



JUDICIAL COUNCIL OF CALIFORNIA

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REPORT TO THE JUDICIAL COUNCIL

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For business meeting on: May 21, 2021

Title

Report to the Legislature: Disposition of Criminal Cases According to Race and Ethnicity of Defendant

Agenda Item Type

Information Only

Date of Report

April 23, 2021

Submitted by

Judicial Council staff
Criminal Justice Services
Shelley Curran, Director

Contact

Sal Lempert, 415-865-4559
Sal.Lempert@jud.ca.gov

Executive Summary

Penal Code section 1170.45 directs the Judicial Council to report annually on the statewide disposition of criminal cases according to defendants' race and ethnicity. In accordance with this requirement, Judicial Council staff will submit this annual report on May 20, 2021. The data used in this report come from the Automated Criminal History System, which is a repository of data on dispositions maintained by the California Department of Justice. This report describes patterns seen in criminal case dispositions of adult felony arrests by race/ethnicity and tests whether any available legal or demographic information can account for the patterns seen.

Relevant Previous Council Action

The Judicial Council's Office of Court Research submitted these annual reports from 2001 through 2017, and Criminal Justice Services submitted this annual report in 2018 and 2019. The council approved the reports from 2012 through 2017 and directed staff to transmit each year's report to the Legislature. Before 2012, protocol did not require council action on reports that did not include recommendations. Starting in 2018, protocol does not require council action.

Analysis/Rationale

This report presents findings based on four case disposition outcome measures:

- Conviction rates—whether a case results in a conviction or alternatively in a dismissal or acquittal;
- Conviction offense level—whether the case resulted in a felony or misdemeanor conviction;
- Type of sentence—whether the defendant was sentenced to prison or received a lesser sentence; and
- Sentence length—the length of the sentenced prison term for defendants who were sentenced to prison.

For each outcome, descriptive information is presented on patterns seen in the data. In addition to looking at the race/ethnicity breakdown of the data, several other legal and demographic features that may relate to outcomes are also described and analyzed, including gender, age, county, prior criminal history, and features of the current offense or offenses. Next, statistical testing is used to determine whether race/ethnicity plays a role in predicting disposition outcomes above and beyond differences across groups in these other relevant legal and demographic factors.

The 2020 report indicates that legal factors such as features of the current offense and the defendant's prior criminal record exerted the strongest influence on conviction rates, felony versus misdemeanor conviction, and sentencing to prison. More serious offenses and more extensive criminal histories were both associated with higher conviction rates, more felony versus misdemeanor convictions, and more prison sentences. Legal factors, particularly those related to the current crime, also exerted the strongest influence on prison sentence length.

After accounting for differences in outcomes that can be explained by legal factors such as charge type and criminal history and county variation such as conviction rates and demographics, the study found that defendant characteristics such as race/ethnicity, gender, and age are still significantly associated with rates of conviction, rates of felony versus misdemeanor convictions, and imposition of a prison versus an intermediate sentence. Prison sentence length, however, while still significantly associated with gender, was not significantly associated with defendant age or race/ethnicity.

Accounting for differences mentioned above, relative to black and white defendants, Hispanic defendants were more likely to be convicted rather than be acquitted or have their cases dismissed; white defendants were more likely to receive a felony versus a misdemeanor conviction when compared to black and Asian/PI defendants; and relative to whites, black and Hispanic individuals convicted of a felony were more likely to receive a sentence to prison rather than a lesser sentence. Although a more detailed dataset was used, these findings are generally consistent with prior years' reports in that race differences persisted after controlling for all available legal and demographic factors.

Fiscal Impact and Policy Implications

No fiscal impacts or policy implications are associated with this report.

Attachments and Links

*Disposition of Criminal Cases According to the Race and Ethnicity of the Defendant: 2020
Report to the California Legislature as Required by Penal Code Section 1170.45*



Disposition of Criminal Cases According to the Race and Ethnicity of the Defendant

2020 REPORT TO THE CALIFORNIA
LEGISLATURE AS REQUIRED BY PENAL
CODE SECTION 1170.45



JUDICIAL COUNCIL
OF CALIFORNIA

Judicial Council of California
Operations and Programs Division
Criminal Justice Services
455 Golden Gate Avenue
San Francisco, California 94102-3688

This report has been prepared and submitted to the California Legislature as required by Penal Code section 1170.45.

This report is also available on the California Courts website at www.courts.ca.gov.

JUDICIAL COUNCIL OF CALIFORNIA

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Judicial Council*

OPERATIONS & PROGRAMS DIVISION

Robert Oyung
Chief Operating Officer

CRIMINAL JUSTICE SERVICES

Shelley Curran
Director

Sal Lempert
*Senior Analyst and
Primary Author of Report*

Background

This report examines the disposition of criminal cases across racial/ethnic groups as required by Penal Code section 1170.45.¹ To identify patterns by race/ethnicity, it also analyzes the impact of age, gender, and legal predictors—including criminal history and current charges—on disposition outcomes. This report fulfills the legislative mandate by identifying criminal case disposition outcomes broken out by race/ethnicity based on four distinct outcome measures: conviction rates, level of conviction offense (i.e., felony versus misdemeanor), prison sentencing rates, and length of prison sentences.

Source of Data

The data used in this report originates from the California Department of Justice (DOJ) Automated Criminal History System (ACHS), which is comprised of information reported to the DOJ by law enforcement agencies, prosecutors, and courts through fingerprint cards (FD-249) and *Adult Disposition of Arrest and Court Action* (JUS 8715) forms, on paper or electronically. The extract used for this report includes all available data on individuals with an adult felony arrest with a final disposition in 2019.² The unit of analysis for this report is a unique person and disposition date combination, where the final disposition date was in 2019 and the arrest charges included at least one felony offense. Arrests that occurred before 2019 are included if their final disposition date was in 2019. Data related to prior dispositions was summarized into criminal history indicators.

Figure 1 shows the number of dispositions at distinct case processing stages for all ACHS felony arrest dispositions in 2019. The entry point for cases analyzed in this report is a felony arrest. ACHS recorded 112,481 final dispositions of adult felony arrests in calendar year 2019. Of these cases, 18 percent were dropped by law enforcement or prosecution before being filed with the court. An arresting agency or the prosecutor may dispose of the case for multiple reasons including insufficient or inadmissible evidence, lack of probable cause, or absence of a witness. The remaining 82 percent (91,687) of cases proceeded to a court disposition. The race/ethnicity breakdown for filed cases closely resembles that of all felony arrest cases. This report focuses on felony defendants with final court dispositions; thus, all data and analyses presented in the remainder of the report include only filed cases.³

Analysis

This report presents findings based on four case disposition outcome measures:

- Conviction rates—whether a case results in a conviction or alternatively in a dismissal or acquittal;
- Conviction offense level—whether the case resulted in a felony or misdemeanor conviction;
- Type of sentence—whether the defendant was sentenced to prison or received a lesser sentence; and

¹ See Appendix A.

² The production and publication of this report was delayed due to the COVID-19 pandemic.

³ For summary statistics of felony defendants, see Appendix B, table B1.

- Sentence length—the length of the sentenced prison term for defendants who were sentenced to prison.

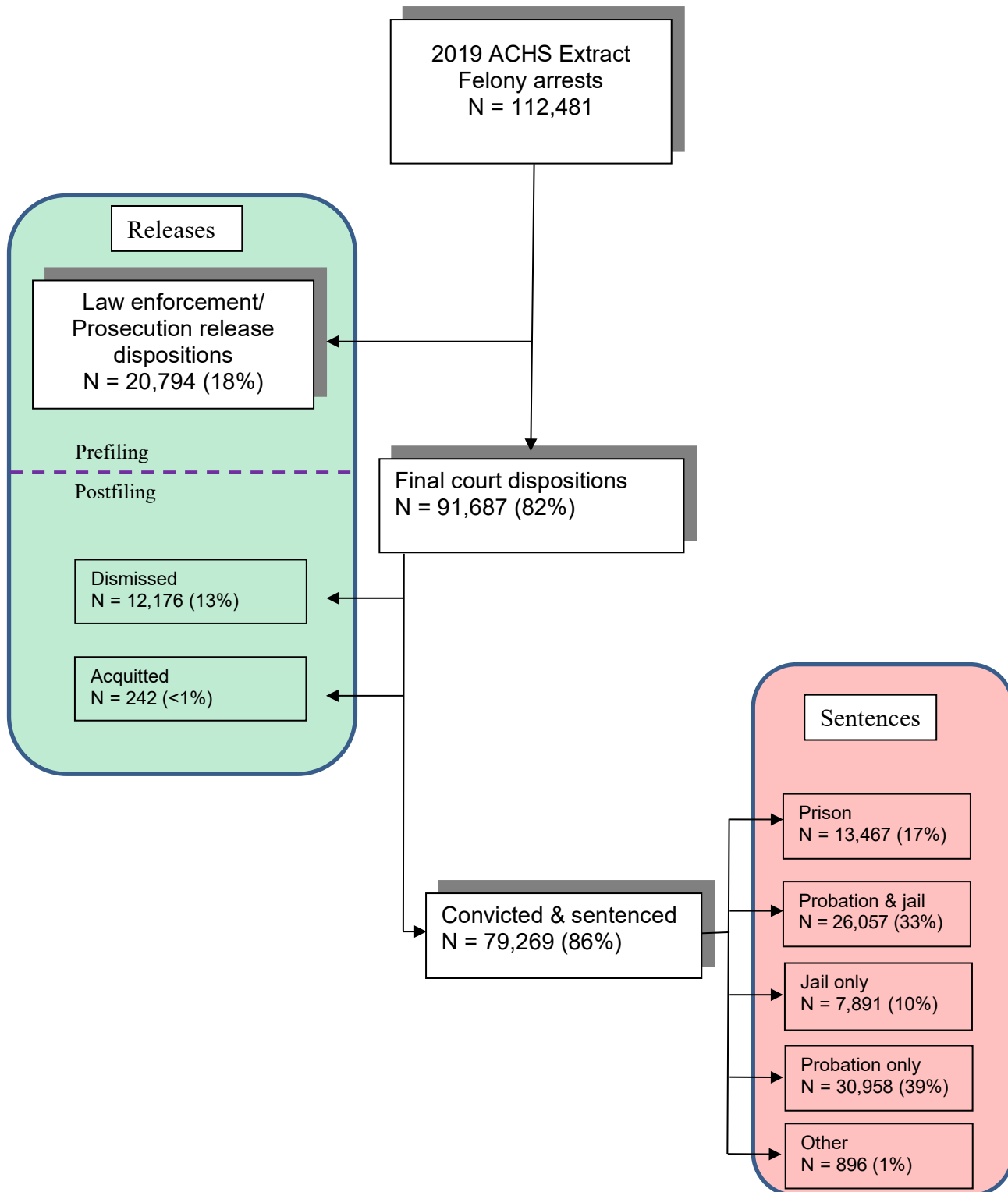
For each outcome, descriptive information is presented on patterns seen in the data. In addition to looking at the breakdown of the data by race/ethnicity, several other legal and demographic features that may relate to outcomes are also described and analyzed, including gender, age, prior criminal history, and features of the current offense or offenses. Next, statistical testing is used to determine whether race/ethnicity plays a role in predicting disposition outcomes above and beyond differences across groups in these other relevant legal and demographic factors (see Appendix B for detail).

Limitations

This report does not address differences in the disposition of misdemeanor arrests by race/ethnicity. The ACHS extract is not a complete record of all felony arrests in the state, but rather the subset of those with final dispositions in 2019 reported to the DOJ—estimated by the Criminal Justice Statistics Center to be about 65 to 75 percent of all felony arrests disposed in an average calendar year, though 2019 was noted to have an unusually low number of felony arrest dispositions reported to the DOJ.

None of the results found in this report can be taken as causal evidence of discrimination or bias at any point in the system. The analyses presented here are correlational, and any correlations between race and outcomes could be the result of more detailed case information not contained in ACHS. Additionally, each outcome discussed is reached through the interaction of many actors and structural elements within the system, and so cannot be attributed to any single actor. It is important to note that approximately 97 percent of convictions are a result of plea bargain agreements in which both the prosecutor and defense agree to the terms prior to judicial action.

Figure 1: Numbers of Dispositions at Distinct Case Processing Stages in ACHS Felony Dispositions Extract (2019)



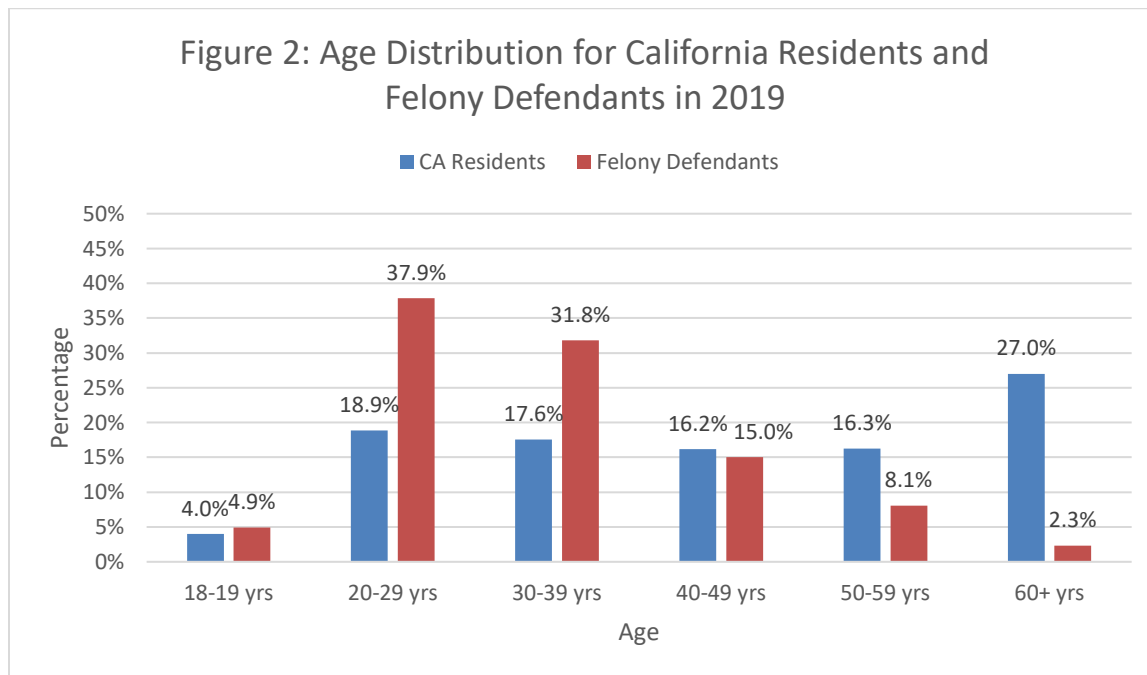
Demographics of Felony Defendants

Gender

Males made up 81.6 percent of the defendants reported to have received a court disposition in 2019; females made up 18.4 percent. Compared to the state as a whole, in which males are 49.4 percent of the population,⁴ felony defendants are disproportionately male (81.6 percent).

Age

Relative to the state's population, felony defendants are more concentrated between the ages of 20–39 years of age (figure 2).⁵ Compared to the California population, defendants ages 20–29 (37.9 percent) and 30–39 (31.8 percent) were arrested for felony-level offenses at disproportionately high rates, those ages 40–49 (15 percent) at slightly lower rates, and those ages 18–19 (5.0 percent) at slightly higher rates.⁶ Defendants ages 60 or older (2.3 percent) were arrested at disproportionately lower rates relative to the state's population, and those ages 50–59 (8.1 percent) at somewhat lower rates.⁷



Race/ethnicity

As with age and gender, the racial and ethnic makeup of felony defendants differs from the general adult population (figure 3). Black individuals make up 20.2 percent of felony defendants and 5.7 percent of the total California adult population. Asian/Pacific Islander (PI)

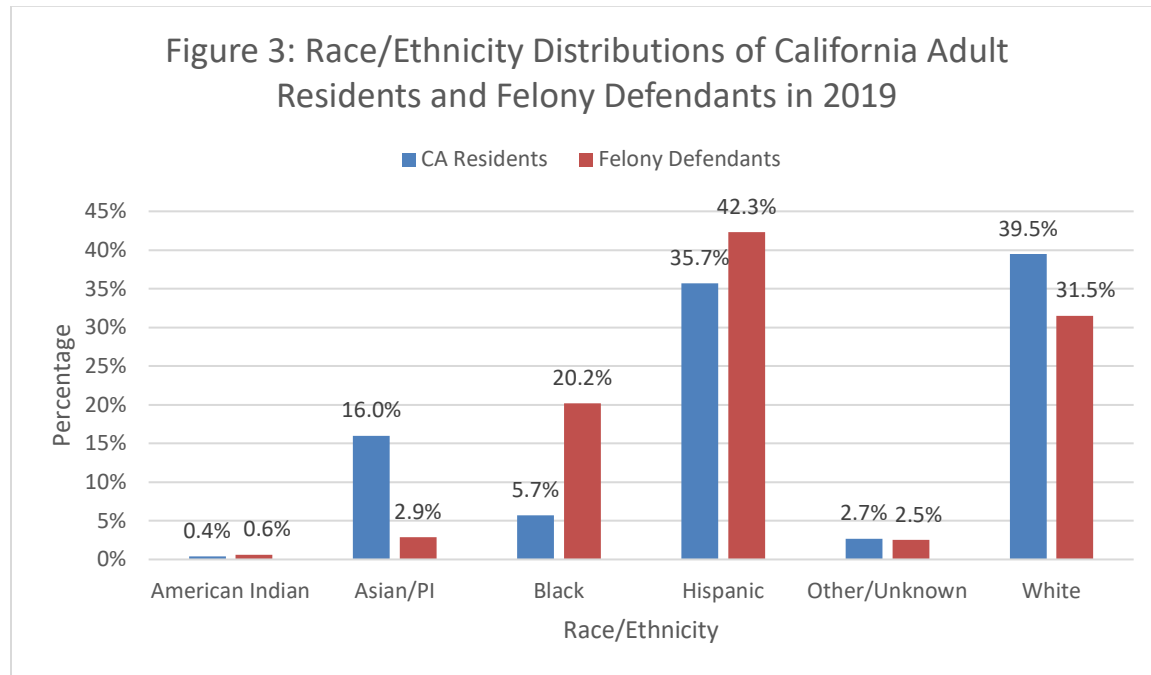
⁴ Data on gender/sex is based on the California Department of Finance's total state population estimate for 2019, www.dof.ca.gov/Forecasting/Demographics/Projections/.

⁵ The ACHS file contains the age at time of arrest for each felony defendant. This information was classified into the following age categories: ages 18–19, 20–29, 30–39, 40–49, 50–59, and 60 or older.

⁶ ACHS also includes 162 dispositions of individuals under the age of 18 at the time of arrest; due to small numbers, these individuals are not shown in figure 2. These individuals are not included in the later analyses.

⁷ Age data was drawn from the California Department of Finance's total state population estimate for 2019, www.dof.ca.gov/Forecasting/Demographics/Projections/.

individuals make up 2.9 percent of felony defendants compared to 16 percent of the general adult population. Hispanic individuals make up 42.3 percent of felony defendants and 35.7 percent of the overall state adult population, and white individuals represent 31.5 percent of felony defendants and 39.5 percent of the general population.⁸



Prior criminal record

The majority of felony cases in the data set involved defendants who already had a criminal record (figure 4). Around one fifth (20.7 percent) of felony defendants had no identified prior convictions in California⁹. A quarter (25.1 percent) had one or more identified prior prison commitments, 37.1 percent of defendants had a prior criminal history including prior jail but no prior prison commitment, and 17.1 percent of defendants had a prior criminal history not involving incarceration in jail or prison.

⁸ Race/ethnicity data was drawn from the American Community Survey's adult state population estimate for 2019, <https://data.census.gov/>. Due to low numbers in American Indian and Other/Unknown categories, these groups were not included in the main analyses.

⁹ Data are from the CA DOJ and only include California-based criminal history. Defendants may have other prior criminal records not captured in this dataset from other locales, including other states or the federal system.

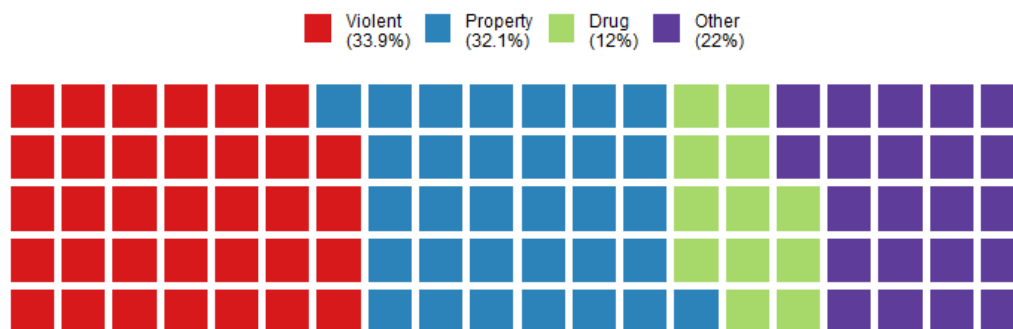
Figure 4: Prior Record of Felony Defendants



Arrest offense type

The largest proportion of felony defendants in ACHS were arrested for violent crimes (33.9 percent), followed by defendants arrested for property offenses (32.1 percent) and other felony offenses (22 percent) (figure 5). Defendants arrested for drug offenses (12 percent) comprised the smallest group in this data set for calendar year 2019.¹⁰

Figure 5: Arrest Offense Type for Felony Defendants



¹⁰ Categories are based on those used by the Bureau of Justice Statistics. Violent offenses include homicide, rape, robbery, and assault. Property offenses include burglary, theft, forgery, and arson. Drug offenses include all felony-level drug offenses. Other felony offenses include all weapons offenses and a range of other offenses such as vandalism and driving under the influence of drugs or alcohol. For the purposes of creating an offense category, only felony-level arrest offenses were used, and violent offenses were prioritized, followed by property offenses, drug offenses, and other offenses. Later analyses allow for multiple categories of offenses to be accounted for.

Outcomes

This report presents findings based on four case outcomes:

- Conviction rates—whether a case results in a conviction or alternatively in a dismissal or acquittal;
- Conviction offense level—whether the case resulted in a felony or misdemeanor conviction;
- Type of sentence—whether the defendant was sentenced to prison or received a lesser sentence; and
- Length of sentence—the sentence length for defendants who were sentenced to prison.

The construction of each outcome from the ACHS data set is described briefly below.

Conviction Versus Acquittal/Dismissal

Once a case has been filed with the court, the case may result in either a conviction or alternatively in a dismissal or acquittal.¹¹ Dismissal and acquittal are combined into a single category in the following analyses.¹² The vast majority of convictions (97 percent for felony cases) are achieved by plea bargaining deals that are negotiated between the prosecution and defense prior to judicial decisionmaking.¹³

Felony Versus Misdemeanor Conviction

Although all arrest charges in the ACHS data set are felony-level arrests, a reduction in charges may occur by plea deal or dismissal of the primary felony charge, resulting in conviction on a secondary misdemeanor charge or an infraction.¹⁴ Overall, felony convictions made up 54.2 percent and misdemeanors 45.8 percent of convictions with a known conviction level.¹⁵ In this report, the term “felony conviction rate” is used to refer to the percentage of defendants whose conviction was for a felony-level offense as opposed to a lesser offense.

¹¹ Cases filed with no known filing offense levels (n = 3,238) were removed for analysis of all outcomes.

¹² The small number of cases in this data set resulting solely in an acquittal (n = 232) were combined with the dismissed category because there were too few to analyze acquittals as its own category.

¹³ The ACHS extract used for this report does not have a data field for whether a case was resolved by plea or by trial, so it is impossible to analyze these outcomes separately. The percentage of convictions achieved by plea deal were calculated from Judicial Council of California, *2020 Court Statistics Report: Statewide Caseload Trends 2009–2010 Through 2018–2019*, www.courts.ca.gov/documents/2020-Court-Statistics-Report.pdf. This is comparable to the proportion of convictions achieved by plea found in other states (95 percent of felony convictions; data on all convictions for felony cases not available). Bureau of Justice Statistics, *State Court Sentencing of Convicted Felons 2004*, www.bjs.gov/content/pub/html/scscf04/tables/scs04401tab.cfm.

¹⁴ The small number of cases in this data set resulting solely in an infraction conviction (n = 150) were included in the misdemeanor category because there were too few to analyze infractions as its own category.

¹⁵ Convictions with no known conviction offense levels (n = 3,136) were removed for analysis of conviction offense level and sentencing outcomes.

Prison Versus Intermediate Sentence

Sentencing is the final disposition stage analyzed in this report.¹⁶ This report looks at sentencing through two separate analyses: prison versus intermediate sentencing, and length of sentence for those sentenced to prison. Prison sentences are on average longer, and are considered the more severe sentencing category in this report. All nonprison sentencing options are categorized in this report as “intermediate sentences.”¹⁷ Prison sentences that have had the imposition suspended are not counted as prison sentences for the purpose of this analysis.

Because convictions below the felony level are categorically ineligible for prison sentences, analyses of prison versus intermediate sentences are restricted to defendants convicted of a felony. Further restriction to prison-eligible felony crimes is challenging: although criminal justice realignment shifted sentencing such that in some cases sentences that previously would have been served in state prison are now served in county jail, the many exceptions based on criminal history and other factors make it difficult to achieve categorical separation among felonies.¹⁸ Therefore, all felony-level convictions are included in the analyses. The “prison sentence rate” discussed in the following analyses represents the proportion of all felony-level convictions receiving a prison sentence.

Prison Sentence Length

Sentence length is analyzed only for those sentenced to prison on a felony conviction. Prison sentences that have had the imposition suspended are not counted as prison sentences for the purpose of this analysis. While the other outcomes analyzed in this report are all expressed as rates, sentence length is analyzed and expressed in terms of years sentenced to prison on a continuous scale that includes fractions of years.

Observed Disposition Outcomes

Prior Criminal Record

Prior criminal record has significant impact on whether a defendant is convicted, receives a felony or misdemeanor conviction, and, if convicted of a felony, receives a prison sentence. Figure 6 arrays each outcome (rows) by prior criminal record, arrest offense, and race/ethnicity (columns). The first column shows that the effect of prior criminal history is consistent for these three outcomes. For example, the conviction rate ranges from a low of 82.2 percent for those with no prior convictions to a high of over 88 percent for those with a prior jail or prison record. Similarly, the share of those convicted of a felony versus a misdemeanor ranges from 45.8 percent for those with no prior convictions to 65.1 percent for those with a prior prison record. The share of convicted felons sentenced to prison was 18.8

¹⁶ Plea deals represent approximately 97 percent of convictions in felony cases in California and may impact sentencing outcomes. See footnote 13.

¹⁷ Other sentencing options in ACHS include jail, probation, combined probation and jail, and fines.

¹⁸ Assem. Bill 109 ([Comm. on Budget]; Stats. 2011, ch. 15).

percent for those without prior convictions and 53.8 percent for those with a prior prison record.

Prior criminal record also impacts sentence length for those sentenced to prison. Those sentenced to prison with no prior convictions received an average sentence length of 11.2 years, while those with priors ranged from 5.5 to 5.9 years sentence on average. While it may seem counterintuitive that individuals with no prior convictions receive longer sentences, these numbers are without controlling for any other variables.

Arrest Offense

Arrest offense type also has significant impact on whether a defendant is convicted, receives a felony or misdemeanor conviction, and, if convicted of a felony, receives a prison sentence. However, the pattern varies based on the outcome. For example, figure 6 (second column) illustrates the percentage of defendants convicted versus dismissed/acquitted by arrest offense type. The highest conviction rates (row 1) are for property offenses (89 percent), and the lowest for drug offenses (83.6 percent). The felony conviction rate (row 2) for violent crime is 53.2 percent, while for drug crimes the felony conviction rate is 55.6 percent and property crimes 59 percent. Prison sentencing rates (row 3) range from 22.7 percent for property and drug crimes to 41.3 percent for violent crimes.

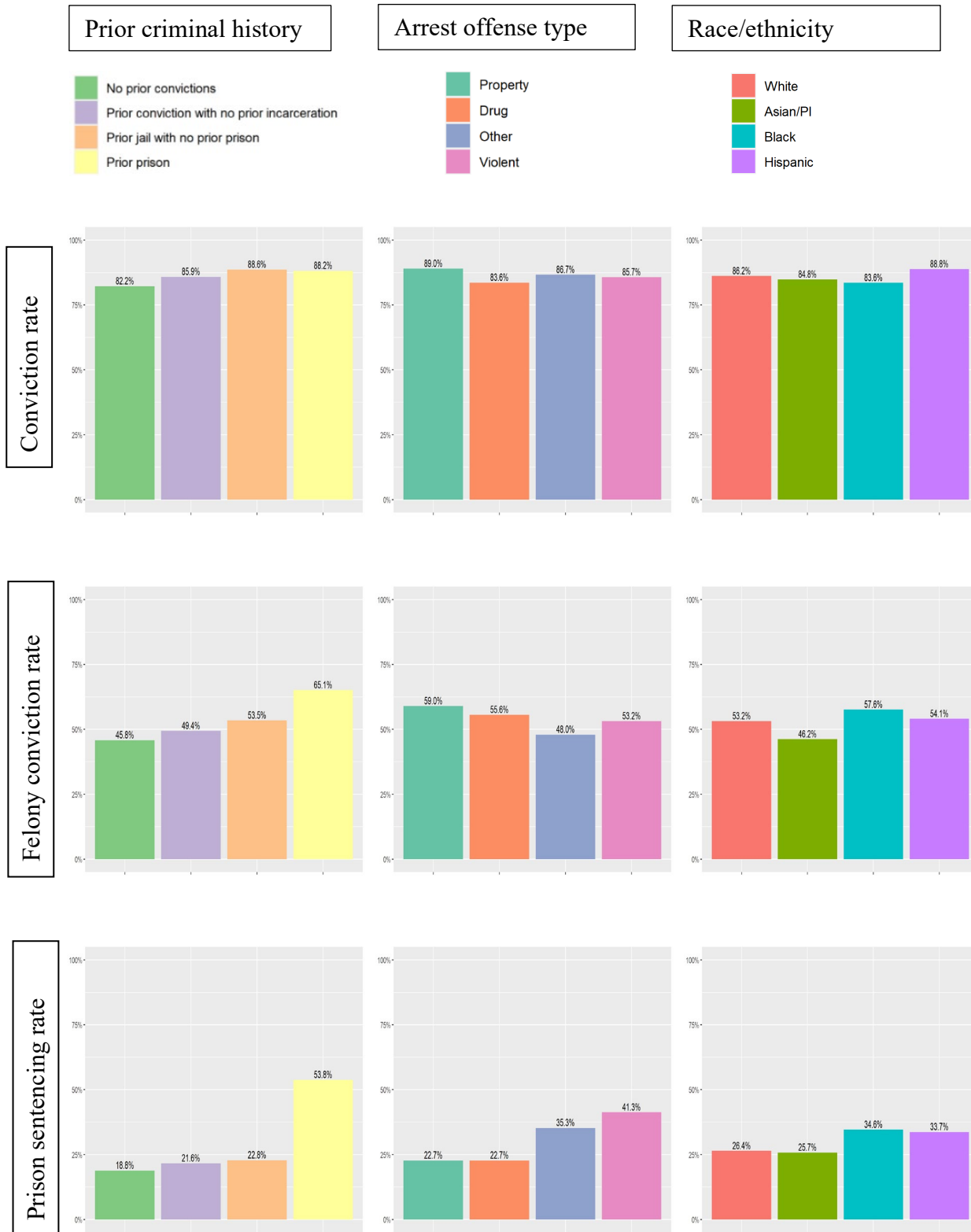
Arrest offense type also impacts sentence length for those sentenced to prison. Violent crimes receive the longest prison terms, 8.6 years on average, while drug crimes (4.8 years) and property crimes (4.2 years) receive shorter average prison terms.

Race/Ethnicity

The percentage of individuals convicted versus dismissed/acquitted by race/ethnicity without taking any other factors into account is also presented in figure 6 (third column). For all racial/ethnic groups, conviction rates are high (83–88 percent). They range from a low of 83.6 percent for the Asian/PI group to a high of 88.8 percent for the Hispanic group. Felony conviction rates range from a low of 46.2 percent for the Asian/PI group to a high of 57.6 percent for the black group. The percentage of individuals who received a sentence to prison as opposed to an intermediate sentence shows that prison sentences were less frequent for white (26.4 percent) and Asian/PI (25.7 percent) groups, and more frequent for black (34.6 percent) and Hispanic (33.7 percent) groups.

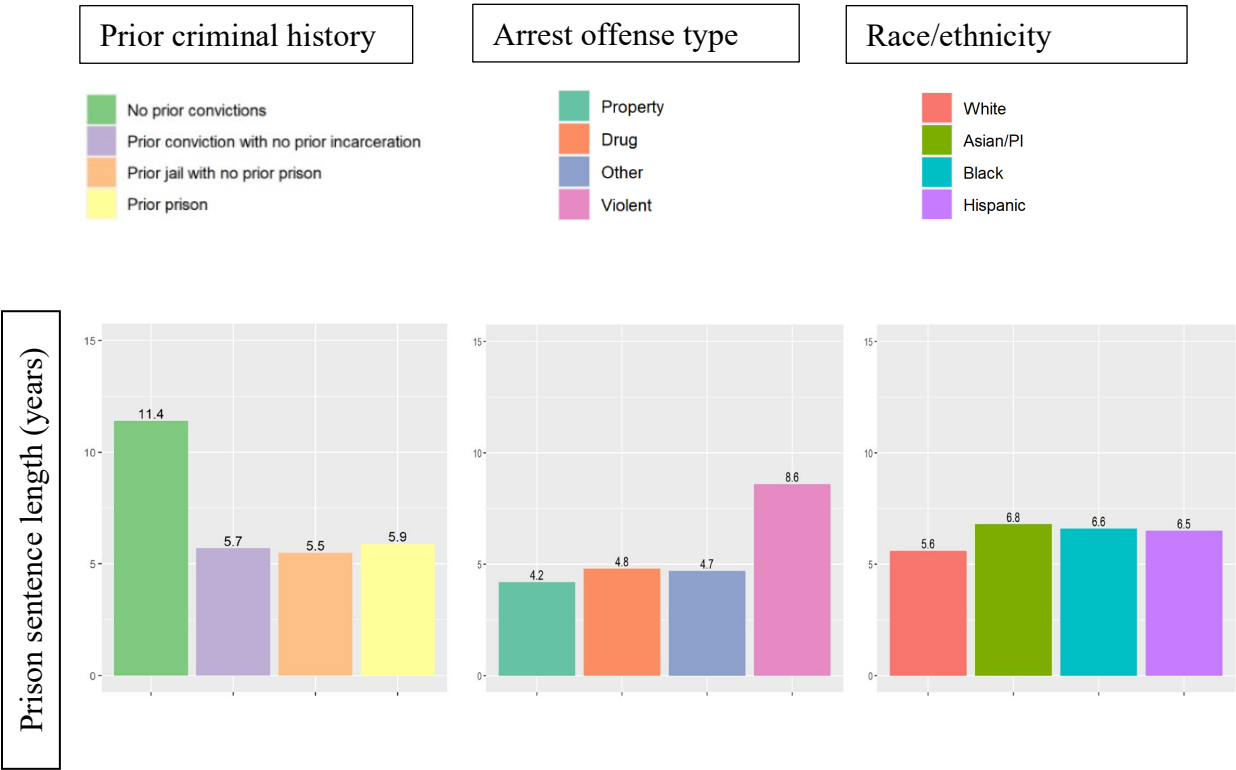
Sentence length for individuals sentenced to prison ranged from an average of 5.6 years for white defendants to 6.6 years for black defendants, 6.5 years for Hispanic defendants, and 6.8 years for Asian/PI defendants.

Figure 6: Observed Outcomes by Prior Criminal History, Arrest Offense Type, and Race/Ethnicity



Note: These graphs show the overall percentages, not controlling for other factors.

Figure 6 (continued)



Outcomes for Similarly Situated Defendants

The last column in figure 6 illustrates that Hispanic defendants have conviction rates of 88.8 percent, compared to white defendants at 86.2 percent, black defendants at 83.6 percent, and Asian/PI defendants at 84.8 percent. Asian/PI (46.2 percent) have a lower rate of felony convictions relative to white defendants (53.2 percent), Hispanic defendants (54.1 percent), and black defendants (57.6 percent). When convicted of a felony, black (34.6 percent) and Hispanic defendants (33.7 percent) receive prison sentences more often than white (26.4 percent) and Asian/PI defendants (25.7 percent).

When sentenced to prison, white defendants are sentenced to fewer years (5.6) on average than black (6.6), Hispanic (6.5), and Asian/PI (6.8) defendants. However, the differences between racial/ethnic groups in these outcomes are confounded by the differences between groups in criminal history, features of the current offense or offenses, county-specific practices, gender, and age. For racial/ethnic differences in these characteristics, see Appendix B, table B1. The following section controls for these differences in order to compare outcomes for defendants who are similarly situated in terms of age, gender, county, and legal factors available through ACHS.¹⁹

Conviction Rates for Similarly Situated Defendants by Race/Ethnicity

It is possible to focus on the impact of race/ethnicity in convictions of felony arrests by using statistical methods that control for the confounding effects of other observable differences between groups: age, gender, county, and legal factors. This type of analysis estimates whether white defendants with the same age, gender, county, and legal factors as black, Hispanic, or Asian defendants would have the same conviction rates.

Hispanic defendants were estimated to be on average 1.5 percent (1.015 times) more likely to receive a conviction than white defendants.²⁰ If the available factors other than race/ethnicity (age, gender, county, and legal factors) accounted for all of the differences in conviction rates, the estimation would be 0 percent instead of 1.5 percent. That is, if race/ethnicity played no role in conviction rates, then both white and Hispanic defendants with otherwise the same characteristics would have the same conviction rate.

Using this same statistical method, black defendants were on average 1.3 percent (0.987 times) less likely to be convicted than white defendants with the same age, gender, county, and legal factors. Asian/PI individuals were on average 1.5 percent (1.015 times) more likely

¹⁹ Defendants may not be similarly situated based on other unobserved variables; “similarly situated” is an approximation based on available data.

²⁰ This is expressed as *relative risk* (risk is a technical term that refers to the likelihood of a given outcome such as conviction), indicating that on average the risk of a Hispanic defendant being convicted is 1.015 times the risk of a white defendant being convicted, controlling for legal factors, age, gender, and county. The impact of relative risk on the expected difference in outcome between similarly situated individuals across groups depends on the overall risk of the outcome, among other factors. For example, a 10% difference in relative risk across groups for an outcome with an average risk of 80% would be expected to correspond to an average difference across groups in the approximate range of eight percentage points. However, if the average risk is 20%, the average expected difference across groups would be in the approximate range of two percentage points.

to be convicted than similarly situated whites, though this difference was not statistically significant.

Felony Versus Misdemeanor Conviction Rate for Similarly Situated Defendants by Race/Ethnicity

The effect of race/ethnicity on felony conviction rate was estimated using the same technique described above. The statistical method estimated that felony conviction was on average 3.1 percent (0.969 times) less likely for black individuals as compared to whites with the same age, gender, county, and legal factors. Hispanic individuals were estimated to be 1 percent (1.01 times) more likely to receive a felony conviction and Asian/PI individuals 3.8 percent (0.962 times) less likely as compared to similarly situated whites. The difference for Hispanic individuals was not statistically significant.

Sentencing for Similarly Situated Individuals by Race/Ethnicity

Again, using the same technique described above, the statistical method estimated that prison sentencing was on average 10 percent (1.1 times) more likely for Hispanic individuals and 5.3 percent (1.053 times) more likely for black individuals as compared to whites with the same age, gender, county, and legal factors. Asian/PI individuals were estimated to be 2 percent (0.98 times) less likely to receive a prison sentence as compared to whites, but this difference was not statistically significant.

Prison Sentence Length for Similarly Situated Defendants by Race/Ethnicity

The effect of race/ethnicity on prison sentence length was estimated using a slightly different statistical technique appropriate for the estimation of continuous variables. A statistical test found that adding race as a predictor of sentence length did not improve the predictions. When controlling for age, gender, county, and legal factors, differences in prison sentence lengths across racial groups were not significant.

Summary of Findings

Legal factors such as features of the current offense and the defendant's prior criminal record, as well as jurisdiction, exerted the strongest influence on conviction rate, felony versus misdemeanor conviction, and sentencing to prison.²¹ More serious offenses and prior records were both associated with higher conviction rates, more felony versus misdemeanor convictions, and more prison sentences. Legal factors, particularly those related to the current crime, also exerted the strongest influence on prison sentence length.²²

After accounting for differences in outcomes that can be explained by legal factors such as charge type and criminal history and county variation such as conviction rates and demographics, the study found that defendant characteristics such as race/ethnicity, gender, and age are still significantly associated with rates of conviction, rates of felony versus misdemeanor convictions, and imposition of a prison sentence versus an intermediate sentence. After controlling for legal factors and county, the study found that age and race/ethnicity of the defendant were not significantly associated with prison sentence length, while gender was still significantly associated for this outcome.

Accounting for differences mentioned above in all available legal and demographic factors:

- Relative to white defendants, Hispanic defendants were more likely and black defendants less likely to be convicted rather than be acquitted or have their cases dismissed;
- White defendants were more likely to receive a felony versus a misdemeanor conviction when compared to black and Asian/PI defendants;
- Relative to white individuals, black and Hispanic individuals convicted of a felony were more likely to receive a sentence to prison rather than a lesser sentence; and
- Prison sentence length did not differ significantly between racial groups.

Although a more detailed data set was used, these findings are generally consistent with prior years' reports in that race differences persisted after controlling for all available legal and demographic factors.²³

²¹ As determined by a comparison of McFadden pseudo R-squared values, which estimate the relative contribution of each predictor to the overall predictive power of the statistical model. See Appendix B for more detail.

²² As determined by a comparison of R-squared values.

²³ See Appendix C for trends over time. See Appendix B for a description of available controls.

Appendix A

Penal Code section 1170.45:

The Judicial Council shall collect data on criminal cases statewide relating to the disposition of those cases according to the race and ethnicity of the defendant, and report annually thereon to the Legislature beginning no later than January 1, 1999. It is the intent of the Legislature to appropriate funds to the Judicial Council for this purpose.

Appendix B

This appendix contains a table (table B1) of the characteristics of felony defendants in the ACHS database and the regression results referred to in this report. Regression is a statistical process of determining the relationship between an outcome of interest and a set of predictors. The mathematical equation that is used to determine this relationship contains the predictors being examined and is referred to as a “model.”

For all outcomes, the prior criminal history items included in the model were:

- Years prior prison;
- Years prior jail;
- Number of prior sentences to probation;
- Number of prior convictions including a violent felony (summary code);
- Number of prior convictions including a violent misdemeanor (summary code);
- Number of prior convictions including a property felony (summary code);
- Number of prior convictions including a property misdemeanor (summary code);
- Number of prior convictions including a drug felony (summary code);
- Number of prior convictions including a drug misdemeanor (summary code);
- Number of prior convictions including another sex felony (summary code);
- Number of prior convictions including another sex misdemeanor (summary code);
- Number of prior convictions including another felony (summary code);
- Number of prior convictions including another misdemeanor (summary code);
- Number of prior convictions including a violent felony (statutory);
- Number of prior convictions including a serious felony (statutory);
- Number of prior convictions including a sexual offense;
- Number of prior convictions including a domestic violence offense;
- Number of prior convictions including a DUI offense;
- Whether the defendant was on probation at the time of the current arrest;
- The highest hierarchy value for any prior conviction offense; and
- Years since the most recent conviction (ceiling, and inverted).

For all outcomes, the demographic and location items included in the model were:

- Age;
- Gender;
- Race; and
- County.

For conviction rate and level of conviction offense, the current offense items included in the model were:

- Whether the filed charges included a violent felony charge (summary code);
- Whether the filed charges included a violent misdemeanor charge (summary code);
- Whether the filed charges included a property felony charge (summary code);
- Whether the filed charges included a property misdemeanor charge (summary code);

- Whether the filed charges included a drug felony charge (summary code);
- Whether the filed charges included a drug misdemeanor charge (summary code);
- Whether the filed charges included another sex felony charge (summary code);
- Whether the filed charges included another sex misdemeanor charge (summary code);
- Whether the filed charges included another felony charge (summary code);
- Whether the filed charges included another misdemeanor charge (summary code);
- Whether the filed charges included a violent felony (statutory);
- Whether the filed charges included a serious felony (statutory);
- Whether the filed charges included a sex offense;
- Whether the filed charges included a domestic violence offense;
- Whether the filed charges included a DUI offense;
- The highest DOJ offense hierarchy value for filed charges (scaled);
- The number of filed felony charges;
- The number of filed misdemeanor charges; and
- The number of arrests involved in the current disposition.

For prison sentencing and prison sentence length, the current offense items included in the model were:

- Whether the convicted charges included a violent felony charge (summary code);
- Whether the convicted charges included a violent misdemeanor charge (summary code);
- Whether the convicted charges included a property felony charge (summary code);
- Whether the convicted charges included a property misdemeanor charge (summary code);
- Whether the convicted charges included a drug felony charge (summary code);
- Whether the convicted charges included a drug misdemeanor charge (summary code);
- Whether the convicted charges included another sex felony charge (summary code);
- Whether the convicted charges included another sex misdemeanor charge (summary code);
- Whether the convicted charges included another felony charge (summary code);
- Whether the convicted charges included another misdemeanor charge (summary code);
- Whether the convicted charges included a violent felony (statutory);
- Whether the convicted charges included a serious felony (statutory);
- Whether the convicted charges included a sex offense;
- Whether the convicted charges included a domestic violence offense;
- Whether the convicted charges included a DUI offense;
- The highest DOJ offense hierarchy value for convicted charges (scaled);
- The number of convicted felony charges;
- The number of convicted misdemeanor charges; and
- The number of arrests involved in the current disposition.

For the three rate outcomes, Poisson regression was used with robust standard errors²⁴. Poisson regression is a specific type of regression ideal for estimating relative risk (the ratio of the probability of an outcome for one group over another), and robust standard errors ensure that the significance of the results can be accurately assessed. For prison sentence length, linear regression was used, with robust standard errors.

A likelihood ratio test was used to compare the model strength for each model with and without race/ethnicity. These tests demonstrate that a model that includes race as a predictor is significantly more predictive than a model without race for felony conviction rate and prison sentencing rate.²⁵ For prison conviction rate and sentence length, the test indicated that the model was not significantly more predictive with race as a predictor.

²⁴ See Zou, G. (2004). A modified poisson regression approach to prospective studies with binary data. *American journal of epidemiology*, 159(7), 702-706.

²⁵ For each of these outcomes $p < 0.05$, indicating it is unlikely to observe this difference by chance if the two models were equally predictive.

Table B1: Characteristics of felony defendants

	Total %	Asian/PI %	Black %	Hispanic %	White %
All defendants	--	3.0	20.6	43.7	32.6
Outcome Variables					
<i>Case Outcome</i>					
Acquittal or Dismissal	13.2	15.2	16.4	11.2	13.8
Conviction	86.8	84.8	83.6	88.8	86.2
<i>Conviction type (among convictions)</i>					
Misdemeanor	45.8	53.8	42.4	46.0	46.8
Felony	54.2	46.2	57.6	54.0	53.2
<i>Sentence Outcome (among felonies)</i>					
Intermediate Sentence	68.7	74.3	65.4	66.4	73.6
Prison	31.3	25.7	34.6	33.6	26.4
<i>Sentence Length (prison sentences)</i>					
Average years	6.3	6.8	6.6	6.5	5.6
Situational Variables					
<i>Arrest Offense Type</i>					
Violent	34.5	32.1	42.2	34.8	29.5
Property	32.1	33.1	28.8	30.6	35.9
Drug	11.9	16.3	8.5	11.8	13.9
Other	21.5	18.5	20.5	22.8	20.6
<i>Arrest Offense DOJ Hierarchy*</i>					
Average hierarchy value	0.0595	0.0632	0.0993	0.0588	0.0342
<i>Prior Record</i>					
No prior convictions	20.4	34.4	19.1	21.8	18.1
Prior conviction (no prior jail)	17.2	15.2	14.7	19.8	15.5
Prior jail (no prior prison)	37.4	33.0	33.7	35.7	42.6
Prior prison	24.9	17.5	32.6	22.7	23.8
Defendant Characteristics					
<i>Gender</i>					
Male	81.6	80.3	81.5	84.6	77.8
Female	18.4	19.7	18.5	15.4	22.2
<i>Average Age (years)</i>	33.6	35.5	33.6	31.5	36.0
<i>Number of Cases</i>	85,732 [†]	2,585	17,665	37,504	27,978

* The DOJ produces a hierarchy of criminal codes with values representing the severity of crimes. The variable has been scaled for ease of interpretability so that the overall mean hierarchy value is 0, and the standard deviation is 1. Positive values represent average hierarchy values more severe than the mean. Total average hierarchy is not equal to 0 because the variable was scaled for all dispositions, and this table only includes those with court dispositions.

[†] Excluding those with race other than white, black, Hispanic, or Asian/PI; genders other than male or female; age less than 18; and cases with no known offense level.

Table B2: Robust Poisson regression predicting conviction versus dismissal/acquittal

Term	estimate	std.error	p-value [†]		relative_risk
(Intercept)	-0.5134690	0.0154245	0.0000000	***	0.5984
years_prior_prison	-0.0001910	0.0003491	0.5844212		0.9998
years_prior_jail	0.0000719	0.0000511	0.1595244		1.0001
prior_sent_probation_flag_count	0.0025748	0.0007276	0.0004022	***	1.0026
prior_conviction_summ_f_violent_flag_count	-0.0082736	0.0033800	0.0143744	*	0.9918
prior_conviction_summ_m_violent_flag_count	0.0002190	0.0013011	0.8663357		1.0002
prior_conviction_summ_f_property_flag_count	-0.0003345	0.0011522	0.7715792		0.9997
prior_conviction_summ_m_property_flag_count	0.0037490	0.0014395	0.0092024	**	1.0038
prior_conviction_summ_f_drug_flag_count	0.0004940	0.0013028	0.7045613		1.0005
prior_conviction_summ_m_drug_flag_count	0.0031866	0.0006520	0.0000010	***	1.0032
prior_conviction_summ_f_other_sex_flag_count	0.0026964	0.0066017	0.6829544		1.0027
prior_conviction_summ_m_other_sex_flag_count	-0.0020642	0.0033804	0.5414325		0.9979
prior_conviction_summ_f_other_flag_count	-0.0014979	0.0020701	0.4693145		0.9985
prior_conviction_summ_m_other_flag_count	-0.0016860	0.0008805	0.0555253	.	0.9983
prior_conviction_violent_felony_flag_count	0.0029671	0.0065098	0.6485464		1.0030
prior_conviction_serious_felony_flag_count	0.0072387	0.0050358	0.1505923		1.0073
prior_conviction_sex_flag_count	0.0055941	0.0079870	0.4836804		1.0056
prior_conviction_dv_flag_count	0.0054019	0.0018494	0.0034911	**	1.0054
prior_conviction_dui_flag_count	0.0023037	0.0022035	0.2958141		1.0023
on_prob	0.0268182	0.0029048	0.0000000	***	1.0272
prior_max_conv_hier_scaled	0.0022955	0.0083086	0.7823383		1.0023
inv_yrs_since_prior_conv	0.0619016	0.0041115	0.0000000	***	1.0639
court_summ_f_violent_flag	-0.0315312	0.0060362	0.0000002	***	0.9690
court_summ_m_violent_flag	0.0803238	0.0033327	0.0000000	***	1.0836
court_summ_f_property_flag	0.0059323	0.0043582	0.1734574		1.0059
court_summ_m_property_flag	0.0811439	0.0036936	0.0000000	***	1.0845
court_summ_f_drug_flag	-0.0387856	0.0060902	0.0000000	***	0.9620
court_summ_m_drug_flag	0.0155787	0.0034832	0.0000077	***	1.0157
court_summ_f_other_sex_flag	0.0216569	0.0122563	0.0772287	.	1.0219
court_summ_m_other_sex_flag	0.0401606	0.0119481	0.0007759	***	1.0410
court_summ_f_other_flag	-0.0033902	0.0036654	0.3549948		0.9966
court_summ_m_other_flag	0.0953030	0.0030806	0.0000000	***	1.1000
court_violent_felony_flag	-0.0122728	0.0066065	0.0632123	.	0.9878
court_serious_felony_flag	0.0061116	0.0057019	0.2837812		1.0061
court_sex_flag	0.0313393	0.0120674	0.0094037	**	1.0318
court_dv_flag	-0.0355593	0.0048370	0.0000000	***	0.9651
court_dui_flag	0.1021404	0.0041075	0.0000000	***	1.1075
max_court_hier_scaled	0.5636162	0.0287826	0.0000000	***	1.7570
filed_fcharge_count	0.0089580	0.0007662	0.0000000	***	1.0090
filed_mcharge_count	-0.0030322	0.0008770	0.0005454	***	0.9970
combined_cycles_count	0.0088745	0.0015789	0.0000000	***	1.0089
age	-0.0005206	0.0001545	0.0007536	***	0.9995
genderF	-0.0259504	0.0036857	0.0000000	***	0.9744
raceAsian/PI	0.0150181	0.0084307	0.0748547	.	1.0151
raceBlack	-0.0133756	0.0041791	0.0013713	**	0.9867
raceHispanic	0.0146069	0.0031100	0.0000026	***	1.0147
County fixed effects [‡]	‡	‡	‡ ‡		‡

Term	estimate	std.error	p-value [†]	relative_risk
n = 85,732				
Excluding those with race other than white, black, Hispanic, or Asian/PI; genders other than male or female; age less than 18; and cases with no known filing offense level.				
* p<0.05; ** p<0.01; *** p<0.001				
[†] P-values represent the probability that these results could be obtained by chance if that predictor did not have any predictive value. P-values below 0.05 are typically viewed as representing a “significant” result—that the estimate is unlikely to have occurred by chance if there were no true effect.				
[‡] County included as a categorical variable; individual county fixed effects not shown. Many counties significantly differed; relative risk varied.				

Table B3: Pseudo R-squared results for model predicting conviction versus dismissal/acquittal

Contribution for each variable calculated by taking the McFadden pseudo R-squared value for the full model and subtracting the McFadden pseudo R-squared value for a model without that variable. McFadden pseudo R-squared values are difficult to interpret individually, but the relative values give information about the relative contribution of each predictor to the overall predictive power of the model.

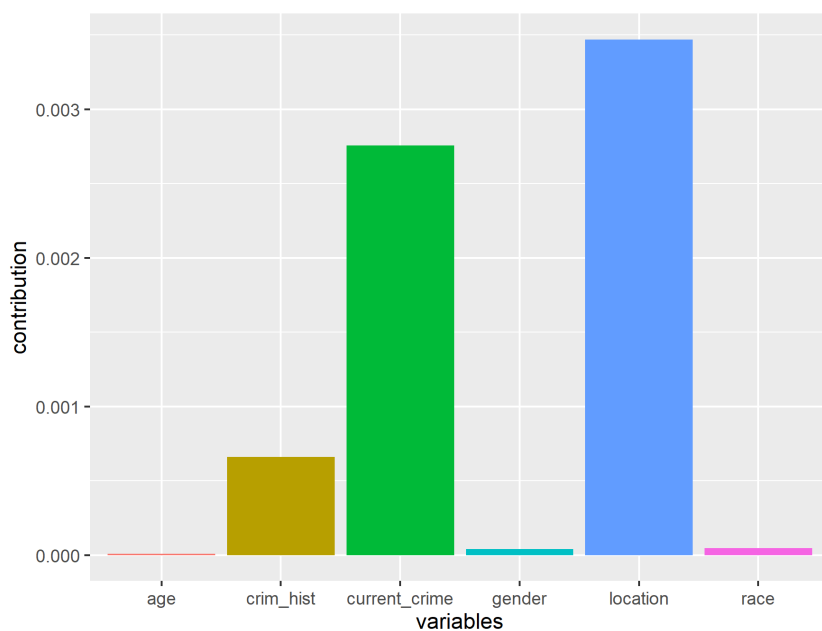


Table B4: Robust Poisson regression predicting felony versus misdemeanor conviction

Term	estimate	std.error	p-value [†]		relative_risk
(Intercept)	-4.8859179	0.0572675	0.0000000	***	0.0076
years_prior_prison	-0.0013299	0.0004777	0.0053664	**	0.9987
years_prior_jail	-0.0002876	0.0004251	0.4987066		0.9997
prior_sent_probation_flag_count	0.0055163	0.0016473	0.0008121	***	1.0055
prior_conviction_summ_f_violent_flag_count	0.0030743	0.0061021	0.6143949		1.0031
prior_conviction_summ_m_violent_flag_count	0.0053329	0.0030395	0.0793403	.	1.0053
prior_conviction_summ_f_property_flag_count	0.0114521	0.0020855	0.0000000	***	1.0115
prior_conviction_summ_m_property_flag_count	0.0081807	0.0032526	0.0118993	*	1.0082
prior_conviction_summ_f_drug_flag_count	0.0046964	0.0024026	0.0506233	.	1.0047
prior_conviction_summ_m_drug_flag_count	-0.0089900	0.0018987	0.0000022	***	0.9911
prior_conviction_summ_f_other_sex_flag_count	0.0429421	0.0107908	0.0000691	***	1.0439
prior_conviction_summ_m_other_sex_flag_count	0.0030989	0.0053165	0.5599793		1.0031
prior_conviction_summ_f_other_flag_count	0.0059084	0.0037541	0.1155228		1.0059
prior_conviction_summ_m_other_flag_count	-0.0059092	0.0020458	0.0038716	**	0.9941
prior_conviction_violent_felony_flag_count	0.0231280	0.0103561	0.0255303	*	1.0234
prior_conviction_serious_felony_flag_count	0.0043581	0.0089010	0.6244009		1.0044
prior_conviction_sex_flag_count	0.0211919	0.0157064	0.1772570		1.0214
prior_conviction_dv_flag_count	-0.0012821	0.0042949	0.7653077		0.9987
prior_conviction_dui_flag_count	0.0240018	0.0049280	0.0000011	***	1.0243
on_prob	0.0273346	0.0057709	0.0000022	***	1.0277
prior_max_conv_hier_scaled	0.1659645	0.0150882	0.0000000	***	1.1805
inv_yrs_since_prior_conv	0.0680833	0.0080613	0.0000000	***	1.0705
court_summ_f_violent_flag	0.2359757	0.0106461	0.0000000	***	1.2661
court_summ_m_violent_flag	-0.3331774	0.0104560	0.0000000	***	0.7166
court_summ_f_property_flag	0.4045068	0.0082472	0.0000000	***	1.4986
court_summ_m_property_flag	-0.3533835	0.0130498	0.0000000	***	0.7023
court_summ_f_drug_flag	0.1310694	0.0105644	0.0000000	***	1.1400
court_summ_m_drug_flag	-0.1752293	0.0098602	0.0000000	***	0.8393
court_summ_f_other_sex_flag	0.2748163	0.0176455	0.0000000	***	1.3163
court_summ_m_other_sex_flag	-0.2060839	0.0417816	0.0000008	***	0.8138
court_summ_f_other_flag	0.4308103	0.0063518	0.0000000	***	1.5385
court_summ_m_other_flag	-0.2704332	0.0085885	0.0000000	***	0.7630
court_violent_felony_flag	-0.3408083	0.0090525	0.0000000	***	0.7112
court_serious_felony_flag	-0.0579141	0.0084905	0.0000000	***	0.9437
court_sex_flag	0.0143083	0.0179664	0.4258050		1.0144
court_dv_flag	-0.1228363	0.0104277	0.0000000	***	0.8844
court_dui_flag	0.0851084	0.0145860	0.0000000	***	1.0888
max_court_hier_scaled	7.1374374	0.1027793	0.0000000	***	1258.2000
filed_fcharge_count	0.0031943	0.0014063	0.0231219	*	1.0032
filed_mcharge_count	-0.0153190	0.0030887	0.0000007	***	0.9848
combined_cycles_count	0.1003124	0.0046929	0.0000000	***	1.1055
age	-0.0020385	0.0002881	0.0000000	***	0.9980
genderF	-0.0644346	0.0074721	0.0000000	***	0.9376
raceAsian/PI	-0.0387814	0.0179215	0.0304670	*	0.9620
raceBlack	-0.0315735	0.0075348	0.0000279	***	0.9689
raceHispanic	0.0096540	0.0063381	0.1277169		1.0097
County fixed effects [‡]	‡	‡	‡	‡	‡

Term	estimate	std.error	p-value [†]	relative_risk
n = 71,362				
Excluding those with race other than white, black, Hispanic, or Asian/PI; genders other than male or female; age less than 18; and cases with no known conviction offense level.				
* p<0.05; ** p<0.01; *** p<0.001				
† P-values represent the probability that these results could be obtained by chance if that predictor did not have any predictive value. P-values below 0.05 are typically viewed as representing a “significant” result—that the estimate is unlikely to have occurred by chance if there were no true effect.				
‡ County included as a categorical variable; individual county fixed effects not shown. Many counties significantly differed; relative risk varied.				

Table B5: Pseudo R-squared results for model predicting felony versus misdemeanor conviction

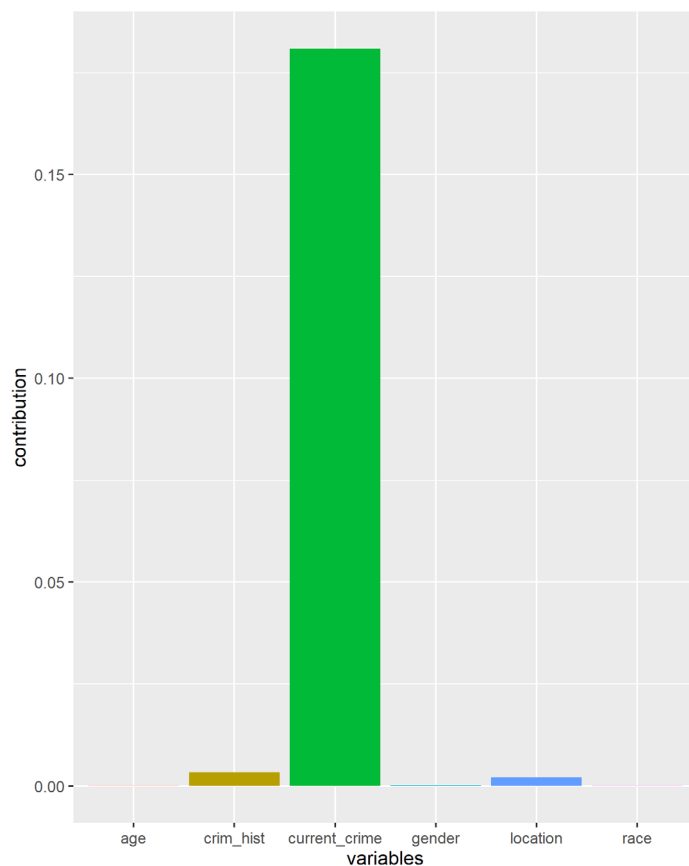


Table B6: Robust Poisson regression predicting prison sentence versus intermediate sentence

Term	estimate	std.error	p-value		relative_risk
(Intercept)	-2.7071008	0.1799236	0.0000000	***	0.0667
years_prior_prison	0.0061926	0.0012379	0.0000006	***	1.0062
years_prior_jail	-0.0031502	0.0027787	0.2569104		0.9969
prior_sent_probation_flag_count	-0.0289675	0.0042690	0.0000000	***	0.9714
prior_conviction_summ_f_violent_flag_count	0.1214742	0.0132064	0.0000000	***	1.1292
prior_conviction_summ_m_violent_flag_count	0.0236815	0.0072243	0.0010453	**	1.0240
prior_conviction_summ_f_property_flag_count	0.0779918	0.0055712	0.0000000	***	1.0811
prior_conviction_summ_m_property_flag_count	-0.0093970	0.0095668	0.3259768		0.9906
prior_conviction_summ_f_drug_flag_count	0.0177194	0.0067843	0.0090067	**	1.0179
prior_conviction_summ_m_drug_flag_count	0.0176754	0.0050836	0.0005072	***	1.0178
prior_conviction_summ_f_other_sex_flag_count	0.1429982	0.0235514	0.0000000	***	1.1537
prior_conviction_summ_m_other_sex_flag_count	0.0219510	0.0194136	0.2581789		1.0222
prior_conviction_summ_f_other_flag_count	0.1164410	0.0083173	0.0000000	***	1.1235
prior_conviction_summ_m_other_flag_count	0.0107913	0.0052213	0.0387547	*	1.0108
prior_conviction_violent_felony_flag_count	0.0859971	0.0218112	0.0000805	***	1.0898
prior_conviction_serious_felony_flag_count	0.1615908	0.0183264	0.0000000	***	1.1754
prior_conviction_sex_flag_count	-0.0141078	0.0326457	0.6656343		0.9860
prior_conviction_dv_flag_count	0.0130124	0.0101847	0.2013764		1.0131
prior_conviction_dui_flag_count	0.0080341	0.0126140	0.5241767		1.0081
on_prob	0.0117259	0.0154540	0.4479940		1.0118
prior_max_conv_hier_scaled	1.3772611	0.0509062	0.0000000	***	3.9640
inv_yrs_since_prior_conv	-0.1444991	0.0221312	0.0000000	***	0.8655
conviction_summ_f_violent_flag	0.2959135	0.0287050	0.0000000	***	1.3444
conviction_summ_m_violent_flag	-0.0197545	0.0331408	0.5511237		0.9804
conviction_summ_f_property_flag	-0.0690090	0.0262591	0.0085887	**	0.9333
conviction_summ_m_property_flag	-0.0953947	0.0517563	0.0653067	.	0.9090
conviction_summ_f_drug_flag	-0.0632821	0.0328147	0.0537966	.	0.9387
conviction_summ_m_drug_flag	-0.1981151	0.0449120	0.0000103	***	0.8203
conviction_summ_f_other_sex_flag	0.4760779	0.0485479	0.0000000	***	1.6097
conviction_summ_m_other_sex_flag	-0.0555726	0.1393108	0.6899589		0.9459
conviction_summ_f_other_flag	0.3725007	0.0227054	0.0000000	***	1.4514
conviction_summ_m_other_flag	-0.0986222	0.0329046	0.0027246	**	0.9061
conviction_violent_felony_flag	0.3236535	0.0260872	0.0000000	***	1.3822
conviction_serious_felony_flag	0.3307889	0.0221890	0.0000000	***	1.3921
conviction_sex_flag	0.5425734	0.0461285	0.0000000	***	1.7204
conviction_dv_flag	-0.1649404	0.0315306	0.0000002	***	0.8479
conviction_dui_flag	0.0786542	0.0413141	0.0569347	.	1.0818
max_conv_hier_scaled	1.1101270	0.2233465	0.0000007	***	3.0347
convicted_fcharge_count	0.0646823	0.0077400	0.0000000	***	1.0668
convicted_mcharge_count	0.0041005	0.0137134	0.7649275		1.0041
combined_cycles_count	0.0206000	0.0095545	0.0310795	*	1.0208
age	-0.0160648	0.0009336	0.0000000	***	0.9841
genderF	-0.5210555	0.0312905	0.0000000	***	0.5939
raceAsian/PI	-0.0203226	0.0528311	0.7004814		0.9799
raceBlack	0.0514964	0.0217746	0.0180313	*	1.0528
raceHispanic	0.0955247	0.0183412	0.0000002	***	1.1002
County fixed effects‡	‡	‡	‡ ‡		‡

Term	estimate	std.error	p-value	relative_risk
n = 38,698 Excluding those with race other than white, black, Hispanic, or Asian/PI; genders other than male or female; age less than 18; and cases with conviction level other than felony. * p<0.05; ** p<0.01; *** p<0.001 † P-values represent the probability that these results could be obtained by chance if that predictor did not have any predictive value. P-values below 0.05 are typically viewed as representing a “significant” result—that the estimate is unlikely to have occurred by chance if there were no true effect. ‡ County included as a categorical variable; individual county fixed effects not shown. Many counties significantly differed; relative risk varied.				

Table B7: Pseudo R-squared results for model predicting prison versus intermediate sentence

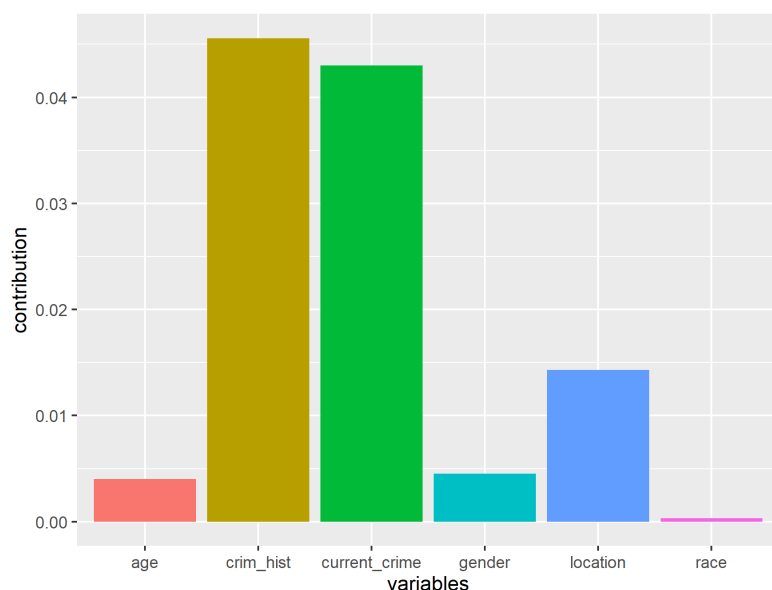
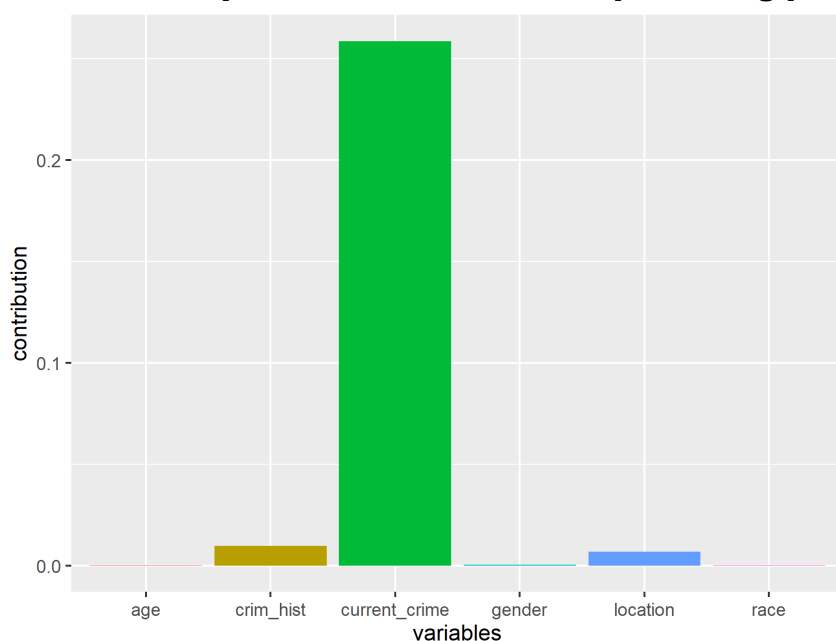


Table B8: Robust Linear regression predicting prison sentence length

Term	estimate	std.error	p-value [†]	
(Intercept)	-293.230327	295.144200	0.3204798	
years_prior_prison	9.986605	4.839275	0.0390726	*
years_prior_jail	-7.997907	3.440834	0.0201210	*
prior_sent_probation_flag_count	-31.529830	16.238771	0.0522053	.
prior_conviction_summ_f_violent_flag_count	-170.028150	52.358293	0.0011680	**
prior_conviction_summ_m_violent_flag_count	8.264397	24.265324	0.7334225	
prior_conviction_summ_f_property_flag_count	38.842378	18.210982	0.0329533	*
prior_conviction_summ_m_property_flag_count	5.778309	34.249649	0.8660266	
prior_conviction_summ_f_drug_flag_count	-31.099623	29.472714	0.2913559	
prior_conviction_summ_m_drug_flag_count	26.277026	17.895280	0.1420292	
prior_conviction_summ_f_other_sex_flag_count	-52.805344	103.884075	0.6112455	
prior_conviction_summ_m_other_sex_flag_count	-44.899448	78.853793	0.5690950	
prior_conviction_summ_f_other_flag_count	32.549529	31.909735	0.3077262	
prior_conviction_summ_m_other_flag_count	-2.086817	19.298280	0.9138906	
prior_conviction_violent_felony_flag_count	189.422836	160.459930	0.2378262	
prior_conviction_serious_felony_flag_count	680.841746	124.955659	0.0000001	***
prior_conviction_sex_flag_count	166.878958	213.066385	0.4335111	
prior_conviction_dv_flag_count	8.632605	37.051890	0.8157757	
prior_conviction_dui_flag_count	86.600624	66.672752	0.1940075	
on_prob	-85.790013	74.282017	0.2481460	
prior_max_conv_hier_scaled	762.649794	301.953318	0.0115595	*
inv_yrs_since_prior_conv	-831.861715	96.544279	0.0000000	***
conviction_summ_f_violent_flag	1018.917272	236.235691	0.0000162	***
conviction_summ_m_violent_flag	147.761448	208.064168	0.4776116	
conviction_summ_f_property_flag	-93.750031	208.788453	0.6534263	
conviction_summ_m_property_flag	-207.776281	230.830685	0.3680731	
conviction_summ_f_drug_flag	-122.354469	182.524475	0.5026510	
conviction_summ_m_drug_flag	-244.089936	139.273371	0.0796981	.
conviction_summ_f_other_sex_flag	480.025805	349.493806	0.1696273	
conviction_summ_m_other_sex_flag	-1420.137831	542.365869	0.0088456	**
conviction_summ_f_other_flag	122.978481	183.353652	0.5024141	
conviction_summ_m_other_flag	-197.316278	135.253250	0.1446296	
conviction_violent_felony_flag	2557.598581	223.400322	0.0000000	***
conviction_serious_felony_flag	-478.646789	163.977312	0.0035186	**
conviction_sex_flag	1387.098952	385.014625	0.0003162	***
conviction_dv_flag	-479.135799	213.269238	0.0246830	*
conviction_dui_flag	-24.037493	118.460711	0.8392048	
max_conv_hier_scaled	199.287204	303.195931	0.5110086	
convicted_fcharge_count	1414.692697	114.868863	0.0000000	***
convicted_mcharge_count	-47.629768	68.149505	0.4846280	
combined_cycles_count	-291.081632	57.256561	0.0000004	***
age	-4.555773	4.136476	0.2707606	
genderF	-392.265105	81.005953	0.0000013	***
raceAsian/PI	-76.873642	168.229583	0.6477108	
raceBlack	103.424183	115.840051	0.3719729	
raceHispanic	90.358612	89.795718	0.3143076	
County fixed effects [‡]	‡	‡	‡	‡

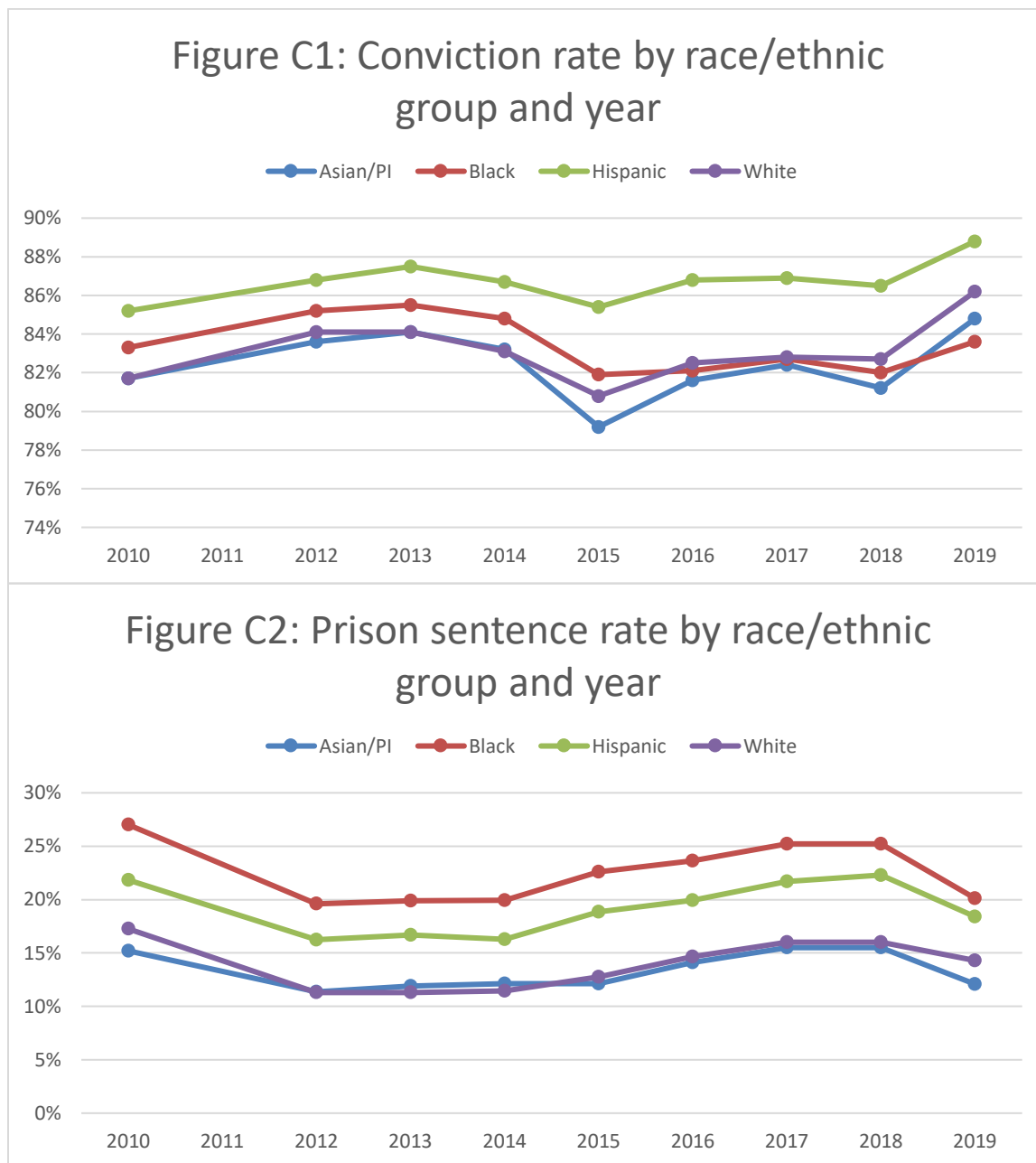
Term	estimate	std.error	p-value [†]
n = 12,126			
Prison sentence length represented in days			
Excluding those with race other than white, black, Hispanic, or Asian/PI; genders other than male or female; age less than 18; and cases with conviction level other than felony.			
* p<0.05; ** p<0.01; *** p<0.001			
† P-values represent the probability that these results could be obtained by chance if that predictor did not have any predictive value. P-values below 0.05 are typically viewed as representing a “significant” result—that the estimate is unlikely to have occurred by chance if there were no true effect.			
‡ County included as a categorical variable; individual county fixed effects not shown. Many counties significantly differed; relative risk varied.			

Table B9: R-squared results for model predicting prison sentence length



Appendix C

Descriptive data from previous years' reports²⁶ (compiled in figures C1 and C2) suggests that the trends found in this year's report are consistent with that of prior years.²⁷ Additional research is needed to gain a clearer understanding of what is driving these trends.



Note: These graphs show overall percentages, not controlling for prior record, offense features, age, or gender. Data not available for calendar year 2011.

²⁶ For figure C2, the prison sentence rate is out of all convicted defendants, not solely those charged with felonies, in order to be consistent with previous years' analyses.

²⁷ Felony versus misdemeanor conviction charge is not graphed because prior years' reports did not analyze this outcome.

Appendix D

The analyses presented in this report represent average differences across each racial/ethnic group. The following charts show the more nuanced patterns of outcomes broken down by race/ethnicity, prior criminal record, and arrest offense type. Since the numbers for Asian/PI defendants are comparatively small, caution should be used in interpreting the subsetting percentages visualized below.

These graphs show the observed percentages, not controlling for prior record, arrest offense, number of arrest charges, age, or gender. “Other felony” type is not shown due to the lack of interpretability of such a broad category of offenses.

Figure D1:

Percent convicted by race, prior criminal record, and felony arrest offense type

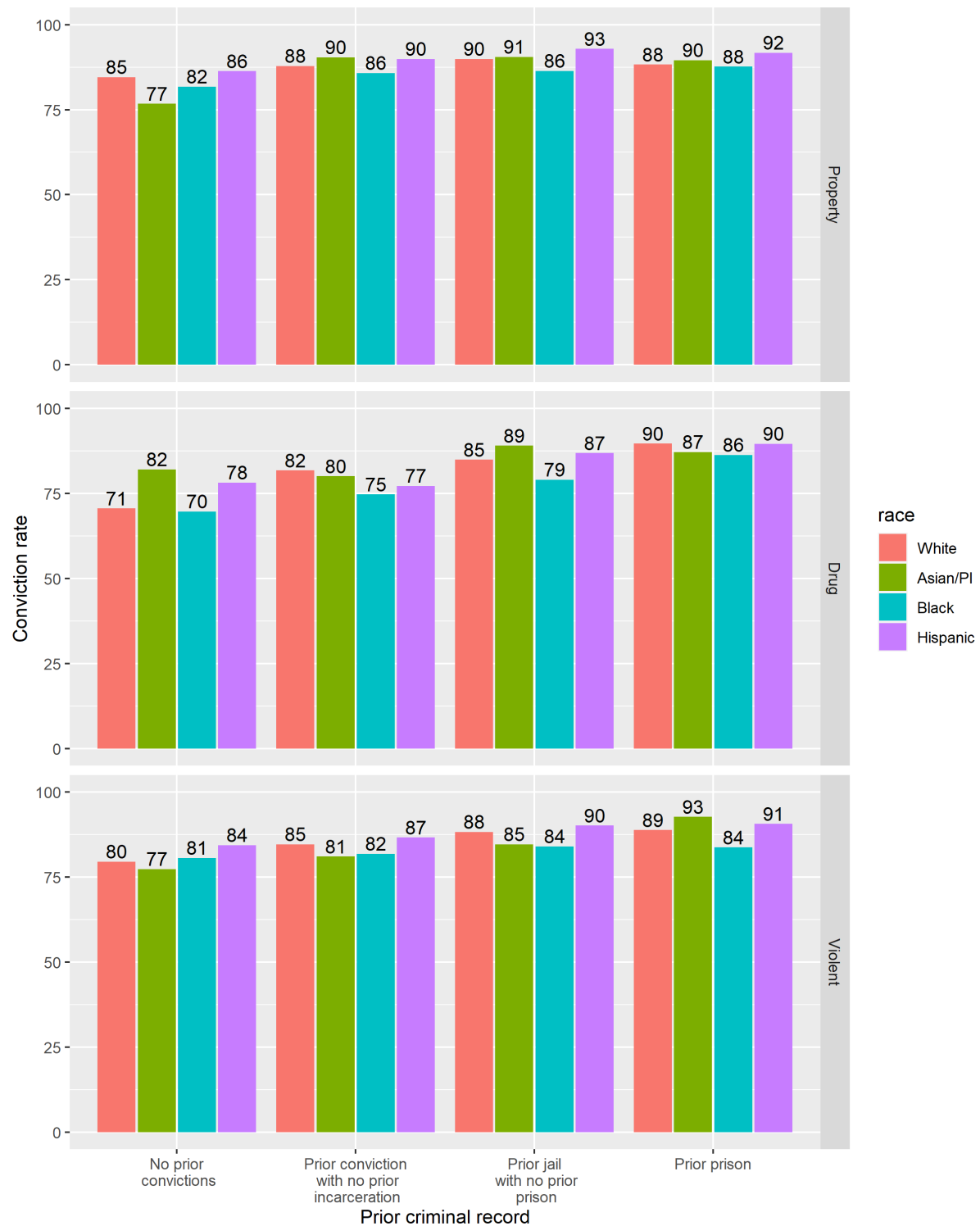


Figure D2:

Percent of convicted defendants with felony conviction by race, prior criminal record, and felony arrest type

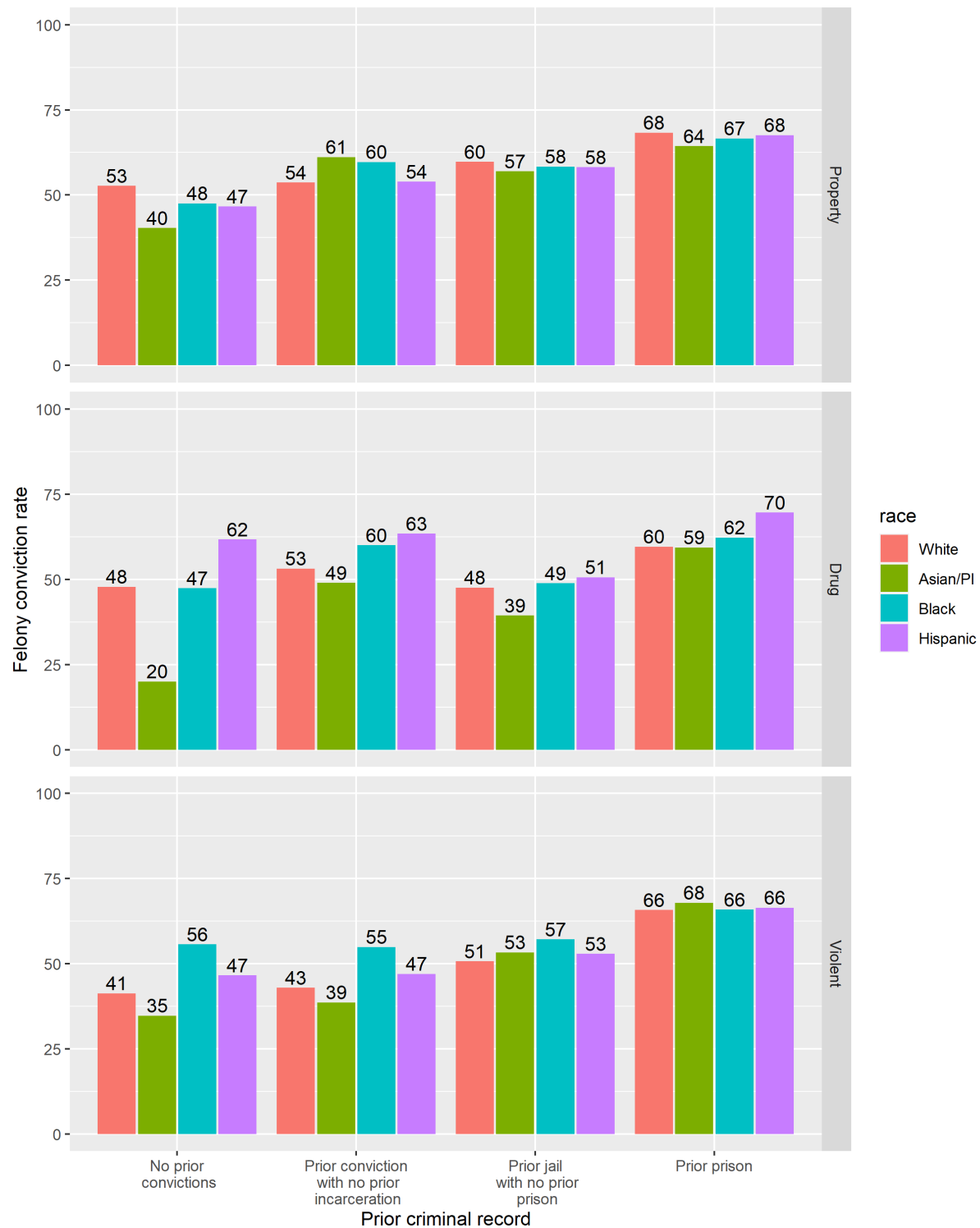


Figure D3:

Percent of felony-convicted defendants given a prison sentence by race, prior criminal record, and felony arrest type

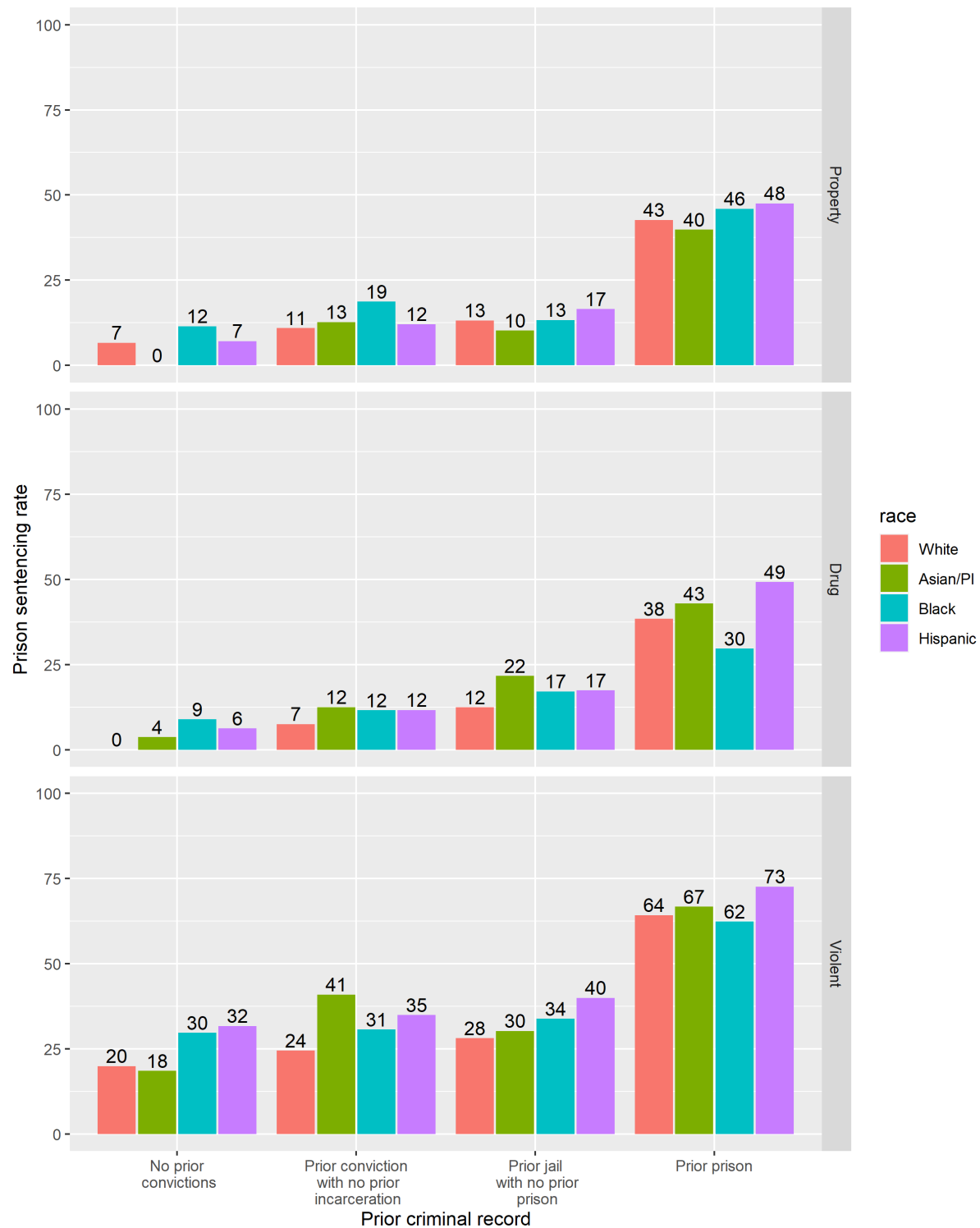
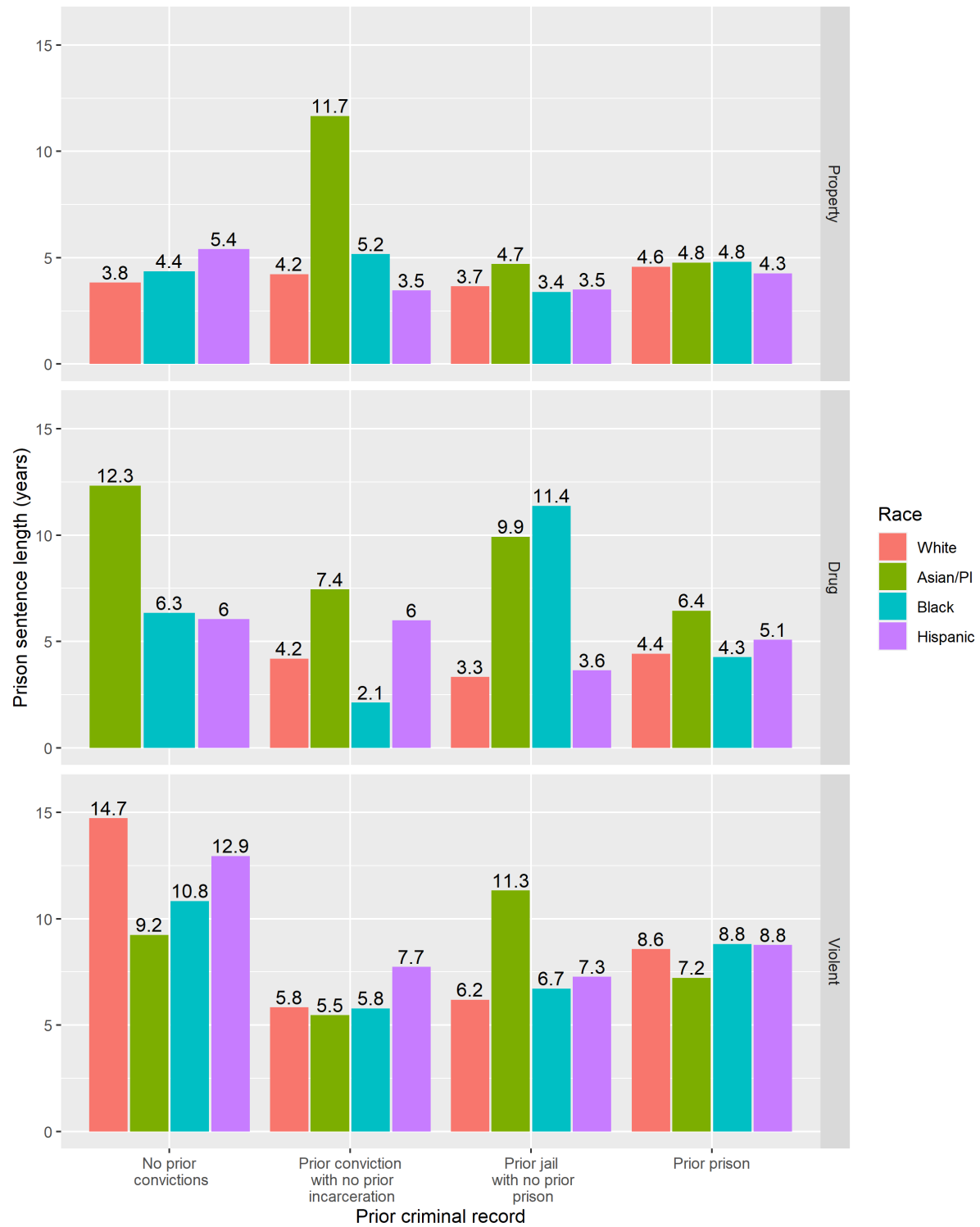


Figure D4:

Prison sentence length for those sentenced to prison by race, prior criminal record, and felony arrest type



Appendix E

ACHS data was received in raw, long format with one row per event. Data contained all criminal offender record information (CORI) on all persons with a disposition in 2019 of a felony arrest, as identified by the California DOJ in their DALA extract.

Data was collapsed to the level of each distinct person and disposition date combination, using flags and sums to keep relevant information. This level was selected because sometimes multiple cycles (collections of events initiated by an arrest event) were rolled into a single disposition date. Sentences with suspended imposition were accounted for at the level of each count.

For each person-disposition, all prior criminal history data was cumulatively summarized and appended. The final data set was filtered to only include dispositions of felony arrests in 2019.

The code is available upon request.