

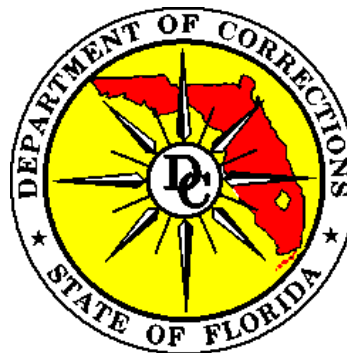
Florida Department of Corrections

Recidivism Report:

Inmates Released from Florida Prisons July 1995 to June 2001

Jeb Bush
Governor

James V. Crosby, Jr.,
Secretary



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Purpose

This document reports inmate recidivism rates and shows how certain offender characteristics and other factors affect these rates. This information provides context for using recidivism rates as performance measures for the Department of Corrections.

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Introduction

Recidivism is the reoccurrence of criminal behavior by offenders after intervention by the criminal justice system. Studies of criminal behavior consistently show that some offenders return to crime after arrests, convictions, punishments, and correctional program participation. Those who work in and study the justice system analyze recidivism to understand why the system sometimes does not prevent or reduce subsequent crime.

RELEVANCE

In fiscal year 2002 alone, the Florida Department of Corrections spent over \$1.3 billion to imprison more than 73,000 inmates. Over 26,000 of these inmates were released during the year as their sentences ended. Nearly 44% of inmates admitted to prison that year had previously been in prison in Florida.

This major budget expense, the public concern about crime, and the return of many inmates to prison make recidivism an important public policy issue. To address the issue properly, researchers must use the best data available and the most appropriate statistical tools to:

- measure recidivism
- account for what influences it
- identify what may reduce it
- determine how much it may be lowered.

This report is designed to help readers understand how recidivism data is collected and analyzed so they can obtain and use Florida prison inmate recidivism statistics appropriately.

KEY CONCEPTS

Recidivism is typically measured and reported as a rate—an [inmate recidivism rate](#), for example, as the percentage of inmates released during a specific period who commit a new crime within a certain time following their release. Three essential components for calculating rates determine what those rates mean, whether rates are comparable, and the quality of program evaluations that rely on recidivism rates:

- the [cohort](#) – the group of inmates released from prison during a defined time period,
- the [failure](#) – the measure(s) that identify whether and when recidivism occurred,
- the [follow-up](#) – the time elapsed since release from prison.

For release cohort members with the same follow-up period, the recidivism rate is the percentage calculated by dividing the number who fail by the total offenders in the cohort:

recidivism rate at follow-up =	number of recidivists from cohort within follow-up
	total number of releases in cohort

Recidivism results from different studies may not be comparable, because they use different cohorts, failure events, and follow-up periods. Their results may also not be comparable if the data sources they used differ in important ways that affect any of these components.

EXISTING KNOWLEDGE

Certain facts about prison inmate recidivism rates are confirmed by studies of large release cohorts.

1. Broader measures of the failure event yield higher rates than narrower measures—so

rearrest rates exceed reconviction rates which exceed reimprisonment rates. This is logically expected because not all arrests result in convictions, nor do all convictions result in incarceration.

2. Inmates released from state prisons have relatively stable recidivism rates—especially for reconviction—over time and across jurisdictions. These rates can be expected to appear in any analysis of large samples of released inmates (see [Technical Appendix](#)).
3. Certain factors influence recidivism rates, especially several basic inmate characteristics beyond or largely outside the control of corrections agencies. Such factors related to higher recidivism rates include:
 - being male, young, or non-white;
 - with low educational achievement, prior recidivism, or serious criminal history;
 - having prison misbehavior, high security custody needs, or shorter prison stays.

CAUTIONS

That these factors correlate with recidivism rates does not mean they cause crime. Yet the prevalence of these correlations in existing research does mean that studies of recidivism should not ignore their statistical effects. An evaluation may claim that a program reduces recidivism, but that effect is only credible if the study accounts properly for these **factors**' influences.

One statistic readily available from most corrections agencies is similar to and sometimes confused with a recidivism rate. Often called a **“reincarceration rate”** in prison systems, this statistic is the percentage of the current prison population that was in prison before. This is not a recidivism rate because these returned inmates came back after different follow-up periods: some after six months, others after six years. Also, this reincarceration rate depends on the number of first-time inmates in the prison population—if the number of first-time inmates grows faster than the number of recidivists in the population, the “reincarceration rate” will decline, even though the number of recidivists is also growing. Such “rates” do indicate a percentage of inmates who have returned, but they are **not** comparable or appropriate to interchange with recidivism rates.

PURPOSE

Reducing recidivism is an important public policy objective. Both the public and policymakers ask a reasonable question: what can be done to keep known criminals from reoffending? From a public policy perspective, the key to dealing with the costs recidivists impose is to apply what is known about recidivism. Properly applying the findings of recidivism studies requires understanding:

- the [cohort](#) studied
- the [failure\(s\)](#) measured
- the [follow-up](#) period tracked
- [factors](#) that influence recidivism rates.

Such information helps answer the policy, scientific, and practical questions: what, if anything, reduces recidivism how much, for which kinds of offenders, and under what conditions?

This document establishes recidivism rates for inmates released from Florida Department of Corrections facilities and reports the effects on those rates of factors that are readily measurable from Department data sources at the time an inmate is released. The Department does not have data on other factors appearing after release that may also influence rates including: unemployment, substance abuse, housing stability, etc. Nevertheless, this report's findings should guide evaluations by the Department and others that use inmate recidivism

rates as performance measures.

For more information about recidivism research, see Holley, Glen P., and Ensley, David T. (2002) "Recidivism" in Levinson, David, ed., *Encyclopedia of Crime and Punishment, Vol. 3*, Thousand Oaks, CA: Sage Publications, pp. 1352-1357.

Data and Methods: Release Cohort

Recidivism rates are calculated based on a **release cohort**—for this study, a group of prison inmates—released during a specified time period. The release cohort used to measure recidivism rates may vary. For example, a recidivism rate may be calculated for inmates released during a fiscal year or for all inmates released since a certain date. Because recidivism rates of state prison inmates do not vary much by year of release, this report relies on the latter method, calculating recidivism rates for inmates released from Department of Corrections custody from July 1995 through June 2001.

Data was collected on 106,167 prison releases involving 96,415 inmates during the six year study period. This number of releases is lower than those reported elsewhere by the Department, mainly because some inmates are released more than once on the same prison commitment. For example, an inmate who leaves prison on conditional release—a form of post-release supervision—can return to prison for a violation of supervision conditions (other than committing a new offense) and later leave prison again. For recidivism analysis, only the first such release is counted. Counting more than one of these releases would artificially lower the recidivism rates. This is because an inmate released twice who only recidivated after the second release would be counted both as a success (non-recidivist) and a failure.

Of these 106,167 releases, 2,643 (2.8%) were excluded from the analysis because they involved death, release out of state or to another prison system, escape, or a vacated (court-removed) sentence. Including these releases would also improperly lower the recidivism rates. Inmates released due to death cannot recidivate, and those released out of state are unlikely to recidivate in Florida. Releases to other prison systems must also be excluded because the true follow-up time can not be measured since the Department has no data on when the inmate was subsequently released. Those released by court-vacated sentences and the few who escape are excluded because they are unusual releases.

This analysis retained 85.7% of the 103,524 remaining releases (94,272 inmates), including 88,678 releases (81,737 inmates) with no missing data on important inmate characteristics relevant to recidivism. Almost all cases excluded for missing data have no score on the Test for Adult Basic Education because they did not take the test. Excluding these cases does not lower recidivism rate estimates in this study because the excluded cases have rates somewhat lower than those retained.

The study analyzed 80,919 releases of 74,467 male inmates and 7,759 releases of 7,270 female inmates. This study analyzes male and female releases separately, due to differences in their fundamental recidivism rates and because factors that influence recidivism affect males and females differently. **Table 1** shows the final male and female cohorts broken down by the number of releases during each fiscal year (July – June) in the study period.

Table 1. TOTAL INMATES AND RELEASES ANALYZED					
		MALE		FEMALE	
		N	%	N	%
INMATES		74,467	91.1*	7,270	8.9*
RELEASES		80,919	91.3*	7,759	8.7*
FISCAL YEAR RELEASED	FY 1995-96	11,106	13.7	1,038	13.4
	FY 1996-97	12,755	15.8	1,143	14.7
	FY 1997-98	12,853	15.9	1,110	14.3
	FY 1998-99	13,173	16.3	1,279	16.5
	FY 1999-00	14,680	18.1	1,447	18.6
	FY 2000-01	16,352	20.2	1,742	22.5
Note: * indicates the percentage of total cases analyzed.					

For more information on recidivism rates based on fiscal year release cohorts, see [Recidivism Rate Curves](#).

Table 2 describes the male and female release cohorts analyzed for this report. The characteristics presented are those found to predict recidivism rates best when used simultaneously. These characteristics were selected from 35 variables (counted in parentheses below) that cover 17 aspects of inmate characteristics in four general areas:

Demographic: gender (1), age (1), race (1), ethnicity (1)

Post release status: supervision (1), time not at risk (1)

Criminal History: onset / length (3), density (1), dispersion – geographic (1), diversity – offense specialization (2), severity – offense volume, type, degree (11), prior supervision failure (2), prior recidivism (1)

Prison Experience: length of stay (1), behavior / confinement (5), custody level (1), education level (1).

Where possible, multiple ways of measuring each variable were tested. These measures are those that met three qualifications:

- correlated most with recidivism among multiple measures for each variable,
- correlated least with measures used for other variables, and
- survived appropriately in tests of a variety of statistical models of recidivism.

This study only analyzed characteristics for which the Department has data at the time an inmate is released from prison. This data is reliable, readily available, and should remain so over time. Data is either unavailable or inadequate to analyze post-release factors such as employment, drug and alcohol use, and housing stability, etc., which may also affect recidivism rates according to other research.

For more information about how these cohort characteristics were measured and selected, see the [Technical Appendix](#).

Table 2. CHARACTERISTICS OF INMATE RELEASES					
FACTOR	CATEGORY	MALES		FEMALES	
		N	%	N	%
GENDER		80,919	91.3*	7,759	8.7*
AGE AT RELEASE	UNDER 18	347	0.4	22	0.3
	18 TO 24	20,046	24.8	930	12.0
	25 TO 34	29,954	37.0	3,240	41.8
	35 TO 49	27,334	33.8	3,336	43.0
	50 TO 59	2,620	3.2	193	2.5
	60+	618	0.8	38	0.5
	Mean / Std. Dev.	32.1 / 9.2		33.9 / 7.9	
Max / Min	91 / 15		79 / 15		
BLACK		47,343	58.5	4,449	57.3
HISPANIC		4,469	5.5	240	3.1
SUPERVISION - ANY AFTER RELEASE		29,982	37.1	1,998	25.8
MONTHS IN PRISON	1-12	20,323	25.1	3,005	38.7
	13-24	24,134	29.8	2,606	33.6
	25-36	13,965	17.3	1,100	14.2
	37-48	8,319	10.3	490	6.3
	49-60	4,837	6.0	244	3.1
	61+	9,341	11.5	314	4.0
	Mean / Std. Dev.	30.4 / 26.6		21.2 / 18.9	
Max / Min	370 / 1		305 / 1		
DISCIPLINARY REPORTS - TOTAL	0	36,396	45.0	4,302	55.4
	1	13,491	16.7	1,294	16.7
	2	7,218	8.9	586	7.6
	3-6	12,059	14.9	861	11.1
	7+	11,755	14.5	716	9.2
	Mean / Std. Dev.	3.2 / 6.9		2.3 / 6.4	
Max / Min	208 / 0		113 / 0		
CUSTODY LEVEL AT RELEASE	COMMUNITY	2,650	3.3	337	4.3
	MINIMUM	38,102	47.1	5,423	69.9

	MEDIUM	26,719	33.0	1,705	22.0
	CLOSE	13,448	16.6	294	3.8
TEST FOR ADULT BASIC EDUCATION GRADE LEVEL - LAST BEFORE RELEASE	1-3.9	14,438	17.8	1,356	17.5
	4-8.9	42,364	52.4	4,406	56.8
	9-11.9	13,684	16.9	1,135	14.6
	12-12.9	10,433	12.9	862	11.1
	Mean / Std. Dev.	7.3 / 3.2		7.1 / 3.1	
	Max / Min	12.9 / 1		12.9 / 1	
PRIOR RECIDIVISM EVENTS	0	41,631	51.4	4,606	59.4
	1	17,291	21.4	1,599	20.6
	2	10,459	12.9	856	11.0
	3	6,228	7.7	444	5.7
	4	3,176	3.9	171	2.2
	5+	2,134	2.6	83	1.1
	Mean / Std. Dev.	1.0 / 1.4		0.7 / 1.1	
Max / Min	11 / 0		7 / 0		
MOST SERIOUS OFFENSE TYPE- CAREER	HOMICIDE	3,935	4.9	349	4.5
	SEX/LEWDNESS	6,216	7.7	74	1.0
	ROBBERY	17,227	21.3	906	11.7
	OTHER VIOLENT	20,265	25.0	2,081	26.8
	BURGLARY	17,322	21.4	882	11.4
	PROPERTY	7,043	8.7	1,882	24.3
	DRUGS	8,059	10.0	1,513	19.5
	WEAPONS	338	0.4	17	0.2
	OTHER	514	0.6	55	0.7
PROPERTY OFFENSES - TOTAL	0	39,925	49.3	3,727	48.0
	1	14,004	17.3	1,138	14.7
	2	9,303	11.5	782	10.1
	3+	17,687	21.9	2,112	27.2
	Mean / Std. Dev.	1.7 / 3.0		2.4 / 5.2	
Max / Min	111 / 0		120 / 0		
DRUG OFFENSES - TOTAL	0	41,163	50.9	3,103	40.0
	1	11,686	14.4	1,085	14.0
	2	8,822	10.9	954	12.3
	3+	19,248	23.8	2,617	33.7
	Mean / Std. Dev.	1.6 / 2.5		2.2 / 2.9	
Max / Min	35 / 0		41 / 0		
WEAPONS OFFENSES - TOTAL	0	69,543	85.9	7,304	94.1
	1	7,879	9.7	359	4.6

	2+	3,497	4.3	96	1.2
	Mean / Std. Dev.	0.2 / 0.6		0.1 / 0.3	
	Max / Min	8 / 0		4 / 0	

These characteristics of the release cohorts are factors that influence recidivism rates: either raising or lowering an inmate’s risk of recidivism. For information about these factors, see [Statistical Analysis](#); and for how they affect recidivism rates, see [Factors Affecting Rates](#).

Data and Methods: Recidivism Measures

Recidivism studies typically use one or more of three **recidivism measures** to measure reoffending:

- rearrest,
- reconviction, and
- recommitment to prison for a new offense.

These measures are indicators of whether and what kind of new offense might have or has occurred. Each of these ways to measure recidivism has strengths and weaknesses. Arrests are the broadest measure of crime available, but an arrest does not imply that a new offense actually occurred. Convictions indicate that a new offense did occur, but may not indicate the seriousness of the offense. Commitments to prison, the narrowest measure, do indicate that a relatively serious new offense occurred.

This report uses two recidivism measures:

- conviction for a new, serious offense (**reoffense**), and
- commitment to prison for a new offense (**reimprisonment**).

Reoffense is measured as the date of the first *felony* offense after prison release. The data comes from inmates recommitted to the Department of Corrections for supervision or incarceration. This is a reconviction type measure because it requires that a reconviction occurred. It is called reoffense, though, because it uses the new offense date, rather than the date of conviction or of readmission to the Department. This way of measuring recidivism tells how soon after release the inmate *commits a new crime*.

Reimprisonment is measured as the date of return to prison after reoffense, the first offense after prison release. Rates reported on this recidivism definition—reimprisonment for a new offense—will necessarily be lower than reoffense rates, for the same follow-up period, since the reimprisoned offenders are a subset of those who reoffend. Not all reconvicted inmates are sentenced to prison. This way of measuring recidivism tells how soon after release the inmate *returns to prison for a new crime*.

A **rearrest** measure is not used in this study. The largest cohort studies of released state prison inmates show that rearrest rates vary over time while reconviction rates do not. The U.S. Department of Justice’s Bureau of Justice Statistics conducted and compared studies of releases in 1983 and in 1994. The 3-year reconviction rate for state inmates remained constant at about 47%, but the 3-year rearrest rate increased from 62.5% to 67.5%. This likely resulted more from changes in policing (i.e., higher arrest probability) rather than in court processing

(i.e., lower conviction probability). There is reason to doubt that rearrest is a reliable indicator of reoffending by state prison inmates.

Unlike some inmate recidivism studies, this report does not use recommitment to prison for **technical violation** of supervision conditions as a recidivism measure for several reasons. Technical violations result from the actions probation officers, judges, and the Parole Commission take in response to inmates' misbehavior. An in-depth study of decision-making by agents in the supervision system is beyond the scope of this report. Further, though 36.1% of released inmates have some post-release supervision, they comprise less than 4% of all offenders on supervision. This measure would be important if the results were needed to calculate all future prison costs imposed by released inmates, but the focus of this report is on repeat offending by released inmates.

Though **technical violation** is not used as a separate recidivism measure in this report, it does affect the rate calculation for inmates who have post-release supervision. When inmates on supervision after release commit a new crime, they are often returned to prison for a technical violation before they are convicted of the new crime. For both recidivism measures in this report, inmates who return to prison for a technical violation of supervision are counted as recidivists if they are convicted of a new offense that occurred before they returned for the technical violation. For information about how **technical violation** affects rates in this report, see [Follow-Up Period](#).

For more information on these recidivism measures, see the [Technical Appendix](#). Post-release supervision is one of several factors that reduce inmate recidivism. For information about these factors that influence recidivism rates, see [Factors Affecting Rates](#).

Data and Methods: Follow-Up Period

Recidivism rates must be calculated over a specified **follow-up period**. This is the time—measured in months for this report—between release from prison and when the data on new offenses or prison admissions is collected (March 2002). This report provides data on [recidivism rates](#) up to 60 months following release.

As more time passes since a cohort of inmates was released from prison, the number of inmates who recidivate grows, so the percentage of released who recidivate increases. For example, the recidivism rate measured at 36 months after release is higher than the rate measured at 12 months after release. Recidivism rates can be compared between follow-up periods for the same release cohort. However, when comparing rates for different release cohorts, one should use rates based on the same follow-up time after release.

More than one-third (36.1%) of released inmates spend some time on supervision following release from prison. Some inmates under supervision (**technical violators**) spend part of their follow-up period back in prison. During this time they are not at risk of committing new offenses in public. This report accounts for such time “not on the street” by reducing both the follow-up period and the time to reoffense and reimprisonment by the amount of intervening time spent back in prison for a technical violation. This prevents the “not at risk” time from artificially lowering recidivism rates.

Many recidivism studies use a fixed follow-up period. For example, all releases might be tracked for 3 years following release, and only recidivism events that occurred within 3 years of release will be counted. This data is usually analyzed based on whether or not each inmate

recidivated—generating a certain percentage that recidivated. If the timing of the recidivism events (such as an offense date) is measured, they may also analyze the time to failure within the 3-year period, which is more useful information.

A fixed follow-up study has two limitations, especially if the time to recidivism is not examined. First, the entire follow-up time must pass before the collected data can be properly analyzed. This may delay results beyond a useful time to inform decision-making, such as when an evaluation might help make budget choices about a particular program. Second, no information is available about recidivism over a longer-term. To the extent that a program does or does not reduce recidivism more than three years after release, an evaluation using the fixed period will fail to show this important result.

In contrast and to overcome these limitations, this study uses all follow-up time available rather than a fixed follow-up period and reports rates from six months to five years after release. However, not all released inmates used to calculate these rates have been out of prison equally long. To correct for differences among inmates in the time since release, this study relies on a statistical procedure (survival analysis) for estimating rates that accounts for the available follow-up period for each inmate released. The method includes all inmates in the release cohort but only counts them for recidivism rates based on their actual individual follow-up periods.

The main benefit of this approach is that the maximum possible number of cases can be used to estimate rates for each follow-up period. Nevertheless, rate estimates for cases released within two years of data collection are known to be unstable (biased low). They should be considered preliminary and subject to revision upward as additional time passes, allowing data on more recidivists to enter the Department's information system. To compensate for this small bias, all follow-up period rates are estimated using all releases (over six years) in the cohort. Also comparisons of shorter term rates will still allow meaningful evaluation of recidivism differences between groups unless evidence shows that this known, predictable bias affects the comparison groups differently. The advantage of this analytical approach is that recidivism evaluations can be done sooner, using shorter follow-up periods, and with confidence in any statistically significant results.

For more information on measuring follow-up time and the statistical procedure used to estimate recidivism rates, see [Technical Appendix](#). For recidivism rates over various follow-up periods, see [Recidivism Rate Curves](#).

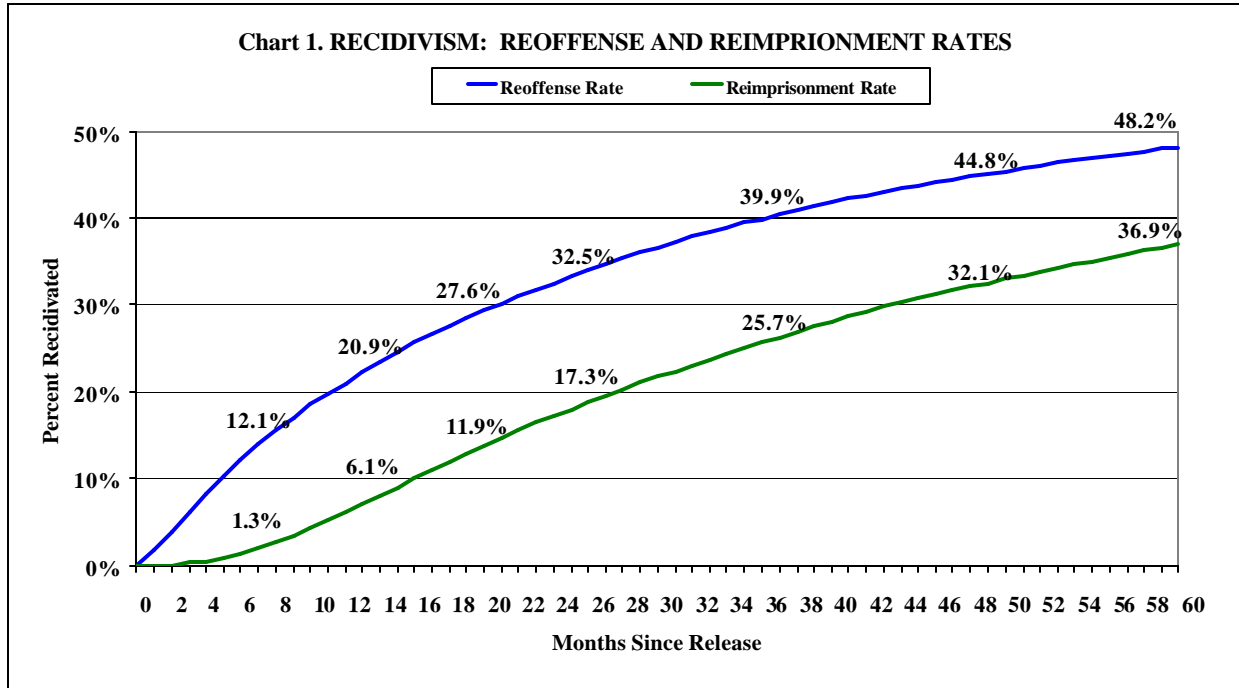
Data and Methods: Recidivism Rate Curves

A useful way to display recidivism rates is to graph the cumulative percentage of recidivists over the time since release from prison, creating a **recidivism rate curve**, as in **Chart 1**. These rate curves are the complement of estimated survival functions.

Chart 1 displays the reoffense and reimprisonment rates for state prison inmates released from July 1995 through June 2001 (**release cohort**). The lower axis indicates the number of months (up to 60) since release from prison (**follow-up period**). The side axis shows the percentage of inmates who recidivated. The graphed curves mark the percentage of total inmates released who reoffended and who returned to prison for a new crime over the available follow-up period.

The **recidivism rates** are the values on the graphs. To illustrate, recidivism rates at selected follow-up periods are noted on the chart: 6, 12, 18, 24, 36, 48, and 60 months after release.

For example, at three years (36 months) after release the reoffense rate is 39.9% and the reimprisonment rate is 25.7%. In other words, roughly 40 of 100 inmates released from prison were convicted of a new crime within three years and roughly 26 of 100 were reimprisoned within 3 years. Rates in this report can be interpreted as probabilities of recidivating: there is a 39.9% probability that a released inmate will commit a new offense within three years and a 25.7% probability that a released inmate will be reimprisoned within three years for a new offense.



This chart shows that **reoffense rates** increase most quickly immediately after release and grow more slowly as the follow-up period increases. For example, in the first six months after release the reoffense rate grows to 12.1%, but between 36 and 48 months after release the rate grows only 4.9 points from 39.9% to 44.8%.

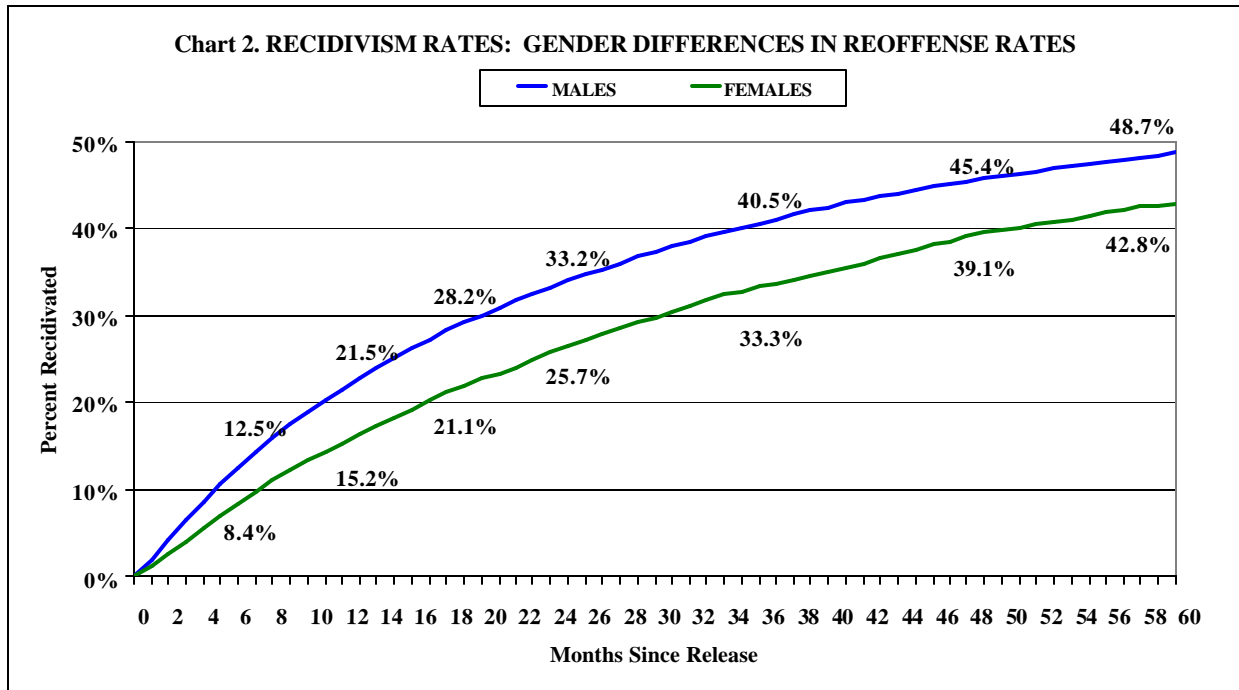
The pattern of **reimprisonment rates** is somewhat different, with the largest growth (5.8 points) occurring between 12 and 18 months after release. This difference reflects the length of time required for the recidivists to be arrested, convicted, sentenced, and delivered to the Department.

Note that reimprisonment rates are lower than reoffense (reconviction) rates because not all reconvictions result in a new prison sentence—only a subset of inmates who commit new crimes are sentenced to prison for them.

Recidivism rate curves are also useful for displaying the influences certain factors may have on recidivism rates. For example, **Chart 2** below displays the reoffense rates for male and female inmates. Clearly, female inmates appear to reoffend at lower rates than males, suggesting that gender influences recidivism. For information about what influences recidivism rates, see [Factors Affecting Rates](#).

Whether this apparent difference between males and females is real can be determined by comparing these rate curves using tests of statistical significance. These tests demonstrate whether a factor, like gender, has a meaningful influence on recidivism rates and estimate the

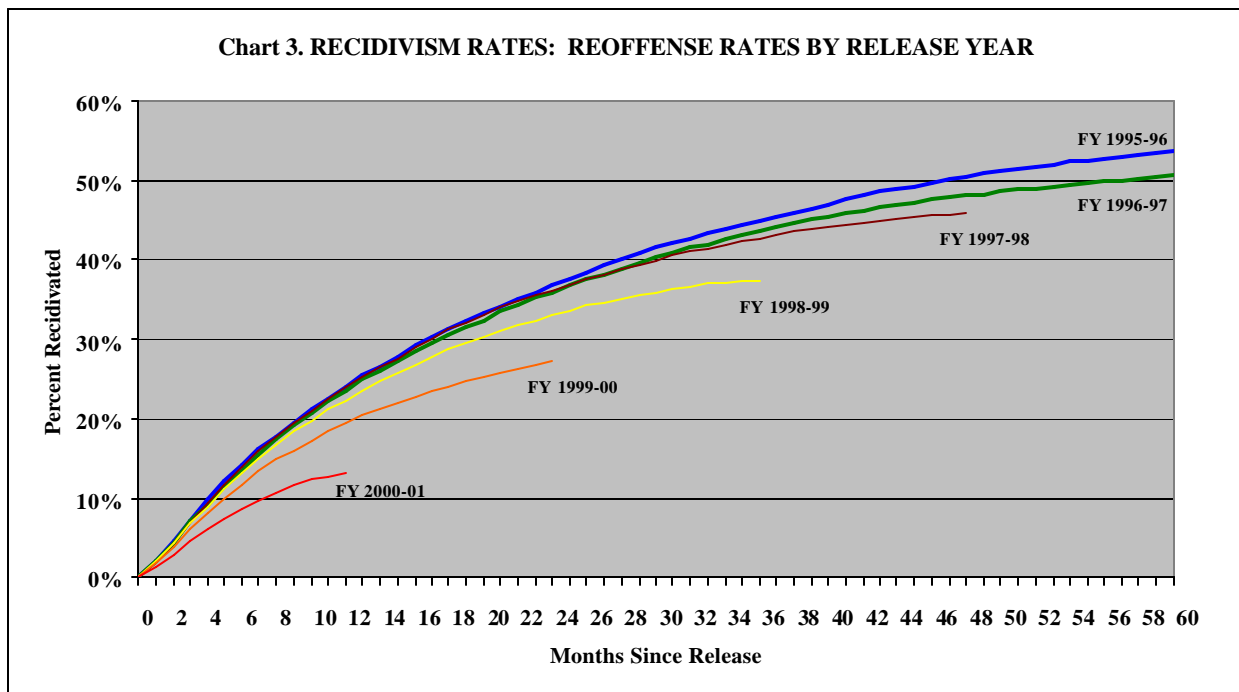
size of that influence.



This research method for determining whether significant differences exist between the rates of two subsets of the release cohort provides a basis for analyzing whether programs or functions of the Department reduce recidivism. For example, one study using Department data separated inmates into two groups—releases from privately operated prisons and releases from Department operated prisons—to determine whether reoffense rates differed meaningfully between these two groups. The same statistical technique used to calculate recidivism rates reported here was used to test for meaningful differences while controlling for other factors known to influence recidivism rates (see Farabee and Knight, 2002).

An important aspect of recidivism rate curves generated from this data is that there is a relationship between the when inmates were released and when the data are collected. This relationship is displayed in **Chart 3** below using reoffense rates of male inmates, as an example. This data appears to indicate that reoffense rates for male inmates have declined steadily from fiscal year 1995-96 releases to fiscal year 2000-01 releases; but that **cannot** be concluded from this data. Instead, the Department’s research shows that this relationship results from how close the releases are to the time when the data were collected. The reliability of these recidivism rate estimates depends on the size of the subset of releases that recidivates. For fiscal year 1995-96, the rates are based on 5,985 reoffenses (53.9%) of 11,106 releases that year, whereas fiscal year 2000-01 rates are based on only 1,366 reoffenses (8.4%) of 16,352 releases. As the number of recidivist cases increases relative to the release population, the estimated rates become more stable and comparable. Caution must be used when analyzing recidivism rate differences based on either small numbers of cases or large numbers of releases with small percentages of recidivists.

For information about the statistical technique used to estimate recidivism rates (survival functions) and to evaluate significant differences between rates, see [Statistical Analysis](#). For more information about analyzing recidivism rate changes over time, see the [Technical Appendix](#).



Data and Methods: Data Sources

The Department routinely receives data only on those offenders who are recommitted for either a term of supervision or imprisonment by the state agency. Information on those sentenced to local probation or jail is not available. Therefore, the Department can reliably report only the rate of recidivism based on new offense and commitment data drawn from Department records. Data for this report were extracted for the Bureau of Research and Data Analysis from the Department's Offender Based Information System (OBIS).

SOURCES AND CASE SELECTION

Releases, Offenses, and Prior Recidivism

Movement data, codes that track all entries, transfers, and exits from Department facilities, were used to identify the inmate release cohort analyzed and whether inmates returned to prison. All movements (602,282) from July 1995 through June 2002 were collected for 127,858 inmates with at least one permanent release during the period. Excluding cases with movement data entry problems yielded 463,787 movement pairs (entry and exit from a facility).

Data on 608,773 offenses by these offenders, not committed while in prison, were analyzed to attach the first new offense, if any, to each prison release. Offense data came from a single source, consisting of all sentence components. This data includes all sentencing information, including offense dates, for every offense for which an offender was sentenced to the Department. These offense dates were used to measure the timing of recidivism.

Combining the movement and offense data yielded 244,777 releases for 127,689 inmates, of which 110,899 releases (97,825 inmates) occurred on or after July 1, 1995. The balance of

133,878 releases—before the cohort period—were used to measure prior recidivism events, a factor influencing recidivism.

Data on new offenses committed is not available until the inmate is actually readmitted to the Department (at which time the data entry is done) for incarceration or supervision. The delay between when an offense is committed and when new offense information becomes available in the Department's information system must be taken into account to prevent data collection timing from biasing results of the analysis.

Analysis of the distribution of time between new offense date and subsequent admission date indicates that 75 percent of offenders are received within 250 days. Inmate releases less than 250 days prior to data collection (March 5, 2002) for this report are not included in the analysis. Releases on or after June 28, 2001 were excluded from the analysis. Using this "buffer" period alleviates the problem of considering a released inmate a success (non-recidivist) when, in fact, he has not had sufficient time to return to the Department. Of the 110,899 releases (97,825 inmates) since July 1995, 106,167 releases (95.7%) for 96,415 inmates (98.6%) were retained.

Finally, 2,643 (2.8%) of the 106,167 releases were excluded because they involved death, release out of state or to another prison system, escape, or vacated sentence, leaving 103,524 releases for 94,272 inmates.

Other Inmate Characteristics

Data on inmate characteristics—other than prior recidivism—were obtained from a data file of all offenders ever in custody or under supervision with the Department. These characteristics include gender, age, race, and ethnicity. Demographic data were available for virtually all released inmates.

Criminal history data were obtained from movement and offense data files, primarily the latter. Offense data were used to measure multiple characteristics in four aspects of criminal behavior: density, geographic dispersion, diversity (offense type specialization), and severity (offense volume, type, degree). Measures of the onset and criminal career length and the prior recidivism characteristics were generated from combined movement and offense data. Movement data provided the prior supervision failure characteristics. No cohort cases were lost due to missing data on these characteristics. Some undercounting of criminal career characteristics may have occurred, but any undercounting is minimized because data elements used are required data entry fields in the Department's information system.

Movement data for offenders on supervision were used to identify inmates released to supervision. Prison movement data were used to measure time back in prison for technical violations of supervision conditions (time "not at risk" for recidivism).

Prison experience data were obtained from several source files. Length of stay was calculated as the time between prison admission and release, based on the prison movement data used to identify which prison releases qualified inmates for inclusion in the study. Custody level at release were collected from a series of inmate population status files, using the latest date prior to each release for each inmate in the cohort. Inmate behavior and special confinement history data came from files listing all disciplinary reports and movement data while in prison for each period of imprisonment.

Academic skill or achievement level was collected from special files that record scores—expressed as educational grade equivalents—on the Test for Adult Basic Education (TABE or TABM) for those inmates who took the test while in prison. The last test score prior to release was retained as an indication of the level of education attained prior to prison release. A

substantial number of cases were excluded due to missing scores; however, this analysis retained 85.7% of the 103,524 remaining releases (94,272 inmates).

For more information about the final cohort analyzed for this report, see [Release Cohort](#).

LIMITATIONS

Historically, felony court dispositions show that 20% of offenders are sentenced to prison, 25% to jail, and 55% to supervision. Reoffenders sentenced to jail are not included in these estimated rates. To determine whether the absence of data on recidivists committed to jail lowers these rate estimates, the Department examined an alternate data source (sentencing guidelines forms). Analysis of that data shows that incorporating information on recidivists sentenced to jails does not affect the shape of the reoffense curve (i.e., the timing of recidivism). At most, including jail data would raise the reoffense rate estimates by an average of 1.2 points, with a maximum increase of 1.6 points in the 3-year range. This minimal affect reflects the low probability that former prison inmates are sentenced to jail instead of prison for subsequent felonies.

The U.S. Department of Justice Bureau of Justice Statistics reports that a substantial amount of recidivism occurs in states other than where prison inmates were released. However, this amounts to a small percentage of all state prison inmate recidivism. Within 3 years after release, only 3.7% of released prison inmates were only rearrested in another state. Given the ratio of reconstructions to rearrests in that study, it is reasonable to expect that no more than 2.6% of inmates released from Florida are reconvinced in other states. That percentage would increase these reoffense rate estimates by an average of .85 points, with a maximum of 1.3 points at 60 months. The Department has no access to data to allow such out of state convictions to be included in these recidivism rate estimates.

For more information on the data sources for this report, see the [Technical Appendix](#).

Data and Methods: Statistical Analysis

Studies typically report several factors that contribute to recidivism rates for many offender populations, including state prison inmates. These include such personal characteristics as age, gender, race, length and severity of criminal history, education and skill levels, and conduct in prison. Other sentencing factors such as length of incarceration and post-release supervision affect recidivism rates as well.

Definition of Factors that Influence Recidivism Rates

The factors reported here were selected using the following criteria :

- strong evidence that the factor influences recidivism,
- the factor is measured independently from specific programs or services,
- valid data are readily available to measure the factor,
- data used are expected to remain reliable over time.

This should ensure that future reports, analyses, and evaluations of Department programs and activities can depend on this report's data, sources, and methods.

Factor data are grouped into categories primarily to facilitate presentation of the basic relationship each has to recidivism rates. The categories are based on a combination of these criteria:

- inmate sub-populations for which data is often requested,

- inmate groupings typically reported in other Department documents,
- equal distribution of the cases, where possible.

These criteria for categorizing the factors serve two goals: to show each factor's basic relationship, if any, to recidivism rates; and to provide data that is needed to respond to typical internal and external information requests the Department receives.

Gender is used to define the subpopulations analyzed here, yielding separate information about male and female inmate recidivism. As such, though male and female recidivism rates differ substantially, gender is not treated here as a factor in the technical sense. For more information about how gender influences recidivism rates, see [Recidivism Rate Curves](#).

The **age at release** factor is calculated in the ordinary manner as the integer age on the day of release from prison. The **race** factor is categorized as black or non-black for analysis because 98.3% of inmates self-report as “white” or “black.” The **Hispanic** factor is based on an inmate self-report as such on either race or ethnicity. Hispanics comprise 85.5% of all inmates not reporting “white” or “black” on race, and only 4.6% of those who report “white” or “black.”

The post-release **supervision** factor is defined as those inmates who appear on a Department supervision caseload after prison release without having committed a new offense. The **months in prison** factor is defined as the number of partial months between admission and release from prison, including temporary out-time (e.g., local jail time). The **disciplinary reports** factor is a count of the total number of reports each inmate received between admission and release. Only final disciplinary reports, those unchallenged by inmates or upheld after being challenged, are included. The release **custody** factor is defined as high (“close” custody) or low (“minimum” or “community” custody) just prior to prison release. The community custody level is combined with minimum custody because it was only implemented in December 1999, late in the release cohort period. The **education** level factor is defined as the last grade equivalent score on the Test for Adult Basic Education prior to release. A TABE score is available regardless of whether or not an inmate participated in academic programs while in prison. Therefore, the measure is considered an indication of an inmate’s academic skill level only, not necessarily a reflection of prison academic program performance.

Several criminal history factors are used. The **prior recidivism** factor is defined as the number of times before the current prison release that an inmate was released from prison and committed a new crime. This is the same reoffense recidivism measure used in this analysis counted back through time prior to the most recent imprisonment.

The **most serious offense** factor is defined as the highest category of offense ever committed in an inmate’s criminal career from these five types, beginning with the most serious:

- homicide
- sexual or lewd behavior
- robbery
- other violent (assault, battery, stalking, etc.)
- burglary.

The factors for **property offenses**, **drug offenses**, and **weapons offenses** are counts of the total number of each type of offense in each inmate’s career. Property offenses include fraud and theft or damage of property, but do not include burglary. Drug offenses include trafficking, manufacture, dealing, distribution, and possession of illegal drugs and illegal activity with prescription drugs. Weapons offenses include illegal sale, use, and possession of weapons, but not use of a weapon to commit another crime—that is, an armed robbery is considered as a robbery rather than a weapons offense.

In the statistical analyses, each of the following factors were included as a dichotomous (2 category) variable: with one category indicating the characteristic's presence, and the other indicating its absence:

- black
- Hispanic
- supervision
- high custody
- low custody
- homicide as most serious offense
- sex/lewdness as most serious offense
- robbery as most serious offense
- other violent offense as most serious offense
- burglary as most serious.

The remaining factors below were included in analyses as continuous measures, using the full range of variable values:

- age at release
- months in prison
- disciplinary reports
- education grade level
- prior recidivism events
- property offenses (females)
- drug offenses
- weapons offenses.

For more information about how these factors appear in male and female inmates, see [Release Cohort](#). For more information on these factors, see the [Technical Appendix](#)

Analyses of Factors' Influence on Recidivism Rates

To assess the **combined effect** of the factors on recidivism, a standard cross validation method was employed to test the predictive value of the factors. The male and female cohorts were each separated into six subsets, one each for reoffense or reimprisonment at three follow-up periods: 18, 36, and 60 months after release. Each subset was randomly divided in half. One half of each subset was used to develop a predictive statistical model of recidivism. The other half of the subset data was used to validate the model. Using all appropriate factors as covariates, a logistic regression model was evaluated to predict failure (recidivism) for each gender, recidivism measure, and follow-up period. In these models the recidivism measure was defined as dichotomous (either failure or success) within the specified follow-up period, and only releases having the complete follow-up period were included. The model information (regression coefficients) from each prediction half was applied to factor values in the validation half of each subset. The resulting combined effects were used to classify each case as a recidivist or non-recidivist.

The percentage of cases expected to be classified correctly by chance is known from the percentages of recidivists in each prediction and validation half of each subset. The percentage classified correctly by the model, using the factors, is compared to the percentage expected to be correct by chance. The model's improvement over chance expectation in correctly classifying cases indicates the value of the combined factors for predicting recidivism. For information on the predictive power of these combined factors, see [Factors Affecting Recidivism Rates](#).

To measure the **relative influence** of each factor compared to that of other factors, a proportional hazards regression model was estimated for each recidivism measure—reoffense and reimprisonment—for males and females separately. These models were evaluated using a stepwise selection method in which each variable is entered into the model in order beginning with the factor most related to the recidivism measure. At each step as the next most related factor is added to the model, any previously entered factor may be removed if its relationship to recidivism no longer remains significant given the influence of the other factors in the model. Any factors dropped out of the model may re-enter the model at a later step. As a result, the order in which the factors are entered in and retained in the model reflects the strength of their influence on recidivism relative to other factors. The statistical technique rather than the analyst's judgment determines based on the data whether and when factors are entered, retained, or dropped. Each factor was ranked in influence based on the final order in which it entered and survived in the model. Those factors that did not enter or survive in the model were ranked based on the strength of their small residual relationships to recidivism. The ranking of non-significant factors is not reliable.

To measure the **general effect** of each factor on recidivism, a second proportional hazards regression model was estimated for each recidivism measure for males and females separately. Unlike the models used to assess relative influence, these models included all factors as covariates. For indicator variables, relative risks with lower and upper bounds under 95% confidence limits are reported based on hazard ratios from the regression model. For continuous variables, average relative effects over the entire 60-month follow-up period are reported for each factor based on the model regression coefficients. Each factor's hazard ratio is defined as the exponentiated regression coefficient; so conversely, the natural log of the hazard ratio is the regression coefficient. For each continuous variable, upper and lower bounds (with 95% confidence) around the coefficient were estimated from the upper and lower bounds for the hazard ratio by taking the natural log of each.

To illustrate the **general effect** each factor has on recidivism rates, survival functions for categories on each factor were estimated from the proportional hazards regression model. The complement of the survival estimates ($1-S_i$) is used to graph the cumulative failure rates (**recidivism rate curves**). Categories used for continuous variables (e.g., age) were selected for convenience to facilitate charting the factor effects. These rates are adjusted for other factors by estimating the rates with the values of other covariates in the model set at the average value for the baseline group. These rates reflect the partial effect of each factor on recidivism after controlling for other factors' influences. They are reported to convey visually the net relationship between each factor and recidivism rates.

For information on the relative importance, the general effects of factors, and charts illustrating the partial effects of each individual factor while controlling for all others, see [Factors Affecting Recidivism Rates](#).

To report **actual recidivism rates** broken down by factors, the recidivism rates within bounds at 95% confidence are estimated for categories of each factor. Unlike the general net effects of individual factors displayed in the recidivism rate curves, these actual rates were estimated using a basic Kaplan-Meier survival analysis model. These actual rates do not adjust for the effects of other factors on recidivism. Instead, they simply report the expected recidivism rates of inmates in the particular category on each factor. For further explanation and to view these actual recidivism rates, see [Tables of Actual Rates by Factor – Unadjusted](#).

Results: Factors Affecting Recidivism Rates

For public safety reasons, the public and policymakers routinely consider recidivism rates to be an important, if not paramount, measure of the corrections system's performance. This report demonstrates how certain factors influence recidivism rates for inmates released from Department facilities. This information provides proper context for interpreting results of evaluations that may use recidivism rates to assess the Department's performance.

Knowing how much these factors collectively influence recidivism suggests how much room there might be for policy or program interventions to reduce recidivism. This information also allows the Department to know whether increases or decreases in recidivism are due to changes in characteristics of the inmate population released as opposed to changes in policies, programs, or resource allocations. With this knowledge, recidivism rates can serve as correct, useful baselines for measuring whether and how well policies or programs expected to reduce recidivism actually work.

The combined and relative effects of these factors were determined using a statistical procedure (proportional hazards regression) that analyzes all factors' effects on recidivism simultaneously. This allows us to know several things about the factors:

- how much recidivism depends on these factors as a group,
- whether a factor has a statistically significant effect on recidivism,
- whether one factor accounts for more variation in recidivism than others,
- whether and by how much each factor raises or lowers recidivism.

For information on the statistical procedures used to evaluate these prediction models and estimate the effects of factors on recidivism, see [Statistical Analysis](#).

Combined Effect of Factors on Recidivism Rates

One way to show how much these factors, as a group, affect recidivism is to test how well they improve the ability to predict inmate recidivism. **Table 3** below shows the predictive power of the model for each gender and recidivism measure at three follow-up periods. For example, consider the male reoffense rate at 36 months follow-up. Using only the base rate of male reoffending one would correctly guess whether a male reoffends in 50.7% of cases—not much better than a coin toss. However, using a statistical model with factors that influence recidivism, one correctly identifies whether a male reoffends in 64.6% of cases: an improvement of 13.9 percentage points. The predictive power of these combined factors is determined not by the percentage of cases the model correctly classifies, but rather by how much higher that percentage is than chance guessing. These factors predict recidivism from 6.3 to 15.1 points better than chance does, depending on the cohort, recidivism measure, and follow-up period of each model.

Table 3. SUMMARY OF PREDICTIVE POWER OF COMBINED FACTORS					
FOLLOW-UP PERIOD ANALYZED	PREDICTION COMPONENT	REOFFENSE		REIMPRISONMENT	
		MALE	FEMALE	MALE	FEMALE
18 MONTHS	Correct by Chance	55.8%	62.5%	76.0%	86.8%
	Correct by Model	68.2%	73.4%	86.0%	93.1%
	Improvement	+12.4	+10.9	+10.0	+6.3
36 MONTHS	Correct by Chance	50.7%	50.2%	53.9%	66.2%
	Correct by Model	64.6%	61.9%	68.0%	79.0%
	Improvement	+13.9	+11.7	+14.2	+12.8
60 MONTHS	Correct by Chance	74.1%	66.6%	60.3%	50.4%
	Correct by Model	85.1%	79.2%	75.4%	64.9%
	Improvement	+11.0	+12.6	+15.1	+14.5

Findings:

- The factors as a group improve prediction for reoffense and reimprisonment somewhat better for males than for females, except for reoffending at 60 months.
- For **males**, the predictive power of the factors is greater for reoffense at 18 months than for reimprisonment, about the same at 36 months, and greater for reimprisonment at 60 months.
- For **females**, the predictive power of the factors is greater for reoffense at 18 months than for reimprisonment, but greater for reimprisonment at 36 and 60 months.
- The amount of combined influence of these factors on recidivism is consistent with the explanatory power of similar variables found in other recidivism studies.

Relative Influence of Individual Factors

Knowing the combined effect of factors on recidivism does not tell us which factors influence rates more than others. The combined effects of these factors can be broken out into how much variation in recidivism each individual factor accounts for. **Table 4** below ranks the factors from most (1st) to least (up to 18th) influence for each gender cohort and recidivism measure over the entire 60-month follow-up period. These rankings indicate the relative importance of each factor. The rankings allow one to know which factors affect recidivism more or less than others for the release cohorts as a group. The rankings do not necessarily mean that a particular factor will be similarly important for subgroups of each cohort.

Table 4. RANK OF INDIVIDUAL FACTOR EFFECTS				
FACTOR	REOFFENSE		REIMPRISONMENT	
	Male	Female	Male	Female
Age at Release (years)	2 **	2 **	2 **	2 **
Race (black)	7 **	11 ‡	5 **	6 †
Ethnicity (Hispanic)	14 ‡	12 ‡	17 ns	13 ns
Release Custody:				
High	15 ‡	14 ns	15 †	17 ns
Low	10 **	15 ns	7 **	15 ns
Post-Release Supervision	4 **	7 **	14 **	18 ns
Time in Prison (months)	6 **	3 **	8 **	8 †
Disciplinary Reports (#)	5 **	4 **	4 **	7 ‡
Education Level (grade)	3 **	10 ‡	3 **	5 ‡
Prior Recidivism (#)	1 **	1 **	1 **	1 **
Most Serious Career Crime:				
Homicide	13 **	9 †	13 **	12 ns
Sex / Lewdness	9 **	13 ns	12 *	14 ns
Robbery	18 ns	17 ns	10 **	9 ‡
Other Violent	17 ns	16 ns	18 ns	11 ns
Burglary	12 **	6 **	6 **	3 **
Property Crimes (#)	8 **	8 **	9 **	10 ‡
Drug Crimes (#)	11 **	5 **	11 **	4 **
Weapons Crimes (#)	16 ns	18 ns	16 †	16 ns
Significance levels	** p<0.0001	* p<0.001	† p<0.01	‡ p<0.05
Not significant	ns			
Note: Rankings of non-significant factors are not reliable.				

Findings:

- For both males and females, the two most influential factors on reoffending and reimprisonment are prior recidivism and age at release, in that order.
- For males, the last tested education grade level is the third most influential factor on reoffending and reimprisonment.
- For males, 16 of these 18 factors significantly influence reoffending and reimprisonment; whereas for females, reoffending is significantly influenced by only 12 factors and reimprisonment by 10 factors.
- Several factors have roughly similar relative importance for reoffense and reimprisonment:
 - Males: prior recidivism, age, education level, disciplinary reports, property crimes, drug crimes, homicide (worst crime), high custody, other violent (worst crime).
 - Females: prior recidivism, age, drug crimes, ethnicity, sex/lewdness (worst crime), low custody.
- Some factors influence reoffending more than reimprisonment:
 - Males: supervision after release, sex/lewdness (worst crime), ethnicity, time in prison.
 - Females: supervision after release, time in prison, disciplinary reports, homicide (worst crime), high custody, property crimes.
- Some factors influence reimprisonment more than reoffending:
 - Males: robbery (worst crime), burglary (worst crime), low custody, race.
 - Females: robbery (worst crime), education level, race, other violent (worst crime), burglary (worst crime), weapons crimes.

General Effects of Individual Factors

The relative order of influence each factor has on recidivism is different from the direction and actual size of that influence. Some influential factors raise recidivism rates, while others lower rates; and some factors raise or lower rates more so than others. The general relative effect of a factor can be described in one of two ways, depending on the nature of the factor variable. **Table 5** below summarizes the general effect of each factor.

For indicator variables (e.g., black) measured as a dichotomy (black or non-black), the hazards ratio from each proportional hazards regression model are interpreted as in the following examples. Holding other factors constant, black males are 29% more likely to reoffend and 31% more likely to be reimprisoned than non-black males. Black females are 13.5% less likely to reoffend and 21.7% less likely to be reimprisoned than non-black

females, holding other factors constant.

For continuous variables (e.g., age), parameter estimates from each proportional hazards regression model are interpreted as in the following examples. Holding other factors constant, for males each year older at release lowers the reoffense likelihood 3.2% and lowers the reimprisonment likelihood 3.3%. For females, each year older at release lowers the reoffense likelihood 2.9% and lowers the reimprisonment likelihood 3.4% , holding other factors constant.

For recidivism rate curve **charts** illustrating each factor's individual effect, click on the particular cell in the table below. These rates reflect the partial effect of each factor on recidivism after controlling for other factors' influences. The charts demonstrate how much each factor influences recidivism rates. Each curve chart shows the relationship between a factor or factors and recidivism rates over the full follow-up period (60 months). A separate chart is provided for effects on reoffense and reimprisonment for males and females. In some cases for convenience, than effects of more than one factor are displayed on a single chart. Factor data for continuous variables (e.g., age) are grouped into categories only to facilitate displaying the basic relationship each has to recidivism rates. For an explanation of how to read these charts , see [Recidivism Rate Curves](#). For more information on the methodology and statistical procedure used to measure these factors' relative influence on recidivism, see [Statistical Analysis](#).

These interpretations of the general effect of factors are relative. The percentages in the Table 5 do **not** refer to actual percentage point reductions in recidivism rates. The rates in the associated charts are hypothetical, assuming that all other factor effects are held constant. To view actual recidivism rates for inmates in factor categories, see [Tables of Actual Rates by Factor - Unadjusted](#)

Table 5. SUMMARY OF INDIVIDUAL FACTOR EFFECTS

FACTOR	REOFFENSE		REIMPRISONMENT	
	Male N = 80,919	Female N = 7,759	Male N = 80,919	Female N = 7,759
Age (years)	-3.2 % / year** (-0.22 / +0.19)	-2.9 % / year** (-0.64 / +0.69)	-3.3 % / year** (-0.18 / +0.24)	-3.4 % / year** (-1.00 / +0.97)
Race (black)	+27.1 % ** (-3.8 / +4.0)	-13.5 % † (-8.3 / +9.2)	+30.8 % ** (-5.0 / +5.2)	-21.7 % † (-10.9 / +12.6)
Ethnicity (Hispanic)	-6.2 % ‡ (-5.5 / +5.8)	-26.7 % ‡ (-18.5 / +24.9)	-6.2 % (-7.0 / +7.6)	-28.8 % (-25.4 / +39.5)
Release Custody:				
High	+3.9 % ‡ (-3.7 / +3.9)	-24.1 % (-19.2 / +25.5)	+6.7 % † (-4.7 / +4.8)	-11.1 % (-30.3 / +46.0)
Low	-14.3 % ** (-2.4 / +2.5)	-9.1 % (-9.1 / +10.0)	-17.1 % ** (-2.9 / +2.9)	-9.2 % (-12.7 / +14.8)
Post-Release Supervision	-14.2 % ** (-2.2 / +2.3)	-17.3 % * (-8.5 / +9.5)	+6.8 % ** (-3.4 / +3.5)	+2.0 % (-14.2 / +16.6)
Time in Prison (months)	-0.7 % / month** (-0.04 / +0.06)	-1.5 % / month** (-0.39 / +0.42)	-0.4 % / month** (-0.13 / +0.07)	-0.9 % / month† (-0.53 / +0.58)
Disciplinary Reports (#)	+1.8 % / report** (-0.20 / +0.20)	+2.3 % / report** (-0.68 / +0.69)	+1.6 % / report** (-0.24 / +0.25)	+1.4 % / report† (-0.94 / +0.93)
Education Level (grade)	-2.4 % / grade** (-0.45 / +0.37)	-2.5 % / grade† (-1.65 / +1.63)	-3.5 % / grade** (-0.51 / +0.53)	-4.0 % / grade† (-2.48 / +2.42)
Prior Recidivism (#)	+21.9 % / event** (-0.99 / +1.02)	+27.2 % / event** (-4.05 / +4.03)	+28.4 % / event** (-1.25 / +1.23)	+34.3 % / event** (-5.54 / +5.53)
Most Serious Career Crime:				
Homicide	-28.3 % ** (-5.4 / +5.8)	-42.3 % † (-17.2 / +24.5)	-21.6 % ** (-7.3 / +8.1)	-37.4 % (-25.6 / +43.4)
Sex / Lewdness	-31.5 % ** (-4.5 / +4.7)	-53.1 % ‡ (-23.7 / +48.0)	-19.8 % ** (-6.5 / +7.0)	-57.0 % (-29.3 / +92.3)
Robbery	-1.5 % (-3.9 / +4.2)	+1.7 % (-.14 / +1.17)	+13.7 % ** (-5.8 / +6.0)	+33.7 % † (-25.7 / +31.8)
Other Violent	-2.8 % (-3.6 / +3.7)	-4.6 % (10.2 / +11.5)	+4.0 % (-5.0 / +5.2)	+15.1 % (-17.7 / +20.9)
Burglary	+11.6 % ** (-4.2 / +4.4)	+27.1 % * (-15.8 / +18.1)	+28.7 % ** (-6.2 / +6.6)	+58.6 % ** (-27.5 / +33.4)
Property Crimes (#)	+2.8 % / crime** (-0.32 / +0.36)	+1.5 % / crime* (-0.89 / +0.88)	+2.7 % / crime** (-0.44 / +0.43)	+1.6 % / crime‡ (-1.40 / +1.45)
Drug Crimes (#)	+2.6 % / crime** (-0.58 / +0.49)	+4.8 % / crime** (-1.52 / +1.53)	+2.1 % / crime** (-0.70 / +0.67)	+5.7 % / crime** (-2.10 / +2.15)
Weapons Crimes (#)	-1.8 % / crime (-2.02 / +2.05)	-1.3 % / crime (-13.33 / +13.33)	-3.4 % / crime† (-2.48 / +2.48)	+5.7 % / crime (-17.74 / +17.76)
Significance levels	** p<0.0001	* p<0.001	† p<0.01	‡ p<0.05

Findings:

- Five factors *raise* both reoffense and recidivism for males and females:
 1. **disciplinary reports (more)** – especially for female reoffending
 2. **prior recidivism (more)** – especially for females and for reimprisonment
 3. **burglary (worst crime)** – especially for females and for reimprisonment
 4. **property crimes (more)** – especially for males
 5. **drug crimes (more)** – especially for females

- Seven factors *lower* both reoffense and recidivism for males and females:
 1. **age (older)** – especially for female reimprisonment
 2. **ethnicity (Hispanic)** – especially for female reoffending
(not significant for reimprisonment)
 3. **custody (low)** – especially for males
(not significant for females)
 4. **time in prison (more)** – especially for female reoffending
 5. **education level (higher)** – especially for reimprisonment
 6. **homicide (worst crime)** – especially for reoffending
(not significant for female reimprisonment)
 7. **sex/lewdness (worst crime)** – especially for reoffending and for females
(not significant for female reimprisonment)

- Six factors, supervision after release, have *mixed* effects on reoffending and reimprisonment or between males and females:
 1. **race (black)** – raises recidivism for males, but lowers for females
 2. **custody (high)** – raises recidivism for males, but lowers for females
(not significant for females)
 3. **supervision after release** – lowers reoffending, but raises reimprisonment
(not significant for female reimprisonment)
 4. **robbery (worst crime)** – raises reimprisonment, but not reoffending
 5. **other violent (worst crime)** – raises reimprisonment, but lowers reoffending
(not significant)
 6. **weapons crimes (more)** – lowers female reoffending only
(not significant)

Note: “Significant” refers to levels of statistical significance as noted on Table 5. It does not refer to the size of the effect.

Results: Tables of Actual Rates by Factor - Unadjusted

Actual Recidivism Rates

The following tables report actual recidivism rates: **reoffense** (Tables 6 and 7) and **reimprisonment** (Tables 8 and 9)—for inmates released from Department facilities. The tables report recidivism rate estimates and confidence intervals for selected categories of each factor at three follow-up periods (18, 36, and 60 months). The rates can be interpreted as the probable recidivism (reoffense or reimprisonment) rate for a typical inmate in the category on each factor.

These rates do not take into account other factors' influences, so they are not appropriate for determining which factor influences recidivism by how much. For example, according to these actual rates, black female inmates reoffend at higher rates than other females. However, this is because other factors that increase recidivism (e.g., prior recidivism, drug crimes, etc.) are more pronounced in black females as compared with other females. Therefore, care must be taken when using these actual rates. In this example, it is reasonable, based on these rates, to expect that 34.3% of black females and 31.8% of non-black females will recidivate within 36 months. It is *not* correct to conclude from these rates—unadjusted by other factors—that a female's likelihood of recidivating is higher because she is black. In fact, when controlling for the influences of other factors, females who are black are 13.5% less likely to reoffend. For information on the relative effects of individual factors, see [Factors Affecting Recidivism Rates](#).

For a description of each factor, see [Statistical Analysis](#). For information on the distribution of each factor among male and female inmates released, see [Release Cohort](#).

**Table 6. MALE REOFFENSE RATES
(Not Adjusted By Other Factor Effects)**

FACTOR		TIME SINCE RELEASE								
		18 MONTHS			36 MONTHS			60 MONTHS		
		Low Bound	Rate Estimate	High Bound	Low Bound	Rate Estimate	High Bound	Low Bound	Rate Estimate	High Bound
Age at Release	UNDER 18	42.3%	48.0%	53.6%	53.9%	59.8%	65.8%	64.5%	73.4%	82.4%
	18 TO 24	31.8%	32.5%	33.2%	45.1%	45.9%	46.8%	53.3%	54.3%	55.4%
	25 TO 34	28.6%	29.2%	29.7%	41.3%	41.9%	42.6%	49.8%	50.6%	51.4%
	35 TO 49	25.2%	25.8%	26.3%	36.6%	37.4%	38.1%	44.1%	45.0%	45.9%
	50 TO 59	10.9%	12.3%	13.7%	15.6%	17.4%	19.2%	19.0%	21.3%	23.7%
	60+	3.0%	4.9%	6.7%	6.0%	8.8%	11.5%	6.9%	10.0%	13.0%
Race	Black	32.1%	32.5%	33.0%	46.2%	46.8%	47.3%	55.1%	55.8%	56.4%
	Non-Black	21.7%	22.1%	22.6%	31.1%	31.7%	32.3%	37.9%	38.7%	39.5%
Ethnicity	Hispanic	20.9%	22.2%	23.6%	32.7%	34.4%	36.1%	39.4%	41.6%	43.8%
	Non-Hispanic	28.2%	28.6%	28.9%	40.4%	40.9%	41.3%	48.5%	49.1%	49.6%
Supervision After Release	Yes	24.7%	25.3%	25.8%	35.7%	36.4%	37.0%	42.6%	43.4%	44.3%
	No	29.6%	30.0%	30.5%	42.5%	43.0%	43.5%	51.0%	51.6%	52.3%
Months in Prison	1-12	27.8%	28.5%	29.2%	40.5%	41.3%	42.1%	49.4%	50.3%	51.3%
	13-24	29.1%	29.7%	30.3%	41.8%	42.6%	43.3%	50.2%	51.1%	52.0%
	25-36	28.7%	29.5%	30.3%	41.1%	42.1%	43.1%	48.5%	49.7%	51.0%
	37-48	27.5%	28.5%	29.6%	38.4%	39.8%	41.1%	45.7%	47.6%	49.4%
	49-60	26.1%	27.5%	28.9%	37.5%	39.2%	41.0%	42.0%	44.1%	46.3%
	61+	20.9%	21.8%	22.7%	29.8%	31.0%	32.3%	34.9%	36.5%	38.1%
Disciplinary Reports - Total	NONE	23.9%	24.4%	24.9%	35.1%	35.7%	36.3%	43.0%	43.7%	44.4%
	1	26.6%	27.4%	28.2%	39.3%	40.3%	41.3%	47.8%	49.1%	50.3%
	2	28.5%	29.7%	30.8%	40.9%	42.3%	43.7%	49.5%	51.3%	53.1%
	3-6	31.0%	31.9%	32.8%	44.3%	45.4%	46.5%	52.3%	53.7%	55.1%
	7+	35.9%	36.9%	37.8%	49.4%	50.6%	51.7%	56.8%	58.3%	59.8%
Release Custody	Low	25.4%	25.9%	26.3%	37.6%	38.2%	38.7%	45.7%	46.5%	47.2%
	High	33.7%	34.6%	35.5%	47.2%	48.3%	49.4%	55.0%	56.4%	57.7%
TABE Grade	1-3.9	31.5%	32.3%	33.1%	44.9%	45.9%	46.9%	53.2%	54.4%	55.6%

Level - Last Before Release	4-8.9	29.1%	29.6%	30.0%	41.8%	42.4%	42.9%	50.2%	50.9%	51.7%
	9-11.9	24.5%	25.3%	26.1%	35.7%	36.7%	37.7%	42.3%	43.6%	44.9%
	12-12.9	20.2%	21.1%	21.9%	29.3%	30.4%	31.4%	36.1%	37.5%	38.8%
Prior Recidivism Events	NONE	22.4%	22.8%	23.3%	32.9%	33.4%	34.0%	40.3%	41.0%	41.7%
	1	27.4%	28.2%	28.9%	40.4%	41.3%	42.1%	48.7%	49.8%	50.9%
	2	33.5%	34.5%	35.5%	47.0%	48.2%	49.4%	56.3%	57.8%	59.2%
	3	37.3%	38.6%	40.0%	52.8%	54.4%	55.9%	62.3%	64.2%	66.1%
	4	42.4%	44.3%	46.2%	59.8%	62.0%	64.1%	67.4%	70.1%	72.7%
	5+	48.2%	50.6%	53.0%	63.9%	66.6%	69.2%	69.5%	72.8%	76.0%
Most Serious Career Offense Type	Homicide	13.9%	15.1%	16.3%	22.5%	24.1%	25.7%	29.0%	31.2%	33.4%
	Sex / Lewdness	14.9%	15.9%	16.9%	21.5%	22.8%	24.0%	26.6%	28.2%	29.8%
	Robbery	30.4%	31.1%	31.9%	43.3%	44.2%	45.1%	51.8%	52.9%	54.1%
	Other Violent	27.1%	27.8%	28.5%	39.8%	40.7%	41.5%	48.3%	49.4%	50.4%
	Burglary	32.7%	33.4%	34.2%	45.6%	46.5%	47.4%	53.7%	54.9%	56.0%
Property Offenses - Total	NONE	22.6%	23.0%	23.5%	33.8%	34.4%	35.0%	41.7%	42.4%	43.1%
	1	30.0%	30.8%	31.6%	43.0%	44.0%	45.0%	51.5%	52.8%	54.0%
	2	31.4%	32.4%	33.4%	44.7%	45.9%	47.2%	52.7%	54.2%	55.7%
	3+	35.2%	36.0%	36.7%	48.1%	49.0%	49.8%	55.8%	56.9%	58.0%
Drug Offenses - Total	NONE	23.6%	24.0%	24.5%	34.0%	34.6%	35.1%	41.3%	42.0%	42.7%
	1	29.4%	30.3%	31.2%	41.9%	43.0%	44.1%	49.7%	51.1%	52.5%
	2	29.6%	30.7%	31.7%	43.2%	44.5%	45.8%	52.3%	53.8%	55.4%
	3+	34.4%	35.1%	35.9%	49.5%	50.4%	51.3%	58.6%	59.7%	60.8%
Weapons Offenses - Total	NONE	27.7%	28.1%	28.5%	39.7%	40.2%	40.6%	47.7%	48.3%	48.9%
	1	27.4%	28.5%	29.6%	40.3%	41.7%	43.0%	48.2%	49.8%	51.5%
	2+	28.7%	30.3%	32.0%	42.5%	44.5%	46.5%	50.7%	53.4%	56.0%

**Table 7. FEMALE REOFFENSE RATES
(Not Adjusted By Other Factor Effects)**

FACTOR		TIME SINCE RELEASE								
		18 MONTHS			36 MONTHS			60 MONTHS		
		Low Bound	Rate Estimate	High Bound	Low Bound	Rate Estimate	High Bound	Low Bound	Rate Estimate	High Bound
Age at Release	UNDER 18	0.0%	4.8%	13.9%	0.0%	10.4%	24.0%	0.0%	32.8%	72.2%
	18 TO 24	20.2%	23.2%	26.1%	30.9%	34.6%	38.4%	39.7%	44.4%	49.2%
	25 TO 34	22.2%	23.8%	25.4%	35.4%	37.4%	39.4%	44.2%	46.7%	49.2%
	35 TO 49	17.3%	18.8%	20.3%	28.3%	30.3%	32.3%	37.3%	40.0%	42.8%
	50 TO 59	4.3%	8.7%	13.1%	6.2%	11.6%	17.0%	9.9%	17.3%	24.7%
	60+	NA			NA			NA		
Race	Black	19.8%	21.1%	22.4%	32.6%	34.3%	36.0%	42.0%	44.2%	46.4%
	Non-Black	19.5%	21.0%	22.6%	29.8%	31.8%	33.8%	37.9%	40.5%	43.1%
Ethnicity	Hispanic	10.1%	15.2%	20.2%	18.3%	25.1%	32.0%	24.7%	35.8%	46.9%
	Non-Hispanic	20.2%	21.3%	22.3%	32.2%	33.6%	34.9%	41.3%	43.0%	44.7%
Supervision After Release	Yes	14.8%	16.6%	18.4%	25.4%	27.8%	30.3%	33.8%	37.0%	40.2%
	No	21.4%	22.6%	23.8%	33.7%	35.2%	36.8%	42.9%	44.9%	46.8%
Months in Prison	1-12	21.9%	23.6%	25.2%	34.4%	36.5%	38.5%	43.8%	46.4%	49.0%
	13-24	18.7%	20.4%	22.1%	31.4%	33.6%	35.8%	40.3%	43.1%	45.9%
	25-36	17.8%	20.4%	23.1%	29.9%	33.6%	37.3%	38.9%	44.4%	49.9%
	37-48	15.2%	19.3%	23.5%	20.4%	25.3%	30.2%	27.2%	33.9%	40.6%
	49-60	9.6%	14.6%	19.6%	17.3%	24.3%	31.4%	18.3%	25.7%	33.2%
	61+	8.0%	12.0%	15.9%	10.5%	15.2%	19.9%	13.3%	19.4%	25.4%
Disciplinary Reports - Total	NONE	18.4%	19.7%	21.0%	29.9%	31.6%	33.3%	37.8%	39.9%	42.1%
	1	18.1%	20.6%	23.1%	29.9%	33.1%	36.3%	38.9%	43.0%	47.2%
	2	18.6%	22.3%	26.0%	30.3%	35.2%	40.0%	39.5%	45.8%	52.0%
	3-6	21.6%	24.8%	28.0%	33.2%	37.4%	41.5%	43.9%	49.9%	56.0%
	7+	21.2%	24.7%	28.2%	33.6%	38.1%	42.6%	44.3%	49.9%	55.6%
Release Custody	Low	18.9%	20.1%	21.2%	30.9%	32.4%	33.8%	39.8%	41.7%	43.7%
	High	14.1%	19.9%	25.6%	26.0%	34.5%	42.9%	35.9%	48.1%	60.4%
TABE Grade	1-3.9	19.6%	22.0%	24.5%	32.7%	35.9%	39.1%	44.4%	48.9%	53.4%

Level - Last Before Release	4-8.9	20.4%	21.8%	23.1%	32.9%	34.5%	36.2%	41.7%	43.8%	45.9%
	9-11.9	16.3%	18.9%	21.5%	25.3%	28.9%	32.5%	32.1%	37.3%	42.4%
	12-12.9	15.7%	18.7%	21.6%	23.5%	27.2%	30.9%	29.5%	34.7%	39.9%
Prior Recidivism Events	NONE	16.3%	17.5%	18.7%	25.4%	27.0%	28.5%	33.3%	35.4%	37.6%
	1	18.7%	20.9%	23.1%	34.2%	37.1%	40.1%	43.3%	46.9%	50.5%
	2	23.2%	26.5%	29.7%	37.9%	42.0%	46.1%	49.8%	55.0%	60.2%
	3	32.4%	37.3%	42.3%	49.0%	54.7%	60.5%	57.7%	64.2%	70.7%
	4	30.7%	39.1%	47.4%	45.3%	54.6%	63.9%	56.8%	72.2%	87.6%
	5+	30.7%	43.1%	55.5%	46.8%	61.6%	76.4%	51.2%	68.0%	84.8%
Most Serious Career Offense Type	Homicide	3.6%	6.4%	9.3%	7.8%	12.0%	16.2%	10.4%	16.0%	21.6%
	Sex / Lewdness	3.0%	10.2%	17.4%	4.2%	12.1%	20.0%	4.2%	12.1%	20.0%
	Robbery	18.5%	21.4%	24.3%	30.0%	33.8%	37.6%	40.1%	45.3%	50.4%
	Other Violent	17.3%	19.2%	21.1%	29.0%	31.5%	34.0%	38.4%	41.9%	45.4%
	Burglary	25.4%	28.7%	32.0%	38.8%	42.9%	46.9%	47.2%	52.2%	57.3%
Property Offenses - Total	NONE	16.6%	17.9%	19.2%	26.8%	28.6%	30.4%	36.2%	38.6%	41.0%
	1	16.8%	19.4%	21.9%	28.9%	32.4%	35.8%	37.7%	42.1%	46.5%
	2	24.0%	27.5%	30.9%	39.1%	43.4%	47.7%	47.7%	53.1%	58.6%
	3+	23.3%	25.4%	27.5%	36.1%	38.7%	41.3%	43.7%	46.9%	50.1%
Drug Offenses - Total	NONE	13.9%	15.3%	16.7%	23.1%	25.0%	26.9%	29.5%	31.9%	34.3%
	1	18.2%	20.8%	23.5%	31.9%	35.5%	39.2%	37.8%	42.3%	46.8%
	2	18.4%	21.2%	24.1%	28.5%	32.1%	35.7%	39.5%	44.3%	49.1%
	3+	26.2%	28.1%	30.1%	41.4%	43.8%	46.2%	52.3%	55.3%	58.3%
Weapons Offenses - Total	NONE	20.2%	21.2%	22.2%	32.0%	33.3%	34.7%	41.2%	42.9%	44.6%
	1	15.5%	19.9%	24.3%	26.6%	32.5%	38.5%	32.1%	39.3%	46.5%
	2+	7.9%	16.1%	24.2%	22.7%	35.8%	48.9%	31.7%	48.8%	65.9%

**Table 8. MALE REIMPRISONMENT RATES
(Not Adjusted By Other Factor Effects)**

FACTOR		TIME SINCE RELEASE								
		18 MONTHS			36 MONTHS			60 MONTHS		
		Low Bound	Rate Estimate	High Bound	Low Bound	Rate Estimate	High Bound	Low Bound	Rate Estimate	High Bound
Age at Release	UNDER 18	19.7%	24.7%	29.6%	38.2%	44.5%	50.9%	51.7%	60.4%	69.1%
	18 TO 24	12.0%	12.5%	13.0%	27.6%	28.4%	29.2%	40.9%	41.9%	43.0%
	25 TO 34	12.4%	12.8%	13.3%	27.2%	27.8%	28.5%	38.8%	39.7%	40.6%
	35 TO 49	12.2%	12.7%	13.1%	24.7%	25.4%	26.0%	34.3%	35.2%	36.1%
	50 TO 59	4.6%	5.6%	6.6%	10.7%	12.3%	14.0%	13.3%	15.4%	17.4%
	60+	0.9%	2.2%	3.5%	3.4%	5.7%	8.0%	4.4%	7.3%	10.2%
Race	Black	14.6%	14.9%	15.3%	31.3%	31.9%	32.4%	44.3%	45.1%	45.8%
	Non-Black	8.6%	8.9%	9.3%	18.7%	19.2%	19.8%	27.3%	28.1%	28.9%
Ethnicity	Hispanic	7.7%	8.6%	9.5%	18.7%	20.2%	21.7%	29.4%	31.7%	34.0%
	Non-Hispanic	12.4%	12.7%	12.9%	26.6%	27.0%	27.4%	37.9%	38.4%	39.0%
Supervision After Release	Yes	13.5%	14.0%	14.4%	26.7%	27.3%	28.0%	36.9%	37.8%	38.6%
	No	11.2%	11.6%	11.9%	25.7%	26.2%	26.7%	37.5%	38.2%	38.8%
Months in Prison	1-12	10.3%	10.7%	11.2%	23.1%	23.9%	24.6%	34.1%	35.1%	36.1%
	13-24	12.1%	12.6%	13.0%	26.3%	27.0%	27.7%	38.4%	39.3%	40.3%
	25-36	13.2%	13.9%	14.5%	28.5%	29.5%	30.4%	39.3%	40.7%	42.0%
	37-48	13.8%	14.7%	15.6%	28.0%	29.3%	30.6%	38.3%	40.1%	42.0%
	49-60	12.5%	13.6%	14.7%	28.0%	29.8%	31.5%	37.5%	40.0%	42.6%
	61+	10.6%	11.3%	12.1%	22.6%	23.8%	25.0%	31.8%	33.6%	35.4%
Disciplinary Reports - Total	NONE	9.5%	9.8%	10.2%	21.3%	21.8%	22.4%	31.0%	31.7%	32.5%
	1	11.2%	11.8%	12.4%	24.6%	25.5%	26.4%	37.6%	38.9%	40.3%
	2	13.2%	14.1%	15.0%	28.3%	29.6%	31.0%	39.8%	41.7%	43.6%
	3-6	14.5%	15.3%	16.0%	30.7%	31.8%	32.9%	42.6%	44.1%	45.6%
	7+	17.0%	17.7%	18.5%	35.9%	37.1%	38.3%	49.7%	51.3%	53.0%
Release Custody	Low	10.2%	10.5%	10.9%	23.0%	23.5%	24.0%	33.6%	34.3%	35.1%
	High	16.0%	16.8%	17.5%	33.7%	34.7%	35.8%	47.0%	48.5%	49.9%
TABE Grade	1-3.9	14.9%	15.6%	16.2%	31.3%	32.3%	33.3%	44.2%	45.5%	46.8%

Level - Last Before Release	4-8.9	12.9%	13.3%	13.6%	27.4%	28.0%	28.5%	39.2%	39.9%	40.6%
	9-11.9	9.4%	10.0%	10.6%	21.9%	22.8%	23.7%	31.4%	32.7%	34.1%
	12-12.9	7.4%	8.0%	8.5%	17.3%	18.3%	19.2%	25.3%	26.6%	27.9%
Prior Recidivism Events	NONE	7.7%	8.0%	8.3%	18.3%	18.8%	19.3%	27.7%	28.4%	29.1%
	1	11.7%	12.2%	12.7%	26.4%	27.2%	28.1%	38.7%	39.8%	41.0%
	2	15.9%	16.7%	17.5%	34.0%	35.1%	36.3%	48.1%	49.7%	51.3%
	3	20.6%	21.8%	22.9%	40.9%	42.4%	44.0%	54.8%	56.8%	58.8%
	4	24.9%	26.7%	28.4%	47.3%	49.5%	51.8%	61.0%	63.8%	66.7%
	5+	31.0%	33.3%	35.6%	53.1%	55.9%	58.8%	64.8%	68.5%	72.1%
Most Serious Career Offense Type	Homicide	5.2%	6.1%	6.9%	14.0%	15.4%	16.9%	22.0%	24.1%	26.2%
	Sex / Lewdness	6.4%	7.1%	7.8%	14.5%	15.6%	16.7%	21.9%	23.6%	25.2%
	Robbery	14.7%	15.3%	15.9%	31.6%	32.5%	33.4%	44.1%	45.3%	46.5%
	Other Violent	11.6%	12.1%	12.6%	25.0%	25.7%	26.5%	36.6%	37.7%	38.8%
	Burglary	15.0%	15.6%	16.2%	31.0%	31.9%	32.8%	42.8%	44.0%	45.2%
Property Offenses - Total	NONE	8.9%	9.2%	9.5%	20.8%	21.3%	21.8%	30.6%	31.4%	32.1%
	1	13.4%	14.0%	14.7%	28.5%	29.5%	30.5%	41.5%	42.8%	44.1%
	2	14.4%	15.2%	16.0%	30.0%	31.2%	32.4%	42.6%	44.2%	45.8%
	3+	16.5%	17.2%	17.8%	33.4%	34.3%	35.2%	45.4%	46.6%	47.7%
Drug Offenses - Total	NONE	10.2%	10.5%	10.8%	22.0%	22.5%	23.0%	31.8%	32.6%	33.3%
	1	12.8%	13.5%	14.3%	27.6%	28.7%	29.7%	39.4%	40.9%	42.4%
	2	12.7%	13.5%	14.3%	28.0%	29.2%	30.4%	39.3%	40.9%	42.6%
	3+	15.1%	15.6%	16.2%	32.7%	33.6%	34.4%	46.1%	47.3%	48.4%
Weapons Offenses - Total	NONE	12.2%	12.5%	12.7%	26.0%	26.4%	26.9%	37.0%	37.5%	38.1%
	1	11.5%	12.3%	13.1%	26.1%	27.3%	28.6%	38.7%	40.5%	42.3%
	2+	11.6%	12.9%	14.1%	27.4%	29.3%	31.3%	40.5%	43.2%	46.0%

**Table 9. FEMALE REIMPRISONMENT RATES
(Not Adjusted By Other Factor Effects)**

FACTOR		TIME SINCE RELEASE								
		18 MONTHS			36 MONTHS			60 MONTHS		
		Low Bound	Rate Estimate	High Bound	Low Bound	Rate Estimate	High Bound	Low Bound	Rate Estimate	High Bound
Age at Release	UNDER 18	0.0%	0.0%	0.0%	0.0%	11.5%	26.4%	0.0%	11.5%	26.4%
	18 TO 24	3.5%	5.1%	6.7%	11.2%	14.1%	16.9%	20.5%	25.1%	29.7%
	25 TO 34	6.4%	7.4%	8.4%	16.0%	17.6%	19.2%	24.8%	27.1%	29.4%
	35 TO 49	5.0%	5.9%	6.8%	12.9%	14.5%	16.1%	20.5%	22.9%	25.4%
	50 TO 59	0.0%	1.3%	3.2%	0.0%	3.2%	6.4%	0.3%	5.2%	10.1%
	60+	NA			NA			NA		
Race	Black	5.7%	6.5%	7.4%	14.7%	16.1%	17.5%	23.4%	25.4%	27.4%
	Non-Black	5.0%	5.9%	6.8%	13.0%	14.6%	16.2%	20.8%	23.2%	25.7%
Ethnicity	Hispanic	0.4%	2.6%	4.9%	4.7%	9.6%	14.5%	11.2%	19.9%	28.6%
	Non-Hispanic	5.8%	6.4%	7.0%	14.6%	15.7%	16.8%	23.1%	24.7%	26.3%
Supervision After Release	Yes	6.1%	7.4%	8.6%	13.2%	15.2%	17.2%	21.7%	24.7%	27.7%
	No	5.2%	5.9%	6.6%	14.4%	15.6%	16.8%	22.6%	24.4%	26.2%
Months in Prison	1-12	5.3%	6.2%	7.2%	14.1%	15.7%	17.4%	23.3%	25.7%	28.1%
	13-24	4.7%	5.7%	6.7%	13.0%	14.8%	16.5%	21.3%	23.9%	26.5%
	25-36	6.1%	8.0%	9.8%	15.5%	18.7%	21.8%	22.3%	26.7%	31.1%
	37-48	3.8%	6.3%	8.8%	13.6%	18.5%	23.4%	19.6%	26.3%	33.0%
	49-60	3.3%	7.1%	10.9%	6.9%	12.4%	18.0%	9.9%	18.6%	27.3%
	61+	2.7%	5.6%	8.4%	3.4%	6.5%	9.6%	4.4%	8.7%	13.0%
Disciplinary Reports - Total	NONE	4.7%	5.4%	6.2%	12.4%	13.7%	15.0%	19.6%	21.6%	23.5%
	1	4.3%	5.7%	7.2%	12.6%	15.2%	17.7%	22.4%	26.3%	30.3%
	2	4.4%	6.7%	9.0%	12.4%	16.2%	20.1%	21.0%	26.7%	32.4%
	3-6	7.5%	9.8%	12.1%	18.2%	22.0%	25.7%	27.1%	32.5%	37.8%
	7+	6.0%	8.2%	10.5%	15.6%	19.4%	23.1%	23.9%	29.3%	34.7%
Release Custody	Low	5.2%	5.9%	6.6%	13.7%	14.9%	16.1%	21.6%	23.4%	25.1%
	High	1.8%	5.0%	8.3%	10.9%	17.9%	24.8%	16.6%	25.6%	34.7%
TABE Grade	1-3.9	6.0%	7.6%	9.2%	15.3%	18.0%	20.6%	25.4%	29.4%	33.4%

Level - Last Before Release	4-8.9	5.9%	6.7%	7.5%	14.7%	16.1%	17.4%	23.0%	24.9%	26.9%
	9-11.9	3.0%	4.4%	5.8%	9.8%	12.6%	15.4%	15.2%	19.5%	23.8%
	12-12.9	2.6%	4.1%	5.7%	8.7%	11.6%	14.5%	14.6%	19.4%	24.2%
Prior Recidivism Events	NONE	3.1%	3.8%	4.4%	9.0%	10.2%	11.3%	15.6%	17.5%	19.3%
	1	6.0%	7.4%	8.9%	16.2%	18.6%	21.1%	25.0%	28.4%	31.8%
	2	7.0%	9.2%	11.4%	18.7%	22.3%	25.9%	30.6%	35.8%	41.0%
	3	10.7%	14.3%	17.9%	27.1%	32.7%	38.3%	39.7%	47.0%	54.2%
	4	11.6%	18.3%	25.0%	24.2%	33.2%	42.2%	27.9%	39.9%	51.9%
	5+	17.3%	29.8%	42.4%	38.6%	55.0%	71.4%	54.3%	70.8%	87.3%
Most Serious Career Offense Type	Homicide	0.0%	0.7%	1.7%	2.5%	5.7%	9.0%	4.0%	8.3%	12.6%
	Sex / Lewdness	0.0%	3.5%	8.3%	0.0%	5.4%	11.3%	0.0%	5.4%	11.3%
	Robbery	7.2%	9.4%	11.5%	15.6%	18.7%	21.9%	24.1%	28.8%	33.5%
	Other Violent	4.9%	6.0%	7.2%	12.6%	14.6%	16.6%	23.2%	26.4%	29.7%
	Burglary	8.1%	10.4%	12.8%	21.1%	24.9%	28.7%	27.9%	32.6%	37.3%
Property Offenses - Total	NONE	4.8%	5.6%	6.4%	11.8%	13.2%	14.5%	18.9%	21.0%	23.0%
	1	4.0%	5.5%	7.0%	12.4%	15.2%	17.9%	20.8%	25.0%	29.2%
	2	4.9%	6.9%	8.9%	14.0%	17.4%	20.8%	24.0%	29.3%	34.5%
	3+	6.5%	7.8%	9.1%	17.1%	19.3%	21.5%	26.0%	29.2%	32.3%
Drug Offenses - Total	NONE	3.3%	4.1%	4.9%	9.2%	10.6%	12.0%	15.8%	18.0%	20.2%
	1	4.0%	5.5%	7.1%	10.5%	13.1%	15.7%	18.3%	22.7%	27.1%
	2	5.9%	7.8%	9.7%	12.4%	15.3%	18.2%	20.9%	25.1%	29.4%
	3+	7.5%	8.7%	9.9%	20.5%	22.6%	24.7%	30.2%	33.0%	35.9%
Weapons Offenses - Total	NONE	5.5%	6.2%	6.8%	14.2%	15.3%	16.4%	22.8%	24.4%	26.0%
	1	6.1%	9.5%	12.9%	15.7%	21.0%	26.3%	20.6%	27.2%	33.9%
	2+	0.0%	3.8%	8.0%	2.1%	10.2%	18.2%	10.0%	25.1%	40.3%

Conclusion and Related Reports

Recidivism—the reoffending and reimprisonment—of released state prison inmates is an important policy issue because:

- a substantial amount (\$1.3 billion in FY 2002) is spent by Florida to imprison offenders, and
- each year many offenders (over 26,000 in FY 2002) are released from Florida prisons.

To address the issue properly, researchers must use the best data available and the most appropriate statistical tools to:

- measure recidivism
- account for what influences it
- identify what may reduce it
- determine how much it may be lowered.

This report is designed to help readers understand how recidivism data is collected and analyzed so they can obtain and use inmate recidivism statistics appropriately. The document measures recidivism rates for inmates released from Department facilities and reports the effects on those rates of factors that are readily measurable from Department data sources at the time an inmate is released. The document also reports a methodology for analyzing how certain inmate characteristics influence recidivism rates. This report’s findings should guide evaluations by the Department and others that use inmate recidivism rates as performance measures regarding Florida.

I. The reoffense and reimprisonment rates reported here are consistent with results from large-scale, national studies of state prison inmate recidivism.

Inmates released from state prisons have relatively stable recidivism rates—especially for reoffending—over time and across jurisdictions. Similar rates can be expected to appear in any analysis of large samples of released state prison inmates as **Chart 10** below shows. For example, the U.S. Department of Justice Bureau of Justice Statistics (BJS) analyzed state prison inmates released in 1983 and 1994. BJS reports that the 3-year reconviction rates for prison inmates released from 11 states were not statistically different: 46.8% for 1983 releases, and 46.9% for 1994 releases.

Recidivism rates are not directly comparable across studies that differ in sources and methods as much as this study does from the two Justice Department studies. For example, the BJS rates should be somewhat higher than rates found in this study because BJS includes new out-of-state convictions (including Federal) and convictions resulting in local jail sentences, which Florida does not. Yet it is important to note that high quality, large-scale studies report similar rate estimates.

Studies that analyze recidivism rates of Florida state prison inmates should find rates similar to those reported here for comparable cohorts, recidivism measures, and follow-up periods. Those that find substantially different rates should explain why rates deviate substantially from these reported rates.

Table 10. THREE-YEAR RECIDIVISM RATES FROM LARGE STUDIES OF STATE PRISON INMATES						
Study Author / Cohort	Bureau of Justice Statistics				Florida Department of Corrections	
	Entire Cohort		Florida Subsample		Early Year Subsample	Entire Cohort
Release Period	1983*	1994**	1983	1994	FY 95 - 96	1995 - 2001
Jurisdictions Covered	Multi-State		Florida			
Reoffense (reconviction):						
Rate Estimates	46.8 %	46.9 %	45.0 %	44.7 %	44.9 %	39.9 %
Releases	108,580	260,226	13,105	21,408	12,144	88,678
Reimprisonment (for new offense)						
Rate Estimates	***	25.4 %	***	26.9 %	26.1 %	25.7 %
Releases	***	254,720	***	21,408	12,144	88,678
Notes: * From 11 States including Florida. ** From 14 States including Florida. *** The reincarceration rate reported by BJS for 1983 releases is not comparable because it includes returns to local jails.						

II. Consistent with other large studies, this report finds that certain factors influence recidivism rates.

This document demonstrates how certain inmate characteristics influence recidivism rates, some tending to lower and others tending to raise reoffense and reimprisonment rates. Similar patterns appear in large-scale studies of state prison inmates. **Chart 11** below shows these patterns for inmate characteristics analyzed by the two large BJS studies and this study by the Department. All three studies find that reoffense (reconviction) rates are higher for inmates who are male, black, and younger. The two studies that examined education (or academic skill) levels found that lower levels are related to higher recidivism rates.

For some factors, the range of difference between the high and low ends of these measures is similar across the studies. For example, in all three studies (excluding the subsamples), female inmates reoffend at 7 to 8 percentage points lower than males. In addition, the reoffense rates of inmates over age 44 at release (the highest category) are about 22 percentage points lower than inmates aged 18 to 24 (the lowest category). For other factors (race and education), the ranges are not similar between the studies, but the factors influence reoffending in the same directions.

Table 11. THREE-YEAR REOFFENSE RATES BY SELECTED FACTORS IN THREE LARGE STUDIES OF STATE PRISON INMATES						
Study Author / Cohort		Bureau of Justice Statistics				Florida Department of Corrections
		Entire Cohort		Florida Subsample		Entire Cohort
Release Period		1983*	1994**	1983	1994	1995 - 2001
Jurisdictions Covered		Multi-State		Florida		
Gender:	Male	47.3 %	47.6 %	45.7 %	44.6 %	40.5 %
	Female	38.7 %	39.9 %	32.4 %	45.6 %	33.3 %
Race:	White	44.2 %	43.3 %	39.8 %	40.8 %	31.7 %
	Black	49.9 %	51.1 %	51.9 %	47.7 %	45.7 %
Release Age:	18-24	51.2 %	52.0 %	53.0 %	53.7 %	45.4 %
	25-29	48.9 %	50.1 %	43.5 %	48.2 %	40.9 %
	30-34	47.9 %	48.8 %	43.3 %	42.1 %	42.1 %
	35-39	40.8 %	46.3 %	31.0 %	47.3 %	39.5 %
	40-44	36.1 %	38.0 %	32.6 %	34.6 %	35.5 %
	Over 44	28.6 %	29.7 %	31.4 %	22.8 %	23.3 %
Education Grade:	Under 9th	46.0 %	NA	53.3 %	NA	42.5 %
	9th – 12th	46.9 %		50.6 %		36.2 %
	H.S. Graduate	39.8 %		35.8 %		30.1 %
	Higher	36.1 %		28.2 %		NA

Notes:
 * From 11 States including Florida.
 ** From 14 States including Florida.

III. Evaluations of prison inmates that use reoffense or reimprisonment rates as outcome measures should take certain (or similar) factors into account by controlling for their statistical effects on recidivism rates.

This report documents important and, in some cases, large effects of certain factors on reoffense and reimprisonment rates. These factors' effects must be accounted for when measuring and comparing recidivism rates. Failure to do so may bias recidivism measures and confound conclusions regarding whether differences in rates are attributable to certain correctional activities, functions, or programs. Evaluations using recidivism outcome measures for Florida state prison inmates should account for the following factors (or similar ones), measurable at the time an inmate is released:

- **Gender**
- **Age** at release
- **Race**
- **Ethnicity**
- Number of **prior recidivism** events
- Type of **most serious crime** ever committed
- Number of **property crimes** ever committed
- Number of **drug crimes** ever committed
- Number of **weapons crimes** ever committed
- **Education** or academic skill level
- **Custody** level at release
- Number of **disciplinary reports**
- **Length of stay** in prison
- **Supervision** after release

Several aspects of the relationships between these factors and recidivism should be noted.

- Some factors influence both **reoffense** and **reimprisonment** in the same direction. For example, older inmates have both lower *reoffense* and *reimprisonment* rates than younger inmates. Of factors analyzed in this study, five *raise* both reoffense and recidivism for males and females, whereas seven *lower* both reoffense and recidivism for males and females.
- Other factors influence **reoffense** and **reimprisonment** in different directions. For example, males with supervision after release have *lower reoffense* rates, but *higher reimprisonment* rates than those without supervision.
- Some factors influence **male** and **female** recidivism to different degrees. For example, inmates with burglary as the most serious crime ever committed are more likely to reoffend and to be reimprisoned. However, this factor only raises male reoffending 11.6%, whereas it raises female reoffending 27.1%. Similarly, it raises male reimprisonment 28.7%, but female reimprisonment 58.6%.
- Some factors influence **male** and **female** recidivism in different directions. For example, black males have *higher* reoffense and reimprisonment rates than non-blacks, but black females have *lower* reoffense and reimprisonment rates than non-blacks.

Not all factors affect recidivism with the same statistical significance. For males, 16 of 18 factors analyzed significantly influence reoffending and reimprisonment. For females, reoffending is significantly influenced by only 12 factors and reimprisonment by 10 factors. This variation in the effects of factors implies several conclusions.

- Male and female inmates should be analyzed separately, because factors affect recidivism in these inmate subpopulations differently.
- It is preferable to use both reoffense and reimprisonment measures of recidivism to gain a more complete understanding of recidivism.
- When analyzing subsamples of male and female inmates, all factors should be examined for potential influence. However, some factors may not show a statistically significant effect on recidivism in particular subsamples. This can occur, for example, when the subsample has one or more factors with distributions quite different from the entire male or female cohort.
- Similarly, in analyses of some subsamples of male and female inmates, the size and, possibly, the direction of a factor's effect may differ from that reported here. If this occurs, special attention should be paid to possible interactions between multiple factors in those subsamples.

A recent case from the research literature provides an example of problems caused by failing to account for the effect of an important factor that influences recidivism. A study published in 2002 on the relationship between education and recidivism (i.e., return to prison) of Oklahoma prison inmates (21,268 released from 1991 through 1994) found some unusual results. Among other findings, the study reported that: (1) earning a general equivalency diploma (GED) lowered recidivism, but that completing vocational training programs raised recidivism; (2) drug distribution offenses raised inmate recidivism, but drug possession offenses did not; and—most problematic—(3) older inmates recidivated at higher rates than younger inmates. However, there is scant theoretical reason to believe that vocational training actually increases recidivism. Further, most research shows inmates with drug possession offenses recidivate at rates at least equal to those with drug distribution offenses. Finally, virtually every study finds that younger inmates recidivate at higher rates than older inmates. The authors admit the odd findings may be due to the effect of repeat incarcerations, especially regarding the age finding, stating they “did not examine the effect of prior incarcerations.” (See Brewster, Dennis R. and Sharp, Susan F. “Educational Programs and Recidivism in Oklahoma: Another Look” *The*

Had the authors of that research controlled for prior recidivism, a factor known to increase recidivism substantially, their results might well have been substantially different. Clearly, older inmates are more likely to have more prior recidivism events than younger inmates, so controlling for prior recidivism might have shown that older inmates recidivate less—a finding consistent with existing research. The Oklahoma Department of Corrections reports that drug possession inmates have a higher three-year recidivism rate (28.4%) than drug distribution inmates (23.5%), based on releases from 1985 through 1999; so controlling for prior recidivism could have allowed the authors to find results consistent with the agency's reports. More importantly, controlling for prior recidivism may have avoided the undesirable and theoretically problematic finding that vocational training increases recidivism, especially if vocational training completers in the sample were older and had more prior incarcerations. Finally, the desirable finding that earning a GED lowers recidivism would be credible, if the authors had not neglected to control for prior recidivism—a very important influence on recidivism.

IV. The data described and analyzed for this report provide a basis for analyzing the performance of Department activities, functions, and programs that are designed or expected to reduce recidivism.

This document describes a standard methodology for collecting recidivism data for state prison inmates and analyzing how certain factors influence recidivism rates. As such, this report provides a sound theoretical basis for evaluating whether and how activities, functions, and programs in the Department affect recidivism. These findings should guide internal and external evaluations seeking to show recidivism effects for state prison inmates released in Florida. Proper application of this data and method should produce reasonable, reliable, and credible results from such evaluations.

The following studies conducted by the Department or by external researchers have relied upon this approach to analyze recidivism effects in Florida state inmates:

- *A Comparison of Public and Private Prisons in Florida: During- and Post-Prison Performance Indicators*. Farabee, David, and Kevin Knight (2002). Tallahassee, Florida: The Florida Correctional Privatization Commission.