Online Appendix

I. Tables

Table A1a. Summary Statistics for FL, NIBRS, and DEA Records

	Pre-2010	Post-2010	Observations
Panel A. Cocaine Felony Convictions in FL			
200-400g	0.00475	0.00432	214,573
	(0.0687)	(0.0656)	
28-200g	0.0405	0.0473	214,573
	0.197	(0.212)	
Missing drug weight	0.945	0.936	214,573
	(0.228)	(0.245)	
Black or Hispanic	0.771	0.789	214,573
	(0.420)	(0.408)	
Panel B. NIBRS Drug Seizures, Balanced Panel			
Weight (g)	10.31	7.85	191,667
	(45.61)	(45.75)	
280-290g	0.000361	0.000152	191,667
	(0.0190)	(0.0123)	
Black	0.737	0.745	191,667
	(0.440)	(0.436)	
Male	0.837	0.835	191,667
	(0.370)	(0.371)	
Panel C. DEA Drug Seizures			
Weight (g)	78.28	67.28	100,306
	(188.83)	(176.54)	
280-290g	0.00102	0.000428	100,306
	(0.0319)	(0.0207)	
Seized (vs. Purchased)	0.529	0.542	100,306
	(0.499)	(0.498)	
Price per gram (median)	47.36	56.18	37,280

Notes. The table above describes offenders found in the FL inmate database, the NIBRS drug seizure records, and the DEA drug exhibit data pre- and post-2010 (the DEA data actually describes the drugs themselves, not the offenders). The mean value of each variable is reported with standard deviations in parentheses. Observation counts are displayed separately for each variable. The statistics above are derived from the cleaned data in which the following cases are removed for NIBRS and DEA: cases with drug weights above 1000g. Weight is the weight of the drugs in grams recorded. 280-290g is a dummy variable equal to one when the weight is from 280-290g and zero when it is from 0-280g and 290-1000g, and missing when it is missing. The 200-400g and 28-200g variables follow the same logic. "Missing drug weight" is equal to one when the drug weight is missing. "Seized (vs. Purchased)" is equal to one if the DEA obtained the drug exhibit from a seizure versus an undercover purchase. The median price per gram is reported after removing outliers above the 95th percentile and below the 5th percentile.

Table A1b. Summary Statistics for EOUSA Prosecutor Case Files

	Pre-2010	Post-2010	Observations
Weight (g)	72.500	97.966	19,363
	(135.219)	(162.538)	
280-290g	0.004	0.082	19,363
	(0.062)	(0.274)	
280-290g, Missing = 0	0.002	0.026	49,342
	(0.040)	(0.158)	
50-60g	0.210	0.082	19,363
	(0.408)	(0.274)	
50-60g, Missing = 0	0.086	0.026	49,342
	(0.280)	(0.158)	
Missing drug weight	0.593	0.686	49,342
	(0.491)	(0.464)	
Only Federal Law Enforcement Involved	0.642	0.647	48,501
	(0.479)	(0.478)	
Any Federal Law Enforcement Involved	0.737	0.713	48,501
	(0.440)	(0.452)	
Lead Charge = Conspiracy	0.212	0.217	46,335
	(0.409)	(0.412)	

Notes. The table above describes defendants found in the EOUSA prosecutor case management data pre- and post-2010. The mean value of each variable is reported with standard deviations in parentheses. Observation counts are displayed separately for each variable since some fields in this data are missing much more often than others. The statistics above are derived from the cleaned data in which the following cases are removed: cases with drug weights above 1000g. Weight is the weight of the drugs in grams recorded in the case management system. 280-290g is a dummy variable equal to one when the weight is from 280-290g, zero when it is from 0-280g and 290-1000g, and missing when it is missing. "280-290g, Missing=0" is a dummy variable equal to "280-290g" but coded equal to zero when the weight field is missing. The 50-60g variables follow the same logic. "Missing drug weight" is equal to one when the drug weight is missing. "Only Federal Law Enforcement" is equal to one when the agency recorded as sending the case is strictly federal (i.e. DEA, FBI, or ATF) and equal to zero otherwise. "Any Federal" is equal to one if the agency sending the case has any federal involvement (i.e. "Joint DEA and state/local task force") and equal to zero otherwise. "Lead Charge = Conspiracy" is equal to one when the lead charge for the case is a drug conspiracy charge. The identical statistics in rows 3-10 of column 2 are not an error–in the EOUSA data, the number of 50-60g cases post-2010 is the exact same as the number of 280-290g cases post-2010.

Table A2. Exploring Bunching in Other Major Drug Types

Panel A. Racial differences in bunching in…	**Powder Cocaine**		**Heroin**		**Marijuana**		**Methamphetamine**		**Pooled**	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	500-600g	5000-6000g	100-110g	1000-1100g	100kg-110kg	1000kg-1100kg	50-60g	500-600g	Lower	Upper
Black or Hispanic	0.00897**	0.00971***	0.00300	0.0135***	-0.00107	0.00183**	0.0330***	0.00769*	0.00446***	0.00602***
	(0.00420)	(0.00273)	(0.00684)	(0.00422)	(0.00146)	(0.000825)	(0.00937)	(0.00422)	(0.00146)	(0.00117)
Constant	0.0636***	0.0305***	0.0624***	0.0392***	0.0182***	-2.68e-05	0.138***	0.0631***	0.0362***	0.0200***
	(0.00738)	(0.00450)	(0.0114)	(0.00684)	(0.00229)	(0.00108)	(0.0169)	(0.00780)	(0.00234)	(0.00186)
Observations	27,926	51,658	9,309	18,453	67,792	83,774	7,550	17,282	128,555	171,166

Panel B. Racial Differences in Self-Reported Involvement								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Use Cocaine	Use + Sold Drugs	Use Heroin	Use + Sold Drugs	Use Marijuana	Use + Sold Drugs	Use Meth	Use + Sold Drugs
White	0.0576***	0.00282***	0.00290***	0.000981***	0.115***	0.000154	0.0344***	0.00202***
	(0.00153)	(0.000285)	(0.000585)	(0.000150)	(0.00215)	(0.000364)	(0.000782)	(0.000180)
	0.109***	0.00568***	0.0147***	0.00117***	0.347***	0.0119***	0.0205***	0.00158***
	(0.00124)	(0.000235)	(0.000500)	(0.000124)	(0.00178)	(0.000311)	(0.000563)	(0.000137)
Observations	763,466	762,181	763,565	762,275	763,297	762,012	763,622	762,322

Panel C. Racial Differences in Drug Seizures				
	(1)	(2)	(3)	(4)
	Cocaine Seized	Heroin Seized	Marijuana Seized	Meth Seized
White	9.692***	-0.127	354.8***	1.809*
	(2.335)	(0.892)	(21.54)	(1.077)
	28.54***	15.68***	-399.1***	19.51***
	(5.208)	(1.646)	(51.67)	(1.290)
Observations	140,370	74,861	1,791,564	162,287

Notes: Robust standard errors in parentheses. When possible, all specifications include fixed effects for federal district as well as controls for age and gender of the offender or respondent. For Panel A, the sample for each column is restricted to drug amounts between 0 and two times the threshold of interest (e.g., Panel A, column 1 is restricted to weights from 0-1000g; Panel A, column 2 is restricted to weights from 0-10000g). Following the main analysis, the range examined for bunching is a 10g range if the threshold is < 500g, a 100g range if the threshold is 500-1000g, a 1000g range if the threshold is above 1000g but below 10000g, and is 10% of the threshold for all amounts above 10000g. For Panel B, sample weights are applied. For Panel C, the sample for each column is restricted to drug amounts between 0 and two times the highest threshold of interest (e.g., Panel C, column 1 is restricted to weights from 0-10000g; Panel C, column 2 is restricted to weights from 0-2000g). These results differ from findings of a prior BJS working paper (BJS 2015) for two main reasons. First, the specifications in Panel A control for district fixed effects, this reduces the problems posed by round number bunching to some extent, since round number bunching varies across districts and defendant race varies across districts. Second, the specifications in Panel A are estimated on a wider range of cases, whereas the BJS working paper only examines the distribution narrowly around the threshold (e.g., Panel A, column 1 is estimated on any case from 0-1000g. The analogous specification in the BJS working paper restricts to 400-600g. This restriction will understate the level of bunching if cases below 400g are also "at risk" of bunching at 500g).

Difficulties in interpreting bunching in other drug types: The main analysis in the paper focuses on bunching in the distribution of crack-cocaine amounts. This is because crack-cocaine is the only drug for which the mandatory minimum threshold has changed since the introduction of the sentencing guidelines. The change in the threshold has two crucial benefits. First, the threshold was changed to 280g, which is a point with zero bunching before the change. This is important because all other thresholds are set at 50g, 500g, 1000g, etc., which are points that exhibit considerable round number bunching. In other words, there is bunching at these amounts even for drugs that do not have these amounts as relevant thresholds. The presence of round number bunching introduces noise that makes it difficult to determine if the observed bunching is due to prosecutor discretion re: sentence length concerns or due to the round number bunching phenomena. Second, a critical concern with interpreting a racial disparity in bunching at a threshold is that we do not know the underlying distribution of drug involvement for each drug type by race. In other words, suppose we don't observe a disparity in bunching at a threshold for marijuana. It's not clear if this is because marijuana involvement is higher for white offenders than for black and Hispanic offenders or if there is, in fact, no racial disparity conditional on drug involvement. The change in the threshold for crack-cocaine allows me to use the distribution of crack-cocaine amounts before the change to distinguish between those two possibilities, as outlined in the paper. This is not possible for the other drug types. Using data on self-reported drug use (Panel B) and drug seizures (Panel C), I show that this is a serious concern. White respondents/offenders do appear to be more involved with these other major drug types and thus the observed raw bunching likely understates any disparities in bunching that would exist conditional on drug involvement

Table A3. Result Robust to Other Drug Weight Sample Restrictions, Other Bunching Classifications, and Various Other Restrictions

Panel A. Other Drug Weight Sample Restrictions and Other Bunching Classifications

	Pr(280-290g Crack-Cocaine)						Pr(280-300g)	Pr(280-320g)	Pr(280-380g)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
After 2010 x White	0.0127**	0.0123**	0.0123**	0.0605***	0.0597***	0.0288**	0.0156**	0.0144**	0.0103
	(0.0053)	(0.0051)	(0.0051)	(0.0092)	(0.0089)	(0.0124)	(0.0065)	(0.0070)	(0.0083)
After 2010 x Black or Hispanic	0.0343***	0.0328***	0.0327***	0.0832***	0.0820***	0.0715***	0.0346***	0.0352***	0.0376***
	(0.0021)	(0.0020)	(0.0020)	(0.0028)	(0.0027)	(0.0043)	(0.0022)	(0.0025)	(0.0029)
Constant	0.0018*	0.0017*	0.0016*	0.0026***	0.0032***	0.0023	0.0065***	0.0114***	0.0246***
	(0.0010)	(0.0010)	(0.0010)	(0.0010)	(0.0011)	(0.0027)	(0.0014)	(0.0019)	(0.0027)
P-value: W = BH	0.0001	0.0002	0.0002	0.0176	0.0166	0.0011	0.0053	0.0053	0.0020
Sample Restriction	0-2500g	0-25000g	No Restriction	0-1000g	0-1000g	50-1000g	0-1000g	0-1000g	0-1000g
Includes Weights Coded as a Range	No	No	No	Yes	Yes	No	No	No	No
Includes Weights Imputed from BOL	No	No	No	No	Yes	No	No	No	No
Observations	53,113	55,346	55,819	61,488	63,078	23,696	50,273	50,273	50,273

Panel B. Various Sample Restrictions

	Pr(280-290g Crack-Cocaine)					
	(1)	(2)	(3)	(4)	(5)	(6)
After 2010	0.0309***		0.0319***		0.0296***	
	(0.0021)		(0.0021)		(0.0022)	
After 2010 x White		0.0135**		0.0134**		0.0134**
		(0.0056)		(0.0057)		(0.0057)
After 2010 x Black or Hispanic		0.0321***		0.0330***		0.0307***
		(0.0022)		(0.0022)		(0.0023)
Constant	0.0050***	0.0031***	0.0061***	0.0031**	0.0062***	0.0031**
	(0.0004)	(0.0010)	(0.0006)	(0.0016)	(0.0007)	(0.0016)
P-value: W = BH	-	0.0018	-	0.0013	-	0.0047
Hispanic Offenders Excluded	Yes	Yes	No	No	Yes	Yes
Post-2006 Data Only	No	No	Yes	Yes	Yes	Yes
Observations	45,658	45,658	24,643	24,643	22,217	22,217

Notes. Robust standard errors in parentheses. The estimates in this table are based on the USSC data. See Appendix E for notes about data construction. The row "P-value: W = BH" reports the p-value from a test of the null hypothesis that the coefficient on "After 2010 x White" is equal to the coefficient on "After 2010 x Black or Hispanic." **Panel A:** Columns 1-3 include outlier weights to varying extents. Column 4 reports results when the sample includes quantities coded as a range (in this analysis, the lower bound of the range is used). Column 5 reports results when the sample includes quantities coded as a range (using the lower bound of the range) and cases in which the weight is missing but a lower bound on the weight can be inferred from the base offense level (BOL). Column 6 excludes drug weights below 50g (i.e. excluding weights close to the 5-year mandatory minimum threshold pre- and post-2010). Columns 7-9 correspond to different definitions of what it means for a case to be "bunched" above the mandatory minimum threshold. For the main results, I define a result as "bunched" if it is in the narrow range of 280-290g. In columns 7-9, I use alternative ranges: 280-300g, 280-320g, and 280-380g. **Panel B:** The row "Post-2006 Data Only" is equal to "Yes" when the data is limited to cases brought to court from 2007-2015 (after the *Booker v. United States* Supreme Court case that made sentencing guidelines optional, excluding mandatory minimum guidelines). The row "Hispanic Offenders Excluded" is equal to "Yes" when Hispanic offenders are removed from the sample.

*** p<0.01, ** p<0.05, * p<0.1

Table A4. Result Robust to Controls, Alternative Std. Errors, and Alternative Models

Panel A. Result Robust to Controls and Alternative Std. Errors.

	Pr(280-290g Crack-Cocaine)									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
After 2010	0.0332***		0.0336***		0.0336***		0.0314***		0.0310***	
	(0.0067)		(0.0068)		(0.0066)		(0.0059)		(0.0058)	
After 2010 x White		0.0135**		0.0142**		0.0150**		0.0128**		0.0148**
		(0.0059)		(0.0060)		(0.0064)		(0.0062)		(0.0067)
After 2010 x Black or Hispanic		0.0344***		0.0349***		0.0347***		0.0325***		0.0319***
		(0.0070)		(0.0071)		(0.0069)		(0.0062)		(0.0062)
Constant	0.0049***	0.0031***	0.0041	0.0045	0.0057*	0.0070**	0.0045	0.0058	0.0050	0.0059*
	(0.0005)	(0.0011)	(0.0027)	(0.0028)	(0.0030)	(0.0030)	(0.0035)	(0.0035)	(0.0030)	(0.0031)
P-value: W = BH	-	0.0170	-	0.0179	-	0.0286	-	0.0289	-	0.0740
Offender Controls	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State Fixed Effects	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Year Trend	No	No	No	No	No	No	Yes	Yes	Yes	Yes
State-specific Trends	No	No	No	No	No	No	No	No	Yes	Yes
Observations	50,273	50,273	50,273	50,273	50,273	50,273	50,273	50,273	50,273	50,273

Panel B. Result Robust to Probit, Logit, and Poisson Models.

	Probit: 280-290g		280-380g	**Logit:** 280-290g		280-380g	**Poisson:** 280-290g		280-380g	**OLS:** 280-290g		280-380g
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
After 2010 x W	0.6089***	0.6160***	0.1542	1.6969***	1.5489***	0.3618	1.2342***	1.2964***	0.1256	0.0135**	0.0282**	0.0103
	(0.1685)	(0.1882)	(0.1124)	(0.4618)	(0.4648)	(0.2595)	(0.4096)	(0.2793)	(0.5946)	(0.0056)	(0.0121)	(0.0083)
After 2010 x BH	0.8164***	0.8993***	0.3769***	2.0944***	2.1007***	0.8257***	2.1256***	2.1158***	0.8409	0.0344***	0.0681***	0.0376***
	(0.0352)	(0.0391)	(0.0243)	(0.0915)	(0.0924)	(0.0519)	(0.3661)	(0.2741)	(0.6294)	(0.0021)	(0.0042)	(0.0029)
Constant	-2.7399***	-2.4133***	-1.9671***	-5.7820***	-4.8323***	-3.6807***	3.4876***	2.5893***	3.5564***	0.0031***	0.0079***	0.0246***
	(0.1038)	(0.1148)	(0.0471)	(0.3167)	(0.3175)	(0.1132)	(0.3579)	(0.2249)	(0.3580)	(0.0010)	(0.0025)	(0.0027)
P-value: W = BH	0.2281	0.1405	0.0528	0.3986	0.2443	0.0796	0.0321	0.0035	0.3579	0.0004	0.0018	0.0020
Sample	0-1000g	50-1000g	0-1000g	0-1000g	50-1000g	0-1000g	0-1000g	50-1000g	0-1000g	0-1000g	50-1000g	0-1000g
Observations	50,273	24,306	50,273	50,273	24,306	50,273	400	380	400	50,273	24,306	50,273

Notes. The estimates in this table are based on the USSC data. See Table 1 for notes about data construction. The row "P-value: W = BH" reports the p-value from a test of the null hypothesis that the coefficient on "After 2010 x White" is equal to the coefficient on "After 2010 x Black or Hispanic." **Panel A:** Standard errors clustered at the state-level in parentheses. The row "Offender Controls" indicates if the following offender-level controls are included: criminal history points, age, sex, number of dependents, citizenship, number of current offense counts, whether a weapon was involved, and education. The rows "State Fixed Effects" and "Year Trend" indicate if the specification includes state fixed effects or a linear trend in year as controls. The row "State-specific Trends" indicates if the specification includes state-specific linear trends. In all cases, there is a sharp increase in the fraction of cases with 280-290g after 2010 and a racial disparity in that increase. **Panel B:** Robust standard errors in parentheses. Columns 1-3 estimate probit models, columns 4-6 estimate logit models, columns 7-9 estimate Poisson models (on binned data), and columns 10-12 estimate linear probability models. Columns 1, 4, 7, and 10 estimate the change in bunching at 280-290g after 2010 for all cases from 0-1000g. Columns 2, 5, 8, and 11 limit the sample to cases from 50-1000g (following column 6 of Table A3). Columns 3, 6, 9, and 12 extend the "bunching" definition to 280-380g (following column 9 of Table A3). Although absolute increases in the probability of bunching are of interest because they correspond to the observed disparity in bunching, the estimates in columns 1-6 document that even relative to the pre-2010 disparity in charging at 280g, black and Hispanic offenders are more likely to be bunched than white offenders after 2010. These estimates are not statistically significant in columns 1-2 or 4-5 because the total number of white offenders in the 280-290g range is small and a small absolute increase can register as a large relative increase. Extending the range from 280-380g, as in columns 3 and 6, mitigates this small-N problem. *** p<0.01, ** p<0.05, * p<0.1

Table A5. Result Robust to Concerns about Selection Into/Out of Missing and Selection Into/Out of Other Drugs

Panel A. Selection Into/Out of Missing and Selection Into/Out of Other Drugs

	Pr(280-290g)			
	(1)	(2)	(3)	(4)
After 2010 x White	0.0583***	0.0247***	0.0005	0.0723***
	(0.0089)	(0.0060)	(0.0003)	(0.0033)
After 2010 x Black or Hispanic	0.0825***	0.0437***	0.0092***	0.2077***
	(0.0027)	(0.0021)	(0.0006)	(0.0031)
Constant	0.0034***	0.0025***	0.0004***	0.8680***
	(0.0009)	(0.0008)	(0.0001)	(0.0021)
P-value: W = BH	0.0089	0.0029	0.0000	0.0000
Drugs included	Crack-cocaine	Crack-cocaine	All	All
Dependent variable recoded to	Lower value of range	Upper value of range	Non-crack = 0	Non-crack = 1
Selection issue addressed	Missing weight	Missing weight	Other drugs	Other drugs
Observations	64,974	63,161	145,054	145,054

Panel B. Difference-in-Difference Bunching Identification

	Pr(280-290g)			
	(1)	(2)	(3)	(4)
After 2010	0.0010*	-0.0002		
	(0.0006)	(0.0011)		
After 2010 x Crack-cocaine	0.0331***	0.0127**		
	(0.0021)	(0.0055)		
After 2010 x Crack x Black or Hispanic		0.0214***		
		(0.0059)		
Crack-cocaine	-0.0024***	-0.0039***	-0.0041**	0.0089
	(0.0005)	(0.0011)	(0.0016)	(0.0059)
Crack-cocaine x Black or Hispanic			0.0021	0.0222***
			(0.0018)	(0.0064)
Constant	0.0073***	0.0072***	0.0074***	0.0071***
	(0.0003)	(0.0006)	(0.0013)	(0.0027)
Drugs Included	All	All	Crack & Powder	Crack & Powder
Years Included	1999-2015	1999-2015	1999-2010	2011-2015
Observations	145,054	145,054	63,894	16,986

Notes. Robust standard errors in parentheses. The estimates in this table are based on the USSC data. See Appendix E for notes about data construction. The row "P-value: W = BH" reports the p-value from a test of the null hypothesis that the coefficient on "After 2010 x White" is equal to the coefficient on "After 2010 x Black or Hispanic." The row "Drugs included" indicates the type of drugs included in the analysis. **Panel A:** In columns 1 and 2, I focus on the crack-cocaine sample to analyze how including weights recorded as ranges affects the results. In columns 3 and 4, I focus on the sample of all drugs to analyze how movement of cases into or out of other drug types affects the results. The row "Dependent variable recoded to" indicates how the dependent variable is recoded in each analysis. In column 1, the dependent variable is recoded as 1 if the lower bound of the weight range is between 280-290g and recoded as 0 otherwise. In column 2, it is recoded as 1 if the upper bound of the range is between 280-290g and recoded as 0 otherwise. Results are also robust to recoding all missings as (In 280-290)=0 or recoding all missings as (In 280-290)=1. In column 3, the dependent variable is recoded as 0 if the case is not a crack-cocaine case, and in column 4, it is recoded as 1 if the case is not a crack-cocaine case. Columns 3 and 4 restrict the sample to weights between 0-1000g, but including outlier weights does not change the results (i.e. both columns would still indicate a similarly sized racial disparity that is statistically significant at the one percent level). Finally, the row "Selection issue addressed" indicates the type of selection issue being investigated in each column. In all columns, I find that the probability of being in the 280-290g range for crack-cocaine increases after 2010 and increases disproportionately for black and Hispanic offenders, regardless of selection into missing exact weights or other drug types. **Panel B:** Columns 1-2 compare crack-cocaine cases to all other drug cases. Specifically, they estimate the change in the probability a case is recorded with 280-290g after 2010 both for crack-cocaine and for other drugs. Column 1 does this in general and column 2 does this by race. This amounts to a difference-in-difference (pre- vs. post-2010 and crack vs. non-crack) estimation of the bunching (as opposed to the pre- vs. post-2010 difference that is the focus of the paper). Columns 3-6 apply this same design to estimate the probability of being recorded with 280-290g and 50-60g before and after 2010. These columns compare crack to powder cocaine alone since powder cocaine is a drug that never has a 50g mandatory minimum threshold. Column 5 suggests that prior to 2010, black and Hispanic offenders are slightly more likely to be bunched at 50-60g specifically in crack-cocaine cases (34% of overall excess bunching for crack cases prior to 2010 and p-value = 0.18), but this difference disappears after 2010 (Column 6) when the threshold changes. *** p<0.01, ** p<0.05, * p<0.1

Table A6. Racial Disparity in Bunching at 280-290g without Departures Applied

	Pr(280-290g)		
	(1)	(2)	(3)
After 2010 x White	0.00367	0.00888*	0.00214
	(0.00326)	(0.00455)	(0.00268)
After 2010 x Black or Hispanic	0.0186***	0.0305***	0.0165***
	(0.00161)	(0.00202)	(0.00152)
Constant	0.00184**	0.00215***	0.00154**
	(0.000752)	(0.000812)	(0.000687)
P-value: W = BH	0.0000	0.0000	0.0000
Pr(280-290g) Recoded = 0 if...	-	-	-
...safety valve departure applied	No	Yes	Yes
...substantial assistance departure applied	Yes	No	Yes
Observations	50,273	50,273	50,273

Notes. Robust standard errors in parentheses. The estimates in this table are based on the USSC data. See Table 1 for notes about data construction. Safety valve departures are uncommon for crack-cocaine offenses; they are received by 12% of all offenders and 9% after 2010. Substantial assistance departures are more common; they are received by 26% of all offenders and 22% after 2010. For cases in 280-290g range, 11% receive a safety valve departure after 2010 and 45% receive a substantial assistance departure. Slightly less than half of defendants in the 280-290g range receive at least one of the two departures. Column 1 recodes the dependent variable as zero if a substantial assistance departure is applied. Column 2 recodes the dependent variable as zero if a safety valve departure is applied. Column 3 recodes the dependent variable as zero if either departure is applied. These results indicate that there is a racial disparity in the probability a case is bunched at 280g **and** does not have a departure applied. In fact, the racial disparity is even more stark for this outcome. Note, these departures do reduce sentence length when applied, but to be eligible for these departures, defendants must cooperate with the government. This cooperation is also costly for defendants: it increases pressure to plea, it puts defendants and their families at risk of retaliation, and it potentially increases sentencing for other defendants. The extent to which the mandatory minimum fails to increase sentencing due to departures is directly related to the extent to which it increases these other costs. In *Hard Bargains*, Mona Lynch writes, "This practice can put defendants in a horrible dilemma, since providing assistance can be a deadly endeavor. [...] The problem for the defender's client was that he was from a neighborhood 'where if he cooperates, he's dead . . . or, even worse, his family's dead.'" For these reasons, I do not make a distinction between cases with or without a departure in the main analysis. *** p<0.01, ** p<0.05, * p<0.1

Table A7. Missing Mass in the Distribution of Drug Amounts by Race

Panel A. Analysis of Changes in the 0-100g Range.						
	Pr(0-5g)	Pr(5-28g)	Pr(28-50g)	Pr(50-60g)	Pr(60-100g)	
	(1)	(2)	(3)	(4)	(5)	
After 2010 x White	0.0040	-0.1107***	0.0377**	-0.0036	0.0122	
	(0.0185)	(0.0193)	(0.0155)	(0.0114)	(0.0146)	
After 2010 x Black or Hispanic	0.0227***	-0.0717***	0.0342***	-0.0054*	-0.0102***	
	(0.0040)	(0.0051)	(0.0042)	(0.0030)	(0.0039)	
Constant	0.1945***	0.3202***	0.0965***	0.0679***	0.1017***	
	(0.0069)	(0.0082)	(0.0052)	(0.0044)	(0.0053)	
P-value: W = BH	0.3216	0.0505	0.8284	0.8769	0.1377	
Observations	50,273	50,273	50,273	50,273	50,273	
Panel B. Analysis of Changes in the 100-1000g Range.						
	Pr(100-280g)	Pr(280-290g)	Pr(290-470g)	Pr(470-600g)	Pr(600-1000g)	
	(6)	(7)	(8)	(9)	(10)	
After 2010 x White	0.0005	0.0135**	0.0109	0.0061	0.0294***	
	(0.0165)	(0.0056)	(0.0095)	(0.0067)	(0.0093)	
After 2010 x Black or Hispanic	-0.0149***	0.0344***	0.0037	0.0021	0.0050**	
	(0.0046)	(0.0021)	(0.0026)	(0.0018)	(0.0021)	
Constant	0.1484***	0.0031***	0.0350***	0.0160***	0.0166***	
	(0.0062)	(0.0010)	(0.0032)	(0.0022)	(0.0022)	
P-value: W = BH	0.3705	0.0004	0.4638	0.5669	0.0103	
Observations	50,273	50,273	50,273	50,273	50,273	
Panel C. Racial Disparity in Shifting Above 290g vs. Above 280g After 2010						
	Above 290g	Above 280g	Above 290g	Above 280g	Above 290g	Above 280g
	(1)	(2)	(3)	(4)	(5)	(6)
After 2010 x White	-0.0183	-0.0051	-0.0252	-0.0093	-0.0306	-0.0153
	(0.0294)	(0.0308)	(0.0302)	(0.0315)	(0.0317)	(0.0331)
After 2010 x Black or Hispanic	-0.0087	0.0213**	-0.0010	0.0278***	0.0010	0.0292***
	(0.0079)	(0.0086)	(0.0079)	(0.0086)	(0.0084)	(0.0091)
Constant	0.1136***	0.1187***	0.1317***	0.1381***	0.1318***	0.1377***
	(0.0194)	(0.0198)	(0.0230)	(0.0234)	(0.0230)	(0.0234)
Trends Interacted with After	Quadratic	Quadratic	Linear	Linear	Linear	Linear
Post-2006 Only	No	No	Yes	Yes	Yes	Yes
Pre-2014 Only	No	No	No	No	Yes	Yes
P-value: W = BH	0.7534	0.4104	0.4395	0.2556	0.3358	0.1943
Observations	50,273	50,273	24,643	24,643	21,991	21,991

Notes. Robust standard errors in parentheses. The estimates in this table are based on the USSC data. See Table 1 for notes about data construction. The row "P-value: W = BH" reports the p-value from a test of the null hypothesis that the coefficient on "After 2010 x White" is equal to the coefficient on "After 2010 x Black or Hispanic." **Panel A-B:** See Table 3 for notes about the estimating equation. The only difference is that the specifications in this table include race interactions as described in the notes of Table 2. **Panel C:** All specifications estimate trend breaks that include either a linear trend or a quadratic trend centered at zero in 2011 (polynomial order is indicated in the row "Trends Interacted with After.") Columns (1), (3), and (5) estimate the change in the probability of being charged with an amount above 290g after 2010 by race. Columns (2), (4), and (6) estimate the same but for above 280g. Columns (1)-(2) use the full time period and quadratic trends because the likelihood of being charged with an amount above 290g falls from 2000-2005 and begins rising in 2005. Columns (3)-(4) use the years 2007-2015 and linear trends because that period excludes the fall from 2000-2005. Columns (5)-(6) use the years 2007-2013 because the likelihood of being charged with an amount above 280g falls after *Alleyne v. US* in 2013. All specifications indicate that there is a racial disparity in being charged above 280g, in general. The disparity is noisy, but it is the same magnitude as the disparity in the relevant 280-290g range, and when I focus on that range (e.g. Table 2), the estimates are more precise. *** p<0.01, ** p<0.05, * p<0.1

Table A8. Relationship between 2012-2013 Bunching and 2012-2013 Appeals at the District Level or State Level

	Any Drug Appeal	Any Drug Appeal with Drug Amount Issue	Any Drug Appeal with Mand. Min. Issue	Any Drug Appeal, Reversed	Any Drug Appeal with Drug Amount Issue, Reversed	Any Drug Appeal with Mand. Min. Issue, Reversed	Any Drug Appeal, Reversed or Remanded	Any Drug Appeal with Drug Amount Issue, Reversed or Remanded	Any Drug Appeal with Mand. Min. Issue, Reversed or Remanded
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A. Unweighted regressions, district level									
Any Bunching in 2012-2013	0.118**	0.0571	0.244**	0.156	0.171**	0.0839	0.102	0.142	0.104
	(0.0577)	(0.0825)	(0.100)	(0.101)	(0.0696)	(0.0598)	(0.107)	(0.089)	(0.0688)
Constant	0.860***	0.791***	0.256***	0.279***	0.0465	0.0465	0.442***	0.163***	0.0698*
	(0.0534)	(0.0627)	(0.0673)	(0.0692)	(0.0325)	(0.0325)	(0.0766)	(0.0569)	(0.0393)
Panel B. Regressions weighted by total cases in district									
Any Bunching in 2012-2013	0.0943*	0.142	0.329***	0.0788	0.199**	0.152*	0.110	0.183	0.193**
	(0.0492)	(0.0956)	(.124)	(0.135)	(0.0863)	(0.0815)	(0.125)	(0.116)	(0.0964)
Constant	0.905***	0.765***	0.319***	0.422***	0.0395	0.0330	0.550***	0.177**	0.0683
	(0.0492)	(0.0871)	(0.0954)	(0.100)	(0.0359)	(0.0247)	(0.0979)	(0.0756)	(0.0426)
Observations	89	89	89	89	89	89	89	89	89
Panel C. Unweighted regressions, state level									
Any Bunching in 2012-2013	0.190**	0.190**	0.465***	0.279**	0.181*	0.0903	0.452***	0.305**	0.194**
	(0.0875)	(0.0875)	(0.126)	(0.134)	(0.107)	(0.0808)	(0.129)	(0.122)	(0.0940)
Constant	0.810***	0.810***	0.190**	0.238**	0.0952	0.0476	0.238**	0.143*	0.0476
	(0.0875)	(0.0875)	(0.0875)	(0.0949)	(0.0654)	(0.0474)	(0.0949)	(0.0779)	(0.0474)
Panel D. Regressions weighted by total cases in state									
Any Bunching in 2012-2013	0.146	0.146	0.419**	0.319*	0.244	0.157	0.421**	0.285	0.300**
	(0.0960)	(0.0960)	(0.189)	(0.188)	(0.179)	(0.110)	(0.180)	(0.197)	(0.124)
Constant	0.854***	0.854***	0.414**	0.401**	0.154	0.0497	0.401**	0.287*	0.0497
	(0.0960)	(0.0960)	(0.176)	(0.166)	(0.135)	(0.0509)	(0.166)	(0.163)	(0.0509)
Observations	50	50	50	50	50	50	50	50	50

Notes. Robust standard errors in parentheses. The USSC also provides data on cases appealed in the 12 circuit courts of appeal. This appeals dataset is separate from the main USSC dataset used throughout this paper. I focus on cases with appeal dates in fiscal year 2012 and 2013 since cases appealed before those fiscal years will not be subject to the FSA or to the new 2011 USSC Guidelines and cases appealed after fall under a new data structure that does not provide as much detail. I focus on bunching for cases sentenced from 2012-2013 to closely match the appealed cases under consideration. Although the appeals records are not linked to the main USSC case records, they do indicate whether the appeal raised an issue with the drug conviction and specifically, whether an issue was raised regarding the quantity of the drugs specified in the case and/or the application of the mandatory minimum sentence. Data after fiscal year 2013 do not provide this specific information about the appealed issues. Finally, the data include the outcome of the appeal, such as whether the issue was reversed (i.e. the appeals court finds the lower court decided the issue improperly) or remanded (i.e. the appeals court sends the case back to the lower court to review the issue again). In Panels A-B, each column is a regression of whether a district has any case which is: a drug appeal, a drug appeal with a drug amount issue, etc. on whether the district has any case that is bunched at 280-290g. Panel B weights those regressions by the total number of cases in the district. Results are similar when looking at number of appeals as a fraction of all sentenced drug cases in the district instead of the binary outcome of whether there was an appeal at all. Panels C-D have the same structure but are estimated at the state level instead of the district level. This provides additional evidence along with the results from *Alleyne* that bunching at 280g may be based on weak evidence or that the practice of bunching may be related to pursuing weak evidence in other drug cases.

*** p<0.01, ** p<0.05, * p<0.1

Table A9. Relationship between Bunching in EOUSA and Imputed Defendant Race

	280-290g, Missing = 0	280-290g	280-290g, Missing = 0	280-290g	280-290g, Missing = 0
	(1)	(2)	(3)	(4)	(5)
After 2010	0.0241***	-0.0318	-0.0153**	-0.00536	-0.00511
	(0.00180)	(0.0196)	(0.00654)	(0.0229)	(0.00826)
After 2010 × % Black or Hispanic		0.123***	0.0457***	0.0793***	0.0303***
(for Cases Sentenced in District-Month)		(0.0295)	(0.01000)	(0.0282)	(0.00984)
Constant	0.00159***	-0.00193	-0.00111	-0.00202	-0.000842
	(0.000195)	(0.00319)	(0.00130)	(0.00633)	(0.00259)
Prosecutor FEs	NO	NO	NO	YES	YES
Observations	49,342	13,384	32,751	13,384	32,751

Notes. Robust standard errors in parentheses. The estimates in this table are based on the EOUSA data. Column 1 displays the main bunching result using a dependent variable that is equal to one when the drug weight in the case is between 280-290g and is equal to zero if it is not in that range. Importantly, "280-290g, Missing=0" is also coded as zero if the drug weight field is missing. This is especially relevant for cross-district analyses because weight missingness varies substantially across districts. Robustness to alternative ways of dealing with missing values is further explored in Appendix E. Coefficients are estimated from the following regression for column 1:

$$(Charged\ 280-290g,\ Missing=0)_{it} = \alpha_0 + \beta_1 After2010_{it} + \epsilon_{it}$$

Columns 2-5 interact the after 2010 dummy variable with a probabilistic estimate of defendant race (race is not available in the EOUSA files). To impute defendant race, I match EOUSA information about sentence year-month to USSC information about the racial composition of sentences in each district year-month. I code "% Black or Hispanic" equal to the fraction of offenders in a district and sentenced in a year-month who are black or Hispanic. In columns 4-5, I include prosecutor fixed effects. Specifications with the race and after 2010 interactions also include a variable equal to % black and Hispanic offenders in the district-year-month. The number of observations falls because not all cases that enter EOUSA end in a sentence or have sentence information recorded. Coefficients are estimated from the following regression for columns 2 and 3 (with only the dependent variable changing):

$$(Charged\ 280-290g)_{it} = \alpha_0 + \beta_1 (After2010)_{it} + \beta_2 (After2010 \times \%BlackOrHispanic)_{it} + \%BlackOrHispanic_{it} + \epsilon_{it}$$

*** p<0.01, ** p<0.05, * p<0.1

Table A10. Missing Mass in the Distribution of Drug Amounts, Comparing "Bunching" and "Non-Bunching" Prosecutors

	Atty. with 5+ Cases			Atty. with 15+ Cases		
Panel A. Bunching at 280g Post-2010 and Distribution of Cases Post-2010						
	Below 280g	280-290g	Above 290g	Below 280g	280-290g	Above 290g
	(1)	(2)	(3)	(4)	(5)	(6)
Atty. Bunches at 280-290g Post-2010	-0.1271***	0.1438***	-0.0167	-0.0674	0.1394***	-0.0720
(15+ cases post-2010)	(0.0484)	(0.0356)	(0.0281)	(0.0837)	(0.0500)	(0.0639)
Constant	0.9024***	0.0305***	0.0671***	0.8651***	0.0209**	0.1140*
	(0.0247)	(0.0058)	(0.0247)	(0.0610)	(0.0081)	(0.0615)
Observations	1,583	1,583	1,583	692	692	692
Panel B. Bunching at 50g Pre-2010 and Distribution of Cases Post-2010						
	Below 280g	280-290g	Above 290g	Below 280g	280-290g	Above 290g
	(7)	(8)	(9)	(10)	(11)	(12)
Atty. Bunches at 50-60g Pre-2010	-0.0665***	0.0467***	0.0198	-0.0863***	0.0611***	0.0252
(15+ cases pre-2010)	(0.0245)	(0.0169)	(0.0151)	(0.0263)	(0.0167)	(0.0178)
Constant	0.9258***	0.0335***	0.0407***	0.9466***	0.0153	0.0382***
	(0.0168)	(0.0111)	(0.0115)	(0.0172)	(0.0096)	(0.0139)
Observations	1,278	1,278	1,278	956	956	956

Notes. Standard errors clustered at the prosecutor level in parentheses. The estimates in this table are based on the EOUSA data. Coefficients in panel A are estimated from the following regression for each range:

$$(Charged\,X - Yg)_i = \alpha_0 + \beta_1 AttyBunchesAt280g_i + \epsilon_i$$

where $AttyBunchesAt280g$ is equal to one if the prosecutor is classified as a bunching prosecutor under the 280g definition (i.e. the fraction of their cases that are from 280-290g is above the average fraction of 280-290g cases pre-2010) and is equal to zero if the prosecutor is not classified as a bunching prosecutor (i.e. the fraction of their cases that are from 280-290g is at or below the average fraction of 280-290g cases pre-2010). These regressions are restricted to post-2010 cases and to prosecutors with 5+ cases post-2010 in columns 1-3 and with 15+ cases post-2010 in columns 4-6. Note, to avoid a mechanical relationship in column (2), I use leave-out-means to classify bunching attorneys. Coefficients in panel B are estimated from the following regression for each range:

$$(Charged\,X - Yg)_i = \alpha_0 + \beta_1 AttyBunchesAt50g_i + \epsilon_i$$

where $AttyBunchesAt50g$ is equal to one if the prosecutor is classified as a "bunching" prosecutor under the 50g definition (i.e. the fraction of their cases that are from 50-60g is above the average fraction of 50-60g cases post-2010) and is equal to zero if the prosecutor is not classified as a bunching prosecutor (i.e. the fraction of their cases that are from 50-60g is at or below the average fraction of 50-60g cases post-2010). These regressions are restricted to post-2010 cases and to prosecutors with 5+ cases pre-2010 in columns 7-9 and with 15+ cases pre-2010 in columns 10-12.
*** p<0.01, ** p<0.05, * p<0.1

Table A11. Missing Mass in the Distribution of Drug Amounts, Comparing "Bunching" and "Non-Bunching" Prosecutors

Panel A. Bunching at 280g Post-2010 and Distribution of Cases Post-2010			
	Below 280g	280-290g	Above 290g
	(1)	(2)	(3)
Pct. of Cases Bunched at 280-290g	-0.5046***	0.5272***	-0.0227
(Leaving out current case in calculation)	(0.1162)	(0.0717)	(0.0976)
Constant	0.8892***	0.0400***	0.0707**
	(0.0343)	(0.0078)	(0.0346)
Observations	971	971	971
Panel B. Bunching at 50g Pre-2010 and Distribution of Cases Post-2010			
	Below 280g	280-290g	Above 290g
	(4)	(5)	(6)
Pct. of Cases Bunched at 50-60g	-0.3693***	0.2667***	0.1026*
(Leaving out current case in calculation)	(0.1042)	(0.0705)	(0.0565)
Constant	0.9196***	0.0356***	0.0448***
	(0.0123)	(0.0083)	(0.0087)
Observations	1,135	1,135	1,135
Panel C. Persistence of Attorney-level Bunching Across Districts, from Analysis of Movers			
	Pr(Atty. Bunches at 10-Year MM in 2nd Dist.)		
	(1)	(2)	(3)
Atty. Bunches at 10-Year MM in 1st District	0.184*	0.162**	0.263**
	(0.0936)	(0.0816)	(0.108)
Constant	0.500***	0.432***	0.462***
	(0.0700)	(0.0580)	(0.0809)
Bunching classification	National	Missing=0, National	District
Observations	109	148	79

Notes. Standard errors clustered at the prosecutor level in parentheses. The estimates in this table are based on the EOUSA data. Coefficients in panel A are estimated from the following regression for each range: $(Charged\ X - Yg)_i = \alpha_0 + \beta_1 PctBunching280g_i + \epsilon_i$ where $PctBunchingAt280g$ is equal to the prosecutor's fraction of cases at 280-290g post-2010 (excluding the current observation) minus the average fraction of cases at 280-290g pre-2010. These regressions are restricted to post-2010 cases and to prosecutors with 10+ cases post-2010. Coefficients in panel B are estimated from the following regression for each range: $(Charged\ X - Yg)_i = \alpha_0 + \beta_1 PctBunching50g_i + \epsilon_i$ where $PctBunchingAt50g$ is equal to the prosecutor's fraction of cases at 50-60g pre-2010 minus the average fraction of cases at 50-60g post-2010. These regressions are restricted to post-2010 cases and to prosecutors with 10+ cases pre-2010. Panel C: For this analysis, I identify the attorneys who switch districts at some point in their career (using their initials recorded in the EOUSA case management system). I then identify the set of those attorneys who bunch at a 10-year mandatory minimum in their first district. I also limit the sample to attorneys who have at least 5+ cases in their first district and 5+ cases in their second district (this maintains the 10+ restriction but spreads it evenly across districts). Since I am analyzing movers, it is almost always the case that the cases in their first district are pre-2010 cases, meaning that the bunching classification is determined based on bunching at 50-60g. Finally, I regress an indicator equal to one if the attorney bunches at the 10-year threshold in their second district on whether they bunched at the 10-year threshold in their first district. I do this for three methods of classifying bunching attorneys. Columns 1 and 2 are detailed in Table A10. Column 3 mirrors the approach of Column 1 but defines the "baseline" bunching at the district-level. For example, an attorney **i** in district **A** is defined as bunching at 50-60g in column 3 if their fraction of cases at 50-60g pre-2010 is above the fraction of cases at 50-60g in district **A** post-2010. In all cases, I find that an attorney who bunches above the mandatory minimum threshold in their first district is more likely to do so in their second district than an attorney who does not bunch above the mandatory minimum threshold in their first district.*** p<0.01, ** p<0.05, * p<0.1

Table A12. Relationship between Attorney-Level Bunching and Other Case Characteristics

Panel A. Relationship between Various Bunching Ranges

	28-29g	28-29g	50-60g	280-290g	280-290g	280-290g
	(1)	(2)	(3)	(4)	(5)	(6)
Atty. Bunches at 280-290g Post-2010	0.144**	0.140**	0.182***			
	(0.0625)	(0.0590)	(0.0664)			
Atty. Bunches at 28-29g Post-2010				0.155***	0.0876**	
				(0.0544)	(0.0340)	
Atty. Bunches at 50-60g Pre-2010						0.0575***
						(0.0172)
Constant	0.131***	0.120***	0.155***	0.0826***	0.0479***	0.0233**
	(0.0241)	(0.0232)	(0.0288)	(0.0271)	(0.0149)	(0.0105)
Sample Years	2011-2017	2011-2017	2000-2010	2011-2017	2011-2017	2011-2017
Sample Restriction	0-280g	0-280g, 290-1000g	0-1000g	29-1000g	0-28g, 29-1000g	0-1000g
Observations	843	910	1,976	483	840	1,135

Panel B. Relationship between Case Complexity and Bunching

	Neither District nor National Priority	Multiple Agencies	Any Gang Defendants	Retained Counsel	Multiple Opposing Counsel	Number of Court Events
	(1)	(2)	(3)	(4)	(5)	(6)
Atty. Bunches at 280-290g Post-2010	0.0656	-0.0063	0.0070	0.0587	-0.0595	0.0835
	(0.0938)	(0.0273)	(0.0267)	(0.0467)	(0.0562)	(0.0969)
Constant	0.1938***	0.0832***	0.0457***	0.1672***	0.3955***	2.025***
	(0.0428)	(0.0188)	(0.0120)	(0.0203)	(0.0347)	(0.0495)
Observations	2,330	2,548	2,548	818	910	2,587

Notes. Standard errors clustered at the prosecutor level in parentheses. The estimates in this table are based on the EOUSA data. **Panel A:** Columns 1-3 estimate the likelihood an attorney who bunches at 280-290g (i.e. who has a fraction of cases at 280-290g post-2010 that is above the average fraction of 280-290g cases pre-2010) also bunches at 28-29g post-2010, 28-29g post-2010, and 50-60g pre-2010, respectively. Column 1 limits the sample to cases with below 280g to avoid a mechanical relationship. Column 2 does this by excluding only the 280-290g range from the sample. Both approaches yield similar results. Column 3, since the dependent variable is based on pre-2010 data, uses the full range of cases (0-1000g). Columns 4-6 estimate the likelihood an attorney who bunches at 28-29g post-2010 or 50-60g pre-2010 also bunches at 280-290g post-2010. As before, columns 4 and 5 exclude the 28-29g range to avoid a mechanical relationship. 28-29g is relevant post-2010 because 28g is the threshold for the 5-year mandatory minimum after 2010. 50-60g is relevant pre-2010 because 50g is the threshold for the 10-year mandatory minimum prior to 2010. All regressions in this table use the sample of attorneys who have 10+ cases (post-2010 for columns 1-5; pre-2010 for column 6). In all cases, an attorney who bunches at one mandatory minimum threshold is more likely to bunch at a separate mandatory minimum threshold. **Panel B:** Columns 1 estimates the likelihood an attorney who bunches at 280-290g (i.e. who has a fraction of cases at 280-290g post-2010 that is above the average fraction of 280-290g cases pre-2010) has a case that is classified as neither a district nor a national priority. Column 2-3 estimates whether those attorneys are more likely to have cases which involve multiple agencies or involve a defendant labeled as a gang defendant. Column 4-5 estimates whether those attorneys are more likely to have cases in which the defendant retains private counsel or has multiple opposing counsel working on the case. Note, however, that data on opposing counsel is missing for the vast majority of cases in this data. Column 6 estimates whether those attorneys have cases with more court events (e.g. new filings, indictments, information, superseding indictments, etc.). *** p<0.01, ** p<0.05, * p<0.1

Table A13. Robustness of Effect of *Alleyne v. US* using Alternative Data Sources and Accounting for Missing Values

Panel A.Testing for *Alleyne* Effect in USSC Data, Based on Sentence Date

	Pr(Below 280g)			Pr(280-290g)			Pr(Above 290g)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Sentenced After June	-0.0593**	-0.0454***	-0.0306**	0.0418***	0.0282**	0.0180	0.0175	0.0172	0.0126
	(0.0275)	(0.0157)	(0.0147)	(0.0152)	(0.0114)	(0.0115)	(0.0250)	(0.0140)	(0.0117)
Sentenced After June x Year = 2013	0.0532	0.0363	0.0190	-0.0519**	-0.0367**	-0.0256	-0.00131	0.000441	0.00663
	(0.0420)	(0.0216)	(0.0206)	(0.0240)	(0.0174)	(0.0173)	(0.0367)	(0.0211)	(0.0196)
Constant	0.852***	0.854***	0.844***	0.0344***	0.0372***	0.0431***	0.114***	0.109***	0.113***
	(0.0163)	(0.00879)	(0.0106)	(0.00807)	(0.00614)	(0.00796)	(0.0153)	(0.00925)	(0.00856)
Years Included	2011-2013	2011-2014	2011-2015	2011-2013	2011-2014	2011-2015	2011-2013	2011-2014	2011-2015
Observations	4,817	6,548	7,965	4,817	6,548	7,965	4,817	6,548	7,965

Panel B. Effect of *Alleyne v. US*, Accounting for Missing Values in EOUSA, Bandwidth +/-150 days

	Pr(Missing Weight)	Pr(280-290g, Missing=0)
	(1)	(2)
After June 17th, 2011-2016	-0.0211	0.00438
	(0.0309)	(0.00869)
After June 17th, 2013	-0.0219	-0.0389*
	(0.0702)	(0.0223)
Constant	0.834***	0.0243
	(0.0690)	(0.0269)
Observations	6,182	6,182

Notes. **Panel A:** Robust standard errors in parentheses for columns 1, 4, and 7 (given the small number of total clusters). Standard errors clustered at the sentence year-month level in parentheses for columns 2-3, 5-6, and 8-9. The estimates in this table are based on the USSC data. See Table 1 for notes about data construction. In the EOUSA data, the drug quantity field does not necessarily display the final amount used for sentencing in the case. Instead, it is the amount entered into the case management system. Based on the user manual for the system, quantity is not a required field that must be updated throughout the life of the case. The user is first prompted to enter quantity when the case is opened. In practice, this is correlated with the final amount used in sentencing at the district-by-month level, and the patterns of bunching are similar in the EOUSA and USSC data. However, this difference is important for the analysis of *Alleyne*. In Table 7, I examine how bunching differs based on when the case is received since that is when prosecutors are likely recording the amount in the case management system. In cases received and recorded before *Alleyne*, prosecutors often indicate that the quantity involved is at 280g. In cases received and recorded shortly after *Alleyne*, prosecutors are less likely to indicate that 280g were involved. *Alleyne*, however, will affect the **final** amount used at sentencing in cases received both before and after the decision as long as they are sentenced after *Alleyne*. For cases initiated before *Alleyne* but sentenced after, prosecutors will likely need to file a superseding indictment or superseding information that addresses drug quantity. This means that there should also be a discontinuity in bunching in final amount used at sentencing for cases sentenced before and after *Alleyne*. The USSC data does not include exact date of sentencing, but it does include sentence month and year. I use this data in this table and show that bunching at final sentencing also falls, as we should expect, for cases sentenced shortly after *Alleyne*. Columns 1-3 examine the probability a case is recorded below 280g; columns 4-6, in 280-290g; and columns 7-9, above 290g. Columns 1, 4, and 7 estimate this using the year the case is decided and the two years before it; columns 2, 5, and 8 include the year of, the two years before, and one year after; columns 3, 6, and 9 include all years after 2010. I don't include cases sentenced in 2016 because the data does not include any cases sentenced after September 2016. Panel B: Standard errors clustered at the date the case is received in parentheses. **Panel B:** The estimates in this table are based on the EOUSA data. The coefficients above are estimated from the regression discontinuity style model from the main text. In column 1, Y_{it} is equal to one if the observation has a missing drug weight and equal to zero otherwise. There is little effect of *Alleyne* on the likelihood an observation has missing drug weight. In column 2, Y_{it} is equal to one if the drug weight is equal to 280-290g and equal to zero if the weight is outside the 280-290g range or if the weight is missing. There is still a decrease in bunching after *Alleyne* when accounting for missing values. Robustness to alternative ways of dealing with missing values is further explored in Appendix E. *** p<0.01, ** p<0.05, * p<0.1

Table A14. Degree of Bunching Post-2010 by Race and District-level Characteristics

	Pr(280-290g)											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
After '10 x W	0.0187***	0.0222**	0.0136	0.0234**	0.0145	0.0198**	0.0155*	0.0084	0.0162*	0.0130**	0.0158**	0.0157**
	(0.0073)	(0.0105)	(0.0084)	(0.0107)	(0.0090)	(0.0085)	(0.0089)	(0.0062)	(0.0096)	(0.0062)	(0.0072)	(0.0067)
After '10 x BH	0.0397***	0.0439***	0.0308***	0.0505***	0.0305***	0.0353***	0.0365***	0.0360***	0.0359***	0.0301***	0.0353***	0.0364***
	(0.0028)	(0.0035)	(0.0028)	(0.0036)	(0.0027)	(0.0029)	(0.0033)	(0.0033)	(0.0031)	(0.0050)	(0.0088)	(0.0082)
After '10 x W x Char.	-0.0160	-0.0143	-0.0006	-0.0171	-0.0019	-0.0147	-0.0065	0.0086	-0.0069	0.0052	-0.0101	-0.0157**
	(0.0098)	(0.0122)	(0.0111)	(0.0120)	(0.0113)	(0.0106)	(0.0111)	(0.0116)	(0.0115)	(0.0255)	(0.0105)	(0.0067)
After '10 x BH x Char.	-0.0154***	-0.0171***	0.0082*	-0.0323***	0.0093**	-0.0021	-0.0023	-0.0012	-0.0011	0.0311	-0.0033	-0.0124
	(0.0043)	(0.0044)	(0.0044)	(0.0043)	(0.0044)	(0.0043)	(0.0045)	(0.0045)	(0.0045)	(0.0320)	(0.0113)	(0.0102)
Constant	0.0017	0.0015	0.0049***	0.0028**	0.0053***	0.0028**	0.0022*	0.0022**	0.0030**	0.0030**	0.0034**	0.0035***
	(0.0012)	(0.0011)	(0.0019)	(0.0014)	(0.0019)	(0.0012)	(0.0013)	(0.0011)	(0.0014)	(0.0012)	(0.0014)	(0.0013)
Characteristic	District-by-Year Above Med. # of Cases per Attorney	District Above Med. % of Guilty Cases	District Above Med. % of Declined Cases	District Above Med. % of Plea Cases	District Above Med. % of Cases Dismissed for 'Weak Evidence'	District Above Med. % of Cases Dismissed for 'Resources'	District Above Med. % Of Cases with Retained Counsel (based on '99-'02)	District Above Med. % Of Cases, Appointed Counsel	District Above Med. % Of Cases, Public Defender	District contains one of the ten biggest cities based on population	District is one of the ten biggest districts based on cases in 1999-2010	State has more than 4 gang members per 1,000 people (DEA 2009)
P-value: W = BH	0.0071	0.0505	0.0520	0.0158	0.0886	0.0852	0.0261	0.0001	0.0508	0.0414	0.0802	0.0425
P-value: W+Char. = BH+Char.	0.0035	0.0048	0.0012	0.0518	0.0004	0.0001	0.0006	0.0837	0.0003	0.0001	0.0000	0.0003
Observations	50,273	50,273	50,273	50,273	50,273	50,273	46,950	46,950	46,950	50,273	50,273	50,273

Notes. Robust standard errors in parentheses. The estimates in this table are based on the USSC data (although the EOUSA data is used to define characteristics of interest for columns 1-6). See Table 1 for notes about data construction. "Characteristic" or "Char." represents a dummy variable that is a district or district-by-year characteristic. The specific characteristic of interest is noted in the "Characteristic" row. The row "P-value: W = BH" reports the p-value from a test of the null hypothesis that the coefficient on "After 2010 x White" is equal to the coefficient on "After 2010 x Black or Hispanic." The row "P-value: W+Char. = BH+Char." reports the p-value from a test of the null hypothesis that the combined coefficients on "(After 2010 x White)+(After 2010 x White x Characteristic)" is equal to the combined coefficients on "(After 2010 x Black or Hispanic)+(After 2010 x Black or Hispanic x Characteristic)." Column 1 interacts the after 2010 by race dummy variables with a district-by-year dummy variable indicating if the district received above the median number of cases (per attorney) in the year. Column 2 studies districts above/below the median for percent of cases that end in a guilty verdict, column 3 studies districts above/below the median for percent of cases declined, and column 4 studies districts above/below the median for percent of cases that end in plea deals. Columns 5 and 6 study districts above/below the median for percent of cases declined due to "weak evidence" or "lack of resources" (as coded in the EOUSA case files, although codes are not present for all cases). Columns 7-9 use the USSC data from 1999-2002 on type of defense counsel to examine heterogeneity by type of defense counsel used in the district. Fourteen districts do not report this data in 1999-2002, hence the different observation count in these columns. Places with different rates of retained, appointed, or public defender defense counsel from 1999-2002 nevertheless have similar bunching at 280g post-2010. Column 10 examines heterogeneity based on whether the district contains one of the 10 largest cities in the US. Column 11 examines heterogeneity based on whether the district is one of the top 10 districts in terms of number of crack-cocaine cases from 1999-2010. Column 12 uses the DEA Drug Threat Assessment to classify states based on gang activity and examine heterogeneity by whether the state has more or less than 4 gang members per 1,000 people. I explore heterogeneity by additional district-level characteristics in Tables A18-A19.
*** p<0.01, ** p<0.05, * p<0.1

Table A15a. Relationship between Race and Gang Involvement among Federal Inmates

	In Drug Org. Prior to Arrest	Illegal Income Prior to Arrest	In Drug Org.	Hired Private Counsel
	(1)	(2)	(3)	(4)
Panel A. Inmates Reporting Any Drug Offense				
Black or Hispanic	-0.121***	-0.114***	-0.134***	-9.99e-06
	(0.0251)	(0.0326)	(0.0407)	(0.0311)
Constant	0.222***	0.513***	0.292***	0.363***
	(0.0231)	(0.0282)	(0.0359)	(0.0268)
Sample Restriction	-	-	Illegal Income > 0	-
Observations	1,268	1,219	521	1,255
Panel B. Inmates Reporting a Crack-Cocaine Offense				
Black or Hispanic	-0.116	-0.102	-0.138	0.104
	(0.105)	(0.138)	(0.156)	(0.113)
Constant	0.200*	0.615***	0.250	0.214*
	(0.104)	(0.135)	(0.154)	(0.110)
Sample Restriction			Illegal Income > 0	
Observations	324	311	160	322

Notes. Robust standard errors in parentheses. The estimates in this table are based on the SIFCF data. Column 1 estimates the racial difference in whether an inmate reports being involved in a drug organization prior to arrest. Column 2 estimates the racial difference in whether an inmate reports earning illegal income prior to arrest. Column 3 estimates the racial difference in whether an inmate reports being involved in a drug organization prior to arrest, restricting to inmates that report positive illegal income prior to their arrest. Column 4 estimates the racial difference an inmate reports retaining private counsel. Panel A restricts the analysis to all drug offenders, and panel B restricts to offenders that report involvement with crack-cocaine.
*** p<0.01, ** p<0.05, * p<0.1

Table A15b. Relationship between Race and Drug Involvement among Federal Inmates

	(1) Weight	(2) Weight	(3) Pr(Above 280g)	(4) Pr(Above 280g)	(5) # of Members in Gang	(6) Leader in Gang	(7) Middle Man	(8) Underling	(9) Seller	(10) Other Role
Black or Hispanic	18.5	-65.8	0.00883	0.0221	0.936	-0.0136	-0.118*	0.110*	0.0683	-0.0464
	(32.2)	(701.7)	(0.0825)	(0.113)	(4.53)	(0.0616)	(0.0653)	(0.0641)	(0.0669)	(0.0533)
Constant	91.1***	862.3	0.0833	0.214*	18.0***	0.194***	0.278***	0.167***	0.208***	0.153***
	(30.0)	(681.6)	(0.0801)	(0.110)	(3.51)	(0.0469)	(0.0531)	(0.0442)	(0.0482)	(0.0427)
Sample Restriction	0-1000g	0-25000g	0-1000g	0-25000g	In Drug Org. = 1	In Drug Org. = 1	In Drug Org. = 1	In Drug Org. = 1	In Drug Org. = 1	In Drug Org. = 1
Observations	229	272	229	272	154	166	166	166	166	166

Notes. Robust standard errors in parentheses. The estimates in this table are based on the SIFCF data. This table summarizes drug involvement by race for inmates reporting crack-cocaine involvement. Column 1-4 estimate racial differences in reported weight involved or whether that weight was above 280g. These regressions are restricted to observations with non-missing weight. Columns 5-10 estimate racial differences in the inmates' reported role in the gang, restricting to inmates who report involvement in a drug organization prior to arrest. Column 5 estimates racial differences in the size of the gang and columns 6-10 estimate racial differences in whether the inmate reports being a leader, middle man, underling, seller, or other role.
*** p<0.01, ** p<0.05, * p<0.1

Table A16. Relationship between Bunching at 280g and Judge Characteristics

	Pr(280-290g)	Pr(280-290g)	Pr(280-290g)
	(1)	(2)	(3)
After 2010	0.0898***	0.0852***	0.0974***
	(0.0119)	(0.0240)	(0.0222)
After 2010 ×White Judge		-0.0018	
		(0.0023)	
After 2010 ×Republican Judge			-0.0013
			(0.0015)
Constant	0.0038***	0.0053**	0.0046***
	(0.0007)	(0.0022)	(0.0013)
Observations	8,794	8,794	8,794

Notes. Standard errors clustered at the judge level in parentheses. The estimates in this table are based on the EOUSA data. This table uses data on the first judge listed in the case file. Approximately 70% of crack-cocaine cases in the EOUSA data have one judge listed; 25% have two listed; and 5% have more than two listed. Results are robust to using the last judge listed on the case (available upon request). I can match judge race and political party to approximately half of the cases in the EOUSA data. For data on judge characteristics, I use the file provided by Cohen and Yang (2019). I estimate whether bunching at 280g is related to judge race or judge political party. Column (1) shows that the level of bunching is similar for cases where I can match judge characteristics. Column (2) shows that judge race does not affect bunching at 280g. Column (3) shows that judge political party does not affect bunching at 280g.
*** p<0.01, ** p<0.05, * p<0.1

Table A17. Relationship between Various Bunching Ranges, Judges

	28-29g	28-29g	50-60g	280-290g	280-290g	280-290g
	(1)	(2)	(3)	(4)	(5)	(6)
Judge Bunches at	-0.00844	-0.00438	0.0536			
280-290g Post-2010	(0.0303)	(0.0284)	(0.0415)			
Judge Bunches at				-0.00149	-0.0135	
28-29g Post-2010				(0.0522)	(0.0328)	
Judge Bunches at						0.0239
50-60g Pre-2010						(0.0213)
Constant	0.150***	0.138***	0.201***	0.168***	0.107***	0.0676***
	(0.0191)	(0.0181)	(0.0249)	(0.0388)	(0.0248)	(0.0178)
Sample Restriction	0-280g	0-280g, 290-1000g	0-1000g	29-1000g	0-28g, 29-1000g	0-1000g
Observations	767	825	2,686	468	790	1,261

Notes. Standard errors clustered at the judge level in parentheses. The estimates in this table are based on the EOUSA data. This table uses data on the first judge listed in the case file. Approximately 70% of crack-cocaine cases in the EOUSA data have one judge listed; 25% have two listed; and 5% have more than two listed. Results are robust to using the last judge listed on the case (available upon request). See Table A12 for a discussion of the dependent and independent variables in column 1-6. The major difference is that these regressions examine judges classified as "bunching" at a given range. This is possible because the EOUSA files contain a judge ID for many cases. I use that judge ID to calculate the fraction of cases at 280-290g post-2010, 28-29g post-2010, and 50-60g pre-2010 for each judge. 28-29g is relevant post-2010 because 28g is the threshold for the 5-year mandatory minimum after 2010. 50-60g is relevant pre-2010 because 50g is the threshold for the 10-year mandatory minimum prior to 2010. All regressions in this table use the sample of judges who have 10+ cases (post-2010 for columns 1-5; pre-2010 for column 6). Judges who bunch at one mandatory minimum threshold are not more likely to bunch at other mandatory minimum thresholds.
*** p<0.01, ** p<0.05, * p<0.1

Table A18. Degree of Bunching Post-2010 by Race and Share Black in District Population

	(1) Decile 1	(2) Decile 2	(3) Decile 3	(4) Decile 4	(5) Decile 5	(6) Decile 6	(7) Decile 7	(8) Decile 8	(9) Decile 9	(10) Decile 10
Black or Hispanic	-0.00574	0.0420**	-0.00238	0.0241***	0.0156***	0.0116	-0.0245	0.0450**	0.0278	0.0403***
	(0.00945)	(0.0179)	(0.0163)	(0.00626)	(0.00542)	(0.0214)	(0.0291)	(0.0200)	(0.0292)	(0.00635)
Mean Share Black in Dist. in 2010	0.015	0.034	0.054	0.066	0.089	0.121	0.151	0.207	0.294	0.390
Observations	1,376	1,444	3,819	4,946	5,623	4,961	7,297	7,284	7,924	5,416

Notes. Robust standard errors in parentheses. The estimates in this table are based on the USSC data. See Table 1 for notes about data construction. In this table, I split districts into deciles based on the share of black people in the district in 2010 (data aggregated from county-level data from Opportunity Insights). These deciles are formed at the district level, which is why the case counts can differ dramatically across deciles. Each column shows results from separate regressions. In each regression, the sample is limited to only those districts in the decile bin. Rows 1-2 displays the estimates, row 5 displays the observation counts, and row 3 displays the average share of the population that is black for each decile bin. There is no clear relationship between decile and the racial disparity in bunching. This suggests that prosecutors are not simply responding to potential juror bias; if so, we might expect bunching to decrease as the probability of the jury containing a black juror increases. Note that electorate preferences are unlikely to affect decisions in this context; federal judges are appointed and AUSAs are hired directly by US Attorney's offices. *** p<0.01, ** p<0.05, * p<0.1

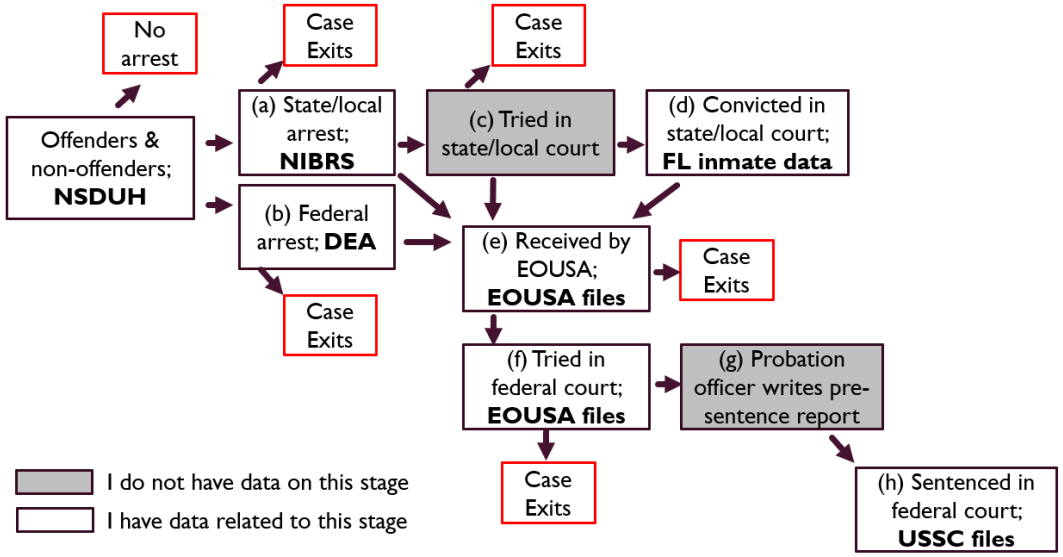
Table A19. Degree of Bunching Post-2010 by Race and Additional District-level Characteristics

				Pr(280-290g)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
After 2010 x White	0.0095*	0.0100	0.0120	0.0156	0.0118*	0.0179	0.0129**
	(0.0054)	(0.0091)	(0.0101)	(0.0117)	(0.0070)	(0.0177)	(0.0059)
After 2010 x Black or Hispanic	0.0387***	0.0442***	0.0463***	0.0446***	0.0311***	0.0526***	0.0309***
	(0.0027)	(0.0037)	(0.0046)	(0.0044)	(0.0030)	(0.0065)	(0.0022)
Constant	0.0025**	0.0054**	0.0022	0.0011	0.0022**	-0.0000	0.0035***
	(0.0010)	(0.0022)	(0.0016)	(0.0011)	(0.0011)	(0.0000)	(0.0011)
Pre-2010 Difference	Pr(0-280g,W) > Pr(0-280g, BH)	Pr(50-280g,W) > Pr(50-280g, BH)	Pr(60-280g,W) > Pr(60-280g, BH)	(Mean Wgt., W) > (Mean Wgt., BH)	(Mean Wgt.>60g, W) > (Mean Wgt.>60g, BH)	Pr(Trial, W) > Pr(Trial, BH)	Pr(Trial, W) < Pr(Trial, BH)
P-value: W = BH	0.0000	0.0005	0.0019	0.0205	0.0115	0.0653	0.0040
Observations	35,537	19,262	15,062	15,777	24,945	6,969	43,344

Notes. Robust standard errors in parentheses. The estimates in this table are based on the USSC data. See Table 1 for notes about data construction. Each column in this table limits to a subset of districts based on a different pre-2010 characteristic. Column 1 limits to districts where white offenders are relatively more likely to be charged with amounts below 280g prior to 2010. Column 2 limits to districts where white offenders are relatively more likely to be charged with amounts from 50-280g prior to 2010. Column 3 limits to districts where white offenders are relatively more likely to be charged with amounts from 60-280g prior to 2010. If we consider that cases bunched at 280-290g after 2010 are cases that would have been recorded below 280g prior to 2010, then these are districts in which white offenders have a larger base of offenders from which to bunch at 280-290g after 2010. Columns 4 presents a similar exercise by limiting to districts in which the mean drug weight for white offenders is higher than the mean drug weight for black and Hispanic offenders pre-2010. Column 5 makes a similar restriction, but only uses the mean of the weights above 60g. Finally, column 6-7 consider how differences in plea rates might affect racial disparities in bunching at 280-290g. Column 6 limits to districts where white offenders are relatively more likely to go to trial. Column 7 limits to districts where black and Hispanic offenders are relatively more likely to go to trial. *** p<0.01, ** p<0.05, * p<0.1

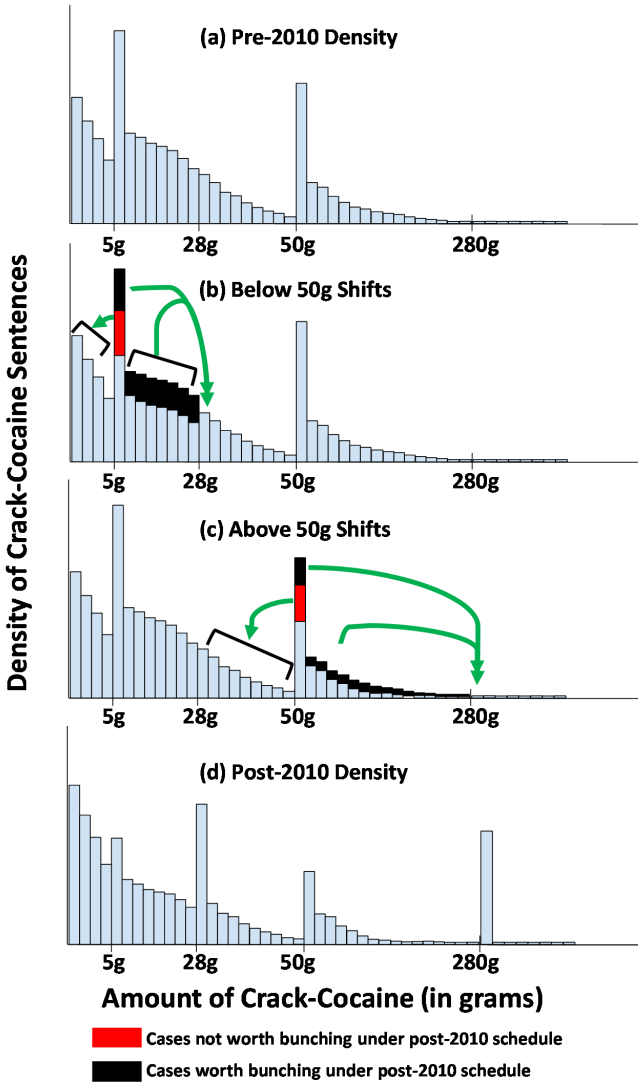
II. Figures

Figure A1. Graphical Illustration of Timeline from Arrest to Sentencing.



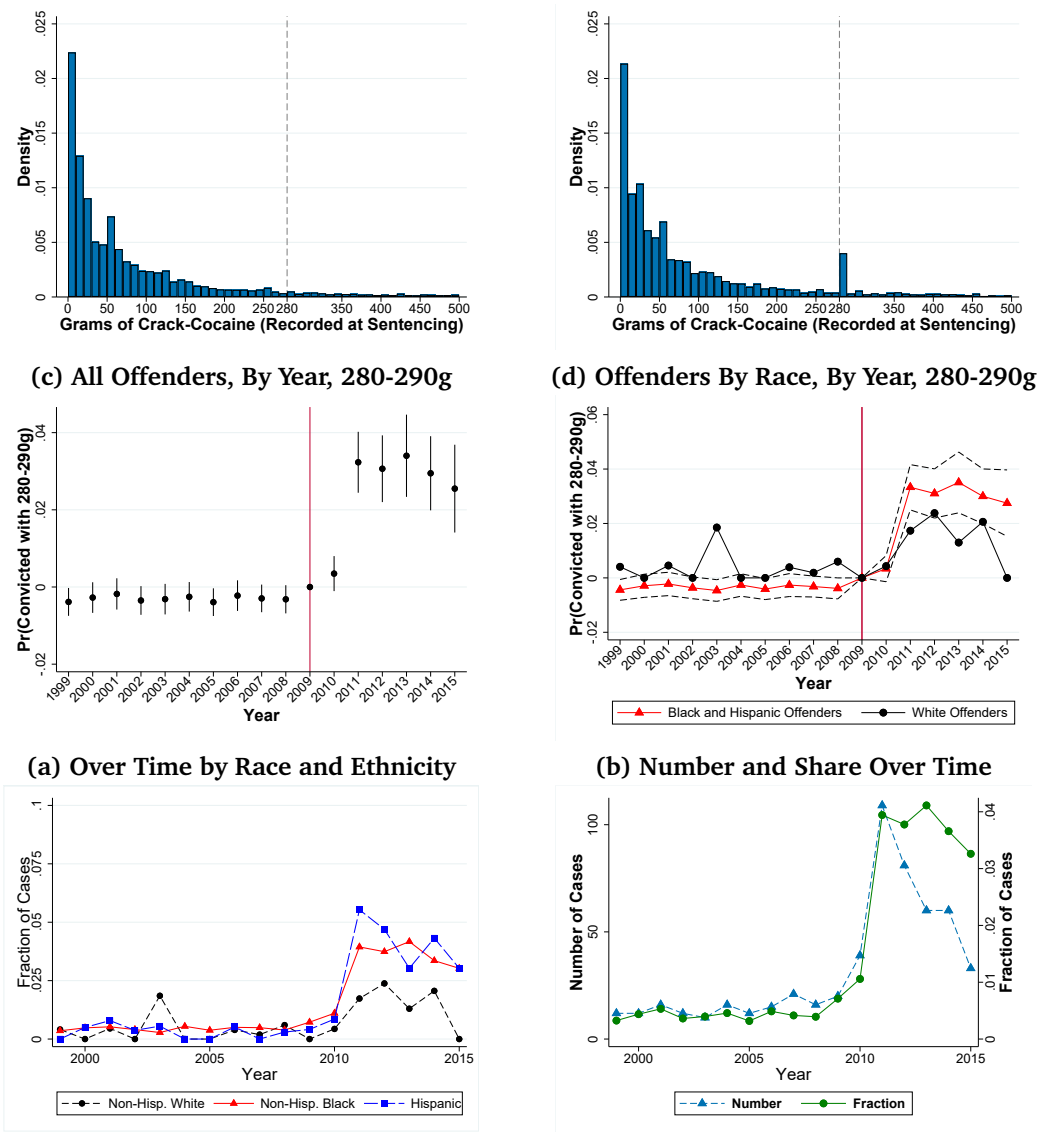
Notes. The figure above details the timeline from arrest to sentencing. Before arrest, the eventual arrestees come from the set of all people, some of whom are innocent and some of whom are guilty. Some individuals from this group are arrested by state/local police or federal agents. Of those arrested by state/local police, their case can be dismissed, prosecuted in state/local court, or passed on to federal authorities. Cases prosecuted in state/local court can leave the system if they are found not guilty, dismissed, etc., they can be convicted, or they can be sent to federal authorities. In fact, even cases convicted in state courts can be sent to federal authorities. Individuals arrested by federal agents are typically referred to the EOUSA directly. Once a case is received by the EOUSA, it can leave the system via a dismissal, declination, etc., or it can be prosecuted in federal court. For cases convicted in federal court, a probation officer prepares a pre-sentence report, and ultimately, the offender is sentenced. I have obtained data at nearly all of these steps. The two steps for which I lack data are in the middle of steps where bunching does not change, which suggests that nothing changes in the middle step. Note, these data sets are not linked, but observing the distributions in each separately is informative about where bunching at 280-290g first occurs.

Figure A2. Graphical Illustration of Conceptual Model, Prosecutor Responses to the FSA.



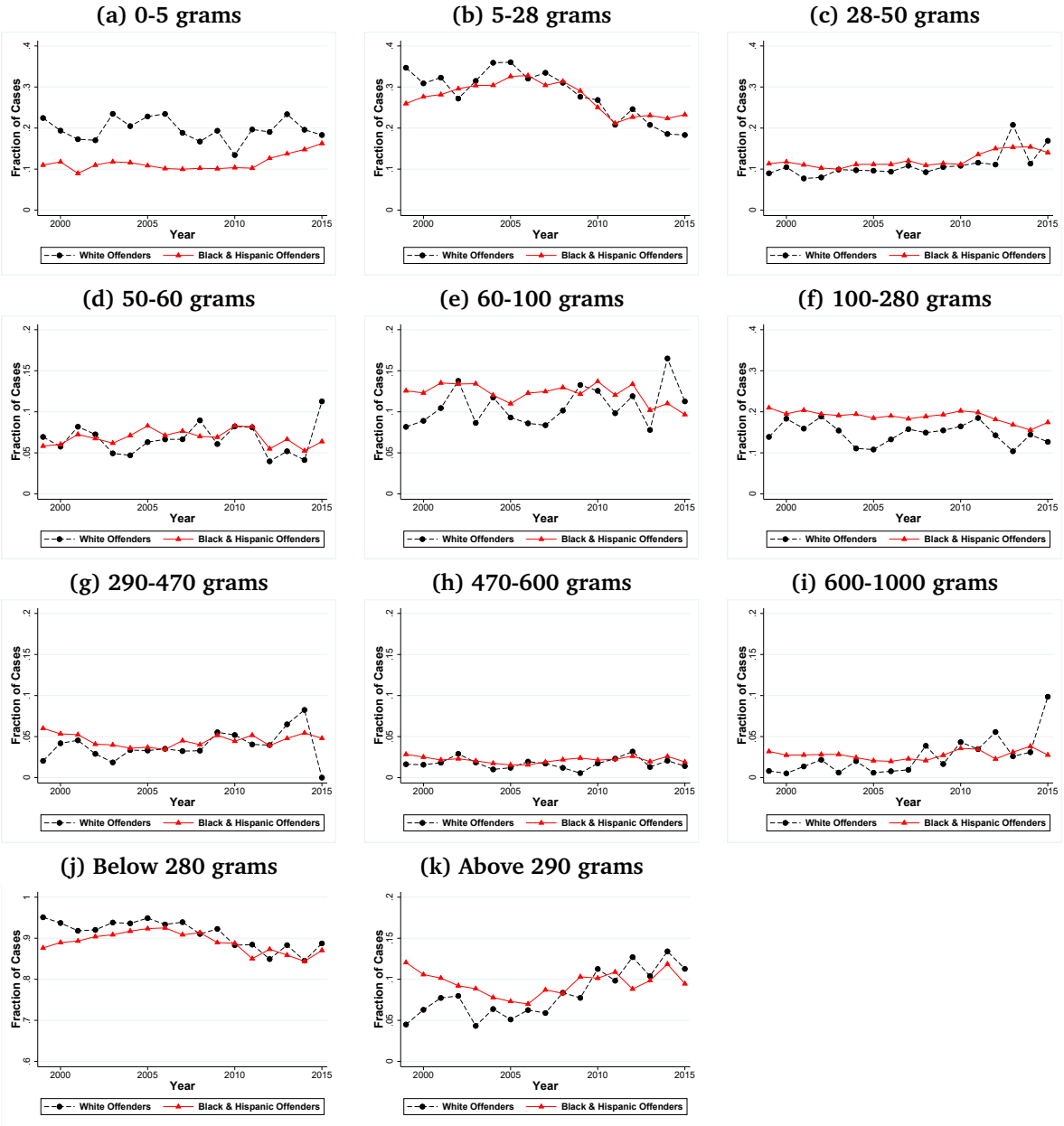
Notes. Panel (a) displays a hypothetical pre-2010 distribution of weights, with bunching at 5g and 50g due to round-number bias and prosecutor discretion. Panel (b) shows how the 0-5g, 5-28g, and 28-50g ranges will change after 2010. Some cases bunched at 5g will not be worth bunching at 28g (depicted in red), and they will shift into the 0-5g range. Some cases bunched at 5g and some cases from 5-28g will be worth bunching at 28g (depicted in black), and they will shift into the 28-50g range. Panel (c) illustrates a similar phenomena for the 50-280g range–some cases will shift down into the 28-50g range and some will shift up to the 280-290g range. Panel (d) shows the hypothetical post-2010 distribution of weights, with bunching at 5g and 50g due to round-number bias and bunching at 28g and 280g due to prosecutor discretion.

Figure A3. Changing Distribution of Drug Amounts Around 280g Pre- and Post-2010, USSC



Notes. Panels (a) and (b) plot the distribution of drug amounts recorded in federal crack-cocaine sentences starting at 0 grams and ending at 500 grams for 1999-2010 (when the mandatory minimum threshold was 50g) and 2011-2015 (when it was 280g). In panel (c), I estimate the main bunching coefficient by year (relative to 2010) and plot the coefficients with 90% confidence intervals. Panel (d) plots the coefficients and confidence interval for black and Hispanic offenders and the coefficients for white offenders (I do not include confidence intervals for white offenders because their estimates by year are extremely noisy). These plots are created from the USSC data. See Table 1 for notes about data construction. Panel (a) plots the fraction of cases bunched at 280-290g for non-Hispanic white offenders, non-Hispanic black offenders and Hispanic offenders. In addition, the sample used in this figure excludes any districts where greater than 20% of cases are missing ethnicity information. In this sample, pr(280-290g) increases by about 4.1 percentage points for Hispanic offenders and about 3 percentage points for non-Hispanic black offenders (p-value=0.14). The Southern District of NY has a large number of cases and many that are missing ethnicity information. Simply excluding that one district implies a 3.8 percentage point increase in pr(280-290g) for Hispanic offenders and a 3 percentage point increase for non-Hispanic black offenders (p-value=0.20). Panel (b) plots the total number of offenses with 280-290g over time and the share (or fraction) of cases with 280-290g over time.

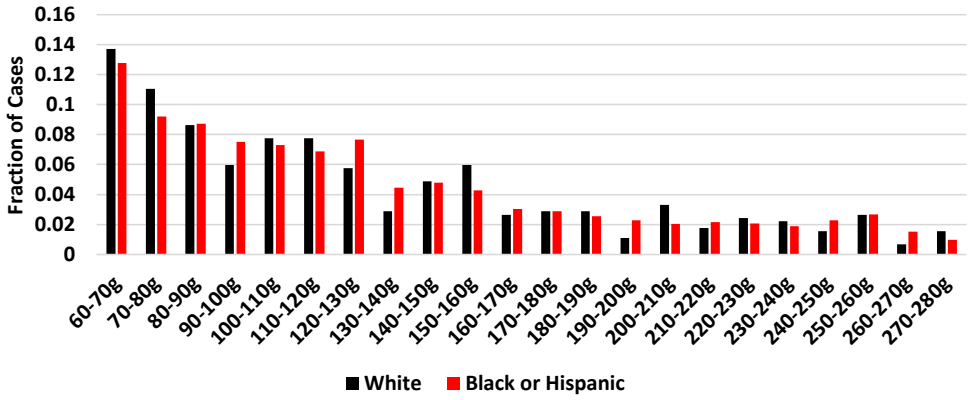
Figure A4. Changing Distribution of Drug Weights Over Time, By Race, USSC



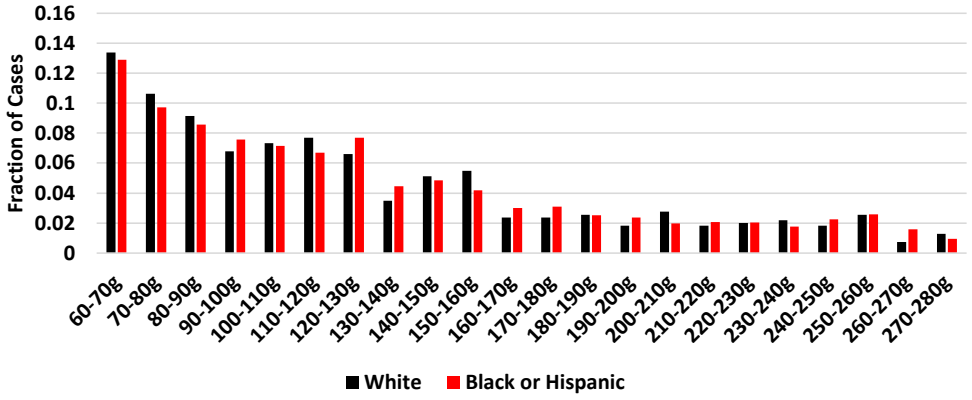
Notes. The figures above plot the share of cases in the specified range by year for white offenders and black and Hispanic offenders. For example, panel (a) plots the share of cases with 0-5g (not including 5g) in each year from 1999-2015. Panel (b) plots the share of cases with 5-28g in each year from 1999-2015, and so on. These plots are created from the USSC data. See Table 1 for notes about data construction.

Figure A5. Distribution of Pre-2010 Charged Amount by Race, 60-280g, by Characteristics

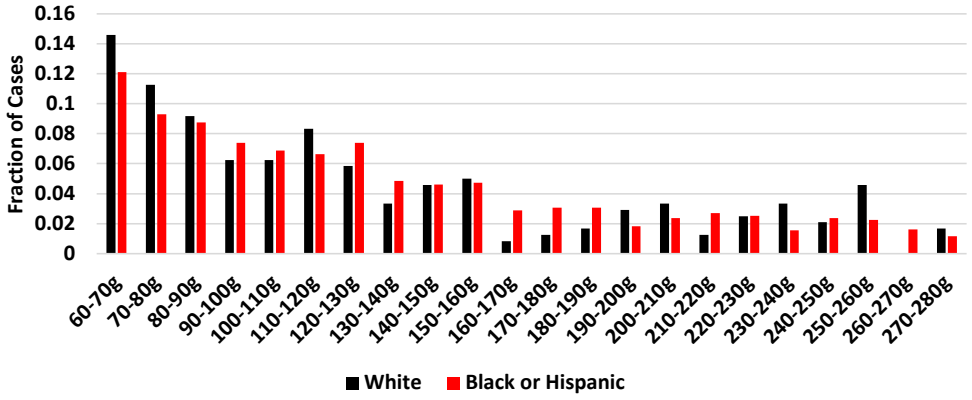
(a) Below Med. Criminal History



(b) Below Med. Predicted Sentence



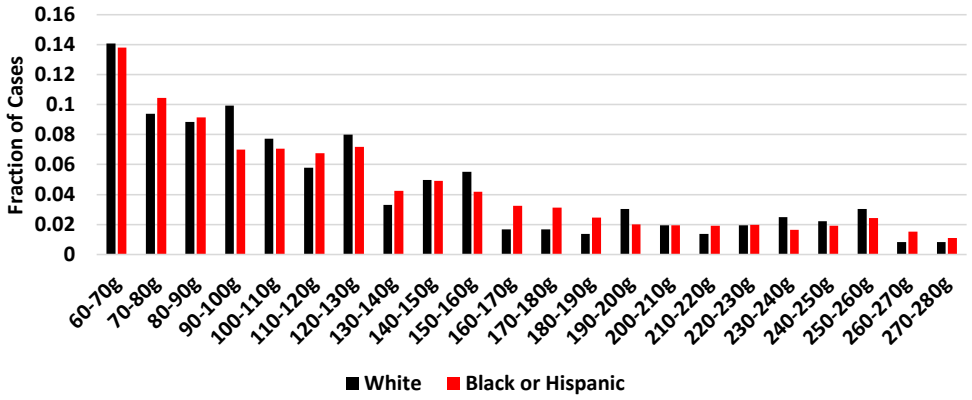
(c) Below Med. Racial Animus State



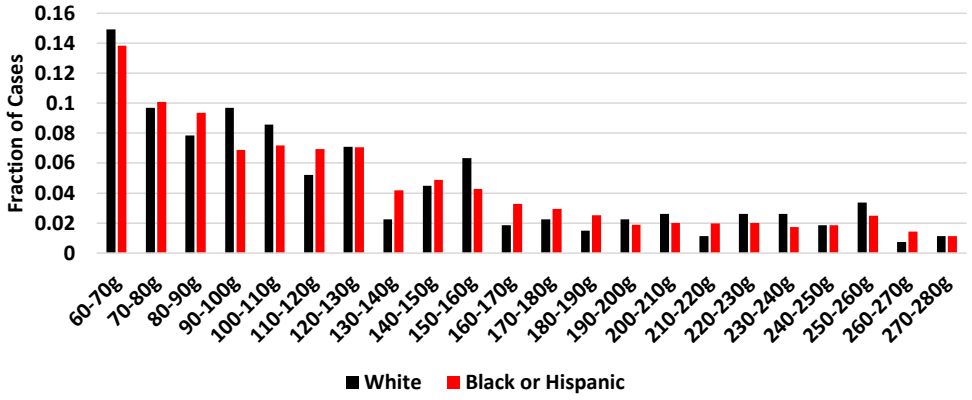
Notes. The figures above plot the distribution of charged amounts pre-2010 from 60-280g by race for various subsets of offenders. Panel (a) plots the distributions for offenders with below median criminal history scores. Panel (b) plots them for offenders with below median predicted sentenced (using exogenous factors, like age, sex, education, etc.). Panel (c) plots them for offenders convicted in states with below median levels of racial animus. In each plot, the distributions are similar. Kolomogorov-Smirnov tests of the equality of distributions fail to reject the null in all three cases: (a) p-value=0.60; (b) p-value=0.78; (c) p-value=0.45. This shows that the distributions of drugs charged from 60-280g are similar by race even within observably similar groups. These plots are created from the USSC data. See Table 1 for notes about data construction.

Figure A6. Distribution of Pre-2010 Charged Amount by Race, 60-280g, by Characteristics

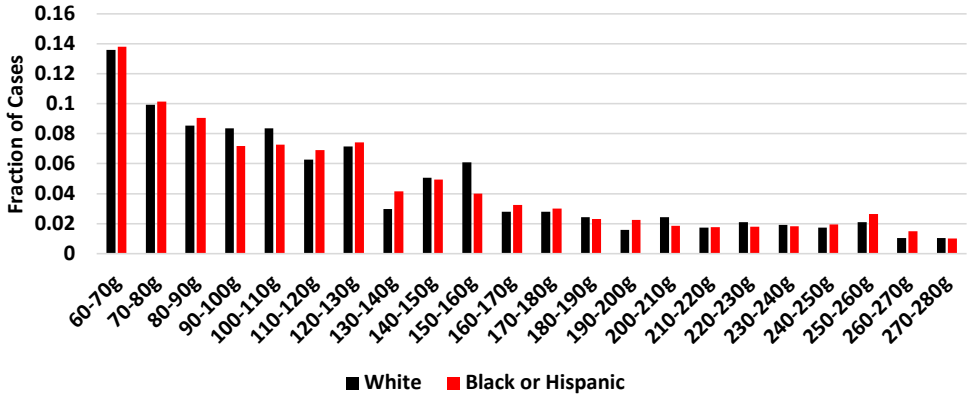
(d) Above Med. Criminal History



(e) Above Med. Predicted Sentence

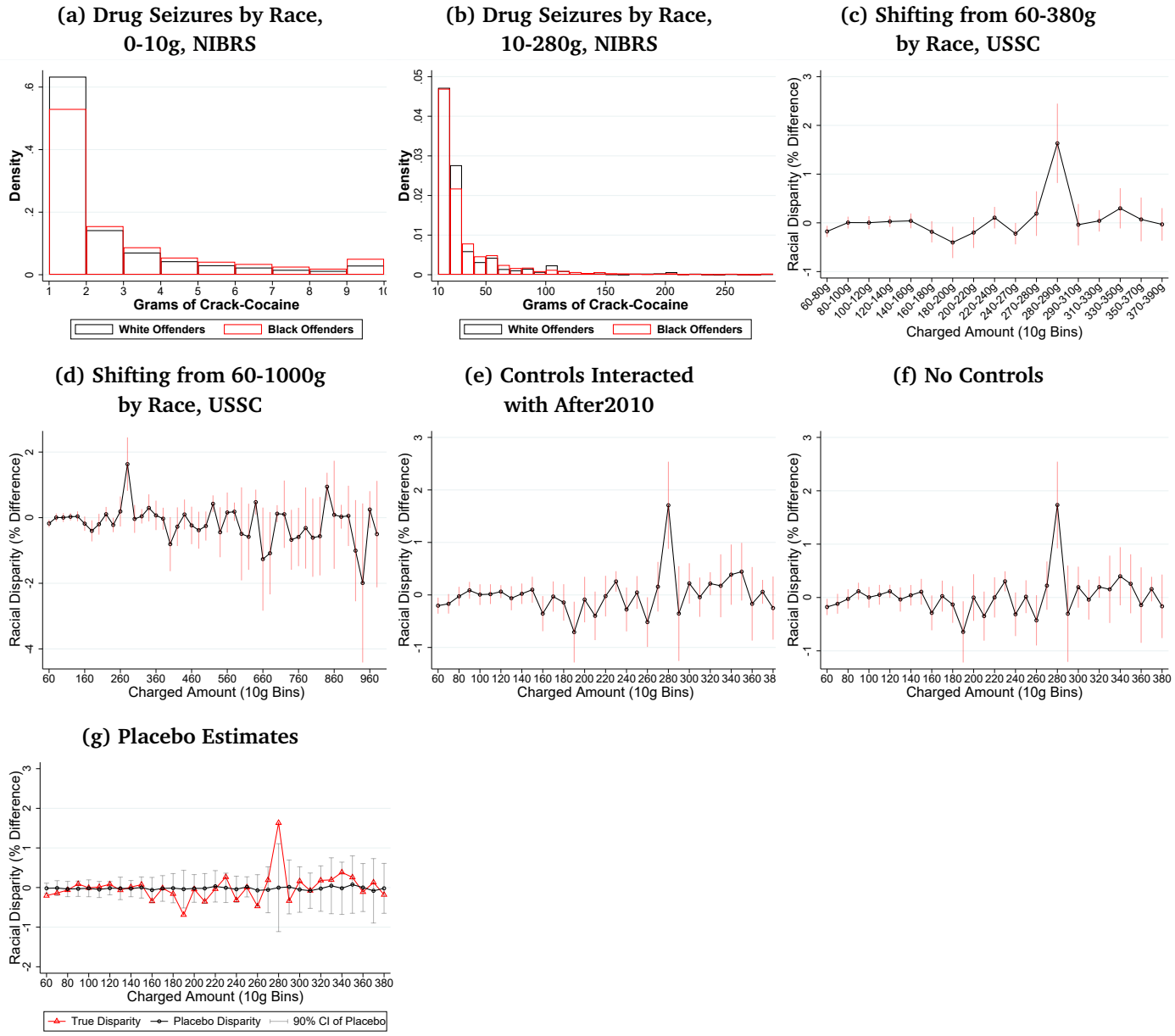


(f) Below Med. Racial Animus State



Notes. The figures above plot the distribution of charged amounts pre-2010 from 60-280g by race for various subsets of offenders. Panel (a) plots the distributions for offenders with above median criminal history scores. Panel (b) plots them for offenders with above median predicted sentenced (using exogenous factors, like age, sex, education, etc.). Panel (c) plots them for offenders convicted in states with above median levels of racial animus. In each plot, the distributions are similar. Kolomogorov-Smirnov tests of the equality of distributions fail to reject the null in all three cases: (a) p-value=0.54; (b) p-value=0.74; (c) p-value=0.98. This shows that the distributions of drugs charged from 60-280g are similar by race even within observably similar groups. These plots are created from the USSC data. See Table 1 for notes about data construction.

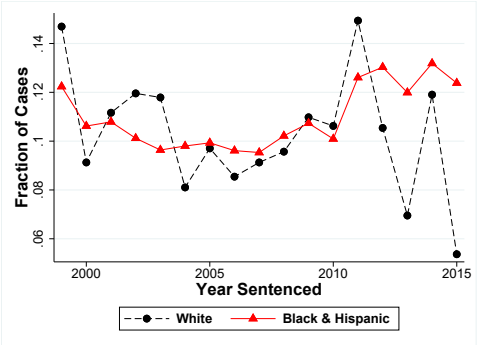
Figure A7. Additional Figures for Conditional Racial Disparity Tests



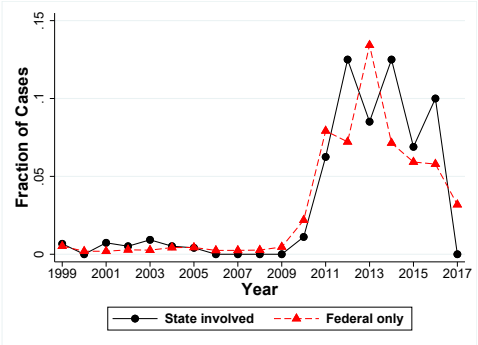
Notes. The figure in panel (a) plots the histograms of crack-cocaine amounts seized for white offenders and for black and Hispanic offenders from 0-10g. The white offenders are slightly over-represented at 1g, but otherwise, the distributions are very similar. The figure in panel (b) plots the histograms by race from 10-280g. White offenders are slightly over-represented at 20-30g, but otherwise, the distributions are very similar. These figures use the balanced sample of agencies (i.e. agencies that are present in all 16 years) in NIBRS. Panels (c) and (d) plot the coefficient δ^X from equation (4) of the main text for each bin starting at X divided by the share of cases in that bin (to calculate a percent difference). Since estimates are noisier at higher amounts, panel (c) shows the estimates for amounts from 60-380g in 20g bins. Panel (d) shows the full range of estimates for amounts from 60-1000g. Panel (e) plots the coefficient δ^X for each 10g bin from a regression that includes the standard controls and includes the interaction of the After2010 binary variable with a binary variable for above median criminal history and a binary variable for above median predicted sentence. This addresses concerns that the racial disparity in movement away from narrow ranges could be due to other differences even within those ranges. Panel (f) plots a similar figure except the estimates are from a regression which excludes controls entirely. Panel (g) plots the racial disparity in each bin from Figure 2b in red and overlays it with a plot of placebo estimates in black and gray. The placebo estimates are calculated from 100 replications in which I randomly assign white offenders to each 10g bin at the same rate as black and Hispanic offenders pre- and post-2010. The black circles plot the average of those placebo estimates and the gray bars plot a 90% confidence interval on those estimates. These plots are created from the USSC data. See Table 1 for notes about data construction.

Figure A8. Alternative Figures Exploring Source of Bunching at 280-290g

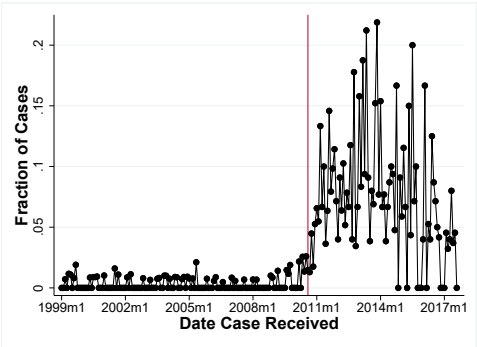
(a) Fraction of Cocaine Cases 200-400g, USSC



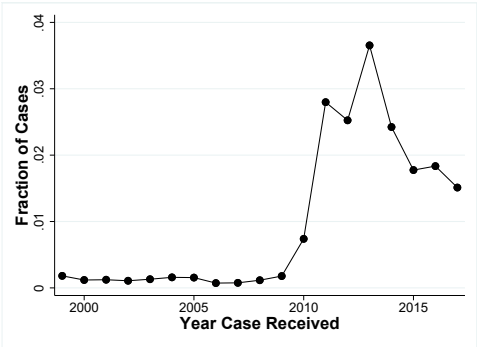
(b) Fraction of Crack-Cocaine Cases in 280-290g, by Type of Source Agency, EOUSA



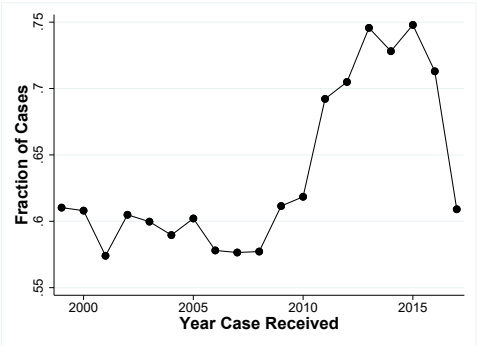
(c) By Month Received by EOUSA



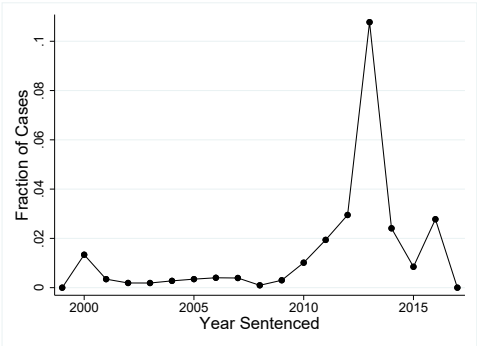
(d) Imputing Missing Weights as (280-290g)=0



(e) Imputing Missing Weights as (280-290g)=1



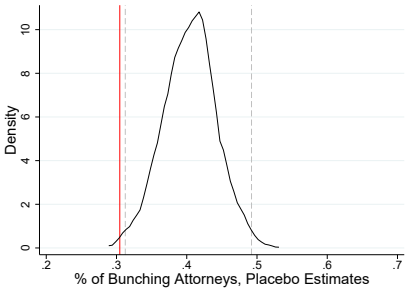
(f) Cases Received Before FSA



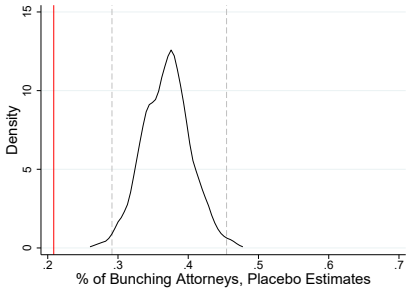
Notes. The figure in panel (a) plots the fraction of cocaine offenses with 200-400g in the USSC federal sentencing data, by race. The figure in panel (b) plots the share of cases sent to EOUSA attorneys from sources that involve state agencies (red dashed line with triangle markers) and the share of cases sent to EOUSA attorneys from strictly Federal sources (black solid line with circle markers). This figure is limited to the top agencies sending cases and excludes joint investigations (e.g. FBI + state/local task force). The top agencies are: DEA, FBI, ATF, and state/local. Panel (c) plots the fraction of cases with 280-290g (excluding cases with missing drug weights) by the month the case was received. The vertical red line indicates the date the Fair Sentencing Act was passed. In panel (d), I re-code the 280-290g dummy variable equal to zero if the drug weight is missing (typically, I leave the dummy variable missing if the drug weight is missing). In panel (e), I do the opposite, coding the 280-290g dummy variable equal to one if the drug weight is missing. In both cases, there is a sharp increase in the fraction of cases at 280-290g after 2010. Since panel (d) more accurately matches the statistics from the USSC final sentencing data, I use that imputed value for various robustness tests. Online Appendix E of Tuttle (2022) explores further robustness to alternative ways of dealing with missing values. Panel (f) plots the fraction of cases with 280-290g in each year for cases that are received by the EOUSA prior to the signing of the Fair Sentencing Act. These plots are created from the EOUSA data.

Figure A9. Histograms of Randomized Attorney Bunching Metric, EOUSA

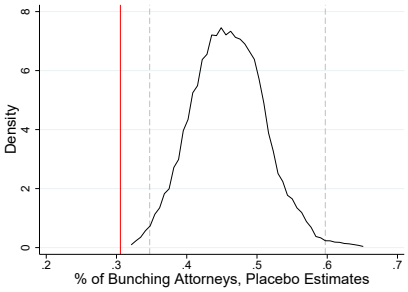
(a) 280-290g, 10+ cases



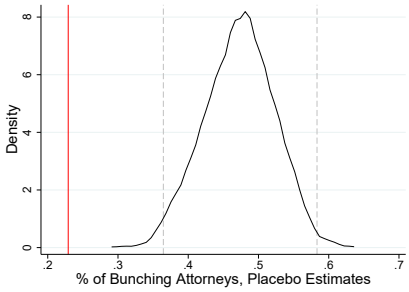
(b) 280-290g, Missing = 0, 10+ cases



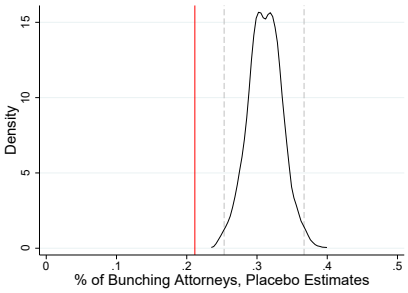
(c) 280-290g, 15+ cases



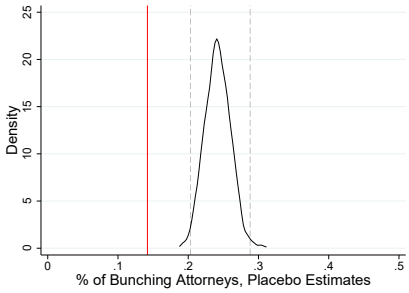
(d) 280-290g, Missing = 0, 15+ cases



(e) 280-290g, 5+ cases



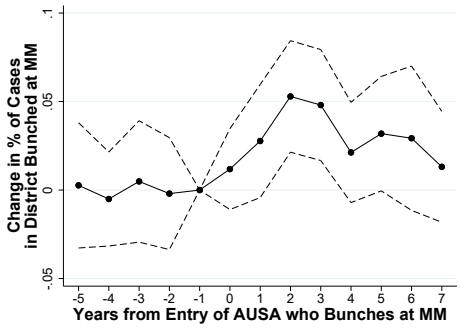
(f) 280-290g, Missing = 0, 15+ cases



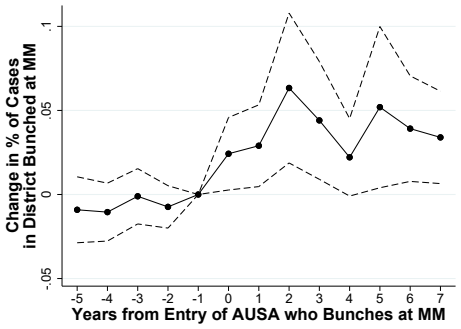
Notes. Please note the different axes in panels (e) and (f). In panel (a), I randomly re-assign all cases in the sample of attorneys with 10 or more cases after 2010, maintaining the same overall fraction of 280-290g cases in each year. After doing this random re-assignment, I calculate the number of bunching attorneys. I do this 1,000 times and plot the placebo estimates. Panel (b) does the same exercise but includes data with missing values imputed as zeroes. Panels (c)-(d) use attorneys with 15 or more cases and panels (e)-(f) use attorneys with 5 or more cases. The gray dashed lines indicate the 1st and 99th percentiles of the placebo distribution and the red line indicates the actual fraction of bunching attorneys from the data. These plots are created from the EOUSA data.

Figure A10. Additional Evidence of Prosecutorial Discretion in Bunching, Movers Results, EOUSA

(a) Effect of Entry of a Bunching AUSA



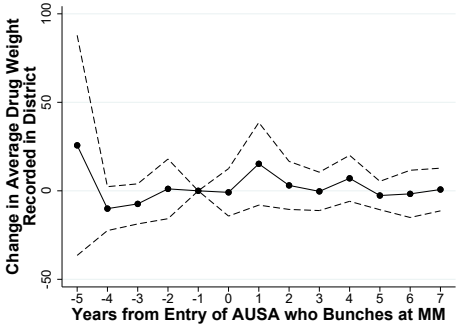
(b) Effect of Entry of a Bunching AUSA, Low-Bunching Districts



(c) Effect of Exit of a Bunching AUSA

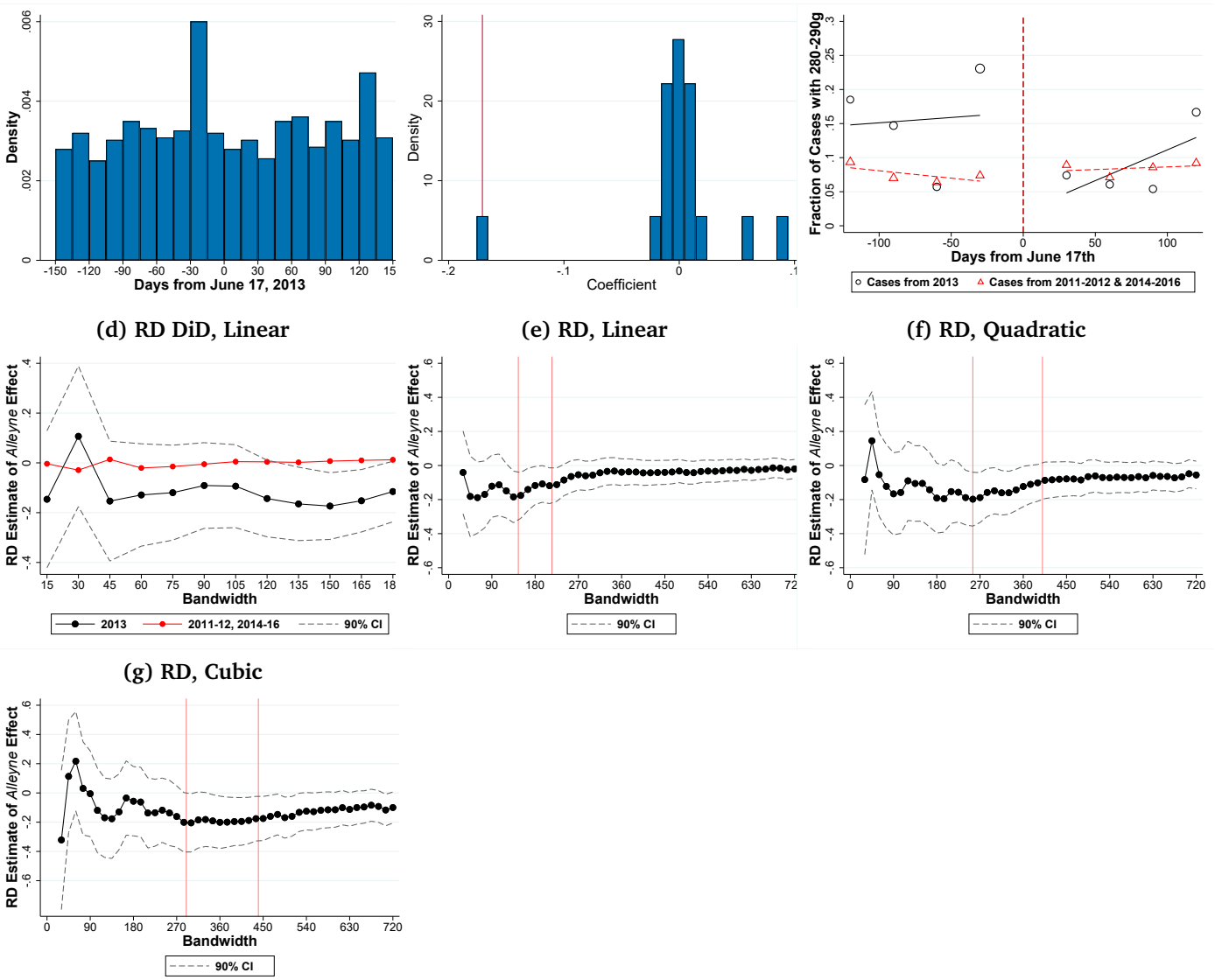
(d) Drug Weight

(e) Drug Weight, Low-Bunching Districts



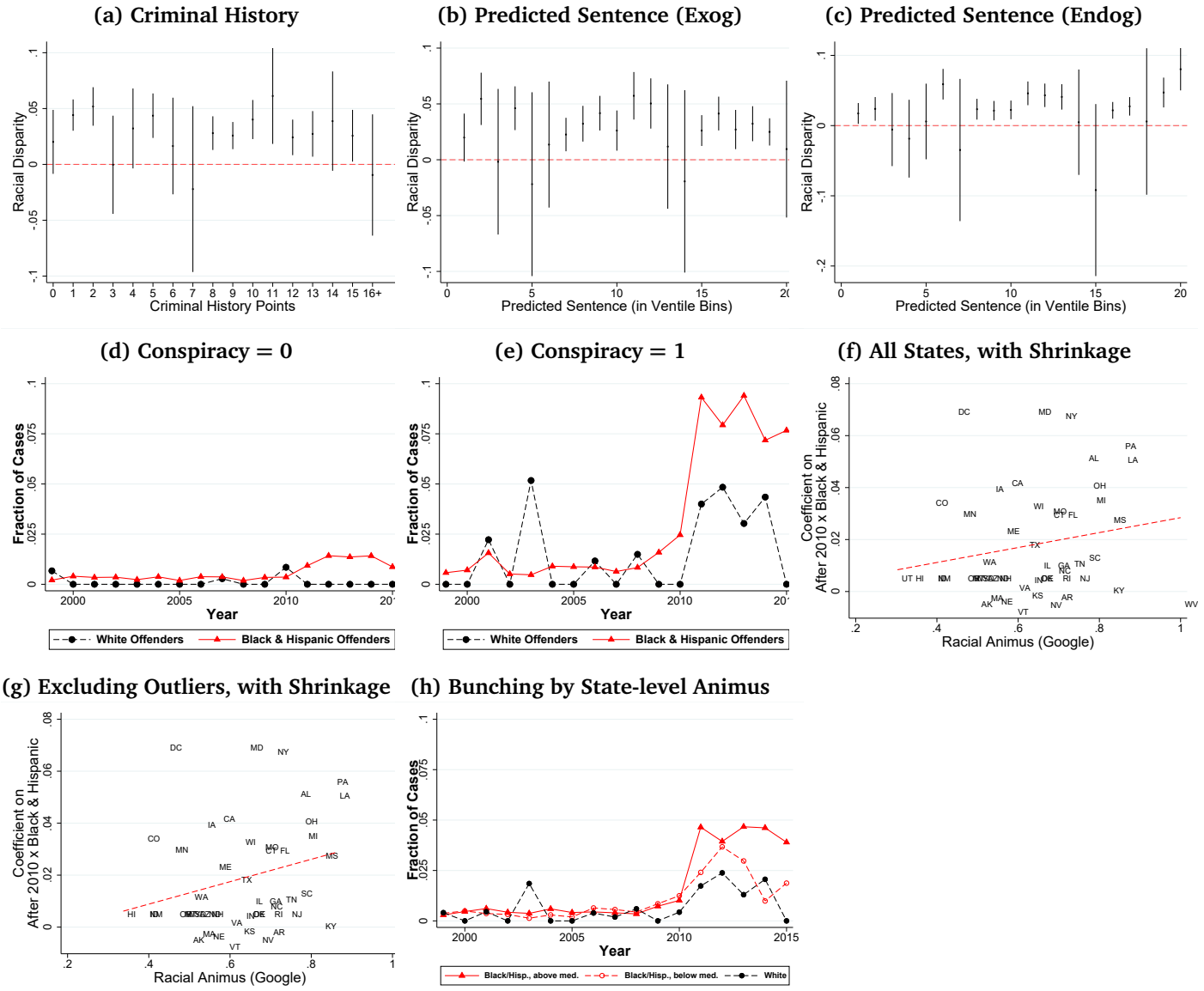
Notes. Panels (a) and (b) plot the change in the percent of cases that are bunched at the mandatory minimum (MM) threshold (50g pre-2010 and 280g post-2010) after a "bunching" prosecutor enters a district. For these figures, I identify prosecutors who switch districts, who bunch at the MM threshold in their first district, and who have 5 or more cases in their first district. I then identify the districts that they switch into and analyze the fraction of cases bunched at the MM for all other prosecutors in that district. Panel (a) shows that prior to entry of a bunching prosecutor, district-level bunching does not change year-to-year, but that immediately after the bunching prosecutor enters, other prosecutors in that district increase their fraction of cases bunched at the threshold. Panel (b) shows that this increase is driven by districts that have low-levels of bunching (below the median for all districts) prior to the entry of the bunching prosecutor. Panel (c) plots the bunching activity for the districts from which these prosecutors are leaving. This analysis is limited to the first bunching attorney from panels (a) and (b) that leaves the district. There is not a decrease in the prevalence of bunching after bunching prosecutors exit a district. This suggests bunching at the mandatory minimum threshold is not related to a temporary behavior shift, such as increased competition among attorneys, but that it may be related to something more permanent, such as learning about techniques or developing beliefs/norms. Since these figures rely on prosecutors who move from one district to another and require reasonably long pre- and post-periods, I use data from 1994-2016 and identify the first moving attorney for post-1999 years only (insuring a 5-year pre-period for every district). In practice, this means the figures above are largely based on bunching at 50-60g (the pre-2010 MM). Restricting to post-2010 moves does not yield a large enough sample of movers with sufficient cases to classify them as bunching versus non-bunching. Also, since these figures involve cross-district analysis and missingness varies across districts, I impute missing weights as zero instead of excluding them from the analysis. The results are robust but noisier when excluding missing weights (the post-period increase is 0.029, p-value=.18 for all districts and is 0.098, p-value=0.002 for low-bunching districts. See Online Appendix E of Tuttle (2022) for further detail). Panels (d) and (e) plot the change in average drug weights recorded after a "bunching" prosecutor enters a district. One concern with panels (a)-(c) is that bunching prosecutors may be brought into a new district because the composition of cases that district receives is changing. However, both panels show that drug weights, on average, are not increasing before or after the prosecutor enters the district. The dashed lines in panels (a)-(e) are 90% confidence intervals. These plots are created from the EOUSA data.

Figure A11. RD Validity Tests and Robustness of *Alleyne v. US* Result to Choice of Bandwidth and Polynomial, EOUSA



Notes. Panel (a) plots the density of cases around the June 17, 2013 (centered at zero) and grouped into 15-day bins. June 17, 2013 is the day *Alleyne v. US* was decided. Outside of the large number of cases from -30 to -15 days before *Alleyne* was decided, the density is relatively smooth through that date. Panel (b) plots a histogram of the estimated discontinuity around June 17 in all years from 1999-2016. The estimates are centered at zero and the coefficient in June 2013 (marked by the red line) is twice as large as the next largest estimate of any sign and over 4 times larger than the next largest negative estimate. These plots are created from the EOUSA data. Panel (c) plots the fraction of cases with 280-290g in each 30-day bin for 120 days before and 120 days after June 17th. The black circles show the fraction of cases in each bin for 2013 and the red triangles show the average fraction of cases in each bin for 2011-2012 and 2014-2016. The solid black and the dashed red lines depict linear fits. The scatter plot symbols are weighted by the total number of cases in each bin. The estimated discontinuity is $\delta = -0.1433$ and $se = 0.0935$. Panels (d)-(g) display estimates across many different bandwidth choices (i.e. the number of days before and after June 17) and different polynomial choices (i.e. the polynomial of the running variable, number of days from June 17). Panel (d) displays estimates from the RD difference-in-differences regression for bandwidths from 15-180. Since the difference-in-difference estimates use multiple years, bandwidths above 160 days are asymmetric. The black line in panel (d) displays the estimates from 2013, the red line displays the estimates from all other years after 2010 (when nothing in particular happened around June 17). Panels (e)-(g) estimate a typical RD regression (i.e. not using variation around June 17 in other years). This allows me to extend the bandwidth to 2 years before and after *Alleyne v. US*. In these panels, the first red line denotes the CER-optimal bandwidth and the second red line denotes the MSE-optimal bandwidth (Calonico et al. 2017). In panel (e), for example, the estimate approaches zero at larger bandwidths–this is to be expected. As we get further from the cutoff, the linear polynomial becomes an increasingly bad fit. In all three panels, the optimal bandwidths yield estimates that are statistically different from zero (or marginally statistically significant). These plots are created from the EOUSA data.

Figure A12. Bunching by Criminal History, Predicted Sentence, Conspiracy Charges, and Racial Animus, USSC



Notes. Panel (a) estimates the racial disparity within criminal history score, grouping scores of 16+ together (about 5% of the sample). This is similar to Figure 4b but looks at criminal history points individually instead of grouping them together. The mean sentences for criminal history scores of 0, 5, 10, and 15 are: 5.6 years, 8.8 years, 11.6 years, and 12.6 years. Panel (b) estimates the racial disparity within ventiles of predicted sentence (based on exogenous factors: criminal history score, sex, citizenship status, age, number of dependents, education, and district). This is similar to Figure 4c but looks at ventiles instead of quantiles. The mean sentences for ventiles 1, 10, and 20 are: 4.1 years, 9.0 years, and 12.7 years. Panel (c) estimates the racial disparity within ventiles of predicted sentence (based on exogenous and endogenous factors: the factors listed for panel (b) plus number of current counts, statutes involved in the case, whether there was only one drug involved, whether crack-cocaine is the primary drug, and whether the career offender, aggravated role, or violent offender enhancements were applied). The mean sentences for ventiles 1, 10, and 20 are: 3.8 years, 7.8 years, and 18.4 years. The correlation between this predicted sentence and actual sentence post-2010 is 0.6. Panels (d)-(e) display the fraction of cases recorded with 280-290g in each year by race for cases that do not have a "conspiracy" charge and those that do, respectively. As expected, bunching is lower in panel (d) since conspiracy charges are one mechanism used to increase the amount charged beyond the physical amount seized. However, there is still a statistically significant racial disparity in bunching in these cases (see Table 9). Panels (f)-(g) plot the racial disparity in bunching estimated at the state level. There are several states that do not have enough cases to estimate racial disparities in bunching at 280-290g (these states are: AZ, DE, HI, ID, MT, ND, NH, NJ, NM, NV, OR, RI, SD, UT, WY). I pool all of these states in one regression and apply the resulting coefficient. I adjust these state-level estimates using a Bayesian shrinkage procedure that shrinks each estimate, based on its standard error, to the mean of the distribution. Panel (f) includes all states and panel (g) excludes states with racial animus above the 99th percentile or below the 1st percentile. The coefficient estimates on the linear fits in panel (f)-(g) are 0.029 (p-value=0.19) and 0.043 (p-value=0.07), respectively. Panel (h) displays the fraction of cases recorded with 280-290g in each year for black and Hispanic offenders convicted in states with above median levels of racial animus; black and Hispanic offenders convicted in states with below median levels of racial animus; and white offenders. These plots are created from the USSC data. See Table 1 for notes about data construction.