

**REPORT TO THE LEGISLATURE**  
**Pursuant to P.A. 63 of 2011**  
**Section 401**  
**Prison Population Projection Report**  
**February 2012**

**INTRODUCTION**

The Michigan prison population has now decreased for five consecutive years, to a total of 42,904 inmates at the end of December 2011. This is the smallest year-end prison population since 1997. It also represents a decline of 8,650 inmates (-16.8%) from the peak prison population of 51,554 reached in March 2007.

In calendar year 2011, the prison population decreased by 1,209 inmates (-2.7%), 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 2011 enabled the department to reduce net operating capacity by a total of 740 prison beds over the course of the year (-1.7%).

**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 (-4%).

Parole Violator with a New Sentence (PVNS) was the category of prison admissions with the largest decline in 2011 (-15%).

- Continued reduction in the number of prisoners who are past their earliest release dates (ERD).

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 2011, only 8,322 prisoners were past the ERD (-52% from 2002), and 738 of those offenders were awaiting release following a positive parole action.

- Fewer parole revocations due to improved recidivism outcomes.

Annual parole revocations are down by 42% since the record high year of 2002, despite a 29% larger parole population since that time.

The overall 2011 parole revocation rate of 174 revocations per 1,000 parolees is the lowest revocation rate since at least before routine recordkeeping began 25 years ago.

And long-term recidivism outcomes have gradually improved over the past decade, from nearly half returned to prison within 3 years following release, to just one-third returned.

However, based on the latest available data, it appears that the limit to how much farther these factors can reduce the Michigan prison population has been reached because:

- The decline in prison intake may have bottomed out.
- Among the remaining state prison inmates, 81% either have not yet reached the ERD (69%) or are serving life sentences (12%).
- The Department of Corrections has recently begun a concentrated effort to adjust and improve parole supervision strategies and conditions to better target parole violators and boost public safety. Applying more resources to this focused effort will likely result in additional parole violator returns to prison in the near term, as fugitive absconders are apprehended and parole violations trigger increasingly swift and sure interventions.

## **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 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 four years in a row, following eight consecutive years of growth. Annual felony court dispositions were down by over 10,000 (-20%) in 2011 from the peak reached in 2007. The prison commitment rate was stable in 2011 with 23% sentenced to prison, but the number of felony court dispositions to prison decreased due to the continued decline in total dispositions.

Given the continued decline in felony court dispositions, there was a decrease of 4.4% for prison intake in 2011 compared to 2010 (down by 402 to 8,756 admissions). Prison intake thus finished 2011 down for a fifth consecutive year, with the lowest number of admissions since calendar year 1995 (and down by 21% from the record high set in 2006).

There are indications that prison admissions may have bottomed out, as four of the past five months have seen modest increases in prison intake compared to the previous year. As a result, prison admissions have now increased by nearly 6% in the past five months.

Consequently, the prudent course is to assume that, while no dramatic upward spikes in prison admissions appear imminent, the new projections should 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 2011 decreased by 8% from the previous year due to fewer parole decisions, to a total of 11,159 moves to parole. This is the second consecutive year of decline in moves to parole. The number of parole decisions decreased by 21% in 2011 compared to 2010 because of fewer cases being eligible for parole consideration.

The annual number of parole board decisions will likely decrease again in 2012, 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.

Progressively fewer parole decisions will again yield fewer moves to parole in 2012. It appears that moves to parole will start the year down by around 16% through February compared to the same period in 2011, and there are currently about 500 fewer paroles-in-hand awaiting release in future months. Consequently, this projection update assumes that the number of moves to parole will decrease again in 2012, 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 decrease in the preliminary parole violator technical (PVT) revocation rate for 2011 (97 PVT per 1,000 parolees in the parole population) compared to 2010 (108 PVT per 1,000 parolees), and that is far below the historical peak of 246 PVT per 1,000 parolees set in 1999.

But as mentioned earlier, The Department of Corrections has recently begun a concentrated effort to adjust and improve parole supervision strategies and conditions to better target parole violators and boost public safety. Applying more resources to this focused effort will likely result in additional parole violator returns to prison in the near term, as fugitive absconders are apprehended and parole violations trigger increasingly swift and sure interventions.

As a result, this projection update assumes that the annual number of parole revocations will increase moderately in 2012 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 begin to rebound in calendar year 2012, and the growth pattern will then moderate but continue throughout the 5-year projection absent other changes in criminal justice statutes, policies or practices that affect prison population.

In 2012, this forecast assumes modestly increasing prison admissions, another decline in moves to parole, and a moderate increase in parole revocations due to an increased departmental focus on both reducing absconding behavior and quickly apprehending any parolees who do abscond. This is a set of assumptions that yields gradually increasing prison population as a baseline forecast.

January of 2012 reflects the start of this pattern, as the prison population increased by 208 inmates last month (breaking a 12-month consecutive streak of population declines). The population increase for the month was due to fewer moves to parole, more parole violator technical returns to prison, and a 3% increase in prison admissions compared to the same month the year before.

It should also be noted, however, that there are some near-term scenarios that could have the potential to impose significant upward pressure on this baseline forecast:

- The Special Alternative Incarceration (SAI) program for prisoners currently has a statutory sunset in place scheduled to occur on September 30, 2012. If the SAI program sunset date is not extended or eliminated, then the Department estimates that loss of the program will cause a need for about 1,600 to 2,100 additional prison beds within two years because of longer stays in prison for the types of offenders that are currently SAI-eligible (up to 33 months longer imprisonment).
- There have been suggestions that front-end resources for the criminal justice system in Michigan should be increased in high crime areas if the State budget permits. More law enforcement and

prosecutorial resources would likely increase the clearance rates for felonies and increase the number of court dispositions, which would also then increase the number of prison admissions.

- There have also been recent proposals to mandate imprisonment for repeat violent crimes, and to dramatically lengthen the minimum sentences imposed for offenders who are already sentenced to prison for repeat violent crimes. A higher prison commitment rate would increase prison intake, and longer prison sentences would increase average time served before release, thereby significantly increasing the prison population.

## **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 2016. Table 1 (quarterly) and Table 2 (monthly) show the figures corresponding to the projection line in the chart.

Michigan Department of Corrections  
**PROJECTED PRISON POPULATION**

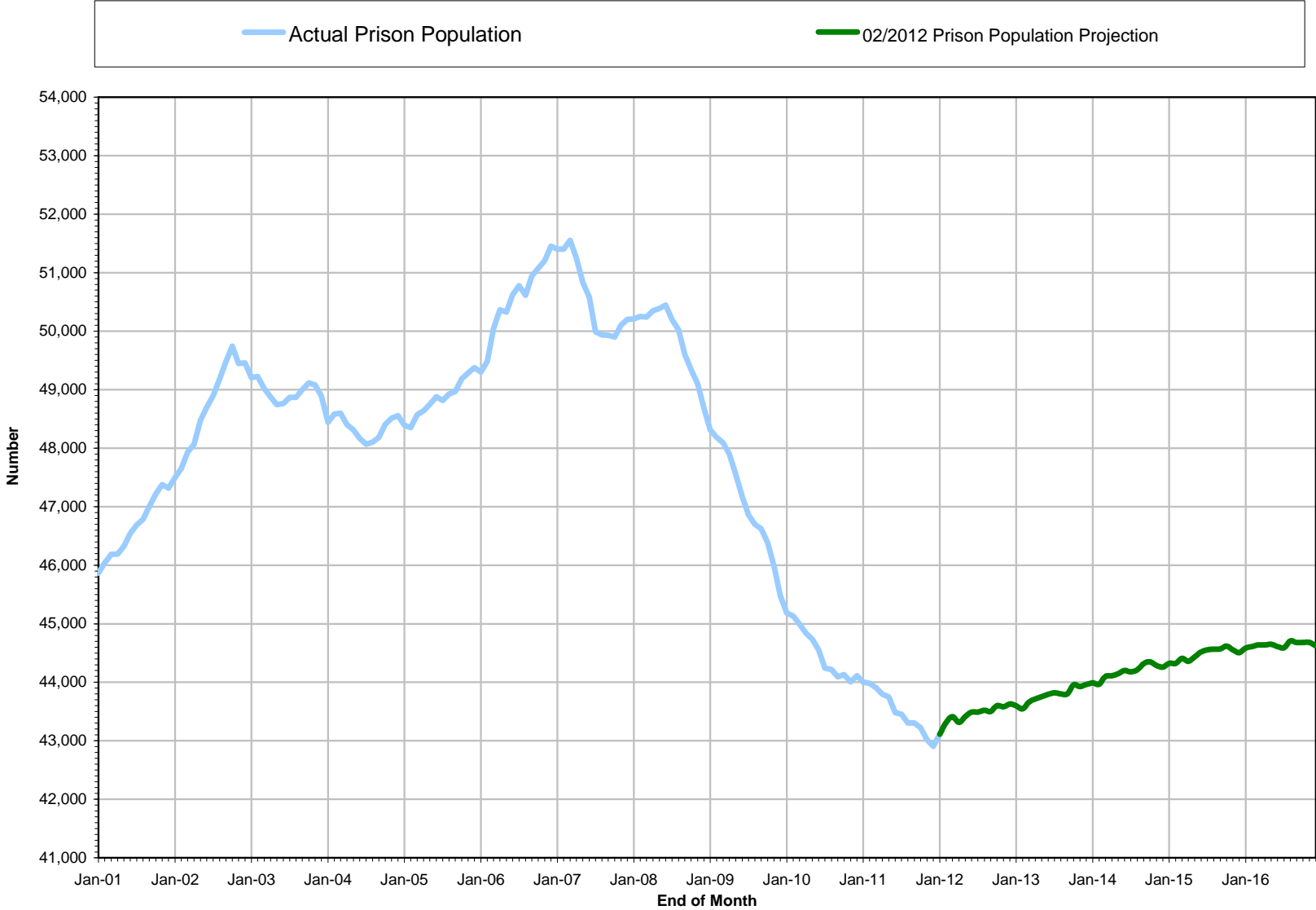


Table 1

**Prison Population Projection  
February, 2012**

<u>End of Month</u>	<u>Projected Prisoner Population</u>	<u>Yearly Change</u>
Mar-12	43,412	
Jun-12	43,490	
Sep-12	43,500	
Dec-12	43,630	726
Mar-13	43,661	
Jun-13	43,792	
Sep-13	43,802	
Dec-13	43,962	332
Mar-14	44,096	
Jun-14	44,202	
Sep-14	44,318	
Dec-14	44,259	297
Mar-15	44,411	
Jun-15	44,517	
Sep-15	44,571	
Dec-15	44,508	249
Mar-16	44,637	
Jun-16	44,612	
Sep-16	44,680	
Dec-16	44,623	115

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Table 2

**Prison Population Projection  
February, 2012**

<u>End of Month</u>	<u>Projected Prisoner Population</u>	<u>Yearly Change</u>
Jan-12	43,112	
Feb-12	43,312	
Mar-12	43,412	
Apr-12	43,315	
May-12	43,415	
Jun-12	43,490	
Jul-12	43,490	
Aug-12	43,520	
Sep-12	43,500	
Oct-12	43,600	
Nov-12	43,580	
Dec-12	43,630	726
Jan-13	43,596	
Feb-13	43,546	
Mar-13	43,661	
Apr-13	43,715	
May-13	43,754	
Jun-13	43,792	
Jul-13	43,821	
Aug-13	43,803	
Sep-13	43,802	
Oct-13	43,959	
Nov-13	43,927	
Dec-13	43,962	332
Jan-14	43,988	
Feb-14	43,967	
Mar-14	44,096	
Apr-14	44,111	
May-14	44,146	
Jun-14	44,202	
Jul-14	44,177	
Aug-14	44,213	
Sep-14	44,318	
Oct-14	44,352	
Nov-14	44,285	
Dec-14	44,259	297
Jan-15	44,322	
Feb-15	44,324	
Mar-15	44,411	
Apr-15	44,360	
May-15	44,433	
Jun-15	44,517	
Jul-15	44,553	
Aug-15	44,565	
Sep-15	44,571	
Oct-15	44,618	
Nov-15	44,555	
Dec-15	44,508	249
Jan-16	44,587	
Feb-16	44,610	
Mar-16	44,637	
Apr-16	44,639	
May-16	44,652	
Jun-16	44,612	
Jul-16	44,590	
Aug-16	44,705	
Sep-16	44,680	
Oct-16	44,683	
Nov-16	44,682	
Dec-16	44,623	115