

The Road From Rhodes: The Impact of Double Celling on State Investment in Incarceration

Exactly forty years ago, the Supreme Court decided Rhodes v. Chapman, holding that Ohio's practice of double celling prisoners did not violate the Eighth Amendment. In contravention of American Correctional Association and architectural minimum standards, the practice has since only continued to spread among prisons as a way to decrease the financial burdens of a rapidly expanding prison population.

Both the COVID-19 pandemic and recent calls for prison abolition have brought the issues of overcrowding and carceral investment to the forefront of the national consciousness. This essay explores the financial costs of incarceration that states are able to avoid by virtue of their double celling practices. First, this essay provides a historical context to double celling, surveying prison space standards and variables designed to measure prison capacity, before drawing on Rhodes v. Chapman as a case study for estimating Ohio's avoided costs before and after Rhodes. Second, this essay examines modern prison expenditures and overcrowding, using those figures to estimate the costs that Alabama's prison system—which spends the least on its inmates—is able to currently externalize.

Both federal and state prison systems should internalize these costs. Currently, governments simultaneously overinvest in the size of their carceral systems while underinvesting in the quality of prisons. This situation allows for the development of a carceral policy disconnected from the actual costs of incarceration. As a start, standards governing minimum space requirements exist and should be enforced. Individual state legislatures have near-plenary power over their prison systems, and Congress can provide incentives for states to comply with humane standards. Congress has direct powers over the federal system, and the executive branch can exercise control over the Federal Bureau of Prisons, an agency housed in the Department of Justice. In addition, much of the confusion around whether or not prisons meet minimum standards in the first place centers around inconsistent and incomplete data. Relevant government authorities should mandate—or at least heavily incentivize—data collection and standardization; otherwise, carceral systems will shield themselves through ambiguous and deficient data.

Permitting double celling has created perverse incentives for prison systems, providing opportunities for prisons to minimize their financial costs at the expense of prisoners' health and safety. COVID-19 has shown us the devastating consequences of such policies. The time to act to curtail Rhodes v. Chapman's reach is now.

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I. INTRODUCTION

In the wake of trans-national protests against police brutality and in support of the Black Lives Matter movement, calls for divestment from prisons have attained a new urgency. Though the literature on prison divestment or abolition predates the protests in the summer of 2020,¹ the public's attention has recently become focused on the resources state governments expend in policing and incarcerating their citizens.² Such attention is long overdue. In 2015, state governments in the United States held over 1.3 million individuals in prison³ at an average cost of \$33,274 per prisoner per year.⁴ The human and financial costs of incarceration are immense.

But behind these numbers lie two interrelated dynamics: an overinvestment in the *use* of incarceration as a response to crime together with an underinvestment in the *quality* of the incarceration that individuals experience. That is, though the United States expends an enormous sum each year keeping people behind bars, on a per-prisoner basis these amounts may not represent what it would or should cost to ensure that certain minimum standards of care are met—such as

¹ See, e.g., ANGELA Y. DAVIS, ARE PRISONS OBSOLETE? (2003), https://collectiveliberation.org/wp-content/uploads/2013/01/Are_Prisons_Obsolete_Angela_Davis.pdf; ANGELA Y. DAVIS, ABOLITION DEMOCRACY (2005); Dorothy E. Roberts, *The Supreme Court 2018 Term—Forward: Abolition Constitutionalism*, 133 HARV. L. REV. 1 (2019); Allegra McLeod, *Envisioning Abolition Democracy*, 132 HARV. L. REV.

1613 (2019); Dan Berger, Mariame Kaba, David Stein, *What Abolitionists Do*, JACOBIN (Aug. 24, 2017), <https://www.jacobinmag.com/2017/08/prison-abolition-reform-mass-incarceration>.

² See, e.g., Gabriella Paiella, *How Would Prison Abolition Really Work?*, GQ (June 11, 2020), <https://www.gq.com/story/what-is-prison-abolition> (“As protests continue to spread in the wake of the police killing of George Floyd, one seemingly radical, decades-old idea has been thrust to the forefront of mainstream discourse: prison abolition.”); K. Agbebiyi, *What We Mean When We Say Abolish Prisons*, REWIRE NEWS GRP. (June 15, 2020), <https://rewirenewsgroup.com/article/2020/06/15/what-we-mean-when-we-say-abolish-prisons/> (“At this moment, more people are talking about prison abolition than at any other time in recent memory.”).

³ E. Ann. Carson & Elizabeth Anderson, *Prisoners in 2015*, BUREAU OF JUST. STAT., U.S. DEPT. OF JUST. 3 tbl.1 (December 2016), <https://www.bjs.gov/content/pub/pdf/p15.pdf>. The numbers amount to more individuals than reported in other countries in the world, including China. Roy Walmsley, *World Prison Population List*, INST. FOR CRIM. POL’Y RSCH. 2 (11th ed. 2015), https://www.prisonstudies.org/sites/default/files/resources/downloads/world_prison_population_list_11th_edition_0.pdf

⁴ Chris Mai & Ram Subramanian, *The Price of Prisons*, VERA INST. JUST. (2017), <https://www.vera.org/publications/price-of-prisons-2015-state-spending-trends/price-of-prisons-2015-state-spending-trends/price-of-prisons-2015-state-spending-trends-prison-spending> (including costs only for the 45 states that filled out the survey).

adequate living space or quality healthcare. While it may therefore be true that the United States over-spends on incarceration relative to its total population, it may also be true that the United States *under*-spends relative to the number of people it has incarcerated.

Constitutional adjudication of prisoners' rights can affect the costs of incarceration—a point often made when correctional administrators defend their current practices and contemplate the remedies proposed. What the law—via the courts—permits (or forbids) affects the investments states are required to make when holding people in detention. In theory, the more it costs to put a person in prison, the less attractive the use of incarceration should become; in practice, carceral policies may prove resistant to cost pressures.⁵ Regardless of the exact relationship between incarceration rates and the costs of incarceration, however, when state governments avoid shouldering the full costs of their carceral policies, they also avoid the pressures (budgetary, political, or otherwise) that might otherwise be brought to bear on such decisions.⁶

⁵ See, e.g., MARIE GOTTSCHALK, *CAUGHT: THE PRISON STATE AND THE LOCKDOWN OF AMERICAN POLITICS* 25-26 (2016) (arguing that budgetary pressures have historically not reduced incarceration rates, but rather have induced legislators to make cuts in other areas); RUTH WILSON GILMORE, *GOLDEN GULAG: PRISONS, SURPLUS, CRISIS, AND OPPOSITION IN GLOBALIZING CALIFORNIA* 26 (linking the prison boom in California to surplus labor and capital in the 1980s); Brian Highsmith, *On Reimagining State and Local Budgets in an Abolitionist Moment*, LPE PROJECT (June 5, 2020), <https://lpeproject.org/blog/on-reimagining-state-and-local-budgets-in-an-abolitionist-moment> (“It would be a mistake to imagine these [carceral] policy choices as being driven mainly by fiscal pressures—or that mechanical budget reallocations might be sufficient to dismantle these systems of oppression.”). *But cf.* Brief for Alaska, Arizona, Colorado, Connecticut, Delaware, Florida, Hawaii, Idaho, Illinois, Indiana, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, North Carolina, North Dakota, Oregon, South Carolina, Tennessee, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, and the Virgin Islands as Amicus Curiae at 37, *Rhodes v. Chapman*, 452 U.S. 337 (1981) (No. 80-332) [hereinafter *State Amicus Brief*] (arguing that “as a practical matter,” holding double celling unconstitutional would require that Ohio “either construct a new facility or release prisoners”).

⁶ Indeed, in *Brown v. Plata* the Supreme Court upheld a lower-court injunction requiring California to reduce its prison population to 137.5% of design capacity within two years, which would have required a reduction of 40,000 inmates. See *Brown v. Plata*, 563 U.S. 493, 501 (2011). The order was a result of California’s persistent failure to adequately invest in mental and physical healthcare resources as its prison population outgrew capacity. *Id.* at 501-02 (“Efforts to remedy the violation have been frustrated by severe overcrowding in California’s prison system. Short-term gains in the provision of care have been eroded by the long-term effects of severe and pervasive overcrowding.”). The litigation and outcome nicely frame the question we explore here: how states avoid internalizing the costs of their carceral policies at the expense of prisoner health and safety.

Governmental externalization of costs forces others to bear those costs, perhaps most directly the prisoners themselves, who suffer serious reductions in prisoner health and quality of life in the overcrowding context. Overcrowding has directly contributed to a score of problems confronting American correctional facilities.⁷ Prison systems increase their incarcerated population without increasing programming (including education and availability of prison jobs⁸) or medical and mental health resources, exacerbating health issues that stem from overcrowding itself—such as higher blood pressure, stress (both individual and collective), and levels of negative affect⁹—and contributing to the spread of physical illnesses including tuberculosis¹⁰ and, now, COVID-19.¹¹ These factors have ripple effects, further causing “higher rates of disciplinary infractions,” a higher “probability of interpersonal conflict and assaults in prison,” and a higher rate of prison rapes.¹² The consequences of prison policies that lead to overcrowding have an

⁷ See Craig Haney, *The Wages of Prison Overcrowding: Harmful Psychological Consequences and Dysfunctional Correctional Reactions*, 22 WASH. U. J. L. & POL’Y 265 (2006).

⁸ *Id.* at 274.

⁹ *Id.* at 266, 271-72.

¹⁰ Terence P. Thornberry & Jack E. Call, *Constitutional Challenges to Prison Overcrowding: The Scientific Evidence of Harmful Effects*, 35 HASTINGS L. J. 313, 336-347(1983).

¹¹ The prison COVID-19 case rate by June 2020, after the first few months of the pandemic, was 5.5x higher than the case rate in the general population. See Brendan Solaner, Kalind Parish, Julie A. Ward, Grace DiLaura & Sharon Dolovich, *COVID-19 Cases and Deaths in Federal and State Prisons*, JAMA (July 2020), <https://jamanetwork.com/journals/jama/fullarticle/2768249>. The COVID-19 pandemic has vividly illustrated the susceptibility of prison populations to communicable diseases, resulting in a flood of litigation related to prisoner health and safety. See, e.g., *Valentine v. Collier*, 140 S. Ct. 1598, 1598 (2020) (Sotomayor, J., statement regarding denial of application to vacate stay of preliminary injunction) (noting the “disturbing allegations” raised in a preliminary injunction against a Texas geriatric prison that failed to take appropriate measures to safeguard against COVID-19); *Valentine v. Collier*, 141 S. Ct. 57 (Nov. 16, 2020) (Sotomayor, J., dissenting from denial to vacate stay of permanent injunction) (calling same prison a “tinderbox” for COVID-19 because of its dormitory housing); *Martinez-Brooks v. Easter*, 459 F. Supp. 3d 411, 415 (D. Conn. 2020) (ordering the warden of a federal prison in Danbury, Connecticut to accelerate the process of transferring prisoners to “home confinement” in order to mitigate risks from COVID-19); see also U.S. Dep’t of Just., Att’y Gen., Memo to Dir. Bureau of Prisons, Prioritization of Home Confinement As Appropriate in Response to COVID-19 Pandemic (Mar. 26, 2020), https://www.bop.gov/coronavirus/docs/bop_memo_home_confinement.pdf (instructing the Director of the Bureau of Prisons to make use of recent statutory authorization to use home confinement for eligible prisoners in order to reduce the danger of COVID-19 in federal prisons).

¹² *Id.* at 331-336; Haney, *supra* note 7, at 272, 276.

immediate and direct impact on prisoners, depriving them of a “refuge” that would otherwise provide “a degree of protection and isolation.”¹³

In this paper, we address a specific aspect of this dynamic by examining how the practice in use in some parts of the United States to put two or more prisoners in a cell designed for one (“double celling”) affects the costs of incarceration.¹⁴ The U.S. Supreme Court concluded in the 1981 case *Rhodes v. Chapman* that double celling in Ohio was constitutional.¹⁵ Our question is the following: if the Court had held double celling unconstitutional, how can one estimate the money that Ohio would have had to invest to comply with that mandate? In reversing the lower court decisions that found double celling a violation of the Eighth Amendment, the Court in *Rhodes* changed the cost calculus facing the state of Ohio and, by extension, all other states and the federal government. This shift occurred as prison populations were expanding and thereafter increased dramatically. We aim to tease out the magnitude of this impact.

To think through these issues, in Part II we analyze discussions of space in prison design to understand how a concept of adequacy has been formulated, both by the courts and by organizations such as the American Correctional Association (ACA). This Part is both a terminological and a historical review, clarifying the dominant terms in prison design (what correctional officials describe as the “design,” “rated,” and “operational” capacities of prisons) and

¹³ Steven T. Adwell, *A Case for Single-Cell Occupancy in America's Prisons*, 55 FED. PROBATION 64, 66 (1991).

¹⁴ The Supreme Court has declined to mandate single celling in prisons. See *Rhodes v. Chapman*, 452 U.S. 337, 352 (1981) (holding that double celling prisoners is not presumptively unconstitutional under the Eighth Amendment); *Bell v. Wolfish*, 441 U.S. 520, 541 (1979) (holding that double celling does not constitute punishment and therefore does not violate the due process rights of pre-trial detainees); see also *Johnson v. California*, 543 U.S. 499, 509 (2005) (holding that segregation on the basis of race because of security concerns stemming from a policy of double celling prisoners is subject to strict scrutiny). Research on prison overcrowding proliferated in the 1980s, following extensive prisoner rights litigation. See, e.g., Committee on Corrections, *The Prison Overcrowding Crisis*, 38 REC. ASS'N B. CITY N.Y. 638 (1983); Alan J. Kessel, *Unconstitutional Prison Overcrowding*, 1986 ANN. SURV. AM. L. 737; Colloquium, *The Prison Overcrowding Crisis*, 12 N.Y.U. REV. L. & SOC. CHANGE 1 (1983-84). Similar scholarship examined the practice of double celling. See, e.g., Michael LaFay, *Double Celling in the Prisons: The Shame of the Courts*, 9 NEW ENG. J. CRIM. & CIV. CONFINEMENT 249 (1983); Eric G. Woodbury, *Prison Overcrowding and Rhodes v. Chapman: Double celling by What Standard*, 23 B.C. L. REV. 713 (1982).

¹⁵ *Rhodes*, 452 U.S. at 352.

summarizing how space standards were articulated and enforced by federal courts leading up to *Rhodes*. We also review studies of double celling in the 1970s and 1980s to illustrate the prevalence of the practice prior to the *Rhodes* decision.

We then examine the prison population in Ohio in the late 1970s and early 1980s, before and after *Rhodes*, to form a baseline against which to estimate the impact of the decision. During that time frame, Ohio had a spike in prison commitment rates and began to rely on double celling. We compare the amount of money invested per prisoner during a time when, as far as we understand it from the case, double celling was not commonly in use in Ohio to the investment a few years after *Rhodes* condoned the practice. We then sketch a potential causal relationship between the Court's decision and government funds invested in prisons.

We conclude by connecting this discussion to the present-day dollar costs of incarceration and prevalence of double celling. We examine the reported costs of incarceration in 45 states for which recent national statistics are available — and we do a deep dive on Alabama, California, and Ohio — to understand how much money states spend on constructing prisons, staffing them, and providing security and care for the prisoners housed within them. These figures give a picture of the current level of state investment in incarceration and how these costs are allocated across functions. They also help to frame the conversation around the potential impact of double celling on prison investment today.

To preview our conclusions, our first point is that, if a mandate for single cells had existed, prison systems would have faced the options of either incarcerating fewer people or building more prisons and other forms of housing to accommodate growing prison populations.¹⁶ Because this mandate did not exist, they were presented with a third option: fitting more people into the same

¹⁶ See State Amicus Brief, *supra* note 5, at 37.

space, which allowed the state to avoid difficult decisions involving investment in incarceration and carceral policy.

A second point is that in Ohio during 1986, we estimate that, by not being required to single cell, the state may have avoided spending today's equivalent of \$372 million as compared to a baseline of its per-prisoner investment in 1973. Ohio's correction expenditures in 1986 totaled just over \$200 million. In short, if Ohio had been forced to spend as much on a per-prisoner basis in 1986 as it did in 1973, before double celling was widespread, it would have spent almost 80% more than it actually ended up spending. Furthermore, if Ohio was forced to construct the additional prisons needed to single cell its entire prison population, it would have likely incurred a cost of over \$1 billion.

Third, wide variation in current state investment in incarceration exists, and the impact of double celling on the amount of state investment in incarceration required will depend on the impact on the various categories of prison expenditures. Comparisons among states do not make a summary easy.¹⁷ Estimates of state spending per capita for 2019, for instance, range from over \$23,000 to well over \$100,000 per prisoner. Those totals include costs associated with staffing and administration (50-70% of total costs), healthcare for prisoners (10-20% of total costs), operations within the prison (security, food, utilities) (10-15% of total costs), and capital expenses (varies by year). A mandate to single cell prisoners would likely hit state budgets as "step-fixed costs": both construction and staffing costs "step up" when money is allocated to build and to staff new

¹⁷ This has long been a problem plaguing those studying carceral institutions. *See, e.g.*, AMERICAN CORRECTIONAL ASSOCIATION, A MANUAL OF CORRECTION STANDARDS 181 (1954) ("It has become common practice in recent years to attempt to arrive at some kind of unit cost formula for estimating the costs of institutions. For example, so many thousands of dollars per inmate, or so many square feet per inmate, and this reduced to a cost per square foot of construction. All of these approaches can be extremely misleading.")

prisons.¹⁸ By double celling, states potentially avoid the need to make such investments while expanding the population of incarcerated individuals.

Finally, we call for a suite of changes in state and federal policy both to better understand the extent of prison overcrowding and to mitigate the use of double celling where it occurs. First, metrics for prison capacity utilization should be standardized across jurisdictions and enforced through appropriate legislation, at either the state or federal level. In addition, budgetary data related to state prison systems should be made easily accessible, and state departments of corrections should categorize costs similarly to enable comparisons between jurisdictions on a cost-item basis. Finally, double celling should be banned in state and federal prisons, and minimum standards of space—at least sixty square feet per prisoner¹⁹—should be enforced to reduce the harmful effects of prison overcrowding. A medley of actors can directly institute these changes—state legislatures can change their respective state systems, Congress can exercise power over the federal system and can incentivize state legislatures to reform state prison systems, and executive agencies such as the Department of Justice and the Federal Bureau of Prisons can ensure compliance with data standards and space requirements in the federal system.

II. THE ROAD TO *RHODES*

In this section, we explore some of the design principles informing views about the adequacy of space per person in detention, as well as early studies on prison overcrowding in the 1970s and 1980s. The goals are to understand how prison administrators, correctional associations,

¹⁸ “Step costs” are common in accounting. Adam Hayes defines them thus: “Step costs are expenses that are constant for a given level of activity, but increase or decrease once a threshold is crossed.” Adam Hayes, *Step Costs*, Investopedia (Jan. 12, 2021), <https://www.investopedia.com/terms/s/step-costs.asp>. “Step fixed costs,” the term we use here, denotes fixed costs (like construction costs or the minimum amount of staff necessary to run a prison) that correction departments might face when opening a new prison.

¹⁹ See *infra* note 39 and accompanying text.

and courts were framing questions about adequate living space in prison as well as to understand the factual backdrop preceding the *Rhodes* decision. What emerges is a picture of increasing judicial involvement in state penal systems, spurred on by a proliferation of prison standards providing recommendations on everything from the amount of square footage per cell to the time allotted for exercise each day. As double celling became increasingly common and as federal courts were beginning to adopt new prison standards as constitutional minima in prison adjudication, the Supreme Court intervened with its decision in *Rhodes*, declining to constitutionalize the widely-accepted consensus that prisoners were entitled to a certain amount of living space.

a. Prison Design Standards: Formulating a Conception of Adequate Space

First, it is important to understand how prison officials, architects, and correctional associations conceptualize how much whether prisons have enough space to house their populations. How, exactly, does one “measure” the adequacy of space in a prison facility? Depending on who makes the determination and what metrics they use, the same “single person” cell could be viewed as having a capacity for one person, or an “actual” but unrealized capacity for two (or more) people.

1. Rated, Design, and Operational Capacity

Architects and correctional personnel have generally provided three formulations of prison capacity: rated capacity, operational capacity, and design capacity.²⁰ Rated capacity is defined as

²⁰ E. Ann Carson, *Prisoners in 2019*, BUREAU OF JUST. STAT., U.S. DEP’T OF JUST. (2020), <https://www.bjs.gov/content/pub/pdf/p19.pdf>.

the “number of prisoners or beds a facility can hold, *as set by a rating official.*”²¹ Operational capacity is defined as the “numbers of prisoners a facility can hold *based on staffing and services.*”²² Design capacity is defined as the “number of prisoners a facility can hold, *as set by the architect or planner.*”²³ The conceptual difference between these different categories is important, as these three measures of capacity usually do not yield the same number, bringing us to the question of which of these metrics to use, or not.

We focus our attention in this memo on rated and design capacity, since these two measures more directly reflect space concerns; operational capacity ought to incorporate a range of concerns, some of which implicate communal spaces, such as for education and other programming, health care, and the like. Theoretically, we should find interactions between operational capacity on the one hand, and rated/design capacities on the other. There are interesting discussions to be had about these interactions between the adequacy of space in prisons and the amount of programming or staffing levels, which may even extend to redefining what it means to be “operational.” Yet, for the purposes of this paper, we should focus on the other two measures of capacity. One reason is that, according to a 2019 account, operational capacity “is self-reported, which is problematic for estimating overall capacity;” in contrast, design capacity and rated capacity “are calculated by a third party.”²⁴ Moreover, according to E. Ann Carson, then-acting chief of corrections at the Bureau of Justice Statistics, states define inconsistently the operational capacities of their prison systems.²⁵ Some states, according to Carson, set their operating capacity at the number of prisoners that are then currently incarcerated. Others set “a maximum ratio of 10 or 20 [prisoners] to one

²¹ *Id.* at 2 (emphasis added).

²² *Id.* (emphasis added).

²³ *Id.* (emphasis added).

²⁴ Corin Faife, *Alabama’s Prisons are the Most Crowded--If You Look at the Right Data*, THE APPEAL, Aug. 21, 2019, <https://theappeal.org/alabamas-prisons-are-the-most-crowded-if-you-look-at-the-right-data/>.

²⁵ *Id.*

[guard], or whatever it is.”²⁶ While operational capacity should be an important concept for attaining the humane treatment of prisoners, the current method of self-definition prompts us not, at this point, to use it.

Rated and design capacities are also imperfect variables. A 1980 study by Joan Mullen at the National Institute of Justice noted that although space standards based on square footage had been proposed to standardize rated capacities and design capacities, “there was no reason to believe that measures of rated capacity conformed with any consistency to any of these standards [D]efinitions of rated capacity were also vulnerable to varying financial, legal and political exigencies.”²⁷ Instead of providing more space, “increases in reported capacity . . . [may] correspond[] to the addition of beds to existing confinement units.”²⁸

As we note in Section III.C, we discuss overcrowding as of 2020 in reference to design capacity. We have picked this metric for two reasons. First, rated capacity is determined by officials who are likely to work or be within the corrections system as a whole. In contrast, design capacity is based on the intentions of the planners or architects who have professional standards developed not only from within but also potentially from outside the corrections system and, we presume, are more likely to be focused on the needs of individuals for space rather than on the needs of prisons to house many people. Second, design capacity is insulated from a type of manipulation found in rated capacity: adding more beds to a facility originally designed for a given number of people ought not to increase the *design* capacity, even though it may change the rated capacity.²⁹

²⁶ *Id.*

²⁷ 1 JOAN MULLEN, KENNETH CARLSON & BRADFORD SMITH, AMERICAN PRISONS AND JAILS: SUMMARY AND POLICY IMPLICATIONS OF A NATIONAL SURVEY 52 (Oct. 1980), <https://www.ojp.gov/pdffiles1/Digitization/75752NCJRS.pdf> [hereinafter MULLEN REPORT VOLUME I].

²⁸ *Id.*

²⁹ *Id.*

Because architects and planners determine the design capacity, we needed to understand more about how architects conceive of creating spaces to use design capacity as a variable.³⁰ The editors of the third edition of Neufert's *Architects' Data*, a canonical book that describes baseline architectural principles and measurements for design,³¹ offers insights into principles underlying architectural design. They write, "The only true scale [is] . . . that of human beings Architects and designers . . . have to understand the relationship between the sizes of human limbs and what space a person requires in various postures and whilst moving around In addition, architects and designers have to know what space humans need between furniture" ³² Architects and designers are taught to build spaces around the human body, suggesting that if they build a cell they believe can hold one person, that cell can comfortably hold *only* one person. An architect, in designing a space, considers factors such as how much space a person needs to move "around [a] bed" in a room, or how much room is needed given certain furniture.³³ Given this approach, design capacity is the most useful metric for our analysis.

2. The History of Prison Space Standards

Guidelines for minimum living space in prisons have been discussed for centuries; indeed, single celling was a precept in the early years of penitentiaries in the nineteenth century.³⁴ During the last several decades, commitments to single celling were formalized in standards issued by the ACA, and several organizations provided measurements for the size of what they deemed to be an

³⁰ Research in this paragraph is drawn from Sophie Angelis, Memo, Theories of Space (September 15, 2020) (on file with authors).

³¹ ERNST NEUFERT & PETER NEUFERT, NEUFERT ARCHITECTS' DATA (3rd ed. 2000) [hereinafter NEUFERT].

³² NEUFERT, at x.

³³ NEUFERT, at 11.

³⁴ Pennsylvania's Eastern State Penitentiary, which opened in 1829, mandated not only single celling, but solitary confinement for all prisoners. See Thorsten Sellin, *The Origin of the Pennsylvania System of Prison Discipline*, 50 PRISON J. 13, 13-14 (1970).

adequate cell. The ACA's 1954 Manual of Correctional Standards stated that "all cells should be designed for the use of one prisoner" with a minimum of 38.5 square feet of space, or 75 square feet of living space per person in congregate housing.³⁵ Twelve years later, the ACA updated these guidelines to state that "[t]he minimum clear size of an interior cell should be approximately 50 square feet, with an elevation of not less than 8 feet."³⁶ In the early 1970s, the National Council on Crime and Delinquency estimated that prisons should provide 50 square feet per prisoner,³⁷ while the National Advisory Committee on Criminal Justice Standards and Goals required 80 square feet.³⁸ By 1977, the ACA Commission on Accreditation for Corrections had established a standard of at least 60 square feet of living space, either in single cells of this size (preferable) or in dormitories where each prisoner was to enjoy this amount of living space.³⁹

The views of professional organizations on adequate prison conditions were not immediately relevant to federal courts, which in the 1950s were continuing to recognize prisoners' constitutional rights and therefore declined to become involved in prisons. The same year that the ACA first published guidelines of prison administration, one federal court concluded that "[c]ourts are without power to supervise prison administration or to interfere with the ordinary prison rules or regulations."⁴⁰ But as prisoners brought claims to courts and the law shifted, judges were asked to find overcrowding a violation of the U.S. Constitution. These lawsuits often invoked standards by the professional organizations like the ACA and the American Public Health Association

³⁵ AMERICAN CORRECTIONAL ASSOCIATION, MANUAL OF CORRECTIONAL STANDARDS 102 (1954) (discussing jail facilities).

³⁶ AMERICAN CORRECTIONAL ASSOCIATION, REVISED STANDARDS 49 (1966), <https://babel.hathitrust.org/cgi/pt?id=uc1.b4409413&view=1up&seq=15> (discussing jail facilities).

³⁷ THE NATIONAL COUNCIL ON CRIME AND DELINQUENCY, MODEL ACT FOR THE PROTECTION OF RIGHTS OF PRISONERS § 1(b) (1972).

³⁸ NATIONAL ADVISORY COMMITTEE ON CRIMINAL JUSTICE STANDARDS AND GOALS, STANDARD 11.1: PLANNING NEW CORRECTIONAL FACILITIES (1971)

³⁹ COMMISSION ON ACCREDITATION FOR CORRECTIONS, MANUAL OF STANDARDS FOR ADULT CORRECTIONAL INSTITUTIONS 27-28 (August 1977).

⁴⁰ *Banning v. Looney*, 213 F.2d 771 (10th Cir.1954) (per curiam).

(APHA) and argued that these design standards provided a baseline by which to assess the constitutionality of living space.⁴¹

An important example of a judicial assessment of prison conditions in this era is *Inmates of Suffolk County Jail v. Eisenstadt*, a 1973 decision by Massachusetts federal district judge Arthur Garrity, who wrote that “due largely to the courage of young poverty-program lawyers, the soul-chilling inhumanity of conditions in American prisons has been thrust upon the judicial conscience.”⁴² In finding that the overcrowded Charles Street Jail—which held pre-trial detainees—generated conditions amounting to “punishment” in violation of the Fourteenth Amendment’s Due Process Clause,⁴³ Judge Garrity referred to “a number of scholarly articles” that had informed the court’s reasoning,⁴⁴ including the 42nd American Assembly’s 1972 meeting “Prisoners in America”⁴⁵ and a 1968 report by the National Council on Crime and Delinquency that specifically examined Suffolk County jails.⁴⁶ The court’s findings were also informed by live testimony from experts in corrections, architecture, and health care.⁴⁷ Judge Garrity found that the

⁴¹ See, e.g., *Detainees of Brooklyn House of Det. for Men v. Malcolm*, 520 F.2d 392, 396 n.4 (2d Cir. 1975) (citing the American Correctional Association’s Manual of Correction Standards instruction that all cells should be individual and a minimum of 50 square feet); *Gates v. Collier*, 423 F. Supp. 732, 743 (N.D. Miss. 1976) (holding that “50 square feet of living space per inmate is the minimal acceptable requirement to comport with the Constitution”), *aff’d on different grounds*, 548 F.2d 1241 (5th Cir. 1977); *Battle v. Anderson*, 564 F.2d 388, 395 (10th Cir. 1977) (upholding a lower court decision adopting the American Public Health Association’s spatial requirements of 60 square feet per individual in a cell and 75 square feet in a dormitory setting). *But see* *Hite v. Leeke*, 564 F.2d 670, 671-72 (4th Cir. 1977) (holding that double ceiling in 65 square-foot cells is not violation of the Eighth Amendment).

⁴² *Inmates of Suffolk County Jail v. Eisenstadt*, 360 F. Supp. 676, 684 (D. Mass. 1973), *aff’d*, 494 F.2d 1196 (1st Cir. 1974).

⁴³ The Supreme Court in 1979 would implicitly overrule this holding in *Bell v. Wolfish*. See *Bell v. Wolfish*, 441 U.S. 520, 541 (1979).

⁴⁴ *Eisenstadt*, 360 F. Supp. at 685.

⁴⁵ *Id.* at 684.

⁴⁶ *Id.* at 687. (“The physical plant of the Suffolk County Jail is antiquated, insufficiently secure for high risk prisoners and does not provide decent housing arrangements for any of its prisoners. The facility is a relic of the past. It cannot be remodelled [sic] to provide a modern adult detention program.”)

⁴⁷ *Id.* at 678. (“Testimony was received from thirteen witnesses, including the defendants sheriff and master and the deputy master of Charles Street; Warren A. Worth, senior jail inspector for the Federal Bureau of Prisons; James V. Bennett, former Director of the Federal Bureau of Prisons; and various expert witnesses on such subjects as diet and nutrition, health care and facilities, and structural and architectural deficiencies. The record also includes voluminous documentary evidence, including official reports and written statements of experts on several aspects of

conditions in the jail, including the double celling, “unreasonably infringe[d] upon [detainees’] most basic liberties, among them the rights to reasonable freedom of motion, personal cleanliness, and personal privacy.”⁴⁸ Judge Garrity based his holding on the Fourteenth Amendment that governed pre-trial detainees, even as he also noted that double celling would also violate the Cruel and Unusual Punishment Clause of the Eighth Amendment.⁴⁹

Federal court judges who concluded that prisons were overcrowded turned to a number of remedies. A 1980 report examined cases from nineteen states under court order to remedy conditions related to overcrowding and twelve others facing similar challenges.⁵⁰ This “Mullen Report” documented a range of responses, including enjoining the receipt of new prisoners, ordering facilities to be closed, and mandating measures to reduce populations, such as bail reform for jails. New construction of facilities, the report noted, had also “figured prominently . . . although judges have warned that construction should not be considered a panacea and attorneys have pointed to the inability of construction to keep pace with the population increases of the last decade.”⁵¹

A feedback mechanism developed between what judicial rulings and professional bodies promulgating standards: as courts began incorporating correctional standards into rulings on prison conditions, bodies like the ACA, the American Law Institute (ALI), the National Council on Crime and Delinquency, and the Commission on Accreditation for Corrections sought to develop

the jail and approximately 30 affidavits of inmates (where inmates are quoted in footnotes to this opinion, it will be from their affidavits received in evidence and marked as exhibits).”)

⁴⁸ *Id.* at 686.

⁴⁹ *See id.* at 688 (“Nevertheless, certain of the considerations that adhere to the Constitution’s prohibition of cruel and unusual punishment apply here and merit brief discussion.”).

⁵⁰ MULLEN REPORT VOLUME I, *supra* note 27, at 35-36.

⁵¹ *Id.* at 37.

“increasingly specific self-regulatory standards.”⁵² The Mullen Report identified pressure from the judiciary as one impetus for executive and legislative action on prison standards.⁵³

But the use of professional standards was and is complex. As Richard Allinson explained in the March 1979 issue of *Corrections Magazine*, enforcement of standards remained difficult because of a proliferation of different standards, a concomitant unwillingness to mandate compliance, and resistance to the expected costs of ensuring single celling.⁵⁴ None of the standards proposed double celling, while some did recognize the role of dormitory style housing.⁵⁵ Two years later, against a backdrop of increasing legislative action at the state level adopting “tough-on-crime” policies, the Supreme Court decided *Rhodes v. Chapman* and sanctioned double celling—a practice no prisons standards at the time endorsed.

b. The Prevalence of Double Celling in the 1970s

One step in determining the extent to which double celling has affected both prison populations and costs since 1981 is to estimate the prevalence of double celling in prisons. We examined two sources for potential insight. The first is a 1977 report by Andrew Rutherford, who at the time worked with the Department of Justice’s National Institute of Justice, and who submitted his report to Congress in 1977.⁵⁶ The second was the 1980 multi-volume report mentioned above by Joan Mullen and Bradford Smith, who were also working for the National

⁵² *Id.* at 39.

⁵³ *Id.* at 44 (“[I]t is not unreasonable to assume that the combination of executive or professional standards backed by the judiciary will continue to exert powerful pressure on states and localities to achieve compliance.”)

⁵⁴ Richard S. Allinson, *The Politics of Prison Standards*, CORRECTIONS MAGAZINE, March 1979, at 54, 60-62. Allinson notes that the assistant attorney general of Texas claimed that enforcement of the “60/80 square-foot requirement would mandate replacement of all 15 state prisons, at a cost as high as \$1 billion.” *Id.* at 62.

⁵⁵ *Id.* at 56 (collating standards from the ACA Commission on Accreditation, the Department of Justice, and the American Bar Association).

⁵⁶ ANDREW RUTHERFORD ET AL., 1 PRISON POPULATION AND POLICY CHOICES: PRELIMINARY REPORT TO CONGRESS (1977) [hereinafter ANDREW RUTHERFORD REPORT OF 1977].

Institute of Justice and who relied on 1978 data.⁵⁷ Both were funded by the Crime Control Act of 1976, in which Congress mandated that the National Institute of Law Enforcement and Criminal Justice “shall, before September 30, 1977, survey existing and future needs in correctional facilities in the Nation and the adequacy of federal, state and local programs to meet such needs [and] . . . specifically determine the effect of anticipated sentencing reforms such as mandatory minimum sentences on such needs.”⁵⁸ These changes were prompted by Congress’ finding that the state and local governments required federal aid “in combating the serious problem of crime and that the [f]ederal [g]overnment should assist [s]tate and local governments in evaluating the impact and value of programs developed and adopted pursuant to this title.”⁵⁹

To address longer-term research issues, these researchers developed “interim reports” followed by “final reports.” The interim reports, including the Rutherford Report, met the September of 1977 statutory deadline.⁶⁰ Final reports involved more detailed analysis. In total, five volumes of final reports were published together in October, 1980.⁶¹ The principal authors included Joan Mullen (Volumes I, III), Kenneth Carlson (Volume II), Bradford Smith (Volume III), Richard Ku (Volume IV), and William DeJong (Volume V). These authors played various roles in this project: Andrew Rutherford served as project manager from 1977-1978, Joan Mullen was project manager from 1979-1980, Kenneth Carlson was Director of Research, Bradford Smith was Director of Data Collection, Richard Ku was the Case Study Leader, and William DeJong was

⁵⁷ JOAN MULLEN & BRADFORD SMITH, 3 AMERICAN PRISONS AND JAILS: CONDITIONS AND COSTS OF CONFINEMENT 57 (1980), <https://www.ojp.gov/pdffiles1/Digitization/75754NCJRS.pdf> [hereinafter JOAN MULLEN AND BRADFORD SMITH REPORT OF 1980].

⁵⁸ Crime Control Act of 1976, Pub. L. No. 94-503, § 117(a)(5), 90 Stat. 2407, 2417 (codified in scattered sections of 42 U.S.C.)

⁵⁹ Crime Control Act of 1976, Pub. L. No. 94-503, § 101(1), 90 Stat. 2407, 2497 (codified in scattered sections of 42 U.S.C.)

⁶⁰ JOAN MULLEN & BRADFORD SMITH REPORT OF 1980, *Overview of Materials Available from the Survey of American Prisons and Jails*, before page i.

⁶¹ See, e.g., WILLIAM DEJONG, 5 AMERICAN PRISONS AND JAILS: SUPPLEMENTAL REPORT—ADULT PRE-RELEASE FACILITIES (1980), <https://www.ojp.gov/pdffiles1/Digitization/75756NCJRS.pdf>.

a Research Associate.⁶² Note that these studies relied on data gathered before *Rhodes v. Chapman* was decided.

TABLE 7
Number of Federal and State Correctional Cells Rated to Hold One Person and the Number of Inmates in These Cells by Region

Region	Number of Cells Rated to Hold One Person (1)	Number of Inmates in Cells Rated to Hold One Person (2)	Difference (1) - (2)	Percent of Total Population in Cells Rated to Hold One Person
Northeast	36,280	33,827	2453	84%
North Central	28,919	30,905	-1986	49
South	23,098	24,700	-1602	23
West	23,570	22,590	980	54
Federal	14,817	15,790	-973	47
Total	126,684	127,812	1128	45%

Source: Andrew Rutherford, et. al., *Prison Population and Policy Choices, Vol. I: Preliminary Report to Congress* (Washington, D.C.: Government Printing Office, 1977), Table 1.2, p. 21.

From the Rutherford Report, the segment relevant to our inquiry comes from Table 1.2, reproduced above.⁶³ The table delineated five jurisdictional areas, the Northeast, North Central, South, West, and Federal, and sought to ascertain how many cells rated to hold one person existed within each category and the number of prisoners held in those cells. In the North Central region, for example, 28,919 state correctional cells were rated to hold one person, and 30,905 prisoners—an excess of 1,986 people—were reported held in this number of cells.

In addition to the North Central region, prisoner populations in two other regions exceeded rated capacity, which was defined in this report as the difference between the number of cells rated to hold one person, and the number of prisoners in those cells. In the South region, 23,098 state

⁶² See, e.g., JOAN MULLEN & BRADFORD SMITH REPORT OF 1980, at i.

⁶³ ANDREW RUTHERFORD REPORT OF 1977, at 21.

correctional cells were rated to hold one person, and 24,700 prisoners—an excess of 1,602 people—were reportedly held in this number of cells. The Federal prison system, which at the time had 38 prisons,⁶⁴ had 14,817 cells rated to hold one person, and 15,790 prisoners—an excess of 973 people—were reportedly held in this number of cells.

In contrast, in two regions, the Northeast and the West, more cells were available for single occupancy than prisoners who were housed in them. In the Northeast region, 36,280 state correctional cells were rated to hold one person, and 33,827 prisoners—a difference of 2,453 people—were reportedly held in this number of cells. In the West region, 23,570 state correctional cells were rated to hold one person, and 22,590 prisoners—a difference of 980 people—were reported held in the number of cells. The data do not indicate that no people were *in fact* in double cells, but rather that double celling would not have been needed to accommodate the population. Aggregating across all five categories, 126,684 cells were rated to hold one person, and 127,812 prisoners—a difference of 1,128 people—were reportedly held in those cells.

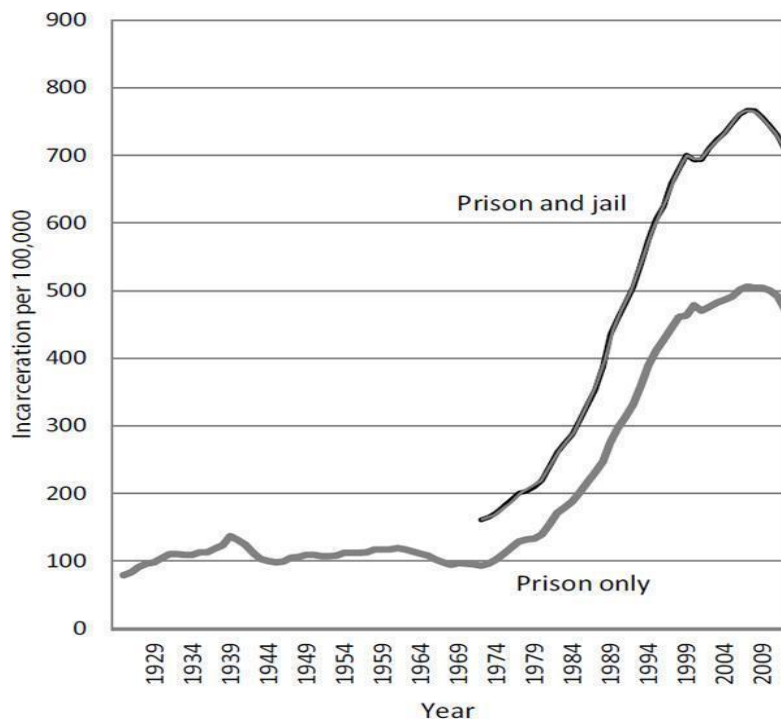
One question is how to understand these numbers. A 1982 study by Terence P. Thornberry that analyzed this report noted a number of important considerations that change the framing of the numbers.⁶⁵ By the time the study was written in 1982, prison populations had substantially increased, whereas the number of cells had not.⁶⁶ A graph showing the rate of incarceration from 1929 to 2009 is below.⁶⁷

⁶⁴ MULLEN REPORT VOLUME I, *supra* note 27, at 54.

⁶⁵ TERENCE P. THORNBERRY, JACK E. CALL, CHARLES R. SWANSON, MARGARET M. SHEDD & SAM MITCHELL, OVERCROWDING IN AMERICAN PRISONS: POLICY IMPLICATIONS OF DOUBLE-BUNKING SINGLE CELLS (July 1982), <https://www.ojp.gov/pdffiles1/Digitization/85969NCJRS.pdf> [hereinafter THORNBERRY 1982 STUDY].

⁶⁶ *Id.* at 20.

⁶⁷ NAT'L RSCH. COUNCIL, THE GROWTH OF INCARCERATION IN THE UNITED STATES: EXPLORING CAUSES AND CONSEQUENCES 35 (Jeremy Travis, Bruce Western & Steve Redburn eds., 2014), <https://www.nap.edu/read/18613/chapter/4#35>.



Growth in “housing stock,” including the number of beds for prisoners, has been underway since the 1980s. Between 1990 and 1995, for example, more than 280,000 beds were added “to keep pace with the growing prison population,” a growth of around 41%—from roughly 696,000 to 976,000 total beds.⁶⁸ Starting in the 1990s, the number of cells has also increased. A surge in prison facility construction resulted in part from an influx in federal funding through the 1994 Crime Bill and its Violent Offender Incarceration and Truth-in-Sentencing Incentive Grants Program. The Act, passed in an era of attention to crime that included increasing crime rates, provided incentive grants intended “to be used to increase the capacity of state correctional systems to confine serious and violent offenders.”⁶⁹ The 1994 legislation provided two types of grants. States could qualify for Truth-in-Sentencing (TIS) Incentive Grants if they implemented laws (or

⁶⁸ Press Release, Dep’t of Just., Prison Construction Keeping Pace with Construction Growth (August 7, 1997), <https://www.bjs.gov/content/pub/press/CSFCF95.PR>.

⁶⁹ Susan Turner et al., *National Evaluation of the Violent Offender Incarceration/Truth-in-Sentencing Incentive Grant Program*, RAND, at iii (2001), <https://www.ojp.gov/pdffiles1/nij/grants/191201.pdf>.

would soon implement laws) requiring convicted violent offenders to serve at least 85% of their sentences.⁷⁰

The VOI/TIS incentive grants were intended to be used to “[b]uild or expand correctional facilities to increase the bed capacity,” “[b]uild or expand temporary or permanent correctional facilities,” and “[b]uild or expand jails.”⁷¹ States could qualify for Violent-Offender Incarceration (VOI) Grants if they gave assurances they had implemented (or would implement) policies that violent offenders would serve “a substantial portion” of their sentences, their punishment was “sufficiently severe,” and the time served is “appropriately related” to the violent-offender status and sufficient to protect the public.⁷² Between 1995 and 2000, Congress authorized \$10 billion; much less was appropriated.⁷³

Despite the infusion of funding, and the increase in the number of facilities, the number of single cells did not rise in a 1:1 ratio with the rise in population over the past 40 years. In the time period from 1990 to 2005, which includes the peak of the prison construction boom, the number of state and federal adult facilities rose by 41.5%, or from 1,287 facilities to 1,821.⁷⁴ We have not found what number of cells, which what number of beds, recorded. The incarcerated population rose by 98%, from 771,243 prisoners to 1,525,92.⁷⁵

Thornberry’s 1982 study also noted that an important caveat to many studies was that they aggregated data, and some prisons could have been overcrowded, and others under capacity.⁷⁶

⁷⁰ *Id.* at xv.

⁷¹ *Id.* at xvii.

⁷² *Id.* at xv-xvi.

⁷³ *Id.* at xv.

⁷⁴ Press Release, U.S. Dep’t Just., Prison Construction Keeping Pace With Population Growth (August 7, 1997), <https://www.bjs.gov/content/pub/press/CSFCF95.PR>; James J. Stephan, *Census of State and Federal Correctional Facilities*, U.S. DEP’T OF JUST., BUREAU OF JUST. STAT. 1 (2005), <https://www.bjs.gov/content/pub/pdf/csfcf05.pdf>.

⁷⁵ Robyn L. Cohen, *Prisoners in 1990*, U.S. DEP’T OF JUST., BUREAU OF JUST. STAT 1 (1993), <https://www.bjs.gov/content/pub/pdf/p90.pdf>; Paige M. Harrison & Allen J. Beck, *Prisoners in 2005*, U.S. DEP’T OF JUST., BUREAU OF JUST. STAT. 1 (2006), <https://www.bjs.gov/content/pub/pdf/p05.pdf>.

⁷⁶ THORNBERRY 1982 STUDY, *supra* note 65, at 24.

Thornberry's study discussed how the Rutherford Report aggregated data by combining multiple facilities and states into large regions of the United States, as well as considering the federal prison system as a whole. By doing so, the actual density of prisons could have been obscured. Prisons under capacity in some regions may have "cancelled out," or counterbalanced excesses in others.⁷⁷ This same phenomenon likely occurs on other levels, with some states within a given region counterbalancing other states, or some counties in a given state counterbalancing other counties.

In addition, the Thornberry study noted that the Rutherford report relied on rated capacities.⁷⁸ As discussed above, rated capacity is not an ideal measurement to use in analyses. Recall that rated capacity can vary widely between two institutions even if they have similar underlying conditions, or that rated capacity can change by adding beds to currently existing cells. Moreover, to the extent that there was convergence among institutions at the time, they converged on a rated capacity of 60 square feet of living space per prisoner as the appropriate base, a number that some (as noted above) find inadequate.

Building on Rutherford's work, which was a more of a brief overview conducted to meet statutory deadlines, Mullen and Smith published their more comprehensive study in 1980 using 1978 data. A key change they made, for instance, involved redefining confinement units with less than 120 square feet as having a capacity of one unit (as opposed to 60 square feet).⁷⁹ Those facilities with 120 square feet or over are termed "dormitories," and their capacity was defined as the lesser of two values: (1) the total square feet of floor space over 60, or (2) the jurisdictionally

⁷⁷ For example, overall, federal and state prisoners in correctional cells rated to hold one person held 1,128 more people than they were supposed to. But in the North Central region alone, the corresponding number was 1,986. In other words, the larger overcrowding in the North Central region was counterbalanced by prisons under capacity in regions like the West and Northeast.

⁷⁸ THORNBERRY 1982 STUDY, *supra* note 65, at 24.

⁷⁹ JOAN MULLEN AND BRADFORD SMITH REPORT OF 1980, at 42.

defined capacity.⁸⁰ This figure was termed the “measured capacity.”⁸¹ Mullen and Smith then recalculated the capacity of institutions based on their new measured capacity variable.

The results differed in ways one would expect: measured utilization (the percent of the measured capacity that was being used, derived by dividing the number of prisoners by the measured capacity) generally went up in every category. The results were more differentiated when looking at the measured capacity based on 60 square foot units: the measured utilization of the United States overall was 161% of measured capacity, with over 155,000 prisoners exceeding the measured capacity of facilities.⁸² The federal Bureau of Prisons was at 150% of measured capacity (i.e. the number of prisoners was 1.5x measured capacity), state correctional facilities ranged from 152% (in the North Central region) to 188% (in the South) of measured capacity, and local correctional facilities ranged from 121% (in the North Central region) to 181% (in the Northeast region).⁸³ Based in part on Mullen and Smith’s analysis, Thornberry’s study revealed that 21% of prisoners in federal facilities, 36% of prisoners in state facilities, and 42% of prisoners in local facilities were double-bunked in 1978. 6.5% of state prisoners, 22% of local prisoners, and 1% of federal prisoners were triple bunked (or more). The relevant table displaying this information is below.⁸⁴

⁸⁰ *Id.*

⁸¹ *Id.* at 44.

⁸² *Id.* at 57.

⁸³ *Id.*

⁸⁴ THORNBERRY 1982 STUDY, *supra* note 65, at 28.

TABLE 8

Utilization of Federal, State, and Local Correctional Facilities Using Reported Capacity
and Two Values of Measured Capacity by Region, 1978

	Total Number of Inmates	Reported Capacity ^a	Reported Utilization	Measured Capacity (Based on single occu- pancy cells & 60 sq. ft. /dorm space) ^b	Measured Utilization	Measured Capacity (Based on 60 square foot units) ^c	Measured Utilization
U.S. Total	411,800	502,200	82%	375,000	110%	256,500	161%
Federal	28,100	24,800	113	23,800	118	18,700	150
State	229,200	243,500	94	200,200	114	132,200	173
Northeast	30,400	34,800	87	33,700	90	17,800	171
North Central	56,700	66,000	86	52,900	107	37,200	152
South	107,200	103,400	104	77,500	138	56,900	188
West	34,900	39,300	89	36,100	97	20,300	172
Local	154,500	233,900	66	151,000	102	105,600	146
Northeast	23,900	30,800	78	27,800	86	13,200	181
North Central	27,400	47,700	57	33,000	83	22,600	121
South	65,100	103,000	63	58,100	112	44,100	148
West	38,100	52,400	73	32,100	119	25,700	148

Sources: Survey of State and Federal Adult Correctional Facilities (PC-2), 1978
National Jail Census (CJ-3/CJ-4), 1978

^aThe capacity of individual confinement units as reported by the jurisdiction.

^bMeasured capacity defined as one inmate per room of any size or, for dormitories, the smaller of: (1) Number of square feet of floor space/60 or (2) The jurisdictionally reported capacity.

^cMeasured capacity defined as a minimum of 60 square feet of floor space per inmate.

Source: Joan Mullen and Bradford Smith, *American Prisons and Jails, Volume III: Conditions and Costs of Confinement* (Washington, D.C.: Government Printing Office, 1980), p. 57.

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III. RHODES, BEFORE AND AFTER: A CASE STUDY OF OHIO'S COST PER PRISONER

In this section, we analyze historical Ohio prison populations and the spending of the Ohio Department of Rehabilitation and Corrections before and after the *Rhodes* decision in order to gain insight into how the Court's acceptance of double celling may have immediately and significantly allowed the state to avoid investment in its prisons while also enabling prison populations to skyrocket.

a. *Rhodes v. Chapman and the Constitutionality of Double Celling*

In 1977, the United States District Court for the Southern District of Ohio took up the case of whether the Southern Ohio Correctional Facility (SOCF) violated the Eighth Amendment's prohibition against cruel and unusual punishments in its use of double celling inmates.⁸⁵ Though the U.S. Supreme Court would later reverse,⁸⁶ the trial court ruled that, while double celling may not be unconstitutional in all situations, it was at SOCF.⁸⁷ At the time of trial, SOCF imprisoned some 2,300 inmates.⁸⁸ SOCF had 1,660 cells, 40 of which were used for the medical ward, leaving 1,620 potentially available for long term imprisonment.⁸⁹ Among these remaining cells, only 350 were single celled.⁹⁰ Yet, it is important to note that 270 of these 350 were single celled due to being designated for protective custody, super max population, disciplinary isolation, and death row inmates. This practice left only 80 single cells, or about 5 percent of all eligible cells, for “merit” prisoners.⁹¹

In deciding how much space each prisoner at SOCF ought, constitutionally, to be provided, the court considered various authorities on confinement standards. The prison failed to meet the standards of any of them.⁹² The authorities cited included the American Correctional Institution, the National Sheriff's Association Handbooks on Jail Architecture and Administration, the National Council on Crime and Delinquency's Model Act for the Protection of Rights of Prisoners,

⁸⁵ *Chapman v. Rhodes*, 434 F. Supp. 1007 (S.D. Ohio 1977), *aff'd*, 624 F.2d 1099 (6th Cir. 1980), *rev'd*, 452 U.S. 337 (1981).

⁸⁶ *Rhodes v. Chapman*, 452 U.S. 337, 352 (1981).

⁸⁷ *Chapman*, 434 F. Supp. at 1021.

⁸⁸ *Id* at 1011.

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² *Id* at 1021.

and the Report of the Special Civilian Committee for the study of the United States Army Confinement System.⁹³

All of these standards required a minimum of 50-80 square feet of space per person.⁹⁴ At SOCF, each cell was 63 square feet, leaving 30-35 square feet per double celled prisoner at most.⁹⁵ Moreover, SOCF's *rated* capacity was 1,600 inmates.⁹⁶ Thus, the rated capacity—created by corrections staff themselves—was 700 people fewer than the number imprisoned at the time.⁹⁷ In other words, SOCF was at 138% of its own rated capacity.

The trial court found no reason why the capacity set by the state itself should not control.⁹⁸ The court did find that such overcrowding could be permissible on a temporary basis.⁹⁹ However, since nearly 70 percent of inmates were serving life or first degree felony sentences,¹⁰⁰ and double celling had established a “relative permanence” since it began two years prior to trial, the practice was deemed unconstitutional.¹⁰¹ This decision was affirmed in a brief opinion by the Court of Appeals for the Sixth Circuit.¹⁰²

Despite the consensus of the lower courts, Justice Powell, writing for five out of eight justices of the U.S. Supreme Court, did not agree with this assessment. In 1981, the Supreme Court ruled in *Rhodes* that double celling did not violate the Eighth Amendment.¹⁰³ The majority opinion reasoned that the minimum space standards by numerous authorities as well as the rated capacity

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ *Id.* at 1020.

⁹⁷ *See id.* at 1011 (stating that the prison population at the time of trial to be 2,300, which is 700 more than the rated capacity of 1,600).

⁹⁸ *Id.* at 1020.

⁹⁹ *Id.* at 1021.

¹⁰⁰ *Id.* at 1011.

¹⁰¹ *Id.* at 1021.

¹⁰² *Chapman v. Rhodes*, 624 F.2d 1099 (6th Cir. 1980).

¹⁰³ *Rhodes v. Chapman*, 452 U.S. 337, 352 (1981). Three Justices (Justices Brennan, Stewart, and Blackmun) joined a concurring opinion by Justice Brennan; Justice Blackmun filed a separate concurring opinion; and Justice Marshall filed a dissent.

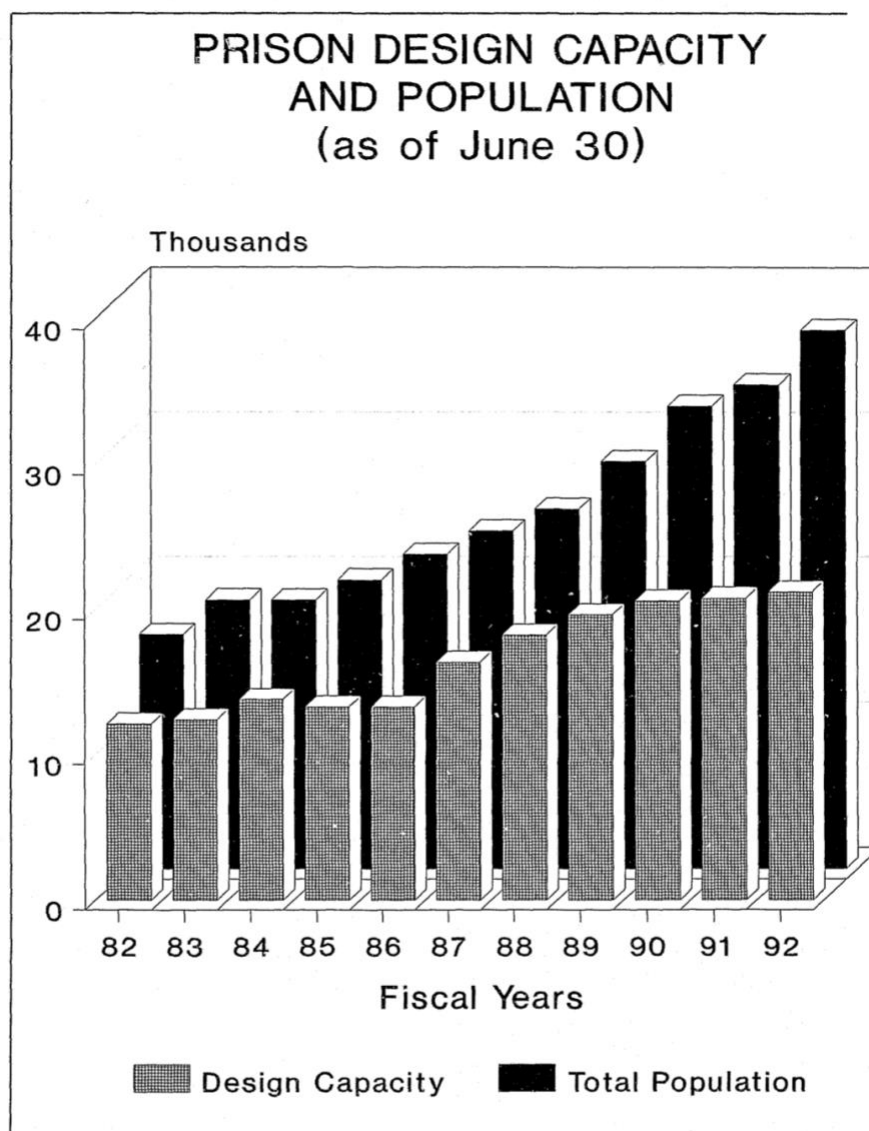
of the prison itself which were cited by the trial court “reflect[ed] an aspiration towards an ideal environment.”¹⁰⁴ Instead, the standard for an Eighth Amendment violation was said to be whether any pain caused by double celling was “unnecessary or wanton” or “grossly disproportionate” to the severity of the prisoners’ crimes.¹⁰⁵ The Court concluded that it was not and that decisions regarding how “comfortable” prisoners were was a matter for the legislature and prison administration to determine.¹⁰⁶

The *Rhodes* decision gave the state of Ohio, and inferentially other states and the federal system, a constitutionally approved means to keep pace with increasing rates of prison sentences through double celling. This licensure would allow prisons to almost double their design capacities before needing to engage in the complex decision making around decarceration or building new prisons. The following graphs illustrate how the Ohio prison population increased as compared to the total design capacity of the state prisons after the 1981 *Rhodes* decision.

¹⁰⁴ *Id* at 349. The Court noted a few other tests of the Eighth Amendment.

¹⁰⁵ *Id* at 348.

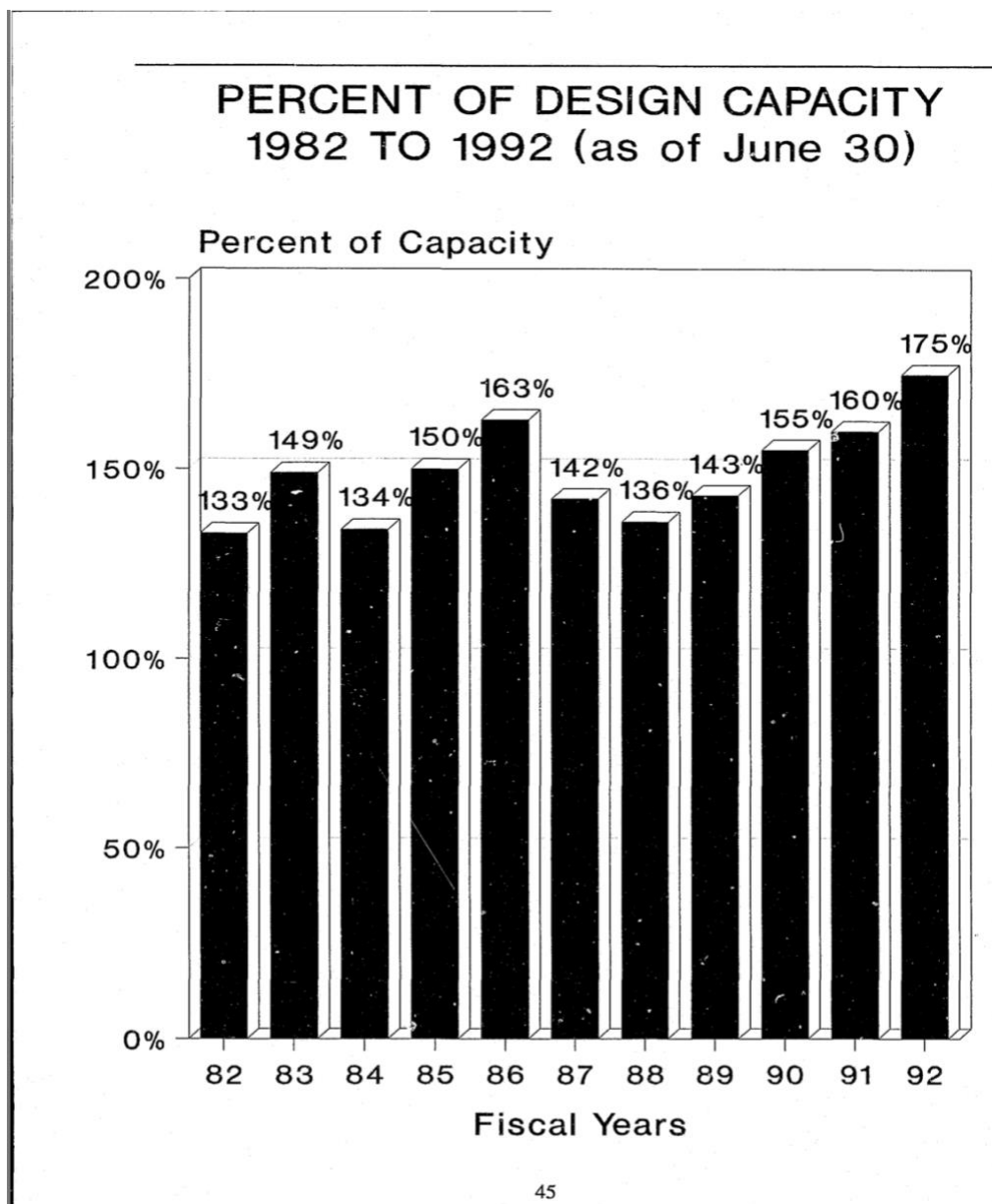
¹⁰⁶ *Id* at 349.



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Ohio Prison Design Capacity and Population, 1982-1992.¹⁰⁷

¹⁰⁷ *Annual Report 1992*, OHIO DEP'T OF REHAB. & CORR. 44,
<https://www.ojp.gov/pdffiles1/Digitization/147393NCJRS.pdf> [hereinafter *Annual Report 1992*].



Ohio Prison Percent of Design Capacity, 1982-1992.¹⁰⁸

Had the Court affirmed the ruling of the lower courts, finding that overcrowding through double celling long term prisoners in Ohio was impermissible, then the executive and legislative branches would have had to determine whether and how many more prisons should be built to accommodate single celling or whether and how to reduce the prison populations. The former

¹⁰⁸ *Annual Report 1992*, at 45.

option would have required much more significant direct financial investment while the latter would risk political backlash due to the then-popular tough-on-crime policies.

b. The Cost Impact of Rhodes on Ohio

To gain insight into the effect *Rhodes* may have had on Ohio's overinvestment in incarceration and underinvestment in adequate prison conditions—and thus, to an extent, on that of the nation—we examined data from the Ohio Department of Rehabilitation and Correction pertaining to costs associated with prison populations from periods before and after *Rhodes*. Though there are many complex variables at play in a state's investment in incarceration, this case study provides a valuable glimpse into how much Ohio, and perhaps other states, would have had to spend on their prisoners if the Supreme Court had required single celling.

The Southern Ohio Correctional Facility (SOCF), which was the subject of the 1981 *Rhodes* decision, started double celling in 1975 to accommodate a surge in prison commitments.¹⁰⁹ As can be seen in the graph below, the spike in number of prison entrants began in 1974 and continued through the 1980s.¹¹⁰ In 1974, Ohio committed 5,126 new prisoners, a total that had risen at a rate of about six percent each year for the previous three years.¹¹¹ The year 1975 marked the largest one-year increase in prison commitments in the state's history at that point. A total of 7,219 prisoners were added to the existing Ohio prison population.¹¹² In short, the rate of increase rose from that of six percent a year to 41 percent in 1975.¹¹³

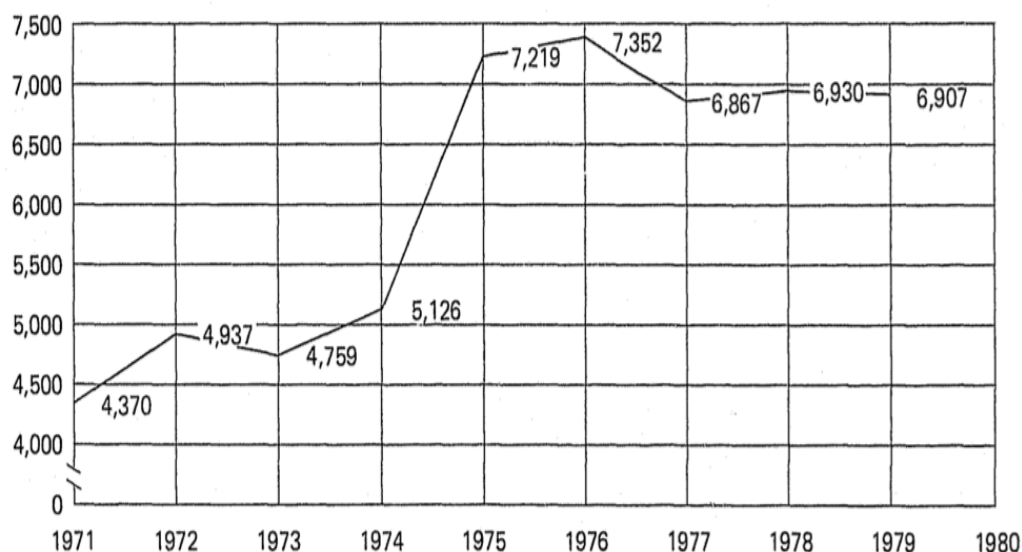
¹⁰⁹ *Annual Report 1975*, OHIO DEPT. OF REHAB. & CORR. 10-11, <https://www.ojp.gov/pdffiles1/Digitization/40721NCJRS.pdf> [hereinafter *Annual Report 1975*].

¹¹⁰ *Annual Report 1979*, OHIO DEPT. OF REHAB. & CORR 32, <https://www.ojp.gov/pdffiles1/Digitization/69200NCJRS.pdf> [hereinafter *Annual Report 1979*].

¹¹¹ *Id.*

¹¹² *Annual Report 1975*, *supra* note 109, at 11.

¹¹³ *Id.*



Ohio Prison Commitments, 1971-1980¹¹⁴

The statewide increase in prison commitments resulted in population growth in most of Ohio's prisons; SOCF was not the only Ohio prison to double cell in response.¹¹⁵ In 1975, the Department of Corrections put 493 people into SOCF raising the population to 1,628—28 people over its design capacity. Since the facility had been designed to be single celled, SOCF added second bunks to 240 cells to accommodate the influx of prisoners.¹¹⁶

Another facility in Ohio, the Lebanon Correctional Institute, likewise had a population growth. It added 398 prisoners for a total of 1,698 and added second bunks to over 370 cells.¹¹⁷ Additionally, the Mansfield reformatory, which was already double celled, opened up a closed

¹¹⁴ *Annual Report 1979*, *supra* note 110, at 32.

¹¹⁵ *Annual Report 1975*, *supra* note 109, at 10-11.

¹¹⁶ *Id.* (Many of the cells had to be reserved as single cells and readily available for protective custody, disciplinary purposes, etc. as discussed previously, so while the facility was technically only over capacity by 28, many more had to be double celled.)

¹¹⁷ *Id.* at 11.

400-bed dormitory once used for juvenile offenders to accommodate the extra prisoners.¹¹⁸ This spike in incarceration and the advent of double celling in Ohio set the stage for litigation in *Rhodes*.

As explained in *Punishment in Prison: Constituting the "Normal" and the "Atypical" in Solitary and Other Forms of Confinement*, by Judith Resnik and several co-authors:

By declining to enforce rules reflecting architectural, correctional, and health guidelines about the space individuals need, the [*Rhodes*] opinion enabled states to prosecute more people without internalizing the costs of confinement through providing appropriate physical facilities. The individuals who were packed in and the communities from which they were taken bore the costs instead.¹¹⁹

If the states avoided internalizing the costs of their increased use of incarceration, as Resnik and her co-authors noted, such “savings” may be reflected in the fiscal reports of the Department of Rehabilitation and Correction. Accordingly, we examined such reports and compared the costs associated with incarceration from 1973 (four years before the *Rhodes* case was heard by the trial court as well as before the spike in incarceration and use of double celling) with that of 1986 (five years after the Supreme Court’s ruling in *Rhodes*).

Ohio spent \$6,777 per prisoner in 1973.¹²⁰ This amount, when adjusted for inflation,¹²¹ had the buying power of \$17,435 in 1986. We applied this cost per prisoner to the average number of prisoners provided in an annual report from 1986¹²² and calculated the expected total cost Ohio would have had to pay if the state invested in its 1986 prison population the same amount of money

¹¹⁸ *Id.*

¹¹⁹ Judith Resnik, Hirsu Amin, Sophie Angelis, Megan Hauptman, Laura Kokotailo, Aseem Mehta, Madeline Silva, Tor Tarantola & Meredith Wheeler, *Punishment in Prison: Constituting the "Normal" and the "Atypical" in Solitary and Other Forms of Confinement*, 115 Nw. U. L. REV. 45, 30-31 (2020), <https://scholarlycommons.law.northwestern.edu/nulr/vol115/iss1/3>.

¹²⁰ JOHN J. GILLIGAN & BENNETT J. COOPER, REPORT OF THE OHIO DEPARTMENT OF REHABILITATION AND CORRECTION 27, 37 (1974) [hereinafter ANNUAL REPORT 1974]. Cost per prisoner calculated by dividing the “total Department Expenditures” (\$57,773,463) by the “average daily prisoner population” (8524) of 1973. The Annual Report uses this same process of calculation to fill the table on page 28 for each institution.

¹²¹ *Inflation Calculator*, BUREAU OF LAB. STAT., https://www.bls.gov/data/inflation_calculator.htm [hereinafter *Inflation Calculator*]. The adjusted cost per prisoner is \$11,993.

¹²² *Annual Report 1986*, OHIO DEPT. OF REHAB. & CORR. 25, <https://www.ojp.gov/pdffiles1/Digitization/110280NCJRS.pdf> [hereinafter *Annual Report 1986*]. The average number of prisoners in Ohio in 1986 was 21,431. The total cost of incarceration in 1986 was \$206,884,577.

per prisoner as it did in 1973. (It should be noted that we have no reason to believe that what Ohio spent per prisoner in 1973 was not also representative of an underinvestment in prison conditions.) The expected sum is over \$372 million, which is around 180% of what the state actually spent in 1986.¹²³ To put this amount in perspective, adjusted for inflation and holding other variables constant, Ohio would have had to spend today's equivalent of over \$394.27 million more on costs associated with incarceration in 1986 to maintain the same level of investment per prisoner that it had in 1973.¹²⁴ This difference is representative only of what Ohio avoided spending in 1986. Similar calculations could be done for other years.

Due to a lack of granularity in the Ohio Department of Rehabilitation and Corrections's budget, we did not include in our cost analysis data pertaining to the specific ways that standards of care might have been reduced to cut the cost invested in prisoners when double celling. Examples of such inadequacies could include a failure to provide adequate additional common areas, medical care, food making, storing, and providing, programs, or other resources to maintain pace with the increasing populations. We were, however, able to identify that the ratio of prisoners to staff increased from a 3:1 ratio in 1973¹²⁵ to a 4:1 ratio in 1986.¹²⁶ If Ohio had maintained its 1973 prisoner-to-staff ratio, it presumably would have cost the state more money to pay the employees' salaries and benefits, an expense that typically makes up a significant portion of prison budgets.

We cannot claim mathematically that the difference in investment per prisoner between 1973 and 1986 was causally related to double celling, and there were likely many other variables contributing to the prison budget in 1986. Nonetheless, the results of this case study make clear

¹²³ *Id.*

¹²⁴ *Inflation Calculator.*

¹²⁵ *Annual Report 1973*, OHIO DEP'T OF REHAB. & CORR. 28 (1974), <https://www.ojp.gov/pdffiles1/Digitization>.

¹²⁶ *Annual Report 1986*, *supra* note 122, at 25.

that in the years following the start of double celling and *Rhodes*, Ohio significantly decreased what it spent on incarcerating people on a per-person basis while simultaneously significantly *increasing* its use of incarceration as a response to crime. This finding conforms to the intuition that double celling allows states to avoid the financial costs associated with increasing prison populations while passing on and converting these costs into the unquantifiable mental, spiritual, and physical burden that such dense confinement forces on prisoners.

Furthermore, the difference in spending between 1973 and 1986 says nothing of the cost of constructing the prisons that would have been needed to ensure all prisoners were single celled. In 1986, Ohio's prison population was at 163% of its design capacity with an average daily inmate population of 21,431.¹²⁷ Thus, prisons would have needed to be built to house the excess of about 13,148 prisoners if Ohio wished to maintain its incarceration levels under a single celling scheme. To sketch an approximation of what it could have cost to construct the necessary prisons, we can consider the cost of building the SOCF. Ohio reported that it spent 32.5 million dollars to build the SOCF in 1972.¹²⁸ Since SOCF had 1,620 cells, it would take nine more SOCF's and today's equivalent of over \$1.861 billion to single cell all of the people incarcerated in 1986.¹²⁹

If Ohio had been confronted with having to pay the substantial sums that are estimated in this section—for instance, because of a Supreme Court decision mandating single celling—state officials likely would have thought more carefully about its increasing incarceration rates. Instead,

¹²⁷ *Id.*

¹²⁸ *Lucasville Riot Tab \$34 Million Plus*, PRISON LEGAL NEWS, at 14, 14 (Aug. 15, 1994), <https://www.prisonlegalnews.org/news/1994/aug/15/lucasville-riot-tab-34-million-plus/>.

¹²⁹ *Inflation calculator*. We acknowledge that there are issues with using the SOCF or any prison as a model for such a calculation. For instance, SOCF is a maximum security prison and would likely require features that other facilities would not, and this difference may be reflected in a difference in price. All of the 13,148 excess prisoners would not likely be placed in maximum security prisons. Furthermore, there are likely different step fixed costs associated with prisons of different sizes, and the size of additionally constructed prisons to accommodate single celling that Ohio would have chosen is unknowable. Nonetheless, this approximation provides a useful understanding of how expensive it would have cost to single cell Ohio prisoners in 1986.

Ohio was not required to make decisions about whether to reduce its use of incarceration or spend large sums of money to ensure adequate living space for those it incarcerated.

IV. THE PICTURE TODAY: PRISON EXPENDITURES AND OVERCROWDING

Almost 40 years after *Rhodes v. Chapman*, questions about state carceral investments remain. What costs do states incur in incarcerating individuals? How are these costs allocated, and how do they vary from state to state? How can we estimate what states are not spending because they are not required to single cell individuals? We turn to these questions now.

a. State Prison Expenditures

Costs of incarceration per capita (as measured against the total incarcerated population) vary widely across the United States, and making apples-to-apples comparisons of costs is difficult. Departments of corrections across the United States categorize their costs differently, and some cover functions (like parole or juvenile corrections) that others do not. Factors exogenous to the prison system—such as labor regulations—are another variable. The result is an enormous spread of costs. At one end, Alabama reported that, for fiscal year 2019, it spent approximately \$23,360 per prisoner for people held under the custody of the Alabama Department of Corrections system.¹³⁰ At the other end, in the same year California spent more than \$110,000 per prisoner in the California Department of Corrections and Rehabilitation system.¹³¹

¹³⁰ *Annual Report for the Fiscal Year 2019*, ALA. DEP'T OF CORR. 17 (2020), <http://www.doc.state.al.us/docs/AnnualRpts/2019%20Annual%20Report.pdf>.

¹³¹ *Governor's Budget 2020-2021, Corrections and Rehabilitation*, CAL. DEP'T OF FIN. 1-2 (January 2021), <http://www.ebudget.ca.gov/2021-22/pdf/GovernorsBudget/5210.pdf> (excludes all costs relating to juvenile justice) (figure computed by dividing relevant costs by average prisoner population for FY2019).

Our focus here is on what costs show up in state budgets, even as we are aware that many jurisdictions shift costs onto incarcerated people and their families.¹³² One example comes from the Prison Policy Initiative, which has estimated that families of the incarcerated pay almost \$3 billion in commissary and telephone charges per year.¹³³ Short of a state-by-state examination of prison policies, it is not possible to tell from budgetary data whether costs like these are included in the reported figures.

In 2017, the Vera Institute compiled 2015 data from 45 states in its report *The Price of Prisons*. Vera calculated that these states expended, on average, \$33,274 per prisoner per year.¹³⁴ When salaries and other personnel costs are excluded, the per person costs dropped to \$10,584 per year. Staff costs thus appear to be about two-thirds of corrections spending nationally, and different salary levels may well be central to the variation in costs between states. In 2015, for instance, Alabama spent about 60% less than the national average per prisoner, while California spent almost 100% more than the national average; when subtracting out costs associated with salaries, overtime, and other personnel services, however, Alabama rose to just 40% less than the national average, and California dropped to less than 50% more.¹³⁵ It is difficult to generalize from these observations. State-by-state variation in labor policy affects both wage rates and the cost of providing benefits to correctional officers.

¹³² Our focus is on taxpayer expenditures, whether spent by public prisons or through contracts with private prisons.

¹³³ Peter Wagner & Bernadette Rabuy, *Following the Money of Mass Incarceration*, PRISON POL’Y INITIATIVE (January 25, 2017), <https://www.prisonpolicy.org/reports/money.html>; see also Nicole Lewis & Beatrix Lockwood, *The Hidden Cost of Incarceration*, THE MARSHALL PROJ. (December 17, 2019), <https://www.themarshallproject.org/2019/12/17/the-hidden-cost-of-incarceration>. Whether prisoners or their families should pay these charges is a different question, not addressed here.

¹³⁴ Chris Mai & Ram Subramanian, *The Price of Prisons*, VERA INST. JUST. (2017), <https://www.vera.org/publications/price-of-prisons-2015-state-spending-trends/price-of-prisons-2015-state-spending-trends/price-of-prisons-2015-state-spending-trends-prison-spending> (including costs only for the 45 states that filled out the survey) (calculations of non-labor costs exclude “salaries and overtime (including for state health care employees)” and “other personnel services”).

¹³⁵ *Id.*

Understanding labor costs is important to understanding the cost of individual cells versus double celling. One possible cost impact is that single celling reduces labor needs as the issues associated with double cells – e.g., interpersonal conflict borne from density – decline. Another is that more cells would entail more places to patrol, thus increasing the overall labor needs and associated costs. Moreover, without the ability to double cell, states may well need to build additional prisons; in 1979, the Texas assistant attorney general defending the state in its prison litigation argued that enforcement of standards of adequate living space would require replacement of all fifteen state prisons, at a cost (in 1979) of close to \$1 billion.¹³⁶ Besides the one-off construction costs, additional prisons require step changes in the additional employment of corrections officers. Avoiding the need for a new prison (and the concomitantly more dramatic increase in employment) requires the use of strategies like double celling, which allow the prison population to swell within the walls of the existing prison infrastructure. The effect of single celling on prison staffing needs will thus likely have a significant impact on the economic calculus behind this decision.

b. Beneath the Numbers: How the Money Is Spent

We have identified one component: staff, and inside that cost, as Vera pointed out, is overtime as well as set salaries. The Vera Institute estimated that, in 2015, on average, salaries and overtime constituted ~40% of the cost, other personnel services constituted ~22%, boarding payments to local jails / private prisons / prisons in other states constituted ~7%, payments to healthcare providers constituted ~20%, and all other costs constitute ~17%.¹³⁷ Using the national average of \$33,274 per prisoner in 2015, that cost would come out to \$13,310 on salaries, \$7,320

¹³⁶ Richard S. Allinson, *The Politics of Prison Standards*, CORRECTIONS MAGAZINE 62 (March 1979).

¹³⁷ *Id.*

on other personnel services, \$2,329 on boarding payments, \$6,654 on healthcare, and \$5,656 on all other costs per prisoner that year.

Some individual states have released more detailed break-downs of their budgets from recent years, and the Vera Institute is due to release an update on its survey this summer.¹³⁸ We can use these budget details to construct representative cost breakdowns with more recent data, according to categories formed from the specific budget items. To provide a comparative perspective, we took budget information from two data points: Alabama (one of the lowest per-capita costs) and from California (one of the highest per-capita costs). We also examine Ohio, the focus of the *Rhodes v. Chapman* decision.

One persistent challenge is the difficulty of making cost comparisons between states. This difficulty stems from the varying levels of detail at which states report their corrections budgets as well as the imperfect overlap between budgetary categories. For instance, whether staffing and personnel costs are reported as a standalone category or embedded within different sub-categories differs between states, as does the level of granularity in operating costs for prisons. What we report below is a combination of categories that we have devised and those provided by the departments of corrections themselves.

The Alabama Department of Corrections spent over \$500 million in fiscal year 2019, constituting approximately 5.5% of Alabama’s general fund budget for the same year.¹³⁹ The table below summarizes the breakdown of costs for Alabama in fiscal year 2019, using categories provided by the Department of Corrections:¹⁴⁰

¹³⁸ *The Price of Prisons*, VERA INST. JUST. (forthcoming 2021).

¹³⁹ *State Expenditure Report: 2020 State Expenditure Report, Fiscal Years 2018 - 2020*, NAT’L ASS’N OF STATE BUDGET OFF. (NASBO) 8 (2020), https://higherlogicdownload.s3.amazonaws.com/NASBO/9d2d2db1-c943-4f1b-b750-0fca152d64c2/UploadedImages/SER%20Archive/2020_State_Expenditure_Report_S.pdf.

¹⁴⁰ *Annual Report for the Fiscal Year 2019*, ALA. DEP’T OF CORR. 16 (2020), <http://www.doc.state.al.us/docs/AnnualRpts/2019%20Annual%20Report.pdf> (“Other” includes “transportation,” “travel,” and “community corrections and other grants”).

Category	Percentage of budget	Est. yearly cost per prisoner (\$)
Personnel costs	35.7	\$8,340
Healthcare and other professional services	33.5	\$7,825
Employee benefits	13.6	\$3,177
Supplies and operating expenses	6.4	\$1,495
Utilities and communication	3.4	\$794
Rentals and leases	1.8	\$420
Repairs and maintenance	1.4	\$327
Equipment purchases	1.2	\$280
Capital outlay	0.1	\$234
Other	2.8	\$560

Estimated per capita cost, Alabama Department of Corrections, FY19

As can be seen from the breakdown, costs associated with owning, constructing, and operating the buildings are much lower than costs associated with staffing them and providing adequate benefits to staff and healthcare to the prisoners. Indeed, over three quarters of the prisoner cost stems from personnel costs and healthcare costs. In July 2020, however, the U.S. Department of Justice published the results of an investigation into Alabama's prison system that revealed levels of violence and excess force used on inmates suggesting systemic violations of the Eighth Amendment.¹⁴¹ The report was published against a backdrop of an existing court order for Alabama to dramatically increase its staffing levels by February 2022.¹⁴² Thus the costs above

¹⁴¹ See Civ. Rts. Div., *Investigation of Alabama's State Prisons for Men*, U.S. DEP'T OF JUST. (July 23, 2020), <https://www.justice.gov/crt/case-document/file/1149971/download>.

¹⁴² Mike Cason, *Ala. DOC Behind on Meeting Court Order to Alleviate CO Staffing Shortage*, CORRECTIONS1, June 10, 2020,

understate the investment in personnel costs that Alabama will need to make over the next 12 months.

In fiscal year 2019, the California Department of Corrections and Rehabilitation (CDCR) spent approximately \$12.7 billion on incarceration—the most by any state, larger than the next-biggest budget (New York’s) by over \$9 billion.¹⁴³ This sum came to around 8.6% of the overall California state general fund budget for fiscal year 2019.¹⁴⁴ Half of its budget was spent on adult prison operations, ~23% on medical and dental health care, and ~6% on mental health care. Thus, California spent approximately 4.3% of its general fund state budget on adult prison operations.

Digging through the detailed CDCR budget (containing hundreds of line items) allows us to construct a rough breakdown of these costs for the “typical” prisoner, depicted in the table below in categories we have created ourselves:¹⁴⁵

Category	Percentage of budget	Est. yearly cost per prisoner (\$)
General security	~37	\$38,460
Healthcare	~23	\$24,474
Inmate support (feeding, clothing, facility operations)	~14	\$14,880
Administration	~12	\$12,049
Mental health	~6	\$6,357

<https://www.corrections1.com/understaffing/articles/ala-doc-behind-on-meeting-court-order-to-alleviate-co-staffing-shortage-65Py9zEtdiG4fTpS/>.

¹⁴³ See *Governor’s Budget 2020-2021, Corrections and Rehabilitation*, CAL. DEP’T OF FIN.1-2, 9 (January 2021), <http://www.ebudget.ca.gov/2021-22/pdf/GovernorsBudget/5210.pdf> (CDCR FY19 budget); *Department of Corrections and Community Supervision*, N.Y. DIV. OF BUDGET (Jan. 15, 2019), <https://www.budget.ny.gov/pubs/archive/fy20/exec/agencies/appropData/CorrectionsandCommunitySupervisionDepartmentof.html> (New York Department of Corrections and Community Supervision FY19 budget).

¹⁴⁴ See *Enacted Budget Detail, 2019-2020 State Budget*, CAL. DEP’T OF FIN. (June 27, 2019), <http://www.ebudget.ca.gov/budget/publication/#/e/2019-20/BudgetDetail>.

¹⁴⁵ *Governor’s Budget 2020-2021*, *supra* note 131 (excludes all costs relating to parole and to juvenile justice; per-prisoner cost calculated using average daily population of 118,037 per page 9 of budget).

Rehabilitation (education, activities, CBT)	~4	\$4,584
Capital costs	~1	\$1,490
Other	~3	\$1,955

Estimated per-capita cost, California Department of Corrections and Rehabilitation, FY19

We see in California a roughly similar picture, in terms of the composition of the overall budget, as we see in Alabama. Direct comparisons are difficult: California does not separately account for personnel costs. If we assume, however, that the bulk of costs under “general security” are the costs associated with correctional officers, the story is essentially the same: personnel costs (which we might see as a combination of general security costs and administration costs) and healthcare costs make up the two most expensive budget items for the CDCR, with costs associated with the construction and maintenance of the actual facilities near the bottom.

The Ohio Department of Rehabilitation and Correction spent \$1.79 billion out of its general fund on incarceration in fiscal year 2019,¹⁴⁶ representing approximately 5.5% of the full general fund budget.¹⁴⁷ The yearly per capita cost in Ohio in 2019 came to \$29,448.¹⁴⁸ Based on the self-reported budget categories released by the ODRC, we can construct a similar table as those above.¹⁴⁹

¹⁴⁶ *Annual Report 2019*, OHIO DEP’T OF REHAB. & CORR. 52 (2019), <https://drc.ohio.gov/Portals/0/Annual%20report%20final%20ODRC.pdf>

¹⁴⁷ *State Expenditure Report: 2020 State Expenditure Report, Fiscal Years 2018 - 2020*, NAT’L ASS’N OF STATE BUDGET OFF. (NASBO) 8 (2020), https://higherlogicdownload.s3.amazonaws.com/NASBO/9d2d2db1-c943-4f1b-b750-0fca152d64c2/UploadedImages/SER%20Archive/2020_State_Expenditure_Report_S.pdf.

¹⁴⁸ *Annual Report 2019*, OHIO DEP’T OF REHAB. & CORR. 51 (2019), <https://drc.ohio.gov/Portals/0/Annual%20report%20final%20ODRC.pdf> (daily per capita cost was multiplied by 365)

¹⁴⁹ *Id.*

Category	Percentage of budget	Est. yearly cost per prisoner (\$)
Security	~45	\$13,239
Medical services	~15	\$4,449
Administration	~12	\$3,599
Support services	~9	\$2,631
Facility maintenance	~7	\$2,124
Mental health	~4	\$1,295
Unit management	~4	\$1,278
Education services	~3	\$829

Estimated per capita cost, Ohio Department of Rehabilitation and Correction, FY19

Once again, in Ohio, we see a repeat of the cost trends present in California and Alabama. Security (the bulk of which, presumably, is comprised of the salaries and benefits of correctional officers) comprises almost half of the spending, a figure which rises to almost 70% if administration and support services are included. Healthcare is the second biggest expenditure, with facility maintenance coming in next.

The breakdown of the three states shows challenges of cost comparisons between states. As noted, whereas Alabama separated personnel costs into a separate category, California and Ohio divided this cost across buckets (security, administration, etc.), so it is difficult to isolate on its own. It is therefore unclear how much of “inmate support” or “support services” is really the labor costs necessary to operate these functions. Likewise, the lion’s share of “security” is likely officer salaries. If the 2015 trends noted in the Vera report remain true, however, every state’s corrections budget will devote more to corrections officers (salaries, overtime, benefits) than to any single other category.

In addition, for all states examined here, the second most expensive budget item has been healthcare. The impact of overcrowding on the mental and physical health of incarcerated people thus must be considered as a potential counteracting force on the cost-saving measure to double cell, though the impact on costs will always remain counterfactual.

All three states spent a low percentage of their budget on capital costs and facility maintenance. Capital outlays vary by year. Alabama, for instance, has recently approved leases for two new privately-run prisons, at an expected cost of \$88 million per year for leases.¹⁵⁰ However, although the cost of the physical construction of new prisons likely influences the decision to double cell, such up-front expenditures pale over time, in comparison to the additional labor costs entailed in fully staffing a new prison for decades thereafter.

Two potential areas of further research are the relationship between overcrowding and health problems and the relationship between prison populations and staff:prisoner ratios. The construction of adequate space in prisons (or, even better, the reduction of the overall prison population) may drive down healthcare costs significantly.¹⁵¹ Indeed, in 2011 the Supreme Court in *Brown v. Plata* upheld a lower court's order that the California prison system release 46,000 inmates because of an inability to provide adequate healthcare in California's horrendously overcrowded prisons.¹⁵² To properly house, feed, and care for an individual is an expensive endeavor. States use a mix of policies to reduce the burden of incarceration on the taxpayer. Where

¹⁵⁰ Brian Lyman, *As Alabama Moves to Build New Prisons, Opposition Mounts in Communities Getting Them*, MONTGOMERY ADVERTISER (Oct. 9, 2020), <https://www.montgomeryadvertiser.com/story/news/2020/10/09/alabama-moves-build-new-prisons-opposition-mounts-communities-getting-them/3502296001>.

¹⁵¹ See, e.g., Catherine Heard, *Towards a Health-Informed Approach to Penal Reform? Evidence from 10 Countries*, INST. FOR CRIM. POL'Y RSCH. (June 2019), <https://icpa.org/library/towards-a-health-informed-approach-to-penal-reform-evidence-from-ten-countries/>.

¹⁵² See *Brown v. Plata*, 563 U.S. 493, 502 (2011). Justice Kennedy, for the majority, noted that at the time of the trial, California's prison system held nearly double what it was designed to hold.

such policies result in a marked deterioration in the health and well-being of those who are incarcerated, their cost-saving effects may indeed be blunted.

One final note: as discussed above, many variables play into any calculations we might undertake in order to put an exact dollar amount on the additional amount that states would have to invest in a society that prohibited double celling. We would have to estimate the costs of construction of new prisons (requiring a further estimate of how many new prisons would be required and how large they would be), the cost of staffing them, and the difference in the per-prisoner costs of services (such as healthcare costs, which as discussed may see decreases as a result of less crowding). The counterfactual nature of these estimates would require complex calculations to result in anything more than a crude estimate.

c. The Prevalence of Double Celling and Its Avoided Costs in 2020

Unfortunately, recent data specifically on the prevalence of double celling is currently unavailable. One way to construct a picture on double celling, however, is by using data on overcrowding. Emily Widra of the Prison Policy Initiative has put together a 2020 memo compiling information for each state as well as on the federal level.¹⁵³ As discussed in Section IIa1, we focus on design capacity.

Design capacity tends to be the smallest number of the three ways of measuring capacity. Take Alabama as an example. The operational capacity of its prison system is 22,231 according to 2020 Bureau of Justice statistics, but its design capacity is 12,412.¹⁵⁴ As of December 31, 2019,

¹⁵³ Emily Widra, *Since you asked: Just how overcrowded were prisons before the pandemic, and at this time of social distancing, how overcrowded are they now?*, PRISON POLICY INITIATIVE (Dec. 21, 2020), <https://www.prisonpolicy.org/blog/2020/12/21/overcrowding/>.

¹⁵⁴ *Id.* app.

Alabama's custody population was 21,802.¹⁵⁵ Alabama's state prison population exceeded its capacity by 9,390 prisoners, meaning that it operated at 176% capacity. Since the COVID-19 pandemic, the population as of September 2020 was 19,014, or operating at 153% capacity (6,602 surplus prisoners). Although the Widra Report was able to find design capacity for most states, design capacity information is missing for several states, as well as the Federal Bureau of Prisons. That said, information on overcapacity and overcrowding in both state and federal contexts is widely available otherwise, potentially with slightly older data. Still, before the pandemic, 24 states had a "lowest capacity" utilization (generally speaking, the capacity percentage based on the design capacity) of 100% or more, with Alabama leading the charge at 176%. Post-pandemic, the most overcrowded based on design capacity was Montana, whose prison population increased to 2,440 prisoners in a prison system with a design capacity of 1,142, resulting in the state's operating at 214% of capacity. These numbers help us understand the current state of overcrowding in today's prisons, an issue deeply interconnected with the idea of double celling.

While it is difficult to determine the hypothetical costs that states would incur if denied the option of double celling today, given a few reasonable assumptions, we can begin to sketch out an approach to work out various ballpark figures based on our 2020 data.¹⁵⁶ To begin to answer this question, we must first determine what the affected population is—in other words, how many people are currently double celled? While this exact data has not been collected, the design capacity variable discussed above can serve as a proxy for the number of prisoners double (or triple, etc.) celled. Strictly speaking, using design capacity is overinclusive, as we will encompass instances of (for example) putting 4 prisoners into a room designed for 2 prisoners, which strictly

¹⁵⁵ *Id.*

¹⁵⁶ The ballpark figures below encompass only a subset of the main costs of incarceration and how those costs may change if states were precluded from double celling. Other miscellaneous costs are of smaller magnitude comparatively, or are difficult to calculate using existing data.

speaking does not constitute double ceiling. Including these cases, however, does not thwart our overall purposes. To remind us of these assumptions, instead of “double ceiling,” we will use the term “overcrowding” henceforth.

First, we calculate a rough estimate of construction costs saved via overcrowding, using Alabama, the state that spends the lowest total amount per inmate,¹⁵⁷ as an illustration. According to the Widra Report, Alabama’s prison system has a design capacity of 12,412 prisoners, and as of September 2020, an actual prisoner population of 19,014. Thus, Alabama had an excess of 19,014 prisoners minus 12,412 prisoners, or 6,602 prisoners.

Given this figure and other existing data, we can then roughly estimate how many more prisons would be required to hold them.¹⁵⁸ Limestone prison, currently the largest prison in Alabama, is a “close security facility” and holds 1,628 people.¹⁵⁹ Assuming Alabama built facilities the same size as Limestone, it would build 6,602/1,628 facilities, which rounds to four new equivalents of Limestone. How much might it cost to construct a prison facility in Alabama?¹⁶⁰ A prison under construction in Arkansas in 2002, which likely does not face significantly different prices from Alabama (as opposed to states with higher land values, such as California or New Jersey), had an estimated cost of \$98M, an equivalent of \$142.5M today.¹⁶¹ We can approximate this as \$150M (slightly over a 5% increase), since the Arkansas prison was

¹⁵⁷ *Id.*

¹⁵⁸ We could use an average figure or a maximum/minimum figure. Using a maximum figure would produce a conservative estimate; essentially, we would assume that fewer big prisons would be built to hold the excess prisoners, instead of a greater number of smaller prisons (which would presumably cost more). For similar reasons, using a minimum figure would produce a liberal estimate. To produce a conservative estimate of the avoided costs, we use a maximum figure.

¹⁵⁹ Jefferson S. Dunn, *Alabama Department of Corrections Monthly Statistical Report for December 2020*, ALA. DEP’T OF CORR., at 3 (2021), <http://www.doc.state.al.us/docs/MonthlyRpts/December%202020.pdf>.

¹⁶⁰ Here, too, we have the option of utilizing an average figure, a maximum figure (for a liberal estimate) or a minimum figure (for a conservative estimate). We again use a figure that will lead to a conservative estimate.

¹⁶¹ *Management of Construction Contracts*, FED. BUREAU OF PRISONS (2002), <https://oig.justice.gov/reports/BOP/a0232/final.pdf>; *Inflation Calculator*. For the rest of Section IVc, dollar amounts will be in 2021 dollars, with any conversions done using the inflation calculator.

designed for fewer prisoners (1,152 total), and so likely costs less than our hypothetical Alabama prison. According to these calculations, a conservative estimate of the money saved on one-time construction costs is $\$150\text{M} * 4 \text{ prisons} = \$600\text{M}$ total.

Other costs in the absence of double celling are more difficult to estimate, though we can make reasonable assumptions about both directionality and magnitude. Food costs per person, for example, would likely increase slightly due to economies of scale, but we would not expect massive changes in the food costs per prisoner as a result of changing the ratio of prisoners to prisons. Other supplies provided to prisoners, such as clothes or toiletries, likely face similar cost curves. Some countervailing factors suggest decreased costs—for example, it is possible that prisons face higher expenditures on clothing in overcrowded conditions, since those conditions lead to more physical conflicts, increasing the probability that clothing is ripped, torn, and eventually replaced. The costs of healthcare per person may decrease, absent sudden altruism on behalf of the state to actually provide its prisoners with increased doctor-hours. Overcrowding causes a number of health issues; removing the cause would likely reduce the effect, and so at least a subset of health issues that overcrowded prisoners currently face could disappear.

Staffing costs per prisoner would likely increase due to the smaller scales of operation. For each additional facility, some roles and devices would have to be replicated (two wardens instead of one, two surveillance camera systems instead of one, and so on). We can also make rough conservative estimates of the personnel costs of four more Limestone facilities. Personnel population data is unavailable, but other data indicates that Limestone is designed to account for 1,628/12,388 of the total prison population.¹⁶² Assuming a similar proportion of total personnel population, we multiply the above fraction by 3,400, the total number of employees employed by

¹⁶² Dunn, *supra* note 159, at 3.

the Alabama Department of Corrections,¹⁶³ to estimate approximately 447 personnel required for Limestone. To ensure a conservative estimate, we round this down to 400 personnel per additional “Limestone,” or a total of 1,600 additional personnel.¹⁶⁴

To keep calculations conservative, we assume that all 1,600 of these personnel earn the “basic starting salary without post-high school education or location differential pay” of \$32,227/year.¹⁶⁵ In reality, higher-ranked officers will receive higher salaries, and we exclude various benefits expenditures (e.g. health insurance), but again, we want a conservative estimate (though the rough costs of the benefits should not be prohibitively difficult to calculate). Making this assumption, Alabama saved \$51,563,200 on personnel salaries in one year of overcrowding. Other monitoring/security costs per additional prison would also incur. For example, four additional sets of surveillance systems, at a conservative estimate, would amount to installation fees of \$94,978.¹⁶⁶

The data that states release publicly is inconsistent and incomplete, forcing us to make only crude approximations. Above, we have sketched out a rough approach to estimating the costs of incarceration given minimal prisoner space standards, as well as indicated areas in which the data could be improved to better reflect underlying realities. We conducted this case study on Alabama, a state that already spends less on its prisoners than other states.

¹⁶³ *Employment Opportunities for Correctional Officers*, ALA. DEP’T OF CORR., <http://www.doc.state.al.us/employment>.

¹⁶⁴ We make this adjustment to correct for any generous estimates earlier. For example, our current Limestone personnel statistic is based on a prison population statistic that itself only obtains in a regime with double celling. A prison at capacity would likely employ fewer personnel, affecting both currently overcrowded prisons and hypothetically constructed prisons.

¹⁶⁵ *Guide for New Compensation Plan*, ALA. DEP’T OF CORR., at 7 (2019), http://www.doc.state.al.us/docs/ADOC_Full%20Compensation%20Pkge_07032019.pdf.

¹⁶⁶ *How Much Does a Prison/Correctional Facility Security Camera System Cost?*, COSTOWL (2021), <https://www.costowl.com/b2b/security-video-surveillance-prison-camera.html>.

V. POLICY RECOMMENDATIONS

As a result of our findings, we set forth three general areas of policy recommendations geared towards state governments, Congress, executive agencies, and the people to whom they are accountable. The first general area concerns the best practices concerning the data that prison systems release. The second area calls on state legislatures to directly implement minimum standards (with a private cause of action to ensure enforceability by both state agencies and prisoners themselves), as well as on Congress to use its power of the purse to incentivize state legislatures to do so. The last area calls on executive branch agencies to take action with respect to the federal system.

In order to facilitate further research, we first offer several recommendations relating to best data practices for federal and state governments—who control information about facilities—and their constituents, who can exercise pressure on those bodies. Capacity measurements need to be standardized in order to allow for meaningful comparisons between different jurisdictions. This involves both creating meaningful, objective standards to define rated, operational, and design capacities, and also using those standardized definitions across states and the federal system. One potential model would be a variable akin to the “measured capacity” variable discussed above; in order to craft these standards, experts in fields such as architecture or psychological health should be consulted in determining a minimum humane space. Another model would simply be to use the currently available standards, such as the ACA’s minimum standard of 60 square feet, a number endorsed by other organizations.¹⁶⁷

In addition, state budget information with respect to prisons should be disaggregated—how much the state spends on different types of staff (such as security expenses versus administrative

¹⁶⁷ See *infra* Section IIa2.

workers), whether contract workers (such as medical providers) fall into that budget, and how much it costs to build a new facility would all be useful in driving future discussions about policy. Without these metrics, it becomes difficult to separate areas in which the state under-invests (typically relating to quality of care, such as adequate living conditions or provision of programming) from those in which it over-invests (high numbers of facilities). Further metrics that should be released include more centralized sources for the number of facilities in a given state, the number of cells per facility and their respective sizes, and the actual number of prisoners who are double celled. The methods of obtaining those measures are currently imprecise and cumbersome. Some of the above figures have been estimated based on using a prison's actual population versus its design or rated capacity; other figures have relied on surveys in which the prisons voluntarily reported numbers. To serve the purposes of transparency and accessibility of clean data, this information should be released regularly in a centralized format. Without such standardization, consistency, and comprehensiveness, informed discussions about divestment cannot take place.

Another prescriptive measure that follows naturally from the above is that both the federal government and state governments should, once they have certain capacities and minimum square footage per prisoner guidelines, ensure that prisons follow those standards. There are a number of mechanisms by which this can be achieved (and these mechanisms apply equally to the other prescriptions mentioned in this conclusion as well). First, state legislatures could themselves pass statutory mandates that determine said minimum levels and require that state prisons not violate those minimums, providing for a statutory private cause of action so that prisoners can enforce such suits. Congress could do the same on the federal level. This, of course, would be a decentralized manner of handling this issue, and would likely require years, if not decades, of

political pressure. Second, the federal government could provide incentives for state governments to meet minimum standards, akin to how it has required states to follow a federally-defined minimum drinking age—Congress’s Article I spending powers.¹⁶⁸ Within certain limits, Congress can condition federal funds on states’ meeting certain criteria—in this case, criteria that would set minimum living standards (including space requirements) for state prisons. This may lead to adverse effects if Congress holds hostage existing funds that improve prisoner quality of life, or promises to grant funds related to expanding the prison system. However, Congress could offer supplemental funds earmarked specifically for various programming in prisons, focusing on improvements to quality of life as opposed to the amount of incarceration providing, or withdraw existing federal funding from related budgets that would not have a direct effect on prisoners, such as local police departments.

Third, within the federal system specifically (and, depending on their administrative systems, states as well), the Attorney General could promulgate internal rules mandating that its prisons meet such minimum requirements, and reallocate funds available to them for the federal prison system accordingly, a matter completely under their discretion by statute.¹⁶⁹ The Attorney General also appoints and supervises the Director of the Bureau of Prisons, and so should exercise that power to appoint a Director willing to adhere to and enforce these recommendations.¹⁷⁰

VI. CONCLUSION

The carceral state reflects a double narrative: one of investment and one of divestment. The United States currently faces an overinvestment in the use of prisons but an underinvestment in

¹⁶⁸ U.S. CONST. art. I, § 8, cl. 1. *See, e.g.*, *South Dakota v. Dole*, 483 U.S. 203 (1987); *NFIB v. Sebelius*, 567 U.S. 529 (2012).

¹⁶⁹ 28 U.S.C. §§ 509, 530C(b)(2)(6).

¹⁷⁰ 18 U.S.C. § 4041.

the quality of prisons in terms of the space and the services provided to prisoners. *Rhodes v. Chapman* allowed state governments to increase their reliance on incarceration as a response to crime while avoiding certain step-fixed costs associated with constructing new facilities, hiring new staff, or other costs of an increasing prisoner population. Yet, this “savings” comes at the expense of human dignity—both that of those who are confined to inhumane conditions as well as of those who are complicit in such treatment to others.

In this paper, we have focused on teasing out the effects of double celling on the state’s bottom line. While we have considered certain costs—staffing, construction, and the like—other types of costs need to become part of the equation, including the harm of detention to people and their communities and the political conflicts and legislative struggles over allocating tax dollars when states decide what to fund. In terms of what more research is needed, we hope to find a deeper understanding of the various definitions of prison capacities, of double celling, and the current, varied realities of prison costs that exist throughout the United States. As noted, no readily available data we have located provides the actual rate of double celling.

Given the counter-factual nature of the investigation and the magnitude of the variation between states in both carceral policy and the accounting of corrections expenditures, providing a precise estimate of what states do not have to spend because of double celling remains difficult. We have attempted to provide a framework for understanding the role of the law in enabling the use of double celling. Our analyses suggest that *Rhodes* removed one constraint on incarceration when the Court sanctioned double celling and thus changed an aspect of the cost calculus states faced when rising prison commitments exceeded a limited housing stock. Law has shaped or contributed to other parameters, including the permissibility of solitary confinement,¹⁷¹ prisoner

¹⁷¹ See, e.g., *Wilkinson v. Austin*, 545 U.S. 209 (2015); see also Margo Schlanger, *Incrementalist vs. Maximalist Reform: Solitary Confinement Case Studies*, 115 NW. U. L. REV. 273 (2020) (comparing the effectiveness of

access to courts and to lawyers,¹⁷² and the quality of the mental or physical healthcare that prisoners receive.¹⁷³ Understanding how and where the law intervenes to affect state decision-making with regard to carceral policy remains an important area of further research.

This paper must be viewed in the context of the national discussion on prison divestment. We have argued that states are not internalizing the full costs of their carceral policies. By double-celling their prisoners, prison systems shortcut the financial and political expenses of providing prisoners with humane living conditions. These are costs that they should have to account for, which they could do in one of two ways. The first way would be a significant expansion in the carceral state, both expanding existing facilities and building more facilities; the second way would be through releasing prisoners until facilities are (at most) at their design capacities, newly defined by independent standards to ensure humane living standards. We find the second route preferable, as do those opposed to the carceral state on the left, and those opposed to big government on the right. While the findings of this paper generally support the recent nationwide calls for divestment and decarceration, they also indicate a need to carry out such efforts carefully to avoid diverting already thin resources from prisoners' quality of life while they are still confined within the system.

incrementalist attempts at reforming solitary confinement policy versus maximalist abolition strategies); Judith Resnik, Hirsu Amin, Sophie Angelis, Megan Hauptman, Laura Kokotailo, Aseem Mehta, Madeline Silva, Tor Tarantola & Meredith Wheeler, *Punishment in Prison: Constituting the "Normal" and the "Atypical" in Solitary and Other Forms of Confinement*, 115 NW. U. L. REV. 45 (2020) (mapping how different circuit courts have set the limits of permissible solitary confinement).

¹⁷² See, e.g., *Johnson v. Avery*, 393 U.S. 483 (1969); *Bounds v. Smith*, 430 U.S. 817 (1977); *Lewis v. Casey*, 518 U.S. 343 (1996).

¹⁷³ See, e.g., *Estrella v. Gamble*, 429 U.S. 97 (1976); *Hoffer v. Jones*, 290 F. Supp. 3d 1292 (N.D. Fla. 2017), *rev'd sub nom.* *Hoffer v. Secretary*, 973 F.3d 1263 (11th Cir. 2020).