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Gender and Sentencing in the Federal Courts: Are Women Treated More Leniently?

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Abstract

Using data from the United States Sentencing Commission (2001–2003), we examine the role of gender in the sentencing of defendants in federal courts. We address two questions: First, can we explain the gender gap in sentencing by taking into account differences in legal and extralegal factors? And second, do legal and extralegal factors have the same impact for male and female defendants? Overall, we find that female defendants receive more lenient sentence outcomes than their male counterparts. Legal factors account for a large portion of the gender differences, but even after controlling for legal characteristics a substantial gap in sentencing outcomes remains. Also, despite their influence on sentencing outcomes in some instances, extralegal characteristics do not help to close the gender gap. Finally, when male and female defendants are examined separately, we find that not all legal and extralegal factors weigh equally for male and female defendants.

Keywords

sentencing outcomes, gender differences, sentencing guidelines

Federal sentencing guidelines are designed to encourage the uniform and proportional treatment of defendants based on legally relevant factors. A main goal of the guidelines is to produce fair and honest outcomes that minimize unwarranted disparities

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based on defendants' social characteristics. A large body of disparity research has developed over time and, not surprisingly given America's sordid racial history, the overwhelming majority of studies focus on racial and ethnic differences in sentencing outcomes (Demuth, 2002; Demuth & Steffensmeier, 2004; Spohn, 2000; Steffensmeier & Demuth, 2006). What has not been a strong focus of past research is an arguably more common, yet apparently less controversial, form of disparity based on gender.

Like a defendant's race, gender is considered to be an extralegal factor in decision making at the sentencing stage. However, there are at least three factors that might explain both the persistence of gender disparities in sentencing despite guidelines designed to curtail them and a diminished concern for studying and remedying these disparate outcomes. First, unlike claims of racism in the application of laws and sanctions, there is no general presumption that women, the disadvantaged minority group, have historically been subjected to a consistent pattern of discrimination resulting in unwarranted harsher punishments (Nagel & Hagan, 1983). Second, in the context of societal and court concerns about crime and public safety and given the known greater propensity for crime among men, women are viewed as better recidivism risks and more deserving of leniency than men (Spohn, 2002). Third, a major difference in the social lives of men and women is the level of responsibility in caring for family, or more specifically for their dependent children (Bickle & Peterson, 1991; Daly, 1987a; Daly, 1987b; Daly, 1989). This practical consideration might make the court reluctant to sentence women as harshly as men.

In sum, there is a tension in the guidelines between the goal of a gender-neutral implementation of the law emphasizing uniform treatment based on offense severity and criminal history and the realization that important differences exist between the lives of men and women that might create a need or desire for differential treatment (for a similar argument about race, see Tonry, 1996). In fact, the guidelines recognize this dilemma and provide limited ways for judges and prosecutors to take gender into account. For example, the guidelines allow for some discretion through the use of departures, which enable factors such as family ties and responsibilities to be considered. But, overall, unexplained gender disparities persist despite policy changes designed to minimize them. This suggests that reformers may have had unrealistic expectations about the ability of guidelines to structure outcomes as intended (Spohn, 2000).

For all these reasons, an underdeveloped body of scholarship exists that addresses the topic of gender differences in sentencing. Much of this research is dated, having been published in the 1970s and 1980s using smaller state data sets or single city samples. Another shortcoming of many past studies is a lack of robust controls for legal case characteristics such as offense seriousness and criminal history. Most importantly, past research tends to examine only whether sex differences exist at the sentencing stage and typically does not explore empirically how gender influences outcomes (for a review see Chiricos & Crawford, 1995; Daly & Bordt, 1995). Researchers who examine gender and court processing tend to treat gender as a fixed

attribute of individuals; however work by Daly (1986, 1989, and 1994) and Kruttschnitt (1984) explores how gender and patterned roles associated with gender can influence court decisions. That male defendants tend to commit more serious offenses and have more extensive criminal records than female defendants helps to explain why men tend to receive harsher sentences than women (Bickle & Peterson, 1991; Daly, 1989; Daly, 1994; Daly & Bordt, 1995; Doerner & Demuth, 2010; Spohn, 2000, 2002; Steffensmeier, Kramer, & Streifel, 1993; Steffensmeier, Kramer, & Ulmer, 1995, 1998). But, legal factors alone do not appear to fully explain the gender gap and few studies have attempted to account for the remaining, often sizeable, differences in sentence outcomes between men and women.

In the present study, we use data from the United States Sentencing Commission (USSC) to more fully explore the gender gap in federal sentencing and examine the various ways in which gender continues to influence outcomes even within a system of formal rules designed to minimize the impact of extralegal factors. We contribute to the gender and sentencing literature in several important ways. First, we use data that have rich and detailed measures of legal case characteristics. A concern in prior research was that weak or incomplete measures of offense seriousness and criminal history failed to adequately capture the real differences in offending between men and women and made the gender gap in sentencing outcomes look larger than it actually was. With more robust measures, we reduce the likelihood of finding a gender gap that is simply an artifact of model misspecification.

Second, we examine a series of nested regression models to determine not just if a gender gap in incarceration and sentence length outcomes exists, but why. We begin by looking at the gender gap before accounting for differences in legal characteristics between men and women. Next, we control for legal differences to see how much gender differences in sentencing are explained by legal factors. Lastly, and most importantly, we examine the gender gap after adding controls for extralegal characteristics that are associated both with gender and sentencing outcomes: Education, marital status, and the number of dependents for which the defendant is responsible. Much prior research tends to add all legal and extralegal variables to the model at the same time making it difficult to compare the gender gap before and after controlling for legal factors. And, central to our earlier criticism of existing gender-sentencing work is that most prior studies examine gender as a fixed attribute and do not attempt to address what aspects of gender influence sentencing. Building upon the research of Daly (1986, 1989, and 1994) and Kruttschnitt (1984), we explore several gender-related possibilities.

Third, in addition to examining the main effect of gender, we examine whether legal and extralegal factors have different effects on sentencing outcomes for men and women. Most prior studies focus on the main effect of gender and do not consider the possibility that sentencing could be a gendered process. Prior research by Daly (1987a, 1987b, 1989) has shown that court personnel assumed gender divisions in the work and family responsibilities of familial defendants, and this resulted in differential outcomes during the sanctioning process. These court officials also viewed caretaking

labor, most often provided by women, as more difficult to replace. In addition, Koons-Witt (2002) found that the interaction between gender and number of dependents was a significant predictor of incarceration decisions, with women with dependent children significantly more likely to be sentenced to sanctions within the community. Thus, we explore whether there are differences between men and women with respect to legal and extralegal factors.

Gender and Sentencing Literature

The treatment of women in the courts has not been static in the United States (Farrell, 2004). Historically, female offenders were less likely to be arrested and often sentenced more leniently than similarly situated male offenders. However, such judicial discretion has often been a double-edged sword for women. Rafter (1990) and colleagues (with Stanko, 1982) documented a dual system of punishment for female offenders during the middle of the 19th century. Women deemed “feminine” or “trainable” by the court were most often sent to reformatories, while women viewed as “bad” or “masculine” were subject to incarceration in penal institutions, often alongside male prisoners (Butler, 1997). Gendered sentencing laws at the turn of the 20th century still allowed judges to send women to prison for minor public order offenses (e.g., alcohol-related offenses, DUI, and prostitution) for which men were rarely even arrested (Rafter, 1990; Temin, 1980). Indeed, until the 1970s, state sentencing laws allowed judges to sentence women differently than men because female offenders were perceived to be more amenable to rehabilitation and would benefit from longer indeterminate sentences (Pollock-Byrne, 1990).

Currently, a fairly persistent finding in the sentencing literature is that female defendants are treated more leniently than male defendants (Bickle & Peterson, 1991; Daly & Bordt, 1995; Doerner & Demuth, 2010; Griffin & Wooldredge, 2006; Spohn, 2002; Steffensmeier et al., 1993); however, one study reported no gender differences (Kruttschnitt & Green, 1984). Doerner and Demuth (2010) showed that female defendants were significantly less likely to receive incarceration sentences than male defendants. The odds of incarceration for female defendants were approximately 42% lower than the odds of incarceration for male defendants. Griffin and Wooldredge (2006) found that female defendants in general were less likely than men to be sent to prison both before and after the sentencing reform efforts in Ohio and that the magnitude of this effect did not change significantly over time (.51 to .43 for men, and .38 to .34 for women). Spohn (2002) reported that the odds of receiving a prison sentence were 2.5 times greater for male offenders than for female offenders after controlling for legally relevant factors. Steffensmeier and Motivans (2000) found that female defendants were sentenced less harshly than male defendants—on average they were about 14% less likely to be incarcerated and received prison sentences about 7 months shorter. Similarly, previous research by Steffensmeier et al. (1993) indicated that gender, net of other factors, had a small effect on the likelihood of imprisonment, with female defendants less likely to receive an incarcerative sentence than male defendants. But, they found that gender had a negligible effect on sentence length outcomes.

According to Gruhl, Welch, and Spohn (1984) female defendants were treated more leniently than male defendants, based on a simple breakdown with no controls. Even though they plead guilty and were convicted at about the same rates as males, females were more likely to have their cases dismissed and were less likely to be incarcerated. When the authors controlled for legal and extralegal factors, significant gender differences remained for dismissal and incarceration, even though the difference between males and females was reduced somewhat.

In terms of gender, women are thought to be less dangerous, less blameworthy, less likely to recidivate, and more likely to be deterred than men (Spohn, 2002). Therefore, the more lenient sentences that are imposed on them might reflect the fact that judges believe them to possess these qualities more than men. According to Belknap (2001), studies consistently show that females generally commit fewer crimes than males but also tend to commit offenses that are less serious and violent in nature. However, net of case severity, charge severity, type of offense, prior record, and other defendant characteristics, male and female defendants were still treated differently on the basis of their ties to and responsibilities for others. Kruttschnitt (1984) found that controlling for gender-related statuses (i.e., being a wife or mother) mediated the length of probation sentences. In addition, she concluded that women were more likely than men to remain free, both prior to adjudication and after conviction, and that the determinants of these two decisions varied significantly with the offender's gender. Therefore, her analysis provided some insight into why females receive preferential treatment by criminal courtroom personnel.

Familial Responsibility Literature

It has long been observed that female defendants who are married or who have children receive greater leniency from the courts than their male or unmarried and childless female counterparts (Bickle & Peterson, 1991; Daly, 1987a, 1987b, 1989; Eaton, 1987; Farrington & Morris, 1983; Kruttschnitt & Green, 1984; Kruttschnitt & McCarthy, 1985; Simon, 1975). Early explanations of how and why gender-based family roles were important in judicial decision making focused on the impracticality of harsh sanctions for female offenders compared to their male counterparts (Bernstein, Cardascia, & Ross, 1979; Simon, 1975). More specifically, Simon (1975) reported that officials' accounts of gender differentials in sentencing in both New York (1963-1971) and California (1945-1972) emphasized that women have families, both husbands and children, to care for and sending women to prison would seriously disrupt the family unit.

Kruttschnitt (1982a, 1984), along with her colleagues (with Green, 1984; with McCarthy, 1985) examined gender differentials in sanctioning, specifically pretrial release and sentencing outcomes, using data from Minnesota. In addition to gender, these analyses included either a composite measure of informal social control, or one or more sex-based family role factors including family/household composition, number of children, employment status, and sources of support. Overall, the findings from this research indicated that gender-based disparities were affected but not eliminated

by including family role factors, and that when composite measures of informal control were considered, there was little support for the claim that familial social control was a sex-specific determinant of criminal sanctioning.

In a more recent study of imprisonment decisions in Minnesota, Koons-Witt (2002) found that gender alone did not have a significant influence on sentence outcomes prior to the use of sentencing guidelines, but results indicated a significant interaction between gender and the presence of dependent children. The presence of dependent children for women significantly reduced their likelihood of going to prison. She also found that the interaction between gender and number of dependent children was a significant predictor of the incarceration decisions after sentencing guidelines were enacted. In this instance, women with dependent children were significantly more likely to be sentenced to a community sanction than were women without dependent children.

In her 1989 study, Daly found that a defendant's work-family relations affected the sentencing of both men and women. Furthermore, she reported that what defendants did for families, in terms of providing economic support or care for dependents, mattered to judges. Familied men and women (those with dependent children) were less likely to be detained pretrial, and they were less likely to receive the harsher types of nonjail sentences than childless men and women. In addition, the mitigating effect of being familied was stronger for women than men (Daly, 1987a). Furthermore, having dependents, whether in a marital context or not, was generally the more determining feature of whether defendants receive lenient treatment. For men, being married without dependent children conferred no advantage at the pretrial release or the two sentencing decisions; but having dependent children did. Married women, and especially those with dependent children, were accorded greater leniency at the pretrial release decision. In addition, at the sentencing stage, women with dependents received the most lenient sentences.

What appears to matter most for court personnel is whether defendants have day-to-day responsibilities for the welfare of others; such care or economic support can occur with or without a marital tie, and the specific form of care and economic support can vary by gender. In addition, the greater leniency accorded familied women than familied men stems from contemporary gender divisions in work and family life, specifically that women are more likely to care for others. The mitigating effects of family were found in both the pretrial release and nonjail sentencing decisions. Thus, familied defendants may be accorded leniency even when decisions do not center on a defendant's loss of liberty (Daly, 1987a).

Daly (1987b) found that court officials consistently drew on the categories of work and family in explaining why some defendants deserved leniency. One theme present was that defendants who provide economic support or care for others deserve more lenient treatment than those without such responsibilities. Leniency toward the familied defendants was therefore justified on the grounds that these defendants were more stable and have more to lose by getting into trouble again. Court personnel assume gender divisions in the work and family responsibilities of familied men and women.

These differences, combined with the family profiles of defendants, foster discrepancies in the treatment of familial men and familial women. In addition, officials often justified treating familial defendants more leniently because of the social costs of removing them and jeopardizing the family unit. Sex differentials in outcomes stem from the perceived differential responsibilities of females versus males. Officials viewed it as more costly or impractical to jail women with families than men with families because breadwinning support, usually provided by males, was more readily replaced than caretaking labor (Daly, 1987b).

Overall, research has shown that legal factors play a large role in the sentencing outcomes of male and female defendants, but even after controlling for characteristics like criminal history and offense severity, unexplained differences still persist. As a result, our understanding of why women are sentenced more leniently than men remains limited. In addition, research on familial responsibility indicates that having dependents (more specifically, dependent children) creates leniency at sentencing, especially for women. The present study sets out to explore how legal and extralegal factors play a role in the sentencing of male and female defendants, using data from the United States Sentencing Commission. We pay particular attention to whether characteristics such as education, marital status and the presence of dependents help to explain the remaining gap in sentencing outcomes, as previous research in this area has discovered, after controlling for legally relevant variables outlined under the Federal Sentencing Guidelines.

Theoretical Framework and Research Expectations

As previous research has shown, sentencing outcomes continue to be influenced by a host of extralegal factors, even with sentencing guidelines in place (Doerner & Demuth, 2010; Steffensmeier & Demuth, 2000; Steffensmeier et al., 1998; Ulmer, 1995). The focal concerns perspective developed by Steffensmeier (1980) serves as a framework for understanding why extralegal factors such as gender, race/ethnicity, and age might influence sentencing decisions, despite the implementation of formal guideline systems. The theory outlines three focal concerns that are important to judges and other criminal justice actors in reaching sentencing decisions: blameworthiness, protection of the community, and practical constraints and consequences. Grounded in research on organizational decision making, inequality and stratification, and criminal stereotyping, Steffensmeier and colleagues (with Kramer & Streifel, 1993; with Kramer & Ulmer, 1998) argue that defendant status characteristics may influence sentencing decisions insofar as stereotypes and behavioral expectations linked to these characteristics relate to the focal concerns of legal agents.

Blameworthiness follows the principle that sentences should depend on the offender's culpability and the degree of injury caused. The primary factors influencing perceptions of blameworthiness are legal factors such as the seriousness of the offense, the defendant's criminal history or prior victimization at the hands of others, and the defendant's role in the offense (Steffensmeier et al., 1998). Albonetti (1997) suggests

that court officials attempt to achieve rational outcomes in the face of incomplete knowledge by relying on stereotypes that differentially link defendant groups to recidivism. Research by Daly (1994) indicates that judges, at least to some extent, share common beliefs portrayed by the media and are influenced by them in their sentencing decisions. In other words, when decisions have to be made quickly, judicial professionals may rely on limited resources to reach an outcome in the time available.

Protection of the community typically focuses on the need to incapacitate the offender or to deter future crime. Albonetti (1991) argues that sentencing is an arena of bounded rationality, in which court actors, particularly judges, confront the goal of protecting the public and preventing recidivism in the context of high uncertainty about offenders' future behavior. Judges' assessments of offenders' future behavior is often based on attributions predicated primarily on the nature of the offense and the offender's criminal history. However, these decisions may also be influenced by extralegal characteristics of the offender such as gender, race/ethnicity, age, and socioeconomic status (SES). As mentioned previously, criminal justice professionals may give in to stereotypical notions as a means of making decisions more quickly, especially in the face of pressure from the media, victim's families, and members of the community.

Practical constraints and consequences relate to how sentencing decisions impact the functioning of the criminal justice system as well as the circumstances of individual defendants, their families and communities. Organizational concerns include maintaining working relationships among courtroom actors, ensuring the stable flow of cases, and being sensitive to local and state correctional crowding and resources (Dixon, 1995; Flemming, Nardulli, & Eisenstein, 1992; Steffensmeier et al., 1993, 1998; Ulmer, 1995; Ulmer & Kramer, 1996). Individual concerns include the offender's ability to do time, health conditions, special needs, the cost to the correctional system, and disruption to children and family (Daly, 1987a; Hogarth, 1971; Steffensmeier, 1980; Steffensmeier et al., 1995).

Expectations

Guided by the focal concerns perspective and the findings of past research on the effect of gender on sentencing outcomes, we develop several hypotheses for the present study to answer two research questions. First, can the gender gap in sentencing be explained by accounting for differences in legal and extralegal factors? Second, do legal and extralegal factors have the same impact for male and female defendants? Drawing on prior research, we expect to find that, on average, female defendants will receive more lenient sentences than male defendants (H1), and that this finding will hold true even after controlling for relevant legal and contextual factors (H2). In addition, we expect that defendants that have more education, more marital stability, and dependents will be afforded greater leniency than defendants that have less education, are single, or have no dependents (H3). Furthermore, we hypothesize that legal and extralegal factors will exert similar effects on sentencing outcomes for both male and female defendants (H4).

Data and Method

In the present study, we use data from three years (2001-2003) of the Monitoring of Federal Criminal Sentences program compiled by the USSC. The data include all cases received by the USSC that had sentencing dates between October 1, 2000, and September 30, 2003 and were assessed as constitutional (total = 194,521 cases). Data from the three years were combined to create one large data set, thus providing larger case sizes for both male and female defendant groups. These data are especially appropriate as they contain some of the richest and most detailed information available on cases at the sentencing stage. Many of the single-city or state-level data sets used in prior studies have lacked the large number of legal control variables found in the federal guidelines data. Having these variables available enabled a more adequate elimination of alternative explanations for extralegal effects on sentencing outcomes (e.g., Demuth & Steffensmeier, 2004; Spohn & Holleran, 2000). Furthermore, the federal sentencing guidelines provide a more rigid and conservative test of the impact of extralegal factors on sentencing outcomes.

For this analysis, we eliminate several defendant groups from the sample. First, noncitizens are deleted from the analysis. Federal sentencing of noncitizen defendants often differs greatly from sentencing of citizen defendants in many ways and, as a result, makes comparisons of sentencing outcomes between them difficult (Demuth, 2002). For instance, a large proportion of noncitizen cases involve immigration violations. Furthermore, because noncitizens can be deported, the sentencing process for noncitizens is often qualitatively different (the goal being to send the defendant back to his/her country of origin and not to punish) from that of U.S. citizens. Finally, case information provided for noncitizens may be incomplete and this will most likely result in an underestimation of prior criminal history.

Second, defendants under the age of 18 are excluded from the analysis because their cases are substantively and legally different due to their juvenile status. Third, defendants who receive upward departures are deleted from the analysis as they comprised only 0.8% of departure cases and made comparisons across departure type very difficult. Fourth, using listwise deletion, all cases with missing information for all variable used in the analysis are deleted. Analyses were run predeletion and postdeletion of missing information and the elimination of these cases did not significantly change the overall results. The final analytic sample for the present study is 109,181.

Dependent Variables

The sentencing outcome is the result of a two-stage decision making process: The decision to incarcerate and, once incarceration is selected, the sentence length decision (for discussion, see Spohn, 2002). In the present study, we use logistic regression to model the incarceration decision. The in/out decision variable is coded dichotomously, with 1 indicating a prison sentence and 0 indicating a nonincarceration sentence (e.g., probation, community service). The sentence length decision is modeled using ordinary least squares (OLS) regression and includes only those defendants who

receive a prison sentence. Sentence length is a continuous variable representing the logged length of the prison sentence in months. Logging sentence length helps to normalize the distribution and taking the antilog of the coefficient in the logged sentence length model provides a useful proportional interpretation. Sentence length is capped at 470 months. Any sentence length beyond that duration is considered to be life in prison.¹

Extralegal Variables

Defendant gender is a dummy variable coded 1 if the defendant is female and 0 if the defendant is male. Race/ethnicity is coded as four dummy variables: White non-Hispanic, Black non-Hispanic, Hispanic of any race, and Other.² Defendant age is a continuous variable representing the age of the defendant at the time of sentencing and ranges from 18 to 100. In this case, defendant age has been grouped in logical ranges consistent with Steffensmeier et al. (1998) and is coded as a series of dummy variables (18 to 20, 21 to 29, 30 to 39, 40 to 49, 50 to 59, and 60 and over).

Education level is coded as three dummy variables: Less than high school, high school, and more than high school, with those who graduated high school as the reference category. Marital status is coded as six dummy variables: Single, married, cohabiting, divorced, widowed, and separated. Those defendants who are single serve as the reference category. Number of dependents³ is a continuous variable indicating responsibility of support by the defendant of their dependents. For the purposes of this study, number of dependents has been recoded into a dichotomous variable indicating that defendants either have no dependents or have one or more dependents.⁴ Many studies have shown that female defendants that are married or have dependents receive greater leniency from the courts than their male or unmarried and childless female counterparts (Bickle & Peterson, 1991; Daly, 1987a, 1987b, 1989; Eaton, 1987; Farrington & Morris, 1983; Kruttschnitt & Green, 1984; Kruttschnitt & McCarthy, 1985; Simon, 1975). Having dependents, whether in a marital context or not, is generally the more determining feature of whether defendants receive lenient treatment. However, while the majority of prior research uses the terms “child or children,” the present study uses “dependent” as the data do not specify what type of dependent the defendant is responsible for.

Legal Variables

Under the Federal Guidelines, federal judges retain discretion for sentencing individuals within the range determined by the offense level and criminal history of the offender. Sentence ranges are determined using a grid that takes these two variables into account, one on each axis. However, it has been argued (see Engen & Gainey, 2000) that a variable representing the presumptive guideline sentence, where criminal history and offense severity are combined into a single measure, is a more appropriate strategy and actually explains more of the variation in sentencing outcomes. This

analytic strategy is also used by the USSC (2004). Therefore, we include a variable representing the guideline minimum sentence, in months. We also include a measure of criminal history, which ranges from 1 to 6 and indicates the final criminal history category of the defendant, as assigned by the court. According to Ulmer (2000), measures of offense severity and prior record have important main, curvilinear, and interactive influences on in/out and sentence length that cannot be reduced to the effect of presumptive sentence measures. This suggests that it is statistically and substantively important to include offense severity and prior record even if one is including a presumptive sentence measure. However, Ulmer also points out that including all three legally prescribed variables results in problematic multicollinearity in the OLS models of sentence length. As a result, an offense severity score variable is not included in the analysis because it is highly collinear with the guideline minimum sentence variable.

Case Disposition is a dichotomous variable, which indicates whether the offender's case is settled by plea agreement or trial. It is coded 1 for trial and 0 for guilty plea. We also include a measure of multiple counts. A dummy variable is coded 0 for cases involving a single count and 1 for cases that involve multiple counts. The defendant's offense type (see Appendix for a complete breakdown of categories) is coded as four dummy variables: violent (i.e., murder, manslaughter, sexual abuse), drug (i.e., trafficking, simple possession), white-collar (i.e., fraud, embezzlement, bribery), and other (includes all other offenses in the federal data). Defendants committing other types of offenses serve as the reference group. The variable departure indicates the defendant's departure status. Departure status is dummy-coded into 3 categories: No departure (the reference), downward departure, and substantial assistance departure. Upward departure cases were deleted from the sample as they only made up 0.8% of the sample and deleting them does not significantly change the findings. The federal sentencing statutes include provisions that permit judges to depart either above or below the sentence prescribed by the guidelines. Judges may award these sentencing departures based on a legitimate reason if they feel the defendant does not deserve the sentence stated under the prescribed guidelines. Overall, however, the overwhelming direction of departures is downward.

The narrow range of factors that judges may consider when sentencing either above or below the prescribed guideline range makes the Federal Sentencing Guidelines much more rigid than similar state structured sentencing systems (Farrell, 2004). Consequently, federal courts are prohibited from departing from the Guidelines based on the race, gender, religion, or class of an individual defendant. However, the Sentencing Commission has deferred to the courts to interpret how extensively judges may use offender characteristics to justify departures from the guideline range.

Several control variables are also included in the models. Since multiple years of data were used in the present study, a dummy variable for each of the three years was constructed. Prior studies have indicated that judicial circuit, as well as other court contextual variables, may be important influences on sentencing outcomes (Peterson & Hagan, 1984; Steffensmeier & Demuth, 2000). One cause of disparities is that not

all states or judicial circuits have implemented guidelines systems. The variable judicial circuit indicates the judicial circuit in which the defendant was sentenced. Judicial circuits are broken down into 11 categories, which were then made into dummy variables.

Results

In the present study, we analyze the data and present the results in several stages. In the first section, we present descriptive statistics for all variables used in the models (Table 1). Second, we use logistic and OLS regression (including only those defendants who receive a prison sentence) to examine the independent effects of gender on incarceration and sentence length decisions (Table 2) in three separate models. Third, we partition the full model by gender, examining the differential influence of legal and extralegal variables on sentencing outcomes of male and female defendants (Table 3). It is important to note that the data set we use in the present study is not a sample. It includes the entire population of defendants sentenced in the federal courts during the period. As such, statistical tests of significance are not particularly meaningful in that there is no sampling error and no need to make inferences (Berk, 2010; Raftery, 1995). In our discussion of results, we focus mostly on the size and direction of coefficients, but nonetheless include indicators of significance ($p < .05$) in the tables.

Descriptive Statistics

Overall, men make up 83% of the sample. In terms of race, we found similar percentages in each racial category for both men and women. The plurality of defendants in the sample are White, approximately 44%, while 34% are Black and 18% are Hispanic. In terms of age, the largest portion of the sample fell in the 21 to 29 age range, followed closely by the 30 to 39 year age range.

Looking at sentencing outcomes, a smaller percentage of women are incarcerated than men, with 85% of men receiving a prison sentence while only 62% of females in the sample are incarcerated. The sentence length gap for incarcerated defendants is also quite substantial between male and female defendants; male defendants receive sentence lengths of roughly 70 months, while female defendants are sentenced to approximately 34 months of incarceration. The average sentence length for the total sample falls close to that for male defendants (approximately 65 months).

These large differences in sentencing outcomes may be explained by both legal and extralegal factors. In terms of legal characteristics, male defendants have higher criminal histories, and they also receive higher recommended minimum guideline sentences than do female defendants due to the greater severity of the offenses committed by men. In addition, a higher percentage of male defendants are sentenced on multiple counts. Furthermore, a smaller percentage of female defendants go to trial. However, men and women receive sentencing departures at similar rates. A higher percentage of

Table 1. Descriptive Statistics by Gender

<i>Independent variables</i>	Overall		Males		Females	
	<i>N</i>	Percentage	<i>N</i>	Percentage	<i>N</i>	Percentage
Gender						
Male	90,297	82.70	90,297	100	—	—
Female	18,884	17.30	—	—	18,884	100
Race						
White	48,003	43.97	39,568	43.82	8,435	44.67
Black	37,541	34.38	31,408	34.78	6,133	32.48
Hispanic	19,348	17.72	15,988	17.71	3,360	17.79
Other	4,289	3.93	3,333	3.69	956	5.06
Age						
18-20	5,427	4.97	4,516	5.00	911	4.82
21-29	37,777	34.60	31,455	34.84	6,322	33.48
30-39	32,702	29.95	26,950	29.85	5,752	30.46
40-49	20,305	18.60	16,427	18.19	3,878	20.54
50-59	9,537	8.74	8,000	8.86	1,537	8.14
60 & over	3,433	3.14	2,949	3.27	484	2.56
Legal variables						
Multiple counts	23,142	21.20	20,274	22.45	2,868	15.19
Trial	4,536	4.15	4,062	4.50	474	2.51
Prior criminal history (points)	2.40	—	2.57	—	1.60	—
Guideline minimum sentence (months)	58.92	—	65.11	—	29.33	—
Offense type						
Violent	6,092	5.58	5,609	6.21	483	2.56
Drug	48,688	44.59	41,626	46.10	7,062	37.40
White-collar	23,259	21.30	16,371	18.13	6,888	36.48
Other	31,142	28.52	26,691	29.56	4,451	23.57
Departures						
No departure	72,938	66.80	60,816	67.35	12,122	64.19
Downward departure	12,866	11.78	10,289	11.39	2,577	13.65
Substantial assistance departure	23,377	21.41	19,192	21.25	4,185	22.16
Education						
Less than high school	38,587	35.34	32,794	36.32	5,793	30.68
High school	40,484	37.08	33,544	37.15	6,940	36.75
More than high school	30,110	27.58	23,959	26.53	6,151	32.57
Marital status						
Single	48,909	44.80	41,349	45.79	7,560	40.03
Married	30,588	28.02	25,448	28.18	5,140	27.22
Cohabit	10,702	9.80	9,087	10.06	1,615	8.55
Divorced	12,529	11.48	9,817	10.87	2,712	14.36

(continued)

Table 1. (continued)

Independent variables	Overall		Males		Females	
	N	Percentage	N	Percentage	N	Percentage
Widowed	626	0.57	315	0.35	311	1.65
Separated	5,827	5.34	4,281	4.74	1,546	8.19
Number of dependents						
No dependents	44,677	40.92	37,411	41.43	7,266	38.48
One or more dependents	64,504	59.08	52,886	58.57	11,618	61.52
Dependent Variables						
Incarcerated	88,647	81.19	76,979	85.25	11,668	61.79
Sentence length (months) ^a	65.12	—	69.80	—	34.25	—
N	109,181		90,297		18,884	

^aSentence length is for those who received an incarceration sentence.

males commit violent, drug, and other offenses, while a higher percentage of females commit white-collar offenses compared to their male counterparts.

Looking at extralegal factors that might be related to gender, a slightly higher percentage of female defendants have one or more dependents. More specifically, about 62% of female defendants have at least one dependent, compared to 59% for male defendants. Also, male defendants are more likely to be single than female defendants (46% vs. 40%), but female defendants are more likely to be divorced (14% vs. 11%) or separated (8% vs. 5%) than male defendants. Furthermore, a higher percentage of female defendants, roughly 6% more, have more than a high school education compared to their male defendant counterparts.

Independent Effects of Gender

Table 2 shows the main effects of gender in three nested models.⁵ Model 1 controls only for basic defendant demographics including gender, race, and age. Overall, female defendants have odds of incarceration roughly 74% lower than similarly situated male defendants. Hispanic defendants have the highest odds of incarceration, while White defendants have the lowest, and Black defendants fall in the middle. The odds of incarceration follow an upside-down U-shaped pattern with increasing age. Defendants age 21 to 39 have odds of incarceration roughly 40% to 50% higher than defendants age 18 to 20. After age 50, the likelihood of receiving an incarceration sentence drops substantially, with defendants age 60 and over having odds of incarceration roughly half that of the youngest defendants.

For the sentence length decision, female defendants receive sentences that are about 50% ($\exp[b]$) shorter than similarly situated male defendants. Black defendants receive the longest sentence lengths, approximately 50% longer than White defendants. Hispanic defendants fall in the middle when it comes to sentence length outcomes. Overall, sentence lengths increase until age 30 to 39, then decrease thereafter,

Table 2. Main Effects Model

Variable	Model 1		Model 2		Model 3	
	In/out	Ln(Length)	In/out	Ln(Length)	In/out	Ln(Length)
Gender						
Male ^a	—	—	—	—	—	—
Female	0.26*	-0.70*	0.61*	-0.25*	0.61*	-0.25*
Race						
White ^a	—	—	—	—	—	—
Black	1.65*	0.40*	0.96	0.04*	0.95	0.03*
Hispanic	1.80*	0.13*	1.40*	-0.03*	1.34*	-0.03*
Age						
18-20 ^a	—	—	—	—	—	—
21-29	1.48*	0.26*	1.00	0.05*	1.08	0.06*
30-39	1.42*	0.32*	0.88*	0.04*	0.98	0.05*
40-49	1.05	0.20*	0.84*	0.04*	0.94	0.05*
50-59	0.73*	0.08*	0.74*	0.06*	0.82*	0.07*
60 & over	0.48*	-0.06*	0.54*	0.02	0.59*	0.03
Legal variables						
Multiple counts			1.64*	0.29*	1.65*	0.29*
Trial			1.68*	0.10*	1.71*	0.10*
Prior criminal history			1.66*	0.06*	1.62*	0.06*
Guideline minimum sentence			1.12*	0.01*	1.12*	0.01*
Offense type						
Violent			1.80*	0.39*	1.77*	0.39*
Drug			1.41*	0.26*	1.37*	0.26*
White-collar			1.18*	-0.41*	1.23*	-0.41*
Other ^a			—	—	—	—
Departures						
No Departure ^a			—	—	—	—
Downward departure			0.27*	-0.41*	0.27*	-0.41*
Substantial assistance departure			0.12*	-0.44*	0.12*	-0.44*
Education						
Less than high school					1.35*	0.02*
High school ^a					—	—
More than high school					0.99	-0.01*
Marital status						
Single ^a					—	—
Married					0.92*	-0.01*
Cohabiting					1.07	0.00
Divorced					1.15*	0.01
Widowed					0.67*	0.02
Separated					1.07	0.00

(continued)

Table 2. (continued)

Variable	Model 1		Model 2		Model 3	
	In/out	Ln(Length)	In/out	Ln(Length)	In/out	Ln(Length)
Number of dependents						
No dependents ^a					—	—
One or more dependents					0.92*	0.00
Max-reseald R^2	0.13	—	0.59	—	0.59	—
Adjusted R^2	—	0.12	—	0.67	—	0.63
N	109,181	88,647	109,181	88,647	109,181	88,647

Controls for circuit and year are included in all models.

^aRepresents the reference category.

* $p < .05$.

with defendants age 60 and over receiving sentences similar to those received by defendants age 18 to 20.

Model 2 builds on the baseline variables by adding legal factors indicating number of counts, trial or guilty plea, prior criminal history, guideline minimum sentence (which accounts for offense severity), offense type, and receipt of departure. As expected, the legal factors are strongly related to whether a defendant receives a prison sentence or probation. Defendants with longer criminal histories are more likely to be sentenced to prison than defendants with shorter criminal records. In addition, defendants that are sentenced for multiple offense counts have odds of incarceration that are 64% higher than defendants sentenced on only a single count. Furthermore, defendants that go to trial are more likely to be sentenced to an incarceration term than defendants that plead guilty (odds ratio = 1.68). Defendants who commit violent offenses have the highest odds of incarceration, roughly 80% higher than defendants in the other offense category. Defendants committing drug and white-collar offenses are also more likely to be incarcerated (41% and 18%, respectively) than the reference group. Finally, defendants receiving a sentencing departure are less likely to receive an incarceration sentence than defendants who do not receive a sentencing departure. Looking at gender, net of legal factors, the odds of incarceration for females are 39% lower than the odds of incarceration for males. This represents a substantial reduction in the gender gap as compared to the findings presented in Model 1 where the odds of incarceration for women are 74% lower for women than men.

Similar findings emerge for sentence length in Model 2. After controlling for legal factors, female defendants receive sentences approximately 23% shorter than those received by male defendants. As with the in/out decision, defendants with longer criminal histories and those who go to trial receive slightly longer sentences. Those defendants with multiple counts receive sentences approximately 34% longer than those sentenced for only a single count. In addition, defendants who commit violent or drug offenses receive significantly longer sentences (48% and 30% longer, respectively) than those defendants in the reference group. However, defendants who commit

Table 3. Main Effects Model—Males Versus Females

Variable	Males		Females	
	ln/out	Ln(Length)	ln/out	Ln(Length)
Race				
White ^a	—	—	—	—
Black	1.02 ^b	0.05 ^{*b}	0.81 ^{*b}	-0.04 ^{*b}
Hispanic	1.44 ^{*b}	-0.03 [*]	1.13 ^{*b}	0.00
Age				
18-20 ^a	—	—	—	—
21-29	1.19 ^{*b}	0.06 [*]	0.85 ^b	0.04
30-39	1.03	0.05 [*]	0.88	0.08 [*]
40-49	1.00	0.03 ^{*b}	0.80 [*]	0.15 ^{*b}
50-59	0.90 ^b	0.04 ^{*b}	0.65 ^{*b}	0.23 ^{*b}
60 & over	0.66 ^{*b}	0.01 ^b	0.46 ^{*b}	0.18 ^{*b}
Legal variables				
Multiple counts	1.60 [*]	0.29 [*]	1.84 [*]	0.27 [*]
Trial	1.74 [*]	0.09 ^{*b}	1.69 [*]	0.21 ^{*b}
Prior criminal history	1.59 ^{*b}	0.06 ^{*b}	1.70 ^{*b}	0.09 ^{*b}
Guideline minimum sentence	1.12 [*]	0.01 ^{*b}	1.12 [*]	0.01 ^{*b}
Offense type				
Violent	1.78 [*]	0.37 ^{*b}	1.56 [*]	0.65 ^{*b}
Drug	1.27 ^{*b}	0.23 ^{*b}	1.76 ^{*b}	0.42 ^{*b}
White-collar	1.07 ^{*b}	-0.40 ^{*b}	1.75 ^{*b}	-0.24 ^{*b}
Other ^a	—	—	—	—
Departures				
No Departure ^a	—	—	—	—
Downward departure	0.25 ^{*b}	-0.40 ^{*b}	0.31 ^{*b}	-0.47 ^{*b}
Substantial assistance departure	0.13 [*]	-0.45 [*]	0.12 [*]	-0.44 [*]
Education				
Less than high school	1.46 ^{*b}	0.01 ^b	1.13 ^{*b}	0.05 ^{*b}
High school ^a	—	—	—	—
More than high school	1.02	-0.02 ^{*b}	0.95	0.05 ^{*b}
Marital status				
Single ^a	—	—	—	—
Married	0.90 [*]	-0.01	0.95	-0.03
Cohabiting	1.06	0.00	1.07	0.00
Divorced	1.10 [*]	0.02	1.23 [*]	-0.03
Widowed	0.78	-0.06	0.57 [*]	0.05
Separated	1.06	0.00	1.09	-0.03
Number of dependents				
No dependents ^a	—	—	—	—
One or more dependents	0.95	0.01	0.89 [*]	0.02
Max-resealed R ²	0.58	—	0.55	—
Adjusted R ²	—	0.67	—	0.58
N	90,297	76,979	18,884	11,668

Controls for circuit and year are included in all models.

^aRepresents the reference category.

^bCoefficients are different between male and female defendants at $p < .05$ level (two-tailed z-test).

* $p < .05$.

white-collar offenses, or receive a sentencing departure are given significantly shorter sentence length outcomes than their respective reference categories. Notably, by including legal variables in the model, the male–female gap in sentence length is reduced from a 50% difference to a 23% difference.

Model 3 represents the full model and includes three groups of variables indicating educational attainment, marital status, and number of dependents. These extralegal variables were added separately because they can be considered gendered in nature. The odds ratio for female defendants remains the same as in Model 2, indicating that female defendants have odds of incarceration approximately 39% lower than male defendants with similar characteristics. Defendants with less than a high school education are more likely to be incarcerated than those with a high school education. Furthermore, defendants that are divorced have higher odds of incarceration than defendants that are single, while married and widowed defendants are less likely to be incarcerated. In addition, defendants that have one or more dependents are significantly less likely to be incarcerated than defendants who have no dependents. In terms of the sentence length decision, female defendants receive the same sentence length outcome as they did in Model 2, even after the addition of educational attainment, marital status, and number of dependents. Overall, there remains a moderately large gender gap that cannot be explained by legal and extralegal factors.

Main Effects Models by Gender

In Table 3, we present the results separately for the male and female defendants in the sample. This is done to determine whether legal and extralegal factors differentially influence the sentencing outcomes of male and female defendants.

In terms of race, incarceration outcomes appear to be influenced differently for men and women. Hispanic male and female defendants have the highest odds of incarceration with defendants roughly 44% and 13% more likely to be incarcerated than their respective White counterparts. On the other hand, Black female defendants have the lowest odds of incarceration compared to White females. We use z-tests of difference of means to compare coefficients between models. Z-tests of difference indicate that the having prior criminal history plays a stronger role for female defendants than male defendants. This also holds true for female defendants who commit drug and white-collar offenses. Defendants, male and female, have lower odds of incarceration if they receive a sentencing departure, but the magnitude of the effect appears to be similar for both gender groups who receive substantial assistance departures. In addition, being less educated hurts male defendants more than women. More specifically, male defendants completing less than a high school education are 46% more likely to be incarcerated than those male defendants with a high school education.

In terms of sentence length outcomes, the results for male and female defendants are somewhat different. Black male defendants receive the longest sentence terms, roughly 5% longer than similarly situated White defendants. On the other hand, Black female defendants receive the shortest sentence length outcomes, approximately 4% shorter than their White female counterparts. Defendants, both male and female, who

go to trial and those with prior criminal history receive longer sentence lengths overall. Defendants receiving sentencing departures are given significantly shorter sentences than defendants who do not receive a sentencing departure however this appears to play a slightly larger role for female defendants who receive downward sentencing departures. Having anything but a high school education appears to play a stronger role for females than males, with female defendants receiving sentences 5% longer than female defendants that finish high school.

Overall, when it comes to the incarceration decision, several things were found to weigh differently for male and female defendants. Racial differences were found among defendant groups, with Hispanic males and females most likely to be incarcerated and Black females least likely to be incarcerated. In terms of legal variables, having prior criminal history plays a stronger role for women than men. For the extralegal measures, having less education negatively effects the sentencing outcomes of men. Looking at sentence length outcomes, racial differences were found. Black male defendants receive the longest sentence lengths, while Black female defendants receive the shortest. Educational differences were also found. Having anything but a high school education leads to negative effects for female defendants (longer sentences).

Discussion and Conclusions

The current study had several major goals. First we wanted to perform a rigorous analysis of the possible causes of gender disparities in sentencing outcomes. Gender disparities are quite common and usually discouraged or prohibited by statute yet receive relatively little attention in the literature. Furthermore, many past studies have used older data, small localized samples, or have not had sufficiently robust legal measures with which to provide adequate statistical control. In the current study, we used some of the richest and most detailed data available to examine how differences in the legal and extralegal case characteristics of men and women contribute to the gender gap in sentencing.

Second, beyond explanations based on differences in legal case characteristics, we wanted to gain a better understanding of how gender impacts sentencing outcomes through other extralegal factors related to both gender and sentencing. Past studies typically examine gender as a fixed attribute and do not consider how gendered roles might impact court decisions. In the current study, we drew on research from the areas of criminology, criminal justice, and family sociology to examine whether differences in marriage, education, and the presence of dependents helped to account for the gender gap. We also looked to see if there were gender differences in the impact of extralegal and legal factors on sentencing outcomes.

Finally and more broadly, the current study set out to address the limitations of the criminal justice system after the implementation of fixed sentencing reforms like formal guidelines designed to reduce unwarranted extralegal disparities. Central to the guidelines is the notion that defendant characteristics such as gender should not be considered during the sentencing process. However, even with these guidelines in place, gender disparities persist, calling into question the effectiveness of their

implementation. In the current study, we examined possible mechanisms by which gender may influence the sentencing process in spite of guidelines.

Consistent with prior sentencing research, we found that legal factors play an important role in determining sentencing outcomes. Overall, regardless of gender, defendants with more extensive criminal histories and those who committed more serious offenses were more likely to receive harsher sentences than defendants with less serious criminal pasts and current convictions. However, the findings of the current research also showed that gender appears to have a significant effect on sentencing outcomes, after accounting for legal and extralegal factors. Female defendants were less likely to receive an incarceration sentence than male defendants and also received shorter sentence length terms.

Several important findings emerged from the analysis in relation to our research questions and hypotheses. As expected in our first hypothesis, female defendants received more lenient sentence outcomes than their similarly situated male counterparts. Second, legal factors accounted for a considerable portion of the gender gap in sentencing. However, even after accounting for these legal factors, a sizeable gender gap remained in that male defendants continued to be sentenced more harshly than their female counterparts, as proposed in our second hypothesis. Third, although education level, marital status, and number of dependents appeared to influence sentencing outcomes in some instances, they did not help to minimize the gender gap in sentencing outcomes. Thus, our third hypothesis was supported in the expected direction in that defendants who have more marital stability and dependents received more lenient sentence outcomes, but there were no significant advantages for defendants with more than a high school education. One reason as to why this group of variables may not be helping to narrow the sentencing gap between male and female defendants is that judges on the federal level, compared to the state level, are more insulated from community pressures and political forces and less able to exercise their discretion than their state or local counterparts. Overall, the gender gap in sentencing outcomes cannot be fully explained by accounting for legal and extralegal factors.

Finally, contrary to our expectations in hypothesis four, when each gender group was examined separately we found that some legal and extralegal factors did influence sentencing differently for male and female defendants. In terms of legal variables, prior criminal history played a more important role in receiving an incarceration sentence for female than male defendants. In terms of extralegal variables, having less than a high school education negatively influenced the incarceration decision of male defendants (raising their odds of incarceration). However, when it came to sentence length outcomes, having less than, or more than, a high school education increased sentence lengths for female defendants. Race also influenced male and female defendants differently. For the incarceration decision, Hispanic male and female defendants had the highest odds of being sent to prison, while Black females had the lowest odds of incarceration. For the sentence length decision, Black males received the longest sentence length terms and Black female defendants received the shortest terms. Overall, legal and extralegal factors were found to have differential impacts on male and female defendants.

The results of the current study are consistent with the focal concerns perspective (Steffensmeier, 1980; Steffensmeier et al., 1993, 1998) that argues that legal decision making is organized around concerns of blameworthiness, protection of the community, and practical constraints and consequences. Overall, the primary influences of sentencing decisions are legal factors (e.g., prior criminal history, offense seriousness); however we also found that extralegal characteristics play an important role in some defendant's outcomes. The findings support the idea that judges attribute meaning to past and present behavior of defendants, as well as stereotypes associated with various gender or racial/ethnic groups. These extralegal sources of sentencing disparity indicate that these stereotypes may be very influential and that inequalities in the application of the law and subsequent court proceedings may be taking place, despite the existence of sentencing guidelines designed to avoid such unequal treatment.

One limitation of this study was that socioeconomic status (SES) information was not available in the data set (Monitoring of Federal Criminal Sentences), and thus, could not be included in the current analysis. It is not unusual for measures of SES to be missing from sentencing research. In prior years of federal data a variable representing defendant income was available, however over 50% of defendants listed their incomes as US\$0, making it difficult to analyze the true effects of this variable and how it might interact with gender (see Steffensmeier & Demuth, 2000). Future research should explore the extent to which gender disparities are truly a function of gender perceptions versus economic constraints that limit the ability of defendants to resist legal sanctions and acquire appropriate counsel.

Another limitation of the current study is that the variable indicating number of dependents does not differentiate between the types of dependents. In other words, it is unclear as to whether the defendant is claiming responsibility for their dependent children, their spouse or significant other, some other family member, or a combination of all of the above. Much of the prior research cited in the current study specifically explores the effect of children on sentencing outcomes, regardless of the defendant's marital context (Bickle & Peterson, 1991; Daly, 1987a, 1987b; 1989; Eaton, 1987; Farrington & Morris, 1983; Kruttschnitt & Green, 1984; Kruttschnitt & McCarthy, 1985; Simon, 1975). However, in this context, the definition leaves much room for interpretation. This is especially true given the very different worlds of parenting across various racial/ethnic groups, including instances of multiple partner fertility, mixed family households, extended family care, and responsibilities for aged dependents. Therefore, future research would benefit from an analysis broken down by marital status, specifically targeting single defendants, to determine if significant differences are present when children are the only dependent examined. Furthermore, future research should strengthen our understanding of different family forms, especially across racial/ethnic groups and same-sex partnerships.

In conclusion, the topic of differential treatment at sentencing will continue to be an important topic, given the Supreme Court decisions (*Blakely v. Washington*; *U.S. v. Booker*; *U.S. v. Fanfan*), which changed the sentencing guidelines from mandatory to voluntary. While the full implication of these changes are still to come, they will likely result in significant changes in sentencing outcomes, and more specifically, the role that judges and other members of the courtroom work group play in those sentencing decisions.

Appendix

Breakdown of Offense Types by Category

Coding No.	Offense type Name	Overall		Males		Females	
		Number	Percentage	Number	Percentage	Number	Percentage
	Violent	6,092	5.58	5,609	6.21	483	2.56
1	Murder	145	0.13	128	0.14	17	0.09
2	Manslaughter	125	0.11	98	0.11	27	0.14
3	Kidnapping/hostage	65	0.06	58	0.06	7	0.04
4	Sexual abuse	585	0.54	566	0.63	19	0.10
5	Assault	1,032	0.95	920	1.02	112	0.59
6	Bank robbery/other robbery	4,140	3.79	3,839	4.25	301	1.59
	Drug	48,688	44.59	41,626	46.10	7,062	37.40
10	Drugs: Trafficking	46,606	42.69	39,992	44.29	6,614	35.02
11	Drugs: Communication facilities	923	0.85	721	0.80	202	1.07
12	Drugs: Simple possession	1,159	1.06	913	1.01	246	1.30
	White-collar	23,259	21.30	16,371	18.13	6,888	36.48
18	Fraud	14,837	13.59	10,535	11.67	4,302	22.78
19	Embezzlement	1,913	1.75	775	0.86	1,138	6.03
20	Forgery/counterfeiting	3,159	2.89	2,353	2.61	806	4.27
21	Bribery	375	0.34	329	0.36	46	0.24
22	Tax offenses	1,333	1.22	1,093	1.21	240	1.27
23	Money laundering	1,642	1.50	1,286	1.42	356	1.89
	Other offenses	31,142	28.52	26,691	29.56	4,451	23.57
9	Arson	176	0.16	162	0.18	14	0.07
13	Firearms: Use/possession	13,339	12.22	12,832	14.21	507	2.68
15	Burglary/breaking & entering	118	0.11	111	0.12	7	0.04
16	Auto theft	370	0.34	352	0.39	18	0.10

(continued)

Appendix (continued)

Coding No.	Offense type Name	Overall		Males		Females	
		Number	Percentage	Number	Percentage	Number	Percentage
17	Larceny	5,125	4.69	3,205	3.55	1,920	10.17
24	Racketeering/extortion	1,627	1.49	1,492	1.65	135	0.71
25	Gambling/lottery	271	0.25	246	0.27	25	0.13
26	Civil rights offenses	211	0.19	201	0.22	10	0.05
27	Immigration	3,299	3.02	2,597	2.88	702	3.72
28	Pornography/prostitution	1,714	1.57	1,689	1.87	25	0.13
29	Offenses in prison	741	0.68	638	0.71	103	0.55
30	Administration of justice-related	1,982	1.82	1,324	1.47	658	3.48
31	Environmental, game, fish, and wildlife offenses	312	0.29	297	0.33	15	0.08
32	National defense offenses	16	0.01	12	0.01	4	0.02
33	Antitrust violations	39	0.04	38	0.04	1	0.01
34	Food and drug offenses	171	0.16	151	0.17	20	0.11
35	Traffic violations and other offenses	1,631	1.49	1,344	1.49	287	1.52
	<i>Overall totals</i>	<i>109,181</i>		<i>90,297</i>		<i>18,884</i>	

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Notes

1. Many sentencing studies model the sentence length decision including a correction term for selection bias stemming from the decision to incarcerate (Berk, 1983). This involves controlling for the “hazard” of incarceration (estimated in the in/out model) in the sentence length model. The hazard variable represents for each observation the instantaneous probability of being excluded from the sample conditional upon being in the pool at risk. However, Stolzenberg and Relles (1997) and Bushway, Johnson, and Slocum (2007) find that this correction term can often introduce more bias into the sentence length model than it eliminates due to high levels of collinearity between the correction term and other predictors of sentence length. This is especially likely when the predictors of incarceration are very similar to the predictors of sentencing length as in the present study. Also, Stolzenberg and Relles (1997) argue that a correction term is often unnecessary when there is a low level of selection. In the current data, because only 19% of defendants avoid incarceration, it is unlikely that a selection bias will strongly influence the sentence length findings. For these reasons, we do not include a correction term for selection bias in the sentence length model.
2. Defendants in the “Other” racial category have been included in the analysis models, but were not included in the regression tables as they are not the focus of this study and only constitute a small percentage of the sample (3.9%).
3. The “number of dependents” variable may not accurately represent a defendant’s potential family responsibilities because the Sentencing Commission has not differentiated among types of dependents (e.g., children, spouses, significant others, aged parents, or extended family members, etc.).
4. Initial analyses were conducted using a full range of categories for this variable, but it was found that no differences existed between higher levels of dependents.
5. All models in the analysis control for judicial circuit and year. Model fit for the full in/out model as indicated by the area under the ROC curve (0.931) is very good. For the full

sentence length model, an examination of variance inflation factor scores indicates that all variables are well below 10, which is typically considered to be an acceptable cutoff.

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