

Memorandum

To: Gary C. Mohr, Director

From: Brian Martin, Assistant Bureau Chief, Bureau of Research and Evaluation

Date: 12/1/2014

Re: Prison Population Projections

Pursuant to ORC section 5120.51, this report presents updated ODRC population projections for the period July 1, 2015 – July 1, 2023. The attached table (Table 1) includes: 1) a baseline projection of future total and female population levels if prison intake remains at its current 2014 level and other key systemic factors remained unchanged; 2) an alternative forecast scenario that models the impact of modest intake reductions likely to be experienced under a program of sustained probation incentive funding; and 3) a revised pre-HB 86 baseline forecast that shows historical and projected reductions relative to population levels that would have been experienced without the reform package.

Recent Patterns and Baseline Projection Summary

The attached line graph (Figure 1) shows population and court intake patterns since January 2011. Intake levels are shown using 4-week moving averages. The total population count has trended above the 50,500 mark for most of 2014, recently surpassing 50,800 for the first time since late 2010. During November 2014, the population has ranged 200-300 higher than one year ago, with females accounting for about half of that increase.

Following a seasonal dip, the population is expected to return to current levels and remain relatively stable, approaching 51,000 again by the start of FY 2016. Specifically, as shown in the first column of Table 1, forecast model results project the total population at 50,794 by July 1, 2015. The female count is projected to be 4,294 by that point. The complete 9-year forecast shows a gradual rise in total population to 51,237 by the end of FY 2016 (July 1, 2016), but not exceeding 53,000 before 2023, assuming no further increases in intake and no other changes in criminal code or underlying crime and recidivism rates. A comparison between actual and projected population 9 months after the model start date revealed a forecasting error rate of less than one tenth of 1%; however, seemingly minor increases in intake of just 1-2% in CY 2015 would render the current projections too low.

Table 1 also presents an alternative forecast scenario tied to sustained grant funding for probation improvement (discussed below); however, the results shown in the first two columns should be regarded as the best currently available estimates for operational and planning purposes.

Assumptions and HB 86 Impact

The baseline model is based on an expected drop of nearly 3% in total commitments in CY 2014. This follows an increase of just over 2% in CY 2013. It further assumes that commitments will remain at their 2014 levels during CY 2015 and for the remainder of the forecast period. There is currently no basis to assume an increase in commitments in 2015 in light of a decline in Ohio's UCR index crime rate of 6.3% in 2013 and additional funding for an expansion of CBCF capacity through FY 2015. On the other hand, since felony case filing information is not yet available for 2014, the model does not assume any additional declines beyond 2014. Any significant change in the ratio of prison to non-prison sentencing dispositions would render the current intake assumptions inaccurate, even without significant changes in the volume of statewide felony caseloads. The rate of growth in female intake has slowed during 2014, following an 11% increase in 2013, and no further increases are assumed in 2015. Females represent 14.4% of total commitments so far in 2014, up from 12.6% 10 years ago.

The baseline projections incorporate the impact of SB 143 (effective September 2014), which is expected to eventually expand placements onto Transitional Control by approximately 400-500 annually; however, the potential inflationary impact of several other crime-related bills pending within the General Assembly has not been incorporated.

Felony 4 and 5 offenders represented less than 46% of total commitments in FY 2014, down roughly five percentage points since FY 2011 (i.e., prior to HB 86). The baseline projections shown here assume that the current distribution of felony levels among new commitments will remain constant across the entire forecast range, reflecting the increased prevalence of more serious offenders under HB 86. Sentence terms imposed on those offenders have increased slightly on average since 2011. Thus, even with no assumed increases in total commitments, the shift upward in length of stay eventually yields fewer releases and a corresponding long range population increase, as reflected in Table 1.

Although the combined effects of PIIG and Smart Ohio incentive funding have contributed in part to the expected 3% drop in intake in 2014, no further diversionary reductions beyond 2014 are assumed in the baseline projections. Instead, an alternative model was developed in order to project the impact of current performance under the incentive grants if sustained at a fixed level over the course of the 9-year forecast period. The model is based on an analysis of current goal performance for counties receiving PIIG funding, extrapolating those reductions to CY 2015 net of CBCF bed expansion effects, and then combining with the additional expected net impact from Smart Ohio Option 1&3 category funding. The model does not assume any diversionary benefit among Option 2 counties, due to differences in funding mechanics and implementation, and since those counties overall have shown increased commitments among target populations so far in 2014. Using the results from this analysis, the baseline projection model was modified to simulate an additional net reduction of 500 F4/F5 commitments, sustained annually, across the entire 9 year forecast. The impact of this hypothetical scenario is shown in the 3rd and 4th columns of Table 1. The numbers show a potential population impact of 300-400 fewer inmates in the near term, growing to over 600 in later years.

Finally, the last two columns of Table 1 present updated information on the impact of HB 86, both historically and projected, by July 2015. The results are based on revising the final pre HB 86 projection model from 2011 to reflect actual intake trends experienced through 2014, adjusted by adding back in diversionary reductions experienced so far under the law. All other model parameters that were used to describe the prison population before HB 86 were retained. The results from the model show a current projected impact of 955 by July 2015, primarily reflecting the effects of fewer F4/F5 commitments, but with modest additional saving from expanded earned credit and the modified sentencing range for F3 offenders. They also represent a sharp downward revision from the savings of 2,500-3,000 originally projected before implementation of the law. The differences are due mainly to overestimating the eventual impact of diversionary provisions and incorrectly assuming a fuller implementation of several other aspects affecting length of incarceration.

Table 1. ODRC Prison Population, Actual & Projected, July 2012- July 2023

	Baseline ("as-is") model		Grant funded community alternative impact model		Pre-HB 86 baseline model	
	October 2014 Projection (Total Population)	October 2014 Female Population Projection	October 2014 Projection (Total Population)	October 2014 Female Population Projection	Revised 2011 Pre-HB 86 Baseline	Current Estimate of HB 86 Impact
7/1/2012*	49,713	3,794			50,477	764
7/1/2013*	50,419	4,001			50,979	560
7/1/2014*	50,510	4,099			51,402	892
Projected:						
7/1/2015	50,794	4,294	50,583	4,253	51,749	955
7/1/2016	51,237	4,475	50,858	4,429		
7/1/2017	51,261	4,508	50,913	4,489		
7/1/2018	51,350	4,412	51,077	4,470		
7/1/2019	51,808	4,545	51,484	4,539		
7/1/2020	52,315	4,609	51,808	4,526		
7/1/2021	52,607	4,633	51,985	4,521		
7/1/2022	52,923	4,607	52,250	4,476		
7/1/2023	52,844	4,587	52,229	4,497		

* Actual population

Figure 1. ODRC Population Counts and Weekly Court Commitments (4 week moving average), Jan 2011 - Nov 2014

