



Oregon Corrections Population Forecast

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Background

The Office of Economic Analysis produces the semi-annual Oregon Corrections Population Forecast which provides projections of the offender populations supervised by the Department of Corrections (DOC). The forecast estimates the number of inmates in the state prison system, offenders on probation, parole, and post-prison supervision, and felony offenders serving sentences of 12 or fewer months in county jails.

Executive Order 95-06 directs the Department of Administrative Services and the Corrections Population Forecasting Advisory Committee to produce the forecast. The forecast is mandated to estimate monthly populations over a ten-year period and is published April 1 and October 1 of each year. State agencies, in particular the DOC and the Oregon Criminal Justice Commission, are mandated to use the forecast for budgeting and policy development where the offender population is concerned.

The advisory committee is comprised of individuals with knowledge of the criminal justice system. It meets several times before each forecast to discuss issues related to the inmate population.

Corrections Population Forecasting Advisory Committee

Honorable Julie Frantz (Chair)
Todd Anderson
Jason Carlile
Greg Hazarabedian
Craig Prins
Donald Rees
Chief Rosanne M. Sizer
Jeff Wood
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Multnomah County Chief Criminal Judge
Tillamook County Sheriff
Linn County District Attorney
Public Defender Services of Lane County
Criminal Justice Commission Executive Director
Multnomah County Deputy District Attorney
Portland Police Bureau Chief
Director Marion County Community Corrections
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Trends and Forecast Methodology

Inmate Population

The inmate forecast uses a model which simulates the flow of inmates from intake to prison, through their stay, and departure as prisoners are released. The primary driver of the forecast in the short term is the release rate of the existing population base. In the long term, new intakes drive population trends. Since sentence information is known for existing inmates, releases can be modeled based on historical release patterns, whereas new intakes are forecasted.

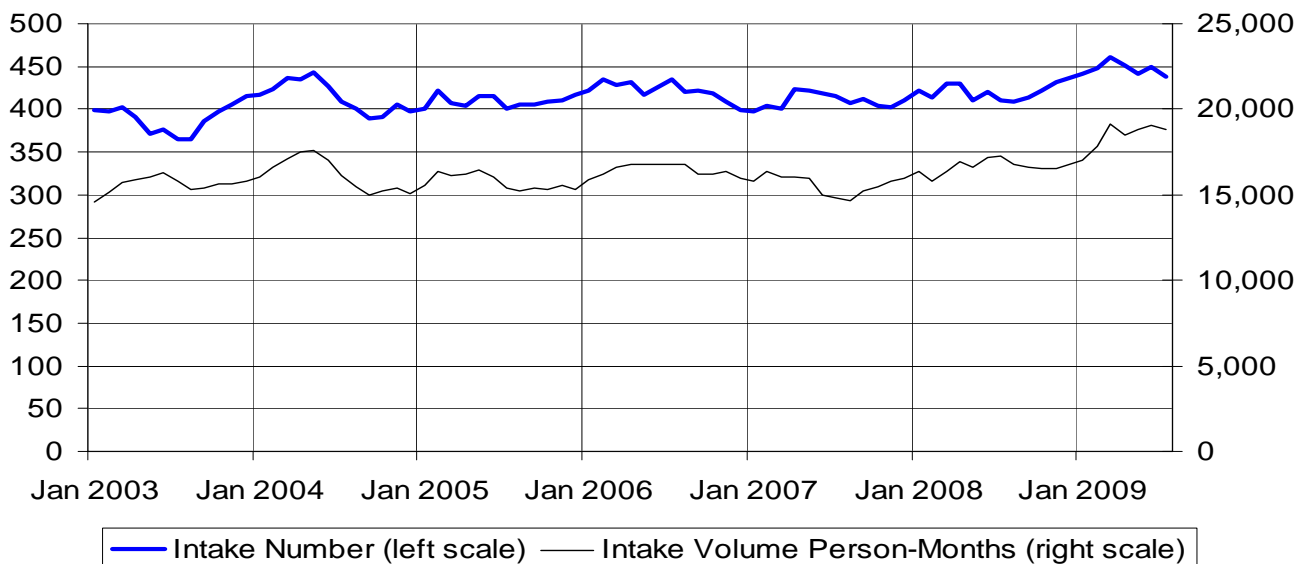
Intakes are forecasted based on historical trend. The trend integrates demographics, criminal justice practices, and other factors which influence intakes and sentence lengths. This trend builds to a baseline forecast. The forecast relies on history beginning in 2003; as trends prior to that are not instructive because of the influence of significant law and policy changes.

Trends in criminal activity do not form the base for the forecast since they do not historically correlate with the prison population. Criminal activity (e.g., as measured by arrests and reported crime) has generally decreased in Oregon over the past decade, while the prison population has increased significantly. The increase is primarily due to changes in sentencing laws, such as Measure 11 and repeat property offender laws, both of which lengthened prison sentences.

The intake forecast relies on the simple number of intakes per month and on the concept of intake volume – the number of bed-months to be used by new inmates. Intake volume, in person-months, is the number of inmates multiplied by the length of stay for each. For example, 3 inmates, each with a 10 month stay, would contribute 30 person-months to the volume. This is an apt measure for forecasting since it captures length of stay information, which influences the population prospectively.

Measured monthly over the past six years, the trend in intake and intake volume has been quite variable, but the underlying trend has been flat or slightly upward (depending on the specific timeframe looked at). Similarly, the number of intakes each month has not shown a significant trend up or down. Figure 1 shows the moving average of monthly intakes and intake volume. The slight upturn in late 2008 through mid 2009 is primarily attributed to increased intakes for person-to-person crimes.

FIGURE 1 – Prison Intakes and Intake Volume



Since mid 2007, intake volume has increased more relative to the number of intakes meaning that the average sentence length of new inmates has increased. This is due primarily to an increase in person offenses with long sentences; the rate of intakes for sentences over five years has increased from approximately 60 per month to nearly 80 per month over this period following declines from 2004 to mid 2007.

Each forecast month starts with a base population distributed based on expected length of stay. Lengths of stay less than one month represent inmates who will be released and are removed from the model. The intake volume is projected for each month and flows into the base of inmates for the next month. The equation below represents the elements:

$$\textit{Population Base (Month 2)} = \textit{Population Base (Month 1)} + \textit{Intakes} - \textit{Releases}$$

Breakdowns of the inmate population by gender and security risk level are based on historical trends.

Community Corrections Populations

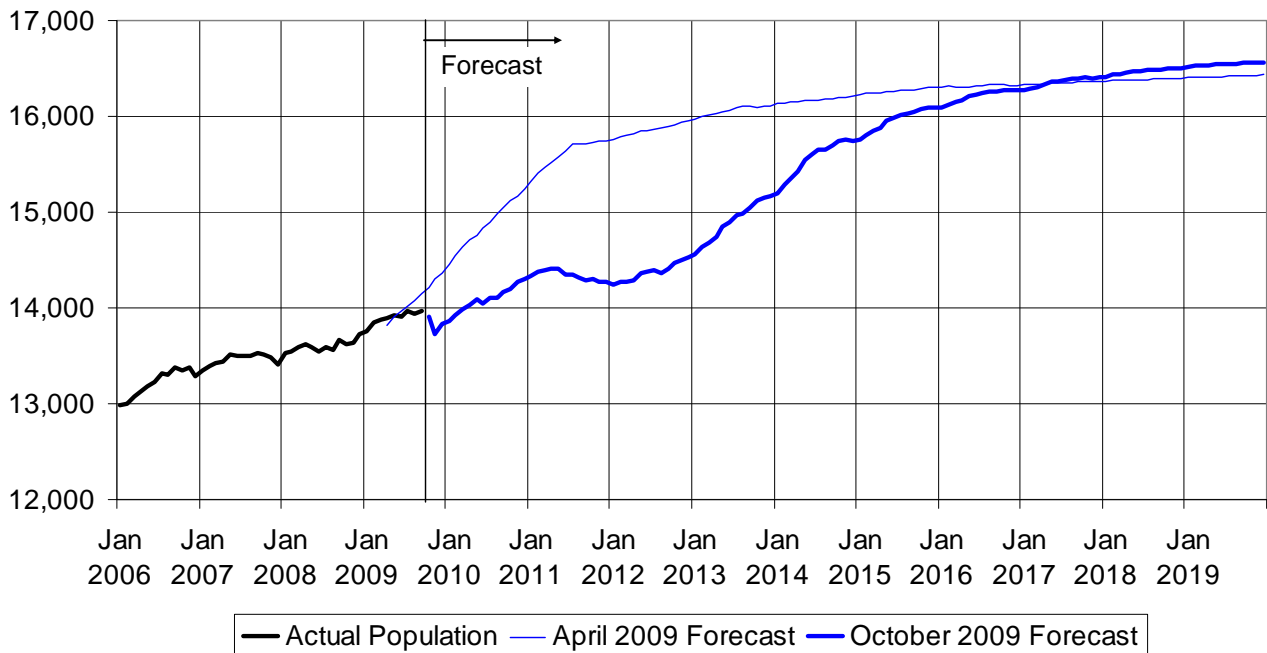
The community corrections forecasts rely primarily on the relatively stable historical trends in the respective populations. The populations have tracked with trends with the exception of the local control jail population. This population showed a significant drop from long term trend in recent months. This is most likely due to changes in individual county practices in an effort to reduce jail populations, not underlying criminal trends. For the parole and post prison supervision population, the forecast uses historical trends adjusted for projected outflows from the inmate population.

Forecast

Prison Inmate Population

The prison population in September 2009 was nearly 14,000, or 2.2 percent higher than one year before. Without the effects of law changes from Measure 57 (2008) and HB 3508 (2009), the population would be expected to grow at an annual rate of 2 to 3 percent through mid 2010, with growth slowing to less than 1 percent in the outer years of the forecast. With the law changes, the population is expected to increase, decrease, and increase again over the forecast horizon. In the outer years of the forecast, the annual growth rate re-stabilizes to less than 1 percent. The graph below shows the forecast population through 2019. The most significant change in the forecast versus the April forecast is the impact of HB 3508 and revised estimates regarding the timing of Measure 57 impacts.

Figure 2 – Prison Population Forecast



In the baseline scenario (absent recent law changes), the forecast assumes that intakes, and the distribution of their sentence lengths, follow historical averages which display gradual growth. The current base of inmates reflects a pool of remaining sentences which is larger than is historically typical (on average, longer remaining sentences) due to the recent increase in person crime intakes. This leads to a stronger baseline growth rate over the next several years: current inmates will not be leaving as fast as new inmates come in. In the outer years, the current base of inmates with longer sentences tends to flush out, and growth rates will slow.

The oscillating pattern of population through 2012, and the relatively rapid growth from 2013 to 2016, is attributable to law changes. Through consultation with the Corrections Population Forecasting Advisory Committee, the forecast accounts for the impact of Measure 57 and HB 3508 per the analysis done for the Voter Pamphlet and legislative fiscal impact with updates for recent data. The impacts of these law changes are described beginning on page 8. It is expected to be years before sufficient statistical data is available to ascertain the actual impact of law changes.

Community Corrections

Community corrections includes felony offenders who are supervised by the Department of Corrections, but are not in prison. The forecast projects the felony probation caseload, local control population (incarceration in jail), and post-prison supervision and parole (Parole/PPS). Each group is forecasted separately for budgeting purposes. The community corrections forecasts rely primarily on relatively stable historical trends in the respective populations.

The local control population dropped significantly in mid 2008, departing from historical trend. Anecdotal information indicates that the drop is associated with county-level efforts to decrease the jail population, and that these new practices will continue in the future. The forecast incorporates a continued reduction of approximately 100 beds associated with this change, and a transitory reduction of 150 beds associated with the jail time limits for probation revocation created in HB 3508.

The probation population forecast baseline follows historical trend with adjustments to reflect the most recent population numbers, the temporary suspension of Measure 57, and for revoked probationers serving less jail time.

The parole population incorporates adjustments for both the suspension of Measure 57 and for the increased earned time included in HB 3508.

The three graphs below show the actual historic population (heavy black line), the current forecast (heavy blue line), and the previous forecast (light blue line) for the local control, the probation, and the parole/PPS population groups.

Figure 3 – Local Control

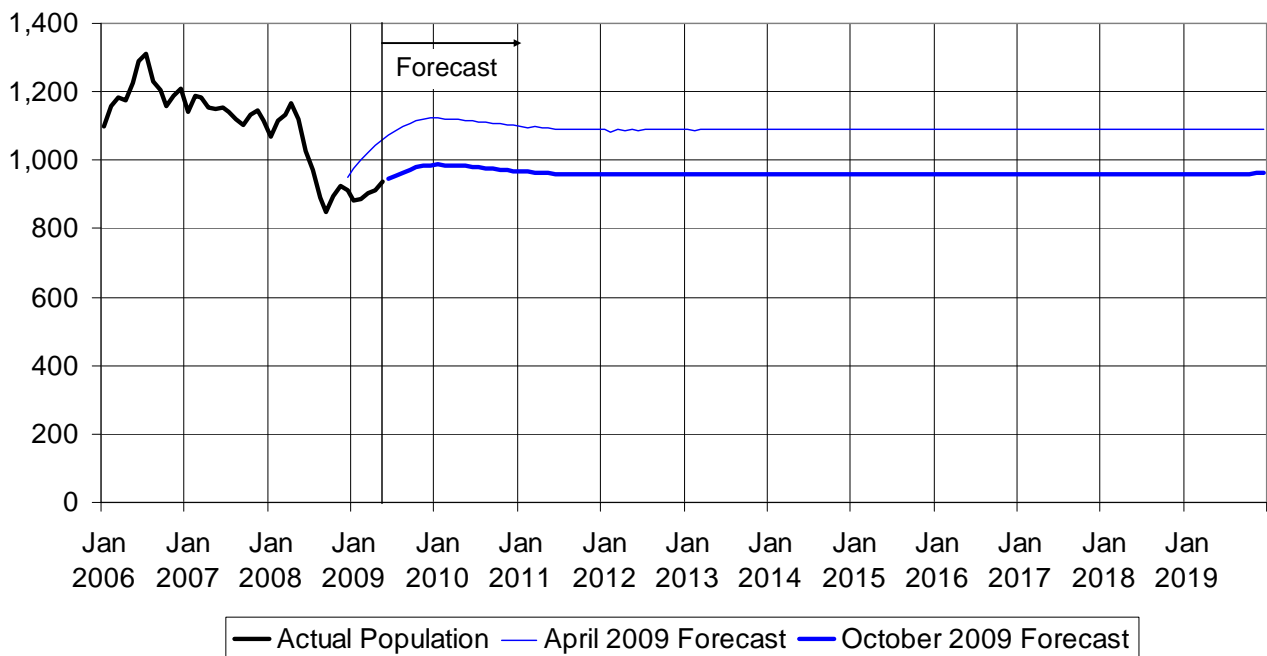


Figure 4 – Probation Caseload

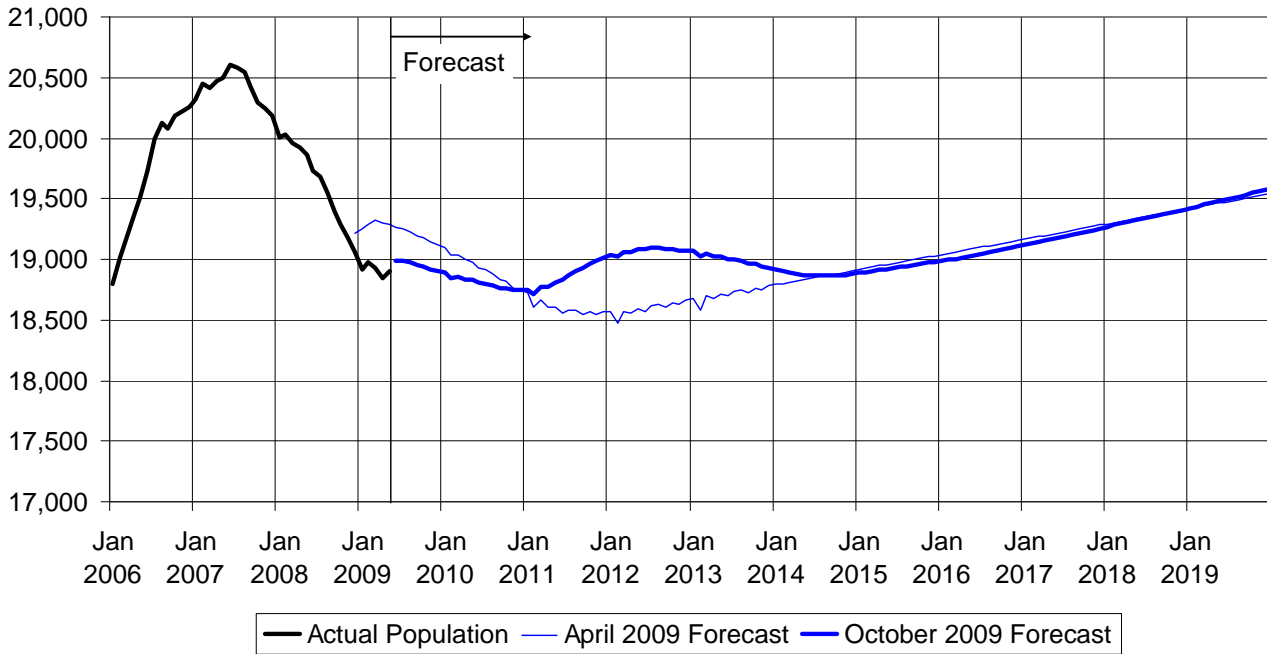
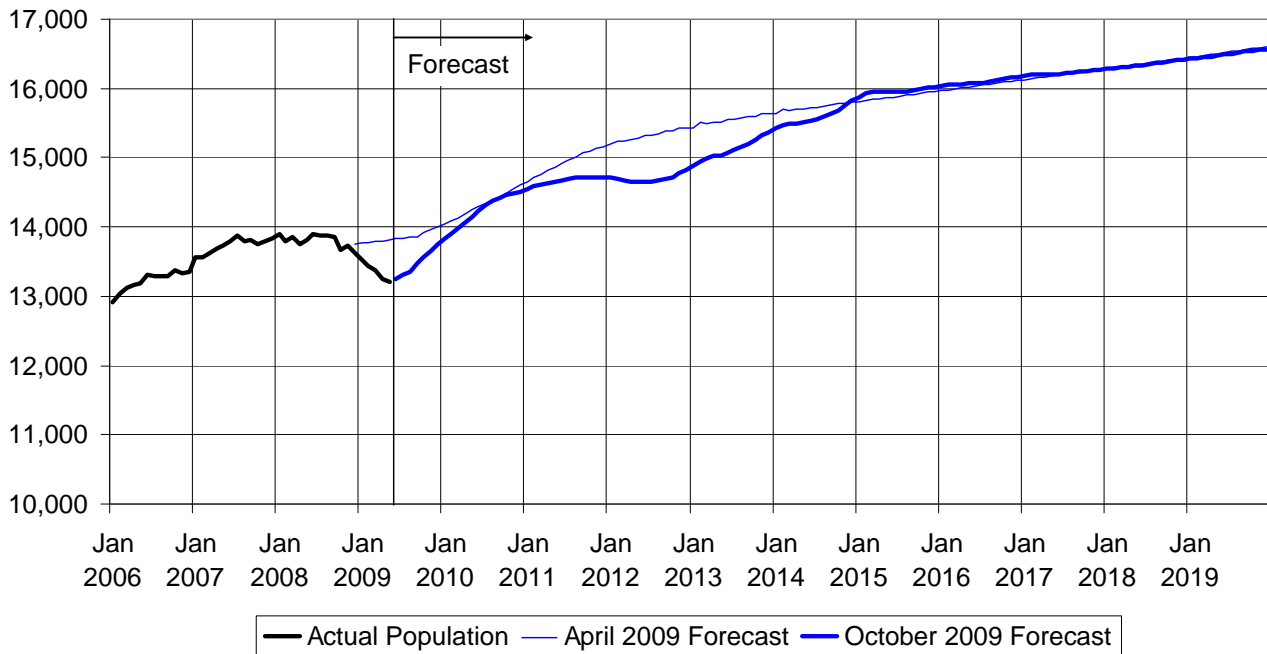


Figure 5 – Parole and Post-Prison Supervision Caseload



Law Change Impacts

Measure 57 (2008)

This measure toughens crime laws for repeat property offenders, drug crimes involving significant substance amounts, and certain person crimes. In particular, property offenders receive a prison sentence if they reoffend after two prior property offenses (as opposed to four priors under previous law), and the associated prison sentence is longer. In the outer years of the forecast this measure adds approximately 1,700 beds to the inmate forecast. It also affects the probation and parole/PPS populations. In the short- and mid-term, the impact of this measure is significantly changed by HB 3508 (see below), which temporarily suspends some aspects of Measure 57.

House Bill 3508 (2009)

This bill suspends Measure 57 from February 2010 to January 2012 with respect to much of the toughened property crime laws of Measure 57. This mitigates the affect of Measure 57 until the outer years of the forecast. The estimated impact for the forecast integrates both the law changes of HB 3508 and new estimates for Measure 57 with updated timing. The forecast includes impacts to the probation, inmate, and parole/PPS populations.

A further reduction in the inmate population results from an increase in the amount of earned time inmates can acquire; earned time is a reduction in time served for good behavior. Previously, the maximum earned time reduction was 20 percent of the sentence. This bill increases it to 30 percent for certain qualifying inmates and is in effect until July 2013, although the reduction in the population continues through the forecast horizon. While in full effect, this provision reduces the forecast by approximately 450 beds. The earned time reduction affects the parole/PPS population by increasing the rate at which inmates flow from prison to PPS. The forecast includes adjustments to both the inmate and the parole/PPS populations.

The bill also removes some administrative and reporting requirements associated with granting executive clemency to certain inmates subject to Immigration and Customs Enforcement deportation orders who waive objection to deportation. The forecast follows legislative fiscal estimates in assuming that some such inmates will be released for deportation earlier than otherwise expected.

House Bill 3508 Section (5)(b) includes a provision limiting incarceration for probation revocation sanctions to 60 days. The budget report describes the provision under the "Probation Revocation" section of that document. No impact is included in the forecast for this provision. Based on discussions with the Department of Corrections, the forecast assumes that the revocation sanctions do not change the supervision status from probation even when the probationer is serving the jail time for the sanction. Therefore it does not affect the probation population estimates. Based on the same assumption, the provision does not affect any other population in the forecast.

For more information on HB 3508, see the fiscal impact statement at:

<http://www.leg.state.or.us/comm/sms/fis09/bhb3508bjwm06-25-2009.pdf>

House Bills 2343 and 2476 (2009)

These law changes have a relatively small impact increasing the inmate population. HB 2343 expands the definition of "mentally incapacitated" in relation to sex crimes; HB 2467 specifies that sexual abuse II be crime category 8 when the offender is the victim's sports coach. The forecast adopts the budgeted impacts for each of these bills.

Forecast Detail Tables

Monthly forecast numbers for the population of prison inmates, probation cases, local control jail population, and parole/post-prison cases are in spreadsheet format as an appendix to this document. The spreadsheet also breaks down the inmate population by gender and security risk level. See the following link.

<http://oregon.gov/DAS/OEA/corrections.shtml>.

Forecast Risks

The forecast assumes that current laws and current criminal justice practices continue as they are now. It also assumes trends in criminal activity continue and demographics follow expected trends. If those and other assumptions fail, the forecast is at risk.

Law enforcement and judicial system practices have a significant effect on the flow of individuals through the court system and into the prisons. Emphasis on specific criminal activity and plea practices, for example, can change based on law enforcement policy.

The forecast is a high level look at the prison population, and does not attempt to predict the population on a given day. From month to month, intakes and releases vary considerably. Due to that, differences from forecast of more than 100 can reasonably be expected for a given month.

There are several specific risks that could impact the prison population as early as 2010.

Measure 57/HB 3508 – Just as occurred with Measure 11, the impacts that these law changes have on the prison population will be greatly dependent on the manner in which the laws are applied by local officials. While this forecast does include estimates of expected impacts from these changes, the actual impacts could differ significantly. Further complicating the picture is the fact that, even retrospectively, the actual effects will be difficult to separate from changes in underlying trends meaning that the true impact of these law changes may never be known with precision.

Governmental Budgetary Conditions. The state budget has been cut for the current biennium and the 2009-11 biennium is expected to have budgets with service levels below what is currently in place. Similarly, many local governments are being forced to make difficult budget choices that will likely impact the law enforcement, prosecution, and criminal incarceration. Reductions in law enforcement, local detainment systems, and court systems could change the flow of criminals to the prison and community corrections systems in ways that are difficult to predict.

Economic Conditions. Poor economic conditions are often thought of as a driver of crime. This may be partially true, in particular with regard to property crime, although the effect is not believed to be significant. On the other hand, given Oregon's strict sentencing for repeat property criminals, if property crime increases significantly the inmate population could increase more rapidly than expected.

Law Changes. Sentence lengths as opposed to crime rates are the most significant driver of the inmate population. Sentencing law changes have historically been the largest source of forecast error. As a result, the extent to which the impact from Ballot Measure 57 differs from expectations will increase forecast error. There have also been numerous bills introduced in the current legislative session which would change what defines felony criminal activity and could impact the forecast if passed.

In the outer years of the forecast, fundamental shifts in criminal tendencies in the general population pose a risk to the forecast. For example, over the past decade overall crime rates, including serious person crimes, have dropped. If that pattern were to reverse itself over the coming decade, the corrections population could expand well beyond current forecast.