

Outlawed: Estimating the Labor Market Effects of Judicial Ideology*

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Abstract

We provide evidence on the labor market effects of judicial ideology. First, we set up a model of judicial decision-making to develop an identification strategy that exploits variation in the impact of ideological shifts of the U.S. Supreme Court across U.S. court districts. Second, we apply this strategy to broad data on judicial ideology, court rulings, and labor market outcomes. We find that having a more conservative Supreme Court increases employment but decreases wages and increases inequality.

Keywords: Judicial ideology; Labor markets; Unemployment; Wages; Regional labor markets

JEL classification: J21; J31; J64; K40; R23; H73

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1 Introduction

The appointment of three conservative Justices to the U.S. Supreme Court during the first Trump presidency has attracted considerable public attention. These nominations have cemented a conservative 6-3 majority at the Court and marked a new high of the Supreme Court’s decades-long trend toward conservatism, illustrated by the intertemporally comparable [Bailey \(2013\)](#) median ideology score of active Justices in [Figure 1](#). The Supreme Court is commonly perceived as having a profound impact on American life and society. Next to passionately debated topics such as gun control, abortion, and civil rights, the Court is also viewed as having a strong influence on the economy.¹

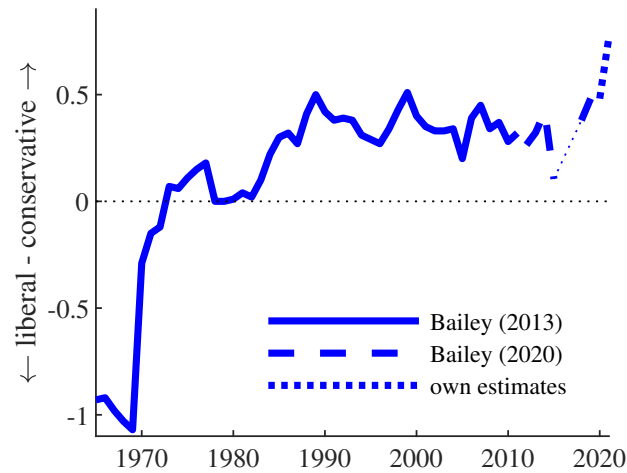
In this paper, we assess empirically the impact of judicial ideology on the labor market, where most households’ primary source of income is determined. When the Supreme Court becomes more conservative, the Court, as well as the lower courts following its guidance, side more often with businesses and less often with employees, their representatives, or the government. Theoretically, this can affect labor market outcomes in different ways. A more business-friendly judiciary may effectively reduce firing costs when employers lose wrongful-termination lawsuits less often or erode union power when firms trying to prevent union formation prevail in court more often. Both examples would likely lead to more job creation by firms but can be expected to reduce wages. The judiciary siding more often with businesses in litigation about regulation may foster growth in both employment and wages. Finally, when the courts allow mergers that government agencies sought to forbid or if they approve the use of no-poaching agreements or non-compete clauses, this increases employers’ monopsony power on the labor market with adverse effects on both employment and wages.

To identify the economic effects of Supreme Court ideology, one obviously cannot simply consider the correlation between economic variables such as unemployment and a measure of the Court’s ideology. Confounding factors abound as other developments affecting economic outcomes are correlated with Supreme Court ideology. Further, there is the risk of reverse causality because economic conditions might also affect the composition of the Supreme Court through their effect on presidential and Senatorial elections ([De Benedictis-Kessner and Warshaw 2020](#); [Healy and Lenz 2017](#)) or its decisions by shifting the weights put on rivaling goals of Justices (see [Brennan et al., 2009](#), for the Supreme Court and [Ichino et al., 2003](#), and [Marinescu, 2011](#), for judges at other courts).

To overcome this problem, we exploit that Supreme Court ideology is likely to impact different regions of the U.S. differentially, depending on the ideological leanings of (federal) judges in the regions. Most economic cases are settled in federal district courts and district court judges are influenced by the Supreme Court, mostly due to reversal aversion – the fear that being overturned by higher courts too often is harmful to their careers ([Songer](#)

¹For example, a 2018 Washington Post column (by Steven Pearlstein, July, 11, 2018) called his Supreme Court nominees “Trump’s real economic legacy”, overshadowing the 2017 tax cuts.

Figure 1: IDEOLOGICAL LEANINGS OF THE U.S. SUPREME COURT



Notes: Ideal point estimates for ideological leanings of median Supreme Court Justice from Bailey (2013) for 1965-2011 and from Bailey (2020) for 2012-15 and for 2018-19. Scores for 2020-21 estimated based on 2019 score for apparent median Justice (2020 Roberts, 2021 Kavanaugh). 2016-17: no unique median between death of Scalia and appointment of Gorsuch.

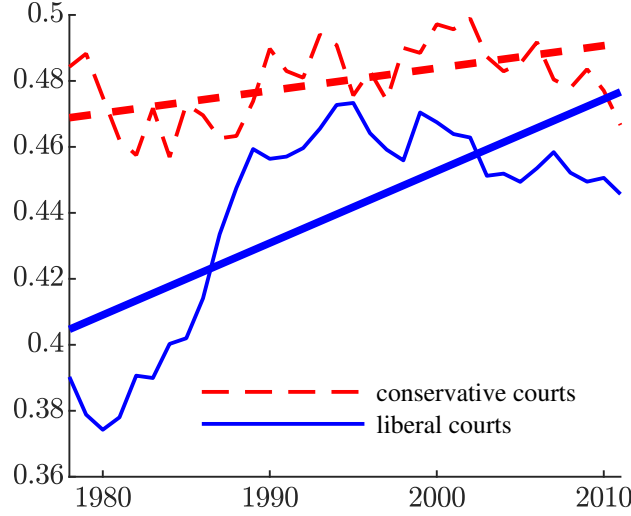
et al. 1994; Randazzo 2008; Boyd 2015a). Law scholars typically argue that judges follow the ideological leaning of the higher courts (ultimately, the Supreme Court) unless the latter is unclear in which case judges’ own ideological leanings are important for their decisions.²

Songer et al. (1994) analyze empirically how lower-court decisions are affected by the Supreme court and summarize their results using a dogs-on-the-leash metaphor (page 668): with a centrist Supreme Court, “some ... court panels led and some followed ‘the owner’”, i.e., some ruled more conservatively and some more liberally, “but when the Supreme Court tugged at the leash, both liberal and conservative ... panels were responsive.”

In this sense, the developments at the Supreme Court between the 1970s, when the Court was at the ideological center, and the first decades of the 21st century, when the Court had become clearly conservative, include a quasi-experimental variation. Because ideological compositions of district courts are very persistent (mostly due to strategic retirement), courts with conservative judges were affected only little by the shift at the Supreme Court: they decided conservatively already in the 1970s. By contrast, district courts with predominantly liberal judges were affected strongly by the shift at the Supreme Court. In the 1970s, these judges could use their leverage to rule rather liberally while the clear conservative position of the Supreme Court forces them and their successors to rule rather conservatively in the 21st century. A preliminary look at the data supports this view. Figure 2 shows that district court decisions have shifted to the right, but mostly so in states with liberal judges.

²Cannon and Johnson (1984) summarize that lower courts are most responsive to the Supreme Court’s positions when the latter are clear, unambiguous, not overly complex, and readily available. The fairly intuitive hypothesis that a judge’s behavior is more strongly influenced by their ideological leaning when they have more discretion is supported empirically by Zorn and Bowie (2010) and Cohen and Yang (2019).

Figure 2: SHARE OF PRO-BUSINESS DISTRICT COURT RULINGS IN ECONOMIC AND/OR LABOR CASES BY IDEOLOGICAL LEANING OF STATE’S DISTRICT COURTS



Notes: Thin (thick) lines: nine-year moving average (linear trend) of share of pro-business (“conservative”) rulings in economic and/or labor cases from Carp-Manning U.S. district court database. Red dashed (blue solid) lines: states with conservative, $dci_s > 0$, (liberal, $dci_s < 0$) district courts. dci_s : average [Boyd \(2015b\)](#) score of district court judges in state s , 1936-1977. See [Section 3](#) for details.

To make the identification strategy explicit, we develop a model where judges have personal ideological preferences but are reversal-averse. As a testable implication, the model predicts that a rightward shift at the Supreme Court exerts a stronger rightward shift in rulings of those lower courts that have more left-leaning judges. We further use our model to show that the economic effects of judicial ideology can be identified through the coefficient on the interaction term between the time-varying ideology of the highest court and the time-invariant component of the relevant lower court’s ideology in two-way fixed effect regressions.

When bringing this approach to the data, we combine data on the ideological leanings of judges and their decisions with data on economic outcomes and construct a panel of yearly state-specific observations from 1978 to 2011. Our main independent variable is the interaction between the time-constant pre-sample average ideology of a state’s district court judges and the time-varying ideological leaning of the Supreme Court.³

³District courts are chosen because of three reasons. First, a large share of economic lawsuits are filed in federal courts and employment cases are their largest single category of civil cases ([Clermont and Schwab 2009](#)). By contrast, employment cases account for only a small share of the caseload of state courts, which are mostly concerned with traffic cases. Second, rulings issued by the district courts are much more likely to create a precedent than rulings at state courts and are thus relevant to a large number of additional cases and situations that do not even end in court. Third, district courts have the last word in about 99% of the filed federal court cases ([Cohen and Yang 2019](#); [Edwards 2019](#); [Eisenberg 2004](#)). [Choi et al. \(2012\)](#) cite the low reversal rate to argue that the influence of the Supreme Court on the lower courts were small. Yet, what they interpret as a low risk of reversal might simply be a sign of compliance. If lower-court judges are reversal-averse, they can be expected to issue decisions that reduce the risk of reversals, such that reversals will be rare in equilibrium. In this case, the threat of reversal is still an important determinant of the

Econometric choices, control variables, and additional estimations make us confident that our results indeed reflect changes in Supreme Court ideology. Two-way fixed effects eliminate alternative explanations like federal policy reforms or structural differences between states. In regressions for district-court rulings, we control for changes in the political or demographic composition of judges, case types, and state-level political and ideological factors. We also rule out mean reversion at district courts by controlling for lags in the dependent variable. In the labor-market regressions, changes to state law, including the minimum wage, employment protection, and taxation, as well as industry-occupation mixes are controlled for. We check that states with different court ideologies show similar pre-sample trends, and controlling for pre-sample economic growth does not significantly alter our findings. Finally,, we account for other potential confounders like regional impacts from automation and import competition and find that our results are largely unchanged.

We find that an increase in conservatism at the Supreme Court strongly and significantly increases the share of conservative, i.e., pro-business, rulings. Regarding economic outcomes, our results indicate that Supreme Court conservatism increases labor market dynamism: unemployment falls, while the job-finding rate and employment increase. Yet, we also find that the rightward shift of the Supreme Court reduced wages and accelerated the hollowing-out of the middle class, as union coverage and the share of routine-manufacturing jobs are negatively affected. Moreover, we also find that judicial conservatism contributes to increasing income inequality, mostly through a disproportionate effect on top incomes.

Quantitatively, our results imply that the shift at the Supreme Court by about 0.4 Bailey points between 1978 and 2011 raised the share of pro-business rulings at federal district courts by about fifteen percentage points. Further, it reduced the unemployment rate by one to two percentage points, average wages by about 3%, and the unionization rate by about 2.5 percentage points. The employment share in routine occupations was reduced by about one percentage point and the 90/10 income ratio was increased by about 7%.

Our results underscore the importance of judicial appointments, which have become a political priority for both parties. The risk of lifetime appointments misaligning the judiciary with future generations’ preferences regarding societal trade-offs has led to proposals such as term limits for federal judges and regularized appointments to the Supreme Court. The strong impact of the Supreme Court’s ideological composition that we document in this paper makes these debates all the more important.

RELATED LITERATURE. The literature on the consequences of court rulings and judicial ideology has focused on the parties directly involved in the considered cases. Several papers exploit the random assignment of cases to an individual judge at a given court to instrument the harshness of the decision by the general leniency or attitudes of the assigned judge. Using this strategy, studies have investigated the consequences of convictions for the defendants in criminal-justice cases ([Kling 1998](#); [Aizer and Doyle Jr. 2015](#); [Dobbie et al. 2018](#)). [Dahl et al.](#)

decisions of lower-court judges.

(2014) and French and Song (2014) study the impact of disability payments on the recipients, instrumenting payments by judge attitudes. Most closely related to our paper, Cahuc et al. (2021) exploit judge assignment to study the consequences of rulings in wrongful-termination cases for the job-creation behavior of the firms accused in the considered cases. They find that pro-worker rulings reduce subsequent job creation of the convicted firms. Other than this literature, we consider the overall economy and, hence, also capture the effects of judicial tendencies on firms that are not directly involved in lawsuits. A firm that observes that most worker-firm conflicts are decided in favor of firms is likely to react to this even without being directly involved in such a case itself and these effects are accounted for by our approach.⁴

Our paper is also related to the literature that discusses determinants of court rulings which are not directly related to the case at hand.⁵ The ideology or political affiliation of judges is exceptionally important. While this is undisputed for Supreme Court Justices, empirical studies also emphasize an important role of ideology in the lower courts, including the federal district courts on which our analysis focuses (Taha 2004; Cohen and Yang 2019). A number of studies have addressed the interplay between a judge’s own ideological preferences and the preferences of the judge’s superiors at higher courts, which is at the core of our identification strategy. Evidence for reversal aversion of judges abounds and is provided by, e.g., the studies cited before. Our theoretical model builds on Miceli and Coşgel (1994), who study decision-making of judges that face a conflict of ideology and career.

The literature on measuring judicial ideology has been summarized comprehensively by Bonica and Sen (2021). One strand of this literature is concerned with coding decisions as liberal or conservative. An example is Carp and Manning (2016) whose database on district court rulings we use. Another strand develops ideology measures for individual judges based on newspaper editorials (Segal and Cover 1989), voting patterns (e.g., Martin and Quinn, 2002), appointment procedures (e.g., Giles et al., 2001, Epstein et al., 2007), or campaign contributions (Bonica, 2014, Bonica and Sen, 2017). We use the appointment-based measure for federal judges from Boyd (2015b) and the voting-based measure for Supreme Court Justices from Bailey (2013). Bailey’s (2013) measure accounts for changing case composition and is therefore comparable over time, which is crucial for our analysis.

The remainder of this paper is organized as follows. Section 2 outlines a simple theoretical model that guides our identification strategy. Section 3 discusses our data and econometric choices. Section 4 presents the results. Section 5 concludes.

⁴Evidence going beyond the affected parties in the considered lawsuits is rare. Analyzing case composition, rulings, and votes of Supreme Court Justices over time, Epstein et al. (2013) conclude that the Supreme Court has indeed become more favorable to businesses over the last decades. Gilman (2014) argues that the Supreme Court reinforces economic inequality by verbally analyzing selected Supreme Court rulings. Neither paper provides a systematic statistical evaluation of the economic impact of the Supreme Court.

⁵Rulings, conditional on case characteristics, have been shown to depend on aggregate conditions such as outside temperatures (Heyes and Saberian 2019), media coverage on crime (Philippe and Ouss 2018), the success of local sports teams (Eren and Mocan 2018), and the business cycle (Ichino et al. 2003; Marinescu 2011). Furthermore, there is evidence that individual characteristics of judges, such as gender (Boyd et al. 2010; Knepper 2017) or race (Kastellec 2013; Yang 2015), have significant effects on rulings.

2 A simple model to guide identification

In this section, we present a simple model of the interaction between the Supreme Court and the district courts as well as the interdependencies of court rulings and the economy. We want to be upfront that the model’s purpose is not to derive some innovative theoretical result – in fact, some results follow pretty mechanically from assumptions – but to provide the maximum transparency about the assumptions underlying our identification approach.

Our notation follows the convention to measure court rulings on a scale from -1 to 1 where -1 denotes a liberal (pro-worker) decision, 0 an ideologically neutral decision, and 1 a conservative (pro-business) decision. Ideological positions of judges are measured accordingly with scores increasing in conservatism and a value of zero being assigned to centrist positions, negative values indicating liberal positions, and positive values conservative ones.

Aggregate economy. On the one hand, aggregate economic conditions y_t (for example, the unemployment rate) are determined by an aggregate economic shock θ_t and by the Supreme Court’s position on the ideological spectrum, sci_t ,

$$y_t = \theta_t + \eta_1 sci_t. \quad (1)$$

On the other hand, the Supreme Court’s ideological position depends on an exogenous factor ν_t and potentially also on aggregate economic conditions,

$$sci_t = \nu_t + \phi_1 y_t. \quad (2)$$

The coefficient ϕ_1 can, first, reflect the political business cycle through which economic conditions affect Court nominations via their impact on Presidential and Congressional elections. Second, it may reflect the changing mood of Justices, who may be more or less inclined to rule in favor of workers or businesses during economic crisis.

Equations (1) and (2) visualize the challenge to identify the Supreme Court’s impact on the economy. A regression of y_t on sci_t would not be informative about the parameter η_1 . Our identification builds on the interaction between the Supreme Court and the lower courts. Similar to the aggregate economy, we also model the local economy as an interaction between markets and courts. For simplicity, we abstract from the courts of appeals and model a state as a court district with a representative district court.

State economies. State economic conditions can deviate from aggregate economic conditions due to a state fixed effect (states may have weaker or stronger economies for structural reasons), a state-specific shock (states’ business cycles are not perfectly synchronized), and the effect of average local court rulings $r_{s,t}$ on the economy,

$$y_{s,t} = y_t + \omega_s + \varepsilon_{s,t} + \eta_2 r_{s,t}. \quad (3)$$

Subsequently, we assume that η_2 is of the same sign as η_1 but not necessarily of same size.

Local court rulings are issued by the local judges. We consider the representative (average) district court judge in state s , called judge s . While case characteristics, existing laws, and precedent are undoubtedly the most important predictors of case outcomes, there is a large literature that exposes substantial effects of additional, even potentially unrelated factors. In the following, we will consider the average ruling at a given district court in a given year. Through averaging, case-specific factors should wash out while year-specific or court-specific factors, including the court's ideological position or the one of the higher courts, will not. We therefore focus on these types of determinants.

Following [Miceli and Coggel \(1994\)](#), we assume that a district court judge receives utility from two sources, ideology and reputation,

$$U_{s,t} = V_{s,t} + R_{s,t}. \quad (4)$$

Their private utility $V_{s,t}$ captures how close their average rulings are to what they would like them to be if they were not constrained by the Supreme Court,

$$V_{s,t} = -\frac{\kappa}{4} (r_{s,t} - dci_s - \phi_2 y_{s,t})^2 \quad (5)$$

where κ is the preference weight on private utility. To allow for a reaction of the district courts to economic conditions in their district, we assume that the ideal position is given by a personal and constant ideological taste, dci_s , and a feedback from the local economy,

$$dci_s + \phi_2 y_{s,t}.$$

In the following, we assume that Supreme Court Justices share or at least accept district courts' concerns regarding the economies of their districts.

A judge's reputational utility $R_{s,t}$ captures their fear that their rulings might be overturned by higher courts which would damage their reputation and career prospects,

$$R_{s,t} = -q_{s,t} (r_{s,t}), \quad (6)$$

where q_t is the (time-variant) probability of a ruling being reversed.

The Supreme Court. To characterize the function $q_{s,t}$, we take into account three characteristics of the Supreme Court and its Justices. First, the Supreme Court issues decisions by majority voting (in contrast to the district courts where most decisions are made by one, randomly assigned, judge). Second, the Supreme Court can hear only so many cases in a given year and, in order for a case to be heard, four of the nine Justices have to vote in favor of hearing it. Third, Justices are usually considered to follow two types of goals, ideological goals and legal goals. While ideological goals describe the ambitions of a Justice to affect policies in a way consistent with their own preferences, legal goals describe issues like clarity of the law, consistency of jurisprudence, as well as procedural preferences and certain ways

and styles to interpret laws or the Constitution and how to derive decisions. Most scholars studying the Supreme Court agree on the primacy of policy goals. Yet, when policy goals are difficult to pursue because of unclear majorities, legal goals can become a significant factor.

The Supreme Court's rules imply that its decisions are made by coalitions of Justices. Usually, these coalitions will form along ideological lines with the median Justice playing a crucial role. Yet, when the ideological orientation of the Supreme Court is unclear with Justices distributed around a centrist position, coalitions will more often be formed along non-ideological grounds. Due to the Court's limited capacity to hear cases, it makes most sense for four-member coalitions to move forward those cases that have good chances to be ultimately overturned. With a centrist median Justice, the four-member conservative (or liberal) wing could move forward a liberal (or conservative) ruling but would have to face the odds of the median Justice siding with the other wing on non-ideological grounds.⁶ This would have the opportunity cost of foregone time to hear other cases. We assume that, in such situations, the probability that an individual case is being heard on ideological grounds is lower compared to situations with clear ideological majorities.

Specifically, we assume

$$q_{s,t}(r_{s,t}) = \tilde{q}(r_{s,t}, sci_t, y_{s,t}, \chi_{s,t}) = (r_{s,t} - sci_t - \phi_2 y_{s,t})^2 / 4 \cdot Q(sci_t) + \chi_{s,t}. \quad (7)$$

The term $(r_{s,t} - sci_t - \phi_2 y_{s,t})^2 / 4$ captures that, conditional on the case being heard, a ruling is more likely to be reversed the more it deviates from the median Justice's ideological position, adjusted for state-specific economic factors. If $Q = 1$ and $\chi_{s,t} = \phi_2 = 0$, a fully conservative Supreme Court ($sci = 1$) would strike down all liberal rulings ($r = -1$) and vice versa. With $\phi_2 \neq 0$, non-normal economic conditions in a state ($y_{s,t} \neq 0$) may let the Supreme Court be more or less tolerant to specific rulings from that state.

The term $Q(sci_t) \in (0, 1)$ accounts for the importance of ideological goals being increasing in the clarity of ideological majorities at the Court. We assume that Q is an increasing function of the absolute value of sci_t , such as any monotone transformation of sci_t^2 which pertains the boundedness of probabilities.

Finally, $\chi_{s,t}$ denotes the risk of a ruling being overturned on non-ideological grounds. One may imagine mean and variance of $\chi_{s,t}$ to be decreasing in $Q(sci_t)$ because, without ideological clarity, the Court takes on more cases on non-ideological grounds. The lower court judge may influence $\chi_{s,t}$ through, e.g., working carefully, publishing sophisticated opinions, following precedent, but not through the ideological component of their rulings. Since we focus only on the latter, we assume $\chi_{s,t}$ to be independent of the judge's behavior.

⁶Deference to lower courts would tend to reduce the changes of reversal in such situations.

Judges’ decisions. Returning to an individual judge, their behavior is described by

$$\max_{r_{s,t}} V_{s,t} + R_{s,t} \text{ s.t. (5), (6), and (7).}$$

In the data, rulings are coded in a discrete way: they can be either liberal or conservative, or they can have no clear ideological orientation. In contrast, judges in our model choose $r_{s,t}$ as a continuous variable, so we consider their average ruling, or the proportion of conservative or liberal rulings in all their cases. The higher the proportion of a judge’s rulings that are inconsistent with the Supreme Court’s orientation, the higher the risk that the particular judge will suffer one or even more reversals of their rulings.

Substituting in the constraints, the problem reads $\max_{r_{s,t}} -\frac{\kappa}{4} (r_{s,t} - dci_s - \phi_2 y_{s,t})^2 - (r_{s,t} - sci_t - \phi_2 y_{s,t})^2 / 4 \cdot Q(sci_t) - \chi_{s,t}$ and the first-order condition is

$$-\frac{\kappa}{2} (r_{s,t} - dci_s - \phi_2 y_{s,t}) - \frac{Q(sci_t)}{2} \cdot (r_{s,t} - sci_t - \phi_2 y_{s,t}) = 0.$$

Solving for $r_{s,t}$ gives the judge’s decision as

$$r_{s,t} = \frac{\kappa}{\kappa + Q(sci_t)} dci_s + \frac{Q(sci_t)}{\kappa + Q(sci_t)} sci_t + \phi_2 y_{s,t}.$$

A second-order Taylor approximation around $sci_t = sci$ and $dci_s = dci$ gives

$$r_{s,t} \approx \alpha_1 dci_s + \alpha_2 sci_t + \alpha_3 dci_s sci_t + \phi_2 y_{s,t}, \quad (8)$$

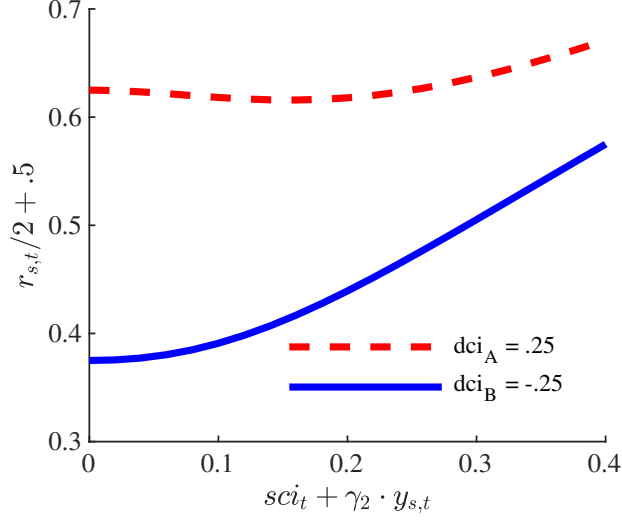
where $\alpha_1 = \kappa / (\kappa + Q(sci)) + \kappa Q'(sci_t) sci / (\kappa + Q(sci_t))^2$, $\alpha_2 = Q(sci) / (\kappa + Q(sci)) + \kappa Q'(sci_t) dci / (\kappa + Q(sci_t))^2$, and

$$\alpha_3 = -\frac{\kappa Q'(sci)}{(\kappa + Q(sci))^2}.$$

For the following analysis, the sign of α_3 will be crucial. Notice that it depends on the derivative of Q whose sign is identical to the sign sci . In our empirical sample, we have $sci_t \geq 0$ such that $Q' > 0$ and, thus, $\alpha_3 < 0$.

Relative effect of Supreme Court orientation. Figure 3 illustrates how district court judges react to changes in the Supreme Court’s orientation in our model. In the figure, we consider an example where Supreme Court ideology increases linearly from zero to 0.4 (a stylized description of the empirical development, where the steepest increase happened in the 1980s). We compare the rulings of a rather liberal district court judge A with $dci_A = -0.25$ with the rulings of a rather conservative judge B with $dci_B = 0.25$ (in our empirical sample, roughly a comparison of New York and Wyoming). We set κ to .1 in line with the strong reversal aversion discussed in the literature. To make the point most visual, we use $Q(sci_t) = sci_t^2$. The figure visualizes the “dogs-on-a-leash” property of the

Figure 3: SHARE OF PRO-BUSINESS RULINGS IN TWO DISTRICTS AS A FUNCTION OF DE-FACTO SUPREME COURT ORIENTATION.



Notes: For the figure, we use $Q(sci_t) = sci_t^2$.

model: when the Supreme Court is at the center of the ideological spectrum, its leash is loose and district court judges use their leeway to issue decisions matching their ideological preferences. When the Supreme Court moves to the right, it tugs its leash. As a consequence, rulings turn more conservative in both courts, but rulings of the liberal district court become substantially more conservative relative to rulings of the conservative district court.⁷

General equilibrium. Using (1), (3), and (8), we can solve for court rulings and economic conditions in a state as

$$\begin{aligned}
 r_{s,t} = & \frac{\alpha_1 + \phi_2 \eta_1}{1 + \phi_2 \eta_2} sci_t + \frac{\phi_2}{1 + \alpha_4 \eta_2} \theta_t \\
 & + \frac{\alpha_2}{1 + \phi_2 \eta_2} dci_s + \frac{\phi_2}{1 + \phi_2 \eta_2} \omega_s \\
 & + \frac{\alpha_3}{1 + \phi_2 \eta_2} sci_t dci_s + \frac{\phi_2}{1 + \phi_2 \eta_2} \varepsilon_{s,t}
 \end{aligned} \tag{9}$$

and

$$\begin{aligned}
 y_{s,t} = & \left(\eta_1 + \frac{\eta_2 (\alpha_1 + \phi_2 \eta_1)}{1 + \phi_2 \eta_2} \right) sci_t + \left(\frac{\phi_2 \eta_2}{1 + \phi_2 \eta_2} + 1 \right) \theta_t \\
 & + \frac{\eta_2 \alpha_2}{1 + \phi_2 \eta_2} dci_s + \left(\frac{\phi_2 \eta_2}{1 + \phi_2 \eta_2} + 1 \right) \omega_s \\
 & + \frac{\eta_2 \alpha_3}{1 + \phi_2 \eta_2} sci_t dci_s + \left(\frac{\phi_2 \eta_2}{1 + \phi_2 \eta_2} + 1 \right) \varepsilon_{s,t}.
 \end{aligned} \tag{10}$$

⁷Symmetrically, if the Supreme Court had moved to the left after the 1970s, the model would predict the rather conservative courts to be more strongly affected by this.

In the following, we assume that shocks which improve economic conditions conditional on court rulings, $\varepsilon_{s,t} > 0$, also do so when including the endogenous response of court rulings,

$$\frac{\phi_2 \eta_2}{1 + \phi_2 \eta_2} + 1 > 0 \Leftrightarrow \eta_2 \phi_2 > -\frac{1}{2}. \quad (11)$$

Inference. We estimate equations (9) and (10) as two-way fixed-effect regressions. In both equations, the first line is a time fixed effect (capturing aggregate economic conditions and the overall orientation of the Supreme Court), the second line is a state fixed effect (capturing structural characteristics of the local economy and the long-run orientation of the state's courts), and the third line reflects the interaction between sci_t and dci_s (capturing the dogs-on-a-leash property of the model) as well as a residual (capturing local shocks).

First, we estimate a regression with average district court rulings (where s now represents a state instead of a judge) $r_{s,t}$ as the dependent variable, year fixed effects μ_t , state fixed effects δ_s , and the interaction between Supreme Court ideology and district court ideology, $sci_t \cdot dci_s$, (and control variables $X_{s,t}$) as independent variables

$$r_{s,t} = \gamma \cdot sci_t \cdot dci_s + \beta \cdot X_{s,t} + \delta_s + \mu_t + \epsilon_{s,t}, \quad (12)$$

where $\epsilon_{s,t}$ is a residual. This regression includes the main test of our identifying assumptions. According to the model, $\gamma = \alpha_3 / (1 + \phi_2 \eta_2)$, see (9). Under the weak assumption (11), our model predicts

$$\gamma < 0$$

because, in our empirical sample, we have $sci_t \geq 0$ such that $Q' > 0$ and, thus, $\alpha_3 < 0$.

Second, we use the interaction $sci_t \cdot dci_s$ in regressions with labor market outcomes as the dependent variable. Specifically, we estimate

$$y_{s,t} = \gamma^y \cdot sci_t \cdot dci_s + \beta^y \cdot \tilde{X}_{s,t} + \delta_s^y + \mu_t^y + \epsilon_{s,t}^y, \quad (13)$$

where $y_{s,t}$ is a specific labor market outcome of interest in state s and year t . $\tilde{X}_{s,t}$ is the set of time-varying state-specific variables that can be expected to affect labor market outcomes directly. State and time fixed effects are captured by δ_s^y and μ_t^y . $\epsilon_{s,t}^y$ is the residual.

These regressions identify the direction of the effect of court ideology on the considered outcome variable. According to the model, the coefficient on the interaction term is

$$\gamma^y = \frac{\eta_2 \alpha_3}{1 + \phi_2 \eta_2},$$

see (10). Since $1 + \phi_2 \eta_2 > 0$ and $\alpha_3 < 0$, we have

$$\text{sign}(\gamma^y) = -\text{sign}(\eta_2).$$

Considering equations (12) and (13), one notices that our estimation approach is similar to a two-stage estimation of the effect of the ideological leaning of district court rulings $r_{s,t}$ on the economy, using the interaction of sci_t and dci_s as an instrument for the rulings. Yet, this is not our preferred approach. The reason is that the average ideological leaning of actually issued rulings is unlikely to reflect the full effect of the Supreme Court’s ideological shift. If the likelihood that a given employer-employee dispute will be decided in favor of the employer increases, employees will refrain from filing certain lawsuits because they view their chances of success as too low, or they will be more likely to accept out-of-court settlements. As a result, the composition of cases heard in the district courts shifts, and changes in the average ideological expression of actually issued rulings understate the change in the judicial climate. Arguably, behaviors of actors in the labor market are influenced by this general judicial climate. Firms, for example, might become more inclined to hire new employees if they perceive lower risks of being sued successfully by the employee in the event of a subsequent dismissal. Employees might be willing to make concessions in wage negotiations if they see their bargaining position weakened by a pro-company climate in the courts. In both examples, changing expectations of what would happen in court are sufficient to change behavior. For these reasons, we decide to estimate equation (13) in an intention-to-treat approach where we build on the states with more liberal district court judges being more strongly affected by the conservative shift at the Supreme Court, the treatment.

3 Variable Definitions, Data Sources, and Sample Selection

We construct a data set of yearly observations at the state level from 1978 to 2011. We construct labor market outcomes from the Basic Monthly Data (BMD) of the Current Population Survey, the primary source of labor force statistics in the U.S. The BMD start in 1976 and we decide not to use the first two years because Supreme Court ideology reaches a value of zero in 1978 and stays above this value for the entire sample period, yielding a clear testable prediction of our identification strategy, see Section 2. The end date is chosen because ideology scores for the Supreme Court by Bailey (2013) are only available until 2011.⁸ The state is the relevant level of geographical aggregation because states, in contrast to court district, have consistent borders and CPS’s sample design is state based. The yearly frequency results from the design of the judicial ideology data.

District Court Rulings $r_{s,t}$. For district court rulings $r_{s,t}$, we use the Carp-Manning (2016) U.S. district court database which contains over 110,000 decisions from 1927 to 2012. All cases in this database are taken from the Federal Supplement, the primary source of published district court decisions. In practice, though the publisher has no legal monopoly

⁸Bailey (2020) provides updated values for Justices’ ideology until 2019. Yet, we stick to the original values for two reasons. First, over our sample period, median Justice scores are very similar with a linear regression of the updated scores on the original one giving a slope coefficient of 0.9891 and an R^2 of 73%. Second, with the updated scores, we would only gain one year of observations as data on district court rulings from the Carp-Manning database stops in 2012.

over court opinions, all published decisions of sitting federal district judges have occurred in the Federal Supplement. Judges' decisions to publish are mainly determined by the official publication guidelines and not by judges' ideological tendencies (Swenson 2004).⁹ These official guidelines generally encourage publication if the decision lays down a new rule of law, alters or criticizes an existing rule, or changes the way in which an existing rule is applied. Hence, rulings in our dataset are rulings that have high precedential value and are thus likely influential for a large number of other (unpublished) cases.

The database contains a total of 23,135 rulings of district courts in the 50 states from 1978 to 2011 that can be clearly labeled as either conservative (+1) or liberal (-1) and that are categorized as Economic Regulation and/or Labor Cases. The majority of these cases are employee versus employer cases, which make up over one third of all included rulings. Cases of a company versus either a union or the National Labor Relations Board (NLRB) make up close to 15%. In general, pro-business decisions are considered to be conservative rulings. In a dispute between workers and their employer, decisions in favor of the worker are regarded as liberal whereas decisions in favor of the employer are regarded as conservative. In regulation cases, decisions for the government are considered to be liberal. Our dependent variable $r_{s,t}$ is the average ideological leaning of rulings in state s and year t .

Descriptively, the average ideological leaning of district court rulings in our sample is -0.0921. This is tantamount to a mean share of pro-business rulings of 45.4%. As can be seen from Figure 2, the share of pro-business rulings tends to increase over time.

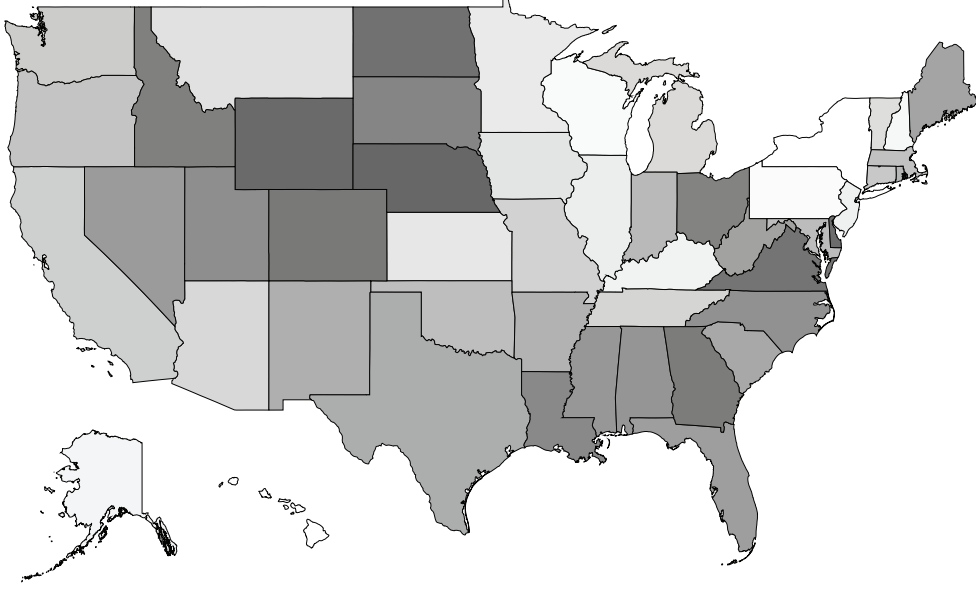
District Court Ideology dci_s . For the ideology of district court judges, dci_s , we use information on ideologies provided by Boyd (2015b).¹⁰ As the rulings of district court judges will arguably be influenced by Supreme Court ideology, we refrain from using ideology scores that are based on rulings and use scores that are calculated based on the appointment process for federal judges instead. The Boyd scores exploit the norm of senatorial courtesy: if a judge is appointed from a state where the President and a senator (both senators) are from the same political party, the judge is assigned the ideology score of the senator (the average of the senators). Otherwise, the judge is assigned the ideology score of the President. We link the Boyd data to information on confirmation, reassignment, and retirement dates of district court judges from the Biographical Directory of Article III Federal Judges provided by the Federal Judicial Center (2020) to have information on their respective times in office.

While the ideology of judges at a district court is a constant in our model, in reality it changes over time due to the appointment of new judges and the retirement of old ones. In order to avoid endogeneity in the ideology measure for district courts, we use the average Boyd ideology score of district court judges in state s that have been serving between 1936 (the first year for which there are ideology scores available from the Boyd dataset) and 1977

⁹About 20% of all cases decided in district courts are eventually published in the Federal Supplement.

¹⁰The calculation of the ideology scores from Boyd (2015b) follows the methodology developed in Giles et al. (2001) and extended in Epstein et al. (2007). Ideology scores are bounded between -1 and 1.

Figure 4: AVERAGE IDEOLOGY SCORE OF DISTRICT COURT JUDGES BY STATE, 1936–1977



Notes: Average Boyd ideology score of district court judges by state for the time period between 1936 and 1977. Darker areas indicate conservatism and lighter areas indicate liberalism.

(the year before our regression sample begins). Formally, we define

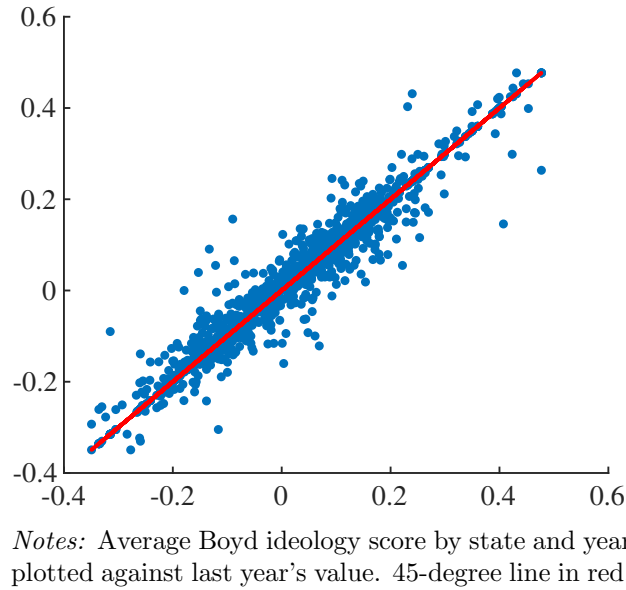
$$dci_s = \frac{1}{\sum_{j \in J_s} \tau_j} \sum_{j \in J_s} \tau_j B_j,$$

where J_s is the set of district judges serving in state s between 1936 and 1977, τ_j is the term length for judge j in this time frame, and B_j is judge j 's ideology score. The map in Figure 4 shows our district court ideology measure for the 50 states.

Importantly, this pre-sample ideology measure is informative about the ideological leanings of a state's district courts judges in the regression period, as ideological leanings of courts display substantial persistence. Federal judges are appointed for life and, hence, mostly serve long terms until they retire voluntarily. Reappointments to other courts are rare. A further factor perpetuating ideological leanings at a court is strategic retirement. Federal judges are often considered to prefer their successors to be ideologically similar to themselves and, consistently, are found to retire when national political conditions are favorable to this goal (Barrow and Zuk 1990; Spriggs and Wahlbeck 1995; Nelson and Ringsmuth 2009; Hansford et al. 2010; Hughes 2021; Stolzenberg and Lindgren 2021).

Figure 5 plots the average ideology score of district court judges by state and year against last year's value. Most observations concentrate around the 45-degree line, indicating a high persistence in district court ideology by state. This persistence is key to our identification, which relies on long-run ideological differences between persistently rather liberal courts and persistently rather conservative courts. A simple regression of the average ideology score of

Figure 5: CORRELATION OF IDEOLOGY SCORES OF DISTRICT COURT JUDGES BY STATE AND YEAR, 1978–2011



district court judges by state and year on its own lag and state fixed effects gives a coefficient on the lag of 0.92.¹¹

While the descriptive evidence indicates a high persistence of district court ideology over time, it is silent on the underlying reason for initial ideological differences. We argue that these differences are likely driven by historical events that took place before the start of our sample period. The historical composition of a court along ideological lines depends on the interplay of various political constellations and, to some extent, on coincidence.

For one, it is important which political party was able to fill which judgeship for the first time. District courts expanded significantly between 1922 and 1970.¹² Three of the four judgeships that existed in district courts in 1977 were created during this period.¹³ Scholarly observers agree that political circumstances in Washington, D.C., strongly influence when and where new judicial positions or courts are created. A key factor influencing whether new positions or courts are created is similarity between the President and the majorities in the two chambers of Congress, i.e., whether they are of the same party and similar ideologically (De Figueiredo and Tiller 1996; De Figueiredo et al. 2000; Menounou et al. 2019).¹⁴ Accordingly, there have been three major rounds of court expansion in the 1920s

¹¹Thus, while district court ideology is highly persistent, it displays some tendency to revert to the middle of the ideological spectrum over time, reflecting that some rather liberal (conservative) judges retire during the presidency of a Republican (Democratic) President in each year. One may argue that this induces rulings in initially rather liberal district courts to become more conservative over time, independent of ideological developments at the Supreme Court. For this reason, we include the lagged dependent variable as a control in our regressions to capture mean-reverting tendencies in rulings by state, as described above. Additionally, we also directly control for the share of judges appointed by a Republican President in our regressions.

¹²The starting point for the growth of the courts was the creation of the Conference of Senior Circuit Judges by Congress in 1922, which substantially increased the autonomy of the courts.

¹³As a comparison to this fourfold surge within five decades, the number of judgeships grew by only 40% in the following five decades.

¹⁴Federal judges are appointed by the President and confirmed by the Senate. However, additions to the

(Republican Trifecta) as well as the 1930s and 1960s (Democratic Trifectas). In which states, the new positions are created depends not only on the increase in the caseload but also on national politics and the compositions of the included legislative committees. There is some tendency for majorities in Washington, D.C., to create additional judgeships especially in those courts that are most different ideologically (Menounou et al. 2019) which induces some mean reversion in court ideology. Yet, this reversion appears to proceed slowly as witnessed by the high correlation of district court ideology over time. Further, Franco (2018) argues that judge positions, similar to traditional pork (e.g., infrastructure projects that benefit specific constituents), are increasingly going to states whose legislators hold important positions on the relevant committees. He presents evidence that rank-and-file representation on Senate and House Judiciary Committees has a positive impact on the allocation of judicial positions. Which party shaped which judicial district thus depends substantially on which states the important members of these committees came from in the 1920s, 1930s, and 1960s.

Second, unexpected events may cause the successors of retiring judges to be appointed by Presidents of the other party. An example is the district court for Delaware, where the death of two liberal judges allowed President Eisenhower to fill two further vacancies by conservative judges in addition to a newly created seat, which shaped the court for decades.

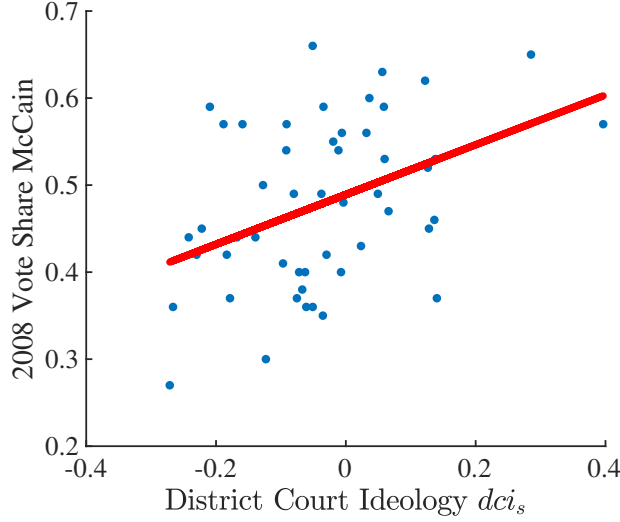
In summary, we are confident that the pre-sample ideology measure we use is indeed informative about judge ideology within our regression sample while being unrelated to potentially endogenous ideological changes occurring within our sample. The average judge (weighted by years in office) who influences our pre-sample measure of district court ideology was appointed in 1956, more than 20 years before the start of our regression sample. Business cycle shocks are usually considered to fade a lot more quickly and permanent shocks to a state's economy are taken into account by using state fixed effects.

A state's district court ideology is correlated with the perceived political ideology in that state, see the map in Figure 4 and Figure 6 which plots the court ideology measure against the vote shares for John McCain in the 2008 Presidential election. However, the connection is far from perfect. There are a few noticeable cases like Kentucky, a red state which has rather liberal district courts, or Delaware, a blue state with a rather conservative district court. Politically liberal California has the median ideology score for the district courts (taking into account population differences between states). The correlation between the 2008 vote share for McCain (as an indicator for a state's general conservatism) and our district court ideology measure is 0.4. For our analysis, it is advantageous that this correlation is not too high, such that we can actually disentangle a state's district court ideology from the general political leaning of the state.

Figure 7 plots the court ideology measure by state against the average annual growth rate of average real personal income by state between 1949 (the first year in which personal

bench are accomplished by legislation, which also requires the approval of the House of Representatives. A Unified Government thus allows the party in power to create judicial positions that it can fill itself.

**Figure 6: DISTRICT COURT IDEOLOGY AND
2008 VOTE SHARES FOR JOHN MCCAIN**



Notes: Average Boyd ideology score of district court judges, 1936-1977, by state plotted against voting share for John McCain in 2008 presidential election (from the Federal Election Commission).

income is available for all states) and 1977 (before the start of our regression analysis). We see that there is no discernible connection between these two variables. A linear regression delivers an insignificant and small slope coefficient and an R^2 of only 0.006. These findings support the assumption that states' pre-sample trends were unrelated to our judicial ideology measure or, put differently, that states with different judicial ideology in fact had common trends.¹⁵

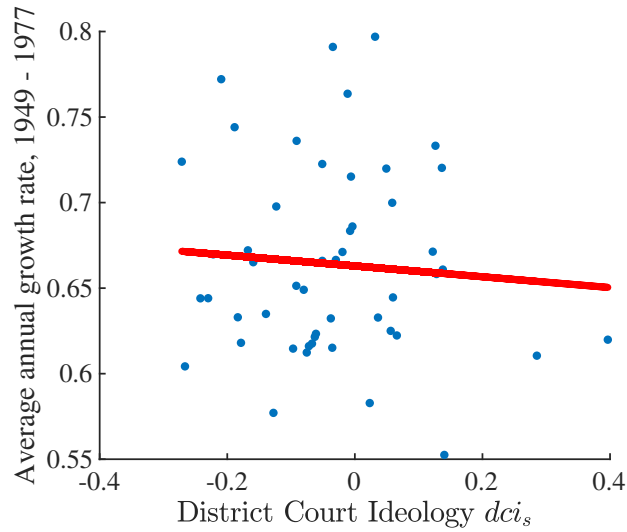
Supreme Court Ideology sci_t . For the ideology of Supreme Court Justices, sci_t , we use the ideal point estimates calculated by Bailey (2013). We choose the Bailey (2013) scores over the more common Martin-Quinn scores, since the former are able to distinguish between shifts in ideologies and shifts in case composition by using bridging information such as positions of Justices on previous cases. With changing ideological leanings of Supreme Court Justices, the case composition is bound to change as well.¹⁶ If ideological leanings and case composition change simultaneously, the effect on liberal voting percentages of Supreme Court Justices, on which the Martin-Quinn scores are based, is unclear. The use of bridging information allows Bailey (2013) to disentangle the two effects.¹⁷

¹⁵Note that Figure 7 is solely descriptive and not informative about the causal effects of Supreme Court ideology shifts before 1978. The reason is that the measure dci_s includes the endogenous developments at the district courts that happened before 1978.

¹⁶Cases are heard by the Supreme Court if they are supported by at least four Supreme Court Justices. Thus, with more conservative Justices, one would expect some cases to be chosen that would not be heard by a more liberal Supreme Court. This pertains, for example, to cases with liberal rulings of the lower courts, that a liberal Supreme Court would be very unlikely to overturn.

¹⁷The Bailey scores are bounded between -2 and 2. In the data, the median Bailey score of the Supreme Court between 1950 and 2011 has never been below -1.1 and has never exceeded a value of 0.6. Thus, a value of -1 already constitutes an exceedingly liberal Supreme Court that can be expected to overturn overly

**Figure 7: DISTRICT COURT IDEOLOGY
AND PER-CAPITA INCOME GROWTH, 1949-1977**



Notes: Horizontal axis: Average Boyd ideology score of district court judges by state, 1936-1977. Vertical axis: average annual real growth rate of average personal income by state, 1949-1977. Bureau of Economic Analysis, Personal Income by State.

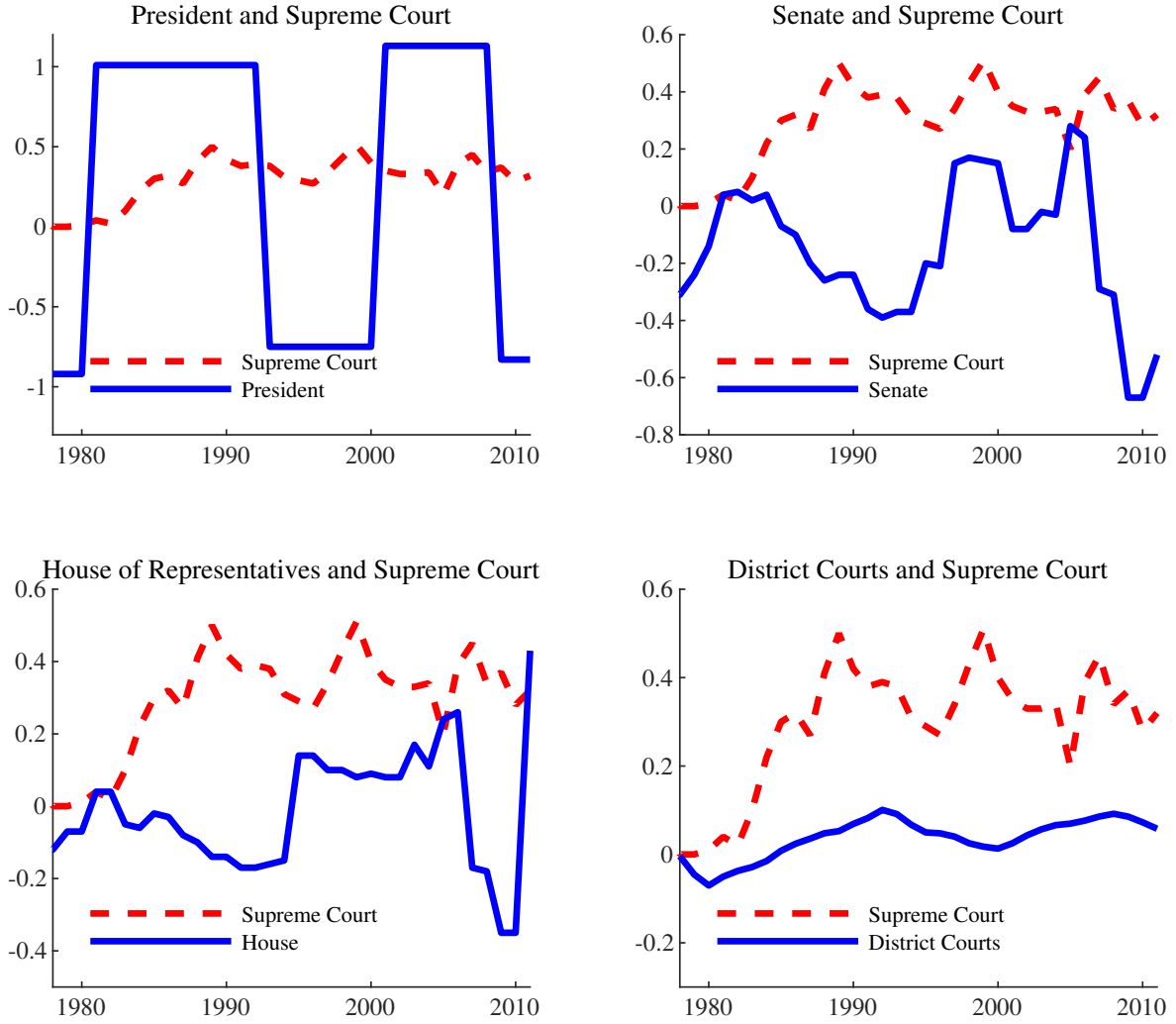
We define sci_t as the median Bailey score of Supreme Court Justices. Over our sample period, this measure starts with a value of zero in 1978 and then increases steeply in the 1980s. It reaches its sample maximum of 0.51 in 1999 and then fluctuates in a range of clearly conservative values in the 21st century.

Figure 8 compares the evolution of the ideological leanings of Supreme Court Justices to the evolution of the ideological leanings of the President, Congress, and district court judges.¹⁸ Although ideological changes in Congress or the White House are absorbed by the time fixed effects in our analysis, it is informative that the respective ideology scores do not correlate substantially with Supreme Court ideology. As both Supreme Court Justices and district court judges are appointed by the President, the two series naturally display a positive correlation. Still, the conservative shift of district court judges is much more modest over the entire sample period. This ameliorates potential concerns that a relative increase in conservative rulings in liberal states might not be driven by district court judges following the increasingly conservative guidelines set by the Supreme Court but by a concomitant rightward shift of district court ideology. To further address this concern, we include the share of district court judges appointed by a Republican President as a control variable in our regressions.

conservative rulings of lower courts. The reverse argument holds for the value 1.

¹⁸Keep in mind that the ideology scores of district court judges are based on their appointment process and are thus unaffected by changes in rulings or case composition.

Figure 8: IDEOLOGICAL LEANINGS OF SUPREME COURT JUSTICES, THE PRESIDENT, THE SENATE, THE HOUSE OF REPRESENTATIVES, AND DISTRICT COURT JUDGES



Notes: Ideal Bailey (2013) point estimates for median Supreme Court Justice, median U.S. senator, median member of U.S. House of Representatives, and U.S. President. Average Boyd (2015b) ideology score for district court judges.

Labor market outcomes y_t . For labor market outcomes, we draw on the Current Population Survey (CPS). The CPS is a monthly survey of about 60,000 U.S. households conducted by the United States Census Bureau. The sample is representative of the civilian noninstitutional population. We construct yearly data on state-specific unemployment rates, job-finding rates, employment rates, hourly wage rates, other job attributes, employment shares by industry and occupational group, and inequality measures using weights from the Integrated Public Use Microdata Series (IPUMS, Flood et al., 2020). More information on the dependent variables can be found in Appendix A.

Control variables X_t . In the regressions for court rulings $r_{s,t}$, we control for variables that can be expected to affect rulings beyond the interplay between Supreme Court ideology and district court ideology. Specifically, we account for the case composition, using information from the Carp-Manning database, and for judge composition along characteristics such as

age, race, gender, and experience (which have been identified as determinants of rulings by the literature), using information from the Biographical Directory of Article III Federal Judges and the Carp-Manning database. We take the role of circuit courts into account by controlling for the average Boyd score of the responsible appellate judges. To ensure that our results are not driven by compositional changes at the district courts, we include the share of district court judges appointed by a Republican President. To capture non-judicial ideological forces potentially affecting district court rulings, we also control for well-known determinants of ideological leanings of the state’s population, such as population size, urban density, age, and racial composition, from the CPS. Further indicators of a state’s ideological preferences, like the party of the governor and the majority parties in the state’s legislative chambers, are obtained from the State Partisan Composition collected by the National Conference of State Legislatures and additionally included as controls. Finally, since the autocorrelation of the average judge ideology score at a district court is below one, average rulings by district courts might show some tendency to converge toward the middle, i.e., rulings at initially rather liberal district courts might tend to become more conservative over time independent of developments at the Supreme Court. To pick up such mean-reverting tendencies, we also include the lagged dependent variable in the set of control variables. In alternative specification, we vary the set of control variables and also consider a specification without any additional controls beyond state and time fixed effects.

In the regressions for labor market outcomes $y_{s,t}$, we include the following time-varying state-specific variables that can be expected to affect labor market outcomes directly.¹⁹ A first set of control variables, taken from the CPS, describes the state’s industry and occupational composition. It includes the employment shares in the construction, manufacturing, transportation, trade, financial, and services industries as well as the employment share in abstract, routine, and manual occupations, following the categorization by [Autor and Dorn \(2013\)](#). We further control for a set of state-specific policy measures. This set includes a measure of the tax burden, the state minimum wage, the state’s federal intergovernmental revenue and a measure of employment protection laws in the state. The tax burden is the total amount paid in taxes by a state’s residents divided by the state’s total income computed by the Tax Foundation. Minimum wages are the minimum wage rates by state from Federal Reserve Economic Data. Data on the federal intergovernmental revenue of a state is taken from the State and Local Government Finance Dataset constructed by the Census Bureau through the Annual Survey of State and Local Government Finances. These revenues consist of all monies a state obtains from the federal government. Regarding employment protection, dummies for exceptions from the doctrine of at-will employment are constructed using the data provided in [Autor et al. \(2006\)](#).²⁰ We include controls for state

¹⁹Note that all variables that are either state-specific but constant or time-varying but determined at the national level are captured by the respective fixed effects. For example, the party holding the Presidency, which is correlated with Supreme Court ideology, see Figure 8, does not vary by state and its effects are hence captured by the year fixed effect.

²⁰In contrast to other employment protection measures, the empirical literature consistently finds negative

government and legislative majorities. In robustness checks, we also include controls for state demographics (like in the regressions for court rulings) and account for pre-sample trends. To check robustness further, we exclude groups of control variables one by one.

Sample Selection. In principle, our sample contains $34 \text{ years} \times 50 \text{ states} = 1700$ state-year observations. However, there are 79 state-year combinations with no rulings falling into the Economic Regulation and/or Labor Cases category. Because we also use lagged rulings as a control variable in our regressions, we lose another 62 observations because of years without rulings in certain states.²¹ Missing values for other control variables induce the loss of another 60 observations.²² This leaves us with a consistent sample of 1499 state-year observations for which we observe all our variables.

Discussion. A couple of further points are worth discussing before we turn to the results. First, shift-share analyses such as ours have recently been criticized for causing biases, as they might be correlated to previous shocks (Jaeger et al. 2018; Goldsmith-Pinkham et al. 2020). For such a correlation between the interaction term and responses to past shocks to drive our results, one would have to argue that unfavorable past shocks to a state’s economy have led to the appointment of more liberal district court judges and are still driving economic performance in our sample, such that the recovery from those shocks drives the positive correlation between the increase in Supreme Court ideology and economic performance in states with rather liberal district court judges. We are confident that the long time period we can use for the calculation of the pre-sample measure of district court ideology makes this a minor issue for our analysis. This is reinforced by the long time period between most judges’ appointments and the beginning of our sample.

Second, the literature has shown that two-way fixed effect estimators yield biased estimates in case of staggered treatments, i.e., when treated units receive the treatment at different points in time (Athey and Imbens 2021; Callaway and Sant’Anna 2020; De Chaisemartin and d’Haultfoeulle 2020). Our approach is not subject to this issue since we study the effects of an aggregate phenomenon (the rightward shift of the Supreme Court) which happens at the same time for all states but which affects some states more than others.

Third, the map in Figure 4 shows some concentration of rather liberal district courts

employment effects of exceptions from the doctrine of employment at-will, with the only exception being Miles (2000). However, the findings of Miles (2000) have later been disputed by Autor et al. (2004).

²¹The Carp-Manning U.S. district court database does not include rulings in the economic category for Alaska in 1980, 1987, 1990, 1991, 1997, 2001, 2004, and 2009, for Arizona in 1981, for Arkansas in 2000, for Delaware in 2011, for Hawaii in 1985, for Idaho in 1977, 1979, 1991, 1994, 1997, 1999, 2000, and 2006, for Iowa in 1978, for Kentucky in 1980 and 2000, for Maine in 1977, 1978 and 1981, for Montana in 1984, 1990, 1991 and 1993, for Nebraska in 1983, 1988, 1991, 2006 and 2007, for Nevada in 1994, 2007, and 2008, for New Hampshire in 1979, 2001, 2003, and 2011, for New Mexico in 1979, 1981, 1982, 1988, 1998, and 2006, for North Dakota in 1977, 1979, 1988, 1990, 1992, 1993, 1994, 1997, 1998, 1999, and 2001, for Rhode Island in 1981, for South Dakota in 1987, 1988, 1991, 1998, and 1999, for Utah in 1978, for Vermont in 1981, 1982, 1984, 1986, 1988, 2010, and 2011, for Washington State in 1978 and 1979, and for Wyoming in 1977, 1981, 1984, 1998, 2003, 2006, 2007, and 2011.

²²Our urban-density variables are not reported in the CPS before 1986 for Delaware, Idaho, Maine, Montana, Nevada, New Hampshire, North Dakota, and South Dakota, as well as between 1986 and 1995 for Wyoming.

Table 1: REGRESSION RESULTS FOR DISTRICT COURT RULINGS

	(1)	(2)	(3)	(4)
Supreme Court ideology × district court ideology	-1.9673 (0.7104) <i>p</i> =0.0057	-2.0102 (0.7095) <i>p</i> =0.0047	-1.7978 (0.6904) <i>p</i> =0.0093	-1.8778 (0.6905) <i>p</i> =0.0066
Observations	1499	1499	1499	1499
R^2	0.2619	0.2612	0.0918	0.0885
Lagged dependent variable	yes	no	yes	no
State demographics	yes	yes	no	no
Court, judge, and case characteristics	yes	yes	no	no
State government and legislative controls	yes	yes	no	no
Year fixed effects	yes	yes	yes	yes
State fixed effects	yes	yes	yes	yes

Notes: Standard errors in parentheses, p-values below the standard errors.

in the northeast, with New York, Pennsylvania, and New Hampshire belonging to the five states with the most liberal district court judges according to our measure dci_s . We have tested for regional variation in treatment effects, which would indicate a need to cluster standard errors despite the fact that we include state fixed effects in the regressions (Abadie et al. 2017) but could not find any systematic pattern.

Finally, despite the large overall size of the CPS, sub-samples at the state level can be quite small. In some states, the sample size can be as low as 500 households. This leads to larger sampling errors for these small states than for larger states. We address this issue by weighting observations by state population in our regressions for labor market outcomes.

4 Results

4.1 District Court Rulings

The regression results for district court rulings are reported in Table 1. Column (1) constitutes our preferred specification, featuring the full set of control variables. Column (2) excludes the lagged dependent variable, Column (3) excludes all control variables except the lagged dependent variable, and Column (4) excludes all control variables.

As predicted, the coefficient on the interaction term between Supreme Court ideology and district court ideology is negative in all four specifications. This means that the shift in Supreme Court ideology did indeed induce rulings to become more conservative in states with rather liberal district courts relative to states with rather conservative district courts. Column (2) shows a somewhat larger coefficient in absolute value than Column (1), indicating that taking into account the tendency of rulings in a state to converge to the center

Table 2: REGRESSION RESULTS FOR MEASURES OF LABOR MARKET FLUIDITY

	(1)	(2)	(3)
Dependent variable	Unemployment rate	Job-finding rate	Employment rate
Supreme Court ideology sci_t × district court ideology dci_s	0.0705 (0.0208) $p= 0.0007$	−0.0565 (0.0247) $p= 0.0223$	−0.0831 (0.0297) $p= 0.0052$
Observations	1499	1499	1499
R^2	0.7561	0.6414	0.8623
Industry and occupation controls	yes	yes	yes
State policy controls	yes	yes	yes
State government and legislative controls	yes	yes	yes
Year fixed effects	yes	yes	yes
State fixed effects	yes	yes	yes

Notes: Standard errors in parentheses, p-values below standard errors.

over time is indeed important. However, as the coefficients are fairly similar, this tendency does not seem to matter too much. Columns (3) and (4), which leave out control variables, illustrate that our results do not depend on the specific set of included controls.

We perform several checks in order to assess the robustness of our findings. First, we include controls for local labor market conditions. This evaluation is motivated by the evidence that court rulings can be affected by economic conditions. Second, we include higher lags of the dependent variable, allowing us to capture more general mean-reverting tendencies in district court rulings. Third, we weigh observations by the number of rulings per state population, which reduces the importance of observations where unusually few rulings are published. Fourth, we use a moving average of our measure of Supreme Court ideology sci_t . This addresses the possibility that district court judges orientate themselves partly on past rather than only current Supreme Court guidance. Finally, we address that the steepest increase in Supreme Court conservatism happened in the 1980s and that the Supreme Court ideology measure reaches its sample peak in 1999 by restricting the sample period to the time before the year 2000. In all of these specifications the coefficient on the interaction term between Supreme Court ideology and district court ideology remains distinctly negative and highly statistically significant. See Appendix B for the detailed results.

Table 3: REGRESSION RESULTS FOR JOB ATTRIBUTES

	(1)	(2)	(3)	(4)
Dependent variable	Avg. hourly wage rate	PT share (voluntary)	PT/FT wage ratio	Union coverage
Supreme Court ideology sci_t $\times$ district court ideology dci_s	0.1739 (0.0707) $p = 0.0140$	0.0375 (0.0186) $p = 0.0447$	0.4265 (0.2065) $p = 0.0391$	0.1305 (0.0267) $p = 0.0000$
Observations	1499	1499	1499	1499
R^2	0.9933	0.8071	0.4180	0.9666
Industry and occupation controls	yes	yes	yes	yes
State policy controls	yes	yes	yes	yes
State government and legislative controls	yes	yes	yes	yes
Year fixed effects	yes	yes	yes	yes
State fixed effects	yes	yes	yes	yes

Notes: Standard errors in parentheses, p-values below standard errors.

4.2 Labor Market Outcomes

Our main results for labor market outcomes are shown in Tables 2 through 6. Recall that the coefficient on the interaction term between Supreme Court ideology sci_t and district court ideology dci_s identifies the *inverse* sign of the effect of judicial ideology on the dependent variable. For example, if we find a positive coefficient, this means that a more conservative judiciary tends to reduce the respective labor market outcome. Further, the size of the coefficient refers to the effect of a unit-shift in Supreme Court ideology on the outcome difference between two states whose district courts differ by one ideology point. After discussing the direction of the estimated effects, we will discuss how to translate the coefficients into numbers which make it easier to understand the strength of the aggregate effects of judicial ideology.

Table 2 shows that judicial conservatism tends to promote labor market dynamism. We find negative coefficients on the interaction term in regressions for the employment rate and the job-finding rate (the share of the unemployed that find a new job in a given month). The estimated coefficient in a regression for the unemployment rate is positive. Hence, in response to an increase in judicial conservatism, employment and the job-finding rate decrease in states with more conservative district courts relative to states with more liberal district courts while the reverse holds for unemployment. Because the latter states are more strongly affected by the rightward shift at the Supreme Court during our sample period, our results imply that this shift increased the employment rate, reduced the unemployment rate, and increased the probability for unemployed people to find a new job.

Table 4: REGRESSION RESULTS FOR OCCUPATIONAL EMPLOYMENT SHARES

	(1)	(2)	(3)
Dependent variable	Abstract emp. share	Routine emp. share	Manual emp. share
Supreme Court ideology sci_t × district court ideology dci_s	−0.0645 (0.0248) $p = 0.0093$	0.0633 (0.0250) $p = 0.0116$	0.0220 (0.0209) $p = 0.2932$
Observations	1499	1499	1499
R^2	0.9055	0.8267	0.7951
Industry and occupation controls	no	no	no
State policy controls	yes	yes	yes
State government and legislative controls	yes	yes	yes
Year fixed effects	yes	yes	yes
State fixed effects	yes	yes	yes

Notes: Standard errors in parentheses, p-values below standard errors.

While Table 2 has considered only the total number of jobs, jobs differ from one another in dimensions relevant for assessing developments on the labor market. For this reason, we turn to a number of relevant job attributes in Table 3. Specifically, we look at average pay per job, whether workers can work part-time if they wish to, how much wage reduction they need to accept for a part-time job, and how many jobs are unionized. We find positive coefficients on the interaction term in all four regressions. Applying again that the relative change in the more strongly affected states with liberal district courts identifies the effects in question, our results imply that judicial conservatism reduces average hourly wages, the employment share of voluntary part-time workers, and union coverage, while increasing the part-time hourly wage penalty. Hence, as employment increases, labor earnings, workplace flexibility (voluntary part-time employment), and job security (union coverage) all decrease. The rise in the part-time penalty can be seen as an increase in firms' ability to discriminate between different groups of workers in terms of pay, which is potentially brought about by a lower risk of losing lawsuits in courts that increasingly have a pro-business attitude.

In Tables 4 and 5, we consider selected employment shares by occupation group and by industry group, respectively, as dependent variables.²³ We find significantly negative coefficients for the employment shares of abstract occupations and service industries and significantly positive coefficients for the shares of routine occupations and manufacturing industries. Since these coefficients identify the inverse sign of the causal effects, our findings indicate that judicial conservatism leads to a decline in the routine and manufacturing em-

²³Obviously, we cannot control for the state's industry-occupation composition in these regressions. For completeness, Table A.4 in C shows results for further industry groups not included in Table 5.

Table 5: REGRESSION RESULTS FOR INDUSTRY EMPLOYMENT SHARES

	(1)	(2)	(3)
Dependent variable	Construction emp. share	Manufacturing emp. share	Service emp. share
Supreme Court ideology sci_t × district court ideology dci_s	−0.0456 (0.0160) $p= 0.0044$	0.1428 (0.0297) $p= 0.0000$	−0.0930 (0.0260) $p= 0.0004$
Observations	1499	1499	1499
R^2	0.6692	0.9287	0.9013
Industry and occupation controls	no	no	no
State policy controls	yes	yes	yes
State government and legislative controls	yes	yes	yes
Year fixed effects	yes	yes	yes
State fixed effects	yes	yes	yes

Notes: Standard errors in parentheses, p-values below standard errors.

ployment shares while increasing the employment share of abstract workers and of employees in the construction and service sectors. In this sense, it accelerates the hollowing out of the middle class, as workers in routine-manufacturing jobs typically rank in the middle of the income distribution.

Finally, judicial conservatism also tends to contribute to rising income inequality. Table 6 shows results for the 90/10, 90/50, and 50/10 percentile ratios of the distribution of family income.²⁴ The negative coefficients shown in the table imply that rightward shifts in Supreme Court ideology raise inequality in the more strongly affected states with liberal district courts which reveals a general inequality-increasing effect of judicial conservatism. The coefficient on the interaction term is significant only for the 90/10 and 90/50 income ratios, suggesting that the increase in income inequality due to increasingly conservative judicial ideology is mainly driven by increasing inequality at the top half of the income distribution, i.e., by disproportionately increasing top incomes.

Potential mechanisms behind our results may build on the observation that rising judicial conservatism raises the likelihood of lawsuits ending in pro-business decisions. More pro-business decisions lower costs for firms while also improving their bargaining position. This reduces unemployment at the cost of lower wages and higher inequality. The empirical results regarding the other considered variables can be understood in a similar way. As the union bargaining power is depressed by higher chances of pro-business rulings, incentives to join a union fall, which further contributes to lower wages and larger income inequality.

²⁴We consider the 80/20, 80/50, and 50/20 income ratios in Table A.4 in Appendix C and find similar effects of judicial ideology.

Table 6: REGRESSION RESULTS FOR INEQUALITY

	(1)	(2)	(3)
Dependent variable	90/10 percentiles	90/50 percentiles	50/10 percentiles
Supreme Court ideology sci_t × district court ideology dci_s	−0.3674 (0.1592) $p = 0.0211$	−0.1973 (0.0753) $p = 0.0089$	−0.1701 (0.1331) $p = 0.2013$
Observations	1499	1499	1499
R^2	0.8228	0.8281	0.7006
Industry and occupation controls	yes	yes	yes
State policy controls	yes	yes	yes
State government and legislative controls	yes	yes	yes
Year fixed effects	yes	yes	yes
State fixed effects	yes	yes	yes

Notes: Standard errors in parentheses, p-values below standard errors.

Furthermore, as the adoption of new technologies proceeds slower in unionized firms due to employment protection (Connolly et al. 1986; Bradley et al. 2017), depressed unionization rates might also explain (at least part of) the documented changes in industry employment shares and in the occupational composition.

Quantitative Evaluation of the Results. As shift-share results only imply relative effects (in our case the change in states with rather liberal district courts relative to the change in states with more conservative district courts), we perform a thought experiment in order to gauge the quantitative meaning of our results. To translate these relative results into absolute effects, we make the additional assumption that the state with the most conservative district court judges is unaffected by the rightward shift of the Supreme Court. This assumption probably understates the effect of shifts at the Supreme Court, as even the most conservative district court will likely experience some effect.

To illustrate the thought experiment, we first consider the difference in the Boyd ideology scores between the state with the most liberal and most conservative district court judges: Hawaii ($dci_s = -0.3$) and Nebraska ($dci_s = 0.4$). Over our sample period, Supreme Court ideology shifted by 0.4 points toward the conservative end. Hence, district court rulings in Hawaii are predicted to become more conservative by

$$-2 \text{ (coefficient)} \cdot 0.4 \text{ (shift at Supreme Court)} \cdot -0.7 \text{ (Hawaii - Nebraska)} = 0.56$$

points relative to district court rulings in Nebraska. Assuming that district court rulings in Nebraska were unaffected by the shift in Supreme Court ideology, the predicted conservative

shift in district court rulings is tantamount to an increase of 23 (56/2) percentage points in the share of pro-business rulings in Hawaii between 1978 and 2011 caused by the rightward shift of the Supreme Court during this period.

Next, we want to consider the nationwide effect of the conservative shift in Supreme Court ideology. Using the population weighted average of district court ideologies (-0.067) implies a conservative shift of

$$-2 \text{ (coefficient)} \cdot 0.4 \text{ (shift at Supreme Court)} \cdot -0.467 \text{ (Average - Nebraska)} = 0.3736$$

points in conservative rulings and, thus, an increase in the share of pro-business rulings of 18.5 percentage points.²⁵

In Table 7, we repeat this analysis for alternative measures of mean district court ideology and for selected labor market outcomes which provide a good summary of our findings. The results of the thought experiment suggest that the conservative shift in Supreme Court ideology between 1978 and 2011 approximately accounted for declines of about 1 percentage point in the unemployment rate, 3 percentage points in the average hourly wage rate, 2.5 percentage points in union coverage and 1 percentage point in the routine employment share, as well as an increase of 6 percentage points in the 90/10 income ratio.

Robustness. We perform several robustness checks to corroborate our findings.

ALTERNATIVE SPECIFICATIONS. Figure 9 illustrates the results of a first set of robustness checks for four selected outcome variables. To save on space, we concentrate on unemployment, average wages, the routine employment share, and the 90/10 income ratio as a measure for inequality. The figure shows, for different specifications of the control vector X_t , the estimated coefficients on the interaction term along with plus/minus one standard error and 95% confidence intervals (detailed results shown in Table A.5 in Appendix C). The overall impression of the figure is that the results are similar between the different specifications which shows that varying control variables is not overly important for our results.

The first line for each variable repeats the baseline estimate for convenience. The second line refers to regressions where we additionally control for state demographics, which are also included in the regressions for district court rulings. Results are similar to the baseline case presented in Section 4.2. Only the effect on wages is estimated less precisely and is just borderline significant with the additional controls.

In the third line, we show estimates from regressions where we additionally control for pre-sample trends by including state-level income growth for the time period between 1949 and 1969.²⁶ Both the size of the effect of our interaction term and the statistical significance

²⁵Note that this number is conditional on case and other controls while the descriptive developments in Figure 2 include the effects of changes in case composition and other controls.

²⁶1949 is chosen as the starting date as it is the first year for which data on state-level income for all states is available from the CPS. 1969 is chosen as the end date as it marks the year in which Supreme Court

**Table 7: QUANTITATIVE EFFECTS OF A CONSERVATIVE SHIFT
AT THE SUPREME COURT BY 0.4 IDEOLOGY POINTS.**

	(1)	(2)	(3)
	unweighted average	weighted average	weighted median
share of pro-business rulings (pp.)	+10.2	+18.5	+20.7
unemployment rate (pp.)	-0.74	-1.34	-1.5
average hourly wage rate (lp.)	-1.83	-3.31	-3.71
unionization rate (pp.)	-1.37	-2.48	-2.78
routine employment share (lp.)	-0.67	-1.21	-1.35
90/10 income ratio (lp.)	+3.87	+7.00	+7.84

Notes: Assuming zero effect in state with most conservative district court (Nebraska, $dci = 0.4$). Unweighted average uses unweighted average of dci_s by state, -0.037. Weighted average uses population-weighted average of dci_s by state, -0.067. Weighted median uses the population-weighted median of dci_s by state, -0.075. pp. = percentage points, lp. = log points.

are nearly unchanged by the inclusion of this additional control variable. Again, the precision of the estimated wage effects is reduced, but the other results are barely affected.

The bottom three lines in each panel refer to regressions where we leave out sets of control variables from our baseline specification one by one. These exercises serve two purposes. First, they reveal whether our results rely on specific control variables. Second, they are informative about potentially endogenous responses of control variables to changing Supreme Court ideology and their effects on our variables of interest. Thus, we can gain some insights about the mechanisms behind the effects of changing Supreme Court ideology.

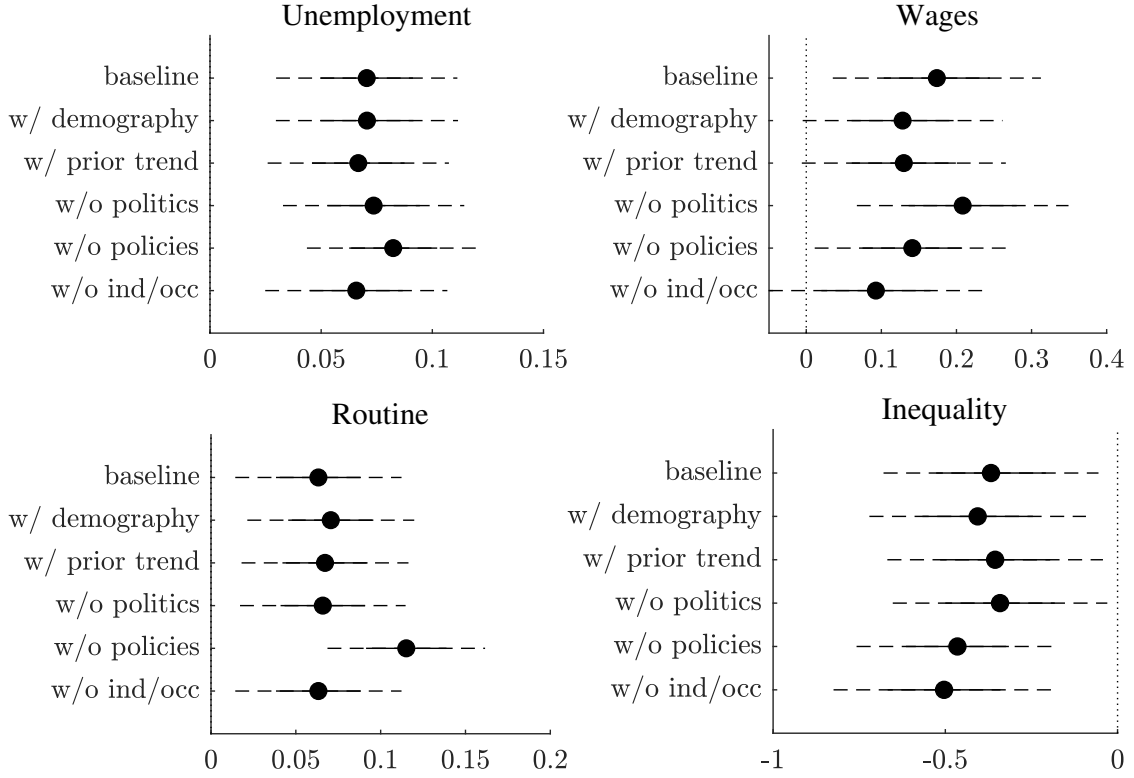
First, we leave out control variables for state politics. This has no effect on the direction or the significance of the effects but changes the size of some coefficients visibly. For example, the effect on wage is strengthened, suggesting that increasing Supreme Court conservatism may induce changes in state governments and legislatures which further weaken workers' bargaining power. Second, we leave out control variables for state-specific policies. This strengthens the effects on unemployment and routine employment. Potentially, increasing conservatism of the Supreme Court changes legislation because lawmakers refrain from rather liberal laws that a conservative Supreme Court can be expected to strike down. Finally, we refrain from controlling for the state's industry-occupation composition.²⁷ Most of the results are barely affected, only for the log hourly wage rate there seem to be some counteracting composition effects (employment shifting to better paying occupations and industries on average) which weaken the precision of the estimate.

OTHER AGGREGATE DEVELOPMENTS WITH REGIONALLY HETEROGENEOUS EFFECTS.
We want to make sure that our results actually reflect the interaction between Supreme Court

ideology began to shift toward the conservative end of the ideological spectrum, see Figure 1.

²⁷By construction, the specification for the routine employment share is unchanged because it did not control for the industry-occupation composition in the first place.

Figure 9: ROBUSTNESS CHECKS AND INSPECTION OF MECHANISMS



Notes: Estimated coefficients $\hat{\gamma}^y$ in regressions of equation (13) with control variables X_t as described. Dots: point estimates. Solid lines: point estimate plus/minus one standard deviation. Dashed lines: 95% confidence intervals. Prior trends: interaction between annual income growth rate 1949-1969 and time included as additional control. Detailed results shown in Table A.5 in Appendix C.

ideology and district court ideology and not the effects of other aggregate developments correlated with Supreme Court ideology in interaction with state characteristics which are correlated with district court ideology. For example, a Republican presidency may affect blue states' economies differently than red states' ones. Further, falling capital prices can be expected to unfold their strongest effects where routine employment shares are high. Similarly, the literature discusses that import competition has affected the labor market most strongly where the manufacturing employment share is high (Autor et al. 2013).

For each of the three potential threats to our identification, we run three additional sets of regressions. First, we add an additional interaction term, capturing the alternative aggregate development with regionally heterogeneous effects, as a control variable. Specifically, we account for the interactions between (a) party of President, $pres_t$, and a state's 2008 vote share for McCain, pol_s (our red-state indicator), (b) between the inverse price of investment goods, cap_t , and a state's inverse initial (i.e., 1978) employment share in routine occupations, rou_s , and (c) between Chinese import penetration, cna_t , and a state's inverse initial employment share in manufacturing industries, man_s . In the second and third sets of robustness checks, we aim at analyzing in how far the alternative interactions confound with the judicial interaction we highlight and how strongly the different effects might interact

with one another. For example, falling capital prices may cause reductions in employment opportunities for routine workers but this process may be slower where judges have stronger pro-worker attitudes. Similarly, the increasing pro-business attitude of the Supreme Court may facilitate layoffs which then concentrate in districts with many manufacturing jobs that employers find profitable to offshore. To address these possibilities, we take into account additional interaction terms between (a) district court ideology and an alternative aggregate time-variant variable (party of President, capital prices, import penetration) and (b) between Supreme Court ideology and an alternative state-specific time-invariant variable (political leanings, routine and manufacturing employment shares). For example, we present results for a specification that includes an interaction term between overall import penetration from China, cna_t , and district court ideology sci_i in addition to the main interaction term between Supreme Court ideology and district court ideology.

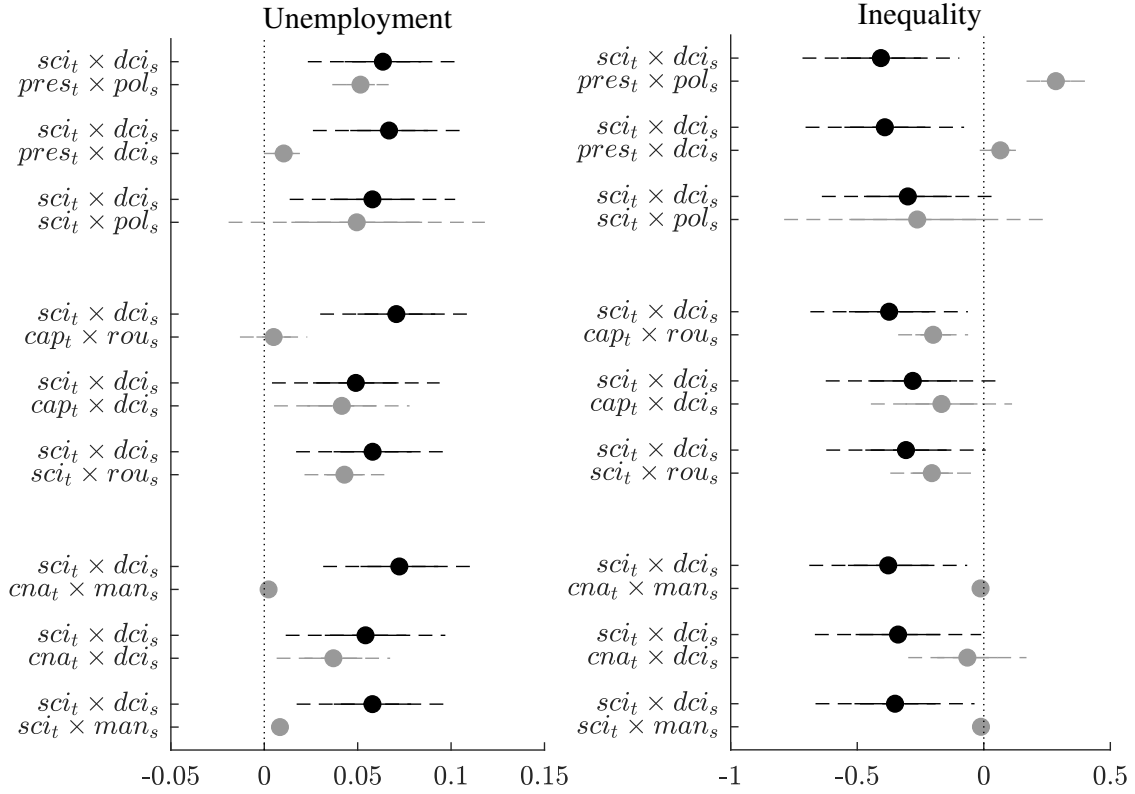
Figure 10 illustrates the results of these exercises. Each pair of coefficients with intervals refers to a specification with two interaction terms, state and year dummies, and the baseline control variables. The coefficient represented in black is the one on our main interaction term, $sci_t \times dci_s$, and the one in gray is the one on the additionally included interaction term. Due to the large number of regressions per dependent variable, we concentrate on the unemployment and inequality effects here.

The first insight from the figure is that the black points and intervals do not change substantially between specifications. Hence, despite the inclusion of additional interaction terms, our main interaction term remains highly statistically significant and quantitatively close to the results in the main text in all of the regressions. This provides a clear indication that our results are actually driven by the proposed interaction term between Supreme Court ideology and district court ideology and not by some other superimposing trend.

5 Conclusion

In this paper, we have documented substantial economic effects of judicial ideology. We have developed an identification strategy which exploits that the shift at the Supreme Court from the ideological center toward conservatism between the 1970s and the 21st century affected court districts with rather liberal judges more strongly than districts with rather conservative judges. In a successful test of this hypothesis, we have shown that the share of conservative rulings has increased in states with rather liberal district courts relative to states with rather conservative district courts in response to the conservative shift of the Supreme Court. We have then exploited these differential effects on U.S. states in order to identify the economic impact of a conservative shift in ideological leanings of the judiciary. Our results indicate that judicial conservatism substantially increases the employment rate and promotes labor market dynamism but also contributes to wage stagnation, job market polarization, deunionization, and rising income inequality.

Figure 10: ADDRESSING POTENTIAL IDENTIFICATION THREATS DUE TO OTHER AGGREGATE DEVELOPMENTS WITH REGIONALLY HETEROGENEOUS EFFECTS



Notes: Estimated coefficients on indicated interaction terms in two-way fixed effect regressions of the indicated dependent variable with baseline control variables. Dots: point estimates. $pres_t$ is party of President (-1: Democrat, +1: Republican), pol_s is 2008 vote share for John McCain, cap_t is inverse price of investment goods, rou_s is inverse of 1978 routine employment share, cna_t is imports from China as a fraction of GDP plus net imports, man_s is inverse of 1978 manufacturing employment share. Solid lines: point estimate plus/minus one standard deviation. Dashed lines: 95% confidence intervals. Detailed results shown in Table A.6 in Appendix C.

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Appendix

A Data Appendix

In Tables [A.1](#) and [A.2](#) we provide a complete list of dependent variables and a complete list of control variables that were used in our regressions.

Table A.1: DEPENDENT VARIABLES

DEPENDENT VARIABLE IN TABLES 1 AND A.3	
Average ideology score (1: conservative, -1: liberal) of rulings in Economic Regulation and/or Labor Cases in federal district courts by state and year	CM
DEPENDENT VARIABLES IN TABLES 2-6 , FIGURES 9-10 , AND TABLES A.5-A.6	
Unemployment rate (number unemployed divided by labor force)	CPS
Job-finding rate (inverse of average duration of unemployment in weeks)	CPS
Employment rate (number employed divided by adult population)	CPS
Average hourly wage rate (log of the wage rate)	CPS
Voluntary part-time share (voluntary part-time employed divided by total employed, log)	CPS
part-time to full-time wage ratio (voluntary part-time wages divided by full-time wages, log)	CPS
Employment share in construction industries	CPS
Employment share in manufacturing industries	CPS
Employment share in service industries	CPS
Employment share in abstract-intensive occupations	CPS + AD
Employment share in routine-intensive occupations	CPS + AD
Employment share in manual task intensive occupations	CPS + AD
90/10 percentiles (log of 90th percentile family income divided by 10th percentile, log)	CPS
90/50 percentiles (log of 90th percentile family income divided by 50th percentile, log)	CPS
50/10 percentiles (log of 50th percentile family income divided by 10th percentile, log)	CPS
DEPENDENT VARIABLES IN TABLE A.4	
Employment share in wholesale and retail trade industries	CPS
Employment share in transportation, communications, and other public utilities industries	CPS
Employment share in finance, insurance, and real estate industries	CPS
80/20 percentiles (80th percentile family income divided by 20th percentile, log)	CPS
80/50 percentiles (80th percentile family income divided by 50th percentile, log)	CPS
50/20 percentiles (50th percentile family income divided by 20th percentile, log)	CPS
<i>Notes:</i> AD: Autor and Dorn (2013) ; CM: Carp and Manning (2016) ; CPS: Current Population Survey.	

Table A.2: INDEPENDENT VARIABLES

REGRESSOR OF INTEREST	
Median ideology score of Supreme Court Justices by year × Pre-sample average ideology score of district court judges by state	Bailey Boyd + FJC
COURT, JUDGE, AND CASE CHARACTERISTICS	
Share of judges appointed by a Republican President	CM+FJC
Average ideology score at the responsible court of appeals	CM+FJC
Share of cases in each case type category in the U.S. district court database (union v. company; member v. union; employee v. employer; commercial regulation; environmental protection local/state economic; labor dispute – government v. union/employer; rent control; excess profits)	CM
Average age of district court judges	FJC
Share of white district court judges	FJC
Share of male district court judges	FJC
Share of publishing judges with Republican Party affiliation	CM
Share of publishing judges with Democrat Party affiliation	CM
Share of white publishing judges	CM
Share of male publishing judges	CM
Share of publishing judges appointed by each President	CM
Experience of publishing judges (years of service at current court, shares)	CM
STATE DEMOGRAPHICS	
Total adult state population	CPS
Share of population living in a central city (urban density)	CPS
Share of population living in a city (urban density)	CPS
Share of black population (ethnic composition)	CPS
Share of white population (ethnic composition)	CPS
Shares of population in age groups 16-24; 25-44; 45-54; >55	CPS
INDUSTRY-OCCUPATION CONTROLS	
Shares of workers employed in industry groups: construction; manufacturing; transportation communications, and other public utilities; wholesale and retail trade; services; finance, insurance, and real estate	CPS
Shares of workers employed in occupational groups: abstract; manual; routine	CPS + AD
STATE POLICY CONTROLS	
Minimum wage rate	FRED
Total federal intergovernmental revenue	SLGFD
Total tax burden	TF
Public policy exception to employment at-will	ADS
Implied contract exception to employment at-will	ADS
Good faith exception to employment at-will	ADS
STATE GOVERNMENT AND LEGISLATIVE CONTROLS	
State senate majority party (1: Republican, -1: Democrat, 0: no majority)	NCLS
State house majority party (1: Republican, -1: Democrat, 0: no majority)	NCLS
Party of governor (1: Republican, -1: Democrat, 0: other/independent)	NCLS
ADDITIONAL CONTROL VARIABLES IN ROBUSTNESS CHECKS (partly in interaction terms)	
State unemployment rate	FRED
Growth rate of real state GDP	BEA
Average personal income growth 1949-1969	FRED
Inverse relative price of investment goods	FRED
1978 inverse routine employment share	CPS + AD
Chinese import penetration (import from China / sum of GDP and total net imports)	FRED
1978 inverse manufacturing employment share	CPS
Vote share for John McCain in 2008 presidential election	FEC
Republican President	FEC

Notes: AD: [Autor and Dorn \(2013\)](#); ADS: [Autor et al. \(2006\)](#); Bailey: [Bailey \(2013\)](#); BEA: Bureau of Economic Analysis; CM: [Carp and Manning \(2016\)](#); CPS: Current Population Survey; FEC: Federal Election Commission; FJC: Federal Judicial Center: Biographical Directory of Article III Federal Judges; FRED: Federal Reserve Economic Data; NCLS: National Conference of State Legislatures; SLGFD: State and Local Government Finance Dataset; TF: Tax Foundation. ‘Publishing judge’ is the judge publishing opinion in Federal Supplement. For Nebraska’s unicameral and officially non-partisan legislature, we use the de facto majority (Republican in all sample years) for the state house and senate variables.

B Further Rulings Regressions

In Table A.3, we present the results for several robustness checks. In Column (1), we control for local labor market conditions by including the unemployment rate and the real state GDP growth rate. In Column (2), we use a moving average over a four-year window of our measure of Supreme Court ideology sci_t . In Column (3), we include four lags of the dependent variable (instead of one). In Column (4), we weigh rulings by the number of rulings per state population. In Column (5), we restrict the sample to the time before the year 2000. In all of these specifications the coefficient on the interaction term between Supreme Court ideology and district court ideology remains negative and statistically significant.

Table A.3: REGRESSION RESULTS FOR DISTRICT COURT RULINGS
– ROBUSTNESS CHECKS

	(1)	(2)	(3)	(4)	(5)
Supreme Court ideology × district court ideology	-2.0298 (0.7114) $p=0.0044$		-2.0738 (0.7155) $p=0.0038$	-1.7567 (0.7227) $p=0.0152$	-1.6639 (0.7868) $p=0.0348$
Supreme Court ideology (MA) × district court ideology		-1.7085 (0.9320) $p=0.0670$			
Observations	1499	1499	1499	1499	939
R^2	0.2631	0.2592	0.2734	0.2748	0.3265
Weights	no	no	no	yes	no
Sample period	1978-2011	1978-2011	1978-2011	1978-2011	1978-1999
Additional lags 2-4	no	no	yes	no	no
State GDP and unemployment	yes	no	no	no	no
Lagged dependent variable	yes	yes	yes	yes	yes
State demographics	yes	yes	yes	yes	yes
Court, judge, and case controls	yes	yes	yes	yes	yes
State gov. and leg. controls	yes	yes	yes	yes	yes
Lagged dependent variable	yes	yes	yes	yes	yes
Year fixed effects	yes	yes	yes	yes	yes
State fixed effects	yes	yes	yes	yes	yes

Notes: Standard errors in parentheses, p-values below the standard errors. Supreme Court ideology (MA) = $1/4 \cdot \sum_k^3 sci_{t-k}$.

C Further Labor Market Regressions

In this section we present regressions for additional labor market outcomes and alternative specifications for the regressions in Section 4.2.

C.1 Additional Outcome Variables

First, we run the regression in Equation (13) for additional industry groups and for additional inequality measures. Columns (1) through (3) of Table A.4 show results for further industry groups. We find that conservative court rulings increase employment in financial industries disproportionately, while there is no discernible change in the trade and transportation employment shares. Columns (4) through (6) of Table A.4 show results for additional inequality measures, which support our findings of increasing inequality in response to rising judicial conservatism documented in Section 4.2.

Table A.4: REGRESSION RESULTS FOR ADDITIONAL DEPENDENT VARIABLES

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	Trade emp. share	Transport emp. share	Finance emp. share	80/20 ratio	80/50 ratio	50/20 ratio
Supreme Court ideology sci_t $\times$ district court ideology dci_s	0.0207 (0.0220) $p = 0.3477$	0.0206 (0.0132) $p = 0.1177$	-0.0287 (0.0117) $p = 0.0148$	-0.2235 (0.1037) $p = 0.0313$	-0.1157 (0.0584) $p = 0.0476$	-0.1078 (0.0807) $p = 0.1816$
Observations	1499	1499	1499	1499	1499	1499
R^2	0.5962	0.6122	0.7606	0.8427	0.8077	0.7182
Industry/occupation controls	no	no	no	yes	yes	yes
State policy controls	yes	yes	yes	yes	yes	yes
State gov. and leg. controls	yes	yes	yes	yes	yes	yes
Year fixed effects	yes	yes	yes	yes	yes	yes
State fixed effects	yes	yes	yes	yes	yes	yes

Notes: Standard errors in parentheses, p-values below standard errors.

C.2 Alternative Specifications

Table A.5 shows the results underlying Figure 9, and Table A.6 shows the results underlying Figure 10.

Table A.5: REGRESSION RESULTS FOR LABOR MARKET OUTCOMES
– ROBUSTNESS CHECKS AND INSPECTION OF MECHANISMS

dependent variable	unemployment rate				
$sci_t \times dci_s$	0.0706 (0.0209)	0.0667 (0.0208)	0.0736 (0.0208)	0.0824 (0.0198)	0.0658 (0.0209)
R^2	0.7617	0.751	0.7335	0.7453	0.743
ind./occ. controls	yes	yes	yes	yes	no
policy controls	yes	yes	yes	no	yes
politics controls	yes	yes	no	yes	yes
demography controls	yes	no	no	no	no
pre-sample trend	no	yes	no	no	no
dependent variable	average hourly wage				
$sci_t \times dci_s$	0.1283 (0.0679)	0.1299 (0.0693)	0.2083 (0.0719)	0.1412 (0.0663)	0.0927 (0.0726)
R^2	0.994	0.9936	0.993	0.9932	0.9927
ind./occ. controls	yes	yes	yes	yes	no
policy controls	yes	yes	yes	no	yes
politics controls	yes	yes	no	yes	yes
demography controls	yes	no	no	no	no
pre-sample trend	no	yes	no	no	no
dependent variable	routine employment share				
$sci_t \times dci_s$	0.0706 (0.0251)	0.0672 (0.0251)	0.0659 (0.0249)	0.1151 (0.0237)	0.0633 (0.025)
R^2	0.8335	0.8272	0.8262	0.8202	0.8267
ind./occ. controls	yes	yes	yes	yes	no
policy controls	yes	yes	yes	no	yes
politics controls	yes	yes	no	yes	yes
demography controls	yes	no	no	no	no
pre-sample trend	no	yes	no	no	no
dependent variable	90/10 income ratio				
$sci_t \times dci_s$	-0.4061 (0.1604)	-0.3554 (0.1597)	-0.3412 (0.1589)	-0.4649 (0.1494)	-0.5037 (0.1637)
R^2	0.8266	0.8229	0.8217	0.8208	0.8057
ind./occ. controls	yes	yes	yes	yes	no
policy controls	yes	yes	yes	no	yes
politics controls	yes	yes	no	yes	yes
demography controls	yes	no	no	no	no
pre-sample trend	no	yes	no	no	no

Notes: Pre-sample trend: interaction between annual income growth rate 1949-1969 and time included as additional control. Standard errors in parentheses. All regressions include time and state fixed effects and are estimated on 1499 observations.

Table A.6: REGRESSION RESULTS FOR LABOR MARKET OUTCOMES
– ADDRESSING POTENTIAL CHALLENGES TO IDENTIFICATION

dependent variable	unemployment rate			90/10 income ratio		
$sci_t \times dci_s$	0.0635 (0.0205)	0.0668 (0.0208)	0.0579 (0.0226)	-0.4065 (0.1581)	-0.3910 (0.1598)	-0.3001 (0.1733)
$pres_t \times pol_s$	0.0515 (0.0077)			0.2847 (0.0591)		
$pres_t \times dci_s$		0.0104 (0.0054)			0.0654 (0.0415)	
$sci_t \times pol_s$			0.0495 (0.0350)			-0.2630 (0.2683)
R^2	0.7638	0.7567	0.7564	0.8257	0.8231	0.8229
dependent variable	unemployment rate			90/10 income ratio		
$sci_t \times dci_s$	0.0707 (0.0208)	0.0490 (0.0229)	0.0580 (0.0209)	-0.3740 (0.1588)	-0.2806 (0.1754)	-0.3075 (0.1607)
$cap_t \times rou_s$	0.0050 (0.0092)			-0.2001 (0.0705)		
$cap_t \times dci_s$		0.0415 (0.0185)			-0.1672 (0.1423)	
$sci_t \times rou_s$			0.0429 (0.0109)			-0.2053 (0.0837)
R^2	0.7561	0.7570	0.7588	0.8238	0.8230	0.8235
dependent variable	unemployment rate			90/10 income ratio		
$sci_t \times dci_s$	0.0723 (0.0208)	0.0542 (0.0218)	0.0579 (0.0207)	-0.3775 (0.1592)	-0.3387 (0.1677)	-0.3507 (0.1603)
$cna_t \times man_s$	0.0023 (0.0011)			-0.0128 (0.0085)		
$cna_t \times dci_s$		0.0370 (0.0155)			-0.0649 (0.1192)	
$sci_t \times man_s$			0.0084 (0.0016)			-0.0111 (0.0124)
R^2	0.7568	0.7571	0.7608	0.8231	0.8228	0.8229

Notes: Standard errors in parentheses. $pres_t$ is party of President (-1: Democrat, +1: Republican), pol_s is 2008 vote share for John McCain, cap_t is inverse price of investment goods, rou_s is inverse 1978 routine employment share, cna_t is import from China as a fraction of GDP plus net imports, man_s is inverse 1978 manufacturing employment share. All regressions include time and state fixed effects as well industry-occupation, state politics, and state policy controls. Number of observations is 1499 in all regressions.