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**Pernicious Bias and Judicial Illegitimacy:  
Do Americans Perceive Diverse Judges as Inherently Biased?**

**ONO, Yoshikuni**  
RIETI

**ZILIS, Michael A.**  
University of Kentucky



Research Institute of Economy, Trade & Industry, IAA

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**Pernicious Bias and Judicial Illegitimacy:  
Do Americans Perceive Diverse Judges as Inherently Biased?<sup>1</sup>**

ONO, Yoshikuni

Tohoku University & Research Institute of Economy, Trade and Industry

ZILIS, Michael A.

University of Kentucky

Abstract

Perceptions of procedural fairness play an integral role in the legitimacy of the legal system. We explore whether bias against women and minority judges undermines their perceived fairness of their rulings in court. Our exploration follows recent work on bias, but we offer a theoretical contribution by targeting its pernicious nature. Because women and minorities constitute a substantial portion of the bench, we do not expect most citizens to perceive them as entirely unfit to serve as judges. Rather, we argue that bias manifests in a subtle way – in the belief that diverse judges cannot fairly adjudicate controversies that involve their ingroup. To test our theory, we use a list experiment specifically developed to minimize social desirability effects. Our results highlight the pernicious nature of bias, providing some of the first insights into how stereotyping influences perceptions of the U.S. legal system, and suggest serious negative implications for the rule of law.

Keywords: Judges, Judicial Politics, Stereotypes, Public Opinion, Survey Experiment

JEL classification: J16, D72, D91, K40

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## **Pernicious Bias and Judicial Illegitimacy**

Perceptions of procedural fairness play an integral role in maintaining the legitimacy of the legal system, and citizens indeed place substantial weight on whether they perceive judicial decision-making as fair, neutral, and impartial (Tyler 2001; 2002). In the United States, two recent developments have implications for fairness judgments. First, court decisions have faced criticism in a highly partisan and polarized environment (Christenson and Glick 2015; Nelson and Gibson forthcoming). Concurrently, the pool of judges has diversified, with women and minorities making up substantial (but not proportional) segments of state and federal benches (Haire and Moyer 2015).

The increase in diversity has cross-cutting implications when it comes to perceptions of procedural fairness. Descriptive representation enhances legitimacy among segments of the population commonly excluded from power, but it may diminish the reservoir of goodwill among others (Scherer and Curry 2010). Indeed, a resistance to diversification among some citizens has been observed to inflect other areas of American politics (e.g., Burden, Ono, and Yamada 2017). Might the same type of attitudes undercut the legitimacy of an increasingly diverse bench?

In this paper, we explore whether public bias against female and minority judges undermines their perceived procedural fairness and decision-making abilities. Our exploration follows in the tradition of recent work on bias, but we differ by targeting its pernicious nature. Put differently, we do not expect most citizens to perceive women and minorities as entirely unfit to serve as judges. Rather, we expect that bias will manifest in a more subtle way – in the belief that female and minority judges cannot fairly adjudicate controversies that involve their “ingroup.”

This is a serious concern in light of recent developments. In 2016, presidential candidate Donald Trump sought removal of a federal judge in a pending case, contending that a Hispanic could not rule impartially. Though criticized at the time, arguing that diverse judges fall victim to ingroup favoritism represents a sophisticated strategy. These accusations can undermine a basic

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ingredient that shapes the legitimacy of the legal system and distinguishes courts from less trusted institutions such as Congress (Gibson 2008; Hibbing and Theiss-Morse 2002; Tyler 2001).

To explore this sensitive question, we use an experimental design specifically developed to minimize social desirability effects, allowing us to examine whether political actors can increase resistance to legal rulings even if their arguments lack explicit support. List experiments allow respondents to indicate agreement with unpopular positions indirectly, so that they do not have to pay the reputational costs of explicit endorsement. For this reason, list experiments have become a staple in the study of sensitive questions including racial attitudes (Gilens, Sniderman, and Kuklinski 1998; Heerwig and McCabe 2009) and opposition to women in politics (Benson, Merolla, and Geer 2011; Burden, Ono, and Yamada 2017; Streb et al. 2008).

Almost no existing work has applied these insights to judges. We remedy this gap in an era of increasing attacks on judicial fairness. Our results highlight the pernicious nature of bias against judicial diversity, providing some of the first insights into how stereotyping influences perceptions of the U.S. legal system, and suggesting serious negative implications for the rule of law.

### **Design**

We administered our study using a sample of the U.S. adult population during the summer of 2018. We contracted with Survey Sampling International to constitute our sample, which was balanced by age, gender, ethnicity, and census region to closely match the demographics of the American voting age population. In total, 3,153 participants took part in our study. The appendix describes respondent demographic information and other sample attributes in more detail.

Using a list design, we investigated whether Americans believe (1) female judges and (2) Hispanic judges favor their “ingroup” when ruling. This is key to getting at pernicious bias since it taps into legitimacy concerns when judges are predisposed to favor members of their gender or racial group. To develop a realistic and diverse set of items for our list, we used statements made by Donald Trump during the course of his presidential campaign, some of which took positions that

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Republicans typically support and others that Democrats were more likely to support.<sup>1</sup> We randomly assigned respondents to one of three experimental conditions. The control group read a four-item list, while the treatment groups saw the same list with an additional item. For the female judge treatment, the item read: “When a court cast concerns issues like #metoo, some women judges might give biased rulings.” For the Hispanic judge treatment, the item read: “When a court case concerns issues like immigration, some Hispanic judges might give biased rulings.” We chose the issues because they are high-profile controversies with implications for diverse groups.

There are a number of notable things about this design. First, our statements focus on whether citizens believe judges are impartial, which is a basic ingredient in determining support for courts and the rule of law more generally (Gibson 2008; Hibbing and Theiss-Morse 2002; Tyler 2001). This is distinct from existing work that focuses on candidates for elective office, providing some of the first insights into how stereotyping influences perceptions of the U.S. legal system. Importantly, with our list design we can explore this with a minimal level of social desirability bias, thus providing a fuller portrait of attitudes on the sensitive topic. In addition, by using actual statements, we designed our study in order to maximize its external validity.

### **Univariate Results**

Table 1 presents the main results, enabling us to explore whether citizens question the fairness of diverse judges. Our main finding is that a large portion of the public believes that female

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<sup>1</sup> The statements were: (1) “When it comes to gun violence, we would be better off if we took guns from people first and went through due process second”, (2) “The only way we can improve this country's economic outlook is ending loopholes that allow the very rich to take advantage of others”, (3) “Climate change is not one of the major problems facing our country, in fact concern about it has been hyped up and overblown”, (4) “Too many people spend their time attacking the police rather than showing respect for our country.” The order of the items was randomized.

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and Hispanic may give unfair rulings in certain cases. Nearly 39% of Americans respond that female judges display ingroup favoritism. About 35% believe that Hispanics favor their ingroup. The size of these effects is notable when compared with prejudice against a female president, for example, which is found among about 13% of Americans (Burden, Ono, and Yamada 2017).

We suspect that a key theoretical reason for the difference is that we have targeted pernicious bias here. We do not ask whether women or Hispanics are entirely unfit for office, but rather whether they cannot resolve some cases fairly. While a less blunt form of bias, the idea of judicial favoritism may be integral in undermining legal legitimacy. In fact, the statements that we posed are very similar to the one made by Donald Trump during the 2016 campaign. These were widely criticized at the time, but our results upend the idea that Americans reject them. In fact, over one-third of citizens appear to support Trump's sentiments.

Turning to some of the subgroup results from Table 1, we uncover interesting effects for respondent race and gender. Female respondents, on average, agree with the notion that diverse judges may be unfair. Nonetheless, the level of agreement is markedly lower among women than it is among men. About 36% of women doubt the procedural fairness of female judges, while the comparable figure for men is 42%. These differences are even more stark for Hispanic judges – 42% of men, but only 30% of women, question the fairness of minority judges. When it comes to respondent race, about 36% of whites doubt the fairness of female judges and 31% do the same for Hispanic judges. Yet African-Americans are *very* mistrustful of Hispanic judges. Over one-half of blacks believe that Hispanic judges display favoritism. The patterns are quite different for Hispanic respondents. Hispanics do *not* believe that Hispanic judges are biased, but about 53% of Hispanics believe that female judges give biased rulings, one of the highest levels in the study.

Lastly, our univariate analysis shows a strong effect for partisanship. We have analyzed this in two ways – both with and without partisan leaners included – and the results are consistent with

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one another. On the whole, Republicans perceive much more favoritism among female and minority judges than do Democrats. For example, with leaners included, about 33% of Democrats

Table 1. Bias Against Female and Minority Judges

Demographic	Control	Treatment: Anti-female judge		Treatment: Anti-Hispanic judge	
	Mean	Mean	Difference	Mean	Difference
All respondents	1.91 (0.03)	2.30 (0.04)	0.3892*** (0.05)	2.27 (0.04)	0.3532*** (0.05)
Male	1.91 (0.04)	2.34 (0.05)	0.4249*** (0.07)	2.33 (0.06)	0.4193*** (0.07)
Female	1.91 (0.04)	2.27 (0.05)	0.3596*** (0.06)	2.21 (0.05)	0.2957*** (0.07)
No BA degree	1.98 (0.05)	2.35 (0.06)	0.3735*** (0.08)	2.35 (0.07)	0.3725*** (0.08)
BA degree	1.84 (0.04)	2.28 (0.06)	0.4383*** (0.07)	2.18 (0.05)	0.3414*** (0.07)
18 - 35 years old	1.98 (0.06)	2.39 (0.07)	0.4121*** (0.09)	2.38 (0.07)	0.4075*** (0.09)
36 - 55 years old	1.98 (0.06)	2.39 (0.07)	0.4121*** (0.09)	2.38 (0.07)	0.4075*** (0.09)
56+ years old	1.89 (0.05)	2.27 (0.06)	0.3784*** (0.08)	2.23 (0.06)	0.3395*** (0.08)
Lower class (<50k)	1.91 (0.05)	2.33 (0.06)	0.4201*** (0.08)	2.29 (0.06)	0.3840*** (0.08)
Mid class (50-100k)	1.96 (0.05)	2.27 (0.06)	0.3117*** (0.07)	2.31 (0.06)	0.3508*** (0.08)
Upper class (100k+)	1.84 (0.07)	2.31 (0.08)	0.4754*** (0.10)	2.15 (0.08)	0.3119*** (0.10)
South	1.94 (0.06)	2.33 (0.07)	0.3923*** (0.09)	2.39 (0.08)	0.4506*** (0.09)
Non south	1.90 (0.04)	2.29 (0.04)	0.3878*** (0.06)	2.22 (0.04)	0.3188*** (0.06)
White	1.93 (0.04)	2.30 (0.04)	0.3636*** (0.05)	2.25 (0.04)	0.3135*** (0.06)
Hispanic	1.93 (0.10)	2.46 (0.14)	0.5307*** (0.17)	2.18 (0.11)	0.25 (0.15)
Black	1.84 (0.09)	2.13 (0.11)	0.2930** (0.14)	2.37 (0.13)	0.5333*** (0.16)
Other	1.81 (0.12)	2.39 (0.13)	0.5812*** (0.18)	2.41 (0.13)	0.6018*** (0.18)
Democrat (exclude leaners)	1.88 (0.05)	2.20 (0.06)	0.3234*** (0.08)	2.19 (0.06)	0.3066*** (0.08)
Republican (exclude leaners)	2.07 (0.05)	2.54 (0.07)	0.4786*** (0.09)	2.47 (0.07)	0.4014*** (0.09)
Independent (include leaners)	1.80 (0.06)	2.21 (0.07)	0.4117*** (0.09)	2.21 (0.07)	0.4147*** (0.09)
Democrat (include leaners)	1.85 (0.04)	2.18 (0.05)	0.3270*** (0.07)	2.14 (0.05)	0.2950*** (0.07)
Republican (include leaners)	2.06 (0.05)	2.52 (0.06)	0.4676*** (0.08)	2.44 (0.06)	0.3815*** (0.08)
Independent	1.75 (0.09)	2.20 (0.10)	0.4490*** (0.14)	2.33 (0.11)	0.5805*** (0.15)

Note: Means represent the number of items selected in the list of controversial statements, with standard errors in parentheses. Differences display the percentage increase in selected statements in the treatment versus control condition, which shows the extent of anti-female and anti-Hispanic attitudes. \*p<0.05, \*\*p<0.01, \*\*\*p<0.001.

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rate female judges as unfair while 48% of Republicans do. Similarly 38% of Republicans rate Hispanic judges as unfair while 30% of Democrats do.<sup>2</sup> While the partisan divide is consistent with other work, our study is one of the first to find that *even Democrats* may display opposition to women and minorities in office under certain conditions.

The univariate results make clear that a substantial number of Americans – about one in three or higher – question the fairness of female and minority jurists. They also suggest that these differences are prevalent across almost every subgroup.

### **Multivariate Results**

Drawing on maximum likelihood models for the analysis of list experiments (Blair and Imai 2012; Imai 2011), we next present multivariate coefficient estimates for the proportion of respondents predisposed against female and minority judges in Figure 1. We continue to see across-the-board opposition, echoing our prior results. There is a widespread belief among Americans that diverse judges cannot fairly adjudicate controversies involving their ingroup. Yet a few noteworthy patterns exist when it comes to how prevalent this belief is among subgroups of the population.

First, our multivariate analysis shows that men and women have somewhat different views about the capabilities of judges. When compared with women, men are very slightly, though not significantly, more opposed to female judges. But male respondents are much more uncomfortable with Hispanic judges. Nearly 40% of men believe that Hispanic judges display favoritism, while just over 30% of women hold similar beliefs.

Another notable result concerns attitudes based on a respondent's race. African Americans are unique in that they express low levels of opposition to female judges (only about one in four blacks believe that female judges are unfair) but *extremely high* levels of opposition to Hispanic judges. Over 60% of African Americans rate Hispanic judges as unfair, based on the multivariate estimates.

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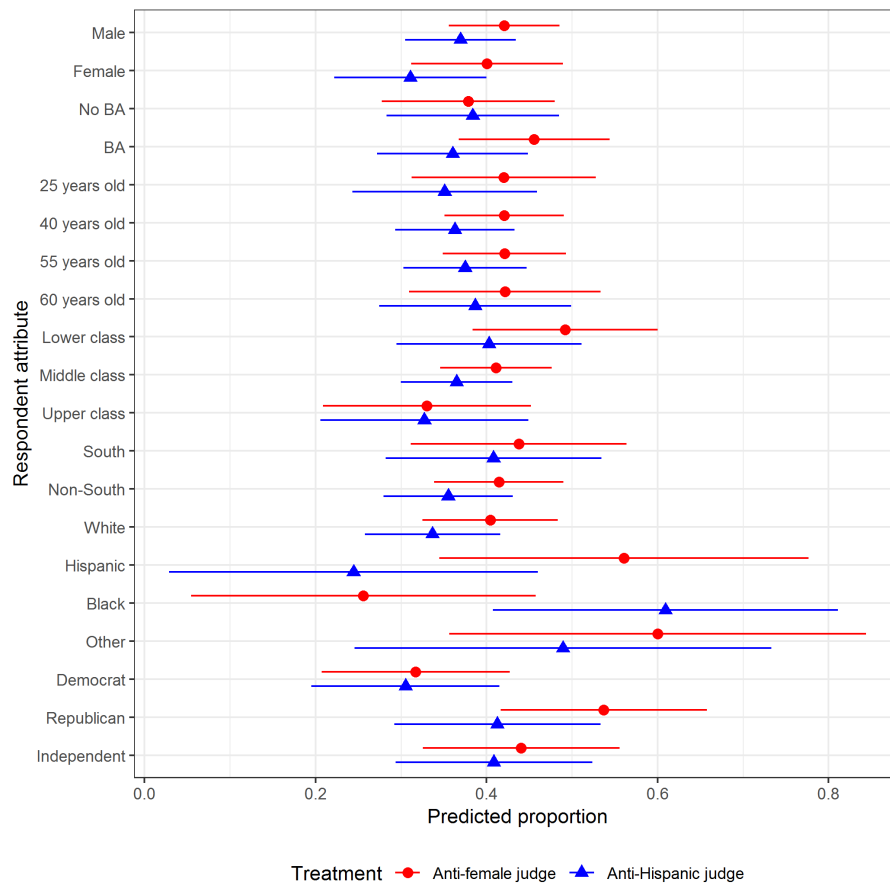
<sup>2</sup> Independents are strongly predisposed against Hispanic judges (58%) when leaners are counted.



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This may be attributable to the fact that priming a judge’s race increases the likelihood of thinking in racialized terms. Since there are only a small number of minority judges on the bench, it is possible that African Americans see the presence of Hispanic judges as a factor that limits the number of seats for black judges, thus increasing negative feelings. Yet white and Hispanic respondents display distinct attitudes. For these groups, there is a strong belief that female judges show favoritism. There is also evidence of ingroup favoritism among Hispanic citizens. Hispanics display rather low levels of opposition to Hispanic judges, but higher skepticism about female judges.

Figure 1. Multivariate Estimates of Bias against Female and Minority Judges



Note: Dots represent estimated proportions of respondents predisposed against female and minority judges, and lines are 95% confidence intervals from the multivariate regression model. Results are with leaners excluded from partisans.

In addition to ingroup favoritism, our multivariate analysis offers clear evidence of partisan effects. Republicans are much more opposed to female judges than are Democrats. In fact, over *half* of all Republicans in our sample say that female judges cannot fairly resolve cases involving

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sexual assault. Interestingly, about one in three Democrats also doubts the ability of female judges to fairly adjudicate #metoo controversies. In short, prejudice against female judges is quite widespread and the product of more than partisan considerations alone. This result squares with research on political candidates, which shows that even some Democrats are skeptical of women in positions of power (Burden, Ono, and Yamada 2017). We observe similar, albeit less pronounced, partisan distinctions when it comes to Hispanic judges. About one-third of Democrats see Hispanic judges as unfair, but this number rises to about 40% of Independents and Republicans.

On the whole, our multivariate results suggest that a significant number of Americans question the impartiality of female and minority judges. In fact, the proportions are so large – in many cases between 30% and 50% of citizens – that they strongly contradict the idea that Americans are opposed to attacks on a judge based on her race or gender.

### **Discussion**

Many Americans doubt whether women and minority judges can rule fairly in cases that come before them. This is both important and alarming because procedural fairness represents a key ingredient undergirding judicial legitimacy. Our findings speak to ongoing theoretical and substantive debates regarding bias, diversity, and the rule of law. First, we advance the literature on anti-female and anti-minority attitudes in a distinct context, with one of the first studies to look at judges as opposed to candidates for legislative or executive office. This is valuable because the traits that Americans perceive as beneficial for serving as a lawmaker or executive branch official are likely different than those for judges. Citizens place a high value on fairness and impartiality in the legal system, but we find here that they doubt whether certain judges display these qualities when cases involve their ingroup. Additionally, we make a theoretical advancement by targeting the pernicious nature of bias. Because there are a substantial number of female and minority judges already serving, we expect that Americans will not be as uncomfortable with this concept as they would be with, say, a female president. Indeed, in a separate list experiment that we deployed, which we

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describe in the appendix, we show that citizens do not *generally* oppose females and minorities as judges. Rather, bias is more subtle. It manifests in the idea that female and Hispanic judges cannot fairly adjudicate certain cases that come before them. In the modern era, it is this pernicious bias that may be particularly resilient in American politics.

From a substantive perspective, we engage directly with ongoing controversies regarding the rule of law. After Donald Trump's comments about a Hispanic judge, polling suggested that a small number of Americans believed his complaint was justified (Moore 2016). Social desirability concerns, however, may have depressed this number, and the public's attitudes were likely conflated with their views towards Trump overall. We overcome both of these concerns here at the design stage, finding that opposition to a diverse bench may be much more widespread than reported.

As the judiciary becomes more diverse, our results suggest challenges ahead. In spite of the benefits that diversity brings, we find that Americans are susceptible to stereotyping female and minority judges as infected by ingroup favoritism. With these judges constituting an increasing share of the bench, this means that courts may soon find questions about their impartiality to be commonplace.

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## Supplement: Pernicious Bias and Judicial Illegitimacy

### Appendix A: Additional Information for Main Study

#### *1. Sampling Methodology*

We contracted with Survey Sampling International, who recruited a sample of participants balanced to match the U.S. voting age population based on the age, gender, ethnicity, and census region. To do so, SSI contacted participants with electronic notifications and matched them with the survey using multiple points of randomization. Respondents were replaced for evidence of extreme satisficing behavior, including straight-lining and speeding through the survey as well as the failure of two attention check questions. We display further information about the composition of the final sample in subsection 3, below. The survey was administered in August and September 2018.

#### *2. Question Wording*

“The following statements, made by politicians in public, are ones that sometimes people support or agree with. Please carefully read all of the statements and indicate HOW MANY of them you support. You do not need to indicate which ones.”

- Too many people spend their time attacking the police rather than showing respect for our country
- The only way we can improve this country's economic outlook is ending loopholes that allow the very rich to take advantage of others
- When it comes to gun violence, we would be better off if we took guns from people first and went through due process second
- Climate change is not one of the major problems facing our country, in fact concern about it has been hyped up and overblown
- When a court case concerns issues like #metoo, some women judges might give biased rulings [This statement was displayed in treatment condition 1 only.]
- When a court case concerns issues like immigration, some Hispanic judges might give biased rulings [This statement was displayed in treatment condition 2 only.]

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### 3. Sample Composition

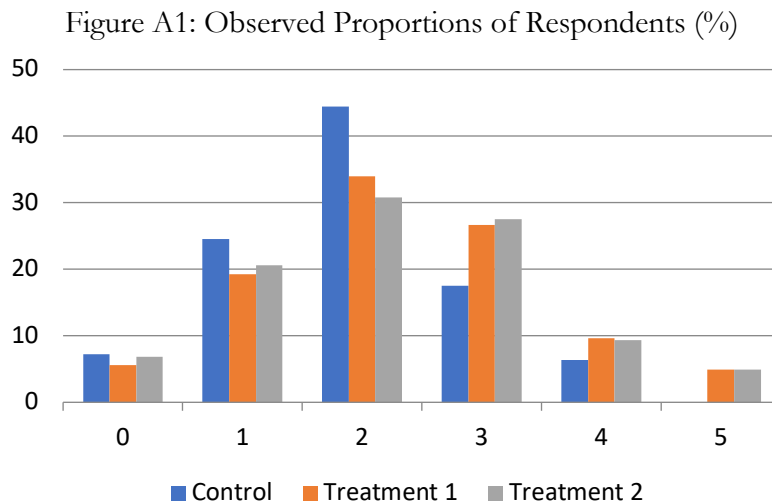
Table A1. Sample composition

Characteristic	Proportion of Sample
Gender	
Male	46.11
Female	53.89
Age	
18-25	11.29
26-35	18.17
36-45	16.65
46-55	15.89
56-65	19.44
66 or over	18.55
Race/Ethnicity	
White	70.57
Black	11.23
Hispanic	10.24
Other	7.96
Education	
No BA	70.72
BA	59.28
Region	
South	27.53
Non-South	72.47
Social class	
Lower class (less than 50K)	41.86
Middle class (50K-100K)	37.36
Upper class (more than 100K)	20.77
Partisanship	
Democrat (exclude leaners)	39.84
Republican (exclude leaners)	28.89
Independent	27.37

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### 4. Potential Design Effects

The figure below displays the observed percentage of respondents selecting that number of controversial statements, by condition. Echoing our main results, notice that respondents generally select a higher number of statements in the treatment conditions, which demonstrates that a number of citizens below that female and Hispanic judges are susceptible to bias. Also note that responses are normally distributed and with small amounts (<10%) selecting 0 or 5 statements from among the lists. This helps mitigate concerns about floor and ceiling effects corrupting our analysis.



### 5. Balance Test

While our multivariate model helps to minimize concerns about potential covariate imbalance, we also assessed the effectiveness of the randomization procedure directly. In the table below, we assess whether any covariates are associated with the probability of assignment to one of the treatment conditions (with assignment to the control group as the baseline). This suggests that randomization was effective. Notice that none of the covariates is associated with the likelihood of treatment using conventional significance standards, providing further confidence in results.

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Table A2. Multinomial Logistic Regression Outcomes

	Treatment 1			Treatment 2		
	Base Outcome: Control condition					
	Coefficient	(SE)	p-value	Coefficient	(SE)	p-value
Gender (Male)	-0.041	(0.099)	0.677	0.062	(0.099)	0.533
Education (BA)	-0.142	(0.104)	0.170	0.009	(0.104)	0.933
Age	0.003	(0.003)	0.374	0.000	(0.003)	0.901
Social Class	0.076	(0.068)	0.260	-0.015	(0.068)	0.824
Region (South)	0.175	(0.111)	0.115	0.009	(0.112)	0.935
Race/Ethnicity (White)	-0.111	(0.182)	0.541	-0.141	(0.182)	0.438
Race/Ethnicity (Hispanic)	-0.166	(0.235)	0.479	0.106	(0.227)	0.639
Race/Ethnicity (Black)	-0.366	(0.232)	0.115	-0.186	(0.227)	0.411
Partisanship (Democrat)	-0.023	(0.120)	0.851	0.054	(0.119)	0.646
Partisanship (Republican)	-0.220	(0.126)	0.081	-0.228	(0.127)	0.073
Constant	-0.019	(0.256)	0.940	0.131	(0.255)	0.608

### 6. Multivariate Estimates

Variable codings and multivariate regression estimates (Blair and Imai 2012; Imai 2011) are presented below (see Figure 1 in the main text for substantive interpretations):

<i>Male:</i>	Dichotomous variable (male = 1; female = 0)
<i>Education:</i>	Dichotomous variable (BA = 1; no BA = 0)
<i>Age:</i>	Numerical variable (age in years)
<i>Social class:</i>	Categorical variable (lower class = 1; middle class = 2; upper class = 3)
<i>South:</i>	Dichotomous variable (South = 1; non-South = 0)
<i>White:</i>	Dichotomous variable (white = 1; non-white = 0)
<i>Hispanic:</i>	Dichotomous variable (Hispanic = 1; non-Hispanic = 0)
<i>Black:</i>	Dichotomous variable (black = 1; non-black = 0)
<i>Democrat:</i>	Dichotomous variable (Democrat = 1; non-Democrat = 0)
<i>Republican:</i>	Dichotomous variable (Republican = 1; non-Republican = 0)



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Table A3. Multivariate Regression Results

	Sensitive item 1		Sensitive item 2		Control item	
	Est.	S.E.	Est.	S.E.	Est.	S.E.
Male	0.042	0.108	0.121	0.108	0.030	0.068
Education	0.077	0.112	-0.024	0.115	-0.138	0.070
Age	0.000	0.003	0.001	0.003	-0.002	0.002
Social class	-0.081	0.075	-0.038	0.075	0.013	0.048
South	0.023	0.119	0.053	0.125	0.036	0.075
White	-0.196	0.206	-0.153	0.198	0.002	0.132
Hispanic	-0.039	0.276	-0.245	0.245	-0.066	0.165
Black	-0.344	0.260	0.120	0.257	-0.028	0.159
Democrat	-0.123	0.129	-0.103	0.130	0.103	0.082
Republican	0.097	0.138	0.004	0.138	0.306	0.085
(Intercept)	0.698	0.279	0.502	0.266	1.892	0.172

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### Appendix B: Supplemental Study

Our argument regarding pernicious bias suggests that prejudice operates in a subtle yet powerful way, manifest mainly in the belief that diverse judges cannot fairly adjudicate a broad set of cases that involve their “ingroup.” While we have tested this extensively in the preceding analyses, we have yet to provide evidence whether bias is even more pronounced. Do Americans generally perceive women and minorities as largely unfit to serve as judges? We conduct additional research on this below.

Because this involves a sensitive question, we again utilize a list experiment to minimize the effects of social desirability bias. Similar to the main study, we developed a list of controversial statements, to which we added statements about women serving as federal and local court judges. We randomly assigned respondents to a control condition (no statement about female judges) or one of two treatment conditions (woman serving as a federal court judge, woman serving as a local court judge). Although we do not expect such blunt bias to manifest, this study allows us to test directly an additional component of our argument.

#### *1. Sampling Methodology*

We administered this study using participants recruited through Amazon’s Mechanical Turk (mTurk) marketplace. In doing so, we build on an increasing body of research using mTurk, including work showing that its subject pool has desirable properties when compared with traditional subject pools (Berinsky, Huber, and Lenz 2012; Buhrmester, Kwang, and Gosling 2011; Hansford, Intawan, and Nicholson 2018). At the same time, we draw on a distinct group from our earlier study, enabling us to explore bias among different sets of subjects. We also followed procedures to monitor the quality of the subject pool, restricting participation in the study to only U.S. citizens over the age of 18 who had a track record of high quality participation on mTurk. All subjects had participated in previous

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tasks (or HITs, as they are called) with a greater than 95% approval rate for their participation. We display further information about the composition of the final sample in subsection 3, below. This survey was administered in the fall of 2017.

### *2. Question Wording*

“The following statements sometimes make people angry or upset. Please carefully read all of the statements and indicate HOW MANY of them upset you. You do not need to indicate which ones.”

- Professional athletes getting million dollar-plus salaries
- The way gasoline prices keep going up
- Large corporations polluting the environment
- Requiring seat belts to be used when driving
- A woman serving as a federal court judge [This statement was displayed in treatment condition 1 only]
- A woman serving as a local court judge [This statement was displayed in treatment condition 2 only]

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### 3. Sample Composition

Table B1. Sample composition

Characteristics	Proportion of Sample
Gender	
Male	44.75
Female	55.25
Age group	
18-25	10.03
26-35	37.83
36-45	23.83
46-55	15.02
56-65	9.73
66 or older	3.56
Race/Ethnicity	
White	72.14
Black	7.93
Hispanic	12.71
Other	7.22
Education level	
No BA degree	45.97
BA or above	54.03
Region	
South	38.14
Non-South	61.86
Social class	
Lower class	11.63
Lower middle class	31.83
Middle class	47.73
Upper class	8.44
Upper middle class	0.37
Partisanship	
Strong Democrat	23.02
Weak Democrat	18.07
Leaning Democrat	11.05
Independent	13.12
Leaning Republican	6.75
Weak Republican	13.39
Strong Republican	10

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### 4. Univariate Analysis

Table B2. Bias Against Female and Minority Judges

Demographic	Control	Treatment condition 1:		Treatment condition 2:	
	condition	Anti-female	federal judge	Anti-female	local judge
	Mean	Mean	Difference	Mean	Difference
All respondents	1.92	1.95	2.81	1.97	4.81
	0.03	0.03	0.04	0.03	0.04
Male	1.83	1.81	-1.70	1.80	-2.51
	0.05	0.05	0.06	0.05	0.06
Female	2.00	2.07	6.78	2.12	11.41**
	0.04	0.04	0.05	0.04	0.06
No BA degree	2.04	2.06	1.60	2.09	4.92
	0.05	0.04	0.06	0.04	0.06
BA degree	1.83	1.86	2.65	1.87	4.03
	0.04	0.04	0.06	0.04	0.06
18 - 35 years old	1.93	1.98	5.22	2.03	10.58
	0.04	0.04	0.06	0.04	0.06
36 - 55 years old	1.94	1.93	-0.47	1.92	-2.11
	0.05	0.05	0.07	0.05	0.07
56+ years old	1.88	1.91	3.55	1.93	4.75
	0.07	0.08	0.11	0.09	0.12
Lower class (<50k)	1.97	2.03	5.50	2.05	8.16
	0.04	0.04	0.06	0.05	0.06
Mid class (50-100k)	1.92	1.92	-0.54	1.92	0.02
	0.04	0.04	0.06	0.04	0.06
Upper class (100k+)	1.74	1.77	3.15	1.82	8.24
	0.09	0.12	0.15	0.10	0.13
South	1.92	1.94	2.07	2.03	10.61
	0.05	0.05	0.07	0.05	0.07
Non south	1.93	1.96	3.27	1.94	1.35
	0.04	0.04	0.05	0.04	0.05
White	1.96	1.95	-1.60	1.96	0.12
	0.04	0.03	0.05	0.04	0.05
Hispanic	1.91	2.17	25.33**	2.08	16.42
	0.09	0.09	0.12	0.10	0.13
Black	1.73	1.78	5.16	1.92	19.69
	0.10	0.10	0.14	0.10	0.14
Other	1.81	1.80	-0.83	1.94	13.47
	0.10	0.10	0.14	0.11	0.14
Democrat	1.87	1.97	10.17*	1.96	9.30
(exclude leaners)	0.04	0.04	0.06	0.04	0.06
Republican	1.98	1.95	-3.09	2.08	10.67
(exclude leaners)	0.07	0.07	0.10	0.07	0.10
Independent	1.97	1.98	0.85	1.94	-3.31
(include leaners)	0.06	0.05	0.08	0.05	0.08
Democrat	1.87	1.95	8.04	1.95	8.18
(include leaners)	0.04	0.04	0.05	0.04	0.05
Republican	1.95	1.92	-2.34	2.02	7.05
(include leaners)	0.06	0.05	0.08	0.05	0.08
Independent	2.10	2.06	-4.55	1.95	-15.35
	0.09	0.09	0.12	0.09	0.12

Note: Means represent the number of items selected in the list of controversial statements, with standard errors in parentheses. Differences display the percentage increase in selected statements in the treatment versus control condition, which shows the extent of anti-female and anti-Hispanic attitudes. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .

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The preceding table displays the results from the univariate analysis. Notable is the very limited evidence that Americans are opposed to the idea of female judges overall, be it on federal or local benches. The mean number of items selected for all respondents is similar in treatment and control conditions, meaning that the vast majority of Americans are not upset about the idea of female judges. This stands in marked contrast to the greater than 30% differences in the number of items selected in our main analysis. Additionally, there are few significant differences across subgroups.

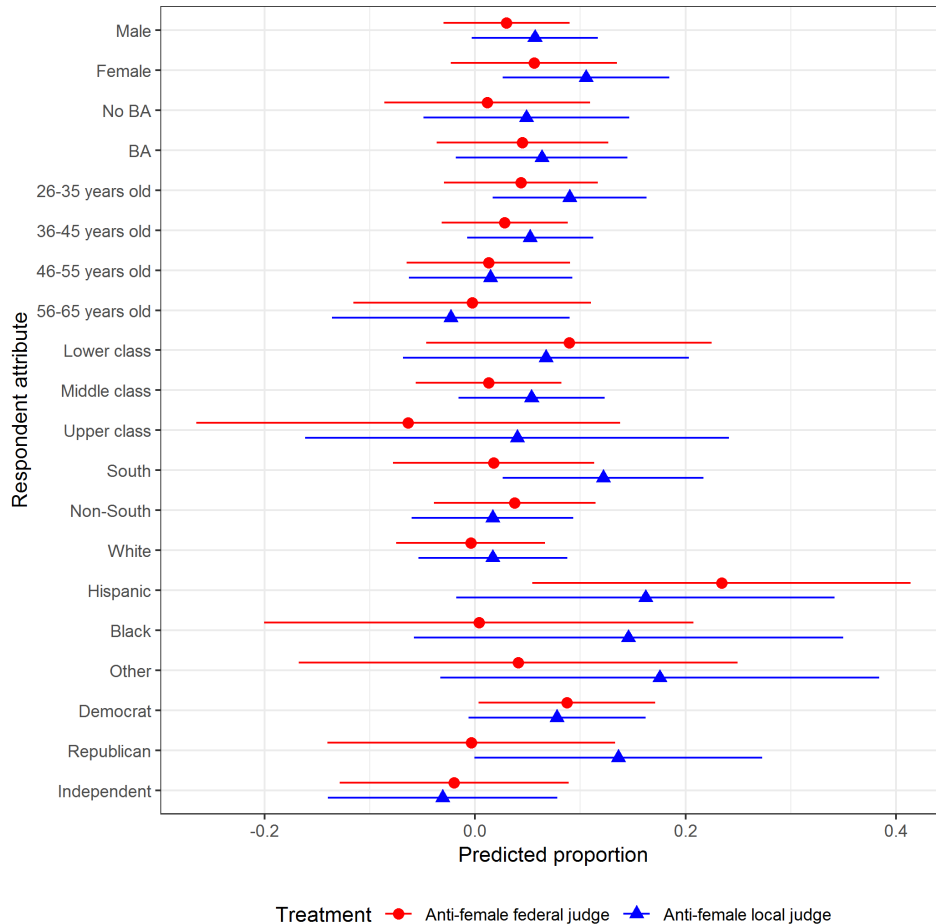
### *5. Multivariate Analysis*

Multivariate analysis offers further insight into whether blunt bias exists against female judges. We present the results in the figure below, and there are a few important patterns. First, notice that there is a bit more skepticism about women serving as local as opposed to federal court judges. The point estimates for local judges are slightly to the right of those for federal judges for most attributes, although these differences are significant in very few cases, as indicated by the overlapping confidence intervals. One reason this might be the case is because Americans may be more comfortable with female judges at the federal level, given the visibility of individuals like Ruth Bader Ginsburg and Sandra Day O'Connor. Nonetheless, these differences are rather small so we are cautious about making claims regarding local and federal differences. Next, there are a few attributes that increase anti-female attitudes. Respondents from the South display significantly more skepticism about women serving on local courts. Echoing the results from our main study, we also see that Republicans and Hispanics oppose female judges – the former at the local court level and the latter for federal judgehips. Curiously, female respondents are also slightly opposed to the idea of women serving at the local court level. Perhaps the most notable pattern, however, is that there is no evidence of blunt anti-female bias for most other attributes. In most cases, the confidence

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intervals overlap 0, indicative of no bias, and the substantive effects are rather small (<10% of respondents oppose women on the bench).

Figure B1. Multivariate Estimates of Bias against Female Judges



### 6. Discussion

Across the two studies we see evidence of pernicious, but not widespread, bias against a diverse bench. In general, most Americans do not oppose the idea of judicial diversity, and we expect that this is a product of the fact that many women and minorities already hold judgehips. Yet a very large number of citizens – perhaps as much as 40% of the voting age population – display a more subtle form of bias. Citizens indicate that women and minority judges are unable to fairly adjudicate broad swaths of cases with issues concerning race or gender.