IMPLICIT EGOISM IN SENTENCING DECISIONS: FIRST LETTER NAME EFFECTS WITH RANDOMLY ASSIGNED DEFENDANTS

Daniel L. Chen*

Abstract I find that judges assign 8% longer sentences to defendants whose first initials match their own. Name letter effects amplify when the first and second letter of the name match, when the entire name matches, when the name letter is rare, and appear for roughly all judges. The effects are larger for black defendants classified as "Negro" rather than "Black". The first initial effect replicates for the last name, as does the difference by racial label. These results are robust to adjusting for controls including skin, hair, and eye color, which highlights how racial labels can affect recognition and dignity.

Significance Statement: I find field evidence consistent with experimental studies that document 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. The effects appear more salient when a black defendants are categorized as "N" than categorized as "B". This 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 in a society that has held them to be subordinate and inferior.

Keywords: Revealed preference indifference, fairness

JEL codes: J15, D91, K0

*Daniel L. Chen, daniel.chen@iast.fr, Toulouse School of Economics, Institute for Advanced Study in Toulouse, University of Toulouse Capitole, Toulouse, France. First draft: July 2016. Current draft: May 2019. Latest version at: Implicit Egoism in Sentencing Decisions: First Initial Name Effects with Randomly Assigned Defendants. I thank research assistants for contributions to the project and numerous colleagues with helpful comments. This project was conducted while Chen received financial support from the Alfred P. Sloan Foundation (Grant No. 2018-11245), European Research Council (No. 614708), Swiss National Science Foundation (No. 100018-152768), and Agence Nationale de la Recherche.

1 Introduction

Revealed preference indifference is identified when behavioral biases affect decision-makers who are nearly indifferent between options. Imagine a legal outcome of interest, such as sentences determined by a judge, and some set of covariates used to generate sentences. The covariates are legally relevant in as much as prevailing legal norms require, or least permit, their use by judges for the sentencing decision. There might also be a set of covariates that are legally irrelevant, and that should not affect a legal outcome. These might include litigant characteristics that decisions makers are not permitted to take into account—such as race—or they may include irrelevant features in the environment, such as weather or football ([1];[2];[3–12]). The preferences of decision makers (e.g. judges) over the legally relevant covariates may affect the influence of irrelevant features. A judge could be said to have weak preferences, meaning that there was a relatively low cost in departing from the legally optimal outcome. In such cases of legal indifference, irrelevant factors can be expected to have greater influence. Behavioral bias reveals when decision-makers are indifferent. The revealed preference indifference of judges to litigants (or case facts or law) is normatively relevant as it violates the control principle and the merit principle ([13;14]), that individuals should be blameworthy only for events under their control.

This article tests if judges are swayed by the first initial of a defendant's name. Many studies investigate first initial effects ([15;16];[17;18];[19];[20];[21];[22–24];[25];[26];[27]), and this article studies high-stakes decisions outside the lab, utilizing the random assignment of defendants to judges. Economists have found that entrepreneurs chose to name firms after themselves and doing so is associated with higher profits, higher return on assets, and fewer ownership changes ([28]). In textbook discussions, it is hypothesized that the name letter effect and the endowment effect ([29];[30]) have the same origins ([31])—simply being connected to the self is said to affect its value. Hundreds of social psychological findings document the human tendency to enhance the self, a phenomenon referred to as implicit egoism. In experimental settings, matching first initials can increase psychological connections (i.e. unit relation) between an individual and

a subject ([32;33]). Formal models and experiments in economics have incorporated self-image motivations and documented management of self-image ([34–36]). People motivated to manage self-image can also socially distance themselves from negatively-valenced targets associated with the self ([27;37]). An initial-match can trigger connection to the judge's self, and the fact that it is connection to criminal activity that is bad, which makes them defensive, resulting in longer sentences. Individuals seek to distinguish themselves from that person, or to punish for the additional emotional cost that is experienced ([38];[39];[40]).

My approach to study name letter effects among judges 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 intial does not. I also account for the type of case, the month, the year, the day, and week of the decision. I find that judges assign 8% longer sentences when the first initial of their first name matches the defendant's. Judges assign 7% longer sentences when the first initial of their last name matches. 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 appear for roughly all judges in my sample, with roughly 10% displaying no effects and 10% displaying effects of the opposite sign.

If the bias is due to automatic thinking ([41]), nudges that increase attention could ameliorate bias ([42]). Conscious processing, directed by reflective thought can inhibit the name letter effect ([43]); thinking about reasons for preferences disrupt name letter effects ([44]). A recent analysis found that impacts of football game losses on judicial decisions are larger for minority juveniles ([2]). Another analysis of an embedded experiment in the American National Election Study found that labels like "homosexual" as opposed to "gay" affect survey responses on gay and lesbian rights ([45]). Labels like "gay and lesbian" are much more inclusive than labels like "homosexual" and the use of certain labels can shape how people feel about civil rights policies. In this article, I investigate whether African-American defendants categorized as "N" as opposed to "B" bear the brunt of name letter effects. "N" can refer to many different racial

slurs, but this article uses "Negro" for expositional purposes. Lack of reflection or attention can be characterized as revealed preference indifference. I hypothesize that judges will be more indifferent to African Americans categorized as "Negro" as opposed to "Black".

Like the label "homosexual", "Negro" has a long history of negative associations. The label is offensive because of its association with a long history of slavery, segregation, and discrimination that treated African Americans as second-class citizens, or worse.[1] Since the 1960s, "Black" has been the preferred term. Proposing and imposing labels can be a political exercise ([46]). My hypothesis is that the increased dignity and respect provided by the label "Black" disrupts name letter effects. I find that first initial effects appear only for defendants categorized as "Negro" and is absent for those categorized as "Black". This difference in indifference is robust to a rich set of controls for skin color, eye color, and hair color.

Labels play an important role in defining groups—label changes can be seen as attempts by minorities (based on, e.g., disability, race, gender, sexual orientation, or disease status) to redefine themselves and to gain respect and standing in a society that has held them to be subordinate and inferior ([47]). Quantifying revealed preference indifference in the criminal justice system measures the impact of status ([48]). This article advances the literature as no dataset codes individuals as "Negro" separately from "Black" in a high-stakes setting where the labels are presented exogenously to decision-makers.[2]

The remainder of the paper is organized as follows. Section 2 discusses related literature. Section 3 discusses the data. Section 4 presents the results. Section 5 concludes.

2 Relation to Literature

Self-esteem is one of the most researched topics in psychology ([62;63]), and dating back to[64], it has been suggested that an individual's name is one of the most important components of

[1]Many consider the label deeply rooted in degradation, fearmongering, and the creating of a deliberate sense of 'otherness.' For instance, some newspaper archives censor the label as derogatory and racist and some countries punish the use of the label if its use has an offensive intention.

[2]It is also the only dataset of its kind with names of both the defendants and the judges and randomly assigned judges. A large number of papers now employ random assignment of judges ([3;5;11;49–61]), but only[57] with a sample size of 1,003 had names.

self-identity. The name letter effect was first observed through the initials preference task, in which respondents, oblivious to the purpose of the task, rate their liking for letters both in and not in their name ([65;66]). It has been replicated in at least 15 different countries and across six different alphabets ([43;67–69]). Since Greenwald and Banaji ([70]) suggested that the name letter effect could form the basis of an indirect measure of self-esteem, the name letter effect and the Implicit Association Test ([71]) have become the two most frequently used indirect measures of implicit self-esteem ([72;73]), in part, due to the fact that only these two measures approached acceptable levels of test–retest reliability in psychometric properties of implicit self-esteem measures ([74]). The name letter effect has been used to uncover deeper insights into self-esteem-related psychological phenomena ([75;76]), including depression ([77]), physical health ([78]), social acceptance ([79]), and defensiveness ([80]). It has also been linked to childhood experiences and parenting styles ([81]), and it has been found to moderate unrealistic optimism and self-enhancing behaviors ([82;83]).

Implicit egotism, in particular, the unconscious associations that individuals have with others who share their first initials is a mainstay of modern psychology textbooks. The name letter effect is one of hundreds of social psychological findings concerning the unconscious human tendency to enhance the self and prefer things that are connected to the self, a theory often referred to as implicit egotism. Recent studies in social psychology have shown that people positively evaluate the first initials of their first and last names and that people associate their initials with themselves ([15;16]). Jozef Nuttin referred to this tendency as the name letter effect. While the primary focus of research into name letter effects is the first initial, researchers have also considered other manifestations of implicit egotism, such as individuals' preferences for the numbers in their birth dates and their favorable biases toward their in-groups. Hundreds of papers on implicit egotism suggest that people's positive automatic associations may contribute to their feelings about almost anything they associate with themselves ([17;18]). It logically follows, therefore, that people will have unconscious associations with objects and people that share their first initials.

It has been further argued that people are disproportionately likely to choose careers whose titles have the same first initials as their first names, as well as live in cities and/or states that resemble their names. For example, when a person shares the first couple of letters in his or her first name with a particular state (such as Penny and Pennsylvania), that person is much more likely to live in that state. First initials may also influence career choices. In lab experiments, participants were more attracted to company names that matched their own name and showed stronger intentions to apply to work there ([19]); in other studies, name letters affect evaluations of product prices and purchase intentions ([20]). In observational data, Pelham and colleagues found that that people whose names started with the letter H were more likely to own hardware stores than people whose names started with the letter R, while people whose names started with the letter R were more likely to own roofing companies than hardware stores. Other research in the name letter effect's role in career choice suggested similar results, showing that people prefer careers with titles similar to their first names, such as people named Dennis preferring to be dentists ([17]).

Some of the seminal findings have been found to be fragile ([21]) or spurious ([22–24]) due to the lack of adequate controls. Other research found mixed effects of shared initials on a variety of different activities ([25]). They found that people have a preference for letters in their own first and last names when paired with letters not in their names, as well as a preference for brands or products that have names similar to their own. However, they did not find a name letter preference for leisure activities, national groups, animals, or food. The authors explain these finding by claiming that the name letter effect is limited to domains that serve an expressive function. The researchers make the point that people may choose to buy, own, or display particular brand names to communicate their identities (e.g., their first initials) to others. Also, the research suggests that people may feel a sense of ownership over objects with names or initials similar to their own. Regardless of the insignificant findings on the name letter effect's role in people's preferences for other objects, Hodson and Olson did reinforce the idea that people strongly prefer the letters in their names, specifically the first initials,

and that this tendency is largely automatic.

In a related study of implicit egotism and name letter effect, it was found that people are attracted to other people whose names resemble their own ([26]). After looking at birth records, researchers found that first-name initials of the parents of newborns matched more frequently than was expected, thus suggesting that people are more likely to be romantically involved with those who share their first initials. The researchers explain the automatic processing involved in this tendency by writing that, "although it might seem farfetched that a social contract as important as marriage is influenced by something as capricious as the letters in a person's name, we assume that many of people's judgments and decisions have unconscious components" ([26]). Indeed, it would seem that life events as important as procreating may not be subject to the name letter effect, given the superficiality of one's first name initial: it is odd to think a person's first initial could influence whether or not someone is attracted to another person. Nonetheless, this data, as well as the data from Pelham et al.'s studies indicate that many people believe that major life decisions are subject to implicit egotism and the name letter effect.

In a critical assessment of the field studies, four main concerns were highlighted ([23]). First, there is the issue of omitted variables: "one must take into account the impact of unobservable variables that may affect both the names people receive as newborns and the decisions they make as individuals." Second, the results can be sensitive to controlling for the ethnic make-up of the population or fragile to sampling error. Third, reverse causality can explain observational associations: "Rather than employees seeking out companies with similar names, people starting new companies may name them after themselves" ([22]). Fourth, apparent name-effects can be due to name frequency ([24]). As Simonsohn writes, "I personally do believe in the psychological reality of implicit egotism, and also believe that it may influence real life decisions (over which people exhibit near indifference)" and that "findings [indicating the results are due to lack of adequate control] do not mean that implicit egotism is not a real psychological phenomenon, but given that the effect is of moderate size in the laboratory, settings where

people are closer to indifference among options are more likely to lead to detectable effects outside of it." The paper he cited as the most convincing evidence of implicit egotism in the field was one that examined donations to disaster relief after major hurricanes; using a sample of seven hurricanes, the researchers found that individuals who shared an initial with the hurricane name were overrepresented among hurricane relief donors relative to the baseline distribution of initials in the donor population ([27]). Giving charity to needy victims involves "decisions over which probably people are nearly indifferent (e.g., between giving to Katrina victims or to victims of other disasters)," and psychological factors can influence these close decisions ([23]).

Formal models in economics have incorporated motivations and cognitive effects like self-image ([35;36]) and salience ([84–88]). In social psychology, people motivated to manage self-image may socially distance themselves from negatively-valenced targets associated with the self ([27;37]). Sharing the same initial may lead to a person to feel anger and disgust that an individual sullied his name, which may influence a judge to impose a harsher sentence. Psychologists contend that seeing our name connected to someone can facilitate self-referencing in which information associated with our name is related to what we know about ourselves ([38]). Individuals may seek to subconsciously distinguish themselves from that person, or to punish him for the additional emotional cost (unconscious, presumably) that he caused.

Ego threat occurs "when favorable views about oneself are questioned, contradicted, impugned, mocked, challenged or otherwise put in jeopardy" ([39]). According to Baumeister and Campbell, threatened egotism entails that one's favorable view of self (or public image) has been attacked ([89]). Following threat, individuals aggress against the source of the perceived threat ([40]). Baumeister and colleagues posited that the mechanism for threatened egotism is narcissism. Narcissistic individuals have unstable, inflated self-appraisals, and are vulnerable to experiencing ego threats ([90]). Narcissists can be viewed as chronic self-enhancers ([91]). Narcissism and ego threat presence significantly interact to predict aggression ([40]). Highest frequencies of hostile behavior were particular to participants high in implicit egotism on days

of high provocation or negative feedback ([92]). Bushman and Baumeister also write that the combination of narcissism and insult lead to aggression toward the source of the insult ([40]). People are extremely reluctant to revise their self-appraisals in a downward direction. The mediating process following an insult may therefore involve directing anger outward as a way of avoiding a downward revision of the self-concept ([39]). Such relations have been established using both self-reported and informant-based outcomes ([93]) and are thought to follow from the greater sense of entitlement that characterizes higher levels of narcissism ([94]).

The link between aggression and superiority is said to have evolutionary roots. Some pack animals have status hierarchies in which one's position in a hierarchy depends on which others one can be defeated in a fight ([39]). Among humans, the warriors often became the aristocracy, with the battlefield leaders becoming the individual rulers ([95;96]). It has thus been argued that aggressive responses to threatened egotism is derived from a cultural or evolutionary impulse ([39]).

Studying matching first initials is related to a set of experimental methods that increase the psychological connection (i.e., unit relation) between the narcissist and the threatener ([32;33]). One study finds that aggression is attenuated when participants were told the source of the aggression (a poor evaluation of an essay) came from someone who shared a birthday or fingerprint type with them ([97]). In the judicial setting, the source of potential ego threat (i.e., the sullying of one's identity) is coming from those who actually do share the first initial. There is also evidence that the 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) ([98]).

3 Data

My 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.[3] 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.[4]

The random assignment occurs through a "bingo" system. When the District Attorney's office

[3]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).

[4]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 (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

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 matches (see Tab. I)[5]. 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).

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

4 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.[6] 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 used a multivariate regression with log sentence length as the dependent variable and a judge fixed 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).

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

FIGURE 1.— Density (Name Letter Effect)

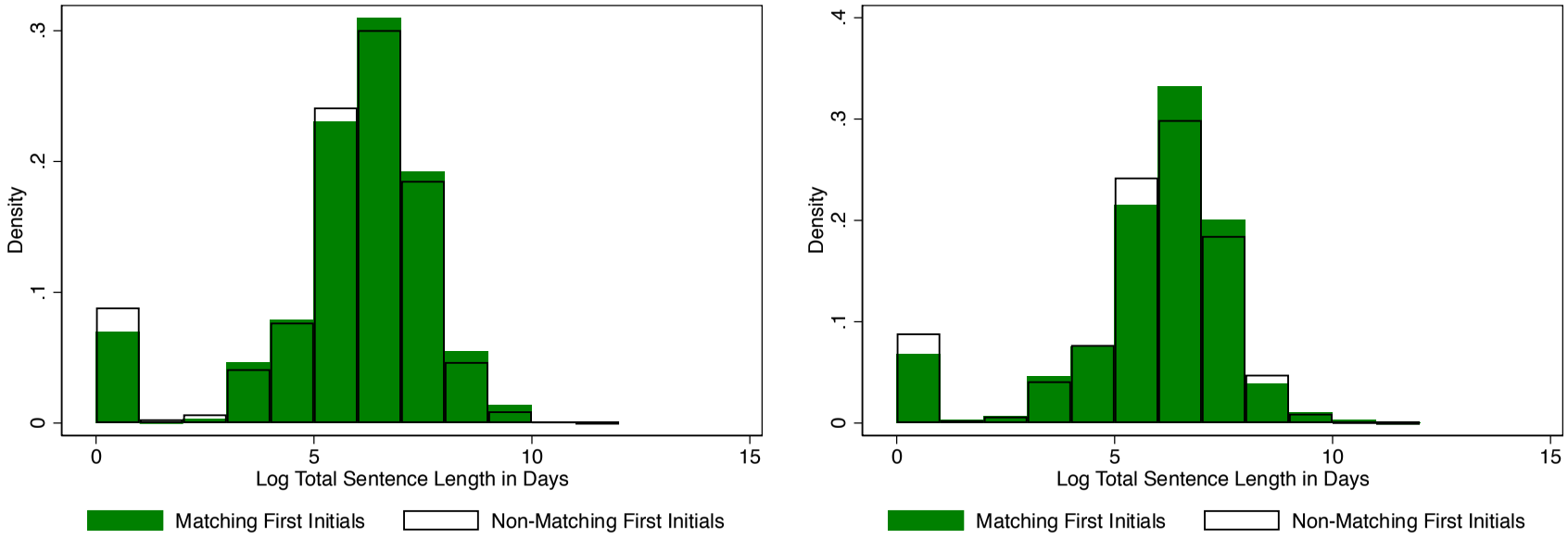


TABLE II

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 features 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 Appendix Fig. D.1).

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

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 (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

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.[7] 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).

Results on Name Letter Effects by Judge I analyzed judges, specifically, 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. 2 reports the monotonicity in the first letter name effect. All but three judges display significant name letter effects, and nearly all in the same sign. The judges are sorted by caseload, suggesting

[7]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 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 (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

TABLE V

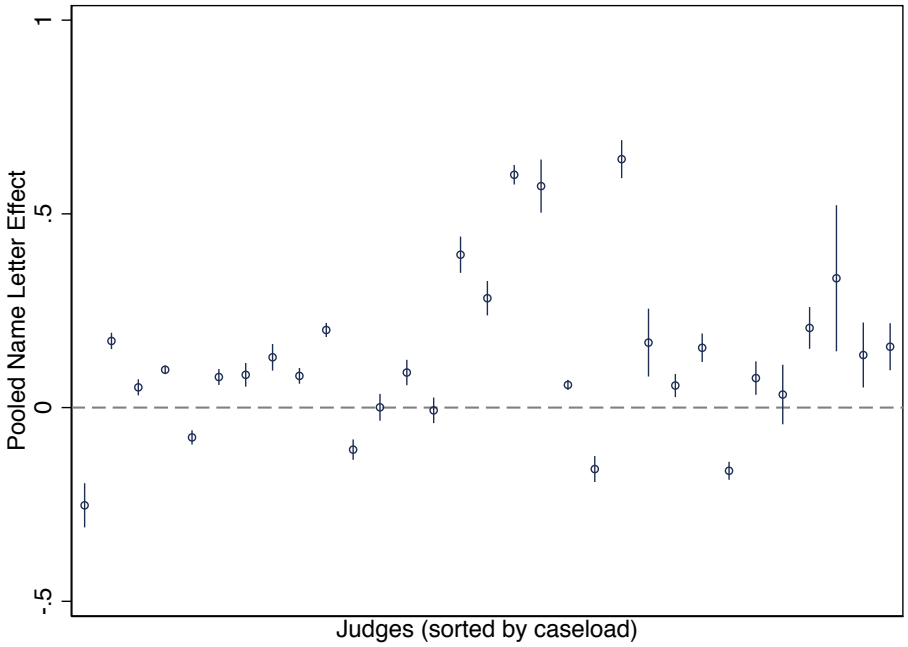
NAME LETTER EFFECT ROBUSTNESS TO OUTLIERS (LAST NAME)

	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 (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

that experience does not mitigate bias here, unlike in other settings ([99;100]). 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]

FIGURE 2.— 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.

A number of judges and the Orleans Parish District Attorney office itself had corruption charges levied against them. In the Supreme Court case, *Connick v. Thompson, 563 U.S. 51 (2011),* deliberating the actions of the New Orleans District Attorney's office during the time-frame of the data, Justice Ginsburg declared the office "deliberately indifferent" to the rights of defendants. Ginsburg cited testimony from then District Attorney, Connick, that he had stopped reading law books when he took office in 1974. She wrote that the office's instruction on court rulings (requiring the state to turn over exculpatory evidence) amounted to little more than four sentences in a manual; that a "cavalier" attitude spurred a "culture of inattention"

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

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.

to defendants' rights. This article suggests one way to detect "deliberate indifference".

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.[9] The coefficient stabilizes with the inclusion of the main controls. Fig. 3 show the corresponding shifts in densities to assuage concerns of outliers.

[9] 3.3% of the cases have first and second letter matches of the first name or the last name.

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

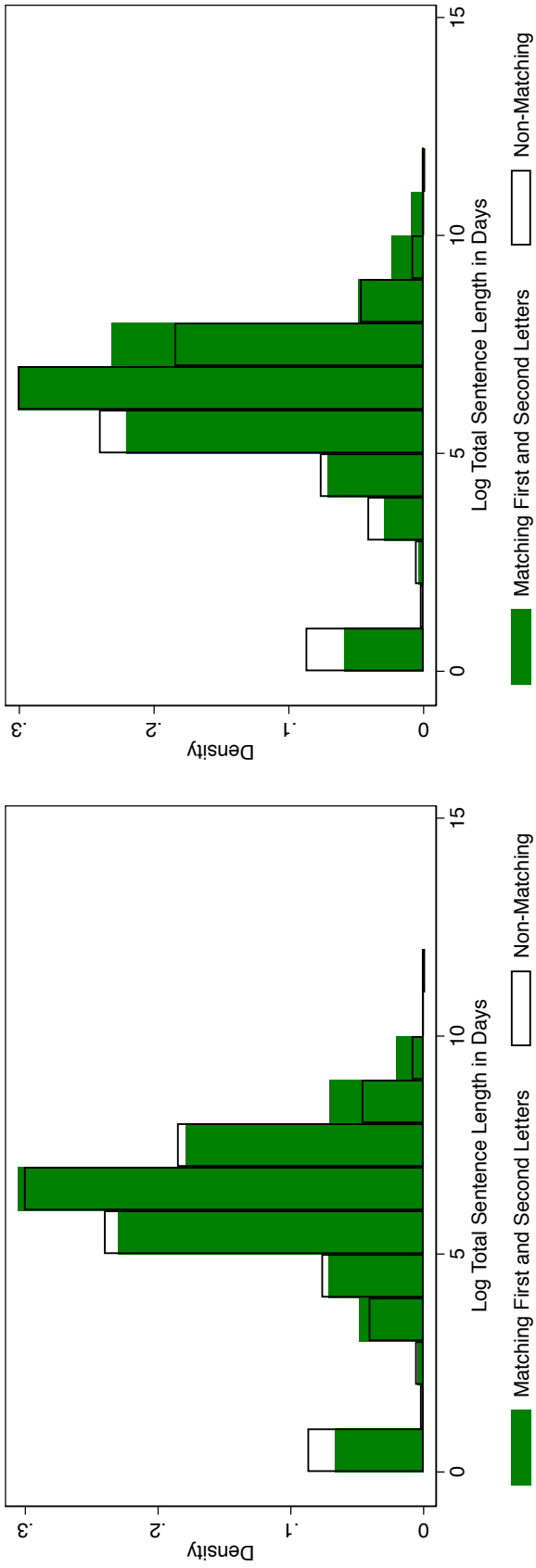


TABLE VII

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.

Results on Full Name Match The theories about first initial effects would 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. Appendix Tab. D.1 shows that, even excluding sentences with a full name match, the effect of first initial matches hold.

Results on Name Letter Frequency Letter frequency might amplify name letter effects, as uncommon letters might generate more salience when the first initial matches. Tab. VIII 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.

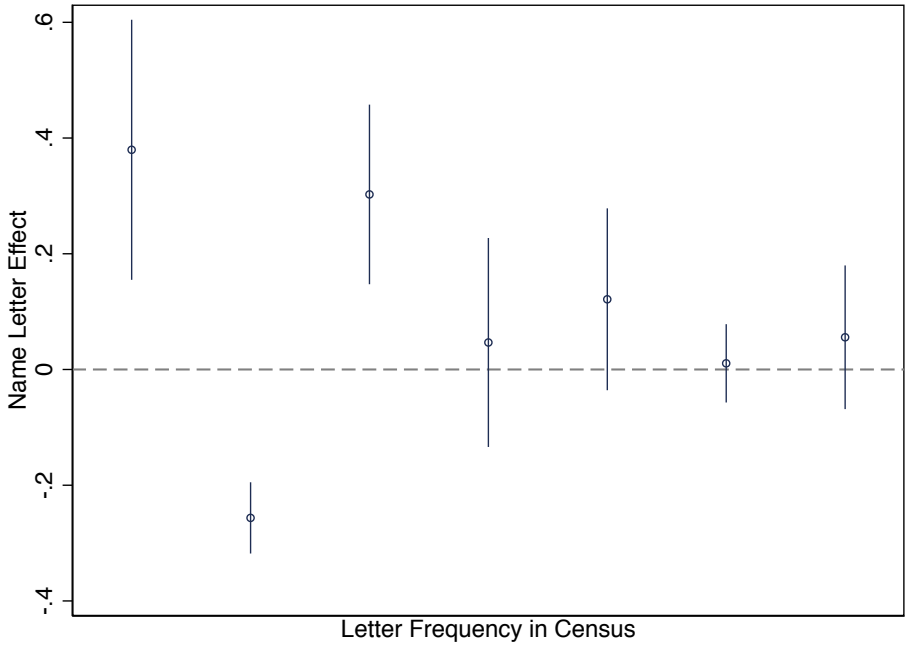
TABLE VIII

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.

TABLE IX

Pooled Name Letter Effect by Racial Classification

	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 classified 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 (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

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

Tab. X reports the analyses separately by racial classification and finds that a large proportion of the increase in sentence lengths in Tab. II comes from those classified 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 E for frequency distributions of skin, hair, and eye color). For those classified as "B", the sentence length increases insignificantly by 1% (Column 4).[10]

I replicate the analysis of heterogeneity for the first initial effect of the last name. Tab. XI reports again a large proportion of the increase in sentence lengths comes from those classified

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

TABLE X

NAME LETTER EFFECT BY RACIAL CLASSIFICATION (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	Negro	Black	Negro	Black
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 (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

as "N". The point estimates are similar to that of Tab. IV for those classified as "N" (7%), but not for "B" (0.8%). The difference in indifference is robust to including the rich set of controls for skin, hair, and eye color.

Results on Judge and Defendant Race The theories about first initial effects would seem to imply a same-race association should amplify name letter effects. This sub-section presents this analysis. White judges have slightly larger name letter effects for white defendants (Appendix Tab. F.1 Column 3) than for non-white defendants (Appendix Tab. F.1 Column 4), but the effect for non-white defendants is more precisely estimated.

Appendix Tab. F.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.[11] 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.

[11] All the judges are white or black.

TABLE XI

Name Letter Effect by Racial Classification (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	Negro	Black	Negro	Black
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 (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).

5 Conclusion

I find field evidence consistent with experimental studies that document 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.

The effects appear more salient when a defendant is categorized as "N" than categorized as "B". This 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 in a society that has held them to be subordinate and inferior.

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 to the litigant, case facts, or the law. If individuals perceive indifference by important decision makers, everyday indifference can be an important contributor to disillusionment and de-legitimization of legal authorities.

References

[1] Moses Shayo and Asaf Zussman. Judicial ingroup bias in the shadow of terrorism. *The Quarterly Journal of Economics*, 126(3):1447–1484, 2011.

[2] Ozkan Eren and Naci Mocan. Emotional judges and unlucky juveniles. *American Economic Journal: Applied Economics*, 10(3):171–205, 2018.

[3] Max Schanzenbach. Racial and sex disparities in prison sentences: the effect of district-level judicial demographics. *The Journal of Legal Studies*, 34(1):57–92, 2005.

[4] Shawn D Bushway and Anne Morrison Piehl. Judging judicial discretion: Legal factors and racial discrimination in sentencing. *Law and Society Review*, pages 733–764, 2001.

[5] David B Mustard. Racial, ethnic, and gender disparities in sentencing: Evidence from the us federal courts. *Journal of Law and Economics*, 44(1):285–314, 2001.

[6] Darrell Steffensmeier and Stephen Demuth. Ethnicity and sentencing outcomes in us federal courts: Who is punished more harshly? *American sociological review*, pages 705–729, 2000.

[7] Celesta A Albonetti. Sentencing under the federal sentencing guidelines: Effects of defendant characteristics, guilty pleas, and departures on sentence outcomes for drug offenses, 1991-1992. *Law and Society Review*, pages 789–822, 1997.

[8] Benjamin Klein, Robert G. Crawford, and Armen A. Alchian. Vertical integration, appropriable rents, and the competitive contracting process. *Journal of Law and Economics*, 21(2):297–326, October 1978.

[9] John A Humphrey and Timothy J Fogarty. Race and plea bargained outcomes: A research note. *Social Forces*, 66(1):176–182, 1987.

[10] Randall J Thomson and Matthew T Zingraff. Detecting sentencing disparity: Some problems and evidence. *American Journal of Sociology*, pages 869–880, 1981.

[11] David S. Abrams, Marianne Bertrand, and Sendhil Mullainathan. Do judges vary in their treatment of race? *The Journal of Legal Studies*, 41(2):347 – 383, 2012.

[12] Christina Boyd, Lee Epstein, and Andrew D. Martin. Untangling the causal effects of sex on judging. *American Journal of Political Science*, 54(2):389–411, 2010.

[13] Hervé Moulin. *Fair division and collective welfare*. MIT press, 2004.

[14] Mehmet Y Gurdal, Joshua B Miller, and Aldo Rustichini. Why blame? *Journal of Political Economy*, 121(6):1205–1247, 2013.

[15] Jozef M Nuttin. Narcissism beyond gestalt and awareness: The name letter effect. *European Journal of Social Psychology*, 15(3):353–361, 1985.

[16] Jozef M Nuttin. Affective consequences of mere ownership: The name letter effect in twelve european languages. *European Journal of Social Psychology*, 17(4):381–402, 1987.

[17] Brett W Pelham, Matthew C Mirenberg, and John T Jones. Why susie sells seashells by the seashore: implicit egotism and major life decisions. *Journal of personality and social psychology*, 82(4):469, 2002.

[18] BW Pelham, M Carvallo, T DeHart, and JT Jones. Assessing the validity of implicit egotism: a reply to gallucci (2003). *Journal of personality and social psychology*, 85(5):800–807, 2003.

[19] Frederik Anseel and Wouter Duyck. Unconscious Applicants: A Systematic Test of Name-Letter Effect. *The Association for Psychological Science*, 19(10):1059–1061, 2008.

[20] Keith S. Coulter and Dhruv Grewal. Name-Letters and Birthday Numbers: Implicit Egotism Effects in Pricing. *Journal of Marketing*, 78(3):102–120, 2014.

[21] M Gallucci. I sell seashells by the seashore and my name is jack: comment on pelham, mirenberg, and jones (2002). *Journal of personality and social psychology*, 85(5):789–799, 2003.

[22] Uri Simonsohn. Spurious also? name-similarity effects (implicit egotism) in employment decisions. *Psychological science*, 22(8):1087–1089, 2011.

[23] Uri Simonsohn. Spurious? name similarity effects (implicit egotism) in marriage, job, and moving decisions. *Journal of personality and social psychology*, 101(1):1, 2011.

[24] Raphael Silberzahn, Uri Simonsohn, and Eric Luis Uhlmann. Matched-names analysis reveals no evidence of name-meaning effects a collaborative commentary on silberzahn and uhlmann (2013). *Psychological science*, 25(7):1504–1505, 2014.

[25] Gordon Hodson and James M Olson. Testing the generality of the name letter effect: Name initials and everyday attitudes. *Personality and Social Psychology Bulletin*, 31(8):1099–1111, 2005.

[26] John T Jones, Brett W Pelham, Mauricio Carvallo, and Matthew C Mirenberg. How do i love thee? let me count the js: implicit egotism and interpersonal attraction. *Journal of personality and social*

psychology, 87(5):665, 2004.

[27] Jesse Chandler, Tiffany M Griffin, and Nicholas Sorensen. In the" i" of the storm: Shared initials increase disaster donations. *Judgment and Decision Making*, 3(5):404, 2008.

[28] Sharon Belenzon, Aaron K Chatterji, and Brendan Daley. Eponymous entrepreneurs. *American Economic Review*, 107(6):1638–55, 2017.

[29] Daniel Kahneman, Jack L Knetsch, and Richard H Thaler. Experimental tests of the endowment effect and the coase theorem. *Journal of political Economy*, pages 1325–1348, 1990.

[30] James K Beggan. On the social nature of nonsocial perception: The mere ownership effect. *Journal of Personality and Social Psychology*, 62(2):229, 1992.

[31] Roy F. Baumeister and Brad J. Bushman. *Social Psychology and Human Nature*. Belmont, CA: Thomson Higher Education, 2008.

[32] Fritz Heider. *The psychology of interpersonal relations*. Psychology Press, 2013.

[33] Robert A Emmons. Factor analysis and construct validity of the narcissistic personality inventory\. *Journal of personality assessment*, 48(3):291–300, 1984.

[34] Botond Köszegi. Ego utility, overconfidence, and task choice. *Journal of the European Economic Association*, 4(4):673–707, 2006.

[35] Roland Bénabou and Jean Tirole. Identity, morals, and taboos: Beliefs as assets. *The Quarterly Journal of Economics*, 126(2):805–855, May 2011.

[36] Zachary Grossman. Self-signaling and social-signaling in giving. *Journal of Economic Behavior & Organization*, 117:26–39, 2015.

[37] John F Finch and Robert B Cialdini. Another indirect tactic of (self-) image management boosting. *Personality and Social Psychology Bulletin*, 15(2):222–232, 1989.

[38] Daniel J Howard and Roger A Kerin. The effects of name similarity on message processing and persuasion. *Journal of Experimental Social Psychology*, 47(1):63–71, 2011.

[39] Roy F Baumeister, Laura Smart, and Joseph M Boden. Relation of threatened egotism to violence and aggression: the dark side of high self-esteem. *Psychological review*, 103(1):5, 1996.

[40] Brad J Bushman and Roy F Baumeister. Threatened egotism, narcissism, self-esteem, and direct and displaced aggression: does self-love or self-hate lead to violence? *Journal of personality and social psychology*, 75(1):219, 1998.

[41] Daniel Kahneman. *Thinking, Fast and Slow*. Farrar, Straus and Giroux, 2011.

[42] Cass Sunstein and Richard Thaler. *Nudge: Improving Decisions about Health, Wealth, and Happiness*. Yale University Press, 2008.

[43] Sander L Koole, Ap Dijksterhuis, and Ad van Knippenberg. What's in a name: implicit self-esteem and the automatic self. *Journal of personality and social psychology*, 80(4):669, 2001.

[44] C Miguel Brendl, Amitava Chattopadhyay, Brett W Pelham, and Mauricio Carvallo. Name letter branding: Valence transfers when product specific needs are active. *Journal of Consumer Research*, 32(3):405–415, 2005.

[45] Brianna A Smith, Zein Murib, Matthew Motta, Timothy H Callaghan, and Marissa Theys. Gay or homosexual? the implications of social category labels for the structure of mass attitudes. *American Politics Research*, 46(2):336–372, 2018.

[46] Ben L Martin. From negro to black to african american: The power of names and naming. *Political Science Quarterly*, 106(1):83–107, 1991.

[47] Tom W Smith. Changing racial labels: From colored to negro to black to african american. *Public Opinion Quarterly*, 56(4):496–514, 1992.

[48] Beth Omansky Gordon and Karen E Rosenblum. Bringing disability into the sociological frame: A comparison of disability with race, sex, and sexual orientation statuses. *Disability & Society*, 16(1):5–19, 2001.

[49] James M Anderson, Jeffrey R Kling, and Kate Stith. Measuring interjudge sentencing disparity: Before and after the federal sentencing guidelines*. *The Journal of Law and Economics*, 42(S1):271–308, 1999.

[50] Joel Waldfogel. Aggregate inter-judge disparity in federal sentencing: Evidence from three districts (d. ct., sdny, nd cal.). *Federal Sentencing Reporter*, 4(3):151–154, 1991.

[51] Jeffrey R. Kling. Incarceration length, employment, and earnings. *The American Economic Review*, 96(3):863–876, June 2006.

[52] M Marit Rehavi and Sonja B Starr. Racial disparity in federal criminal sentences. *Journal of Political*

Economy, 122(6):1320–1354, 2014.

[53] Rafael Di Tella and Ernesto Schargrodsky. Criminal recidivism after prison and electronic monitoring. *Journal of Political Economy*, 121(1):28–73, 2013.

[54] Daniel S Nagin and G Matthew Snodgrass. The effect of incarceration on re-offending: Evidence from a natural experiment in pennsylvania. *Journal of Quantitative Criminology*, 29(4):601–642, 2013.

[55] Charles E Loeffler. Does imprisonment alter the life course? evidence on crime and employment from a natural experiment. *Criminology*, 51(1):137–166, 2013.

[56] Joshua B Fischman and Max M Schanzenbach. Racial disparities under the federal sentencing guidelines: The role of judicial discretion and mandatory minimums. *Journal of Empirical Legal Studies*, 9(4):729–764, 2012.

[57] Donald P Green and Daniel Winik. Using random judge assignments to estimate the effects of incarceration and probation on recidivism among drug offenders. *Criminology*, 48(2):357–387, 2010.

[58] Crystal S Yang. Free at last? judicial discretion and racial disparities in federal sentencing. *The Journal of Legal Studies*, 44(1):75–111, 2015.

[59] Will Dobbie, Jacob Goldin, and Crystal S Yang. The effects of pretrial detention on conviction, future crime, and employment: Evidence from randomly assigned judges. *American Economic Review*, 108(2):201–40, 2018.

[60] Anna Aizer and Joseph J Doyle Jr. Juvenile incarceration, human capital, and future crime: Evidence from randomly assigned judges. *The Quarterly Journal of Economics*, 130(2):759–803, 2015.

[61] Briggs Depew, Ozkan Eren, and Naci Mocan. Judges, juveniles, and in-group bias. *The Journal of Law and Economics*, 60(2):209–239, 2017.

[62] Constantine Sedikides, Eric A Rudich, Aiden P Gregg, Madoka Kumashiro, and Caryl Rusbult. Are normal narcissists psychologically healthy?: self-esteem matters. *Journal of personality and social psychology*, 87(3):400, 2004.

[63] William B Swann Jr, Christine Chang-Schneider, and Katie Larsen McClarty. Do people's self-views matter? self-concept and self-esteem in everyday life. *American Psychologist*, 62(2):84, 2007.

[64] Gordon Willard Allport. *Personality*. Holt New York, 1937.

[65] Vera Hoorens and Elka Todorova. The name letter effect: Attachment to self or primacy of own name writing? *European Journal of Social Psychology*, 18(4):365–368, 1988.

[66] Deborah A Prentice and Dale T Miller. When small effects are impressive. *Psychological bulletin*, 112(1):160, 1992.

[67] Vera Hoorens, Jozef M Nuttin, Ildikó Erdélyi Herman, and Ubolwanna Pavakanun. Mastery pleasure versus mere ownership: A quasi-experimental cross-cultural and cross-alphabetical test of the name letter effect. *European Journal of Social Psychology*, 20(3):181–205, 1990.

[68] John T Jones, Brett W Pelham, Matthew C Mirenberg, and John J Hetts. Name letter preferences are not merely mere exposure: Implicit egotism as self-regulation. *Journal of Experimental Social Psychology*, 38(2):170–177, 2002.

[69] Shinobu Kitayama and Mayumi Rarasawa. Implicit self-esteem in japan: Name letters and birthday numbers. *Personality and Social Psychology Bulletin*, 23(7):736–742, 1997.

[70] Anthony G Greenwald and Mahzarin R Banaji. Implicit social cognition: attitudes, self-esteem, and stereotypes. *Psychological review*, 102(1):4, 1995.

[71] Anthony G Greenwald, Debbie E McGhee, and Jordan LK Schwartz. Measuring individual differences in implicit cognition: the implicit association test. *Journal of personality and social psychology*, 74(6):1464, 1998.

[72] Stefan Stieger, Martin Voracek, and Anton K Formann. How to administer the initial preference task. *European Journal of Personality*, 26(1):63–78, 2012.

[73] Stefan Stieger, Christoph Burgera, Franziska R. Schiller, Esther K. Schulze, and Martin Voracek. Measuring Implicit Gender-Role Orientation: The Gender Initial Preference Task. *Journal of Personality Assessment*, 96(3):358–367, 2014.

[74] Jennifer K Bosson, William B Swann Jr, and James W Pennebaker. Stalking the perfect measure of implicit self-esteem: The blind men and the elephant revisited? *Journal of personality and social psychology*, 79(4):631, 2000.

[75] Sander L Koole and Tracy DeHart. Self-affection without self-reflection: Origins, models, and consequences of implicit self-esteem. *The self*, pages 21–49, 2007.

[76] Luuk Albers, Mark Rotteveel, and AP Dijksterhuis. Towards optimizing the name letter test as a measure of implicit self-esteem. *Self and Identity*, 8(1):63–77, 2009.
[77] Erik Franck, Rudi De Raedt, and Jan De Houwer. Implicit but not explicit self-esteem predicts future depressive symptomatology. *Behaviour research and therapy*, 45(10):2448–2455, 2007.
[78] Mitsuru Shimizu and Brett W Pelham. The unconscious cost of good fortune: implicit and explicit self-esteem, positive life events, and health. *Health Psychology*, 23(1):101, 2004.
[79] Jodene R Baccus, Mark W Baldwin, and Dominic J Packer. Increasing implicit self-esteem through classical conditioning. *Psychological Science*, 15(7):498–502, 2004.
[80] Michela Schröder-Abé, Almut Rudolph, Anja Wiesner, and Astrid Schütz. Self-esteem discrepancies and defensive reactions to social feedback. *International Journal of Psychology*, 42(3):174–183, 2007.
[81] Tracy DeHart, Brett W Pelham, and Howard Tennen. What lies beneath: Parenting style and implicit self-esteem. *Journal of experimental social psychology*, 42(1):1–17, 2006.
[82] Jennifer K Bosson, Ryan P Brown, Virgil Zeigler-Hill, and William B Swann. Self-enhancement tendencies among people with high explicit self-esteem: The moderating role of implicit self-esteem. *Self and Identity*, 2(3):169–187, 2003.
[83] Ap Dijksterhuis. I like myself but i don't know why: enhancing implicit self-esteem by subliminal evaluative conditioning. *Journal of personality and social psychology*, 86(2):345, 2004.
[84] Pedro Bordalo, Nicola Gennaioli, and Andrei Shleifer. Salience in experimental tests of the endowment effect. *The American Economic Review*, 102(3):47–52, 2012.
[85] Pedro Bordalo, Nicola Gennaioli, and Andrei Shleifer. Salience theory of choice under risk. *The Quarterly journal of economics*, 127(3):1243–1285, 2012.
[86] Pedro Bordalo, Nicola Gennaioli, and Andrei Shleifer. Salience and asset prices. *The American Economic Review*, 103(3):623–628, 2013.
[87] Pedro Bordalo, Nicola Gennaioli, and Andrei Shleifer. Salience and consumer choice. *Journal of Political Economy*, 121(5), 2013.
[88] Pedro Bordalo, Nicola Gennaioli, and Andrei Shleifer. Salience theory of judicial decisions. *The Journal of Legal Studies*, 44(S1):S7–S33, 2015.
[89] Roy F Baumeister and W Keith Campbell. The intrinsic appeal of evil: Sadism, sensational thrills, and threatened egotism. *Personality and Social Psychology Review*, 3(3):210–221, 1999.
[90] Roy F Baumeister. Violent pride. *Scientific American*, 284(4):96–101, 2001.
[91] Delroy L Paulhus. Interpersonal and intrapsychic adaptiveness of trait self-enhancement: A mixed blessing? *Journal of personality and social psychology*, 74(5):1197, 1998.
[92] Ryan L. Boyd and Michael D. Robinson. Not Sugar and Spice and Everything Nice: Name-Letter Preferences as a Predictor of Daily Hostile Behavior. *Self and Identity*, 14(2):147–156, 2015.
[93] Mallory L Malkin, Virgil Zeigler-Hill, Christopher T Barry, and Ashton C Southard. The view from the looking glass: How are narcissistic individuals perceived by others? *Journal of personality*, 81(1):1–15, 2013.
[94] Ryan P Brown, Karolyn Budzek, and Michael Tamborski. On the meaning and measure of narcissism. *Personality and Social Psychology Bulletin*, 35(7):951–964, 2009.
[95] William H McNeill. *The rise of the West: A history of the human community*. University of Chicago Press, 2009.
[96] William H McNeill. *The pursuit of power: Technology, armed force, and society since AD 1000*. University of Chicago Press, 2013.
[97] Sara Konrath, Brad J Bushman, and W Keith Campbell. Attenuating the link between threatened egotism and aggression. *Psychological Science*, 17(11):995–1001, 2006.
[98] Lowell Gaertner and Jonathan Iuzzini. Rejection and entitativity: A synergistic model of mass violence. *The social outcast: Ostracism, social exclusion, rejection, and bullying*, pages 307–320, 2005.
[99] Daniel L. Chen, Tobias J. Moskowitz, and Kelly Shue. Decision Making Under the Gambler's Fallacy: Evidence from Asylum Judges, Loan Officers, and Baseball Umpires. *The Quarterly Journal of Economics*, 131(3):1181–1242, 2016.
[100] David Arnold, Will Dobbie, and Crystal S Yang. Racial bias in bail decisions. *The Quarterly Journal of Economics*, 2017.

For Online Publication

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.

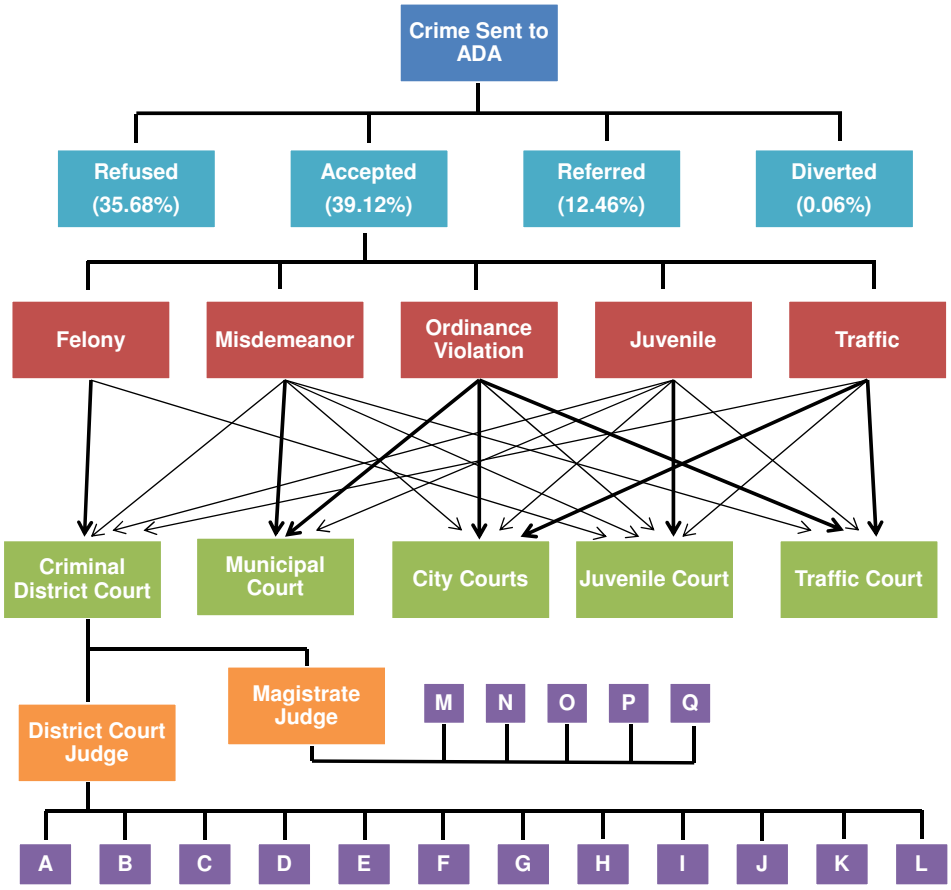
APPENDIX TABLE A.1

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)

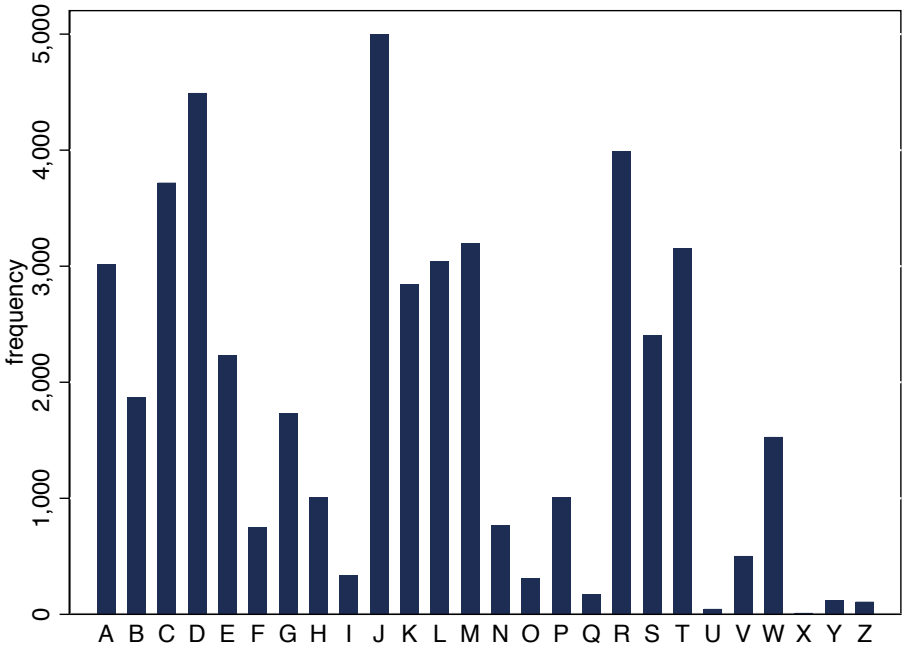
Notes: Column (1) reports estimates from a single OLS regression of judge leniency on the variables listed and includes case type by month by year fixed effects, with standard errors clustered at the judge level. Column (2) reports separate OLS regressions of judge leniency on each of the variables listed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

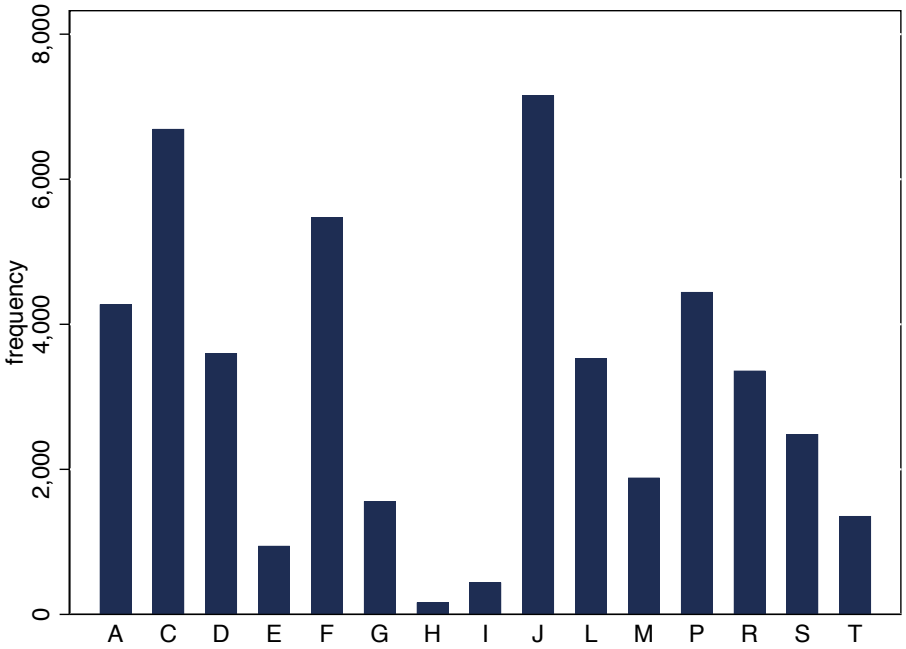


B Distribution of First Initials of Defendants and Judges

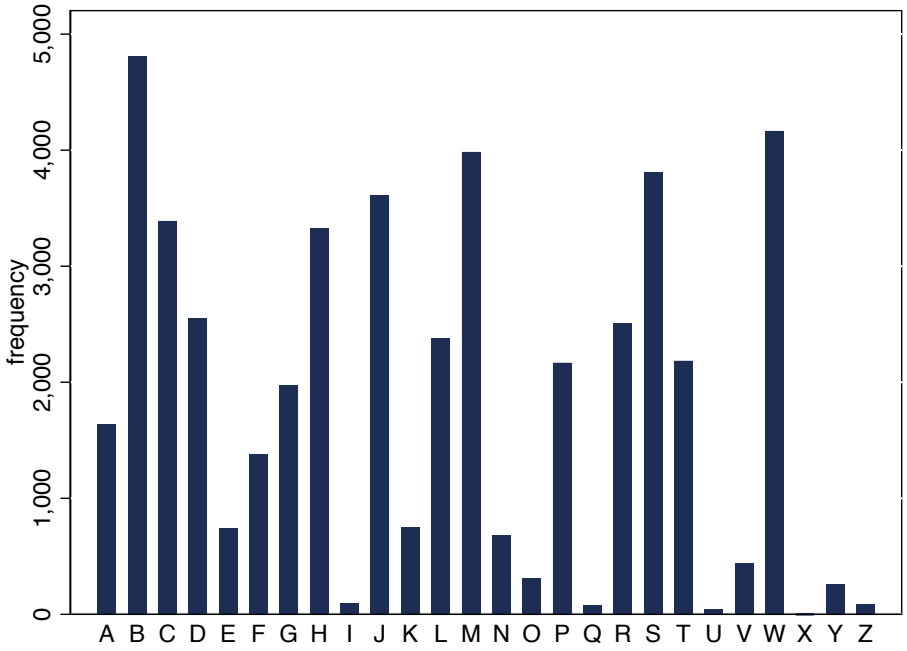
Appendix Figure B.1.— Distribution of First Initials of Defendants (First Name)



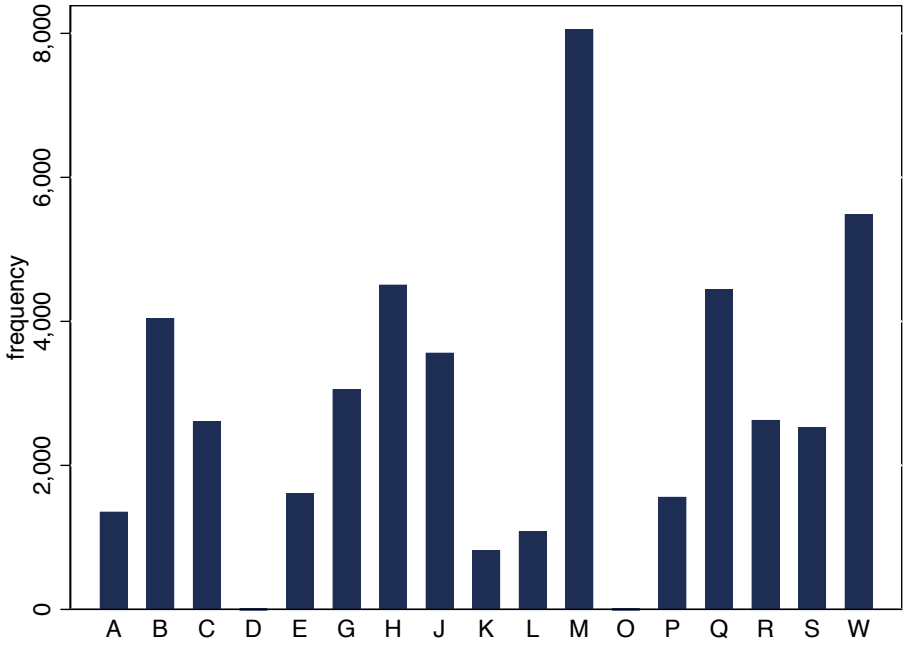
Appendix Figure B.2.— Distribution of First Initials of Judges (First Name)



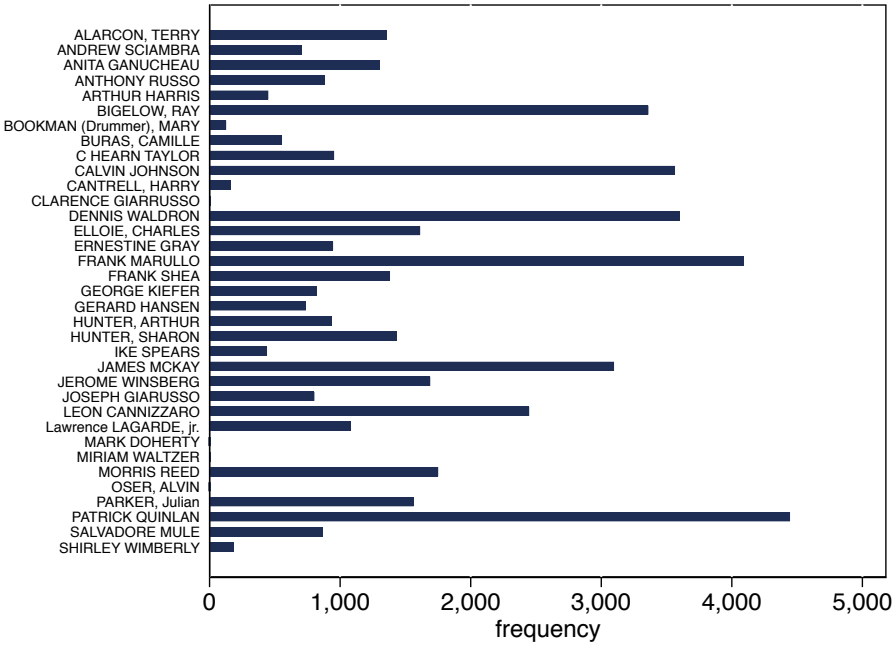
Appendix Figure B.3.— Distribution of First Initials of Defendants (Last Name)



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 Additional Baseline Results

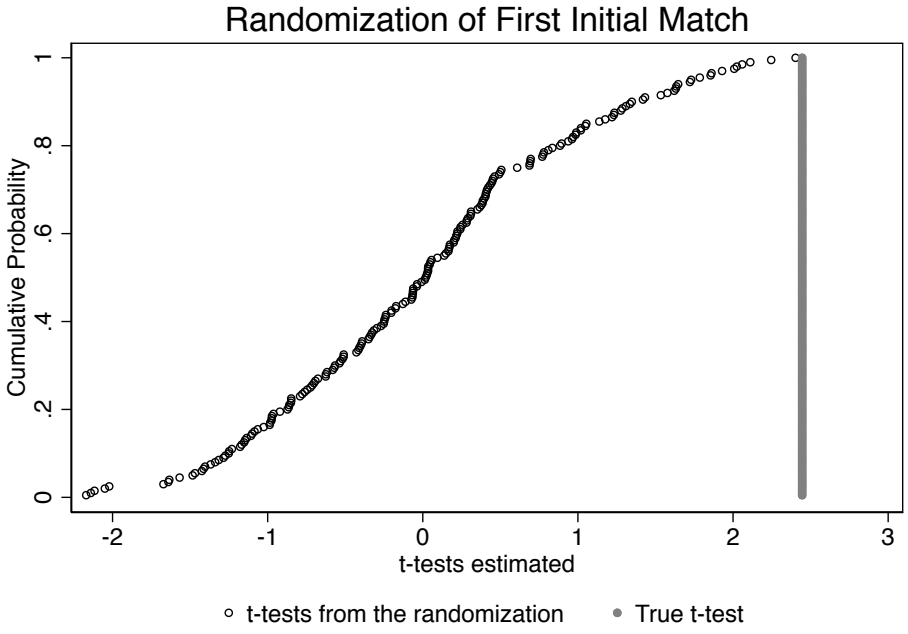
APPENDIX TABLE D.1

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

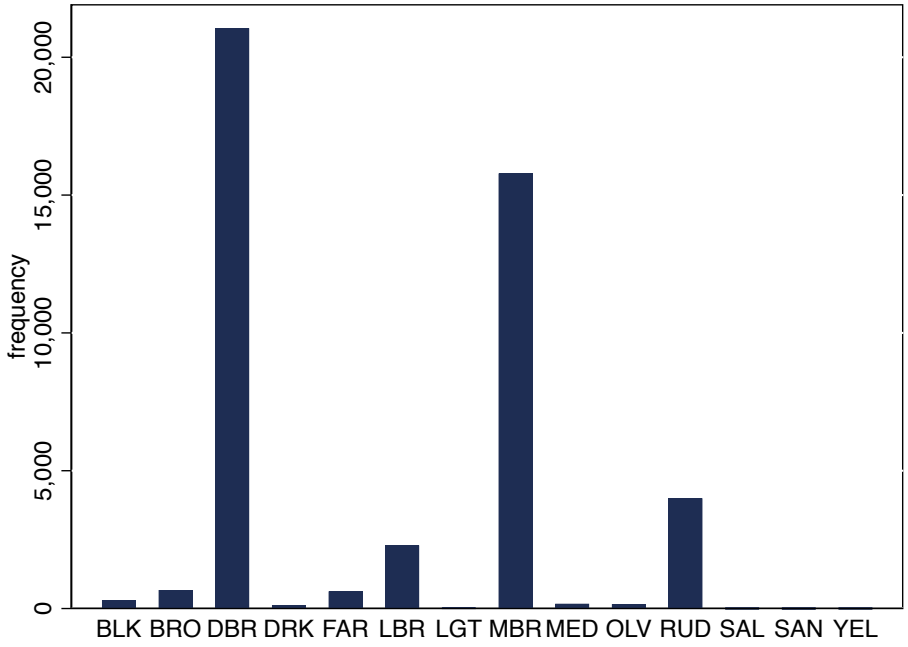
Notes: Robust standard errors clustered at the judge level in parentheses (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$). First Letter Match means whether the first letter of the first name or the first letter of the last name matches.

APPENDIX FIGURE D.1.— Randomization Inference with Randomly Reassigned Names



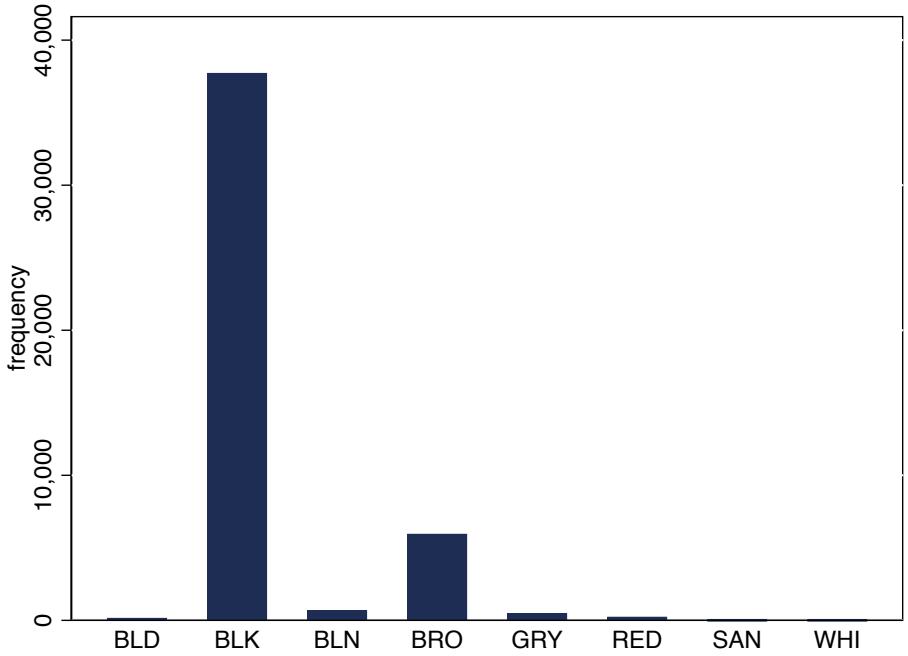
E Distribution of Defendant Race, Skin, Eye, and Hair Classifications

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



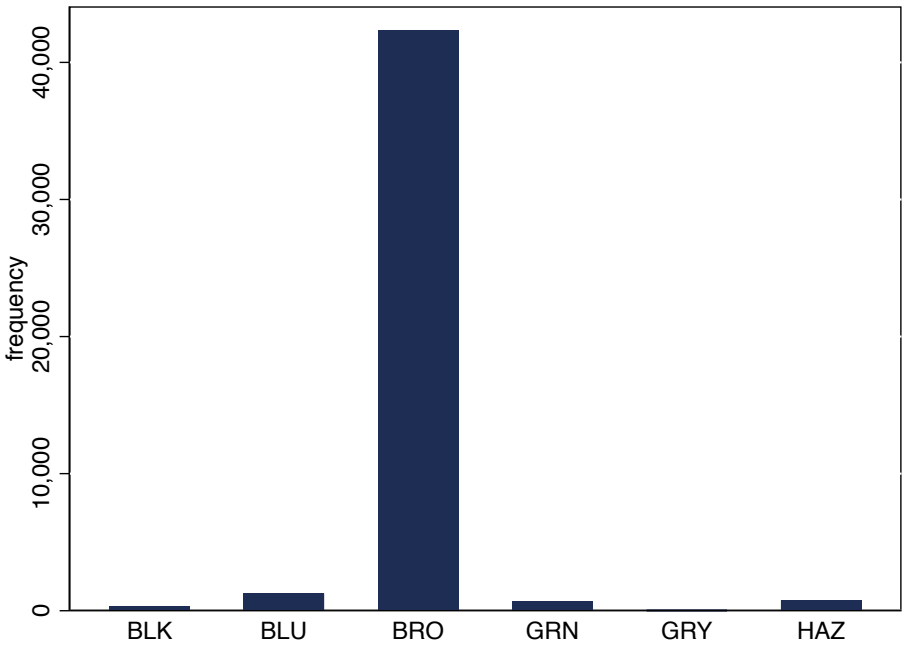
Notes: Original data as presented.

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



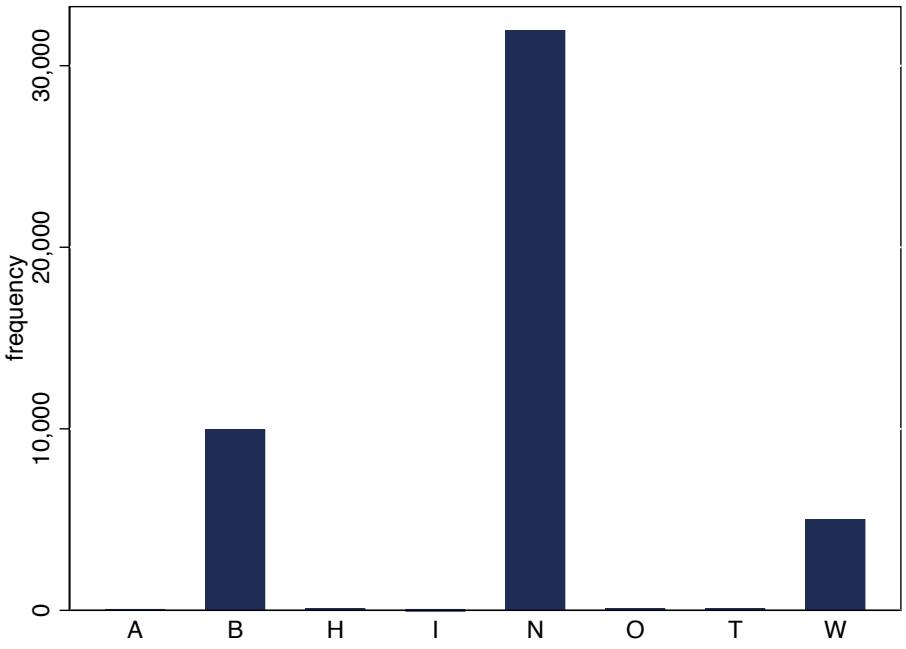
Notes: Original data as presented.

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



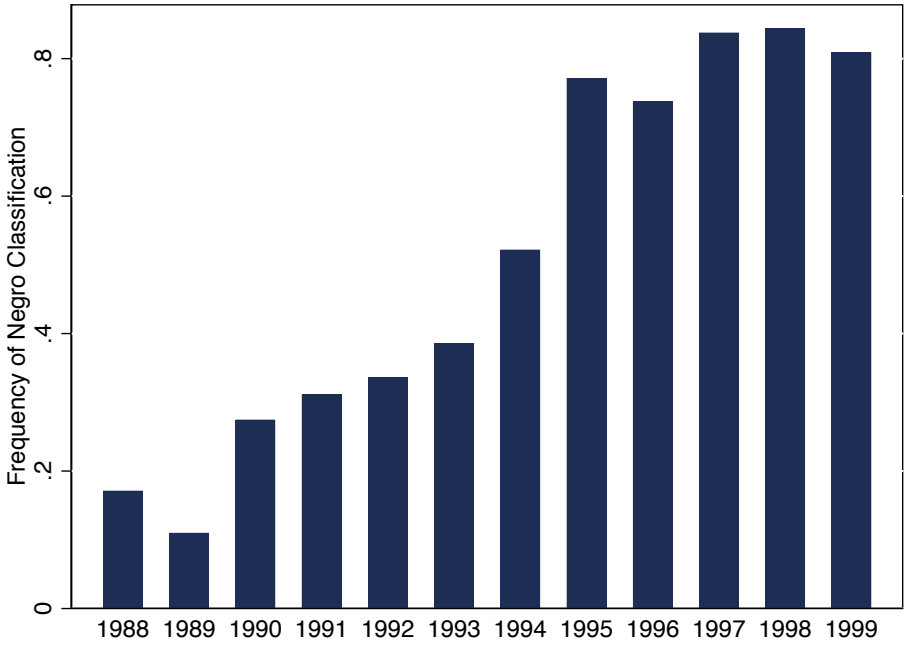
Notes: Original data as presented.

Appendix Figure E.4.— Distribution of Race Classification



Notes: Original data as presented.

Appendix Figure E.5.— Distribution of "N" Classification Over Time



Notes: Original data as presented.

F Additional Racial Classification Results

APPENDIX TABLE F.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 classified 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 F.2

POOLED NAME LETTER EFFECT BY RACIAL CLASSIFICATION 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 classified 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 (* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$).