



# THE BUCKEYE INSTITUTE

## The Facts: A Cost Savings Analysis of Bail Reform

Ohio’s current cash bail system is in dire need of reform, it is an inefficient, expensive, unfair means of protecting communities that has proven no guarantee to stopping repeat offenders. As the debate over bail reform continues, The Buckeye Institute analyzed the estimated statewide cost savings that will result from a reduced jail population due to the use of verified risk-assessment tools.

Looking at Summit County, which uses verified risk-assessment tools to inform pretrial detention decisions, Buckeye found that Ohio will realize an annual cost savings of **\$67,136,121** if it reforms its cash bail system and gives judges greater flexibility to use proven evidence-based, risk-assessment tools to assess the risk an individual poses to the community rather than relying on cash bail.

As seen in Table 1 in the methodology, The Buckeye Institute used data from official government sources to arrive at the statewide cost savings.

- Total inmates statewide, excluding Summit County: 18,858<sup>1</sup>
- Total inmates in Summit County (after they adopted risk-assessment tools): 667<sup>2</sup>
- Inmates awaiting sentencing statewide, excluding Summit County: 10,666<sup>3</sup>
- Inmates awaiting sentencing in Summit County (after they adopted risk-assessment tools): 457<sup>4</sup>
- Statewide average of the daily cost per inmate: \$64.45<sup>5</sup>
- Total reduction of days in jail in Summit County, yearly total estimate: 60, 918<sup>6</sup>

### Methodology: How the Savings Were Calculated

Cost savings calculations were arrived at using the following formula:

$$Savings_{OH}^{Year} = Inmates_{OH}^{Daily} \times Cost_{OH}^{Daily} \times 365 \times \%Reduc_{Summit} \times \left( \frac{\%Pretrial_{OH}}{\%Pretrial_{Summit}} \right)$$

<sup>1</sup> 2016 Jail Sentenced Status Data, Bureau of Adult Detention, Department of Rehabilitation and Correction, June 30, 2017, on file with author.

<sup>2</sup> *Ibid.*

<sup>3</sup> *Ibid.*

<sup>4</sup> *Ibid.*

<sup>5</sup> **House Bill 439 of the 132<sup>nd</sup> General Assembly Fiscal Note & Local Impact Statement**, Ohio Legislative Service Commission, March 20, 2018.

<sup>6</sup> Jonathan Witmer-Rich, Jay Milano, Carmen Naso, and Mary Jane Trapp, Cuyahoga County ***Bail Task Force: Report and Recommendations***, March 16, 2018.

Buckeye looked at Ohio's total daily inmate population ( $Inmates_{OH}^{Daily}$ ), multiplied by the average daily cost of each inmate ( $Cost_{OH}^{Daily}$ ), multiplied by 365 days, multiplied by the proportional reduction experienced by Summit County ( $\%Reduc_{Summit}$ ), multiplied by the ratio of Ohio's pretrial percentage to Summit County's ( $\frac{\%Pretrial_{OH}}{\%Pretrial_{Summit}}$ ).

Because the reform only affects bail eligible inmates who are awaiting sentencing, Buckeye estimated the reduction in inmate population statewide by comparing the proportion of pretrial inmates in Ohio statewide with that of Summit County.

Due to the absence of data indicating the numbers of pretrial inmates in Summit County who were eligible to be released on bail, Buckeye assumed that a similar proportion of pretrial inmates will be affected. Thus, the number indicates the savings if Ohio's pretrial inmate numbers are reduced in a similar proportion to Summit County's.

Based on this data and the assumptions outlined the savings are calculated:

$$Savings_{OH}^{Year} = 18,858 \times \$64.45 \times 365 \times .20 \times \frac{.566}{.748} = \$67,136,121.25$$

**Statewide Cost Savings**

In order to properly estimate the proportion of pretrial inmates in Summit County *if they had not been released due to the reform*, the daily average for the reduction in jail days experienced by Summit County was calculated by dividing their reported yearly total for reduced jail days by 365.

$$Reduc_{Summit}^{Daily} = \frac{Reduc_{Summit}^{Year}}{365} = \frac{60,918}{365} = 166.9$$

The proportion of remaining pretrial inmates reported on a single day plus the daily average of the reduction they reported as being due to the reform were divided by the total inmates in Summit County on a single day after the reform, plus the daily average of the reported reduction. Adding the average daily reduction in jail days to the observed inmates on a single day allows us to estimate what the proportion of pretrial inmates would be if the reform had not occurred.

$$\%Pretrial_{Summit} = \frac{Pretrial_{Summit}^{Daily} + Reduc_{Summit}^{Daily}}{Inmates_{Summit}^{Daily} + Reduc_{Summit}^{Daily}} = \frac{457 + 166.9}{667 + 166.9} = .748 = 74.8\%$$

The proportional reduction in total inmates is found in a similar fashion: dividing the reported daily average reduction by the remaining inmates on a single day plus the daily average reduction.

$$\%Reduc_{Summit} = \frac{Reduc_{Summit}^{Daily}}{Inmates_{Summit}^{Daily} + Reduc_{Summit}^{Daily}} = \frac{166.9}{667 + 166.9} = .20 = 20\%$$

The proportion of pretrial inmates statewide was found by taking the proportion of inmates awaiting sentencing to total inmates. All statewide numbers exclude Summit County, as Summit County has already experienced the effects of bail reform.

$$\%Pretrial_{OH} = \frac{Pretrial_{OH}^{Daily}}{Inmates_{OH}^{Daily}} = \frac{10,666}{18,858} = .566 = 56.6\%$$

To estimate the proportional reduction in inmates statewide, researchers assumed that a similar proportion of pretrial inmates would be released if a similar policy was implemented. This can be written thus:

$$\frac{\%Reduc_{OH}}{\%Pretrial_{OH}} = \frac{\%Reduc_{Summit}}{\%Pretrial_{Summit}}$$

Rearranged, this implies:  $\%Reduc_{OH} = \%Reduc_{Summit} \times \frac{\%Pretrial_{OH}}{\%Pretrial_{Summit}}$ , as it appears in Buckeye’s formula.

This shows how many fewer inmates Ohio will have if the effect is equal to what Summit County experienced, adjusted by the ratio of Ohio’s fraction of pretrial inmates to Summit County’s. Because Ohio has a smaller fraction of pretrial inmates, the estimated reduction effect is proportionally smaller.

**Table 1: Data Used to Calculate Cost Savings**

Description of Data	Indicated in Equation As	Value
Total inmates statewide, excluding Summit County	$Inmates_{OH}^{Daily}$	18,858
Total inmates in Summit County (after they adopted risk-assessment tools )	$Inmates_{Summit}^{Daily}$	667
Inmates awaiting sentencing statewide, excluding Summit County	$Pretrial_{OH}^{Daily}$	10,666
Inmates awaiting sentencing in Summit County (after they adopted risk-assessment tools)	$Pretrial_{Summit}^{Daily}$	457
Statewide average of the daily cost per inmate	$Cost_{OH}^{Daily}$	\$64.45
Total reduction of days in jail in Summit County, yearly total estimate	$Reduc_{Summit}^{Year}$	60,918

Sources: Department of Rehabilitation and Correction, Ohio  
Legislative Service Commission, Cuyahoga County Bail Task Force

