An hourglass is the background of the entire page, with sand falling from the top bulb to the bottom bulb. The hourglass is centered vertically and horizontally. The top bulb is mostly empty, while the bottom bulb is filled with sand. The sand is a light, grainy texture. The background is a dark, muted purple color.

# The Relationship Between Sentence Length, Time Served, and State Prison Population Levels

**Gerald G. Gaes**

Criminal Justice Consultant, Robina Institute of Criminal Law and Criminal Justice

**Julia Laskorunsky**

Research Scholar, Robina Institute of Criminal Law and Criminal Justice

February 2023



Task Force on  
Long Sentences

## ABOUT THE COUNCIL

The Council on Criminal Justice is a nonpartisan criminal justice think tank and national invitational membership organization. Its mission is to advance understanding of the criminal justice policy choices facing the nation and build consensus for solutions based on facts, evidence and fundamental principles of justice.

The Council does not take policy positions. As part of its array of activities, the Council conducts research and convenes independent task forces composed of Council members who produce reports with findings and policy recommendations on matters of concern. The findings and conclusions in this research report are those of the authors alone. They were not subject to the approval of the Council's Board of Directors or its Board of Trustees.

For more information about the Council, visit [counciloncj.org](https://counciloncj.org)

## ABOUT THE AUTHORS

**Gerald Gaes**, Ph.D., is a criminal justice consultant and Visiting Scholar at Florida State University in the College of Criminology and Criminal Justice. He was director of research for the Federal Bureau of Prisons and retired from government service in 2002.

**Julia Laskorunsky**, Ph.D., is a Research Scholar at the Robina Institute of Criminal Law and Criminal Justice. She was formerly a deputy project director and research assistant for Development Services Group, Inc., where she worked on multiple projects for the Office of Juvenile Justice and Delinquency Prevention and the National Institute of Justice.

## ACKNOWLEDGEMENTS

This paper was produced with support from Arnold Ventures, the Ford Foundation, Southern Company Foundation, and Stand Together Trust, as well as #StartSmall, the John D. and Catherine T. MacArthur Foundation, and other CCJ general operating contributors.

### Suggested Citation

Gaes, G. & Laskorunsky, J. (2023). *The relationship between sentence length, time served, and state prison population levels*. Council on Criminal Justice.  
<https://counciloncj.foleon.com/tfls/long-sentences-by-the-numbers/the-relationship-between-sentence-length-time-served-and-state-prison-population-levels>

# Introduction

In Spring 2022, the Council on Criminal Justice (CCJ) launched the Task Force on Long Sentences. The group of 16 experts represents a broad range of experience and perspectives, including crime victims and survivors, formerly incarcerated people, prosecutors, defense attorneys, law enforcement, courts, and corrections. Its mission is to examine how long prison sentences—defined as sentences of 10 years or more—affect public safety, crime victims and survivors, incarcerated individuals and their families, communities, and correctional staff, and to develop recommendations to strengthen public safety and advance justice. The analysis presented here was commissioned by the Task Force to examine the relationship between sentence length and actual time served in prison.

Previous research for the Task Force shows that in recent years the share of the total U.S. prison population with sentences of 10 or more years has increased, driven by fewer people serving shorter terms. In 2019, 56% of people in prison were serving a long sentence, up from 46% in 2005. Over the same period, there was a 60% increase in the average amount of time served by people who were released after serving a long sentence.<sup>1</sup>

This work builds on research conducted as part of the Robina Institute of Criminal Law and Criminal Justice's Prison Release: Degrees of Indeterminacy (DOI) project, which examined the statutory and administrative policy frameworks that govern prison release (and thus time served) in each state,<sup>2</sup> evaluated how these policies produced sizeable changes to time served in Colorado,<sup>3</sup> and explored how back-end release discretion affects prison population levels across the United States.<sup>4</sup> This brief summarizes the relevant findings from the DOI project and provides additional analysis of the relationship between sentence length and time served.

# KEY TAKEAWAYS

- + Actual time served in prison is often quite different from the sentence length pronounced in court, and therefore sentence length alone only partially explains the individual and policy-level implications of long sentences.
- + The relationship between sentence length and time served varies greatly across states and jurisdictions due to the difference in the legal and statutory framework that governs prison release.
- + States that have higher than average sentence length also have higher than average time served, but the relationship between these two factors is modest.
- + The average judicial maximum sentence in states with highly indeterminate systems (7 years) is twice as long as in highly determinate states (3.5 years). However, the difference in average time served in highly indeterminate and highly determinate states is much narrower, ranging between 2.1 and 2.6 years.
- + Some states are much more likely to impose long prison sentences than others. The proportion of people entering prison with long sentences ranges from 2% in Colorado to 66% in Michigan.<sup>5</sup>
- + Individuals serving long sentences in states with highly determinate systems spend, on average, nearly three times as long in prison as individuals serving long sentences in states with highly indeterminate systems.
- + Nationally, back-end factors such as the allocation of sentence credit discounts, and for paroling states, the parole release framework explain more of the variation (60%) of average time served than variation in average sentence length (40%).
- + States with identical average sentence length can have different average time served based on the degree of indeterminacy and back-end factors. For example, Oregon and Texas both had an average sentence length of 4.4 years in 2016, yet the average time served in Texas (2.1 years), a state with a high degree of indeterminacy, was lower than in Oregon (3.5 years), a state with a low degree of indeterminacy.

## GLOSSARY OF TERMS

- + **Average time served:** The average amount of time an individual serves in prison in any given state or jurisdiction
- + **“Back-end” authorities:** The criminal justice system stakeholders who have the authority to grant or withhold discretionary parole release, clemency, and sentence credit discounts
- + **“Back-end” release discretion:** Mechanisms by which an incarcerated individual’s judicial maximum sentence can be reduced, including discretionary parole release, clemency, and sentence credit discounts
- + **Degree of indeterminacy:** A summary measure of the amount of discretion back-end authorities have to release an incarcerated individual prior to the judicial maximum sentence. This can be interpreted as a measure of unpredictability in time served when compared to the judicial maximum sentence. As the degree of indeterminacy increases, unpredictability of time served increases.
- + **Earned time:** Sentence credit discounts awarded to incarcerated individuals for work program participation, or exemplary behavior
- + **Good time:** Sentence credit discounts typically awarded by default to incarcerated individuals who follow their correctional plan and avoid serious misconduct
- + **Indeterminate sentencing:** A prison release framework used by 34 states that provides most incarcerated people opportunities to be considered for discretionary parole release. Paroling states fall along a spectrum of indeterminacy based on the generosity of sentence credit discounts and timing of parole eligibility.
- + **Judicial maximum sentence:** The longest amount of time an individual can be incarcerated, also referred to as the *longest time-served scenario*
- + **Long sentences:** The Task Force on Long Sentences defines long sentences as prison sentences of 10 years or more. Many state and federal statutes use 10 years as either the maximum or minimum allowable term of imprisonment.
- + **Longest time-served scenario:** The longest amount of time an individual can serve on their judicial sentence
- + **Mandatory release date:** The date an incarcerated individual must be released from prison; this could occur prior to the judicial maximum due to discretionary parole release, clemency, or sentence credit discounts

## GLOSSARY OF TERMS (CONT.)

- + **Parole:** The discretionary release of an incarcerated individual under post-release supervision conditions by a case review board. Typically, parole eligibility occurs after an individual serves a required percentage of the judicial maximum sentence.
- + **Parole eligibility date:** The date at which an incarcerated individual becomes eligible for parole release
- + **Potential population decrease:** The amount by which a state or jurisdiction's total prison population would decrease if back-end authorities awarded the maximum sentence credit discounts and, for paroling states, released individuals at the parole eligibility date
- + **Potential population increase:** The amount by which a state or jurisdiction's total prison population would increase if back-end authorities awarded no available sentence credit discounts and, for paroling states, denied parole release
- + **Sentence credit discounts:** Refers to good time and earned time credits, which can reduce time served
- + **Sentence length:** The sentence length pronounced in court that generally specifies the maximum amount of time an individual can serve in prison, and may also specify a minimum amount of time a person must serve prior to release
- + **Shortest time-served scenario:** The shortest amount of time an individual can serve on their judicial sentence given parole eligibility and all possible sentence credit discounts
- + **Time served:** The actual amount of time an individual spends in prison before their initial release

## FACTORS AFFECTING TIME SERVED

Once someone has been sentenced to prison, several factors influence how long that person will actually spend behind bars. And even when the judicial sentence length in two states is the same, an individual's time served may vary widely. This discrepancy is due to at least two major factors, which Kevin Reitz and colleagues have detailed in their policy and legal review of prison release systems across the U.S.<sup>6</sup>

First, in almost all states, time served is affected by sentence credit discounts, such as good time and earned time. Across the U.S., there is considerable variation in how much

good time and earned time individuals can receive. Systematic information on how much time individuals are awarded through sentence credit discounts is sparse, although there is evidence that good time is rarely denied.<sup>7</sup> For states in which sentence credit discounts accrue at an established rate over time, Reitz and colleagues consider credit amounts that subtract 0-19% from sentence requirements to be “minimal,” 20-39% to be “average,” and 40% and above to be “generous.”<sup>8</sup> Sentence credit discounts are most consequential in states where they move up the mandatory release date, thus guaranteeing an individual’s release, rather than moving up the parole eligibility date, which may or may not result in release based on the parole board’s decision.

Second, time served is dictated by each state’s statutory and administrative policy frameworks that govern prison release. In states with determinate sentencing frameworks, which do not have discretionary parole release, time served depends solely on the sentence credit discounts discussed above. In indeterminate sentencing states, which have discretionary parole, time served depends on sentence credit discounts as well as the timing of parole eligibility and the prevailing tendency for parole boards to grant release. Parole boards often have a wide berth of discretion in their decision making, which affects patterns of release and contributes to variation in those patterns. Descriptive research by Reitz and colleagues shows that these two systems of release—determinate and indeterminate—differ not only significantly across states, but also within states, depending on the conviction offense.<sup>9</sup>

### **Degree of indeterminacy: The combined effects of parole and sentence credit discounts**

In fact, there is so much variability in the allocation of good and earned time, and the timing of parole release in states using indeterminate sentencing structures, that Reitz and colleagues argue that states are best classified by their overall *degree of indeterminacy*.<sup>10</sup> Indeterminacy is a summary measure of the amount of discretion authorities have to release an incarcerated person prior to the maximum sentence assigned by a judge. It is, in essence, a measure of unpredictability in time served in relation to the judicial sentence. If time served is knowable within a small range, then the degree of indeterminacy is low, and vice versa. As Reitz and colleagues have shown, jurisdictions are extremely variable in their degree of indeterminacy, and states with equivalent average sentence lengths can have different average time served because of this discrepancy. This suggests that any analysis of the impacts of long sentences should also include the impacts of release indeterminacy.

The benchmarks below provide a summary measure of indeterminacy for individual sentences or classes of sentences. However, every state system can have a variety of sentence classes – some highly indeterminate, others highly determinate. To arrive at a ranking for the state’s entire prison-sentencing system, Reitz and colleagues combined

the most common sentencing classes in each state and estimated the percentage of incarcerated people who fell into each sentence class. While these rankings are subjective, they provide a more nuanced categorization over the conventional binary of “indeterminate” and “determinate.” See Figure 1 for benchmarks associated with each of the five rankings. Table A-2 in the Reitz and colleagues’ report<sup>11</sup> lists the degrees of indeterminacy for each state, the types of offense classes these rules apply to, and an estimate of how much indeterminacy can affect the size of a state or jurisdiction’s prison population. The fundamental takeaway from the analysis is that disparities in time served across states and jurisdictions are at least as much a product of the differences in back-end release discretion as they are of the differences in average sentence length.

## FIGURE 1: BENCHMARKS FOR RANKINGS OF “DEGREES OF INDETERMINACY”

***Extremely High Indeterminacy:*** First prospect of release at 0-19.9% of judicial maximum sentence

***High Indeterminacy:*** First prospect of release at 20-39.9% of judicial maximum sentence

***Moderate Indeterminacy:*** First prospect of release at 40-59.9% of judicial maximum sentence

***Low Indeterminacy:*** First prospect of release at 60-79.9% of judicial maximum sentence

***Extremely Low Indeterminacy:*** First prospect of release at 80-100% of judicial maximum sentence

*Note: Adapted with permission from Reitz, et al., 2022, p. 20.<sup>12</sup>*

### **The relationship between sentence length, time served, and prison population size across the U.S.**

This section provides a comparative analysis of state average sentence length, average time served, and changes to prison population levels given potential revisions to good and earned time credits and parole discretion when applicable.

National Corrections Reporting Program (NCRP) prison admission and release data<sup>13</sup> show that there are significant differences in average sentence length and average time served across prison systems.<sup>14</sup> When sentencing practices are examined along a continuum, states can be categorized as having low, average, or high average sentence lengths. However, the relationship between differences in sentence length and actual

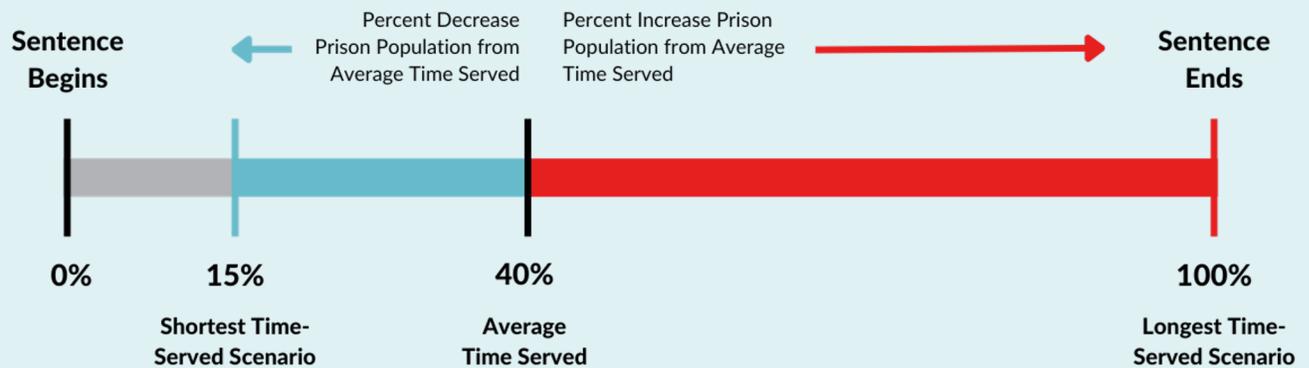
time served is complex. As explained below, states with higher-than-average sentence lengths also have higher than average time served, yet this relationship is not linear due to wide variation in back-end release discretion.

A state or jurisdiction's prison population size is determined by two factors—the number of prison admissions and average time served. To isolate the effect of time served, the DOI project developed state by state calculations of how much each state's prison population would change if the average length of time served increased or decreased, assuming no changes to the rate of admissions. The factors that determine time served include a state's statutory sentencing framework, its allocation of sentence credit discounts, and for paroling states, the parole release framework.<sup>15</sup> Back-end authorities can influence average time served within the statutory and administrative policy frameworks that guide sentencing in their state and within the boundaries set by the judicial sentence (i.e., the minimum, maximum, and parole eligibility date for paroling states). Depending on the statutory sentencing framework and the length of the judicial sentence, time served can be shortened or increased dramatically. Thus, back-end authorities with release discretion can influence the size of a state or jurisdiction's prison population by facilitating or inhibiting the release of incarcerated individuals.<sup>16</sup>

### **Shortest and longest time-served scenarios**

Within each judicial sentence, there is a range of time an individual could potentially serve. Figure 2 provides a visualization of this, using a hypothetical state with an average time served of 40% of the judicial maximum sentence. The *shortest time-served scenario* (vertical blue line) represents the shortest possible time an individual could serve—shown as a percent of their judicial sentence—if they earned all available sentence credit discounts and, in paroling states, if the parole board granted release when they first became eligible. The *longest time-served scenario* (vertical red line) represents the judicial maximum sentence. Individuals who earn no sentence credit discounts—or who lose those discounts—and who are in a non-paroling state or who are denied release by the parole board in a paroling state may serve the entire length of their judicial sentence.<sup>17</sup> Within this range, however, each state has a status quo *average time served* (vertical black line) which represents the average point in the judicial sentence at which individuals are released. This value falls between the shortest and longest term scenarios, although evidence suggests it often lies closer to the shortest time-served scenario as opposed to the longest.

**FIGURE 2: THE SHORTEST AND LONGEST TIME-SERVED SCENARIOS RELATIVE TO AVERAGE TIME SERVED**



Assuming no changes to the rate of prison admissions or average sentence length, if back-end authorities continued to make the same decisions they have always made, then the average time served would remain steady and there would be no changes in the size of the prison population. However, back-end authorities could also choose to act more leniently—expanding access to sentence credit discounts and releasing people closer to their first parole eligibility date—which would decrease average time served and thus decrease the size of the prison population. A comparison of the average time served to the shortest time-served scenario as described here produces the *potential population decrease*. If, on the other hand, back-end authorities choose to act more severely—withholding sentence credit discounts or denying parole release—average time served and, by extension the prison population, would increase. A comparison of the average time served to this longest time-served scenario produces the *potential population increase*. Since many states award sentence credit discounts and set parole eligibility dates based on the nature and severity of the conviction, potential population increase/decrease indices were also calibrated using categories of offense seriousness. Details of this work are described in Gaes and Laskorunsky.<sup>18</sup>

## THE CURRENT STUDY

The analysis below relies on the indeterminacy framework developed by Reitz and colleagues, as well as NCRP data from 2016 prison releases, to answer the following questions:

- + What is the relationship between sentence length and time served?
- + How does the level of prison release indeterminacy affect time served?
- + Do states with higher proportions of individuals serving long sentences have more room to increase their prison population size due to changes in back-end release discretion, when compared to states with lower proportions of long sentences?
- + Do states with higher proportions of individuals serving long sentences have more room to increase their prison population size due to changes in back-end release discretion, when compared to states with lower proportions of long sentences?

### Wide range in average sentence length, but narrow range in average time served

The findings presented in Table 1 show a 12-year range in the average sentence length for all incarcerated people across the 39 states with reported data. Average sentence length spans a high of 14.8 years in Michigan and Mississippi to a low of 2.4 years in North Dakota.<sup>19</sup> The range in average time served is significantly narrower. Michigan has the highest average time served, 4.2 years, about three years greater than the lowest average time served among the states—1.2 years in North Dakota. However, even a three-year increase in time served would have a substantial impact on the prison population for any specific state or jurisdiction. For example, the 2021 prison population in Michigan was 32,186. A three-year increase in time served would increase the prison population to 54,959 people by 2024 if the prison admission rate remained steady.

**TABLE 1: STATE SPECIFIC MEASURES OF SENTENCE LENGTH, TIME SERVED, AND THE SIZE OF POTENTIAL INCREASES OR DECREASES TO THE PRISON POPULATION. 2016 RELEASES.**

	Avg. sentence length (all incarcerated people, years)	Avg. time served (all incarcerated people, years)	Proportion serving 10+ Years	Avg. Sentence length (people serving long sentences, years)	Avg. Time Served (people serving long sentences, years)	Potential population decrease (i)	Potential population increase (ii)	DOI measure (iii)
Colorado	3.35	2.34	2%	33.4	14.6	33%	36%	H
Ohio	2.75	2.01	3%	14.8	13.6	9%	39%	L
Maine	2.64	1.78	2%	28.1	12.1	2%	44%	LL
Oregon	4.42	3.46	10%	31.5	11.7	2%	24%	LL
North Carolina	3.65	2.05	7%	16.7	11	36%	58%	LL
Arizona	3.07	2.35	4%	12.8	10.9	2%	25%	LL
Kansas	2.57	1.74	3%	14.9	10.9	6%	62%	LL
Florida	4.51	2.75	10%	15.9	10.8	2%	64%	LL
California	4.49	2.31	8%	15.1	10.2	13%	104%	L
Massachusetts	4.37	3.12	10%	13.7	10.2	27%	36%	M
New York	4.85	3.43	9%	15.3	9.9	36%	41%	M
Rhode Island (iv)	1.29	0.83	2%	16.2	9	47%	53%	H
Texas	4.42	2.14	11%	18	8.9	47%	130%	H
South Carolina	4.56	2.38	16%	14.3	8.8	39%	115%	H
Wisconsin	6.84	2.91	17%	15.9	7.9	14%	154%	L
New Jersey	5.09	2.64	10%	12.9	7.8	28%	136%	M
Nebraska	6.74	2.49	20%	19.9	7.7	2%	186%	M
U.S. Average (39 states)	5.53	2.33	18%	17.2	7.5	22%	138%	--
New Hampshire	7.34	2.22	24%	34.1	7.4	2%	70%	H
Pennsylvania	6.5	3.01	21%	15.6	7	41%	120%	M
Missouri	6.75	1.95	20%	13.7	6.8	2%	358%	H
Wyoming	7.37	2.71	18%	17.8	6.7	23%	173%	H
Oklahoma	2.75	2.51	37%	15.7	6.3	18%	195%	H
Louisiana	5.9	2.22	18%	14.4	6	2%	200%	L
Indiana	5.22	1.71	12%	16.9	5.9	8%	86%	M
Alabama	6.01	2.32	24%	17.4	5.8	42%	189%	HH
Minnesota	4.03	2.91	8%	17.3	5.8	7%	38%	L
North Dakota	2.35	1.18	2%	10.6	5.8	66%	117%	H
Mississippi	14.76	4.24	26%	16.4	5.6	2%	302%	H
Michigan	14.76	4.24	66%	20	5.3	59%	306%	H
Nevada	5.67	1.83	15%	13.9	4.7	64%	212%	HH
South Dakota	5.86	1.81	25%	14.8	4.4	3%	200%	M
Kentucky	5.07	1.25	16%	13.7	4.2	13%	205%	H
Georgia	10.75	2.76	46%	16.5	4	2%	256%	H
Utah	8.37	2.7	34%	15	3.4	77%	291%	HH
Montana	10.13	2.1	37%	19.1	3.2	3%	322%	H
Iowa	7.84	1.9	35%	15	2.7	44%	219%	HH
Washington	3.05	2.13	45%	10.3	1.7	5%	43%	L
Delaware (iv, v)	0.83	0.46	--	--	--	2%	63%	L
Illinois (v)	4.7	1.87	--	--	--	17%	105%	H

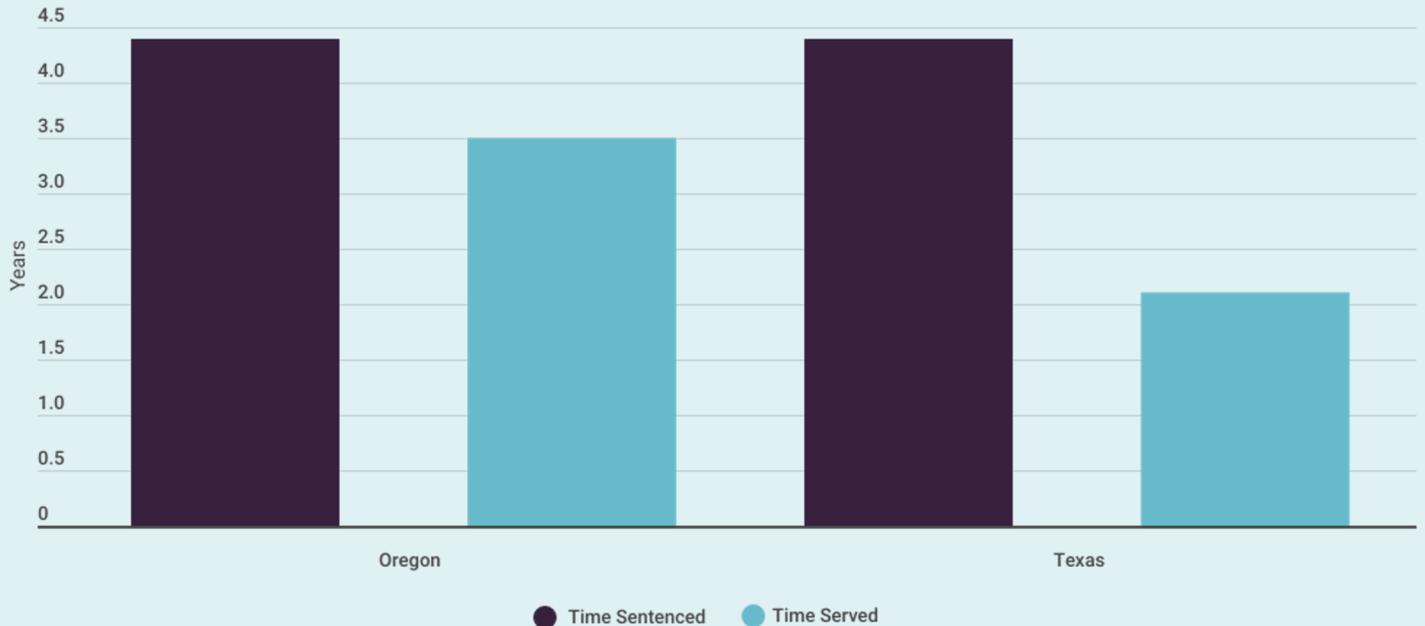
*Notes: (i) Potential Population Decrease = the decrease that would occur if states moved to the shortest possible time-served scenarios given their current average sentence lengths; (ii) Potential Population Increase = the increase that would occur if states moved to the longest possible time-served scenario given their current average sentence lengths; (iii) DOI Measure = Degree of Indeterminacy Measure calculated by Reitz and colleagues (2022).<sup>20</sup> The categories reflect extremely high (HH), high (H), moderate (M), low (L) and extremely low (LL) levels of indeterminacy; (iv) Rhode Island and Delaware have a unified prison and jail system, which means time-served metrics reflect a combination of jail terms and prison terms; (v) Due to data limitations in Delaware and Illinois, the proportion of individuals serving 10 years or more as well as their average sentence length and average time served could not be calculated.*

*Sources: Bureau of Justice Statistics. National Corrections Reporting Program, [United States], 2000-2016. Inter-university Consortium for Political and Social Research [distributor], 2019-03-21. <https://doi.org/10.3886/ICPSR37007.v1>; Reitz et al., 2022, Table A-2, p. 136.<sup>21</sup>*

### **Average sentence length in states with high degrees of indeterminacy is twice as long as in states with low degrees of indeterminacy, but there is little difference in average time served**

The findings also show how states with identical average sentence length can have different average time served. For example, Oregon and Texas both have an average sentence length of 4.4 years, yet the average time served in Texas (a high indeterminacy state) in 2016 was 1.3 years lower than in Oregon (an extremely low indeterminacy state). Similarly, states with different average sentence lengths may have similar average time served. For example, on average incarcerated people in both Montana and North Carolina serve just a little over 2 years. Yet in Montana (a high indeterminacy state), the average sentence length is over 10 years, compared to 3.7 years for North Carolina (an extremely low indeterminacy state). Therefore, the relationship between sentence length and time served is not linear, but rather is a function of the degree of indeterminacy in any given state.

**FIGURE 3: COMPARISON OF SENTENCE LENGTH AND TIME SERVED IN OREGON AND TEXAS**



**Wide variation exists in the proportion of people serving long sentences across states, ranging from 2% to 66%**

These state differences in average sentence length are also apparent in what proportion of individuals are serving sentences of 10 years or more. For example, 66% of individuals sentenced to prison in Michigan received a long sentence, and that group, on average, had a sentence length of 20 years. Yet this long sentence length group in Michigan serves, on average, 5.3 years—or approximately one quarter of that sentence—before release. In contrast, only 2% of individuals in North Dakota receive a judicial sentence of 10 years or more, with that group having an average sentence length of 10.6 years. However, despite having an average sentence length nearly twice as long, individuals with long sentences in Michigan spend less time in prison (5.3 years) when compared to people with long sentences in North Dakota (5.8 years). It should be noted that states with a high proportion of people serving long sentences do not necessarily have more punitive criminal justice systems. For example, states that focus incarceration on those individuals who have committed the most serious offenses and divert individuals with less serious offenses into noncustodial alternatives would have a high proportion of long sentences.

## **60% of the difference in time served between states is due to factors beyond sentence length**

Higher-level statistical analysis can determine to what extent the length of the judicial sentence affects time served, as compared to other factors such as back-end release discretion. Across states, the average correlation between time served and prison sentence length is 0.63, which signals a moderate, positive relationship. This means that, on average, as sentence length increases, time served also increases. Another way of saying this is that 40% of the variation observed in average time served across states is accounted for by differences in average sentence length. The remaining 60% of the variation in average time served is due to other factors, including, most notably, differences in back-end release discretion across state systems. This means that factors such as whether an individual receives parole in paroling states or is awarded sentence credit discounts have a larger impact on total time served than the initial sentence.

## **Judicial sentence only partially explains time served**

Multiple regression analysis was used to specify this relationship more concretely. Results indicate that for every 1-year increase in sentence length above the national average sentence length, there is a 2-month (58.4-day) increase in time served. This means that, on average, an individual sentenced to an additional year would spend just about two additional months in prison. Applying this logic to long sentences, if the average national sentence length was increased by 10 years, then time served would increase by 1.6 years, or approximately 19 months. In other words, states with higher-than-average sentence lengths will also have higher-than-average time served, but the direct effect of sentence length on time served is modest.

## **A state's degree of indeterminacy influences its sentence length and time served**

Table 2 shows the relationship between degrees of indeterminacy, sentence length, and time served, distinguishing all prison sentences from long sentences. States with the highest degree of indeterminacy also have the longest overall average sentence lengths. In fact, the average sentence length in states with extremely high indeterminacy (7 years) is twice as long as the average sentence length in states with extremely low indeterminacy (3.5 years). However, the proportion of sentence served also decreases as indeterminacy goes up. Individuals in states with Extremely High (HH) or High (H) indeterminacy serve about a third of their total sentence, which translates to 2.2 and 2.3 years, respectively.

These results underscore the leverage states with a high degree of back-end discretion have over time served. They have the greatest ability to bring down time served from the total sentence length. That is, while sentence length is higher than average in states with high or extremely high indeterminacy, time served is on par with other states due to

the tendency for states to release people closer to the shortest time-served scenario using back-end release discretion. This means, however, that states with high or extremely high indeterminacy also have the greatest ability to increase average time served should they restrict access to release mechanisms including parole and sentence credit discounts.

In contrast, the lack of discretion in low indeterminacy states becomes particularly consequential when examining long prison sentences. Table 2 shows that when examining long sentences only, individuals in lower indeterminacy states have longer time served. In fact, people with sentences of 10 years or more in Extremely Low (LL) indeterminacy states spend, on average, nearly three times as long in prison when compared to individuals in Extremely High (HH) indeterminacy states. This means that there are few opportunities for back-end authorities to release people in the absence of parole or expanded sentence credit discounts.

**TABLE 2: A COMPARISON OF AVERAGE SENTENCE LENGTH, AVERAGE TIME SERVED, AND AVERAGE PROPORTION OF SENTENCE SERVED, 2016.**

Degree of Indeterminacy	Average Sentence Length (Years)	Average Time Served (Years)	Average Proportion of Sentence Served	Average Sentence/10+ Year Sentences	Average Time Served/10+ Year Sentences	Average Proportion of Sentence Served/10+ Year Sentences
Extremely High (HH)	7	2.2	31%	15.3	4.2	27%
High (H)	6.7	2.3	34%	18.5	6.8	37%
Moderate (M)	5.5	2.6	47%	15.6	7.6	49%
Low (L)	4	2.1	53%	14.6	7.5	51%
Extremely Low (LL)	3.5	2.4	69%	20	11.2	56%

Sources: Bureau of Justice Statistics, 2019; Reitz et al., 2022, Table A-2, p. 136.<sup>22</sup>

### States with high degrees of indeterminacy could see prison populations grow dramatically if they began to restrict back-end release discretion

Figure 4 displays the relationship between the proportion of long sentences within each state and the size of the potential prison increase if back-end authorities became less favorable in their release decisions. As noted above, states tend to release people closer to the shortest time-served scenario than the longest time-served scenario and therefore changes to back-end release discretion can increase—but not decrease—the prison population dramatically. That is, if states with a high degree of indeterminacy restricted access to sentence credit discounts and decreased parole releases, the number of individuals in prison would begin to grow. Remember that individuals in Extremely High (HH) indeterminacy states are serving 27% of a long sentence compared to individuals in Extremely Low (LL) indeterminacy states who serve 56% of a long sentence. Therefore, reductions in back-end release discretion in an Extremely High (HH) indeterminacy state could result in dramatic increases in time served, should those states move more toward the longest time-served scenario.

**FIGURE 4: RELATIONSHIP BETWEEN POTENTIAL PRISON POPULATION INCREASES AND PROPORTION OF LONG SENTENCES.**



States with higher proportions of long sentences show the largest hypothetical increases in their prison populations because they have larger upper bounds for time served and individuals, on average, are serving a smaller proportion of their judicial sentence. For example, approximately 20% of the prison population in Missouri, which represents the highest dot on the graph, is serving a long sentence. Should Missouri move from the status quo time served to the longest time-served scenario, the prison population could increase by up to 350%. This means that Missouri's 2019 prison population of 26,044 would balloon to 91,154 as releases ground to a halt.

## **POLICY IMPLICATIONS AND FUTURE RESEARCH DIRECTIONS**

Debates about long sentences should include consideration of the effects of indeterminacy and back-end release discretion, because the same sentence given in two different states can lead to vastly different outcomes. In states with lower degrees of indeterminacy, people will serve the majority of their long sentence. Those in states with higher degrees of indeterminacy, however, are only expected to serve a portion of that sentence.

### **Is there an optimal degree of indeterminacy?**

Given the major differences observed between states in sentence length, but not in time served, there is utility in identifying whether states should adopt higher or lower degrees of indeterminacy. Comparative research is needed to explore the relationships between degrees of indeterminacy, time served, and post-release re-arrest or reincarceration. Research could also examine whether and how engaging in prison-based education or rehabilitative programming mediate these relationships.

Additionally, little is known about how higher degrees of indeterminacy, and therefore greater uncertainty about release dates, affect victims and survivors, individuals serving long sentences, and their family members. More research is needed to determine whether systems with higher or lower degrees of indeterminacy are more effective at producing judicial sentences that are proportional to the crime. Finally, courts may determine sentence length according to an *expectation* of how long someone will serve, thus issuing longer sentences in states with higher degrees of indeterminacy. Comprehensive research that seeks to determine whether there is an optimal level of indeterminacy is needed.

### **Further research needed on promising mechanisms to reduce prison populations**

As described, states are releasing incarcerated individuals closer to their shortest time-served scenario than to their longest time-served scenario. This means there is potential

for back-end authorities to increase time served—and thus increase state prison populations—but substantially less potential to reduce time served within current state statutory and administrative frameworks that govern prison release. Reductions in the prison population, therefore, will be achieved by reductions in the number of prison admissions, rather than increases in back-end release discretion.

States with higher degrees of indeterminacy typically have a parole release mechanism, and therefore these states have the greatest potential to increase or decrease the prison population through back-end channels alone. This makes the size of the prison population highly dependent on the discretion of parole boards, which are not typically equipped with the tools needed to engage in responsive and effective prison population management.<sup>23</sup> A policy and research agenda aimed at developing and evaluating the effectiveness of promising mechanisms for prison population control, including presumptive parole release, is warranted.

### **Increasing transparency and standardizing decision-making for back-end release decisions**

The findings presented in this brief underscore the power of back-end authorities to influence time served and, by extension, the size of the prison population in a state or jurisdiction. Yet, parole boards and correctional authorities in charge of sentence credit discounts have less oversight of their decisions, fewer procedural safeguards in place, and fewer professional standards for membership when compared to the standards in place for judges and those involved in initial sentencing.<sup>24</sup> Increasing transparency and standardizing decision-making within and across states and jurisdictions—including setting clear criteria for release eligibility and parole guidelines—is needed. Increasing the collection of and access to data on how release decisions are made will facilitate this process.

One limitation of this research is that the analyses focus on time served during the initial sentence, which can underestimate the total time served, particularly in states with high degrees of indeterminacy. In states with high degrees of indeterminacy, people typically serve some portion of their sentence in prison and, after discretionary parole release, they serve the remaining portion of that sentence under parole supervision. Thus, paroled individuals are still under correctional supervision for years after they leave prison. In most states, when an individual does not meet the conditions of their release (e.g., failing to check in with the parole officer, not securing employment, or engaging in illegal activity, including substance use), they can be returned to prison to serve some or all of the time remaining on their sentence when they were paroled. In some states, such as Pennsylvania, individuals who are returned to prison for a new offense lose the time they served toward their original sentence on parole release, which means they serve more time than their original maximum sentence.<sup>25</sup> Future research is needed to examine

variations in time served and whether it varies by a state's degree of indeterminacy, as well as whether having people serve extended periods of time in the community under parole supervision enhances public safety and facilitates reentry success.

# Endnotes

---

<sup>1</sup> Council on Criminal Justice. (2022). *Long sentences by the numbers*. <https://counciloncj.foleon.com/tfls/long-sentences-by-the-numbers/>

<sup>2</sup> Reitz, K., Rhine, E., Lukac, A., & Griffith, M. (2022). *American prison-release systems: Indeterminacy in sentencing and the control of prison population size. Final Report*. Robina Institute of Criminal Law and Criminal Justice. <https://robinainstitute.umn.edu/publications/american-prison-release-systems-indeterminacy-sentencing-and-control-prison-population>

<sup>3</sup> Gaes, G., & Laskorunsky, J. (2022a). *Factors affecting Colorado parole release decisions*. Robina Institute of Criminal Law and Criminal Justice. <https://robinainstitute.umn.edu/publications/factors-affecting-colorado-parole-release-decisions>

<sup>4</sup> Gaes, G. & Laskorunsky, J. (2022b). *The relationship between backend release decisions and prison population levels*. The Social Science Research Network. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4354275](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4354275)

<sup>5</sup> This paper does not examine differences in offenses, availability of sentencing alternatives, or other factors that could help explain variation in state use of long prison sentences.

<sup>6</sup> Reitz et al., 2022: *supra* note 2.

<sup>7</sup> At a national level, evidence shows that incarcerated individuals seldom lose good time. According to data from the Bureau of Justice Statistics, 3.5% of incarcerated individuals in the survey reported that they had lost good time credits for disciplinary violations. See: Bureau of Justice Statistics. *Survey of Prison Inmates*, United States, 2016. Inter-university Consortium for Political and Social Research [distributor], 2021- 09-15. <https://doi.org/10.3886/ICPSR37692.v4>

<sup>8</sup> See Chapter 6 (pp. 62-77) in Reitz et al., 2022: *supra* note 2.

<sup>9</sup> Reitz et al., 2022: *supra* note 2.

<sup>10</sup> *Ibid.*

<sup>11</sup> *Ibid.*

<sup>12</sup> Reitz et al., 2022, p. 20: *supra* note 2.

<sup>13</sup> This analysis used all prison releases found in NCRP's 2016 dataset among people who were on their initial sentence (i.e., not serving time for a parole revocation). It excluded people who were released due to death, transfer, appeal, or escape. It also excluded life sentences because there were very few individuals serving life terms who were released in any given year. As has been argued previously, research on this subpopulation would be informative and would require its own study. See: Gaes & Laskorunsky, 2022b: *supra* note 4.

<sup>14</sup> Gaes & Laskorunsky, 2022b: *supra* note 4.

<sup>15</sup> *Ibid.*

<sup>16</sup> *Ibid.*

---

<sup>17</sup> The calculations for the longest and shortest time-served scenarios come from the separate state reports created by Reitz and colleagues for the DOI project. These reports are available on the Robina Institute project website (<https://robinainstitute.umn.edu/areas-expertise/doi-state-reports>). When the longest and shortest time-served scenarios differed by offense levels within a state, a weighted average of their release discretion rules was created (i.e., for some states different calculations for each offense group were created and combine based on the proportion they represented of the state's prison admissions). The analysis for average time served was based on the 2016 NCRP release cohort and restricted to 39 states because of limitations in the NCRP data for the other 11 states.

<sup>18</sup> Gaes & Laskorunsky, 2022b: *supra* note 4.

<sup>19</sup> Technically, Delaware and Rhode Island have the lowest average sentence lengths (0.83 and 1.3 years, respectively) and time served (0.46 and 0.83 years, respectively). However, because they are unified systems, these averages include jail terms.

<sup>20</sup> Reitz et al., 2022: *supra* note 2.

<sup>21</sup> Bureau of Justice Statistics. National Corrections Reporting Program, [United States], 2000-2016. Inter-university Consortium for Political and Social Research [distributor], 2019-03-21.

<https://doi.org/10.3886/ICPSR37007.v1>; Reitz et al., 2022, Table A-2, p. 136: *supra* note 2.

<sup>22</sup> Bureau of Justice Statistics, 2019: *supra* note 20; Reitz et al., 2022, Table A-2, p. 136: *supra* note 2.

<sup>23</sup> Reitz, K., Rhine, E., & Lukac, A. (2022). *Policy-based rationality and prison population controls for paroling sentencing systems: Two promising frameworks for reform*. Unpublished manuscript. Available upon request from the authors.

<sup>24</sup> *Ibid.*

<sup>25</sup> See, for example: Conviction for a New Criminal Offense, 37 Pa. Code § 71.4, 1972.

<http://www.pacodeandbulletin.gov/Display/pacode?file=/secure/pacode/data/037/chapter71/s71.4.html&d=reduce>