## Brokers of Bias in the Criminal System: Do Prosecutors Compound or Attenuate Earlier Racial Disparities?

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Discrimination in the 21st Century: Fostering Conversations Across Fields May 2022 • Question: how does prosecutorial discretion impact racial disparities in sentencing?

- Approach: exploit discontinuity in criminal history (points) mandating prison
  - If a prosecutor prefers to avoid prison, she must reduce the defendant's charge

- Main Results: prosecutors are increasingly likely to reduce Black defendants' charges
  - Effects are large: estimates suggest ~50% of the decline in incarceration disparities can be explained by shifts in prosecutorial discretion

• Discussion: interpretation and dealing with measurement error

# Possible Confounders: Changes in Policing

#### Possible Confounders: Changes in Policing

If we systematically observed more reductions above the discontinuity for a certain type of defendant (e.g., non-Black defendants), then it would be less likely that the pattern reflected spurious differences in constraints and more likely it reflected intentional decisions to sidestep mandatory prison for that type of defendant.

- But what if policing practices/bias change over time?
- This could cause constraints (e.g., evidence quality) to vary with race over time

#### Implications for the Importance of Prosecutorial Discretion

- Scenario: suppose cops become less racially biased over time
  - The quality of evidence for typical Black defendants improves (narrowing a gap with non-Black defendants)
  - Suppose prosecutors **don't** change their behavior for evidence of a given quality

• **Result:** Black defendants become relatively **less likely** to get charge reductions over time (**opposite** of empirical results)

• Implication: analysis understates the influence of prosec. discretion on disparities

## Homophily and the Role of Prosecutor Racial Bias

#### **Detecting Biases when Objectives are Abstract**

**The legal objective of bail judges is narrow, straightforward, and measurable**: to set bail conditions that allow most defendants to be released while minimizing the risk of pretrial misconduct. In contrast, **the objectives of judges at other stages of the criminal justice process, such as sentencing, are complicated by multiple hard-to measure objectives**, such as the balance between retribution and mercy. (Arnold, Dobbie, and Yang, 2018)

- When decisionmakers have a complex/abstract objective, there isn't an obvious Becker-style outcome test for bias
- Paper cleverly documents changing disparities related to prosecutorial discretion
- But is it possible to say more about the role of bias?

### Homophily and Bias

- **Homophily**: how decisionmakers (DMs) differentially treat others based on shared traits (e.g., race)
- *Many* papers study homophily what does it tell us about bias?
- When DMs are randomly assigned, rejecting no homophily  $\Rightarrow$  rejecting no bias (Argyle, Indarte, Iverson, and Palmer, 2022)

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- **Example:** bankruptcy trustees (Argyle, Indarte, Iverson, and Palmer, 2022)
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  - Objective of bankruptcy trustees is similarly abstract to prosecutors
  - We find Black filers are more likely to have their case dismissed when randomly assigned to white trustees
- With stronger assumptions, estimates of homophily can partially identify the share of a disparity due to DM bias

#### Value for Analysis of Charge Reductions

- Homophily analysis could shed light on role of prosecutors' racial preferences vs skepticism of police
- Currently, paper uses a survey to gauge prosecutor propensity to question police
  - Find skepticism of police is associated with more sentence reductions
  - But this could arise if (1) prosecutors have a similar propensity to question police (as a function of report quality) but receive different quality reports

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- Machine learning offers improved ways to impute race from names/addresses (Kotova, 2021)

#### **Measurement Error**

#### The Effects of Measurement Error in an RDD/RKD

- Main results throw out 30% of cases because prior points aren't recorded
  - Happens in cases where charges are dismissed or reduced to misdemeanors
  - > When including, find a larger disparity reduction (interp. as results at worst attenuated)
- Would be valuable to include these cases!
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- But measurement error creates **non-standard** bias in an RDD/RKD
  - ▶ Indarte(2021) shows generally there is attenuation in RDD/RKD estimate
  - ► In an RDD: larger when assigning more obs. to the wrong side of the cutoff
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- Suggests measurement error does attenuate paper's RD estimates in larger sample

#### Heterogeneity in Measurement Error

- Are charge reduction responses **similarly** understated for Black and non-Black defendants? And **similar** over time?
  - If not, disparity could be under or over-stated
- Possibly not if measurement error varies by race and time
  - Story for race isn't obvious to me...
  - But it's likely higher for earlier cases (less historical data available to impute points)
  - ► Implication: likely understate response by more in earlier years

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- Suggestions: characterize and correct for bias
  - Impute points for the sample where true points are known
  - How does measurement error in this sample vary by race and time?
  - ▶ Est. % of obs. assigned to wrong side of cutoff and use bias correction in Indarte (2021)

# Conclusion

• Important question with a clever and thorough analysis!

• Document substantial racial disparities that have reduced over time

#### • Future work:

- Similar style empirical strategies may help detect disparities/bias in other settings when DMs have abstract objectives (strategy exploits quasi-random variation in consequences of discretion)
- Degree and drivers of disparities in evidence quality
- What facilitates change in prosecutor attitudes?

## Thanks!