



March 2019

Washington State Adult and Juvenile Recidivism Trends: *FY 1995–FY 2014*

In 2011, the Washington State Institute for Public Policy (WSIPP) published a report analyzing trends in recidivism for adults released from prison in Washington State through the 1990s and early 2000s.¹ This report continues to be one of WSIPP’s most frequently referenced and requested but has not been updated in the last eight years.

This report updates our 2011 findings. To maximize the use of this report for policy makers and justice system practitioners, we extended our analyses to include additional adult and juvenile populations and to include additional types of recidivism offenses. Our analyses include a review of statewide recidivism trends from fiscal year (FY) 1995–FY 2014.² In addition to presenting overall trends in recidivism, we present separate trends for different types of initial offenses and demographic characteristics.

The report is organized in three sections. [Section I](#) provides an overview of the definitions of recidivism, samples, and methods in this report. [Section II](#) examines recidivism trends for adults. [Section III](#) examines recidivism trends for youth.

Note: The research presented here uses data from the Washington Department of Corrections (WADOC) obtained under a WSIPP-WADOC data sharing agreement. The views expressed here are those of the authors and do not necessarily represent those of WADOC or other data contributors. Any errors are attributable to the authors.

¹ Drake, E. (2011). *Washington State recidivism trends: Adult offenders released from prison (1990–2006)*. (Doc. No. 11-01-1201). Olympia: Washington State Institute for Public Policy.

² State fiscal years in Washington start on July 1.

Summary

Previous reports published by WSIPP have shown a gradual decline in recidivism for adults released from prison through the 1990s and early 2000s. This report updates our review of recidivism trends for adults released from prison and expands the scope of our report to include youth populations and additional adult populations.

This report provides a high-level overview of general changes in Washington State recidivism trends from FY 1995–FY 2014. The report analyzes recidivism for four samples of criminal justice-involved populations: adults convicted of a criminal offense, adults released from incarceration in prison, youth convicted of a criminal offense, and youth released from a commitment in a Juvenile Rehabilitation (JR) facility.

Consistent with our prior reports, our analyses found gradual declines in overall recidivism for all four populations from FY 1995–FY 2014. However, examination of recidivism trends by type of recidivism, type of initial offense, and demographic characteristics indicates that the magnitude of the decline in recidivism varied among different sub-populations.

Suggested citation: Knoth, L., Wanner, P., & He, L. (2019). *Washington State recidivism trends: FY 1995–FY 2014*. (Document Number 19-03-1901). Olympia: Washington State Institute for Public Policy.

I. Overview

Recidivism is broadly understood as a return to criminal behavior after a sanction for a prior offense has been imposed and served. Recidivism is commonly used as a performance measure for criminal justice policies and programs. Over the last two decades, the Washington State Legislature has made significant investments in the adult and juvenile justice systems with the goal of reducing crime and the likelihood of subsequent recidivism.³ This report examines how state-level trends in recidivism among justice-involved populations in Washington State have changed during this time. Terms bolded in this section are defined in the Glossary of Terms (see sidebar).

This report provides an overview of general changes in recidivism trends over time. Our analyses focus on general trends (e.g., a decrease or an increase) rather than specific values for any particular year. In addition, this report does not attempt to identify causal relationships that may explain changes in trends. This report complements other reports produced throughout the state, such as annual reports published by the Administrative Office of the Courts (AOC) and the Department of Corrections (DOC) and causality-focused program evaluations supported by the legislature and state agencies.⁴

³ Aos, S., Miller, M., & Drake, E. (2006). *Evidence-based public policy options to reduce future prison construction, criminal justice costs, and crime rates* (Doc. No. 06-10-1201). Olympia: Washington State Institute for Public Policy and Drake, E. (2010). *Washington State juvenile court funding: Applying research in a public policy setting* (Doc. No. 10-12-1201). Olympia: Washington State Institute for Public Policy.

⁴ For example, see Barnoski, R. (1997). *Washington State juvenile court recidivism estimates: Fiscal year 1994 youth* (Doc. No. 97-07-1201). Olympia, WA: Washington State

Glossary of Terms

Adjudication date/conviction date: The date upon which an adjudication of guilt pursuant to RCW Title 10 or 13 is reached and includes a verdict of guilty, a finding of guilty, and acceptance of a plea of guilty.

At-risk date: The date upon which an individual is released to the community and eligible to reoffend.

Commitment: The determination by the court that a person should be detained for a period for either evaluation or treatment.

Confinement: Restraint of a person in a facility or institution operated by the state or any other unit of government for twenty-four hours a day.

Court case cohorts: A group of persons with a criminal court case disposed or adjudicated in a given year.

Court legal action: A conviction, deferred disposition, or diversion agreement as defined by Washington State statutes.

Disposition date: The date of the formal conclusion of a criminal proceeding at whatever stage it occurs in the criminal justice system.

Follow-up period: A set period of time during which an individual's behaviors are monitored for recidivism events.

Incarceration: To be officially held in jail, prison, penitentiary, or other correctional facility.

Recidivism event: Any offense committed after a release to the community, during the follow-up period, that results in a Washington State court legal action.

Release cohorts: A group of persons released from confinement into the community during a specific period of time (i.e., release from prison during a specific fiscal year).

Institute for Public Policy. Peterson, A. (2017). *Juvenile recidivism in Washington State: A 2013 court cohort and 2014 juvenile rehabilitation release cohort*. Olympia, WA: Washington State Center for Court Research.

This report follows the previously established recommendations for defining and measuring recidivism in Washington State.⁵ [Appendix I](#) provides a discussion of alternative recidivism definitions and measurements as well as some of the issues that arise when comparing different recidivism analyses.

Analyzing trends in recidivism can be difficult because criminal justice data are collected by different agencies and often lack a common identifier. WSIPP's Criminal History Database (CHD) was created to overcome these limitations and to allow for comprehensive analyses of criminal behavior. WSIPP previously used data from the CHD to produce a report analyzing recidivism trends for adults released from incarceration in state prisons.⁶ WSIPP has published similar analyses for youth involved in the juvenile justice system as a part of more specific policy evaluations.⁷ This report expands upon prior work to provide a more robust overview of recent recidivism trends in Washington State.

[Samples](#)

This report uses four different samples of justice-involved persons from FY 1995–FY 2014:⁸

- [Adult case cohorts](#): All adults with a Washington State **court legal action** for a criminal offense;

- [Prison release cohorts](#): All adults released from a period of **incarceration** in prison;
- [Juvenile case cohorts](#): All youth with a Washington State court legal action in a juvenile court for a criminal offense; and
- [Juvenile rehabilitation \(JR\) release cohorts](#): All youth released from **commitment** in a JR facility.

Each of the four samples includes 20 independent fiscal year cohorts of adults or youth. **Court case cohorts** include all individuals with a criminal case that was disposed or adjudicated in a given year. **Release cohorts** include all individuals who were released to the community from prison or a JR facility in a given year. For each fiscal year cohort, we selected the individuals' first qualifying case (referred to as the "index offense") or release from **confinement**. Individuals may be included in multiple cohorts if they had multiple cases or releases from confinement that occurred in different fiscal years.

[Definition of Recidivism](#)

For this report, a **recidivism event** is defined as any offense committed after release to the community that results in a Washington State court legal action. Results are presented in one of two ways:

- [Any recidivism](#)—A measure indicating whether or not the individual recidivated during the **follow-up period**.
- [Most serious type of recidivism](#)—A measure capturing the most serious type of offense (misdemeanor, felony, or violent felony) in all recidivism events during the follow-up period.

⁵ Barnoski, R. (1997). *Standards for improving research effectiveness in adult and juvenile justice*. (Doc. No. 97-12-1201). Olympia: Washington State Institute for Public Policy.

⁶ Drake, E. (2011).

⁷ Drake, E. (2013). *The effectiveness of declining juvenile court jurisdiction of youthful offenders*. (Doc. No. 13-12-1902). Olympia: Washington State Institute for Public Policy.

⁸ More details on the selection of samples and the sample sizes for each FY cohort are available in Appendix II.

Measuring Recidivism

The follow-up period begins at the **at-risk date** and continues for a set period of time. The at-risk date and follow-up length are based on the characteristics of the sample.

At Risk Date

The at-risk date begins when an individual is released to the community and consequently has the opportunity to commit a new criminal offense. The at-risk date represents the beginning of the follow-up period for each individual. The at-risk date depends on the characteristics of the individuals included in each sample.

- **Release cohorts:** the at-risk date is the date when the individuals are released to the community from confinement in a state facility.
- **Adult case cohorts:** the at-risk date is the **disposition date** for the qualifying case if the adult was not sentenced to incarceration to prison. Otherwise, the at-risk date is the date of release from confinement in a state facility.
- **Juvenile case cohorts:** the at-risk date is the **adjudication date** for the qualifying offense if the youth was not committed to a JR facility. Otherwise, the at-risk date is the date of release to the community from commitment in a JR facility.

Follow-Up Length

This report uses unadjusted follow-up periods of equal length for all individuals in the same sample.⁹ For adult samples, we use a 36-month follow-up period.¹⁰ For juvenile samples, we use an 18-month follow-up period.

Additional time beyond the follow-up period is necessary to determine whether a charge for a criminal offense results in legal court action. We use a 12-month adjudication period for both the adult and juvenile samples.

Demographics

This report includes separate recidivism trends for demographic groups, including sex, race, and age.¹¹ Below is a summary of the classifications for sex, race, and age in this report.¹²

- **Age**—*Age at disposition* for case cohorts and *age at release to the community* for release cohorts.
- **Sex**—Male or female.
- **Race**—White, Black/African American, Asian/Pacific Islander/Native Hawaiian, or American Indian/Alaskan Native.

⁹ We do not adjust the follow-up period for time spent in confinement for recidivism offenses. For additional information, see Appendix I and Appendix II.

¹⁰ Published recommendations for WA State indicate that evaluations of recidivism should use a minimum of 24 months in the follow-up period for adults (Barnoski, 1997). We use a longer follow-up period (36 months), consistent with the methods used in previous reports on recidivism trends at WSIPP (Drake, 2011). An additional discussion of the length of follow-up periods is provided in Appendix I and Appendix II.

¹¹ We present findings for demographics and crime type only when the sample size of the subgroup in a particular FY cohort is at least 80 individuals. See Appendix II for additional information.

¹² See Appendix II for additional information.

II. Adult Recidivism Trends

This section comprises two subsections. The first subsection includes general recidivism trends for adults involved in the criminal justice system. The second subsection includes recidivism trends for adults released from incarceration in state prison.

Adult Case Cohorts

We begin with the recidivism trends for FY 1995–FY 2014 annual case cohorts of individuals with a Washington State court legal action (conviction, diversion, or deferred judgement) for a criminal offense.

For adults incarcerated in state prisons for the qualifying case, recidivism measurement starts when the individual is released. For all other individuals,¹³ recidivism measurement starts at the disposition date for the index offense. Individuals were removed from the sample if the follow-up period did not begin prior to October 1, 2014.¹⁴

We first present overall rates of recidivism and then provide separate trends based on characteristics of the index offense and demographic groups.¹⁵

Key Findings: Adult Case Cohorts

Recidivism rates for court-involved adults generally declined from FY 1995 to FY 2014.

- ✓ Reductions in recidivism varied by index offense:
 - Recidivism for adults sentenced to incarceration in state prison *increased* since 1995.
 - Recidivism for adults who committed a property offense remained stable but declined for all other adults.
 - Recidivism for adults who committed a misdemeanor offense declined faster than for adults who committed a felony offense.
 - Adults whose index offense was a misdemeanor were most likely to recidivate with a misdemeanor offense. Adults whose index offense was a felony were most likely to recidivate with a felony offense.
- ✓ Changes in recidivism varied by demographics:
 - Age: Recidivism declined for all ages, but older adults (31–50 years of age) exhibited the largest declines.
 - Sex: The decline in recidivism was greater for males than for females.
 - Race: Recidivism rates declined for all races.

¹³ For example, individuals may be sentenced to community supervision, probation, or legal financial obligations.

¹⁴ This exclusion criterion affects individuals in late-year cohorts who were sentenced to incarceration in prison. For example, individuals sentenced to incarceration in prison in FY 2014 were unlikely to be released early enough to provide a 36-month follow-up and 12-month adjudication period. See Appendix II for additional details and for sample size information for analyses included in this section.

¹⁵ See Appendix III for additional analyses of recidivism trends for race and sex.

Exhibit 1

Trends in Recidivism by Most Serious Type of Recidivism

Three-year recidivism rates for justice-involved adults in Washington State

(Annual case cohorts from FY95–FY14, by most serious recidivism)

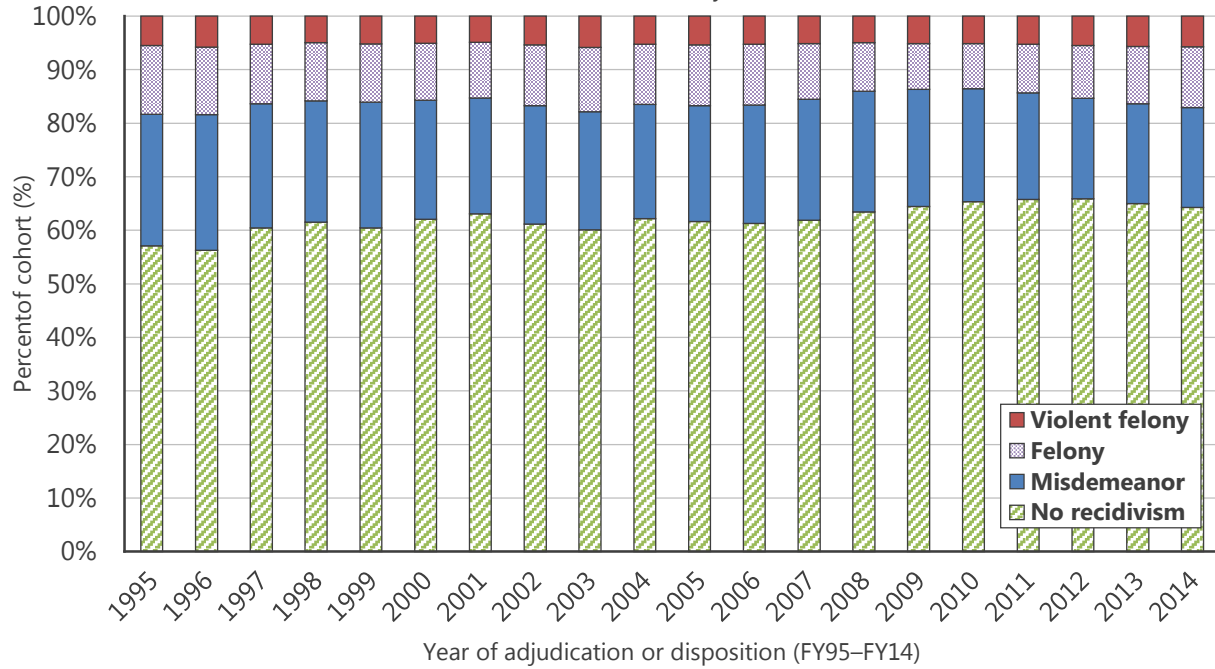


Exhibit 2

Trends in Recidivism for Most Serious Offense by Incarceration in State Prison

Three-year recidivism rates for justice-involved adults in Washington State

(Annual case cohorts from FY95–FY14, by recidivism type and incarceration)

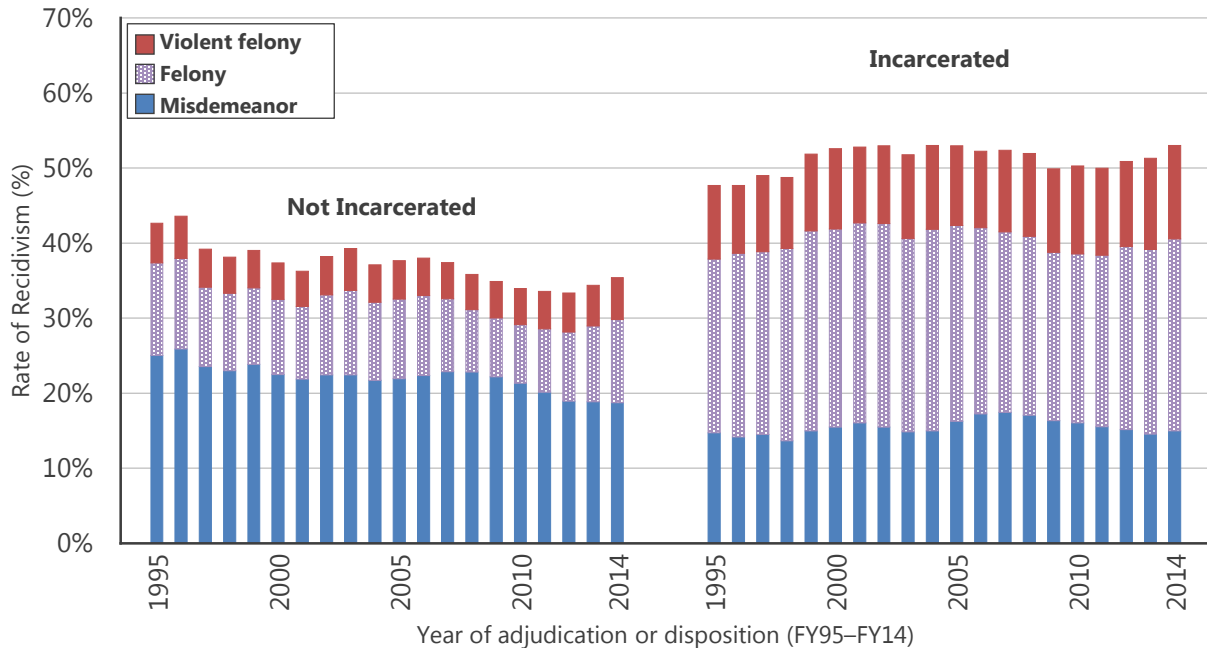
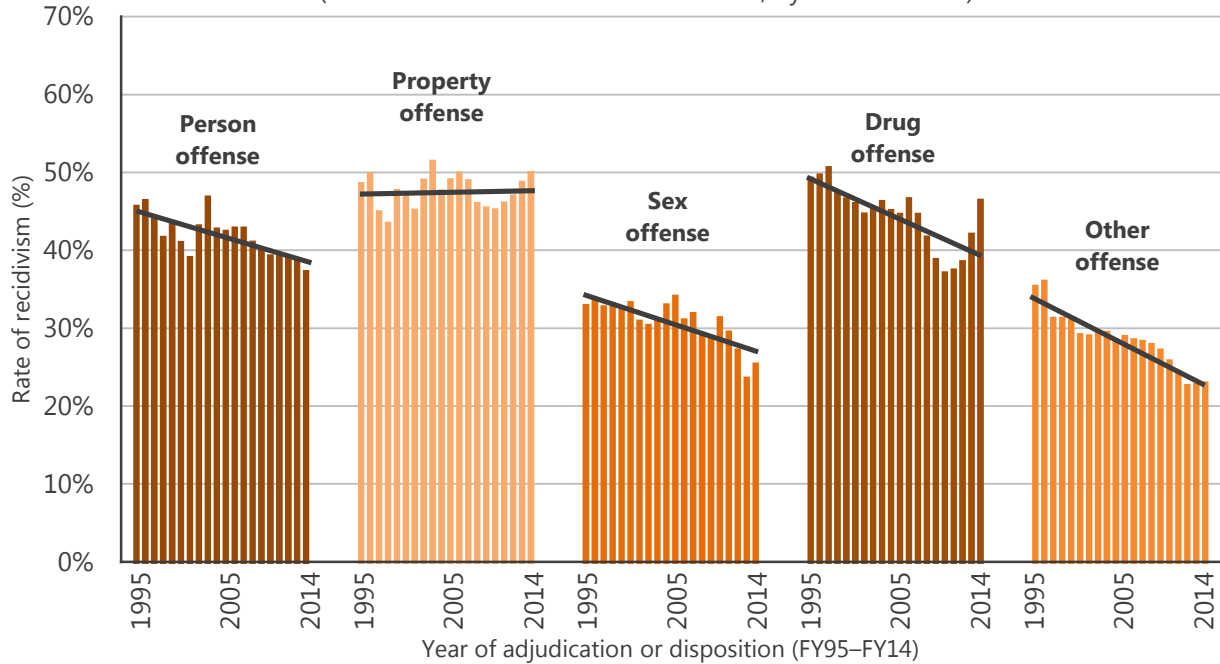


Exhibit 3

Trends in Recidivism by Type of Index Offense

Three-year recidivism rates for justice-involved adults in Washington State

(Annual case cohorts from FY95–FY14, by index offense)



Note:

"Other offense" largely comprises miscellaneous alcohol, DUI, and criminal conduct offenses.

Exhibit 4

Trends in Recidivism by Index Offense Grade

Three-year recidivism rates for justice-involved adults in Washington State

(Annual case cohorts from FY95–FY14, by recidivism type and index offense grade)



Exhibit 5

Trends in Recidivism by Age

Three-year recidivism rates for justice-involved adults in Washington State

(Annual case cohorts in FY95, FY05, and FY14, by age)

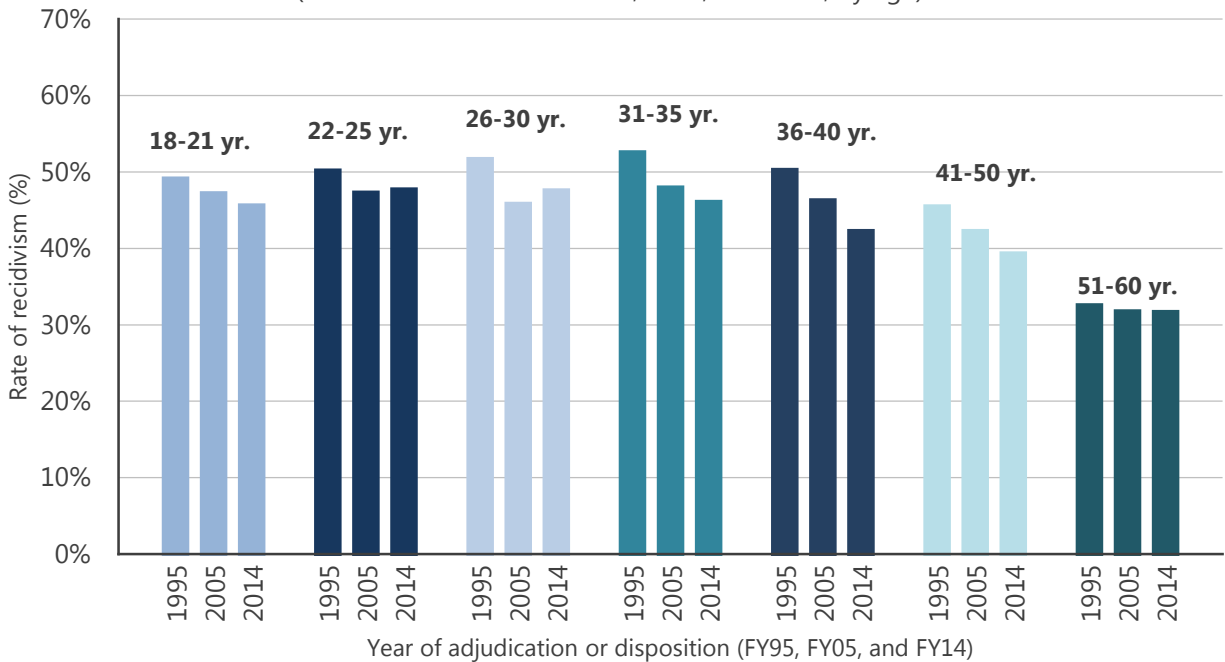


Exhibit 6

Trends in Recidivism by Sex

Three-year recidivism rates for justice-involved adults in Washington State

(Annual case cohorts from FY95–FY14, by sex)

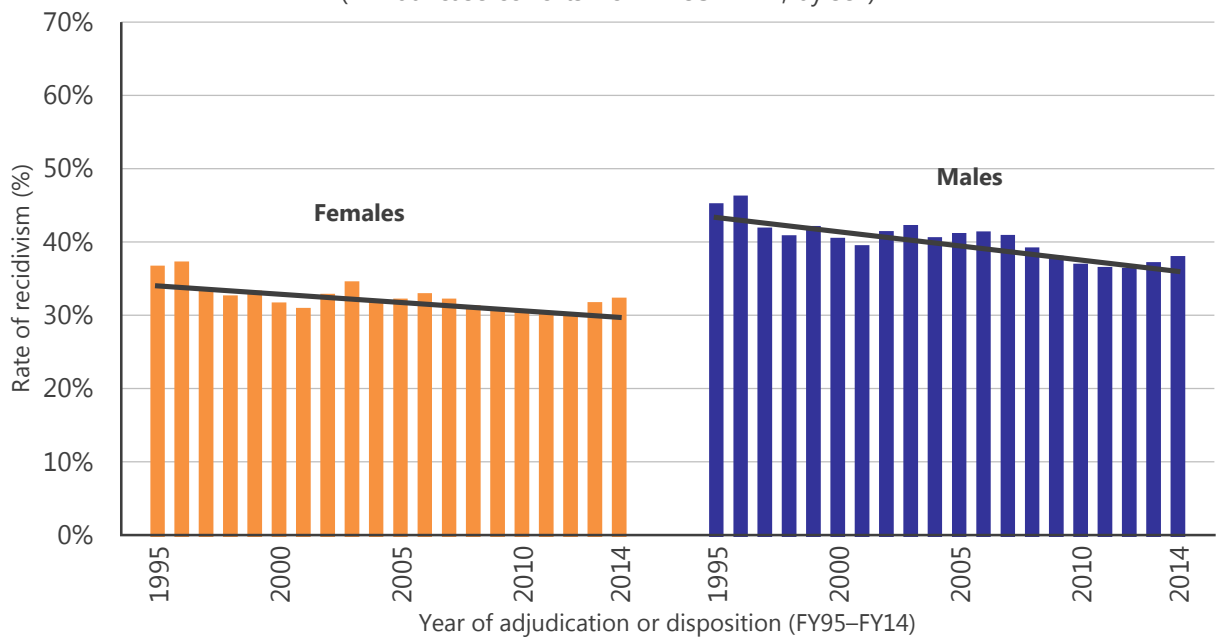
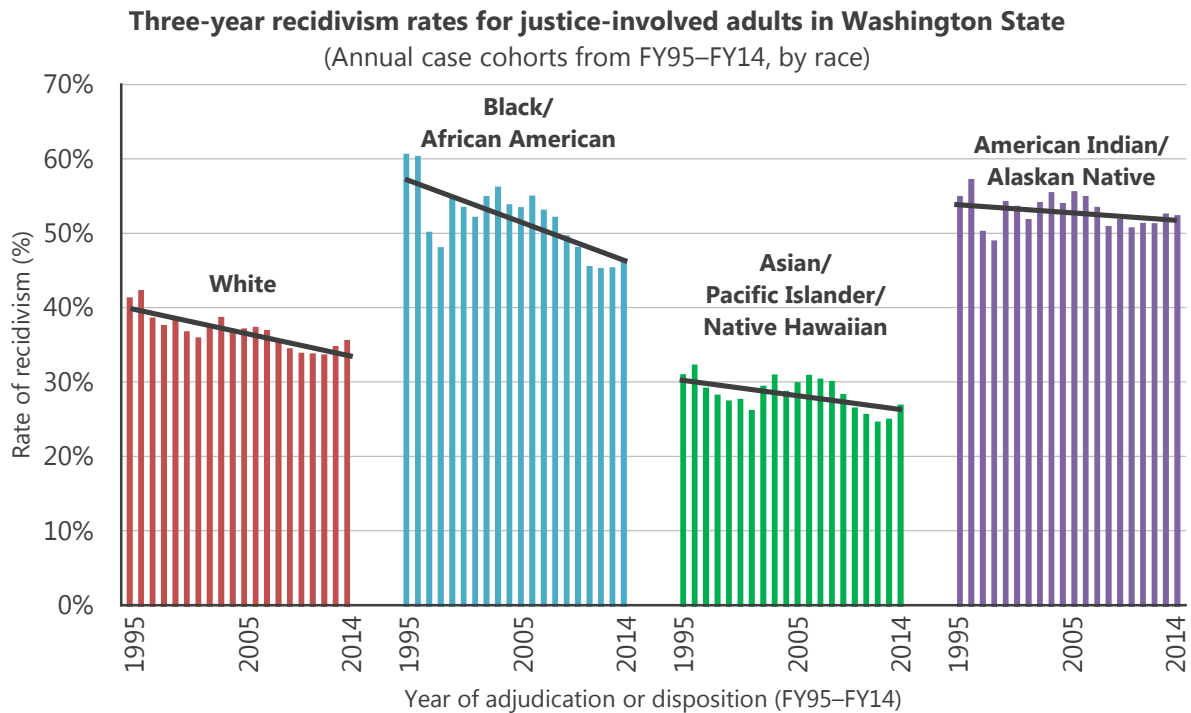


Exhibit 7

Trends in Recidivism by Race



Prison Release Cohorts

We repeated our recidivism analyses using annual FY cohorts of adults released from prison. Individuals incarcerated in prison represent only a small portion of the overall offending population. In general, only felony offenses meet the statutory requirements for a prison sentence. In the 20 court cohorts analyzed in the previous section, about 20% of the cases included a felony offense. Statistics from the Washington State Caseload Forecast Council indicate that between 1999 and 2014, only 34% of felony cases included a sentence to confinement in prison.

We selected prison release cohorts based on the date of release for each person.¹⁶ Thus, the individuals in each FY release cohort do not directly correspond to the individuals in each FY case cohort.¹⁷ Similarly, these cohorts may include individuals who were transferred to DOC from JR upon reaching 21 years of age.

¹⁶ See Appendix II for sample sizes for analyses included in this section.

¹⁷ For example, if an individual was convicted in 2000 and served a five- year prison sentence, they would be included in the FY 2000 case cohort and the FY 2005 prison release cohort.

For the prison release cohorts, we also present recidivism rates by risk level classification. For this report, we use DOC's Static Risk Assessment—Revised (SRA2) to classify our sample into four levels of risk: low, moderate, high non-violent, and high violent.¹⁸

Exhibit 15 and Exhibit 16 present trends in any felony recidivism and violent felony recidivism by risk level classification. These exhibits are comparable to previous analyses published by WSIPP.¹⁹

Key Findings: Prison Release Cohorts

Recidivism rates gradually increased during the late 1990s and early 2000s, peaking in 2003. By 2014, the rate of recidivism had declined to the 1995 rate.

Overall, between FY 1995 and FY 2014:

- ✓ Changes in recidivism varied by risk level classification:
 - High-violent risk: Recidivism rates declined 13% for any recidivism, 12% for felony recidivism, and 4% for violent felony recidivism.
 - High non-violent risk: Recidivism rates declined 13% for any recidivism, 9% for felony recidivism, and 1% for violent felony recidivism.
 - Moderate risk: Recidivism rates declined 4% for any recidivism and 2% for felony recidivism but increased 1% for violent felony recidivism.
 - Low risk: Recidivism rates declined 13% for any recidivism, 4% for felony recidivism, and 2% for violent felony recidivism.
 - The SRA2 accurately predicted the probability of recidivism and was particularly accurate in identifying the high-risk individuals who were most likely to recidivate with a violent felony offense.
- ✓ Changes in recidivism varied by demographics:
 - Age: Recidivism increased for the youngest adults (less than 30 years old) but decreased or remained steady for older adults (31 years and older).
 - Sex: Recidivism declined more for females than for males.
 - Race: Recidivism declined over time only for Black/African American adults. While the rates of recidivism remained generally stable for White and American Indian/Alaskan Native adults, the rate of recidivism for Asian/Pacific Islanders increased substantially.

¹⁸ WSIPP is able to recreate the Static Risk Assessment—Revised (SRA2) score for incarcerated adults using data from the Criminal History Database. The SRA2 was developed to predict 2-year recidivism rates for adults released from incarceration in prison. Thus, we report recidivism based on risk level classification only for the adult release cohort samples.

¹⁹ Drake (2011).

Exhibit 8

Trends in Recidivism by Most Serious Type of Recidivism

Three-year recidivism rates for adults released from prison in Washington State

(Annual release cohorts from FY95–FY14, by most serious recidivism)

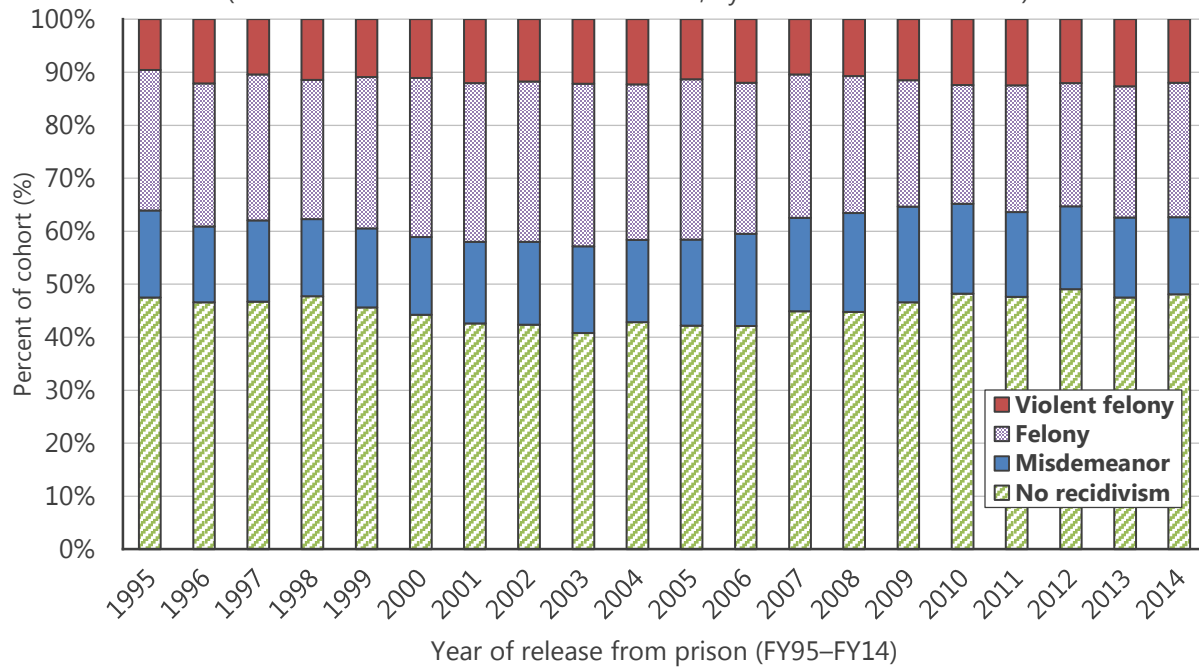
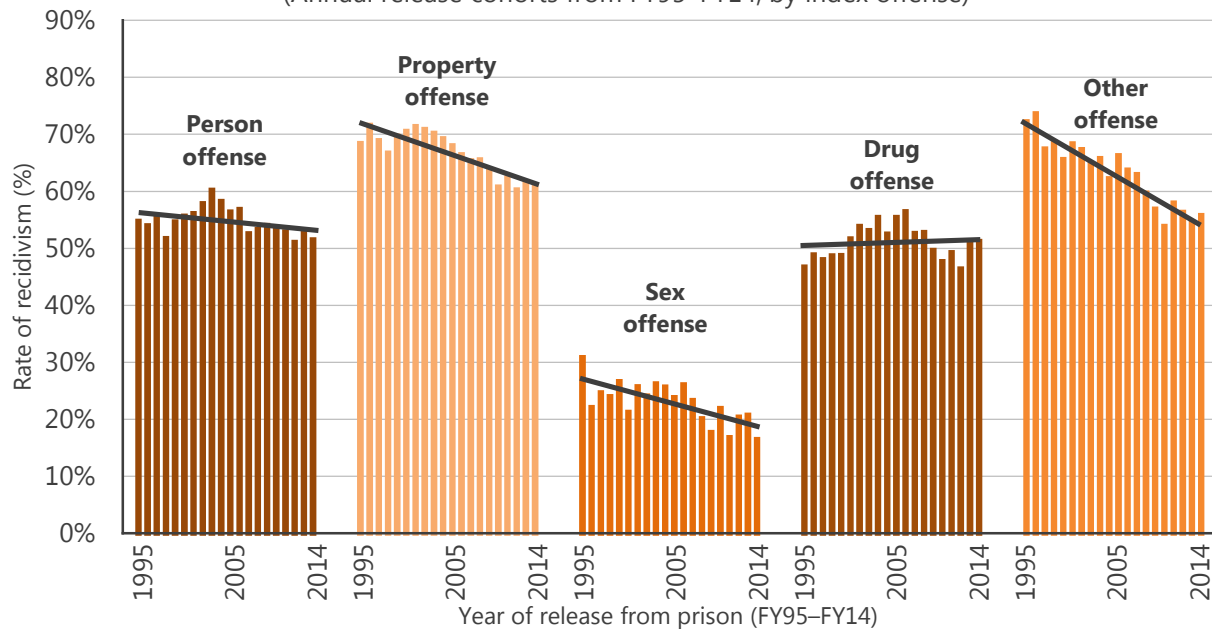


Exhibit 9

Trends in Recidivism by Index Offense

Three-year recidivism rates for adults released from prison in Washington State

(Annual release cohorts from FY95–FY14, by index offense)



Note:

"Other offense" largely comprises felony weapon/firearm, escape, and failure to register as a sex offender offenses.

Exhibit 10

Trends in Recidivism by Index Offense Grade

Three-year reconviction rates for adults released from prison in Washington State

(Annual release cohorts from FY95–FY14, by recidivism type and index offense grade)

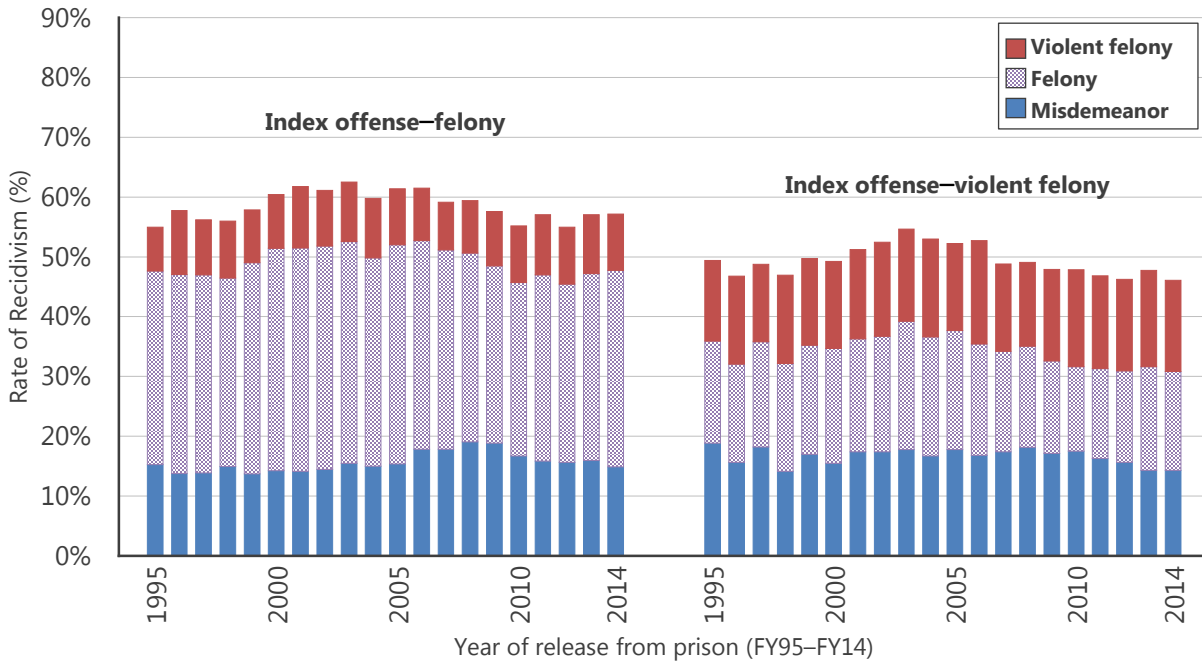


Exhibit 11

Trends in Recidivism by Risk Level Classification

Three-year recidivism rates for adults released from prison in Washington State

(Annual release cohorts from FY95–FY14, by risk classification level)

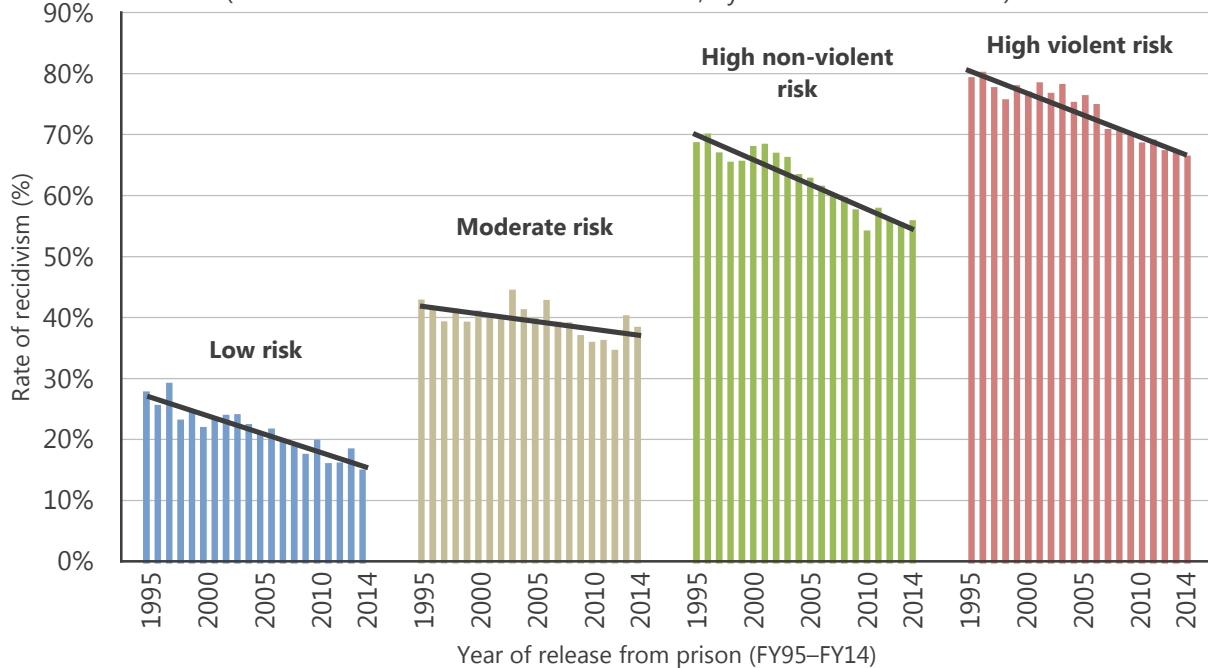


Exhibit 12

Trends in *Any Felony* Recidivism by Risk Level Classification

Three-year recidivism rates for adults released from prison in Washington State

(Annual release cohorts from FY95–FY14, by risk classification level)

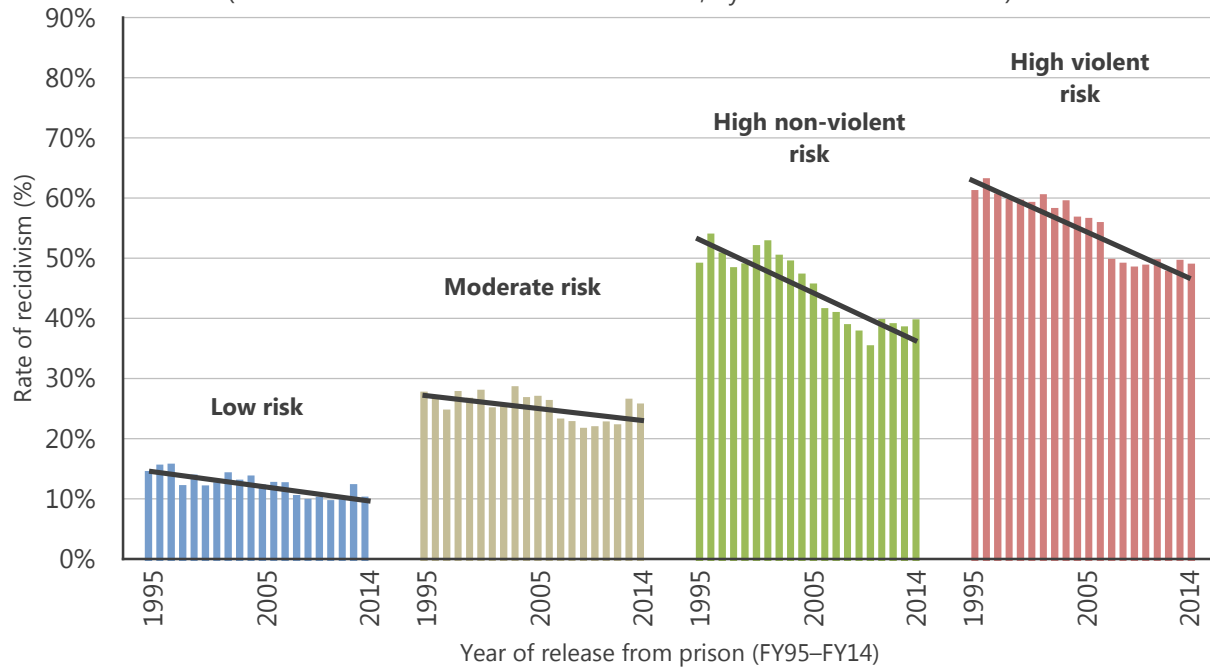


Exhibit 13

Trends in *Violent Felony* Recidivism by Risk Level Classification

Three-year recidivism rates for adults released from prison in Washington State

(Annual release cohorts from FY95–FY14, by risk classification level)

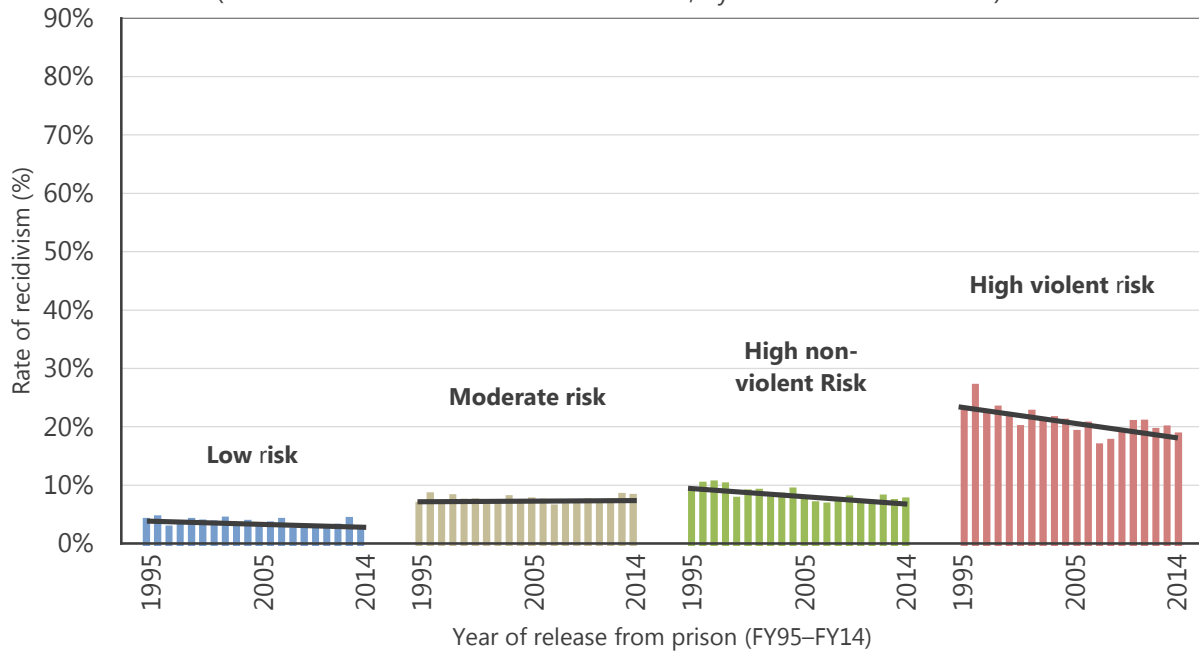


Exhibit 14

Trends in Total Recidivism by Age

Three-year recidivism rates for adults released from prison in Washington State

(Annual release cohorts in FY95, FY05, and FY14, by age)

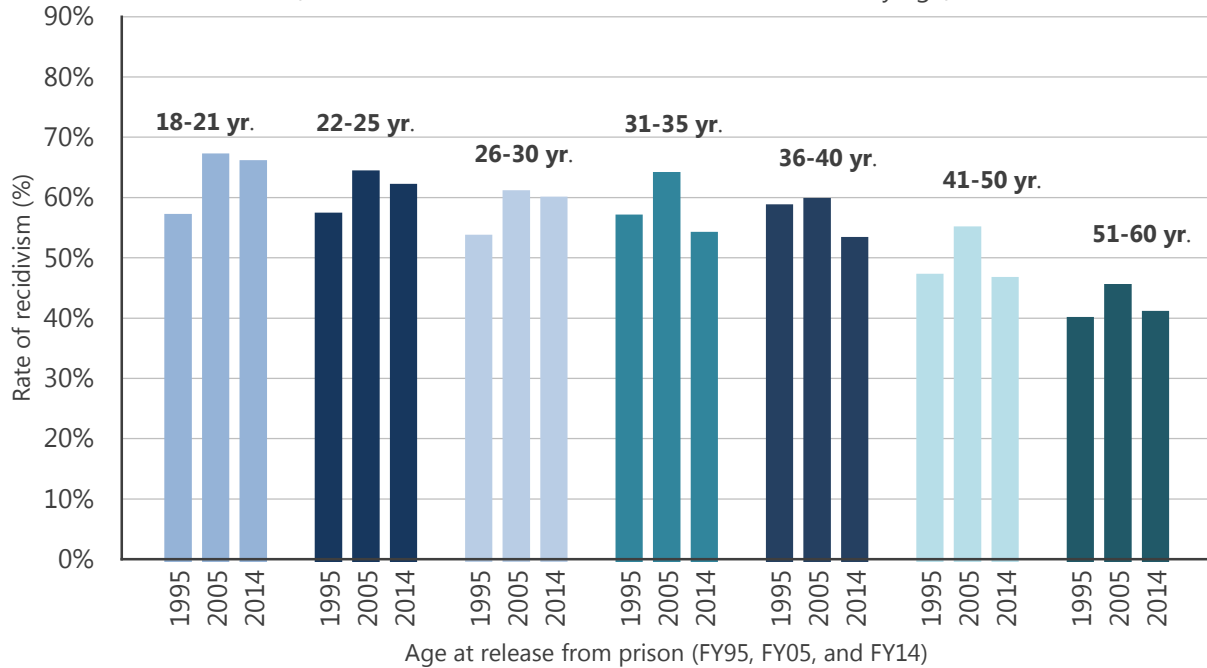


Exhibit 15

Trends in Total Recidivism by Sex

Three-year recidivism rates for adults released from prison in Washington State

(Annual release cohorts from FY95–FY14, by sex)

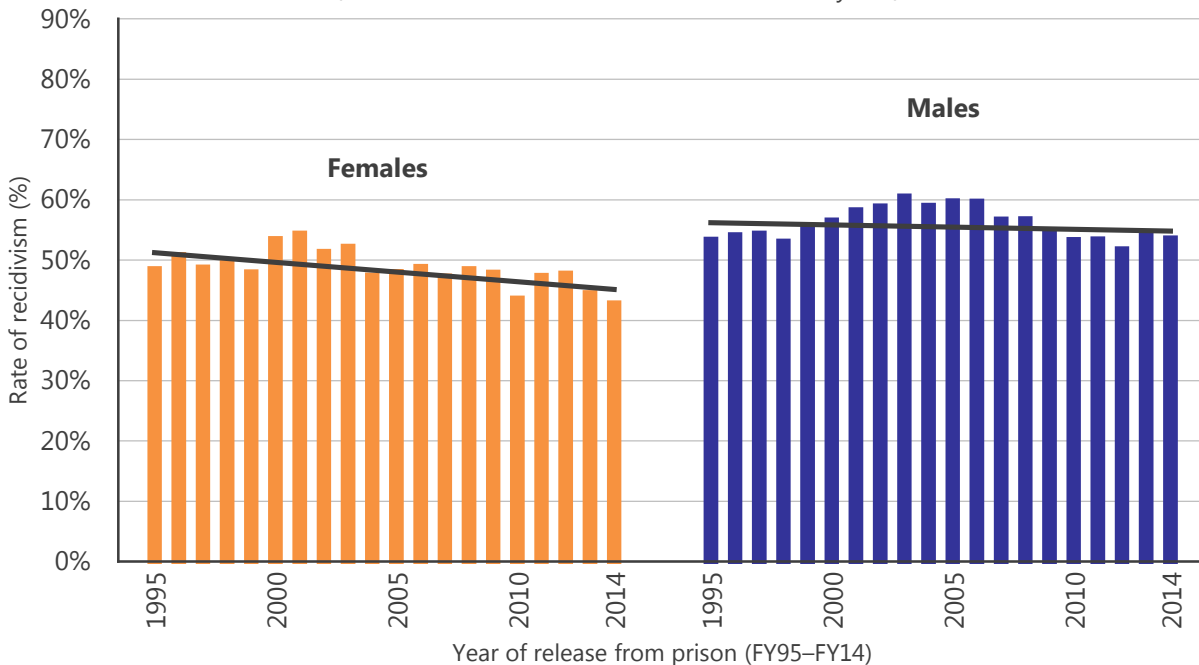
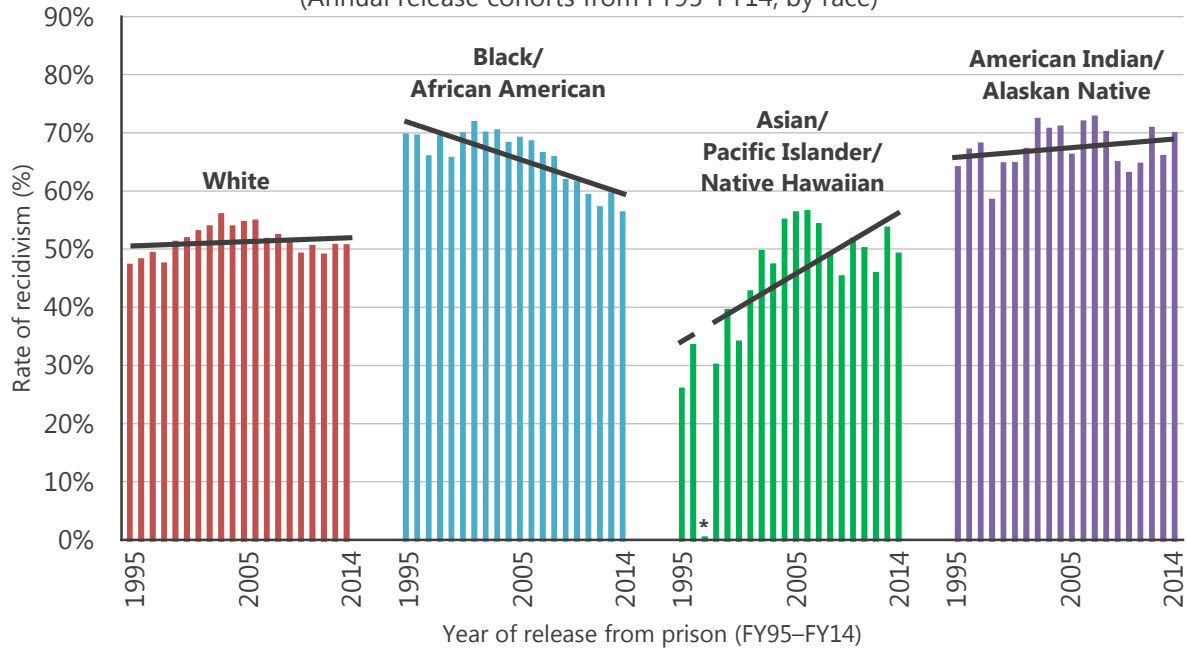


Exhibit 16

Trends in Total Recidivism by Race

Three-year recidivism rates for adults released from prison in Washington State

(Annual release cohorts from FY95–FY14, by race)



Note:

* We exclude the rate of recidivism for any sub-sample with less than 80 adults. See Appendix II.

III. Juvenile Recidivism Trends

This section comprises two subsections. The first subsection includes general recidivism trends for youth involved in the juvenile justice system. The second subsection includes recidivism trends for youth released from commitment in a JR facility.

Juvenile Case Cohorts

We begin with the recidivism trends for FY 1995–FY 2014 annual case cohorts of youth with a Washington State juvenile court legal action (conviction, diversion, or deferred judgement) for a criminal offense.

For youth committed to a JR facility for the qualifying case, recidivism measurement starts when the youth is released from their commitment. For youth receiving local sanctions,²⁰ recidivism measurement starts at the adjudication date for the qualifying case. Youth were removed from the sample if the follow-up period did not begin prior to April 1, 2016.²¹

We first present overall rates of recidivism and then provide separate trends based on characteristics of the index offense and youth demographics.²²

Key Findings: Juvenile Case Cohorts

Recidivism by youth involved in the juvenile justice system gradually declined between FY 1995 to FY 2014:

- ✓ Declines in recidivism were driven largely by a decline in recidivism with a felony offense.
- ✓ Reductions in recidivism varied by index offense:
 - Recidivism for youth committed to a JR facility declined more than recidivism for youth sentenced to local sanctions.
 - Youth whose index offense was a misdemeanor were the most likely to recidivate with a misdemeanor, while youth whose index offense was a felony were the most likely to recidivate with a felony.
- ✓ Changes in recidivism varied by demographics.
 - Age: Recidivism rates declined for all youth 12 years and older.
 - Sex: Recidivism rates for females remained relatively stable over time but steadily declined for males.
 - Race: Recidivism declined for all racial groups. Asian/Pacific Islander/Native Hawaiians exhibited the most significant declines in recidivism.

²⁰ Local sanctions include short-term (i.e., < 30 days) confinement in a county detention facility, community supervision, community services, and legal financial obligations ([RCW 13.40.020](#)).

²¹ This exclusion criterion affects individuals in late-year cohorts who were committed to a JR facility. For example, individuals to a JR facility in FY 2014 may not be released early enough to provide an 18-month follow-up and 12-month adjudication period. See Appendix II for additional details and for sample size information for analyses included in this section.

²² See Appendix III for additional analyses of recidivism trends for race and sex.

Exhibit 17

Trends in Recidivism by Most Serious Type of Recidivism

18-month recidivism rates for justice-involved youth in Washington State

(Annual case cohorts from FY95–FY14, by most serious recidivism)

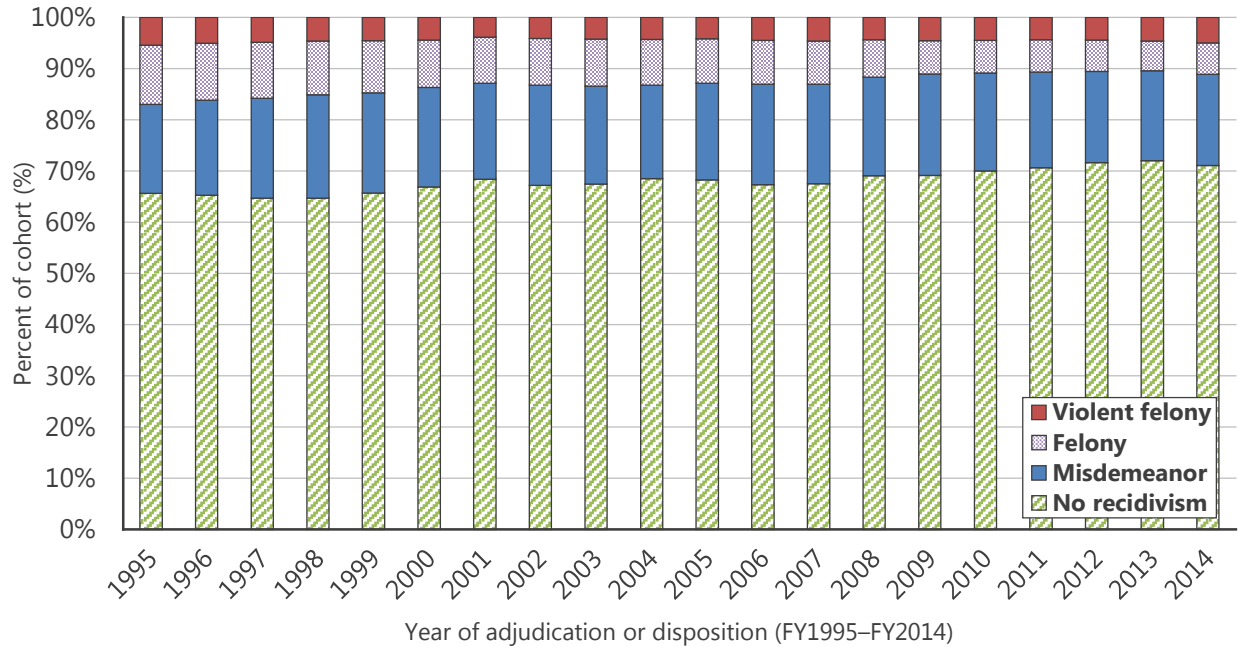


Exhibit 18

Trends in Recidivism by Disposition and Sentence Type

18-month recidivism rates for justice-involved youth in Washington State

(Annual case cohorts from FY95–FY14, by recidivism type and disposition)

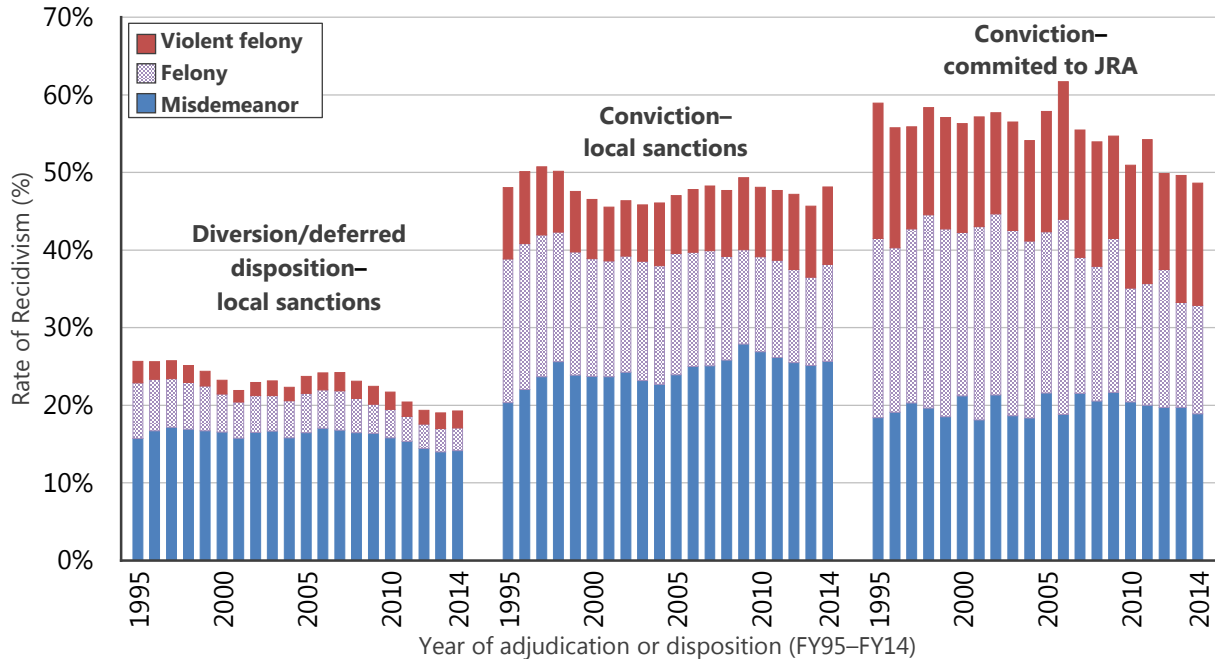
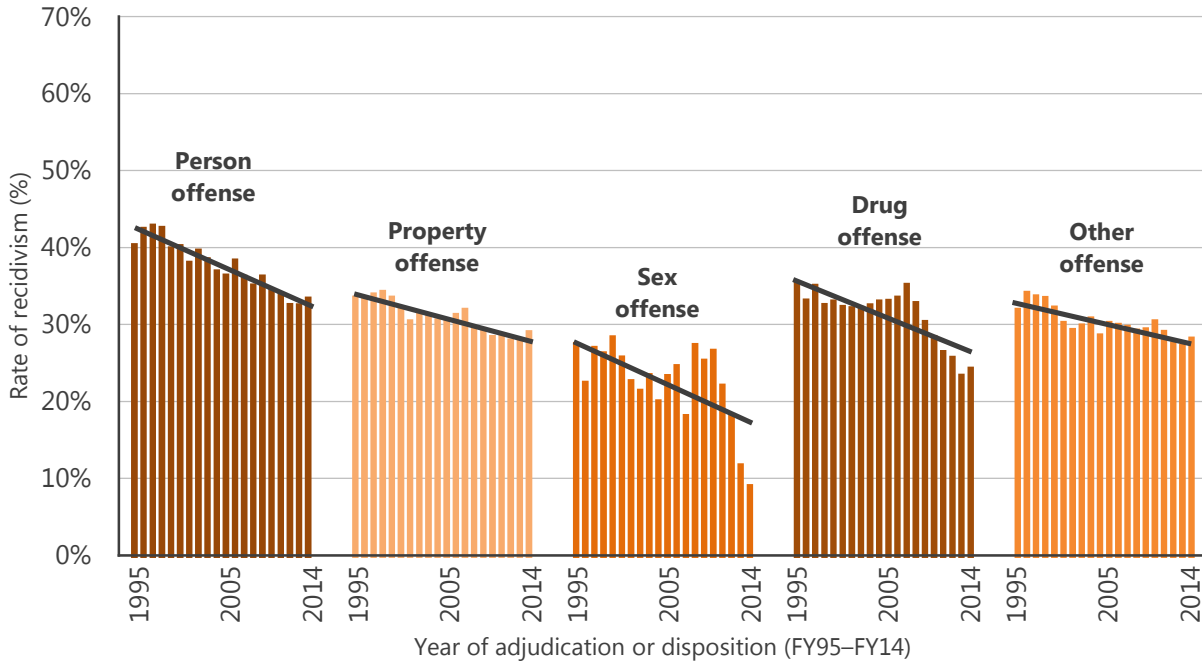


Exhibit 19

Trends in Recidivism by Index Offense

18-month recidivism rates for justice-involved youth in Washington State

(Annual case cohorts from FY95–FY14, by index offense)



Note:

"Other offense" largely comprises miscellaneous alcohol, criminal conduct, and weapons offenses.

Exhibit 20

Trends in Recidivism by Index Offense Grade

18-month recidivism rates for justice-involved youth in Washington State

(Annual case cohorts from FY95–FY14, by recidivism type and index offense grade)

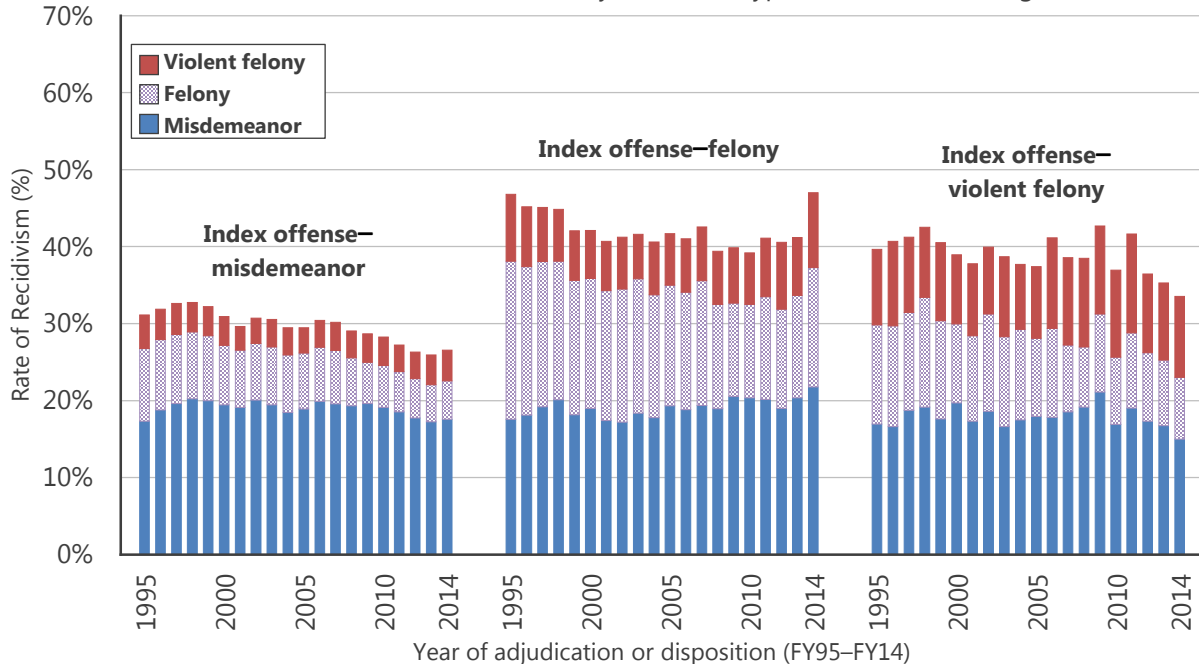
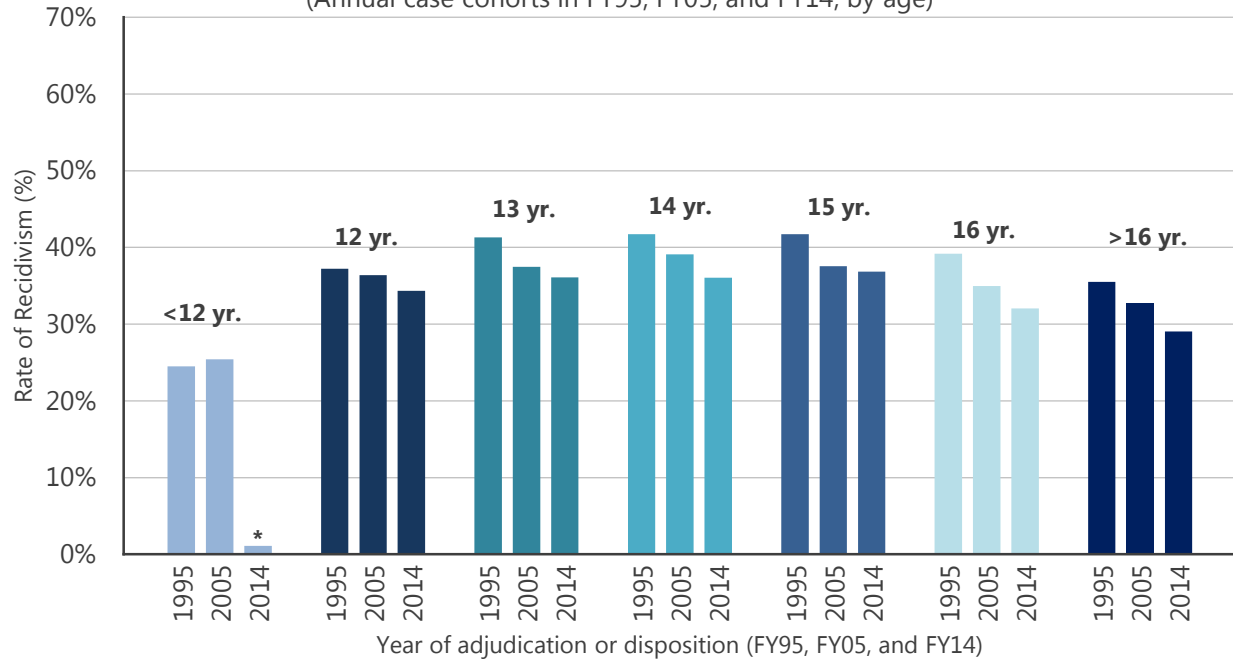


Exhibit 21

Trends in Recidivism by Age

18-month recidivism rates for justice-involved youth in Washington State

(Annual case cohorts in FY95, FY05, and FY14, by age)



Note:

*We exclude the rate of recidivism for any sub-sample less than 80 youth. See Appendix II.

Exhibit 22

Trends in Recidivism by Sex

18-month recidivism rates for justice-involved youth in Washington State

(Annual case cohorts from FY95–FY14, by sex)

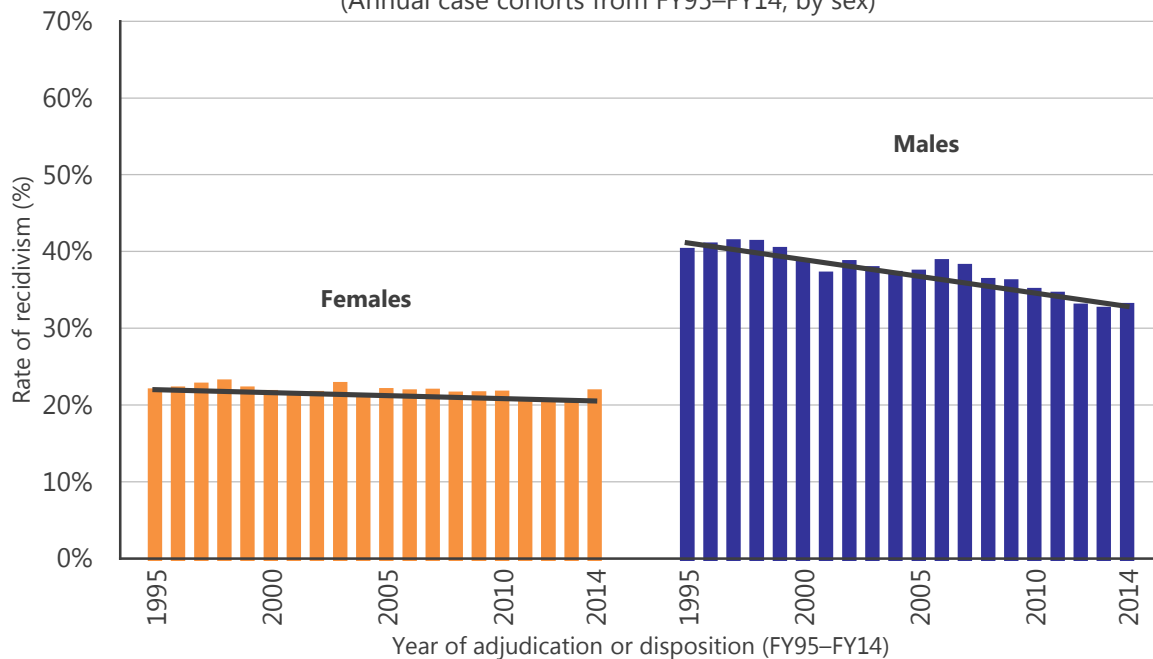
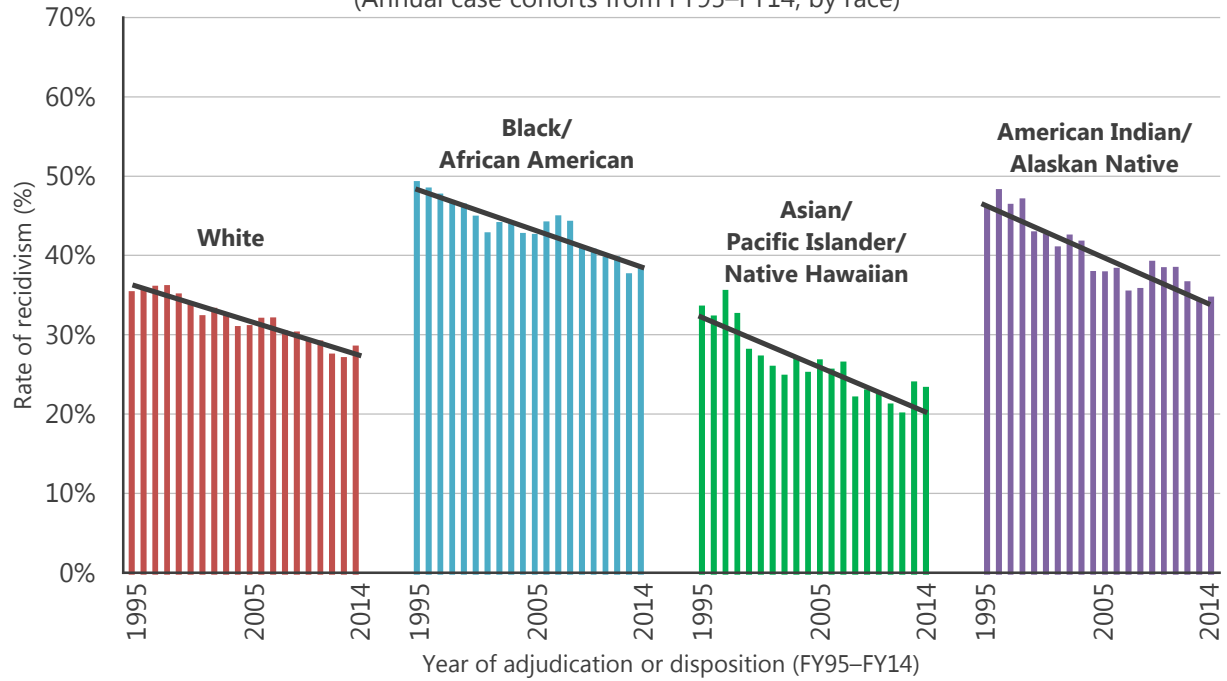


Exhibit 23

Trends in Recidivism by Race

18-month recidivism rates for justice-involved youth in Washington State

(Annual case cohorts from FY95–FY14, by race)



JR Release Cohorts

We repeated our recidivism analyses using annual FY cohorts of youth released from a JR facility. Youth committed to a JR facility represent a small portion of all juveniles who have contact with the juvenile justice system. According to estimates from the Washington Caseload Forecast Council, the yearly rate of juvenile dispositions resulting in commitment to JR between FY 2003 and FY 2014 was only 8%.

We selected JR release cohorts based on the date of release from commitment in a JR facility for each youth. The individuals in each fiscal year JR release cohort do not directly correspond to the youth in each fiscal year court case cohort.²³ In addition, we excluded youth who were released from a JR facility to DOC custody.²⁴

Due to limitations in the availability of risk assessment data, we were not able to assess recidivism for the JR release cohort by risk level. Future analyses should examine how the distribution of risk level classifications have changed over time for youth committed to JR facilities and youth receiving local sanctions through the juvenile courts.²⁵

Key Findings: JR Release Cohorts

Recidivism by youth released from commitment in a JR facility decreased from FY 1995 to FY 2014:

- ✓ Declines in recidivism were driven largely by reductions in recidivism with a subsequent felony offense.
- ✓ Youth committed to a JR facility for a violent felony offense had slightly larger reductions in recidivism than youth committed to a JR facility for a non-violent felony offense.
- ✓ Changes in recidivism varied by demographics.
 - Age: Recidivism rates declined for all youth. However, recidivism rates for youth 18 years and older upon release initially increased between FY 1995 and FY20 05.
 - Sex: Recidivism rates for females gradually increased over time while recidivism rates for males gradually declined over time.
 - Race: Recidivism rates for White and Black/African American youth declined over time.

²³ For example, if an individual was committed to a JR facility in FY 2000 for two years, they would be included in the FY 2000 case cohort and the FY 2002 JR release cohort.

²⁴ See Appendix II for more information and for sample sizes for all analyses included in this section.

²⁵ We do not have risk-level classification data for youth committed to JR. We do have risk assessment data for juvenile court youth. However, we have risk data for only the youth entering the system in 2004 or later. In addition, there is currently no indicator in the risk assessment data that would allow us to link the risk-level classification to the corresponding juvenile court records.

Exhibit 24

Trends in Recidivism by Most Serious Type of Recidivism

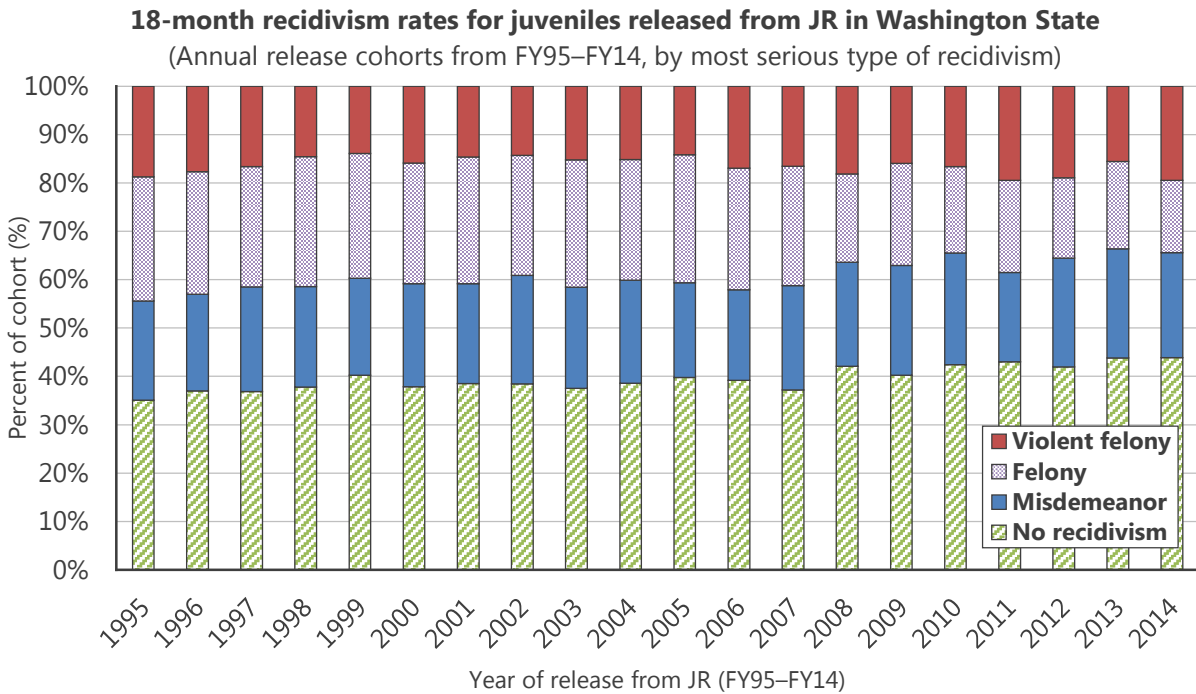
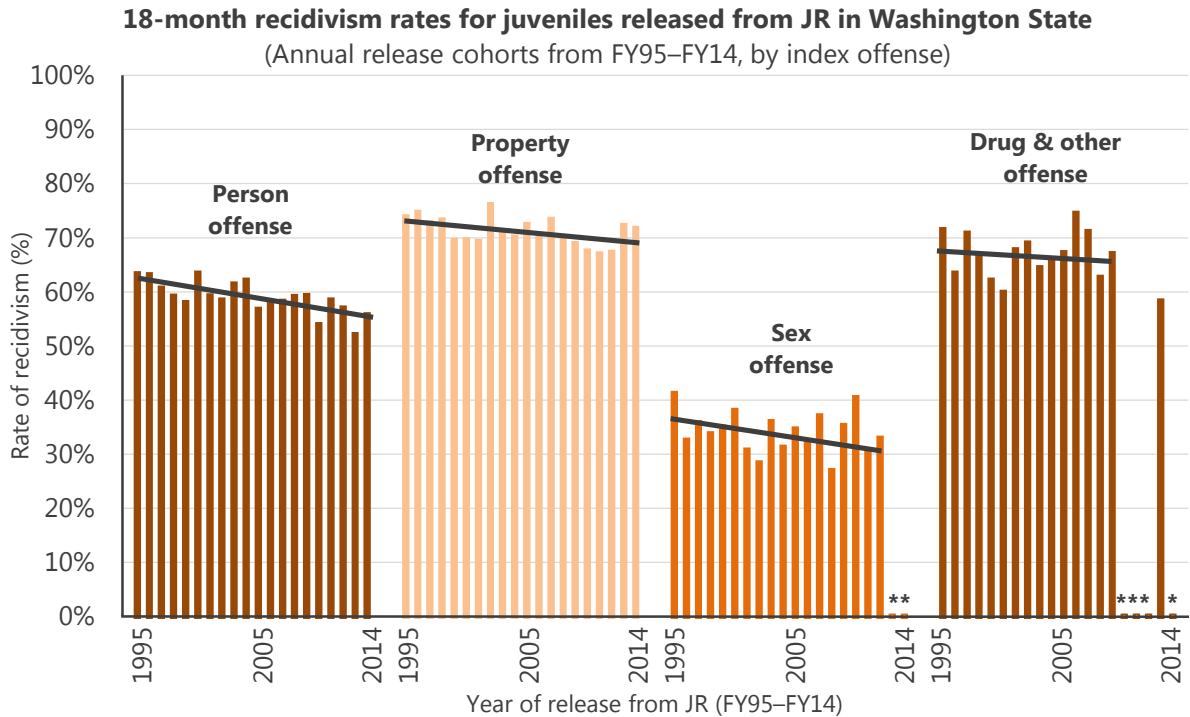


Exhibit 25

Trends in Recidivism by Index Offense



Note:

* We exclude the rate of recidivism for any sample with less than 80 youth. See Appendix II.

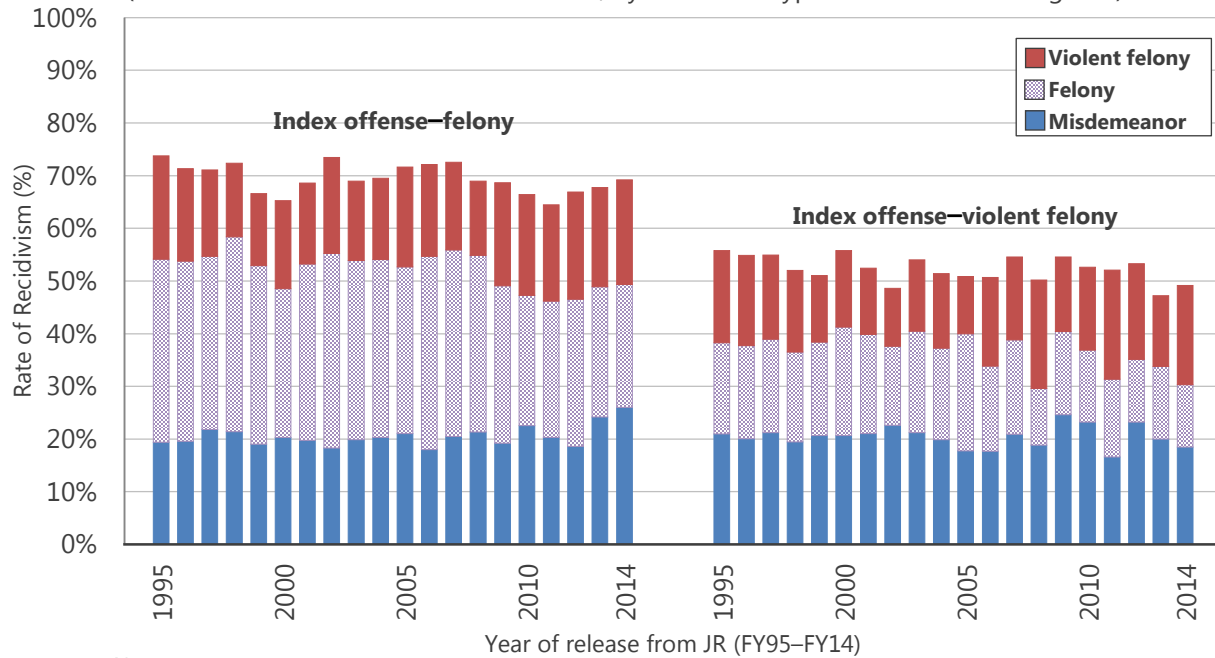
"Other offense" largely comprises escape, weapons, and firearms offenses.

Exhibit 26

Trends in Recidivism by Index Offense Grade

18-month recidivism rates for juveniles released from JR in Washington State

(Annual release cohorts from FY95–FY14, by recidivism type and index offense grade)



Note:

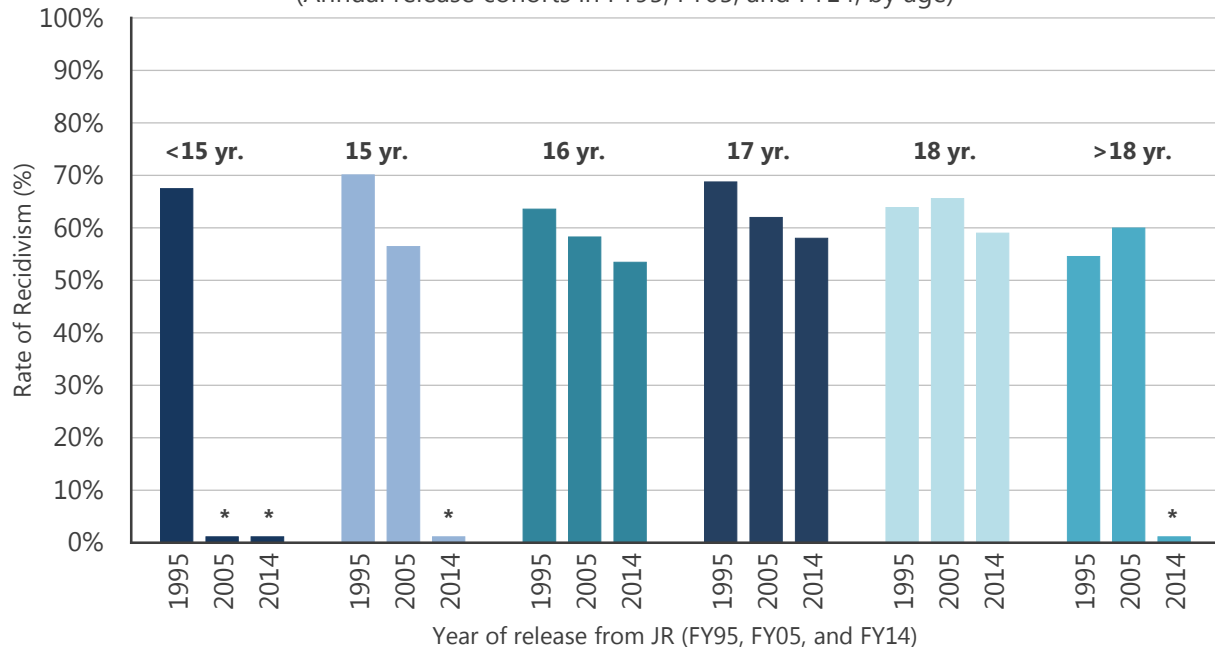
Youth committed for a misdemeanor index offense were excluded from this chart due to insufficient sample sizes.

Exhibit 27

Trends in Recidivism by Age

18-month recidivism rates for juveniles released from JR in Washington State

(Annual release cohorts in FY95, FY05, and FY14, by age)



Note:

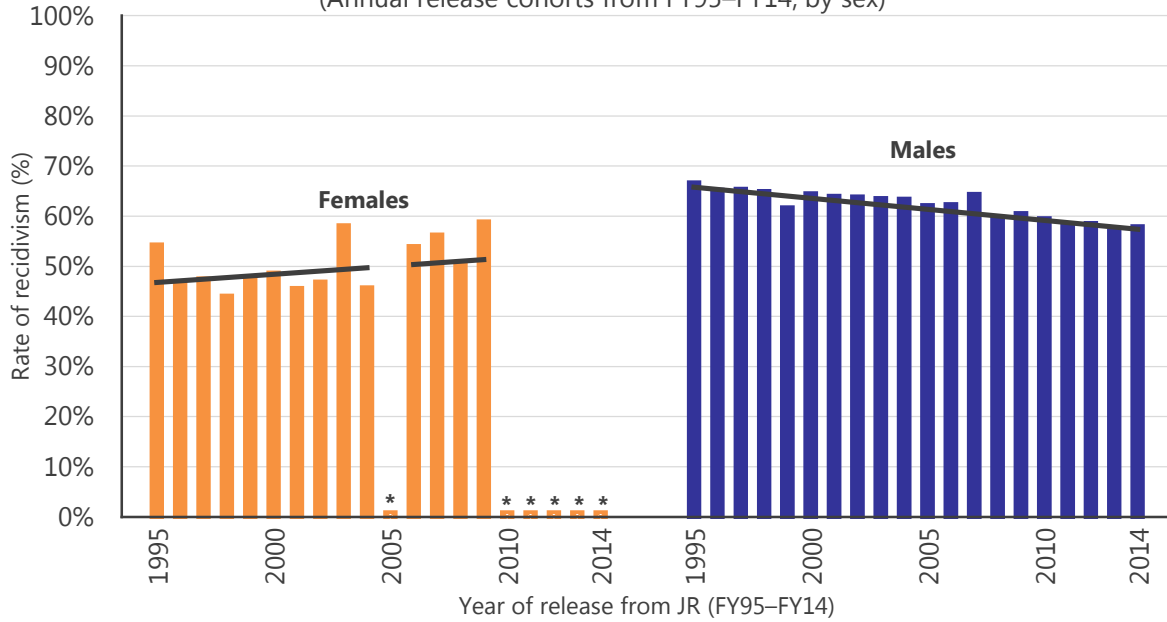
* We exclude the rate of recidivism for any sample with less than 80 youth. See Appendix II.

Exhibit 28

Trends in Recidivism by Sex

18-month recidivism rates for juveniles released from JR in Washington State

(Annual release cohorts from FY95–FY14, by sex)



Note:

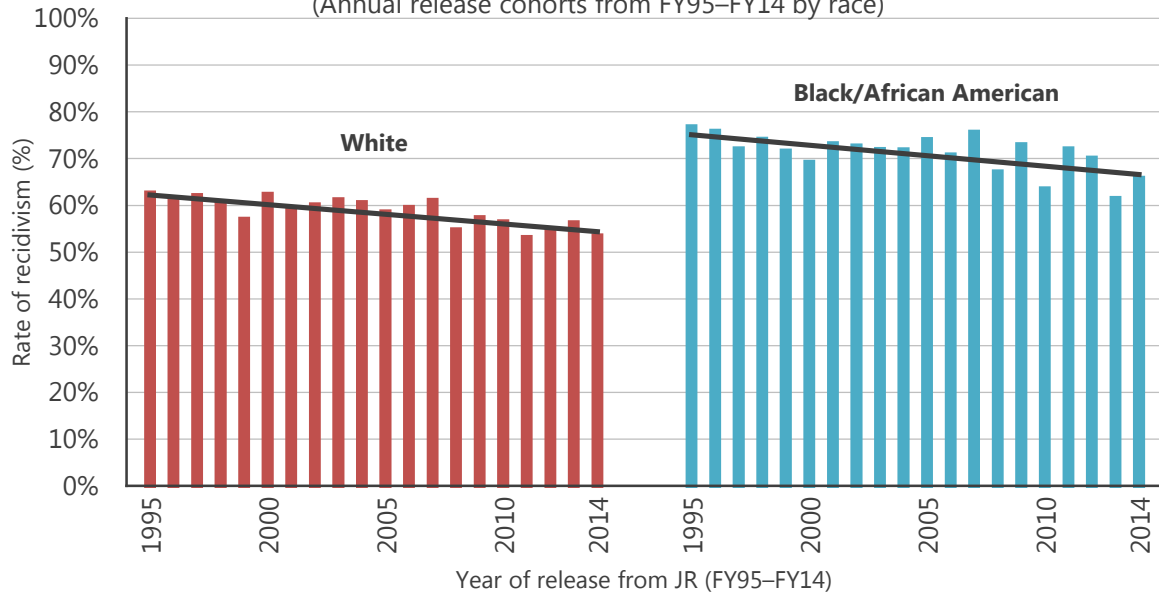
* We exclude the rate of recidivism for any sub-sample with less than 80 youth. See Appendix II.

Exhibit 29

Trends in Recidivism by Race

18-month recidivism rates for juvenile released from JR in Washington State

(Annual release cohorts from FY95–FY14 by race)



Note:

Asian/Pacific Islander/Native Hawaiian and American Indian/Alaskan Native were excluded due to insufficient sample sizes.



Appendices

Washington State Juvenile and Adult Recidivism Trends: FY1995–FY2014

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I. Defining and Measuring Recidivism

Measures of recidivism can serve as an effective method for evaluating the success of criminal justice programs and policies. Similarly, descriptive measures of recidivism may inform policy makers and practitioners about the need for new or modified interventions. Analyses of trends over time can also inform more sophisticated methods that seek to understand how policy or social changes relate to changes in offending behaviors.²⁶ However, there is no universal standard for defining and measuring recidivism, and not all measurements are alike.

Policy makers and practitioners must carefully consider the specifications for any particular recidivism measure, and different types of recidivism measures should be used to address different types of policy questions. Without careful consideration of the definitions and measurement methods in different reports, comparisons of different types of recidivism measures may lead to inappropriate conclusions about criminal justice needs or program outcomes.

WSIPP recommends that Washington State agencies continue to refer to previously established standards when using recidivism to assess the effectiveness of policies and programs.²⁷ Consistency in methods maximizes the ability to make comparisons of findings from different Washington State reports. However, we recognize that policy makers and practitioners may also refer to reports or publications produced outside of Washington that use an alternative definition of, or approach to, measuring recidivism. Differences in the outcomes of two recidivism measurements may be due to differences in the specifications of each recidivism measure, rather than differences in the actual offending behaviors of the populations.

This technical appendix reviews three different characteristics of recidivism measurement: 1) sample specification, 2) outcome specification, and 3) follow-up operationalization. This appendix discusses some of the most common options for each of the measurement characteristics and how the different options impact the interpretation of recidivism measures. In order to ensure appropriate comparisons of recidivism measures across criminal justice research, studies analyzing recidivism should explicitly specify each of these three characteristics.

²⁶ See University of Pennsylvania, Wharton School, Center for Studies in Criminology and Criminal Law, & United States of America. (2012). [Understanding the "Why" Behind Juvenile Crime Trends](#). Washington D.C.: Office of Juvenile Justice and Delinquency Prevention.

²⁷ Barnoski (1997).

Sample Specification

Measures of recidivism should specify the general population from which the sample was selected and the method used to select the sample. The sample used for any particular recidivism measure defines the population to which the outcome may be generalized.

Defining the Sample

Recidivism is typically analyzed using one of two types of samples: a case sample or a release sample. Each approach captures different groups of justice-involved persons. The differences in these sampling methods are evident in our report which uses both case cohorts and release cohorts for adults and juveniles.

Case Sample. A case sample assesses the behavior of individuals who make contact with the criminal justice system (e.g., are charged, convicted, or sentenced) in the same time period (e.g., month, quarter, or year). Analyses of recidivism using multiple annual case cohorts can detail year-over-year changes in the justice-involved population.

Release Sample. A release sample assesses the behavior of individuals who are released from incarceration (e.g., in jail, prison, or another residential facility such as JR facilities) during the same time period (e.g., month, quarter, or year). Analyses of recidivism using multiple annual release cohorts can assess year-over-year patterns of desistance during reentry into the community.

Each method of sampling will result in the selection of a different group of justice-involved persons. For example, individuals convicted in the same year may have varying lengths of incarceration sentences and would subsequently be in different release cohorts.

Strengths and Limitations. Analyses of recidivism outcomes for case cohorts can be an effective way to evaluate the impact of particular policy or program changes, particularly when those changes affect all individuals who come in contact with the justice system. For instance, case cohorts allow for the comparison of individuals who were sentenced under different legal frameworks (e.g., determinant vs indeterminate sentencing). Given that the majority of justice-involved persons are not sentenced to incarceration in a state facility, analyses of case cohorts provide the broadest evaluation of recidivism behaviors among the general offending population.

There are several limitations to recidivism measures based on case cohorts. First, individuals within a case cohort may be sentenced to different lengths of stay in confinement. As such, the analyses will measure recidivism behaviors at different times for different individuals. Changes in policies related to the definitions or enforcement of crime will differentially impact the likelihood of recidivism outcomes for individuals in the same case cohort. Second, if individuals in a case cohort are sentenced to confinement, enough time must pass for the incarceration sentence to be completed before starting the follow-up period. In this report, we had to exclude some individuals from the adult case cohorts because they did not have a sufficient follow-up period following their release from incarceration (see [Appendix II](#) for additional details). Finally, the findings from a large case cohort analysis may be driven disproportionately by certain groups of justice-involved persons. In our adult case cohort analysis, about 80% of the sample was convicted of a misdemeanor as the most serious offense. The recidivism outcomes are subsequently driven largely by the behaviors of individuals adjudicated for a misdemeanor rather than more serious felony.

Analyses of recidivism outcomes for release cohorts can be an effective way to evaluate the likelihood of recidivism for individuals who commit the most serious offenses or to evaluate the effectiveness of correctional programs and policies. Policymakers may be particularly interested in the recidivism behaviors of formerly incarcerated individuals because they may be more likely to commit felony or violent felony offenses. Release cohorts allow for simultaneous measurement of offending behaviors for all individuals in the sample. Because release samples include only the individuals who are in the community, it is less likely that individuals are excluded from a release sample due to an insufficient follow-up period.²⁸

There are several limitations to the use of release cohorts. First, because few justice-involved persons are sentenced to confinement, release samples are not representative of the general offending population. In jurisdictions that use a sentencing guideline grid based on offense seriousness and criminal history, release samples will disproportionately include individuals convicted of felony and violent felony offenses and individuals with the longest prior criminal records. Second, individuals released from confinement may face increased supervision in the community compared to those who are not sentenced to incarceration. Authorities may be more likely to identify crimes committed by individuals under increased supervision, and higher recidivism rates may reflect differences in the likelihood of identifying offending behaviors rather than a difference in actual offending behaviors.

Other Important Sample Characteristics. Reports should specify additional characteristics of the sample that may be necessary to accurately interpret the findings. For example, does the sample use fiscal year cohorts, annual year cohorts, or some other cohort parameter?

Reports should specify if there are any additional exclusion criteria used to remove individuals from the sample. For example, in [Section III](#) of this report, we specify that we removed youth who were committed to a JR facility and later transferred to a DOC facility to serve the remainder of their sentence from our analyses. This specification may lead to important differences between our findings and the findings of other reports that include these youth if the youth transferred to DOC are systematically more or less likely to recidivate than those who are released from JR to the community.

Reports should specify if the analyses are limited to individuals who commit certain types of offenses or to specific types of cases. For example, while our analyses of case cohorts included all individuals with a court legal action for a criminal offense, other reports may limit their analyses to felony cases or individuals whose cases are disposed in specialized courts (e.g., drug court). Similarly, our report included individuals receiving a diversion disposition in addition to formal convictions, but other reports may be limited to those who receive a formal conviction disposition.

Finally, when possible, reports should provide information on recidivism for different demographic groups and risk-level classifications. Analyses by subgroups may reveal divergent trends that are not obvious in the analyses for the recidivism rate of the overall sample. For example, if the recidivism rate for a high-risk population declines over time, but the recidivism rate for a low-risk population increases during the same time, overall trends in recidivism may appear to be flat.²⁹ Similarly, overall recidivism measures are likely

²⁸ Studies using release cohorts may still exclude some individuals due to an insufficient follow-up period, for example, if the person dies before the follow-up period ends.

²⁹ In this report, we were able to present analyses by risk level classification for only the prison release cohort. The Static Risk Assessment—Revised (SRA2) was developed to predict recidivism for DOC populations. As such, we felt it would be inappropriate to use this instrument to classify non-incarcerated adults in the case cohort sample. The Washington State juvenile courts use a different actuarial risk assessment instrument for youth. However, data on risk level classifications is not available prior to 2005 and we are unable to recreate risk level classifications for prior years using the data in the CHD. Future analyses should examine how juvenile recidivism has changed by risk level classifications over time.

to be driven by the behaviors of certain subgroups if they are disproportionately represented in the sample. Males commit far more crime than females. As such, overall recidivism measures will likely be disproportionately driven by the recidivism behaviors of males. Disaggregation of trends can provide important information for developing programs or interventions to target specific groups of individuals.

Method of Sampling

In addition to defining the parameters of the overall sample, recidivism reports should specify whether the analysis uses an offender-based sample or an event-based sample.³⁰

Offender-Based Sample. In an offender-based sample, the unit of observation is an individual. Each person in the sample is included only once or each individual observation for an individual is weighted such that each unique person has an equal contribution to the overall rate of recidivism in the larger sample.

Event-Based Sample. In an event-based sample, the unit of observation is an event, such as a conviction for a criminal offense or release from incarceration, associated with an individual.³¹ In an event-based sample, individuals with multiple trips through the criminal justice system will be included in the sample multiple times.

Some researchers have shown that studies using event-based samples are likely to result in higher rates of recidivism than studies using offender-based samples.³² Event-based samples are disproportionately driven by the population of high-frequency, high-risk offenders who appear in the sample multiple times. Alternatively, offender-based samples include low-risk and high-risk offenders proportionally.

In our report, we employ unweighted offender-based samples and select each individual's first case or first release from confinement in each annual cohort. This approach maintains independence in each of the FY cohorts but may result in the same individuals being included in the overall sample multiple times (e.g., if they had two multiple convictions or releases in different fiscal years).

Outcome Specification

Recidivism is broadly understood as a return to criminal behavior after a sanction for a prior offense has been imposed and served. Analyses of recidivism may use different definitions of a "return to criminal behavior," otherwise known as a recidivism event. Some common definitions of a recidivism event include an arrest for a criminal offense, a conviction (or formal court legal action) for a criminal offense, or a return to incarceration. Furthermore, recidivism analyses may report on all criminal offenses, only felony offenses, only violent felony offenses, or a more specific type of offense.³³ Reports should clearly define the recidivism event (e.g., rearrest, reconviction, reincarceration) and qualifying offenses (e.g., misdemeanors, felonies, or violent felonies).

Measures of rearrest, reconviction, and reincarceration will likely produce different estimates of recidivism. Not all arrests result in the filing of formal charges or a conviction. Further, only a small portion of convictions result in an incarceration sentence. When sentences do include a period of incarceration, only some sentences will require the incarceration sentenced to be served in prison. Washington State

³⁰ Rhodes, W., Gaes, G., Luallen, J., Kling, R., Rich, T., & Shively, M. (2016). Following incarceration, most released offenders never return to prison. *Crime & Delinquency*, 62(8), 1003-1025.

³¹ The Bureau of Justice Statistics' reports commonly use event-based samples when analyzing recidivism for adults released from prison.

³² Rhodes et al. (2016).

³³ For example, some studies analyzing recidivism for individuals convicted of driving under the influence (DUI) report only on DUI-specific recidivism.

recidivism reporting standards recommend the use of reconviction (or formal court legal action).³⁴ However, policy makers may be interested in analyses using alternative measures. For example, *reincarceration* measures can help answer important policy questions about the use of state resources since institutional confinement may be costlier than probation alternatives.

Recidivism definitions with different types of qualifying offenses will also produce different estimates of recidivism. Analyses limited to felony offenses will produce lower rates of recidivism than analyses that also include misdemeanor offenses. Analyses of specific types of recidivism (e.g., sex offense recidivism for individuals convicted of a sex offense or DUI recidivism for individuals convicted of a DUI offense) will produce lower rates of recidivism than analyses of general recidivism. In our report, we disaggregate type of recidivism (misdemeanor, felony, violent felony) which allows for comparison to other reports that include all criminal offenses and to reports that limit their analyses to only felony and/or violent felony offenses. When possible, reporting recidivism outcomes in multiple ways can help maximize comparability of findings to those in other recidivism reports.

Other Important Outcome Characteristics. Reports may specify additional qualifications to the definition of recidivism. For example, with juvenile justice involved youth, some reports may include status offenses such as truancy. For adults, some studies may include technical or supervision violations in the definition of recidivism while others do not. Additionally, some reports of state-specific recidivism may include measures of out-of-state arrests, convictions, or incarceration, while others (like this report) are limited to recidivism events recorded in a single state. Readers of recidivism reports must carefully consider any differences in the definitions of recidivism and how the inclusion and exclusion criteria for any particular definition may affect the interpretation of the findings and the comparability of the findings to those in other reports.

Follow-Up Specification

Recidivism is measured by identifying a population of interest and assessing whether or not they reengage in offending behaviors after the imposition of sanctions for an initial offense. Recidivism reports typically identify a follow-up period, or a set period of time during which the individual's behaviors are monitored for recidivism. Additional events that take place beyond the end of the follow-up period are not reported as recidivism. Reports should state how they measure recidivism follow-up periods with an emphasis on the specification of 1) the at-risk date, 2) the length of the follow-up and adjudication period (if applicable), 3) whether the report uses only the first recidivism event or all recidivism events during the follow-up period, and 4) whether the report uses adjusted or unadjusted follow-up periods.

At-Risk Date

The follow-up period should start on the at-risk date, or the date on which an individual is eligible to reoffend. Typically, the at-risk date is the date on which individuals return to the community.³⁵ For individuals sentenced to incarceration, the at-risk date is the date of release from confinement. For individual not sentenced to incarceration, the at-risk date is the adjudication or disposition date.

Availability of data may limit the ability to accurately identify the at-risk date. For example, in this report, we did not have access to complete jail data that could be used to identify the actual at-risk date for adults sentenced to incarceration in jail. However, jail sentences are relatively short (compared to

³⁴ Barnoski (1997).

³⁵ Studies analyzing definitions of recidivism that include offenses committed while in confinement in a correctional facility may begin the follow-up period prior to release. However, our focus here is on reports analyzing recidivism events that occur after any incarceration sanctions have been served.

incarceration sentences served in prison), so the bias should be minimal. Other reports may lack information about the actual incarceration release date and might default to the minimum period of incarceration that would be served given the actual sentence and the relevant state policies on parole or early release.

Length of Follow-Up and Adjudication Period

Different follow-up periods may result in different outcomes for recidivism rates. Reports using a longer follow-up period will likely identify more recidivism than reports that use a shorter follow-up period. Follow-up periods should be sufficient to capture the majority of reoffending behavior.³⁶ Previously published recommendations for analyzing recidivism in WA State suggest using a minimum follow-up period of 24 months for adults and a minimum follow-up period of 18 months for juveniles.³⁷ Qualifying offenses committed after the at-risk date and before the end of the specified follow-up period should be recorded as recidivism.

Definitions of recidivism limited to reconviction or reincarceration must include enough time beyond the follow-up period to allow the criminal justice system to process offenses and render a final disposition and/or sentence. Reports may employ an adjudication period in addition to the follow-up period to track the outcomes of court cases related to offenses committed during the follow-up period. Previously published recommendations for analyzing recidivism in WA State suggest using a 12-month adjudication period in addition to the follow-up period for juvenile and adult samples.³⁸ Individuals who lack a sufficient follow-up period (and adjudication period, when applicable) should be removed from the analysis.³⁹

The follow-up period and the adjudication period should be specified separately. A study using a 24-month follow-up period with a 12-month adjudication period would track individuals' behaviors for a total of 36 months, but would not count new offenses committed in the 25th–36th months as recidivism events. Separate specification of the follow-up and adjudication periods is necessary to avoid confusion about which offenses qualify as recidivism.

In our report, we exceed the minimum recommended standards for the length of follow-up period for adults. Specifically, we use a 36-month follow-up period, but maintain the 12-month adjudication period. However, most individuals who recidivated, did so within the first 24 months of the follow-up period. [Exhibit A1](#) shows the time to recidivism for individuals who recidivated in our largest sample, the adult conviction case cohort sample.

³⁶ Barnoski (1997) specifies that adequate follow-up periods should capture 75%-80% of reoffending behavior in a population.

³⁷ Ibid.

³⁸ Ibid.

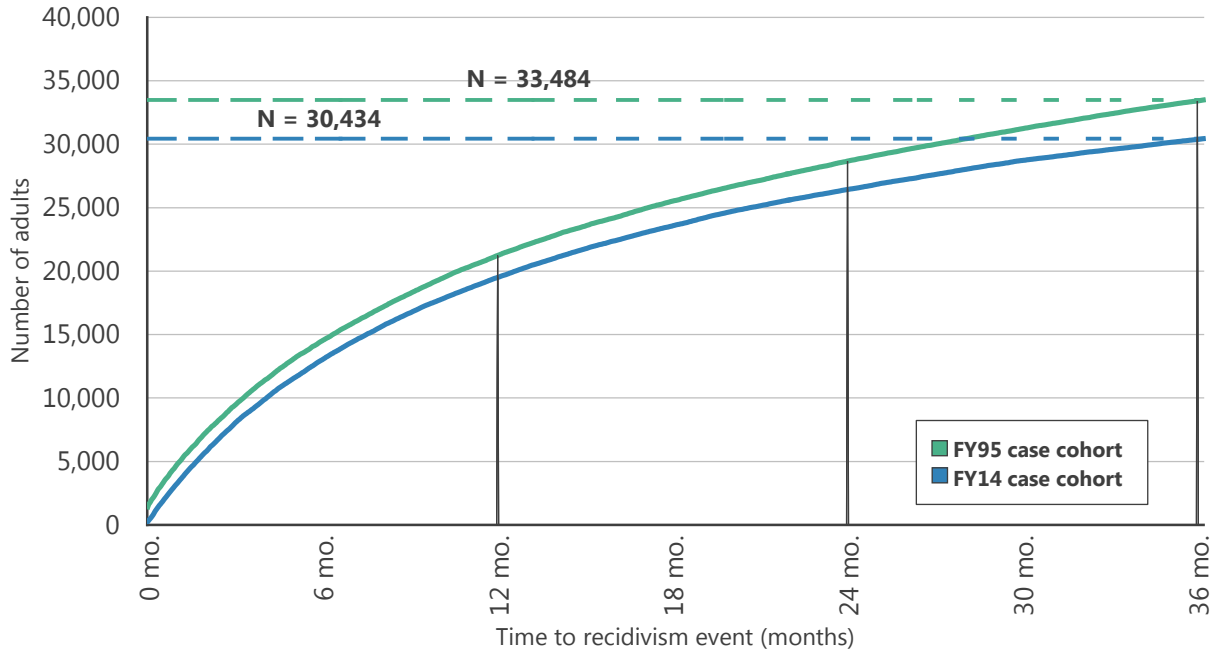
³⁹ There are alternative statistical techniques that can account for differences in follow-up periods. Studies that wish to include individuals who do not meet the minimum follow-up and adjudication periods should use methods that account for the differences in exposure time to avoid inappropriately underestimating recidivism.

Exhibit A1

Time to Recidivism Event

Time to recidivism event for adults who recidivated in Washington State

(Annual case cohorts in FY95 and FY14)



Notes:

At 12 months FY95 case cohort = 63.58%; FY14 case cohort = 64.24%

At 24 months FY95 case cohort = 85.82%; FY14 case cohort = 87.01%

At 36 months FY95 case cohort = 100.00%; FY14 case cohort = 100.00%

First Event vs. All Events

Recidivism measures analyzing the type of recidivism (e.g., misdemeanor or felony) may report only on the type of recidivism in each individual's initial recidivism event in the follow-up period or the most serious recidivism event within the entire follow-up period. Reports using the latter approach may generate larger rates of more-serious recidivism. For example, if a portion of individuals in the sample first recidivate with a misdemeanor offense, but later recidivate with a felony offense, the individuals would be recorded as felony recidivists. A different study using the same sample, but focusing only on initial recidivism, would record this same population as misdemeanor recidivists. This specification is only relevant when analyzing differences in the types of recidivism outcomes. Consistent with our prior research, we use all recidivism events in the follow-up period for this report.

Adjusted and Unadjusted Follow-Up Periods

In order to ensure all individuals in the sample have an equal likelihood of being identified as a recidivist or non-recidivist, studies typically use equal follow-up periods for all persons in a sample. Some studies may adjust the length of the follow-up period if individuals are confined at any point during the follow-up period and subsequently not eligible to generate additional recidivism events. For example, imagine an individual is incarcerated for 12 months starting in the 12th month of a 24-month follow-up period. For this individual, the follow-up period would be extended for 12 months after release from incarceration to establish a cumulative follow-up period of 24 months.

Adjusted follow-up periods are unlikely to alter the outcomes for the overall recidivism rate. Removal from the community during the follow-up period is likely to be associated with a sentence for a new offense.⁴⁰ Thus, the individuals with a shortened follow-up period would be recorded as recidivists, eliminating the need to continue tracking additional behaviors after release.

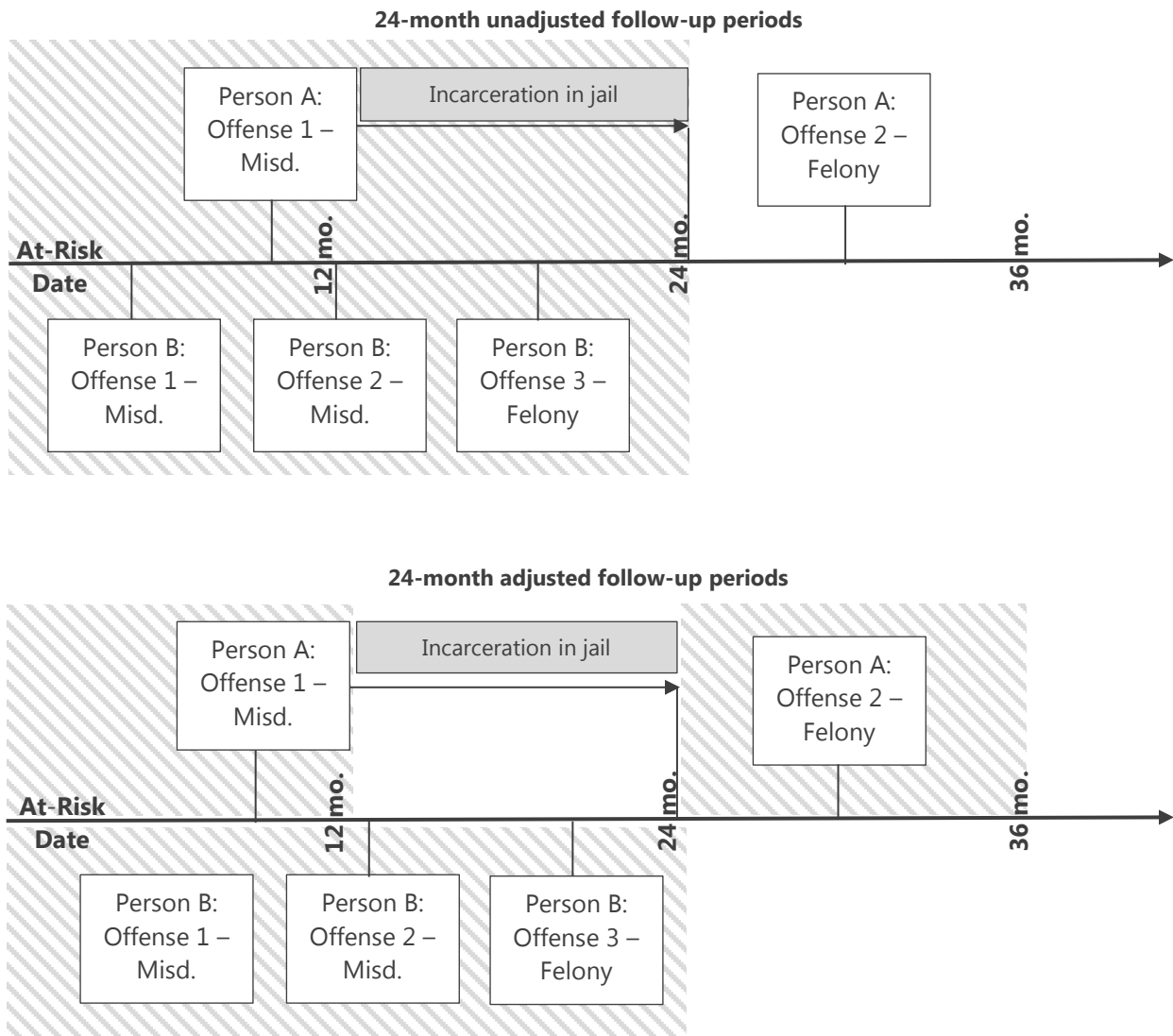
Adjusted follow-up periods may be beneficial in studies that analyze the type of recidivism for any event in the follow-up period (see above), in studies that defines recidivism as a particular type of offense (e.g., sex offense or DUI offense), or in studies that measure frequency of reoffending. Studies that fail to account for time spent in custody are likely to underestimate recidivism in the aforementioned analyses.

[Exhibit A2](#) provides a visual representation of the differences in adjusted and unadjusted follow-up periods in a study using a 24-month follow-up period. The shaded portions of each figure represent the follow-up period for two different individuals. Under both specifications, each person would be recorded as a recidivist. However, a study using *unadjusted follow-up periods* and reporting on the most serious type of recidivism in the follow-up period would record Person A as a misdemeanor recidivist and Person B as a felony recidivist. Using *adjusted follow-up periods*, Person A's follow-up period would be extended to account for time spent in incarceration in jail. As such, both Person A and Person B would be recorded as felony recidivists. Similarly, if the study was interested in the frequency of recidivism, Person A would be recorded as a higher frequency recidivist with adjusted follow-up periods than with unadjusted follow-up periods.

⁴⁰ It is possible that individuals could return to jail or prison if they violate terms of their post-release community supervision. These types of sentence violations are not always included in definitions of recidivism.

Exhibit A2

Visualizing Differences in Adjusted vs. Unadjusted Follow-Up Periods



The availability of data often limits the ability to appropriately adjust follow-up periods. For example, WSIPP's Criminal History Database does not include jail data prior to 2009 and thus could not be used to adjust follow-up periods in our report. Similarly, WSIPP's Criminal History Database does not include complete detention records for all youth.⁴¹ The potential for bias with unadjusted follow-up periods is greater as the time spent in confinement increases. Thus, a report may opt to adjust the follow-up periods for time spent in confinement in prison, even if it is not possible to adjust the follow-up periods for shorter periods of incarceration in local jails. Researchers must consider how time spent in confinement may affect the outcomes given their specification of recidivism and must consider the costs and benefits of collecting and incorporating additional data to accurately construct adjusted follow-up periods. For our report, we used unadjusted follow-up periods for all analyses. Additional information about our methods is available in Appendix II.

⁴¹ For this project, WSIPP did not have access to detention stays related to status offenses (e.g., Truancy petitions, At-Risk Youth petitions, or Child in Need of Services petitions).

II. Data and Methods

The analyses in this report use data from WSIPP's Criminal History Database (CHD) to track recidivism outcomes. The CHD combines data from several Washington State agencies: conviction data from the Administrative Office of the Courts (AOC), commitment data from JR at the Department of Social and Health Services, and incarceration in state prisons and community supervision data from the Department of Corrections (DOC). This appendix provides additional details about selection of our final samples ([Exhibit A3](#)) and the methods for measuring recidivism.

Exhibit A3

Final Sample Sizes for Adult and Juvenile FY Cohorts

	FY cohort	Case cohort N	Release cohort N		FY cohort	Case cohort N	Release cohort N
Adult	1995	78,062	4,373	Juvenile	1995	28,611	1,467
	1996	85,515	4,629		1996	30,094	1,676
	1997	104,268	4,957		1997	30,607	1,772
	1998	119,238	5,082		1998	29,935	1,731
	1999	108,492	5,426		1999	29,753	1,492
	2000	115,325	5,882		2000	28,388	1,397
	2001	122,317	6,093		2001	27,285	1,262
	2002	112,600	6,571		2002	25,147	1,197
	2003	101,976	7,178		2003	25,765	1,159
	2004	118,717	7,950		2004	24,016	1,005
	2005	120,121	8,516		2005	23,200	955
	2006	118,218	8,867		2006	21,434	927
	2007	117,739	8,532		2007	21,286	810
	2008	118,544	8,288		2008	22,820	860
	2009	117,143	7,863		2009	21,913	758
	2010	113,184	7,660		2010	20,091	705
	2011	107,930	7,414		2011	18,538	709
	2012	100,873	7,348		2012	15,788	608
	2013	92,884	7,448		2013	13,821	559
	2014	85,109	7,797		2014	11,631	488

Selecting Samples

Initial Sampling

For case cohorts, we initially selected all adults or juveniles with a criminal case resulting in a legal court action (including conviction, diversion, and deferred judgement) between FY95 and FY14. We first selected cases based on disposition date. When disposition date was missing, we selected cases based on the adjudication date. If disposition date and adjudication date were both missing, we excluded the case from our sample.

For release cohorts, we initially selected all records for adults or juveniles in the DOC or JR data who had a release date recorded between FY 1995 and FY 2014. For observations in the JR data, we selected only

those youth recorded as being released on probation or parole. We excluded youth who were released to DOC custody or who were recorded as being released because they reached the maximum age for confinement in a JR facility. Under the DOC's Youthful Offender Program, youth sentenced in adult court may serve a part of their confinement sentence in a JR facility but are transferred to DOC custody to serve the remainder of their sentence upon reaching the maximum age of confinement in a JR facility. As such, these youth were not released to the community and would be included in the prison release cohorts. It is possible that some youth who reached the maximum age of confinement in a JR facility were released to the community. However, we are unable to distinguish between these types of youth in the JR and DOC data and opted to exclude these youth to avoid biasing our findings.

Identifying Unique Cohorts

For each of the four samples, we selected each individual's first observation in each fiscal year (referred to as the qualifying case). Therefore, individuals with multiple observations in different fiscal years are included in the data multiple times. However, individuals with multiple observations in a single fiscal year are included only once. This criterion ensures that the observations in each cohort are independent and the recidivism findings for each particular cohort are not driven solely by the presence of individuals who commit offenses at a high frequency.

Identifying the Index Offense

We report findings based on the index offense in each observation, defined as the most serious offense in a qualifying case. WSIPP classifies all criminal offenses into 116 distinct law categories ranging from the least serious misdemeanor offenses to the most serious violent felony offenses. We selected the most serious law category for each observation in the samples to serve as the index offense. The law categories were then collapsed into five broad categories: person, property, sex, drug, and other. We created an additional variable identifying whether the index offense was a misdemeanor or felony offense. The coding of offenses was consistent across all four samples. However, we combined drug offenses and other offenses for the juvenile release cohorts due to small sample sizes across all cohort years (see [Exhibit 25](#)). [Exhibits A4-A7](#) present the number of individuals in each FY cohort by the type of offense and grade for the index offense.

Exhibit A4

Adult FY Case Cohorts, by Index Offense Type and Offense Grade

FY	Type of index offense					Offense grade		
	Person	Property	Sex	Drug	Other	Misd	Felony	Violent felony
1995	17,776	20,685	2,200	10,592	26,809	60,212	13,095	4,755
1996	19,647	22,691	2,243	11,745	29,189	67,263	13,483	4,769
1997	21,813	25,780	2,615	12,496	41,564	86,133	13,139	4,996
1998	27,017	29,784	3,291	13,869	45,277	100,276	13,497	5,465
1999	23,540	23,836	2,142	15,073	43,901	89,051	13,808	5,633
2000	25,621	24,432	2,221	15,944	47,107	95,739	13,914	5,672
2001	27,915	26,532	2,449	17,055	48,366	102,330	14,207	5,780
2002	23,558	23,942	2,222	17,106	45,772	91,456	15,325	5,819
2003	19,314	21,472	1,991	15,881	43,318	80,747	15,095	6,134
2004	24,441	25,266	2,051	17,364	49,595	97,799	14,589	6,329
2005	25,852	26,916	2,191	15,626	49,536	99,442	14,440	6,239
2006	24,577	26,427	2,179	16,366	48,669	96,423	15,493	6,302
2007	22,553	25,732	1,880	18,868	48,706	96,221	15,613	5,905
2008	23,260	26,103	1,702	19,130	48,349	97,495	15,039	6,010
2009	23,351	26,415	1,708	17,961	47,708	97,293	13,802	6,048
2010	23,940	27,121	1,880	14,199	46,044	95,505	11,755	5,924
2011	22,442	26,470	1,525	12,950	44,543	91,143	11,213	5,574
2012	20,612	26,141	1,316	11,902	40,902	84,287	11,090	5,496
2013	18,602	25,965	1,062	9,432	37,823	77,132	10,812	4,940
2014	17,193	25,648	978	6,832	34,458	71,332	9,646	4,131

Exhibit A5

Juvenile FY Case Cohorts, by Index Offense Type and Offense Grade

FY	Type of index offense					Offense grade		
	Person	Property	Sex	Drug	Other	Misd	Felony	Violent felony
1995	4,806	18,202	533	1,407	3,663	22,048	5,001	1,562
1996	4,975	18,847	514	1,800	3,958	23,146	5,309	1,639
1997	5,094	18,464	498	2,008	4,543	23,627	5,394	1,586
1998	5,343	17,356	401	2,162	4,673	23,384	5,069	1,482
1999	5,589	16,512	361	2,102	5,189	23,186	5,079	1,488
2000	5,309	15,326	398	2,355	5,000	22,478	4,507	1,403
2001	5,243	14,259	408	2,441	4,934	21,983	4,031	1,271
2002	5,145	12,649	347	2,460	4,546	20,050	3,878	1,219
2003	5,200	12,990	368	2,504	4,703	20,818	3,706	1,241
2004	4,983	12,017	381	2,221	4,414	19,261	3,484	1,271
2005	5,180	11,473	327	2,130	4,090	18,401	3,507	1,292
2006	4,798	10,474	269	2,018	3,875	16,898	3,362	1,174
2007	4,661	10,339	283	2,037	3,966	16,869	3,182	1,235
2008	4,887	11,273	286	2,198	4,176	18,595	3,050	1,175
2009	4,576	10,783	214	2,369	3,971	17,971	2,899	1,043
2010	4,452	9,465	249	2,470	3,455	16,723	2,296	1,072
2011	4,340	8,449	232	2,609	2,908	15,687	1,816	1,035
2012	3,625	7,045	238	2,506	2,374	13,235	1,634	919
2013	3,330	6,148	241	2,017	2,085	11,659	1,326	836
2014	3,006	5,119	224	1,599	1,683	9,818	1,079	734

Exhibit A6

Adult FY Release Cohorts, by Index Offense Type and Offense Grade

FY	Type of index offense					Offense grade	
	Person	Property	Sex	Drug	Other	Felony	Violent felony
1995	1,111	988	386	1,714	108	2,752	1,547
1996	1,182	1,049	422	1,784	148	2,897	1,685
1997	1,151	1,122	438	1,956	252	3,179	1,731
1998	1,234	1,118	450	1,901	332	3,121	1,907
1999	1,300	1,290	458	1,869	453	3,290	2,067
2000	1,453	1,372	500	1,974	531	3,530	2,289
2001	1,503	1,484	498	2,012	551	3,666	2,364
2002	1,757	1,664	477	2,107	527	3,950	2,568
2003	1,971	1,826	507	2,235	593	4,261	2,849
2004	2,004	1,986	491	2,745	656	4,944	2,911
2005	2,303	2,128	466	2,873	667	5,233	3,177
2006	2,400	2,314	499	2,790	780	5,386	3,373
2007	2,156	2,409	515	2,658	710	5,298	3,132
2008	2,108	2,424	473	2,386	811	5,094	3,089
2009	2,219	2,299	538	1,943	782	4,582	3,171
2010	2,411	2,106	552	1,663	847	4,216	3,319
2011	2,373	2,032	583	1,505	875	3,971	3,333
2012	2,302	2,077	554	1,486	881	4,001	3,254
2013	2,399	2,101	565	1,439	892	3,984	3,388
2014	2,455	2,362	577	1,433	913	4,250	3,460

Note:

There were fewer than 65 adults in each FY cohort who had a misdemeanor offense as the most serious offense.

Exhibit A7

Juvenile FY Release Cohorts, by Index Offense Type and Offense Grade

FY	Type of index offense					Offense grade		
	Person	Property	Sex	Drug	Other	Misd.	Felony	Violent felony
1995	499	555	211	107	65	79	671	687
1996	619	589	239	105	92	84	701	859
1997	639	649	223	110	120	75	785	881
1998	615	681	219	97	104	116	781	819
1999	529	554	197	101	92	94	652	727
2000	498	517	168	108	99	134	616	640
2001	398	509	143	79	126	140	573	542
2002	441	410	169	67	101	124	471	593
2003	384	460	136	66	103	122	518	509
2004	312	382	147	52	85	111	429	438
2005	317	356	150	51	62	73	395	468
2006	356	320	130	59	51	90	362	464
2007	314	286	97	40	64	81	313	407
2008	365	251	126	40	70	81	277	494
2009	327	241	99	40	45	50	271	431
2010	315	228	84	16	58	48	235	418
2011	354	194	91	17	48	73	197	434
2012	293	162	91	22	37	54	172	379
2013	236	173	65	25	59	52	186	320
2014	217	138	76	16	38	52	146	287

Identifying Risk Level Classification

For the adult FY release cohorts, we used the Static Risk Assessment—Revised (SRA2) to group adults in each cohort into four risk-level classifications: low-risk, moderate-risk, high-risk non-violent, and high-risk violent. Sample sizes for each of the risk-level classifications from FY 1995 to FY 2014 are available in [Exhibit A8](#). The SRA2 was developed to predict the likelihood of recidivism for adults who are under DOC supervision either in a state prison or in the community. We did not feel it was appropriate to apply this risk assessment instrument to the adult case cohorts, which include individuals who are not under DOC supervision, or to either of the juvenile cohorts. Risk level classifications for youth sanctioned to local sanctions and youth committed to JR are determined using different risk assessment instruments. For this publication, we did not have access to complete records for juvenile risk assessments.

Exhibit A8

Adult FY Release Cohorts by Risk Level Classification

FY	Risk level classification			
	Low	Moderate	High–non violent	High–violent
1995	1,133	1,240	1,161	839
1996	1,189	1,175	1,192	1,073
1997	1,224	1,190	1,351	1,192
1998	1,189	1,214	1,328	1,351
1999	1,212	1,106	1,524	1,584
2000	1,202	1,191	1,572	1,917
2001	1,175	1,186	1,667	2,065
2002	1,157	1,217	1,819	2,378
2003	1,257	1,272	1,963	2,686
2004	1,334	1,304	2,302	3,010
2005	1,324	1,350	2,462	3,380
2006	1,336	1,378	2,476	3,677
2007	1,311	1,237	2,391	3,593
2008	1,185	1,195	2,386	3,522
2009	1,250	1,134	2,124	3,355
2010	1,295	1,127	1,860	3,378
2011	1,238	1,109	1,744	3,323
2012	1,255	1,046	1,791	3,256
2013	1,210	1,048	1,730	3,460
2014	1,203	1,041	1,894	3,659

Note:

Scores were calculated using the Static Risk Assessment—Revised (SRA2).

Measuring Recidivism

At-Risk Date

The at-risk date identifies the date on which an individual is released to the community following a court legal action and imposition of sanctions and is subsequently eligible to reoffend. The at-risk date represents the beginning of the follow-up period for each individual. For the prison and JR release cohorts, we coded the at-risk date as the date of release from confinement in a state facility for the index offense using the DOC and JR data. For the adult and juvenile case cohorts, we coded at-risk date differently based on whether the individual was sentenced to confinement in a state facility or local sanctions. For adults and juveniles sentenced to confinement in a state facility (e.g., prison or a JR facility) for the index offense, we used the release date from the DOC and JR data as the at-risk date. For adults and juveniles not sentenced to confinement in a state facility for the index offense, we used the disposition or adjudication date for the index offense as the at-risk date.

Follow-Up Period

We used standardized follow-up and adjudication periods based on Washington State standards for measuring recidivism and prior WSIPP reports.⁴² For both adult samples, we used a 36-month follow-up period and a 12-month adjudication period. For both juvenile samples, we used an 18-month follow-up period and a 12-month adjudication period.

We used unadjusted follow-up periods. That is, we did not adjust the follow-up periods to account for time spent in confinement. However, since our report does not focus on specific types of reoffending or the frequency of reoffending, the overall findings should not be biased by the use of unadjusted follow-up periods. While it is possible that adults were sentenced to prison or juveniles were sanctioned with confinement in a JR facility for a substantial period of time during the follow-up period, it is likely that the sanction would be associated with a felony offense. Thus, our findings may slightly underestimate the likelihood of violent felony recidivism in our samples, but the overall findings of recidivism and differences between misdemeanor and felony (including violent felonies) recidivism should be generally consistent with other studies that use adjusted follow-up periods.

We excluded individuals from the adult and juvenile case cohorts if they did not have a sufficient follow-up period. For adults, we excluded those for whom the at-risk date was after October 1, 2014. For juveniles, we excluded youth for whom the at-risk date was after April 1, 2016. [Exhibit A9](#) shows the number of individuals excluded from each FY cohort due to inadequate follow-up periods. The number of individuals excluded increases in more recent years, but the percent of each FY cohort excluded never exceeds 4.6%.

⁴² Barnoski (1997) and Drake (2011).

Exhibit A9

Individuals Removed Due to Inadequate Follow-Up Period

	FY cohort	Adults removed		FY cohort	Youth removed	
		N	%		N	%
Adult case cohorts	1995	129	0.17%	1995	0	0.00%
	1996	125	0.15%	1996	0	0.00%
	1997	129	0.12%	1997	0	0.00%
	1998	122	0.10%	1998	0	0.00%
	1999	136	0.13%	1999	0	0.00%
	2000	143	0.12%	2000	0	0.00%
	2001	144	0.12%	2001	0	0.00%
	2002	189	0.17%	2002	0	0.00%
	2003	201	0.20%	2003	0	0.00%
	2004	254	0.21%	2004	0	0.00%
	2005	290	0.24%	2005	0	0.00%
	2006	336	0.28%	2006	0	0.00%
	2007	418	0.35%	2007	0	0.00%
	2008	472	0.40%	2008	0	0.00%
	2009	543	0.46%	2009	0	0.00%
	2010	706	0.62%	2010	0	0.00%
	2011	918	0.84%	2011	0	0.00%
	2012	1,311	1.28%	2012	3	0.02%
	2013	2,169	2.28%	2013	5	0.04%
	2014	4,062	4.56%	2014	13	0.11%
Juvenile case cohorts	1995			1995	0	0.00%
	1996			1996	0	0.00%
	1997			1997	0	0.00%
	1998			1998	0	0.00%
	1999			1999	0	0.00%
	2000			2000	0	0.00%
	2001			2001	0	0.00%
	2002			2002	0	0.00%
	2003			2003	0	0.00%
	2004			2004	0	0.00%
	2005			2005	0	0.00%
	2006			2006	0	0.00%
	2007			2007	0	0.00%
	2008			2008	0	0.00%
	2009			2009	0	0.00%
	2010			2010	0	0.00%
	2011			2011	0	0.00%
	2012			2012	3	0.02%
	2013			2013	5	0.04%
	2014			2014	13	0.11%

Coding Demographic Characteristics

WSIPP's CHD synthesizes information from various data sources and assigns a unique identifier for each individual in the database. WSIPP receives separate demographic information for each independent observation in the original data sources. For example, if an individual has two court convictions in different years, WSIPP will receive demographic data for each separate case from the AOC. For each individual, we create a single profile of demographic characteristics including sex, race, and age using all available data. If demographic characteristics are missing for one court case, we are able to draw upon the information from other cases rather than excluding cases from demographic analyses. WSIPP has made several standardized coding decisions to resolve discrepancies in age, sex, and race across observations within and between different data sources.

Age

For the court cohorts, we calculated age at conviction using the adjudication or disposition date and the individual's date of birth. For release cohorts, we calculated age at release using date of release (from prison or JR facilities) and the individual's date of birth. We removed individuals who were recorded with an unreasonable age at conviction or release (e.g., 300 years old). While WSIPP makes every effort to accurately identify persons within and between data sources, 100% accuracy is not possible. These

accurately identify persons within and between data sources, 100% accuracy is not possible. These unreasonable ages may represent typographical errors from the original data source or errors in matching individuals' records in the CHD. These exclusions were minimal and have no effect on the overall findings. For example, in the largest sample (the adult case cohort samples), we excluded only 0.17% of all cases.

Sex

We code sex into two categories: male and female. If an individual is reported as male in one data source and female in another data source, sex is coded as missing and the individual is removed from sex-specific analyses. Sex is also a factor used to calculate the DOC's Static Risk Assessment—Revised (SRA2). In instances where sex is missing or inconsistently reported, individuals are coded as "male" for purposes of calculating the risk classification. This decision was made due to the greater statistical probability that individuals in the criminal justice system are male. Total sample sizes by gender are presented in [Exhibit A10](#).

Exhibit A10

Number of Males and Females in FY Cohorts

		Case cohort		Release cohort				Case cohort		Release cohort	
FY		Male	Female	Male	Female	FY		Male	Female	Male	Female
Adult samples	1995	62,907	15,106	3,953	420	Juvenile samples	1995	20,075	8,525	1,333	134
	1996	68,005	17,460	4,187	442		1996	20,810	9,268	1,531	145
	1997	83,115	21,070	4,343	614		1997	21,347	9,246	1,609	162
	1998	94,174	24,985	4,504	578		1998	20,797	9,129	1,554	177
	1999	85,102	23,342	4,779	647		1999	20,578	9,167	1,353	139
	2000	90,145	25,116	5,178	704		2000	19,653	8,734	1,241	156
	2001	94,467	27,794	5,324	768		2001	18,650	8,624	1,131	131
	2002	87,357	25,197	5,790	781		2002	17,136	8,006	1,075	121
	2003	79,353	22,567	6,335	843		2003	17,391	8,370	1,053	106
	2004	90,556	28,092	6,947	1,003		2004	16,030	7,983	921	82
	2005	91,231	28,821	7,382	1,133		2005	15,366	7,830	877	78
	2006	89,928	28,227	7,684	1,181		2006	14,272	7,116	824	103
	2007	89,371	28,297	7,394	1,138		2007	14,489	6,775	713	97
	2008	89,145	29,315	7,124	1,164		2008	15,169	7,635	763	96
2009	87,880	29,179	6,849	1,014	2009	14,583	7,314	674	84		
2010	83,892	29,194	6,744	914	2010	13,212	6,859	638	67		
2011	79,393	28,439	6,590	823	2011	12,199	6,296	638	71		
2012	73,689	27,124	6,512	836	2012	10,601	5,145	540	68		
2013	67,327	25,486	6,568	879	2013	9,111	4,690	495	63		
2014	61,252	23,784	6,849	947	2014	7,788	3,830	429	59		

Race

We code race into five categories: White, Black/African American, Asian/Pacific Islander/Native Hawaiian, American Indian/Alaskan Native, and other/unknown. Each individual is classified into only one of the five categories because the AOC, Juvenile and Corrections System (JCS), and DOC data do not include categories for bi-racial or multi-racial.⁴³ The total sample sizes for each racial category are presented in Exhibits A11 and A12.

In order to resolve coding discrepancies, WSIPP has established a series of coding decisions for creating each individual's racial classification in the compiled person profiles. First, WSIPP selects race from available AOC court cases data. The AOC data are the most comprehensive given that those in the DOC data should have an associated court case record, but not all persons with a court case record will be included in the DOC data. If individuals had multiple records in the AOC data (e.g., two cases in the AOC data for different years) and their race was recorded differently (e.g., Black and White), we selected racial classifications in the following order: 1) Black/African American, 2) Asian/Pacific Islander/Native Hawaiian, 3) American Indian/Alaskan Native, and 4) White.⁴⁴

For those who were missing racial information in the AOC data, we first used any available DOC records. If records were still missing, we used any available JCS records. When race was recorded differently across different observations in the DOC or JCS data, we selected racial classifications in the following order: 1) Black/African American, 2) Asian/Pacific Islander/Native Hawaiian, 3) American Indian/Alaskan Native, and 4) White.

We were unable to provide accurate statistics for rates of recidivism by ethnicity (i.e., Hispanic vs. non-Hispanic). At this time, WSIPP does not receive information about the ethnicity from the AOC for adult populations. When possible, future reports should follow OFM recommendations to present race categories by ethnicity (e.g., non-Hispanic Whites, non-Hispanic Blacks, etc.).

⁴³ AOC began reporting multi-racial classifications in 2018.

⁴⁴ To establish these coding standards, we analyzed the sample of individuals who were included in both the AOC and DOC data and who had racial information reported in both datasets. Our analyses found consistency in the classification of race for 95.4% of the individuals included in both datasets. Of the three minority classifications, we found Black/African American to be the most reliable with consistency in datasets for 95.98% of the individuals who were identified as Black/African American in either dataset. The majority of the differences in coding were such that one data source coded an individual as White when another data source coded an individual as Asian/Pacific Islander/Native Hawaiian or American Indian/Alaskan Native. Specifically, 13.2% of the individuals who were ever identified as Asian/Pacific Islander/Native Hawaiian in one dataset were identified as White a different dataset, and 28.5% of the individuals who were ever identified as American Indian/Alaskan Native were identified as White in a different dataset. Our selection methods ensure that individuals who were ever identified as a minority are recorded as such in the final data and that the dataset prioritizes the racial classifications found to be the most reliable.

Exhibit A11
Adult FY Cohorts by Race

FY	Case cohorts				Release cohorts			
	White	Black	A/PI/NH	AI/AN	White	Black	A/PI/NH	AI/AN
1995	62,757	8,709	1,413	2,452	3,075	1,078	85	111
1996	68,938	9,446	1,623	2,786	3,272	1,143	84	112
1997	82,567	13,120	2,116	3,422	3,555	1,171	76	125
1998	93,050	16,211	2,952	3,845	3,636	1,191	90	132
1999	88,991	10,734	2,454	3,310	3,943	1,236	99	130
2000	94,999	11,199	2,865	3,242	4,268	1,333	103	167
2001	100,622	11,817	3,344	3,294	4,421	1,403	108	152
2002	93,014	10,776	2,902	3,136	4,864	1,439	107	155
2003	84,215	9,739	2,597	2,903	5,276	1,555	144	197
2004	98,027	11,319	3,203	3,214	5,920	1,645	153	217
2005	98,232	11,927	3,488	3,335	6,350	1,756	153	236
2006	95,804	12,171	3,478	3,503	6,706	1,698	195	259
2007	95,197	12,381	3,390	3,492	6,419	1,650	205	245
2008	95,005	12,603	3,749	3,546	6,253	1,584	176	260
2009	93,740	12,404	3,767	3,473	5,911	1,462	217	253
2010	89,575	12,273	3,811	3,334	5,809	1,361	209	270
2011	85,454	11,645	3,749	3,085	5,609	1,345	192	254
2012	79,732	10,630	3,632	3,079	5,576	1,262	212	273
2013	73,086	9,854	3,205	2,951	5,762	1,226	183	258
2014	66,389	9,194	2,985	2,760	6,057	1,235	216	262

Notes:

A/PI/NH = Asian/Pacific Islander/Native Hawaiian.

AI/NA = American Indian/Alaskan Native.

Exhibit A12

Juvenile FY Cohorts by Race

FY	Case cohorts				Release cohorts			
	White	Black	A/PI/NH	AI/NA	White	Black	A/PI/NH	AI/NA
1995	21,548	2,568	1,271	706	1,044	247	82	48
1996	23,141	2,600	1,286	754	1,210	274	76	70
1997	23,587	2,713	1,332	806	1,282	301	75	79
1998	22,988	2,809	1,314	824	1,231	306	88	71
1999	23,070	2,745	1,247	897	1,068	272	67	65
2000	22,118	2,550	1,113	884	1,002	241	67	68
2001	21,414	2,444	963	829	944	225	42	39
2002	19,928	2,224	926	804	848	232	46	59
2003	20,438	2,420	917	826	836	208	50	52
2004	19,102	2,442	921	786	745	169	38	47
2005	18,347	2,452	907	739	676	183	37	47
2006	16,618	2,390	879	754	645	200	32	37
2007	16,679	2,253	743	685	581	154	26	35
2008	17,884	2,339	832	698	602	178	32	36
2009	17,145	2,357	817	660	540	150	18	35
2010	15,619	2,278	706	559	477	166	24	27
2011	14,172	2,025	683	540	481	163	26	23
2012	12,039	1,772	581	482	422	139	12	24
2013	10,368	1,676	507	484	377	121	17	28
2014	8,641	1,443	401	431	329	110	17	20

Notes:

A/PI/NH = Asian/Pacific Islander/Native Hawaiian.

AI/NA = American Indian/Native Alaskan.

Reporting Small Sample Sizes

Statistical estimates are sensitive to varying sample sizes. Our confidence in statistical estimates increases as the sample size and the prevalence of different outcomes increase. When sample sizes are small, there is more uncertainty in our estimates. For example, small sample sizes often lead to more extreme estimates than large sample sizes. When calculating percentages, small changes in actual outcomes can lead to very large changes in prevalence rates in small populations, whereas small changes in actual outcomes would likely cause only small changes in prevalence rates in large populations. It would be inappropriate to compare estimates drawn from large samples to the estimates drawn from very small samples.

When analyzing the recidivism rates by demographic subgroups and by characteristics of the index offense, the fiscal year cohorts were divided into smaller samples. For instance, in the 2014 juvenile release cohort, there were only 17 youth identified as Asian/Pacific Islander/Native Hawaiian and only 20 youth identified as American Indian/Alaskan Native.

Due to the concerns about the comparability of the estimates from small vs large sample sizes, we did not report on the proportion of individuals who recidivated in a particular fiscal year cohort if the sample size for the subgroup in that fiscal year cohort was less than 80. For analyses of juvenile release cohorts, we combined categories of "drug" and "other" for the index offenses due to small sample sizes in each individual category (see [Exhibit 25](#)). In addition, we did not present the FY cohort estimates for youth released from a JR commitment for a misdemeanor index offense in [Exhibit 26](#). Only 11 of the 20 FY cohorts met the minimum sample size threshold for this sample, making it difficult to establish any trends over time.

III. Adult and Juvenile Percent Change in Recidivism by Sex and Race

Overview

Data visualization is a source of constant dilemma in many fields, including criminal justice.⁴⁵ Researchers should carefully consider how different data visualization techniques may reveal nuances that are not easily identified in traditional charts and graphs.⁴⁶ This appendix uses alternative data visualization methods to further examine similarities and differences in the recidivism trends for demographic characteristics discussed in the main report.

Our main report presents general recidivism trends in Washington State from FY 1995–FY 2014 and separate trends for different types of index offenses and demographic characteristics. For sex and race,⁴⁷ we present the rate of recidivism for each fiscal year cohort using bar graphs with trend lines (Exhibits 6, 7, 15, 16, 22, 23, 28, & 29). The trend lines depict the general linear trend in the rate of recidivism between FY 1995 and FY 2014. The trend lines allow the reader to interpret the general trends (e.g., an increase or decrease) in recidivism with relative ease. However, the bar charts and trend lines do not allow for precise comparisons of year-over-year changes in rates of recidivism. It may not be immediately clear whether different demographic groups (e.g., males compared to females) are experiencing similar or divergent patterns in the rate of recidivism over time or at any particular point between FY 1995 and FY 2014. This appendix expands upon the information included in the main report by directly comparing year-over-year changes in the rate of recidivism for different sex and race subgroups.

Methods

In this appendix, we present the percent change in the rate of recidivism by sex and race. The percent change in the rate of recidivism is the extent to which recidivism changes positively or negatively in any given year relative to the rate of recidivism in FY 1995. Specifically, we use the equation

$$\text{percent change in the rate of recidivism} = \frac{(P_{(k)} - P_{(95)})}{P_{(95)}} * 100$$

where $P_{(k)}$ is the rate of recidivism for the year of the particular cohort (e.g., the specific rate of recidivism in FY 1996 or the specific rate of recidivism in FY 1997), and $P_{(95)}$ is the rate of recidivism at the baseline year (i.e., rate of recidivism in FY 1995). If the percent change in the rate of recidivism is a positive number, recidivism in that FY is higher than the rate in FY 1995. Similarly, if the percent change in the rate of recidivism is negative, then the rate of recidivism is lower than the rate in FY 1995. Exhibit A13 demonstrates how to read the charts included in this appendix.

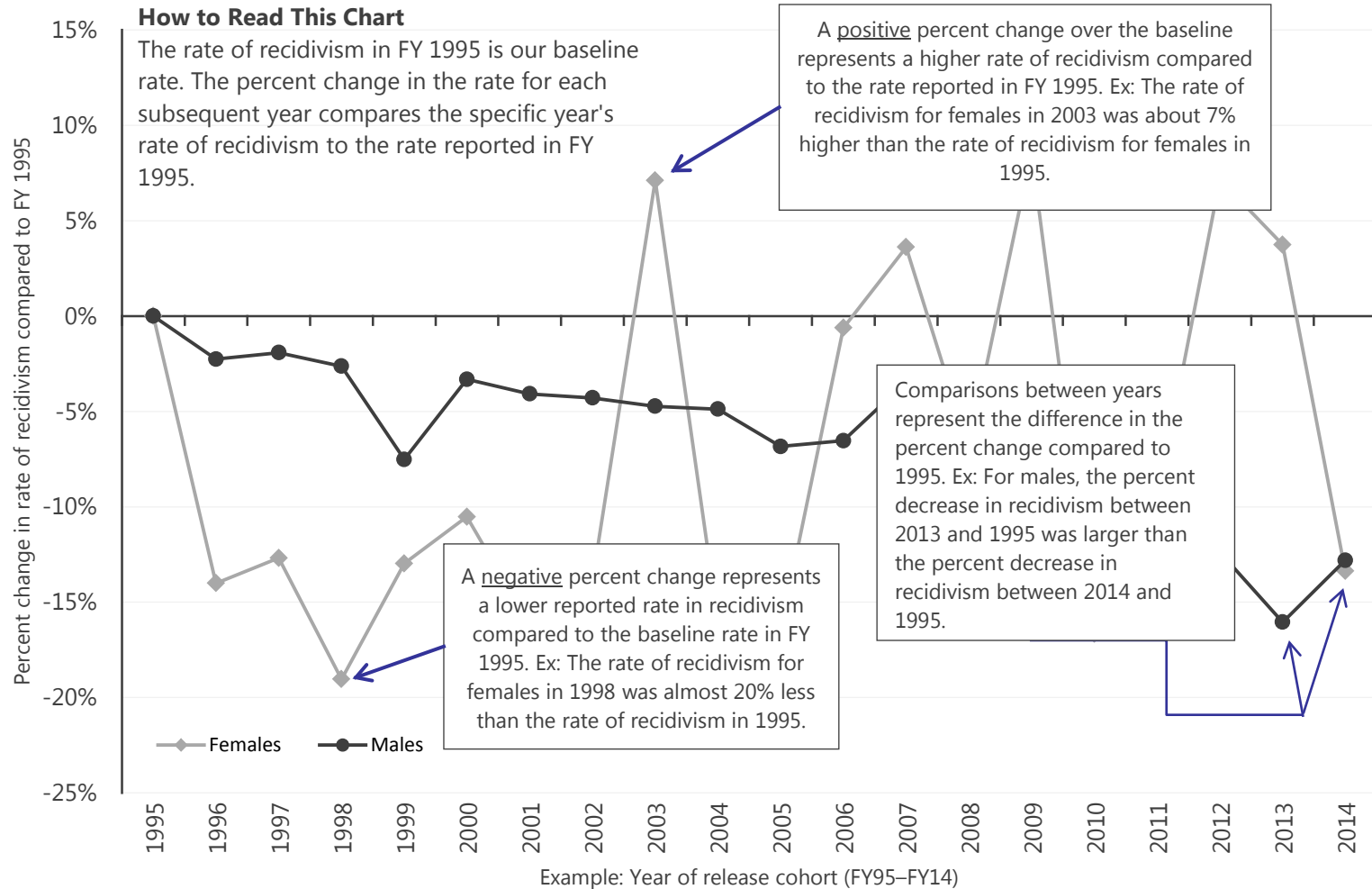
⁴⁵ Maltz, M.D. (2010). Look before you analyze: Visualizing data in criminal justice. In *Handbook of quantitative criminology* (25-52). Springer, New York, NY.

⁴⁶ Gelman, A., Pasarica, C., & Dodhia, R. (2002). Let's practice what we preach: turning tables into graphs. *The American Statistician*, 56(2), 121-130. Maltz (2010).

⁴⁷ For information regarding our sampling procedures and coding of the characteristics of sex and race see Appendix II.

Exhibit A13

How to Read the Percent Change in the Rate of Recidivism Chart (Illustrative Purposes Only)



FY Changes in Recidivism Rates by Sex

Our main report presents recidivism rates over time for males and for females in [Exhibits 6, 15, 22, and 28](#). In this section, we present more precise comparisons in the percent change in the rate of recidivism by sex.

We present the percent change trends in recidivism for both sexes in the adult case cohorts, adult release cohorts, and the juvenile case cohorts. We excluded the juvenile release samples for these analyses due to insufficient sample sizes for females ($n < 80$) from FY04–FY14.⁴⁸ Because our interest in this appendix is the difference in the percent change trends between subgroups, we do not present the percent change trends for males in the juvenile release cohort. We present the findings for the percent change in the rate of recidivism for each of the samples in [Exhibits A14, A15, and A16](#), following the same order as the findings in the main report.

Key Findings (From FY 1995–FY 2014)

- ✓ **Adult case cohorts:** The decline in recidivism was greater for females compared to males until 2009 when decline for males began to exceed the decline for females.
- ✓ **Adult release cohorts:** The recidivism rate for both males and females generally increased. However, year-over-year differences in recidivism between males and females diverged from FY02 to FY12. During these years, the rate of recidivism for males increased more than the rate for females. From FY12–FY14, the rate of recidivism for males was similar to the baseline rate in FY95 while the rate of recidivism for females decreased compared to the baseline rate in FY95.
- ✓ **Juvenile case cohorts:** The rates in recidivism for females remained generally consistent over time, while males showed more dramatic decreases in recidivism, particularly in later years (FY06–FY14). Overall patterns in the change in recidivism rates were consistent for females and for males. However, the percent change was larger for males than for females, leading to increasingly divergent trends over time.

⁴⁸ See Appendix II.

Exhibit A14

Annual Percentage Change in Rate of Recidivism by Sex for Justice-Involved Adults in Washington

Three-year recidivism rates for justice-involved adults in Washington State

(Annual case cohorts from FY95–FY14, by sex)

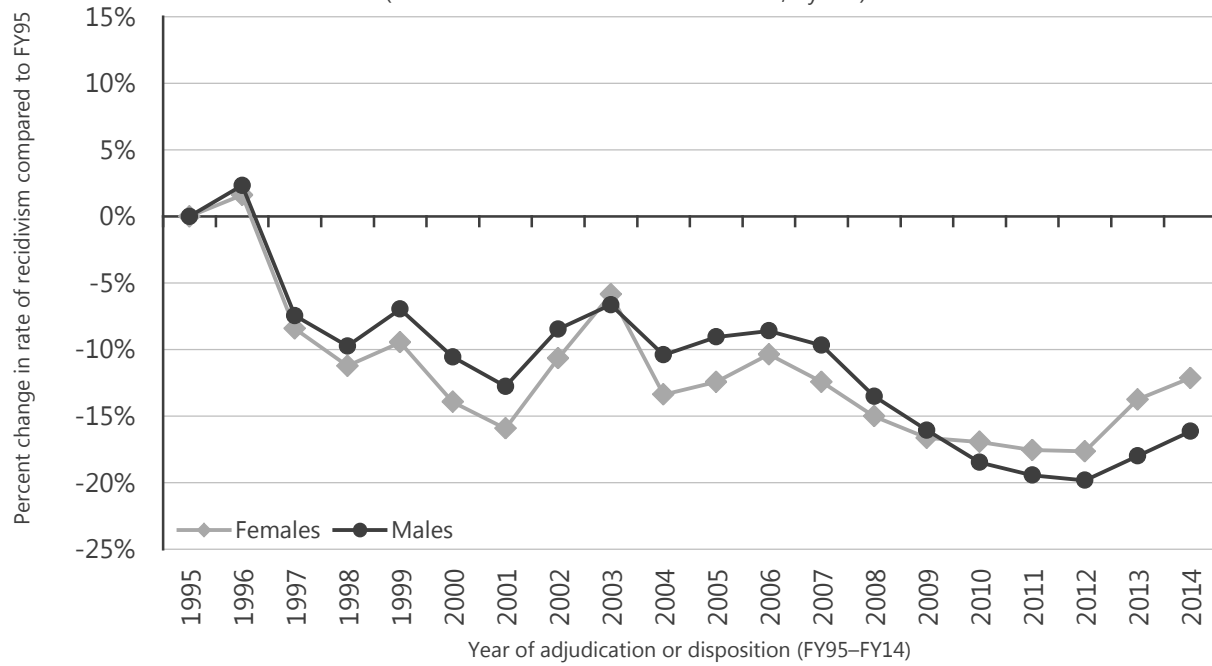


Exhibit A15

Annual Percentage Change in Rate of Recidivism by Sex for Adults Released from Prison in Washington

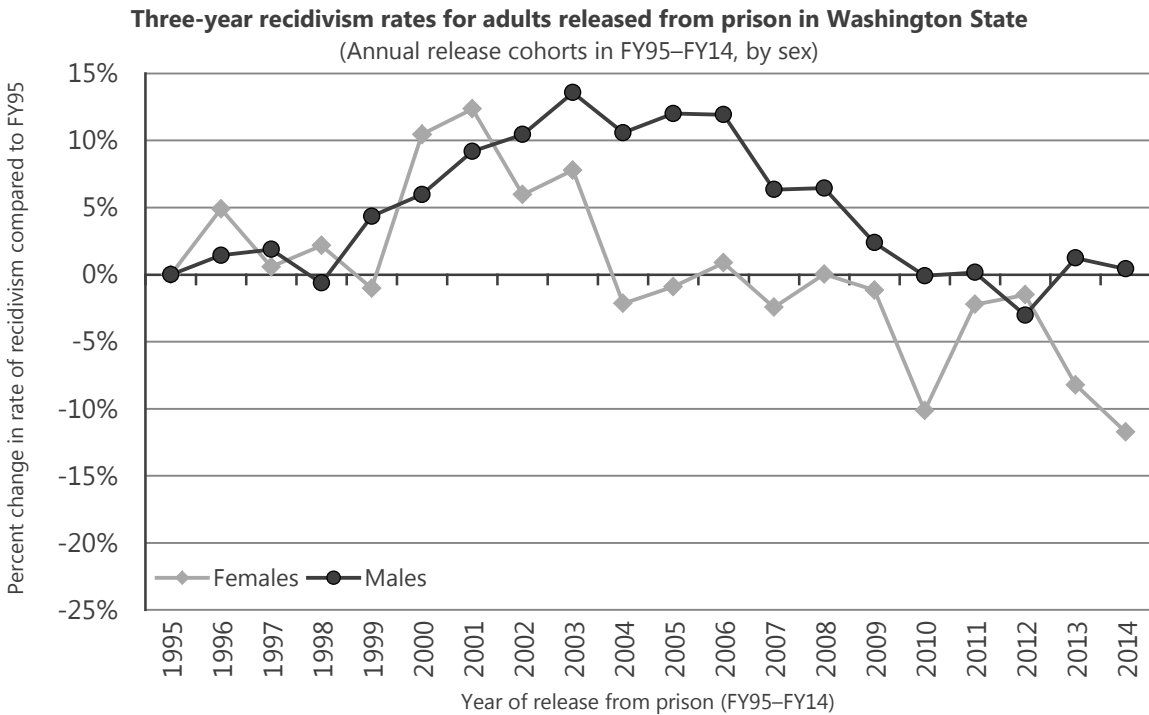
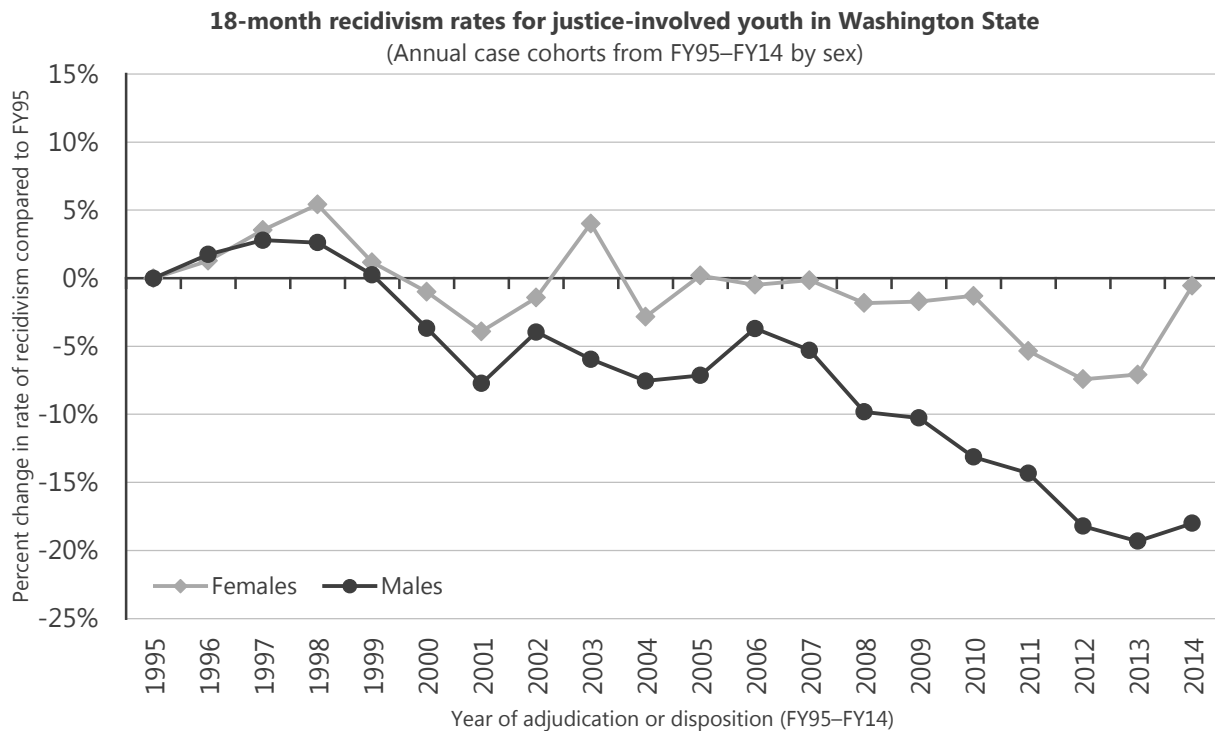


Exhibit A16

Annual Percentage Change in Rate of Recidivism by Sex for Justice-Involved Youth in Washington



FY Changes in Recidivism Rates by Race

Our main report presents recidivism rates over time for individuals identified as White, Black/African American, Asian/Pacific Islander/Native Hawaiian, and American Indian/Alaskan Native in [Exhibits 7, 16, 23, and 29](#). In this section, we present more precise comparisons in the percent change in the rate of recidivism by race. As with sex, we present the percentage change in the rate of recidivism for each fiscal year cohort compared to the rate of recidivism in FY 1995.

We excluded trends for groups that did not have 20 complete FY cohorts with the minimum sample size (at least 80 individuals) identified in [Appendix II](#).

- ✓ [Adult and juvenile case cohorts](#)—We present trends for all four racial subgroups.
- ✓ [Adult release cohorts](#)—We exclude trends for Asian/Pacific Islander/Native Hawaiian adults.
- ✓ [Juvenile release cohorts](#)—We exclude trends for Asian/Pacific Islander/Native Hawaiian and American Indian/Alaskan Native youth.

We calculated the percent change in the rate of recidivism for each category of race in each of our four samples (adult case cohorts, adults release from prison cohorts, juvenile case cohorts, and juvenile release JR cohorts). Our findings are presented in [Exhibits A17, A18, A19, and A20](#) following the same order as the findings in the main report.

Key Findings (from FY 1995–FY 2014)

- ✓ [Adult case cohorts](#): The declines in recidivism were greater for Black/African American adults than all other groups. The year-over-year percent changes in trends were generally consistent across groups. The changes in trends were nearly identical for White and Black/African American adults from FY96–FY09 at which point the percent decrease in recidivism for Black/African American adults began to outpace the percent decrease in recidivism for White adults.
- ✓ [Adult release cohorts](#): Black/African American adults were the only group that showed year-over-year decreases in recidivism from FY03–FY14. The recidivism rate for White and American Indian/Alaskan Native adults increased over time, with the percent increase in recidivism for White adults outpacing the percent increase in recidivism for American Indian/Alaskan Native adults in most years.
- ✓ [Juvenile case cohorts](#): Asian/Pacific Islander/Native Hawaiian youth had the largest percent decrease in recidivism across nearly all years. Starting in FY99, all four racial groups showed generally consistent declines in recidivism, with more rapid declines in recidivism beginning in FY09.
- ✓ [Juvenile release cohorts](#): The percent decrease in recidivism was consistent for White and Black/African American youth released from confinement in a JR facility. Both groups showed gradual declines in the rates of recidivism from FY95–FY14, with greater percent decreases beginning in FY09.

Exhibit A17

Annual Percent Change in Rate of Recidivism by Race for Justice-Involved Adults in Washington

Three-year recidivism rates for justice-involved adults in Washington State

(Annual case cohorts from FY95–FY14, by race)

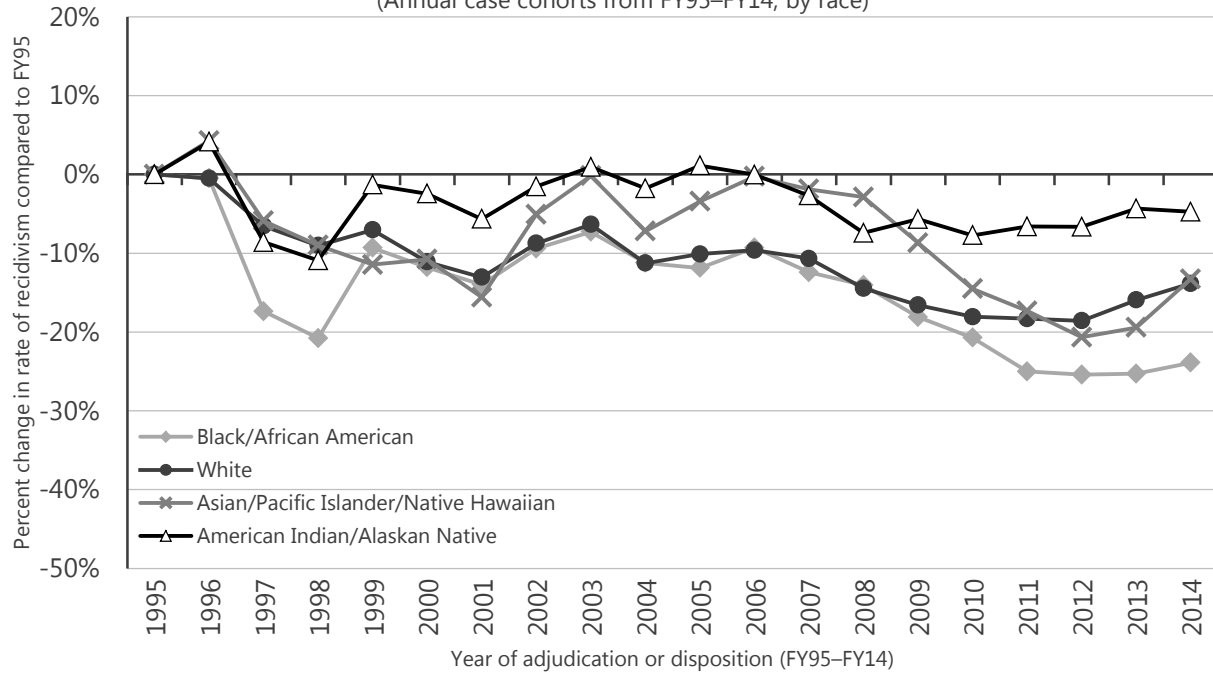


Exhibit A18

Annual Percent Change in Rate of Recidivism by Race for Adults Released from Prison

Three-year recidivism rates for adults released from prison in Washington State

(Annual release cohorts from FY95–FY14, by race)

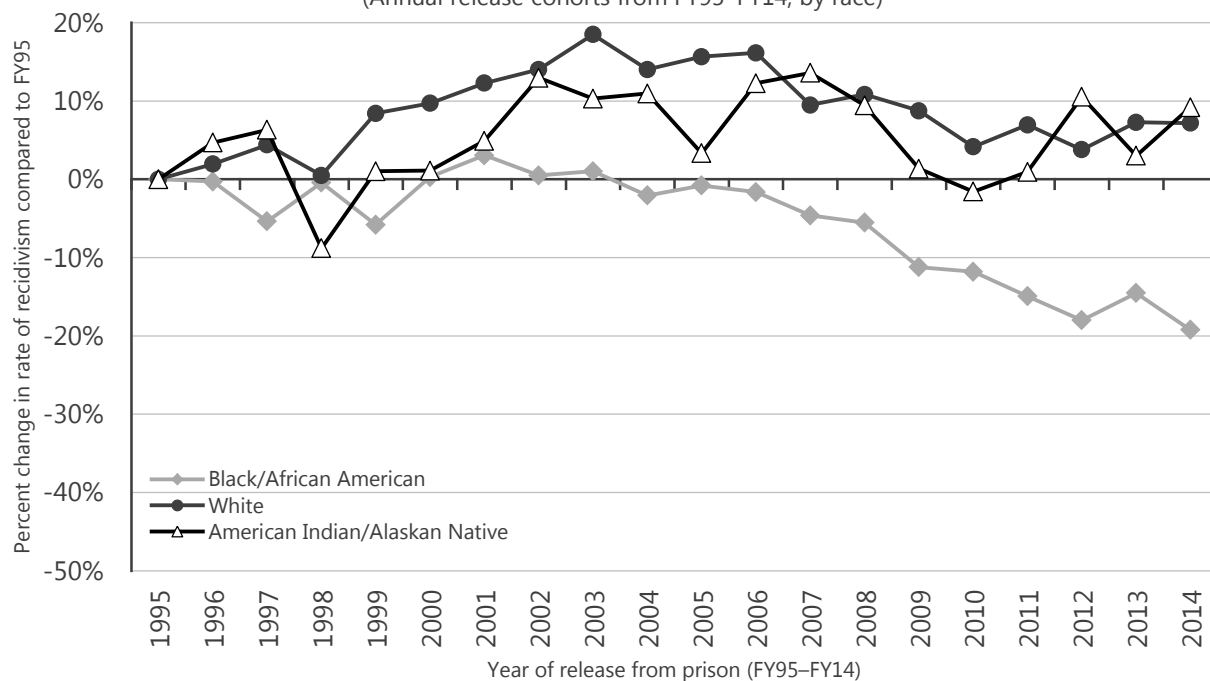


Exhibit A19

Annual Percent Change in Rate of Recidivism by Race for Justice-Involved Youth in Washington

18-month recidivism rates for justice-involved youth in Washington State

(Annual case cohorts from FY95–FY14, by race)

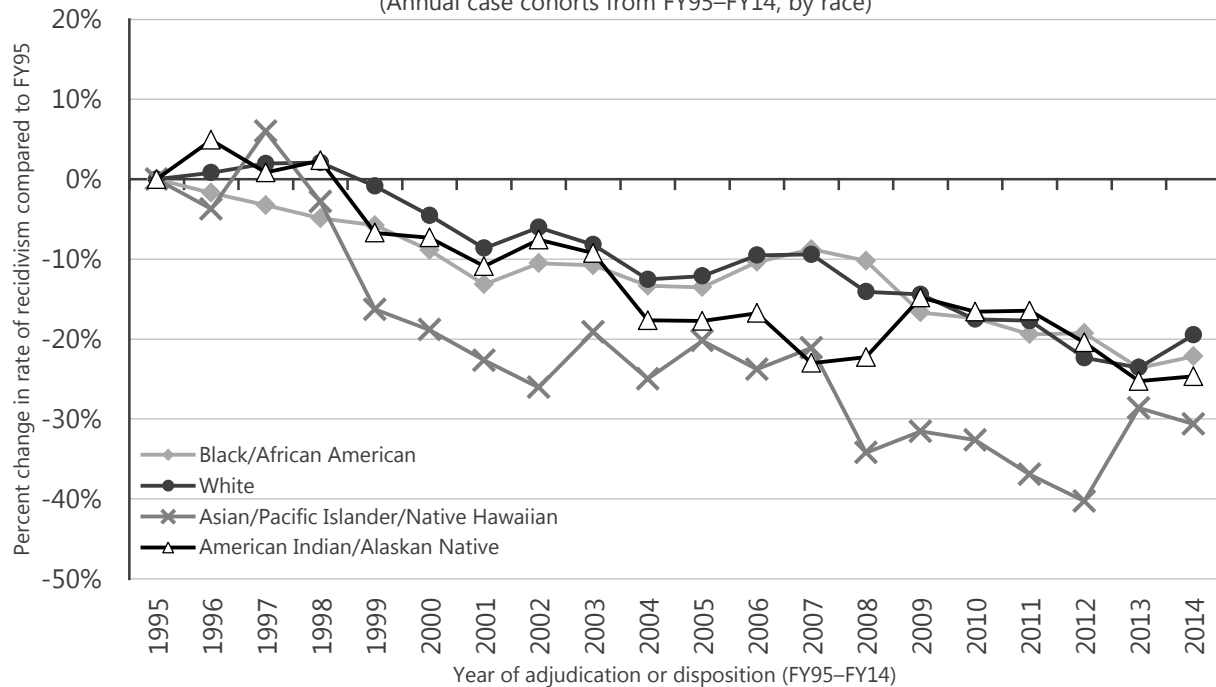
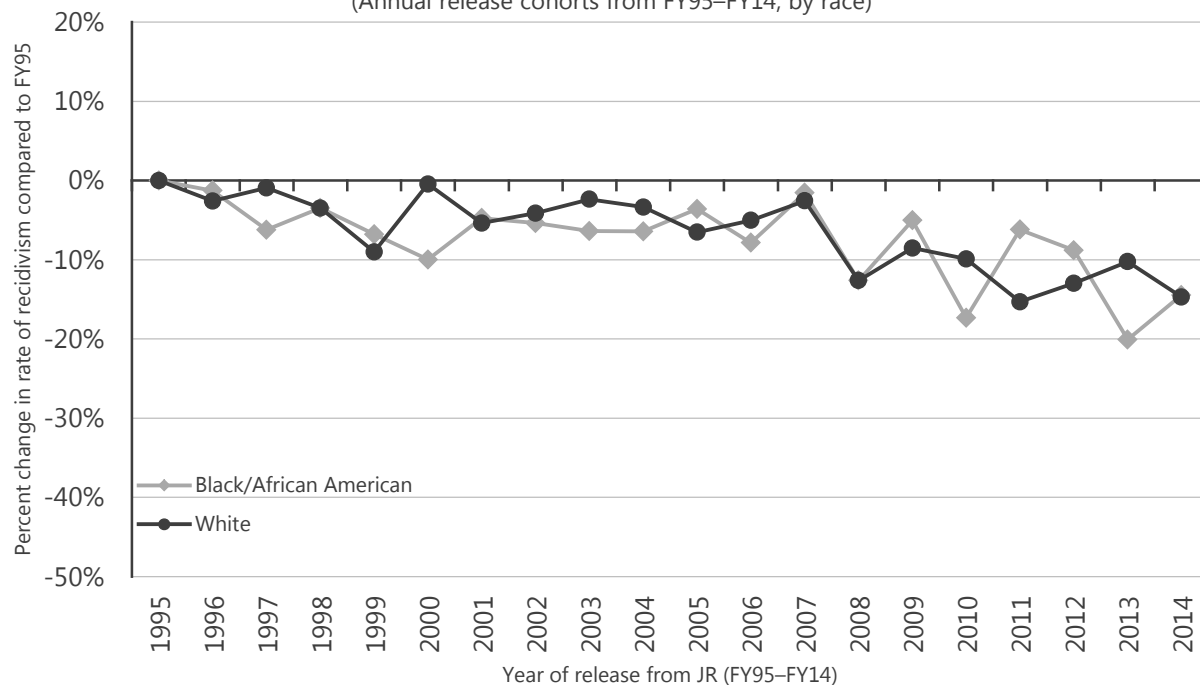


Exhibit A20

Annual Change in Rate of Recidivism from FY1995 by Race for Juveniles Released from JR

18-month recidivism rates for juvenile released from JR in Washington State

(Annual release cohorts from FY95–FY14, by race)



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