Labor Courts, Nomination Bias, and Unemployment in Germany

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Abstract

Labor courts play an important role in determining the actual level of labor market regulation, in particular employment protection, in Germany. Based on a simple theoretical model and a new panel data, we identify a nomination bias in labor court activity – that is, law production varies systematically with the political color of the appointing government. In an extension, we find a significant positive relation between labor court activity and unemployment. The results have potentially important policy implications. From a normative perspective, a more independent nomination process better shielding the judiciary from politization could have advantages. Focusing on the labor market, the results suggest that to restrict the leeway of labor courts in interpreting existing law as a way of influencing employment protection and, thus, the level of German unemployment.

Keywords: Courts, labor courts, law production, nomination bias, unemployment, regulation, firing costs, Germany.

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1 Introduction

The law production of German labor courts is interesting from a number of perspectives. From a normative point of view, most people would probably agree on the principle that the application of law should be independent

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from the specific judge or the appointing authority. The question of a possible nomination (or ideological) bias in the appointment process of judges – that is, a preference for nominating judges with political leanings close to the incumbent government – seems to be most relevant in court or case-law-based legal systems, a point underscored by the reoccurring battle over Supreme Court nominations in the United States. However, the issue is also of considerable importance in German labor law. Labor law is the one domain in the German legal system where the interplay of lower-level and higher-level courts is more or less unrestrained by lawmakers. As a consequence, they enjoy (at least by German standards) an unusually high degree of independence in setting and implementing labor law and standards, leading to some degree of unpredictability even for legal experts (Sachverständigenrat (2003)).

In addition, the notoriously high unemployment rate makes German labor court activity an object of interest to economists. The OECD (2004b) identifies labor courts as an important factor in the implementation of labor market regulation aimed at employment protection – an area that many economist hold at least partially responsible for weak employment growth in Germany and elsewhere in Europe. The literature also suggests that court activity may matter even if only some cases are actually heard simply because of the possibility of employees appealing to labor courts (OECD (2004b)).

As to the German case, there is some evidence that labor courts may indeed play an important and not necessarily a positive role in the dismal performance of the German labor market since the 1970s. For instance, based mostly on anecdotal evidence, Soltwedel (1983) and Franz (1994) assert that a new generation of judges appointed to labor courts at all levels starting in the late 1960s moved systematically to increase employment protection, making it significantly more difficult for firms to dismiss workers. This, in turn, sharply raised firing costs, with negative repercussions for employment. This view has received some support from a macro perspective.

We extend the existing literature in a number of directions. First, we develop a simple model describing the behavior of employees and firms before and during labor court procedures at the lower and the higher level, yielding

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1 As we will argue below, unpredictability may not be at the core of the problem – quite to the contrary. For instance, the Kündigungsschutzgesetz of 1951, the German Protection Against Dismissal Law relevant for the majority of cases brought in front of labor courts, places only little restrictions on court behavior. In principle, courts ask on a case-by-case basis whether dismissals were the “ultima ratio”, based on an “important” reason or “socially justified”, with the burden-of-proof placed on employers. With the most of these tests and terms a matter of interpretation, it is mostly the labor courts that determine the actual size of firing costs (see Richardi and Wlotzke (1992)).

2 See, inter alia, (Young (2003), OECD (2004a), OECD (2004b), and Berger and Danning (2006)).
a number of hypotheses that can be used to identify the repercussions of a nomination bias in court activity.

The model’s key mechanism is the way nomination bias interferes with the trade-offs faced by workers and firms along the different stages of the legal process. For instance, at stage one, before allowing a case to go to the lower-level court, both sides will compare a safe payoff such as a pre-court settlement with the uncertain outcome of the legal procedure. Assume that there is nomination bias at the higher labor court level. Then a change in the direction of the bias, that is, a change in the nomination-induced ideological leanings of upper-level labor courts (because an increase in the share of judges at higher-level labor courts biased in a certain direction, for instance), will influence the expected value of that uncertain outcome. As a consequence, we should observe a significant impact of the direction of the nomination bias on the number of cases filed at the lower-level labor court — a testable hypothesis. Note that the sign of the effect is an empirical question because a more or less worker-friendly upper-level court will be good news only for one of the parties involved and bad news for the other. Working through the same channel, changes in the direction of nomination bias will, in addition, influence the willingness of workers and firms to accept a lower-level court settlement (stage two), the share of lower-level court decisions that is appealed (stage three), and the willingness of firms and workers to settle their case at the higher-level court (stage four).

To take these hypotheses to the data, we construct a new panel data set including information on law production, higher-level labor courts characteristics, the ideology of the state (or Länder) governments nominating higher-level court judges, and relevant economic data for the German states starting in the 1970s (for the West German states) until 2004. The empirical analysis uses modern panel techniques, applying a robust modeling approach that controls for both time and state fixed effects based on a feasible generalized least square (FGLS) estimator.

A number of interesting results stand out. First, demand matters. We find that, perhaps not surprisingly, claims at lower-level German labor courts (Arbeitsgerichte, ArbG) are driven to a large extent by geographical, structural, and economic variables that can be linked to the demand for contract protection by employees. Second, however, the production of German labor courts is not driven by demand factors alone. Among the supply-side factors are personal and professional characteristics of the judges and, somewhat surprisingly, a measure of nomination bias. In particular, we find that nomination bias is much more likely to be present at upper-level than at lower-level labor courts.
the political “color” of the appointing state government affects law production at higher level labor courts (Landesarbeitsgerichte, LArbG), with some repercussions at the lower level of the judiciary. Third, the empirical results suggest that employers and employees act rationally along the lines suggested by the theoretical model. In particular, we find that the nomination bias of higher-level labor courts affects the ratios of verdicts to appellations and verdicts to overall processed claims at the lower court level and the ratio of verdicts to settlements at higher court level.

Last not least, there is some evidence that labor court activity is among the determinants of unemployment in Germany. Using the ideological “color” of higher-level labor courts as an (econometric) instrument to estimate the role of labor courts on labor market performance, we find a significant relation between higher labor court activity and German unemployment across states and time.

The policy implications of the above are at least twofold. To the degree that evidence of nomination bias in German labor court activity might be disturbing from a normative perspective, an argument can be made for changes in the nomination process. On a more applied level, our results suggest that labor court activity, being an important part of labor market regulation, deserves the attention of policy makers interested in influencing employment conditions in Germany – in other words, indicators of employment protection mostly based on readings of the law as popularized by the OECD in recent years may only give a very insufficient picture of the actual level of regulation pertinent to the German labor market. Taking the nomination process as given, this suggest that placing restrictions on the leeway of labor courts in interpreting and determining existing law may have advantages.4

2 Related Literature

Our paper is linked to different strands of literature. A first group of papers looks at the role labor courts play in different countries. For instance, Autor (2003), Autor et al. (2004a), and Autor et al. (2004b) show that labor court decision-making affects firing costs and employment across the United States. Ichino et al. (2003) indicate that Italian labor courts may vary their stance regarding what is considered employee misconduct with the state of the labor market, with possible repercussions for unemployment itself. Bertola et al. (1999) point to evidence for other OECD countries with a similar message. Focusing on German labor courts, but taking a somewhat more macroeco-

4Restricting the role of labor courts is also at the core of the proposal by Blanchard and Tirole (2003) of how employment protection should be reformed.
omic perspective, Berger (1998) reports a small negative impact of aggregated lower-level labor court activity on real GDP growth in an endogenous growth model. And Berger and Danninger (2006) estimate a Vector Error Correction model suggesting that an increase in lower-level labor court activity has a positive and surprisingly persistent impact on the unemployment rate, even after controlling for the endogeneity of the latter with regard to real activity.

Our own contribution will add to this discussion by taking a closer look at the law production of German labor courts from a micro perspective. This area has received some, albeit scattered, attention in the literature so far. Schneider (2002) produces regression models for the law production of higher-level labor courts between 1980 and 1996, showing that production varies systematically with the age of judges, which could be hinting at a link between productivity and individual career motives. Moreover, the lagged entry into the pool of unemployed increases law production significantly suggesting a role for demand factors. Frick and Schneider (1999) show that the number of dismissal conflicts at German labor courts at the lower level in the years 1964 to 1996 is affected by regional labor market conditions. Finally, Goerke and Pannenberg (2005) show, based on German survey (GSOEP) data, that the number of dismissal conflicts and their resolution are systematically influenced by employment protection legislation (which labor courts implement) and the tax-treatment of severance payments.

3 Recruitment of Judges

The presence of ideologically biased court or judges requires a non-random process through which judges are appointed – a condition that seems to be fulfilled in the German case for higher courts, including higher-level labor courts (i.e., LArbGs), where the nomination process is dominated by elected officials. In what follows, we will give a brief description of the nomination process for higher-level labor courts and argue that, for various reasons, lower-level labor courts are less likely to be subject to nomination bias.

Higher-level labor courts are organized at the state (Länder) level, with the states’ governments, often represented by the Minister of Justice, being the principle authorities charged with appointing judges.\(^5\) There is some

\(^5\)Teubner (1984) provides a survey of the appointment procedures for the West German states until the beginning of the 1980s. Further information including the appointment procedures in the Neue Länder can be found in the states’ constitutional laws (Länderverfassungen) as well as in the states’ laws that regulate the system of judges (Richtergesetze).
limited variation across states with respect to whether selection committees (Richterauswahlschüsse) or judge representatives (Präsidialräte) have a say. In some states like Bayern, Nord-Rhein Westfalen, Niedersachsen or Mecklenburg-Vorpommern, it is the executive power alone which appoints the judges. In other states, the selection committee votes on an applicant’s appointment or rejection (e.g., in Berlin and Schleswig-Holstein). In yet other cases, the selection committee jointly decides with the state government on the appointment – for instance, in Bremen, Hamburg, Hessen, and Brandenburg. Where the executive power and the judge representatives cannot agree on an applicant, one also finds arbitration committees, like in Baden-Württemberg, Rheinland-Pfalz, and Saarland. But there is room for ideological interests playing a role even when the executive power does have to share the power to appoint judges. Members of the selection committee (where such an institution is installed) are, with some degree of variation, judges, representatives of interest groups, lawyers, and members of the states’ parliaments. Parliamentary selection committee members are elected by the state parliament itself, all but guaranteeing that the currently governing party is represented in the committee. Moreover, with the exception of Rheinland-Pfalz, parliamentary members constitute the relatively largest group in the selection committee followed by the representatives of the judges.

Thus, it would seem that the process of appointing higher-level court judges has at least the potential to be strongly political in nature and, as a consequence, may give rise to a nomination bias. More specifically, one may plausibly hypothesize that, as a result of this process, the appointed higher-level labor court judges are likely to resemble the political colors of the ruling or dominating government party at the time of the appointment. This is an empirically testable hypothesis, and the following section will use a theoretical model to explore its implications more fully.

There are a number of reason to believe that ideological bias is mostly restricted to higher-level labor courts. First, lower-level labor courts (i.e., ArbGs), while handling the brunt of labor court law production overall, are mostly concerned with the implementation of case-based labor law, developed by higher-level courts at the state level and, in particular, the supreme labor court at the Federal level. This should render lower-level labor courts

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6The variation is limited in the sense that, in principle, there is reason to believe that there is room for political influence in all cases. As to possible differences in detail, in the empirical section we will pick up any cross-section variation of this type using fixed effect methods.

7In interviews, practitioners characterized lower-level labor courts as being staffed by predominantly young, first-time judges, hired more or less straight from university. One
less interesting than higher-level courts from a political perspective. Second, there are important theoretical reasons pointing in the same direction. When selecting candidates for entry level positions in the judiciary – which will, as a rule, mean at the lower-level courts – there is, as a rule, little or no information on the political stance of the candidates. This changes, however, over the course of a career, as judges interpret law on the job, potentially revealing information on their ideological leanings (see, inter alia, Levy (2005)). Once relevant information on the characteristics of judges is available, a politically charged appointment process for upper-level court positions is likely to take it into account. This view is supported by recent evidence that policymakers have an interest in an (from their perspective) ‘optimal’ level of judicial independence in order to bind follow-up policymakers’ freedom to choose by appointing life-time judges (Hanssen (2004)).

4 The Model

Setup

We model the decision process of workers and firms in the tradition of an economic analysis of legal disputes (see e.g. Cooter and Rubinfeld (1989)). The extensive form game of the model that we have in mind is given in Figure 1.

To simplify, assume that all relevant aspects of a labor court dispute can be captured by an (one-dimensional) indicator in the range $[-a, a]$, where $a$ is a positive number. At the beginning nature randomly draws a case $\tilde{x}$ from an interval $[-a, a]$ with probability $g(\tilde{x}) = \frac{1}{2a}$. Those cases shall be dichotomous in the sense, that a verdict is either good or bad for the parties involved. That is, a case decided in favor of the worker will yield positive utility for the worker but negative utility for the firm and vice versa.

Workers and firms confronted with a case $\tilde{x}$ know that judges are heterogenous with respect to their personal perception of how the issue should be handled. While we assume that workers and firms do not know the type of a single judge, they shall be aware of the distribution of types. Types shall exist on the interval $[-a, a]$ with density

$$f(x) = \frac{1}{2a} + \theta x$$

(1)

where $-1/2a^2 \leq \theta \leq 1/2a^2$. Suppose, a worker and a firm would be confronted with a case $\tilde{x} = 0$, then the worker would expect that all types of expert saw the role of the lower-level courts mostly as a “filter” to reduce the caseload.
judges in the interval $[-a, 0]$ would be in favor of his case, whereas the firm would expect all judges of types $[0, a]$ supporting its case. Thus, the probability that a case $\tilde{x}$ will be judged in favor of a worker follows by integration of eq. (1) as

$$F(\tilde{x}) = \frac{1}{2a} \tilde{x} + \frac{1}{2} + \frac{1}{2} \theta (\tilde{x}^2 - a^2).$$

We will use the parameter $\theta$ to model ideologically biased judges with $\theta = 0$ referring to the unbiased case, that is, the case of no nomination bias. If nomination bias exist, it can take two directions: positive values of $\theta$ lower a worker’s probability of winning a given case $\tilde{x}$. Negative values of $\theta$ introduce a bias against the firm.
Figure 1: Worker and Firm Decisions on the Way to Higher-Level Labor Courts
After nature determines the characteristics of the case, workers and firms decide whether to file a claim (see Figure 1). Let us focus on the decisions of the worker first.

**Worker’s Decision**

A worker considering to fight a dismissal in front of a lower-level court faces a trade-off between a certain and an uncertain outcome (stage #1). By assumption, deciding not to file a claim, the worker enjoys a known payoff of $R_W$, including any income from alternative work possibilities or unemployment benefits and any pre-court settlement that may be offered by the firm. Now, suppose that the worker files a claim. Pursuing a filed claim until a settlement or verdict is reached entails costs (see below), as well as an uncertain payoff that depends, among other things, on the possible existence and direction of nomination bias at the higher-level court. A rational and risk-neutral worker will enter the legal process only if the expected net-benefits from filing the claim exceed the benefits from forgoing legal action.

Note that the nomination bias plays a role at stage #1 even though, following our discussion of the appointment process in Section 2, there is no such bias at lower-level labor courts. The reason is simply that the possibility of an appeal to the higher-level court, where a nomination bias may exist, is part of the decision to forgo a settlement and to seek a ruling by the lower-level court. Even though it is far from assured that a particular case will actually reach the higher court level (not least because the outcome is endogenously determined in the model), there is a certain probability that it will. As a consequence, the nomination induced ideological leanings of the higher-level labor court will influence the worker’s expected welfare already at stage #1.

As to costs, we assume that the costs of bringing a case before lower-level courts are revealed only after the claim has been filed. Ex ante, the worker only knows that those costs can either be high $c_{W, ArbG}^h$ or low $c_{W, ArbG}^l$, where the subscript $W$ denotes the worker and the superscripts stand for high and low costs at the lower-level labor court (ArbG). Costs will be high with probability $q_{W, ArbG}$ and low with probability $1 - q_{W, ArbG}$. Once the claim is filed to the lower-level labor court, the worker learns about the magnitude of those costs. Behind this assumption is the fact that the cost of bringing a labor contract to court entails both transaction and opportunity costs – with the latter playing a dominant role in the German case. Court and attorney fees are often low and covered by insurance or provided for by trade unions for their members. What seems to be more relevant are opportunity costs to the worker and the firm. Depending on the issue it may take considerable
time until a verdict is reached, which would reduce workers’ opportunity to search for another job or engage in other activities. The exact amount of time, however, will, as a rule, be hard to gauge ex ante. At court both parties and the judge(s) meet in order to discuss the case first. During this process (Güteverhandlung) both the plaintiff and the defendant learn more about the legal situation, and it is only then that (most of) the uncertainty surrounding the opportunity cost is resolved.

What are the trade-offs faced by the worker when considering a settlement at stage #2? Should the worker and the firm reach a settlement at the lower-level labor court – avoiding a formal court decision – the worker receives certain benefits consisting of the in-court settlement value and the saved opportunity costs $S_{W}^{ArbG} + c_{W}^{ArbG}$. If, on the other hand, the case is decided by court verdict, the worker wins with probability $F(\theta = 0, \bar{x})$ receiving a payoff $H_{W}^{arb}$, and loses with probability $1 - F(\theta = 0, \bar{x})$ receiving a payoff still to be determined. For notational convenience we write $F(\bar{x}) \equiv F(\theta = 0, \bar{x})$. Similar to stage #1, a rational and risk-neutral worker will prefer the uncertain payoff of pursuing a court decision, including a possible continuation in front of the (possibly biased) higher-level court, if the expected net-benefits exceed the certain settlement value plus saved opportunity costs.

Following the same principles, at stage #3 the worker decides whether to accept a lower-level ruling or continue the legal process by filing an appeal to the higher-level labor court. Should the worker be content with the lower-level verdict, there is an associated fixed payoff $U_{W}^{arbG}$. If the worker appeals, however, there are again opportunity costs to consider, which can be either high ($c_{W}^{h, ArbG}$) or low ($c_{W}^{h, ArbG}$) with probabilities $q_{W}^{LarbG}$ and $1 - q_{W}^{LarbG}$, respectively. Similar to stage #1, the net-benefits of relying on court action will be uncertain and depend on the course of events before the court. And, as before (albeit more directly), the possible existence and direction of a nomination bias at the higher-level court will influence the outcome.

Finally, at the higher-level labor court, the worker learns about the expected costs involved and decides whether to agree to a settlement or seek a court ruling (stage #4). In case of a settlement, the worker receives a known payoff $S_{W}^{LarbG}$ and avoids opportunity costs $c_{W}^{LarbG}$. If the claim is pursued, the outcome of the verdict might be either positive from the worker’s perspective, with probability $F(\bar{x})$ paying $H_{W}^{LarbG}$, or less favorable with payoff $U_{W}^{LarbG}$ and probability $1 - F(\bar{x})$. As before, the worker’s decision will depend on the relative size of the expected net-benefit of leaving the decision to the court, which might be subject to nomination bias, and the certain payoff associated with the alternative.

Summing up, the existence and direction of a higher-level labor court nomination bias, while directly effective only late in the legal process, in-
fluences all stages of the worker’s decision-making. Whenever during the process the worker considers the trade-offs involved in going forward with the legal claim, the expected benefits of this action will, in part, be shaped by the eventual involvement of the higher-level court and any bias underlying it. As a consequence, an anticipated change, say, in the direction of the nomination bias in favor of firms will make workers less inclined to take their case to the court system in the first place, less likely to forgo settlements, and less prone to seek a lower- or higher-court decision.

**Firm’s Decision**

The firm takes action in step with the worker, and, by construction, the underlying mechanic is akin to the one discussed above. Let us consider stage #1 first. It is probably safe to assume that some direct worker-firm interaction precedes court procedures, even though empirically it is workers rather than firms that bring labor disputes to lower-level courts. In principle, a firm faces a choice of approaching the worker pre-court, solving the dispute, and discouraging the worker from filing (e.g., by continuing the work relationship or offering a pre-court settlement) or allowing the dispute to continue on front of the judges, with a possible continuation at a biased higher-level labor court. In other words, the firm’s decision problem at stage #1 of the model is very much akin to the trade-offs facing the worker. In particular, we assume that firms only learn about their actual opportunity costs \( c^h_{F, ArbG} \) and \( c^l_{F, ArbG} \) after the claim has been filed, but work with expected costs ex ante, based on the probabilities \( q^h_{F, ArbG} \) for a high- and \( 1 - q^h_{F, ArbG} \) for a low-cost outcome. Opportunity costs for the firm include, for instance, management resources bound by the legal proceedings. A profit-maximizing firm will opt for the course of action that promises the highest expected net-payoff, taking into account any ideological leaning it may encounter at later stages of the legal process. This also holds at stage #2, where the payoff of a settlement at the lower-level court for the firm is \( S^F_{ArbG} \) and \( H^F_{ArbG} \) for a positive verdict which occurs with probability \( 1 - F(\tilde{x}) \).

Once a lower-level court decision has been reached, the firm may appeal to the higher-level labor court (stage #3). If no appellation is made, the firm’s payoff is \( U^F_{ArbG} \). Should the firm appeal, it learns about the opportunity costs of pursuing the claim at the higher labor court. Finally, at stage #4, the firm will decide whether to accept a settlement in front of the higher-level court (LArbG) or risk a formal court decision. In case a settlement is reached, the firm receives the payoffs plus the saved opportunity costs \( S^L_{F, ArbG} + c^L_{F, ArbG} \). If no settlement is reached, however, and the firm accepts a verdict, it wins with probability \( (1 - F(\tilde{x})) \) and looses otherwise. The payoff in the former
case is $H_F^{LArbG}$ and in the latter case $U_F^{LArbG}$.

Throughout the stages of the decision process, a forward-looking firm will take into account the possible existence and direction of nomination bias at the higher-level labor court much in the same way as the worker. A crucial difference between the two actors is, however, that a given change in the direction of bias will be “good” news for only one. The question is, how this will affect the aggregate behavior of workers and firms and, ultimately, law production.

**Law Production and Nomination Bias**

To illustrate the consequences of nomination bias for the joined behavior of workers and firms, consider, for instance, stage #4, where firms and workers decide whether to settle the dispute or entrust the decision to the higher-level court. Focus, first, on the trade-off faced by the worker. Entrusting the decision to the judges is beneficial if the expected payoff from the verdict exceeds the payoffs from a settlement, namely

$$F(\tilde{x})H_W^{LArbG} + (1 - F(\tilde{x}))U_W^{LArbG} > S_W^{LArbG} + c_i^{i,LArbG}$$

with $i = h, l$.

The left panel of Figure 2 depicts the worker’s decision problem. The vertical axis indicates the payoffs of the worker over all possible cases $\tilde{x}$ in the interval $[-a, a]$ with $a > 0$. The (solid) flat line is the payoff from reaching a settlement. The expected payoff increases in $\tilde{x}$ because, by construction, the
probability of the court leaning toward the worker (i.e., \( F(\bar{x}) \)) increases the closer the (randomly drawn) case characteristics are to the upper boundary of the interval \([-a, a]\). The particular shape or slope of the payoff function, however, depends on the existence of a nomination bias. Two scenarios are drawn, one without bias, that is a case in which judges are not ideologically biased, with \( \theta = 0 \) (solid upward-sloped line) and another where judges are ideologically biased in favor of the firm, using the convenient example \( \theta = 1/2a^2 \) (dotted upward-sloped line). The case \( x^* \) which makes the worker indifferent between pushing for a verdict or reaching a settlement moves towards the right as the judge favors firms more. As we assumed that cases \( \bar{x} \) are equally distributed on \([-a, a]\) according to density \( g(\bar{x}) \), applying the law of larger numbers implies that fewer cases will occur in which the expected payoff of workers from a verdict is larger than the payoff from a settlement. As a consequence, the worker’s reaction can be expected to influence the settlements to overall cases ratio at higher-level courts upward.

The firm’s decision problem at stage #4 is illustrated in the right panel of Figure 2. Again we distinguish two scenarios, one in which judges are not subject to nomination bias (\( \theta = 0 \)) and one where the higher-level court favors the firm (\( \theta = 1/2a^2 \)). The partial effect of a change in the direction of the nomination bias has the opposite sign on payoffs now. Again, applying the density function \( g(\bar{x}) \), we find less firms pushing for settlements. Hence, aggregating the marginal effects of ideology over the workers and the firms yields an ambiguous sign. But a sufficient condition for a change in the direction of the nomination bias to shift the ratio of settlements to overall cases at higher-level courts is a non-zero effect in the aggregate – which can be measured empirically.\(^8\)

Proceeding recursively through the model, the trade-offs faced by workers and firms at the preceding stages are essentially repetitions of the arguments laid out above. In all three cases, a change in the direction of the nomination bias affects the expected payoffs of the uncertain alternative – the results of the claim to a lower-level court at stage #1, the results of the lower-level court verdict at stage #2, and the outcome of an appeal to the higher-level court at stage #3 – with the potential to change the respective decisions of the worker and firm. As at stage #4, the impact on both agents will differ in sign, and a non-zero net effect being indicative of the presence of nomination

\(^8\)Clearly, should we have payoffs and costs such that \( U_{WLArbG}^{LArbG} > S_{WLArbG}^{LArbG} + c_{WLArbG} \) no marginal effect would be observed with respect to the decision of workers, with \( U_{FLArbG}^{LArbG} > S_{FLArbG}^{LArbG} + c_{FLArbG} \) no marginal effect of ideology would be observed on the decision of the firms. Thus, the empirical test also falsifies the hypothesis that the lowest payoff under uncertainty is lower than payoff under certainty. Similar conditions hold for the other decision-making stages of the model (see Appendix).
(or ideological) bias. A more detailed discussion of the marginal effects at stages #1, #2, and #3 can be found in Appendix 1.

**Implications**

How does the model help us to identify the presence of potential nomination bias in court activity? When we confront our model with the data we will not be able to disentangle the workers’ from the firms’ decisions. There is only information on the aggregate behavior of the two groups. However, the outcome will aggregate the marginal effects of an exogenous change in court preferences including changes in the way higher-level courts evaluate the characteristics of cases brought in front of them.

As discussed above, it can be shown that introducing nomination bias at the higher court level – that is, allowing $\theta$ in eq. (1) to deviate from zero and distorting workers’ and firms’ probability to win a case – has a number of quantitative and structural implications for the law production of both lower- and higher-level labor courts. The following proposition summarizes these hypotheses.

**Proposition:** In the presence of nomination bias at higher-level labor courts, a change in its direction will distort workers’ and firms’ probability of winning a case. As a consequence, we will observe a change in the

- share of higher-level labor court settlements to overall higher-level cases at stage #4 ($\equiv H4$)
- share of lower-level labor court verdicts that is appealed at stage #3 ($\equiv H3$)
- share of lower-level labor court settlements to overall lower-level cases at stage #2 ($\equiv H2$)
- number of claims filed at lower-level labor court at stage #1 ($\equiv H1$).

As noteded earlier, the model is open with regard to the sign of the aggregate effect of a change in higher-level court bias. If nomination bias is indeed present, a change in its direction (for instance, because of a change in the share of judges biased in a certain direction) will affect workers’ and firms’ decisions in opposite directions. As a consequence, the net effect can be either positive or negative depending on the relative strength of the reaction of workers and firms. The null hypothesis would be the absence of a nomination bias, which is equivalent to the absence of a significant effect of any measure
of the direction of nomination bias on labor court activity as discussed in the proposition.9

5 Empirical Results

5.1 The Data

In taking the theoretical results to the data, we rely on four principle sources. First, we use information on law production at lower-level and higher-level labor courts provided by the Bundesministerium für Wirtschaft und Arbeit. The data includes information on the number of actual decisions and the structure of these decisions, that is, a breakdown into decision by verdict, settlement, and appeals, at lower-level labor courts (ArbG) and higher-level labor courts (LArbG) by Land (state) and year. A second type of data stems from a bi-annual publication by the German Association of Judges (Richterbund), providing details on personal characteristics of higher-level labor court judges, in particular the date of their nomination to the court, age, sex, and academic degree by state and year. Third, we collected information on state governments — more precisely, the party affiliation of the prime minister in a given year across states. Combining the year of nomination to a higher-level labor court with the political color of the relevant governing prime minister allows us to identify the possible political nomination bias of a nominated judge. Finally, we collect a number of structural and economic variables, some time-variant some constant over time, including state size, population, real GDP growth, from the federal and state statistical offices and other sources. Details regarding all data used in the empirical section are available in Appendix 2. Table 1 provides summary statistics and short descriptions of key variables.

Figures 3 and 4 illustrate that there is ample variance, across states and time, in our indicators of law production as well as in bias, our measure of nomination bias. The law production variables are constructed to allow testing the hypotheses introduced in the previous Section (see Table 1; we provide additional discussion below). The variable bias indicates the percentage share of judges in a given higher-level labor court that was nominated by a state government with a conservative (CDU or CSU) prime minister. If the nomination process does indeed bias the selection of judges to higher-level courts toward the governing party, we should expect bias to indicate the average conservative ideological leaning of the judges constituting the

9That holds true as long as we are ready to exclude, in general, the unlikely case were the marginal effects exactly cancel out.
Table 1: Summary Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Mean</th>
<th>Min</th>
<th>Max</th>
<th>Std.err.</th>
</tr>
</thead>
<tbody>
<tr>
<td>claims_arbg</td>
<td>Claims processed at lower-level courts</td>
<td>33,537</td>
<td>3,286</td>
<td>137,290</td>
<td>28,605</td>
</tr>
<tr>
<td>settle_arbg</td>
<td>Settlements at lower-level courts</td>
<td>13,442</td>
<td>1,130</td>
<td>73,075</td>
<td>12,562</td>
</tr>
<tr>
<td>settle_ratio_arbg</td>
<td>Ratio settlements lower-level courts/claims processed lower-level courts</td>
<td>0.41</td>
<td>0.15</td>
<td>0.60</td>
<td>0.08</td>
</tr>
<tr>
<td>verdicts_arbg</td>
<td>Verdicts at lower-level courts</td>
<td>2,911</td>
<td>281</td>
<td>12,168</td>
<td>12,562</td>
</tr>
<tr>
<td>appeals_larbg</td>
<td>Appeals to higher-level courts</td>
<td>1,441</td>
<td>129</td>
<td>6,661</td>
<td>1,246</td>
</tr>
<tr>
<td>appeals_ratio_larbg</td>
<td>Ratio appeals/verdicts at lower-level courts</td>
<td>0.51</td>
<td>0.23</td>
<td>0.89</td>
<td>0.10</td>
</tr>
<tr>
<td>settle_larbg</td>
<td>Settlements at higher-level courts</td>
<td>458</td>
<td>29</td>
<td>2,271</td>
<td>426</td>
</tr>
<tr>
<td>settle_ratio_larbg</td>
<td>Ratio settlements/appeals to higher-level courts</td>
<td>0.32</td>
<td>0.13</td>
<td>0.54</td>
<td>0.07</td>
</tr>
<tr>
<td>bias</td>
<td>Share of higher-level court judges nominated by conservative State governments</td>
<td>0.52</td>
<td>0</td>
<td>1</td>
<td>0.42</td>
</tr>
<tr>
<td>doc</td>
<td>Share of judges holding doctoral degree</td>
<td>0.32</td>
<td>0</td>
<td>0.8</td>
<td>0.19</td>
</tr>
<tr>
<td>age</td>
<td>Average age of judges</td>
<td>52.9</td>
<td>43.8</td>
<td>63.6</td>
<td>3.1</td>
</tr>
<tr>
<td>sex</td>
<td>Average share of female judges</td>
<td>0.12</td>
<td>0</td>
<td>0.5</td>
<td>0.12</td>
</tr>
<tr>
<td>area</td>
<td>Dummy; 1 if State area above average State size</td>
<td>22,593</td>
<td>404</td>
<td>70,549</td>
<td>20,181</td>
</tr>
<tr>
<td>pop</td>
<td>Population in 1,000</td>
<td>5,425</td>
<td>660</td>
<td>18,069</td>
<td>4,789</td>
</tr>
<tr>
<td>ur</td>
<td>Unemployment rate (unemployed/labor force)</td>
<td>0.087</td>
<td>0.004</td>
<td>0.241</td>
<td>0.055</td>
</tr>
<tr>
<td>gdp_real</td>
<td>Dummy; 1 if State real GDP above average State</td>
<td>114,731</td>
<td>13,502</td>
<td>445,836</td>
<td>108,105</td>
</tr>
<tr>
<td>growth</td>
<td>Real GDP growth</td>
<td>0.043</td>
<td>-0.036</td>
<td>0.258</td>
<td>0.045</td>
</tr>
<tr>
<td>industry</td>
<td>Industry share in total GDP</td>
<td>0.336</td>
<td>0.174</td>
<td>0.528</td>
<td>0.077</td>
</tr>
</tbody>
</table>
Figure 3: Indicators of Law Production and Nomination Bias (State Means – left panel for West and right panel for East states.)

Figure 4: Indicators of Law Production and Nomination Bias (Sample Means)
higher-level labor court. The results in what follows are quite robust with regard to alternative specifications, such as variants of the indicator that take into account the political color of the minister of justice or the prime minister of the nominating state government.\textsuperscript{10}

The data allow constructing an unbalanced panel, including 16 cross-sections (that is, states or Länder) with about 190 bi-annual observations for the 11 West German states, starting 1972 and ending 2004, and about 30 bi-annual observations for the 5 East German states, starting in 1994 and ending in 2004. Most of the results below are robust to excluding the East German states from the regressions.\textsuperscript{11}

Our econometric approach stresses robustness. With modified Wald statistics indicating the possible presence of heteroscedastic errors, and first-degree autocorrelation in the residuals in some instances, we opted for using a feasible least square estimator to provide robust standard errors.\textsuperscript{12} Moreover, all models include a comprehensive set of cross-section (state) and time fixed effects to capture any common period-specific factors and any time-invariant heterogeneity not picked up by other explanatory variables. Standard panel-based unit root tests indicate that the time series used in the econometric exercises are stationary; and the same holds for the residuals of the estimated models.\textsuperscript{13}

5.2 Regression Results

\textbf{H1: Claims at Lower-Level Labor Courts}

Hypothesis 1 (\textit{H1}) states that, in the presence of nomination bias, a change in the relative number of judges appointed by conservative governments to higher-level labor courts will distort workers’ and firms’ probability of winning a case. In the consequence, we should observe a change in (the log of) the overall number of claims annually processed at lower-level labor courts at stage \#1 (\textit{log(claims_arbg)}). Table 2 shows the results from a FGLS regression testing the hypothesis.

\textsuperscript{10}For the sake of clarity, we focus the presentation on the nomination bias indicator as defined – not least because it is probably the most direct way to test the underlying hypothesis.

\textsuperscript{11}Additional results available on request. Note that, mostly for reasons of GDP data reliability, we exclude East German states in the year 1994 from the overall sample.

\textsuperscript{12}We used the \textit{xtgls} package with options \textit{panels(heteroskedastic)} and \textit{corr(psar)} implemented in Stata 9.1, with the latter assuming a panel specific AR process in the errors.

\textsuperscript{13}Strictly speaking, we find that a majority of tests included in the EViews 5.1 package rejects non-stationarity at conventional levels. Results were particularly clear-cut for the residuals.
In addition to the bias variable, the estimated model includes a number of plausible controls capturing relevant demand-side determinants of labor court activity at the lower court level. We will explain these controls and discuss the underlying intuition before turning to the regression result.

The variables area and gdp_real are qualitative indicators of state size. The former takes the value of 1 for states larger than the average (and is 0 otherwise) and the latter takes the value of 1 for states with a real GDP level exceeding the state average (0 otherwise). Yet another indicator of size is \( \log(\text{pop}) \), the log of the state population in a given year. While there is no formal theory linking size and labor court activity, it is probably safe to speculate that the demand for court services is higher in highly urbanized, area-wise smaller states, including the so-called city states of Hamburg, Bremen, and Berlin, which would imply a negative sign on the area variable. On the other hand, we may expect economically larger states with larger populations to show more demand for labor court activity, implying a positive impact of the GDP- and population-based variables.

In addition to its relative level, also the change in state real GDP may affect labor court activity. To allow for delayed impact, we include both growth and growth_{-1} as indicators of the regional business cycle. We would expect real growth to be negatively related to labor court demand – although the inclusion of fixed time effects may render these variables less relevant. Subject to the same caveat, industry and industry_{-1} are (time-variant) indicators measuring the current and lagged share of the manufacturing sector in the economy. Because manufacturing is the area in the economy in which trade unions are strongest, and unions lend support to court claims by unionized workers, we would expect to see labor court activity to be higher in states and periods with a larger manufacturing sector.

Table 2 shows that, with the exception of growth and growth_{-1}, the set of control variables has a significant impact on lower-level court activity in line with the arguments introduced above. More importantly, however, the regression results are indicative of a highly significant negative effect of the bias variable on lower-level court production – that is, we cannot reject the hypothesis that there is a nomination bias influencing German labor court activity at the lower level. The negative sign suggests that an increase in the share of higher-level judges appointed by conservative state governments does, on average, impress workers more than firms. Remember that, based on the model elaborated in Section 4, a positive change in bias should lead to

\[\text{area}\] is a constant in all cases and \(\text{gdp\_real}\) changes only (from 0 to 1) for Lower Saxonia (Niedersachsen) and Hesse (Hessen) in the early 1980s.

\[\text{gdp\_real}\] changes only (from 0 to 1) for Lower Saxonia (Niedersachsen) and Hesse (Hessen) in the early 1980s.
Table 2: Claims At Lower-Level Labor Courts ($H1$)

<table>
<thead>
<tr>
<th>Dependent variable: $\log(\text{claims}_\text{arbg})$</th>
<th>coeff.</th>
<th>Std.err.</th>
</tr>
</thead>
<tbody>
<tr>
<td>$bias$</td>
<td>$-0.12$</td>
<td>$0.04^{***}$</td>
</tr>
<tr>
<td>$area$</td>
<td>$-1.02$</td>
<td>$0.19^{***}$</td>
</tr>
<tr>
<td>$\log(\text{pop})$</td>
<td>$1.48$</td>
<td>$0.11^{***}$</td>
</tr>
<tr>
<td>$\text{gdp}_\text{real}$</td>
<td>$0.08$</td>
<td>$0.04^{**}$</td>
</tr>
<tr>
<td>$\text{growth}$</td>
<td>$0.19$</td>
<td>$0.29$</td>
</tr>
<tr>
<td>$\text{growth}_{-1}$</td>
<td>$0.11$</td>
<td>$0.15$</td>
</tr>
<tr>
<td>$\text{industry}$</td>
<td>$0.55$</td>
<td>$0.65$</td>
</tr>
<tr>
<td>$\text{industry}_{-1}$</td>
<td>$1.54$</td>
<td>$0.62^{**}$</td>
</tr>
</tbody>
</table>

Time and state fixed effects | Yes

number of obs. | 199

Note: Estimated with feasible generalized least squares allowing for heteroscedasticity of errors across panels and AR(1) autocorrelation of errors within panels.

fewer claims by workers, but lead firms to take a firmer stance in pre-court negotiations or discussions, with the opposite effect on court claims filed. Evaluated at sample means, the elasticity of $\log(\text{claims}_\text{arbg})$ with regard to $bias$ is about $-0.06$, implying that a one percent increase in the number of judges appointed by a conservative state government reduces processed claims at lower-level courts by about 6 basis points. While low at first glance, it is important to remember that this reflects only the aggregate effect of a change in the nomination bias (see previous Section) – a plausible speculation is that the marginal impact of a change in bias on the decisions by workers as well as firms, while pointing in opposing directions, is larger.

$H2$: Share of Settlements At Lower-Level Labor Courts

Hypothesis 2, ($H2$) argues that, in the presence of nomination bias, a change in the relative number of higher-level judges nominated by conservative state governments will significantly affect the share of settlements in overall lower-level labor court cases at stage #2. Table 3 presents two alternative models testing the hypothesis. The first regression explains the ratio of settlements to overall decisions, $\text{settle} \_\text{ratio} \_\text{arbg}$, by the set of demand-side variables introduced in Table 2 as well as $bias$. We would expect these variables to influence the settlement ratio mostly through the denominator, not least be-
Table 3: Share of Settlements At Lower-Level Labor Courts ($H2$)

<table>
<thead>
<tr>
<th>Dependent variable: $\log(\text{settle}_{\text{ratio_arbg}})$</th>
<th>Dependent variable: $\log(\text{settle_arbg})$</th>
</tr>
</thead>
<tbody>
<tr>
<td>coef.</td>
<td>Std.err.</td>
</tr>
<tr>
<td>-------</td>
<td>----------</td>
</tr>
<tr>
<td>$\log(\text{claims_arbg})$</td>
<td>0.07</td>
</tr>
<tr>
<td>$\text{bias}$</td>
<td>0.52</td>
</tr>
<tr>
<td>$\text{area}$</td>
<td>-0.37</td>
</tr>
<tr>
<td>$\log(\text{pop})$</td>
<td>0.07</td>
</tr>
<tr>
<td>$\text{gdp_real}$</td>
<td>$\text{growth}$</td>
</tr>
<tr>
<td>$\text{industry}$</td>
<td>$\text{industry_lag}$</td>
</tr>
</tbody>
</table>

Time and state fixed effects | Yes | Yes |
number of obs. | 199 | 211 |

Note: Estimated with feasible generalized least squares allowing for heteroscedasticity of errors across panels and AR(1) autocorrelation of errors within panels.

cause the theoretical model suggests that, given a filed claim at the lower court level, the decision to accept a settlement is of a forward-looking nature oriented toward higher-level courts and mostly independent of variables conditioning the demand for labor court services at the lower level. Ultimately, however, this is an empirical question. As a robustness test, the second model explains the log of the level of settlements with the log of overall processed lower-level court decisions, $\text{claims\_arbg}$, as well as $\text{bias}$. Economically, the model is similar in nature to the first, with the exception that it avoids the reduced form (by using $\text{claims\_arbg}$ rather than its determinants) and does not restrict the coefficient for $\text{claims\_arbg}$ to unity.

Table 3 shows that a significant positive impact of $\text{bias}$ in both specifications. In the first model, the demand-side variables enter (mostly) with the opposite sign of Table 2, suggesting that their influence on the settlement ratio indeed rests mostly on the overall number of claims in the denominator. Not surprisingly, the number of settlements is positively correlated with the overall number of claims to lower-level courts in the second model. The positive sign of the $\text{bias}$ variable in either model indicates that, at the margin, a more conservative inclination of higher-level labor court judges may influence workers more strongly than firms. Faced with the threat of more
firm-friendly courts at the next level, workers are more likely to accept settlements and avoid lower-level verdicts and a possible appeal to higher-level labor courts. Evaluated at sample means, the elasticity of settle\_ratio\_arbg with regard to bias is about 0.04, and 0.03 in the specification which uses settle\_arbg as the dependent variable.

**H3: Share of Lower-Level Court Verdicts Appealed**

Hypothesis 3 states that, in the presence of nomination bias, a change in bias should trigger a change in the share of ArbGs verdicts that is appealed at stage #3. The empirical model deviates from the previous ones in that it excludes ArbG-oriented demand-side variables. The ratio is that there is little reason to believe the appeal-verdict ratio \( \log(\text{appeals\_ratio\_larbg}) \), which captures decision of clearly oriented toward higher-level courts, to be influenced by determinants of overall claims to lower-level courts. Because of this orientation, however, it makes sense to introduce a set of variables describing potentially influential higher-level labor court characteristics other than bias into the model – namely the share of judges holding a doctoral degree, \text{doc}\, the average age of judges, \text{age}, and the average share of female judges, \text{sex}, in a particular year and state. Previous work suggests that judges with a doctoral degree are more productive, and there also seem to be some evidence for a negative impact of age on productivity (see Schneider (2005)).

As in Table 3, we run two alternative models, one with \( \log(\text{appeals\_ratio\_larbg}) \) as dependent variable, and one with the overall number of appeals in logs \( \log(\text{appeals\_larbg}) \) on the right-hand-side and \( \log(\text{verdicts\_arbg}) \) as an additional left-hand-side variable. As before, the second model serves mostly as a robustness check. However, without a reason to suspect that labor court characteristics influence only the verdicts ratio, we opted to include \text{doc}, \text{age}, and \text{sex} in both specifications.

Again, the results summarized in Table 4 do not allow rejecting the hypothesis of nomination bias: in both models, bias has a significantly positive impact on settlements, implying that more lower-level court decisions are appealed as the share of higher-level judges nominated by conservative state governments increases. Evaluated at sample means, the elasticity of \( \log(\text{appeals\_larbg}) \) with regard to bias is about 0.1, and 0.04 for the model which uses the total number of appeals as the dependent variable. This suggests that, in this case, it is the marginal reaction of firms that dominate the net effect. As to the control variables, it is interesting to note that less appeals tend to be filed if the higher-level labor court judges to handle become more experienced in terms of age and academic credentials. Moreover, an increasing share of female judges also tends to be associated with fewer ap-
Table 4: Share of Lower-Level Court Verdicts Appealed (H3)

<table>
<thead>
<tr>
<th></th>
<th>Dependent variable: log(apples_arbg)</th>
<th>Dependent variable: log(apples_ratio_arbg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>coef.</td>
<td>Std.err.</td>
</tr>
<tr>
<td>bias</td>
<td>0.19</td>
<td>0.04***</td>
</tr>
<tr>
<td>log(verdicts_arbg)</td>
<td>0.66</td>
<td>0.06***</td>
</tr>
<tr>
<td>doc</td>
<td>-0.01</td>
<td>0.00***</td>
</tr>
<tr>
<td>sex</td>
<td>-0.17</td>
<td>0.10*</td>
</tr>
<tr>
<td>age</td>
<td>-0.01</td>
<td>0.00***</td>
</tr>
<tr>
<td>Time and state fixed effects</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>number of obs.</td>
<td>211</td>
<td></td>
</tr>
</tbody>
</table>

Note: Estimated with feasible generalized least squares allowing for heteroscedasticity of errors across panels and AR(1) autocorrelation of errors within panels.

peals. Note, however, that these effects are substantially less robust than the evidence regarding the nomination bias – only doc is statistically significant at conventional levels in both specifications shown in Table 4.

**H4: Share of Settlements at Higher-Level Courts**

Finally, Hypothesis 4 argued that, if the presence of ideologically biased judges at higher-level labor courts distort workers’ and firms’ probability of winning a case, we will observe a change in the share of higher-level settlements to overall higher-level labor court cases at stage #4. Table 5 reports the results of the now familiar specification, with the share of settlements in overall higher-level court production (settle_ratio_arbg) and the log of higher-level settlements (log(settle_arbg)) as the dependent variables. In the latter case, we include the log of overall appeals to the higher-level labor court (log(apples_arbg)) on the right-hand-side. Other higher-level court characteristics are included in both specification.

The results confirm the presence of nomination bias, with bias showing up significantly positive. Following the same line of argument as before, this suggests that the marginal reaction of workers tends to outweigh the reaction of firms. Evaluated at sample means, the elasticity of settle_ratio_arbg with regard to bias is about 0.1, and 0.07 when log(settle_arbg) is used as the dependent variable. Interestingly, other than in Table 4, the coefficient for doc is estimated positive in Table 5 – albeit not significant at conventional
Table 5: Share of Settlements at Higher-Level Courts ($H_4$)

<table>
<thead>
<tr>
<th></th>
<th>Dependent variable: $\log(settle_ratio_larbg)$</th>
<th>Dependent variable: $\log(settle_larbg)$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>coef. Std.err.</td>
<td>coef. Std.err.</td>
</tr>
<tr>
<td>bias</td>
<td>0.20 0.04***</td>
<td>0.14 0.04***</td>
</tr>
<tr>
<td>$\log(appeals_larbg)$</td>
<td>1.11 0.05***</td>
<td>1.11 0.05***</td>
</tr>
<tr>
<td>doc</td>
<td>0.01 0.00*</td>
<td>0.01 0.00***</td>
</tr>
<tr>
<td>sex</td>
<td>-0.50 0.11***</td>
<td>-0.25 0.12***</td>
</tr>
<tr>
<td>age</td>
<td>-0.02 0.00***</td>
<td>-0.02 0.00***</td>
</tr>
<tr>
<td>Time and state fixed effects</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>number of obs.</td>
<td>212</td>
<td>200</td>
</tr>
</tbody>
</table>

Note: Estimated with feasible generalized least squares allowing for heteroscedasticity of errors across panels and AR(1) autocorrelation of errors within panels.

levels in the ratio specification – while $sex$ and $age$ turn out significantly negative in both specifications.

6 Nomination Bias and Unemployment

Finally, we discuss a simple extension of the empirical model, to take a look at the effect of court activity on unemployment. To that end, we estimate a model that relates the log of the unemployment rate ($\log(ur)$) to overall lower-level labor court activity ($\log(claims\_larbg)$) and a set of additional plausible and robust controls, namely $gdp\_real$, $growth$, $growth\_1$, $industry$, $industry\_1$, as well as fixed time and cross-section effects.\(^{15}\) To control for the endogeneity of court activity with regard to the latter group of variables, we use a GMM approach, employing $bias$, our measure of the ideological leaning of German higher-level labor courts, $\log(pop)$, and $area$ as exogenous (i.e., excluded) instruments.\(^{16}\) Test statistics are estimated heteroscedasticity- and

\(^{15}\)Taken together with the exogenous instruments for court activity (see the discussion below), this resembles the model used to explain Hypothesis 1 ($H_1$) in the previous section. In addition to allowing for a consistent set of instruments for $\log(claims\_larbg)$, the choice of variables is also a plausible one for the rate of unemployment. As argued earlier, the $H_1$ model was constructed to capture important demand factors in court activity, with the determinants for unemployment being one of them.

\(^{16}\)In addition, court activity is instrumented by the other variables included in the model. That is, $gdp\_real$, $growth$, $growth\_1$, $industry$, $industry\_1$, and the fixed time and
The control variables yield fairly plausible results, suggesting that economically larger states suffer higher unemployment rates while higher real growth rates as well as a larger industrial sector tend to lower unemployment contemporaneously or after a certain lag. Regarding labor court activity, Table 6 indicates that an exogenous increase in the number of cases processed by lower-level labor courts has a positive impact on unemployment across time and states. The point estimate for the coefficient of $\log(\text{claims}_{arb})$ is 0.34 and statistically significant at the 1-percent level. The effect seems relevant from an economic point of view: a 1 percent increase of claims filed at lower-level labor courts increases unemployment by about 1/3 percent.

It is important to see these findings for what they are. Controlling for the endogeneity of law production, we find fairly strong evidence for a positive impact of labor court activity on unemployment, suggesting that labor courts may indeed play some role in explaining the occurrence of unemployment across states and time. However, while the endogeneity controls are solid in the sense that they are based on our earlier investigation of court activity, the model of unemployment remains a simple one. In other words,

---

**Table 6: Explaining Unemployment with Labor Court Activity**

<table>
<thead>
<tr>
<th>Dependent variable: $\log(\text{ur})$</th>
<th>coef.</th>
<th>Std.err.</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\log(\text{claims}_{arb})$</td>
<td>0.34</td>
<td>0.13***</td>
</tr>
<tr>
<td>$\text{gdp}_{real}$</td>
<td>0.11</td>
<td>0.05**</td>
</tr>
<tr>
<td>$\text{growth}$</td>
<td>-1.34</td>
<td>0.66**</td>
</tr>
<tr>
<td>$\text{growth}_{-1}$</td>
<td>-0.25</td>
<td>0.31</td>
</tr>
<tr>
<td>$\text{industry}$</td>
<td>-0.35</td>
<td>1.12</td>
</tr>
<tr>
<td>$\text{industry}_{-1}$</td>
<td>-2.66</td>
<td>1.08**</td>
</tr>
</tbody>
</table>

Time and state fixed effects | Yes

number of obs. | 198

Note: Estimated by GMM, allowing for heteroscedasticity and autocorrelation robust standard errors. See main text for a discussion of the instrument used.

---

17 Estimates based on the ivreg2 package for Stata. Using 2SLS instead of the GMM estimator yields a comparable coefficient for $\log(\text{claims}_{arb})$.

18 To test for possible repercussions of changes in the unemployment rate ($\log(\text{ur})$) on bias, we performed standard Granger causality tests (see Appendix 3). The results strongly suggest that the nomination bias of higher-level labor courts is independent from the
the magnitude of the link between exogenous changes in courts activity and unemployment may be estimated more precisely in a more elaborated model of the labor market. On the other hand, the model employed here is not without plausibility and fairly robust, including time and cross-section fixed effects and relevant structural and economic controls. Thus, the findings above seem to convey a potentially important message: there may be gains from restraining labor court activity within a broader attempt to lower German unemployment through lower employment protection.

7 Conclusions

The possibility of nomination bias (i.e., a preference for nominating judges with political leanings close to the incumbent government) in German labor courts is interesting from at least two perspectives. Normatively, the application of law by judges at all levels and within all sections of the judiciary should be independent from the appointing authority. In addition, from an economic point of view, the presence of nomination bias would give support to the argument that an ideology-driven increase in employment protection starting in the 1970s contributed to an increase of firing costs, with negative consequences for employment.

Based on a theoretical model of labor court behavior of workers and firms and a new panel data set, including, among other things, information on the political leanings of the state governments nominating individual higher-level judges between the early 1970s and 2004, we find a number of interesting results. Firstly, claims at lower-level German labor courts are influenced by geographical, structural, and economic variables connected with the demand for employment protection by workers. In addition, however, law production is also shaped by supply-side factors, including personal and professional court characteristics and, importantly, nomination bias.

In particular, there is clear evidence that the political bias of the state governments’ appointing individual judges at higher-level labor courts also biases the courts’ law production, with repercussions on the activity of lower-level labor courts. The empirical results are in line with the predictions of the theoretical model, which implies that firms and workers act rationally, taking the consequences of nomination bias into account. Thirdly, using the nomination bias as an exogenous instrument, we find evidence for a link between labor court activity and German unemployment.

unemployment rate. Indeed, the only (at least marginally) significant Granger relation indicates that causality runs from bias to unemployment. See Appendix 3 for details.
The results have potentially important policy implications. From a normative perspective, the existence of a nomination bias is worrying. It suggests that the existing appointment process, with its heavy involvement of the executive and legislative branches, does not shield the judiciary from politicization – on the contrary. Among the possible solutions would be a more independent nomination process, for instance, based on more intensive peer review or involving independent third parties. Shifting focus to the factor market repercussions of labor court activity, our findings support the view that German courts are an important part of employment protection, with negative consequences for the unemployment rate. This suggests that restricting the leeway of labor courts in interpreting and determining existing law – for instance, by imposing more specific legislative guidelines for court decisions aimed at lowering effective employment protection – may have advantages.

Acknowledgements

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Appendix 1: Model

What follows is a discussion of the marginal effects of the nomination bias on the various decisions taken by workers and firms at stages 3, 2 and 1.

**Decision #3**

Let us focus on the marginal effect of the nomination bias on the workers’ decision to appeal first. We know that the worker will appeal if

\[
\max[E[T_{W,ArbG}], E[V_{W,ArbG}]] > U_{W,ArbG}.
\]

This means that the worker will appeal if the maximum of the expected values of the two options (settlement or verdict) is larger than the certain payoff from not appealing. For the expected value of a settlement at the higher labor court we can write

\[
E[T_{W,ArbG}] = S_{W,ArbG} + q_{W,ArbG} \theta_{W,ArbG} + (1 - q_{W,ArbG}) \phi_{W,ArbG}
\]

and for the expected value of a verdict at the higher labor court we can write

\[
E[V_{W,ArbG}] = F(\tilde{x}) H_{W,ArbG} + (1 - F(\tilde{x})) U_{W,ArbG}.
\]

Should we have

\[
\max[E[T_{W,ArbG}], E[V_{W,ArbG}]] = E[T_{W,ArbG}]
\]

then there will be no effect stemming for a nomination bias as \(E[T_{W,ArbG}]\) is independent from \(\theta\). Should we have

\[
\max[E[T_{W,ArbG}], E[V_{W,ArbG}]] = E[V_{W,ArbG}],
\]

then the worker compares

\[
F(\tilde{x}) H_{W,ArbG} + (1 - F(\tilde{x})) U_{W,ArbG} > U_{W,ArbG}.
\]

Clearly, only if \(U_{W,ArbG}^{T,LArbG} < U_{W,ArbG}^{V,LArbG}\) nomination bias has an impact on the decision of workers. As judges become more biased towards the interests of the firms, workers will appeal less. In the same way, we can derive the change in appeals by firms as the nomination bias of judges varies.
Decision #2

Now let us turn to the decision of workers on whether to go for a verdict or a settlement. When the worker has learned about his opportunity costs of pursuing the claim at the lower-level labor court he faces the decision of whether to reach a settlement or go for a verdict. He will choose the latter option if the expected payoff from a verdict is higher than the certain payoff from a settlement that takes also the saved opportunity costs into account:

\[ E[V^*_W] > S^*_W + c^*_W \]  \hspace{1cm} (3)

with

\[ E[V^*_W] = \bar{F}(\bar{x})H^*_W + (1 - \bar{F}(\bar{x}))Max[U^*_W, E[T^*_W], E[V^L_W]] \]  \hspace{1cm} (4)

In the case where

\[ Max[U^*_W, E[T^*_W], E[V^L_W]] = U^*_W \]

the worker’s decision problem is not a function of \( \theta \). Should we have

\[ Max[U^*_W, E[T^*_W], E[V^L_W]] = E[T^*_W], \]

nomination bias also does not play a role in the worker’s decision as it does not enter the expected settlement costs at the higher labor court. Finally, for

\[ Max[U^*_W, E[T^*_W], E[V^L_W]] = E[V^L_W] \]

with

\[ E[V^L_W] = F(\bar{x})H^L_W + (1 - F(\bar{x}))U^L_W \]

the nomination bias enters the decision problem through the probability of a winning worker at the level of the higher labor court. A judge more biased towards the interests of firms reduces the expected value of a verdict at the higher labor court. This results in a lower number of cases pushed to a verdict at the lower-level labor court by workers. Again, the analysis for the firm follows the same logic.

Decision #1

Finally we look at the decision of the worker to file a claim at the lower-level labor court. A worker chooses to go to court if

\[ Max[E[T^*_W], E[V^*_W]] > R_W. \]
Suppose
\[ \max \{E[T^{ArbG}_W], E[V^{ArbG}_W] \} = E[T^{ArbG}_W] \]
then the worker’s decision what to do is not dependent on \( \theta \). Suppose
\[ \max \{E[T^{ArbG}_W], E[V^{ArbG}_W] \} = E[V^{ArbG}_W], \]
then an additional three cases have to be distinguished. First
\[ E[V^{ArbG}_W] = F(\tilde{x})H^{ArbG}_W + (1 - F(\tilde{x}))U^{ArbG}_W \]
which corresponds to the situation where the payoff from sticking with a defeat at the lower-level labor court is higher than that of a settlement and a verdict after having appealed to the higher labor court. As there is by assumption no nomination bias on the level of the labor court, \( \theta \) does not enter the decision problem of the worker. Should we have that the expected value of a settlement at the higher labor court exceeds the payoff from a defeat at the lower-level labor court and the expected payoff from a verdict at the higher labor court we would have
\[ E[V^{ArbG}_W] = F(\tilde{x})H^{ArbG}_W + (1 - F(\tilde{x}))E[T^{ArbG}_W]. \]
As \( \theta \) does not enter \( E[T^{ArbG}_W] \), the worker’s decision is not affected by the nomination bias either. However, it is if
\[ E[V^{ArbG}_W] = F(\tilde{x})H^{ArbG}_W + (1 - F(\tilde{x}))E[V^{ArbG}_W], \]
because
\[ E[V^{ArbG}_W] = F(\tilde{x})H^{ArbG}_W + (1 - F(\tilde{x}))H^{ArbG}_W. \]
Here, \( \theta \) enters as at the higher labor court level, the probability of winning a case \( F(\tilde{x}) \) for a worker is also a function of the nomination bias of the judge. As the judge becomes more biased towards the interests of the firm the expected value from a verdict at the higher labor court decreases. Thus, there will be less cases filed at the lower-level labor court. Again, an analysis of the firm’s decision follows analogously.
Appendix 2: Data Sources

The following list gives a description of the variables and data sources. Note, that all data used is biannual due to the fact that the data source for our bias variable is only published every other year.

- **claims_arbg**: Processed claims at lower-level labor courts (by verdict, settlement, or other means) in a state at time $t$. Source: Bundesministerium für Wirtschaft und Arbeit (BMWA)

- **settle_arbg**: Settlements at a state’s lower-level labor courts at time $t$; Source: BMWA

- **settle_ratio_arbg**: Ratio of settlements over finished claims at lower-level labor courts in a state at time $t$. Source: BMWA

- **verdicts_arbg**: Verdicts at a state’s lower-level labor courts at time $t$; Source: BMWA

- **appeals_arbg**: Appeals to a state’s higher-level labor court at time $t$; Source: BMWA

- **appeals_ratio_arbg**: Ratio of appeals to a state’s higher-level labor court over verdicts at local labor courts in a state at time $t$; Source: BMWA

- **settle_larbg**: Settlements at a state’s higher-level labor court at time $t$; Source: BMWA

- **settle_ratio_larbg**: Ratio of settlements over appeals to a state’s higher-level labor court at time $t$; Source: BMWA

- **bias**: The ‘Handbuch der Justiz: die Träger und Organe der Rechtsprehenden Gewalt in der Bundesrepublik Deutschland, Deutschen Richterbund (eds.)’ (HdJ) is a biannual publication on judges at German courts. It gives information on the judges’ names, their age, their entry dates, their sex and whether they carry a higher academic degree. Entry dates of judges at the higher-level labor court were matched with the ideological position of the party in power at the time the judge entered the higher labor court. If the prime minister in the state at the respective time was either a CDU or CSU party member ideology of the respective judge was coded with a 1 otherwise with a 0. Taking averages over the individual ideological dispositions of judges at a given higher labor court for a year $t$ serves as the bias variable. The states’ prime ministers party affiliation can be found at http://www.election.de
• *doc*: Denotes for a state and time *t* the share of higher-level judges holding a doctoral degree; Source: HdJ

• *sex*: On the individual level a female higher-level judge was coded with 1. Thus, *sex* varies between 0 and 1 with higher values indicating a larger share of female judges at a state’s higher labor court at time *t*; Source: HdJ

• *age*: Average age of judges at a state’s higher labor court at time *t*; Source: HdJ

• *area*: Is a dummy variable that becomes 1 if the area of a state measure in square kilometers is larger than the mean value; Source: Statistisches Bundesamt (SBA)

• *pop*: Population (in thousands) in each state at time *t*; Source: SBA

• *ur*: Unemployment rate, defined as the number of unemployed divided by the labor force in each state at time *t*; Source: SBA

• *gdp_real*: Is a dummy variable that becomes 1 if the real gross domestic product (GDP) of the state in year *t* is larger than the mean; Source: Statistisches Landesamt Baden-Württemberg (SLA-BW)

• *growth*: Growth rate of the real GDP in a state at time *t*; Source: SLA-BW

• *industry*: Industry share in total GDP, Source: SBA
### Appendix 3: Granger Tests

Table 7: Granger Causality Tests On Unemployment Rate ($\log(\text{ur})$) And bias

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References


