

Sonoma County AB 109 Recidivism Analysis Report



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Executive Summary

Background and Context

California Assembly Bill 109 (AB 109) is the cornerstone of the state’s legislative efforts to reduce the prison population and close the revolving door of justice system involvement for individuals convicted of non-violent, non-serious, and non-sexual offenses. In 2016, the Sonoma County Community Corrections Partnership (CCP) contracted Resource Development Associates (RDA) to conduct a comprehensive evaluation of the implementation, effectiveness, and costs associated with AB 109 realignment. Fiscal Year 2018 – 2019 marks the second year of the evaluation.

This report builds upon findings from RDA’s 2018 recidivism analysis and presents recidivism findings for a wider range of individuals and measures over a longer period of time.

Report Overview

Evaluation Questions

1. What is the probability that an individual will complete one year of supervision (or release from custody for the 1170(h) Jail Only population) without a recidivism event? What is the probability that an individual will complete two years without a recidivism event?
 - a. For those that recidivate, what amount of time elapses between the start of supervision (or release from custody for the 1170(h) Jail Only population) and the recidivism event?
2. How has the rate of recidivism changed over time since the start of AB 109 implementation?
3. How do recidivism outcomes vary by population type and risk level?
4. Which, if any, individual characteristics are associated with differences in recidivism outcomes?

Utilizing a variety of quantitative analysis techniques, this report presents recidivism outcomes since the start of AB 109 implementation for four populations: Post Release Community Supervision (PRCS), Mandatory Supervision (MS), Formal Probation, and 1170(h) Jail Only.

Recidivism outcomes are measured in two ways: 1) individuals arrested for an offense that results in a criminal complaint, and 2) individuals arrested for an offense that results in a conviction.

Recidivism is measured for one and two “community years” from the date than an individual begins Probation supervision (or is released from custody for the 1170(h) Jail Only sentence). Because a recidivism event is less likely when an individual is held in custody for reasons not associated with a new recidivism offense (e.g., flash incarcerations, probation revocations, or arrests that ultimately do not result in a charge), recidivism was measured within community years instead of calendar years, excluding time spent in jail.

Key Evaluation Findings

Overall Recidivism Trends

- Recidivism rates have remained relatively stable since the start of AB 109 implementation. Overall, approximately 20-25% of individuals recidivated within one community year and 30-40% recidivated within two community years, with annual recidivism rates consistent for each year of the evaluation period measured by both criminal complaint and conviction.
- Overall, criminal complaint and conviction recidivism rates showed similar trends, with arrests resulting in criminal complaints slightly higher, by approximately five percentage points, than arrests resulting in convictions. However, the complaint recidivism rate was approximately 30% higher than the conviction recidivism rate for both violent and drug offenses.

Time to Recidivism

- The average time to recidivism was approximately 5 months for the one community year analysis and 9.5 months for the two community year analysis.
- The highest rates of recidivism occurred in the first 90 days, then gradually declined over time.

Recidivism by Population Type, Characteristics, and Offense

- The MS and PRCS populations experienced the highest recidivism rates with approximately 30% recidivating within one community year and 40-50% recidivating within two community years.
- The 1170(h) Jail Only population had the lowest rate of recidivism at one community year (approximately 5-10%) and two community years (approximately 20-30%).
- Recidivism rates for individuals starting probation supervision each year have slightly declined since 2014; however, recidivism trends for the 1170(h) Jail Only population, while only a small proportion of individuals, have fluctuated substantially and generally increased.
- The majority of recidivism offenses were for misdemeanors.
- Almost a third of recidivism offenses were for drug offenses, with less than half for property or violent offenses.

Recidivism by Individual Characteristics

- Overall, Static Risk Assessment (SRA) risk level was a strong predictor of recidivism outcomes. However, outcomes for individuals in the high risk drug category recidivated at similar levels to individuals in the moderate risk category.
- Age was the only demographic or initial offense measure significantly associated with recidivism outcomes when controlling for SRA risk level.

Recommendations and Areas for Future Inquiry

Investigate trends in recidivism outcomes for the 1170(h) Jail Only population.

A number of factors may be associated with this population's recidivism outcomes such as sentencing practices, the types of services received in custody, and the lack of probation supervision upon release. Though this population is small, this warrants further evaluation to understand the policies and practices affecting this population.

Provide immediate access to services during the first 90 days following release from custody and/or start of probation supervision.

Recidivism rates decreased by almost 40% following the first 90 days, indicating that the period immediately following release from custody and/or the start of supervision is critical to provide services and supports. Sonoma County should continue to implement and improve measures to immediately identify needs, connect individuals with services, and promote service participation.

Consider modifying the level of supervision to ensure it is in accordance with SRA recommendations from the start of supervision.

All individuals in the MS and PRCS populations are supervised as high-risk, regardless of their SRA category, during the first 90 days. Though individuals do have the highest recidivism rates during the first 90 days, supervising lower-risk individuals at a higher than prescribed level expends additional resources and can have a detrimental impact on outcomes. Sonoma County should consider reassessing this practice.

Evaluate the SRA tool's predictive accuracy.

Individual risk level, as identified in the SRA assessment, appears to align with recidivism outcomes for much of the study population. However, recidivism rates are similar for individuals assessed as high risk drug and moderate risk. This similarity may be due to the construction of the SRA tool, the programs and supports available to these populations, or other unidentified factors. Sonoma County should consider a local evaluation of the SRA and its implementation to inform the County's use of the tool and allocation of associated service and resources.

Evaluate the availability, utilization, and quality of substance use and co-occurring disorder treatment.

Drug offenses comprised almost one-third of all recidivism offenses at both one and two community years. This may indicate a persistent need for more intensive or continued substance use and co-occurring disorder mental health treatment.

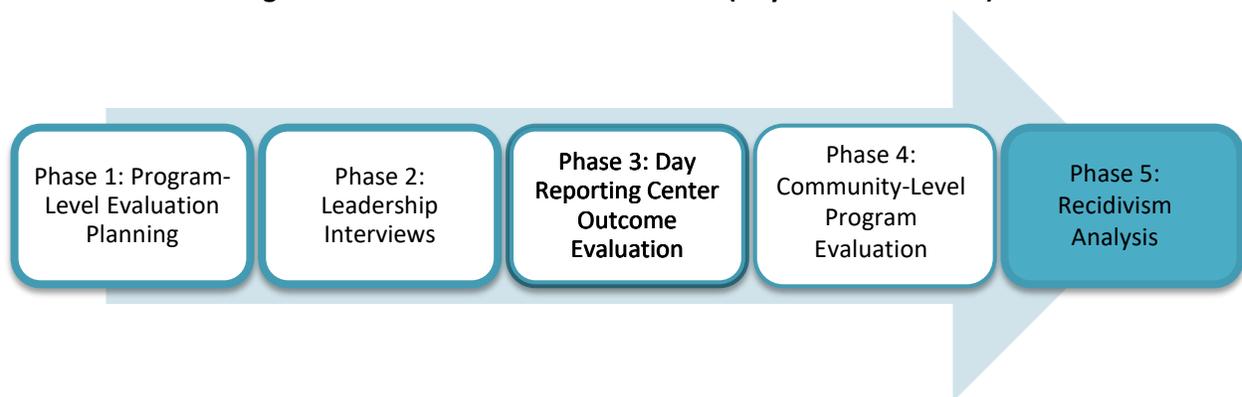
Introduction

California Assembly Bill 109 (AB 109) is the cornerstone of the state’s legislative efforts to reduce the prison population and close the revolving door of justice system involvement for individuals convicted of non-violent, non-serious, and non-sexual offenses. In 2016, the Sonoma County Community Corrections Partnership (CCP) contracted Resource Development Associates (RDA) to conduct a comprehensive evaluation of the implementation, effectiveness, and costs associated with AB 109 realignment. Beginning in 2016, RDA worked with Sonoma County to identify the key priorities and areas of interest pertaining to the county’s AB 109 system, examine the availability and quality of quantitative data sources, and develop a plan for comprehensive evaluation. RDA and the County are employing a developmental approach to evaluation, in which annual evaluation plans are designed to build on the learnings from the previous year. In the first year of the evaluation, RDA completed the following activities:

- **System-Level Process Evaluation** of the overall implementation of the county’s AB 109 system and associated programs and services
- **Recidivism Outcomes Analysis** of individuals under Mandatory Supervision (MS) or Post-Release Community Supervision (PRCS)
- **Needs and Cost Analysis** of MS and PRCS individuals’ assessed needs and the county’s spending on associated programs and services
- **Day Reporting Center (DRC) Process Evaluation** to examine implementation of the DRC

The second year of the evaluation includes the five phases in Figure 1.

Figure 1. Year Two Evaluation Activities (July 2018–June 2019)



This report comprises Phase 5, the Recidivism Analysis. The report builds upon findings from the Recidivism Outcomes Analysis completed as part of the first year of evaluation by examining recidivism:

- For a wider range of individuals, including those under probation supervision for non-AB 109 offenses (Formal Probation) and those completing 1170(h) Jail Only sentences;
- Using up to two years of follow-up recidivism data;
- Measuring recidivism in two ways: arrest resulting in a criminal complaint and arrest resulting in conviction;
- Incorporating survival analysis to provide insight into the probability of recidivism over time; and
- By individual characteristics such as age, race/ethnicity, and risk level.

This report is guided by the following evaluation questions:

Evaluation Questions

1. What is the probability that an individual will complete one year of supervision (or release from custody for the 1170(h) Jail Only population) without a recidivism event? What is the probability that an individual will complete two years without a recidivism event?
 - a. For those that recidivate, what amount of time elapses between the start of supervision (or release from custody for the 1170(h) Jail Only population) and the recidivism event?
2. How has the rate of recidivism changed over time since the start of AB 109 implementation?
3. How do recidivism outcomes vary by population type and risk level?
4. Which, if any, individual characteristics are associated with differences in recidivism outcomes?

Methodology and Limitations

This analysis examines recidivism outcomes for individuals who began probation supervision (or were released from custody for the 1170(h) Jail Only population) between October 1, 2011 and June 31, 2018. For these individuals, recidivism outcomes were analyzed through December 31, 2018. Data were provided by the Sonoma County Probation Department with support from the Sonoma County Sheriff's Office and the Sonoma County Information Systems Department.

Analysis Populations

Outcomes for four populations were examined based on the individual's sentence type at the start of the study period:

- **Post Release Community Supervision (PRCS):** Individuals released from state prison who had been serving a sentence for a non-serious, non-violent, and non-sexual offense prior to October 2011 and are under supervision by the County Probation Department.
- **Mandatory Supervision (MS):** Individuals convicted of non-serious, non-violent, and non-sexual felony offenses who serve a partial sentence in county jail and the remainder of their sentence under probation supervision.
- **Formal Probation:** Individuals under probation supervision that are not convicted of an AB 109 eligible offense.
- **1170(h) Jail Only:** Individuals convicted of non-serious, non-violent, and non-sexual felony offenses with no probation supervision requirement post release.

Over the course of the study period, many individuals had overlapping population types and probation terms. For example, an individual may start a MS sentence and later receive a new Formal Probation sentence for an event that occurred prior to their MS sentence. In that case, the individual begins a new probation term, but not for a recidivism event that occurred during the individual's study period. When an individual had overlapping sentence types, the start date and population type was determined by the individual's status at the first start of supervision (or release from jail custody for the 1170(h) Jail Only population). Many individuals in this study had two or more probation supervision starts (or releases from custody in the 1170(h) Jail Only population) that did not overlap. When this occurred, all instances were included in the analysis.

Individuals in the 1170(h) Jail Only population were only included in the analysis if they did not have an active supervision sentence at the beginning or end of their 1170(h) Jail Only sentence. This analytic decision was made to examine the 1170(h) Jail Only population as a population not influenced by the presence of active Probation supervision nor the programs and services that would be associated with referrals from Probation.

Recidivism Definition

This analysis utilizes two definitions of recidivism:

Criminal Complaint

- Date of arrest for a new offense if that arrest resulted in the filing of a criminal complaint.

Conviction

- Date of arrest for a new offense if that arrest resulted in a conviction.

A criminal complaint occurs when charges are officially filed by the District Attorney typically following an arrest. A conviction occurs when the individual is found guilty of an offense. The addition of criminal complaints as a recidivism measure provides a more expansive understanding of justice system re-involvement, particularly in the adjudication phase of the criminal justice process. Utilizing criminal complaints as a recidivism measure should result in higher rates of recidivism compared to conviction, as not all criminal complaints result in conviction. Both measures were used throughout this analysis.

Community Years

While serving a sentence under probation supervision (or following release from custody for the 1170(h) Jail only population), individuals often spend one or more days in custody for reasons not associated with a new recidivism offense. These reasons may include flash incarcerations, probation revocations, or arrests that ultimately do not result in a charge. Because a recidivism event is less likely while in custody, days in custody were excluded from the analysis. As a result, this study looks at recidivism within one and two "community" years versus calendar years.

A small proportion of the individuals in the study population spent a significant amount of time in custody during the study period, often because of probation revocations. In order to prevent this group with excessively long periods in custody from skewing outcomes in the analysis, the follow-up period to identify recidivism outcomes was limited to a maximum of two calendar years for the one community year analysis and three calendar years for the two community year analysis. Given the small number of individuals that recidivated after their capped date, this is expected to have minimal impact on findings.¹

Analytic Methods

Survival Analysis. Based in public health research (hence the “survival” terminology), survival analysis is a particularly useful approach for analyzing data where different individuals have had different periods of time during which an outcome could occur, as is the case for individuals with different amounts of time since their release from custody. In this case, the analysis examines the amount of time until an individual recidivates.² If an individual never recidivates, he or she is considered to have “survived” the entire timeframe under analysis.

Logistic Regression. Logistic regression is an analytic technique used to identify factors associated with an increase or decrease in the odds that a given event will occur. In this analysis, the outcome is whether an individual recidivated within one or two community years. Logistic regression allows multiple variables to be included in the analysis to assess their impact on the outcome, relative to each other. Individuals were included in the logistic regression analyses only if they had attained one or two community years.

¹ Approximately 5% of the study population required more than two calendar years to complete one community year, and approximately 10% of the study population required more than three calendar years to complete two community years. Of those, less than 1% recidivated following the allotted calendar year.

² Time to recidivism was adjusted for time in custody, because it is assumed that individuals were at a decreased risk of being charged with a new offense while detained.

Study Population

While demographics characteristics were similar across the four population types (MS, PRCS, Formal Probation, and 1170(h) Jail-Only), there were notable differences in initial offense characteristics and risk level.

From October 2011 through June 2018, 7,655 distinct individuals were under MS, PRCS, or Formal Probation supervision or were released from custody following an 1170(h) Jail Only sentence. Because some individuals had more than one discrete (i.e., non-overlapping) sentence at different points during this time, there were a total of 8,711 observations. As shown in Figure 2, the majority of the population (76%) were under Formal Probation supervision. Those in the 1170(h) Jail Only population comprised only 2% of the study population.³

Figure 2. Population Type (n=8,711)

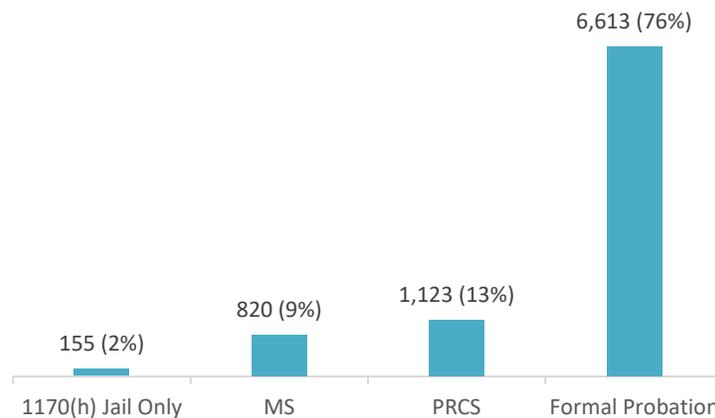


Table 1 illustrates demographic and initial offense characteristics for the individuals in this study. Across population types, the majority were male (80-92%) and White (52-61%), with an average age between 35 and 40 years old.

³ As noted in the methodology section, individuals were only identified as 1170(h) Jail Only if they were not under another type of supervision at the time they were released from custody. As such, the population included in this analysis likely undercounts the total 1170(h) Jail Only population.

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Table 1. Participant Characteristics, 2011-2018 (n=8,711)

	1170(h) Jail Only	MS	PRCS	Formal
Gender (n = 8,708)				
Male	138 (89%)	652 (80%)	1,034 (92%)	5,270 (80%)
Female	17 (11%)	168 (20%)	89 (8%)	1,340 (20%)
Average Age at Start of Observation (n = 8,705)				
Mean	40	37	39	35
Race/Ethnicity (n = 8,711)				
White	80 (52%)	503 (61%)	649 (58%)	3,910 (59%)
Hispanic/Latino	45 (29%)	187 (23%)	297 (26%)	1,993 (30%)
Black	17 (11%)	87 (11%)	111 (10%)	407 (6%)
Asian/Pacific Islander	7 (5%)	23 (3%)	23 (2%)	120 (2%)
Other/Unknown	6 (4%)	20 (2%)	43 (4%)	183 (3%)
Most Serious Offense Type at Start of Observation (n = 7,579)				
Felony	145 (94%)	753 (92%)		4066 (62%)
Misdemeanor	10 (6%)	65 (8%)		2540 (38%)
Most Serious Offense Category at Start of Observation (n = 7,579)				
Property	81 (52%)	448 (55%)		1,566 (24%)
Drug	39 (25%)	206 (25%)		1,025 (16%)
Violent	13 (8%)	79 (10%)		2,548 (39%)
DUI	9 (6%)	30 (4%)		577 (9%)
Other ⁴	13 (8%)	55 (7%)		890 (12%)
Static Risk Assessment (SRA) Risk Category (n = 4,230)				
Low		17 (13%)	62 (20%)	1,411 (37%)
Moderate		18 (13%)	49 (16%)	1,207 (32%)
High		101 (74%)	194 (64%)	1,147 (30%)
Drug		19 (14%)	19 (6%)	175 (5%)
Property		45 (33%)	59 (19%)	505 (13%)
Violent		37 (27%)	116 (39%)	467 (12%)

Note: Offense Type and Offense Category were not in a format readily available for analysis for the PRCS population. The SRA is not administered for individuals leaving custody following an 1170(h) Jail Only stay.

Offense severity and type differed substantially across population types. For the majority of observations, the most serious offense type for which the individual was serving a sentence was a felony; however, the percentage of felony offenses was considerably higher for the 1170(h) Jail Only and MS populations (94% and 92%, respectively) as compared to Formal Probation (62%). The majority of individuals in the 1170(h) Jail Only and MS populations committed a property offense (52% and 55%, respectively), while violent offenses were most common for the individuals in the Formal Probation population (39%).

⁴ A summary of offenses identified as “Other” are included in Appendix A.

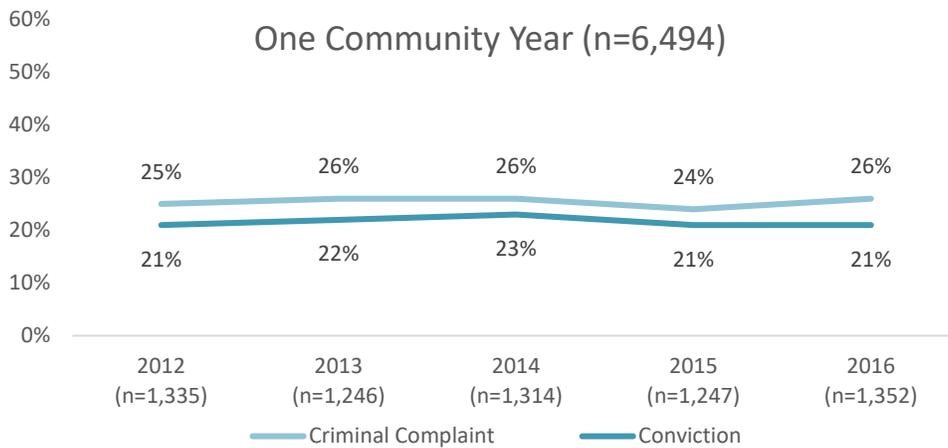
Static Risk Assessment (SRA) data were only in a format readily available for analysis for individuals under probation supervision. The majority of individuals in the MS and PRCS populations were assessed as high risk, while the Formal Probation population was almost evenly distributed across the low, moderate, and high risk categories. Of those assessed as high risk, the smallest proportion across all populations was identified as high risk for drug-related reoffending.

Recidivism rates for individuals starting Probation supervision (or released from custody for the 1170(h) Jail Only population) remained relatively stable over the course of the study period. The highest rates of recidivism occurred in the first 90 days, then gradually declined over time.

Recidivism

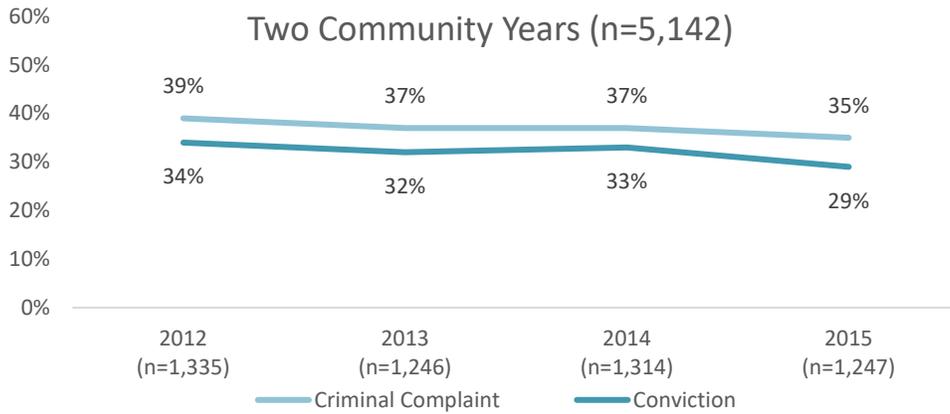
Across the study population, approximately 75-80% of individuals completed one community year without recidivating and 65-70% completed two community years without recidivating. Over time, the percent recidivating remained relatively stable, though there is a slight decline in two community year recidivism rates. As expected, recidivism measured as an arrest resulting in a criminal complaint was slightly higher, by approximately five percentage points, than recidivism measured as an arrest resulting in a conviction.

Figure 3. Recidivism by Start Year⁵



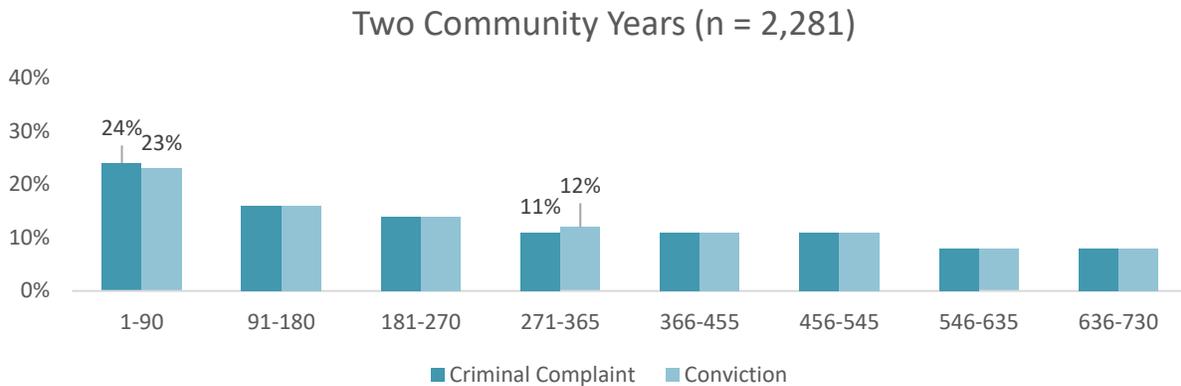
⁵ Because 2011 and the last available year of the analysis (2017 for the one community year analysis and 2016 for the two community year analysis) did not include a full 12 months, data from these years were excluded from figures illustrating change over time.

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The average time to recidivism, measured as either arrest resulting in conviction or criminal complaint, was approximately 5 months for the one community year analysis and 9.5 months for the two community year analysis. As shown in Figure 4, recidivism rates were highest in the first 90 days and declined gradually over time.

Figure 4. Days to Recidivism



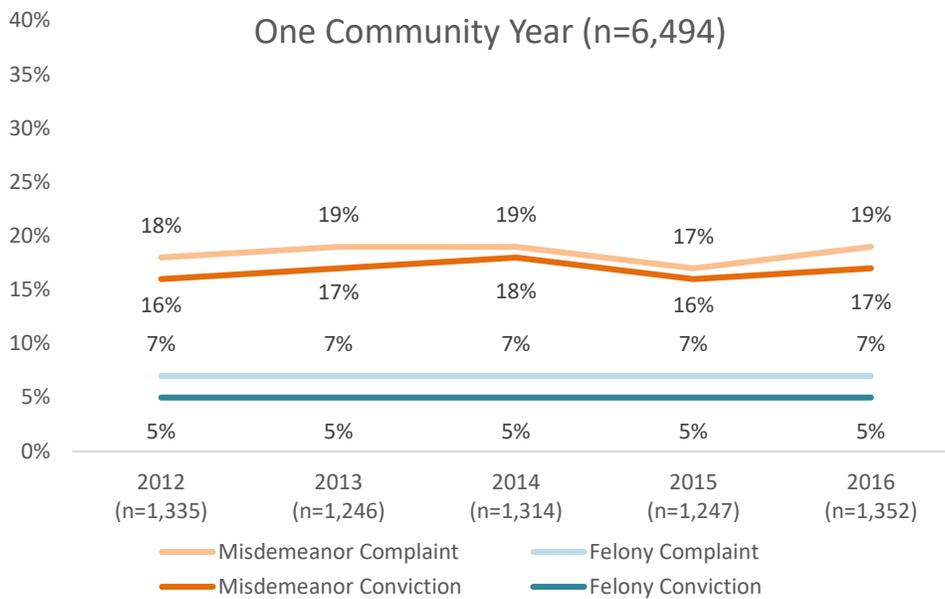
Recidivism by Offense Type and Category

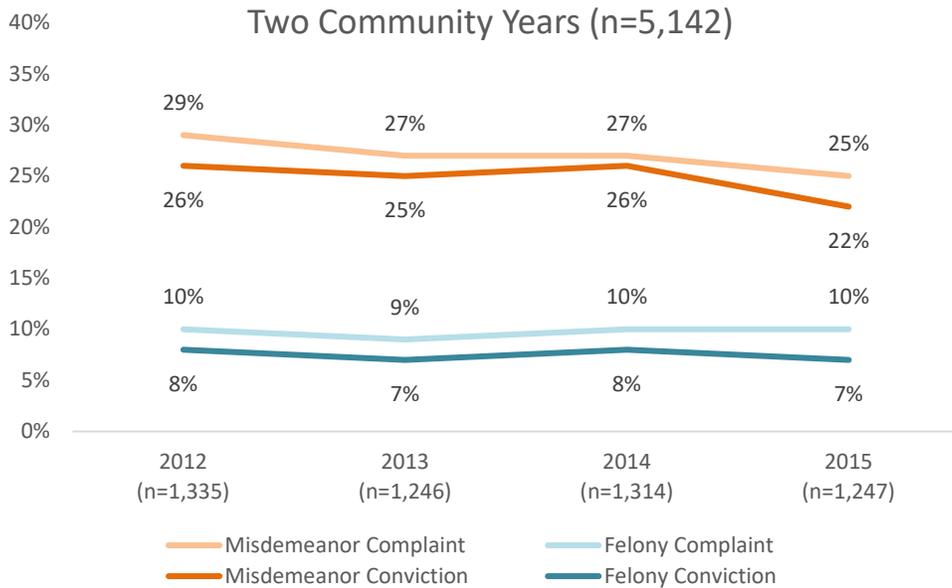
Approximately three-quarters of recidivism offense criminal complaints and convictions were for misdemeanor offenses. Almost two-thirds of all recidivism offenses were for drug and “other” offenses, with less than half for property or violent offenses.

As indicated previously, the majority of individuals in the 1170(h) Jail Only, MS, and Formal Probation populations were sentenced for felony offenses. However, approximately 75% of recidivism events, measured as both arrest resulting in a criminal complaint and arrest resulting in a conviction, were for misdemeanor offenses.

Figure 5 shows the rate of recidivism based on the year at which the individual entered the study population (either beginning probation supervision or release from custody for the 1170(h) Jail Only population). Between 5-10% of the individuals in the study population recidivated with a felony offense in both the one and two community year analyses. Approximately 15-20% recidivated with a misdemeanor offense within one community year and 20-30% recidivated with a misdemeanor offense within two community years. There are slight annual fluctuation in recidivism rates for misdemeanor offenses, but these differences are minimal.

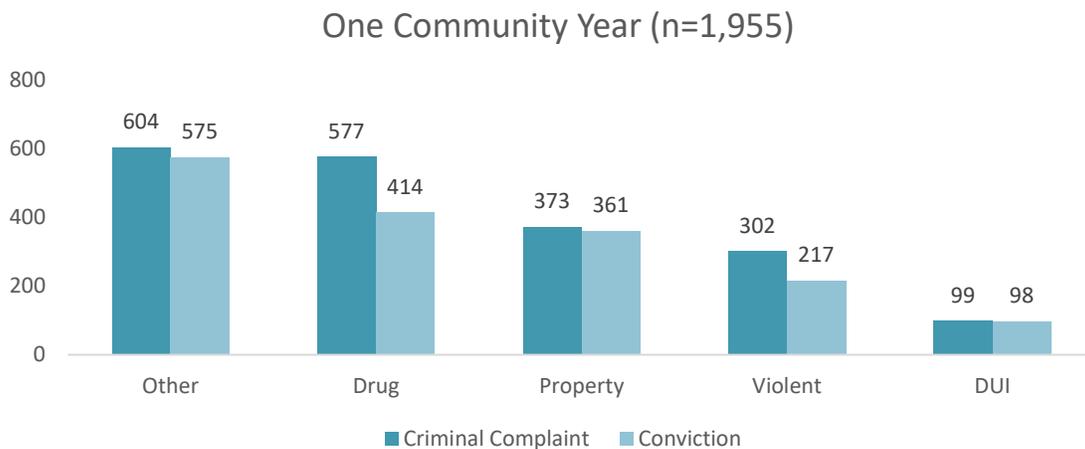
Figure 5. Recidivism by Year Entering Study Population



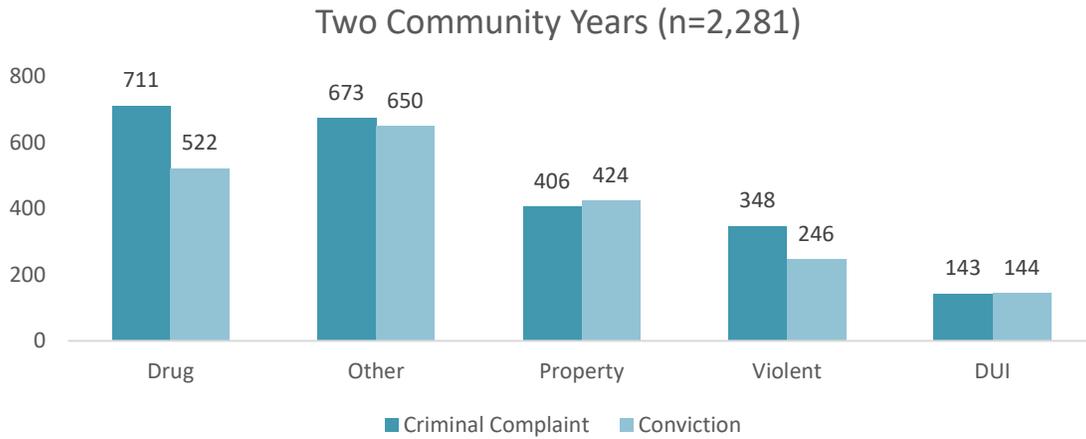


While the majority of initial offenses were violent or property offenses, the majority of recidivism events were for drug and other⁶ offenses, as shown in Figure 6. Notably, the number of arrests resulting in a criminal complaint was substantially higher than the number of arrests resulting in a conviction for both drug and violent offenses.

Figure 6. Recidivism Offense Categories



⁶ “Other” offenses primarily include offenses identified as “Other misdemeanor” and “Driving on a Suspended License.” Additional offenses included in “Other” are identified in Appendix A.

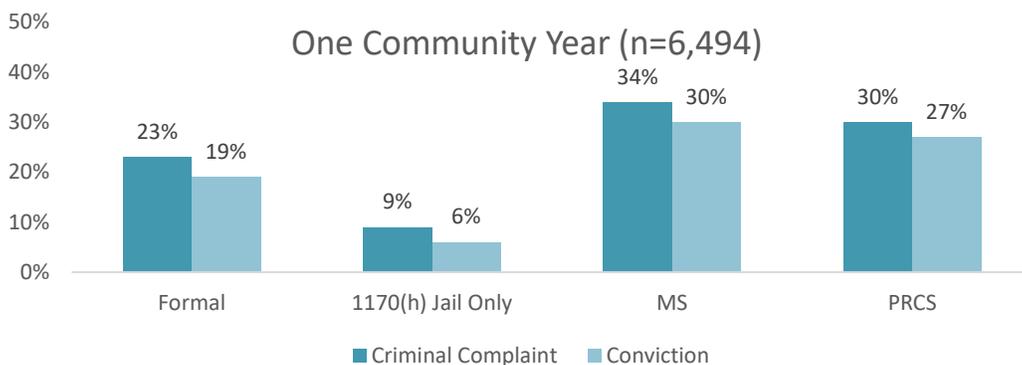


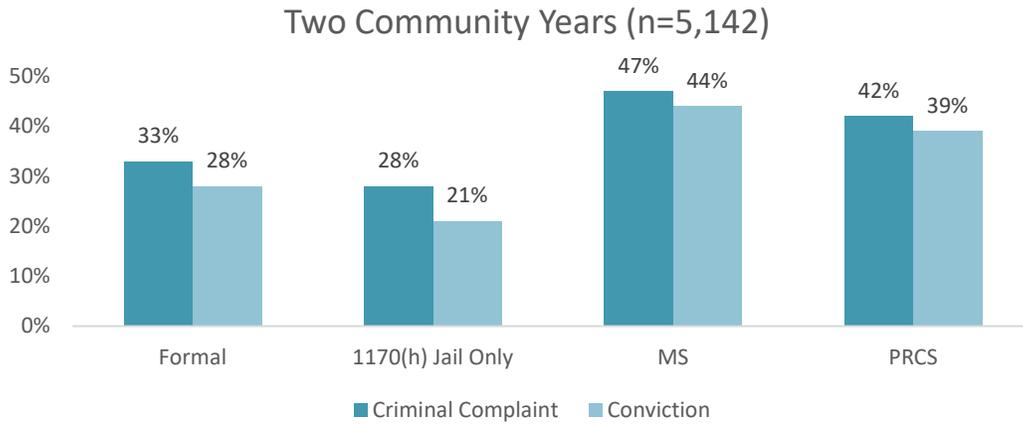
Recidivism by Population Type

Individuals in the MS and PRCS populations had the highest recidivism rates, with recidivism for the 1170(h) Jail Only population notably lower than other population types. Individuals in the MS and PRCS populations were more likely to recidivate for a felony offense compared to the Formal Probation and 1170(h) Jail Only populations.

As illustrated in Figure 7, the MS and PRCS populations experienced the highest recidivism rates with approximately 30% recidivating within one community year and 40-50% recidivating within two community years. The 1170(h) Jail Only population had the lowest rate of recidivism at one community year (approximately 5-10%) and two community years (approximately 20-30%). While the difference between the recidivism rates for the 1170(h) Jail Only population and the other population types is substantial in the one community year analysis, this gap narrows in the two community year analysis.

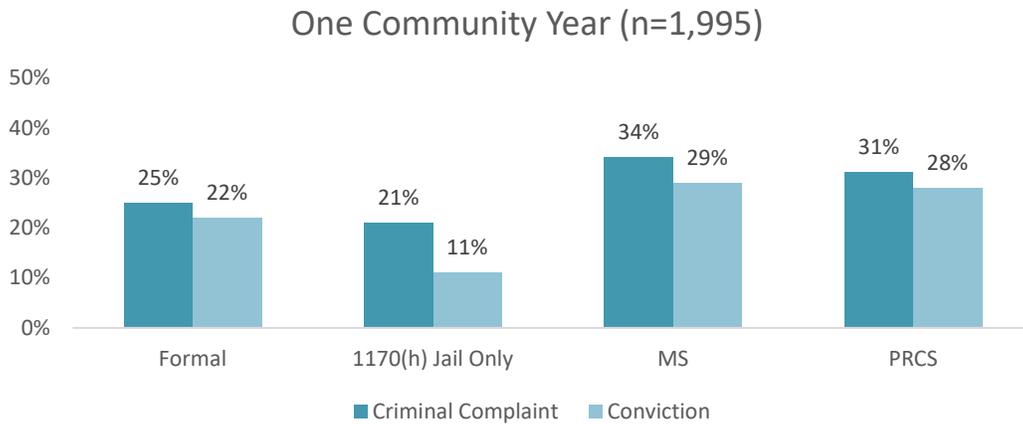
Figure 7. Recidivism by Population Type





Among those who recidivated, there is a distinct pattern in recidivism offense type among the four population groups. As shown in Figure 8, among those who recidivated, a higher percentage of those in the MS and PRCS recidivated for felony offenses compared to those in the 1170(h) Jail Only and the Formal Probation populations. Thus, individuals in the MS and PRCS populations were both more likely to recidivate overall and more likely to recidivate for a felony.

Figure 8. Recidivism Events Identified as Felonies, by Population Type



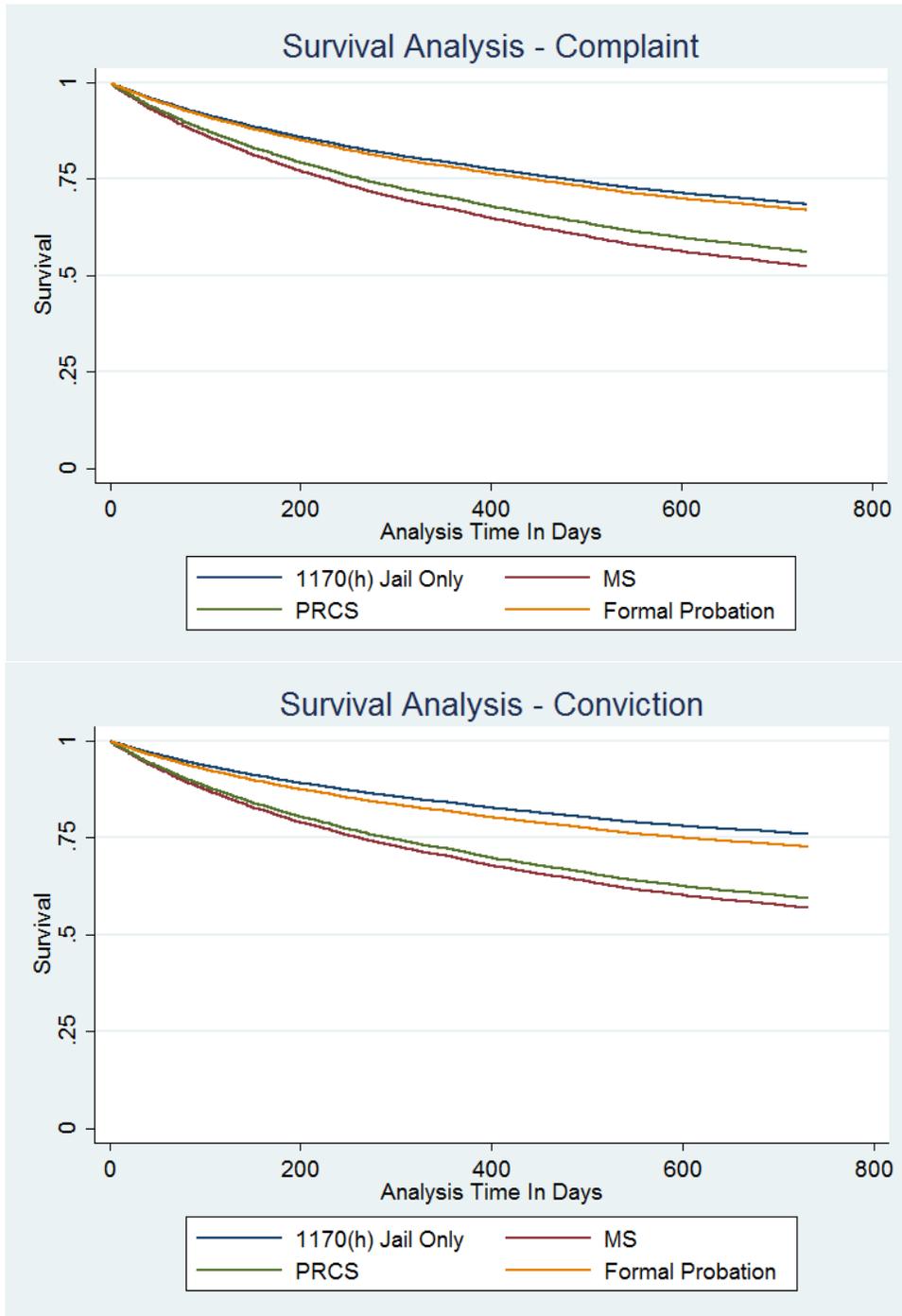


Survival Analysis

The higher rate of recidivism for the MS and PRCS populations relative to the Formal Probation and 1170(h) Jail Only populations is statistically significant.

Survival analysis was used to identify statistically significant differences in recidivism outcomes between each of the four population types. Figure 9 displays survival curves for each of the study populations, illustrating the estimated rate at which recidivism occurred. The vertical (or Y) axis indicates the proportion of people who survived (e.g., did not recidivate) over time. The value runs from one at the top to zero at the bottom, representing 100% survival to 0% survival. A survival curve always begins with 100% survival at day 0. For our analysis, day 0 is when individuals started probation supervision (or were released from custody for the 1170(h) Jail Only population). The more gradual the slope of the curve, the fewer individuals that are estimated to recidivate over time. If an individual never recidivates, he or she is considered to have “survived” the entire study period.

Figure 9. Survival Analysis Curves



The graphs above (Figure 9) show similar survival rates between the 1170(h) Jail Only and Formal Probation population and between the PRCS and MS population. The PRCS and MS population had statistically significantly higher recidivism rates than the 1170(h) Jail Only and Formal Probation populations. The MS population was 55% (criminal complaint) to 68% (conviction) more likely to recidivate

than the Formal Probation population and the PRCS population was 39% (criminal complaint) to 57% (conviction) more likely to recidivate, compared to the Formal Probation population.⁷

Recidivism Trends over Time by Population Type

Recidivism rates for individuals starting Probation supervision each year have remained stable or slightly declined; however, recidivism trends for the 1170(h) Jail Only population, while only a small proportion of individuals, have fluctuated substantially and generally increased.

The previous analyses show a consistent trend in higher rates of recidivism among the MS and PRCS populations compared to the 1170(h) Jail Only and Formal Probation populations. Figure 10 and Figure 11 examine annual recidivism rates for these populations based on the year in which an individual started probation (or was released from custody for the 1170(h) Jail Only population). Over time, recidivism rates among individuals under probation supervision remain relatively stable or decline slightly. Notably, the gap between MS and PRCS recidivism rates narrows beginning in 2014. In contrast, there is a slightly increasing pattern in recidivism for the 1170(h) Jail Only population. Similar trends were seen in the one and two community year analyses, though there is more fluctuation in recidivism among the 1170(h) Jail Only population in the two community year analysis. While the reason for these trends is not evident in the available data, it is important to note that the 1170(h) Jail Only population comprises a small percentage of the overall study population as shown in Table 2. As such, small changes in the number of individuals recidivating in the 1170(h) Jail Only population result in more substantial shifts in the percentages.

⁷ See Appendix B for statistical test results

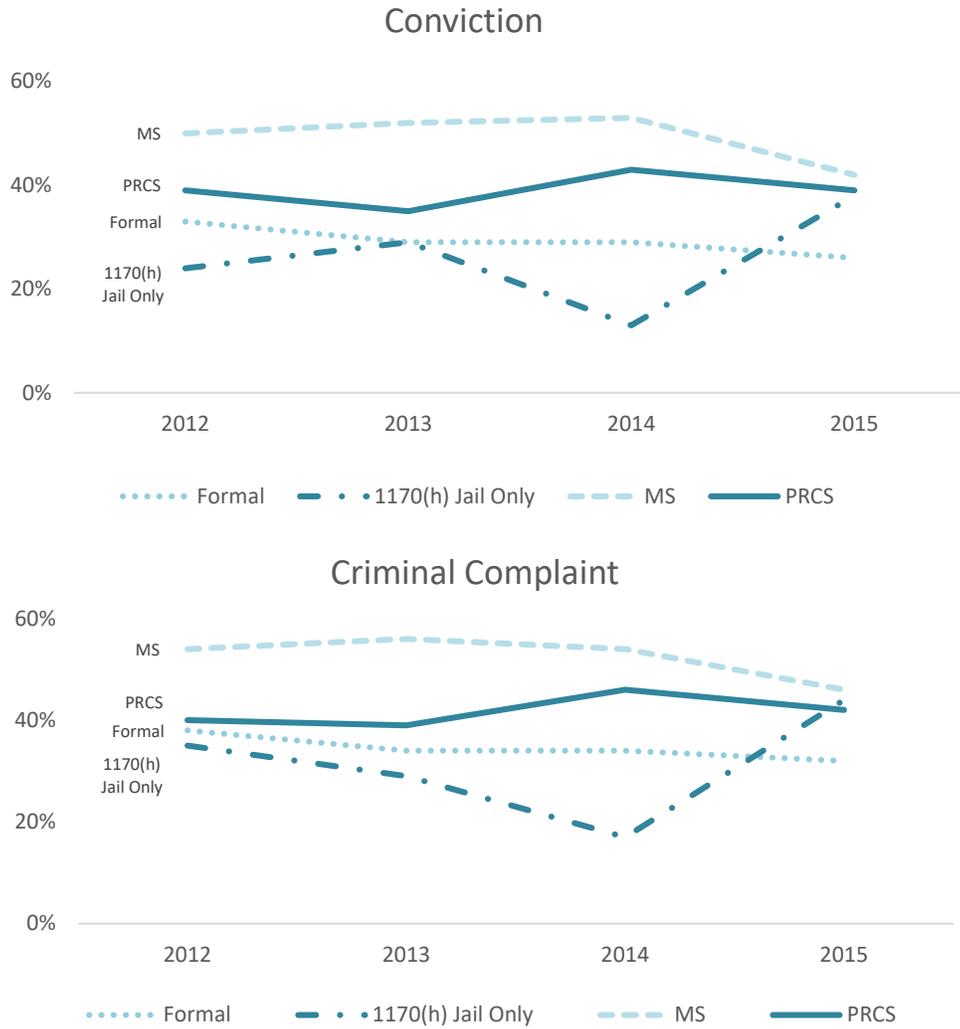
Table 2. Distinct Individuals in Each Population Type, by Year

	2012	2013	2014	2015	2016
MS	48	115	162	139	154
PRCS	238	132	131	136	161
Formal	1,012	978	998	956	1,011
1170(h) Jail Only	37	21	23	16	26

Figure 10. Recidivism within One Community Year, by Population Type (n=6,494)



Figure 11. Recidivism within Two Community Years, by Population Type (n=5,142)



Characteristics of the Recidivating Population

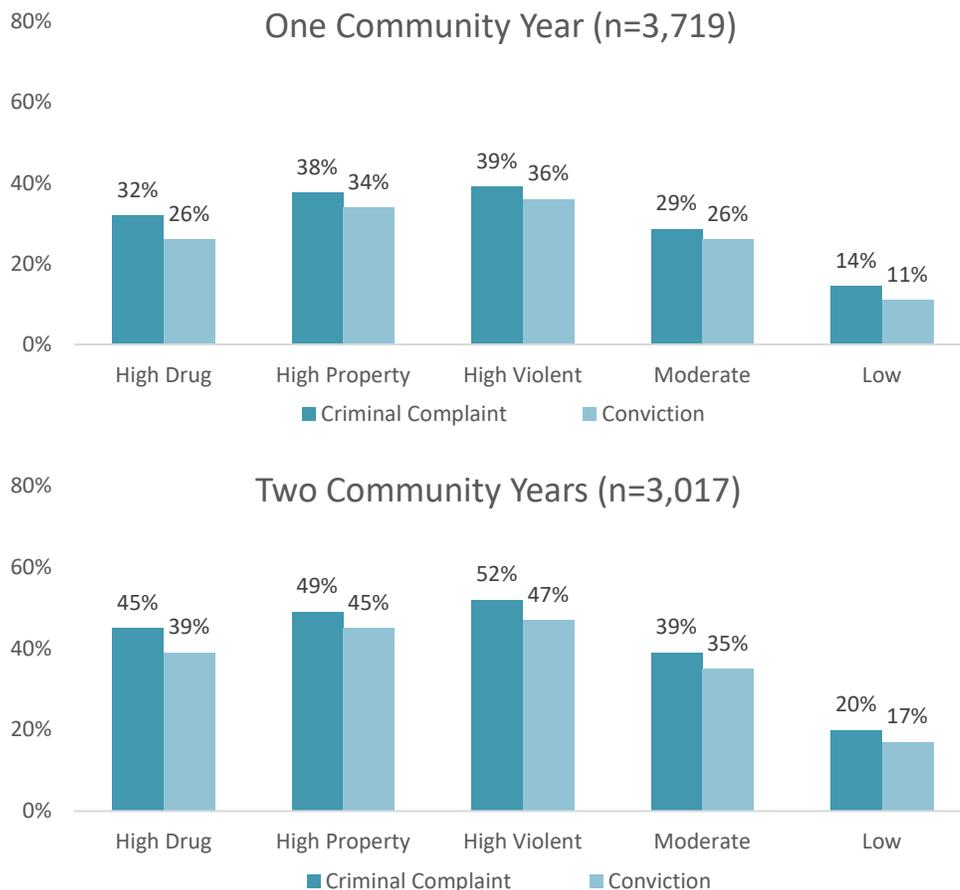
This component of the analysis examines differences in recidivism outcomes by individual characteristics including SRA risk category, demographics, and initial offense.

SRA Risk Category

SRA risk category was a strong predictor of recidivism outcomes, with those assessed as high risk having the highest rate of recidivism relative to those in the low and moderate risk categories. However, individuals in the high risk drug category had similar recidivism rates to those in the moderate risk group.

Figure 12 presents recidivism rates by SRA risk category. As demonstrated in the figure, individuals in the high risk violent and high risk property categories recidivated at the highest rates. Though individuals in higher risk categories generally recidivated at higher rates than individuals assessed as moderate or low risk, there is a minimal difference in recidivism outcomes for individuals in the high risk drug category and the moderate category.

Figure 12. Recidivism by SRA Category



In a multivariable model⁸ controlling for risk level, demographic characteristics, and initial offense type, SRA risk category was the best predictor of recidivism outcomes. Individuals in the low risk SRA category had approximately 50-55% lower likelihood of recidivating compared to those with moderate or high SRA scores. Individuals in the high risk SRA category were twice as likely to recidivate, compared to those in the low and moderate risk category. Comparing outcomes for individuals in the high risk category, the analysis identified only one statistically significant finding. Individuals in the high risk drug category had a 33% lower likelihood of having an arrest that resulted in a filed criminal complaint within one community year, compared to individuals in the high risk property and high risk violent SRA categories.

Demographics

Age was the only statistically significant demographic predictor of recidivism.

Table 3 presents the percentage of individuals that recidivated by gender, age, and race/ethnicity. Males and Black individuals had a slightly higher rate of recidivism, while individuals identified as Asian or Pacific Islander have a slightly lower rate of recidivism. These patterns were consistent across both criminal complaint and conviction measurements and both one and two community year analyses. However, in a multivariable analysis, age was the only statistically significant demographic predictor of recidivism outcomes when controlling for SRA category, demographic characteristics, and initial offense type.⁹ In the multivariable analysis, each additional year in age was associated with approximately a 2% decrease in the likelihood of recidivism, measured for both criminal complaint and conviction recidivism outcomes in both the one and two community year analyses.

Table 3. Recidivism by Demographic Characteristic

	One Community Year Criminal Complaint	One Community Year Conviction	Two Community Year Criminal Complaint	Two Community Year Conviction
Gender (n=7,842)				
Male	1,645 (26%)	1,401 (22%)	1,911 (36%)	1,658 (32%)
Female	309 (21%)	263 (18%)	369 (31%)	327 (28%)
Average Age at Start of Observation (n=7,843)				
Mean	32	31	32	31
Race/Ethnicity (n=7,845)				
Non-Hispanic White	1,210 (26%)	1,034 (22%)	1,381 (37%)	1,196 (32%)
Hispanic/Latino	512 (23%)	432 (19%)	620 (33%)	544 (29%)
Black	152 (28%)	129 (24%)	187 (42%)	163 (37%)
Asian/Pacific Islander	27 (17%)	25 (16%)	31 (23%)	28 (21%)
Other/Unknown	54 (23%)	45 (19%)	62 (35%)	55 (31%)

⁸ See Appendix C for details of the multivariable regression model.

⁹ Note that age is a strongly weighted factor in the SRA algorithm.

Initial Offense

Individuals with an initial offense in the drug or other category had the highest rates of recidivism, though these findings were not statistically significant when controlling for SRA score.

Initial offense refers to the offense for which an individual was under Probation supervision (or was serving an 1170(h) Jail Only sentence prior to release). As shown in Table 4, there was little difference in recidivism outcomes based on an individual's initial offense level (felony or misdemeanor). However, there were notable patterns in recidivism based on the individual's initial offense category. Individuals with property and other offense categories recidivated at a higher rate compared to those with other initial offense categories and individuals with DUIs recidivated at a much lower rate. However, these differences were not statistically significant in a multivariable analysis once controlling for the individual's SRA score.

Table 4. Recidivism by Initial Offense Type and Category

	One Community Year Criminal Complaint	One Community Year Conviction	Two Community Year Criminal Complaint	Two Community Year Conviction
Offense Type at Start of Observation (n=6,814)				
Felony	1,029 (23%)	863 (20%)	1,197 (34%)	1,025 (29%)
Misdemeanor	622 (26%)	521 (22%)	726 (36%)	626 (31%)
Offense Category at Start of Observation (n=6,814)				
Property	551 (30%)	474 (26%)	615 (42%)	544 (37%)
Other	239 (29%)	198 (24%)	233 (37%)	198 (31%)
Drug	275 (23%)	232 (19%)	374 (34%)	321 (30%)
Violent	543 (23%)	446 (19%)	623 (32%)	520 (27%)
DUI	43 (8%)	34 (6%)	78 (18%)	68 (25%)

Note: Offense Type and Offense Category were not in a readily available format for analysis for the PRCs population.

Discussion

This report examines recidivism outcomes for individuals who began probation supervision (or were released from custody for the 1170(h) Jail Only population) between October 1, 2011 and June 31, 2018. Below are key takeaways from the findings presented in the sections above.

Recidivism rates have remained relatively stable since the start of AB 109 implementation. Overall, approximately 20-25% of individuals recidivated within one community year and 30-40% recidivated within two community years, with annual recidivism rates consistent for each year of the evaluation period. These recidivism rates fall within the wide range of recidivism rates seen across California; however, comparing recidivism rates across locations poses a significant challenge as there is often substantial variation in how populations are defined and how recidivism is measured.¹⁰

The percentage of individuals with an arrest resulting in a criminal complaint was consistently higher than the percentage of individuals with an arrest resulting in conviction. Throughout the analysis, criminal complaint and conviction recidivism rates showed similar trends, with arrests resulting in criminal complaints slightly higher, by approximately five percentage points, than arrests resulting in convictions. However, the complaint recidivism rate was approximately 30% higher than the conviction recidivism rate for both violent and drug offenses.

The majority of recidivism offenses were for misdemeanors and offenses categorized as drug or other. Almost three-quarters of recidivism offenses were for misdemeanor crimes. “Other” offenses include a broad range of offenses,¹¹ many of which could be considered less serious such as traffic offenses, disorderly conduct, and city/county ordinances.

The MS and PRCS population recidivated at a higher rate compared to both the Formal Probation population and the 1170(h) Jail Only population. Notably, individuals in the 1170(h) Jail Only population, while only a small proportion of individuals, had the lowest rate of recidivism. Recidivism rates for individuals starting probation supervision each year have slightly declined; however, recidivism trends for the 1170(h) Jail Only population have fluctuated substantially and generally increased.

Overall, SRA risk level was a strong predictor of recidivism outcomes. SRA risk level was a strong predictor of recidivism outcomes. However, individuals in the high risk drug SRA category had lower rates of recidivism than individuals assessed as high risk property or high risk violent. Instead, individuals in the high risk drug category had similar recidivism rates to those in the moderate risk category.

¹⁰ California Department of Corrections and Rehabilitation. (2018). 2018 Outcome Evaluation Report: An Examination of Offenders Released in Fiscal Year 2013/14. Bird, M., Grattet, R., & Nguyen, V. (2017). Realignment and Recidivism in California. Public Policy Institute of California.

¹¹ See Appendix A for a list of offenses categorized as “other”.

Recommendations and Areas for Future Inquiry

Investigate trends in recidivism outcomes for the 1170(h) Jail Only population, including this population's low recidivism rate and increase in recidivism over time. A number of factors may be associated with the recidivism trends of the 1170(h) Jail Only population such as sentencing practices, the types of services this population receives in custody, and the lack of probation supervision upon release. Simultaneously, the 1170(h) Jail Only population was the only population in this study for which recidivism appeared to increase each year. Though this population is small, this warrants further evaluation to understand the policies and practices affecting this population.

Provide immediate access to services during the first 90 days following release from custody and/or start of probation supervision.¹² In this analysis, recidivism rates decreased by almost 40% following the first 90 days, indicating that the period immediately following release from custody and/or the start of supervision is the most critical time to provide services and supports. Therefore, Sonoma County should continue to implement and improve measures to immediately identify individual needs, connect individuals with services, and promote service participation.

Consider modifying the level of supervision to ensure it is in accordance with SRA recommendations from the start of supervision.¹² All individuals in the MS and PRCS populations are supervised as high-risk, regardless of their SRA category during the first 90 days. Though individuals do have the highest recidivism rates during the first 90 days, supervising lower-risk individuals at a higher than prescribed level expends additional resources and can have a detrimental impact on outcomes.¹³

Evaluate the SRA tool's predictive accuracy. Individual risk level, as identified in the SRA assessment, appears to align with recidivism outcomes for much of the study population. However, recidivism rates are similar for individuals assessed as high risk drug and moderate risk. This similarity may be due to the issues in the construction of the SRA tool, the programs and supports available to these populations, or other unidentified factors. Sonoma County should consider a local evaluation of the SRA tool and its implementation to ensure its predictive accuracy and inform the allocation of associated services and resources.

Evaluate the availability, utilization, and quality of substance use and co-occurring disorder mental health treatment. Drug offenses comprised almost one-third of all recidivism offenses at both one and two community years. This may indicate a persistent need for more intensive or continued substance use and co-occurring disorder mental health treatment for the justice-involved population, even following completion of a sentence.

¹² This recommendation was also identified in RDA's 2018 Recidivism Analysis.

¹³ Latessa, E. J., & Lowenkamp, C. (2006). What works in reducing recidivism? *University of St. Thomas Law Journal*, 3(3), 521-535.

Appendix A. Other Offense Category Description

The “Other” offense category includes the following offenses:

“Other” Offenses	
City/County Ordinance	Liquor Laws
Contributing to the Delinquency of a Minor	Other Felony
Disorderly Conduct	Other Misdemeanor
Disturbing the Peace	Prostitution
Driving on a Suspended License	Reckless Driving
Drunk	Traffic
Escape	Unknown
Failure to Appear (Non-Traffic)	Vehicle Code Misdemeanor
Flight-Escape	Violation Probation/Parole

Appendix B. Survival Analysis Hazard Ratios

The Survival Analysis Curves illustrated in Figure 9 fit a Cox Proportional Hazard model to compare recidivism outcomes for each of the four population types. Table 5 presents two measures of association used in survival analyses: the hazard ratios and standard error. A hazard ratio of one indicates that being in the given population group has no influence on recidivism outcomes. A value less than one indicates that the given population group is associated with a decreased likelihood of recidivism (compared to the reference group), while a value greater than one indicates that a population group is associated with a higher likelihood of recidivism (compared to the reference group).

The MS and PRCS population groups were associated with a 55% (criminal complaint) to 68% (conviction) increase in the likelihood of recidivism, relative to the Formal Probation population. The PRCS group was associated with a 39% (criminal complaint) to 57% (conviction) increase in the likelihood of recidivism, relative to the Formal Probation population. While the 1170(h) Jail Only population shows a lower likelihood of recidivism, this finding was not statistically significant.

Table 5. Survival Analysis Hazard Ratios

	Criminal Complaint	Criminal Complaint	Conviction	Conviction
	Hazard Ratio	Standard Error	Hazard Ratio	Standard Error
1170(h) Jail Only	0.859	0.127	0.775	0.132
MS	1.551*	0.086	1.677*	0.099
PRCS	1.385*	0.070	1.565*	0.083

* indicates $p < .001$

Reference Group: Formal Probation

Appendix C. Regression Analysis Results

Table 6 through Table 10 present the results of regression analyses comparing SRA risk level to recidivism outcomes. Similar to the interpretation of the hazard ratios described in Appendix B, a value greater than one indicates that a variable is associated with a higher likelihood of recidivism (relative to the reference category), while a value less than one indicates that the variable is associated with a decreases the likelihood of recidivism (relative to the reference category).

Table 6 compares the odds of recidivating for the low risk SRA group to the odds of recidivating among the moderate and high risk SRA groups. Similarly, Table 7 compares the odds of recidivating for the high risk SRA group to the odds of recidivating for the low and moderate risk groups. The odds of recidivating among those in the low risk group was 50-55% lower compared to those in the moderate and high risk groups. The odds of recidivating among those in the high risk group was twice as high as that of the low and moderate risk groups. These results were statistically significant.

Table 6. Regression Analysis – SRA Low Risk

	One Community Year Criminal Complaint	One Community Year Conviction	Two Community Year Criminal Complaint	Two Community Year Conviction
Low	.45*	.41*	.41*	.40*

Reference Category: Moderate and High Risk

* indicates p<.001

Table 7. Regression Analysis – SRA High Risk

	One Community Year Criminal Complaint	One Community Year Conviction	Two Community Year Criminal Complaint	Two Community Year Conviction
High	2.0*	2.2*	2.0*	2.1*

Reference Category: Low and Moderate Risk

* indicates p<.001

Table 8 through Table 10 compare the odds of recidivating in each high risk category (drug, property, or violent) compared to the other two high risk categories. Individuals assessed as high risk drug were 33% less likely to be arrested for an offense that resulted in a conviction within one community year, compared to individuals in other high risk categories. However, there were no other significant differences in recidivism outcomes among those in the high risk SRA categories.

Table 8. Regression Analysis – SRA High Risk Drug

	One Community Year Criminal Complaint	One Community Year Conviction	Two Community Year Criminal Complaint	Two Community Year Conviction
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High Drug	NS	.67*	NS	NS
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Reference Category: High Risk Violent and High Risk Property

* indicates p<.001

Table 9. Regression Analysis – SRA High Risk Violent

	One Community Year Criminal Complaint	One Community Year Conviction	Two Community Year Criminal Complaint	Two Community Year Conviction
High Violent	NS	NS	NS	NS

Reference Category: High Risk Drug and High Risk Property

Table 10. Regression Analysis SRA – High Risk Property

	One Community Year Criminal Complaint	One Community Year Conviction	Two Community Year Criminal Complaint	Two Community Year Conviction
High Property	NS	NS	NS	NS

Reference Category: High Risk Drug and High Risk Violent

Appendix D. Recidivism Rate Comparisons

Comparison of Sonoma County recidivism rates to other county and statewide averages is challenging for a number of reasons including:

- Variation across counties in the application of 1170(h) offenses
- How recidivism is defined (e.g., arrest, complaint, conviction, sentence)
- How the population is defined (e.g., calculating recidivism for AB 109 populations separately versus as one group)
- Other variables controlled for in the analysis

In addition, this analysis utilizes a sophisticated methodology to control for time spent in custody, which provides a more accurate picture of recidivism in the community but is unique relative to other recidivism calculations. For these reasons, it is important to note that comparisons of the outcomes of this analysis to other recidivism analyses should be done with caution and consideration for the variation in the analysis approach.

Reconviction outcome data were compared to the following sources:

- 1) One- and three-year statewide reconviction rates for the PRCS population from the California Department of Corrections and Rehabilitation¹⁴
- 2) Average one-year reconviction rates for 12 counties from the Public Policy Institute of California (PPIC)¹⁵
- 3) Three- and five-year reconviction evaluations for Santa Clara¹⁶ and Contra Costa Counties¹⁷ conducted by RDA
- 4) One-year reconviction rates for Santa Barbara County¹⁸ high risk probation population

Data from these sources showed substantial variation in reconviction outcomes for the AB 109 population. For example, statewide averages from the CDCR showed one-year reconviction rates at 25% for the PRCS population as compared to approximately 40% for both the MS and PRCS populations as reported by the PPIC. At three years, statewide averages for the PRCS population were 53% compared to three-year reconviction rates of 20% (Contra Costa County) and 34% (Santa Clara County) for the combined MS and PRCS population, as calculated by RDA. One-year recidivism rates for high-risk probationers in Santa

¹⁴ California Department of Corrections and Rehabilitation. (2017). 2017 Outcome Evaluation Report: An Examination of Offenders Released in Fiscal Year 2012/13. Retrieved from https://www.cdcr.ca.gov/Adult_Research_Branch/Research_Documents/2017-Outcome-Evaluation-Report.pdf

¹⁵ Bird, M., Grattet, R., & Nguyen, V. (2017). Realignment and Recidivism in California. Public Policy Institute of California. Retrieved from http://www.ppic.org/wp-content/uploads/r_1217mbr.pdf

¹⁶ Resource Development Associates. (2015). Program Evaluation of the County of Santa Clara AB 109 Reentry Service System

¹⁷ Resource Development Associates. (2015). Contra Costa County AB 109 Recidivism Memo.

¹⁸ County of Santa Barbara. (2017). Results First Initiative 2017 Progress Report. Retrieved from https://www.sbprobation.org/sbcpob/CCP/Santa_Barbara_County_Results_First_Initiative_FINAL_2017-08-08.pdf

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Barbara varied between 26% and 29% depending on program participation. A number of differences in population sample selection, measurement of time, differences in geographic context, and use of control variables likely contributed to variation in findings. However, these data provide some means for comparison to Sonoma County AB 109 outcomes.

At one year following release from prison/jail, Sonoma County PRCS reconviction rates exceed those found in the statewide averages reported by the CDRC, but are lower than reconviction rates reported by the PPIC. One-year reconviction rates for the MS population are not reported by the CDCR, but Sonoma County MS reconviction rates are lower than those reported by the PPIC. It is difficult to conclude from the limited comparison data available, but Sonoma County MS and PRCS individuals appear to be reconvicted within the range reported in these two studies.

At three years following release from prison/jail, Sonoma County PRCS reconviction rates are similar to those found in the statewide averages reported by the CDRC. However, both MS and PRCS three-year reconviction rates exceed those seen in Santa Clara and Contra Costa Counties. Again, the variation in results reported in other studies makes it difficult to compare the performance of AB 109 in Sonoma County. However, Sonoma County MS and PRCS individuals appear to be reconvicted within the range reported in these two studies.