



STATE OF MICHIGAN
DEPARTMENT OF CORRECTIONS
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

PATRICIA L. CARUSO
DIRECTOR

DATE: January 30, 2009

TO: Senator Alan L. Cropsey, Chair
Senate Appropriations Subcommittee on Judiciary and Corrections

Representative Alma Wheeler Smith, Chair
House Appropriations Subcommittee on Corrections

FROM: Patricia L. Caruso *Patricia L. Caruso*
Director

SUBJECT: Prison Population Projections

Section 401 of PA 245 of 2008 requires that the Department of Corrections submit three-year and five-year prison population projection updates by February 1, including an explanation of the methodology and assumptions used in developing them. This report can be viewed at www.michigan.gov/corrections.

PLC

c: Bob Emerson, State Budget Director
Jacques McNeely, Office of the State Budget
Lindsay Hollander, Senate Fiscal Agency
Marilyn Peterson, House Fiscal Agency
MDOC Executive Policy Team

REPORT TO THE LEGISLATURE
Pursuant to P.A. 245 of 2008
Section 401
Prison Population Projection Report
January 2009

INTRODUCTION

Since 2006, prison population growth and reduction patterns have been characterized by a continuation and expansion of efforts to control population, offset by occasional high profile crimes that have caused abrupt increases in population, followed by return to stabilization and then resumption of downward trends. Executive policy and program improvements are responsible, for the most part, for the department's ability to control the prison population.

CONTROLLING PRISON GROWTH THROUGH POLICY & PROGRAM IMPROVEMENTS

Some highly publicized crimes in early 2006 caused the entire Michigan criminal justice system to react with an escalating pattern of more arrests, more sentences to prison, fewer paroles and more revocations of parole. During the next thirteen months, the prison population increased by 2,069 inmates – an average increase of 159 prisoners each month – to an all-time record high of 51,554 prisoners at the end of March 2007.

With continued growth otherwise expected, the Department then took decisive action in 2007 to control prison population by:

- Accelerating the Michigan Prisoner ReEntry Initiative (MPRI) in-reach processes for inmates who were already past their earliest release dates and approved for parole via MPRI.
- Initiating a review by the parole board of prisoners who were serving active sentences for only drug or other nonviolent, non-weapon crimes and who were past their earliest release dates.
- Initiating a short-term MPRI Community Placement Program demonstration project for such prisoners when deemed appropriate by the Parole Board to mitigate and control risk.
- Initiating review of the potential for paroles and commutations of medically fragile prisoners with high medical costs who posed little to no threat to public safety if released.
- Implementing the Executive Clemency Advisory Council to identify and review potential cases for commutation and parole consideration for reasons such as declining health.
- Achieving a 26% reduction in parole failures among MPRI participants, along with better outcomes for the parole population as a whole, yielding over 1,000 fewer parole revocations in 2007.

These actions produced seven consecutive months of prison population decline – from April through October of 2007 – during which time the prison population was reduced by 1,653 inmates, an average of 236 prisoners each month.

Then, another highly publicized parole failure in late 2007 again contributed to eight months of prison population growth, but this time by only 543 inmates, or growth of just 68 prisoners per month on average.

In July 2008, the Department launched a new 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. The goal of the “Past-ERD Reduction Strategy” is to bring that subpopulation down by as much as possible as MPRI expands statewide and up to scale to be able to handle the additional work. The Past-ERD Reduction Strategy is essentially an intensification of MDOC efforts to:

- 1) Use the successful MPRI process to mitigate and control offender risk and thereby increase the percentage of cases that are able to be safely paroled on the ERD. The percentage of prisoners approved to parole on the ERD in 2008 was 70.6% – the highest percentage in at least the past six years. This action minimizes the addition of new cases to the past-ERD population on the front end.
- 2) Refine and expand 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 board is satisfied that their 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 tether is especially promising as a parole-supervision tool because of the nature of the offenses (such as sex crimes, stalking, domestic violence and home invasion).

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

- 3) Reduce the number of parole revocations via statewide implementation of the MPRI. Annual parole revocations are down by 42% since the record high year of 2002, despite a 40% 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.

The Past-ERD Reduction Strategy has reduced the population of inmates who are past their ERD (and do not have paroles in hand) by 10.5% in about six months (down by -1,420 to 12,071), which equates to a 20% pace of decline on a full-year basis. In concert with a 9% decline in new prison admissions in 2008 (driven in turn by the first decrease in total felony court dispositions in nine years), as well as expansion of the SAI-Prison program to inmates imprisoned for the second time, the Past-ERD Reduction Strategy has helped to reduce the prison population for six consecutive months through December, from 50,444 at the end of June, to 48,686 prisoners at the end of the calendar year (-1,758 since June, or an average drop of 293 inmates each month).

These results have enabled the department to close the Deerfield Correctional Facility and Camp Branch in April 2009 – a reduction of 1,900 beds – as part of Executive Order No. 2008-4 that reduced FY 2009 State spending by over \$145 million. (Corrections spending was reduced by \$26.4 million after reinvestments for additional parole agents and additional GPS tether units.)

As the new calendar year unfolds, the intended impact of this Strategy will be closely monitored as the State braces for even more budget reductions due to the worsening economy and structural problems with the Michigan tax base. Based on the number of paroles in hand due to the acceleration of parole reviews and the various components of the Past ERD Strategy, the department is confident that continued reductions can and will occur at least through early FY 2011. After that point in time, continuation of the downward trends will be more difficult. Also, by that point in time, it is hoped that the result of positive discussions with the legislature on policy changes that affect the length of stay of prisoners will be in

place and begin to have impact. In any case, there is a limit to how far a Past-ERD Reduction Strategy can reduce the prison population since 63% of inmates have not yet reached the ERD and another 10% are serving life sentences.

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.

THE COUNCIL OF STATE GOVERNMENT'S JUSTICE REINVESTMENT INITIATIVE

In 2008, Governor Granholm, House Speaker Dillon and Senate Majority Leader Bishop agreed to participate in the Justice Reinvestment Initiative, a project of the Council of State Governments Justice Center (CSG). Through this project, CSG is providing intensive technical assistance to Michigan state policymakers to help guide the development of a statewide policy framework that reduces crime and victimization in Michigan, manages the growth in spending on corrections, and reinvests in targeted efforts to increase public safety in high-crime neighborhoods. CSG has worked in a number of states to analyze data and develop fiscally sound, data-driven strategies.

The Governor, the Speaker and the Majority Leader formed a workgroup in 2008 that included members of the administration: State Budget Director Bob Emerson, Corrections Director Patricia L. Caruso, the Governor's Policy Director, Regina Bell, and the Governor's Legislative Liaison Tim Hughes; members of the House: Representatives Alma Smith, Chair, House Appropriations Subcommittee on Corrections and Paul Condino, Chair House Judiciary; and the Senate: Senators Alan Cropsey, Chair, Senate Appropriations Subcommittee on Corrections and Wayne Kuipers, Chair, Senate Judiciary.

CSG and its expert consultants are providing technical assistance to the working group in three phases: 1) The first was a data collection effort that entailed collecting and analyzing a significant amount of data from the Michigan Department of Corrections and other sources so that the group would be working from the same context; 2) The second phase is dedicated to helping state and local policymakers design a policy framework for a more effective and affordable crime fighting strategy; and 3) The third phase will ensure that policies are implemented effectively and that the appropriate state agencies are held accountable for specific outcomes.

NEW PRISON POPULATION PROJECTION ASSUMPTIONS

As part of the CSG facilitated process, the MDOC prison population projection model was reloaded with newer data – i.e., a 2006 prison admissions file and an existing prison population file as of 12/31/2005. To reiterate, since the projection model uses past practice and prior year trends to predict future patterns, the “fine tuning” against two or more years of historical, actual trace vectors for purposes of validation requires the loading of data that reflect the conditions that were present at the chronological start of the model runs.

In addition, CSG facilitated meetings with a “Prison Population Projections Assumptions Work Group” to develop consensus-driven assumptions that were built into the forecast, especially with regard to future prison admissions since they are not generated directly by the projection model. Subsequent to the inaugural meeting of the Assumptions Work Group, a subgroup of technical experts with access to specific criminal justice data met to review and consider available information relevant to the projections.

Relevant data on crime, arrests, court activity, and criminal justice system resources are consistent with an expectation that prison admissions should not be expected to spike upward (as they have in the past) in at least the short term. On the other hand, Michigan's demographics would suggest that a new wave of youthful offenders is entering their incarceration prone years, since people born in Michigan's peak birth year of 1990 have become 18 years of age during 2008.

Prison Intake

Felony court dispositions data for 2008 through November have shown a 5% decrease in total dispositions (offenders), for the first time following eight consecutive years of growth. The prison commitment rate has also fallen by about 1% from 2007. The net result was a moderate decrease of 9% for prison intake in 2008 compared to 2007. Prison intake finished the year with the lowest number of admissions since 2001.

The question is where will prison intake go from here? 2002 had been the record high year for prison admissions and was followed by two years of decline, but then prison admissions increased again to a new all-time record high in 2006. So, 2008 now represents the second year of decline from that new record high. Given current stable sentencing patterns, there may be an underlying oscillation to prison admissions with a natural floor that may again be reached in the near term. The prudent course is to assume that while no upward spike in prison admissions appears imminent, the new projections should at least incorporate the possibility of a modest rebound in 2009 and beyond, especially given the deteriorating economic conditions and the State demographic pattern mentioned above.

This projection update thus assumes that annual prison admissions will increase modestly in 2009 to the midpoint between the 2007 and 2008 figures and then level off at that number throughout the remainder of the forecast.

Community Residential Programs (CRP) Prisoner Population

The CRP prisoner population is assumed to stay fixed at a very small size (having remained at about 30-40 prisoners throughout 2008) because the pre-Truth-in-Sentencing (TIS) prison population that remained eligible for CRP placement before reaching the ERD has dwindled to a handful of cases. Post-ERD prisoners continue to be accepted into the program under certain conditions, but there has been no sign of any potential for growth under the current eligibility requirements. The Past-ERD Reduction Strategy will likely exhaust the CRP prisoner population completely over time.

Parole

There were a record high number of moves to parole in calendar year 2007, due to a record high number of parole decisions. Moves to parole in 2008 decreased from that record high because of fewer parole decisions, but 2008 was still the third highest year for moves to parole in history because of an increase in the parole approval rate. The approval rate climbed from 52.5% in 2007 to 58.0% in 2008, which is the highest parole approval rate since 1993.

The 2008 parole approval rate has been a by-product of the success and statewide expansion of the MPRI and the effects of the Past-ERD Reduction Strategy. We believe that a higher parole approval rate can be continued into the future, as the MPRI is brought up to scale and as the Past-ERD Reduction Strategy continues to be implemented.

Consequently, this projection update assumes that the annual number of moves to parole will stabilize at about 10,000-11,000 each year.

Parole Violator Technical Returns to Prison (parole revocations)

The population projections report issued last year raised the possibility that parole revocations might rebound somewhat in 2008 from the 33% reduction achieved in 2007 – given the larger parole population, and given that many of the parolees would have been in the community long enough to approach what had been the average time to re-incarceration for those who fail.

Instead, parole revocations continued downward in 2008 despite a new record high parole population, so parole revocations ended the year at the lowest number since 1992. 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 (such as collaborative case management, GPS monitoring, and the 600+ residential re-entry beds with special services for parolees that are now available in local communities) are expected to maintain this trend. As a result, this projection update assumes that the annual number of parole revocations will stabilize and yet gradually decline even further.

The Special Alternative Incarceration (SAI) Program for Prisoners

This projection update assumes increased enrollments in SAI-Prison, not only due to the statutory expansion of eligibility to B-prefix inmates (i.e., those imprisoned for a second time), but also due to an anticipated increase via a redesign of the program under the principles of the MPRI model – namely, a change from the physically demanding “boot camp” model to a less physically demanding program that can accommodate otherwise eligible prisoners who have been unable to enroll only because of health care challenges. These changes are supported by research that indicates the components of this type of program that are related to success are due to aftercare, not the “boot camp” regimen – although the positive effects on prisoners’ health due to the regimen should not be overlooked. It is assumed that these changes will enable the SAI program to operate at its full bed capacity of 585 SAI prisoners and probationers on an ongoing basis.

Dr. James Austin, the projections consultant under contract with CSG who is tasked with the responsibility to “certify” the projections, has included in his assumptions that the SAI program will continue. It is certainly the department’s hope that the independent process evaluation of the SAI program redesign as a specialized MPRI subpopulation will yield findings positive and encouraging enough to recommend delay or repeal of the statutory sunset of the SAI-Prison program, at least until longer term outcomes can be rigorously evaluated.

However, since the statutory sunset currently mandates that the SAI-Prison program cease operations on September 30, 2009, we include herein an alternate projection that forecasts a much larger prison population because of the resulting increases in time served by the inmates who would no be longer eligible for SAI absent legislative action. Dr. Austin states in his certification letter (attached):

The base projection takes into account the recent expansion of the SAI program that is designed, in part, to reduce the expected length of stay for persons who complete the program. The SAI is currently scheduled to sunset on September 30, 2009. Should that sunset provision occur, the population forecast would have to be increased to reflect this change from current policy.

BASE POPULATION PROJECTION, ALTERNATIVE FORECASTS, AND BED SPACE

This projection update represents: 1) The revised Base projection approved by CSG (red middle line); 2) An alternative forecast which reflects the short-term potential of the MDOC Past-ERD Reduction Strategy to continue to drive down the population, ending in 2011 due to increasing uncertainty about the viability of the Strategy to be sustained as a unilateral action (turquoise lower line); and 3) An alternative to the Base projection that reflects the termination of the SAI program for prisoners due to the statutory sunset in current law (orange higher line).

This report does not reflect any of the multiple prospective strategies that have resulted from the CSG Work Group process. Subsequent updates may include the projected impact of these scenarios depending on the status of the CSG recommendations.

Chart 1 summarizes the revised and extended base prison population projections (and the two alternative forecasts as well) through 2013. Table 1 (quarterly figures) and Table 2 (monthly figures) show the specific projection details for *only* the Base projections certified by Dr. Austin. Chart 1 also shows future net operating capacity, reflecting the planned FY 2009 closures of Scott Correctional Facility, Deerfield Correctional Facility and Camp Branch, as well as the reconfiguration of the entire Huron Valley Complex for Women.

Michigan Department of Corrections
PROJECTED PRISON POPULATION & NET OPERATING CAPACITY REDUCTION

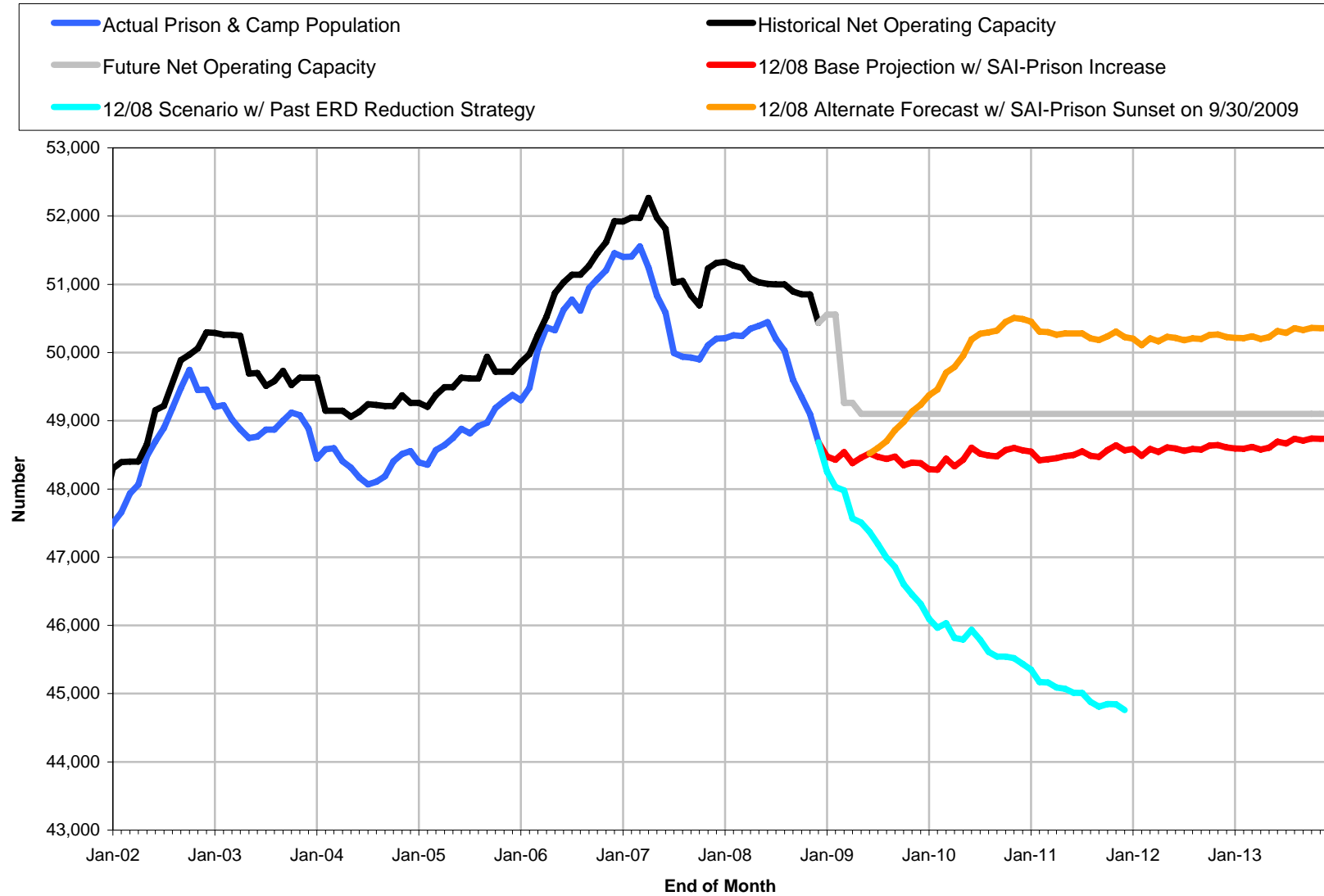


Table 1

Base Prison Population Projection January, 2009				
<u>End of Month</u>	<u>Total Prisoner Population Projection</u>	<u>Subtract Estimated CRP</u>	<u>Projected Prison/Camp Population</u>	<u>Yearly Growth</u>
Mar-09	48,569	30	48,539	
Jun-09	48,551	30	48,521	
Sep-09	48,503	30	48,473	
Dec-09	48,408	30	48,378	-308
Mar-10	48,475	30	48,445	
Jun-10	48,636	30	48,606	
Sep-10	48,510	30	48,480	
Dec-10	48,596	30	48,566	188
Mar-11	48,466	30	48,436	
Jun-11	48,529	30	48,499	
Sep-11	48,501	30	48,471	
Dec-11	48,597	30	48,567	1
Mar-12	48,617	30	48,587	
Jun-12	48,622	30	48,592	
Sep-12	48,608	30	48,578	
Dec-12	48,637	30	48,607	40
Mar-13	48,647	30	48,617	
Jun-13	48,725	30	48,695	
Sep-13	48,740	30	48,710	
Dec-13	48,767	30	48,737	130
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Table 2

Base Prison Population Projection January, 2009				
End of Month	Total Prisoner Population Projection	Subtract Estimated CRP	Projected Prison/Camp Population	Yearly Growth
Jan-09	48,503	30	48,473	
Feb-09	48,460	30	48,430	
Mar-09	48,569	30	48,539	
Apr-09	48,410	30	48,380	
May-09	48,491	30	48,461	
Jun-09	48,551	30	48,521	
Jul-09	48,501	30	48,471	
Aug-09	48,470	30	48,440	
Sep-09	48,503	30	48,473	
Oct-09	48,379	30	48,349	
Nov-09	48,415	30	48,385	
Dec-09	48,408	30	48,378	-308
Jan-10	48,321	30	48,291	
Feb-10	48,314	30	48,284	
Mar-10	48,475	30	48,445	
Apr-10	48,362	30	48,332	
May-10	48,459	30	48,429	
Jun-10	48,636	30	48,606	
Jul-10	48,548	30	48,518	
Aug-10	48,521	30	48,491	
Sep-10	48,510	30	48,480	
Oct-10	48,601	30	48,571	
Nov-10	48,633	30	48,603	
Dec-10	48,596	30	48,566	188
Jan-11	48,577	30	48,547	
Feb-11	48,452	30	48,422	
Mar-11	48,466	30	48,436	
Apr-11	48,482	30	48,452	
May-11	48,514	30	48,484	
Jun-11	48,529	30	48,499	
Jul-11	48,580	30	48,550	
Aug-11	48,515	30	48,485	
Sep-11	48,501	30	48,471	
Oct-11	48,599	30	48,569	
Nov-11	48,671	30	48,641	
Dec-11	48,597	30	48,567	1
Jan-12	48,614	30	48,584	
Feb-12	48,515	30	48,485	
Mar-12	48,617	30	48,587	
Apr-12	48,575	30	48,545	
May-12	48,640	30	48,610	
Jun-12	48,622	30	48,592	
Jul-12	48,588	30	48,558	
Aug-12	48,616	30	48,586	
Sep-12	48,608	30	48,578	
Oct-12	48,665	30	48,635	
Nov-12	48,674	30	48,644	
Dec-12	48,637	30	48,607	40
Jan-13	48,622	30	48,592	
Feb-13	48,620	30	48,590	
Mar-13	48,647	30	48,617	
Apr-13	48,608	30	48,578	
May-13	48,634	30	48,604	
Jun-13	48,725	30	48,695	
Jul-13	48,696	30	48,666	
Aug-13	48,764	30	48,734	
Sep-13	48,740	30	48,710	
Oct-13	48,769	30	48,739	
Nov-13	48,764	30	48,734	
Dec-13	48,767	30	48,737	130

MDOC Office of Research & Planning 1/30/2009

December 19, 2008

Director Pat Caruso
Michigan Department of Corrections
Grandview Plaza Building - 4th Floor
Lansing, MI 48909

Dear Director Caruso:

This letter summarizes my review of the December 2008 base projections developed using the Michigan Department of Corrections' (MDOC) prison population projection model. The review is based upon the supporting documents that I received from MDOC and from information gathered during meetings with your research staff and the Prison Populations Projections Assumptions Work Group and technical subcommittee.

The Department uses a stochastic entity simulation model that exceeds the technical capabilities of most state prison system projection models. Based on my observation, the MDOC staff has extensive knowledge about the model's capabilities, including how it functions and the data required to load the model's data parameters.

The new base projection has several key assumptions that underpin the projection which can be summarized as follows:

1. *Stable prison admissions for new court commitments.* Over the past year, there has been an unanticipated decline in the number of people sentenced by the courts to the Department of Corrections. The base projection assumes that number admitted in 2008, which is below the numbers experienced in 2007, will remain essentially at their current levels over the next few years, but the DOC has built in a reasonable assumption that there may be a slight rebound halfway to the 2007 levels based on the deteriorating economic conditions for the local counties.
2. *No changes in the sentencing patterns of the courts.* The model uses the recent offense and sentence length attributes of individuals being sentenced to the MDOC. The model assumes there will be no changes in these patterns.
3. *No changes in current Parole Board decision-making practices.* The model is designed to mimic the parole grant rates by the Board for both initial and subsequent hearings. The Board's grant rates for January through June 2008 have been adopted. It should be noted that since June 2008, the Board has been aggressively reviewing cases

that are past their earliest release dates (ERD) which has served to increase the number of persons being released on parole. However, it is anticipated that this accelerated review process may well have diminishing returns over time as the pool of eligible cases reviewed by the Board declines and/or reflects a higher risk population.

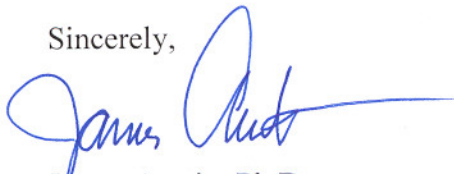
4. *No changes in current parole revocation and return to prison rates.* The model processes persons who fail parole either for a technical violation or for the conviction of a new felony crime. The base projection incorporates these current trends.

5. *Continuation of the Special Alternative Incarceration Program (SAI) for prisoners.* The base projection takes into account the recent expansion of the SAI program that is designed, in part, to reduce the expected length of stay for persons who complete the program. The SAI is currently scheduled to sunset on September 30, 2009. Should that sunset provision occur, the population forecast would have to be increased to reflect this change from current policy.

In summary, the new base projection now accurately reflects the state's current correctional policy trends, including demographics, crime, arrests, court processing and the Parole Board's grant rates. The model is now accurately mimicking the admission, release and daily population attributes of the prison population. The key assumptions and population estimates are reasonable and should be adopted by the MDOC at this time.

It is also recommended that the projection and its performance be internally reviewed and updated by the MDOC in advance of the required formal issuance of projections next year (and at other times as necessary) so that the impact of adopted legislative and correctional initiatives can be incorporated into the new official base projections.

Sincerely,

A handwritten signature in blue ink, appearing to read "James Austin", with a long horizontal flourish extending to the right.

James Austin, Ph.D.