Racial, Ethnic and Gender Disparities in Sentencing:

Evidence from the US Federal Courts*

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Abstract

This paper examines 77,236 federal offenders sentenced under the Sentencing Reform Act of 1984 and concludes the following. First, after controlling for extensive criminological, demographic and socioeconomic variables, I found that blacks, males and offenders with low education and low income receive substantially longer sentences. Second, disparities are primarily generated by departures from the guidelines, rather than differential sentencing within the guidelines. Departures produce about 55% of the black-white difference and 70% of the male-female difference. Third, although black-white disparities occur across offenses, the largest differences are for drug trafficking. The Hispanic-white disparity is generated primarily by those convicted of drug trafficking and firearm possession/trafficking. Last, blacks and males are also less likely to get no prison term when that option is available, less likely to receive downward departures, more likely to receive upward adjustments, and conditioned on having a downward departure, receive smaller reductions than whites and females.

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I. Introduction

To what extent are there racial, ethnic and gender disparities in the sentencing of convicted criminals? What explains the differences that exist? The Sentencing Guidelines and Policy Statements of the Sentencing Reform Act (SRA) of 1984 was designed to eliminate sentencing disparities, and states explicitly that race, gender, ethnicity and income should not affect the sentence length. This paper examines the disparities in the sentencing of federal offenders under the SRA of 1984 and analyzes how they are generated.

There is an extensive history of sentencing disparity studies. Since Sellin,[1] who examined sentencing patterns for Detroit offenders, many studies have examined sentencing differences. Kleck summarized the literature for rape and murder death sentences.[2] Hagan discussed twenty frequently cited papers written between 1928 and 1973.[3] Green,[4] Overby[5] and Tompkins[6] also summarized the literature. Many analyses concluded that sentencing exhibits racial discrimination,[7] while others argued that if the offense severity and criminal history were controlled for appropriately, there was little or no evidence for sentencing differences.[8]

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[1] Thorsten Sellin, The Negro Criminal: A Statistical Note, 140 Annals Am. Acad. Pol. & Soc. Sci. (1928).

[2] Gary Kleck, Racial Discrimination in Criminal Sentencing: A Critical Evaluation of the Evidence with Additional Evidence on the Death Penalty, 46 Am. Soc. Rev. (1981).

[3] John Hagan, Extra-Legal Attributes and Criminal Sentencing: An Assessment of a Sociological Viewpoint, 8 Law & Soc'y. Rev. (1974).

[4] Edward Green, Research on Disparities, in 2 Crime and Justice, The Criminal in the Arms of the Law (Leon Radzinowicz and Marvin E. Wofgang eds. 1971).

[5] Andrew Overby, Discrimination against Minority Groups, in 2 Crime and Justice, The Criminal in the Arms of the Law (Leon Radzinowicz & Marvin E. Wofgang eds. 1971).

[6] Dorothy L. Tompkins, Sentencing the Offender: A Bibliography (1971).

[7] Edwin H. Sutherland & Donald R. Cressey, Principles of Criminology (1970); Ramsey Clark, Crime in America: Observations on Its Nature, Causes, Prevention, and Control (1970); Overby, *supra* note 5, at 575.

[8] Kleck, *supra* note 2, at 789, 792.

In the 1990s the literature has increasingly scrutinized the Sentencing Guidelines and Policy Statements of the Sentencing Reform Act (SRA) of 1984, which applies to all federal offenses committed on or after November 1, 1987. These guidelines generated many new research questions, such as whether the guidelines reduced sentencing differences.[9] McDonald and Carlson concluded that the disparities between whites and blacks increased after the guidelines were implemented, and that the increase was due primarily to choices made by Congress and the United States Sentencing Commission (USSC) in the design of the sentencing policy, rather than unwarranted disparities.[10] Hofer, Blackwell and Ruback maintained that the guidelines have significantly reduced overall inter-judge disparity in sentences imposed.[11] Albonetti examined the drug offenders from 1991-92 and concluded that their sentencing is linked not only to offense-related variables, but also to defendant characteristics such as ethnicity, gender, educational level and non-citizenship, which the guidelines specify as legally irrelevant.[12] Payne studied three federal courts, and concluded that since the guidelines were instituted, prison terms for drug offenses have increased significantly and that the level of inter-judge disparity decreased in some courts.[13] LaCasse and Payne examined two

[9] One of the most interesting and frequently asked questions is whether the reforms have truly lowered disparities. Unfortunately, it is extremely difficult to determine anything definitive about this question, because in the after stage we can control for so many additional characteristics that could not be controlled for before the guidelines. Therefore, differences previously attributed to race or gender are now attributed to the more comprehensive offense level and criminal history controls. Consequently, there is a strong tendency to argue that disparities have been reduced, but much of that result may be generated because we have much more exhaustive controls.

[10] Douglas C. McDonald & Kenneth E. Carlson, Sentencing in the Federal Courts: Does Race Matter? 177-194 (1993).

[11] Paul J. Hofer, Kevin R. Blackwell, & R. Barry Ruback, The Effect of the Federal Sentencing Guidelines on Inter-Judge Sentencing Disparity, 90 J. Crim. L. & Criminology 286-302 (1999).

[12] 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, 31 Law & Soc'y. Rev. 801-819 (1997).

[13] Abigail Payne, Does Inter-Judge Disparity Really Matter? An Analysis of the Effects of Sentencing Reforms in Three Federal District Courts, 17 Int'l. Rev. L. & Econ. 346-357 (1997).

district courts and concluded that since the introduction of the sentencing reforms, the variation in sentences attributable to the judge increased and the rate of pleas increased, contrary to theoretical models of plea bargaining.[14] Meade and Waldfogel measured the efficiency cost of the Federal Sentencing Guidelines, and argued that the loss of judicial discretion raised the cost of punishment by nearly 5 percent of the total imprisonment cost of federal offenders.[15] Stith and Cabranes expressed concern about two unintended consequences of the guidelines – that the traditional sentencing ritual has lost much of its moral force and that judges have been denied the opportunity to develop a principled sentencing jurisprudence.[16] They also argued that constraining judicial sentencing discretion through the SRA diminished judges' ability to render just decisions in individual cases with unique circumstances, and supported reforms to provide judges with greater flexibility in guideline departures.[17]

Others examined recently implemented state sentencing reforms. For example, Kessler and Piehl studied California prisoners before and after the passage of Proposition 8, which allowed sentence enhancements for those convicted of specific crimes and who had extensive criminal histories.[18] They concluded that an increase in a crime's statutory sentence could increase the sentence length for those charged with that crime and those

[14] Chantel LaCasse & A. Abigail Payne, Federal Sentencing Guidelines and Mandatory Minimum Sentences: Do Defendants Bargain in the Shadow of the Judge?, 42 J. Law & Econ. 262-268 (1999).

[15] Jose Meade & Joel Waldfogel, Do Sentencing Guidelines Raise the Cost of Punishment? (Working Paper No. W6361, NBER, 1998).

[16] Kate Stith & Jose A. Cabranes, Judging Under the Federal Sentencing Guidelines, 91 Nw. U. L. Rev. (1997).

[17] Kate Stith & Jose A. Cabranes, Fear of Judging: Sentencing Guidelines in the Federal Courts 143-177 (1998). See also Michael Tonry, Sentencing Matters 190-196 (1996).

[18] Daniel Kessler & Anne Piehl, The Role of Discretion in the Criminal Justice System 14 J. L. Econ. & Org. 265-275 (1998).

charged with factually similar crimes. Tonry studied the impacts of moving from indeterminate to determinate sentencing in Minnesota, Pennsylvania and Washington.[19]

This analysis improves upon previous studies and makes many contributions to the literature. First, it is much more exhaustive. Most research tests one type of disparity– whether members of specific groups receive longer sentences than individuals in other cohorts. While I address this, I also examine other ways differences occur. For example, are whites more likely to receive no prison term, conditioned on being eligible for no prison term? When judges depart from the guidelines and issue a sentence lower than the minimum, are whites more likely to have their terms reduced than blacks? Conditioned on having their sentences reduced, do whites receive larger reductions than blacks? These differences have not been addressed previously.

Second, this is the only study that divides the total differences into the shares attributed to cases sentenced according to the guidelines and cases that depart from the guidelines.

Third, instead of studying a small number of crimes, I examine all forty-one offenses defined by the USSC. In contrast, previous studies frequently focused on one or a small number of offenses, most often murder, rape, robbery or drug offenses, and generalized their results.

Fourth, while other studies typically examined a small number of observations, I include all those sentenced during a three-year period who had recorded values for their characteristics. Among the 20 studies that Hagan (1974) discussed, most had a few

[19] Michael Tonry, Sentencing Guidelines and Their Effects, in The Sentencing Commission and Its Guidelines (Andrew von Hirsch, Kay A. Knapp & Michael Tonry, eds. 1987).

hundred and one had only 98 observations. Working with few observations has led some researchers to employ unusual aggregation techniques that could bias the results.

Fifth, I utilize a better estimation procedure than the previous studies, which imposed functional forms on the sentence length estimation. The most commonly used form defined the sentence length as a linear function of the criminal history and offense level. Instead I employ a more general estimation procedure that eliminates bias that can occur in the other techniques.

This paper examines only differences in the sentencing decision, not disparities that may exist elsewhere in the criminal justice system. Besides sentencing, differences could exist in arrest patterns, the allocation of police resources, and the prosecution of alleged offenders. This analysis estimates the disparities generated through the execution of the laws as they are written. The contrasting laws for possession of crack and powdered cocaine constitute a frequently discussed example of a law allegedly written in a manner that produces sentencing differences. Over 90% of those convicted of possessing 5 grams of crack cocaine, a felony offense that carries a five-year minimum sentence, are black. This contrasts sharply with penalties for powdered cocaine users, who are predominantly white. Conviction for possessing 5 grams of powdered cocaine is a misdemeanor punishable by less than a year in jail.[20] Because these differences exist when the drug laws are executed properly, they will not explain any of the disparities in this analysis.

Section II summarizes the USSC sentencing guidelines and explains the data. Section III contains the empirical analyses and Section IV concludes the paper.

II. The USSC Sentencing Guidelines and Data

The sentences for offenders convicted in federal courts[21] are determined by a detailed set of rules developed by the United States Sentencing Commission. The Commission's "principal purpose is to establish sentencing policies and practices for the federal criminal justice system that will assure the ends of justice by promulgating detailed guidelines prescribing the appropriate sentences for offenders convicted of federal crimes."[22] Congress indicated that honesty, uniformity and proportionality should characterize the Commission's guidelines. An honest sentence avoids the confusion that occurs when judges impose an indeterminate sentence that is subsequently reduced by "good time" credits. Sentencing uniformity narrows the disparities in sentences imposed by different federal courts for similar criminal conduct by similar offenders. Proportionality imposes appropriately different sentences for criminal conduct of different degrees of severity.[23] The guidelines encourage honesty by requiring the offender to serve virtually all of any prison sentence imposed by abolishing parole and restructuring good behavior adjustments. The guidelines promote uniformity by stating that sentences for individuals with the same offense level and criminal history cannot

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[20] Laura Frank, Equal Crime, but not Equal Time, The Tennessean, September 24, 1995, at A1.

[21] The distinction between federal and state offenses is complex. In general, there must be some nexus to commerce to federalize state crimes. For example, the U.S. Supreme Court struck down a federal crime of possessing a firearm in a school zone because the statute was beyond the commerce clause of the Constitution and unrelated to interstate commerce. United States v. Lopez, 115 S. Ct. 1624 (1995); See also United States v. Garcia, 94 F. 3d 57 (2nd Circuit 1996). John Steer of the United States Sentencing Commission indicated that prosecutorial discretion is an important factor for offenses like drug trafficking that violate both state and federal law. Murder and other crimes against the person cannot be federally prosecuted unless they are connected with some other federal crime like drug trafficking, or if the offense occurs in the maritime or territorial jurisdictions of the U.S.

[22] United States Sentencing Commission Guidelines Manual, 3E1.1 Chapter One (Nov. 1989). For a more detailed description of the USSC, its mission, and its approach, refer to the Sentencing Guidelines Manual.

[23] United States Sentencing Commission Guidelines Manual, 3E1.1 Chapter One (Nov. 1989).

differ by more than the greater of 25% or six months. The Commission's statutes contain very detailed instructions about the determination of the sentencing range, which is a function of two things: an offense level score and a criminal history score. Table 1 shows the grid that links the offense level with the criminal history score to determine an allowable range for the sentence length. The numbers in the first column are offense levels, and the numbers across the top row are measures of criminal history. The intersection of the two scores provides judges with the sentencing ranges.

The offense level is determined by the offense severity. Every offense is assigned a base offense level that can be increased or decreased based on secondary offense characteristics. Table 2 lists the 41 offenses that the Commission created. Drug trafficking is by far the largest category with 31,240 sentences, 40.5% of the sample. The next five most frequently committed crimes are fraud (14.7%), larceny (7.5%), firearm possession and trafficking (6.7%), immigration (4.1%), and bank robbery (3.8%). These six offenses account for 77.3% of the total number of offenses. The base offense level is adjusted by secondary offense characteristics, which measure the severity within each offense type. Some examples of secondary offense characteristics are the monetary amount gained by the offender, whether the victim was a minor, and whether the crime was committed with a gun. The number and severity of the offender's past convictions and time served determine the criminal history score.[24]

[24] "A defendant with a record of prior criminal behavior is more culpable than a first offender and thus deserving of greater punishment. Greater deterrence of criminal conduct dictates that a clear message be sent to society that repeated criminal behavior will aggravate the need for punishment with each recurrence. To protect the public from further crimes of the particular defendant, the likelihood of recidivism and the future criminal behavior must be considered. Repeated criminal behavior is an indicator of a limited likelihood of successful rehabilitation." The United States Sentencing Commission Guidelines Manual, 4.1 (Nov. 1989).

An example of how a sentence is determined illustrates this process more clearly.[25] If the offense involved mishandling of toxic substances or pesticides, then the base offense level is 8. If the offense resulted in an ongoing discharge or emission of a hazardous or toxic substance into the environment, then 6 points are added. If the offense resulted in a substantial likelihood of death or serious bodily injury, then another 9 points are added. The base level and the two additions generate a final offense level of 23. The criminal history score, a positive function of the number and severity of the previous crimes committed, is calculated similarly. For example, offenders receive a specific number of criminal history points for each prior sentence of imprisonment exceeding one year and one month. If the offense was committed while the offender was under any criminal justice sentence (including probation, parole, supervised release, imprisonment, work release or escape status), then additional points would be added.[26] If the environmental offender had one previous sentence of 2 years and committed the crime while on parole, he would be placed in the third criminal history category. The offense level of 23 and a criminal history category of 3 indicate that the offender should receive a sentence of between 57 and 71 months. If the court sentences within the range, then an appellate court may review the sentence to see if the guideline was correctly applied.

If a case presents atypical features, the Comprehensive Crime Control Act of 1984 allows the judge to depart from the guidelines and assign a sentence outside the specified range. Judges can depart from the guidelines only when the court finds "that there exists an aggravating or mitigating circumstance of a kind, or to a degree, not adequately taken into consideration by the Sentencing Commission in formulating the

[25] United States Sentencing Commission Guidelines Manual, 2.135-2.137 (Nov. 1989).
[26] United States Sentencing Commission Guidelines Manual, 4.1 (Nov. 1989).

guidelines."[27] One reason for departure the Commission explicitly discusses is the provision of substantial assistance in the investigation or prosecution of another person who has committed an offense. In a departure, the judge must provide specific reasons for his action. If the judge departs from the guidelines, an appellate court may review the departure. Table 3 indicates that 56,199 of the 77,236 offenders (72.9%) were sentenced according to the USSC sentencing guidelines and 27.1% were sentenced in departures from the guidelines.[28] In only 1.2% of the total cases were the offenders' sentences adjusted up. Downward departures were much more common and occurred in 25.9% of the cases. Departures based on assistance to authorities comprised 27.8% of the total downward departures.

To summarize the sentencing process, data about the individual's offense and criminal record determine the offense level and criminal history scores, which indicate an allowable range of sentence lengths. If there are extenuating circumstances, the judge can depart from the guidelines and issue a sentence that either exceeds the maximum or falls short of the minimum required by the guidelines. When a departure is made, the reasons for it must be stated.

What characteristics determine the specific sentence within the guidelines and whether to depart from the guidelines? Once the sentencing range is determined, courts must adhere to the following constraints:

In determination of the sentence to impose within the guideline range, or whether a departure from the guidelines is warranted, the court may consider, without limitation,

[27] United States Sentencing Commission Guidelines Manual, 3E1.1, 5.42 (Nov. 1989).

[28] The remaining cases did not contain information about whether they were sentenced according to the guidelines or whether a departure was made.

any information concerning the background, character and conduct of the defendant, unless otherwise prohibited by law.[29]

Although this sounds broad, the law prohibits a number of important factors. The law expressly prohibits the use of race, sex, national origin, creed, religion and socioeconomic status in determining a sentence.[30] Age,[31] educational and vocational skills,[32] physical condition,[33] previous employment[34] and family ties[35] are ordinarily irrelevant in determining a sentence or departing from the guidelines. Other than what is explicitly forbidden, Congress intended no limitation on information that a court may consider in imposing an appropriate sentence.[36]

The Commission's data contain socioeconomic and demographic descriptions of the offenders, and this paper examines their impact on sentencing. Racial, ethnic, gender and citizenship classifications are provided.[37] Additional data are the circuit and district

[29] United States Sentencing Commission Guidelines Manual, 1B1.4 (Nov. 1989).

[30] United States Sentencing Commission Guidelines Manual, 5H1.10 (Nov. 1989).

[31] United States Sentencing Commission Guidelines Manual, 5H1.1 (Nov. 1989). The only exception based on age is that a judge can make a downward departure when the offender is elderly and infirm and the form of punishment (for example, home confinement) is equally efficient and less costly than incarceration.

[32] United States Sentencing Commission Guidelines Manual, 5H1.2 (Nov. 1989). Vocational skills are a determinant of the offense level if the individual misused special training or education to facilitate criminal activity. United States Sentencing Commission Guidelines Manual, 3B1.3 (Nov. 1989).

[33] United States Sentencing Commission Guidelines Manual, 3B1.4 (Nov. 1989). The exception is that an extraordinary physical impairment may be a reason to impose a sentence other than imprisonment.

[34] United States Sentencing Commission Guidelines Manual, 3B1.5 (Nov. 1989).

[35] Compliance with family responsibilities is relevant in determining whether to impose restitution and fines. United States Sentencing Commission Guidelines Manual, 3B1.6 (Nov. 1989).

[36] United States Sentencing Commission Guidelines Manual, 1B1.4 (Nov. 1989).

[37] The Sentencing Commission classifies offenders by both their race and ethnicity. Its racial classifications are white, black, American Indian, Asian or Pacific Islander and Other. Its ethnicity categories are Hispanic and non-Hispanic. I used the USSC classifications to create a new set of categories. If an offender was classified as Hispanic, I coded him as Hispanic, regardless of his racial classification. If the offender was classified as white and either not Hispanic or missing ethnicity, I coded him as white. If the offender was classified as black and either not Hispanic or missing ethnicity, then I coded him as black. If the offender was classified as Asian or Indian and either not Hispanic or missing ethnicity, I coded him as Other. If the offender had missing data for both the race and the ethnicity question, I assigned a missing value. Those coded as Others are included in all the regressions, but they represent a small number of the total cases, and one should be cautious in evaluating the results for this category.

in which the case was tried and whether the judge departed from the guidelines.[38] Table 4 lists the summary statistics of the variables in the data set.

This study includes 77,236 individuals sentenced under the Sentencing Reform Act, drawn from the 120,336 cases received by the USSC that fulfilled the following criteria:

1) The sentencing date was between October 1, 1991 and September 30, 1994.[39] 2) The offense(s) is (are) "new law" (all counts occurred after the 11/1/87 SRA effectiveness date).[40] 3) The offense is not classified as a petty offense.

In addition, I use the following selection criteria. First, offenders with a minimum life sentence and those sentenced to time served are excluded because these terms cannot be easily translated into a sentence length. This dropped 740 from the sample and left 119,596 defendants. Second, individuals with incomplete criminal records (offense level, criminal history and months of imprisonment) were dropped, which eliminated an additional 11,671, and kept 107,925. This group included those who were assigned multiple offense levels or criminal history points, those who were listed as having an

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White Hispanics made up the majority of Hispanics (64.5%). Black Hispanics and Other Hispanics made up only 4.4% and 31.1%, respectively. These three types had the same average criminal history scores and similar ages, number of dependents, and years of education. However, in other respects the white and Other Hispanics looked different from the black Hispanics. On average, black Hispanics had higher offense levels, were less likely to be US citizens, and received longer prison terms than the white and Other Hispanics. White Hispanics had an average income of $8594.08, compared to $5378.49 for black Hispanics and $6564.36 for Other Hispanics.

[38] The data do not link the offenders with specific judges. For an analysis of how characteristics of judges affect their rulings, see Gregory C. Sisk, Michael Heise, & Andrew P. Morris, Charting the Influences of the Judicial Mind: An Empirical Study of Judicial Reasoning, 73 N. Y. U. Law Rev. 1451-1500 (1998). The data do not contain information about the victim, and therefore I cannot analyze the impact that victim characteristics have on sentencing disparities. However, the majority of offenses do not have identifiable victims. Although murder, sexual abuse and other crimes against the person have clear victims, crimes like drug trafficking, fraud, larceny, forgery, firearm trafficking, immigration and embezzlement do not have clearly identifiable victims.

[39] I do not look at earlier data because the Hispanic code was not recorded for previous years.

[40] There are 520 "mixed law" cases (at least one count occurred both before and after the SRA went into effect). I ran regressions including these extra 520 observations but did not report them. In these

indeterminate offense level or criminal history, and those listed as being sentenced under special rules.[41] Third, I removed all who lacked a valid observation for race, gender or ethnicity, which dropped an additional 946 and kept 106,979. Last, I eliminated those who lacked valid observations for income, education, citizenship, age and the number of dependents, which reduced the sample to 77,236. The first three exclusions remove a relatively small number of offenders from the sample. The fourth exclusion drops the most observations and has the potential to generate the greatest bias. The bias from excluding these observations will be discussed in the subsequent section.

III. Empirical

Table 5 shows that large differences exist in the average sentence length on the basis of race, ethnicity and gender. Whites receive the lowest average sentence of 32.1 months. In sharp contrast, Hispanics receive a sentence of 54.1 months and blacks receive 64.1 months, which are 68.5% and 99.6% larger than the average sentence for whites. Even more pronounced is the difference between males and females. The average sentence for males is 278.4% greater than that of females (51.5 vs. 18.5 months). Table 5 also shows that the average offense level for blacks is 22.8% higher than the offense level for whites, and blacks have an average criminal history score 30.9% greater than the

omitted regressions, the coefficients on black, Hispanic and female were within 0.1 month of the coefficients reported in Table 6.

[41] Those sentenced according to USSC Guidelines section 18, paragraph 924(c), a unique provision on illegal carrying of weapons, were not listed with a valid offense level or criminal history.

white average.[42] The men's average offense level and criminal history are 39.6% and 53.3% greater than those of females.

The average sentence lengths are different, but because they do not correct for either the offense level or criminal history, criminological variables may explain these disparities. To control for the offense level and criminal history category, I include dummy variables for each cell in Table 1. This procedure is used because it is more general than the linear functions often imposed in the literature, and allows for cell-specific effects to control for tendencies to sentence at different relative points in each cell. The results of Equation (1) are shown in Table 6.

$$sentence_{ijk} = \alpha + \beta_1 B_i + \beta_2 H_i + \beta_3 O_i + \beta_4 F_i + C_{jk} + DIST_i + OFF_i \qquad (1)$$

The dependent variable is $sentence_{ijk}$, the number of months to which individual i, with offense level j and criminal history k, is sentenced.[43] B_i, H_i, O_i, and F_i, are dummy variables for blacks, Hispanics, Others and females. C_{jk} is a dummy variable for each unique cell with offense level j and criminal history k.[44] OFF_i is a dummy variable for

[42] Some have argued that a system that relies on previous sentences, like a criminal history score, to help determine sentences for current crimes is inherently discriminatory if the previous criminal justice systems were discriminatory. This assertion will not be addressed directly in this paper.

[43] A case can be made for using either months or the log of months as the dependent variable. Table 1 has linear sections through sections A, B, C and into D, where the minimum and maximum differ by 6 months. Part way through section D, Table 1 becomes log linear, the minimum and maximum always differ by 25%. The qualitative results are robust to using either of these dependent variables. However, I report levels in the paper for three reasons. First, because log months are undefined when months=0, the sentence must be imputed for those who have a zero sentence. There is no uniformly accepted method for such an imputation rule. Second, months provide a more straightforward interpretation, and can be easily converted to percentages, which I do at many places in the text. Third, there are more people in the cells before Table 1 is log linear.

[44] For all regressions that contain cell specific dummy variables, I omit the "average" cell, the 17th Offense Level and the 2nd Criminal History from Table 4. The coefficients on the cell dummies are not reported. Nearly all of the cell coefficients were statistically significant, implying that individuals in those cells were sentenced differently than those in the omitted cell. Typically the only cells that did not have statistically significant coefficients were those that bordered the omitted cell.

the offense type.[45] $DIST_i$ is a dummy variable for the district court in which the offender is sentenced.[46]

The offense type controls eliminate one source of potential bias. For example, some offenses may be assigned longer sentences, even if the offense level and criminal history are the same as those for another crime. If members of a particular group are over-represented in such offenses, and the offense is not controlled for, it will appear as though members of these groups are sentenced more severely, even after controlling for the criminological variables. The specific offense dummies remove this bias.

The district court variables control for differences across districts in the execution of the law. One frequently mentioned criticism of the guidelines is that the restricted discretion imposed at sentencing may push discretion back in the conviction process where it would involve more people, such as prosecutors and defense attorneys, and be more difficult to monitor.[47] Others argued that the guidelines did not increase the power of prosecutors, but instead shifted the power to the US Congress and USSC.[48] Anderson, Kling and Stith asserted that the USSC Guidelines reduced inter-judge disparities. However, they caution that the additional constraints in judicial discretion may have exacerbated the disparity at earlier stages of the criminal justice process through the

[45] Drug trafficking is the omitted offense category.

[46] There are 96 district courts in the United States. The omitted district is the Southern District of Texas, which has the largest number of offenders. When the district and offense type dummies were excluded, the black and female coefficients in Table 6 were about 0.5 months larger. In the other regressions, including the district and offense type, variables slightly attenuated the magnitudes of the black and female coefficients.

[47] Bennet L. Gershman, The New Prosecutors, 53 U. Pitt. L. Rev. 418-422 (1992); Robert G. Morvillo & Barry A. Bohrer, Checking the Balance: Prosecutorial Power in an Age of Expansive Legislation, 32 A. Crim. L. Rev. 150-152 (1995); Stephen J. Schulhofer & Ilene H. Nagel, Plea Negotiations under the Federal Sentencing Guidelines: Guideline Circumvention and Its Dynamics in the Post-*Mistretta* Period, 91 Nw. U. L. Rev. 1289-1294 (1997).

[48] James B. Burns, Barry Rand Elden, & Brian W. Blanchard, We Make the Better Target (But the Guidelines Shifted Power from the Judiciary to Congress, Not from the Judiciary to the Prosecution), 91 Nw. U. L. Rev. (1997).

elimination of parole and the severe reduction in the judiciary's ability to compensate for inter-actor disparity earlier in the criminal justice process.[49] If the initial cell placements are manipulated, then differences in pre-sentencing negotiations could either mitigate or exacerbate the disparities in this analysis. Although detailed information about such negotiations is not in the data, the district variables will control for any systematic differences across districts that would otherwise bias the results.

To summarize, equation (1) estimates the extent to which an individual who is in the same district court, commits the same offense, and has the same criminal history and offense level as another person receives a different sentence on the basis of race, ethnicity or gender. This constitutes the basic definition of sentencing disparity in this paper.[50] If such differences exist, the coefficients on the race and gender variables should be statistically different from 0. Table 6 provides the results of this empirical specification. The first two columns show the results for the entire sample. The third and fourth columns include only the 56,199 cases sentenced according to the USSC guidelines. The first and third columns control only for the offense level, criminal history, district, offense type, racial, ethnic and gender classifications. Columns 2 and 4 include the additional socioeconomic control variables of education, income, citizenship, the number of dependents and age.

The first column indicates that after controlling for the offense level, criminal history, district, and offense type, blacks, Hispanics and Others received sentences 5.5, 4.5 and 2.3 months longer than whites, respectively, and females received 5.5 fewer

[49] James M. Anderson, Jeffery R. Kling, & Kate Stith, Measuring Inter-Judge Sentencing Disparity: Before and after the Federal Sentencing Guidelines, 42 J. Law & Econ. 290-304 (1999).

months than males. All of these results are significant at the .01 level. The average sentence length is 46 months, so evaluated at the mean, blacks receive about 12% longer terms than whites, and males receive 12% longer terms than females.

How are the racial and gender disparities affected when controls are made for basic demographic and socioeconomic factors? One explanation is that disparities are not based strictly on race, but are generated by other factors highly correlated with race, such as income, age, family ties and whether offenders have held steady jobs.[51] I test this argument by analyzing the impact of these socioeconomic variables on sentences. The previous chapter cited the *USSC Manual* to show that once the offense level and criminal history have been determined, characteristics like income, education and age should not ordinarily be considered in the sentencing decision. Therefore, including sociological and demographic data in the empirical specifications should have no explanatory power, and the coefficients for these variables should not differ from 0.

The second column of Table 6 shows two important results when the additional control variables are included. First, although the guidelines indicate that these factors should not affect the sentence length, many of them have significant impacts on the sentence. Offenders who did not graduate from high school received longer sentences, and offenders with college degrees received shorter sentences than high-school graduates. Having no high-school diploma resulted in an additional sentence of 1.2 months. Income

[50] The terms "disparity" and "difference" are often used but rarely defined explicitly, even by the USSC and the guidelines. Kevin Cole, The Empty Idea of Sentencing Disparity, 91 Nw. U. L. Rev. 1336-1337 (1997).

[51] Frank *supra* note 20, quoting Richard Conaboy, Chairman of the US Sentencing Commission, and Gilbert S. Merritt, Chief Judge of the 6th US Circuit Court of Appeals and head of the Executive Committee of the Judicial Conference of the United States.

had a significant impact on the sentence length.[52] Offenders with incomes of less than $5,000 were sentenced most harshly. This group received sentences 6.2 months longer than people who had incomes between $25,000 and $35,000. US citizens receive lower sentences by about 1.7 months, perhaps because they take advantage of their greater knowledge about the court systems and legal representation. Age is positively related to the sentence length.

There are two basic interpretations of the differences based on race, gender, income and education. The first contends that discrimination generates inappropriate disparities, which violate the USSC's requirements that these characteristics should not affect sentences. The second refutes the discrimination claim and maintains that these differences may be appropriate, because judges observe important individual characteristics that an empirical study cannot consider. If the omitted information is positively correlated with being non-white and negatively correlated with income, education and being female, the coefficients on these variables will be biased toward showing large disparities. These two interpretations are difficult to distinguish empirically, because they provide similar testable implications. For example, both assert that people with low income and education should receive longer sentences, which is borne out by the data. Being unable to prove discrimination is not unique to sentencing

[52] All income values were converted to real 1993 dollars by weighting the incomes by the Consumer Price Index with a base year of 1993. For the CPI values see Statistical Abstract of the United States, Table 744, at 481 (1996). Income cohorts are used instead of the amount of income for two reasons. First, this allows different effects at different areas in the income distribution. Second, income is self-reported by the offenders on the pre-sentencing reports, and efforts to verify income are not always consistently strict. Income data are skewed towards 0. The USSC stated that offenders may intentionally misreport their earnings as $0, but was unable to provide estimates about the frequency of such behavior. This potential misrepresentation of income may bias the $0-$5000 income dummy.

studies, but occurs in studies of consumer markets,[53] mortgage lending,[54] US federal agencies,[55] and employment and labor markets.[56]

The income and education results could be generated if people with higher education and incomes use their resources to obtain more favorable sentences. However, if offenders utilize education and income to reduce their sentences, the impact is limited. The marginal productivity of income in hiring legal resources diminishes quickly after income hits a minimum threshold, because individuals with the highest incomes do not receive reductions in sentence length.

One important result from Table 6 is that females receive even shorter sentences relative to men than whites compared to blacks. The discrimination literature generally argues that females are objects of discrimination and receive worse outcomes. In sentencing, however, women receive better outcomes, consistent with women's being treated paternalistically in court. Although some contend that the sentencing guidelines harm women,[57] studies have usually concluded that females are sentenced more leniently than males.[58]

These results also provide information about whether judges consider the total penalty (including reputation and lost income) when assigning sentences. Lott contended that optimal penalty theory requires that when two people are guilty of identical crimes, face the same probability of conviction and have the same supply elasticities for offenses,

[53] John Yinger, Evidence on Discrimination in Consumer Markets, 12 J. Econ. Persp. (1998).
[54] Helen F. Ladd, Evidence on Discrimination in Mortgage Lending, 12 J. Econ. Persp. (1998).
[55] George J. Borjas, The Politics of Employment Discrimination in the Federal Bureaucracy, 25 J. Law & Econ. (1982).
[56] William A. Darity & Patrick L. Mason, Evidence on Discrimination in Employment: Codes of Color, Codes of Gender, 12 J. Econ. Persp. (1998).
[57] Myra Raeder, Gender and Sentencing: Single Moms, Battered Women, and Other Sex-Based Anomalies in the Gender Free World of Federal Sentencing Guidelines, 20 Pepp. L. Rev. 936-990 (1993).

they should be punished with the same total penalty.[59] Lott argued that penalty structures are extremely progressive and punish high-income individuals too heavily, because reputational and post-conviction income effects are greater for the rich than the poor.[60] Although the signs of the education and income coefficients support this interpretation, the magnitudes do not. Other than for those who have the lowest incomes, Table 6 does not show that higher incomes correspond to lower sentences. Also, college graduates receive only one month less than high-school graduates, insufficient to equate their total loss with that of the less educated.

The second important conclusion from column two in Table 6 is that when the additional variables are included, the disparities decrease. The first three rows of columns 1 and 2 show that the black-white difference decreases from 5.5 to 4.8 months, the Hispanic-white difference declines from 4.5 to 2.5 months, and the other-white difference drops from 2.5 to 1.4 months. The female-male difference remains relatively unchanged.

Columns 1 and 2 estimate the total differences, which can be divided into two parts: disparities from cases sentenced according to the guidelines and disparities from departures. The former occur when whites and females are consistently sentenced at the low end and blacks and males at the high end of the range. The latter are generated when whites and females receive more favorable departures and blacks and males receive less favorable adjustments.

Columns 3 and 4 present the results for the cases sentenced according to the USSC guidelines. The most stunning observation is that the black-white difference

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[58] Laura Mansnerus, Sometimes the Punishment Fits the Gender, New York Times, Nov. 16, 1997, Section 4 at 1.

[59] John R. Lott, Jr., The Effect of Conviction on the Legitimate Income of Criminals, 34 Econ. Letters 382 (1990).

dropped from 5.5 months in column 1 to 2.4 months in column 3, and the female-male difference decreased from 5.5 to 1.8 months. Therefore, departures account for 56% of the racial and 67% of the gender differences. Cases sentenced outside the guidelines clearly exacerbate the racial and gender differences. When the additional control variables are included this result still holds. When I limited the sample to cases sentenced according to the guidelines, disparities no longer exist on the basis of education, age and citizenship, and the income difference is substantially attenuated.

Columns 5 and 6 report the results when numerous interaction terms are included. The coefficients on the black and female coefficients are no longer statistically different from zero while the Hispanic coefficients are still large (about 4.7 months). However, in these specifications the race and gender coefficients do not determine the entire difference. To determine the total disparity one must also consider how race or gender operates through the interacted variables of offense level, criminal history, education and income. Decomposing the differences in this way shows that the differences in columns 1-4 are generated primarily through the offense level. Column 5 shows that for every one offense level higher an offender receives, blacks and Hispanics receive 0.6 and 0.2 months, respectively, more than whites, and females receive 0.7 months less than males. When looking only at guideline cases in columns 6 these offense-level interactions drop by 65% for blacks, 59% for Hispanics and 77% for females, providing additional support for the assertion that the majority of the differences come from the small number of cases that depart from the guidelines. Likewise, the racial differences in criminal history interactions are much smaller when one looks only at the guideline cases.

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[60] Lott *supra* note 59, at 382-385; John R. Lott, Jr., Do We Punish High Income Criminals Too Heavily?, 30 Econ. Inquiry 586-605 (1992).

None of the income interactions are significant. Although the education interactions are generally not significant, the magnitudes have an interesting pattern. The Hispanic and black interactions with education are always negative and the female interactions are positive. They have the opposite signs of the coefficients on the raw variables, which are always positive for blacks and Hispanics and negative for females. This implies that education offsets the racial and gender differences–offenders with relatively high education have smaller unaccounted-for differences in sentencing, regardless of their demographics.

As stated in Section II, this study excludes individuals who do not have complete socioeconomic records. To determine the bias from the excluded observations I used the sample of 106,979 who had recorded information for race, ethnicity and gender, and re-ran the regressions in columns 1 and 3 of Table 6. For the larger sample of 106,979, the black coefficients were 5.22 and 2.13, and the female coefficients were -5.54 and -1.92. Although excluding offenders with incomplete socioeconomic records leads to slightly larger coefficients for blacks (by 0.28 and 0.30) and slightly smaller coefficients for females (by 0.03 and 0.15), these exclusions do not bias the results significantly or alter the fundamental conclusions.[61]

A. Differences by Offense Type

To better understand the source of the differences I analyze the six most frequently committed crimes: drug trafficking, fraud, larceny, firearm possession and trafficking, immigration and bank robbery, which constitute 77.2% of the cases. Table 7

shows the average sentence length, offense level and criminal history for these offenses. The longest average sentence length is 107.3 for bank robbery, and the smallest is 5.9 months for larceny. The average offense level ranges from 7.7 for larceny to about 24.5 for bank robbery and drug trafficking. Larceny and fraud have the lowest criminal history values (about 1.7), while bank robbery and firearm possession and trafficking have the highest (3.3).

Table 8 provides the disaggregated regression results. The black coefficient is positive for all six crime categories and significant for all but larceny and immigration. Bank robbery and drug trafficking exhibit the largest black-white differentials. Blacks receive 9.4 and 10.5 months longer than whites in bank robbery and drug trafficking, respectively. The percentage difference is greatest for those convicted of drug trafficking, where blacks are assigned sentences 13.7% longer than whites. The aggregate Hispanic-white difference is driven primarily by those convicted of drug trafficking and firearm possession/trafficking, the only two crimes with significant Hispanic coefficients. For these two crimes Hispanics receive 6.1 and 3.7 additional months compared to whites, or 8.0% and 7.0% longer in percentage terms. The female-male difference is statistically significant for all six categories, the largest of which is for bank robbery, where females receive 21.6 months less than males. The percentage difference between males and females is also the largest for bank robbery (20.1%), but exceeds 10% for drug trafficking, larceny and immigration. Educational disparities are not consistently strong, but are especially important for drug trafficking. Drug traffickers without a high-school diploma receive almost two more months than high-school graduates, and college

[61] I re-ran all the regressions in the paper with similar results. In general, when all the observations were used, the black-white differences were slightly attenuated, and the male-female differences were

graduates receive almost four months less than high-school graduates. The strongest income effect is for those who earn the least. The coefficient for individuals who earn less than $5000 per year is positive for all six categories and significant for four of the six. Those with incomes greater than $50,000 receive significantly lower sentences for fraud.

For each of these six offenses I ran an additional regression that corresponds to column 4 in Table 6, and included only individuals sentenced according to the guidelines. By comparing such regressions to those in Table 8, I calculated the share of the disparities from cases sentenced according to the guidelines. The black-white coefficient for drug trafficking drops the most when only guideline cases are included. For this offense 3.6 months of the 10.5 month black-white difference are from guideline cases. Consequently, 65.7% of the black-white drug trafficking differences come from departure cases. The results are even stronger for the Hispanic-white disparity. The Hispanic coefficient is 6.1 months for all drug trafficking cases, and -0.4 months for guideline cases. Therefore, the entire Hispanic-white unexplained difference in drug trafficking is from departures.

To summarize the results by offense type, the racial disparities are largest for bank robbery and drug trafficking. About two-thirds of the black-white disparity for drug trafficking is accounted for by departures from the guidelines. Also, the Hispanic-white difference is largest for drug traffickers. Virtually all of this difference can be attributed to departures and none to differential sentencing within the guidelines. The largest disparities between men and women are for bank robbers. Like the racial and ethnic

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slightly larger.

differences, the gender difference for drug trafficking was mainly the result of departures, which accounted for 73% of the male-female difference.

B. Differences in Receiving No Prison Term

Besides the disparities observed so far, there can be differences in who receives no prison term when that option is available. Table 9 uses two logit regressions to examine those sentenced according to the guidelines and who were in one of the 21 offense-level/ criminal history cells for which the allowable sentence is 0-6 months (see Section A of Table 1). The first column of Table 9 controls only for the criminological variables, and the second column adds the demographic and socioeconomic controls.

The results of these regressions are striking. Column 1 shows that blacks and Hispanics are much less likely than whites to be assigned no prison term when that is an option, and females are more likely than males to be assigned no prison term. Column 2 shows that when a more complete set of controls is added, the racial and ethic disparities are mitigated, but remain statistically significant, and the gender difference remains the same. The effects of age, education and dependents are insignificant in this decision, but US citizens are more likely to receive no sentence than non-citizens. Those with less than $5,000 are less likely to get no prison terms. Although not reported, the criminological variables are both statistically significant and negative, as expected. The higher an offender's criminal history and offense level, the lower the probability that he will be assigned no prison term.

C. Differences in the Probability of Receiving a Guideline Departure

Because departure cases constitute more than half of the total sentencing differences, it is extremely important to determine how the departures generate disparities. Disparities can be made along both the extensive and intensive margins. The difference due to the extensive margin occurs because blacks, males, Hispanics, and those with low education and income are less likely to receive downward departures and more likely to receive upward adjustments compared to their counterparts. Differences from the intensive margin are generated when conditioned on receiving a departure, these groups receive less favorable adjustments to their sentences.

To determine whether some groups are more likely to have their sentences adjusted, I ran four logit regressions. The first two columns of Table 10 use only the criminological controls, [62] while the third and fourth columns also control for the other explanatory variables. Columns 1 and 3 provide strong evidence that non-whites are much less likely than whites to have their sentences adjusted down, and the magnitude is greatest for blacks and Hispanics. Also, females are more likely than males to receive downward departures. Even when the additional control variables are included, the differences change only slightly and remain economically large and statistically significant. This result is consistent with the anecdotal evidence that law enforcement officials may be more likely to approach whites for assistance, and that blacks and Hispanics may be less trusting of law enforcement authorities.

[62] The logit regressions in Table 10 did not converge when all the offense level-criminal history cell dummy variables were used. Therefore, to control for the offense level and criminal history I use the offense level, criminal history, squares of these two variables, and an offense level–criminal history interaction term. As in the earlier tables, the offense type and district dummies were included as controls. Tobit regressions of Table 6 also do not always converge, because of the many offense level-criminal history cell dummy variables. Albonetti, *supra* note 12, used Tobit regressions to estimate sentencing differences with a sample of only the defendants convicted of either drug trafficking or simple possession involving crack cocaine, powdered cocaine, heroin, or methamphetamines. However, she did not include offense level-criminal history cell specific effects.

Columns 2 and 4 show that females are less likely than males to have their sentences adjusted up. Blacks are significantly more likely than whites to receive upward departures from the guidelines, while the Hispanic-white difference is negligible.

Columns 3 and 4 show that offenders without a high-school degree are less likely than high-school graduates to receive a downward departure and more likely to receive an upward departure. In contrast, college graduates are more likely to receive a downward departure and less likely to receive an upward departure, although the education results are statistically significant only for the downward departures. Offenders with annual incomes of less than $25,000 are less likely to have their sentences lowered, and offenders with annual incomes of more than $35,000 are more likely to have their sentences lowered. These income results are significant for those with less than $5,000, between $5,000-$10,000, between $35,000 and $50,000, and over $50,000. Only one income coefficient is statistically significant in the upward departure regression. Individuals with less than $5,000 are more likely than people in the omitted category to have their sentences adjusted up. US citizens are more likely to receive downward departures. The number of dependents is significant in neither regression, but the signs indicate that people with more dependents are more likely to have their sentences lowered and less likely to have their sentences increased. Last, younger people are less likely to have their sentences reduced, and more likely to have them increased.

D. Differences in Magnitudes of Guideline Departures

Besides examining the probability of receiving sentencing adjustments, this paper evaluates the differences in the sizes of the adjustments for those given departures. Table

11 studies only those who received downward or upward departures and uses the size of the departure (in months) as the dependent variable. The downward adjustments are calculated by subtracting the actual sentence from the minimum sentence. Therefore, larger positive values indicate that more time was taken off the sentence. Upward departures are calculated by subtracting the maximum sentence from the actual sentence. The larger positive values indicate that more time was added to the sentence.

Column one of Table 11 indicates that conditioned on having a downward departure and controlling for only the offense level and criminal history, blacks, Hispanics and Others receive downward departures 5.7, 5.6 and 5.0 months less than whites, respectively. Also, females receive downward departures 6.9 months larger than males. When the socioeconomic variables are included, the disparities for blacks, Hispanics, and Others decrease, and the male-female difference slightly increases. The black, Hispanic and Other coefficients remain statistically significant at 4.3, 2.4 and 2.9 months, respectively. The effect of education and income is similar to the earlier results. Those without a high-school education receive smaller downward departures than high-school graduates by 1.2 months. Relatively poor people receive smaller downward departures, and US citizens receive larger downward departures than non-citizens. Neither age nor the number of dependents affects the magnitude of the departures.

The results for upward departures in columns 2 and 4 contain no significant coefficients. None of the race, gender, demographic or socioeconomic variables have a statistically significant impact on the size of the upward departure. The point estimate for the female coefficient indicates that females receive 5.9 months shorter upward departures than males, but its standard error is very high and the result is insignificant.

One reason why disparities may exist for all the specifications except upward departures is the relatively small number of observations (only 933). Another is that upward departures may be scrutinized more seriously, which may provide an incentive to issue sentences with fewer disparities.

Racial, ethnic, gender, education and income disparities have large economic and statistical impacts on the cases that depart from the guidelines. These differences exist along both the extensive and intensive margins for downward departures. The differences are much smaller for upward departures than downward departures.

IV. Conclusion

This analysis estimates the extent to which an individual sentenced in the same district court, who commits the same offense, and has the same criminal history and offense level as another person receives a different sentence on the basis of race, ethnicity or gender. Its primary conclusion is that after including more exhaustive controls than any previous study, large differences in the length of sentence exist on the basis of race, gender, education, income and citizenship. These disparities occur in spite of explicit statements in the guidelines that these characteristics should not affect the sentence length.

Second, over half of the unaccounted-for differences are generated by departures from the guidelines, rather than from differential sentencing within the guidelines. This is the first study to decompose the differences in this manner.

Third, the differences by race, gender, income and citizenship exist across offense types. The racial and gender disparities are largest for bank robbery and drug trafficking. Most of the difference between Hispanics and whites is from two crimes–drug trafficking and firearm possession and trafficking. The educational differences are generated primarily by drug trafficking, and are not statistically significant for other offenses.

Fourth, these racial, gender, income and education disparities occur along many other margins. Blacks and males not only receive longer sentences, but are also less likely to receive no prison term when that option is available, more likely to receive upward departures, and less likely to receive downward departures. When downward departures are given, blacks and males receive smaller adjustments than whites and females. Furthermore, low-income offenders are less likely to receive downward departures and more likely to receive upward departures. When downward departures are given, the poorest offenders receive especially small reductions in their sentences. Similarly, highly educated offenders are more likely to receive downward departures, less likely to receive upward departures, and receive relatively large downward departures. Being a US citizen consistently helps in all sentencing scenarios. Offenders who are citizens receive lower sentences for most crimes, are less likely to be incarcerated, are more likely to receive downward departures, and typically receive larger downward departures than non-citizens. Previous studies have tested whether individuals of some groups receive longer sentences than those in other groups, but no other study has examined differential sentencing on these other margins.

Bibliography

Albonetti, Celesta A. “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* 31, 4 (1997): 789-822.

Anderson, James M.; Kling, Jeffery R.; and Stith, Kate. “Measuring Inter-Judge Sentencing Disparity: Before and after the Federal Sentencing Guidelines.” *The Journal of Law and Economics* 42, 1 (1999): 271-308.

Borjas, George J. “The Politics of Employment Discrimination in the Federal Bureaucracy.” *The Journal of Law and Economics* 25, 2 (1982): 271-299.

Burns, James B.; Elden, Barry Rand; and Blanchard, Brian W. “We Make the Better Target (But the Guidelines Shifted Power from the Judiciary to Congress, Not from the Judiciary to the Prosecution.” *Northwestern University Law Review* 91, 1 (1997): 1317-1335.

Clark, Ramsey. *Crime in America: Observations on Its Nature, Causes, Prevention, and Control.* New York: Simon and Schuster, 1970.

Cole, Kevin. “The Empty Idea of Sentencing Disparity.” *Northwestern University Law Review* 91, 1 (1997): 1336-1341.

Darity, William A.; and Mason, Patrick L. “Evidence on Discrimination in Employment: Codes of Color, Codes of Gender.” *The Journal of Economic Perspectives* 12, 2 (1998): 63-90.

Frank, Laura. “Equal Crime, but not Equal Time.” *The Tennessean* (September 24, 1995) A1.

Gershman, Bennet L. “The New Prosecutors.” *University of Pittsburgh Law Review* 53 (1992): 393-438.

Green, Edward. “Research on Disparities.” In *Crime and Justice Vol. II, The Criminal in the Arms of the Law*. Edited by Leon Radzinowicz and Marvin E. Wofgang. New York: Basic Books Inc., 1971.

Hagan, John. “Extra-Legal Attributes and Criminal Sentencing: An Assessment of a Sociological Viewpoint.” *Law and Society Review* 8, 3 (1974): 3357-3384.

Hofer, Paul J.; Blackwell, Kevin R.; and Ruback, R. Barry. "The Effect of the Federal Sentencing Guidelines on Inter-Judge Sentencing Disparity." *Journal of Criminal Law and Criminology* 90, 1 (1999): 239-322.

Kessler, Daniel; and Piehl, Anne. "The Role of Discretion in the Criminal Justice System." *Journal of Law, Economics, and Organization* 14, 2 (1998): 256-276.

Kleck, Gary. "Racial Discrimination in Criminal Sentencing: A Critical Evaluation of the Evidence with Additional Evidence on the Death Penalty." *American Sociological Review* 46 (1981): 783-805.

LaCasse, Chantel; and Payne, A. Abigail. "Federal Sentencing Guidelines and Mandatory Minimum Sentences: Do Defendants Bargain in the Shadow of the Judge?" *The Journal of Law and Economics* 42, 1 (1999): 245-270.

Ladd, Helen F. "Evidence on Discrimination in Mortgage Lending." *The Journal of Economic Perspectives* 12, 2 (1998): 41-62.

Lott, John R., Jr. "The Effect of Conviction on the Legitimate Income of Criminals." *Economics Letters* 34, 4 (1990): 381-385.

Lott, John R., Jr. "Do We Punish High Income Criminals Too Heavily?" *Economic Inquiry* 30, 4 (1992): 583-608.

McDonald, Douglas C.; and Carlson, Kenneth E. *Sentencing in the Federal Courts: Does Race Matter?* Washington, DC: U.S. Department of Justice, 1993.

Mansnerus, Laura. "Sometimes the Punishment Fits the Gender." *New York Times* (Nov. 16, 1997) Sect. 4, p. 1.

Meade, Jose; and Waldfogel, Joel. "Do Sentencing Guidelines Raise the Cost of Punishment?" NBER Working Paper No. W6361, 1998.

Morvillo, Robert G.; and Bohrer, Barry A. "Checking the Balance: Prosecutorial Power in an Age of Expansive Legislation." *American Criminal Law Review* 32 (1995): 137-156.

Overby, Andrew. "Discrimination against Minority Groups." In *Crime and Justice, Vol. II, The Criminal in the Arms of the Law*. Edited by Leon Radzinowicz and Marvin E. Wofgang. New York: Basic Books, Inc., 1971.

Payne, A. Abigail. "Does Inter-Judge Disparity Really Matter? An Analysis of the Effects of Sentencing Reforms in Three Federal District Courts." *International Review of Law and Economics*, 17, 3 (1997): 337-366.

Raeder, Myra. "Gender and Sentencing: Single Moms, Battered Women, and Other Sex-Based Anomalies in the Gender Free World of Federal Sentencing Guidelines." *Pepperdine Law Review* 20 (1993): 905-990.

Schulhofer, Stephen J.; and Nagel, Ilene H. "Plea Negotiations under the Federal Sentencing Guidelines: Guideline Circumvention and Its Dynamics in the Post-*Mistretta* Period." *Northwestern University Law Review* 91, 1 (1997): 1284-1316.

Sellin, Thorsten. "The Negro Criminal: A Statistical Note." *The Annals of the American Academy of Political and Social Science* 140 (1928): 52-64.

Sisk, Gregory C.; Heise, Michael; and Morris, Andrew P. "Charting the Influences of the Judicial Mind: An Empirical Study of Judicial Reasoning." *New York University Law Review* 73, 5 (1998): 1377-1500.

Stith, Kate; and Cabranes, Jose A. "Judging under the Federal Sentencing Guidelines." *Northwestern University Law Review* 91, 1 (1997): 1247-1283.

Stith, Kate; and Cabranes, Jose A. *Fear of Judging: Sentencing Guidelines in the Federal Courts*. Chicago: University of Chicago Press, 1998.

Sutherland, Edwin H.; and Cressey, Donald R. *Principles of Criminology*. Philadelphia: Lippincott, 1970.

Tompkins, Dorothy L. *Sentencing the Offender: A Bibliography*. University of California at Berkeley: Institute of Governmental Studies, 1971.

Tonry, Michael. *Sentencing Matters*. New York: Oxford University Press, 1996.

Tonry, Michael. "Sentencing Guidelines and Their Effects." In *The Sentencing Commission and Its Guidelines*. Edited by Andrew von Hirsch, Kay A. Knapp and Michael Tonry. Boston: Northeastern University Press, 1987.

United States Sentencing Commission, *Guidelines Manual*, 3E1.1, 1989.

United States Sentencing Commission *Monitoring of Federal Criminal Sentences* [Computer file]. 5th release. Washington, DC: U.S. Sentencing Commissioner [producer]. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 1993.

Yinger, John. “Evidence on Discrimination in Consumer Markets.” *The Journal of Economic Perspectives* 12, 2 (1998): 23-40.

Table 1

United States Sentencing Commission Sentencing Table

	Offense Level	Criminal History Category I	II	III	IV	V	VI
	1	0-6	0-6	0-6	0-6	0-6	0-6
	2	0-6	0-6	0-6	0-6	0-6	2-8
A	3	0-6	0-6	0-6	0-6	2-8	4-10
	4	0-6	0-6	0-6	2-8	4-10	6-12
	5	0-6	0-6	1-7	4-10	6-12	9-15
	6	0-6	1-7	2-8	6-12	9-15	12-18
	7	1-7	2-8	4-10	8-14	12-18	15-21
B	8	2-8	4-10	6-12	10-16	15-21	18-24
	9	4-10	6-12	8-14	12-18	18-24	21-27
	10	6-12	8-14	10-16	15-21	21-27	24-30
C	11	8-14	10-16	12-18	18-24	24-30	27-33
	12	10-16	12-18	15-21	21-27	27-33	30-37
	13	12-18	15-21	18-24	24-30	30-37	33-41
	14	15-21	18-24	21-27	27-33	33-41	37-46
	15	18-24	21-27	24-30	30-37	37-46	41-51
	16	21-27	24-30	27-33	33-41	41-51	46-57
	17	24-30	27-33	30-37	37-46	46-57	51-63
	18	27-33	30-37	33-41	41-51	51-63	57-71
	19	30-37	33-41	37-46	46-57	57-71	63-78
	20	33-41	37-46	41-51	51-63	63-78	70-87
	21	37-46	41-51	46-57	57-71	70-87	77-96
	22	41-51	46-57	51-63	63-78	77-96	84-105
	23	46-57	51-63	57-71	70-87	84-105	92-115
	24	51-63	57-71	63-78	77-96	92-115	100-125
	25	57-71	63-78	70-87	84-105	100-125	110-137
	26	63-78	70-87	78-97	92-115	110-137	120-150
	27	70-87	78-97	87-108	100-125	120-150	130-162
D	28	78-97	87-108	97-121	110-137	130-162	140-175
	29	87-108	97-121	108-135	121-151	140-175	151-188
	30	97-121	108-135	121-151	135-168	151-188	168-210
	31	108-135	121-151	135-168	151-188	168-210	188-235
	32	121-151	135-168	151-188	168-210	188-235	210-262
	33	135-168	151-188	168-210	188-235	210-262	235-293
	34	151-188	168-210	188-235	210-262	235-293	262-327
	35	168-210	188-235	210-262	235-293	262-327	292-365
	36	188-235	210-262	235-293	262-327	292-365	324-405
	37	210-262	235-293	262-327	292-365	324-405	360-life
	38	235-293	262-327	292-365	324-405	360-life	360-life
	39	262-327	292-365	324-405	360-life	360-life	360-life

40	292-365	324-405	360-life	360-life	360-life	360-life
41	324-405	360-life	360-life	360-life	360-life	360-life
42	360-life	360-life	360-life	360-life	360-life	360-life
> 43	life	life	life	life	life	life

Source: 1989 back cover of the *USSC Guidelines Manual*.

Notes: The values in the tables represent the number of months. The Criminal History Category is represented in Roman numerals and ranges from I to VI. In 1992 two cells of the table changed in Criminal History Category I. The cells for offense levels 7 and 8 have both become 0-6.

A: Probation available (see Section 5E1.1(a)(1))

B: Probation with conditions of confinement available (see Section 5B1.1(2))

C: New “Split Sentence” available (see Section 5C1.1(c)(3),(d)(2))

Table 2
Frequency of USSC Offenses

Num.	Offense	Frequency	Percent	Rank
1	Murder	91	0.1	36
2	Manslaughter	98	0.1	34
3	Kidnapping/Hostage	79	0.1	37
4	Sexual Abuse	319	0.4	21
5	Assault	723	0.9	13
6	Bank Robbery	2,931	3.8	6
7	Other Robbery	198	0.3	28
8	Extortion	285	0.4	22
9	Arson	169	0.2	29
10	Drug Trafficking	31,240	40.5	1
11	Drug Comm. Facilities	556	0.7	16
12	Drug Possession	1099	1.4	12
13	Firearms: Use	243	0.3	25
14	Firearm Poss., Trafficking	5,173	6.7	4
15	Burglary	115	0.1	33
16	Auto Theft	517	0.7	18
17	Larceny	5790	7.5	3
18	Fraud	11,316	14.7	2
19	Embezzlement	2,205	2.9	7
20	Forgery/Counterfeiting	1,875	2.4	8
21	Bribery	573	0.7	14
22	Tax Offense	1,680	2.2	9
23	Money Laundering	1,760	2.3	10
24	Racketeering	542	0.7	15
25	Gambling/Lottery	454	0.6	20
26	Civil Rights	261	0.3	23
27	Immigration	3,174	4.1	5
28	Pornography/Prostitution	232	0.3	26
29	Offenses in Prison	485	0.6	19
30	Admin. of Justice	1,275	1.7	11
31	Env., Game, Fish, Wild.	260	0.3	24
32	National Defense	98	0.1	34
33	Antitrust	77	0.1	38
34	Food and Drug	135	0.2	31
35	Traffic	15	0.0	41
36	Other Violent	39	0.1	40
37	Other Drug	131	0.2	32
38	Other Firearms	51	0.1	39
39	Other Property	167	0.2	30
40	Other Environmental	203	0.3	27
41	Other Misc. Crimes	525	0.7	17
	Missing	77		
	Total	77,236		

Table 3
Frequency of Departures from the USSC Guidelines

	Number	Percent
No departure made	56,199	72.9%
Upward departure	939	1.2%
Downward departure based on assistance	5,539	7.2%
Downward departure	14,443	18.7%
Missing	116	
Total	77,236	

Source: Individuals who were sentenced in the federal courts between October 1, 1991-Sep. 30, 1994.

Table 4
Summary Statistics of USSC Data

Variable	Number	Mean	St. Deviation	Min.	Max.
Months	77,236	46.00	69.50	0	990
Offense Level	77,236	17.43	9.77	1	42
Crim. Hist. Cat.	77,236	1.970	1.54	1	6
White	77,236	0.465	0.499	0	1
Black	77,236	0.290	0.454	0	1
Hispanic	77,236	0.209	0.408	0	1
Other	77,236	0.034	0.182	0	1
Male	77,236	0.833	0.373	0	1
Years of Education	77,236	11.306	2.931	0	18
No Graduate	77,236	0.375	0.484	0	1
HS Graduate	77,236	0.543	0.498	0	1
College Graduate	77,236	0.082	0.275	0	1
Income (Real $93)	77,236	13,257.59	60,059.88	0	12,850,246.50
Inc. < $5,000	77,236	0.462	0.499	0	1
$5000-$10,000	77,236	0.138	0.345	0	1
$10,000-$25,000	77,236	0.260	0.438	0	1
$25,000-$35,000	77,236	0.060	0.238	0	1
$35,000-$50,000	77,236	0.043	0.204	0	1
Inc. > $50,000	77,236	0.038	0.190	0	1
US Citizen	77,236	0.815	0.388	0	1
Dependents	77,236	1.544	1.774	0	15
Age	77,236	35.331	11.98	16	88

Note: A sentence of 990 months indicates that the 990 or more months of imprisonment were ordered. Fifteen offenders received at least 990 months.

Table 5
Average Criminological Variables by Race, Ethnicity and Gender

	White	Black	Hispanic	Others	Male	Female
Sentence in Months	32.06	64.09	54.12	32.45	51.52	18.51
Offense Level	15.48	19.01	19.94	15.08	18.30	13.11
Criminal History	1.81	2.37	1.87	1.51	2.10	1.37
Number	35,943	22,398	16,256	2,639	64,320	12,916

Source: Individuals who were sentenced in the federal courts between October 1, 1991 - Sep. 30, 1994. USSC. Average sentences do not reflect people who were sentenced to life imprisonment.

Table 6
Sentencing Disparities in USSC Data

	All Cases	All Cases	Guideline Cases	Guideline Cases	All Cases	Guideline Cases
Black	5.50**	4.81**	2.43**	2.16**	-2.25	-0.51
	(0.338)	(0.352)	(0.289)	(0.302)	(1.768)	(1.512)
Hispanic	4.47**	2.54**	-0.71	-0.86*	4.83**	4.71**
	(0.422)	(0.492)	(0.374)	(0.434)	(1.376)	(1.158)
Other	2.31**	1.39*	-0.51	-0.55	1.43	-0.49
	(0.818)	(0.828)	(0.690)	(0.700)	(0.826)	(0.700)
Female	-5.51**	-5.47**	-1.77**	-1.80**	3.13	0.14
	(0.375)	(0.379)	(0.325)	(0.329)	(1.890)	(1.621)
No Grad.		1.18**		0.15	0.87	-0.13
		(0.301)		(0.261)	(0.351)	(0.304)
Coll. Grad.		-0.71		-0.24	-0.39	-0.05
		(0.513)		(0.447)	(0.523)	(0.458)
Inc. < $5000		6.22**		2.78**	6.31**	2.74**
		(0.604)		(0.523)	(0.611)	(0.529)
$5K <= I <$10K		0.43		0.44	0.79	0.55
		(0.654)		(0.564)	(0.656)	(0.566)
$10K<= I<$25K		0.39		0.18	0.56	0.25
		(0.595)		(0.513)	(0.594)	(0.513)
$35K<=I<$50K		0.15		0.33	0.03	0.28
		(0.822)		(0.719)	(0.819)	0.718)
Inc. > $50000		0.86		0.71	0.62	0.58
		(0.873)		(0.760)	(0.876)	(0.765)
US Citizen		-1.74**		0.37	-1.20*	0.43
		(0.466)		(0.407)	(0.471)	(0.412)
Depends		0.03		-0.02	-0.04	-0.06
		(0.079)		(0.068)	(0.079)	(0.068)
Age		0.27**		0.03	0.39**	0.09
		(0.072)		(0.063)	(0.072)	(0.063)
Age^2		-0.003**		-1.4 e-4	-0.004**	-0.0008
		(0.0009)		(7.8 e-4)	(0.0009)	(0.0008)
Intercept	24.16**	16.87**	33.227**	30.85**	13.88**	29.35**
	(2.620)	(3.064)	(2.342)	(2.723)	(3.056)	(2.725)
<u>Interactions</u>						
Black* Offense Level					0.60**	0.22**
					(0.033)	(0.029)
Hispanic* Offense Level					0.219**	-0.09**
					(0.039)	(0.035)
Female* Offense Level					-0.73**	-0.17**
					(0.041)	(0.039)
Black* Criminal History					-0.97**	0.25
					(0.203)	(0.176)
Hispanic*Criminal History					-1.89**	-1.29**

	All Cases	All Cases	Guideline Cases	Guideline Cases	All Cases	Guideline Cases
					(0.257)	(0.223)
Female* Criminal History					-0.47	-0.69*
					(0.357)	(0.311)
Black* Education					-0.11	-0.12
					(0.128)	(0.111)
Hispanic* Education					-0.20*	-0.10
					(0.089)	(0.076)
Female* Education					0.22	0.11
					(0.139)	(0.120)
Black* Income					8.8 e-7	8.4 e-8
					(1.1 e-5)	(8.4 e-6)
Hispanic* Income					1.3 e-11	2.1 e-6
					(1.0 e-5)	(7.8 e-6)
Female* Income					5.4 e-6	2.2 e-6
					(9.0 e-6)	(6.9 e-6)
OL/ CH Cell Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
District Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Offense Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Num. of Obs.	77,159	77,159	56,146	56,146	77,159	56,146
F-Statistic	541.59	530.65	1013.94	987.44	521.118	961.714
Adj. R^2	0.729	0.731	0.874	0.874	0.733	0.874

Notes: Standard errors are in parentheses.
Dependent Variable: Length of sentence in months.
** signifies statistically significant at the .01 level.
* signifies statistically significant at the .05 level.
A value of 15 was assigned to dependents when the variable was recorded as over 15.

Table 7
Average Criminological Variables by Offense Type

	Bank Robbery	Drug Trafficking	Firearms Poss/Traff	Larceny	Fraud	Immig.
Sentence in Months	107.29	76.65	52.93	5.89	9.24	16.01
Offense Level	24.38	24.63	16.75	7.69	10.68	10.61
Criminal History	3.37	1.88	3.20	1.71	1.61	2.86
Number	2,931	31,240	5,173	5,790	11,316	3,174

Table 8
Disparities by Offense Type–All Cases

	Bank Robbery	Drug Traffick	Firearms Poss/Traff	Larceny	Fraud	Immigration
Black	9.61**	10.51**	2.79**	0.22	0.91**	0.49
	(3.207)	(0.711)	(0.906)	(0.172)	(0.161)	(1.023)
Hispanic	-4.68	6.17**	3.73*	-0.003	0.37	-1.08
	(6.689)	(0.843)	(1.596)	(0.358)	(0.304)	(0.893)
Other	-9.64	3.45	0.05	-0.14	0.88*	-0.91
	(12.464)	(2.174)	(2.713)	(0.412)	(0.366)	(1.386)
Female	-21.59**	-11.00**	-3.75	-0.82**	-0.81**	-1.68**
	(6.215)	(0.799)	(1.957)	(0.160)	(0.151)	(0.731)
No Grad.	-1.95	1.71**	-0.08	-0.06	-0.13	0.89
	(2.862)	(0.539)	(0.768)	(0.175)	(0.169)	(0.494)
Coll. Grad.	-1.12	-4.10**	2.16	-0.11	0.18	-0.49
	(9.670)	(1.288)	(2.286)	(0.288)	(0.175)	(1.017)
Inc. < $5000	9.13	10.25**	8.13**	1.80**	1.78**	2.72
	(11.869)	(1.342)	(2.031)	(0.301)	(0.243)	(1.436)
$5K <= I <$10K	-3.77	3.39*	1.74	0.51	0.19	0.81
	(12.645)	(1.445)	(2.134)	(0.308)	(0.268)	(1.489)
$10K<= I<$25K	-3.23	2.39	2.58	0.630*	-0.09	1.12
	(12.436)	(1.366)	(2.037)	(0.278)	(0.225)	(1.439)
$35K<=I<$50K	1.73	-0.63	1.15	0.14	-0.50	2.10
	(19.977)	(2.058)	(3.220)	(0.390)	(0.290)	(2.049)
Inc. > $50000	-36.86	2.93	-1.33	0.41	-0.86**	0.49
	(31.215)	(2.430)	(3.910)	(0.481)	(0.298)	(2.424)
US Citizen	-24.62**	-2.04**	0.54	-0.74*	-1.03**	-1.37*
	(9.383)	(0.787)	(1.718)	(0.371)	(0.246)	(0.678)
Depends	-2.10*	0.23	-0.87**	0.04	-0.09*	0.03
	(0.914)	(0.146)	(0.234)	(0.048)	(0.038)	(0.099)
Age	-0.11	0.43**	0.724**	-0.008	0.23**	0.03
	(0.842)	(0.154)	(0.218)	(0.037)	(0.035)	(0.124)
Age^2	0.004	-0.004	-0.007*	0.0002	-0.003**	0.0006
	(0.011)	(0.002)	(0.003)	(0.0005)	(0.0004)	(0.002)
Intercept	282.42**	10.04	10.73	25.36**	21.60**	76.58**
	(77.945)	(5.667)	(6.338)	(2.660)	(1.74)	(8.676)
OL/ CH Cell Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
District Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Num. of Obs.	2,931	31,240	5,173	5,790	11,316	3,174
F-Statistic	14.422	199.669	116.721	137.168	164.037	58.778
Adj. R^2	0.513	0.683	0.872	0.859	0.792	0.785

Notes: See Table 6.
Dependent Variable: Length of sentence in months.

Table 9
Who Is Most Likely to Receive No Prison Term?

	(1)	(2)
Black	-0.37**	-0.20*
	(0.088)	(0.092)
Hispanic	-1.00**	-0.43**
	(0.110)	(0.130)
Other	-0.04	0.27
	(0.183)	(0.192)
Female	0.53**	0.53**
	(0.083)	(0.085)
No Graduation		-0.10
		(0.082)
College Graduation		-0.07
		(0.136)
Income < $5000		-0.75**
		(0.153)
$5000 <= Inc. <$10000		-0.07
		(0.162)
$10000 <= Inc. <$25000		0.27
		(0.152)
$35000 <= Inc. <$50000		0.43
		(0.233)
Income > $50000		0.35
		(0.259)
US Citizen		0.76**
		(0.119)
Dependents		-0.02
		(0.021)
Age		-0.02
		(0.019)
Age^2		3.5 e-4
		(2.4 e-4)
Intercept	-11.38	-11.26
	(226.5)	(226.6)
OL/ CH Cell Fixed Effects	Yes	Yes
District Fixed Effects	Yes	Yes
Offense Type Fixed Effects	Yes	Yes
Number of Obs.	8,478	8,478
Concordant Predictions	80.3%	82.2%
Discordant Predictions	19.3%	17.5%
Tied Predictions	0.4%	0.3%

Notes: See Table 6.

Dependent Variable: Designates whether an offender was sentenced to no prison term when he was eligible for one under the guidelines.

These logit regressions use only the cases in Section A of Table 1, which includes offenders who according to the guidelines could receive a prison term of 0-6 months.

Table 10
Who Is Most Likely to Receive a Departure from Guidelines?

	Departed Down	Departed Up	Departed Down	Departed Up
Black	-0.46**	0.35**	-0.39**	0.29**
	(0.024)	(0.086)	(0.025)	(0.090)
Hispanic	-0.57**	-0.10	-0.43**	-0.10
	(0.028)	(0.119)	(0.034)	(0.138)
Other	-0.26**	0.32	-0.21**	0.36
	(0.061)	(0.179)	(0.062)	(0.184)
Female	0.48**	-0.99**	0.51**	-0.98**
	(0.026)	(0.144)	(0.027)	(0.145)
No Graduation			-0.14**	0.006
			(0.021)	(0.077)
College Graduate			0.14**	-0.13
			(0.036)	(0.141)
Inc. <= $5000			-0.53**	1.13**
			(0.042)	(0.199)
$5,000 < Inc.<= $10,000			-0.14**	0.36
			(0.046)	(0.222)
$10,000< Inc. <= $25,000			-0.07	0.15
			(0.042)	(0.209)
$35,000< Inc. <= $50,000			0.18**	0.08
			(0.057)	(0.282)
Inc. > $50,000			0.13*	0.13
			(0.060)	(0.288)
U.S. Citizen			0.06*	0.11
			(0.032)	(0.131)
No. Dependents			0.005	-0.009
			(0.005)	(0.020)
Age			-0.05**	0.07**
			(0.005)	(0.019)
Age^2			0.0005**	-0.0007**
			(6.1 E-5)	(0.0002)
Intercept	-0.638**	-4.87**	0.45**	-7.19**
	(0.057)	(0.228)	(0.124)	(0.485)
Cell Min.	Yes	Yes	Yes	Yes
Cell Minimum Squared	Yes	Yes	Yes	Yes
Cell Max.	Yes	Yes	Yes	Yes
Cell Maximum Squared	Yes	Yes	Yes	Yes
(Cell Min.)*(Cell Max.)	Yes	Yes	Yes	Yes
District Fixed Effects	Yes	Yes	Yes	Yes
Offense Type Fixed Effects	Yes	Yes	Yes	Yes
Number of Obs.	77,158	77,158	77,158	77,158
Concordant Predictions	76.2%	79.3%	77.0%	80.9%
Discordant Predictions	23.5%	17.2%	22.8%	15.8%

	Departed Down	Departed Up	Departed Down	Departed Up
Tied Predictions	0.3%	3.5%	0.2%	3.3%

Notes: See Table 6.

Dependent Variable: Whether an offender received a downward (columns 1 and 3) or an upward (columns 2 and 4) departure.

Logit estimation: The dependent variables were whether an offender received a downward or upward departure from the USSC guidelines.

Table 11
Magnitude of Departures from the USSC Guidelines

	Downward	Upward	Downward	Upward
Black	-5.70**	3.65	-4.32**	3.02
	(0.515)	(5.202)	(0.539)	(5.642)
Hispanic	-5.64**	4.49	-2.43**	2.60
	(0.588)	(6.667)	(0.688)	(8.199)
Other	-5.04**	0.43	-2.85*	2.60
	(1.320)	(10.323)	(1.331)	(10.713)
Female	6.85**	-8.00	6.92**	-7.10
	(0.545)	(7.995)	(0.551)	(8.293)
No Graduation			-1.22**	4.36
			(0.440)	(4.659)
College Graduate			-0.07	3.58
			(0.736)	(8.304)
Inc. <= $5000			-6.78**	-7.09
			(0.881)	(11.939)
$5,000 < Inc.<= $10,000			-0.64	-13.65
			(0.959)	(13.391)
$10,000< Inc. <= $25,000			-0.86	-3.17
			(0.869)	(12.526)
$35,000< Inc. <= $50,000			-0.01	-0.18
			(1.163)	(16.755)
Inc. > $50,000			-0.80	0.99
			(1.242)	(16.897)
U.S. Citizen			3.58**	-0.55
			(0.669)	(7.815)
Number of Dependents			-0.12	1.11
			(0.118)	(1.264)
Age			-0.19	-0.37
			(0.103)	(1.134)
Age^2			0.002	0.003
			(0.001)	(0.014)
Intercept	11.49**	15.44	14.07**	28.66
	(3.290)	(45.981)	(4.007)	(52.307)
Number of Obs.	19,964	933	19,964	933
F-Statistic	111.434	3.338	110.319	3.204
Adjusted R^2	0.672	0.441	0.677	0.435

Notes: See Table 6.

Dependent Variable: Length of departure in months. Downward departure = (guideline minimum) – (actual sentence). Downward departure = (actual sentence) - (guideline minimum).