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# Federal Sentencing Disparities and Marginalized Offenders: Revisiting Cumulative Disadvantage Theory Through Individual-Level Variables

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## **Abstract**

Over the past several decades, sentencing reforms have claimed to establish guidelines to reduce sentencing disparity; yet, recent studies continue to find discrepancies in sentencing outcomes. The current study explored individual factors using data from the U.S. Sentencing Commission (FY 2010) to further analyze these variables through the lens of cumulative disadvantage theory. The factors included the influence of age, race, sex (gender), offense type, instant offense score, and overall criminal history score on sentencing length (in months). Hierarchical regression revealed being identified as Black, committing fraud/white collar crime or a property offense, and overall criminal history were able to significantly predict sentence length—findings consistent with cumulative disadvantage theory. Contrary to previous studies, the current results suggest that age may have a positive relationship with sentencing length.

The findings are not without limitations but do provide a modern-day picture of continued marginalization of certain defendants within the criminal justice system.

*Keywords:* Federal sentencing, marginalization, cumulative disadvantage theory

## **Federal Sentencing Disparities and Marginalized Offenders: Revisiting Cumulative Disadvantage Theory Through Individual-Level Variables**

Disparity occurs in sentencing when offenders who commit similar offenses, with comparable criminal histories, are given varying degrees of sanction. The Federal Sentencing Reform Act in 1984 was the catalyst for the presumptive sentencing guidelines established with the United States Sentencing Commission (USSC). On November 1, 1987, the Guidelines were formally enacted. The goal of the Guidelines was to reduce disparity to assure consistency and fairness of sentences. The Guidelines narrowed the disparity of sentences in federal courts for those displaying similar criminal conduct (Albonetti, 1997; Doerner, 2015; Farrell et al., 2010; Martin Stacey & Spohn, 2006; Mustard, 2001).

In 2007, the U.S. Supreme Court altered the federal sentencing process further. In this case (*Kimbrough v. United States*), the Court held that judicial departures on sentences were permissible as long as there were grounds for a policy disagreement. This meant departures—moving away from objective sentencing guidelines—could be made based on individual aggravating factors and/or grounds for policy disagreement. This resulted in reviving judges' ability to depart from the Guidelines with perceived justifiable cause, allowing for increased decision-making, flexibility, and the use of subjective discretion (Kim et al., 2016). Movement away from the sentencing guidelines could either decrease, or increase, one's sentencing outcome (Yeh & Doyle, 2008). Several frameworks have been used to explain departures (e.g., "perceptual shorthand" and focal concerns perspective). Within these theories seems one recurring theme—disadvantage—and for many in the criminal justice system, cumulative disadvantage. The review of this injustice is timely, as citizens all around the United States call for the attention and action in consideration of the numerous issues faced by Black Americans, "ranging from racial inequality to police violence to healthcare" (Ince et al., 2017, p. 1815). According to Hoffman and colleagues (2016), the Black community has no reason to trust in fair representation from elected offices until political systems rectify the system issues at the heart

of the Black Lives Matter Movement. While the current research does not focus solely on the lives of Black Americans, platforms, such as the #BLM, depict centralized issues for minority Americans, including within the federal branches of governmental decision-making.

### **Cumulative Disadvantage Theory**

“Cumulative disadvantage—or its reverse, cumulative advantage—refers to a dynamic process in which an unfavorable (or favorable) initial social position leads to further losses (or gains) in the future” (Sutton, 2013, p. 1208). Cumulative disadvantage theory is a systematic explanation, not individual-level, approach to understanding how inequalities develop. While many studies look at certain *individual-level* case processing decisions based on race/ethnicity alone, disadvantage can be cumulative resulting in many minority defendants experiencing enhanced combinations of less favorable outcomes (DiPrete & Eirich, 2006; Merton, 1973; Spohn, 2009; Sutton, 2013). In more recent years, criminologists have continued their efforts in understanding cumulative disadvantage within specific facets of the criminal justice system.

### **Individual-Level Variables**

**Race.** Many studies have analyzed race as a variable of interest—including studies on criminal justice processes. Research findings have been mixed on race and sentencing outcomes with most studies finding that Black and Hispanic individuals are more likely to be sentenced to incarceration than Whites (Doerner, 2015; Mustard, 2001) whereas others have shown that Black offenders receive less severe sentences than Whites (Bernstein et al., 1977). Zatz (1984) found racial disparity with more severe punishments for Chicanos than for their White counterparts while Albonetti (1997) found ethnicity to have a direct effect on sentencing outcomes. Studies have consistently found that minority race/ethnicity is a factor that influences longer overall sentence lengths (Steffensmeier et al., 1998).

**Criminal History & Instant Offense Score.** Many studies on sentencing disparities in the 1990s (see Albonetti, 1997) focused on race or ethnicity effects and the relationship with criminal history, offense type, and instant offense severity, among other factors. Although criminal history generally shares a positive correlation with sentence length, some studies have shown that Blacks and Hispanics with more serious criminal histories were sentenced more severely than their White counterparts (Nowacki, 2015; Spohn & Spears, 1996). It has also been found that minority males are sentenced more severely when observing the required

minimums given the criminal history and current offense scores (Ulmer, 2012). Statistics support the fact that Black defendants are more likely to have histories of imprisonment—these histories disadvantage Black men resulting in continued greater odds of future incarceration compared to White counterparts (Welch et al., 1984). The criminal history score should also have an influence on sentence length, as a sentencing matrix is used which consists of the criminal history and instant offense scores.

**Offense Type.** Research has shown the type of offense may influence whether the minimum or maximum sentence is given. Studies have also shown cumulative disadvantage when controlling for offense type and race. For example, Wooldredge and colleagues (2015) found cumulative disadvantages for young, Black men, with felony offenses, throughout many stages of the system. As two examples, this was observed in pretrial detention and bond amounts. Likewise, in a separate study, it was found that property crimes tend to carry lesser sentences than do violent offenses. Others have argued that due to the sentencing Guidelines, defendants with crack and powder cocaine charges have disparities in their sentencing outcomes—additionally, research shows minorities are more likely to be indicted on crack cocaine charges than Whites (Riley, 1998).

**Age.** Age can also influence a cumulative effect for defendants although research on age in sentencing decisions has been mixed. Some studies have found the youngest defendants receive more severe sentences while others find middle-aged defendants receive the harshest treatment in the courts (see Steffensmeier et al., 1995; Steffensmeier et al., 1998). Some have found that with each year of age, the odds of receiving federal prison sentences is decreased (Light, 2013). Most recently, Blowers and Doerner (2015) used 2001-2003 data from the United States Sentencing Commission and found defendants 50 to 54 years-of-age had the highest odds of incarceration. This was consistent with Steffensmeier and Motivans 2000 study. However, Blowers and Doerner (2015) found that rather than receiving the shortest sentences of incarceration, those aged 65 and above received the longest sentences of incarceration. As the criminal justice system continues to release older inmates punished under mandatory minimum policies, communities must respond.

**Sex (gender).** Many criminal justice (and other) studies include gender as a variable of interest. While gender is a social identity, and sex is biological, most studies use the words interchangeably (Connell, 1987; Connell, 2002). Many sentencing outcome studies have included gender as a variable—studied either for the isolated predictive value assigned to

sentencing outcomes, or in combination with other variables of interest. Studies have consistently reported women generally receive less severe criminal justice sanctions including less convictions resulting in incarceration and shorter stents of stay when sentenced to correctional facilities. As one example, Farrell and others (2010) found that even after the Guidelines were put into place, women continued to receive lesser sentences. In a ten-year timeframe (1995-2015), women in the federal system received a sentence sixteen percent lower than that for men leaving continued speculation about the impact of the Guidelines. Could this be cumulative *advantage*, or, does another sociological phenomenon explain these findings? Possibly, the chivalry hypothesis can be used to explain suggested lenient treatment of women in the criminal justice system as criminal justice actors may rely on extra-legal factors (e.g., being the primary parent) which benefit women (Crew, 1991). At times, the criminal justice actors make decisions based on correcting and protecting girls and women (Terry, 2018; Terry & Williams, 2019). With this perspective in mind, paternalism helps explain sentencing disparities within the criminal justice system.

### **Current Study**

In summary, criminal justice reforms strive to reduce disparity within the criminal justice system. Yet, recent publications continue to question the effectiveness of such policies as already marginalized groups continue to be on the receiving end of harsher punishments and lengthier sentences—with each form of disadvantage comes additional disparity. The current study sought to break down individual variables potentially influencing federal sentencing outcomes as previous studies have been mixed when studying age, race, sex (gender), offense type, instant offense score, and overall criminal history score on sentencing length. These individual variables are assumed to form cumulative disadvantage when studied together.

### **Data and Method**

Data for this study were drawn from the 2010 federal sentencing data compiled by the United States Sentencing Commission (USSC) (FY 2010). These data included the federal districts located within the United States. Using Stata Statistical software, 1,000 cases were randomly selected. Then, immigration charges were removed due to the different decision-making within the federal court—an initial decision is made to pursued either criminal or civil violations. This

resulted in a reduction of 271 cases. Lastly, elimination of the “other” race category resulted in the removal of an additional 122 cases. A final sample size of 607 was used for analyses.

**Independent variables.** Means and standard deviations were evaluated for each of the variables included within the study. Age was coded in number of years at the time of sentencing while sex was measured as either male or female. The mean age of the sample was 36.05 years ( $SD= 73.81$ ) with a median of 34 years. The youngest sentenced offender was 18 years-of-age with the oldest being 69 years-of-age. A total of 69 (11.37%) females and 538 (88.63%) male offenders were included in the sample. Mean scores for male ( $M=67.09$ ,  $SD = 73.86$ ) and female ( $M = 33.71$ ,  $SD = 66.77$ ) offenders indicated a difference in sentence length, such that male offenders were sentenced nearly twice as long as their female counterparts, However, uneven sample sizes make comparison here impractical. Race/ethnicity was analyzed based on three categories: Black, White, and Hispanic. Individuals in the Black category made up 30.64% of the sample, White individuals comprised 38.55%, and 30.81% of the sample were identified as Hispanic. Overall, there were approximately equal representations of each race in the sample, although this deviates from what is known about overall race and criminal conviction.

The current study looked at the instant offense score which consisted of a score of 0, 1, or 2. This was issued for the number of criminal history points applied from the commission of the *instant* offense while under the criminal justice system. The defendant's *final* criminal history was scored on a six-point scale ( $M= 2.46$ ,  $SD=1.78$ ) which was determined by the court. In assessing the categories of offense type, federal drug offenses accounted for 51.07% of the sample. This was followed by firearm convictions (17.13%), fraud/white collar (15.49%), property/other (12.52%), and violent offenses (3.79%). When addressing sentencing points ( $M= .52$ ,  $SD = .88$ ), a score of zero indicates an absence of a criminal history score based on the *instant* offense; a score of one indicates an adjustment had been applied which was not in the Guidelines; and a score of two meant that an adjustment had been applied to the criminal history score. Overall, most offenders in the analyzed data had either no score on this item or a one (adjustment applied, not in Guidelines); however, the current study observed a complete omission of any defendants scoring a one.

**Dependent variable.** Total prison sentence in length of months (excluding months of alternative confinement), with zeros (probation) served as the dependent variable. This variable was measured on a scale from zero to 470 months (life-in-prison). The Federal Sentencing

Commission identifies this value as representative of a life imprisonment sentence; 470 months is used to represent the longest sentence and greatest possible length, which is a useful convention for removing potentially problematic outlier values (e.g., sentence lengths in excess of 80 years) (Doerner, 2015). The mean score for the sentencing length in months was 63.38 ( $SD= 73.81$ ) with a median score of 37. This large standard deviation is likely due to a high number of offenses carrying mandatory minimum sentences closer to 470 months.

## Results

With a cumulative disadvantage perspective in mind, a three-stage hierarchical regression was conducted to evaluate whether sentence length could be predicted from race, gender, age, type of offense, final criminal history points, and instant offense score. Prior to conducting a hierarchical multiple regression, relevant assumptions (e.g., adequate sample size, multicollinearity) of the statistical analysis were tested and met. Dummy coded variables were created for each of the categorical variables.

Demographic variables (race, gender, age) were entered at stage one of the model. These were followed by type of offense at stage two as previous literature suggests type of offense may play a large role in the sentence with the existence of mandatory minimums. Final criminal history points and instant offense score were included in stage three—each stage, representing additional cumulative disadvantage. The hierarchical regression revealed at stage one, race (Hispanic, Black) and age significantly contributed to the regression model and together accounted for approximately 6% of the variance in sentence length,  $F(4,591) = 10.01, p < .001$ ;  $R=.25$ ; Adjusted  $R^2 = .06$ . Introducing each type of offense resulted in a significant change in  $R^2$ , accounting for 13% of the variance,  $F(8, 587) = 12.04, p < .001$   $R=.36$ ; Adjusted  $R^2 = .13$ . Finally, the addition of both final criminal history points and instant offense score explained 19% of the variance in sentence length and resulted in a significant change in  $R^2$ ,  $F(10,585) = 15.29, p < .001$   $R=.46$ ; Adjusted  $R^2 = .19$ .

In assessing each predictor individually, gender, or identifying as White or Hispanic, was not found to be significantly predictive of sentence length. Age was found to be predictive of sentence length [ $t(594) = 2.62, p = .01$ ;  $\beta = .67$ ]—the older the individual, the longer the sentence. Being identified as Black was also found to be individually predictive of a longer sentence length [ $t(594) = 2.38, p = .02$ ;  $\beta = 16.79$ ]. Interestingly, violent, drug related, and firearm offenses were not found to be individually predictive of sentence length. However,



fraud/white collar crime [ $t(594) = -6.30, p < .001; \beta = -53.01$ ] and property/other offenses [ $t(594) = -2.30, p = .02; \beta = -21.13$ ] significantly contributed to the model. Being charged with either of these offense types resulted in a shorter sentence length. Instant offense score was not found to be individually predictive of sentence length. However, a higher final criminal history score resulted in a longer sentence,  $t(594) = 6.51, p < .001; \beta = -13.39$ .

## Discussion

The current study explored individual factors within the U.S. Sentencing Commission (FY 2010) data to better understand the added cumulative disadvantage of each variable and identified cumulative disadvantage. Overall, some findings are consistent with previous research while other findings run contradictory to previous studies. Each of the unique contributions of these findings will be further outlined.

An interesting finding from the current study surrounds the relationship between age and sentence length. Previous studies have mostly confirmed the finding that as age increases, sentence length decreases; however, results from the current study suggest the opposite. As offender age increased, so too did the length of their sentence. An additional unexpected finding resulted in observation of this effect tapering off around 48.75 years-of-age. This finding may be consistent with others, who have found that middle-aged offenders tend to receive the longest sentences (see Blowers & Doerner, 2015). The current findings are inconsistent with most others, warranting further research to provide insight into the age and sentencing length delineation.

The chivalry hypothesis has been used to explain why some studies have found women to receive fewer sentences involving incarceration, shorter sentence lengths, and greater exceptions made for changes such as downward departures. While neither gender was found to be significantly predictive of sentence length in the final model, mean scores of the sample indicate a large difference between male and female sentence length. However, the sample itself is uneven, with males representing nearly 90% (88.63%) of those sentenced. With decades of research now including a focus on women in the criminal justice system, we remain at a standstill in understanding the root explanations for participating in crime and depth of involvement within the criminal justice system.

An overall significant model remained with the inclusion of offense type. However, only certain offenses remained in the model. A reduced sentence length was able to be predicted by defendants who committed property/other or fraud/white collar crimes. Interestingly, neither firearm nor violent offenses were found to be uniquely predictive of sentence length in the overall model. Upon further examination, instant offense score was not found to be significantly predictive of sentence length; however, the overall criminal history score did show that as the score increases, the sentence length also increases. Overall, the model was able to explain some variation in the sentencing length based on individual characteristics. Together, findings from the current study inconsistently support results from previous literature. Future studies should seek to incorporate a wider range of independent variables (e.g., downward departures and citizenship status) which have been shown to influence sentencing outcomes and support the notion of cumulative disadvantage.

Lastly, we found the variables of age, male sex (gender), and both Black and Hispanic races contributed to an overall significant model in stage one, supporting studies on cumulative disadvantage theory. Together, these demographic variables were able to account for a portion of the variance in sentence length. It is now that we must draw the reader's attention to the recurring issues of disparity, and a continued inconsistent application of decision-making processes at the federal sentencing level. We remain concerned with the uncertainty that the law seeks fair (among other aspirations) treatment of alleged offenders while the system delivers a different approach—one that is inconsistent in the application of sentencing guidelines even with changes in proposed laws. Our research indicates ongoing inconsistent application of federal sentencing standards the law demands.

### **Limitations**

The study is not without limitations. While the intent was to look at individual-level factors and cumulative disadvantage, the findings are still mostly remit of social and cultural considerations. First, the current study did not consider location of offense, racial/ethnic composition of such hometowns, or how crime and criminals may be perceived in said locations. Cumulative disadvantage is likely place-specific with added biases due to local awareness of a defendant's name, race, criminal history, and so forth. Second, the study did not look into immigration status as a variable but use of current USSC data with incorporation of this variable could be quite telling. Political "politics" and agendas may influence sentencing through social context

(Nowacki, 2015; Ulmer, 2012). Third, we did not address *when* girls and women first enter the system and then how this manifests throughout the entirety of the proceedings.

### Conclusion

Justice-oriented movements such as Black Lives Matter, reinforce our continued findings that Black defendants receive harsher punishments and sentencing outcomes than their White counterparts. With few exceptions, the findings that Black Americans are dealt with more harshly than their White counterparts is well-known and unfortunately, a reflection of systemic inequality. These realities, also extend into our findings on age and sex. Yet, initiatives to reduce disparity have not shifted this oppression. Additionally, most studies and some community actors remain concerned the system is “too soft” on female offenders. The deeper question underlying the current and previous findings is *why* after implementation of sentencing guidelines, certain oppressed groups are still receiving disparate treatment? *Why* does the court system respond differently to defendants based on age? These findings beg further investigation—one that seeks to uncover individual-level factors, community-level influencers, and broader ideological views and the impact it has on the current operations of the criminal justice system in the interests of “Justice for All.”

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