

Are the Main Drivers of Federal Caseload Also the Most Punitive? Identifying Determinants of Federal Sentencing with the Tobit Model

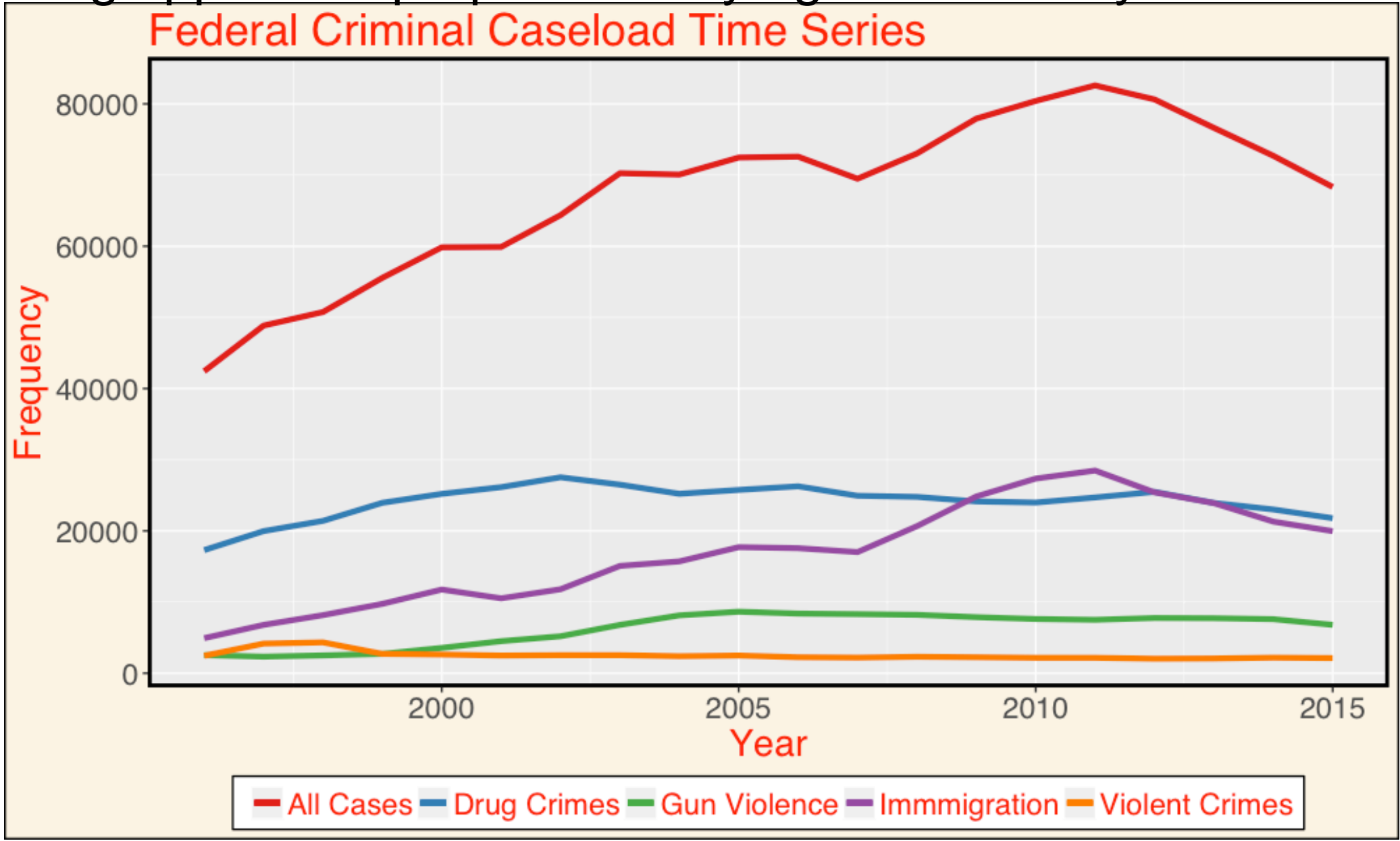
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Research Question

Do drug cases receive more punitive sentences than violent crimes in the federal criminal justice system?

Why Drug and Violent Crimes?

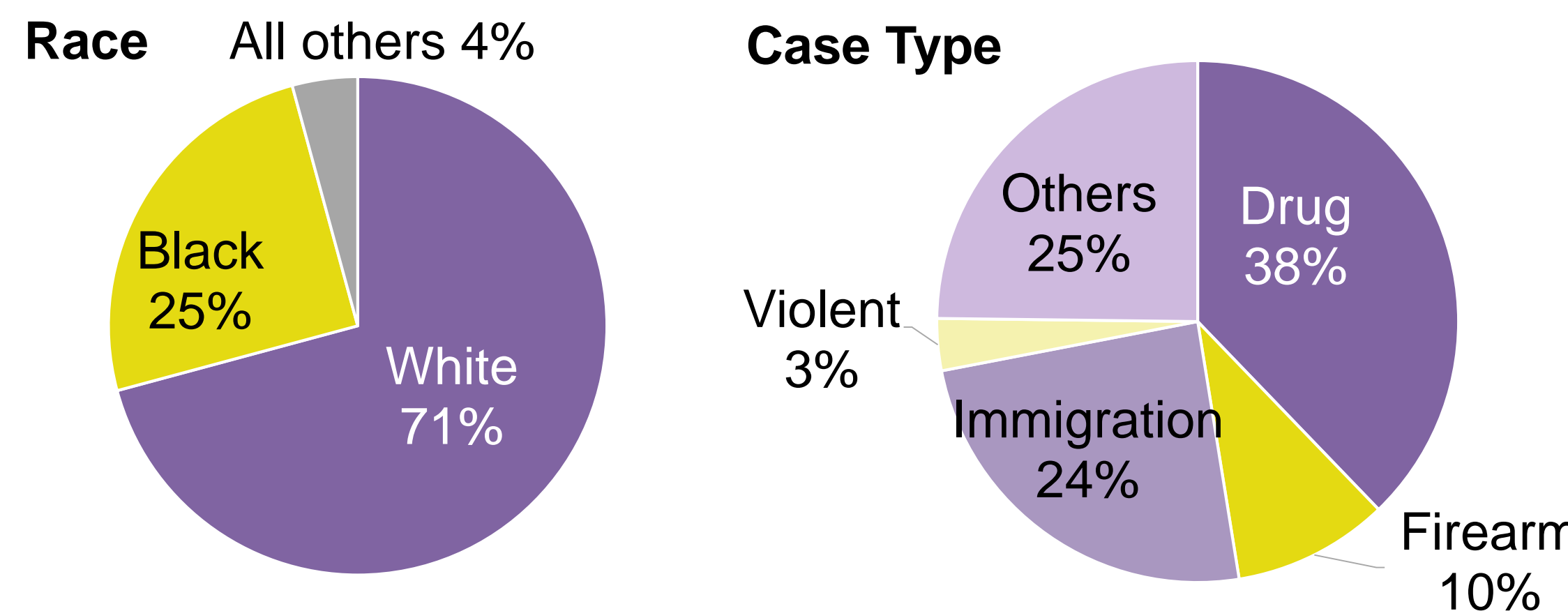
- Drug case production is the single most important driver of federal criminal caseload until the recent years (immigration).
- Federal Criminal Justice holds symbolic value of criminal legislation (Wright).
- Drug and violent crimes have been politically contested in the past years
- Mandatory minimums for drug crimes have been criticized for being applied disproportionately against minority defendants



Data

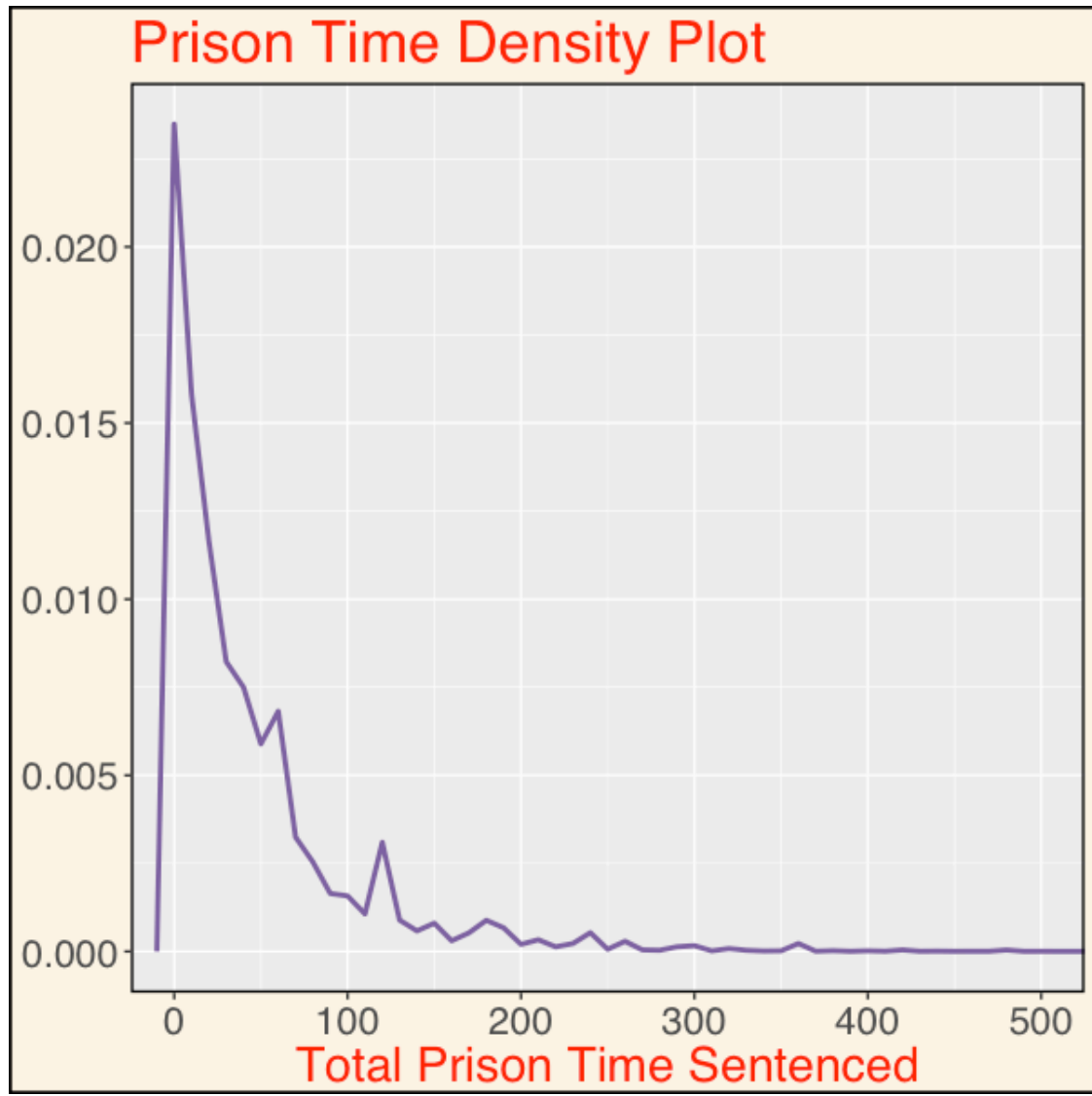
- United States Sentencing Commission data from FY 1996-FY2015
- This project uses demographic, sentencing, and guideline application information on cases sentenced under the guidelines in the federal court system.

Demographics



Methods

Data Preparation



Variables

- Dependent: Total prison time sentenced (months)
- Independent: Criminal History, Final Offense Level
- Controlled: Age, Race, Gender, Type of case, Disposition of case

Why Tobit?

- Latent variable model that doesn't involve binary dependent variable
- Tobit assumes a normally distributed y where 0 is unobserved (Min 2002)

$$\text{Prison time} = \begin{cases} y, & \text{if } y > 0 \\ 0, & \text{if } y \leq 0 \end{cases}$$

Results

	Linear Regression	Tobit	
	(1)	(2)	(3)
Constant	−55.59* (0.37)	−59.53* (5.19)	−82.86* (0.41)
Female	−4.50* (0.10)		−10.06* (0.12)
Jury Trial	39.02* (0.18)		39.63* (0.19)
Other Disposition	26.52* (0.77)		27.66* (0.83)
Age	−0.10* (0.003)	−0.08 (0.12)	−0.16* (0.004)
Drug	−4.56* (0.10)	−4.23 (3.76)	−1.73* (0.12)
Firearm	3.08* (0.14)	5.21 (5.03)	8.08* (0.15)
Immigration	−5.25* (0.11)	−4.29 (3.86)	1.14* (0.13)
Violent	4.17* (0.20)	5.81 (7.54)	7.75* (0.22)
Black	6.62* (0.08)	7.56** (3.12)	4.73* (0.09)
Less than High School	−1.55* (0.33)		−2.22* (0.36)
High School	−2.72* (0.33)		−5.37* (0.37)
Special Degree	−4.11* (0.40)		−7.57* (0.45)
College	−6.79* (0.37)		−10.40* (0.41)
> College	−8.88* (0.43)		−12.48* (0.49)
Level of Criminal History	7.93* (0.02)	7.68* (0.77)	9.53* (0.02)
Final Calculated Offense Level	4.78* (0.005)	4.87* (0.15)	5.74* (0.01)
Bayesian Inf. Crit./Adj. R-Squared	0.65	15,666,569.00	9,460,193.00

Note: n = 1,159,335

*p<0.01

Findings

- Drug cases receive less punishment than violent, firearm, and immigration cases independent of severity of crime
- Race, age, and education is correlated with the time sentenced independent of severity of crime and criminal history
 - Male, black, young, and less educated defendants receive harsher sentences
- The results from linear and controlled Tobit are mostly consistent with exception of immigration cases

Discussion

This research shows the penalties that specific types of cases receive at sentencing while accounting for other extralegal factors. Although drug cases do not receive harsher sentences when compared with violent crimes, the interaction of drug and blacks are not identified in the analysis. Moreover, violent and firearm defendants receive significantly more punitive punishments than all other crimes. Lastly, consistent with the current research (Starr 2012), females receive significantly less prison time than males.

Future Research

Although this research identifies correlation between case and defendant characteristics, it does not include death penalty and life without parole cases, other extralegal characteristics such as citizenship. Additionally, the Tobit does not account for the random effects across different districts and years. This project suggests further research on the interaction between race and type of crime. Lastly, further research should include the effects of cross-district and time on the outcome of sentences.

References

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