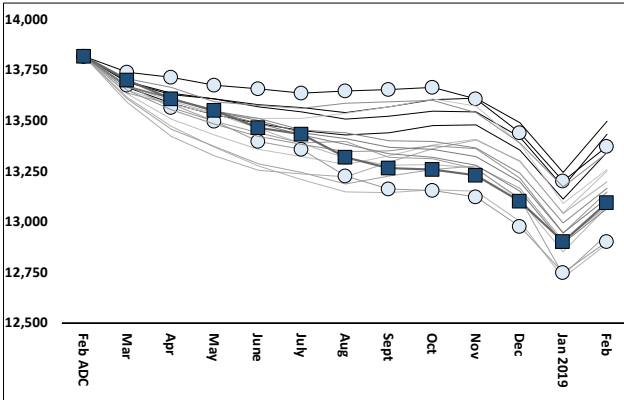


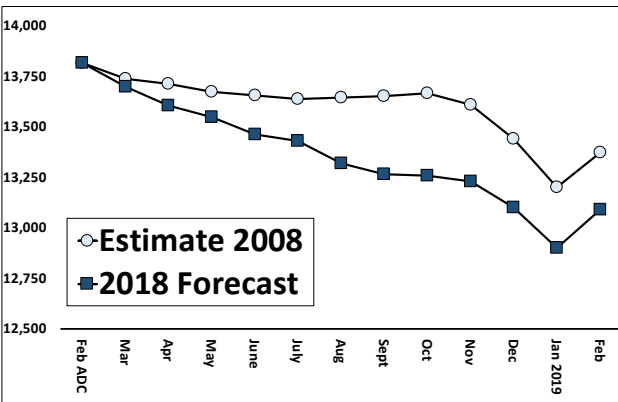
Constructing the Forecast

To demonstrate the impact history on OPM's prison population forecast, we have outlined two scenarios below. Historical trend data is major component of the forecast, but deciding how much historical data to fold into a prediction can be difficult. Too much and the forecast can be too conservative, too little and it becomes too aggressive.



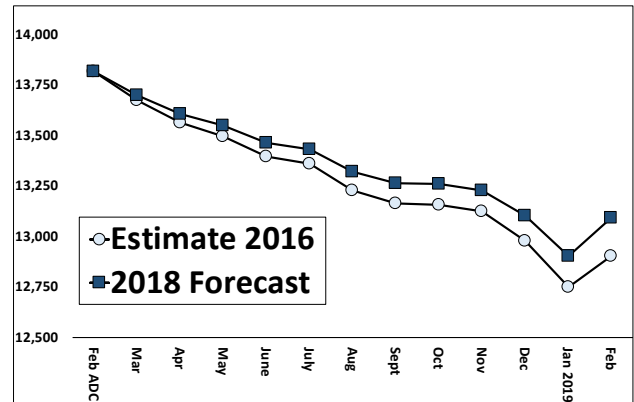
Before selecting a forecast, OPM ran 20 scenarios. The chart above shows the various models and how they diverge as the year plays out. The line near the center, in bold squares, is the 2018 forecast. The two lines highlighted with light circles will be discussed in more detail below.

CT prison population projection 10 years of data



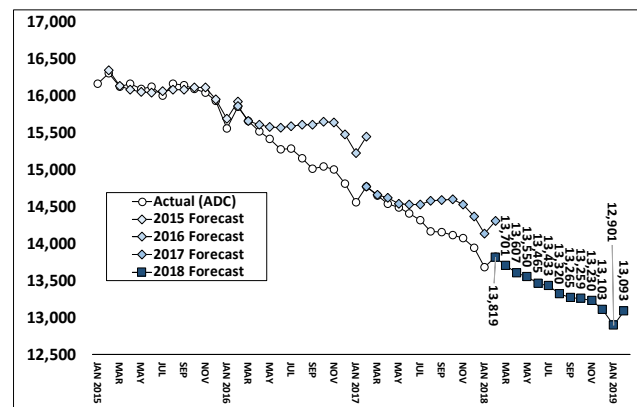
A forecast that includes ten years of data will produce a far too conservative prediction. To hedge for years of growth, the model shows much less of a drop-off. Using 10 years of historical data leads to a projected drop of 445 inmates (-3%) far too conservative.

CT prison population projection 2 years of data



Creating a projection that uses only two years of data leads to an overly aggressive prediction. The population fell by 6.8% in 2016 and 6.5% in 2017 – an average of 6.6% - a larger decrease, in percentage terms, than last year. This is unrealistic given that the drop off seems to be slowing, not accelerating.

CT prison population 2015-2018



Forecasts in 2016 and 2017 overshot the actual population by considerable margins leading to a more aggressive prediction in 2018.

Prison population, 2008 to 2019

