IMPLICIT EGOISM AND PREJUDICE: EVIDENCE FROM 3 MILLION SENTENCING DECISIONS

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Abstract I document implicit egoism across 3 million sentencing decisions. In administrative data from New Orleans District Attorney's office for 1988-1999 and Chile for 2014-2019, U.S. sentences are 8% longer and Chilean sentences 2% longer when the judge and defendant's first initials match. Name letter effects measure implicit self-esteem. Faced with ego threat, high self-esteem individuals punish negatively-valenced targets as self-regulation. In New Orleans, effects are larger for black defendants labeled by police as "N" rather than "B". Consistent with recent theoretical models and policy debates, black-white sentence differences double for egoist judges and this effect is especially pronounced among black judges.

Keywords: Decision analysis, judgement, legal processes, self-esteem, causal analysis

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1 Introduction

Recent theoretical models argue an overconfident agent might allow for potential discrimination in evaluating outcomes (Heidhues et al. 2019). Positive views of the self are a form of self-regulation (Bénabou and Tirole 2003, 2016). This paper uses sentencing decisions with randomly assigned defendants and the availability of data on names and race to test these theories.

An individual's name is one of the most important components of self-identity (Allport 1937). Self-esteem has become one of the most researched topics in psychology (Sedikides et al. 2004; Swann Jr et al. 2007) and has recently entered economic models (Kőszegi 2006; Bénabou and Tirole 2011; Grossman 2015) and experimental economics (Schwardmann and Van der Weele 2016). This paper uses the matching of first initials to study self-esteem. Studying matching first initials is part of an experimental paradigm (i.e., unit relation) to increase the psychological connection between a decision-maker and something being evaluated (Heider 2013; Emmons 1984). Since Greenwald and Banaji (1995) theorized that the name letter effect could form the basis of an indirect measure of self-esteem, the name letter effect has become one of the most frequently used implicit self-esteem measures (Stieger et al. 2012, 2014). Only the name letter effect and the Implicit Association Test approach acceptable levels of test–retest reliability in psychometric properties of implicit self-esteem measures (Bosson et al. 2000). The name letter effect has also been studied in field (Nuttin 1985, 1987; Pelham et al. 2002, 2003; Anseel and Duyck 2008; Coulter and Grewal 2014; Gallucci 2003; Hodson and Olson 2005; Jones et al. 2004; Chandler et al. 2008). While the psychologists' studies have been criticized for lacking observational controls (for summary and critique, see Simonsohn 2011a,b; Silberzahn et al. 2014), two recent studies by economists report that entrepreneurs chose to name firms after themselves and doing so is associated with higher profits, higher return on assets, and fewer ownership changes (Belenzon et al. 2017) and police officers are more lenient in issuing speeding tickets for individuals who share the police officer's name (Jena et al. 2018).

This paper departs from the recent field studies by linking more closely to the theory of self-regulation and prejudice (Heidhues et al. 2019; Bénabou and Tirole 2003, 2016). People are extremely reluctant to revise their self-appraisals in a downward direction. Baumeister et al. (1996) labels as "ego threat" when favorable views about oneself are questioned, contradicted, impugned, mocked, challenged or otherwise put in jeopardy. Those with inflated self-appraisals are vulnerable to experiencing ego threats (Baumeister 2001). To self-regulate, individuals engage in motivated behaviors. Following an ego threat, they direct cognition to avoid downward revision of self-concept (Baumeister et al. 1996). A simple experiment illustrates (Jones et al. 2002): Explicit self-esteem was measured using a 10-item self-response scale. Then, when subjects were asked to write about a personal flaw, subjects with high self-esteem reported liking their own name letters quite a bit more than did low self-esteem subjects. This effect did not appear in a control treatment, where subjects were asked to write about a positive, important, stable aspect of who they are (an exercise in self-affirmation).

Directed cognition can also lead to action. Following threat, individuals aggress against the source of the perceived threat (Bushman and Baumeister 1998). Aggression can be directed against an individual with the same identity as the threatener (e.g., the individual and the threatener are on the same athletic team) (Gaertner and Iuzzini 2005). Individuals socially distance themselves from negatively-valenced targets associated with the self (Chandler et al. 2008; Finch and Cialdini 1989). They seek to distinguish themselves from that person, or to punish for the additional emotional cost that is experienced (Howard and Kerin 2011; Baumeister et al. 1996; Bushman and Baumeister 1998; Boyd and Robinson 2015).

In the policy domain, legal academic and former public defender Forman Jr (2017) asked why so many majority-black jurisdictions ended up incarcerating so many of its own race and argued that black leaders feared the gains of the civil rights movement were being undermined by lawlessness. Forman Jr (2017) describes black officials who displayed tremendous hostility towards defendants, describing them as "cancer to be cut away from the rest of the black community", pushing for harsher penalties, necessary to protect the black community. They

believed they were protecting the legacy of the civil rights movement in the face of self-immolation. Forman Jr (2017) quotes a black judge famous for a Martin Luther King speech: "You might think you have it hard. But let me tell you, it was harder once. Black boys picked cotton once upon a time. Sat in the back of the bus–those who were lucky enough to even be on the bus, and not walking. ... Now you can go to school.. it is possible. And people fought, struggled, and died for that possibility. Dr. King died for that, son. And what are you doing? Not studying! No, you are cutting class, runnin' and thuggin' ... Dr. King didn't march and die so that you could be a fool... that was not his dream."

In my study, I use an initial-match to trigger a unit relation, a connection to the judge's self, and the fact that it is connection to criminal activity that is negatively-valenced, which can lead to additional punishment. My approach to studying name letter effects uses each judge as their own control. Because judges may differ in their sentencing tendencies, I look at instances in which judges sentence a defendant whose first initial matches their own and sentences another whose first initial does not. I also account for the type of case, the month, the year, the day, and week of the decision.

In New Orleans, I find that judges assign 8% longer sentences when the first initial of their first name matches the defendant's. The effects amplify when the first and second letter match. (The second letter is usually a vowel, so this is roughly the first half of the first syllable–phoneme or formant–of the name.) The effects double when the entire name matches. The effects appear for 80% of judges in my sample, with roughly 10% displaying no effects and 10% displaying effects of the opposite sign. As replication, I also investigate the last name. Judges assign 7% longer sentences when the first initial of their last name matches.

The second part of my analysis explores whether some groups differentially bear the brunt of behavioral bias of judges. As Simonsohn (2011b)'s critique of name letter effects stipulated, settings where people are closer to indifference among options are more likely to lead to detectable effects outside of behavioral bias outside the lab. This implies that documenting behavioral bias in judges helps identify "revealed preference indifference". We can see if judges

are more indifferent to certain groups of defendants. Cuenca (2017) attributes Ferguson to the violence of indifference. Conscious processing, directed by reflective thought, and thinking about reasons inhibit the name letter effect (Koole et al. 2001; Brendl et al. 2005). In contrast, in cases of legal indifference, irrelevant factors can be expected to have greater influence. A judge could be said to have weak preferences, meaning that there was a relatively low cost in departing from the legally optimal outcome. Lack of reflection or attention has also been modeled as "attention discrimination" (Bartoš et al. 2016).

Accordingly, I investigate whether African-American defendants categorized as "N" as opposed to "B" bear the brunt of name letter effects. I find that first initial effects appear significantly only for defendants categorized as "N" (11% longer sentence lengths) and not for those categorized as "B". Note that "N" can refer to many different racial slurs. This difference-in-indifference is robust to a rich set of controls for skin color, eye color, and hair color. The difference-in-indifference is not due to time, as black defendants are labeled by police as "N" throughout 1988-1999. My finding echoes three analyses looking at the effect of race and group labels on moral cognition: minority juveniles were particularly likely to bear the brunt of the impact of football game losses on judicial decisions (Eren and Mocan 2016); newspaper ban on describing immigrants as "illegal" as opposed to "undocumented" affected attitudes towards immigrants (Djourelova 2019); an experiment in the American National Election Survey asking questions using the term "homosexual" as opposed to "gay" (a more inclusive label) affected attitudes on gay and lesbian rights (Smith et al. 2018).

The third part of my analysis tests a recent theoretical proposition that individuals with high self-appraisals may discriminate more. I am able to do so because my data includes defendant race and the initial-match measures implicit self-esteem. I identify a judge-specific name letter effect and divide the sample of judges between egoist judges, defined as those whose name letter effects exceed 10% (about one-third of the sample), and non-egoist judges. Judges whose name letter effect is lower than 10% (about two-thirds of the sample) issue sentences for black and white defendants that differ by 16%. Egoist judges issue significantly

larger sentencing disparities of 33%. Finally, consistent with Forman Jr (2017)'s personal observation defending black defendants of harsh black law officials, when I analyze sentencing disparities separately for white and black judges (black judges comprise 28% of the sample, but comprise 40% of the egoist judges), I find that non-egoist black judges issue sentences for black and whites that do not significantly differ—but egoist black judges issue significantly larger sentencing disparities of 46%.

I conclude with a replication using administrative data from Chile, which provides 2.7 million sentences since 2014. Sentences are 2% longer when the judge and defendant's first initials match, and they double to 4% when the entire name match. I lack data on race to test whether individuals with high self-appraisals (Heidhues et al. 2019) measured via self-regulation (Bénabou and Tirole 2003, 2016) are more likely to discriminate. Section 2 describes the U.S. data and methods, Section 3 the results, Section 4 the Chilean data and results, and Section 5 concludes.

2 Methods

The U.S. data consists of 47,371 judicial rulings, collected from 1988-1999, by the New Orleans Parish District Attorney's Office. Its prosecuting attorneys are responsible for enforcing state criminal laws to protect and serve the citizens of New Orleans and surrounding areas. In January 1988, the Orleans Parish District Attorney established and instituted an office-wide computerized system to collect data on every case processed through the office. The data collection system was designed as an internal office management tool. The system collects data about each criminal case that enters the prosecutor's office at every step of the process, and for the purposes of this study, the names of defendants and judges, and the police categorization of race, skin, hair, and eye color.

Once the cases went to the court, they were randomly assigned to a court section by the clerk's office. These court sections are labeled as A through Q in Appendix Fig. A.1. The Orleans Parish Criminal District Court is composed of Sections A through L, as well as Magistrate and Drug Sections. Each of the A through L Sections is composed of a single

judge, all of whom were located in the same courthouse on multiple levels. Louisiana Supreme Court Rule 14 governs the allotment of District Court criminal cases in the state (La. Dist. Ct. R. 14.0.). This allotment is random.[1] The rules specific to the Orleans Parish stipulate:

> The Clerk will assign daily, randomly, and by allotment among the Sections having felony jurisdiction all felony indictments, bills of information charging felony offenses and appeals from Municipal Court and Traffic Courts and other pleadings shall be allotted among Sections A through L and the Magistrate Section. This allotment shall be conducted by the Clerk and shall be open to the public. The District Attorney shall be notified of the allotment. A computer generated random allotment system be and is hereby implemented by the Clerk's Office for all cases filed with the Clerk of the Orleans Parish Criminal District Court.[2]

The random assignment occurs through a "bingo" system. When the District Attorney's office accepts cases, they send the files to the clerk of court. The clerk then constructs an "allotment sheet." First, the cases are divided into classes based on the seriousness of the crimes charged (Class 1 and Class 2 felonies, along with various classes of misdemeanors). The clerk then matches the available judges to the incoming crimes within a given class. The number of eligible judges for the week's allotment determines how many marked balls go into the bingo machine. Once a judge has been assigned a case from that class, he or she will not receive another assignment until all the other judges in that week's allotment have also received one case from that class. Each class of crimes is allotted separately.

I find no change in pre-determined judge or defendant characteristics when the first letter

[1]Felony cases must be scheduled randomly to prevent the district attorney from choosing a specific trial judge on the trial day and violating due process requirements. *State v. Simpson*, 551 So. 2d 1303, 1989 La. LEXIS 2677 (La. 1989).

[2]The use of a computer may be unlikely for the early years of the data collection. La. Dist. Ct. R. 14.0, Appendix 14.0A, available at http://www.lasc.org/rules/dist.ct/COURTRULESAPPENDIX14.0A.pdf.

The 1991 version of Orleans Parish's Rule 14 was written as follows: "All cases pending in the criminal district court shall be allotted equally among Sections A, B, C, D, E, F, G, H, I, and J of the court. Except on Sundays, legal holidays, and legal half-holidays, the allotment of cases shall be made publicly by classes daily at noon by the clerk or a deputy clerk selected by him, in the presence of the district attorney. The fact the accused was committed for trial at a preliminary examination shall not be grounds for the recusation of the trial judge who held the preliminary examination." 1991 La. R.S. 13:1343.

TABLE I

Testing for Random Assignment of Cases

Dependent Variable:	**First Initial Match (First Name)**		**First Initial Match (Last Name)**	
Pre-determined characteristics	coef.	(s.e.)	coef.	(s.e.)
Judge Male	0.0146	(0.0161)	0.00747	(0.0227)
Judge Republican	0.0435	(0.0310)	0.0276	(0.0314)
Judge Black	0.0224	(0.0434)	-0.0253	(0.0412)
Judge Tulane Law School	0.0224	(0.0301)	0.0271	(0.0407)
Judge Southern University Law School	0.0234	(0.0277)	-0.00355	(0.0146)
Judge LSU Law School	-0.0779	(0.0606)	-0.104	(0.0900)
Judge Loyola Law School	0.0635	(0.0568)	0.103	(0.0624)
Judge over 60	0.00515	(0.0642)	0.0632	(0.0655)
Defendant Male	0.00696	(0.0172)	-0.00591	(0.00890)
Defendant has Scar, Mark, or Tatoo	-0.00923	(0.00946)	0.0132	(0.0114)
Defendant has Brown Skin	-0.00724	(0.00876)	0.0145*	(0.00763)
Defendant has Black Hair	-0.0155	(0.0125)	-0.00349	(0.0118)
Defendant Height in Feet	0.0270	(0.0433)	0.0510*	(0.0291)
Defendant Weight	1.254	(1.758)	2.257	(1.678)
Defendant Age	0.502	(0.541)	1.018	(0.446)
Time (Month by Year)	0.942	(1.307)	-0.254	(1.265)
Time (Week of Month)	-0.134	(0.371)	0.219	(0.375)
Time (Day of Week)	0.0337	(0.0248)	0.00522	(0.0381)

Notes: Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

matches (see Tab. I)[3]. The first letter match rate is 6.4%, which is roughly 1/15 or what one would expect with random shuffling of 15 letters (not all letters are evenly used, see Appendices B and C).

3 Results

Results on First Initial of First Name I find that the sentence length is longer for defendants whose first initial matches the judge's first initial. This pattern is evident on the left in Fig. 1, which graphs the density of log sentence length.[4] When the first letter of a judge's and defendant's name matches, judges reduce the likelihood of assigning sentences of zero length and 1 year and increase their likelihood of assigning larger sentences. The distribution appears roughly log-normal.

To account for the possible role of covariates in the patterns depicted in Fig. 1, I present a multivariate regression with log sentence length as the dependent variable and a judge fixed

[3]Appendix Tab. A.1 reports another assessment of random assignment.

[4]It is the exponential logarithm of 1+total sentence in days.

effect to control for the idiosyncratic tendencies for a judge, month by year fixed effect to control for the tendencies to sentence that change over time, case class fixed effect to control the fact that sentences likely differ by type of case, case class by month by year fixed effect to control for differences in case type over time, alphabetic identity of the letter to control for idiosyncratic differences in sentence length that differ by defendant's first initial, week fixed effects to control for idiosyncratic differences within month, and day of week fixed effects to control for idiosyncratic differences within week (Tab. II).

FIGURE 1.— Density (Name Letter Effect)

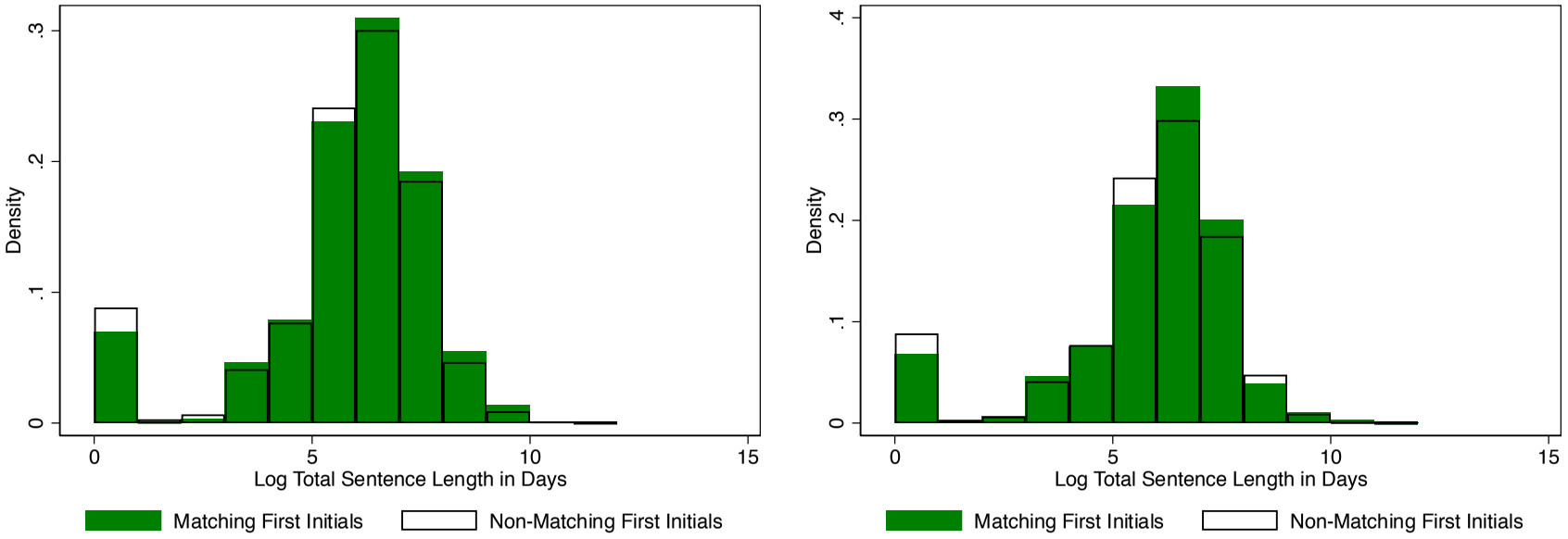


TABLE II

Name Letter Effect in Judicial Sentencing (First Name)

	Log of Total Sentence in Days						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
First Letter Match	0.0851**	0.0801**	0.0929**	0.0858**	0.0812**	0.0821**	0.0820**
	(0.0399)	(0.0392)	(0.0380)	(0.0374)	(0.0373)	(0.0374)	(0.0374)
N	47371	47363	47235	47190	47190	47190	47190
adj. R-sq	0.307	0.319	0.461	0.473	0.473	0.475	0.475
Judge FE	X	X	X	X	X	X	X
Month x Year FE		X	X	X	X	X	X
Case Type FE			X	X	X	X	X
Case Type x Month x Year FE				X	X	X	X
Letter FE					X	X	X
Week of Year FE						X	X
Day of Week FE							X

Notes: Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

The key predictor is an indicator for whether the first initials of the defendant and the judge match, which occurs 6.4% of the time (see Appendix B for frequency distributions of first initials of defendants and judges). When they match, sentence lengths are 8% longer, equivalent to roughly 70 days or 2-3 months longer on average. The coefficient is positively signed and statistically significant, confirming that the pattern in Fig. 1 is robust to controlling for the attributes of the case and the judge. Adding the controls gradually renders a very stable effect, further assuaging concerns of omitted variables.

The results are extremely similar in analyses where I drop outliers (see Tab. III). Results are similar whether sentence lengths are winsorized (outliers replaced by the threshold value) at the 1% or 5% level, or to sentences whose log length is less than 8. In addition, I rerun my basic specification with the first letter of a randomly reassigned name (a natural bootstrap with 200 draws). The true t-statistic lies to the right of all the other simulated t-statistics (see Fig. 2).

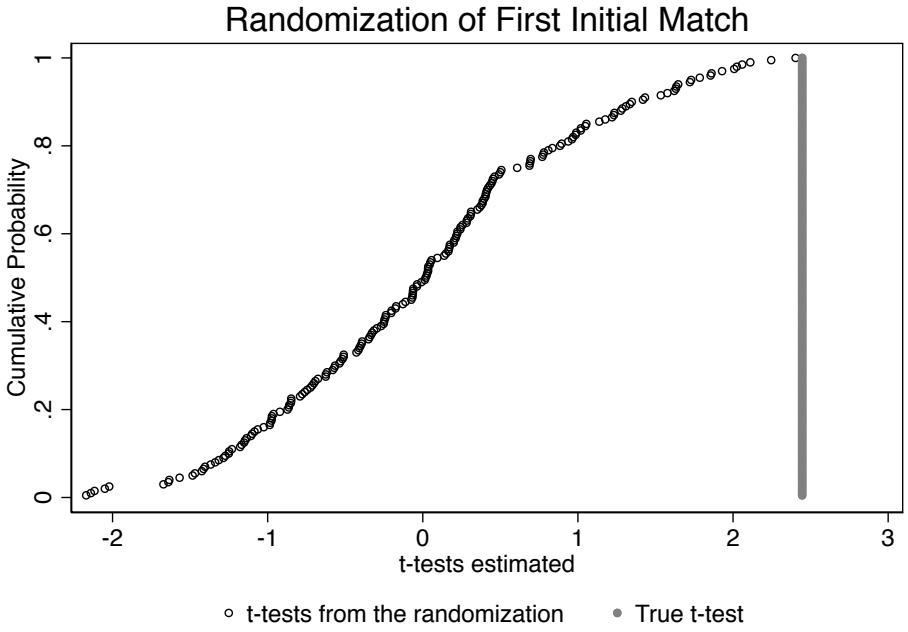
TABLE III

NAME LETTER EFFECT ROBUSTNESS TO OUTLIERS (FIRST NAME)

	Log of Total Sentence in Days			
	(1)	(2)	(3)	(4)
First Letter Match	0.0929**	0.0940**	0.0888**	0.0826**
	(0.0380)	(0.0372)	(0.0373)	(0.0404)
N	47246	47246	47246	44511
adj. R-sq	0.461	0.462	0.461	0.440
Sample	All	All	All	< 8
Winsorize	None	1%	5%	None
Judge FE	X	X	X	X
Month x Year FE	X	X	X	X
Case Type FE	X	X	X	X

Notes: Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

FIGURE 2.— Randomization Inference with Randomly Reassigned Names



Results on First Initial of Last Name

The results are similar in analyses of first inital matches of the last name, which occurs 6.2% of the time. This pattern is evident on the right of Fig. 1. When the first letter of a judge's and defendant's last name matches, judges again reduce the likelihood of assigning sentences of zero length and 1 year and increase their likelihood of assigning larger sentences.

Tab. IV reports that sentences are 7% longer for defendants whose first intial of their last name matches the judge's.[5] The coefficient is positively signed and statistically significant, and adding controls gradually renders a very stable effect, assuaging concerns of omitted variables. The results are again extremely similar in analyses where I drop outliers, whether sentence lengths are winsorized (outliers replaced by the threshold value) at the 1% or 5% level or restricting to sentences whose log length is less than 8 (see Tab. V).

TABLE IV
NAME LETTER EFFECT IN JUDICIAL SENTENCING (LAST NAME)

	Log of Total Sentence in Days						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
First Letter of Last Name Match	0.0706*	0.0801*	0.0676*	0.0659*	0.0637*	0.0609*	0.0614*
	(0.0416)	(0.0412)	(0.0342)	(0.0338)	(0.0332)	(0.0324)	(0.0322)
N	47371	47363	47235	47190	47190	47190	47190
adj. R-sq	0.307	0.319	0.461	0.473	0.473	0.475	0.475
Judge FE	X	X	X	X	X	X	X
Month x Year FE		X	X	X	X	X	X
Case Type FE			X	X	X	X	X
Case Type x Month x Year FE				X	X	X	X
Letter FE					X	X	X
Week of Year FE						X	X
Day of Week FE							X

Notes: Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

[5]Only 0.4% of observations have both the first and last name's first initials matching between the judge and defendant. 12% of observations have the first letter of the first name or the first letter of the last name matching between the judge and defendant.

TABLE V

NAME LETTER EFFECT ROBUSTNESS TO OUTLIERS (LAST NAME)

	Log of Total Sentence in Days			
	(1)	(2)	(3)	(4)
First Letter of Last Name Match	0.0676*	0.0615*	0.0620*	0.0777**
	(0.0342)	(0.0336)	(0.0339)	(0.0360)
N	47235	47235	47235	44505
adj. R-sq	0.461	0.461	0.460	0.440
Sample	All	All	All	< 8
Winsorize	None	1%	5%	None
Judge FE	X	X	X	X
Month x Year FE	X	X	X	X
Case Type FE	X	X	X	X

Notes: Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

Results on First and Second Letter Match

The theories about first initial effects would seem to imply first and second letter matches (the formant) should amplify name letter effects. Tab. VI shows the effects are larger when the first and second letter of the first name match, which happens 1.7% of the time, or the first and second letter of the last name match, which happens 1.6% of the time.[6] The coefficient stabilizes with the inclusion of the main controls. Fig. 3 show the corresponding shifts in densities to assuage concerns of outliers.

[6] 3.3% of the cases have first and second letter matches of the first name or the last name.

TABLE VI

NAME LETTER EFFECT IN JUDICIAL SENTENCING (FIRST AND SECOND LETTER)

	Log of Total Sentence in Days						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
First and Second Letter Match	0.225***	0.223***	0.168***	0.158**	0.155***	0.154***	0.154***
	(0.0668)	(0.0661)	(0.0578)	(0.0586)	(0.0565)	(0.0552)	(0.0550)
N	47371	47363	47235	47190	47190	47190	47190
adj. R-sq	0.307	0.320	0.461	0.473	0.473	0.475	0.475
Judge FE	X	X	X	X	X	X	X
Month x Year FE		X	X	X	X	X	X
Case Type FE			X	X	X	X	X
Case Type x Month x Year FE				X	X	X	X
Letter FE					X	X	X
Week of Year FE						X	X
Day of Week FE							X

Notes: Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$). First and Second Letter Match means whether the first and second letters of the first name or the first and second letters of the last name matches.

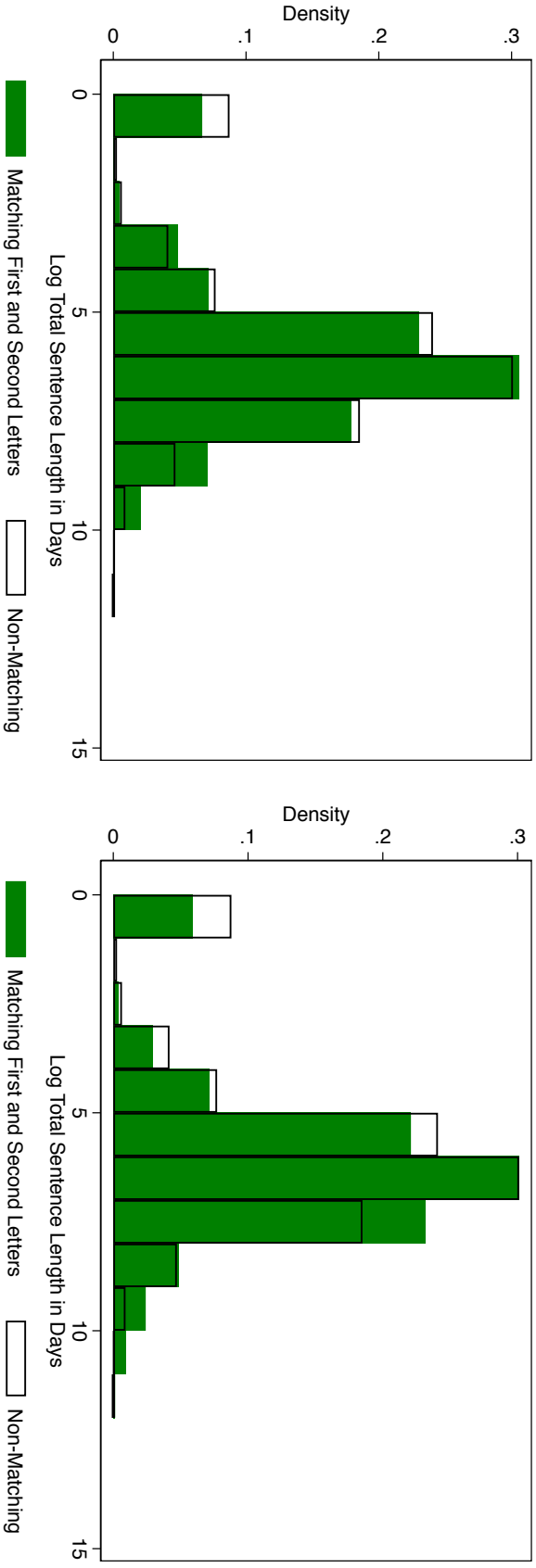


FIGURE 3.— Density (First and Second Name Letter Effects)

Results on Full Name Match

The theories about first initial effects would also seem to imply a full name match should also amplify name letter effects. Tab. VII shows the effects are larger when the first or last name matches, which happens 0.64% of the time. Tab. VIII shows that, even excluding sentences with a full name match, the effect of first initial matches hold.

TABLE VII

Name Effect in Judicial Sentencing

	Log of Total Sentence in Days						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Full Name Match	0.191*	0.185	0.206**	0.194*	0.183*	0.180*	0.181*
	(0.112)	(0.112)	(0.0940)	(0.0970)	(0.0958)	(0.0940)	(0.0939)
N	47371	47363	47235	47190	47190	47190	47190
adj. R-sq	0.307	0.319	0.461	0.473	0.473	0.475	0.475
Judge FE	X	X	X	X	X	X	X
Month x Year FE		X	X	X	X	X	X
Case Type FE			X	X	X	X	X
Case Type x Month x Year FE				X	X	X	X
Letter FE					X	X	X
Week of Year FE						X	X
Day of Week FE							X

Notes: Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$). Full Name Match means whether the first or last name matches.

TABLE VIII

Name Letter Effect in Judicial Sentencing (Excluding Full Name Match)

	Log of Total Sentence in Days						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
First Letter Match	0.0816**	0.0847**	0.0825***	0.0786**	0.0756**	0.0747**	0.0749**
	(0.0332)	(0.0332)	(0.0290)	(0.0294)	(0.0304)	(0.0303)	(0.0305)
N	47068	47060	46932	46887	46887	46887	46887
adj. R-sq	0.307	0.320	0.461	0.473	0.474	0.475	0.475
Judge FE	X	X	X	X	X	X	X
Month x Year FE		X	X	X	X	X	X
Case Type FE			X	X	X	X	X
Case Type x Month x Year FE				X	X	X	X
Letter FE					X	X	X
Week of Year FE						X	X
Day of Week FE							X

Notes: Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$). First Letter Match means whether the first letter of the first name or the first letter of the last name matches.

Results on Name Letter Frequency Letter frequency might amplify name letter effects, as uncommon letters might generate more salience when the first initial matches. I use data from the U.S. census to calculate name frequency. Tab. IX shows the effects are larger for rare letters. Fig. 4 shows the corresponding effects for each frequency bin of the first initial to assuage concerns of outliers.

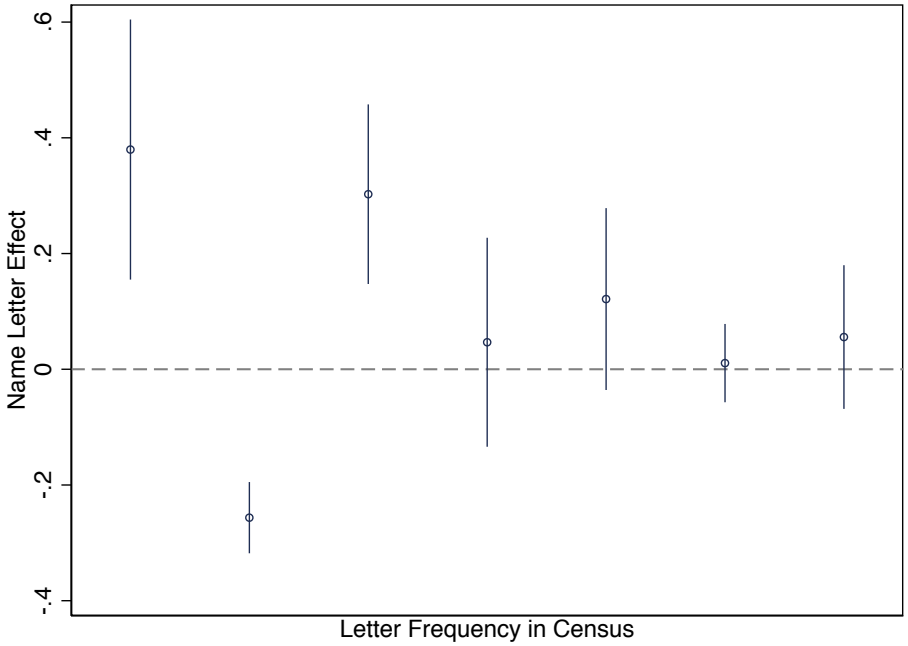
TABLE IX

NAME LETTER EFFECT BY LETTER FREQUENCY

	Log of Total Sentence in Days					
	(1)	(2)	(3)	(4)	(5)	(6)
First Letter Match	0.0759*	0.0712*	0.0828**	0.0776**	0.0775**	0.0776**
	(0.0398)	(0.0388)	(0.0365)	(0.0367)	(0.0365)	(0.0365)
First Letter Match x Rare Letter	0.269**	0.262**	0.297**	0.240**	0.249**	0.249**
	(0.102)	(0.105)	(0.113)	(0.0948)	(0.0953)	(0.0954)
N	47371	47363	47235	47190	47190	47190
adj. R-sq	0.307	0.319	0.461	0.473	0.474	0.474
Judge FE	X	X	X	X	X	X
Month x Year FE		X	X	X	X	X
Case Type FE			X	X	X	X
Case Type x Month x Year FE				X	X	X
Week of Year FE					X	X
Day of Week FE						X

Notes: Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$). First Letter Match is a match on the first initial of the first name. Rare Letter is calculated from the 1990 U.S. census of names (at https://www2.census.gov/topics/genealogy/1990surnames/dist.male.first and https://www2.census.gov/topics/genealogy/1990surnames/dist.female.first) and is a dummy indicator for whether the cumulative frequency is less than 2.

FIGURE 4.— First Initial Name Letter Effects by Letter Frequency



Notes: Robust standard errors clustered at the judge level. Specification includes judge fixed effects, month by year fixed effects, and case type fixed effects. Regressor of interest is the frequency bin of the judge's first letter interacted with an indicator for whether the first letter of the first name matches. Frequency bins are 0-2, 2-4, 4-5, 5-7, 7-10, 10+. Bars indicate 95% confidence intervals.

Results on Defendant Race Label Next, I examine heterogeneity. In particular, I can examine whether the increase in sentence lengths is larger for defendants labeled as "N" (see Appendix D for frequency distribution of race labels and over time). Tab. X reports a pooled regression of name letter effects for defendants labeled as "N" vs. "B". The effects are larger for black defendants labeled by police as "N".

TABLE X
Pooled Name Letter Effect by Racial Label

	Log of Total Sentence in Days	
	(1)	(2)
First Letter Match x "N"	0.174**	0.168**
	(0.0687)	(0.0686)
N	41793	40011
adj. R-sq	0.475	0.442
First Letter Match x Judge FE	X	X
First Letter Match x Month x Year FE	X	X
First Letter Match x Case Type FE	X	X
First Letter Match x Skin Color FE		X
First Letter Match x Hair Color FE		X
First Letter Match x Eye Color FE		X

Notes: Sample limited to defendants labeled as "N" or "B". First Letter Match means whether the first letter of the first name or the first letter of the last name matches. Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

Tab. XI reports the analyses separately by racial label and finds that a large proportion of the increase in sentence lengths in Tab. II comes from those labeled as "N". For these defendants, the sentence length increases by 11% when the first initial of the defendant's name matches the judge's (Column 1). The effect is robust to including fixed effects for skin color, hair color, and eye color (Column 3) (see Appendix D for frequency distributions of skin, hair, and eye color). For those labeled as "B", first letter matches insignificantly increase the sentence length by 1% (Column 4).[7]

I replicate the analysis of heterogeneity for the first initial effect of the last name. Tab. XII

[7]On average, defendants labeled as "N" have 22% longer sentence lengths than those labeled as "B".

TABLE XI

NAME LETTER EFFECT BY RACIAL LABEL (FIRST NAME)

	Log of Total Sentence in Days			
	(1)	(2)	(3)	(4)
First Letter Match	0.107**	0.0349	0.106**	0.0122
	(0.0459)	(0.0951)	(0.0455)	(0.0967)
N	31931	9863	31730	8277
adj. R-sq	0.446	0.543	0.431	0.485
Defendant Sample	N	B	N	B
Judge FE	X	X	X	X
Month x Year FE	X	X	X	X
Case Type FE	X	X	X	X
Skin Color FE			X	X
Hair Color FE			X	X
Eye Color FE			X	X

Notes: Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

reports again a large proportion of the increase in sentence lengths comes from those labeled as "N". The point estimates are similar to that of Tab. IV for those labeled as "N" (7%), but not for "B" (0.8%). The difference in indifference is also robust to including the rich set of controls for skin, hair, and eye color.

TABLE XII

NAME LETTER EFFECT BY RACIAL LABEL (LAST NAME)

	Log of Total Sentence in Days			
	(1)	(2)	(3)	(4)
First Letter of Last Name Match	0.0650	-0.0137	0.0675	0.00796
	(0.0442)	(0.0733)	(0.0454)	(0.0882)
N	31931	9863	31730	8277
adj. R-sq	0.446	0.543	0.431	0.485
Defendant Sample	N	B	N	B
Judge FE	X	X	X	X
Month x Year FE	X	X	X	X
Case Type FE	X	X	X	X
Skin Color FE			X	X
Hair Color FE			X	X
Eye Color FE			X	X

Notes: Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

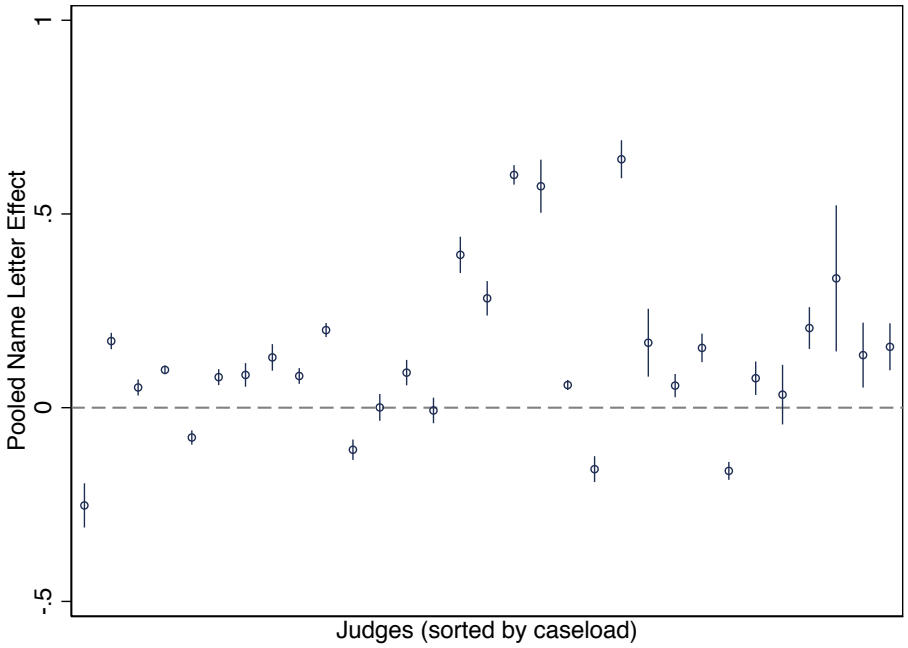
Results on Name Letter Effects by Judge I next present the name letter effect for each of the judges in the sample, to see if self-identity manifests itself the same way in all judges (see Appendix Fig. B.5 for caseload distribution across judges). Fig. 5 reports all but three judges display significant name letter effects, and nearly all in the same sign. The judges are sorted by caseload, suggesting that experience does not mitigate bias here. It is interesting to note that the judge with the largest point estimate was found to have paid only $14 per year in property taxes on his home instead of $2,200.[8] A judge who is legally indifferent and thus prone to extraneous factors may also be one who is inattentive to laws more generally.

If decision-makers are more susceptible to behavioral biases when they are more indifferent to their decision, documenting behavioral bias may assist policymakers in detecting judicial indifference. Indeed, Supreme Court Justice Ginsburg identified this specific New Orleans District Attorney's office as "deliberately indifferent" to the rights of defendants in *Connick v. Thompson, 563 U.S. 51 (2011)*. Ginsburg cited testimony from then District At-

[8]https://www.nola.com/politics/index.ssf/2010/11/retired_orleans_parish_judge_a.html

torney, Connick, that he had stopped reading law books when he took office in 1974. If individuals experience indifference by important decision makers, everyday indifference can be an important contributor to de-legitimization of legal authorities. If individuals experience difference-in-indifference, it may contribute to disillusionment by certain societal groups, which is hypothesized to be one factor for the events of Ferguson (Cuenca 2017).

FIGURE 5.— Judge-Specific Pooled Name Letter Effects



Notes: Robust standard errors clustered at the judge level. Specification includes judge fixed effects, month by year fixed effects, and case type fixed effects. Regressor of interest is the judge indicator interacted with an indicator for whether the first letter of the first name or the first letter of the last name matches. Bars indicate 95% confidence intervals.

Results on Sentencing Disparities by Judge's Implicit Egoism The next part of my analysis tests the hypothesis that individuals with high self-appraisals discriminate more (Heidhues et al. 2019). I group judges with judge-specific name letter effects above 10% in Fig. 5 as egoist and below 10% as not. About one-third of the judges (and one-third by case load) are egoist. Tab. XIII Column 1 shows that among non-egoist judges, black defendants receive 16% longer sentence lengths than white defendants, controlling for judge fixed effects, month by year fixed effects, and case type. For egoist judges, the sentence disparities grow significantly by 18%. Column 2 examines white judges only. Non-egoist judges issue 16% longer sentences for black defendants, and the sentencing disparity grows albeit insignificantly for egoist judges. Column 3 examines black judges only. Black judges comprise 28% of the sample and 40% of the egoist judges. Here we see that non-egoist black judges issue sentences not significantly different between black and white defendants. However, egoist black judges issue sentencing disparities that are 35% larger.

TABLE XIII
Sentencing Disparities and Implicit Egoism

	Log of Total Sentence in Days		
	(1)	(2)	(3)
Black Defendant	0.159***	0.159***	0.109
	(0.0387)	(0.0445)	(0.0977)
Black Defendant x Egoist Judge	0.180**	0.115	0.352*
	(0.0843)	(0.0986)	(0.181)
N	47236	33796	13433
adj. R-sq	0.462	0.469	0.459
Judge Sample	All	White	Black
Judge FE	X	X	X
Month x Year FE	X	X	X
Case Type FE	X	X	X

Notes: Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$). Egoist judge is defined as a judge whose name letter effects exceed 10%.

4 Replication in Chile

Through the Chilean Judiciary, I have administrative case-level data for criminal cases from 2014 across all criminal tribunals. The key predictor is an indicator for whether the first initials of the defendant and the judge match, which occurs 7.7% of the time. Tab. XIV shows no change in pre-determined judge, case, or defendant characteristics when the first letter matches.

TABLE XIV
Testing for Random Assignment of Cases (Chile)

Dependent Variable:	**First Initial Match (First Name)**	
Pre-determined characteristics	coef.	(s.e.)
Presence of Lawyer	0.00129	(0.00409)
Presence of Private Lawyer	0.000666	(0.00118)
Judge Age	0.396	(0.285)
Judge Salary Grade	0.00480	(0.0275)
Judge Male	0.00317	(0.0116)
Defendant Male	0.00144	(0.00221)
Misdemeanor	0.00156	(0.00212)
Time (Month by Year)	0.00286	(0.0116)
Time (Week of Month)	0.00988	(0.0587)
Time (Day of Week)	-0.00801	(0.00752)

Notes: Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

As Tab. XV shows, when first initials of the defendant and the judge match, sentence lengths are 2% longer (Columns 1-3). The coefficient is positively signed and statistically significant. Adding the controls renders a very stable effect, assuaging concerns of omitted variables. Results are similar when sentence lengths are winsorized (outliers replaced by the threshold value) at the 5% level. When the full name matches, sentence lengths are 4% longer (Column 5). Full name matches occur 0.5% of the time.[9]

[9]I do not investigate last names, which are more ambiguous. The names themselves can comprise multiple words. In Chile, names have at least four and go up to ten words (in the data). This is in part due to the tradition of keeping maternal and paternal surnames.

TABLE XV

NAME LETTER EFFECT IN JUDICIAL SENTENCING (CHILE)

	Log of Total Sentence in Days					
	(1)	(2)	(3)	(4)	(5)	(6)
First Letter Match	0.0169***	0.0212***	0.0177***			
	(0.00584)	(0.00480)	(0.00397)			
First Name Match				0.0314*	0.0401***	0.0335***
				(0.0189)	(0.0153)	(0.0127)
N	2763242	2762799	2762799	2763242	2762799	2762799
adj. R-sq	0.016	0.284	0.288	0.016	0.284	0.288
Judge FE	X	X	X	X	X	X
Month x Year FE		X	X		X	X
Case Type FE		X	X		X	X
Case Type x Month x Year FE		X	X		X	X
Letter FE		X	X		X	X
Week of Year FE		X	X		X	X
Day of Week FE		X	X		X	X
Winsorize	None	None	5%	None	None	5%

Notes: Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$). First Letter Match is a match on the first initial of the first name.

Results by Crime Type Severe crime might amplify the threat presented by a defendant who besmirches one's name. I am able to investigate this hypothesis since the Chilean data also include misdimeanors. Tab. XVI shows the effects are not present for misdimeanors, which comprise 15% of the sample.

TABLE XVI

NAME LETTER EFFECT BY SEVERITY OF CRIME

	Log of Total Sentence in Days	
	(1)	(2)
First Letter Match	0.0199***	
	(0.00667)	
First Letter Match x Misdemeanor	-0.0195***	
	(0.00667)	
First Name Match		0.0473***
		(0.0176)
First Name Match x Misdemeanor		-0.0480***
		(0.0172)
N	2763206	2762763
adj. R-sq	0.047	0.286
Judge FE x Misdemeanor	X	X
Month x Year FE x Misdemeanor	X	X
Case Type FE x Misdemeanor	X	X
Case Type x Month x Year FE x Misdemeanor	X	X
Week of Year FE x Misdemeanor	X	X
Day of Week FE x Misdemeanor	X	X

Notes: Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$). First Letter Match is a match on the first initial of the first name.

5 General Discussion

This paper makes three contributions. First, I find field evidence of implicit egoism—unconscious associations that individuals have with others who share their first initials. When judges and defendants match on first initials, the sentence imposed is 8% longer on average (two to three months) than when the judges' and defendants' first initials do not match. This finding is not due to unobservables that change across cases or over time and affect almost all judges. The effects are found for both first and last names and amplify when the first and second letter match or when the entire name matches.

Second, the effects appear when black defendants are labeled by police as "N" rather than as "B". The difference-in-indifference is consistent with some groups bearing the disproportionate burden of behavioral bias in judicial decision-making and consistent with the real-world importance of label changes by minorities attempting to redefine themselves and gain respect

(Smith 1992; Martin 1991). The "N"-word is offensive and "Black" is the preferred term.

Third, the effects identify judges who have more ego, and consistent with recent theoretical models hypothesizing the link between overconfidence and prejudice (Heidhues et al. 2019), judges who are more prone to name letter effects render significantly larger black-white sentencing disparities. Recent policy debates have also suggested a link between mass incarceration and ego of black legal officials (Forman Jr 2017). Black judges who score highest in ego render the largest black-white sentencing disparities.

This research highlights the power of ego and self-concept. Recent experiments in education suggest one policy to mitigate implicit egoism and their deleterious consequences: improving non-cognitive skills and social-emotional learning. As summarized in the introduction, the Jones et al. (2002) experiment found that subjects writing about a positive, important, stable aspect of who they are (an exercise in self-affirmation) as opposed to ego threat resulted in no self-regulation to compensate for that threat. Likewise, in large scale field experiments, Cohen et al. (2009) and Miyake et al. (2010) showed that 15 minutes of self-affirmation can have long-term reductions in educational achievement disparities for minorities and women. Might judges self-affirmation exercises reduce the effects of ego threat?

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A Assessment of Random Assignment

This section presents another check for judicial random assignment by examining correlations between judge leniency (calculated leaving out the current decision) and a collection of defendant traits. The judge leniency (Z_{ijt}) is constructed as follows:

$$Z_{ijt} = \frac{1}{n_{jt} - 1}\left(\sum_{k=1}^{n_{jt}} B_k - B_i\right) - \frac{1}{n_t - 1}\left(\sum_{k=1}^{n_t} B_k - B_i\right)$$

where i denotes an individual case/charge, j denotes the assigned judge, t is the year of observation, n_{jt} is the number of cases seen by a judge in year t, n_t is the number of cases seen by all judges in year t, and B_i is a conviction decision.

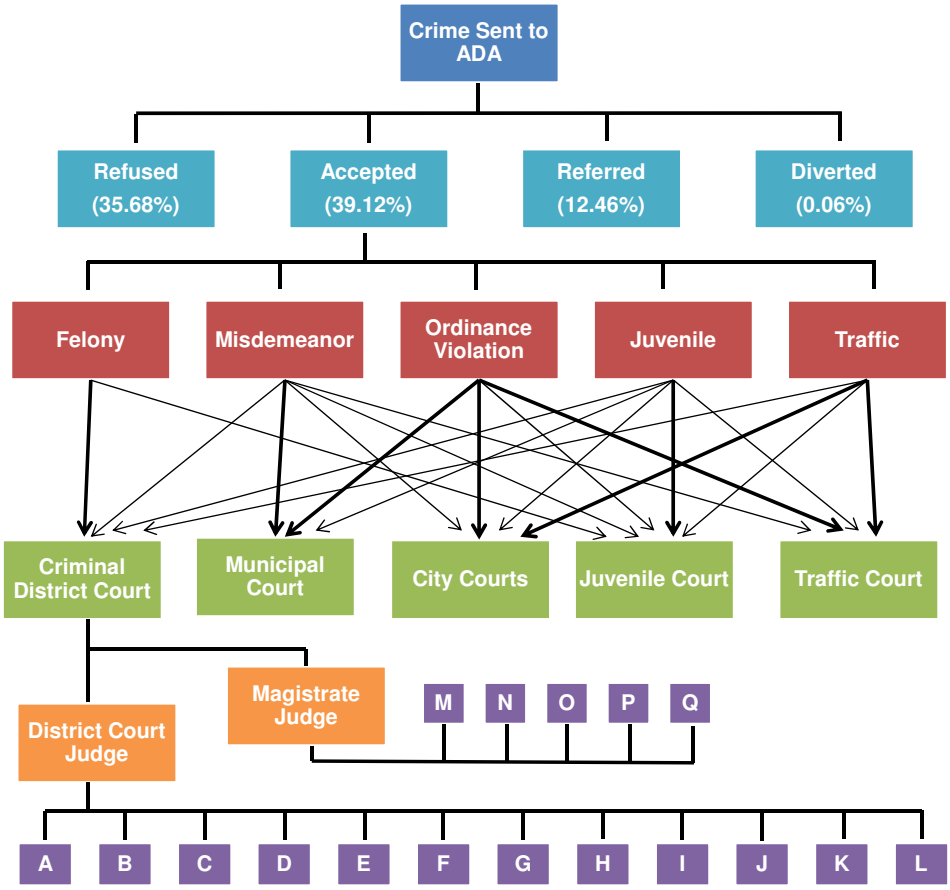
APPENDIX TABLE A.1

Testing Random Assignment of Judges

	Judicial Leniency	
	(1)	(2)
Defendant Criminal History	-0.00628	-0.00377
	(0.00717)	(0.00531)
Defendant Age	0.000168	0.000185
	(0.000110)	(0.000124)
Defendant has Black Hair	0.000691	-0.000516
	(0.000618)	(0.000852)
Defendant has Brown Skin	0.00218	0.00129
	(0.00224)	(0.00136)
Defendant has Scar, Mark, or Tatoo	0.00209	0.00205
	(0.00118)	(0.00118)
Defendant Height in Feet	-0.00121	-0.000365
	(0.000860)	(0.000554)
Defendant Male	-0.0000665	0.000461
	(0.000704)	(0.000630)
Defendant Weight	0.0000374	0.0000267*
	(0.0000198)	(0.0000132)
Defendant White	0.00139	0.00102
	(0.00130)	(0.00121)

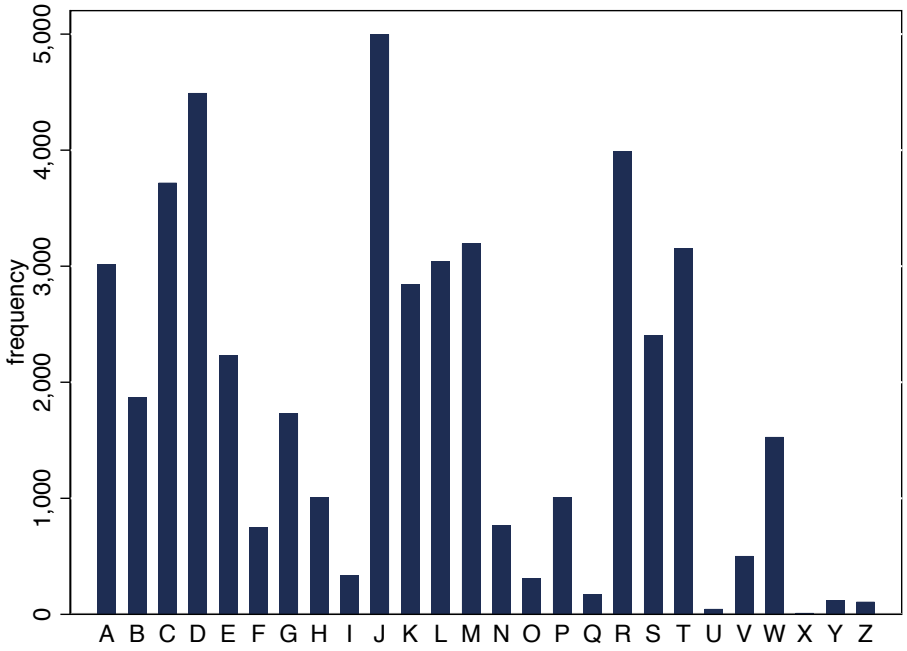
Notes: Column (1) reports estimates from a single OLS regression of judge leniency on the variables listed and includes case type by month by year fixed effects, with standard errors clustered at the judge level. Column (2) reports separate OLS regressions of judge leniency on each of the variables listed and includes case type by month by year fixed effects, with standard errors clustered at the judge level (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

Appendix Figure A.1.— NODA Prosecution Flowchart

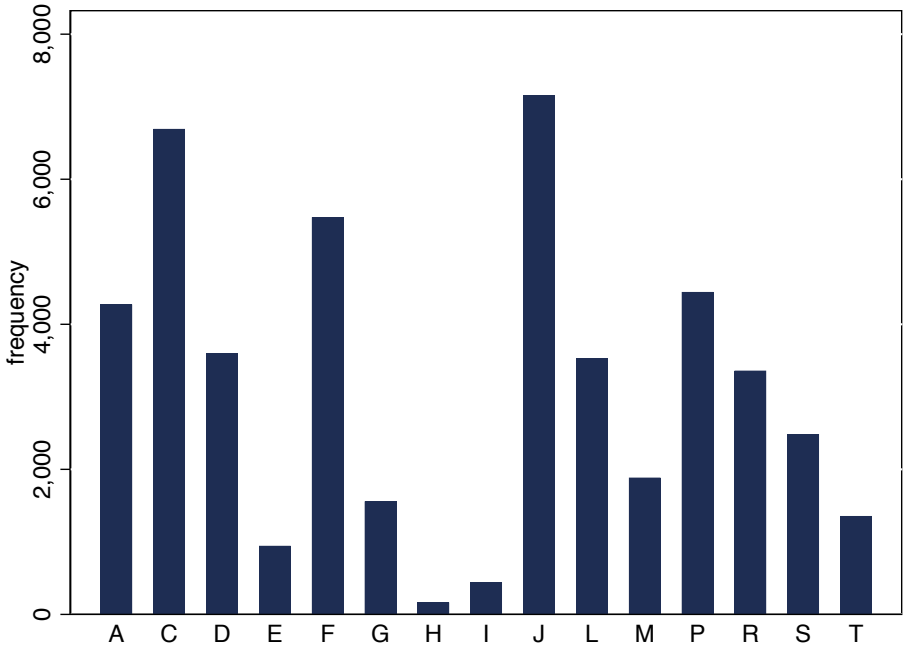


B Distribution of First Initials of Defendants and Judges

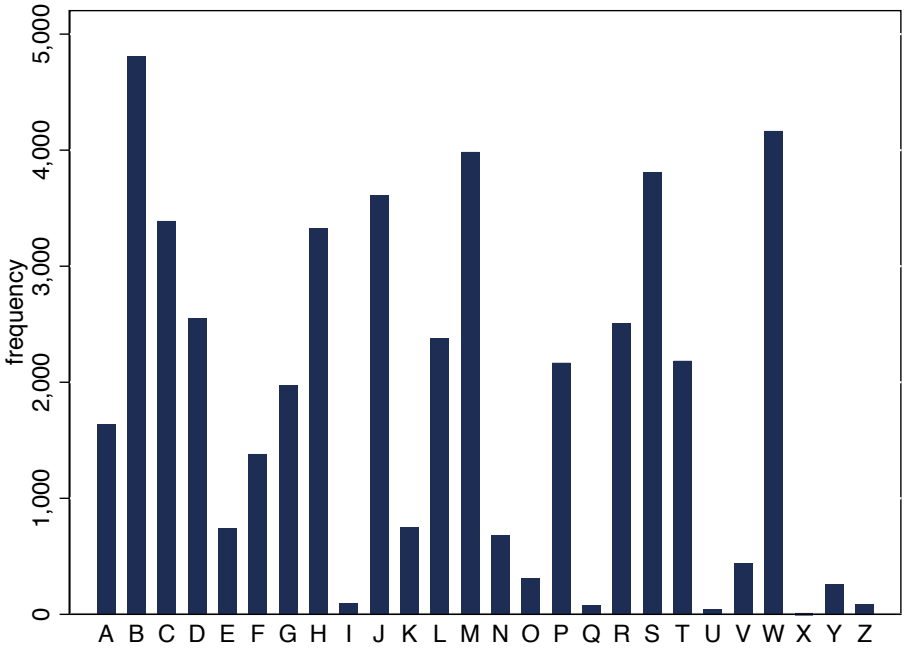
Appendix Figure B.1.— Distribution of First Initials of Defendants (First Name)



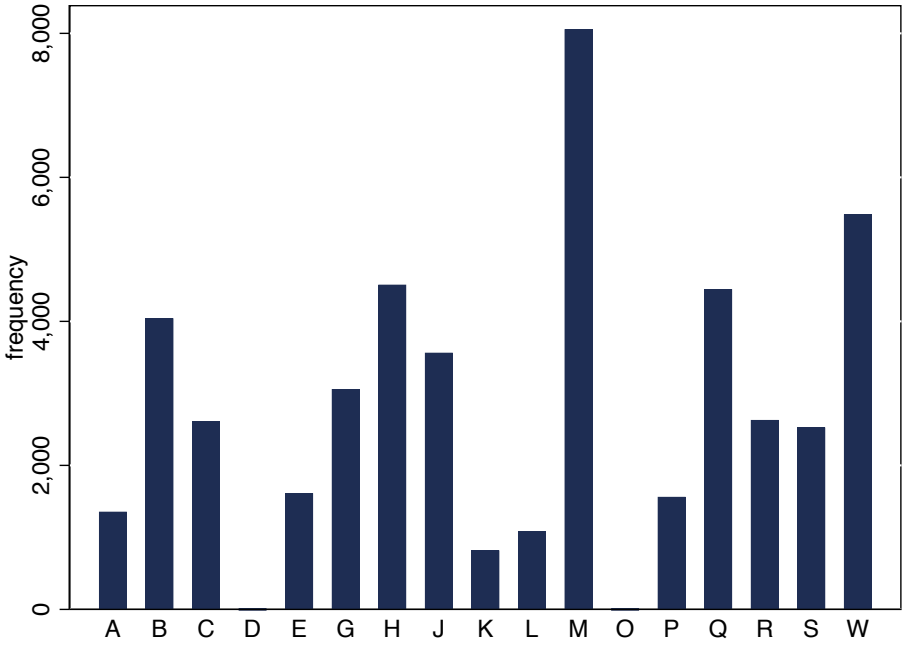
Appendix Figure B.2.— Distribution of First Initials of Judges (First Name)



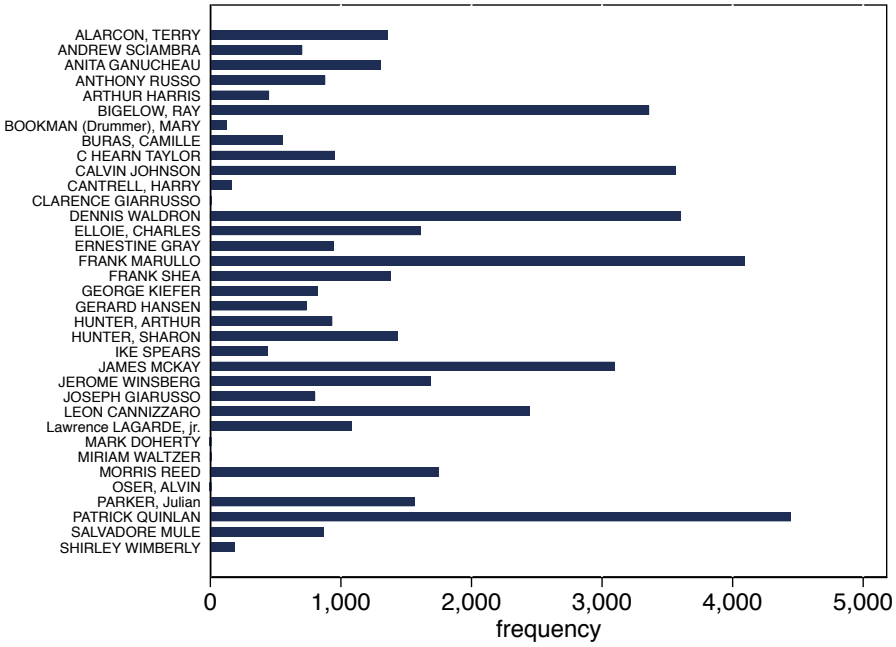
Appendix Figure B.3.— Distribution of First Initials of Defendants (Last Name)



Appendix Figure B.4.— Distribution of First Initials of Judges (Last Name)



Appendix Figure B.5.— Distribution of Judges by Caseload



Notes: Original names as presented (commas corrected for in the analysis).

C Distribution of First Initial Matches

APPENDIX TABLE C.1

Distribution of Defendant and Judge First Initial Matches (First Name)

	Judge															
Dfdn	A	C	D	E	F	G	H	I	J	L	M	P	R	S	T	Total
A	9.02	13.37	7.89	2.65	12.01	3.12	0.36	1.19	14.59	7.6	3.55	9.98	6.7	5.27	2.69	100
B	9.08	15	8.7	2.46	10.78	3.36	0.43	0.85	15.32	6.46	4.16	9.24	6.19	5.5	2.46	100
C	9.25	13.44	7.85	2.31	10.86	3.25	0.54	0.7	14.46	7.9	4.49	9.84	6.88	5.3	2.93	100
D	8.48	13.71	7.81	1.54	12	3	0.33	1.29	14.93	6.88	4.67	9.01	7.7	5.65	2.98	100
E	9.63	13.97	6.45	1.39	12.36	2.82	0.27	0.72	14.82	7.7	3.63	10.88	6.99	5.28	3.09	100
F	9.89	14.44	6.68	1.34	12.97	3.88	0.53	0.4	14.44	6.82	5.08	8.56	7.75	4.81	2.41	100
G	8.31	14.09	7.1	1.39	11.72	3.87	0.12	0.4	14.72	7.22	5.43	11.09	6.76	4.79	3	100
H	9.01	15.25	7.13	1.39	11.29	3.07	0.1	0.69	16.93	5.54	3.76	8.71	8.81	6.14	2.18	100
I	7.42	17.21	12.76	2.08	9.2	2.08	0.89	0.3	17.8	5.93	2.97	7.72	8.01	4.15	1.48	100
J	9.64	13.95	7.08	2.58	12.18	3.34	0.34	1.16	14.61	6.86	3.7	8.96	7.26	5.56	2.76	100
K	9.67	15.68	8.23	2.22	9.81	3.97	0.14	0.6	15.86	6.65	3.73	9.25	6.05	5.38	2.78	100
L	9.17	13.97	7.95	2.46	10.58	2.73	0.16	0.79	15.28	9.1	3.75	8.54	7.26	5.26	2.99	100
M	9.14	13.62	7.51	2.38	10.92	3.26	0.47	0.75	15.15	8.11	3.66	9.08	7.79	4.85	3.32	100
N	8.46	14.58	5.47	2.08	16.67	3.78	0.65	2.34	13.67	7.16	3.78	8.07	6.12	4.95	2.21	100
O	8.95	15.34	10.22	1.92	10.86	2.88	0	0.96	15.65	6.71	3.19	8.31	6.71	3.83	4.47	100
P	8.02	14.06	10	0.99	14.95	2.57	0.2	0.59	12.57	7.92	3.37	9.31	6.53	4.06	4.85	100
Q	9.3	19.19	10.47	5.23	5.23	5.23	0	0.58	12.21	4.65	1.74	8.72	6.98	8.14	2.33	100
R	8.21	12.92	8.41	1.6	11.24	3.21	0.45	1.18	15.4	8.49	3.58	9.92	7.51	5.33	2.53	100
S	9.12	15.36	5.41	1.75	12.53	2.91	0.37	0.62	17.94	6.58	4.2	8.2	6.95	5.12	2.91	100
T	9.92	15.18	6.69	1.87	10.3	4.15	0.25	1.14	14.16	7.54	3.49	10.52	6.56	5.35	2.88	100
U	4.26	25.53	12.77	0	8.51	2.13	0	0	25.53	4.26	4.26	4.26	4.26	2.13	2.13	100
V	7.36	15.31	8.75	0.6	12.52	2.98	0.4	0.6	17.69	6.36	4.17	7.55	7.16	4.17	4.37	100
W	8.04	12.75	7.19	1.31	12.62	3.92	0.52	1.11	14.65	8.31	5.17	9.16	8.11	4.97	2.16	100
X	16.67	0	33.33	0	8.33	0	0	0	16.67	0	16.67	0	8.33	0	0	100
Y	7.56	13.45	10.08	1.68	15.97	1.68	0	0.84	20.17	8.4	4.2	9.24	2.52	2.52	1.68	100
Z	6.42	14.68	9.17	4.59	10.09	0.92	0.92	0	15.6	13.76	1.83	12.84	2.75	3.67	2.75	100
Total	9.02	14.13	7.6	2	11.56	3.29	0.35	0.93	15.1	7.45	3.98	9.38	7.09	5.25	2.86	100

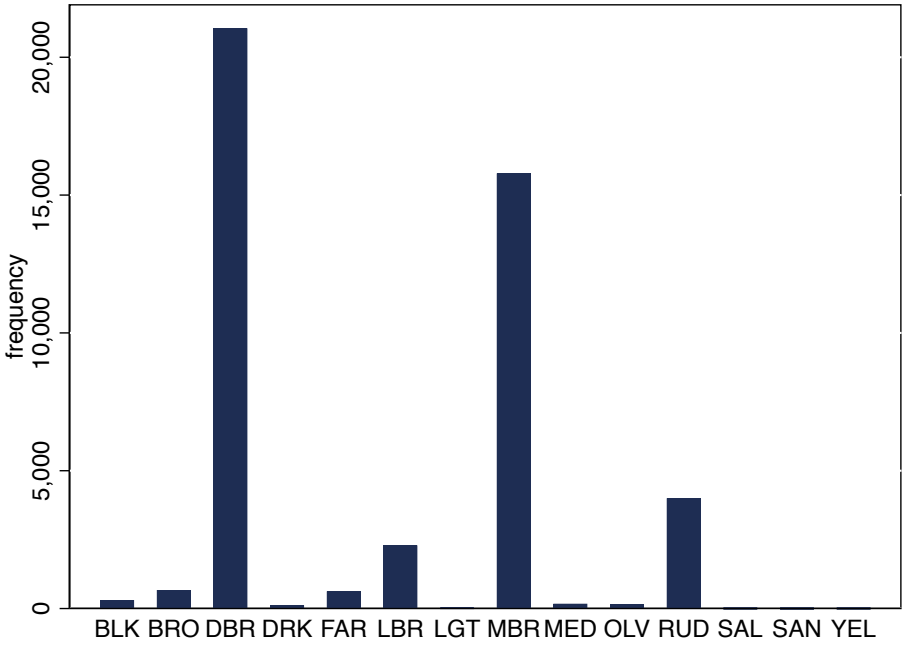
APPENDIX TABLE C.2

Distribution of Defendant and Judge First Initial Matches (Last Name)

	Judge																	
Dfdn	A	B	C	D	E	G	H	J	K	L	M	O	P	Q	R	S	W	Total
A	2.44	9.64	5.86	0	3.23	6.53	9.03	6.71	1.95	1.95	16.6	0	3.9	10.07	5.25	6.22	10.62	100
B	3.26	8.03	5.72	0	3.35	5.59	9.63	8.4	1.81	2.27	17.3	0	3.26	8.13	6.2	5.74	11.31	100
C	2.89	8.47	5.81	0	3.6	6.99	9.85	7.88	1.5	1.77	17.43	0	3.13	9.65	4.93	5.1	11	100
D	2.28	7.18	5.77	0	3.65	5.81	9.65	6.95	2.2	2.71	19.47	0	3.65	9.46	5.22	4.24	11.77	100
E	2.82	8.47	4.44	0	3.9	8.2	10.89	5.78	2.69	2.15	16.26	0	4.03	9.41	5.24	5.38	10.35	100
F	3.4	9.33	4.41	0	2.97	7.31	10.42	7.24	1.45	1.81	15.63	0	2.6	10.56	5.57	5.93	11.36	100
G	3.4	10.85	4.92	0	3.09	5.42	10.24	8.16	1.37	1.88	14.09	0	2.94	9.93	6.34	6.08	11.3	100
H	3	10.27	6.43	0	3.06	6.1	9.64	7.24	1.53	2.58	17.39	0	3.09	8.92	5.11	5.53	10.09	100
I	3.09	8.25	3.09	0	3.09	5.15	9.28	9.28	1.03	0	18.56	0	9.28	6.19	7.22	4.12	12.37	100
J	2.35	7.95	5.21	0	4.6	6.23	10.22	6.93	1.55	2.66	16.59	0	3.88	10.91	4.43	4.74	11.75	100
K	3.19	6.12	6.12	0	2.39	6.38	8.11	7.45	0.93	2.39	17.02	0	3.59	8.24	6.78	5.98	15.29	100
L	3.11	8.2	4.83	0	4.71	6.43	8.91	7.9	1.51	2.61	15.68	0	3.83	9.84	6.09	5.84	10.51	100
M	2.86	8.88	6.17	0	3.36	7.43	9.03	6.85	1.88	2.21	16.44	0	2.76	9.26	5.85	4.72	12.3	100
N	1.62	8.98	6.04	0	2.95	7.51	5.74	8.1	1.91	2.95	14.87	0	3.09	12.52	5.89	6.92	10.9	100
O	2.26	4.52	3.23	0	8.71	7.1	5.81	11.61	0.97	2.9	16.77	0	4.19	8.06	5.48	5.48	12.9	100
P	3.37	8.03	5.4	0	2.49	6.41	9.27	8.03	1.98	2.44	16.84	0	3.32	10.98	5.81	5.4	10.24	100
Q	5.06	12.66	11.39	0	1.27	1.27	3.8	5.06	0	0	12.66	0	7.59	6.33	5.06	6.33	21.52	100
R	2.75	9.4	4.74	0	3.35	6.85	8.88	7.45	1.99	2.07	17.17	0.04	3.43	9.2	5.1	4.74	12.83	100
S	3.23	8.29	4.77	0.03	3.02	5.98	9	7.92	1.71	2.39	18.76	0	3.62	9.13	4.98	5.01	12.17	100
T	2.93	6.36	7.05	0	2.15	7.55	10.53	8.24	1.74	2.24	15.01	0	3.16	9.84	5.54	5.58	12.08	100
U	2.33	6.98	6.98	0	0	2.33	9.3	9.3	0	4.65	9.3	0	2.33	9.3	9.3	13.95	13.95	100
V	1.82	13.86	5.91	0	5	5.23	10	5	1.59	1.14	17.5	0	2.95	7.05	6.14	5.91	10.91	100
W	2.42	8.23	5.26	0	3.31	6.58	10.11	7.08	1.82	2.33	18.24	0	2.69	8.07	6.22	5.47	12.17	100
X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100
Y	1.92	10.77	4.62	0	2.69	6.54	10.38	8.46	1.54	1.15	16.92	0	1.15	9.23	5.38	5.77	13.46	100
Z	3.57	7.14	2.38	0	3.57	9.52	8.33	5.95	2.38	3.57	15.48	0	5.95	7.14	10.71	1.19	13.1	100
Total	2.86	8.53	5.51	0	3.4	6.46	9.52	7.53	1.73	2.28	17.01	0	3.3	9.38	5.55	5.33	11.58	100

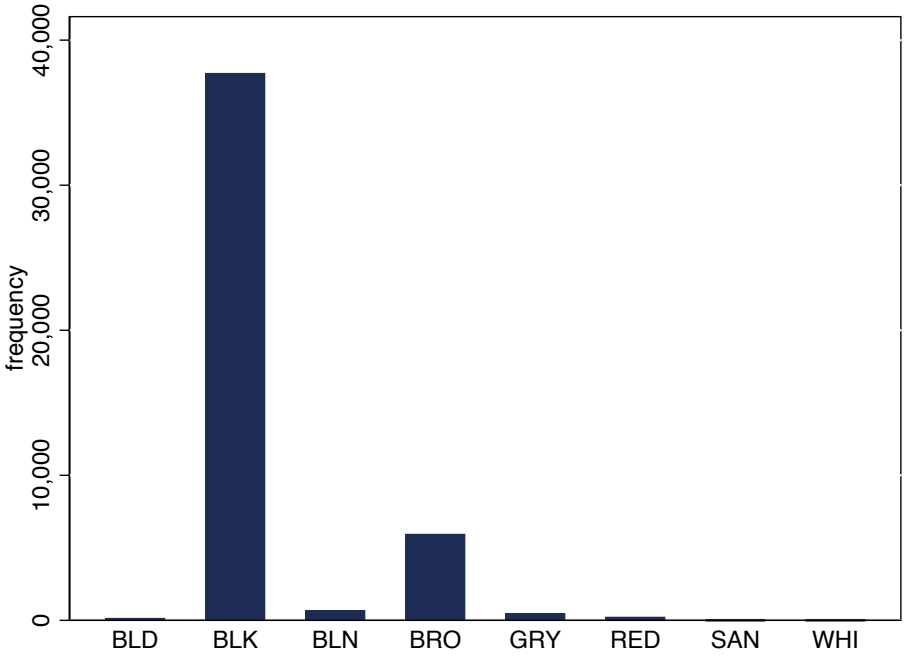
D Distribution of Defendant Race, Skin, Eye, and Hair Classifications

Appendix Figure D.1.— Distribution of Skin Color Classification



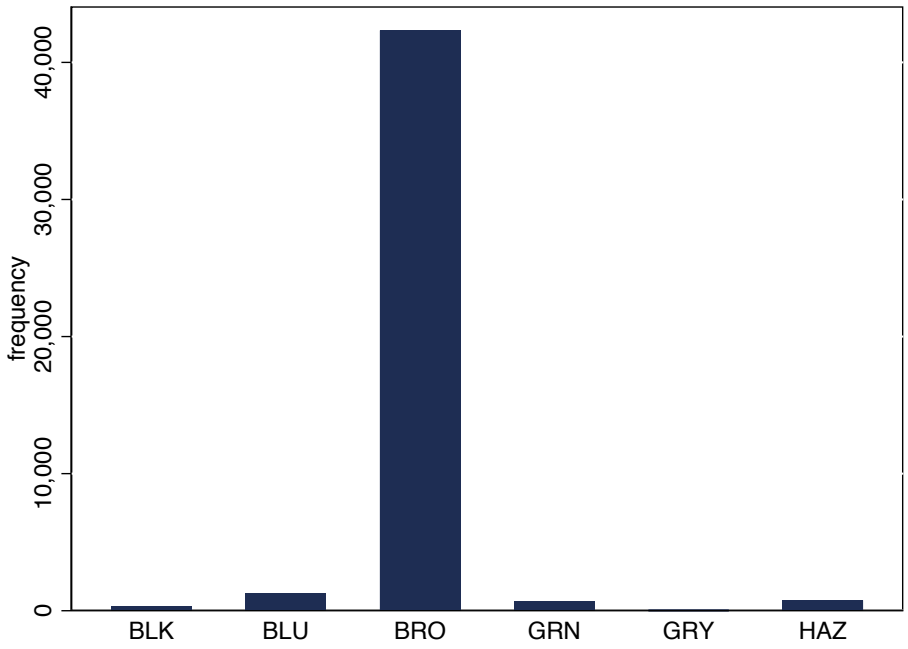
Notes: Original data as presented.

Appendix Figure D.2.— Distribution of Hair Color Classification



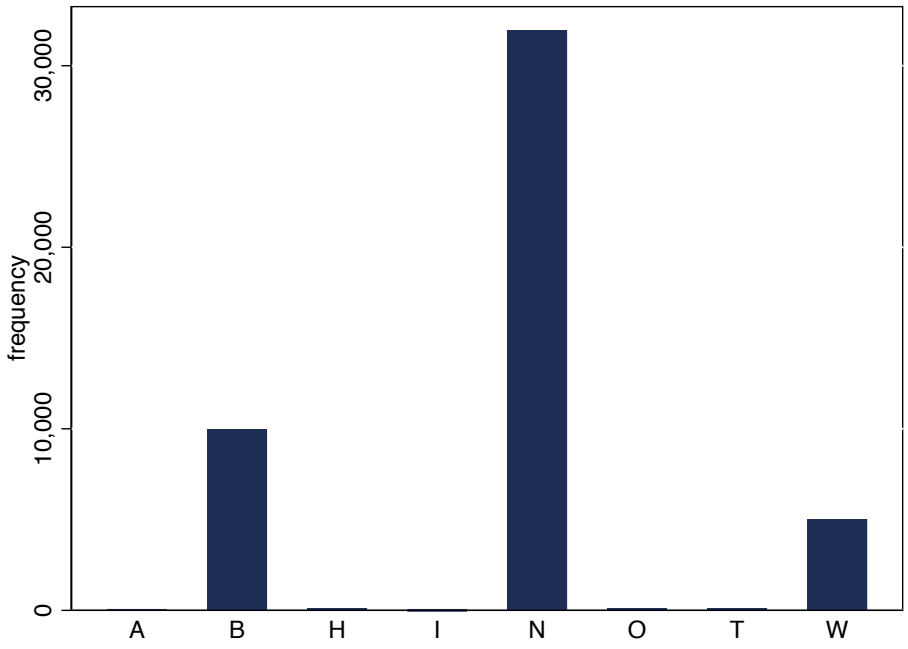
Notes: Original data as presented.

Appendix Figure D.3.— Distribution of Eye Color Classification



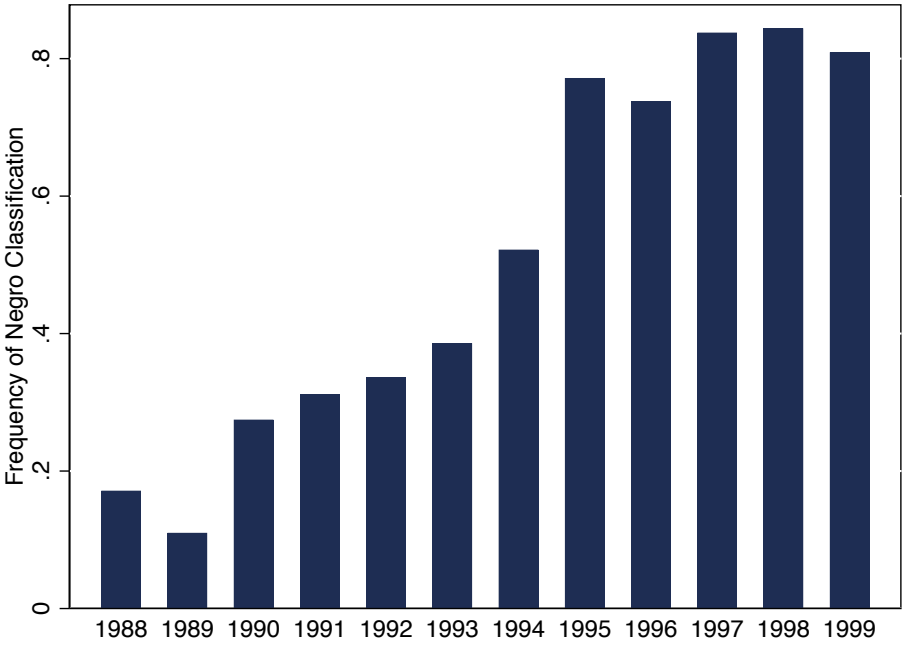
Notes: Original data as presented.

Appendix Figure D.4.— Distribution of Race Label



Notes: Original data as presented.

Appendix Figure D.5.— Distribution of "N" Label Over Time



Notes: Original data as presented.

E Additional Racial Label Results

I present analysis by judge's race. White judges have slightly larger name letter effects for white defendants (Appendix Tab. E.1 Column 3) than for non-white defendants (Appendix Tab. E.1 Column 4), but the effect for non-white defendants is more precisely estimated.

Appendix Tab. E.2 examines difference in indifference to "N" vs. "B" and reports that labels affect both black judges (Column 1) and white judges (Column 3), but the effect is larger for black judges. The sample is restricted to defendants who are white or black.[10] The effect is robust to the rich set of of controls for skin color, hair color, and eye color, fully interacted with first letter match.

[10] All the judges are white or black.

APPENDIX TABLE E.1

POOLED NAME LETTER EFFECT BY JUDGE AND DEFENDANT RACE

	Log of Total Sentence in Days			
	(1)	(2)	(3)	(4)
First Letter Match	0.113**	0.162	0.0726*	0.115
	(0.0480)	(0.212)	(0.0360)	(0.0806)
N	11953	1363	29837	3649
adj. R-sq	0.464	0.513	0.479	0.439
Judge Sample	Black	Black	White	White
Defendant Sample	Not White	White	Not White	White
Judge FE	X	X	X	X
Month x Year FE	X	X	X	X
Case Type FE	X	X	X	X

Notes: Sample limited to defendants labeled as "N", "B", or "W". First Letter Match means whether the first letter of the first name or the first letter of the last name matches. Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

APPENDIX TABLE E.2

POOLED NAME LETTER EFFECT BY RACIAL LABEL AND JUDGE RACE

	Log of Total Sentence in Days			
	(1)	(2)	(3)	(4)
First Letter Match x "N"	0.420**	0.410**	0.110	0.110
	(0.171)	(0.153)	(0.0656)	(0.0732)
N	11945	11480	29824	28511
adj. R-sq	0.471	0.438	0.483	0.452
Judge Sample	Black	Black	White	White
First Letter Match x Judge FE	X	X	X	X
First Letter Match x Month x Year FE	X	X	X	X
First Letter Match x Case Type FE	X	X	X	X
First Letter Match x Skin Color FE		X		X
First Letter Match x Hair Color FE		X		X
First Letter Match x Eye Color FE		X		X

Notes: Sample limited to defendants labeled as "N" or "B". First Letter Match means whether the first letter of the first name or the first letter of the last name matches. Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).