(10.26)	(10.54)
Sources of Law	12.41	208.6***	20.33***	111.7***
	(10.94)	(29.12)	(5.601)	(30.20)
AG Opinion	128.2***		131.9***	
	(11.01)		(10.90)	
Preliminary Ruling	17.24		35.35	
	(36.26)		(51.00)	
Annulments	193.9***	-19.64	199.6***	-95.08*
	(45.89)	(45.99)	(56.53)	(42.06)
Infringement	57.37		118.1*	
	(39.35)		(52.95)	
Appeals	107.2**	-188.1***	129.7**	-182.1***
	(41.91)	(48.18)	(52.54)	(39.82)
Fixed-effects				
Judge Rapporteur	Yes	Yes		
Case Year	Yes	Yes	Yes	Yes
Member State			Yes	Yes
Fit statistics				
SE Clustering	JR + Year	JR + Year	MS + Year	MS + Year
R^2	0.41510	0.62294	0.37053	0.40756
Observations	4,786	2,497	3,085	2,879

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: JR = Judge Rapporteur, MS = Member State

Table 3. Word Count as the Dependent Variable

Dependent Variable:	Word Count			
Court:	CJ	GC	CJ	GC
Model:	(1)	(2)	(3)	(4)
Variables				
Retention	-16.75	-3,095.9***		
	(70.61)	(497.7)		
Selection			606.9*	952.6**
			(281.6)	(378.8)
Panel Size	214.8***	2,533.3*	139.6**	3,694.5***
	(28.92)	(1,289.5)	(50.81)	(1,076.1)
Policy Areas	1,393.5***	2,578.7***	1,134.0***	1,786.3**
	(91.32)	(321.7)	(147.2)	(595.3)
Principles of Law	1,263.6***	2,495.7*	1,115.5***	3,398.1***
	(297.2)	(1,334.7)	(326.9)	(564.0)
Legal Order	692.6***	6,211.4***	650.1***	3,244.3***
	(141.3)	(1,508.6)	(146.5)	(298.5)
Sources of Law	235.7	3,893.1***	734.5***	2,604.0***
	(143.9)	(446.8)	(90.97)	(465.5)
AG Opinion	716.6***		573.3**	
	(116.1)		(247.7)	
Preliminary Ruling	-873.6*		-1,357.5***	
	(453.0)		(170.5)	
Annulments	99.04	-1,297.4	-360.4	-1,690.8
	(625.5)	(1,240.9)	(414.5)	(1,260.8)
Infringement	-989.9**		-583.0*	
	(425.1)		(289.1)	
Appeals	1,872.7***	-396.8	796.5*	-233.3
	(585.3)	(1,342.6)	(425.5)	(1,105.4)
Fixed-effects				
Judge Rapporteur	Yes	Yes		
Case Year	Yes	Yes	Yes	Yes
Member State			Yes	Yes
Fit statistics				
SE Clustering	JR + Year	JR + Year	MS + Year	MS + Year
R^2	0.34988	0.30983	0.29350	0.27246
Observations	4,786	2,497	3,085	2,879

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: JR = Judge Rapporteur, MS = Member State

Table 4. Citations as a Dependent Variable

Dependent Variable:	Citations			
Court:	CJ	GC	CJ	GC
Model:	(1)	(2)	(3)	(4)
Variables				
Retention	-0.1432	-7.177***		
	(0.1482)	(1.780)		
Selection			-0.0514	2.651*
			(1.262)	(1.274)
Panel Size	0.2001***	1.240	0.2131**	4.421**
	(0.0451)	(1.332)	(0.0732)	(1.672)
Policy Areas	2.312***	7.116***	1.472***	4.735***
	(0.2170)	(0.7916)	(0.2212)	(0.8105)
Principles of Law	2.184***	4.707	2.312***	3.743***
	(0.4320)	(2.769)	(0.6395)	(0.5423)
Legal Order	1.934***	6.204***	1.463***	1.438
	(0.3601)	(2.099)	(0.2432)	(1.214)
Sources of Law	2.465***	7.821***	2.881***	5.715***
	(0.1693)	(0.7682)	(0.2057)	(0.3859)
AG Opinion	1.103***		0.6798***	
	(0.2493)		(0.1903)	
Preliminary Ruling	-1.765		-1.636**	
	(1.942)		(0.5979)	
Annulments	-3.184	-0.6867	-4.314***	-3.282*
	(2.143)	(2.009)	(1.009)	(1.734)
Infringement	-1.501		-1.326*	
	(1.872)		(0.5939)	
Appeals	1.080	1.333	1.446**	-3.745
	(1.895)	(2.812)	(0.5679)	(2.974)
Fixed-effects				
Judge Rapporteur	Yes	Yes		
Case Year	Yes	Yes	Yes	Yes
Member State			Yes	Yes
Fit statistics				
SE Clustering	JR + Year	JR + Year	MS + Year	MS + Year
R^2	0.33444	0.34226	0.27293	0.22266
Observations	4,786	2,497	3,085	2,879

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: JR = Judge Rapporteur, MS = Member State

Looking at the first column, we find that the marginal effect of RETENTION on DURATION, WORD COUNT, and CITATIONS is negative and statistically significant, but only at the General Court. These results are consistent with Hypothesis 1 and Hypothesis 3, which predicts that a semi-separating equilibrium is more likely to exist at the General Court than at the Court of Justice. At the Court of Justice, not only is the estimated marginal effect of RETENTION statistically insignificant, with respect to each dependent variable, it is also substantively negligible. We find that judges who become subject to merit retention (i.e., who are in office when the panel is created) work more quickly and produce lower-quality judgments after becoming subject to merit retention than before. On average, their cases are 159 days shorter, their judgments are 3,096 words shorter, and their judgments have 7 fewer case law citations. In the sample for the General Court, the average case takes 811 days to decide, the average judgment is 10,192 words, and the average judgment has 17 case law citations, so these are all substantively large effects.

Looking at the second column, we find that the marginal effect of SELECTION on DURATION, WORD COUNT, and CITATIONS is positive and statistically significant, but only at the GC. The one exception is that the marginal effect of SELECTION on WORD COUNT is positive and statistically significant at the CJ. These results are consistent with Hypothesis 2 and Hypothesis 3. We find that judges who have been subject to merit selection (i.e., who have been appointed after the creation of the panel) work more slowly and produce higher-quality judgments than judges who are only subject to merit retention (i.e, who were appointed before the creation of the panel). On average, their cases are 206 days longer, their judgments are 953 words longer, and their judgments have 3 more case law citations. Again, these effects are substantively large.

In sum, we find strong empirical support for the testable predictions of our formal model. Consistent with Hypothesis 1, merit retention causes General Court judges to expend more effort to satisfy the criteria of the Article 255 panel, leading to shorter, lower-quality judgments. Consistent with Hypothesis 2, merit selection causes GC judges to expend less effort,

leading to longer, higher-quality judgments. And consistent with Hypothesis 3, the Article 255 panel only influences the behavior of judges at the GC, where judges are expected to be relatively less competent than their colleagues at the CJ.

Conclusion

How do merit commissions affect judicial behavior? Our findings suggest that merit commissions motivate judges in counterintuitive ways. Retention incentivizes judges to expend more effort on meeting the criteria of a merit commission, but merit selection incentivizes them to expend less. Merit commissions can also have unintended consequences, depending on the criteria they establish for reappointment. By focusing on productivity, the Article 255 panel has reduced the quality of some General Court judgments, and increased the quality of others. Our findings make a number of contributions of the literature.

First, we build upon an extensive scholarship on how institutional selection and retention mechanisms affect judicial behavior (e.g., Canes-Wrone, Clark and Park 2012; Gordon and Huber 2007; Ramseyer and Rasmusen 2003). In particular, we compare the functions of merit commissions in both in common law and civil law contexts. As Garoupa and Ginsburg (2009, 119) note, "Academic work on judicial councils has been so far quite limited. There are very few empirical studies and there has been no economic or statistical analysis to date that we know of." By leveraging the 255 Panel's timing and institutional configuration, we are able to directly compare the consequences of a merit commission focusing primarily on selection to one focusing primarily on retention.

Second, we contribute to the scholarship on judicial selection and independence in the context of international courts (e.g., Dunoff and Pollack 2017; Voeten 2007). Although the merit commission at the CJEU is relatively unique among international courts, our findings provide insights on the tradeoffs other international organizations may face by implementing such a monitoring institution for appointments to their court. Importantly, while no

EU member state has yet continued with the appointment of a judge following a negative recommendation by the 255 panel, if some member states were to ignore the panel's decision-making together, a future theory can build upon our insights and examine whether the theoretical expectations and empirical implications we derive would still exist.

Lastly, following the recommendation of Staton and Moore (2011), this article draws upon the American, comparative, and international courts scholarship. By integrating these sub-disciplinary insights, scholars can converse more effectively about the institutional mechanisms that affect judicial decision-making and produce thereotical innovations that can be empirically testable across domestic and international contexts. Our leveraging of the scholarship on merit commissions is one example of this analytical tractability across the subfields. Future research can similarly benefit by borrowing and building upon insights generated through the analysis of either international or domestic courts.

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Appendices

Model presentation

- Players:
  - J is a judge whose reappointment depends on a favorable recommendation from a merit commission.
  - C is a merit commission.
- Order of play:
  - Nature chooses the type of the judge, $\omega \sim \mathcal{U}(\underline{\omega}, \overline{\omega})$, which is private information to the judge.
  - The judge chooses a level of effort, $e > 0$, to expend on satisfying the criteria established by the merit commission.
  - The merit commission observes the effort expended by the judge, e, and chooses a recommendation, r. The commission can issue a favorable recommendation, F, or a negative recommendation, U.
  - The game ends and the players receive their payoffs.
- Strategies:
  - A strategy for the judge, $\sigma_{J|\omega}(\sigma_C)$, is a function that maps a level of effort, $e > 0$, conditional on their type, ω, to the action of the merit commission, $r \in \{F, U\}$.
  - A strategy for the merit commission, $\sigma_C(\sigma_{J|\omega})$, is a function that maps a recommendation $r \in \{F, U\}$, to the action of the judge, e.
- Assumptions about preferences:
  - Judges are career-motivated and want to be reappointed. By law or norm, reappointment requires a favorable recommendation from the merit commission.
  - Meeting the reappointment criteria of a merit commission requires effort, which is costly for judges.
  - The marginal cost of exerting additional effort is lower for high-competence judges than for low-competence judges.

- Merit commissions want to give favorable recommendations to sufficiently competent judges and unfavorable recommendations to insufficiently competent judges.
- It is politically costly for a merit commission to reject a judge because there could be backlash from the appointing government.

- Utility functions:
  - The judge receives a benefit, b, if the merit commission chooses to give a favorable recommendation.
  - The judge pays a cost proportional to the level of effort they choose to expend, $-\frac{e}{\omega}$. This cost is smaller for higher-quality types and larger for low-quality types. This captures the intuition that high-quality types can expend more effort at a lower cost than low-quality types.

$$u_{J|\omega}(F \mid e) = b - \frac{e}{\omega}$$
$$u_{J|\omega}(U \mid e) = -\frac{e}{\omega}$$

  - If the merit commission gives a favorable recommendation, the judge gets reappointed, and the commission receives a cost or benefit, $\omega - \omega_i$, depending on the type of the judge. The commission does not know the type of the judge, but has a belief about it. The commission has a minimal standard for judge quality, ω_i. If the type of the judge exceeds that standard, $\omega > \omega_i$, then the commission receives a benefit for giving a favorable recommendation. However, if the type of the judge falls short of that standard, $\omega < \omega_i$, the commission pays a cost.
  - If the merit commission gives a negative recommendation, it pays a cost, $-c$. This cost captures the political cost of calling out the government that appointed the judge. This cost is higher if the merit commission screened the judge, as giving a negative recommendation to a judge the commission has already approved is an implicit admission that the commission got it wrong.

$$u_C(F \mid \omega) = \omega - \omega_i$$
$$u_C(U \mid \omega) = -c$$

- Endogenous choice variables:
  - $e > 0$ is the level of observable effort that the judge chooses to expend in order to satisfy the reappointment criteria of the merit commission.

- $r \in \{F, U\}$ is the recommendation of the merit commission. The commission can give a favorable recommendation, F, or an unfavorable recommendation, U.

- Exogenous parameters:
  - $\omega \sim \mathcal{U}(\underline{\omega}, \overline{\omega})$ is the type of the judge, where $\mathcal{U}$ is the continuous uniform distribution, $\underline{\omega}$ is the lower bound of the distribution, and $\overline{\omega}$ is the lower bound of the distribution.
  - $\omega_i \in (\underline{\omega}, \overline{\omega})$ is the minimum judge type that is acceptable to the merit commission. Looking at $u_C(F \mid \omega) = \omega - \omega_i$, when $\omega < \omega_i$, giving a favorable recommendation is costly to the merit commission. When $\omega > \omega_i$, giving a favorable recommendation is beneficial.
  - $b > 0$ is the benefit to the judge of receiving a favorable recommendation from the merit commission.
  - $c > 0$ is the political cost to the merit commission for giving an unfavorable recommendation.

- Information structure:
  - The type of the judge, ω, is private information. The merit commission knows the distribution, $\omega \sim \mathcal{U}(\underline{\omega}, \overline{\omega})$. All other parameters are common knowledge.

Equilibrium Analysis

- Candidate equilibrium:
  - We posit that this game has a unique semi-separating perfect Bayesian equilibrium (PBE) with two on-path signals. We can write this equilibrium as a tuple, $\left\{\sigma_{J|\omega}(\sigma_C), \sigma_C(\sigma_{J|\omega}), \mu_C(\omega \mid e)\right\}$, where $\sigma_{J|\omega}(\sigma_C)$ is the strategy profile of the judge, $\sigma_C(\sigma_{J|\omega})$ is the strategy profile of the merit commission, and $\mu_C(\omega \mid x)$ are the beliefs of the merit commission.
  - Formally, the strategies and beliefs of the players in the candidate equilibrium are as follows:

$$\sigma_{J|\omega}(\sigma_C) = \begin{cases} e = \overline{e}^* & \text{if } \omega \geq \omega^* \\ e = \underline{e}^* = 0 & \text{if } \omega < \omega^* \end{cases}$$

$$\sigma_C(\sigma_{J|\omega}) = \begin{cases} r = F & \text{if } e \geq \overline{e}^* \\ r = U & \text{if } e < \overline{e}^* \end{cases}$$

$$\mu_C(\omega \mid e) = \begin{cases} \omega \sim \mathcal{U}(\omega^*, \overline{\omega}) & \text{if } e = \overline{e}^* \\ \omega \sim \mathcal{U}(\underline{\omega}, \omega^*) & \text{if } e = \underline{e}^* = 0 \end{cases}$$

- Sufficiently competent judges, $\omega \geq \omega^*$, choose a high level of effort, $\overline{e}^*$, and insufficiently competent judges, $\omega < \omega^*$, choose a low level of effort, $\underline{e}^* = 0$.
- The prior belief of the merit commission are that the type of the judge, ω, is uniformly distributed between a lower bound, $\underline{\omega}$, and an upper bound, $\overline{\omega}$: $\omega \sim \mathcal{U}(\underline{\omega}, \overline{\omega})$.
- Upon observing the strong signal $e = \overline{e}^*$, the merit commission believes that the type of the judge, ω, is uniformly distributed between a cut-point, ω^*, and the upper bound, $\overline{\omega}$: $\omega \sim \mathcal{U}(\omega^*, \overline{\omega})$. Based on this belief, the merit commission makes a favorable recommendation, F.
- Upon observing a the weak signal, $e = \underline{e}^* = 0$, the merit commission believes that the type of the judge, ω, is uniformly distributed between the lower bound, $\underline{\omega}$, and a cut-point, ω^*: $\omega \sim \mathcal{U}(\omega^*, \overline{\omega})$. Based on this belief, the merit commission makes an unfavorable recommendation, U.

- Proof of equilibrium existence:
  - Step 1: Are the on-path actions in the candidate equilibrium sequentially rational for the commission?
    - Condition 1: The commission has to prefer to give a favorable recommendation when it observes the strong signal, $\overline{e}^*$.
    - Beliefs: When the commission observes the strong signal, $\overline{e}^*$, it believes that the type of the judge, ω, is uniformly distributed between the equilibrium cut-point, ω^*, and the upper bound, $\overline{\omega}$: $\omega \sim \mathcal{U}(\omega^*, \overline{\omega})$. The commission then gives a favorable recommendation, F.

$$\mathbb{E}\big[u_C(F \mid \overline{e}^*)\big] \geq \mathbb{E}\big[u_C(U \mid \overline{e}^*)\big]$$

$$\int_{\omega^*}^{\overline{\omega}} u_C(F \mid \overline{e}^*) f(\omega)\, \mathrm{d}\omega \geq \int_{\omega^*}^{\overline{\omega}} u_C(U \mid \overline{e}^*) f(\omega)\, \mathrm{d}\omega$$

$$\int_{\omega^*}^{\overline{\omega}} (\omega - \omega_i) \left(\frac{1}{\overline{\omega} - \underline{\omega}} \right) \mathrm{d}\omega \geq \int_{\omega^*}^{\overline{\omega}} -c \left(\frac{1}{\overline{\omega} - \underline{\omega}} \right) \mathrm{d}\omega$$

$$\int_{\omega^*}^{\overline{\omega}} \frac{\omega - \omega_i}{\overline{\omega} - \underline{\omega}} \mathrm{d}\omega \geq \int_{\omega^*}^{\overline{\omega}} \frac{-c}{\overline{\omega} - \underline{\omega}} \mathrm{d}\omega$$

$$\frac{(\overline{\omega} - \omega^*)(\overline{\omega} + \omega^* - 2\omega_i)}{2(\overline{\omega} - \underline{\omega})} \geq \frac{-c(\overline{\omega} - \omega^*)}{\overline{\omega} - \underline{\omega}}$$

$$\overline{\omega} + \omega^* - 2\omega_i \geq -2c$$

$$c \geq \frac{2\omega_i - \omega^* - \overline{\omega}}{2}$$

- Condition 2: The commission has to prefer to give an unfavorable recommendation when it observes the weak signal, $\underline{e}^*$.
- Beliefs: When the commission observes the weak signal, $\underline{e}^*$, it believes that the type of the judge, ω, is uniformly distributed between the lower bound, $\underline{\omega}$, and the equilibrium cut-point, ω^*: $\omega \sim \mathcal{U}(\underline{\omega}, \omega^*)$. The commission then gives an unfavorable recommendation, U.

$$\mathbb{E}\big[u_C(U \mid \underline{e}^*)\big] \geq \mathbb{E}\big[u_C(F \mid \underline{e}^*)\big]$$

$$\int_{\underline{\omega}}^{\omega^*} u_C(U \mid \underline{e}^*) f(\omega) \, \mathrm{d}\omega \geq \int_{\underline{\omega}}^{\omega^*} u_C(F \mid \underline{e}^*) f(\omega) \, \mathrm{d}\omega$$

$$\int_{\underline{\omega}}^{\omega^*} -c \left(\frac{1}{\overline{\omega} - \underline{\omega}} \right) \mathrm{d}\omega \geq \int_{\underline{\omega}}^{\omega^*} (\omega - \omega_i) \left(\frac{1}{\overline{\omega} - \underline{\omega}} \right) \mathrm{d}\omega$$

$$\int_{\underline{\omega}}^{\omega^*} \frac{-c}{\overline{\omega} - \underline{\omega}} \mathrm{d}\omega \geq \int_{\underline{\omega}}^{\omega^*} \frac{\omega - \omega_i}{\overline{\omega} - \underline{\omega}} \mathrm{d}\omega$$

$$\frac{-c(\omega^* - \underline{\omega})}{\overline{\omega} - \underline{\omega}} \geq \frac{(\omega^* - \underline{\omega})(\omega^* + \underline{\omega} - 2\omega_i)}{2(\overline{\omega} - \underline{\omega})}$$

$$-2c \geq \omega^* + \underline{\omega} - 2\omega_i$$

$$c \leq \frac{2\omega_i - \omega^* - \underline{\omega}}{2}$$

- Intuition: Upon seeing the strong signal, the merit commission is willing to give a favorable ruling, despite its uncertainty about the type of the judge, as

long as the cost of an unfavorable ruling is sufficiently high. Upon seeing the weak signal, the merit commission is willing to gave an unfavorable ruling as long as the cost of doing so is sufficiently low.

- Are the conditions compatible?

$$\frac{2\omega_i - \omega^* - \overline{\omega}}{2} \leq \frac{2\omega_i - \omega^* - \underline{\omega}}{2}$$

$$-\overline{\omega} \leq -\underline{\omega}$$

$$\overline{\omega} \geq \underline{\omega}$$

- The conditions are always compatible.

- Step 2: What off-path beliefs are required to make the off-path actions in the candidate equilibrium sequentially rational for the merit commission?
  - Case 1: What off-path beliefs keep the merit commission playing U given an unexpected signal $0 < e' < \overline{e}^*$?

$$\mathbb{E}\big[u_C(U \mid e' < \overline{e}^*)\big] \geq \mathbb{E}\big[u_C(F \mid e' < \overline{e}^*)\big]$$

$$\int_{\underline{\omega}'}^{\overline{\omega}'} u_C(U \mid e') f(\omega)\,\mathrm{d}\omega \geq \int_{\underline{\omega}'}^{\overline{\omega}'} u_C(F \mid e') f(\omega)\,\mathrm{d}\omega$$

$$\int_{\underline{\omega}'}^{\overline{\omega}'} -c\left(\frac{1}{\overline{\omega} - \underline{\omega}}\right)\,\mathrm{d}\omega \geq \int_{\underline{\omega}'}^{\overline{\omega}'} (\omega - \omega_i)\left(\frac{1}{\overline{\omega} - \underline{\omega}}\right)\,\mathrm{d}\omega$$

$$\int_{\underline{\omega}'}^{\overline{\omega}'} \frac{-c}{\overline{\omega} - \underline{\omega}}\,\mathrm{d}\omega \geq \int_{\underline{\omega}'}^{\overline{\omega}'} \frac{\omega - \omega_i}{\overline{\omega} - \underline{\omega}}\,\mathrm{d}\omega$$

$$\frac{-c(\overline{\omega}' - \underline{\omega}')}{\overline{\omega} - \underline{\omega}} \geq \frac{(\overline{\omega}' - \underline{\omega}')(\overline{\omega}' + \underline{\omega}' - 2\omega_i)}{2(\overline{\omega} - \underline{\omega})}$$

$$-2c \geq \overline{\omega}' + \underline{\omega}' - 2\omega_i$$

$$c \leq \frac{2\omega_i - \overline{\omega}' - \underline{\omega}'}{2}$$

- Case 2: What off-path beliefs keep the merit commission playing F given an unexpected signal $e'' > \overline{e}^*$?

$$\mathbb{E}\big[u_C(F \mid e'' > \overline{e}^*)\big] \geq \mathbb{E}\big[u_C(U \mid e'' > \overline{e}^*)\big]$$

$$\int_{\underline{\omega}''}^{\overline{\omega}''} u_C(F \mid e'') f(\omega)\,\mathrm{d}\omega \geq \int_{\underline{\omega}''}^{\overline{\omega}''} u_C(U \mid e'') f(\omega)\,\mathrm{d}\omega$$

$$\int_{\underline{\omega}''}^{\overline{\omega}''} (\omega - \omega_i)\left(\frac{1}{\overline{\omega} - \underline{\omega}}\right)\,\mathrm{d}\omega \geq \int_{\underline{\omega}''}^{\overline{\omega}''} -c\left(\frac{1}{\overline{\omega} - \underline{\omega}}\right)\,\mathrm{d}\omega$$

$$\int_{\underline{\omega}''}^{\overline{\omega}''} \frac{\omega - \omega_i}{\overline{\omega} - \underline{\omega}}\,\mathrm{d}\omega \geq \int_{\underline{\omega}''}^{\overline{\omega}''} \frac{-c}{\overline{\omega} - \underline{\omega}}\,\mathrm{d}\omega$$

$$\frac{(\overline{\omega}'' - \underline{\omega}'')(\overline{\omega}'' + \underline{\omega}'' - 2\omega_i)}{2(\overline{\omega} - \underline{\omega})} \geq \frac{-c(\overline{\omega}'' - \underline{\omega}'')}{\overline{\omega} - \underline{\omega}}$$

$$\overline{\omega}'' + \underline{\omega}'' - 2\omega_i \geq -2c$$

$$c \geq \frac{2\omega_i - \underline{\omega}'' - \overline{\omega}''}{2}$$

- These two conditions create an upper and lower bound for c. When is this range non-empty?

$$\frac{2\omega_i - \underline{\omega}'' - \overline{\omega}''}{2} < \frac{2\omega_i - \underline{\omega}' - \overline{\omega}'}{2}$$

$$-\underline{\omega}'' - \overline{\omega}'' < -\underline{\omega}' - \overline{\omega}'$$

$$\underline{\omega}'' + \overline{\omega}'' > \underline{\omega}' + \overline{\omega}'$$

- We can interpret this condition as follows. The merit commission has to believe that the type of the judge is higher in expectation given an unexpected signal $e > \overline{e}^*$ than given an unexpected signal $0 < e < \overline{e}^*$. This makes the commission willing to play F given $e > \overline{e}^*$ and U given $0 < e < \overline{e}^*$. In other words, the commission has to believe high unexpected signals are more likely to come from high types and lower unexpected signals are more likely to come from low types. Since the marginal cost of a higher signal is lower for higher types, this is a plausible belief.

- Step 3: What is the cut-point on the type of the judge in equilibrium, ω^*, and what are the on-path high and low signals chosen by the judge in equilibrium, $\underline{e}^*$ and $\overline{e}^*$?
  - The cut-point on $\overline{e}^*$ is the level effort required to induce the merit commission to choose F over U.
  - The utility of the judge, regardless of type, ω, is strictly decreasing in the level of effort, e:

$$\frac{\partial u_{J|\omega}(e)}{\partial e} < 0$$

  - Therefore, the weak signal is $\underline{e}^* = 0$. The judge only ever has an incentive to deviate upward to induce the merit commission to choose F over U, in which case the judge receives b.
  - The cut-point on ω^* is the type that is indifferent between sending the weak signal, $\underline{e}^*$, and the strong signal, $\overline{e}^*$.

$$\begin{aligned} u_{J|\omega^*}(\underline{e}^*) &= u_{J|\omega^*}(\overline{e}^*) \\ -\frac{\underline{e}^*}{\omega^*} &= b - \frac{\overline{e}^*}{\omega^*} \\ 0 &= b - \frac{\overline{e}^*}{\omega^*} \\ \frac{\overline{e}^*}{\omega^*} &= b \\ \omega^* &= \frac{\overline{e}^*}{b} \end{aligned}$$

  - To get a closed-form solution for ω^*, we need to solve for $\overline{e}^*$ and substitute.
  - Since the utility of the judge is strictly decreasing in e, the strong signal, $\overline{e}^*$, is the minimum value of e that makes the merit commission choose F, given the commission's beliefs upon observing that signal, $\omega \sim \mathcal{U}(\omega^*, \overline{\omega})$. This is the value of e that makes the commission indifferent between F and U.

$$\mathbb{E}\big[u_C(F \mid \overline{e}^*)\big] = \mathbb{E}\big[u_C(U \mid \overline{e}^*)\big]$$

$$\int_{\omega^*}^{\overline{\omega}} u_C(F \mid \overline{e}^*) f(\omega)\,\mathrm{d}\omega = \int_{\omega^*}^{\overline{\omega}} u_C(U \mid \overline{e}^*) f(\omega)\,\mathrm{d}\omega$$

$$\int_{\omega^*}^{\overline{\omega}} (\omega - \omega_i) \left(\frac{1}{\overline{\omega} - \underline{\omega}} \right) \mathrm{d}\omega = \int_{\omega^*}^{\overline{\omega}} -c \left(\frac{1}{\overline{\omega} - \underline{\omega}} \right) \mathrm{d}\omega$$

$$\int_{\omega^*}^{\overline{\omega}} \frac{\omega - \omega_i}{\overline{\omega} - \underline{\omega}} \mathrm{d}\omega = \int_{\omega^*}^{\overline{\omega}} \frac{-c}{\overline{\omega} - \underline{\omega}} \mathrm{d}\omega$$

$$\frac{(\overline{\omega} - \omega^*)(\overline{\omega} + \omega^* - 2\omega_i)}{2(\overline{\omega} - \underline{\omega})} = \frac{-c(\overline{\omega} - \omega^*)}{\overline{\omega} - \underline{\omega}}$$

$$\overline{\omega} + \omega^* - 2\omega_i = -2c$$

$$\omega^* = 2\omega_i - 2c - \overline{\omega}$$

$$\frac{\overline{e}^*}{b} = 2\omega_i - 2c - \overline{\omega}$$

$$\overline{e}^* = b(2\omega_i - 2c - \overline{\omega})$$

- Now we have closed-form interior solutions for ω^*, $\underline{e}^*$, and $\overline{e}^*$:

$$\omega^* = 2\omega_i - 2c - \overline{\omega}$$

$$\underline{e}^* = 0$$

$$\overline{e}^* = b(2\omega_i - 2c - \overline{\omega})$$

- There is also a boundary solution where $\omega^* = \overline{\omega}$ and $\overline{e}^* = b\overline{\omega}$.
- By assumption, it must be that $\underline{\omega} < \omega^* < \overline{\omega}$ and $e^* > 0$. What conditions support these inequalities?
  - Condition 1:

$$\begin{aligned} \omega^* &> \underline{\omega} \\ 2\omega_i - 2c - \overline{\omega} &> \underline{\omega} \\ 2\omega_i - \overline{\omega} - \underline{\omega} &> 2c \\ \frac{2\omega_i - \overline{\omega} - \underline{\omega}}{2} &> c \\ \omega_i - \frac{\overline{\omega} + \underline{\omega}}{2} &> c \end{aligned}$$

- Condition 2:

$$\begin{aligned} \omega^* &< \overline{\omega} \\ 2\omega_i - 2c - \overline{\omega} &< \overline{\omega} \\ 2\omega_i - 2\overline{\omega} &< 2c \\ \omega_i - \overline{\omega} &< c \end{aligned}$$

- Condition 3:

$$\begin{aligned} e^* &> 0 \\ b(2\omega_i - 2c - \overline{\omega}) &> 0 \\ 2\omega_i - 2c - \overline{\omega} &> 0 \\ 2\omega_i - \overline{\omega} &> 2c \\ \frac{2\omega_i - \overline{\omega}}{2} &> c \\ \omega_i - \frac{\overline{\omega}}{2} &> c \end{aligned}$$

- The only binding constraint is:

$$c < \omega_i - \frac{\overline{\omega} + \underline{\omega}}{2}$$

  - Intuition: If the cost of giving an unfavorable recommendation is too large, the merit commission will never be willing to give an unfavorable recommendation, even to low-competence judges.

- To confirm this solution, we can check for profitable deviations by the judge. A type $\omega < \omega^*$ that plays $\underline{e}^* = 0$ in equilibrium will never deviate to any $0 < e' < \overline{e}^*$ because their utility would be strictly decreasing. The cost of effort would be increasing and they would still not receive b. A type $\omega \geq \omega^*$ that plays $\overline{e}^*$ would never deviate to any $e' > \overline{e}^*$, because their utility would be strictly decreasing. They already receive b and the cost of effort would be increasing. If a type $\omega \geq \omega^*$ did deviate from $\overline{e}^*$, it would be to $e' = 0$, the minimum value of e, as their utility is strictly decreasing in e.
- Thus, the only deviations that we have to prevent are a type $\omega < \omega^*$ deviating from $\underline{e}^* = 0$ to $\overline{e}^*$ and a type $\omega \geq \omega^*$ deviating from $\overline{e}^*$ to $\underline{e}^* = 0$. The equilibrium solutions for the cut-points prevent these deviations.

- First, we can check whether a type $\omega^* + \epsilon > \omega^*$, who plays $\overline{e}^*$ in equilibrium, has an incentive to deviate to $\underline{e}^*$:

$$u_{\omega^*+\epsilon}(\overline{e}^*) \geq u_{\omega^*+\epsilon}(\underline{e}^*)$$

$$b - \frac{\overline{e}^*}{\omega^* + \epsilon} \geq 0$$

$$b \geq \frac{\overline{e}^*}{\omega^* + \epsilon}$$

$$b(\omega^* + \epsilon) \geq \overline{e}^*$$

$$b(2\omega_i - 2c - \overline{\omega} + \epsilon) \geq b(2\omega_i - 2c - \overline{\omega})$$

$$b\epsilon \geq 0$$

- This inequality is true by assumption, so there is no profitable deviation.
- Second, we can check whether a type $\omega^* - \epsilon < \omega^*$, who plays $\underline{e}^*$ in equilibrium, has an incentive to deviate to $\overline{e}^*$:

$$u_{\omega^*-\epsilon}(\underline{e}^*) \geq u_{\omega^*-\epsilon}(\overline{e}^*)$$

$$0 \geq b - \frac{\overline{e}^*}{\omega^* - \epsilon}$$

$$\frac{\overline{e}^*}{\omega^* - \epsilon} \geq b$$

$$\overline{e}^* \geq b(\omega^* - \epsilon)$$

$$b(2\omega_i - 2c - \overline{\omega}) \geq b(2\omega_i - 2c - \overline{\omega} - \epsilon)$$

$$0 \geq -b\epsilon$$

$$b\epsilon \geq 0$$

- This inequality is true by assumption, so there is no profitable deviation.

- Step 4: Are the conditions that support the sequential rationality of the on-path actions of the merit commission compatible with the equilibrium cut-points on the type of the judge, ω^*, and on the level of effort chosen by the judge, e^*?
  - Condition 1:

$$c \geq \frac{2\omega_i - \omega^* - \overline{\omega}}{2}$$

$$2c \geq 2\omega_i - \omega^* - \overline{\omega}$$

$$2c \geq 2\omega_i - (2\omega_i - 2c - \overline{\omega}) - \overline{\omega}$$

$$2c \geq 2\omega_i - 2\omega_i + 2c + \overline{\omega} - \overline{\omega}$$

$$0 \geq 0$$

  - Condition 2:

$$c \leq \frac{2\omega_i - \omega^* - \underline{\omega}}{2}$$

$$2c \leq 2\omega_i - \omega^* - \underline{\omega}$$

$$2c \leq 2\omega_i - (2\omega_i - 2c - \overline{\omega}) - \underline{\omega}$$

$$2c \leq 2\omega_i - 2\omega_i + 2c + \overline{\omega} - \underline{\omega}$$

$$0 \leq \overline{\omega} - \underline{\omega}$$

$$\underline{\omega} \leq \overline{\omega}$$

  - The equilibrium solutions for ω^* and e^* are always compatible with the conditions that support the sequential rationality of the on-path actions for the merit commission by assumption.

- **Proposition 1:** There exists a unique semi-separating perfect Bayesian equilibrium (PBE) with two on-path signals of the form $\left\{\sigma_{J|\omega}(\sigma_C), \sigma_C(\sigma_{J|\omega}), \mu_C(\omega \mid e)\right\}$, where $\sigma_{J|\omega}(\sigma_C)$ is the strategy profile of the judge, $\sigma_C(\sigma_{J|\omega})$ is the strategy profile of the merit commission, and $\mu_C(\omega \mid x)$ are the beliefs of the merit commission. The strategies and

beliefs of the players in equilibrium are as follows:

$$\sigma_{J|\omega}(\sigma_C) = \begin{cases} e = \overline{e}^* & \text{if } \omega \geq \omega^* \\ e = \underline{e}^* & \text{if } \omega < \omega^* \end{cases}$$

$$\sigma_C(\sigma_{J|\omega}) = \begin{cases} r = F & \text{if } e \geq \overline{e}^* \\ r = U & \text{if } e < \underline{e}^* \end{cases}$$

$$\mu_C(\omega \mid e) = \begin{cases} \omega \sim \mathcal{U}(\omega^*, \overline{\omega}) & \text{if } e = \overline{e}^* \\ \omega \sim \mathcal{U}(\underline{\omega}, \omega^*) & \text{if } e = \underline{e}^*, \\ \omega \sim \mathcal{U}(\underline{\omega}', \overline{\omega}') & \text{if } \underline{e}^* < e' < \overline{e}^*, \\ \omega \sim \mathcal{U}(\underline{\omega}'', \overline{\omega}'') & \text{if } e'' > \overline{e}^*, \end{cases}$$

where

$$\begin{aligned} \underline{e}^* &= 0 \\ \overline{e}^* &= b(2\omega_i - 2c - \overline{\omega}) \\ \omega^* &= \frac{\overline{e}^*}{b} = 2\omega_i - 2c - \overline{\omega}. \end{aligned}$$

This equilibrium exists if and only if:

$$\begin{aligned} c &< \omega_i - \frac{\overline{\omega} + \underline{\omega}}{2} \\ \underline{\omega}'' + \overline{\omega}'' &> \underline{\omega}' + \overline{\omega}'. \end{aligned}$$

Comparative statics

- **Result 1:** In equilibrium, the effort expended by the judge to satisfy the criteria of the merit commission, $\overline{e}^*$, is increasing in the benefit to the judge of being reappointed. As b increases, $\overline{e}^*$ increases.

  - Proof:

$$\frac{\partial \overline{e}^*}{\partial b} = \frac{\partial}{\partial b} b(2\omega_i - 2c - \overline{\omega})$$

$$\frac{\partial \overline{e}^*}{\partial b} = 2\omega_i - 2c - \overline{\omega}$$

$$\frac{\partial \overline{e}^*}{\partial b} > 0$$

- Note: We know that $2\omega_i - 2c - \overline{\omega} > 0$ because this is the value of $\omega^* > 0$.

- **Result 2:** In equilibrium, the effort expended by the judge to satisfy the criteria of the merit commission, $\overline{e}^*$, is increasing in the minimum standard of competence demanded by the merit commission, ω_i. As ω_i increases, $\overline{e}^*$ increases.

  - Proof:

$$\frac{\partial \overline{e}^*}{\partial \omega_i} = \frac{\partial}{\partial \omega_i} b(2\omega_i - 2c - \overline{\omega})$$

$$\frac{\partial \overline{e}^*}{\partial \omega_i} = 2b$$

$$\frac{\partial \overline{e}^*}{\partial \omega_i} > 0$$

- **Result 3:** In equilibrium, the effort expended by the judge to satisfy the criteria of the merit commission, $\overline{e}^*$, is decreasing in the cost of giving an unfavorable recommendation, c. As c increases, $\overline{e}^*$ decreases.

  - Proof:

$$\frac{\partial \overline{e}^*}{\partial c} = \frac{\partial}{\partial c} b(2\omega_i - 2c - \overline{\omega})$$

$$\frac{\partial \overline{e}^*}{\partial c} = -2b$$

$$\frac{\partial \overline{e}^*}{\partial c} < 0$$

- **Result 4:** In equilibrium, the effort expended by the judge to satisfy the criteria of the merit commission, $\overline{e}^*$, is decreasing in the upper bound of the distribution of the judge's type, $\overline{\omega}$. Increasing $\overline{\omega}$ increases the expected competence of the judge. As $\overline{\omega}$ increases, $\overline{e}^*$ decreases.

- Proof:

$$\frac{\partial \overline{e}^*}{\partial \overline{\omega}} = \frac{\partial}{\partial \omega_i} b(2\omega_i - 2c - \overline{\omega})$$

$$\frac{\partial \overline{e}^*}{\partial \overline{\omega}} = -b$$

$$\frac{\partial \overline{e}^*}{\partial \overline{\omega}} < 0$$