TITLE:

subtitle

Ray Huang* Brown University, Honors Thesis January 20, 2023

Abstract

Aspirational abstract goes here!

^{*}Contact: ray_huang@brown.edu. I thank Peter Hull at Brown University for serving as my advisor and for providing me with fantastic feedback.

Introduction

Motivation and Background

Data

- CPS October supplement
- UCR from ICPSR
- ACS

Empirical/Econometric Methods, Hypotheses tested

Counterfactual groups

- Black males vs white males
 - Identifying assumption: absent of the Anti-Drug Abuse Act of 1986, black and white male educational outcomes would have trended similarly.
- Black males vs black females
- High vs low drug use

References

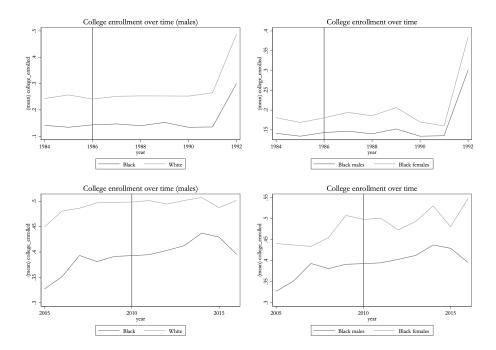
Britton, Tolani. 2022. "Does locked up mean locked out? The effects of the anti-drug abuse act of 1986 on black male students' college enrollment." *Journal of Economics, Race, and Policy* 5 (1):54–71.

Duffo, Esther. 2001. "Schooling and labor market consequences of school construction in Indonesia: Evidence from an unusual policy experiment." American economic review 91 (4):795–813.

Freyaldenhoven, Simon, Christian Hansen, Jorge Pérez Pérez, and Jesse M Shapiro. 2021. "Visualization, Identification, and Estimation in the Linear Panel Event-Study Design." Working Paper 29170, National Bureau of Economic Research. URL http://www.nber.org/papers/w29170.

a

Note: all figures are limited to ages 18-24 inclusive.



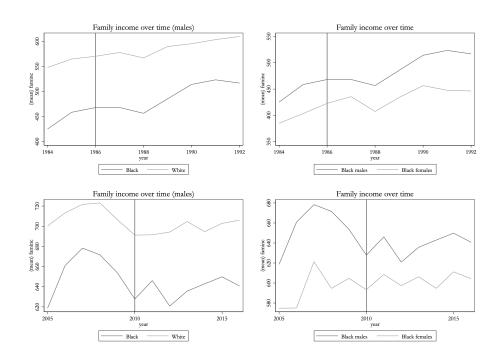
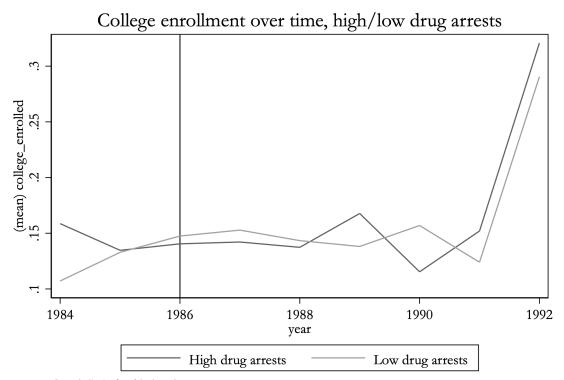
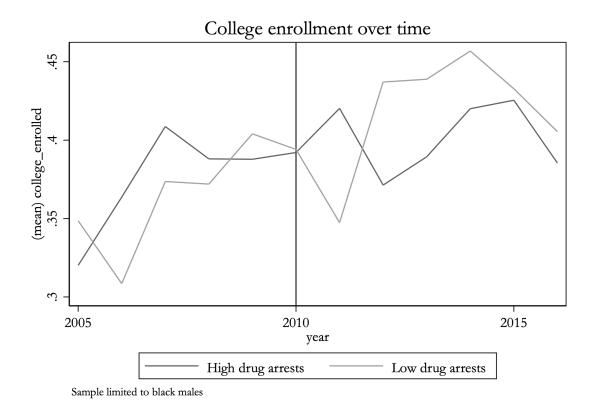


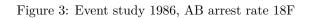
Figure 1: College enrollment overtime 1986



Sample limited to black males

Figure 2: College enrollment overtime 2010





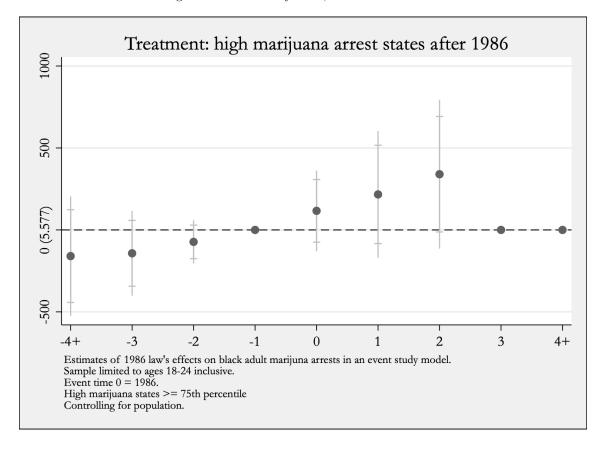


Figure 4: Event study 2010, AB arrest rate $18\mathrm{F}$

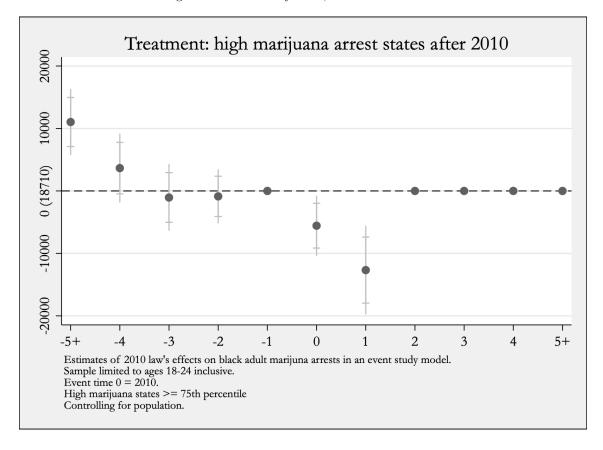


Table 1: Summary Statistics CPS

	(1)	(2)	(3)	(4)
	Pre-period 1986	Pre-period 1986	Pre-period 2010	Post-period 2010
Male	0.49	0.49	0.50	0.50
	(0.500)	(0.500)	(0.500)	(0.500)
Black	0.13	0.14	0.13	0.15
	(0.341)	(0.342)	(0.340)	(0.356)
HS Graduate	0.82	0.81	0.83	0.86
	(0.384)	(0.390)	(0.377)	(0.344)
Enrolled in college	0.24	0.29	0.50	0.55
	(0.428)	(0.453)	(0.500)	(0.498)
Enrolled in college (Black males)	0.02	0.03	0.06	0.07
,	(0.146)	(0.160)	(0.228)	(0.254)
Enrolled in college (Non-Black males)	0.22	0.26	0.45	0.48
,	(0.414)	(0.440)	(0.497)	(0.500)
Enrolled in 2-year coll.	0.00	0.01	0.05	0.05
v	(0)	(0.0856)	(0.215)	(0.228)
Enrolled in 4-year coll.	0.24	0.28	0.46	0.49
	(0.428)	(0.450)	(0.498)	(0.500)
Observations	43962	73286	94188	72859

SD in (). Sample limited to ages 18-24. Observations missing education data were dropped.

Table 2: UCR 1986 black adult arrests related to marijuana

	(1) AB
1	3.08
2	4.35
3	2.06
4	6.00
5	13.24
6	5.56
7	7.48
8	125.75
10	5.16
11	1.00
12	2.38
13	4.63
15	3.31
16	1.80
17	5.16
18	1.00
19	8.51
20	5.44
21	2.30
22 23	4.87 11 2.44
45	4.44

Table 3: Britton Table 2

	(1)	(2)	(3)
after1986	.04427***	.04037***	0
	(.006001)	(.005414)	(.)
Black	1021***	06456***	07368***
	(.01272)	(.0105)	(.01246)
interaction	01133	01234	006629
	(.01378)	(.01137)	(.01187)
Constant	.2446***	-8.086***	-7.946***
	(.008332)	(.4056)	(.4216)
Observations	61403	61403	61403
Adjusted \mathbb{R}^2	0.009	0.120	0.146
$State_yr_FE$	\mathbf{N}	N	Y
Demographic_controls	N	Y	Y

Weights used. Males only. SEs clustered at state level. Still missing some demographic controls.

Table 4: Britton Table 2, control experiment

	(1)	(2)	(3)
after1986	.05002***	.02519***	0
	(.00464)	(.004266)	(.)
Black	1767***	08212***	07705***
	(.01336)	(.01162)	(.01296)
interaction	.0001738	006754	003525
	(.01274)	(.0105)	(.01088)
Constant	.4319***	-1.09***	-1.053***
	(.01498)	(.1826)	(.1777)
Observations	126294	126294	126294
Adjusted R^2	0.013	0.119	0.135
$State_yr_FE$	N	N	Y
Demographic_controls	N	Y	Y

Standard errors in parentheses

Weights used. Males only. SEs clustered at state level. AGES 35-50.

^{*} p < 0.10, ** p < 0.05, *** p < 0.01

^{*} p < 0.10, ** p < 0.05, *** p < 0.01

Table 5: Britton Table 3

	(1)	(2)	(3)
0. 1000	· /	()	
after1986	.03936***	.0282**	0
	(.01306)	(.01233)	(.)
male	02641**	03954***	04253***
	(.01192)	(.01108)	(.01135)
sex interaction	006419	004532	002536
_	(.01575)	(.0159)	(.0165)
Constant	.1689***	-4.677***	-4.53***
	(.0097)	(.4739)	(.5066)
Observations	14991	14991	14991
Adjusted \mathbb{R}^2	0.003	0.103	0.126
$State_yr_FE$	N	N	Y
Demographic_controls	N	Y	Y

Weights used. SEs clustered at state level. Still missing some demographic controls.

Table 6: Britton Table 3, control experiment

	(1)	(2)	(3)
after1986	.06617***	.03427***	0
	(.00926)	(.009134)	(.)
1	00000**	01170	01000
male	.02698**	01173	01283
	(.0103)	(.01189)	(.0114)
sex interaction	01597	007721	007772
	(.0116)	(.01212)	(.01238)
	, , ,	,	, , ,
Constant	.2282***	1.063***	1.133***
	(.0144)	(.3845)	(.3931)
Observations	24954	24954	24954
Adjusted \mathbb{R}^2	0.004	0.114	0.133
$State_yr_FE$	N	N	\mathbf{Y}
$Demographic_controls$	N	Y	Y

Standard errors in parentheses

Weights used. SEs clustered at state level. AGES 35-50.

^{*} p < 0.10, ** p < 0.05, *** p < 0.01

^{*} p < 0.10, ** p < 0.05, *** p < 0.01

Table 7: DiD: Fair Sentencing Act, blacks vs whites

	7	/->	(-)
	(1)	(2)	(3)
after2010	.03072***	.02859***	0
	(.007178)	(.007088)	(.)
Black	1172***	1061***	1098***
	(.01419)	(.01206)	(.01426)
interaction	.04387***	.03536***	.03728***
	(.01025)	(.01012)	(.01105)
Constant	.4786***	-9.838***	-9.764***
	(.008984)	(.254)	(.2498)
Observations	114090	114090	114090
Adjusted R^2	0.006	0.085	0.096
$State_yr_FE$	\mathbf{N}	N	Y
Demographic_controls	N	Y	Y

Weights used. Males only. SEs clustered at state level. Still missing some demographic controls.

Table 8: DiD: Fair Sentencing Act, blacks vs whites, control experiment

	(1)	(2)	(3)
after2010	.03688***	.03531***	0
	(.005766)	(.005671)	(.)
Black	09199***	04809***	04217***
	(.01557)	(.01238)	(.01285)
interaction	.02353**	.01417	.009093
	(.01075)	(.009078)	(.009292)
Constant	.5669***	.2558**	.2816**
	(.007974)	(.1172)	(.1181)
Observations	285600	285600	285600
Adjusted R^2	0.004	0.087	0.095
$State_yr_FE$	N	N	Y
Demographic_controls	N	Y	Y

Standard errors in parentheses

Weights used. Males only. SEs clustered at the state level. AGES 35-50

^{*} p < 0.10, ** p < 0.05, *** p < 0.01

^{*} p < 0.10, ** p < 0.05, *** p < 0.01

Table 9: DiD Fair Sentencing Act, black males vs females

	(1)	(2)	(3)
after2010	.05706***	.03615***	0
	(.01186)	(.01219)	(.)
male	1006***	1106***	1129***
	(.01081)	(.01056)	(.01082)
sex interaction	.01753	.02144	.02335
	(.01408)	(.01505)	(.01479)
Constant	.462***	-8.207***	-8.022***
	(.01192)	(.5089)	(.5651)
Observations	26198	26198	26198
Adjusted R^2	0.012	0.103	0.111
$State_yr_FE$	N	N	Y
Demographic_controls	N	Y	Y

Weights used. SEs clustered at state level. Still missing some demographic controls.

Table 10: DiD Fair Sentencing Act, black males vs females, control experiment

	(1)	(2)	(3)
after2010	.09404***	.07418***	0
	(.0117)	(.009614)	(.)
male	06253***	08723***	08835***
	(.005736)	(.006097)	(.005948)
sex_interaction	03364***	02353***	02367***
	(.008531)	(.008622)	(.008802)
Constant	.5375***	3061	2344
	(.01185)	(.2063)	(.2227)
Observations	59353	59353	59353
Adjusted R^2	0.013	0.102	0.111
$State_yr_FE$	N	N	Y
Demographic_controls	N	Y	Y

Standard errors in parentheses

Weights used. SEs clustered at state level. AGES 35-50 $\,$

^{*} p < 0.10, ** p < 0.05, *** p < 0.01

^{*} p < 0.10, ** p < 0.05, *** p < 0.01

Table 11: DiD 1986, high vs low drug arrest states

	(1)	(2)	(3)
6: 1000	()	()	
after1986	$.04051^{***}$.03122***	0
	(.01391)	(.01095)	(.)
ab	.0001743	.0000415	0
	(.0001305)	(.0001494)	(.)
ab post interact	0001613	000034	0
_, _	(.000129)	(.0001469)	(.)
Constant	.1462***	-4.867***	-4.822***
	(.01264)	(.7625)	(.9123)
Observations	2852	2852	2852
Adjusted \mathbb{R}^2	0.002	0.080	0.107
$State_yr_FE$	N	N	Y
$Demographic_controls$	N	Y	Y

Weights used. SEs clustered at state level. Still missing some demographic controls.

Table 12: DDD 1986

	(1)	(2)	(3)
after1986	.03184**	.02396*	0
	(.01318)	(.01306)	(.)
Black	09434***	05331***	05957**
	(.01786)	(.01803)	(.02241)
high_drug	.03844	.01748	0
	(.02781)	(.02606)	(.)
post_black_interact	.008214	.009425	.03474
	(.03236)	(.02805)	(.02541)
high_drug_black_interact	04681	04836	06844**
	(.03317)	(.03016)	(.03034)
high_drug_post_interact	01674	008459	0
	(.01916)	(.0158)	(.)
triple_interact	.03347	.0167	003893
	(.04309)	(.03332)	(.0366)
Constant	.2367***	-8.165***	-8.045***
	(.009359)	(.6042)	(.6183)
Observations	28375	28375	28375
Adjusted R^2	0.008	0.114	0.144
$State_yr_FE$	N	N	Y
Demographic_controls	N	Y	Y

Standard errors in parentheses

Weights used. SEs clustered at state level. Still missing some demographic controls.

^{*} p < 0.10, ** p < 0.05, *** p < 0.01

^{*} p < 0.10, ** p < 0.05, *** p < 0.01

Table 13: Replication of Panel A in Table 3 of Duflo $\left(2001\right)$

	College enrollment Level of drug arrests			Fam inc Level of drug arrests		
	High	Low	Diff.	High	Low	Diff.
	(1)	(2)	(3)	(4)	(5)	(6)
Aged 18-24 in 1986 and black	0.22	0.20	0.03	524.99	389.35	135.64
	(0.03)	(0.02)	(0.03)	(15.53)	(11.83)	(18.86)
Aged 28-34 in 1986	0.41	0.33	0.07	632.17	569.19	62.98
	(0.02)	(0.01)	(0.02)	(8.14)	(5.09)	(8.09)
Difference	-0.19	-0.14	-0.05	-107.18	-179.84	72.66
	(0.01)	(0.02)	(0.02)	(12.02)	(11.29)	(16.55)

Clustered (state-year) robust standard errors in parentheses

CPS education supplement weights used. Males only