

REPORT TO THE LEGISLATURE
Pursuant to P.A. 188 of 2010
Section 401
Prison Population Projection Report
February 2011

INTRODUCTION

The Michigan prison population has now decreased for four consecutive years, to a total of 44,113 inmates at the end of December 2010. This is the smallest year-end prison population since 1998. It also represents a decline of 7,441 inmates (-14.4%) from the peak prison population of 51,544 reached in March 2007.

In calendar year 2010, the prison population decreased by 1,365 inmates (-3.0%), due to fewer prison admissions than prison releases and the lowest parole revocation rate since at least before routine record keeping began in 1987.

The continuation of the decrease in prison population throughout 2010 enabled the department to reduce net operating capacity by a total of 1,899 prison beds over the course of the year (-4.1%). (One facility taken off-line for Michigan inmates in 2010 – the Muskegon Correctional Facility – now houses 1,150 prisoners from Pennsylvania under a contract with that state.)

FACTORS DRIVING PRISON POPULATION CHANGE

The reduction in the size of the prison population has resulted from:

- Fewer reported crimes and fewer arrests in the State, leading in turn to fewer felony court dispositions and fewer prison admissions. Parole Violator with a New Sentence (PVNS) was the category of prison admissions with the largest decline in 2010 (-9%).
- Expansion of the Michigan Prisoner ReEntry Initiative (MRPI) model into all 83 counties around the state and further progress toward bringing the initiative up to scale.

The latest MPRI preliminary tracking results show a 33% relative rate reduction in total returns to prison against baseline expectations when controlling for a history of prior parole failure and time at risk. This translated into an absolute reduction of 2,793 fewer returns to prison through mid-May 2010 than would otherwise have been expected to occur. (An update to these outcome results through the end of calendar year 2010 is underway.)

- Continuing a multifaceted strategy to reduce the number of prisoners who are past their earliest release dates (ERD) due to either denial of parole or return to prison for parole revocation.

At the peak in 2002, more than 17,000 prisoners were past the ERD and continuing service toward their statutory maximum sentences (which, on average, are three to four times longer than the minimum sentences that were imposed by judges under legislative sentencing guidelines).

In contrast, at the end of 2010, only 9,322 prisoners were past the ERD (-45% from 2002), and 981 of those were awaiting release following a positive parole action. The reduction in prisoners who are past the ERD has been accomplished in three ways:

- Using the successful MPRI re-entry model processes to mitigate and control offender risk and thereby increase the percentage of cases that are able to be safely paroled on the ERD. This action minimizes the addition of new cases to the past-ERD population on the front end.
- Refining and expanding the Review of Continuance Cases (ROCC) process that the parole board has been using to target past-ERD inmates with special needs for evidence-based programming, services and supervision strategies that better prepare these offenders for successful community re-entry once the parole board is satisfied that the risks have been mitigated or controlled. This action reduces the existing population of past-ERD cases.

Examples of these special risk/needs inmates include: female offenders, medically fragile offenders, mentally ill offenders, elderly offenders, and offenders for whom GPS monitoring is especially promising as a parole-supervision tool because of the nature of the offenses.

Improved resources for the parole board, in the form of training and more sophisticated assessment instruments, have also been employed as part of the strategy. And improved parole guidelines are being developed as a way to sustain and expand the impact of these improvements.

- Reducing the number of parole revocations via statewide implementation of the MPRI. Annual parole revocations are down by 27% since the record high year of 2002, despite a 42% increase in the size of the parole population since that time. This action minimizes the addition of new cases to the past-ERD population on the back end.

However, there is a limit to how much farther these strategies may be able to reduce the prison population because 79% of remaining inmates either have not yet reached the ERD (68%) or are serving life sentences (11%).

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) [their initial mainframe computer model, not the later micro-based, somewhat generic, and thus comparatively superficial PROPHET system]. 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, 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 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 absent 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 have now declined for three years in a row, following eight consecutive years of growth. Annual felony court dispositions were down by about 8,000 (-15%) in 2010 from the peak reached in 2007. The prison commitment rate increased by 1.4% in 2010 to 23.1% sentenced to prison, but the number of felony court dispositions to prison increased only slightly (just 33 more dispositions to prison) because of the continued decline in total dispositions.

Given a lag in the arrival of new convicted felons at prison reception, the net result was a modest decrease of 1.5% for prison intake in 2010 compared to 2009 (down by 136 to 9,159 admissions). Prison intake thus finished 2010 down for a fourth consecutive year, with the lowest number of admissions since calendar year 2000 (down by 17% from the record high set in 2006).

In 2010, parole violators sentenced to prison decreased by 9%, and probation violators sentenced to prison decreased by 6%. In contrast, new court commitments (who were not under the jurisdiction of the Department of Corrections at the time of their offenses) increased by 4%.

Since the pace of prison intake decline slowed in 2010, the prudent course is to assume that, while no upward spike in prison admissions appears imminent, the new projections should at least incorporate a leveling off of prison intake going forward. This projection update thus assumes that annual prison admissions will either stabilize at 2010 levels or experience only marginal increases or decreases in 2011 and beyond.

Parole

Moves to parole in calendar year 2010 decreased from the record number in the previous year, due to fewer parole decisions and lower parole approval rates.

The number of moves to parole in 2010 decreased by 10.4% from the 2009 peak, down to a total of 12,137 moves to parole.

The number of parole decisions decreased by 18% in 2010 compared to 2009 due to fewer cases being eligible for parole consideration.

The 2010 parole approval rate of 56.1% was down by 6.3% from the 62.4% approval rate in 2009. We believe that a parole approval rate comparable to the 2010 rate can be maintained into the future, as the full offender re-entry model continues to be implemented and more specialized and refined risk assessment tools become available to the parole board.

The annual number of parole board decisions will likely decrease again in 2011 given the smaller remaining prisoner population, the increasing proportion of inmates who have not yet reached the ERD, the declining number of past-ERD inmates available to the Board for review, and the lower parole revocation rate resulting in fewer decisions regarding possible re-parole.

Consequently, this projection update assumes that the number of moves to parole will decrease again in 2011, and then stabilize thereafter in the neighborhood of about 10,000-10,500 moves to parole each year.

Parole Violator Technical Returns to Prison (parole revocations)

There was a small increase in the preliminary parole violator technical (PVT) revocation rate for 2010 (109 PVT per 1,000 parolees in the parole population) compared to 2009 (101 PVT per 1,000 parolees), but that is still far below the historical peak of 246 PVT per 1,000 parolees.

Since the parole violator with a new sentence (PVNS) revocation rate continued a 4-year downward trend in 2010 (81 PVNS per 1,000 parolees) as compared to 2009 (94 PVNS per 1,000 parolees), the overall parole revocation rate (PVT + PVNS) fell to a new historical low since at least before recordkeeping began in 1987, down to 190 overall revocations per 1,000 parolees in 2010, compared to the historical peak of 347 overall revocations per 1,000 parolees.

Bringing the MPRI up to scale and continued progress toward implementation of the full MPRI model, along with many other related efforts by the department to improve parolee success are expected to maintain these trends. Such efforts include: collaborative case management, GPS monitoring, and the residential re-entry beds and specialized services for parolees that are now available in local communities as a continued reinvestment in offender transition and success.

As a result, this projection update assumes that the annual number of parole revocations will increase modestly in 2011 due simply to the size of the parole population under active supervision, but then gradually decline from there as outcomes improve further and both moves to parole and parole population stabilize and then diminish over time.

Summary of Assumptions for the New Prison Population Forecast

Given all of the above assumptions, it is expected that the size of the prison population will stabilize in calendar years 2011 and 2012, decline modestly in 2013 due to slightly fewer prison admissions as well as decreasing parole revocations, and then stabilize again thereafter as all of the factors reach steady-state equilibrium.

In the near term for 2011, there may be flat prison intake, another decline in moves to parole, and another modest increase in parole revocations given the large size of the parole population that is presently under active supervision. This is a set of assumptions that yield flat prison population absent new initiatives.

PRISON POPULATION PROJECTIONS AND BED SPACE

This projection update represents a revised and extended base projection forecast, absent new legislative or policy initiatives to further influence the size of the prison population.

Chart 1 summarizes the revised and extended baseline prison population projections through calendar year 2015. Table 1 (quarterly) and Table 2 (monthly) show the figures corresponding to the projection line in the chart.

Chart 1

Michigan Department of Corrections PROJECTED PRISON POPULATION

Actual Prison Population 2/11 Projected Prison Population

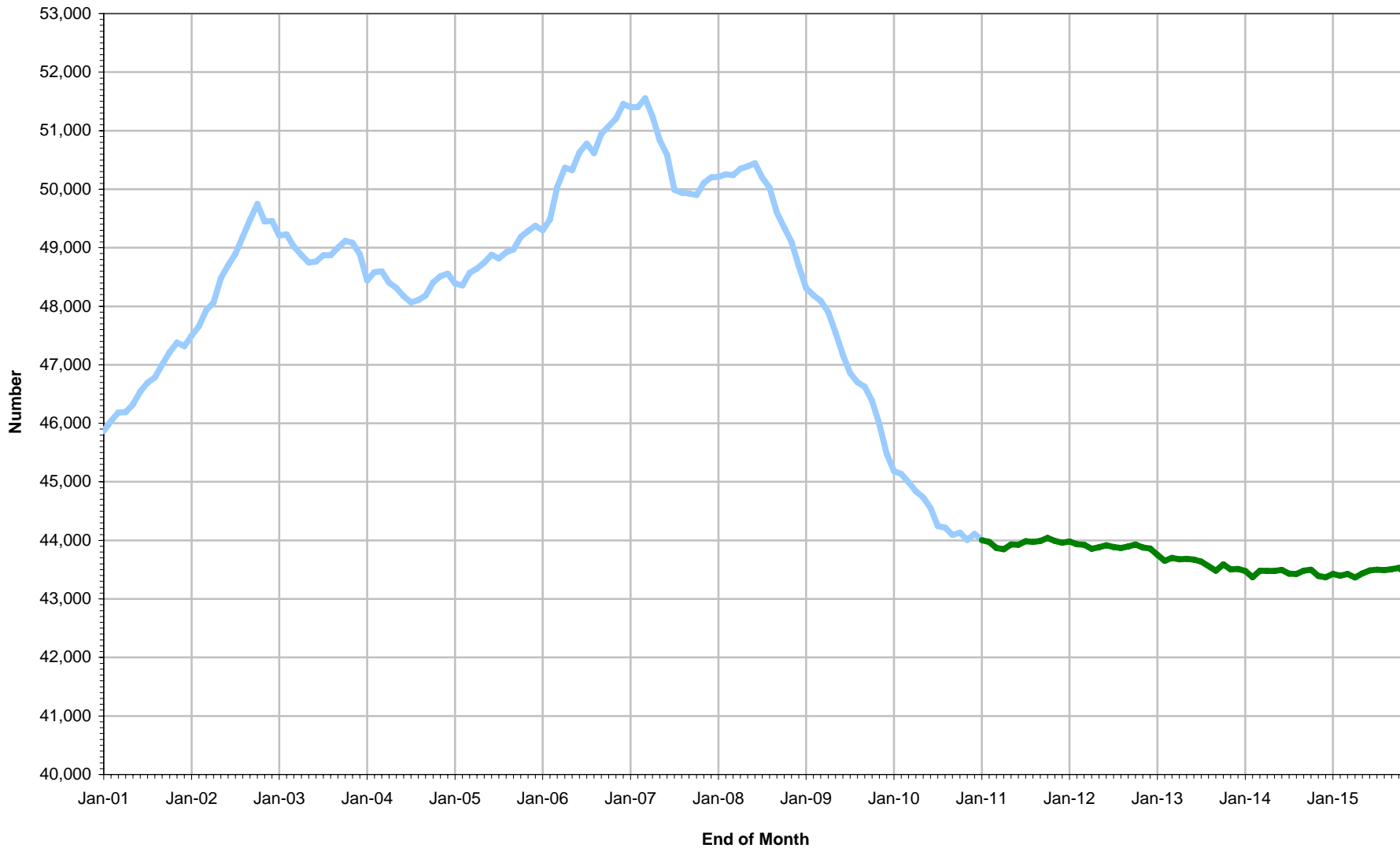


Table 1

Prison Population Projection
February, 2011

<u>End of Month</u>	<u>Projected Prisoner Population</u>	<u>Yearly Change</u>
Mar-11	43,868	
Jun-11	43,924	
Sep-11	43,990	
Dec-11	43,959	-154
Mar-12	43,925	
Jun-12	43,917	
Sep-12	43,895	
Dec-12	43,861	-98
Mar-13	43,703	
Jun-13	43,673	
Sep-13	43,484	
Dec-13	43,513	-348
Mar-14	43,483	
Jun-14	43,496	
Sep-14	43,483	
Dec-14	43,369	-144
Mar-15	43,427	
Jun-15	43,485	
Sep-15	43,510	
Dec-15	43,351	-18

Table 2

**Prison Population Projection
February, 2011**

<u>End of Month</u>	<u>Projected Prisoner Population</u>	<u>Yearly Change</u>
Jan-11	44,002	
Feb-11	43,974	
Mar-11	43,868	
Apr-11	43,847	
May-11	43,929	
Jun-11	43,924	
Jul-11	43,988	
Aug-11	43,972	
Sep-11	43,990	
Oct-11	44,041	
Nov-11	43,990	
Dec-11	43,959	-154
Jan-12	43,981	
Feb-12	43,934	
Mar-12	43,925	
Apr-12	43,858	
May-12	43,883	
Jun-12	43,917	
Jul-12	43,888	
Aug-12	43,869	
Sep-12	43,895	
Oct-12	43,930	
Nov-12	43,878	
Dec-12	43,861	-98
Jan-13	43,755	
Feb-13	43,652	
Mar-13	43,703	
Apr-13	43,678	
May-13	43,685	
Jun-13	43,673	
Jul-13	43,639	
Aug-13	43,561	
Sep-13	43,484	
Oct-13	43,588	
Nov-13	43,506	
Dec-13	43,513	-348
Jan-14	43,479	
Feb-14	43,371	
Mar-14	43,483	
Apr-14	43,477	
May-14	43,478	
Jun-14	43,496	
Jul-14	43,432	
Aug-14	43,425	
Sep-14	43,483	
Oct-14	43,501	
Nov-14	43,394	
Dec-14	43,369	-144
Jan-15	43,427	
Feb-15	43,396	
Mar-15	43,427	
Apr-15	43,365	
May-15	43,434	
Jun-15	43,485	
Jul-15	43,501	
Aug-15	43,490	
Sep-15	43,510	
Oct-15	43,528	
Nov-15	43,436	
Dec-15	43,351	-18