

**Comments on JJ Prescott and Eric Laber's  
"The Effects of Judge, Prosecutor, and  
Defendant Race and Gender Interactions on  
Defendant Outcomes"**

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# Background: Inter-Judge Disparity

## □ Do different judges yield different decisions?

- ▶ Exploit random assignment of judges to cases

### Gaudet et al (1933)

“Individual Differences in the Sentencing Tendencies of Judges”

- Criminal cases from a NJ county
  - $\approx 1000$  cases per judge
- Finds large variation in incarceration rates

### Waldfogel (1998)

“Does Inter-Judge Disparity Justify Empirically Based Sentencing Guidelines”

- Federal criminal cases in San Francisco
  - $\approx 100$  cases per judge
- Finds large variation in sentence lengths

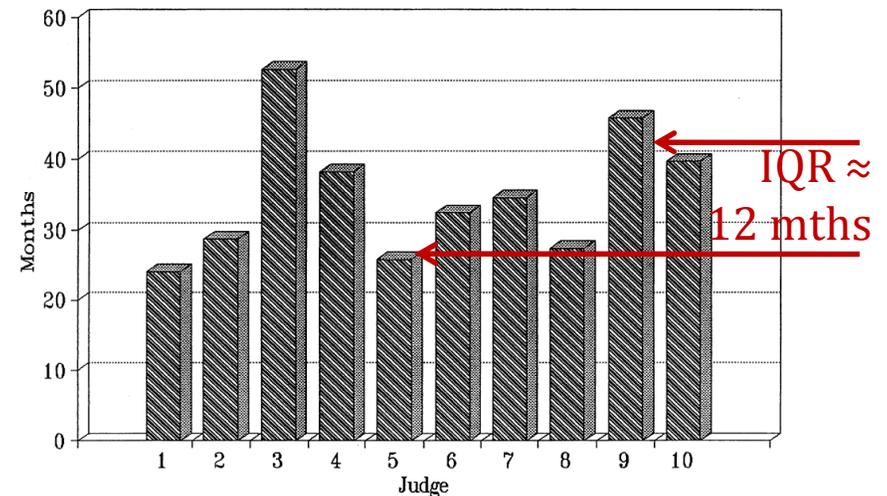
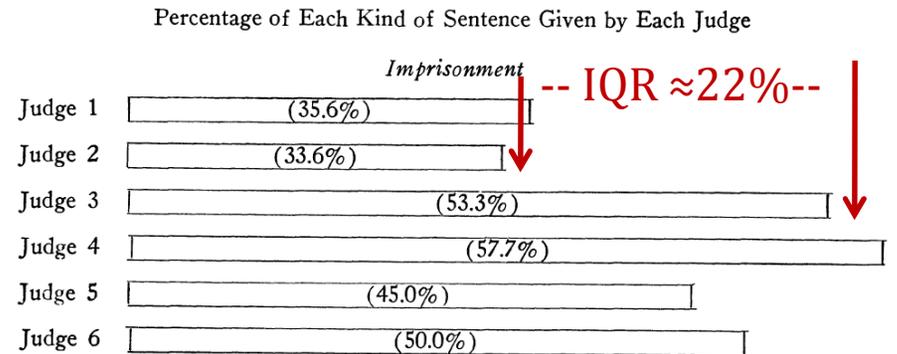


FIG. 1. Average prison terms by judge for the Northern District of California from 1984 to 1987.

# “Do Judges Vary in their Treatment of Race?”

## Abrams, Bertrand and Mullainathan (2008)

1.  $\text{Sentence}_j = \gamma_j I(\text{Judge}_j) + \delta_j I(\text{Judge}_j) * \text{black defendant}$ 
  - ▶ Interpret  $\delta_j$  as judge-specific racial bias
2.  $\delta_j = \beta \text{Black judge}_j + \text{other judge characteristics}$ 
  - ▶ Interpret  $\beta$  as own-race bias

Table 9: Correlation with Judge Characteristics

	Dependent Variable: Judge Fixed Effects in...					
	Sentence length	Incarceration rate	Black-White difference in sentence length		Black-White difference in incarceration rate	
Black judge? (Y=1)	45.03 (60.20)	-0.02 (0.04)	-152.69 (80.14)	-156.71 (81.34)	-0.03 (0.04)	-0.03 (0.04)
Male judge? (Y=1)	54.02 (56.50)	0.03 (0.03)	61.14 (74.22)	57.6 (75.28)	0.02 (0.04)	0.02 (0.04)
Older judge? (Y=1)	-11.03 (42.78)	-0.03 (0.03)	48.80 (57.19)	48.79 (57.59)	0.01 (0.03)	0.01 (0.03)
Judge was public defender? (Y=1)	-0.56 (49.19)	0.02 (0.03)	30.77 (65.04)	31.39 (65.50)	-0.04 (0.03)	-0.05 (0.03)
Judge F.E. in sentence length				0.07 (0.17)		
Judge F.E. in incarceration rate						0.3 (0.15)
R <sup>2</sup>	0.02	0.03	0.10	0.16	0.04	0.11
Observations:	67	67	67	67	67	67

Standard errors in parentheses. Each column correspond to a different regression. In each regression, each observation is weighted by the inverse of the square of the estimated standard error for the fixed effect used a dependent variable in that column. See text for additional detail.

# What this paper does

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- ❑ Analysis of criminal cases from arrest to sentencing
- ❑ Careful coding of race of
  - ▶ Defendant
  - ▶ Assistant district attorney (ADA)
  - ▶ Judge
- ❑ Document random assignment of:
  - ▶ District Attorney to defendants
  - ▶ Judges to defendants
- ❑ Estimate:
  - ▶ Judge and District attorney effects
  - ▶ Sentencing and charging behavior
  - ▶ Plus interactions with defendant characteristics

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# Empirical Approach

$$\begin{aligned} \text{Decline}_{ijt} = & \beta_1 \text{ProsRace}_j + \beta_2 \text{DefRace}_i + \beta_3 \text{DefRace}_i * \text{ProsRace}_j \\ & + \gamma \text{DefendantChars}_i + \delta \text{ProsecutorChars}_j + \alpha \text{CaseChars}_i \\ & + \nu \text{TimeFixedEffects}_t + \varepsilon_{ijt} \end{aligned}$$

- Race: dummies for white or black (other races dropped)
  - Defendant Chars: age dummies, sex, arrest location, arresting division, dummies, criminal history flag
  - Prosecutor Chars: age dummies, sex, political party, experience (and experience squared) at NODA, any disciplinary action in record
  - Case Chars: charge class, case type, maximum *recommended* charge, number of witnesses
  - Specifications: OLS (and Logit, for declination)
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# Empirical Approach

$$\begin{aligned} \text{Decline to charge}_{ijt} = & \beta_1 \text{Prosecutor Race}_i + \beta_2 \text{Defendant Race}_i \\ & + \beta_3 \text{Defendant Race}_i * \text{Prosecutor Race}_j \\ & + \gamma \text{DefendantChars}_i + \delta \text{ProsecutorChars}_j + \alpha \text{CaseChars}_i \\ & + \nu \text{TimeFixedEffects}_t + \varepsilon_{ijt} \end{aligned}$$

## Observations on random assignment

- ❑ Prosecutor is randomly assigned, prosecutor race is not
  - ▶ Prosecutor-specific black-white charging differences are causal
    - Correlation of these diffs with prosecutor race comes with the usual caveats
- ❑ Authors test random assignment conditional on time
  - ▶ But their results are also conditional on defendant and case characteristics
  - ▶ They need to do this: Unconditional comparisons yield low power
    - Do we infer that the randomization test is also low power?
    - At a minimum: Form of randomization test should match regressions



# Low Power of Unconditional Comparisons

**Table 3: Racial Disparities in Full Declination  
(Linear Probability Model)**

	Fully Declined	Fully Declined	Fully Declined
	(1)	(2)	(3)
Black ADA *	-0.124	-0.032	-0.036**
Black Defendant (BB)	(0.086)	(0.019)	(0.018)
Black ADA *	-0.108	-0.080***	-0.087***
<b>White Defendant (BW)</b>	(0.092)	(0.017)	(0.021)
<b>White ADA *</b>	-0.047**	-0.009	-0.008
Black Defendant (WB)	(0.022)	(0.013)	(0.013)
<b>BB - WB</b>	-0.077	-0.023	-0.028**
	(0.083)	(0.015)	(0.012)
<b>(BB - WB) - (BW - WW)</b>	0.031	0.058**	0.059**
	(0.032)	(0.024)	(0.024)
Year*Month FEs	✓	✓	✓
Defendant Characteristics		✓	✓
Case Characteristics		✓	✓
ADA demographics			✓
Observations	19198	19198	19198

# Empirical Approach

$$\begin{aligned} \text{Decline to charge}_{ijt} = & \beta_1 \text{Prosecutor Race}_j + \beta_2 \text{Defendant Race}_i \\ & + \beta_3 \text{Defendant Race}_i * \text{Prosecutor Race}_j \\ & + \gamma \text{Defendant Chars}_i + \delta \text{Prosecutor Chars}_j + \alpha \text{Case Chars}_i \\ & + \nu \text{Time Fixed Effects}_t + \varepsilon_{ijt} \end{aligned}$$

*Handwritten notes in red:*  
- Under  $\beta_3$  term: Defendant Race<sub>i</sub> \* Prosecutor Race<sub>j</sub>  
- Under  $\gamma$  term: *x Prosecutor race?*  
- Under  $\alpha$  term: *x Prosecutor race*

## Observations on control variables

- ❑ If the coefficient of interest is an interaction with prosecutor race then control variables should also be interacted
- ❑ Why focus on *prosecutor race \* defendant race*, and not other prosecutor characteristics (and their interactions)?
  - ▶ Aren't these all interesting forms of unwarranted disparity?



# What is a “just” response to own-race bias?

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## ❑ Tradeoff between:

- ▶ **Capriciousness:** Failing to treat equals equally
  - Role of chance in sentencing
- ▶ **Racial discrimination** against black (or white) criminals
  - *Average* differences in outcomes, between otherwise comparable groups
  - E.g. Black-white sentencing differences (conditional on crime type)
- ▶ **Racial discrimination** against white (or black) judges
  - Disparate impact of different ways of hiring judges
- ▶ **Proportionality** in sentencing and charging
  - Failing to treat unequals differently
  - Discretion is necessary for

# What is a “just” response to own-race bias?

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District attorneys and judges should be:

1. The best we can find (current system)
  - Disparate impact: More white judges => black defendants lose out more often
  - Capricious: Sentence varies according to random assignment of judge
2. All white (or all black)
  - Eliminates capriciousness
  - But exacerbates disparate impact (greater black-white sentencing differences on average)
3. 50% white; 50% black
  - Eliminates disparate impact: Blacks and white defendants equally likely to be victims to own-race bias
  - Maximizes capriciousness
  - Requires affirmative action (discrimination) in hiring judges
4. Representative of the defendant population
  - Ensures minority group will suffer own-race bias more often than majority
5. Representative of the U.S. population
6. Non-randomly assigned: Always assign own-race judges (or opposite race)
  - Eliminates capriciousness
  - Eliminates disparate impact due to own-race bias
  - But maximizes disparate impact if black and white judges differ
  - Requires judicial affirmative action (racial composition of judges = racial composition of defendants)
7. Subject to strict sentencing/charging guidelines
  - Less discretion = less capriciousness
  - Less discretion = less proportionality to details of the case (those details not codified in guidelines)