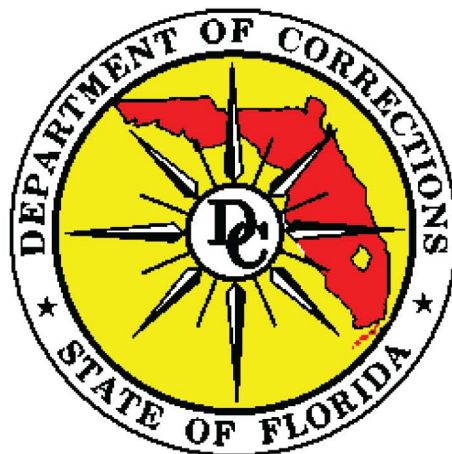# 2009 Florida Prison Recidivism Study Releases From 2001 to 2008

May 2010

Florida Department of Corrections
Walter A. McNeil, Secretary

Bureau of Research and Data Analysis
dcresearch@mail.dc.state.fl.us

INTRODUCTION

The 2009 Florida Prison Recidivism Study is the first report to be produced annually that examines the issue of recidivism among Florida's released inmate population. The use of recidivism as a performance indicator of the state's rehabilitative efforts can be debated, but the analysis itself is of vital public importance. Basically, what is the likelihood that an inmate who is released today will come back to prison? This question is important for the state in terms of planning and budgeting, but more importantly to the public and elected officials in terms of public safety. Since 88% of inmates in Florida's prisons today will one day be released back into our communities, their success or failure comes at a cost to public order and public safety.

The next pertinent question is, What factors influence recidivism rates? Do age, gender and racial groups show differences in recidivism rates? The answers to these questions are also important, as they allow one to identify groups most likely to fail when they are released. This can be used to determine where to devote scarce correctional and community resources.

This study finds that results for Florida are generally consistent with existing research of the factors that influence recidivism. The Bureau of Justice Statistics report, "Recidivism of Prisoners Released in 1994 (2002)" shows overall recidivism rates for releases from 15 different states. That report shows a 51.8% recidivism rate (return to prison for any reason within three years) for this group of inmates.

Unlike most states, Florida paroles very few inmates and only about a third of released inmates have any community supervision sanction at all. Since those with supervision after release recidivate more often than those without supervision upon release, it is important to keep in mind that Florida's recidivism rate may be lower than another state due to this difference in release mechanisms.

TABLE OF CONTENTS

For this report, recidivism is defined as a **return to prison**, either because of a new conviction or a violation of post prison supervision. The follow-up periods (typically reported as three years) are calculated from prison release date to the date of readmission to prison.

The overall three-year recidivism rate based on all released inmates from 2001 to 2008 is **33.1%**. Specifically, the last three years have shown a slight decrease in the three-year recidivism rate.

Inmates released in 2003 → 33.9% recidivism rate
Inmates released in 2004 → 33.4% recidivism rate
Inmates released in 2005 → 32.7% recidivism rate

Note that a one percentage point drop in the recidivism rate results in approximately 400 fewer inmates being admitted over a three-year period at a cost of $20,000 per year per inmate or a cost avoidance of approximately $8,000,000.

The factors that influence an inmate's likelihood of recidivism include:
➢ prior prison commitments (more priors → higher recidivism);
➢ whether the inmate has a supervision term after release (supervised → higher recidivism);
➢ their age at release (younger → higher recidivism);
➢ their behavior while in prison (more disciplinary reports → higher recidivism);
➢ their tested education level (higher grade level → lower recidivism); and
➢ number of theft/fraud offenses in criminal history (more offenses → higher recidivism)

Inmates who complete education programs while in prison have lower recidivism rates than inmates who do not complete programs. Note that this conclusion does not take into account any other differences in these two groups and should not be given the weight of a rigorous program evaluation.

Inmates released from Florida prisons from January 1, 2001 to December 31, 2008 were included in the study with the following exceptions:
- Inmates who died, were executed, had their sentence vacated, or were released to another state have been omitted from calculation of recidivism rates.
- Inmates who are missing information on the factors of interest are omitted.

These restrictions reduce the number of records analyzed by approximately 29%.

Survival analysis techniques are used to compute recidivism rates and to define the statistical models used to determine which factors significantly influence recidivism rates. The basic rates for tables and graphs are computed from Kaplan-Meier estimates of the survival curve using right-censored data. The analyses of factor significance are conducted using Cox models (proportional hazards regression) of the same data. The analysis used a 5% level of significance and, to determine the factors in order of importance, a stepwise selection routine for determining which factors to include.

Twenty-one (21) factors considered:
Gender is Male – Yes/No
Number of Prior Prison Commitments
Age at release
Number of Disciplinary Reports in Current Incarceration
Most Recent TABE score (education level in grade equivalents)
Time Served in Prison, Current Incarceration in Months
Worst Offense is Murder/Manslaughter – Yes/No
Worst Offense is Sex Offense – Yes/No
Worst Offense is Robbery – Yes/No
Worst Offense is Other Violent Offense like Assault or Kidnapping – Yes/No
Race is Black – Yes/No
Ethnicity is Hispanic – Yes/No
Supervision to Follow Prison – Yes/No
Low Custody (Minimum or Community Custody) – Yes/No
High Custody (Close Custody) – Yes/No
Number of Burglary offenses in criminal history
Number of Drug offenses in criminal history
Number of Theft/Fraud offenses in criminal history
Number of Weapons offenses in criminal history
Diagnosed Mental Illness – Yes/No
Substance Abuse Severity Score

For the "Worst Offense" factors the hierarchy is as follows:
Murder, Sex Offense, Robbery, Other Violent Offense
Each inmate can only be designated in at most one of the categories. If he has committed both Sex Offenses and Robbery, he will be considered in the "Worst Offense is Sex Offense" category, not in the "Worst Offense is Robbery" category.

For the criminal history factors, only those offenses for which the inmate received either a Florida prison sentence or Florida community supervision sentence are considered. Arrests in Florida that resulted in other sanctions, such as fines or county jail sentences are not considered. Arrests, supervision, or prison sentences outside of Florida are not considered unless they are part of the inmate's Florida sentence.

Three year recidivism rate by year of release
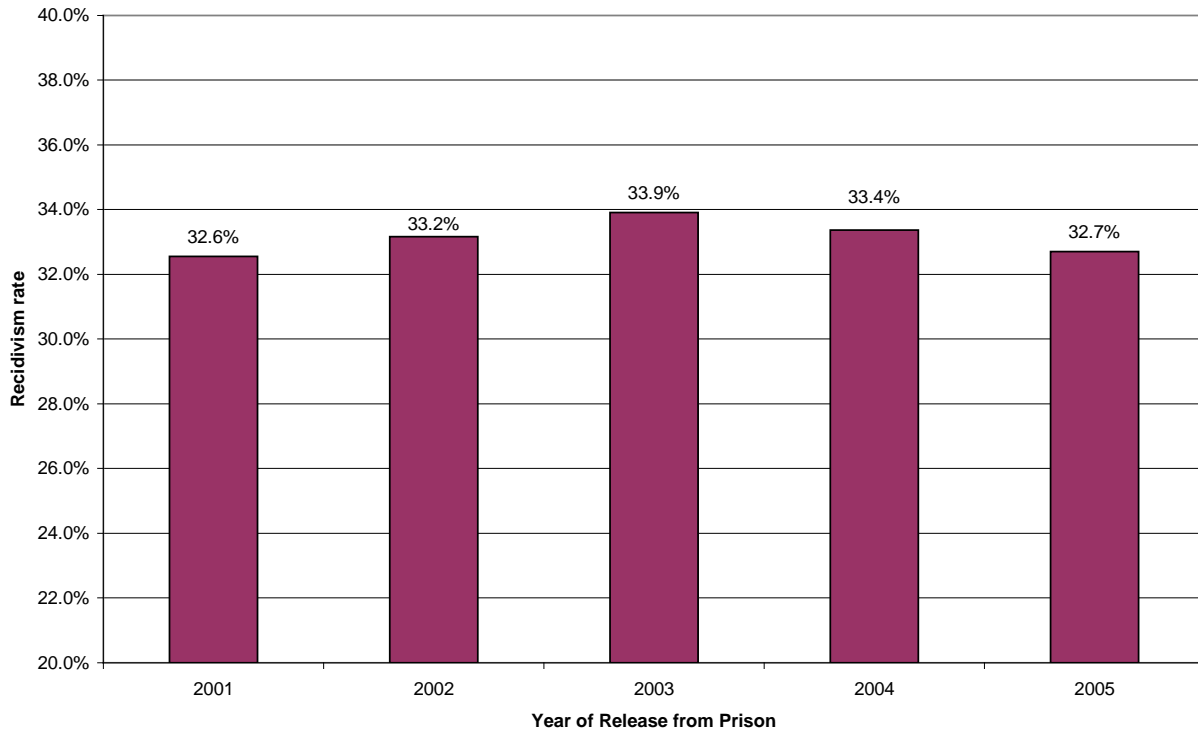
The range of recidivism rates when examined one year of releases at a time, range from 32.6% to 33.9% in the five years for which three-year rates can be computed.

Recidivism rates are certainly affected by factors outside the influence of the Department of Corrections, such as unemployment, crime rates, and local criminal justice issues such as jail bed availability and judicial behavior. Statewide initiatives such as truth-in-sentencing, increased use of mandatory prison terms and inconsistent funding for inmate rehabilitative programs may also influence recidivism rates. For this reason, recidivism rates cannot be used as the only measure of operational performance for the prison system. It is a measure of a multitude of societal issues working for and against the released inmate, before he ever gets sentenced to prison and after he is released.

The slight upward increase in 2002 and 2003 that is followed by decreases in 2004 and 2005 may be due to an overall increase in revocations of supervision that peaked in 2005 and subsequently declined to previous levels. This trend would affect the 2003 release cohort more than the subsequent years of releases.

Note that a one percentage point drop in the recidivism rate results in approximately 400 fewer inmates being admitted over a three-year period. Considering that it costs taxpayers almost $20,000 per year for each inmate incarcerated, even a relatively small decrease in recidivism rates that persists over multiple years can result in millions of taxpayer dollars to be used for other priorities.

RECIDIVISM AND GENDER

Recidivism, gender
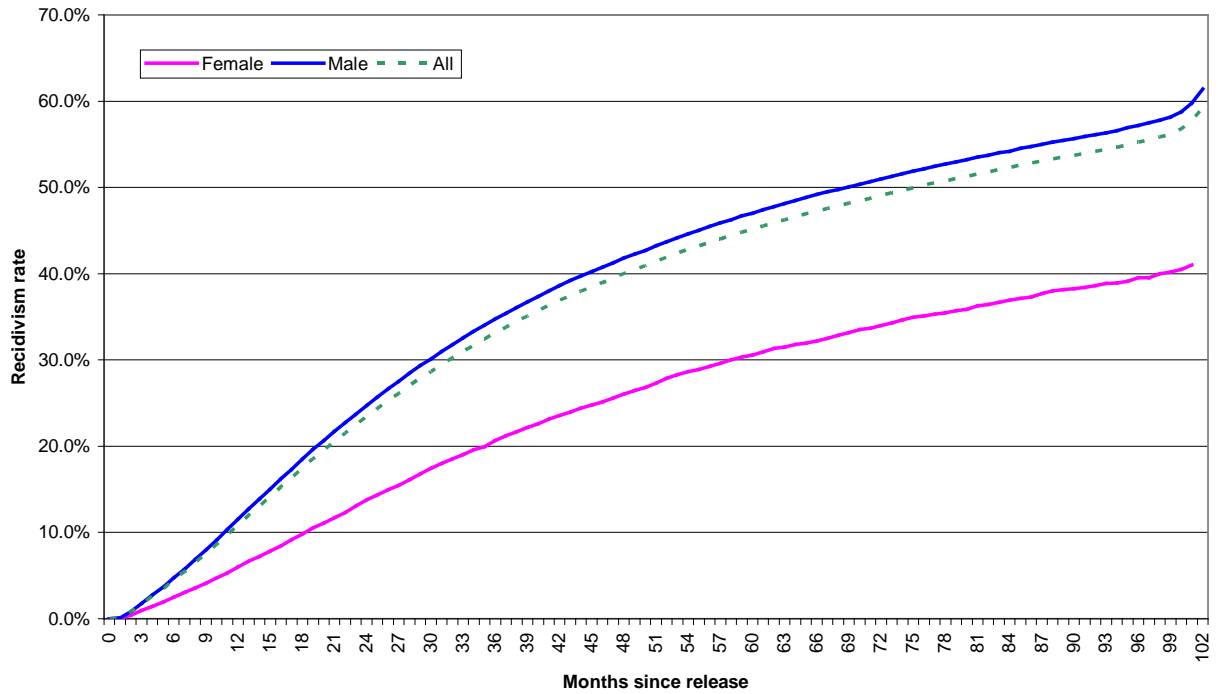
Female inmates recidivate at a much lower rate than male inmates. In fact, it takes six years for a female inmate to recidivate at the same rate as a male inmate does in three years (female recidivism at six years from release is 33.2%; male recidivism rate at three years from release is 34.7%)

RECIDIVISM AND VIOLENT OFFENSES

Recidivism, current offense
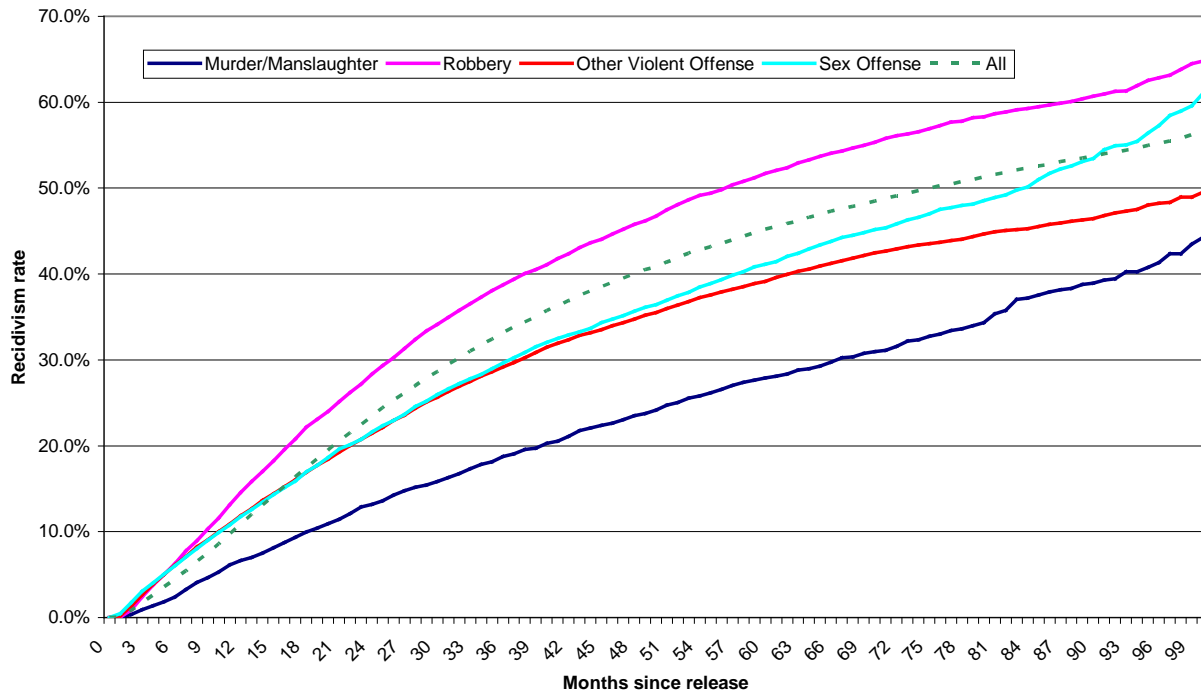
The graph above shows that among inmates who were in prison for violent offenses, those in for murder or manslaughter have the lowest recidivism rates. Inmates in for robbery offenses have higher than average recidivism rates.
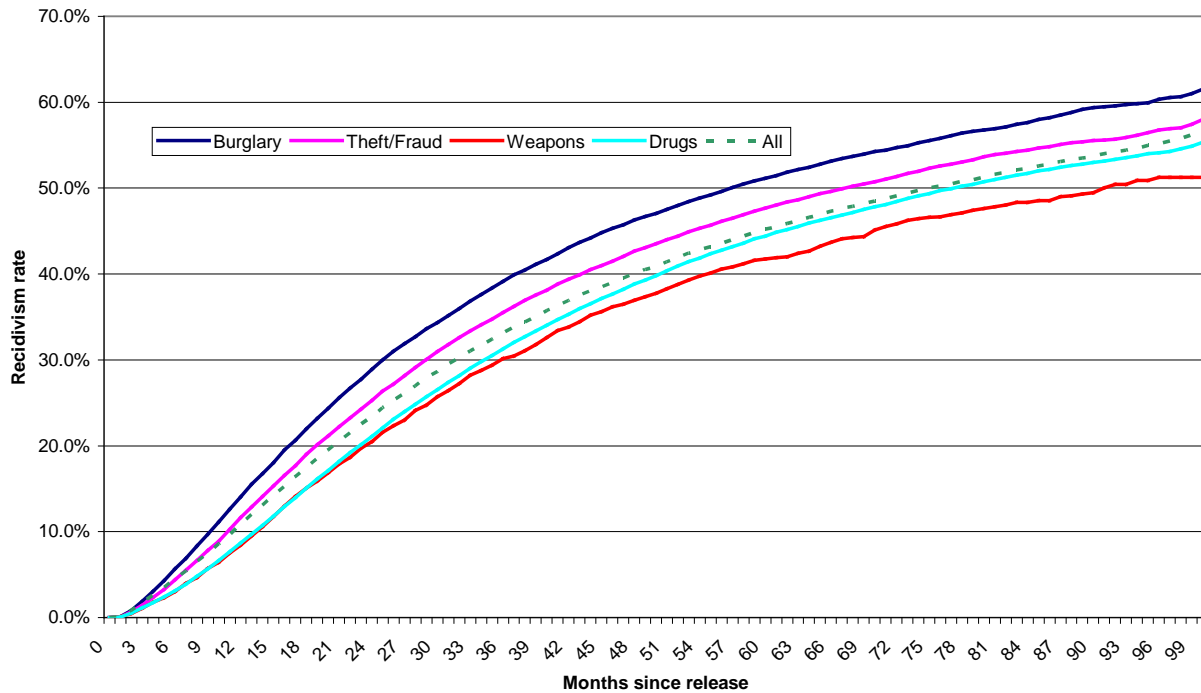
RECIDIVISM AND NON-VIOLENT OFFENSES

Recidivism, current offense

The graph above shows that among inmates who were in prison for non-violent offenses, those in for weapons offenses have the lowest recidivism rates. Burglars released during this period have the highest recidivism rates. Drug offenders recidivate at a rate similar to the overall recidivism rate for all inmates.

Recidivism, age
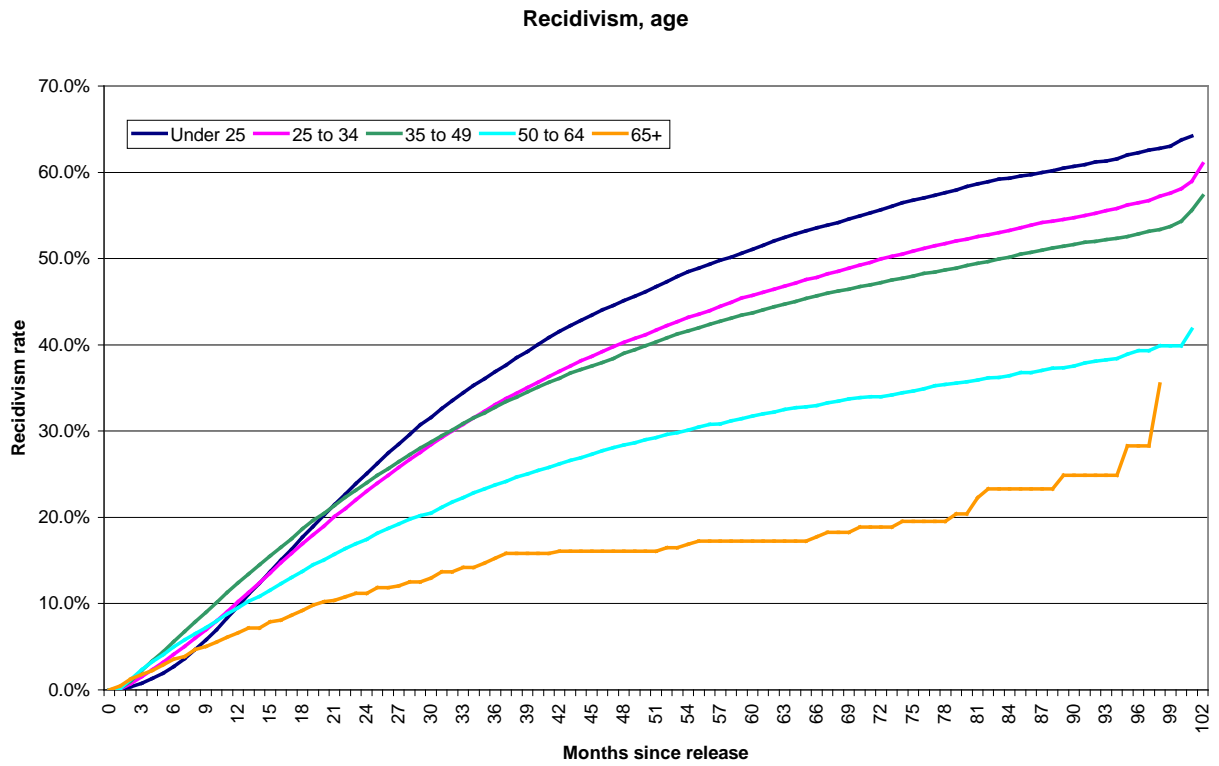
The older an inmate is at time of release, the less likely he is to return to prison. Note that while this relationship is apparent several months after release from prison, there is quite a bit of overlap in the first three years after release. The groups of inmates 49 and younger recidivate at similar rates until two to three years after release, at which point the curves shown above begin to separate.

CATEGORICAL FACTORS	VALUE	N	% OF RELEASE COHORT	RECIDIVISM RATE	Hazard Ratio
GENDER	Female	21,220	12%	20.6%	
	Male	157,459	88%	34.7%	1.506**
RACE	Black	92,655	52%	37.7%	1.155**
	Non-Black	86,024	48%	28.1%	
ETHNICITY	Hispanic	10,836	6%	25.0%	0.752**
	Non-Hispanic	167,843	94%	33.6%	
CUSTODY	Low	92,690	52%	28.3%	0.807**
	High	22,594	13%	42.9%	1.070**
MOST SERIOUS CRIME IN INMATE HISTORY	Murder / Manslaughter	5,791	3%	25.0%	0.680**
	Sex Offense	10,726	6%	33.8%	0.939**
	Robbery	27,277	15%	40.8%	0.963**
	Other Violent Offense such as assault and kidnapping	47,833	27%	33.0%	0.923**
SUPERVISION TO FOLLOW	Yes	60,759	34%	44.2%	1.939**
	No	117,920	66%	27.4%	
DIAGNOSED MENTAL ILLNESS	Yes	24,177	14%	33.7%	1.023 NS
	No	154,502	86%	33.0%	

**: p-value ≤ 0.01; *: 0.01 < p-value ≤0.05; NS: Not Significant at $\alpha = 0.05$

NUMERIC FACTORS	VALUE	MEDIAN	MEAN	Hazard Ratio
CRIMINAL HISTORY	Number of Prior Prison Commitments	0	0.5	1.425**
	Number of Burglary Offenses	0	1.0	1.034**
	Number of Theft Offenses	1	1.9	1.012**
	Number of Drug Offenses	1	1.9	1.019**
	Number of Weapons Offenses	0	0.2	0.965**
SUBSTANCE ABUSE NEED	Score from substance abuse assessment	11	21.4	1.002**
TIME SERVED	Months served during current incarceration	21	32.8	1.001**
INSTITUTIONAL BEHAVIOR	Number of Disciplinary Reports during current incarceration	0	2.5	1.010**
EDUCATION LEVEL	Most recent TABE score (grade equivalents)	6.8	7.3	0.963**
AGE	Age at release	33	34.2	0.978**

**: p-value $\leq$ 0.01; *: 0.01 < p-value $\leq$ 0.05; NS: Not Significant at α = 0.05

Note that hazard ratios in the above tables are interpreted as the multiple of the likelihood of failure. For example, male inmates have a hazard ratio of 1.506. Since it is greater than one, it means that a male inmate is (1.506-1=0.506) 50.6% more likely to fail than a female inmate with all other factors held constant (they are identical on all factors in the model except for gender).

On the other hand, if the hazard ratio is less than one, the interpretation is a percent reduction in likelihood to fail. For example, an Hispanic inmate is (1-0.752=.248) 24.8% less likely to recidivate than a non-Hispanic inmate with all other factors held constant.

Those measures that are expressed as numeric counts instead of dichotomous (Yes/No), the hazard ratios show the increase or decrease PER UNIT INCREASE in the factor. For example, for each additional disciplinary report that an inmate incurs while incarcerated, his likelihood of recidivating increases by (1.010-1=.010) 1.0%. For each additional grade level tested, his likelihood of recidivating decreases by (1-0.963=0.037) 3.7%.

Factors Not Included in the Model

FACTOR	VALUE	N	%	RECIDIVISM RATE
RELEASE TYPE	Expiration of Sentence (No Supervision to Follow)	117,868	66%	26.3%
	Conditional Release (mandatory supervision for serious offenders as specified in F.S. 947.1405)	22,468	13%	57.3%
	Expiration of Sentence to Probation or Community Control (Split Sentence)	30,594	17%	39.3%
RELEASE FACILITY	Major Correctional Institution	120,233	67%	36.2%
	Private Correctional Institution	11,780	7%	29.9%
	Work/Forestry Camp	16,622	9%	34.7%
	Work Release Center	25,565	14%	23.0%
	Contracted Transition and Work Release Center	3,242	2%	17.9%
PROGRAM COMPLETERS	GED	9,227	5%	29.0%
	Vocational Certificate	13,141	7%	28.1%

Note that the results presented in the table above do not constitute a rigorous evaluation of any program. For example, it is not valid to claim that if all inmates went to Work Release Centers, one would realize a lower overall recidivism rate. Inmates who succeed

at work release do not have the same characteristics as many other inmates, so the work release impact would likely be different if expanded to include a broader group of inmates.

Likewise, the program completion information presented in the table does not constitute a rigorous evaluation of those programs. The results are similar to those reported in the Washington State Institute for Public Policy study of evidence-based practices in corrections, but are based solely on Florida Department of Corrections data.

FACTORS IN ORDER OF PREDICTIVE ABILITY

Below are listed the factors in order of importance (YELLOW highlight: higher recidivism; GREEN highlight: lower recidivism):

MALES
1   PRIOR COMMITMENTS TO PRISON
2   SUPERVISION FOLLOWING PRISON
3   AGE AT RELEASE
4   DISCIPLINARY REPORTS WHILE IN PRISON
5   MOST RECENT TABE (EDUCATION LEVEL)
6   NUMBER OF THEFT/FRAUD OFFENSES
7   LOW CUSTODY
8   RACE IS BLACK
9   NUMBER OF BURGLARY OFFENSES
10   SUBSTANCE ABUSE SEVERITY SCORE
11   WORST OFFENSE IS MURDER
12   HISPANIC ETHNICITY
13   NUMBER OF DRUG OFFENSES
14   WORST OFFENSE IS OTHER VIOLENT CRIME
15   HIGH CUSTODY
16   NUMBER OF WEAPONS OFFENSES
17   TIME SERVED IN MONTHS
18   WORST OFFENSE IS SEX OFFENSE
19   WORST OFFENSE IS ROBBERY

FEMALES
1   PRIOR COMMITMENTS TO PRISON
2   SUPERVISION FOLLOWING PRISON
3   AGE AT RELEASE
4   SUBSTANCE ABUSE SEVERITY SCORE
5   MOST RECENT TABE (EDUCATION LEVEL)
6   NUMBER OF THEFT/FRAUD OFFENSES
7   LOW CUSTODY
8   NUMBER OF DRUG OFFENSES
9   DIAGNOSED MENTAL ILLNESS
10   HISPANIC ETHNICITY
11   WORST OFFENSE IS MURDER
12   WORST OFFENSE IS OTHER VIOLENT CRIME
13   NUMBER OF BURGLARY OFFENSES
14   DISCIPLINARY REPORTS WHILE IN PRISON
15   RACE IS BLACK
16   TIME SERVED IN MONTHS

Factors that "change direction":
      Race is Black (helps Females, hurts Males)
      Months served in prison (helps Females, hurts Males)

Factors that affect Male recidivism, but not Females:
      Number of Weapons Offenses
      Worst Offense Committed is sex offense
      Worst Offense Committed is robbery
      High custody

Factors that affect Female recidivism, but not Males:
      Diagnosed mental illness

References

Connecticut Office of Policy & Management, Criminal Justice Policy and Planning Division; Research, Analysis and Evaluation Unit. (2009). *2009 Connecticut Recidivism Study: 2004 Release Cohort.* Retrieved December 15, 2009 from
http://www.ct.gov/opm/lib/opm/cjppd/cjresearch/recidivismstudy/20090215_recidivismstudy.pdf

Langan, Patrick A. and Levin, David J. (2002). *Recidivism of Prisoners Released in 1994.* Washington, DC: Bureau of Justice Statistics. Retrieved December 15, 2009 from
http://bjs.ojp.usdoj.gov/index.cfm?ty=pbdetail&iid=1134

Florida Department of Corrections. (2003). *Recidivism Report: Inmates Released from Florida Prisons July 1995 to June 2001.* Retrieved December 15, 2009 from
http://www.dc.state.fl.us/pub/recidivism/2003/index.html

Drake, Elizabeth and Aos, Steve and Miller, Marna. (2009). *Evidence-Based Public Policy Options to Reduce Crime and Criminal Justice Costs: Implications in Washington State.* Olympia, WA: Washington State Institute for Public Policy. Retrieved December 15, 2009 from
http://www.wsipp.wa.gov/pub.asp?docid=09-00-1201