REPORT TO THE LEGISLATURE
Pursuant to P.A. 200 of 2012
Section 401
Prison Population Projection Report
February 2013

INTRODUCTION

The Michigan prison population increased by 690 inmates during calendar year 2012, to a total of 43,594 prisoners (+1.6%). This population growth was anticipated by the Michigan Department of Corrections (MDOC), as the population projections issued in February of 2012 were 99.9% accurate at the end of the year (just 36 prisoners higher than actual population).

It was the first prison population increase following 5 consecutive years of decline. The prison population is still 15% smaller than the record high of 51,554 inmates that was reached in March of 2007 (still -7,960 inmates from the peak).

Fewer parole decisions, fewer moves to parole, more parole violator technical returns to prison, and slightly more prison admissions were the primary factors responsible for the prison population increase. Helping to keep the population growth modest was an 8% decrease in the number of parole violators with new sentences (the fourth year in a row of PVNS decline).

Despite the prison population growth, the MDOC was able to limit net operating capacity to an increase of 604 prison beds during the course of calendar year 2012.

FACTORS DRIVING PRISON POPULATION CHANGE

The increase in the size of the prison population during 2012 resulted from:

- Fewer moves to parole (-16.1%), due to fewer parole decisions. The parole approval rate was flat (-0.4% in 2012 compared to 2011, to 65.1% approval), so it was not a factor in the decline of paroles.

- More parole revocations for technical violations of parole conditions (+802), due to renewed focus early in the year on agent interventions with serious parole violator behaviors and the apprehension of fugitive absconders. The number of parole absconders at large was reduced by 10.3% during calendar year 2012.

    Annual parole revocations were still down by 18% from the record high year in 2002, despite a 27% larger average parole population now compared to 2002.

    Following the opening of the Detroit Reentry Center last October, parole revocations actually declined by 27% in the last two months of 2012 compared to the same months in the previous year. So parole revocations are now trending downward significantly again.

- More statewide felony court dispositions (+1.2% based on data through November) and a half-percent increase in the prison commitment rate (to 20.7%), leading to slightly more prison admissions (+1.5%, as was projected in the last forecast).

Parole Violator with a New Sentence (PVNS) was the only category of prison admissions that declined in 2012 (-7.7%), the fourth consecutive annual decline in PVNS.

Despite fewer paroles and more parole revocations in 2012, the number of prisoners who were past their earliest release dates (ERD) without paroles-in-hand increased by only 115 inmates for the year to 7,510 past-ERD prisoners.

80% of current prisoners have either not yet reached their ERD (68%), or are serving life sentences (12%).

PRISON POPULATION PROJECTION METHODOLOGY

Michigan's prison population projections are generated by a computerized simulation model, developed originally by the National Council on Crime and Delinquency (NCCD). It was then adapted for Michigan by research and planning staff in the Michigan Department of Corrections. The computerized simulation model mimics the movement of prisoners through the Corrections system and uses past practice and prior year trends to predict future patterns.

The projection model itself is simply an automated shell into which numerous probability distribution arrays must be fed (after creation outside the model by extensive statistical analyses), regarding how and when prisoners move through the various points in the corrections process (e.g., intake at reception, time to each subsequent parole hearing, likelihood of parole at each hearing, timing of release to parole, chances of return as a violator, and discharge from sentence). These arrays are broken down by the various population subgroups with particular characteristics (i.e., offense, sentence length, etc.).

Michigan's projection model incorporates finer resolution than the original NCCD model. For example, Michigan's model has up to 50 distinct maximum-term groups, each of which can have up to six minimum-term pairings. This level of detail allows particular attention to relatively short sentences of 2 years or less, which have the most influence on 3 to 5 year projection accuracy.

The projection model does not forecast the annual number of prison admissions; but once entered as values, the model does disaggregate admissions randomly based on past distributions. Then, the projection model simulates the flow of the existing prison population and new intake through the system, including feedback loops for parole violators with and without new sentences.

The source of the raw data for the projections is downloads from the MDOC Corrections Management Information System (CMIS), and the data are analyzed via the Statistical Package for the Social Sciences (SPSS). Once the projection model shell is populated with probability distribution arrays, numerous iterations of the model are run, "fine tuning" against two or more years of historical, actual trace vectors for purposes of validating the rebuilt data.

After a successful result is obtained (which must track past trends accurately, and must correspond to short-term expectations for the future informed by considerable independent analysis of recent trends), then the projections are issued by the Department. Multiple projection runs can be combined – especially in times of particular uncertainty – to generate a confidence interval based on the monthly minimums and maximums for all of the runs, with the expectation that future population will more assuredly fall within the confidence interval. The model can also be used for "what if" analyses, such as simulating the impact of proposed legislative sunset provisions or modifications to sentencing laws.

Exceptions to the model's track record of better than 99% short-term projection accuracy have sometimes occurred over the years, when criminal justice practices and trends deviated from the past or showed

unstable or uncharacteristic patterns – in which case the problem has generally been inadequate history against which to validate and fine-tune the results.

Long-term projections are generally considered less reliable because of the difficulty associated with predicting multi-year prison intake volume as well as changes in laws and policies that may affect the underlying statistical distributions which drive the model. That is why the projections are updated at least once each year – to adjust for any new laws, policies, court rulings, operational practices or trends.

NEW PRISON POPULATION PROJECTION ASSUMPTIONS

The prison population forecast in this report is a baseline forecast that assumes no new legislative or policy initiatives. Therefore, the assumptions underlying this projection pertain to the usual key factors that drive prison population (which include - for the most part - prison intake, paroles, and parole revocations).

Prison Intake

Felony court dispositions increased slightly in 2012 for the first time since 2007. Annual felony court dispositions for 2012 were up by an estimated 1.2% from 2011 (based on data through November). The prison commitment rate also climbed slightly in 2012 with an estimated 20.7% sentenced to prison based on the new methodology now in use by the MDOC (+0.5% from 2011), so the number of felony court dispositions to prison also increased due to the upticks in total dispositions and prison commitment rate.

There was a modest increase of 1.5% for prison intake in 2012 compared to 2011 (up by 128 to 8,884 admissions). Prison intake thus finished 2012 up for the first time since 2006.

The 1.5% increase in prison admissions for 2012 was in keeping with the 2% increase that was forecast in the last projection.

Consequently, the prudent course is to assume that, while upward spikes in prison admissions are unlikely absent substantial new funding for law enforcement, the new projections should continue to incorporate at least modestly higher prison intake going forward. This projection update thus assumes that annual prison admissions will experience 2% increases for the next three years and then stabilize thereafter.

Paroles

Moves to parole in calendar year 2012 decreased by 16% from the previous year due to fewer parole decisions, to a total of 9,361 moves to parole. This is the third consecutive year of decline in moves to parole, and the smallest number since calendar year 2000. The number of parole decisions decreased by 7% in 2012 compared to 2011 because of fewer cases being eligible for parole consideration.

The annual number of parole board decisions will likely decrease again in 2013, given: (1) The proportion of inmates who have not yet reached the ERD or are serving life, (2) The number of past-ERD inmates available to the Board for review, and (3) An anticipated lower parole revocation rate for 2013 resulting in fewer board decisions regarding possible re-parole of returned violators.

Progressively fewer parole decisions would again yield fewer moves to parole in 2013 absent an increase in the parole approval rate. There were an increased number of moves to parole in January of this year, but current paroles-in-hand awaiting release dates in February and March are significantly smaller than the January number. Consequently, this projection update assumes that the number of moves to parole

will again decrease moderately in 2013, and then stabilize thereafter in the neighborhood of about 9,500-9,700 moves to parole each year.

Parole Violator Technical Returns to Prison (parole revocations)

The increase in parole violator technical (PVT) returns to prison in 2012 occurred in the first half of the year for the most part, and resulted from renewed focus on agent interventions with serious parole violator behaviors and the apprehension of fugitive absconders. The number of PVT returns stabilized thereafter, and decreased markedly in the last two months of the year, subsequent to the opening of the Detroit Reentry Center in October.

Early 2013 parole revocation figures show a continuation of this new significant downward trend, so this projection update assumes that the annual number of parole revocations will decrease considerably this year compared to last year and then stabilize.

Implications for the New Prison Population Forecast

Given the above discussion, it is expected that the size of the prison population will continue to rebound modestly each year through 2015, and then stabilize during the last two years of the projection – absent future changes in criminal justice statutes, policies or practices that would affect the size of the prison population.

In 2013, this forecast assumes modestly increasing prison admissions, another decline in moves to parole, and a significant decrease in parole revocations. This is a set of assumptions that yields gradually increasing prison population as a baseline forecast. The new projections forecast prison population growth of just under 300 additional inmates during 2013, and around 500 more prisoners in each of the next two years, followed by stability thereafter.

PRISON POPULATION PROJECTIONS

This projection update represents a revised and extended base projection that again does not assume new legislative or policy initiatives to further influence the size of the prison population.

The following chart summarizes the revised and extended baseline prison population projections through calendar year 2017. Table 1 (quarterly) and Table 2 (monthly) show the figures corresponding to the projection line in the chart.

Michigan Department of Corrections
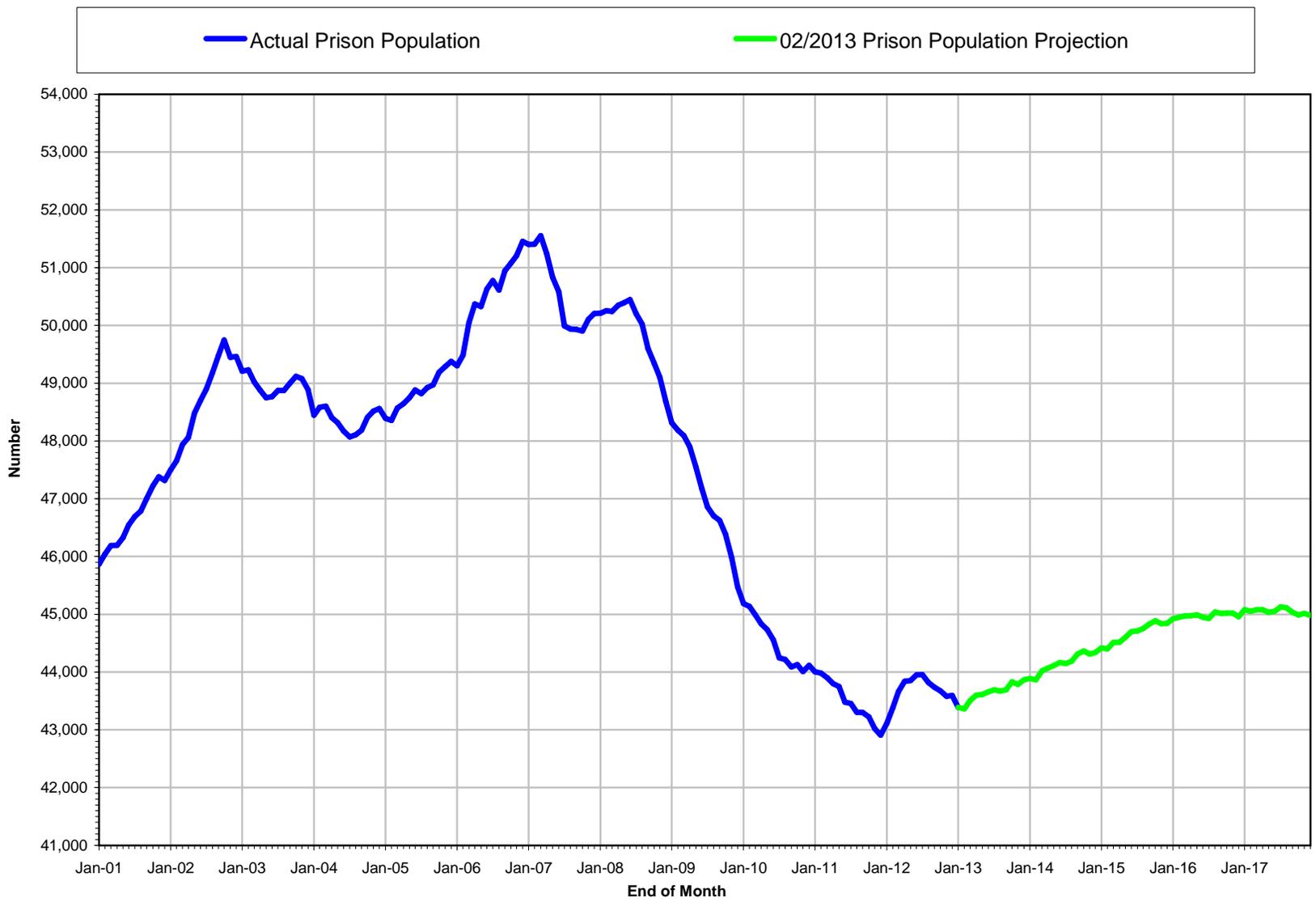## ACTUAL AND PROJECTED PRISON POPULATION

Actual Prison Population — **02/2013 Prison Population Projection**

Table 1

Prison Population Projection
February, 2013

End of Month	Projected Prisoner Population	Yearly Change
Mar-13	43,512	
Jun-13	43,657	
Sep-13	43,691	
Dec-13	43,866	272
Mar-14	44,021	
Jun-14	44,164	
Sep-14	44,310	
Dec-14	44,338	472
Mar-15	44,513	
Jun-15	44,699	
Sep-15	44,826	
Dec-15	44,844	506
Mar-16	44,973	
Jun-16	44,948	
Sep-16	45,016	
Dec-16	44,959	115
Mar-17	45,081	
Jun-17	45,052	
Sep-17	45,036	
Dec-17	44,978	19

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Table 2

Prison Population Projection
February, 2013

End of Month	Projected Prisoner Population	Yearly Change
Jan-13	43,392	
Feb-13	43,361	
Mar-13	43,512	
Apr-13	43,597	
May-13	43,612	
Jun-13	43,657	
Jul-13	43,694	
Aug-13	43,669	
Sep-13	43,691	
Oct-13	43,830	
Nov-13	43,785	
Dec-13	43,866	272
Jan-14	43,891	
Feb-14	43,868	
Mar-14	44,021	
Apr-14	44,067	
May-14	44,110	
Jun-14	44,164	
Jul-14	44,147	
Aug-14	44,185	
Sep-14	44,310	
Oct-14	44,369	
Nov-14	44,311	
Dec-14	44,338	472
Jan-15	44,419	
Feb-15	44,403	
Mar-15	44,513	
Apr-15	44,514	
May-15	44,604	
Jun-15	44,699	
Jul-15	44,712	
Aug-15	44,757	
Sep-15	44,826	
Oct-15	44,888	
Nov-15	44,839	
Dec-15	44,844	506
Jan-16	44,923	
Feb-16	44,946	
Mar-16	44,973	
Apr-16	44,975	
May-16	44,988	
Jun-16	44,948	
Jul-16	44,926	
Aug-16	45,041	
Sep-16	45,016	
Oct-16	45,019	
Nov-16	45,018	
Dec-16	44,959	115
Jan-17	45,080	
Feb-17	45,052	
Mar-17	45,081	
Apr-17	45,078	
May-17	45,036	
Jun-17	45,052	
Jul-17	45,126	
Aug-17	45,115	
Sep-17	45,036	
Oct-17	44,986	
Nov-17	45,014	
Dec-17	44,978	19

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