On the Law and Economics of Racial Disparities in Incarceration

Samuel L. Myers, Jr.
University of Minnesota

APPAM International Conference
Panel: Racial Inequality and the Criminal Justice System (Criminal Justice)
Monday, June 13, 2016: 2:15 PM-3:45 PM
Clement House, 7th Floor, Room 03 (London School of Economics)
Overview

• Stylized Facts About Black Incarceration Rates, 1970s to Present
• Catalogue of Explanations
  – Brief Critique of Two Most Common
    • Efficiency of Racial Disparities in Incarceration
    • Drug (Crack) Arrests
• Implications for the Future
STYLIZED FACTS
Incarceration

- **USA:** *second highest incarceration rate in the world*
- Black incarceration rates 6-7 times that of whites
- Incarceration rose from 200,000 in 1970s to more than 1.5 Million in 2010
Judicial Discretion and Racial Disparities in Incarceration


- **State initiatives:**
  - Deterninate sentencing, sentencing commissions and guidelines, and mandatory minimum sentences
  - Abolition of parole and probation

- **Federal Initiative:** US Sentencing Reforms
US Sentencing Reform Act of 1984

• Repealed the authority of the federal courts to suspend criminal sentences.
• Abolished federal parole.
• Created a sentencing guideline system:
  – Statutory maximum and minimum penalties established by Congress
  – Curtailed sentencing discretion of federal judges.
  – Three strikes and drug sentences
Post-1984 Restrictions

- **Armed career criminal provisions**, 18 U.S.C. 924(e), Firearms Owners Protection Act, P.L. 99-308, 100 Stat. 458 (1986);


- **Three strikes** 18 U.S.C. 3559(c) and 18 U.S.C. 2251-2252A, in the Violent Crime Control and Law Enforcement Act of 1994,
Sharp increases 1970s – 1990s; Rise in White incarcerations in 2000s
Disparity in Incarcerations Greater than the Disparity in Arrests


B/W INCARCERATION RATES BLACK-WHITE RATIO OF ARREST RATES
CATALOGUE OF EXPLANATIONS
Social and Economic Explanations

- **Structural**
  - Labor markets
  - Schools (suspensions as pipelines to prison)
  - Housing markets (segregated islands of isolation)

- **Behavioral**
  - Drug use and drug sales
  - Theft and larceny
  - Thrill seeking
  - Anti-authoritarianism
Explanations

• Structural
  - Prisons as labor market equilibrating devices
    - **Superfluous labor:** Prisons drain off unwanted workers
    - **Labor shortages:** Prisons release workers into labor markets

• Behavioral
  - High unemployment produces high incentives to engage in criminal activities
  - High rates of criminal involvement produce high arrests rates and high incarceration rates
Figure 9.1 Unemployment Versus Incarceration

\[ y = 18.178x + 53.928 \]

\[ R^2 = 0.1144 \]
Explanations (cont.)

**Structural**
- Discrimination in:
  - Traffic Stops
  - Arrests
  - Bail setting
  - Prosecution
  - Sentencing
  - Probation and Parole

**Behavioral**
- Offender decisions that result in higher rates of:
  - Traffic stops
  - Arrests
  - Bail
  - Guilty Pleas
  - Longer sentences
  - Lower probabilities of probation or parole
Dominant Paradigm
Explanations

- Black-White Disparity in Imprisonment Due to Higher Black Criminal Participation
- Black-White Disparity in Imprisonment due to Black Drug (Crack) Arrests
The (in)Efficiency of Racial Disparities in Incarceration
The Problem

• Wide racial disparities in incarceration
  – Are these disparities “efficient” in the sense that they help to reduce crime?
  – Are these disparities the result of discrimination?
Sources of Potential Inefficiency in Racial Disparities in Incarceration

- **Family Instability Effects**
  - Higher black incarceration rates lead to lower supplies of marriageable black males
  - Lower supplies of marriageable black males results in lower black marriage rates
  - Lower black marriage rates result in higher rates of female-headship
    - Higher female-headship rates associated with lower incomes, higher drop-out rates, higher crime rates
    - Absence of fathers associated with higher rates of criminality

- **Accumulation of Criminal Human Capital**
Sources of Potential Efficiencies of Racial Disparities in Incarceration

• **Deterrent Effects**
  – Lower crime rates among blacks who estimate that they will serve longer prison terms if convicted
  – Lower entry into crime overall by observation of lengthy prison sentences for minor crimes

• **Incapacitation Effects**
  – Lower overall crime rates due to incarceration of career criminals
CASE STUDY: FEDERAL PRISON PAROLE
The Context of the Debate

• Sentencing reforms
  – Eliminate different punishments for same crimes
  – Reduce judicial discretion
  – Reduce racial disparities

• Conservative support for sentencing reforms
  – Racial discrimination does not exist; need to reign in the discretion of “liberal” judges
  – More lengthy sentences for more “serious crimes” e.g. crack cocaine possession

• Liberal support for sentencing reforms
  – Lower racial disparities
  – Increase “rationality” of punishment
  – Eliminate discretion of “racist” judges
TESTING FOR DISCRIMINATION IN PUNISHMENT
This is known as the standard Blinder-Oaxaca-Duncan residual discrimination methodology. Denoting black and white by superscripts $B$ and $W$, and defining the effects of $Z$ and $X$ on outcomes as the coefficients $\alpha$, $\beta$, and $\gamma$, we have:

\[
Y^B = \alpha^B + \Sigma \beta^B_i Z_i^B + \gamma^B_i X_i^B,
\]
\[
Y^W = \alpha^W + \Sigma \beta^W_i Z_i^W + \gamma^W_i X_i^W,
\]

with no assumptions made about the relationship between the $\alpha$'s, $\beta$'s, and $\gamma$'s for blacks and whites. We compute the following residual difference:

\[
D = \dot{Y}_B - Y^B,
\]

where

\[
\dot{Y}^B = \alpha^W + \Sigma \beta^W_i Z_i^B + \gamma^W_i X_i^B.
\]
TABLE 1

Characteristics of the Black and White Ex-prisoners of the Federal Prison System

<table>
<thead>
<tr>
<th>Variables</th>
<th>Both Races* (N=2127)</th>
<th>Blacks* (N=546)</th>
<th>Whites* (N=1581)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (in years)</td>
<td>30.541</td>
<td>30.915</td>
<td>30.412</td>
</tr>
<tr>
<td>Black</td>
<td>.257</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Female</td>
<td>.051</td>
<td>.086</td>
<td>.039</td>
</tr>
<tr>
<td>Grade Claimed</td>
<td>9.542</td>
<td>9.036</td>
<td>9.595</td>
</tr>
<tr>
<td>Married</td>
<td>.264</td>
<td>.214</td>
<td>.281</td>
</tr>
<tr>
<td>Previously in Mental Hospital</td>
<td>.091</td>
<td>.036</td>
<td>.110</td>
</tr>
<tr>
<td>No Drug or Alcohol Abuse</td>
<td>.828</td>
<td>.822</td>
<td>.819</td>
</tr>
<tr>
<td>Employed More that 4 Years</td>
<td>.121</td>
<td>.104</td>
<td>.127</td>
</tr>
<tr>
<td>Parole Hearings (number)</td>
<td>1.762</td>
<td>1.259</td>
<td>1.843</td>
</tr>
<tr>
<td>Release on Parole</td>
<td>.464</td>
<td>.358</td>
<td>.501</td>
</tr>
<tr>
<td>Age at First Commitment (in years)</td>
<td>22.136</td>
<td>21.751</td>
<td>22.269</td>
</tr>
<tr>
<td>Time Served (in months)</td>
<td>23.992</td>
<td>24.696</td>
<td>23.748</td>
</tr>
<tr>
<td>Previous Convictions (number)</td>
<td>5.971</td>
<td>6.624</td>
<td>5.745</td>
</tr>
<tr>
<td>Prison Punishment</td>
<td>.297</td>
<td>.285</td>
<td>.301</td>
</tr>
<tr>
<td>Commitment/Convictions</td>
<td>.130</td>
<td>.141</td>
<td>.126</td>
</tr>
<tr>
<td>First Offender</td>
<td>.102</td>
<td>.075</td>
<td>.111</td>
</tr>
<tr>
<td>Robbery Theft, Burglary</td>
<td>.544</td>
<td>.483</td>
<td>.505</td>
</tr>
<tr>
<td>Over $5,000</td>
<td>.061</td>
<td>.027</td>
<td>.073</td>
</tr>
<tr>
<td>White Collar (forgery, counterfeiting, or fraud)</td>
<td>.228</td>
<td>.258</td>
<td>.218</td>
</tr>
<tr>
<td>Independent Variables</td>
<td>Blacks</td>
<td></td>
<td>Whites</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-----------------</td>
<td>-------------</td>
<td>-----------------</td>
</tr>
<tr>
<td></td>
<td>$\beta$</td>
<td>$\frac{\partial R}{\partial x_i}$</td>
<td>$\beta$</td>
</tr>
<tr>
<td>Age</td>
<td>-.061</td>
<td>-.013</td>
<td>-.057</td>
</tr>
<tr>
<td></td>
<td>(-4.573)</td>
<td>(9.166)</td>
<td></td>
</tr>
<tr>
<td>Offense Value Greater than $5,000</td>
<td>.295 (1.615)</td>
<td>.064 (4.84)</td>
<td>.887 (3.650)</td>
</tr>
<tr>
<td>Female</td>
<td>.575 (1.099)</td>
<td>.125 (2.044)</td>
<td>.687 (2.314)</td>
</tr>
<tr>
<td>Grade Claimed</td>
<td>.046 (1.099)</td>
<td>.010 (4.957)</td>
<td>.109 (4.957)</td>
</tr>
<tr>
<td>Married</td>
<td>.495 (2.044)</td>
<td>.108 (3.766)</td>
<td>.488 (3.766)</td>
</tr>
<tr>
<td>No Use of Drugs or Alcohol</td>
<td>.950 (2.948)</td>
<td>.207 (4.957)</td>
<td>.218 (4.957)</td>
</tr>
<tr>
<td>Previously in Mental Hospital</td>
<td>-.412 (-.735)</td>
<td>-.090 (-3.727)</td>
<td>-.719 (-3.727)</td>
</tr>
<tr>
<td>Number of Parole Hearings</td>
<td>.848 (7.071)</td>
<td>.185 (11.976)</td>
<td>.761 (11.976)</td>
</tr>
<tr>
<td>Prison Punishment</td>
<td>-.771 (-3.218)</td>
<td>-.168 (-6.066)</td>
<td>-.823 (-6.066)</td>
</tr>
<tr>
<td>Robbery, Theft, Burglary</td>
<td>-.249 (-.916)</td>
<td>-.054 (-4.321)</td>
<td>-.658 (-4.321)</td>
</tr>
<tr>
<td>White Collar Offense</td>
<td>.304 (-1.032)</td>
<td>.066 (-1.219)</td>
<td>-.221 (-1.219)</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.253 (-1.196)</td>
<td>-- (-.910)</td>
<td>2.342 --</td>
</tr>
<tr>
<td>Weighted Mean of Dependent Variable</td>
<td>.360 --</td>
<td>-- .500</td>
<td>--</td>
</tr>
<tr>
<td>Predicted Probability at Weighted Means of Independent Variables</td>
<td>.322 --</td>
<td>.502 --</td>
<td></td>
</tr>
<tr>
<td>Chi-Square</td>
<td>131.557 --</td>
<td>401.283 --</td>
<td>--</td>
</tr>
</tbody>
</table>
### TABLE 3
Maximum Likelihood Estimates of the Probability of Recidivism in First Post-Prison Year (t-statistics in parentheses)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Blacks</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>( \frac{\partial p}{\partial x_i} )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>β</td>
<td>( \frac{\partial p}{\partial x_i} )</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.059</td>
<td>-.013</td>
<td>(-3.289)</td>
<td></td>
<td></td>
<td>-.027</td>
<td>-.005</td>
<td>(-2.684)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>-.508</td>
<td>-.111</td>
<td>(-1.361)</td>
<td></td>
<td></td>
<td>-.360</td>
<td>-.074</td>
<td>(-1.044)</td>
<td></td>
</tr>
<tr>
<td>Grade Claimed</td>
<td>-.038</td>
<td>-.008</td>
<td>(-.954)</td>
<td></td>
<td></td>
<td>-.021</td>
<td>-.004</td>
<td>(-.956)</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>-.245</td>
<td>-.053</td>
<td>(-1.003)</td>
<td></td>
<td></td>
<td>-.314</td>
<td>-.079</td>
<td>(-2.752)</td>
<td></td>
</tr>
<tr>
<td>No Use of Drugs or Alcohol</td>
<td>-.424</td>
<td>-.092</td>
<td>(1.553)</td>
<td></td>
<td></td>
<td>-.375</td>
<td>-.077</td>
<td>(2.658)</td>
<td></td>
</tr>
<tr>
<td>Previously in Mental Hospital</td>
<td>1.162</td>
<td>.253</td>
<td>(2.371)</td>
<td></td>
<td></td>
<td>.480</td>
<td>.099</td>
<td>(2.772)</td>
<td></td>
</tr>
<tr>
<td>Number of Parole Hearings</td>
<td>.127</td>
<td>.027</td>
<td>(1.185)</td>
<td></td>
<td></td>
<td>.106</td>
<td>.022</td>
<td>(1.850)</td>
<td></td>
</tr>
<tr>
<td>Prison Punishment</td>
<td>.293</td>
<td>.064</td>
<td>(1.324)</td>
<td></td>
<td></td>
<td>.437</td>
<td>.090</td>
<td>(3.313)</td>
<td></td>
</tr>
<tr>
<td>Release on Parole (R)</td>
<td>.170</td>
<td>.037</td>
<td>(.716)</td>
<td></td>
<td></td>
<td>-.016</td>
<td>-.003</td>
<td>(.118)</td>
<td></td>
</tr>
<tr>
<td>Robbery, Theft, Burglary</td>
<td>.082</td>
<td>.018</td>
<td>(.309)</td>
<td></td>
<td></td>
<td>.105</td>
<td>.021</td>
<td>(.673)</td>
<td></td>
</tr>
<tr>
<td>White Collar Offense</td>
<td>.049</td>
<td>.010</td>
<td>(.592)</td>
<td></td>
<td></td>
<td>-.096</td>
<td>-.020</td>
<td>(-2.071)</td>
<td></td>
</tr>
<tr>
<td>Offense Value Greater than $5,000</td>
<td>-.387</td>
<td>-.084</td>
<td>(-.592)</td>
<td></td>
<td></td>
<td>-.688</td>
<td>-.142</td>
<td>(-2.071)</td>
<td></td>
</tr>
<tr>
<td>First Offender</td>
<td>9.170</td>
<td>-.037</td>
<td>9.170</td>
<td></td>
<td></td>
<td>-3.17</td>
<td>-.065</td>
<td>(1.260)</td>
<td></td>
</tr>
<tr>
<td>Age at First Commitment</td>
<td>.043</td>
<td>-.009</td>
<td>(1.918)</td>
<td></td>
<td></td>
<td>.011</td>
<td>.002</td>
<td>(.965)</td>
<td></td>
</tr>
<tr>
<td>Employed More that 4 Years</td>
<td>-.544</td>
<td>-.187</td>
<td>(-1.217)</td>
<td></td>
<td></td>
<td>-.264</td>
<td>-.054</td>
<td>(-1.105)</td>
<td></td>
</tr>
<tr>
<td>Time Served</td>
<td>-.008</td>
<td>-.001</td>
<td>(-1.217)</td>
<td></td>
<td></td>
<td>-.004</td>
<td>-.0009</td>
<td>(-1.279)</td>
<td></td>
</tr>
<tr>
<td>Commitment/Convictions</td>
<td>2.615</td>
<td>.570</td>
<td>(4.129)</td>
<td></td>
<td></td>
<td>1.546</td>
<td>.320</td>
<td>(3.949)</td>
<td></td>
</tr>
<tr>
<td>Convictions (number)</td>
<td>.015</td>
<td>.003</td>
<td>(.633)</td>
<td></td>
<td></td>
<td>.086</td>
<td>.018</td>
<td>(5.242)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>2.219</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.535</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weighted Mean of Dependent Variable</td>
<td>.357</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.318</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(in)Efficiency Effects of Discrimination in Punishment

• Replace black **Release on Parole** rate with discrimination free-value
• More blacks released on parole
• But, positive coefficient on release on parole in black recidivism equation
• Result, higher black recidivism rate at higher black release rates
• By how much?
  – Note coefficient is small and statistically insignificant
  – Works out to about 1 out of 222 releases
ARE RACIAL DISPARITIES IN INCARCERATION DUE TO RACIAL DISPARITIES IN DRUG ARRESTS?
Effects of Drug Arrests on Incarceration Rates

Larger impacts of lagged white drug arrests on white incarceration rates than lagged black drug arrests on black incarceration rates
Effects of Drug Arrests on Incarceration Rates

- **Percentage change in Incarceration rates due to changes in drug arrest rates**

**Graph:**
- **BLACKS**
- **WHITES**

- The graph compares the percentage change in incarceration rates due to changes in drug arrest rates between blacks and whites.
THE DIRE CONSEQUENCES
Consequences

- States where felons cannot vote:
  - Alabama
  - Arizona
  - Delaware
  - Florida
  - Iowa
  - Kentucky

- States where felons cannot vote:
  - Mississippi
  - Nevada
  - Tennessee
  - Virginia
  - Wyoming
Consequences

• Reduced supply of marriageable males
• Increases in female headed families
• Lower incomes in families with head with conviction
Jobs Convicted Felons Cannot Hold

Texas
- Work with children (childcare, education)
- Elderly adults (home care)
- Locksmith
- Barbers
- Electricians
- Pharmacists

Minnesota
- MORTGAGEORIGINATOR;
- INSURANCE AGENT
- NURSING HOMES AND HOME CARE
- AUDIOLOGISTS
- PHYSICAL THERAPISTS
- DENTISTS,
- VETERINARIANS,
Implications for the Future

- Jobs for returning ex-offenders
- Re-integration into communities
- Subsidies for hiring ex-offenders
- Family support

- Entrepreneurship opportunities
  - Small business ownership
  - Skilled trades (e.g. electricians, plumbers, painters)

- Rethinking licensing restrictions
Thank you!

myers006@umn.edu

www.hhh.umn.edu/centers/wilkins