

## EUROCRIM 2022

# Ethnic Disparities in Sentencing: Warranted or Unwarranted?

Background

Case Studies

Unobserved Case  
Characteristics

Measurement  
Error

Selection Bias

Conclusion

Jose Pina-Sánchez   Sara Geneletti   Ana Veiga   Ana Morales   Eoin Guilfoyle



# Background

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## Unobserved Case Characteristics

## Measurement Error

## Selection Bias

## Conclusion

- Hundreds of studies document ethnic disparities in sentencing
  - Yet, the evidence is often seen as inconclusive
- A key methodological impasse
  - We cannot control for all case characteristics
  - Preventing perfect ‘like with like’ comparisons
- Are those disparities evidence of discrimination?

# Research Aims

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- We review two recent studies of the England & Wales Crown Court and attempt to provide a well-founded response
- We consider unobserved case characteristics
  - Use simulations to recreate the effect of case characteristics left uncontrolled and assess the robustness of their findings
- We consider other crucial assumptions often neglected
  - Racially determined case characteristics and a heterogeneous White reference group as a measurement error problem
  - Missing data as a selection bias

## Two Case Studies

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- Hopkins et al. (2016), from the Ministry of Justice
  - 21,639 cases, covering all offence types processed in the Crown Court
  - Controls for offender demographics, offence type, previous convictions and guilty plea
  - Estimates 53% higher odds of incarceration for Blacks
- Isaac (2020), from the Sentencing Council
  - 14,000 cases of three drug offences sentenced in the Crown Court
  - Controls for offender demographics, and practically all factors listed in the sentencing guidelines
  - Estimates 40% higher odds of incarceration for Blacks

# Unobserved Case Characteristics

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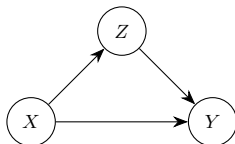
Case Studies

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# Unobserved Case Characteristics

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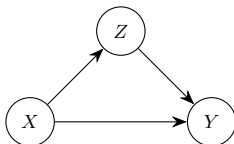
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- We rule out this being a problem in Isaac (2020), but it is likely present in Hopkins (2016)
- We do not have access to their data, so we simulate (back engineer) it

# Simulations

- We adopt the following fixed parameters derived from Hopkins
  - the proportion of non-Whites is 0.22
  - the probability of being incarcerated if White is 0.53

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## Simulations

- We adopt the following fixed parameters derived from Hopkins
  - the proportion of non-Whites is 0.22
  - the probability of being incarcerated if White is 0.53
- Explore combinations of different values
  - The prevalence of the unobserved case characteristics in White offenders is: 0.3, 0.5 and 0.7
  - The relative prevalence of the unobserved in ethnic minority compared to White offenders is: 1, 1.25, 1.5, 1.75 and 2
  - The direct ethnicity effect is: 1 and 1.25 odds ratios



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- For each scenario we assess if two 'hard' constraints are met
  - The overall unadjusted probability of being incarcerated is 0.55
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- For each scenario we assess if two 'hard' constraints are met
  - The overall unadjusted probability of being incarcerated is 0.55
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- We run 100 repetitions of 5,000 samples each
  - Consider congruous scenarios where the two constraints are met 25% of times

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## Simulations: Results

- Six congruous scenarios with an overestimated ethnicity effect on incarceration
  - None of them explained it away entirely, only halved it
- For that to be the case, the unobserved characteristics has to...
  - have a strong effect on the probability of incarceration
  - and be more prevalent in Blacks than White offenders
  - or be very prevalent across all offenders

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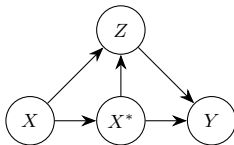
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Congruous scenarios where the ethnic disparities reported in Hopkins could be overestimated as a result of unobserved case characteristics

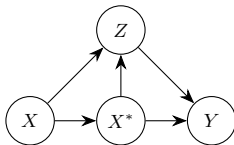
prevalence of the unobserved in Whites	relative prevalence of the unobserved in minorities compared to Whites	effect of the unobserved on incarceration, $OR_{U \rightarrow Y}$ ( $RR_{U \rightarrow Y}$ )	direct effect, $OR_{X \rightarrow Y}$ ( $RR_{X \rightarrow Y}$ )
0.3	1.5	2.12 (1.46)	1.25 (1.10)
0.3	1.75	2.12 (1.46)	1.25 (1.10)
0.3	2	2.12 (1.46)	1.25 (1.10)
0.5	1.25	1.91 (1.36)	1.25 (1.10)
0.5	1.5	1.91 (1.36)	1.25 (1.10)
0.7	1.25	1.5 (1.2)	1.25 (1.10)

## Measurement Error



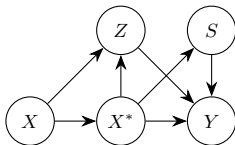
- Racially-determined case characteristics
  - E.g. remorse, ‘good character’, but also previous convictions and many others
  - Controlling for these will exert a downward bias

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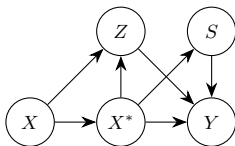
- Racially-determined case characteristics
  - E.g. remorse, ‘good character’, but also previous convictions and many others
  - Controlling for these will exert a downward bias
- Misclassification in the White group
  - Irish travellers, Romany gypsies, White Europeans, are also subject of discrimination
  - Placing them together with White British exerts an additional attenuation bias

## Selection Bias



- Upstream disparities
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- Upstream disparities
  - Ethnic minority individuals are more likely to be stopped, arrested, charged and found guilty
  - Sentencing cases are therefore not representative of the criminal justice system, another attenuation bias
- Even if the focus is on discrimination in sentencing, problems of missing data could be exerting the same type of bias
  - When offender's ethnicity is self-reported
  - Or the judge is in charge of filling the questionnaire



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- Estimates of ethnic disparities in sentencing are subject to multiple biases
  - Unobserved case characteristics is only one of them
  - By carefully mapping their impact we can potentially test the presence of discrimination in sentencing

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- Estimates of ethnic disparities in sentencing are subject to multiple biases
  - Unobserved case characteristics is only one of them
  - By carefully mapping their impact we can potentially test the presence of discrimination in sentencing
- The England and Wales evidence seems to point at real sentencing discrimination
  - Without a doubt for the case of drug offences
  - This problem needs to be redressed through effective policy
  - Ideally informed by further research exploring the specific mechanisms behind these disparities (class discrimination, legal aid, pre-sentence reports, etc.)
  - And where are those disparities more present