

**Courtroom Workgroups and Sentencing: The Effects of Similarity,  
Proximity, and Stability**

**Stacy Hoskins Haynes  
Pennsylvania State University**

**R. Barry Ruback  
Pennsylvania State University**

**Gretchen Ruth Cusick  
University of Chicago**

**Keywords: courtroom workgroups, sentencing, contextual factors, incarceration, economic sanctions**

**Stacy Hoskins Haynes  
Crime, Law, and Justice Program  
Department of Sociology  
211 Oswald Tower  
University Park, PA 16802  
[snh119@psu.edu](mailto:snh119@psu.edu)  
(814) 777-1032**

This research was supported by grants from the National Institute of Justice (Grant No. 97-CE-VX-0001) and the Pennsylvania Commission on Crime and Delinquency and by funds from the Center for Research on Crime and Justice at Penn State University. The points of view expressed in this article do not necessarily reflect the opinions of the Department of Justice, the Pennsylvania Commission on Crime and Delinquency, or the Pennsylvania Commission on Sentencing. We thank Cynthia Kempinen for her thoughtful comments on an earlier draft.

## **Abstract**

Sentencing decisions are the product of a group of courtroom actors, primarily judges and district attorneys. Although the structure of the courtroom workgroup and the interdependencies among members are assumed to be important determinants of sentencing decisions, the degree of this importance and the specific mechanisms through which workgroups affect these decisions have not been investigated. This study used data from the Pennsylvania Commission on Sentencing (PCS) for the years 1990-2000 to examine how three social psychological aspects of courtroom workgroups (similarity, proximity, and stability) affect sentencing decisions. Results indicated (a) that workgroups generally had very high levels of similarity in terms of race, gender, and political party but lower levels of similarity in terms of age, college education, and law school education and (b) that proximity and stability were generally high. Controlling for individual, case, and distal contextual factors, workgroup factors affected the decision to incarcerate, the decision to impose fines, and the decision to impose restitution. In particular, proximity increased the use of economic sanctions relative to incarceration and stability was associated with a decrease in the imposition of economic sanctions. Similarity had inconsistent effects.

## **Courtroom Workgroups and Sentencing: The Effects of Similarity, Proximity, and Stability**

Sentencing decisions represent the culmination of investigative, legal, practical, and policy determinations. Although sentencing is primarily a function of two factors – the severity of the offense and the offender’s prior record – individual, case, and contextual effects can contribute to variations in sentencing outcomes. In addition, the relationships among individuals involved in sentencing – the judge, prosecutor, and defense attorney – may be important because of shared beliefs about what constitutes appropriate sentencing. These individuals, who together form the courtroom workgroup, share a common task environment and work together to achieve the common goal of disposing of cases.

This study uses hierarchical modeling techniques to examine whether and how sentences are affected by three aspects of courtroom workgroups: similarity (i.e., the degree to which workgroup members share the same characteristics), proximity (i.e., the location of workgroup members’ offices in relation to one another), and stability (i.e., the number of years workgroup members worked together in the same jurisdiction). These three quantitative measures of the proximal context (i.e., characteristics of the individuals responsible for the handling of cases), along with measures of individual, case, and distal contextual factors (i.e., characteristics of the jurisdiction in which cases are processed), are used to investigate the decision to incarcerate, the decision to impose fines, and the decision to impose restitution. In addition, this study examines how workgroup factors affect statutory implementation, specifically restitution decisions before and after a 1995 statutory change making restitution mandatory.

## **Overview of Sentencing Research**

Legally relevant factors, particularly crime seriousness and offense history, are the most important determinants of sentencing outcomes (Hofer, Blackwell, & Ruback, 1999; Myers & Talarico, 1987), but studies have also examined how offender characteristics, judge characteristics, and contextual characteristics affect sentencing.

### **Offender Characteristics**

Although some studies have found that extralegal factors such as the offender's race/ethnicity, gender, and age have little effect on sentencing, independent of legally prescribed variables such as the severity of the offense and the offender's prior record (Konecni & Ebbesen, 1982), other studies have found that offender characteristics contribute significantly to sentencing outcomes (Steffensmeier, Ulmer, & Kramer, 1998). Studies have focused primarily on three offender characteristics: race/ethnicity, gender, and age. Regarding race/ethnicity, studies indicate that black and Hispanic offenders receive harsher sentences than white offenders (Kramer & Ulmer, 1996; Steffensmeier & Demuth, 2000). Although black and Hispanic offenders are generally more likely to be incarcerated than white offenders, they do not necessarily receive lengthier sentences (Spohn, 2000). With regard to gender, evidence suggests that the criminal justice system treats female offenders more leniently than male offenders (Hofer et al., 1999; Steffensmeier et al., 1998). Regarding age, evidence suggests that both older and younger offenders receive more lenient sentences than offenders in the middle of the age distribution (Steffensmeier, Kramer, & Ulmer, 1995). In sum, research suggests that although offender characteristics contribute significantly to sentencing outcomes, the effects are small when compared to legally relevant factors.

## **Judge Characteristics**

Most studies that have examined the effects of decision maker characteristics on sentencing outcomes have focused primarily on judges. Judges' socialization experiences, which are a product of their political affiliation, demographic characteristics, and educational experiences, influence their later values, attitudes, beliefs, and ideologies. For example, conservative judges embrace a more punitive stance toward crime and are more likely to attribute an individual's criminal involvement to personal choice, whereas liberal judges focus more on rehabilitating the offender and are more likely to believe that factors external to the individual are responsible for their involvement in crime (Carroll, Perkowitz, Lurigio, & Weaver, 1987).

In addition to political beliefs, some research suggests that judges' race and gender affect sentencing. Findings regarding the effects of race on sentencing are mixed regarding the imposition of incarcerative sentences. For example, some studies find that minority judges are more likely to incarcerate offenders (Steffensmeier & Britt, 2001), while others find that minority judges are somewhat less punitive (Johnson, 2006). With regard to gender, studies consistently find greater similarities than differences in how male and female judges sentence offenders (Gruhl, Spohn, & Welch, 1981). However, some evidence suggests that female judges are somewhat harsher in their sentencing decisions, particularly toward repeat black offenders, because they are more strongly influenced by offender characteristics and prior record than are male judges (Steffensmeier & Hebert, 1999).

In sum, there appear to be no consistent findings regarding the effects of individual judges' characteristics on sentencing. Rather than continue to focus on the characteristics of individual judges, it might make sense to examine how those characteristics relate to those of people with whom judges interact.

## **Contextual Characteristics**

The differential weighting of individual and case factors is probably the result of both the judge who handed down the decision and the jurisdiction in which the case was processed. Thus, in addition to examining how judicial discretion affects the decision-making process, studies have examined how the jurisdiction conditions that discretion. The court context refers to both the proximal context – the characteristics of the individuals responsible for the handling of cases – and the distal context – the characteristics of the jurisdiction in which cases are processed.

Studies consistently find that otherwise similar offenders receive different sentences in rural and urban areas. Research at both the state and federal levels finds that offenders sentenced in large urban courts receive less severe sentences than offenders sentenced in small rural courts (Hofer et al., 1999). Because urbanization correlates with other court and county variables, however, its effect depends on the offense, the specific sentencing outcome under consideration, and the attributes and behavior of offenders (Myers & Talarico, 1986, 1987; Olson, Weisheit, & Ellsworth, 2001).

A county's political ideology (i.e., the extent to which residents are conservative or liberal) is important because judges' decisions generally reflect the views of their constituents. Thus, judges in more conservative jurisdictions tend to impose longer sentences, particularly on repeat offenders and offenders convicted of more serious offenses (Eisenstein, Flemming, & Nardulli, 1988). Furthermore, a study of 337 jurisdictions in seven states revealed that male offenders and black offenders received longer sentences in more conservative political environments (Helms & Jacobs, 2002).

In sum, although sentencing studies have examined legally relevant factors, offender characteristics, judge characteristics, and contextual factors, many of these studies have

examined only one type of factor (typically offender characteristics). There is a need for studies that test all of these factors simultaneously. Moreover, there is a need to acknowledge the interplay of these factors. This study does that with regard to judges, by analyzing how judges relate to the other primary member of the courtroom workgroup, the district attorney.

### **A Social Psychological Framework for Studying Courtroom Workgroups**

According to Eisenstein and his colleagues (Eisenstein et al., 1988; Eisenstein & Jacob, 1977; Nardulli, Eisenstein, & Flemming, 1988), courtroom workgroups consist of individuals who share a common workplace, who interact in the performance of their jobs, and whose collective purpose is to dispose of cases. Those researchers conducted two studies that investigated how courtroom workgroup traits, offender characteristics, and case factors affect the disposition process. In their first study, Eisenstein and Jacob (1977) examined more than 4,000 cases in felony courts in Baltimore, Chicago, and Detroit. Ten years later, Eisenstein and his colleagues (Eisenstein et al., 1988) conducted a more extensive study, which further explored how courtroom workgroups dispose of cases. In this second study, the researchers analyzed data on nearly 7,400 defendants and 300 judges, prosecutors, defense attorneys, and other participants in three medium-sized criminal courts in each of three states: Illinois, Michigan, and Pennsylvania.

On the basis of these studies, Eisenstein and his colleagues concluded that differential patterns of sentencing occur because courtroom workgroups perceive offenders and cases differently. Furthermore, because sentencing is a shared decision, the structure of the courtroom workgroup and the interdependencies among members explain much of the variance in sentencing outcomes across jurisdictions. The results suggested that factors such as the degree of familiarity among workgroup members, the context in which the court is located, and the

county legal culture (i.e., workgroup members' shared beliefs about both interpersonal relations and the manner in which cases should be disposed of) affect workgroup behavior.

The notion of workgroups is powerful, but there have been few quantitative studies that have examined how they affect sentencing, and there have been no real tests of their importance relative to individual and case characteristics. Moreover, Eisenstein and his colleagues' research focused on courtroom workgroups in only 12 medium-sized counties, thereby neglecting how workgroups across the entire range of counties in a state – from small rural counties to very populous urban counties – might affect sentencing.

A further limitation of the research on workgroups is that it ignores the social psychological literature on small groups, particularly work relating to the formation of groups and the manner in which groups carry out tasks. Three factors from the social psychological work are relevant to Eisenstein et al.'s research on courtroom workgroups: similarity (i.e., the degree to which individuals share the same characteristics), proximity (i.e., spatial closeness), and stability (i.e., interacting with the same individuals over time). We chose to focus on these variables because similarity and proximity are two of the most important predictors of group formation. Thus, not surprisingly, because most group members come from the same social network there tends to be considerable overlap in members' knowledge, experiences, and perspectives (Jehn, Northcraft, & Neale, 1999). Furthermore, stability affects group performance by reducing uncertainty about others' intentions and probable behavior. We expected that quantitative operationalizations of all three social psychological aspects of courtroom workgroups – similarity, proximity, and stability – would affect sentencing outcomes.

## **Similarity**

Eisenstein et al. (1988) observed that members of courtroom workgroups are similar to each other. Given that similarity, they should like one another, as people are attracted to others who have similar attitudes, beliefs, and personal characteristics (Byrne, 1971; Newcomb, 1961), and they value the contributions of similar others more than the contributions of dissimilar others (Hinds, Carley, Krackhardt, & Wholey, 2000).

In a courtroom workgroup, there are several possible dimensions of similarity that might be relevant to how the workgroup operates, including demographic characteristics (race, gender, and age), background (college and law school education), and beliefs (political party). Although numerous studies in the organizational literature have examined how differences in age, gender, race, job tenure, and education affect performance (Jehn & Bezrukova, 2004; Tsui, Porter, & Egan, 2002), few studies have examined the role of these factors in sentencing. Our first step was to determine the similarity of workgroups, that is, the extent to which workgroup members (judges and district attorneys) share the same characteristics. Second, we wanted to determine whether that degree of similarity is related to sentencing decisions. In general, we expected that similarity among workgroup members would be relevant primarily for decisions that involve discretion. In contrast, for decisions that are straightforward or automatic, workgroup similarity should not be very important. Furthermore, although we expected all three types of similarity to be important, we expected education to matter more than demographic characteristics because research shows that over time age and gender become less relevant (Jehn et al., 1999).

## **Proximity**

Individuals who are physically closer to one another generally interact more and are therefore more likely to like each other than are individuals who are more distant from one

another (Festinger, Schachter, & Back, 1950). Because organizational settings provide such proximity, they create opportunities for individuals to form interpersonal network ties (McPherson & Smith-Lovin, 1987). Consistent with these findings, Eisenstein and his colleagues (1988) observed that courtroom workgroups are highly dependent on their environments. The geography of the courthouse (e.g., the availability of informal meeting places) influences the structure of court communities and the opportunities available for workgroup members to interact. These opportunities lead to greater familiarity, which, in turn, facilitates cooperation and improves the decision-making process.

It is likely that proximity relates to whether there are opportunities for workgroup members to discuss alternative sanctions. When workgroup members' offices are in the same building, for example, there are more opportunities for workgroup members to come into contact with one another outside the courtroom. These informal meetings may affect sentencing outcomes because they provide workgroup members with opportunities to discuss the general appropriateness of different sanctions and, we believed, would make intermediate punishments like economic sanctions more likely to be imposed.

### **Stability**

Workgroup members become more familiar with one another when they have more interactions over time, which are likely to increase when there are few changes in workgroup personnel. The stability of a group's membership determines the familiarity among members (Goodman & Leyden, 1991) and their patterns of communication (Katz, 1982). These factors exert a significant effect on the group's performance because groups composed of more familiar individuals generally perform better than groups composed of less familiar individuals (Guzzo & Dickson, 1996).

Workgroup stability also reduces uncertainty about others' intentions and probable behaviors. Because groups are generally more productive when members' behaviors are predictable, individuals typically prefer to work with others whose personalities and work practices are familiar to the rest of the group (Hinds et al., 2000). This preference explains why Eisenstein and Jacob (1977) found that workgroup members who were more familiar with one another were more likely to dispose of cases by plea-bargaining.

We expected that stability would affect the imposition of economic sanctions. Members of more stable workgroups have more joint experience with offenders and are therefore probably more realistic about offenders' ability to pay economic sanctions. Furthermore, we expected that stability would affect statutory implementation. A statutory change is likely to be successfully implemented when it is consistent with individuals' beliefs and practices and when the individuals and organizations responsible for its implementation are both capable and willing to transform the policy into practice (Goggin, 1986). In 1995, Pennsylvania implemented a statutory change mandating that courts order restitution for those victims who had suffered a physical injury or monetary loss as the direct result of a crime (18 Pa. C.S.A. §1106). The statute required judges to impose full restitution regardless of the offender's ability to pay. Studies have found that the statute had an effect, as courts in Pennsylvania ordered restitution more often for offenses after the statutory change (Ruback, Ruth, & Shaffer, 2005; Ruback, Shaffer, & Logue, 2004). We expected that decisions by more stable workgroups would be more consistent across the pre- and post-statutory change periods than would decisions by less stable workgroups. That is, we expected more stable workgroups to be less likely to change their rate of imposition of restitution following the statutory change.

## **The Current Study**

The current study used statistical techniques appropriate for multilevel data to examine individual, case, and contextual effects on sentencing outcomes across an entire state. Furthermore, we built on the work of Eisenstein and his colleagues (1977; 1988) by examining how three quantitative measures of the courtroom workgroup – similarity, proximity, and stability – affect the decision to incarcerate, the imposition of fines, and the imposition of restitution. We focused on these three sentencing outcomes because they range in type (i.e., one incarcerative sanction and two economic sanctions), severity, and amount of discretion. We also examined how workgroup characteristics affected courts’ response to a statutory change that made restitution mandatory. Courtroom workgroups may consist of judges, prosecutors, defense attorneys, probation officers, police officers, and administrative personnel. Although all of these individuals play some role in the disposition process, our data are limited to judges and district attorneys, individuals who are employed by the state, who have a more permanent role in the courtroom workgroup, and who handle the most cases.<sup>i</sup>

For each of the analyses, we first analyzed all 67 Pennsylvania counties. Then we conducted those same analyses excluding Allegheny (Pittsburgh) and Philadelphia Counties, the two largest urban areas in the state, because urban areas are likely to be highly formal and bureaucratic and decision-making is more likely to be based primarily on legal factors (Dixon, 1995). By excluding these counties, we could determine whether the effects of workgroups are stronger when only the less bureaucratized counties are examined.

## **Method**

We used hierarchical modeling techniques to examine individual, case, and contextual (both proximal and distal) effects on sentencing outcomes. Because criminal cases are nested

within different counties, similarities among cases at the county level are likely to occur (i.e., cases are likely to be more similar within counties than across counties). This similarity means that residual errors tend to be correlated within counties, which violates the ordinary least squares assumption of independent error terms and risks the misestimation of standard errors. Hierarchical modeling techniques address this problem of dependence by partitioning the variance within and between units of analysis. Thus, multilevel models are appropriate for this study because they allow simultaneous tests for individual and contextual effects on the dependent variable. The sentencing data were analyzed using the HLM program of Raudenbush and Bryk (2002).

The county-level (level-2) data for this study consisted primarily of contextual information (i.e., proximal and distal characteristics) from *The Pennsylvania Manual* (Commonwealth of Pennsylvania) for the years 1989-2000, the 1990 and 2000 U.S. Censuses, and the 1990 and 1995 Uniform Crime Reports (Federal Bureau of Investigation). We collected additional information from the *Martindale-Hubbell Law Directory* (Martindale-Hubbell, 2003), the Pennsylvania District Attorneys Association (2004), and from personal communications with court personnel in all 67 Pennsylvania counties. The case-level (level-1) data consisted of sentencing information (i.e., individual and case characteristics) from the Pennsylvania Commission on Sentencing (PCS) for the years 1990-1994 and 1996-2000.<sup>ii</sup>

### **Contextual Variables**

The contextual variables included in this study were measures of both the proximal context and the distal context. The proximal context refers to characteristics of the courtroom workgroup (i.e., characteristics of the individuals responsible for the handling of cases), while

the distal context refers to characteristics of the county in which the court is located (i.e., characteristics of the jurisdiction in which cases are processed).

**Proximal context.** Three measures of the proximal context were included in these analyses: similarity among workgroup members, proximity of workgroup members' offices in relation to one another, and stability of workgroup membership. The information for these variables came primarily from *The Pennsylvania Manual* (Commonwealth of Pennsylvania) for the years 1989-2000.

The first set of variables included six measures of workgroup member characteristics: race, gender, age, political party, and college and law school location. Race was a dichotomous variable coded '1' for whites and '0' for nonwhites. Gender was coded '1' for males and '0' for females. Age was a continuous variable that represented a workgroup member's age (in years) in 1990. Political party was a dichotomous variable coded '1' for Republicans and '0' for Democrats. College and law school location were coded '1' for Pennsylvania schools and '0' for non-Pennsylvania schools. We used these variables to create separate measures of similarity for each workgroup member characteristic. For all of the variables except age, similarity was whether or not the variable had the same value for each judge and the county District Attorney (see Table 1). For example, if the District Attorney was white (as they all were), our measure of race similarity reflected the percentage of judges who were white. Furthermore, if the District Attorney attended college in Pennsylvania, our measure of college similarity reflected the percentage of judges who attended Pennsylvania colleges. Our measure of age similarity reflected the percentage of judges who were within five years of the District Attorney's age. For each type of similarity, we computed the percentage similarity for each year and then averaged across the 11-year period for each of the 67 counties.

The second variable was a measure of proximity that controlled for whether the President Judge (the administrative head of the county court elected by all of the judges) and District Attorney had offices in the same building. This was a dichotomous variable coded '1' if their offices were in the same building and '0' if their offices were not in the same building.<sup>iii</sup> In all of the counties except Allegheny (Pittsburgh) and Philadelphia, all judges are in the same building as the President Judge. In these two counties, we coded that the President Judge and the District Attorney did not have offices in the same building.

The final variable was a measure of workgroup stability that represented the number of years the judge and county District Attorney worked together within the same jurisdiction. For each county, we aggregated across all judges to compute the average workgroup stability for each year and then averaged across the 11-year period. For any given year, the average workgroup stability ranged from 0-14 years. For any given judge, the number of years he or she worked with the county District Attorney ranged from 0-22 years.

**Distal context.** We included five variables representing the social, political, and criminal justice context of each county. Three variables came from the 1990 and 2000 U.S. Censuses. The first variable, a measure of urbanization, was the percentage urban population within each county. The second variable, a measure of the county's economic climate, was the percentage of the population living below the poverty level. The third variable, the percentage of males within each county, controlled for the individuals most prone to engaging in crime. We calculated each of these variables separately using the 1990 (pre-statutory change) and 2000 (post-statutory change) census data. We then computed the average percentage urban population, percentage living below poverty, and percentage male for the years 1990-2000.

The fourth variable came from *The Pennsylvania Manual* (Commonwealth of Pennsylvania). This variable, a measure of the county's political climate, was the average percentage of county voters who voted for the Republican candidate in the 1992 and 1996 presidential elections and the 1994 and 1998 gubernatorial elections. For the restitution analyses only, results from the 1992 presidential election and the 1994 gubernatorial election controlled for the political climate during the pre-statutory change period and results from the 1996 presidential election and the 1998 gubernatorial election controlled for the post-statutory change period. We also estimated correlations between voter registration and (a) the average percentage of county voters who voted for the Republican candidate in the 1992 and 1996 presidential elections and the 1994 and 1998 gubernatorial elections (0.91), (b) the average percentage of Republican voters during the pre-statutory change period (0.89), and (c) the average percentage of Republican voters during the post-statutory change period (0.90).

The fifth variable, taken from the 1990 and 1995 Uniform Crime Reports, was an indicator of county crime rates based on reported Part I offenses per 100,000 population. For the restitution analyses only, the 1990 crime rate controlled for the pre-statutory change period and the 1995 crime rate controlled for the post-statutory change period.

### **Sentencing Variables**

Under Pennsylvania law, judges are required to submit a Guideline Sentence Form for most misdemeanor and felony convictions in the state. This form provides information about offender characteristics, the severity of the conviction offense, the offender's prior convictions, the sentence recommendation, the type of disposition, and the sentence imposed. For each criminal sentence, we included only the most serious offense because it is the best approximation of the crime for which the offender was sentenced. Because individuals could appear in the data

more than once during a single year, we excluded second and subsequent offenses within each year in order to eliminate the problem of correlated errors. After removing these cases from the data, the final sample consisted of 549,942 cases for the years 1990-2000.

In addition to this data set, we also compiled a data set over the same time period that included only restitution-eligible cases (i.e., cases with an identifiable victim, other than the state, who suffered a quantifiable loss). The final sample of restitution-eligible cases consisted of 117,543 cases in 1990-1994 (before the statutory change making restitution mandatory) and 93,610 cases in 1996-2000 (after the statutory change).

Three sentencing decisions served as the dependent variables. The decision to incarcerate offenders was a dichotomous variable coded '1' if incarcerated and '0' if not incarcerated. The decision to impose fines and the decision to impose restitution were dichotomous variables coded '1' if imposed and '0' if not imposed. To control for level-1 factors, we also included three measures of individual offender characteristics (race,<sup>iv</sup> gender, and age;<sup>v</sup> see Table 1) and four variables measuring legally relevant aspects of the case (offense type, offense severity,<sup>vi</sup> prior record,<sup>vii</sup> and mode of disposition;<sup>viii</sup> see Table 1).

Our analyses predicting the decision to incarcerate included two controls for the overall severity of the sentence: fines and restitution. For the remaining analyses, we included dummy variables for jail and prison, with non-incarcerated individuals serving as the reference group. We used this distinction because Holleran and Spohn (2004) found that studies including a total incarceration variable (i.e., one that combines jail and prison into a single response category) reach different conclusions regarding the correlates of sentencing decisions. Including this variable allowed us to test whether offenders incarcerated in jail or prison were less likely than non-incarcerated offenders to have economic sanctions imposed. Our analyses predicting the

imposition of fines included controls for restitution, jail, and prison and our analyses predicting the imposition of restitution included controls for fines, jail, and prison. Table 1 summarizes our coding scheme.

---

Insert Table 1 about here

---

## Results

The results are in three parts. First, we present descriptive information about Pennsylvania judges and district attorneys, county courtroom workgroups, and the overall sample of 549,942 cases. Second, we present results from the multilevel logistic models and describe how offender characteristics, case characteristics, and the social context, including the courtroom workgroup variables, affected sentencing decisions regarding incarceration and fines. Third, we present analyses of restitution decisions before and after the 1995 statute making restitution mandatory. For all three sentencing decisions – the decision to incarcerate, the imposition of fines, and the imposition of restitution – we estimated one model using all 67 Pennsylvania counties and one model using all but Allegheny and Philadelphia Counties.<sup>ix</sup>

### Descriptive Analyses

**Judges.** Across the 11-year period 1990-2000, there were 599 judges, most of whom were white (92%) and male (85%). They ranged in age from 32-71, with a mean and median age of 51. Most judges were Democrats (59%), and most had attended Pennsylvania colleges (70%) and Pennsylvania law schools (72%).<sup>x</sup>

**District attorneys.** All of the 125 district attorneys included in the sample were white and most were male (95%). They ranged in age from 28-68, with a mean and median age of 41.

Most district attorneys were Republicans (71%), and most had attended Pennsylvania colleges (54%) and Pennsylvania law schools (53%).<sup>xi</sup>

**Courtroom workgroups.** In most Pennsylvania counties, the President Judge and District Attorney had offices in the same building (75%). The average workgroup stability ranged from 1.3-9.1 years ( $M = 3.8$  years;  $Mdn = 3.5$  years). Although most courtroom workgroups exhibited high race similarity (99%), gender similarity (90%), and political party similarity (68%), the average age similarity was much lower (33%). Furthermore, counties had slightly more college similarity (45%) than law school similarity (41%). Five law schools in Pennsylvania accounted for 63% of all judges. Five law schools, four in Pennsylvania, accounted for 53% of all district attorneys.

Allegheny and Philadelphia Counties, the two largest counties in Pennsylvania, accounted for more than one-quarter of the cases in our sample. Because these counties are very different from the rest of the state, we also examined how workgroup characteristics in these counties compared to those in other counties. Table 2 describes workgroup characteristics across all 67 Pennsylvania counties, as well as separately for Allegheny and Philadelphia Counties and for the remaining 65 counties. Compared to the rest of the state, workgroups in Allegheny and Philadelphia Counties had lower race similarity, gender similarity, and political party similarity, but had higher college similarity, law school similarity, and stability.

-----  
Insert Table 2 about here  
-----

**Offender sample.** Most offenders were white (62%) and male (84%) and had a mean age of 30 years ( $Mdn = 29$ ). Most offenders had no prior record (60%). Fines were imposed in

55% of all cases and restitution was imposed in 36% of all cases. Overall, 42% of offenders were sentenced to jail and 13% of offenders were sentenced to prison.

### **Multivariate Analyses**

**Random coefficients models.** We began the multivariate analyses by estimating baseline models that included all case-level (level-1) variables and their random coefficients. That is, we allowed the effects (i.e., slopes) of both case and offender characteristics to vary across counties. We estimated these models to determine whether judges in different counties differentially weighted case and offender characteristics when making sentencing decisions.

All of the variance components were significant for the decision to incarcerate and for the decision to impose fines. For the decision to impose restitution during the years 1990-1994, all of the variance components except bench trial were significant. Therefore, all of the coefficients except bench trial were allowed to vary (i.e., treated as random) in the subsequent models. For the years 1996-2000, all of the variance components except high prior record were significant for the decision to impose restitution. Therefore, in the subsequent models, all of the coefficients except high prior record were treated as random.

The significant variance components for the intercepts mean that there were significant differences between counties in the mean proportion of cases in which incarceration was ordered, fines were imposed, and restitution was imposed. The significant variance components for the case-level predictors mean that judges weighted these offender and case characteristics differently across counties. Furthermore, the size of the variance components indicates how much variation exists for each factor across counties. For example, factors related to the case (e.g., offense severity and the imposition of fines) had larger variance components than offender

demographics (e.g., race and gender). This finding means that judges used case characteristics less consistently than offender characteristics when making sentencing decisions.

**Incarceration.** Table 3 presents the main effects of thirteen case characteristics, four offender characteristics, five distal context effects, and eight proximal context effects. The odds of incarcerating an offender were significantly greater for offenders with low or high prior records (compared to offenders with no prior records), for offenders who committed more serious crimes, for offenders convicted of person, drug, or traffic offenses (compared to offenders who committed other offenses), for offenders convicted at a bench or jury trial (compared to offenders who pleaded guilty), for cases in which fines were not imposed, for non-white offenders, for male offenders, and for older offenders. The odds of incarcerating an offender were significantly lower for offenders who committed property offenses compared to those who committed other offenses. Offenders were more likely to be incarcerated in rural counties and in counties with a lower percentage of people living below the poverty level.

To determine the overall significance of the eight workgroup variables, we conducted a Wald test. The results indicated that, as a whole, the workgroup variables contributed significantly to the prediction of the odds of incarceration beyond what was explained by the offender, case, and distal context variables ( $\chi^2 = 39.782, p < 0.001$ ). Five workgroup variables affected the decision to incarcerate. Offenders were more likely to be incarcerated in counties with less gender similarity, less age similarity, more college similarity, less law school similarity, and less political party similarity. A second model excluding Allegheny and Philadelphia Counties revealed the same general pattern.

Each of the predictor variables must be considered separately because they have different scales (i.e., proximity is a dichotomous variable, stability is measured in years, and the similarity

measures could range from 0% to 100%). Apart from race similarity (which ranged from 77% to 100%), all of the similarity measures ranged from 0% to 100%.

Although the significant odds ratios may appear to differ only slightly from one, in fact, the effects of the significant variables are large. For example, consider gender similarity, age similarity, college similarity, law school similarity, and political party. The odds ratio of 0.996 for gender similarity indicates that for each 1% increase in gender similarity, the odds of incarceration decreased by 0.4%. Thus, the odds of incarceration for a workgroup with the highest level of gender similarity (100%) were 33.0% lower than the odds of incarceration for a workgroup with the lowest level of gender similarity (0%).<sup>xii</sup> The odds ratio of 0.996 for age similarity indicates that for each 1% increase in age similarity, the odds of incarceration decreased by 0.4%. Thus, the odds of incarceration for a workgroup with the highest level of age similarity were 33.0% lower than the odds of incarceration for a workgroup with the lowest level of age similarity. The odds ratio of 1.003 for college similarity indicates that for each 1% increase in college similarity, the odds of incarceration increased by 0.3%. Thus, the odds of incarceration for a workgroup with the highest level of college similarity were 34.9% higher than the odds of incarceration for a workgroup with the lowest level of college similarity. The odds ratio of 0.997 for law school similarity indicates that for each 1% increase in law school similarity, the odds of incarceration decreased by 0.3%. Thus, the odds of incarceration for a workgroup with the highest level of law school similarity were 26.0% lower than the odds of incarceration for a workgroup with the lowest level of law school similarity. The odds ratio of 0.996 for political party similarity indicates that for each 1% increase in political party similarity, the odds of incarceration decreased by 0.4%. Thus, the odds of incarceration for a workgroup

with the highest level of political party similarity were 33.0% lower than the odds of incarceration for a workgroup with the lowest level of political party similarity.

-----  
Insert Table 3 about here  
-----

We estimated a second model that compared offenders incarcerated in prison to offenders incarcerated in jail. The results (not presented) showed that no workgroup factors significantly affected the decision to incarcerate offenders in prison rather than jail. This finding also held after excluding Allegheny and Philadelphia Counties from the model.

**Fines.** The odds of fines being imposed were significantly greater for offenders who committed less serious crimes, for offenders convicted of drug or traffic offenses (compared to offenders convicted of other offenses), for non-incarcerated offenders (compared to offenders incarcerated in prison or jail), for cases in which restitution was imposed, and for male offenders. The odds of fines being imposed were significantly lower for offenders with high prior records (compared to offenders with no prior records) and for offenders convicted of person or property offenses (compared to offenders convicted of other offenses). Fines were more likely to be imposed in rural counties. These results were essentially the same after excluding Allegheny and Philadelphia Counties from the model.

The Wald test revealed that, as a whole, the eight workgroup variables contributed significantly to the prediction of the imposition of fines beyond what was explained by the case, offender, and distal context variables ( $\chi^2 = 40.290, p < 0.001$ ). Three workgroup variables significantly affected the decision to impose fines: stability, proximity, and college similarity. More stable workgroups were less likely to impose fines. The odds ratio of 0.858 for stability

indicates that each one year increase in stability corresponds to a 14.2% decrease in the odds of fines being imposed. Thus, the odds of fines being imposed for a workgroup with the highest level of stability (9.1 years) were 69.7% lower than the odds of fines being imposed for a workgroup with the lowest level of stability (1.3 years). More stable workgroups may have been less likely to impose fines because workgroup members had developed their own “going rates” that were lower than those of less stable workgroups.

In terms of proximity, workgroups were more likely to impose fines in counties where the President Judge and the District Attorney had offices in the same building. The odds ratio of 1.351 indicates that the odds of fines being imposed were 35.1% greater when the offices were in the same building. Fines were also more likely to be imposed in counties with greater college similarity. The odds ratio of 1.004 for college similarity indicates that for each 1% increase in college similarity, the odds of fines being imposed increased by 0.4%. Thus, the odds of fines being imposed for a workgroup with the highest level of college similarity were 49.1% higher than the odds of fines being imposed for a workgroup with the lowest level of college similarity.

### **Analyses of Restitution**

We conducted two sets of analyses of the restitution decision. The first set of analyses comprised the years 1990-1994, when judges had complete discretion about whether or not to impose restitution. The results presented in Table 4 show that the odds of receiving an order of restitution were significantly greater for offenders who committed more serious crimes, for offenders convicted of a property offense (compared to a person offense),<sup>xiii</sup> for white offenders, and for female offenders. The odds of receiving an order of restitution were significantly lower for offenders with high prior records (compared to offenders with no prior records) and for offenders convicted at a jury trial (compared to offenders who pleaded guilty). In terms of

workgroup factors, only law school similarity significantly affected the decision to impose restitution, such that greater law school similarity significantly decreased the odds of receiving an order of restitution. The odds ratio of 0.996 for law school similarity indicates that for each percentage point increase in law school similarity, the odds of restitution being imposed decreased by 0.4%. Thus, the odds of restitution being imposed for a workgroup with the highest level of law school similarity were 33.0% lower than the odds of restitution being imposed for a workgroup with the lowest level of law school similarity.

The second set of analyses we conducted comprised the years 1996-2000. Consistent with the multivariate analyses for 1990-1994, the odds of receiving an order of restitution were significantly greater for offenders who committed more serious crimes, for offenders convicted of a property offense, for white offenders, and for female offenders. In contrast to the pre-statutory change period, restitution was significantly more likely for offenders sentenced to prison and for older offenders. Restitution was significantly less likely for offenders convicted at a bench trial (compared to offenders who pleaded guilty). Furthermore, stability and law school similarity, which were marginally significant when all 67 counties were included in the model, reached significance after excluding Allegheny and Philadelphia Counties from the analysis. The odds ratio of 0.996 for law school similarity indicates that for each percentage unit increase in law school similarity, the odds of restitution being imposed decreased by 0.4%. Thus, the odds of restitution being imposed for a workgroup with the highest level of law school similarity were 33.0% lower than the odds of restitution being imposed for a workgroup with the lowest level of law school similarity. The odds ratio of 0.938 for stability indicates that each one year increase in stability corresponds to a 6.2% decrease in the odds of restitution being imposed. Thus, the odds of restitution being imposed for a workgroup with the highest level of stability

were 49.9% lower than the odds of restitution being imposed for a workgroup with the lowest level of stability.<sup>xiv</sup>

In order to test whether stability affected the imposition of restitution after the enactment of the mandatory statute, we also conducted all of the above analyses including as predictors the 1990-1994 county rate of imposition of restitution and the interaction of this rate with stability. Neither of these variables was significant in these additional analyses. Consistent with the fact that few workgroup variables affected the decision to impose restitution, the Wald test revealed that, as a whole, the workgroup variables did not significantly affect the odds of restitution being imposed during either the pre-statutory change period ( $\chi^2 = 12.244$ ,  $p = 0.14$ ) or the post-statutory ( $\chi^2 = 13.351$ ,  $p = 0.10$ ) change period. We also conducted  $z$  tests comparing the logistic coefficients for the workgroup variables before and after the imposition of the mandatory statute (Paternoster, Brame, Mazerolle, & Piquero, 1998). The results (not presented) indicated that there were no significant differences between the workgroup variables during the pre-statutory change period and the post-statutory change period.

To investigate whether our results were robust with respect to whether the District Attorney headed a small or large office, we also estimated models using only those counties with five or fewer full- or part-time assistant district attorneys ( $n = 34$ ). We had to exclude the race similarity variable from these analyses because it equaled 100% across all counties (i.e., all judges and district attorneys were white). For all three sentencing outcomes – the decision to incarcerate, the imposition of fines, and the imposition of restitution, the results (not presented) were generally consistent across all 67 counties and across all counties with five or fewer full- or part-time assistant district attorneys.

-----  
Insert Table 4 about here  
-----

## **Discussion**

This study has several strengths; it examined multiple decisions in a large number of cases from an entire state over a long time period and controlled for a large number of factors at both individual and contextual levels. Thus, there is reason to believe the findings are valid.

Overall, the results suggest that although crime seriousness and offense history were the most important predictors of sentencing outcomes, workgroup factors affected the decision to incarcerate, the decision to impose fines, and the decision to impose restitution. Although traditional indicators of the distal context (e.g., the percentage of the population living below poverty, the percentage of Republican voters, and the crime rate) generally did not predict sentencing decisions, courtroom workgroup characteristics did affect sentencing. Thus, when correct statistical models are employed, it may be that the context operates through proximal factors such as workgroup similarity, rather than through distal factors such as poverty. Previous studies may have failed to find evidence of contextual effects because they focused primarily on characteristics of the distal context. Future research needs to examine both proximal factors (i.e., characteristics of the individuals responsible for the handling of cases) and distal factors (i.e., characteristics of the jurisdiction in which cases are processed).

### **The Makeup of Workgroups**

We expected that workgroup characteristics would differ substantially between counties. In general, however, there was little or no variation in the proximity between workgroup members' offices or in the race and gender of workgroup members. This lack of variation may

explain why some workgroup variables did not have larger effects on sentencing outcomes.

Overall, most workgroup members were white and male and attended both Pennsylvania colleges and Pennsylvania law schools. Workgroups are probably even more similar in states with fewer colleges and law schools.

We also expected that the workgroups in the two large urban counties would be different from the workgroups in the remaining counties. Consistent with that expectation, we found that more workgroup members were non-white, female, and Democratic in the two large urban counties than in the rest of the state. One reason that workgroup stability was higher in these counties was because Philadelphia County had only one district attorney between the years 1990 and 2000.

The fact that workgroups generally had high levels of similarity probably means that the groups tended to function better, as heterogeneity generally leads to less communication, more formal communication, and more miscommunications. Members of homogeneous workgroups are more likely to communicate with each other and to have informal communications with each other because they are more likely to have shared interests. Furthermore, because they are more likely to share the same values, attitudes, beliefs, and ideologies, they are less likely to misunderstand each other. These findings explain Eisenstein and his colleagues' (1977; 1988) observation that homogeneous workgroups are more likely to dispose of cases through consensus. However, there is a downside to high levels of homogeneity, in that a lack of diversity can lead to inflexibility and less innovation (Levine & Moreland, 1998). Future research needs to examine these benefits and costs in more depth.

## **The Effect of Workgroup Factors on Decision Making**

Overall, workgroup factors affected the decision to incarcerate, the imposition of fines, and the imposition of restitution, sometimes in the same direction and sometimes in opposite directions. Moreover, workgroup characteristics had different effects, depending on the type of sentencing decision. That workgroup factors were significant at all, given the relatively small number of counties and the large number of variables that we controlled for, suggests that the effects are meaningful.

Furthermore, we found these effects even though Pennsylvania is a sentencing guidelines state. Pennsylvania's presumptive sentencing guidelines, which apply to both misdemeanors and felonies, were intended to structure judicial discretion and to reduce unwarranted disparities in sentencing. Under the guidelines, judges' sentencing decisions are determined primarily by the severity of the offense and the offender's prior record, but judges may depart from the guidelines after considering mitigating and aggravating circumstances. Because Pennsylvania's sentencing guidelines allow more discretion than do other guideline systems, there are more opportunities for extralegal factors to influence judges' sentencing decisions (Kramer & Ulmer, 1996). The fact that workgroup characteristics mattered even in a state with relatively structured sentencing implies that the effects of these factors may be even more robust in states where judges' discretion is less limited.

**Type of sentence.** Compared to incarceration and the imposition of restitution, workgroup characteristics had the strongest effect on the decision to impose fines. One reason for this difference may be that judges have the most discretion regarding fines. Sentencing guidelines and mandatory sentencing probably play a more important role in the decision to incarcerate than in the decision to impose fines. Furthermore, increased concern for victims may

lead to greater agreement among workgroup members about the imposition of restitution, particularly after the 1995 statute making restitution mandatory. Regarding the imposition of fines, however, workgroup members may have more flexibility.

Because the effects of workgroup characteristics may differ depending on the mode of disposition, we also estimated models using only cases resolved by bench or jury trial. The results indicated that, in general, workgroup factors were no longer significant. That is, workgroup characteristics that were significant in the overall sample no longer mattered when only bench and jury cases were considered. This finding suggests that workgroup factors as we measured them matter least for more serious crimes (i.e., the ones most likely to go to trial).

**Similarity.** Across the three sentencing decisions that we modeled, law school similarity appeared to be the most important workgroup characteristic, in that greater similarity led to less punishment (i.e., a lower probability of incarceration and a lower probability that restitution would be imposed). This finding suggests that workgroup members' early socialization experiences influence their later values, attitudes, beliefs, and ideologies. In other words, judges and district attorneys likely share similar professional socialization experiences that, in turn, affect their sentencing practices.

Unlike all of the other types of similarity, college similarity increased the probability of incarceration and the probability of imposing fines. It may be that college similarity is associated with greater punitiveness because workgroup members attended Pennsylvania colleges and therefore probably have stronger ties to the state and have beliefs that are more reflective of their communities.

One possible explanation for this effect is based on two arguments: (a) Pennsylvania colleges are characterized by less diversity of opinion and (b) the effects of living for four years

in that environment are long lasting. With regard to the first point, the diversity of Pennsylvania colleges, it is plausible that workgroup members who attended Pennsylvania colleges were less likely to be exposed to new ideas. With regard to the second point, that the college environment has a long-lasting effect, the best evidence is a study of students at Bennington College conducted by Newcomb from 1935 to 1939. Newcomb found that the students, most of whom came from conservative family backgrounds, became more liberal during their time in college, and this change was especially true for students who were more involved in campus activities. Decades later, these women continued to be more liberal than their peers who went to comparable, but less liberal colleges (Newcomb, 1963).

**Proximity.** Greater proximity was associated with a lower likelihood of incarceration and a greater likelihood of fines and, before the statutory change mandating restitution, a greater likelihood of restitution. This pattern suggests that when judges and district attorneys are in the same location there is more likely to be a tradeoff between incarceration and economic sanctions, a realistic strategy that may be more common when decision makers see each other more often. However, such efficiency may not always result in greater justice, if, for example, restitution is less likely to be imposed.

**Stability.** Greater stability was associated with a lower likelihood of imposing fines and, after the statutory change, a lower likelihood of imposing restitution. More stable workgroups may have been less likely to impose economic sanctions because workgroup members have more experience with offenders, particularly with offenders' (in)ability to pay. With regard to restitution, more stable workgroups may have been less likely to impose restitution because they were more resistant to the statutory change making restitution mandatory, which is consistent with Eisenstein et al.'s (1988) argument that entrenched groups are less likely to adopt new laws.

**Type of county.** Contrary to our expectations, even though workgroups in large urban counties differed from workgroups in rural, suburban, and small urban counties (i.e., workgroups in large urban counties exhibited lower race similarity, gender similarity, and political party similarity), the effects of workgroup characteristics on sentencing outcomes were generally consistent across all 67 Pennsylvania counties. This consistency suggests that workgroup factors operate in the same way across all types of counties.

### **Implications**

In general, greater similarity within a workgroup decreased the odds of an offender being incarcerated and the odds of restitution being imposed. In this study, greater similarity means that most workgroup members were white, male, and older. Furthermore, greater similarity means that most workgroup members attended both Pennsylvania colleges and Pennsylvania law schools. More similar workgroups may have been less likely to incarcerate offenders because workgroup members are more likely to agree about possible alternatives to incarceration.

More similar workgroups may have been less likely to impose restitution because these individuals may be more traditional in their views about the criminal justice system. Orders of restitution to crime victims may have been a relatively new idea to these individuals. Because a statutory change is less likely to be implemented when it is inconsistent with the existing beliefs and practices of the group and when the individuals responsible for its implementation are either unable or unwilling to transform the policy into practice (Goggin, 1986), more similar workgroup members (i.e., older males) may have been less likely to impose restitution because it conflicted with their beliefs about what considerations should be given to crime victims. It would be interesting to see whether, as workgroups become more diverse in terms of their

demographic makeup, there is a change in the imposition of economic sanctions and in the implementation of statutory change.

In sum, then, the demographic and background characteristics of judges and district attorneys affect both their sentencing patterns and how they implement statutory change. We examined three social psychological indicators of the proximal context – similarity, proximity, and stability – that affected the decision to incarcerate, the decision to impose fines, and the decision to impose restitution. Because characteristics of the proximal context also affected the implementation of the mandatory statute, these findings help us understand how policy is implemented.

### **Future Research**

Eisenstein and his colleagues (1988) suggested that courtroom workgroups consisted primarily of a judge, prosecutor, and defense attorney. A major limitation of this study is that we were able to collect information about only Pennsylvania judges and district attorneys. Nevertheless, the fact that we found significant effects by examining only a subset of individuals implies that the effects may be even stronger if additional workgroup members are examined. Thus, future research should examine in other states how workgroup members, such as defense attorneys and assistant district attorneys might affect the results presented in this study. Studies should also consider the role of probation officers, because these individuals may determine the types of information available to judges and other workgroup members and therefore affect how offenders proceed through the criminal justice system (Carter & Wilkins, 1967; Konecni & Ebbesen, 1982). Information about these additional workgroup members would provide a more complete understanding of how courtroom workgroups affect the decision-making process.

## References

- Byrne, D. E. (1971). *The attraction paradigm*. New York: Academic Press.
- Carroll, J. S., Perkowitz, W. T., Lurigio, A. J., & Weaver, F. M. (1987). Sentencing goals, causal attributions, ideology, and personality. *Journal of Personality and Social Psychology*, 52(1), 107-118.
- Carter, R. M., & Wilkins, L. T. (1967). Some factors in sentencing policy. *Journal of Criminal Law & Criminology*, 58(4), 503-514.
- Commonwealth of Pennsylvania. (1989/1990-1999/2000). *The Pennsylvania Manual* (Vol. 109-114). Harrisburg, PA: Department of General Services.
- Dixon, J. (1995). The organizational context of criminal sentencing. *American Journal of Sociology*, 100(5), 1157-1198.
- Eisenstein, J., Flemming, R. B., & Nardulli, P. F. (1988). *The contours of justice: Communities and their courts*. Boston: Little, Brown and Company.
- Eisenstein, J., & Jacob, H. (1977). *Felony justice: An organizational analysis of criminal courts*. Boston: Little, Brown and Company.
- Federal Bureau of Investigation. (1990). *Crime in the United States: Uniform crime reports*. Washington, D.C.: U.S. Department of Justice.
- Federal Bureau of Investigation. (1995). *Crime in the United States: Uniform crime reports*. Washington, D.C.: U.S. Department of Justice.
- Festinger, L., Schachter, S., & Back, K. (1950). *Social pressures in informal groups: A study of a housing community*. New York: Harper.
- Goggin, M. L. (1986). The "too few cases/too many variables" problem in implementation research. *The Western Political Quarterly*, 39(2), 328-347.
- Goodman, P. S., & Leyden, D. P. (1991). Familiarity and group productivity. *Journal of Applied Psychology*, 76(4), 578-586.
- Gruhl, J., Spohn, C., & Welch, S. (1981). Women as policymakers: The case of trial judges. *American Journal of Political Science*, 25(2), 308-322.
- Guzzo, R. A., & Dickson, M. W. (1996). Teams in organizations: Recent research on performance and effectiveness. *Annual Review of Psychology*, 47, 307-338.
- Helms, R., & Jacobs, D. (2002). The political context of sentencing: An analysis of community and individual determinants. *Social Forces*, 81(2), 577-604.
- Hinds, P. J., Carley, K. M., Krackhardt, D., & Wholey, D. (2000). Choosing work group members: Balancing similarity, competence, and familiarity. *Organizational Behavior and Human Decision Processes*, 81(2), 226-251.
- Hofer, P. J., Blackwell, K. R., & Ruback, R. B. (1999). The effect of the federal sentencing guidelines on inter-judge sentencing disparity. *Journal of Criminal Law & Criminology*, 90(1), 239-322.
- Holleran, D., & Spohn, C. (2004). On the use of the total incarceration variable in sentencing research. *Criminology*, 42(1), 211-240.
- Jehn, K. A., & Bezrukova, K. (2004). A field study of group diversity, workgroup context, and performance. *Journal of Organizational Behavior*, 25, 703-729.
- Jehn, K. A., Northcraft, G. B., & Neale, M. A. (1999). Why differences make a difference: A field study of diversity, conflict, and performance in workgroups. *Administrative Science Quarterly*, 44(4), 741-763.

- Johnson, B. (2006). The multilevel context of criminal sentencing: Integrating judge- and county-level influences. *Criminology*, 44(2), 259-298.
- Katz, R. (1982). The effects of group longevity on project communication and performance. *Administrative Science Quarterly*, 27(1), 81-104.
- Konecni, V. J., & Ebbesen, E. B. (Eds.). (1982). *The criminal justice system: A social-psychological analysis*. San Francisco: W. H. Freeman and Company.
- Kramer, J. H., & Ulmer, J. T. (1996). Sentencing disparity and departures from guidelines. *Justice Quarterly*, 13(1), 81-105.
- Levine, J. M., & Moreland, R. L. (1998). Small groups. In D. T. Gilbert, S. T. Fiske & G. Lindzey (Eds.), *The handbook of social psychology* (4 ed., Vol. 2, pp. 415-469). Boston: McGraw-Hill.
- Martindale-Hubbell. (2003). *Martindale-Hubbell Law Directory* (Vol. 13). New Providence, NJ: Martindale-Hubbell.
- McPherson, J. M., & Smith-Lovin, L. (1987). Homophily in voluntary organizations: Status distance and the composition of face-to-face groups. *American Sociological Review*, 52(3), 370-379.
- Myers, M. A., & Talarico, S. M. (1986). Urban justice, rural injustice? Urbanization and its effect on sentencing. *Criminology*, 24(2), 367-391.
- Myers, M. A., & Talarico, S. M. (1987). *The social contexts of criminal sentencing*. New York: Springer-Verlag.
- Nardulli, P. F., Eisenstein, J., & Flemming, R. B. (1988). *The tenor of justice: Criminal courts and the guilty plea process*. Chicago: University of Illinois Press.
- National Prosecutors Survey. (2001). U.S. Department of Justice, Bureau of Justice Statistics.
- Newcomb, T. M. (1961). *The acquaintance process*. New York: Holt, Rinehart, and Winston.
- Newcomb, T. M. (1963). Persistence and regression of changed attitudes: Long-range studies. *Journal of Social Issues*, 19, 3-14.
- Olson, D. E., Weisheit, R. A., & Ellsworth, T. (2001). Getting down to business: A comparison of rural and urban probationers, probation sentences, and probation outcomes. *Journal of Contemporary Criminal Justice*, 17(1), 4-18.
- Paternoster, R., Brame, R., Mazerolle, P., & Piquero, A. (1998). Using the correct statistical test for the equality of regression coefficients. *Criminology*, 36(4), 859-866.
- Pennsylvania Commission on Sentencing. (1997). *Sentencing in Pennsylvania 1995: 1995-1996, Annual report*. State College, PA: Pennsylvania Commission on Sentencing.
- Pennsylvania District Attorneys Association. (2004). *District Attorneys Directory*, from <http://www.pdaa.org>
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd ed.). Thousand Oaks, CA: Sage.
- Ruback, R. B., Ruth, G. R., & Shaffer, J. N. (2005). Assessing the impact of statutory change: A statewide multilevel analysis of restitution orders in Pennsylvania. *Crime and Delinquency*, 51(3), 318-342.
- Ruback, R. B., Shaffer, J. N., & Logue, M. (2004). The imposition and effects of restitution in Pennsylvania: Effects of size of county and specialized collections units. *Crime and Delinquency*, 50, 168-188.
- Spohn, C. (2000). Thirty years of sentencing reform: The quest for a racially neutral sentencing process. *Criminal Justice: The National Institute of Justice Journal*, 3, 427-501.

- Steffensmeier, D., & Britt, C. L. (2001). Judges' race and judicial decision making: Do black judges sentence differently? *Social Science Quarterly*, 82(4), 749-764.
- Steffensmeier, D., & Demuth, S. (2000). Ethnicity and sentencing outcomes in U.S. federal courts: Who is punished more harshly? *American Sociological Review*, 65, 705-729.
- Steffensmeier, D., & Hebert, C. (1999). Women and men policymakers: Does the judge's gender affect the sentencing of criminal defendants? *Social Forces*, 77(3), 1163-1196.
- Steffensmeier, D., Kramer, J. H., & Ulmer, J. T. (1995). Age differences In sentencing. *Justice Quarterly*, 12(3), 583.
- Steffensmeier, D., Ulmer, J. T., & Kramer, J. H. (1998). The interaction of race, gender, and age in criminal sentencing: The punishment cost of being young, black, and male. *Criminology*, 36(4), 763-797.
- Tsui, A. S., Porter, L. W., & Egan, T. D. (2002). When both similarities and dissimilarities matter: Extending the concept of relational demography. *Human Relations*, 55(8), 899-929.

Table 1. Description of the Coding Scheme

<b>Variables</b>	<b>Coding</b>	<b>Mean</b>	<b>SD</b>
<i>County Level</i>			
Urbanization	% of the population living in an urban area	45.30	27.03
Economic Climate	% of the population living below poverty	11.28	3.58
Political Climate	% of voters who voted for Republican candidate	49.46	7.83
Crime rate	Part I offenses per 100,000 population	2411.72	1047.56
Gender Composition	% of males in the population	48.80	1.17
Stability	Number of years worked together	3.77	1.48
Proximity	1=Offices in the same building 0=Offices not in the same building	0.75	0.44
Race Similarity	% of judges the same race as the district attorney	99.14	3.58
Gender Similarity	% of judges the same gender as the district attorney	90.24	19.56
Age Similarity	% of judges within +/- 5 years of the district attorney's age	32.84	25.95
College Similarity	% of judges who went to college in Pennsylvania	45.06	37.01
Law School Similarity	% of judges who went to law school in Pennsylvania	41.38	37.99
Political Party Similarity	% of judges the same political party as the district attorney	68.45	30.58
<i>Case Level</i>			
Prior record (dummy variables)	High prior record	0.18	0.38
	Low prior record	0.22	0.41
	No prior record (reference)	0.60	0.49
Offense Severity	Range 0.07-1.00	0.31	0.18
Type of offense (dummy variables)	Person offense	0.21	0.41
	Property offense	0.35	0.48
	Drug offense	0.20	0.40
	Traffic offense	0.14	0.35
	Other offense (reference)	0.09	0.29
Type of disposition (dummy variables)	Jury trial	0.02	0.15
	Bench trial	0.04	0.19
	Plea (reference)	0.94	0.24
Type of sentence (dummy variables)	Prison	0.13	0.34
	Jail	0.42	0.49
	Probation (reference)	0.45	0.50

Fines	1=Fines imposed 0=Fines not imposed	0.55	0.50
Restitution	1=Restitution imposed 0=Restitution not imposed	0.36	0.48
Offender Race	1=White 0=Nonwhite	0.62	0.49
Offender Gender	1=Male 0=Female	0.84	0.37
Offender Age	Age at time of offense	30.32	9.58

Table 2. Description of Workgroup Characteristics Across all 67 Pennsylvania Counties, Including Separate Descriptions for Allegheny and Philadelphia Counties and for the Remaining 65 Counties

Variables	67 Counties		Allegheny and Philadelphia Counties		65 Counties	
	Mean	Median	Mean	Median	Mean	Median
Stability <sup>a</sup>	3.8 (1.5)	3.5	5.0 (2.3)	5.0	3.7 (1.5)	3.5
Proximity <sup>b</sup>	0.7 (0.4)	1.0	0.0 (0.0)	0.0	0.8 (0.4)	1.0
Race Similarity <sup>c</sup>	99.1 (3.6)	100.0	83.9 (10.0)	83.9	99.6 (2.0)	100.0
Gender Similarity <sup>c</sup>	90.2 (19.6)	100.0	56.3 (40.1)	56.3	91.3 (18.2)	100.0
Age Similarity <sup>c</sup>	32.8 (26.0)	31.8	32.5 (12.3)	32.5	32.9 (26.3)	31.8
College Similarity <sup>c</sup>	45.1 (37.0)	45.5	62.7 (3.9)	62.7	44.5 (37.5)	45.5
Law School Similarity <sup>c</sup>	41.4 (38.0)	36.4	72.7 (6.8)	72.7	40.4 (38.2)	32.1
Political Party Similarity <sup>c</sup>	68.5 (30.6)	72.7	46.3 (44.3)	46.3	69.1 (30.3)	72.7

*Note.* Numbers in parentheses are standard deviations.

<sup>a</sup>Refers to the number of years workgroup members worked together in the same jurisdiction.

<sup>b</sup>A dichotomous variable coded '1' if the President Judge and District Attorney had offices in the same building and '0' otherwise.

<sup>c</sup>Similarity refers to the percentage agreement between judges and district attorneys on that dimension.

Table 3. Logistic Coefficients ( $\gamma$ ) and Odds Ratios from Hierarchical Logistic Models Predicting the Decision to Incarcerate and the Imposition of Fines, 1990-2000

Variables	<u>Incarceration</u>				<u>Fines</u>			
	67 Counties (N=549,942)		65 Counties (N=403,936)		67 Counties (N=549,942)		65 Counties (N=403,936)	
	$\gamma$	Odds Ratio	$\gamma$	Odds Ratio	$\gamma$	Odds Ratio	$\gamma$	Odds Ratio
<i>County-Level</i>								
Percent Urban	-0.01*** (0.002)	0.987	-0.01*** (0.002)	0.988	-0.01* (0.003)	0.992	-0.01** (0.003)	0.992
Percent Living Below Poverty	-0.06*** (0.01)	0.944	-0.06*** (0.01)	0.946	-0.003 (0.02)	0.997	0.01 (0.01)	1.010
Percent Republican	0.01 (0.01)	1.009	0.01* (0.01)	1.014	-0.003 (0.01)	0.997	-0.004 (0.01)	0.996
Crime rate	0.0001 (0.0001)	1.000	0.0001 (0.0001)	1.000	-0.00004 (0.0001)	1.000	-0.00004 (0.0001)	1.000
Percent Male	-0.05 (0.04)	0.949	-0.09 (0.04)	0.918	-0.01 (0.07)	0.994	0.05 (0.05)	1.055
<b>Stability</b>	-0.02 (0.02)	0.980	0.01 (0.03)	1.005	-0.15*** (0.03)	0.858	-0.16*** (0.03)	0.855
<b>Proximity</b>	-0.05 (0.09)	0.952	-0.18 (0.09)	0.837	0.30* (0.13)	1.351	0.24* (0.12)	1.277
<b>Race Similarity</b>	0.01 (0.01)	1.008	0.02 (0.01)	1.017	-0.01 (0.02)	0.993	-0.01 (0.01)	0.986
<b>Gender Similarity</b>	-0.004* (0.002)	0.996	-0.003 (0.002)	0.997	0.001 (0.002)	1.001	-0.002 (0.002)	0.998
<b>Age Similarity</b>	-0.004* (0.002)	0.996	-0.01*** (0.002)	0.993	0.003 (0.002)	1.003	0.002 (0.002)	1.002
<b>College Similarity</b>	0.003* (0.001)	1.003	0.001 (0.001)	1.001	0.004* (0.002)	1.004	0.003* (0.001)	1.003
<b>Law School Similarity</b>	-0.003** (0.001)	0.997	-0.002* (0.001)	0.998	-0.002 (0.002)	0.998	-0.002 (0.001)	0.998
<b>Political Party Similarity</b>	-0.004** (0.001)	0.996	-0.003** (0.001)	0.997	-0.001 (0.002)	0.999	-0.0003 (0.001)	1.000
<i>Case-Level</i>								
Low Prior Record	0.73*** (0.04)	2.067	0.73*** (0.04)	2.076	-0.02 (0.03)	0.976	-0.03 (0.03)	0.973

High Prior Record	<b>1.32***</b> (0.06)	3.751	<b>1.31***</b> (0.06)	3.721	<b>-0.20***</b> (0.03)	0.815	<b>-0.21***</b> (0.04)	0.810
Offense Severity	<b>3.91***</b> (0.18)	49.880	<b>3.92***</b> (0.19)	50.551	<b>-0.67***</b> (0.11)	0.513	<b>-0.68***</b> (0.11)	0.508
Person Offense	<b>0.14***</b> (0.03)	1.154	<b>0.14***</b> (0.03)	1.153	<b>-0.19***</b> (0.05)	0.828	<b>-0.19***</b> (0.05)	0.826
Property Offense	<b>-0.08*</b> (0.03)	0.925	<b>-0.08*</b> (0.03)	0.924	<b>-0.51***</b> (0.07)	0.602	<b>-0.51***</b> (0.06)	0.599
Drug Offense	<b>0.27***</b> (0.05)	1.304	<b>0.27***</b> (0.06)	1.305	<b>0.17*</b> (0.07)	1.183	<b>0.17*</b> (0.07)	1.184
Traffic Offense	<b>2.01***</b> (0.18)	7.472	<b>1.99***</b> (0.18)	7.321	<b>1.30***</b> (0.16)	3.670	<b>1.32***</b> (0.17)	3.726
Bench Trial	<b>0.16**</b> (0.05)	1.177	<b>0.14*</b> (0.06)	1.156	<b>-0.05</b> (0.09)	0.949	<b>-0.07</b> (0.10)	0.936
Jury Trial	<b>0.30***</b> (0.06)	1.344	<b>0.28***</b> (0.06)	1.318	<b>0.09</b> (0.06)	1.095	<b>0.07</b> (0.06)	1.074
Jail	---	---	---	---	<b>-0.21**</b> (0.07)	0.810	<b>-0.22**</b> (0.08)	0.802
Prison	---	---	---	---	<b>-0.50***</b> (0.10)	0.604	<b>-0.53***</b> (0.10)	0.590
Fines	<b>-0.26***</b> (0.07)	0.773	<b>-0.28***</b> (0.07)	0.759	---	---	---	---
Restitution	<b>0.04</b> (0.03)	1.037	<b>0.04</b> (0.03)	1.044	<b>0.27*</b> (0.13)	1.306	<b>0.22</b> (0.12)	1.248
White	<b>-0.35***</b> (0.02)	0.704	<b>-0.36***</b> (0.02)	0.700	<b>0.06</b> (0.03)	1.059	<b>0.06</b> (0.03)	1.062
Male	<b>0.47***</b> (0.03)	1.603	<b>0.47***</b> (0.03)	1.606	<b>0.19***</b> (0.03)	1.213	<b>0.20***</b> (0.03)	1.219
Age (in years)	<b>0.01***</b> (0.002)	1.013	<b>0.01***</b> (0.002)	1.009	<b>0.001</b> (0.002)	1.001	<b>0.003</b> (0.002)	1.003
Age squared	<b>-0.0003***</b> (0.00002)	1.000	<b>-0.0002***</b> (0.00002)	1.000	<b>0.00002</b> (0.00002)	1.00002	<b>-0.00001</b> (0.00002)	1.000
Intercept	<b>0.58***</b> (0.06)	1.783	<b>0.45***</b> (0.06)	1.565	<b>0.49**</b> (0.18)	1.640	<b>0.59**</b> (0.18)	1.798

Note. Standard errors are in parentheses. Workgroup variables are in bold. \*p<.05, \*\*p<.01, \*\*\*p<.001

Table 4. Logistic Coefficients ( $\gamma$ ) and Odds Ratios from Hierarchical Logistic Models Predicting the Imposition of Restitution

Variables	<u>1990-1994</u>				<u>1996-2000</u>			
	67 Counties (N=117,543)		65 Counties (N=80,490)		67 Counties (N=93,610)		65 Counties (N=68,833)	
	$\gamma$	Odds Ratio	$\gamma$	Odds Ratio	$\gamma$	Odds Ratio	$\gamma$	Odds Ratio
<i>County-Level</i>								
Percent Urban	-0.002 (0.004)	0.998	-0.002 (0.004)	0.998	-0.003 (0.004)	0.997	-0.01 (0.004)	0.994
Percent Living Below Poverty	-0.01 (0.02)	0.991	-0.02 (0.02)	0.984	-0.02 (0.02)	0.981	-0.03 (0.03)	0.970
Percent Republican	-0.02 (0.01)	0.982	-0.02 (0.01)	0.980	0.003 (0.01)	1.003	0.002 (0.01)	1.002
Crime rate	0.00003 (0.0001)	1.000	0.00002 (0.0001)	1.000	0.0001 (0.0001)	1.000	0.0001 (0.0001)	1.000
Percent Male	0.14 (0.08)	1.154	0.18* (0.09)	1.200	0.07 (0.07)	1.077	0.09 (0.07)	1.093
<b>Stability</b>	-0.05 (0.04)	0.951	-0.07 (0.05)	0.936	-0.05 (0.03)	0.952	-0.06* (0.03)	0.938
<b>Proximity</b>	0.24 (0.16)	1.273	0.34 (0.19)	1.406	-0.12 (0.16)	0.888	0.03 (0.19)	1.027
<b>Race Similarity</b>	-0.003 (0.02)	0.997	0.01 (0.03)	1.013	0.01 (0.02)	1.007	0.03 (0.03)	1.028
<b>Gender Similarity</b>	0.001 (0.004)	1.001	0.002 (0.004)	1.002	0.0003 (0.003)	1.000	-0.001 (0.003)	0.999
<b>Age Similarity</b>	-0.001 (0.003)	0.999	-0.002 (0.003)	0.998	-0.004 (0.002)	0.996	-0.004 (0.003)	0.996
<b>College Similarity</b>	0.002 (0.002)	1.002	0.001 (0.002)	1.001	0.003 (0.002)	1.003	0.003 (0.002)	1.003
<b>Law School Similarity</b>	-0.004* (0.002)	0.996	-0.003 (0.002)	0.997	-0.003 (0.002)	0.997	-0.004* (0.002)	0.996
<b>Political Party Similarity</b>	0.0001 (0.002)	1.000	0.0004 (0.002)	1.000	0.003 (0.002)	1.003	0.003 (0.002)	1.003
<i>Case-Level</i>								
Low Prior Record	-0.04 (0.02)	0.964	-0.04 (0.03)	0.957	-0.02 (0.02)	0.981	-0.02 (0.03)	0.980
High Prior Record	-0.13** (0.04)	0.882	-0.13** (0.04)	0.877	-0.07*** (0.02)	0.929	-0.07** (0.03)	0.928
Offense Severity	0.47***	1.603	0.50***	1.642	0.90***	2.468	0.93***	2.535

	(0.11)		(0.11)		(0.13)		(0.13)	
Property Offense	1.33*** (0.07)	3.787	1.36*** (0.07)	3.895	1.28*** (0.07)	3.604	1.30*** (0.08)	3.681
Bench Trial	-0.06 (0.03)	0.944	-0.01 (0.08)	0.990	-0.19* (0.08)	0.830	-0.17 (0.12)	0.847
Jury Trial	-0.24** (0.09)	0.786	-0.26** (0.09)	0.767	-0.09 (0.07)	0.911	-0.10 (0.07)	0.908
Jail	-0.04 (0.04)	0.961	-0.04 (0.04)	0.959	-0.03 (0.03)	0.970	-0.03 (0.03)	0.975
Prison	-0.03 (0.06)	0.970	-0.03 (0.06)	0.974	0.12* (0.05)	1.130	0.13* (0.05)	1.138
Fines	0.04 (0.09)	1.046	0.04 (0.09)	1.041	0.04 (0.16)	1.042	0.002 (0.15)	1.002
White	0.08* (0.04)	1.082	0.08 (0.04)	1.080	0.09** (0.03)	1.093	0.08** (0.03)	1.088
Male	-0.40*** (0.05)	0.671	-0.39*** (0.05)	0.675	-0.30*** (0.03)	0.741	-0.31*** (0.03)	0.732
Age (in years)	0.001 (0.004)	1.001	0.01 (0.004)	1.005	0.01** (0.004)	1.010	0.01*** (0.004)	1.014
Age squared	-0.00002 (0.00005)	1.000	-0.0001 (0.0001)	1.000	-0.0002*** (0.00005)	1.000	-0.0002*** (0.0001)	1.000
Intercept	-0.25** (0.09)	0.780	-0.13 (0.10)	0.877	0.55*** (0.12)	1.737	0.59*** (0.12)	1.800

*Note.* Standard errors are in parentheses. Workgroup variables are in bold. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

<sup>i</sup> Most Pennsylvania counties have five or fewer full- or part-time Assistant District Attorneys (0 = 9%, 1 = 10%, 2 = 13%, 3 = 8%, 4 = 6%, and 5 = 5%; National Prosecutors Survey, 2001). Thus, most District Attorneys handle cases (i.e., depending on the size of the county and the amount of administrative work that is required, most District Attorneys handle a full caseload).

<sup>ii</sup> We excluded data from 1995 because they are incomplete (PCS, 1997).

<sup>iii</sup> We created this variable using addresses provided by the PCS.

<sup>iv</sup> We grouped all nonwhite offenders into a single category. In practice this grouping is not problematic, as the percentage of nonblack offenders in this category is small. For example, in the full data, 5.6% of offenders were Hispanic, 0.2% were Asian, 0.5% were Other, and 3.4% were Unknown. By grouping these individuals in the nonwhite category, we are being conservative in our estimates (i.e., some of these individuals may be more similar to whites than to blacks).

<sup>v</sup> The final sample included only those offenders who were 18 years of age or older.

<sup>vi</sup> The range of possible Offense Gravity Score (offense severity) values reported by the PCS was 0-10 for the years 1990-1994, but increased to 13 under the 1994 guidelines and to 14 under the 1997 guidelines. We created a variable that was comparable across years and that captured the relative proportionality of the seriousness of the offense within each time period by dividing the seriousness of the offense by the number of possible values for that time period.

<sup>vii</sup> The PCS assigns a point value to offenses that it then uses to calculate an offender's Prior Record Score. Because there were changes in the values assigned to particular offenses over the course of this study, we created a variable

---

that was comparable across years. Within each year we recoded prior record into three categories: no prior record, low prior record (only misdemeanor offenses), and high prior record (at least one felony conviction). Offenders with no prior record served as the reference group.

<sup>viii</sup> We included dummy variables for bench and jury trials, with guilty pleas serving as the reference group. Approximately 18% of cases were missing data on the mode of conviction variable. Rather than lose such a substantial number of cases, missing data were coded as guilty pleas for two reasons. First, of the non-missing cases only 6% resulted in a bench or jury trial conviction. Second, tests were conducted to determine whether there was a significant difference between missing cases and plea, jury, or bench trials based on the offender's age, gender, race, offense severity, offense type, and prior record. Results showed that missing cases were significantly different from cases resulting in bench and jury trial convictions based on these other variables, but were *not* significantly different from plea outcomes.

<sup>ix</sup> Because multilevel modeling techniques are not appropriate for use with only two counties, we could not estimate a separate model for these two counties or compute a statewide model containing an interaction term for these 2 versus the remaining 65 counties.

<sup>x</sup> Approximately 10% of judges were missing political party information and approximately 5% of judges were missing information regarding the college and/or law school attended. As a result, we created two variables for each measure: one with missing coded '0' and one with missing coded '1.' In terms of political party, '0' means Democrat and '1' means Republican. In terms of college and/or law school attended, '0' means non-Pennsylvania school and '1' means Pennsylvania school. In our analyses, we used the variables with missing coded '0' because we believed this recoding provided more conservative estimates. When missing was coded '1,' 49% were Democrats, 75% attended Pennsylvania colleges, and 76% attended Pennsylvania law schools. When we conducted all of our analyses with missing coded as '1,' the results were essentially the same as those presented in the tables.

<sup>xi</sup> Approximately 23% of district attorneys were missing information regarding the college and/or law school attended. As with the judges, we created two variables for each measure: one with missing coded '0' (non-Pennsylvania school) and one with missing coded '1' (Pennsylvania school). When missing was coded '1,' 77% of district attorneys attended Pennsylvania colleges and 76% attended Pennsylvania law schools. When we conducted all of our analyses with missing coded as '1,' the results were essentially the same as those presented in the tables.

<sup>xii</sup> We computed the difference between workgroups with the highest and lowest levels of gender similarity as follows:  $0.996^{100} = 0.670$ ,  $1 - 0.670 = 0.330$  (33.0%), where 0.996 is the odds ratio and 100 is the range of the gender similarity variable.

<sup>xiii</sup> In the restitution data, which excluded drug, traffic, and other crimes, offense type was coded '1' for property crimes and '0' for person crimes.

<sup>xiv</sup> For the years 1996-2000, the average stability ranged from 1.2 years to 12.0 years. Thus, we computed the difference between workgroups with the highest and lowest levels of stability using a range of 10.8 years (rather than 7.8 years, as in the previous analyses).