



# Exploring a RAND Approach to Measuring Racial Disparity: A Case Example and Dialogue

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# Framework for Disparity Analysis

1. Decide on the **key outcome** of fundamental interest
2. Note two **disparity approaches**
  - Disparate impact, process matters
  - Disparate treatment, control matters
3. **Unit of analysis** at which the decision occurs that addresses the selected disparity question
4. Select **method** that best estimates disparity

# 1. Key Outcome

- Conceptual Issue
  - What is the most important policy outcome?
- Empirical Issues
  - Quantify total disparity



## 2. Disparate Treatment vs. Impact

- Disparate Treatment



vs



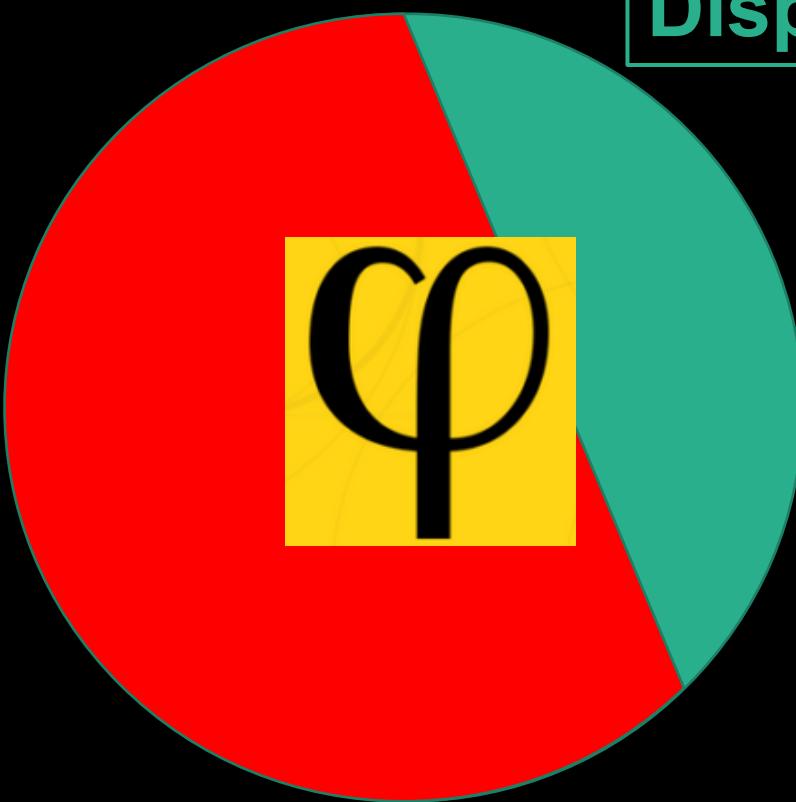
- Disparate Impact



vs



## 2. Disparate Treatment vs. Impact



Disparate Treatment

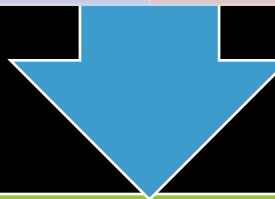
Disparate Impact

### 3. Unit of analysis

What does theory say about where the decision is made?

Treatment vs. Impact

e.g. Local vs. State

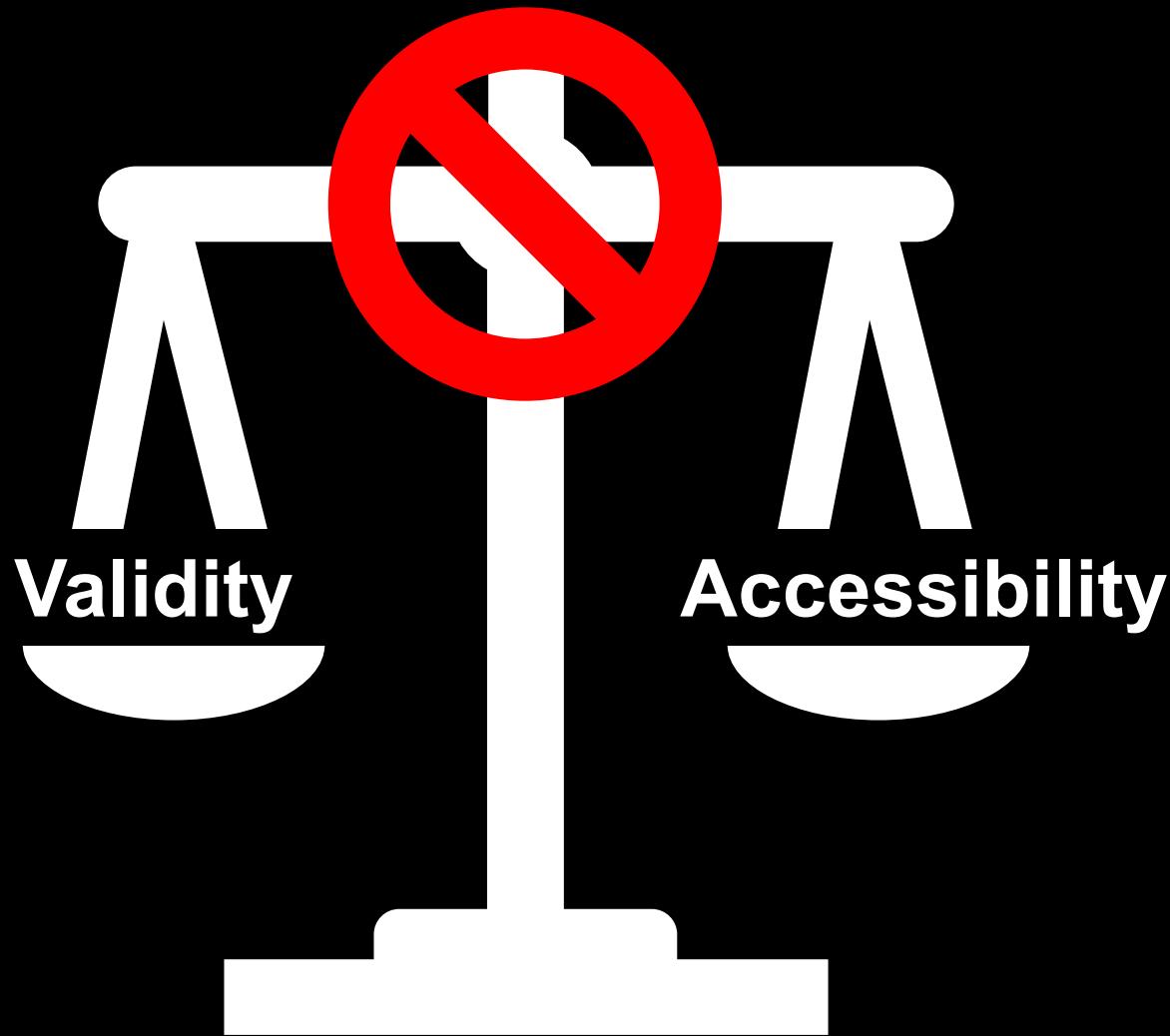


What step are you focusing on?

Conditional vs.  
Unconditional

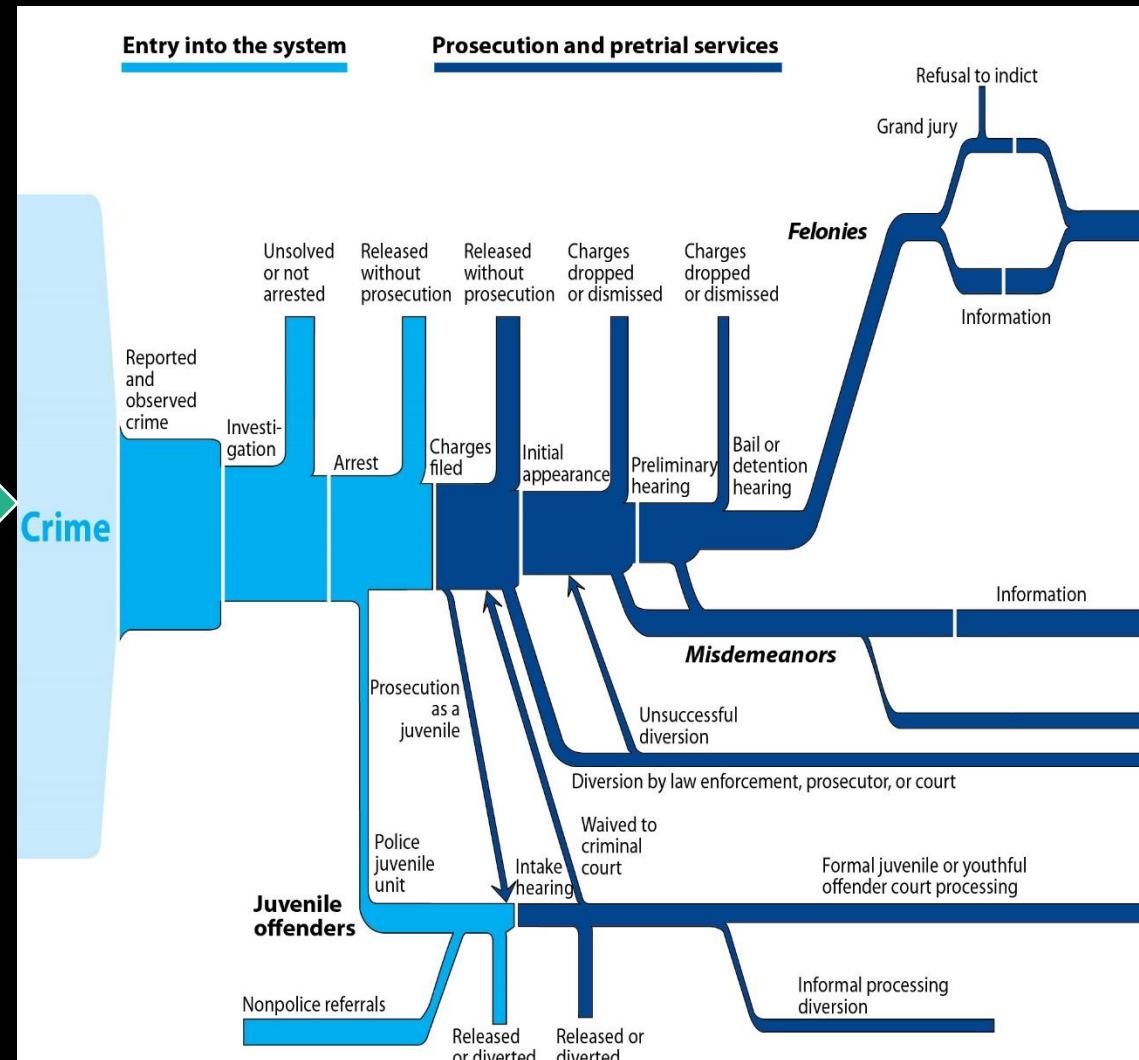
Selection

## 4. Select method



# Method: Disparate Impact

PROCESS



Note: This chart gives a simplified view of caseflow through the criminal justice system. Procedures vary among jurisdictions. The weights of the lines are not proportional to the volume of cases.

# Method: Disparate Treatment

**CONTROL CONTROL CONTROL**



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# NY Sentencing Commission Tasked with Improving Sentencing Policy

- Many forms of sentences
  - Community service
  - Fines
  - Probation
  - Incarceration
- For defendants convicted of a felony
  - 51% of black defendants receive prison
  - 36% of white defendants receive prison
- Commission focused on incarceration because of its severity and disparity

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# Commission Expressed an Interest in Disparate Treatment Analysis

Cases with Black defendants	Prison	Cases with White defendants	Prison
DWI	Yes	DWI	No
DWI	No	DWI	No
DWI	No	DWI	No
⋮			
Gun possession	Yes	Gun possession	Yes
Gun possession	Yes	Gun possession	No
Gun possession	Yes	Gun possession	No
⋮			

- Are black defendants treated the same as similar white defendants

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# Criminal Justice System Organized at the County Level

- Criminal laws are established at the state level
- Implementation managed by
  - County-level elected district attorney
  - County-level elected judges
  - County-level defender services
- Counties may prioritize different case characteristics when making sentencing decisions

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# Scorecards Generate Reputational Concern for Local Government

## Accountability Rating

C

HOUSTON HEIGHTS CHARTER SCHOOL earned a C (70-79) for acceptable performance by serving many students well but needs to provide additional academic support to many more students.

State accountabilities  
Student achievement scores  
below proficiency levels  
Scores are available for all  
students

All topics	Health	Education	Child Welfare	Early Childhood	Los Angeles %'s for all races	Viewing 1–6 of 6
Children in the child welfare system who exited to permanency within one year					35%	
Children in the child welfare system who had been in one placement after 24 months in care					39%	
Adolescents in the child welfare system who were placed in family-like settings					74%	
Children in the child welfare system who had a timely dental exam					65%	
Children in the child welfare system who had a timely medical exam					78%	

15.52%  
of Cases  
Failure to Pay  
Low Monetary  
Bail  
Statewide in Pennsylvania

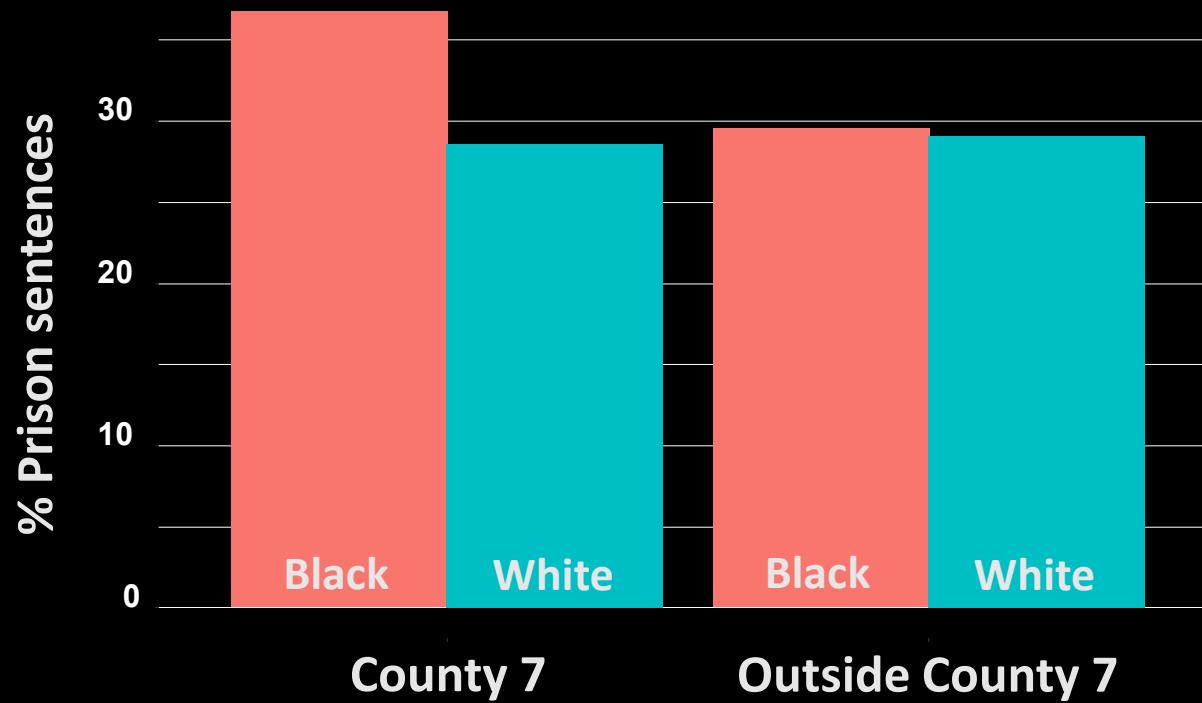
Counties with Valid Data (67) ▾  
In Philadelphia County, PA, of the cases in which defendants failed to pay monetary bail, 43.94% had \$500 bail or less.

## Focus on issues that

- are sensitive for the government
- garner exposure through public attention
- force governments to prioritize the issues measured in the scorecard



# County 7 Incarcerates Black Defendants at Higher Rates



# Match Defendants on Detailed Case and Defendant Features

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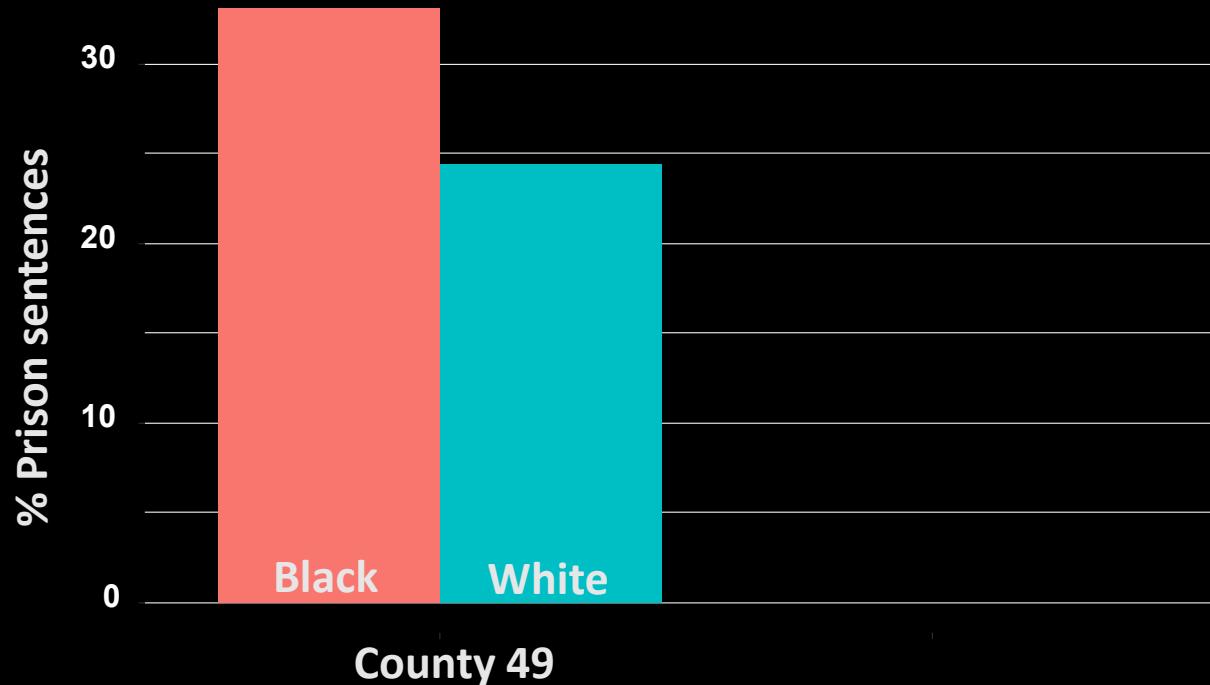
# Match Defendants on Detailed Case and Defendant Features

Case/defendant feature	Within County 7		Outside County 7	
	Black	White	Black	White
n < 2,000	ESS = 1,354		ESS = 19,402	ESS = 29,977
<b>Age at arrest (average)</b>	30.4	30.4	30.3	30.3
<b>Male (%)</b>	81.0	81.1	82.1	82.3
<b>No prior felony arrests (%)</b>	49.5	52.0	47.2	48.1
<b>Prior arrests (average count)</b>				
<b>Felonies</b>	1.4	1.2	1.7	1.4
<b>Drugs</b>	0.4	0.4	0.6	0.5
<b>Firearms</b>	0.07	0.05	0.08	0.05
<b>Violent crimes</b>	0.4	0.3	0.5	0.4
<b>Prior convictions (average count)</b>				
<b>Weapons</b>	0.1	0.1	0.1	0.1
<b>Violent crimes</b>	0.1	0.1	0.1	0.1
<b>Specific top charge (%)</b>				
<b>PL 120.05(02)</b>	3.8	3.6	3.8	3.8
<b>PL 140.25(02)</b>	7.1	7.2	7.1	7.0
<b>PL 155.30</b>	5.6	6.0	5.7	5.9
<b>PL 220.39(01)</b>	6.5	5.6	6.0	6.6

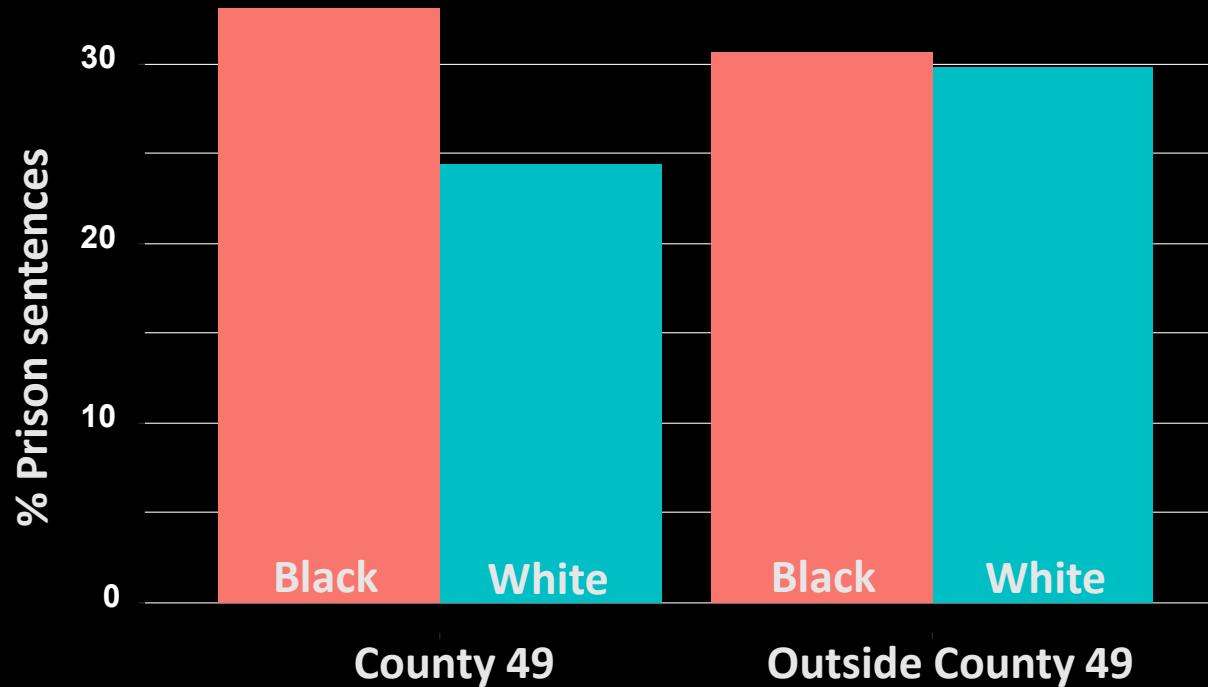
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<b>PL 155.30</b>	5.6	6.0	5.7	5.9
<b>PL 220.39(01)</b>	6.5	5.6	6.0	6.6
<b>General top charge features (%)</b>				
<b>Violent crime</b>	20.5	20.0	21.5	20.6
<b>Class D felony</b>	39.7	40.0	39.1	38.7
<b>Firearm Related</b>	5.0	4.2	4.8	4.7
<b>Disposition month: June (%)</b>	11.4	9.4	8.1	8.4

# County 49 Incarcerates Black Defendants at Higher Rates

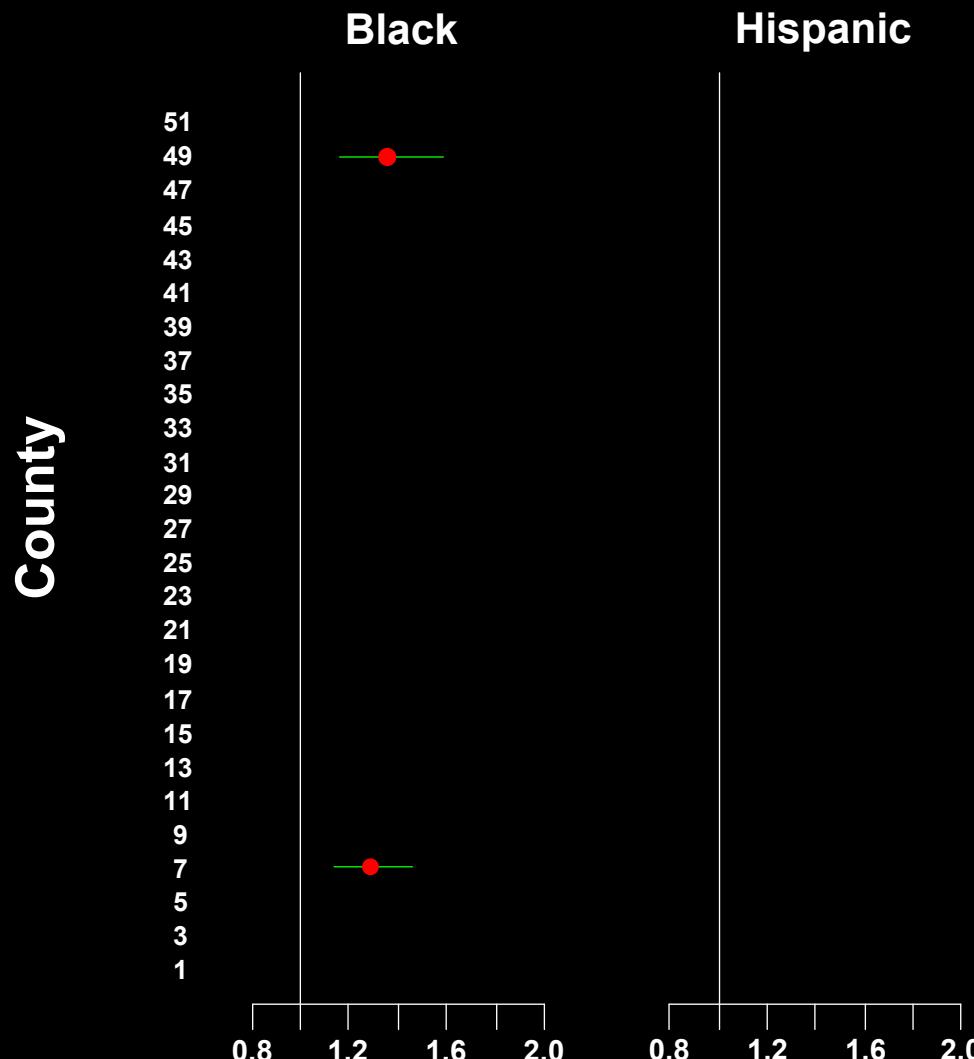


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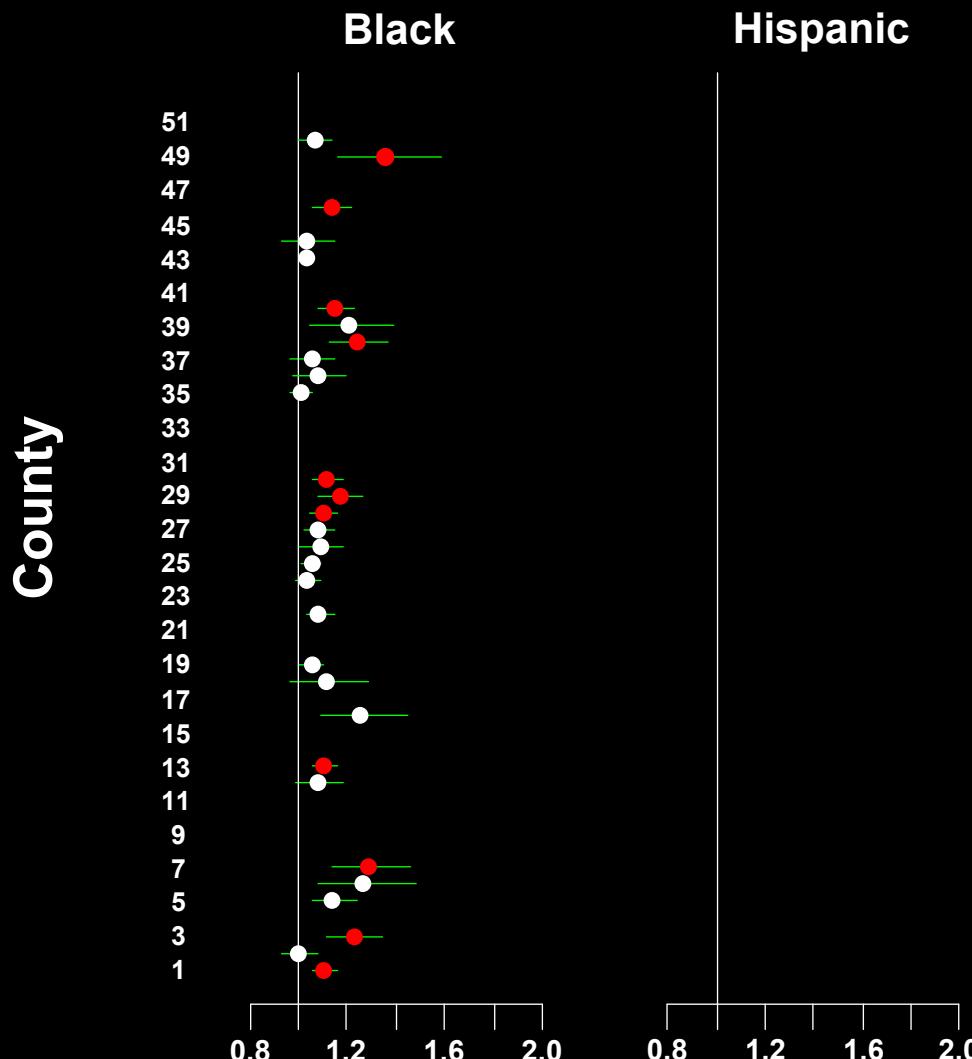


County 7's Relative Risk = 1.3

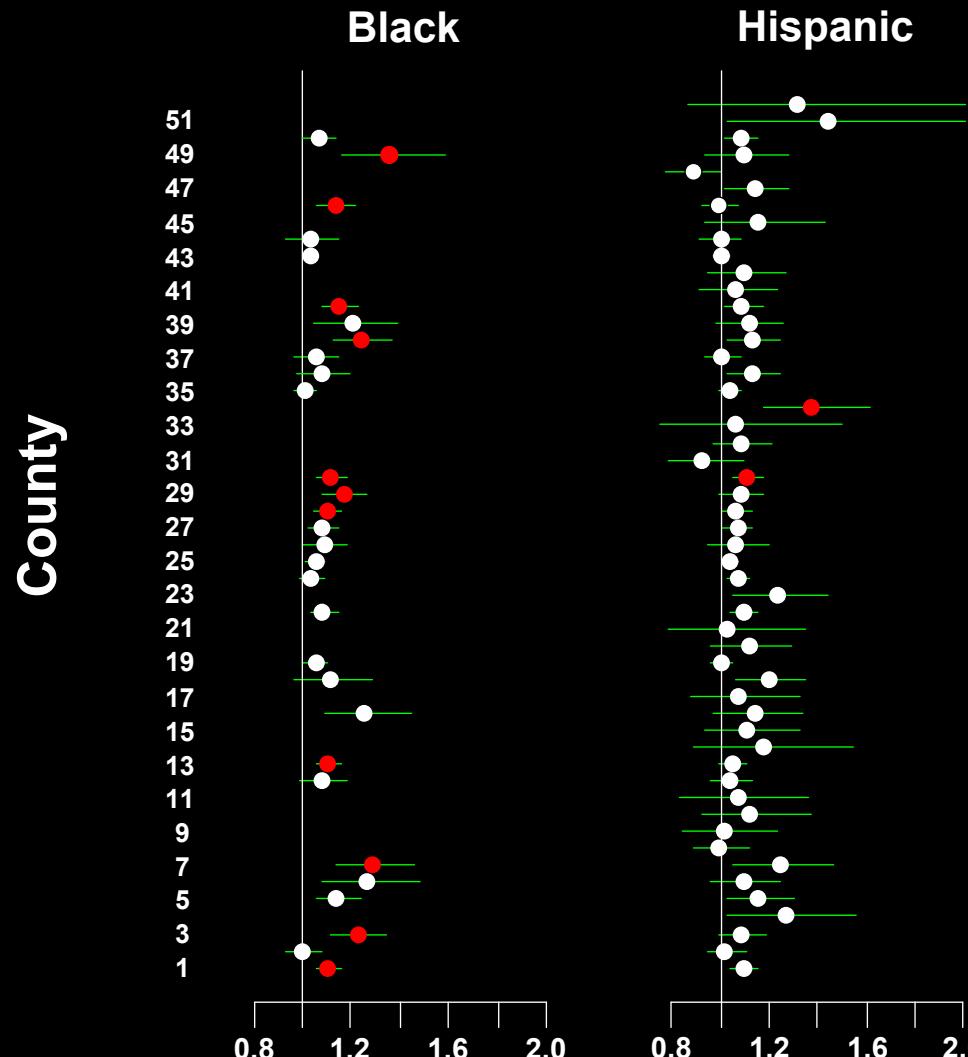
County 49's Relative Risk = 1.4



# 11 Counties Had Racial Disparities in Sentencing Black Defendants



# Two Counties Had Racial Disparities in Sentencing Hispanic Defendants



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4. Select method that best estimates disparity
  - Adjusted scorecard



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