EXPLORING PLEA NEGOTIATION PROCESSES AND OUTCOMES IN MILWAUKEE AND ST. LOUIS:

STATISTICAL APPENDIX

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ADMINISTRATIVE DATA ANALYSES

INTRODUCTION

The analyses of guilty plea outcomes relied on administrative data collected through the case management systems in the Milwaukee County District Attorney's Office and the St. Louis County Prosecuting Attorney's Office, supplemented by additional data from court and jail case management systems. This statistical appendix details the collection and analyses of these data to examine case outcomes and charge changes across the two sites.

DATA AND METHODS

Data

The current study relied on three sets of data.

The analyses in St. Louis County relied on data initially provided to the Institute for State and Local Governance (ISLG) as part of the John D. and Catherine T. MacArthur Foundation's Safety and Justice Challenge (SJC). These data were provided to the University of Missouri, St. Louis under a grant from the SJC Research Consortium to examine guilty plea outcomes in St. Louis County. The data for St. Louis County included all cases referred to the St. Louis County Prosecuting Attorney's office between January 1, 2013 and December 30, 2020. These data were originally obtained from the St. Louis County Prosecuting Attorney's Office, which collects and maintains data on all criminal court cases referred in St. Louis County. The data provided detail on defendant characteristics, initial and final charge information, referral and disposition dates, and final charge dispositions. Since defendants could have multiple cases during the study period, unique defendants and cases were identified using unique identifiers. The combination of unique defendant identification numbers and unique case identification numbers were used to identify unique defendant/case combinations.[i] The St. Louis data included 67,948 unique defendant/case combinations of cases referred to the office.

The analyses in Milwaukee County relied on data provided to Loyola University Chicago as part of the Prosecutorial Performance Indicators Project as part of SJC; these data included data obtained from the Milwaukee District Attorney's Office's case management system (PROTECT) and data obtained from the Wisconsin Court case management system (CCAP). These data were supplemented with data obtained from the Milwaukee Sheriff's office on all individuals admitted to or released from the Milwaukee County jail. The PROTECT data for Milwaukee County included all cases referred to the Milwaukee District Attorney's office between January 1, 2015 and December 30, 2020. The PROTECT data provided detail on defendant characteristics, initial charge information, referral dates, and prosecuting attorney information. These data were combined with CCAP data from the courts; CCAP data provided detail on filed charges and disposition charges, dispositions, disposition dates, sentences, prosecuting attorney information, and defense attorney information. Finally, these data were combined with jail admission and release dates for all individuals admitted to/released from the Milwaukee County jail. Unique defendants and cases were identified using unique individual identifiers. The combination of unique defendant identification numbers and unique case identification numbers were used to identify unique defendant/case combinations. The Milwaukee data included 160,156 unique defendant/case combinations of cases referred to the office.

Since cases often involve multiple charges, a procedure was devised in both St. Louis and Milwaukee to categorize cases according to the "top charge" at case referral, filing, and disposition. To determine the top charge in a case at each stage, all charges in the case were ranked by offense severity according to the state's misdemeanor and felony classification system. The charge with the highest offense severity in a case was designated as the top

charge at that stage for analysis purposes. For example, to determine the top charge at filing, all filed charges in the case were ranked by offense severity and the filed charge with the highest offense severity in a case was designated as the top filed charge. The same ranking system was used for charges resulting in a guilty outcome – all guilty charges were ranked by offense severity and the guilty charge with the highest offense severity was the top guilty charge. For the analyses, only defendant/cases with a misdemeanor or felony as the top filed charge in the case were included.

Dependent variables

The analyses examined three dependent variables. The first dependent variable *Guilty Plea* captures whether the case resulting in a guilty plea to any charge (1=any charge in case resulting in a guilty plea; 0=no charge in case resulting in a guilty plea). The analyses of *Guilty Plea* relied only on cases filed and disposed during the study period; it does not include cases not filed or filed cases that remained open at the end of the study period.

The second dependent variable *Reduction in Number of Charges* captures whether the defendant plead guilty to fewer charges than initially filed; the variable simply compares the number of filed charges and the number of charges to which the defendant plead guilty (1=defendant plead guilty to fewer charges than initially filed; 0=defendant plead guilty to same number of charges or more charges than initially filed). The analyses of *Reduction in Number of Charges* relies only on cases resulting in a guilty plea during the study period; it does not include cases not filed, filed cases that remained open at the end of the study period, or cases that were disposed by dismissal, trial, or other means of disposition.

The third dependent variable *Reduction in Severity of Charges* captures whether the defendant plead guilty to a charge less severe in offense class than the filed charge; to be guilty of a lesser charge, the most serious conviction charge would have to be at least one full felony or misdemeanor class lower than the most serious filed charge (1=offense class of the most serious conviction charge is lower than the offense class of the most serious filed charge; 0=offense class of the most serious conviction charge is the same as the offense class of the most serious filed charge). The analyses of *Reduction in Number of Charges* relies only on cases resulting in a guilty plea during the study period; it does not include cases not filed, filed cases that remained open at the end of the study period, or cases that were disposed by dismissal, trial, or other means of disposition

Finally, for the analyses of cumulative disadvantage, the analyses considered a four-part outcome variable, *Cumulative Disadvantage*, capturing whether a case resulted in one of a series of outcomes in order of least punitive outcome to most punitive outcome (0=case not accepted for prosecution; 1=case accepted for prosecution and dismissed; 2=case accepted, not dismissed, and reduced in either number or severity of charges; 3=case accepted, not dismissed, not reduced, and resulting in guilty plea).

Case-level variables

Case-level variables in the present study included several defendant, offense, and case processing characteristics.

Analyses in both St. Louis and Milwaukee included the following defendant and case factors. Defendant characteristics included information on demographic attributes of defendants. The analyses included a categorical variable measuring defendant race/ethnicity (0= white non-Latinx (reference), 1= Black non-Latinx, 2= Latinx, and 3= Other Race/Ethnicity). The analyses also included defendant sex (0=Female (reference), 1=Male) and a dichotomous age variable (0=Over 25 years old; 1=Under 25 years old). Finally, the analyses include a proxy measure of criminal history capturing whether the defendant has prior criminal convictions (0=no prior convictions; 1=at least one prior conviction). Offense characteristics included the number of filed charges (continuous) and offense severity, which is coded as an ordinal variable corresponding to the offense severity levels in each state. The type of offense is measured with dummy variables for violent, sex, property, drug, family violence/domestic violence, weapons, vehicle, DUI, and public order/other offenses, with property offenses as

the reference category. Lastly, one case processing variable was included: time to disposition (continuous) measuring the number of months from case filing to disposition.

In Milwaukee, several additional defendant and case factors were available. The analyses included a variables measuring defendant residence in Milwaukee City (0=not resident of Milwaukee City; 1=resident of Milwaukee City) and defendant pretrial detention status, which measures whether the defendant was held in jail at the time of case disposition (0=not in jail at time of disposition, 1=in jail at time of disposition). The analyses also included variables measuring a reduction in the severity of charges from referral to filing (0=no change in the severity of charges; 1=reduction in the severity of charges) and measuring an increase in the severity of charges from referral to filing (0=no change in the severity of charges; 1=increase in the severity of charges). Finally, several variables capturing law enforcement, prosecutor, and defense characteristic were included: arresting agency, which captures whether the defendant was arrested by the Milwaukee Police Department (0=not arrested by MPD; 1=arrested by MPD); arrested officer referrals, which measures the average number of monthly referrals made by the arresting officer (continuous); prosecutor sex (0=female; 1=male); case referral to a specialized prosecution unit (0=not referred to a specialized unit; 1=referred o t specialized unit); prosecutor overall caseload, which measured as the average number of new cases filed by the prosecutor each month (continuous); the percentage of a prosecutor's monthly caseload consisting of felony cases (0=less than 25% of a prosecutors cases are felonies; 1=25% or more of a prosecutors cases are felonies); the percentage of a prosecutor's monthly caseload consisting of violent cases (0=less than 10% of a prosecutors cases are violent; 1=10% or more of a prosecutors cases are violent); public defender which captures whether a public defender was involved at any point during the case (0=no public defender; 1=public defender); and attorney withdrawals, which measures whether a defense attorney withdrew from the case at any point (0=no attorney withdrawals; 1=at least one attorney withdrawal). Using the Wisconsin State Bar Association directory, we also determined the prosecutor's and defense attorney's bar admission date. We use the bar admission date to calculate a proxy of the attorneys' level of experience (in months), measured as the time between bar admission date and the case disposition date.

Analytical strategy

The impact of defendant, offense, and case characteristics on case outcomes was analyzed using standard statistical procedures to examine categorical data in multivariate settings. Specifically, the baseline estimations relied on a series of multivariate logistic regression models to estimate the effect of these factors on the dependent variables listed above. All models are estimated using Stata 17.

To estimate cumulative disadvantage across racial/ethnic groups, we also estimated expected rates of each outcome combination using predicted probabilities generated using the Stata *margins* command. Predicted probabilities represent the expected rate of a specific outcome after controlling for all defendant and case factors.

ST. LOUIS

Descriptive Statistics

Descriptive statistics for the study sample are presented in Tables B.1, which includes descriptive statistics for cases disposed across three time periods: 2013-2018 under McCulloch; 2019 under Bell; and 2020 under Bell (these were also disposed under COVID-19 restrictions).

Overall, 63% of cases referred to the St. Louis Prosecuting Attorney's office under McCulloch were not prosecuted; under the first year of Prosecuting Attorney Bell this went down to 57.5% of cases before increasing to 70.9% of cases in 2020. Roughly 31.3% of cases resulted in a guilty plea under McCulloch and 31.8% resulted in a guilty plea under the first year of Bell, before declining to just 18.1% of cases in 2020. Of the cases resulting in a guilty plea, just 19% of cases involved a reduction in the number of charges under McCulloch, increasing to 30.8% in the first year of Bell and 45.1% of cases in 2020; similarly, roughly 16.0% of cases involved a reduction in the severity of charges under McCulloch, increasing to 26.7% of cases in the first year of Bell and 37.3% of cases in 2020.

Defendants tended to be male and Black, with the percentage Black increasing through 2020. Defendants were roughly 32 years old.

Among referrals, 23.5% involved a misdemeanor and 76.3% involved a felony as the top charge under McCulloch; the percentage involving a misdemeanor decreased and the percentage involving a felony increased through 2020; by 2020, 16.3% involved a misdemeanor and 83.7% involved a felony as the top charge. The largest proportion of referrals involved property or drugs as the top charge; together, these accounted for roughly 55% of cases across the study period; the percent of cases involving violent charges showed marked increase from just 11.3% of cases under McCulloch to over 19% of cases in 2020. Referrals involved 1.5 charges per case; at filing, this declined slightly to 1.3 charges per case and, at guilty plea, this declined to 1.0 charges per case.

Table B.1. Descriptive Statistics for St. Louis	2013-2018 McCulloch	2019 Bell	2020 COVID
N (2015-2020)	53,662	8,976	5,310
Outcomes			
No File	63.0%	57.5%	70.9%
Dismissed	3.6%	8.1%	7.6%
Not Guilty Trial	0.1%	0.1%	0.1%
Guilty Plea	31.3%	31.8%	18.1%
Guilty Trial	0.2%	4.3%	0.1%
Other	1.8%	2.2%	3.3%
Reduction num. of charges	19.4%	30.8%	45.1%
Reduction sev. of charges	16.0%	26.7%	37.3%
Defendant			
Male	75.4%	77.5%	75.5%
White non-Latinx	46.4%	45.3%	44.7%
Black non-Latinx	52.6%	53.7%	54.4%
Latinx	0.4%	0.3%	0.3%
Asian/Other	0.6%	0.8%	0.6%
Age (years)	32.3	33.5	33.6
Charge			
Infraction	0.0%	0.0%	0.1%
Misdemeanor	23.5%	22.6%	16.3%
Felony	76.3%	77.3%	83.7%
Violent	11.3%	12.8%	19.5%
Sex	1.5%	1.6%	1.6%
Property	35.6%	25.2%	28.0%
Drugs	21.1%	29.5%	28.9%
Family violence	5.5%	9.5%	4.0%
Weapons	4.6%	5.1%	6.8%
Vehicle	13.7%	12.5%	7.5%
Alcohol	0.5%	0.1%	0.0%
DUI	2.6%	0.2%	0.2%
Public Order/Other	3.7%	3.5%	3.5%
Charges referred (mean)	1.4	1.5	1.5
Charges filed (mean)	1.3	1.3	1.3
Charges guilty (mean)	1.1	1.1	1.0
Case			
Time to dispo. (months)	10.1	13.2	17.1

Logistic Regression Models – Guilty Plea

A series of logistic regression models examined the odds of a case being disposed by a guilty plea (Table B.2). Model 1 estimates the odds for all cases combined, first for all years and then for 2019 cases only; Models 2-4 estimate the odds for cases in which the top charge is a violent, weapon, or drug charge for all years. These models allow for examination of changes in the influence of different defendant and case factors across offense types. Coefficients for each factor represent the independent influence of that factor on the odds of a guilty plea. A negative coefficient indicates that the factor decreases the odds of a guilty plea; a positive coefficient indicates that the factor increases the odds.

Estimates from Model 1 show that cases involving defendants who were Black and younger were less likely to disposed by guilty plea. For 2019 cases, age was not related to the likelihood of a guilty plea; however, cases involving defendants with a higher prior criminal history were more likely to be resolved by a guilty plea. Cases involving male defendants and Latinx were neither more nor less likely to be disposed by guilty plea than cases involving female or White defendants. The likelihood of disposition by guilty plea also was related to several charge factors, with cases involving a misdemeanor and less serious felony as the top charge, Vehicle/Alcohol/Public Order/Other offenses, and multiple charges more likely to be disposed by guilty plea; in contrast, cases involving Class A felonies (the most serious) or Violent/Family Violence/Weapons charges were less likely to be disposed by guilty plea. Interestingly, cases involving a Drug offense were more likely to be disposed by guilty plea over the entire period; however, for 2019 cases, cases involving Drug offenses were *less* likely to result in a guilty plea. Finally, cases that took longer to dispose were more likely to be disposed by guilty plea.

Estimates varied across different offense types. For example, Weapon and Drugs cases involving male defendants were more likely to be disposed by guilty plea; but defendant sex had no impact on the likelihood of a guilty plea for Violent cases. In turn, while Violent and Drugs cases involving Black defendants were less likely to be disposed by guilty plea, Drug cases involving Black defendants were neither more nor less likely to be disposed by guilty plea. Defendant age was associated with the likelihood of a guilty plea for Violent and Weapon cases, but was not associated with the likelihood for Drug cases. Charge severity largely was unrelated to the likelihood of a guilty plea for Drugs cases, but was related to outcomes for Violent and Weapons cases. Across all offense types, cases that took longer to dispose were more likely to be disposed by guilty plea.

Table B.2. Logistic Regression Models, Guilty Plea St. Louis					
	Model 1		Model 2	Model 3	Model 4
	All Cases	2019 Cases	Violent Cases	Weapon Cases	Drug Cases
Defendant					
Female (ref.)	--	--	--	--	--
Male	0.0411	0.0477	0.118	0.495*	0.273**
White (ref.)		--	--	--	--
Black	-0.414***	-0.731***	-0.471***	-0.375	-0.477***
Latinx/Hispanic	-0.122	-0.537	-0.230	--	-1.680
Asian/Other	-0.355	-0.355	-0.588	--	-0.511
Under 25	-0.0127***	-0.643	0.0264***	0.0245***	-0.00690
Prior crim. history	--	0.160***	--	--	--
Charge					
Misdemeanor C	1.718***	3.011**	1.273*	--	--
Misdemeanor B	3.164***	4.228***	--	2.807**	--
Misdemeanor A	2.101***	3.378***	1.967***	--	3.154***
Felony E (ref.)	--	--	--	--	--
Felony D	0.605***	0.750***	0.502**	1.046***	-0.276
Felony C	0.560***	1.241***	0.333	1.643***	0.0349
Felony B	0.118	-0.142	0.145	-0.872*	0.0492
Felony A	-0.975***	-1.202***	-1.340***	-0.694	-0.483
Violent	-0.587***	-0.419**	--	--	--
Sex	0.0476	-0.275	--	--	--
Property (ref)	--	--	--	--	--
Drugs	0.143**	-0.453**	--	--	--
Family violence	-0.741***	-3.170***	--	--	--
Weapons	-0.555***	-0.595**	--	--	--
Vehicle	0.313**	-0.116	--	--	--
Alcohol	0.859*				
Public order	0.478*	-0.183			
DUI	0.221	-4.505***	--	--	--
Other	0.577***	0.986*	--	--	--
# of charges	0.170***	0.417***	0.130***	0.252**	0.169**
Case					
Time to dispo.	0.0540***	0.0939***	0.136***	0.0934***	0.00923
N	24,816	3,728	3,083	1,116	5,406

Logistic Regression Models – Charge Reduction

A series of logistic regression models examined the odds of a case receiving a reduction in the number of charges from filing to guilty plea (Table B.3). Model 5 estimates the odds for all cases combined; Models 6-8 estimate the odds for cases in which the top charge is a Violent, Weapon, or Drug charge. These models allow for examination of changes in the influence of different defendant and case factors across offense types. Coefficients for each factor represent the independent influence of that factor on the odds of a charge reduction. A negative coefficient indicates that the factor decreases the odds of a charge reduction; a positive coefficient indicates that the factor increases the odds.

Estimates from Model 5 show that, when considering cases across all years, cases involving defendants who were Latinx were more likely to receive a reduction in the number of charges from filing to guilty plea; however, when considering just cases from 2019, cases involving defendants who were Latinx were neither more nor less likely to receive a reduction in the number of charges. In 2019, cases involving defendants who were Black were more likely to receive a reduction; in contrast, cases involving defendants who were male and had longer criminal histories were less likely to receive a reduction. Defendant age was not associated with the likelihood of a charge reduction. Cases involving a misdemeanor as the top charge were less likely to receive a reduction in the number of charges; however, cases involving Violent/Sex/Drugs/Family Violence/Weapons/Vehicle/DUI/Public Order/Other charges (relative to Property charges) and multiple charges were more likely to receive a reduction. Although time to disposition was not related to the likelihood of a charge reduction when all years were combined, in 2019, cases that took longer to dispose were less likely to receive a charge reduction.

Estimates varied across different offense types. For example, although defendant gender and age were not associated with charge reductions when examining all offenses and all years combined, cases involving male defendants were less likely to receive a charge reduction for Violent offenses and cases involving younger defendants were more likely to receive a charge reduction for Weapons offenses. Cases involving Latinx defendants were more likely to receive a charge reduction for Drugs offenses, but were neither more nor less likely to receive a charge reduction for Violent or Weapons offenses. Finally, defendant race was not related to charge reductions for any of the offense-specific models. Offense severity was largely unrelated to the likelihood of a charge reduction for Violent and Drug offenses; however, cases involving a Class D or C Felony were less likely to receive a charge reduction (relative to a Class E Felony) for Weapons offenses. For all offense types, cases involving more charges were more likely to receive a reduction in the number of charges. Finally, Violent cases that took longer to dispose were less likely to receive a reduction.

Table B.3. Logistic Regression Models, Reduction in Number of Charges St. Louis					
	Model 5		Model 6	Model 7	Model 8
	All Cases	2019 Cases	Violent Cases	Weapon Cases	Drug Cases
Defendant					
Female (ref.)	--	--	--	--	--
Male	-0.169	-0.439*	-0.821***	-0.548	-0.0445
White (ref.)		--	--	--	--
Black	0.0338	0.383*	0.118	0.121	0.229
Latinx/Hispanic	0.906*	1.422	0.822	--	3.169*
Asian/Other	-0.594	--	--	--	--
Under 25	0.000188	-0.00927	0.0112	0.0519***	-0.0118
Prior crim. history	--	-0.105*	--	--	--
Charge					
Misdemeanor C	-1.755	--	-1.034	--	--
Misdemeanor B	-1.941***	-3.133***	--	--	--
Misdemeanor A	-0.771***	-1.365***	-0.908*		-1.175
Felony E (ref.)		--	--	--	--
Felony D	-0.0328	-0.152	0.215	-1.836***	-0.231
Felony C	0.284	-0.543	0.478	-3.912***	-0.313
Felony B	0.835***	0.119	0.531	-0.481	-0.548
Felony A	-0.171	-0.466	-0.438	-3.389	0.483
Violent	2.128***	1.874***	--	--	--
Sex	1.134***	1.606***	--	--	--
Property (ref)		--	--	--	--
Drugs	0.405***	0.538*	--	--	--
Family violence	0.546*	1.368**	--	--	--
Weapons	1.706***	1.615***	--	--	--
Vehicle	1.359***	0.896	--	--	--
Alcohol	0.483	--	--	--	--
Public order	0.724*	--	--	--	--
DUI	1.945***	4.597***	--	--	--
Other	1.391***	-0.496	--	--	--
# of charges	0.517***	0.509***	0.737***	2.050***	0.922***
Case					
Time to dispo.	-0.00679	-0.0291*	-0.0231*	0.000968	-0.00408
N	20,372	2,690	1,882	708	4,726

A second series of logistic regression models examined the odds of a case receiving a reduction in the severity of charges from filing to guilty plea (Table B4). Model 9 estimates the odds for all cases combined; Models 10-12 estimate the odds for cases in which the top charge is a Violent, Weapon, or Drug charge.

Estimates from Model 9 show that defendant characteristics were largely unrelated to the likelihood of a reduction in the severity of charges from filing to conviction. In 2019, cases involving defendants with prior criminal cases were less likely to receive a reduction. Generally cases involving a misdemeanor as the top charge were less likely to receive a reduction in the severity of charges, while cases involving more serious felonies (Class B or A) were more likely to receive a reduction. Cases involving Violent/Weapons/Other charges and multiple charges were more likely to receive a reduction; in 2019, cases involving Violent/Sex/Family Violence/Weapons charges were also more likely to receive a reduction. Finally, cases that took longer to dispose were less likely to receive a reduction in the severity of charges.

Estimates varied across different offense types. For example, although defendant sex, ethnicity, and age were not associated with charge reductions when examining all years and all offenses combined, these factors were related to reductions for limited offense types – cases involving Latinx defendants were more likely to receive a reduction in Violent cases and cases involving younger defendants were more likely to receive a reduction for Weapons cases. Violent cases involving a misdemeanor as the top charge were less likely to receive a reduction; however, Violent cases involving a Class A felony were more likely to receive a reduction. In contrast, Weapons cases involving more serious felonies (Class D or C) were less likely to receive a reduction in severity of charges. Offense severity was unrelated to charges reductions for Drugs cases. Violent, Weapon, and Drug cases involving more charges were also more likely to receive a reduction. Finally, Violent cases that took longer to dispose also were less likely to receive a reduction.

Table B4. Logistic Regression Models, Reduction in Severity of Charges St. Louis					
	Model 9		Model 10	Model 11	Model 12
	All Cases	2019 Cases	Violent Cases	Weapon Cases	Drug Cases
Defendant					
Female (ref.)	--	--	--	--	--
Male	0.0430	-0.339	-0.264	-0.608	0.266
White (ref.)	--	--	--	--	--
Black	-0.214	0.339	-0.264	-0.608	0.266
Latinx/Hispanic	1.057	--	1.942*	--	--
Asian/Other	--	--	--	--	--
Under 25	0.00295	-0.00193	0.0240*	0.0386*	-0.0285
Prior crim. history	--	-0.314**	--	--	--
Charge					
Misdemeanor C	--	--	--	--	--
Misdemeanor B	-4.094***	--	--	--	--
Misdemeanor A	-1.529***	-2.017**	-2.162**	--	--
Felony E (ref.)	--	--	--	--	--
Felony D	-0.563*	-0.356	-0.914	-1.877***	-2.501
Felony C	-0.257	-0.958	-0.0698	-5.387***	-2.221
Felony B	1.153***	0.673	0.319	0.199	-2.418
Felony A	1.683***	1.228*	1.255*	-1.065	--
Violent	0.354*	1.189**	--	--	--
Sex	-0.792	1.431*	--	--	--
Property (ref)	--	--	--	--	--
Drugs	-0.340	0.448	--	--	--
Family violence	0.144	1.961**	--	--	--
Weapons	1.625***	1.845***	--	--	--
Vehicle	0.218	1.423	--	--	--
Alcohol	-0.295	--	--	--	--
Public order	-0.230	--	--	--	--
DUI	--	--	--	--	--
Other	0.755*	0.543	--	--	--
# of charges	0.247***	0.203***	0.420***	1.375***	0.613***
Case					
Time to dispo.	-0.0257**	-0.0476*	-0.0854***	0.0386	0.0121
N	19,649	2,239	1,860	708	4,372

MILWAUKEE

Descriptive Statistics

Descriptive statistics for the study sample are presented in Tables B.5, which includes descriptive statistics for cases referred, charged, and convicted.

Overall, 43.9% of cases referred to the Milwaukee District Attorney's office were issued, meaning that the case was charged. Of the cases charged, 54.5% resulted in a conviction, 19.2% were dismissed, and 5.2% were deferred or diverted by December 2020; just 0.9% resulted in a not guilty verdict and 20.1% remained open. Of the cases resulting in a conviction, 96.6% were due to guilty pleas and 3.4% were the result of trials; 17.4% of convictions involved a reduction in the severity of the top charge from filing to conviction.

Defendants tended to be male, Black, and from Milwaukee City, with the percentage male increasing and the percentage Black decreasing from referral to conviction. Defendants were roughly 32 years old and had 1.8 prior criminal cases. Among those convicted, 34.8% were confined at the time of their conviction.

Among referrals, 55% involved a misdemeanor and 45% involved a felony as the top charge; these both decreased from referral to conviction, while the percent involving an ordinance violation as the top charge increased. The largest proportion of referrals involved domestic violence as the top charge (29%); domestic violence accounted for the largest proportion of convictions as well (15.4%), but property, drug, weapons, vehicle, and DUI increased from referral to conviction. Referrals involved 1.6 charges per case, increasing to 1.9 at charging, and 2.0 at conviction. Among charged cases, 21.6% involved a decrease in the severity of the top charge from referral to charging and 6.0% involved at increase. Overall, cases took slightly more than 200 days to reach disposition.

The Milwaukee Police Department (MPD) accounted for 66.5% of referrals, but cases from MPD accounted for just 56.9% of convictions. The average officers referred 93 cases per year.[ii] More than half of referrals were screened by specialized units; however, just 45% of convictions were handled by those units.[iii] Prosecutors tended to be male[iv] and white[v] and handled more than 70 cases per month. Roughly 24% of the average prosecutor's caseload involved felonies and 11% involved violent charges. About 25% of cases involved a change in defense attorney during the case, and roughly 30% involved only a public defender. Defense attorneys averaged roughly 66 more months of experience than prosecutors.

Table B.5. Descriptive Statistics for Initial Sample Milwaukee			
	Referred	Charged	Convicted
N (2015-2020)	160,156	70,420	38,427
Outcomes			
Issued	43.9%	--	--
Dismissed	--	19.2%	--
Deferred	--	5.2%	--
Not Guilty	--	0.9%	--
Guilty	--	54.5%	--
Open	--	20.1%	--
Charge reduction at conv.	--	--	17.4%
Guilty plea	--	--	96.6%
Defendant			
Male	77.9%	82.9%	83.9%
White	22.0%	29.3%	30.4%
Black	64.9%	62.5%	61.0%
Hispanic	9.7%	6.6%	6.9%
Asian/Other	1.5%	1.6%	1.6%
Age (years)	32.1	32.1	31.8
Prior criminal cases (mean)	1.7	1.9	1.9
Confined at disposition	--	26.4%	34.8%
Milwaukee city resident	75.9%	74.9%	73.6%
Charge[vi]			
Ordinance	--	3.7%	11.5%
Misdemeanor	55.0%	51.7%	47.8%
Felony	45.0%	44.6%	40.7%
Violent	17.1%	12.6%	11.5%
Sex	3.8%	3.4%	3.6%
Property	11.9%	12.3%	13.6%
Drugs	8.4%	9.3%	9.2%
Domestic violence	29.0%	19.3%	15.4%
Weapons	6.1%	7.9%	8.8%
Vehicle	7.3%	12.7%	11.9%
DUI	3.6%	8.5%	11.9%
Public Order/Other	12.7%	14.0%	14.1%
Charge reduction filing	--	21.6%	26.6%
Charge increase filing	--	6.0%	6.3%
Charges referred (mean)	1.6	1.9	2.0
Charges filed (mean)	--	2.0	2.2
Charges guilty (mean)	--	--	1.3
Case			
MPD arrest	66.5%	59.2%	56.9%
Officer caseload (mean)	93.6	96.5	97.1
Specialized unit	52.8%	46.5%	45.2%
Prosecutor Female	13.0%	29.8%	30.4%
Prosecutor Male	24.9%	56.8%	53.4%
Prosecutor caseload (mean)	68.9	74.4	76.4
Prosecutor felony caseload	23.0%	23.0%	24.2%
Prosecutor violent caseload	11.6%	11.2%	11.0%
Change in defense attorney	--	23.8%	26.7%
Only public defender on case	--	30.2%	28.9%
Attorney balance[vii]	--	-68.3	-77.3
Time to dispo. (days)	--	201.8	204.6

Logistic Regression Models – Guilty Plea

A series of logistic regression models examined the odds of a case being disposed by a guilty plea (Table B.6). Model 1 estimates the odds for all cases combined; Models 2-4 estimate the odds for cases in which the top charge is a violent, weapon, or drug charge. These models allow for examination of changes in the influence of different defendant and case factors across offense types. Coefficients for each factor represent the independent influence of that factor on the odds of a guilty plea. A negative coefficient indicates that the factor decreases the odds of a guilty plea; a positive coefficient indicates that the factor increases the odds.

Estimates from Model 1 show that cases involving defendants who were male, Latinx/Hispanic, younger, and confined at the time of case disposition were more likely to be disposed by guilty plea. Cases involving Black defendants were neither more nor less likely than case involving White defendants to be disposed by guilty plea. Similarly, defendant residence and criminal history were not associated with the likelihood of being disposed by guilty plea. The likelihood of disposition by guilty plea also was related to several charge factors, with cases involving a misdemeanor and less serious felony as the top charge, Weapons/DUI offenses, a charge reduction or increase from referral to filing, and multiple charges more likely to be disposed by guilty plea; in contrast, cases involving more serious felonies or Violent/Drugs/DV/Vehicle/Other charges were less likely to be disposed by guilty plea. Cases referred to a General Crimes unit and cases handled by prosecutors who were female, had higher caseloads, had lower felony caseloads, had higher violent caseloads, and had less experience were more likely to be disposed by guilty plea. Finally, cases in which the defense attorney was a public defender and had more experienced were more likely to be disposed by guilty plea.

Estimates varied across different offense types. For example, Drug cases involving male defendants were more likely to be disposed by guilty plea; but defendant sex had no impact on the likelihood of a guilty plea for Violent and Weapon cases. In turn, while Violent and Weapon cases involving Black defendants were less likely to be disposed by guilty plea, Drug cases involving Black defendants were more likely to be disposed by guilty plea. Defendant age was associated with the likelihood of a guilty plea for Violent and Weapon cases, but was not associated with the likelihood for Drug cases. Across all offense types, cases handled by prosecutors with lower felony caseloads were more likely to be disposed by guilty plea, but the overall size of the prosecutor's caseload was associated with the likelihood of being disposed by guilty plea only for Violent cases. Interestingly, Violent cases involving a change in defense attorney or a public defender were more likely to be disposed by guilty plea, but Drug cases with a change in attorney or a public defenders were less likely. In contrast to the effects of defendant and case factors, the effects of charge factors were fairly consistent across offense types.

Table B.6. Logistic Regression Models, Guilty Plea Milwaukee				
	Model 1	Model 2	Model 3	Model 4
		Violent	Weapon	Drug
	All Cases	Cases	Cases	Cases
Defendant				
Female (ref.)	--	--	--	--
Male	0.126***	-0.039	0.156	0.365***
White (ref.)	--	--	--	--
Black	-0.029	-0.365***	-0.376***	0.575***
Latinx/Hispanic	0.279***	0.010	-0.095	0.875***
Asian/Other	0.012	0.004	-0.550	0.571*
Under 25	0.198***	0.440***	0.202*	0.083
1+ prior crim. cases	-0.007	-0.195***	-0.128	0.313***
Confined	0.449***	0.820***	0.151	0.702***
Milwaukee City	-0.024	0.040	-0.133	0.093
Charge				
Misdemeanor	0.104***	-0.168	-1.056	-0.729***
Felony I (ref.)	--	--	--	--
Felony H-G	0.342***	0.041	-1.225	0.629***
Felony F-E	0.515***	0.062	-1.923	0.479***
Felony D-C	0.086	-0.254*	--	-0.006
Felony A-B	-1.061***	-1.390***	--	--
Violent	-0.264***	--	--	--
Sex	0.140	--	--	--
Property (ref)	--	--	--	--
Drugs	-0.315***	--	--	--
Domestic violence	-1.021***	--	--	--
Weapons	0.168***	--	--	--
Vehicle	-0.750***	--	--	--
DUI	1.584***	--	--	--
Public Order/Other	-0.435***	--	--	--
Charge red. filing	0.463***	0.833***	0.293*	0.406***
Charge inc. filing	0.311***	0.279***	0.398	-0.447***
# of charges	0.189***	0.157***	0.189***	0.103***
Case				
MPD arrest	0.000	-0.018	0.012	-0.010
Officer caseload	0.000	0.001	0.000	0.000
Specialized unit	-0.005***	-0.017***	-0.008***	-0.002
Pros. Female (ref.)	--	--	--	--
Pros. Male	-0.238***	-0.078	-0.255***	-1.083***
Pros. caseload	0.001***	0.005***	0.000	0.000
Pros. fel. caseload	-0.456***	-0.184**	-0.326***	-1.172***
Pros. viol. caseload	0.154***	0.067	0.139	-0.489***
Change in def. att.	-0.026	0.198***	0.032	-0.360***
Only PD on case	0.071***	0.152*	0.043	-0.272***
Pros. experience	-.001***	0.000	0.000	-0.001***
Def. experience	0.000***	0.000	0.001***	-0.001***
Time to dispo.	-0.001	-0.033***	-0.022***	0.039***
N	46,889	6,031	3,940	4,657
Pseudo-R2	0.094	0.102	0.043	.207

Logistic Regression Models – Charge Reduction

A series of logistic regression models examined the odds of a case receiving a reduction in the number of charges from filing to guilty plea (Table B.7). Model 5 estimates the odds for all cases combined; Models 6-8 estimate the odds for cases in which the top charge is a Violent, Weapon, or Drug charge. These models allow for examination of changes in the influence of different defendant and case factors across offense types. Coefficients for each factor represent the independent influence of that factor on the odds of a charge reduction. A negative coefficient indicates that the factor decreases the odds of a charge reduction; a positive coefficient indicates that the factor increases the odds.

Estimates from Model 5 show that cases involving defendants who were Black, Latinx/Hispanic, confined at the time of case disposition, and residents of Milwaukee City and who had a prior criminal history were more likely to receive a reduction in the number of charges from filing to guilty plea. Defendant age was not associated with the likelihood of a charge reduction. Cases involving a Class B or A felony as the top charge, Violent/Sex/Domestic Violence/DUI/Public Order charges, a charge increase from referral to filing, multiple charges, and referred by MPD were more likely to receive a reduction; in contrast, cases involving Class H or G felonies, Drugs/Vehicle charges, or a charge reduction from referral to filing were less likely to receive a reduction. Cases referred to a specialized unit, were handled by more experienced prosecutors, and took longer to dispose were more likely to receive a reduction in the number of charges; in contrast, cases handled by prosecutors who were male and had higher felony caseloads and cases involving only a public defender were less likely to receive a reduction.

Estimates varied across different offense types. For example, although defendant race/ethnicity was associated with charge reductions when examining all offenses combined, these factors were unrelated to reductions for Violent, Weapon, and Drug cases. However, defendants who had prior criminal cases and were confined at the time of case disposition were generally more likely to receive a reduction for Violent, Weapon, and Drug cases. Violent and Drug cases involving a charge reduction from referral to filing were less likely to receive a reduction in the number of charges at guilty plea, but Violent, Weapon, and Drug cases involving a charge increase from referral to filing were more likely to receive a reduction. Higher prosecutor caseloads increased the likelihood of a reduction for Violent cases, while higher prosecutor felony caseloads decreased the likelihood of a reduction for Violent cases and higher violent caseloads increased the likelihood for Violent cases. Weapon and Drug cases that involved a more experienced prosecutor were more likely to receive a reduction, while Drug cases involving a more experienced defense attorney were also more likely to receive a reduction. Cases involving a public defender were less likely to receive a reduction in the number of charges for Violent and Drug cases. Finally, Drug cases that took longer to dispose also were more likely to receive a reduction.

Table B.7. Logistic Regression Models, Reduction in Number of Charges Milwaukee				
	Model 5	Model 6	Model 7	Model 8
		Violent	Weapon	Drug
	All Cases	Cases	Cases	Cases
Defendant				
Female (ref.)	--	--	--	--
Male	-0.061	-0.119	-0.013	-0.175
White (ref.)	--	--	--	--
Black	0.202***	0.104	0.017	0.303
Latinx/Hispanic	0.200**	-0.095	0.362	0.343
Asian/Other	0.132	0.014	0.355	0.693
Age	0.059	0.117	0.064	0.009
1+ prior crim. cases	0.111***	0.214*	0.112	0.288*
Confined	0.220**	0.330***	0.349**	0.249*
Milwaukee City	0.086*	0.088	-0.177	0.134
Charge				
Misdemeanor	-0.012	-0.476**	-0.135	0.503**
Felony I (ref.)	--		--	--
Felony H-G	-0.1229***	0.485**	-0.256	-0.285
Felony F-E	-0.084	0.062	-0.348	0.022
Felony D-C	0.016	-0.264	--	-0.002
Felony A-B	0.649	0.534	--	--
Violent	0.345***	--	--	--
Sex	0.262**	--	--	--
Property (ref)	--	--	--	--
Drugs	-0.592***	--	--	--
Domestic violence	1.875***	--	--	--
Weapons	0.277***	--	--	--
Vehicle	-0.693***	--	--	--
DUI	2.422***	--	--	--
Public Order/Other	0.272***	--	--	--
Charge red. filing	-0.710***	-0.637***	-0.206	-0.395**
Charge inc. filing	0.927***	0.899***	1.226***	0.371*
# of charges	0.652***	0.495***	0.763***	0.498***
Case				
MPD arrest	0.013**	0.221*	0.004	0.003
Officer caseload	0.000	0.001	0.000	0.000
Specialized unit	-0.002*	0.014***	-0.002	0.003
Pros. Female (ref.)	--	--	--	--
Pros. Male	-0.075*	-0.072	0.104	-0.654***
Pros. caseload	0.001***	0.002*	-0.001	0.002
Pros. fel. caseload	-0.164***	-0.224*	0.082	-0.004
Pros. viol. caseload	0.011	-0.079	-0.111	-0.208
Change in def. att.	-0.043	0.052	0.097	-0.211
Only PD on case	-0.201***	-0.337**	0.186	-0.451**
Pros. experience	0.000*	-0.001	0.001*	0.002***
Def. experience	0.000	0.000	0.000	0.001*
Time to dispo.	0.007***	0.015	0.015	0.043***
N	27,708	3,484	2,840	2,791
Pseudo-R2	0.2631	0.2010	0.1609	0.2135

A second series of logistic regression models examined the odds of a case receiving a reduction in the severity of charges from filing to guilty plea (Table B.8). Model 9 estimates the odds for all cases combined; Models 10-12 estimate the odds for cases in which the top charge is a Violent, Weapon, or Drug charge.

Estimates from Model 9 show that cases involving defendants who were Latinx, under 25 years old, confined at the time of case disposition, and residents of Milwaukee City were more likely to receive a reduction in the severity of charges from filing to guilty plea; in contrast, cases involving male defendants and those with prior criminal cases were less likely to receive a reduction. Cases involving a misdemeanor as the top charge, Violent/Sex/Domestic Violence/Public Order charges, a charge increase from referral to filing, and multiple charges were more likely to receive a reduction; in contrast, cases involving Class H through A felonies, Weapons/Vehicle/DUI charges, or a charge reduction from referral to filing were less likely to receive a reduction. Cases handled by prosecutors who were male, had higher felony caseloads, or had higher violent caseloads were more likely to receive a reduction; cases referred to a specialized unit or involving prosecutors with higher overall caseloads were less likely to receive a reduction. Finally, cases involving a change in defense attorney, involving a more experienced defense attorney, or taking more time to dispose were more likely to receive a reduction; cases involving a public defender were less likely to receive a reduction.

Estimates varied across different offense types. For example, although defendant sex, ethnicity, age, and criminal history were associated with charge reductions when examining all offenses combined, these factors were unrelated to reductions for Violent, Weapon, and Drug cases. However, defendants confined at the time of case disposition were more likely to receive a reduction in Weapon cases; residents of Milwaukee City were more likely to receive a reduction in Weapon and Drug cases. Violent, Weapon, and Drug cases involving a charge reduction from referral to filing were less likely to receive a reduction in the severity of charges at guilty plea, but Violent, Weapon, and Drug cases involving a charge increase from referral to filing were more likely. Weapon and Drug cases involving more charges were also more likely to receive a reduction. The effects of prosecutor factors were fairly consistent – a larger prosecutor caseload decreased the likelihood of a reduction for all three offense types, while a larger felony caseload increased the likelihood of a reduction for all three and a larger violent caseload increased the likelihood of a reduction for Violent and Weapon cases. Cases involving a public defender were less likely to receive a reduction in the severity of charges for Violent and Weapon cases. Finally, Violent and Drug cases that took longer to dispose also were more likely to receive a reduction.

Table B.8. Logistic Regression Models, Reduction in Severity of Charges Milwaukee				
	Model 9	Model 10	Model 11	Model 12
		Violent	Weapon	Drug
	All Cases	Cases	Cases	Cases
Defendant				
Female (ref.)	--	--	--	--
Male	-0.184**	0.228	-0.630	-0.403
White (ref.)	--	--	--	--
Black	0.097	-0.098	-0.365	0.351
Latinx/Hispanic	0.203*	0.211	0.688	0.617
Asian/Other	0.131	-0.222	0.000	-0.373
Age	0.940*	-0.172	-0.131	0.126
1+ prior crim. cases	-0.191***	-0.187	0.026	0.309
Confined	0.158**	0.250	0.946***	0.296
Milwaukee City	0.179***	0.217	0.654*	0.514*
Charge				
Misdemeanor	1.103***	1.371***	1.825	2.300***
Felony I (ref.)	--	--	--	--
Felony H-G	-0.910***	-0.912***	-1.135	-1.544***
Felony F-E	-1.414***	-0.879***	0.000	-1.987***
Felony D-C	-1.844***	-2.376***	--	-3.697***
Felony A-B	-2.683***	-1.672***	--	--
Violent	0.683***	--	--	--
Sex	0.822***	--	--	--
Property (ref)	--	--	--	--
Drugs	-0.003	--	--	--
Domestic violence	0.930****	--	--	--
Weapons	-0.791***	--	--	--
Vehicle	-0.571**	--	--	--
DUI	-1.188***	--	--	--
Public Order/Other	0.410***	--	--	--
Charge red. filing	-1.107***	-1.555***	-1.241***	-1.322***
Charge inc. filing	1.336***	1.164***	1.952***	1.397***
# of charges	0.165***	0.016	0.337***	0.233***
Case				
MPD arrest	0.004	-0.008	0.016	-0.171
Officer caseload	0.000	-0.001	-0.002	0.000
Specialized unit	-0.034***	-0.026***	-0.047*	-0.013
Pros. Female (ref.)	--	--	--	--
Pros. Male	0.290***	0.075	0.441	-0.176
Pros. caseload	-0.006***	-0.012***	-0.013***	-0.009***
Pros. fel. caseload	1.061***	0.541***	2.510***	1.564***
Pros. viol. caseload	0.481***	0.720***	0.631***	0.366
Change in def. att.	0.123*	0.051	0.119	0.142
Only PD on case	-0.311***	-0.312*	-0.512*	-0.298
Pros. experience	0.000	0.000	0.001	0.001
Def. experience	0.000*	0.000	0.001	0.000
Time to dispo.	0.021***	0.065***	0.027	0.040***
N	27,708	3,487	2,840	2,791
Pseudo-R2	0.284	0.3031	0.3100	0.2683

[i] The analyses track defendant/case combinations since defendants could have multiple cases during the study period.

[ii] Officer caseload is the total number of cases referred to the office by the arresting officer.
[iii] Cases are handled either by a specialized unit (Child Protection, Community Prosecution, Domestic Violence, Family Support/Restorative Justice, Federal HIDTA, Homicide, Sensitive Crimes, and Violent Crimes) or by a General Crimes unit (i.e., non-specialized). The prosecuting unit was missing in roughly 6% of cases)
[iv] Prosecutor sex was missing in roughly 62% of referrals, 13.5% of charged cases, and 16.2% of convictions.
[v] Prosecutor race was missing in roughly 70% of referred cases and 32% of charged and convicted cases.
[vi] Top charge at decision point.
[vii] Attorney balance represents the difference in months of experience between the prosecutor on a case and the defense attorney on the case. A negative number indicates the prosecutor is less experienced; a positive number indicates the prosecutor is more experienced.