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ARTICLES

NOTE

Editor's Note

Chapman Law Review is proud to release the first issue of Volume 29. This is the first of two general law review issues in this year's volume, to be followed by the Symposium Issue. This issue features scholarship from experts in their respective fields in a diverse range of timely and pressing topics, as well as a student Note from a *Chapman Law Review* Managing Editor.

Professor Jonathan D. Bremen commences the issue with an analysis of California's housing crisis. *Element of Accountability: Strengthening Enforcement of California's Housing Element Law* serves as the seminal comprehensive study of Housing Element litigation. California's Housing Element Law was enacted to address the housing crisis through comprehensive planning. Professor Bremen expertly analyzes a swath of litigation and reveals the shortcomings of the enforcement mechanisms available to California's citizens. Professor Bremen evaluates potential remedies to Housing Element Law's shortcomings and proposes solutions to address housing affordability, which is certain to have far-reaching ramifications.

Next, Professor Kevin Frazier calls for a fundamental upheaval of legal scholarship in the face of the inevitable transformation caused by the widespread implementation of artificial intelligence. *Systemic Legal Scholarship for Systemic AI* makes an urgent call for a refined approach to the legal treatment of artificial intelligence. Professor Frazier examines the flaws with an incremental approach, evaluates effective methods consistent with a systemic approach, and advances solutions through a public education case study. Professor Frazier deftly argues that artificial intelligence is a transformational advancement that requires a transformational legal strategy.

Professor Reem Haikal then critiques the shortcomings of federal capital punishment, the potential effects of its continued inadequacy, and solutions for repairing its crucial defects. *Death by Discretion: Executive Power and the Arbitrary Machinery of Federal Capital Punishment* undertakes a comprehensive examination of the Federal Death Penalty Act, its fundamental flaws, and the ways in which unchecked executive discretion has reintroduced arbitrariness condemned in *Furman v. Georgia*. Professor Haikal examines the instability created by shifting presidential enforcement policies, evaluates the constitutional consequences of a capital regime driven principally by political ideology, and proposes legislative reform to restore consistency, transparency, and accountability to federal capital punishment.

In the final article, Major Michael D. Minerva proposes a workable framework to tackle the emerging realities of cyber and space conflict. *Through a Glass Darkly: Targeting Cyber and Space Infrastructure in the Law of War* provides a detailed analysis of how dual-use networks, data centers, and commercial satellites can become lawful military objectives and why that reality raises difficult questions of distinction and proportionality. Major Minerva develops a practical analytical framework for assessing when and how kinetic strikes on such infrastructure may comply with the Law of War, offering concrete guidance for decision-making in future cyber and space conflicts.

Finally, United States Marine Corps veteran and third-year student at Chapman University Dale E. Fowler School of Law, Jaeden Esquivel, contends that the current space law framework is outdated and ill-suited to modern military realities. *The Outer Space Legal Regime: Peace in Name, Power in Practice, and the Call for a New Treaty* traces how the 1967 *Outer Space Treaty*'s narrow ban on weapons of mass destruction, combined with strategic ambiguity, has allowed the United States, China, and Russia to militarize and weaponize space while remaining formally within the treaty's limits. Mr. Esquivel proposes a new U.S.-led agreement modeled on the START arms control framework that would gradually prohibit debris-generating space weapons while permitting reversible, non-destructive capabilities, aimed at protecting the satellite infrastructure that underpins critical civilian and military systems.

Chapman Law Review extends its deepest gratitude to the faculty and administration for their invaluable contributions to the success of this Journal. We are especially thankful to our faculty advisor, Professor Celestine McConville, for her expert guidance and unwavering support. Further, *Chapman Law Review* is grateful to Dean Kenneth Stahl, his administrative staff, and the *Chapman Law Review* Faculty Committee for their dedication to our Journal and constant support. We also would like to thank the Research Librarians of the Hugh & Hazel Darling Library, whose expertise has been a vital resource for our editing team.

Finally, thank you to our *Chapman Law Review* Volume 29 team members, from our editorial board to our staff editors. Countless hours, edits, comments, and communications went into creating our first general issue, and without your hard work and dedication to the Journal, this accomplishment would not have been possible. Working with and learning from you has been a true pleasure. I would also like to specifically acknowledge our remarkable Executive Managing Editor, Brianna Gerth, and Executive

Production Editor, Kirsten Marsteller, for their unwavering dedication to this Journal. I am profoundly grateful for their expertise, ingenuity, and determination in leading the editing and production teams and creating an issue that will make our law school proud. Lastly, thank you to the previous iterations of *Chapman Law Review* that have paved the way and set an example that Volume 29 can follow. It has been an incredible honor to serve as the Editor-in-Chief of *Chapman Law Review* and I look forward to what lies ahead.

Jack Mays
Editor-in-Chief

Element of Accountability: Strengthening Enforcement of California's Housing Element Law

Jonathan D. Bremen

CONTENTS

Element of Accountability: Strengthening Enforcement of California's Housing Element Law

Jonathan D. Bremen∗

California's housing crisis, marked by a severe shortage of affordable housing, soaring costs, and rising homelessness, has reached alarming proportions. Despite decades of efforts, the state continues to grapple with a housing market that significantly underserves low- and middle-income residents, forcing many to devote high portions of their income to housing. On paper, California's Housing Element Law appears to be a valuable tool to address the crisis by requiring cities and counties to plan for housing needs across all economic segments. Widespread non-compliance with the law, however, has prompted both the state Attorney General and private parties to seek judicial intervention.

This Article is the first-ever comprehensive empirical study of Housing Element litigation. It examines the role of litigation as an enforcement tool, analyzing patterns in housing element lawsuits and the judicial remedies imposed under California Government Code section 65755. Despite the law's clear mandates, the evidence reveals that litigation is often an empty threat: the likelihood of being sued is low, settlements are common, and courts frequently hesitate to impose meaningful penalties. Political incentives for local governments to resist compliance further complicate enforcement.

By uncovering these limitations, this Article addresses why litigation has failed to drive widespread compliance with the Housing Element Law. The Article then evaluates potential reforms, including increased incentives for litigation, mandatory suspensions of development authority, and specialized administrative courts. The Article also explores the idea of dispensing with Housing Element Law altogether in favor of social housing.

∗ Associate Clinical Professor of Law, Loyola Law School, Los Angeles. I owe a debt of gratitude to Yashwini Sodhani, a professional data analyst, who helped me clean, organize, and analyze the empirical data at the heart of this Article. Thank you to Loyola Law School, Los Angeles student Emily Epstein for her excellent research assistance; and Michael Rawson, Rebecca Bratspies, and Kenneth Stahl for providing comments on an earlier draft of this paper. This Article also benefited from feedback at the AALS *New Voices in Property Law* panel in San Francisco on January 8, 2025.

I. INTRODUCTION

California's housing crisis is characterized by a severe shortage of affordable housing units, escalating housing costs, and increasing homelessness. Indeed, in 2015, the California Supreme Court acknowledged this crisis, stating:

> It will come as no surprise to anyone familiar with California's current housing market that the significant problems arising from the scarcity of affordable housing have not been solved over the past three decades. Rather, these problems have become more severe and have reached what might be described as epic proportions in many of the state's localities.[1]

The state's booming population, economic expansion, and geographic constraints have significantly outpaced housing development, creating one of the most constrained housing markets in the nation—and it has been this way since at least 1975.[2]

The crisis is most acutely felt by low- and middle-income households, who often struggle to find affordable housing options.[3] High housing costs have forced many families to spend disproportionate amounts of their income on rent or mortgages, leaving less income available for other necessities.[4] This financial strain has contributed to rising rates of homelessness, as individuals and families are unable to secure stable housing.[5]

California's Department of Housing and Community Development (HCD) underscores this issue, framing it within a national context: "California's housing affordability crisis is an acute example of a national problem. In 2021, there was no state in the U.S. where a worker earning minimum wage could afford to rent a modest two-bedroom by working a 40-hour week."[6] HCD further emphasizes that "[l]ow-wage workers and low-income renters will continue to be cost-burdened until we create permanent solutions to widespread housing unaffordability nation-

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1 Cal. Bldg. Indus. Ass'n v. City of San Jose, 351 P.3d 974, 977 (Cal. 2015).

2 Jessie Agatstein, *The Suburbs' Fair Share: How California's Housing Element Law (and Facebook) Could Set a Housing Production Floor*, 44 REAL EST. L.J. 219, 225 (2015).

3 *See* PAUL G. LEWIS, PUB. POL'Y INST. OF CAL., CALIFORNIA'S HOUSING ELEMENT LAW: THE ISSUE OF LOCAL NONCOMPLIANCE 1 (2003).

4 *See id.* (citing LITTLE HOOVER COMM'N, REBUILDING THE DREAM: SOLVING CALIFORNIA'S AFFORDABLE HOUSING CRISIS, at i (2002)).

5 *See* Cullen Conboy, Note, *The Uneventful History of Government Code Section 65759*, 57 UC DAVIS L. REV. ONLINE 35, 38 (2024).

6 *See* CAL. DEP'T OF HOUS. & CMTY. DEV., A HOME FOR EVERY CALIFORNIAN: 2022 STATEWIDE HOUSING PLAN 7 (2022) [hereinafter 2022 PLAN], https://www.hcd.ca.gov/docs/statewide-housing-plan.pdf [https://perma.cc/84C8-7VVF].

wide."[7] In other words, without structural reforms, the cycle of financial strain and displacement will persist, condemning millions to housing insecurity and deepening the socioeconomic divides in our society.

California's Housing Element Law, enacted in 1967 and substantially amended in 1980,[8] represents a landmark effort to address the state's housing challenges through comprehensive planning. The law requires that every city and county develop a housing element as part of its general plan, ensuring that local governments systematically plan for their housing needs across all economic segments.[9] However, there has been and continues to be a high degree of noncompliance with Housing Element Law. Indeed, the City of Huntington Beach has openly thumbed its nose at the State of California. In May 2024, then-Mayor Gracey Vander Mark and City Attorney Michael Gates jointly issued a statement, declaring, "We refuse to surrender our City to Sacramento's nonsensical and overreaching mandates."[10] The City of Menlo Park failed to revise its housing element for twenty years, even though the state requires an update every seven years.[11]

The California Legislature has enacted plenty of carrots and sticks to encourage compliance. One stick is litigation, and noncompliance has led private parties and the California Attorney General to sue various cities, seeking judicial remedies. Given the theoretical risk of losing land use authority and incurring substantial attorney fees, one might expect jurisdictions to fear housing element lawsuits. However, this Article demonstrates that litigation often falls short as a motivator for compliance.

In the first-ever comprehensive empirical study of housing element litigation, I examined every housing element lawsuit in California since 1982 and uncovered a striking reality: the rarity of litigation, the prevalence of settlements, and the judiciary's re-

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7 *Id.*

8 California's Housing Element Law originated in 1967, but the mandate for periodic updates with state oversight was not fully established until 1980. *See* CAL. GOV'T CODE §§ 65580–65589.8 (West 2025); William C. Baer, *California's Fair-Share Housing 1967–2004: The Planning Approach*, 7 J. PLAN. HIST. 48, 60 (2008).

9 § 65580(d).

10 Press Release, Gracey Van Der Mark, Huntington Beach Mayor, & Michael Gates, City Att'y, Huntington Beach Statement on Court Ruling vs. State of California (May 16, 2024), https://www.huntingtonbeachca.gov/news_detail_T4_R62.php [https://perma.cc/5TN7-7DLH].

11 *See* Conboy, *supra* note 5, at 60.

luctance to impose meaningful remedies have allowed, or even encouraged, cities to remain out of compliance.

Part II provides a comprehensive background on the Housing Element Law, tracing its evolution and significance. Part III examines litigation efforts by private parties and the state Attorney General, focusing on the statutory remedies available to courts. Part IV discusses the persistent problem of noncompliance, addressing the primary ways that jurisdictions fail to comply and exploring why noncompliance is so widespread. Part V presents empirical evidence gleaned from hundreds of hard-to-find trial court documents that identify trends in housing element litigation and judicial responses to noncompliance. Finally, Part VI explores whether litigation, as currently applied, serves as an effective enforcement tool and suggests various reforms to strengthen California's ability to address its housing crisis.

II. BACKGROUND

California has a crisis-level housing shortage that, at least partly, stems from the failure of local governments to approve affordable housing to meet the needs of all Californians. For decades, the Legislature has found that California has been suffering from "a severe shortage of affordable housing, especially for persons and families of low and moderate income" and that "there is an immediate need to encourage the development of new housing."[12] As HCD explains:

> California's housing crisis is a half century in the making. After decades of underproduction, supply is far behind need and housing and rental costs are soaring. As a result, millions of Californians must make hard decisions about paying for housing at the expense of food, health care, child care, and transportation, directly impacting quality of life in the state. One in three households in the state doesn't earn enough money to meet their basic needs.[13]

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12 § 65913(a).

13 2022 PLAN, *supra* note 6. Housing crises are not a modern phenomenon, nor are they unique to California or the United States. In the 1870s, a significant debate arose in Germany's worker and democratic press concerning the lack of housing for laborers in key industrial cities. *See* Glyn Robbins, *150 Years Ago, Friedrich Engels Correctly Assessed What's Wrong with Housing Under Capitalism*, JACOBIN (July 25, 2022), https://jacobin.com/2022/07/housing-question-capitalism-friedrich-engels [https://perma.cc/3675-S2EP]. Indeed, in 1872 and 1873, famed German philosopher Friedrich Engels published several articles in *Volksstaat*, entitled "The Housing Question," in which he weighed in on the debate. *Id*. Notably, Engels concluded the housing crisis was a symptom of the broader exploitation and inequality inherent in capitalism. *See id*.

Several economic factors contribute to the housing crisis in California. The state's economy has experienced substantial growth, attracting a significant influx of residents seeking job opportunities.[14] However, the pace of housing construction has not kept up with this population growth. Indeed, HCD says, "Production averaged less than 80,000 new homes annually over the last [ten] years, and ongoing production continues to fall far below the projected need of 180,000 additional homes annually."[15] In addition to low production, the high cost of coastal land, stringent zoning regulations, and environmental restrictions have further contributed to high housing costs.[16]

The California Legislature has acknowledged, in unambiguous terms, the scale of the state's housing predicament:

> California has a housing supply and affordability crisis of historic proportions. The consequences of failing to effectively and aggressively confront this crisis are hurting millions of Californians, robbing future generations of the chance to call California home, stifling economic opportunities for workers and businesses, worsening poverty and homelessness, and undermining the state's environmental and climate objectives.[17]

"[L]owest-income seniors, people with disabilities, families with children, [and] veterans" are particularly vulnerable to the housing crisis.[18] Historical patterns of segregation and discrimination have left many Black and brown neighborhoods with fewer resources and less investment, resulting in a higher prevalence of substandard housing conditions.[19] Additionally, systemic barriers prevent many low-income families from accessing stable and affordable housing.[20]

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14 *See* CAL. DEP'T OF HOUS. & CMTY. DEV., CALIFORNIA'S HOUSING FUTURE: CHALLENGES AND OPPORTUNITIES 1 (2018) [hereinafter CA HOUS. FUTURE], https://www.hcd.ca.gov/policy-research/plans-reports/docs/sha_final_combined.pdf [https://perma.cc/54GU-862N].

15 *Id.*

16 *See* Stefan Ecklund, *Too Close to Home?: The Constitutionality of California's S.B. 9*, 56 LOY. L.A. L. REV. 981, 984–85 (2023).

17 CAL. GOV'T CODE § 65589.5(a)(2)(A) (West 2025).

18 NAT'L LOW INCOME HOUS. COAL., OUT OF REACH: THE HIGH COST OF HOUSING, at A (2024), https://nlihc.org/sites/default/files/2024_OOR_1.pdf [https://perma.cc/68MT-4TTJ].

19 *See generally* RICHARD ROTHSTEIN, THE COLOR OF LAW: A FORGOTTEN HISTORY OF HOW OUR GOVERNMENT SEGREGATED AMERICA 43–54 (2017) (reviewing the widespread adoption of racial zoning ordinances by cities in the twentieth century and their impact); JESSICA TROUNSTINE, SEGREGATION BY DESIGN: LOCAL POLITICS AND INEQUALITY IN AMERICAN CITIES 73–97 (2018) (outlining the factors and historical context that contributed to the widespread adoption of racial zoning ordinances).

20 *See* NAT'L LOW INCOME HOUS. COAL., *supra* note 18, at 7.

The most visible and distressing impact of California's housing crisis is the rising rate of homelessness. Cities like Los Angeles and San Francisco have seen significant increases in their homeless populations.[21] The lack of affordable housing is a primary driver of homelessness, with many individuals and families unable to find or maintain stable housing due to the high cost of living.[22] California has taken the stance that long-term solutions require not only immediate support for homeless individuals but also systemic changes to increase the availability of affordable housing and prevent homelessness from occurring in the first place.[23]

A. Historical Background of Housing Element Law

"The commodification and zoning of land enabled exclusion and segregation of the dispossessed and persons of color and relegated those without means to the fringes and least desirable places."[24] California's Housing Element Law, first enacted in a nascent form in 1967,[25] "emerged from the national recognition during the Civil Rights movement that racial segregation was endemic to and greatly enabled by the power of local governments to zone their commu-

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21 Liam Dillon & Brittny Mejia, *Why It's So Hard to Fix Housing Overcrowding in Los Angeles*, L.A. TIMES (Oct. 19, 2022, at 5:00 PT), https://www.latimes.com/homeless-housing/story/2022-10-19/overcrowding-los-angeles-housing-fix [https://perma.cc/RA7Q-656H]; Lara Korte & Jeremy B. White, *Rising Homelessness Is Tearing California Cities Apart*, POLITICO (Sep. 21, 2022, at 4:30 ET), https://www.politico.com/news/2022/09/21/california-authorities-uproot-homeless-people-00057868 [https://perma.cc/8SFE-WTT6].

22 CA HOUS. FUTURE, *supra* note 14, app. A, at 6 ("Researchers have associated flat incomes during periods of increasing rent levels, along with shortfalls of affordable housing, with homelessness rates. For example, research found that every $100 increase in median rent was associated with a 15 percent increase in homelessness in metropolitan areas and a 39 percent increase in non-metro areas. As individuals attempt to exit homelessness, housing affordability impacts the length of stay in homelessness, because individuals may have difficulty finding homes that they can afford or must compete in tight markets with other renters who likely have stronger employment, credit, and rental histories. Low rental-housing vacancy rates in a community, common especially in coastal regions, also contribute to increased rents, increased homelessness, and difficulties exiting homelessness." (citation omitted)); *see generally* GREGG COLBURN & CLAYTON PAGE ALDERN, HOMELESSNESS IS A HOUSING PROBLEM (2022) (explaining how "[r]egional variation in rates of homelessness can be explained by the costs and availability of housing").

23 *See* David Roberts, *The Future of Housing Policy Is Being Decided in California*, VOX (Apr. 4, 2018, at 6:22 PT), https://www.vox.com/cities-and-urbanism/2018/2/23/17011154/sb827-california-housing-crisis [https://perma.cc/3XFZ-HB5W].

24 PUB. INT. L. PROJECT, CALIFORNIA HOUSING ELEMENT MANUAL 13 (5th ed. 2023) [hereinafter PILP MANUAL], https://www.pilpca.org/publications/housing [https://perma.cc/EM2M-ZCM3].

25 1967 Cal. Stat. 4033.

nities to serve discriminatory parochial interests."[26] Initially, the law's implementation was hampered by vague requirements and a lack of enforcement mechanisms.[27] However, as housing issues persisted, the state legislature introduced amendments to strengthen the law.

In 1980, the Housing Element Law was substantially amended to mandate local planning for affordable housing, requiring every city and county to develop a housing element as part of its general plan.[28] "This mandate aims at ensuring that each community accepts responsibility for the housing needs of not only the resident population but also of those households who might reasonably be expected to live within the jurisdiction were a variety and choice of housing appropriate to their needs available."[29] As political scientist Paul G. Lewis puts it, "the concept of fair share was fully enshrined in state law."[30] This statute also instituted a local obligation to regularly review and update housing elements.[31]

Notably, the new law established the Regional Housing Needs Assessment (RHNA), which allocated housing needs to local governments based on regional growth forecasts. RHNA introduced a systematic approach to determining housing needs and distributing them among local governments.[32] This process

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26 PILP MANUAL, *supra* note 24, at 14. *But see* Agatstein, *supra* note 2 (asserting the Housing Element Law was the "brainchild of California's Building Industry Association" (citing Baer, *supra* note 8, at 55)).

27 Baer, *supra* note 8, at 55–56.

28 1980 Cal. Stat. 3697–98; PILP MANUAL, *supra* note 24, at 15, 23.

29 LEWIS, *supra* note 3, at 16 (quoting DEP'T OF HOUS. & CMTY. DEV., DEVELOPING A REGIONAL HOUSING NEEDS PLAN 1 (1988)).

30 *Id.*

31 *Id.*

32 *Id.* at 17.

Under the statute, several factors must be considered in the COG's allocation of housing growth goals to specific localities:

- Market demand for housing (vacancy rates, housing prices, household structure, construction, absorption, etc.),
- Employment opportunities (current and projected),
- Availability of suitable sites (including residentially zoned as well as nonresidentially zoned land that could be used, and the possibility of redevelopment for housing or for increased densities of housing),
- Availability of services (including current and future capacity, transportation, medical and recreational facilities, etc.),
- Commuting patterns (time, length, transit availability),
- Type and tenure of housing need (including a consideration of special

was designed to guarantee that each of the 539 jurisdictions took its "fair share"[33] of regional housing needs, promoting equitable growth and preventing affluent communities from shirking their responsibilities.

Many further amendments from the 1990s up to the present enhanced the specificity and enforceability of the law.[34] These amendments mandated local governments to provide detailed site inventories, demonstrate the feasibility of housing development, and adopt policies to remove barriers to housing production.

B. Process

Under current law, most cities and counties must update their housing elements every eight years.[35] Section 65588 sets up a schedule for periodic review of the housing element. The statute prescribes deadlines for completion, staggered by geographic region.[36] Each eight-year period is known as a "planning period" or "cycle[]."[37] The housing element revision process begins at least two years before the due date, when HCD creates a RHNA for each region based on future household growth projections provided by the state Department of Finance.[38] These goals are then adjusted by HCD to account for regional housing vacancies and the anticipated need for replacement units. Additionally, HCD considers advisory input from the region's council of governments (COG), a body of city and county officials responsible

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populations, such as large households, the elderly, students, and the military), and

- Farmworker housing needs.

Id.

33 *See id.* at 12 ("A number of other states and metropolitan areas have developed fair-share housing legislation, with the term generally referring to a regional process by which each local community works to accommodate a fair proportion of the region's housing need.").

34 *See* Ecklund, *supra* note 16, at 997–99. *See generally* PILP MANUAL, *supra* note 24 (outlining the statutory requirements for California municipal housing plans).

35 CAL. GOV'T CODE § 65588(e)(3) (West 2025). Although most jurisdictions must update their housing elements every eight years, some jurisdictions must update every four or five years, depending on various factors. *Id.*

36 *Id.*

37 *See id.* § 65588(f)(1); PILP MANUAL, *supra* note 24, at 14.

38 *See* PILP MANUAL, *supra* note 24, at 36. The RHNA process is controversial. *See generally* PAAVO MONKKONEN, MICHAEL MANVILLE & SPIKE FRIEDMAN, UCLA LEWIS CTR. FOR REG'L POL'Y STUD., A FLAWED LAW: REFORMING CALIFORNIA'S HOUSING ELEMENT (2019), https://escholarship.org/uc/item/6dx7914m [https://perma.cc/TGQ2-RNGW] (discussing flaws in the RHNA process and suggesting simplified reforms).

for coordinating regional planning efforts.[39] Then each COG allocates the RHNA to the individual cities and counties (jurisdictions) within the region.[40] A jurisdiction's share of the RHNA is derived from the existing and projected housing needs of people of all income levels in the "area significantly affected" by its general plan.[41] The COG or the subregion must make a diligent effort to procure participation of all economic segments of the region in making the RHNA determination, including at least one public hearing on the proposed methodology.[42] Once the RHNA is set, each COG then allocates the housing needs among all the jurisdictions within that region.[43] The RHNA is broken down into the following income levels: very low income households (0–50% of area median income [AMI]), lower income households (50–80% AMI), moderate income households (80–120% AMI), and above moderate income households (120% AMI or higher).[44]

Once the RHNA has been allocated, each jurisdiction must then prepare a housing element that identifies adequate sites to accommodate that jurisdiction's fair share of the RHNA at each income level.[45] Each local government must submit its draft housing element to HCD before adoption.[46] HCD must review the draft element and issue findings as to whether the draft substantially complies with the Housing Element Law.[47] After adopting the final housing element, the local government must again submit the element to HCD, and HCD must again review and report its findings to the local government.[48]

C. What Must a Housing Element Include?

Housing elements must include: a needs assessment; site inventory; constraints analysis; goals and policies; programs to implement the goals and policies, including identification of sites to accommodate the RHNA; and a section on Affirmatively Furthering Fair Housing.

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39 LEWIS, *supra* note 3, at 16.

40 PILP MANUAL, *supra* note 24, at 36.

41 *Id.* (quoting § 65584(a)(1)).

42 § 65584.04(d).

43 *Id.* § 65584(b).

44 *Id.* § 65584(f)(1)(A)–(D) (citing CAL. HEALTH & SAFETY CODE §§ 50105, 50079.5, 50093 (West 2025)).

45 *See id.* §§ 65583, 65583.2.

46 *Id.* § 65585(b)(1)(A).

47 *Id.* § 65585(d).

48 *Id.* § 65585(g)–(h).

The needs assessment provides a detailed analysis of the community's housing needs and the available resources to meet those needs.[49] This assessment considers various factors, including population growth, demographic changes, and economic conditions.[50] The assessment must also consider special housing needs, such as those of seniors, people with disabilities, large families, farmworkers, and homeless individuals.[51] The element must also analyze subsidized housing that may be at risk of converting to market-rate housing, providing an inventory of such units, the potential costs of preserving or replacing them, and identifying public or private entities capable of managing or acquiring these developments.[52]

The site inventory[53] of land suitable for residential development is used to identify specific parcels "that can be developed for housing within the planning period and that are sufficient to provide for the jurisdiction's share of the regional housing need for all income levels" available for residential development.[54] This inventory includes information on zoning, density, and the suitability of sites for housing.[55] The inventory must also address the feasibility of development on these sites, considering factors such as infrastructure availability,[56] environmental constraints,[57] and market conditions.[58]

The constraints analysis identifies both governmental and nongovernmental barriers to housing development and analyzes efforts to remove them.[59] Governmental constraints include zoning ordinances, land-use controls, building codes, and permitting processes.[60] Nongovernmental constraints encompass factors such as land and construction costs, the availability of financing, and market conditions.[61]

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49 *See id.* § 65583(a).
50 *See id.* § 65583(a)(1).
51 *Id.* § 65583(a)(7)(A).
52 *Id.* § 65583(a)(9).
53 *See id.* § 65583(a)(3).
54 *Id.* § 65583.2(a).
55 *Id.* §§ 65583(a)(3), 65583.2.
56 *Id.* § 65583.2(b)(5).
57 *Id.* § 65583.2(b)(4).
58 *Id.* § 65583.2(g)(1).
59 *Id.* § 65583(a)(5)–(6).
60 *See id.*
61 *See id.* § 65583(a)(6).

The Housing Element Law requires an analysis of opportunities for energy conservation in residential development, encouraging cities and counties to incorporate weatherization and energy efficiency improvements in publicly subsidized housing rehabilitation projects.[62] These improvements may include enhancements to the building structure, heating and cooling systems, and electrical systems.[63] The analysis must evaluate available public and private subsidies or incentives for energy conservation, as well as potential changes to local building codes that could promote greater energy efficiency.[64]

Housing elements must also include goals, policies, and measurable objectives to address the housing needs and constraints identified above.[65] It must outline the maximum number of housing units that can be built, rehabilitated, or preserved for various income categories over the planning period.[66] While the goals should endeavor to meet all identified housing needs, the law allows communities to set more realistic targets if resources are limited. However, these targets must still represent the highest feasible number of units achievable.[67] The element must provide a clear rationale for these figures, comparing them to the RHNA and offering justification when objectives fall short.[68] The analysis should account for economic conditions, available resources, and expected funding from state, federal, and local sources.

Affirmatively Furthering Fair Housing (AFFH) is a component of the housing element intended to ensure access to adequate housing for all residents, regardless of race, ethnicity, or economic status.[69] These programs may include measures to address segregation, promote inclusive zoning practices, and support fair housing organizations.[70] The concept of AFFH originated from the federal Fair Housing Act of 1968, which mandated all executive departments and agencies to administer housing and

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62 *Id.* § 65583(a)(8).

63 *Id.*

64 *See id.*

65 *Id.* § 65583(b)(1).

66 *Id.* § 65583(b)(2).

67 *Id.*

68 PILP MANUAL, *supra* note 24, at 81 (citing Buena Vista Gardens Apartments Ass'n v. City of S.D. Plan. Dep't, 220 Cal. Rptr. 732, 741 (1985)).

69 Paavo Monkkonen, Aaron Barrall & Aurora Echavarria, *Meaningful Action: Evaluating Local Government Plans to Affirmatively Furthering Fair Housing in California*, 35 HOUS. POL'Y DEBATE 185, 187 (2025).

70 PILP MANUAL, *supra* note 24, at 30, 38.

urban development programs "in a manner affirmatively to further the purposes of [the Fair Housing Act]."[71] However, this mandate remained largely unenforced until 2015, when the U.S. Department of Housing and Urban Development (HUD) resurrected it with its "Affirmatively Furthering Fair Housing Rule."[72] This rule created a system of accountability for grantees, including local governments, to analyze fair housing issues and develop meaningful actions to address them.[73]

In 2018, California enacted Assembly Bill 686, which "establish[ed] and incorporat[ed] in[to] the Housing Element Law a state obligation [for] all government agencies to 'affirmatively further fair housing.'"[74] This state "duty is independent of and stronger than . . . its federal counterpart," and it was further strengthened by Assembly Bill 1304 in 2021.[75]

Public participation is also an essential aspect of the housing element process. Local governments must engage residents, community groups, and other stakeholders in the development of the housing element so that the housing element reflects the community's needs and priorities.[76] Public participation can take various forms, including public meetings, workshops, surveys, and consultations with community organizations.[77]

III. ENFORCEMENT ACTIONS

Failure to adopt a compliant housing element on time exposes a local government to litigation. This Part outlines the potential administrative and court-ordered remedies for noncompliance and describes the mechanics of litigation.

A. Potential Remedies

In 1982, article 14 of the California Government Code was established by Assembly Bill 1612[78] as a framework for challenging a general plan or its elements for non-compliance with state

71 Shashi Hanuman & Nisha Vyas, *Race, Place, and Housing in Los Angeles*, 29 J. AFFORDABLE HOUS. & CMTY. DEV. L. 449, 479 (2021) (quoting 42 U.S.C. § 3608(d)).

72 Monkkonen et al., *supra* note 69, at 185.

73 Hanuman & Vyas, *supra* note 71.

74 PILP MANUAL, *supra* note 24, at 17 (quoting CAL. GOV'T CODE § 8899.50 (West 2025)).

75 *Id.*

76 *See id.* at 30.

77 *Id.* at 111.

78 1982 Cal. Stat. 46–51 (codified at §§ 65750–63).

law.[79] This framework was created because many jurisdictions were not adhering to new requirements to implement housing development plans.[80]

The legislation included section 65755, which grants courts broad authority to restrict a jurisdiction's land use powers until it adopts a compliant housing element. The court must order at least one of the following: (1) suspend the jurisdiction's power to issue building permits or related permits; (2) suspend the jurisdiction's authority to approve zoning changes, variances, or both; (3) suspend the jurisdiction's ability to approve subdivision maps for any residential development; (4) mandate approval of residential permits; (5) mandate approval of final subdivision maps; or (6) mandate approval of tentative subdivision maps.[81] Section 65755 requires courts to select at least one of the options above and keep the provision in effect until the jurisdiction has "substantially complied"[82] with the law on General Plans, of which the Housing Element is a mandatory element.

Failing to adopt a compliant housing element can also cost a jurisdiction access to critical state funding and affordable housing incentives. For example, jurisdictions that are not designated as "pro-housing" by HCD lose competitive points when applying for HCD funding.[83] To earn the "pro-housing" designation, a jurisdiction must have a compliant housing element approved by HCD and meet additional standards outlined in the department's emergency regulations.[84]

Courts also have the authority to impose financial penalties on noncompliant local governments and can even appoint a judi-

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79 Conboy, *supra* note 5, at 37.

80 *Id.*

81 § 65755; *see also* Ben Field, *Why Our Fair Share Housing Laws Fail*, 34 SANTA CLARA L. REV. 35, 43 (1993) (explaining that courts may suspend a locality's land use powers for non-compliance).

82 § 65755; Conboy, *supra* note 5, at 44 n.59 ("Substantial compliance [means] actual compliance with respect to the substance essential to every reasonable objective of the statute, as distinguished from mere technical imperfections of form." (alteration in original) (quoting Hernandez v. City of Encinitas, 33 Cal. Rptr. 2d 875, 881 (1994))); *id.* ("[F]inding that [the] rent control ordinance did not violate [the] statutory requirement that [the] housing element reasonably address constraints on housing maintenance, [and] deferring to city's judgment that 'rent control has had a positive effect on preserving affordable housing'" (quoting Black Prop. Owners Ass'n v. City of Berkeley, 28 Cal. Rptr. 2d 305, 310–11 (1994))).

83 PILP MANUAL, *supra* note 24, at 32 (citing § 65589.9).

84 *Id.* at 32–33.

cial agent with expertise in planning to bring the jurisdiction's housing element into substantial compliance.[85] If a jurisdiction fails to comply with a court order, the court must impose a fine of up to $100,000 per month, which can be multiplied by a factor of three and then six for continued noncompliance.[86]

Successful plaintiffs in enforcement actions may be awarded attorney fees and costs, providing a financial incentive for private parties to pursue litigation against noncompliant jurisdictions. Petitioners generally request attorney fees based on California's "private attorney general" statute.[87]

The so-called "builder's remedy" is another potential consequence of failing to comply with Housing Element Law.[88] Under this provision, projects are not required to comply with certain zoning ordinances or general plan land use designations so long as the city is out of compliance with Housing Element Law. However, as Jordan Wright recently noted, "Despite its inaugural ambition, the builder's remedy has not radically increased state housing production—in fact, it has rarely, if ever, been used."[89]

Finally, jurisdictions on an eight-year planning period that do not adopt their element within 120 calendar days from the start date of the planning period must revise and adopt the housing element every four years until timely adopting at least two consecutive revisions by the applicable due date.[90]

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85 Christopher S. Elmendorf, *Beyond the Double Veto: Housing Plans as Preemptive Intergovernmental Compacts*, 71 HASTINGS L.J. 79, 118 (2019).

86 § 65585(l)(1)–(3).

87 CAL. CIV. PROC. CODE § 1021.5 (West 2025); *see* Field, *supra* note 81, at 51 n.120.

88 *See* CAL. GOV'T CODE § 65589.5(h)(11) (West 2025).

89 Jordan Wright, *California's "Builder's Remedy" for Affordable Housing Projects: A View from the Legislative History*, 46 ENVIRONS ENV'T L. & POL'Y J. 175, 177 (2023). The New York Times recently noted that, "While the builder's remedy has been on the books since 1990, it was effectively dormant until 2022. Since then, however, developers across the state have filed dozens of plans to build 10- and 20-story buildings in neighborhoods where they had never been allowed." Conor Dougherty, *The Housing Strategy that Has California NIMBYs in a Corner*, N.Y. TIMES (Nov. 20, 2025), https://www.nytimes.com/2025/11/20/business/economy/california-housing-nimby.html?smid=url-share [https://perma.cc/D88T-Z7N4]. This newfound reliance on the builder's remedy has caused a small surge in builder's remedy lawsuits. *See* Tabor Brewster, *Judge Rules in Favor of Developer in Linden Lawsuit*, BEVERLY PRESS PARK LABREA NEWS (Aug. 14, 2025), https://beverlypress.com/2025/08/judge-rules-in-favor-of-developer-in-linden-lawsuit/ [https://perma.cc/2MAR-CQW8] ("At least six lawsuits have been filed over builder's remedy projects after developers alleged that the city illegally denied certain projects from moving forward.").

90 § 65588(e)(4)(A).

B. Litigation Mechanics

As the California Court of Appeal stated in *Martinez v. City of Clovis*, "'[A]ny interested party' may challenge a local government's housing element by a traditional mandamus action filed in the superior court under California Code of Civil Procedure section 1085."[91] Thus, private parties, including affordable housing advocates, developers, and residents, play an important role in enforcing the Housing Element Law. These stakeholders can file lawsuits against local governments that fail to meet their housing planning obligations. Private parties have also been able to obtain substantial attorney fees for their efforts.[92] Petitioners generally have ninety days from the adoption or amendment of a general plan to file suit. However, there are exceptions for challenges brought to further the development of low- or moderate-income housing, as well as for claims that a project approval conflicts with an inadequate housing element.[93]

In addition to private parties, the Attorney General of California has broad authority to take legal action against noncompliant jurisdictions.[94] Such actions can include filing lawsuits to compel local governments to adopt compliant housing elements and to take necessary steps to facilitate housing development.

IV. IS NONCOMPLIANCE A RATIONAL STRATEGY?

Noncompliance with California's Housing Element Law remains a stubborn problem. Despite clear legal requirements, many jurisdictions fail to meet their obligations, leaving housing needs unaddressed. Today, more than four years after the most recent cycle's deadline, 13.54% of the 539 jurisdictions remain out of compliance.[95]

Noncompliance is nothing new. In the early 1990s, the compliance rate was abysmal. At the end of 1992, a whopping 81% of the 527 required jurisdictions had failed to adopt compliant hous-

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91 Martinez v. City of Clovis, 307 Cal. Rptr. 3d 64, 89 (2023) (alteration in original) (quoting §§ 65587(b), 65583(h)).

92 *See* Order on Attorney Fees, No. 30-2015-00801675 (Cal. Super. Ct. July 8, 2021) (on file with author).

93 Daniel J. Curtin, Jr., Ramapo's *Impact on the Comprehensive Plan*, 35 URB. LAW. 135, 148 (2003).

94 § 65585(i)–(l); CAL. CONST. art. V, § 13.

95 *Housing Element Review and Compliance Report*, CAL. DEP'T OF HOUS. & CMTY. DEV., https://www.hcd.ca.gov/planning-and-community-development/housing-element-review-and-compliance-report [https://perma.cc/Z3XM-HW58] (last visited Dec. 21, 2024).

ing elements.[96] HCD stepped in to tighten oversight, and by the end of 1995, the compliance rate had risen to 58%.[97]

Some regions are worse offenders than others. In Southern California, for example, local governments were required to adopt compliant housing elements by October 15, 2021. A full year later, only one-third of the 197 jurisdictions had done so.[98] Worse yet, five jurisdictions had not even submitted a draft housing element for HCD review.[99] This Part describes the primary ways that jurisdictions fail to comply and discusses the reasons for such noncompliance.

A. What Are the Primary Ways that Jurisdictions Fail to Comply?

Noncompliance typically falls into four main categories: (1) failure to timely adopt a housing element; (2) inadequacy; (3) inconsistency; and (4) failure to implement components of an adopted housing element.

1. Failure to Timely Adopt a Housing Element

This occurs when a jurisdiction fails to adopt a housing element that complies with state law by the statutory deadline. Since a nonexistent housing element cannot possibly include the mandated components, a late submission is also considered inadequate. (See subsection 3 below.) However, if a tardy housing element eventually meets all the statutory requirements, it can later achieve substantial compliance with state law.

2. Inadequacy

An inadequate housing element in California refers to a housing element that does not "substantially comply" with the requirements of state law. Although local governments have discretion in preparing housing elements, they must adhere to the statutory provisions to ensure compliance. In essence, this means the housing element fails to adequately plan for the housing

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96 Nico Calavita, Kenneth Grimes & Alan Mallach, *Inclusionary Housing in California and New Jersey: A Comparative Analysis*, 8 HOUS. POL'Y DEBATE 109, 118 (1997).

97 *Id.*

98 PAAVO MONKKONEN ET AL., NYU FURMAN CTR., CALIFORNIA'S STRENGTHENED HOUSING ELEMENT LAW: EARLY EVIDENCE ON HIGHER HOUSING TARGETS AND REZONING? 21 (2023), https://furmancenter.org/files/California's_Strengthened_Housing_Element_Law_508.pdf [https://perma.cc/96YK-HRVS].

99 *Id.*

needs of all economic segments of the community. A housing element that lacks any of the required components outlined in the Housing Element Law is considered inadequate.

3. Inconsistency

Consistency in the housing element context has two dimensions. First, the general plan must be internally consistent.[100] Every element of the plan, including the housing element, must align with the others. For example, the land use element cannot designate a parcel for commercial use if the housing element identifies it as a residential site. Contradictions within the general plan undermine its purpose as a coherent blueprint for development.

Second, the general plan holds a "constitutional" status over all local land use and zoning decisions.[101] This means that every development-related action (e.g., zoning ordinances, subdivision maps, specific plans, building permits, developer agreements, or redevelopment plans) must be consistent with the general plan. Local governments, whether chartered or general law, cannot approve actions that conflict with any part of the plan.[102]

4. Failure to Implement Components of an Adopted Housing Element

The adoption of a housing element includes a duty to implement its programs.[103] Failure to take necessary actions can lead to noncompliance. If a jurisdiction fails to identify or rezone sufficient sites to meet its share of lower-income housing needs by the time the next housing element is due, it must rezone enough sites within one year to accommodate those needs. Approving development that contradicts the housing element's provisions, such as downzoning sites intended for higher density or approving market-rate development on sites identified for affordable housing, can also violate the "No-Net-Loss" statute.[104] This stat-

100 CAL. GOV'T CODE § 65300.5(a) (West 2025).

101 O'Loane v. O'Rourke, 42 Cal. Rptr. 283, 288 (1965); *see* § 65860(a) (explaining that zoning must be consistent with the general plan); Sierra Club v. Kern Cnty. Bd. of Supervisors, 179 Cal. Rptr. 261, 264 (1981) (affirming the notion that zoning ordinances must comply with the general plan); PILP MANUAL, *supra* note 24, at 25.

102 §§ 65860, 65454, 66473.5, 65583(c); CAL. HEALTH & SAFETY CODE §§ 33300–33002 (West 2025).

103 PILP MANUAL, *supra* note 24, at 33.

104 CAL. GOV'T CODE § 65863 (West 2025).

ute mandates that jurisdictions maintain sufficient sites to always meet the housing needs of all income categories.[105]

B. Why Do Jurisdictions Fail to Comply?

In 2003, political scientist Paul G. Lewis authored the only existing comprehensive study on why jurisdictions fail to comply with California's Housing Element law.[106] In the study, he acknowledged that "[l]arge majorities of jurisdictions in the state have been noncompliant at some point."[107] By examining census data, land use patterns, and local policy measures, he measured differences in noncompliant versus compliant jurisdictions. The data led him to identify several theories to explain the high level of noncompliance.

First, Lewis identified the age of a jurisdiction's housing stock as a key predictor of compliance.[108] Specifically, jurisdictions with older housing were significantly less likely to comply. These communities, he explained, "may be more settled and have a more established community character; they are also likely to contain less vacant land."[109]

Second, he found that jurisdictions with explicit antigrowth policies—particularly those that had recently enacted new growth restrictions—were disproportionately out of compliance. In fact, "each restrictive growth policy that has been adopted by the city approximately doubles the odds that it will be found noncompliant."[110] Jurisdictions where the approval process for new development had become increasingly cumbersome were less likely to meet HCD's standards.[111]

Finally, Lewis highlighted the role of local capacity. Smaller jurisdictions, those with limited staff, resources, and technical expertise, were significantly more likely to fall short. "Cities with smaller populations are more likely to be noncompliant, all else equal," he observed.[112] By contrast, "governments of larger cities may have a greater capacity to undertake the broad range of

105 PILP MANUAL, *supra* note 24, at 33.
106 *See* LEWIS, *supra* note 3, at 1.
107 *Id.* at vii.
108 *Id.* at ix.
109 *Id.*
110 *Id.* at 51–52.
111 *Id.* at 51.
112 *Id.* at ix.

planning efforts needed to reach compliance and may also be more insulated from the political pressure of homeowners."[113]

In addition to these potential reasons for noncompliance, Lewis found that the longer a city had gone since its housing element update deadline, the more likely it was to come into compliance. Statistically, each passing month increased the odds of compliance by roughly 5%.[114] At the same time, jurisdictions that had failed to comply in the early 1990s were disproportionately likely to remain noncompliant a decade later. In his words, "noncompliance in 1991 . . . was a fairly good predictor of noncompliance in 2002."[115] Thus, local patterns of resistance appear to persist, sometimes regardless of changing legal frameworks or state-level prodding.

Much of the literature assumes that the threat of litigation compels local governments to comply with California's Housing Element Law.[116] As Lewis observed, the prospect of a lawsuit "is a major motivator for local governments in expending time and resources on housing elements."[117] In practice, the planning director of Long Beach testified, the housing element "is the only element that is prepared defensively, rather than as a guide to local policy and decision making."[118] In most cities, he explained, it is not crafted by visionaries but by legal counsel: It is "a joint effort by the city attorney and the planning department to make sure that the document is defensible in court."[119]

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113 *Id.*

114 *Id.* at 52–53.

115 *Id.* at ix.

116 *See, e.g.*, PILP MANUAL, *supra* note 24, at 32 ("Just the threat of this remedy often provides a powerful incentive for the local government to negotiate adoption of an adequate element."); Agatstein, *supra* note 2, at 231 (opining that the "threat of paying hundreds of thousands of dollars in attorney fees" remains a strong motivator for housing element litigation, while also acknowledging that in the 1990s "the threat of a developer-citizen suit was a false one" (citing Field, *supra* note 81, at 50–53)); Baer, *supra* note 8, at 60–61 (observing that "[h]aving a non-compliant general plan via a nonconforming housing element could shut down all zoning and building activity in a city," but also noting that "[d]espite this threat, there have been few such suits, a frequently charged weakness in the process"); Calavita, Grimes & Mallach, *supra* note 96, at 117 ("Another incentive for preparing housing elements is the threat of litigation."); Wright, *supra* note 89, at 199 (explaining that a lawsuit or its threat "may prompt cities to take more seriously their housing obligations" due to legislative changes easing the path for challengers).

117 LEWIS, *supra* note 3, at 22.

118 *Id.* (quoting *Housing Element Law: A Summary Report from the Interim Hearing*, S. Comm. on Loc. Gov't 62 (1993)).

119 *Id.* at 22–23 (quoting *Housing Element Law: A Summary Report from the Interim Hearing*, S. Comm. on Loc. Gov't 62 (1993)).

Many commentators warn that the consequences of losing in court can be severe. As municipal law attorney Michael Colantuono cautioned lawmakers, failure to comply may result in the suspension of a city's land-use authority, a court-ordered freeze on all permitting, and a 120-day scramble to produce a new, legally compliant housing element, often under the costly guidance of outside consultants.[120] The jurisdictions, meanwhile, would be responsible not only for its own legal expenses, but also those of the prevailing party.[121]

But as compelling as this account may be, my empirical analysis suggests it is wrong. The threat of litigation is largely illusory. In fact, noncompliance often functions as a rational strategy. Even before turning to the data, the theoretical logic is clear: suing a city for failing to plan does not create new land, reduce planning costs, or win over local opponents of affordable housing. Litigation does not build trust or resources. Instead, it drains public coffers and hardens political opposition.

Worse still, the strategy can backfire. A court order may compel a city to revise its housing policies on paper, but it cannot compel local officials or residents to embrace the underlying goals. On the contrary, lawsuits can provide local leaders with a useful enemy: the meddling state. In this way, noncompliance becomes a political weapon. Jurisdictions defy the state, rally local opposition, and reap electoral rewards, all while avoiding meaningful consequences. Some jurisdictions have spent millions of dollars litigating their resistance instead of using those resources to fund compliance in the first place.

What emerges is not a story of local governments cowering in the shadow of litigation, but of calculated resistance, in which the costs of defiance are outweighed by its benefits.

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120 *Id.* at 23 n.5 ("A prudent locality can manage this risk only by keeping its housing element up to date and building a voluminous record to ensure the element is legally defensible. Those communities which have failed to do so, often for budgetary reasons, have run significant risks and some have paid a significant price . . . . If a city loses such a case . . . , its land-use authority will be suspended . . . , it will have just 120 days to prepare a new element, often necessitating the retention of consultants, and it will likely pay not only its own legal fees, but those of its opponents . . . . During the preparation of a new element, nothing gets built, not even housing, without a court order . . . ." (alterations in original) (quoting Michael Colantuono, *Housing Element Law: A Summary Report from the Interim Hearing*, S. Comm. on Loc. Gov't 75–76 (1993)).

121 *Id.*

V. EMPIRICAL EVIDENCE

In this Part, I present empirical evidence that supports the conclusion that litigation, often viewed as the primary enforcement mechanism of the Housing Element Law, may not be as formidable as it seems. By examining litigation trends, analyzing how California trial courts apply remedies under section 65755, and investigating compliance data, I reveal patterns—or the lack thereof—that explain why compliance remains elusive despite clear legal mandates.

A. The Data Set

To construct a data set capable of supporting my analysis, I compiled a list of every documented housing element case I could find from 1982 to the present.[122] I chose 1982 as the starting point, because this was the year article 14 took effect. My search yielded eighty-five cases in which either the private parties or the California Attorney General sued jurisdictions for noncompliance with Housing Element Law. For each case, I documented:

- Filing Date
- Case Name
- Case Number
- Court Jurisdiction
- Decision on the Merits
- Whether the Case Settled
- Whether the Parties Filed a Stipulated Judgment
- Relief Requested
- Remedy Imposed, if Any
- Nature of the Dispute
- Whether the Jurisdiction was Rural or Urban[123]
- Attorney Fee Award, if Any

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122 Although I endeavored to find every case, it is possible I overlooked some.

123 I used the 2020 Census for this data point. *2020 Census Urban Areas FAQs*, U.S. CENSUS BUREAU (Feb. 2023), https://www2.census.gov/geo/pdfs/reference/ua/Census_UA_2020FAQs_Feb2023.pdf [https://perma.cc/U8SW-9BUR] ("For the 2020 Census, an urban area will comprise a densely settled core of census blocks that meet minimum housing unit density requirements, along with adjacent territory containing non-residential urban land uses as well as territory with low population density included to link outlying densely settled territory with the densely settled core. To qualify as an urban area, the territory identified according to criteria must encompass at least 2,000 housing units or at least 5,000 people. 'Rural' encompasses all population, housing, and territory not included within any urban area.").

B. The Method

Identifying all the housing element cases proved to be the most challenging task. While many cases were located through legal research platforms like Westlaw, Lexis, and Bloomberg, additional lists were obtained from resources such as the Public Interest Law Project (PILP) manual,[124] the Californians for Homeownership (CFH) website,[125] the Housing Defense Fund (CalHDF) website,[126] and the Yes In My Back Yard (YIMBY) website,[127] as well as through direct inquiries to housing advocacy groups. Since trial court documents are rarely included in these databases, I turned to the case access pages of individual Superior Court websites to find relevant court documents.[128] For the three federal cases, I relied on the Public Access to Court Electronic Records (PACER) system to obtain the necessary documents. [129]

For each case, I sought specific documents to understand its key details and outcomes. The operative petition provided basic case information and outlined the claims brought by the petitioners. Judgments, writs, or court orders revealed the ultimate outcome and any remedies imposed by the court. Proposed Judgments showed the relief that the petitioners requested. In cases where attorney fees were awarded by the court rather than through settlement, I collected the relevant attorney fee orders. When available, I also gathered stipulated judgments and settlement documents, as these occasionally included information about attorney fee amounts.

Collecting complete data proved to be a significant challenge. Many courts destroy older case records, making them unavailable for review. Some courts retain older documents only on microfilm, which can only be accessed in person. Others provide no online access to case records at all. In many instances, the only

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124 PILP MANUAL, *supra* note 24, at 150–51.

125 *Our Mission*, CALIFORNIANS FOR HOMEOWNERSHIP [hereinafter CFH], https://www.caforhomes.org [https://perma.cc/GM6E-3DN7] (last visited Dec. 21, 2024).

126 *Our Work*, CALHDF (Mar. 5, 2024), https://calhdf.org/about-us/our-work/ [https://perma.cc/UU3X-X852].

127 YES IN MY BACK YARD, https://www.yesinmybackyard.org/ [https://perma.cc/LB6S-GPTB] (last visited Oct. 15, 2025).

128 *E.g.*, *Access a Case*, SUPER. CT. OF CAL., CNTY. OF L.A., https://www.lacourt.ca.gov/pages/lp/access-a-case [https://perma.cc/N3VD-T26H] (last visited Dec. 21, 2024).

129 PUB. ACCESS TO CT. ELEC. RECS., https://pacer.uscourts.gov/ [https://perma.cc/6W9R-LHZH] (last visited Oct. 15, 2025).

way to obtain the necessary documents was to request copies directly from the attorneys who litigated the cases.

Once I had collected data for every housing element case I could find, I organized and analyzed the data to address two basic research questions:

(1) What are the general trends in housing element litigation since 1982?

(2) Are courts following section 65755's mandates when ordering remedies for noncompliance?[130]

C. Findings

The findings below discuss: (1) general observations about the data set; and (2) an analysis of housing element cases in which the court issued a judgment in the petitioner's favor.

1. General Observations

This section explores general trends and observations about housing element litigation, focusing on four key aspects: frequency, geography, claim types, and attorney fees. First, I analyze the increasing frequency of lawsuits, including recent spikes driven by new nonprofit advocacy efforts and the Attorney General's heightened enforcement efforts. Next, I examine the geographic distribution of cases, which are heavily concentrated in urban hubs like Los Angeles and the Bay Area. I then turn to the types of claims petitioners bring, noting a shift from earlier emphasis on inadequacy claims to a recent dominance of untimely adoption cases, likely due to their procedural simplicity. Finally, I discuss the financial dimension of litigation, particularly the variability of attorney fees, which range from modest sums in quickly resolved cases to multimillion-dollar awards in protracted disputes. Together, these insights provide a comprehensive view of the evolving landscape of housing element lawsuits.

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130 I also endeavored to address a third research question: How does litigation affect various jurisdictions' tendencies to timely adopt a compliant housing element? However, I only recently acquired the relevant data from HCD. Therefore, I intend to address this question more fully in a subsequent piece.

a. Frequency

Since 1982, there appears to be an upward trend in the number of housing element lawsuits filed. (See Figure 1.) There was a spike between 2000–2005, when there were nineteen housing element lawsuits filed. There has also been a recent spike: twenty-nine lawsuits were filed between 2022–2024.

This recent spike may be attributed to two phenomena. First, a few recently formed nonprofit housing advocate groups have focused their efforts on litigating housing element cases. CFH "is a 501(c)(3) non-profit organization that works to address California's housing crisis by enforcing [housing] laws and fighting unlawful policies that limit access to housing affordable for families at all income levels."[131] CFH filed seventeen housing element lawsuits, all of them in 2022 and 2023.[132] California Housing Defense Fund (CalHDF) is "a non-profit housing organization that uses legal advocacy and education to hold cities accountable and get housing built."[133] My data shows that until 2023, CalHDF had not filed any housing element lawsuits. But in 2023, CalHDF filed four housing element lawsuits.[134] Two of

131 CFH, *supra* note 125.

132 *See* Californians for Homeownership, Inc. v. City of Richmond, No. N23-0178 (Cal. Super. Ct. filed Jan. 24, 2023); Californians for Homeownership, Inc. v. City of Belvedere, No. CIV2300179 (Cal. Super. Ct. filed Jan. 25, 2023); Californians for Homeownership, Inc. v. City of Beverly Hills, No. 23STCP00143 (Cal. Super. Ct. filed Jan. 18, 2023); Californians for Homeownership, Inc. v. City of Bradbury, No. 22STCP01381 (Cal. Super. Ct. filed Apr. 18, 2022); Californians for Homeownership, Inc. v. City of Claremont, No. 22STCP03414 (Cal. Super. Ct. filed Sep. 16, 2022); Californians for Homeownership, Inc. v. City of Fullerton, No. 30-2022-01281840-CU-WM-CJC (Cal. Super. Ct. filed Sep. 16, 2022); Californians for Homeownership, Inc. v. City of La Habra Heights, No. 22STCP01394 (Cal. Super. Ct. filed Apr. 18, 2022); Californians for Homeownership, Inc. v. City of La Mirada, No. 22STCP03418 (Cal. Super. Ct. filed Sep. 16, 2022); Californians for Homeownership, Inc. v. City of Laguna Hills, No. 30-2022-01255365-CU-WM-CJC (Cal. Super. Ct. filed Apr. 19, 2022); Californians for Homeownership, Inc. v. City of Manhattan Beach, No. 22STCP01417 (Cal. Super. Ct. filed Apr. 19, 2022); Californians for Homeownership, Inc. v. City of South Pasadena, No. 22STCP01388 (Cal. Super. Ct. filed Apr. 18, 2022); Californians for Homeownership, Inc. v. City of Vernon, No. 22STCP01397 (Cal. Super. Ct. filed Apr. 18, 2022); Californians for Homeownership, Inc. v. City of Pinole, No. N23-0177 (Cal. Super. Ct. filed Jan. 19, 2023); Californians for Homeownership, Inc. v. City of La Cañada Flintridge, No. 23STCP00699 (Cal. Super. Ct. filed Mar. 3, 2023); Californians for Homeownership, Inc. v. County of Santa Clara, No. 23CV410822 (Cal. Super. Ct. filed Feb. 3, 2023); Californians for Homeownership, Inc. v. City of Novato, No. CIV2300180 (Cal. Super. Ct. filed Jan. 25, 2023); Californians for Homeownership, Inc. v. City of Daly City, No. 23-CIV-00585 (Cal. Super. Ct. filed Feb. 3, 2023).

133 CALHDF, https://calhdf.org/about-us/ [https://perma.cc/JZN3-WCEU] (last visited Dec. 21, 2024).

134 Cal. Hous. Def. Fund v. City of Cupertino, No. 23CV410817 (Cal. Super. Ct. filed Feb. 3, 2023); Cal. Hous. Def. Fund v. City of Martinez, No. N23-0305 (Cal Super. Ct. filed

these lawsuits, against the City of Cupertino and the City of Palo Alto, were filed with YIMBY as a co-petitioner.[135] YIMBY is a nonprofit organization with the stated mission "to end the housing shortage and achieve affordable, sustainable, and equitable housing for all."[136] In addition to the Cupertino and Palo Alto cases, YIMBY filed three other housing element lawsuits in 2023.[137]

Second, the recent spike in the number of housing element lawsuits correlates with the Attorney General's increased enforcement efforts. Even though it has authority to take legal action, the Attorney General has historically not been involved in filing housing element lawsuits. (See Figure 2.) Indeed, up until 2023, the Attorney General had only been involved in four housing element cases: (1) as amicus curiae on behalf of the respondent city in *Black Property Owners Association v. City of Berkeley*;[138] (2) as petitioner-intervenor in *Urban Habitat Program v. City of Pleasanton*;[139] (3) as counsel for petitioner in *California Department of Housing & Community Development v. City of Huntington Beach* in 2019;[140] and (4) as petitioner-intervenor in *Californians for Homeownership, Inc. v. City of Fullerton* in 2022.[141]

The right of private parties to sue may have removed motivation for the state to expend resources pursuing litigation. Indeed, the specter of attorney fee awards appears to have effectively motivated public interest groups to litigate housing element cases. As Figure 3 illustrates, the top five attorneys for petitioners include PILP, CFH, California Rural Legal Assistance (CRLA), Legal Services of Northern California (LSNC), and YIMBY.[142] These are all nonprofit organizations that advocate for

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Feb. 3, 2023); Cal. Hous. Def. Fund v. City of Pleasant Hill, No. N23-0293 (Cal. Super. Ct. filed Feb. 2, 2023); Cal. Hous. Def. Fund v. City of Palo Alto, No. 23CV410811 (Cal. Super. Ct. filed Feb. 3, 2023).

135 *City of Cupertino*, No. 23CV410817; *City of Palo Alto*, No. 23CV410811.

136 YES IN MY BACK YARD, *supra* note 127.

137 Yes In My Back Yard v. City of Burlingame, No. 23-CIV-00519 (Cal. Super. Ct. filed Feb. 1, 2023); Yes In My Back Yard v. City of Sausalito, No. CIV2300652 (Cal. Super. Ct. filed Mar. 8, 2023); Verified Petition for Writ of Mandate at 1, Yes In My Back Yard v. Town of Fairfax, No. CIV2300248 (Cal. Super. Ct. filed Feb. 1, 2023).

138 28 Cal. Rptr. 2d 305, 307 (Ct. App. 1994).

139 Complaint in Intervention at 1, No. RG 06 293831 (Cal. Super. Ct. filed Oct. 17, 2006).

140 No. 30-2019-01046493 (Cal. Super. Ct. filed Jan. 25, 2019).

141 No. 30-2022-01281840-CU-WM-CJC (Cal. Super. Ct. filed Jan. 18, 2024).

142 YIMBY Law "is the legal arm of the pro-housing movement and is housed in YIMBY Action's 501c3 affiliate, Yes In My Back Yard." *Who We Are*, YES IN MY BACK

housing in California. Notably, three of these five organizations—PILP, CRLA, and LSNC—provide legal services to low-income clients.[143] However, recent developments suggest that the state is beginning to assume a more prominent role in enforcement. In 2017, HCD created the Housing Accountability Unit, which was authorized by Assembly Bill 72.[144] In 2021, Attorney General Bonta announced the creation of a Housing Strike Force within the California Department of Justice to advance housing access across the state.[145] This new strike force appears to have filed or threatened to file four lawsuits against various jurisdictions in 2023 and 2024.[146] Thus, it appears that the state is taking a more active role in enforcing Housing Element Law.

b. Geography

As the heat map in Figure 4 shows, housing element lawsuits have been concentrated in a few geographical areas—namely, the Los Angeles metropolitan area and the Bay Area. This is hardly surprising for several reasons. First, these regions are more populated. (See Figure 4.1.) More people create greater housing demand, which amplifies the stakes of noncompliance with housing element requirements. Furthermore, greater population density

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YARD, https://www.yimbylaw.org/about-us [https://perma.cc/9TUJ-T9YZ] (last visited Nov. 9, 2025).

143 *Who We Are*, PUB. INT. L. PROJECT (Sep. 23, 2025), https://www.pilpca.org/about [https://perma.cc/7S5W-PCUM]; *About CLRA*, CAL. RURAL LEGAL ASSISTANCE, INC., https://crla.org/about-crla [https://perma.cc/A855-XZWS] (last visited Nov. 16, 2025); *What We Do*, LEGAL SERVS. N. CAL., https://lsnc.net/what-we-do [https://perma.cc/6VC8-ERW9] (last visited Nov. 16, 2025).

144 Assemb. B. 72, 2017–2018 Leg., Reg. Sess. (Cal. 2017); CAL. DEP'T OF HOUS. & CMTY. DEV., ANNUAL REPORT 2022–23, at 9 (2023).

145 Press Release, Rob Bonta, Att'y Gen., Off. of the Att'y Gen., Attorney General Bonta Launches Housing Strike Force, Announces Convening of Tenant Roundtables Across the State (Nov. 3, 2021), https://oag.ca.gov/news/press-releases/attorney-general-bonta-launches-housing-strike-force-announces-convening-tenant [https://perma.cc/L4ZG-K9VJ].

146 Petition for Writ of Mandate and Complaint for Injunctive and Declaratory Relief at 1, People *ex rel.* Bonta v. City of Elk Grove, No. 23WM000004 (Cal. Super. Ct. filed May 1, 2023); Petition and Complaint in Intervention at 1, Gracia *ex rel.* Bonta v. City of San Bernardino, No. CIVSB2301828 (Cal. Super. Ct. filed Aug. 24, 2023); People *ex rel.* Bonta v. City of Huntington Beach, No. 30-2023-01312235-CU-WM-CJC (Cal. Super. Ct. filed Mar. 8, 2023); Petition for Writ of Mandate and Complaint for Declaratory Relief at 1, People *ex rel.* Bonta v. City of Coronado (Oct. 20, 2023), https://oag.ca.gov/system/files/attachments/press-docs/Petition%20for%20Writ%20of%20Mandate.pdf [https://perma.cc/EX7Y-SRB3] (unfiled); Petition for Writ of Mandate and Complaint for Declaratory Relief at 1, People *ex rel.* Bonta v. City of Malibu (Apr. 22, 2024), https://oag.ca.gov/system/files/attachments/press-docs/People%20of%20California%20v.%20City%20of%20Malibu%20-%20Petition%20and%20Complaint.pdf [https://perma.cc/UZT8-ZJQG] (unfiled).

can attract more attention from advocacy groups, media, and policymakers, making these areas natural focal points for enforcement efforts and lawsuits. Second, there are lots of HCD jurisdictions in these areas, creating more opportunities for noncompliance and, consequently, litigation.[147] Third, Los Angeles and the Bay Area are in coastal areas, where local community opposition to developments has been common.[148] Local governments, therefore, may be inclined to drag their feet on—or completely shirk—compliance.[149]

c. Claim Types

Petitioners in housing element lawsuits typically advance claims in four main categories: (1) failure to timely adopt a housing element, (2) inconsistency, (3) inadequacy, and (4) failure to implement components of an adopted housing element.

As shown in Figure 5, untimely adoption claims have risen sharply, accounting for twenty-three of the thirty-seven lawsuits filed between 2020 and 2024. While this trend might suggest that jurisdictions are struggling to meet deadlines, it is more likely the result of a "low-hanging fruit" effect. Proving untimely adoption is relatively straightforward: If a housing element was not adopted by the statutory deadline, the jurisdiction is automatically in violation of the law. In contrast, other claims, such as those involving inconsistency or substantive inadequacy, require more detailed evidence and are therefore harder to litigate.

Inconsistency claims have been relatively rare across all periods, suggesting that once a jurisdiction adopts a compliant housing element, it tends to align the rest of its general plan accordingly.

Inadequacy claims, however, have remained a constant feature of litigation, with the highest number (seven claims) filed between 2020 and 2024. This reflects a persistent issue with the substantive content of housing elements, as jurisdictions struggle

147 *Statutory Determinations for Limiting Jurisdictions' Abilities to Restrict Development*, CAL. DEP'T OF HOUS. & CMTY. DEV., https://www.hcd.ca.gov/planning-and-community-development/statutory-determinations [https://perma.cc/PSJ2-RBG8] (last visited Nov. 14, 2025).

148 Ecklund, *supra* note 16, at 985.

149 To truly grasp the dynamics behind this concentration of lawsuits, I would need to dig into HCD's compliance data. For example, the data might show that rural jurisdictions may comply with Housing Element Law more than urban jurisdictions. Because I have only recently acquired the relevant data, such an analysis will have to wait for a subsequent piece.

to meet the legal requirements for comprehensive and actionable housing plans.

Claims based on the failure to implement programs became prominent starting in the late 1990s and have persisted ever since. Three developments may explain their rise. First, *Urban Habitat Program v. City of Pleasanton* clarified that when a jurisdiction fails to carry out a program in its housing element, it violates a mandatory duty and triggers a three-year statute of limitations under California Code of Civil Procedure section 338.[150] Second, the Legislature codified the right to bring such claims by adding section 65583(h), which explicitly authorizes enforcement through a traditional writ of mandate under California Code of Civil Procedure section 1085.[151] Third, section 65585 was amended to empower HCD to revoke its approval of a housing element if a jurisdiction fails to implement programs that were central to that approval.[152]

Overall, while earlier lawsuits were dominated by inadequacy and untimely adoption claims, recent years have seen a broader distribution of issues. Untimely adoption remains the most common claim, but failures to implement programs and inconsistency continue to play a significant role in enforcement efforts.[153]

d. Attorney Fees

It is difficult to find accurate data on attorney fees. For many older cases, the court documents have been destroyed. For many settled cases, it was impossible to find whether attorney fees were included in the parties' private settlements. However, I found attorney fee data in several stipulated judgments. I also found data on a few attorney fee awards in the Los Gatos Town Council Meeting Minutes, which lists several housing element lawsuits and discloses the amount of attorney fees the jurisdiction paid.[154] Although I

150 80 Cal. Rptr. 3d 300, 311 (Ct. App. 2008).

151 *See* S.B. 375, 2007–2008 Leg., Reg. Sess. ch. 728 (Cal. 2008).

152 Assemb. B. 72, 2017–2018 Leg., Reg. Sess. ch. 370 (Cal. 2017); PILP MANUAL, *supra* note 24, at 32.

153 Again, compliance data from HCD could help verify or refute these conclusions. Such data would demonstrate whether the types of claims brought in these lawsuits genuinely reflect shortcomings on the part of local jurisdictions, or if, instead, they reveal strategic decision-making by the advocacy groups driving the litigation.

154 TOWN OF LOS GATOS: COUNCIL AGENDAS AND REPS. (Oct. 21, 2016, at 16:25 PT), https://weblink.losgatosca.gov/WebLink/DocView.aspx?id=593968&dbid=0&repo=LFTOWN [https://perma.cc/LQ7A-3YKM].

could not independently verify the amounts, they may be helpful for understanding how jurisdictions view the risk of paying attorney fees if they are sued for noncompliance.

As demonstrated in Figure 6, a few attorney fee awards were quite large. In *Kennedy Commission v. City of Huntington Beach*, filed in 2015, the City of Huntington Beach was ordered to pay the petitioners $3,531,201.10.[155] In *Urban Habitat Program v. City of Pleasanton*, filed in 2006, the City of Pleasanton agreed to pay $1,990,000 in attorney fees as part of a stipulated judgment.[156] Those two cases are extreme examples though. Most attorney fee awards are in the tens of thousands of dollars, and a few are in the hundreds of thousands of dollars range. Of course, no attorney fees have been awarded in cases where the petitioners lost.

Importantly, because courts tend to use the "lodestar" method for determining appropriate attorney fees, the length of the litigation is directly related to the attorney fee amount.[157] The *Kennedy Commission* case had multiple appeals and dragged on for several years.[158] *California Housing Defense Fund and YIMBY v. City of Cupertino* resolved very quickly, which is why the petitioners were only awarded $15,000 in attorney fees.[159]

2. Outcomes and Remedies

Of the eighty-five housing element cases examined, forty-eight were settled before a hearing on the merits (see Figure 7). In five cases, it remains unclear whether they settled or proceeded to a merits hearing.[160] One case is ongoing and therefore cannot be categorized as either settled or adjudicated on the mer-

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155 Order on Attorney Fees, *supra* note 92.

156 Judgment Pursuant to Stipulation, No. RG 06 293831 (Cal. Super. Ct. Aug. 19, 2010) (on file with author).

157 Under this method, the court determines a reasonable hourly rate and multiplies it by the number of hours reasonably spent on the litigation, resulting in a presumptively reasonable fee known as the lodestar figure. *See* PLCM Grp., Inc. v. Drexler, 997 P.2d 511, 518 (Cal. 2000). "The lodestar figure may then be adjusted, based on consideration of factors specific to the case, in order to fix the fee at the fair market value for the legal services provided." *Id.*

158 Kennedy Comm'n v. City of Huntington Beach, 308 Cal. Rptr. 3d 461, 468–77 (Ct. App. 2023).

159 Stipulated Judgment at 6, No. 23CV410817 (Cal. Super. Ct. Jan. 8, 2024).

160 Several documents mentioned cases against the Cities of Sacramento and Lincoln filed by LSNC. Sources also referenced a case against the City of Seal Beach. However, I could not locate court records for these three cases.

its.[161] This leaves thirty-three cases that proceeded to a merits hearing on noncompliance with Housing Element Law. Of these, fourteen were denied on the merits, while nineteen resulted in court decisions granting the petition.

To understand how well courts are adhering to the mandates of section 65755, I analyzed the remedies imposed or declined by the courts. However, court-ordered remedies are difficult to evaluate because judges rarely explain their reasoning on the record. Proposed orders often provide some insight into the final judgment, but even they can leave significant gaps.

In eleven of the cases where petitions were granted, the process unfolded as expected.[162] After the court ruled in favor of the petitioners, it entered a judgment that included one or more of the required remedies under section 65755. For example, in *Ivory v. County of Yuba*, the judgment ordered Yuba County to "[r]efrain from granting any and all categories of subdivision map approvals, zoning changes, variances, building permits and other related permits, in the Plumas Lake Specific Plan area, until Yuba County complies with [the Housing Element Law]."[163]

The court's language incorporates section 65755, subdivisions (a)(1), (a)(2), and (a)(3). In other words, the court suspended the authority of Yuba County in all three ways under the statute.

In other cases, the petitioners submitted a proposed order that included section 65755 remedies. The court then adopted the proposed judgment—often by simply crossing out the word "proposed"—and entered the judgment with the section 65755 reme-

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161 Verified Petition for Writ of Mandate and Complaint for Declaratory Relief at 1, Yes In My Back Yard v. City of Sausalito, No. CIV2300652 (Cal. Super. Ct. filed Mar. 8, 2023).

162 *See* Buena Vista Gardens Apartments Ass'n v. City of S.D. Plan. Dep't, 220 Cal. Rptr. 732, 744 (Ct. App. 1985); Comm. for Responsible Plan. v. City of Indian Wells, 257 Cal. Rptr. 635, 636–37 (Ct. App. 1989); Modification of Order, Harris v. County of Madera, No. 49063 (Cal. Super. Ct. filed 1993); Hoffmaster v. City of San Diego, 64 Cal. Rptr. 2d 684, 686, 688 (Ct. App. 1997); Peremptory Writ of Mandate, Ivory v. County of Yuba, No. 054694 (Cal. Super. Ct. filed Aug. 24, 1994); Order and Judgment Granting Writ of Mandate, Aldrich v. County of Sonoma, No. 220025 (Cal. Super. Ct. Dec. 14, 2000); Saldana v. County of Santa Cruz, No. H028899, 2006 WL 979281, at *1 (Cal. Ct. App. Apr. 14, 2006); Mejia v. City of Mission Viejo, No. 06CC05478, at 2–3 (Cal. Super. Ct. Apr. 26, 2006); Friends of Aviara v. City of Carlsbad, 148 Cal. Rptr. 3d 805, 807 (Ct. App. 2012); Kennedy Comm'n v. City of Huntington Beach, 224 Cal. Rptr. 3d 665, 672 (Ct. App. 2017); Californians for Homeownership, Inc. v. City of Beverly Hills, No. 23STCP00143, 2023 WL 9317058, at *1 (Cal. Super. Ct. Dec. 21, 2023).

163 Order Granting Petitioners' Request for Peremptory Writ of Mandate and Judgment Theron for Petitioners, No. 054694 (Cal. Super Ct. Aug. 24, 1994).

dies intact. For instance, in *Californians for Homeownership, Inc. v. City of Beverly Hills*, the court's judgment was identical to the petitioner's proposed order, stating:

> Pursuant to subdivision (a)(1) of Government Code section 65755, the Court hereby suspends the authority of Respondent to issue building permits pursuant to Division 13 (commencing with section 17910) of the Health and Safety Code, and all other related permits, except for permits that create new residential bedrooms or units, and except for permits subject to subdivision (b) of Government Code section 65755, until the City has substantially complied with the requirements of Article 5 of Chapter 3 of Division 1 of Title 7 of the Government Code (commencing with Government Code Section 65300).[164]

This remedy is drawn verbatim from section 65755(a)(1).[165] The only notable difference is the exemption for permits related to "new residential bedrooms or units."[166] This exemption likely reflects the petitioner's priorities as an affordable housing organization. The petitioner's goal was not to halt development entirely but to ensure that the litigation advanced the creation of housing—particularly affordable housing—in Beverly Hills. By allowing permits for new housing to proceed, the remedy aligned with the broader objective of increasing housing opportunities while still enforcing compliance with state law. Indeed, it is easy to imagine the political pressure faced by Beverly Hills city leaders from the community when construction permits were suddenly out of reach. Notably, the remedies in *Californians for Homeownership, Inc. v. City of Beverly Hills* were far more limited than those imposed in the Yuba County case discussed earlier, as they did not include any restrictions on zoning or subdivision map approvals.

This contrast between the tailored remedies in *Californians for Homeownership, Inc. v. City of Beverly Hills* and the broader enforcement seen in other cases, such as the Yuba County case, highlights the variability in how courts apply section 65755 remedies. However, this inconsistency becomes even more apparent in cases where courts decline to impose section 65755 remedies altogether. In two cases (*People ex rel. Bonta v. City of Huntington Beach* and *Californians for Homeownership, Inc. v. City of La Cañada Flintridge*), petitioners included section 65755 remedies

164 No. 23STCP00143, 2023 WL 9317058, at *1 (Cal Super. Ct. Dec. 21, 2023).
165 CAL. GOV'T CODE § 65755(a)(1) (West 2025).
166 *City of Beverly Hills*, 2023 WL 9317058, at *1.

in their proposed judgments, yet the courts struck those provisions before entering judgment.[167]

This raises an important question: Why would courts decline to impose mandatory remedies under section 65755? In *People ex rel. Bonta v. City of Huntington Beach*, the City argued that section 65755 did not apply because Huntington Beach is a charter city.[168] However, the court rejected this argument, relying on the Court of Appeal's order on a writ petition that the state had previously filed in this case.[169] Indeed, with the enactment of Senate Bill 1037 in 2024 adding section 65009.1, the Legislature made it even clearer that article 14 applies to charter cities.[170]

Nor does this reasoning hold in *Californians for Homeownership, Inc. v. City of La Cañada Flintridge*, because La Cañada Flintridge is not a charter city.[171] Some scholars suggest that in the *La Cañada Flintridge* case, the court lacked appellate guidance about whether section 65755 applied to rezoning cases as opposed to facial consistency of the housing element.[172] In any

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167 Order Granting First Amended Petition for Writ of Mandate at 4–6, People *ex rel.* Bonta v. City of Huntington Beach, No. 30-2023-01312235-CU-WM-CJC (Cal. Super. Ct. June 20, 2024); Californians for Homeownership, Inc. v. City of La Cañada Flintridge, No. B333151, 2024 WL 5242913, at *1 (Cal. Ct. App. Dec. 27, 2024).

168 Christopher S. Elmendorf et al., *Making It Work: Legal Foundations for Administrative Reform of California's Housing Framework*, 47 ECOLOGY L. Q. 973, 997 n.119 (2020) ("A charter city is a city whose electorate has voted to incorporate as a charter city, which entitles the city to a degree of autonomy under the California Constitution." (citation omitted)).

169 Minute Order at 4, People *ex rel.* Bonta v. City of Huntington Beach, No. 30-2023-01312235-CU-WM-CJC (Cal. Super. Ct. May 15, 2024) ("[T]he City argues that Article 14 does not apply to charter cities such as itself. Here, the Court is bound to follow the Court of Appeal's ruling in this matter." (citing People of California v. Super. Ct., D083339, at 2–3 (Cal. Ct. App. Jan. 18, 2024))).

170 CAL. GOV'T CODE § 65009.1(e)(2) (West 2025) ("The remedies in Article 14 . . . of Chapter 3 apply to actions against all cities, including charter cities, to enforce the requirements of Section 65585 as a mandatory element of a general plan under Article 5 . . . of Chapter 3. This paragraph is declaratory of existing law.").

171 *See Charter Cities*, LEAGUE OF CAL. CITIES, https://www.cacities.org/UploadedFiles/LeagueInternet/6b/6bbb4ee3-88f9-4d8f-93ad-0075a7b486c4.pdf [https://perma.cc/4XZ2-KCSX] (last visited Dec. 21, 2024). Notably, Indian Wells was not a charter city in 1989 when the court imposed section 65755 remedies. *See* Comm. for Responsible Plan. v. City of Indian Wells, 257 Cal. Rptr. 635, 636–37, 641 (Ct. App. 1989). But it became a charter city in 2003. DUDEK, WESTERN COACHELLA VALLEY MUNICIPAL SERVICE REVIEW 6-2 (2007), https://lafco.org/wp-content/uploads/documents/archives/6.0_Indian_Wells.Final_Draft.pdf [https://perma.cc/HBY4-TCGX].

172 E-mail from Kenneth Stahl, Professor, Chap. Univ., Dale E. Fowler Sch. of L., to Jonathan Bremen, Assoc. Clinical Professor of L., Loy. L. Sch., L.A. (Feb. 18, 2025, at 16:45 PT) (on file with author).

event, additional clarification is needed to confirm why the courts omitted remedies in these cases.

An unusual pattern also emerged in four cases where courts entered stipulated judgments after a decision on the merits.[173] A stipulated judgment, or consent decree, is an agreement between the parties that includes a proposed judgment or order.[174] Such agreements are often governed by California Code of Civil Procedure section 664.6 and allow one party to seek judicial enforcement if the other party breaches the stipulation.[175] While stipulated judgments are typically associated with settlements that require ongoing judicial oversight,[176] their use in post-merits decisions raises questions.

Why would courts encourage parties to negotiate remedies when section 65755 explicitly mandates that judges impose one of the prescribed remedies? Courts, one might think, would eagerly enforce strict penalties against jurisdictions blatantly ignoring their legal obligations. Yet judicial intervention has been remarkably restrained.[177]

One explanation may lie in the perceived difficulty of applying section 65755. Courts often express reluctance to intervene in local planning decisions, citing a lack of expertise in land use policy and a historical deference to local government authority. As one source explains: "A source of judicial reluctance to intervene in fair share housing disputes is the courts' conception of their role in local land use decision-making. During the latter half of this century, the courts generally deferred to localities' decisions on local land use questions."[178]

Rather than fully enforcing section 65755, some courts appear to be bifurcating relief. They order jurisdictions to adopt a

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173 *See* Judgment Pursuant to Stipulation, Martinez v. City of Clovis, No. 19CECG03855 (Cal. Super. Ct. Mar. 19, 2024); Notice of Settlement, Sacramento Hous. All. v. City of Folsom, No. 34-2011-80000833 (Cal. Super. Ct. Apr. 11, 2013); Stipulated Judgment, Rios v. City of Camarillo, No. CIV218903 (Cal. Super. Ct. Aug. 27, 2003); Stipulation and Judgment, Guyton v. City of Alameda, No. 646480-8 (Cal. Super. Ct. May 3, 1990).

174 *See* Cal. State Auto. Ass'n Inter-Ins. Bureau v. Super. Ct., 788 P.2d 1156, 1158–59 (1990).

175 *See id.* at 1159.

176 *See* EILEEN C. MOORE & MICHAEL PAUL THOMAS, CALIFORNIA CIVIL PRACTICE GUIDE PROCEDURE § 20:1 (Apr. 2025 ed. 2025).

177 Field, *supra* note 81, at 57.

178 *Id.*

compliant housing element with oversight from HCD, while requiring the parties to brief and negotiate proposed remedies.[179] In some instances, courts even ask the parties to resolve the matter through stipulation.[180]

This hesitation may also stem from a lack of clear guidance. HCD, which is responsible for reviewing housing elements, has not issued directives to help courts craft and implement effective remedies under section 65755's mandates. Without such guidance, judicial reluctance is likely to persist, undermining the enforcement power of section 65755.

VI. ISSUES AND PROPOSED REFORMS

The Housing Element Law, designed to address California's severe housing crisis, has one clear expectation: Local governments must plan for housing needs across all income levels. Yet, decades after its enactment, compliance remains elusive. Critics say the law lacks teeth and that "the incentives for localities to comply are just not good enough."[181] The evidence presented here lends weight to that critique and adds another layer to the discussion: Litigation, often seen as the big stick of enforcement, may not be as formidable as it appears.

This Part begins by identifying the persistent issues that undermine the effectiveness of California's Housing Element Law, including the lack of strong enforcement mechanisms, the limitations of litigation, and the political resistance that enables noncompliance. It then turns to potential solutions, suggesting various approaches to meaningful reform.

A. Issues

The first issue is that the risk of getting sued is remarkably low. For a city or county, the odds of facing a housing element lawsuit are slim, especially in regions with fewer resources or less public scrutiny.

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179 PILP MANUAL, *supra* note 24, at 49–50.

180 *See* Judgment Pursuant to Stipulation, Martinez v. City of Clovis, No. 19CECG03855 (Cal. Super. Ct. Mar. 19, 2024); Notice of Settlement, Sacramento Hous. All. v. City of Folsom, No. 34-2011-80000833 (Cal. Super. Ct. Apr. 11, 2013); Stipulated Judgment, Rios v. City of Camarillo, No. CIV218903 (Cal. Super. Ct. Aug. 27, 2003); Stipulation and Judgment, Guyton v. City of Alameda, No. 646480-8 (Cal. Super. Ct. May 3, 1990).

181 *See* Agatstein, *supra* note 2, at 225.

The barriers for petitioners are high. For low- and moderate-income individuals, the high cost of litigation poses a significant barrier.[182] Moderate-income individuals lack access to free legal services and rarely organize for class actions, while low-income individuals must rely on overburdened legal services offices focused on urgent cases with immediate impacts.[183] Although legal services organizations have brought most of the housing element lawsuits, such litigation—which is often lengthy and unlikely to produce direct benefits for low-income plaintiffs—is deprioritized in favor of more immediate solutions to housing needs.[184] You might think that developers would want to sue jurisdictions so they can build there, but "developers are hesitant to seek a judicial remedy in localities where they intend to have future development."[185]

Even when lawsuits are filed, the outcomes often fail to strike fear into local governments. Settlements are common, allowing jurisdictions to avoid meaningful penalties. When cases reach a judgment, courts hesitate to wield their most powerful tool—suspending a city's land use authority under section 65755. Instead, courts order stipulated judgments or narrow remedies, sidestepping the broader enforcement powers at their disposal.

Stipulated judgments, which often result from negotiations between petitioners and jurisdictions after the court has decided the merits of the case, tend to prioritize expediency over accountability. While they can expedite compliance and avoid protracted litigation, stipulated judgments often impose only minimal requirements on jurisdictions and lack the robust enforcement mechanisms necessary to deter future noncompliance. For example, such judgments may require a jurisdiction to submit a compliant housing element within a specified timeframe but fail to include broader sanctions, such as suspending land use authority, that could drive systemic changes in local housing policy. In effect, stipulated judgments let jurisdictions off easy, allowing them to meet the bare minimum requirements while avoiding the political and financial consequences of a full judicial remedy.

This brings us to the politics. For some local leaders, resisting state mandates is a badge of honor. Cities like Huntington Beach

182 Field, *supra* note 81, at 50–51.
183 *Id.* at 51–52.
184 *Id.* at 52.
185 CA HOUS. FUTURE, *supra* note 14, at 56.

show that defiance can be spun as a political triumph, turning council members into local heroes for "standing up" to Sacramento.[186]

Thus, the Housing Element Law has become a cost-benefit analysis. Is the risk of a lawsuit greater than the cost of compliance? For many jurisdictions, the calculus favors resistance. Even in cases where jurisdictions are ordered to pay substantial sums, the impact is often muted. Take Huntington Beach, for example. The city was ordered to pay around $3.5 million in attorney fees after losing the 2015 housing element lawsuit, yet it has continued to resist state housing mandates.[187] For cities like Huntington Beach, the financial burden of attorney fees becomes just another line item in the cost of doing business or, more accurately, the cost of resisting compliance. Moreover, attorney fees may be minimal if the jurisdiction promptly agrees to comply after being sued. This dynamic allows jurisdictions to delay compliance with little consequence, effectively gambling on the likelihood of enforcement and treating a lawsuit as merely the trigger to meet their obligations belatedly and without substantial loss.

This calculus may soon shift. California's Attorney General and newly active nonprofits are sharpening their focus on housing enforcement. Groups like CFH, YIMBY, and CalHDF have made it clear that they are watching, and they are ready to act. The Attorney General's Housing Strike Force is no empty gesture; its recent lawsuits suggest a new era of enforcement.

Notably, one critical piece is missing from this analysis: whether jurisdictions sued for noncompliant housing elements adopt compliant elements faster than those that remain noncompliant but are never sued. I attempted to analyze HCD data going back to 1982 to explore this question, but my efforts were thwarted by significant data access issues. After filing a Public Records Act request, HCD provided the comprehensive data necessary for such an analysis. I hope to explore this data in a subsequent piece. Specifically, I intend to construct a timeline for each housing element cycle, identifying every noncompliant housing element submission, when (if ever) it was certified by HCD, and whether the jurisdiction had faced litigation. By further categorizing these cases—such as jurisdictions sued and granted re-

186 Press Release, Van Der Mark & Gates, *supra* note 10.

187 *Id.*; Order on Attorney Fees, Kennedy Comm'n v. City of Huntington Beach, No. 30-2015-00801675 (Cal. Super. Ct. July 8, 2021) (on file with author).

lief, sued and denied, those that settled, and those that avoided lawsuits altogether—we could better assess whether lawsuits act as a meaningful catalyst for compliance. Such an analysis could clarify whether litigation serves as an effective enforcement tool or merely forces jurisdictions to meet their obligations in a delayed and piecemeal fashion.

B. Reforms

Over the years, scholars and policymakers have proposed a range of reforms to address the chronic shortcomings of California's Housing Element Law. Some of the strongest reforms are: (1) expanding the volume of litigation; (2) strengthening judicial enforcement; and (3) establishing dedicated administrative bodies to adjudicate compliance disputes. Each of these strategies has merit. Yet none, on its own, is likely to resolve the structural mismatch between California's housing mandates and its capacity to deliver affordable homes. In the long run, a more radical solution may be required: a significant investment in publicly built social housing.

1. More Widespread Litigation

One frequently suggested fix is to expand the quantity of housing element litigation.[188] The Housing Element Law, after all, provides housing advocates with statutory leverage. If jurisdictions fail to comply, they may be sued and penalized. And yet, for decades, this litigation pathway has remained largely theoretical. As early as the 1990s, critics noted that the "threat" of enforcement was largely hollow.[189] Low-income tenants had more urgent legal needs than suing cities over general plan documents, and chronically underfunded and overburdened legal aid organizations rarely had the capacity to undertake such time-consuming and technical cases.[190]

My empirical analysis confirms that this pattern has endured. Even today, the threat of litigation remains minimal. While recent years have seen a modest uptick in lawsuits, some initiated by the Attorney General and others by nonprofit housing advocates, the overall volume remains low. As a result, most

188 *See* PILP MANUAL, *supra* note 24, at 24–25, 137–38.
189 Agatstein, *supra* note 2, at 230.
190 *Id.* at 231 (citing Field, *supra* note 81, at 51–52).

jurisdictions can safely assume that they will not be sued, even if they ignore their housing element obligations.

Could that change? Possibly. If litigation became more common, it might alter the calculus. The cost-benefit analysis for a noncompliant city would shift if the likelihood of being dragged into court rose meaningfully. Whether current litigation trends will rise to that threshold remains an open question. Future data may show whether recent lawsuits are changing behavior.

If they do, California may have to decide whether to subsidize enforcement more directly by increasing funding to legal aid organizations or the Attorney General's Office to support housing element litigation. Such an investment could enhance deterrence. But unless accompanied by broader structural reforms, it is unlikely to be a silver bullet. In addition, taxpayers may rightly wonder whether the cost of litigation-based enforcement justifies the marginal gains in compliance.

To stimulate litigation, some commentators have proposed that the California Legislature adopt a two- or three-times attorney fee multiplier to advocates who prevail in housing element litigation.[191] In theory, this would sweeten the incentive for private parties to challenge noncompliant jurisdictions and thereby pressure jurisdictions to take their obligations more seriously. However, my evidence suggests that the deterrent effect of large fee awards is, at best, inconsistent. Consider Huntington Beach: After failing to comply with its housing element obligations during the fifth planning cycle, the city was ordered to pay $3.5 million in attorney fees.[192] Yet despite this hefty penalty, it remained out of compliance in the next cycle. If such a high-profile financial hit cannot alter municipal behavior, it is unclear what price point would.

To be sure, pro-housing organizations would benefit from a fee multiplier. But whether this would meaningfully increase litigation remains uncertain. Only a handful of nonprofits in California have the necessary expertise and resources to pursue complex housing element lawsuits. These cases can span years before yielding a final judgment or any fee recovery, and the costs of lit-

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191 *Id.* at 267–68.

192 Press Release, Van Der Mark & Gates, *supra* note 10; Order on Attorney Fees, Kennedy Comm'n v. City of Huntington Beach, No. 30-2015-00801675 (Cal. Super. Ct. July 8, 2021) (on file with author).

igation are steep in the meantime. Moreover, many pro-housing organizations rely on large private law firms to provide pro bono staffing for these lawsuits. When fee awards are issued, those firms often receive a substantial portion of the recovery. In effect, a fee multiplier might expand the coffers of elite firms more than it would build the enforcement capacity of underfunded housing advocates.

2. Stronger Judicial Enforcement

At present, judicial enforcement is rather toothless. Courts must fully embrace their authority under section 65755 by consistently imposing robust remedies that compel compliance. Suspending land use authority or halting approvals for market-rate developments are powerful tools that, if applied uniformly, could create the deterrent effect the law currently lacks. Beyond deterrence, preliminary evidence suggests that when courts swiftly impose stringent orders under section 65755, jurisdictions are prompted to comply more quickly by adopting adequate housing elements.[193] More importantly, the frequent use of stipulated judgments and weak court orders undermines the protective potential of these remedies. Specifically, when development authority is not immediately curtailed following a jurisdiction's loss in a housing element case, the jurisdiction may continue to approve market-rate or commercial developments on sites that could otherwise be allocated for affordable housing in a compliant housing element. This not only delays compliance but also erodes the availability of land for housing those most in need.

To address this issue, the Legislature could amend section 65755 to require courts to suspend development approval powers[194] in all instances of noncompliance, regardless of whether the court also orders specific developments to proceed.[195] Such a mandatory provision would preserve critical sites for affordable housing development.

3. Administrative Courts

Finally, the California Legislature could consider establishing specialized administrative courts within HCD modeled after

193 *See* Field, *supra* note 81, at 43–44. Once again, data from HCD would be invaluable in confirming whether this pattern holds true.

194 *See* CAL. GOV'T CODE § 65755(a)(1)–(3) (West 2025).

195 *See id.* § 65755(a)(4)–(6), (b).

the Air Pollution Control Districts' hearing boards.[196] These hearing boards are typically composed of five members: one attorney, one professional engineer, one medical professional, and two public members.[197] Similar to the Air Districts' hearing boards, these courts could include administrative judges or attorneys, urban planning experts, and community members. Unlike Superior Court judges, who often lack familiarity with the nuances of the Housing Element Law and may be hesitant to interfere in local land use decisions, administrative courts would bring a depth of knowledge and experience that would guarantee consistent and effective enforcement. For example, administrative courts would likely be more willing to impose the full range of mandatory remedies under section 65755, ensuring that noncompliant jurisdictions face immediate and meaningful consequences for failing to meet their obligations.

The benefits of such administrative courts extend beyond their subject-matter expertise. By consolidating these cases under specialized courts, the state could reduce the procedural delays and inefficiencies that currently plague the Superior Court system.[198] Administrative courts are inherently designed to handle focused and technical legal issues, making them more adept at navigating the complex interplay of housing policy, statutory requirements, and local governance.[199] As a result, they could process cases more quickly and perhaps at a lower cost, alleviating the burden on the court system while delivering swifter resolutions for both petitioners and jurisdictions.

Other states utilize administrative bodies to adjudicate or enforce fair-share housing laws. Massachusetts employs a Housing Appeals Committee (HAC), an administrative tribunal, to handle appeals from developers if their affordable housing developments are denied.[200] The HAC can overturn local zoning decisions if a town has not met its affordable housing goals unless there are health or safety concerns that outweigh the regional

196 This is not a novel idea. *See generally* Field, *supra* note 81 (recommending in 1993 that administrative bodies adjudicate housing element disputes).

197 CAL. HEALTH & SAFETY CODE § 40801 (West 2025).

198 *See* Field, *supra* note 81, at 52.

199 *See id.* at 75–76.

200 Carolina K. Reid, Carol Galante & Ashley F. Weinstein-Carnes, *Addressing California's Housing Shortage: Lessons from Massachusetts Chapter 40B*, 25 J. AFFORDABLE HOUS. & CMTY. DEV. L. 241, 247 (2017).

housing needs.[201] Rhode Island and Illinois use administrative tribunals for builder's remedy cases.[202] In Washington and Florida, a state agency reviews housing plans and may challenge a plan before an administrative tribunal.[203] In Washington, this is the specialized Growth Management Hearing Board; in Florida, it is the general-purpose Division of Administrative Hearings.[204] Finally, Oregon's Land Conservation and Development Commission can enjoin noncompliant local governments from issuing land use permits.[205]

4. Social Housing

While the legal and administrative reforms discussed above may incrementally improve compliance with California's Housing Element Law, they are unlikely to solve the state's chronic underproduction of affordable housing. Publicly funded social housing is a more promising solution. Indeed, those who have worked inside the housing element process, and readers of this Article, will recognize just how convoluted, costly, and ultimately inefficient the current system has become.

The Housing Element Law imposes substantial financial and administrative burdens on cities. Municipalities routinely hire specialized consultants to navigate the complex statutory requirements,[206] and the planning process is "expensive (in terms of money spent on consultants and plan preparation and of people's time)."[207]

The risks of noncompliance only add to the cost. Jurisdictions that fall short must pay penalties.[208] They may also face litigation, and if they lose, they are often required to pay not only their own legal fees but also those of the prevailing party.[209] In some cases, courts have even appointed external agents to rewrite a jurisdiction's housing element at the jurisdiction's expense.[210]

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201 *Id.* at 248.

202 Elmendorf, *supra* note 85, at 97–98.

203 *Id.* at 110–11.

204 *Id.* at 110 n.185.

205 *Id.* at 103–04.

206 Darrel Ramsey-Musolf, *State Mandates, Housing Elements, and Low-Income Housing Production*, 32 J. PLAN. LITERATURE 117, 123 (2017).

207 MONKKONEN ET AL., *supra* note 98, at 28.

208 PILP MANUAL, *supra* note 24, at 54–55.

209 *See id.* at 56–57.

210 *See id.* at 57 (citing CAL. GOV'T CODE § 65585(l)(3) (West 2025)).

And what is gained from all this? Precious little actual housing.[211] The entire process forms part of an "expensive 'paper chase.'"[212] It consumes enormous public and nonprofit resources with little direct connection to housing production. Legal aid organizations must finance years-long lawsuits. The judicial system must dedicate judges, clerks, and other resources to resolve compliance disputes. Meanwhile, the construction of new housing remains elusive.

This "energy- and money-guzzling bureaucratic maze"[213] is not just a nuisance, but a contributor to California's housing affordability crisis. As experts have noted, the state's "exceptionally high housing costs" are partly a consequence of its convoluted and overlapping land use schemes.[214]

And yet, no one seems to know how much the housing element regime actually costs Californians. To my knowledge, no comprehensive study has tallied the full financial footprint of compliance across the state. But anecdotally, it appears enormous. I am currently considering conducting such a study to address a simple question: How much housing could we build with the money we currently spend on planning for it? I suspect the answer would be sobering.

I also believe social housing is the best solution to California's housing crisis. Social housing is publicly built, permanently affordable, and designed to serve a broad range of incomes.[215] Unlike the private housing market, which is profit-driven and vul-

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211 *See, e.g.*, Moira O'Neill, Eric Biber & Nicholas J. Marantz, *Measuring Local Policy to Advance Fair Housing and Climate Goals Through a Comprehensive Assessment of Land Use Entitlements*, 50 PEPP. L. REV. 505, 518 n.70 (2023) ("[T]here is no connection between Housing Element compliance and housing production . . . ." (citing Paul G. Lewis, *Can State Review of Local Planning Increase Housing Production?*, 16 HOUS. POL'Y DEBATE 173, 190–92 (2005))); MONKKONEN ET AL., *supra* note 98, at 9 ("A comprehensive study from 2005 presented strong evidence that the process did not matter: municipalities in compliance with RHNA were no more likely to produce new housing than noncompliant cities." (citing Lewis, *supra*)).

212 Agatstein, *supra* note 2, at 232.

213 Ecklund, *supra* note 16, at 984 (quoting Liam Dillon, *California Lawmakers Have Tried for 50 Years to Fix the State's Housing Crisis. Here's Why They've Failed*, L.A. TIMES (June 29, 2017, at 3:00 PT), https://www.latimes.com/projects/la-pol-ca-housing-supply/ [https://perma.cc/R2CC-DNB8]).

214 Reid, Galante & Weinstein-Carnes, *supra* note 200, at 256.

215 Galen Herz, *Social Housing Is Becoming a Mainstream Policy Goal in the US*, JACOBIN (Feb. 21, 2021), https://jacobin.com/2021/02/social-housing-public-affordable-california-maryland [https://perma.cc/9Q22-BLM3].

nerable to economic cycles, social housing is planned to meet collective needs, not investor returns.

The federal government once embraced public housing, beginning with the Housing Act of 1937.[216] Through the mid-20th century, hundreds of thousands of units were built to house working- and middle-class families.[217] But starting in the 1970s, federal support waned as budgets were cut, and programs like the Low-Income Housing Tax Credit (LIHTC) replaced direct investment.[218] LIHTC delivers fewer units, often with limited affordability periods, and has been criticized as inefficient.[219]

California followed suit, relying on a complex web of incentives and mandates, including the Housing Element Law, hoping the private sector would deliver what the public needed.[220] But the results have been insufficient to meet demand.[221]

Critics often point to deteriorating U.S. public housing projects,[222] but these failures were the result of systematic underfunding,[223] racial segregation,[224] and political resistance,[225] not

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216 For a brief history of public housing in the United States, including the Housing Act of 1937, see MAGGIE MCCARTY, CONG. RSCH. SERV., R41654, INTRODUCTION TO PUBLIC HOUSING 1–7 (2014).

217 *Id.* at 3.

218 Saoirse Gowan & Ryan Cooper, *Social Housing in the United States*, PEOPLE'S POL'Y PROJECT (Apr. 2018), https://www.peoplespolicyproject.org/wp-content/uploads/2018/04/SocialHousing.pdf [https://perma.cc/759Z-65DL].

219 *Id.*

220 *See generally* ELAINE M. HOWLE, STATE AUDITOR, CALIFORNIA'S HOUSING AGENCIES: THE STATE MUST OVERHAUL ITS APPROACH TO AFFORDABLE HOUSING DEVELOPMENT TO HELP RELIEVE MILLIONS OF CALIFORNIANS' BURDENSOME HOUSING COSTS, REP. 2020-108 (2020) (describing California's network of housing incentives and mandates designed to spur private-sector development).

221 *See id.* at 5 ("[T]he Legislature has . . . declared that in California, private investment alone cannot achieve the needed construction of housing at costs that are affordable to people of all income levels . . . ."); *see also* DEREK SAGEHORN, EAST BAY FOR EVERYONE, CALIFORNIA HOUSING CORPORATION: THE CASE FOR A PUBLIC SECTOR HOUSING DEVELOPER (2021) (explaining the reasons why the private sector has been insufficient on its own to provide enough affordable housing for low-income households).

222 MAGGIE MCCARTY, CONG. RSCH. SERV., R41654, INTRODUCTION TO PUBLIC HOUSING 7 (2014); *see* Meagan Day, *We Can Have Beautiful Public Housing*, JACOBIN (Nov. 13, 2018), https://jacobin.com/2018/11/beautiful-public-housing-red-vienna-social-housing [https://perma.cc/5TGH-LQCC]; Ryan Cooper & Saoirse Gowan, *The Solution Is Social Housing*, JACOBIN (Apr. 5, 2018), https://jacobin.com/2018/04/affordable-housing-crisis-peoples-policy-project [https://perma.cc/9SNN-D6SX].

223 Gowan & Cooper, *supra* note 218; MCCARTY, CONG. RSCH. SERV., R41654, at 5–6 (discussing chronic underfunding and the Omnibus Budget Reconciliation Act of 1981).

224 MCCARTY, CONG. RSCH. SERV., R41654, at 3–4 (discussing "great opposition to new public housing development in some predominantly white communities"); Herz, *supra* note 215; Sagehorn, *supra* note 221, at 20; Gowan & Cooper, *supra* note 218.

inherent flaws in the model. Elsewhere, governments made different choices and saw different outcomes.[226] In Vienna, for example, social housing makes up over half the housing stock, and the city is consistently ranked among the most livable in the world.[227]

California can learn from those models and avoid the old pitfalls. A modern social housing system should be mixed-income, governed with tenant input, and distributed across regions, not concentrated in already disadvantaged communities. It should be seen not as a handout, but as infrastructure like roads, schools, and water systems.

Around the world, cities and countries are returning to this idea. Finland's "Housing First" model combines social housing with wraparound services and has reduced the nation's homeless population by 14%.[228] Sweden's "Million Homes Program" built one million new units in less than a decade and created an oversupply of affordable housing for decades afterward, proving that large-scale municipal housing construction can "eliminate a major housing shortage over a short period of time."[229] In Montgomery County, Maryland, the local government is building mixed-income developments directly, without relying on private developers.[230] Seattle voters recently approved a publicly owned housing developer.[231] Even in Sacramento, momentum is building. Assembly Bill 309, introduced in 2023, proposed a statewide, publicly owned, mixed-income, social housing program.[232] Alt-

225 MCCARTY, CONG. RSCH. SERV., R41654, at 3, 8; Gowan & Cooper, *supra* note 218.

226 Gowan & Cooper, *supra* note 218.

227 Day, *supra* note 222; David Walsh, *Vienna Named the World's Most Liveable City Again in 2024 Ahead of these European Cities*, EURONEWS (July 28, 2024, at 15:14 GMT), https://www.euronews.com/next/2024/07/28/vienna-named-the-worlds-most-liveable-city-again-in-2024-with-europe-dominating-the-top-3 [https://perma.cc/X9Z2-GE3E].

228 Gowan & Cooper, *supra* note 218.

229 *Id.*

230 Herz, *supra* note 215.

231 *See* H. Jacob Carlson & Gianpaolo Baiocchi, *Social Housing: How a New Generation of Activists Is Reinventing Housing*, SHELTERFORCE (June 30, 2023), https://shelterforce.org/2023/06/30/social-housing-how-a-new-generation-of-activists-are-reinventing-housing/ [https://perma.cc/K7D5-4PN8] (discussing Seattle's 2023 ballot initiative that created a municipal social housing developer); Jackie Mitchell, *Voters in Seattle Approve Initiative 135, Creating the Social Housing Developer*, BALLOTPEDIA: NEWS (Feb. 23, 2024, at 11:42 PT), https://news.ballotpedia.org/2023/02/23/voters-in-seattle-approve-initiative-135-creating-the-social-housing-developer/ [https://perma.cc/W6KS-8V5R].

232 *See generally* Julie Gilgoff, *The California SHIMBY Movement: Social Housing in My Backyard*, 60 CAL. W. L. REV. 1 (2023) (discussing Assembly Bill No. 309 and comparing it with a competing bill, Senate Bill No. 555).

hough Governor Gavin Newsom ultimately vetoed the bill,[233] it showed that Californians are interested in a broader conversation about a public option for housing.

Indeed, social housing is popular nationwide. A 2020 national poll found that a majority of likely voters, including many independents and Republicans, support the idea of publicly owned housing open to all income levels.[234] Framed as a public option for those priced out of the market, the idea seems to resonate.

VII. CONCLUSION

California's Housing Element Law was meant to ensure affordable housing, not generate paperwork. But as this Article shows, enforcement has become performative, and noncompliance has become a political strategy. Cities have learned to defy the law with impunity, betting that consequences will be slow and superficial. Although litigation helps at the margins, it cannot replace bold public investment. To meet its housing mandate, California must move beyond carrots and sticks and start building.

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233 Assemb. B. 309, 2023–2024 Reg. Sess. (Cal. 2023).

234 *See* ETHAN WINTER, DATA FOR PROGRESS, VOTERS WANT A PUBLIC OPTION FOR BROADBAND, CHILD CARE AND HOUSING: LIKELY VOTERS ALSO FAVOR MASSIVE PUBLIC INVESTMENTS IN INFRASTRUCTURE 2–3 (Jan. 26, 2021), https://www.filesforprogress.org/memos/public-option-for-broadband-child-care-housing.pdf [https://perma.cc/622B-ZK2C].

VIII. APPENDIX

Figure 1

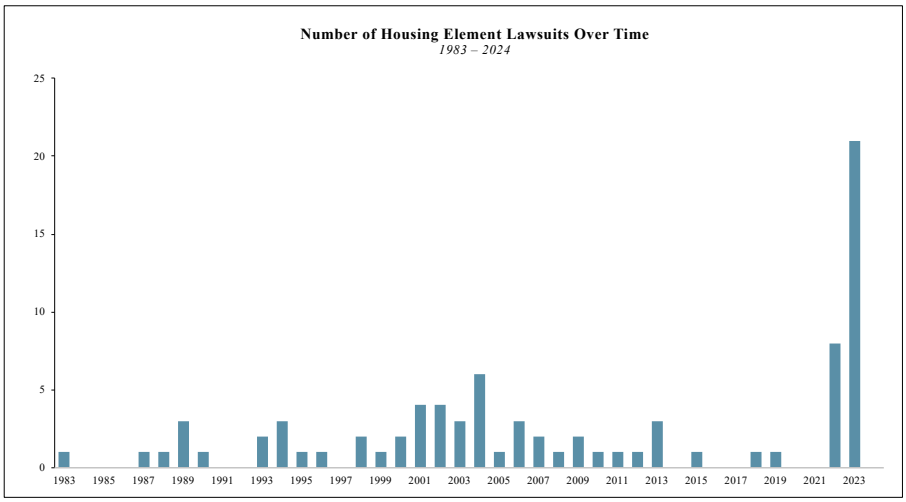

Figure 2

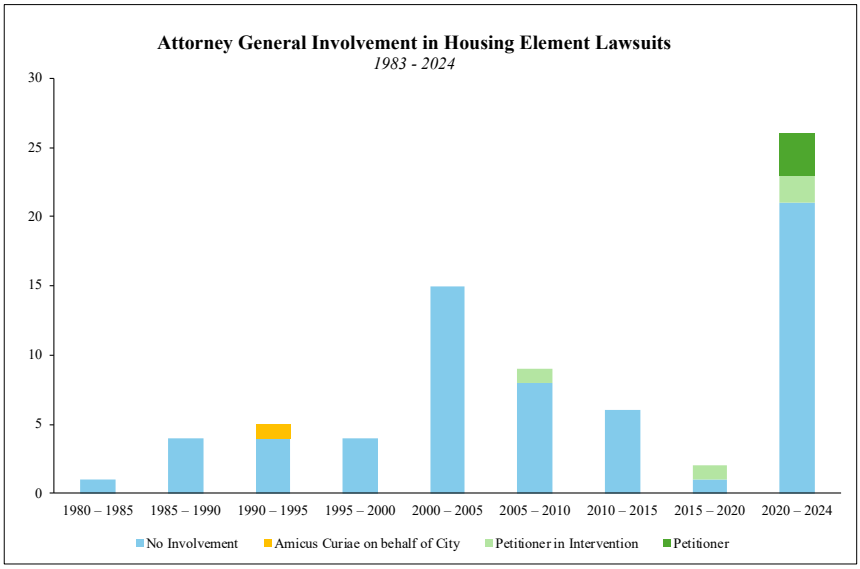

Figure 3

#	Public Interest Organizations Acting as Counsel for Petitioner	Number of Petitions
1	Public Interest Law Project	34
2	Californians for Homeownership	17
3	California Rural Legal Assistance	14
4	Legal Services of Northern California	10
5	Yimby Law	5
6	California Housing Defense Fund	4
7	Public Advocates, Inc	4
8	Western Center on Law and Poverty	3
9	Legal Aid Society of Alameda County	2
10	Legal Aid Society of Orange County	2
11	Public Law Center	2
12	Affordable Housing Advocates	1
13	Bay Area Legal Aid	1
14	Central California Legal Services	1
15	Channel County Legal Services Association	1
16	Community Legal Aid	1
17	Law Foundation of Silicon Valley	1
18	Legal Aid Society of San Diego	1
19	Neighborhood Legal Services	1
20	North Bay Legal Services	1

Figure 4

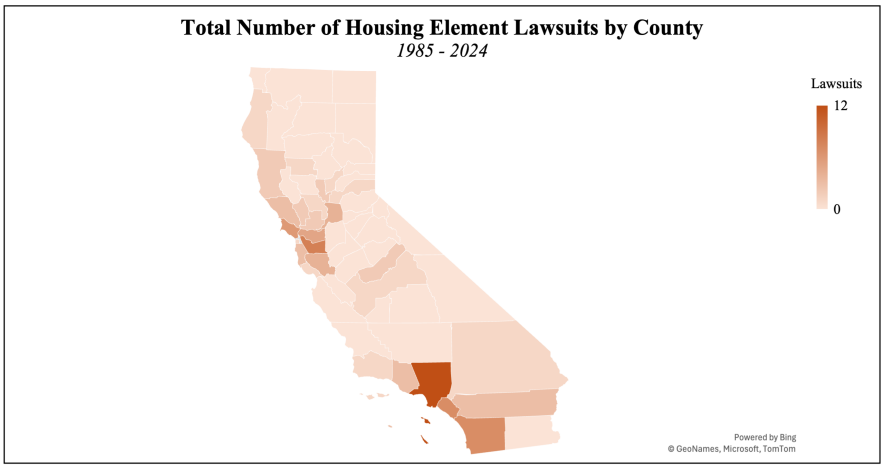

Figure 4.1

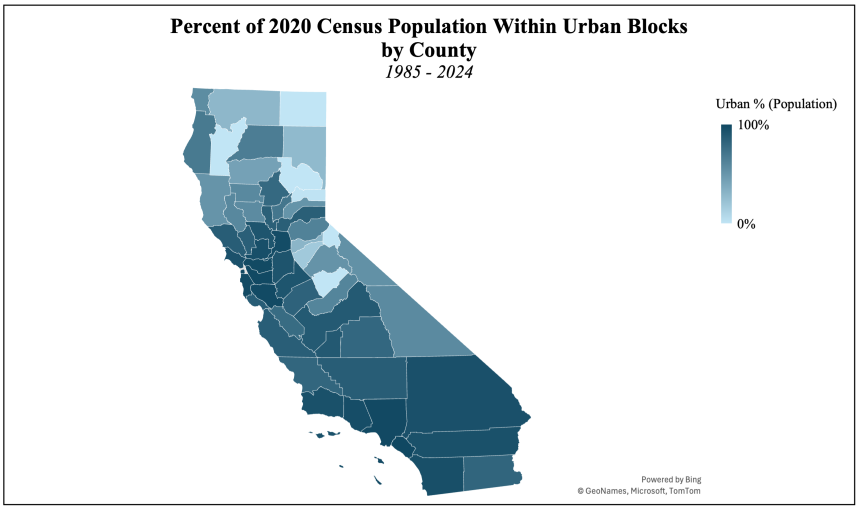

Figure 5

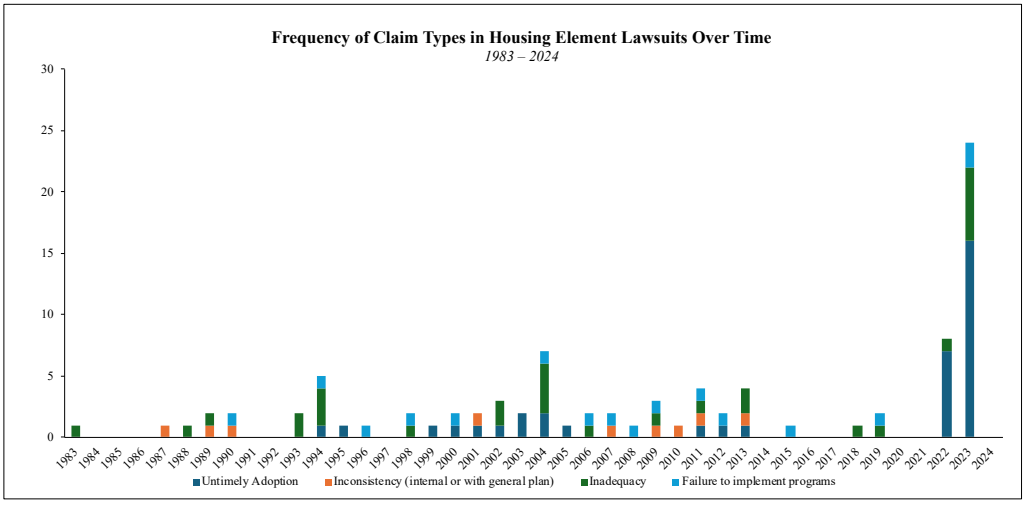

Figure 6

Attorney Fees Awards	
Cases where fees were not awarded	17
Cases where fees were awarded	15
Case Name	***Fee Amount***
Kennedy Commission v. City of Huntington Beach	$3,531,201.00
Urban Habitat Program v. City of Pleasanton	$1,990,000.00
Osorio v. City of Pittsburg and Pittsburg Redevelopment Agency	$325,000.00
Sacramento Housing Alliance v. City of Folsom	$220,420.00
The People of California, et. al. v. The City of Elk Grove	$150,000.00
Peninsula Interfaith Action v. City of Menlo Park	$114,000.00
Winterhawk v. City of Benicia	$90,000.00
Gutierrez et. al. v. City of Oxnard et. al.	$50,000.00
Sonoma County Housing Action Group v. City of Rohnert Park	$21,940.00
California Housing Defense Fund and YIMBY v. City of Cupertino	$15,000.00
Average fee amount, where known	$650,756
Ongoing	5
Unknown	48

Figure 7

Summary of Litigation Outcomes	
Total Number of Cases	**85**
Settlement	**48**
Stipulated Judgment	28
No Stipulated Judgment	15
Unknown	5
Trial	**33**
Denied	14
Granted	19
Ongoing	**1**
Unknown	**3**

Systemic Legal Scholarship for Systemic AI

Kevin Frazier

CONTENTS

Systemic Legal Scholarship for Systemic AI

Kevin Frazier∗

Artificial intelligence (AI) is triggering societal transformation at an unprecedented pace, yet our legal system struggles to keep up, often relying on incremental tweaks to outdated rules. This Article argues that such conventional legal thinking is not just inadequate but also a source of inconsequential scholarship. By failing to anticipate AI's trajectory and address foundational issues, incrementalism allows "legal tech debt" to mount, increasing risks of policy failure, societal disruption, and erosion of the rule of law. We must leapfrog this dangerous inertia. This Article proposes and defines a necessary alternative: systemic legal scholarship. This forward-looking paradigm requires legal experts to: (1) engage in disciplined foresight, adapting methods from technology forecasting to identify legal domains needing fundamental change; (2) propose wholesale architectural reforms, questioning existing legal structures, and designing new ones fit for an AI-integrated future; and (3) embed dynamism and adaptability into these new frameworks, ensuring they can coevolve with technology and society. Illustrating this approach through critical challenges like data governance for AI in public education, this Article provides principles and a template for rethinking law's role. It is an urgent call for legal scholars, policymakers, and concerned citizens to move beyond incrementalism and embrace the systemic vision required to ensure AI aligns with human flourishing and strengthens our democratic foundations.

∗ Kevin Frazier is the AI Innovation and Law Fellow at the University of Texas School of Law. He also serves as the co-host of the Scaling Laws podcast and as a Senior Editor at Lawfare. Prior to joining the academy, Professor Frazier conducted research for the Institute for Law and AI and worked as a clerk for Chief Justice Mike McGrath of the Montana Supreme Court. He is grateful for the excellent editorial guidance provided by the entire *Chapman Law Review* team.

I. INTRODUCTION

Societal transformation driven by advancements in artificial intelligence (AI) is already underway.[1] The accelerating capabilities of AI systems—encompassing machine learning, natural language processing, computer vision, and robotics—have facilitated efficiency gains, scientific discovery, and increased human well-being.[2] Many more changes are to come. From optimizing complex logistical networks and personalizing medical treatments to augmenting creative expression and fundamentally reshaping economic structures, AI's potential appears to be boundless.[3] Yet, this technological ascent is characterized not merely by gradual improvement but by periods of rapid, potentially exponential

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1 *Cf.* James Pethokoukis, *Is Transformative Artificial Intelligence Just Around the Corner?*, AM. ENTER. INST. (Mar. 5, 2025), https://www.aei.org/op-eds/is-transformative-artificial-intelligence-just-around-the-corner/ [https://perma.cc/N8K4-BWH8] (reviewing the concept of transformative AI); Darrell M. West & John R. Allen, *How Artificial Intelligence Is Transforming the World*, BROOKINGS INST. (Apr. 24, 2018), https://www.brookings.edu/articles/how-artificial-intelligence-is-transforming-the-world/ [https://perma.cc/44RY-CU9E] (forecasting in 2018 the transformative potential of AI). *See generally* Daniel A. Crane, *Antitrust After the Coming Wave*, 99 N.Y.U. L. REV. 1187 (2024) (analyzing the implications of AI progress on antitrust law); Daniel J. Solove, *Artificial Intelligence and Privacy*, 77 FLA. L. REV. 1 (2025) (pinpointing the areas in privacy law that fail to address the unique issues posed by AI progress and adoption).

2 *See* OECD, ARTIFICIAL INTELLIGENCE IN SOCIETY 21, 50 (2019) (analyzing the various ways in which AI had reshaped society as of mid-2019). *See generally* NESTOR MASLEJ ET AL., STAN. INST. FOR HUM.-CENTERED A.I., ARTIFICIAL INTELLIGENCE INDEX REPORT 2025 (2025), https://hai.stanford.edu/ai-index/2025-ai-index-report [https://perma.cc/833D-W7CT] (outlining various trends in AI development and adoption); Peter W. Singer, *The AI Revolution Is Already Here*, DEF. ONE (Apr. 14, 2024), https://www.defenseone.com/ideas/2024/04/ai-revolution-already-here/395722/ [https://perma.cc/NNS6-Y7KX] ("Yet AI is different from every other new technology. Its systems grow ever more intelligent and autonomous, literally by the second.").

This technological progress may result in widespread and potentially irreversible societal harm as well. *See generally* Yoshua Bengio et al., *Managing Extreme AI Risks amid Rapid Progress*, SCIENCE, May 24, 2024, at 842 (discussing how the lack of governance measures may result in cuts to safety and human oversight); Heather Frase & Owen Daniels, *Understanding AI Harms: An Overview*, GEO. CTR. FOR SEC. & EMERGING TECH. (Aug. 11, 2023), https://cset.georgetown.edu/article/understanding-ai-harms-an-overview/ [https://perma.cc/H4RR-CKAS] (explaining the various ways AI systems may cause harm).

3 *See* Sam Altman, *Three Observations*, SAM ALTMAN: BLOG (Feb. 9, 2025, at 13:05 PT), https://blog.samaltman.com/three-observations [https://perma.cc/4HS6-M2SF]; Ryan Browne, *AI That Can Match Humans at Any Task Will Be Here in Five to 10 Years, Google DeepMind CEO Says*, CNBC (Mar. 17, 2025, at 10:05 ET), https://www.cnbc.com/2025/03/17/human-level-ai-will-be-here-in-5-to-10-years-deepmind-ceo-says.html [https://perma.cc/Z75N-7U76] (sharing the remarks on transformative AI by DeepMind's CEO, Dennis Hassabis).

progress[4] and the emergence of capabilities that challenge existing legal and technical paradigms.[5] The diffusion of powerful generative AI models into the public sphere within the last few years serves as a stark reminder of how quickly the technological frontier can shift, forcing widespread adaptation across industries and social practices and prompting urgent calls for governance frameworks capable of navigating both promise and peril.[6] This dynamism, while offering profound opportunity, simultaneously presents a formidable challenge to the institutions designed to order society and safeguard collective values—particularly the law.[7]

The conventional mechanisms of legal evolution—characterized by common law development responding to discrete disputes,[8] legislative action reacting to perceived crises or established consensus,[9] and administrative rulemaking proceeding through often lengthy notice-and-comment periods[10]—operate on timescales

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4 *See AI Benchmarking Hub*, EPOCH AI (Sep. 29, 2025), https://epoch.ai/data/ai-benchmarking-dashboard [https://perma.cc/5U2J-BQHR] (mapping how AI models have fared on various benchmarks over time).

5 *See* Crane, *supra* note 1, *passim*; Solove, *supra* note 1, *passim*; *Is the Law Playing Catch-Up with AI?*, HARV. L. TODAY (Jan. 16, 2025), https://hls.harvard.edu/today/is-the-law-playing-catch-up-with-ai/ [https://perma.cc/H8LQ-KB2C].

6 *See, e.g.*, Paulo Carvão, Yam Atir & Salvina Ancheva, *A Dynamic Governance Model for AI*, LAWFARE (Mar. 13, 2025, at 09:26 PT), https://www.lawfaremedia.org/article/a-dynamic-governance-model-for-ai [https://perma.cc/6MJP-TQEV]; Chinmayi Sharma & Alan Z. Rozenshtein, *Regulatory Approaches to AI Liability*, LAWFARE (Sep. 24, 2024, at 08:00 PT), https://www.lawfaremedia.org/article/regulatory-approaches-to-ai-liability [https://perma.cc/9XLC-LA5H]; Dean W. Ball, *Putting Private AI Governance into Action*, HYPERDIMENSIONAL (Mar. 20, 2025), https://www.hyperdimensional.co/p/putting-private-governance-into-action [https://perma.cc/CQL9-CJXE].

7 Adam Thierer, *The Pacing Problem and the Future of Technology Regulation*, MERCATUS CTR. (Aug. 8, 2018), https://www.mercatus.org/economic-insights/expert-commentary/pacing-problem-and-future-technology-regulation [https://perma.cc/U2GC-5A3W] (exploring the implications of when technological progress outpaces regulation); *cf.* Gary Marchant, *Why Soft Law Is the Best Way to Approach the Pacing Problem in AI*, CARNEGIE COUNCIL FOR ETHICS IN INT'L AFFS. (Sep. 29, 2021), https://www.carnegiecouncil.org/media/article/why-soft-law-is-the-best-way-to-approach-the-pacing-problem-in-ai [https://perma.cc/PDL2-5QUL] (distinguishing between "hard law" and "soft law" approaches to developing timely regulations around emerging technologies).

8 *See* Mariano-Florentino Cuéllar, *A Common Law for the Age of Artificial Intelligence: Incremental Adjudication, Institutions, and Relational Non-Arbitrariness*, 119 COLUM. L. REV. 1773, 1775–76 (2019) (describing how the American legal system relies on the common law).

9 Lloyd Smucker, *Congress Must End Governing by Crisis*, THE HILL (May 5, 2017, at 07:30 ET), https://thehill.com/blogs/congress-blog/economy-budget/331935-congress-must-end-governing-by-crisis/ [https://perma.cc/X5YM-K72C].

10 *See* Gregory N. Mandel, *Emerging Technology Governance*, *in* INNOVATIVE GOVERNANCE MODELS FOR EMERGING TECHNOLOGIES 44 (Gary E. Marchant, Kenneth W.

increasingly ill-suited to the velocity of AI development.[11] While legal systems have always adapted to technological change, from the printing press to the internet, the potential speed, scale, and systemic impact of AI present a challenge of a different order. New generations of foundational AI models can be developed and deployed globally in a matter of months,[12] while their capabilities evolve rapidly through software updates and further training, often outpacing the ability of regulators and courts to understand, let alone address, their implications.[13] This temporal disjunction risks rendering legal responses perpetually reactive, obsolete upon arrival, and fundamentally incapable of shaping the trajectory of AI development in the public interest.

In this context of technological flux and profound societal implication, the dominant mode of legal scholarship addressing AI often proves inadequate. Much contemporary analysis, while valuable in illuminating specific doctrinal puzzles or proposing targeted regulatory interventions, remains mired in incrementalism. This scholarship typically accepts the existing legal architecture as largely fixed, focusing on how discrete rules—a specific provision of copyright law,[14] a particular tort standard,[15] or an

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Abbott & Braden Allenby eds., 2013); Gary E. Marchant & Wendell Wallach, *Governing the Governance of Emerging Technologies*, *in* INNOVATIVE GOVERNANCE MODELS FOR EMERGING TECHNOLOGIES 136 (Gary E. Marchant, Kenneth W. Abbott & Braden Allenby eds., 2013) ("[N]o single regulatory agency, or even group of agencies, can regulate any of these emerging technologies effectively and comprehensively."); *cf.* Reeve T. Bull, *Democratizing and Technocratizing the Notice-and-Comment Process*, BROOKINGS INST. (Oct. 12, 2021), https://www.brookings.edu/articles/democratizing-and-technocratizing-the-notice-and-comment-process/ [https://perma.cc/XHN4-EBPB] (identifying flaws with the current approach to notice-and-comment rulemaking).

11 *See* Tom Wheeler, *The Three Challenges of AI Regulation*, BROOKINGS INST. (June 15, 2023), https://www.brookings.edu/articles/the-three-challenges-of-ai-regulation/ [https://perma.cc/ZCG6-F79L].

12 *See, e.g.*, Elena Talavera, *The Behavioral Science Behind DeepSeek's Rapid Adoption: What Can We Learn?*, CTR. FOR BEHAV. DECISIONS (Jan. 28, 2025), https://www.becisions.com/post/the-behavioral-science-behind-deepseek-s-rapid-adoption-what-can-we-learn [https://perma.cc/Q7XX-E62E] ("In just two weeks, [DeepSeek] racked up 2.6 million downloads and built a global user base of 5–6 million users.").

13 Isabelle Bousquette, *AI Is Moving Faster than Attempts to Regulate It. Here's How Companies Are Coping.*, WALL ST. J. (Mar. 27, 2024, at 15:37 ET), https://www.wsj.com/articles/ai-is-moving-faster-than-attempts-to-regulate-it-heres-how-companies-are-coping-7cfd7104 [https://perma.cc/W6EA-P4NQ].

14 Celeste Shen, *Fair Use, Licensing, and Authors' Rights in the Age of Generative AI*, 22 NW. J. TECH. & INTELL. PROP. 157, 157 (2024); *see* Matthew Sag, *Copyright Safety for Generative AI*, 61 HOU. L. REV. 295, 295–96 (2023); Peter Henderson et al., *Foundation Models and Fair Use* (Stan. L. & Econ. Olin, Working Paper No. 584, 2023).

15 Renee Henson, *"I Am Become Death, the Destroyer of Worlds": Applying Strict Liability to Artificial Intelligence as an Abnormally Dangerous Activity*, 96 TEMP. L. REV. 349,

existing procedural rule[16]—might be marginally adjusted or reinterpreted to accommodate novel AI applications. It asks, for instance, how existing liability frameworks might apportion fault when an autonomous vehicle causes harm, or whether current intellectual property regimes can encompass AI-generated works, or how data protection laws might apply to the novel ways AI systems process information. While such inquiries are necessary, they are far from sufficient. By focusing narrowly on adapting existing rules to current or near-term AI capabilities, incrementalist scholarship implicitly assumes the stability of the underlying legal and technological landscape. It risks giving the false impression that minor adjustments are adequate, thereby neglecting the more fundamental question: Are the existing legal *systems* themselves fit for purpose in an era defined by the prospect of transformative AI?

This Article argues that such incremental thinking, when confronting a technology characterized by exponential potential and systemic reach, amounts to deficient scholarship. It is deficient, first, because it ignores the widely acknowledged trajectory of AI development. While precise timelines are debated, a strong consensus exists among technologists that AI capabilities will continue to advance significantly, potentially leading to systems with general capabilities exceeding those of humans within the coming decades.[17] Even setting aside speculative timelines for artificial general intelligence (AGI), the continued diffusion and integration of *current* AI technologies harbor transformative potential that existing legal frameworks have yet to fully grapple with. As Ethan Mollick observes, society has barely begun to integrate the productivity gains and disruptive effects of AI systems that

353–54 (2024); Christiane Wendehorst, *Strict Liability for AI and Other Emerging Technologies*, 11 J. EUR. TORT L. 150, 179 (2020).

16 Jessica R. Gunder, *Rule 11 Is No Match for Generative AI*, 27 STAN. TECH. L. REV. 308, 308 (2024).

17 Benjamin Todd, *The Case for AGI by 2030*, 80,000 HOURS LTD. (Mar. 2025), https://80000hours.org/agi/guide/when-will-agi-arrive/ [https://perma.cc/9J99-KQZM]; Kevin Roose, *Powerful A.I. Is Coming. We're Not Ready.*, N.Y. TIMES (Mar. 14, 2025), https://www.nytimes.com/2025/03/14/technology/why-im-feeling-the-agi.html [https://perma.cc/XG5W-4J9P]; Ezra Klein, *The Government Knows A.G.I. Is Coming*, N.Y. TIMES (Mar. 4, 2025), https://www.nytimes.com/2025/03/04/opinion/ezra-klein-podcast-ben-buchanan.html [https://perma.cc/NU24-2YJV]. *Contra* Gary Marcus, *Ezra Klein's New Take on AGI — and Why I Think It's Probably Wrong*, MARCUS ON AI (Mar. 5, 2025), https://garymarcus.substack.com/p/ezra-kleins-new-take-on-agi-and-why [https://perma.cc/RC2T-Y4JL] ("I think there is almost *zero* chance that artificial general intelligence . . . will arrive in the next two to three years, especially given how disappointing GPT 4.5 turned out to be.").

have already been deployed;[18] persisting with outdated legal rules and processes actively hinders the realization of AI's benefits and exacerbates its risks.[19] By failing to anticipate and plan for widely expected technological advancements, incremental legal scholarship effectively perpetuates this costly lag.

Second, this incrementalism results in deficient scholarship because legal scholars possess a unique capacity—and arguably a professional obligation—to engage in the forward-looking analysis necessary to bridge the gap between technology and law.[20] Unlike technologists focused primarily on capability development or policymakers often constrained by immediate political pressures, legal academics have the relative independence and analytical tools to examine the deeper structural implications of AI and explore alternative legal futures. The repeated calls from legislative bodies, such as those heard during the U.S. Senate's AI Insight Forums, for expert guidance and regulatory clarity underscore the societal demand for precisely this kind of anticipatory legal thinking.[21] Indeed, the frequent invitations for law professors to testify before congressional committees on AI-related matters illustrate the recognized potential for legal scholarship

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18 Ethan Mollick, LINKEDIN, https://www.linkedin.com/posts/emollick_if-ai-development-stopped-this-week-we-would-activity-7272747981752176640-nTKX/ [https://perma.cc/5YFE-UTJX] (last visited May 4, 2025).

19 Kevin Frazier, *Clear Rules, Bold Innovation: Finding the Regulatory Sweet Spot for AI*, YALE J. ON REGUL.: NOTICE & COMMENT (Apr. 6, 2025), https://www.yalejreg.com/nc/clear-rules-bold-innovation-finding-the-regulatory-sweet-spot-for-ai-by-kevin-frazier/ [https://perma.cc/PPU5-J79Y].

20 Joshua B. Fischman, *Reuniting 'Is' and 'Ought' in Empirical Legal Scholarship*, 162 U. PA. L. REV. 117, 118 (2013) (distilling the purposes of legal scholarship as espoused by Roscoe Pound and Karl Llewellyn and noting that both saw a need for scholarship to "*improve* the law"); Marin Roger Scordato, *Legal Theory and Linguistic Reality: A Critical Examination of Modern Legal Scholarship*, 2 J. CONTEMP. LEGAL ISSUES 257, 258 (1989) (asserting that legal scholarship reflects a cultural disposition among the profession that "legal rules should be designed and applied to the myriad activities encountered in society"); Robin West, *The Contested Value of Normative Legal Scholarship*, 66 J. LEGAL EDUC. 6, 11 (2016) (contending that a refusal to author normative scholarship would amount to legal scholars "forgo[ing] . . . the aims of the profession—we would not be aiming to either improve or preserve the law").

The purpose and defining characteristics of legal scholarship remain contested by some and, perhaps more generally, neglected. *Compare id.* at 6–8 (setting forth the various perspectives on what legal scholars should write), *with* Arthur A. Leff, *Afterword*, 90 YALE L.J. 1296, 1296 (1981) ("Legal scholarship is what legal scholars do."), *and* Scordato, *supra* note 20, at 257 ("Until quite recently, few legal scholars have attempted to systematically describe just what legal scholarship is, or what it should attempt to do.").

21 *Majority Leader Schumer Opening Remarks for the Senate's Inaugural AI Insight Forum*, SENATE DEMOCRATS (Sep. 13, 2023), https://www.democrats.senate.gov/newsroom/press-releases/majority-leader-schumer-opening-remarks-for-the-senates-inaugural-ai-insight-forum [https://perma.cc/6G8F-MTTC].

to inform policy development.[22] To confine this potential to mere doctrinal tinkering is to abdicate a crucial role in navigating one of the most significant transitions in human history.

Third, scholarly incrementalism produces deficient works because it allows "legal tech debt"—the accumulated burden of outdated laws, regulations, and legal processes ill-suited to the current technological reality—to worsen, thereby increasing the likelihood of eventual policy overcorrection and eroding public trust in legal institutions. Technological debt in software engineering refers to "the off-balance-sheet accumulation of all the technology work a company needs to do in the future";[23] legal tech debt functions analogously, where failing to undertake necessary systemic reforms today imposes mounting costs in the form of legal uncertainty, inefficiency, stifled innovation, and social harm. Consider the decades-long failure to modernize privacy laws in response to the rise of the internet and data-driven business models. This inaction created a regulatory patchwork made up of a growing number of state laws that may unintentionally entrench incumbents that can afford high compliance costs,[24] culminating in widespread public distrust and increasingly drastic, often constitutionally questionable, legislative proposals at the state level aimed at curbing social media's perceived harms.[25] Each year of delay in addressing the fundamental mismatch be-

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22 *See, e.g.*, *Professor Ryan Calo Speaks Before U.S. Senate*, UNIV. OF WASH. SCH. OF L. (July 12, 2024), https://www.law.uw.edu/news-events/news/2024/calo-senate-committee-testimony [https://perma.cc/7K6U-LH5M]; Sophia Fox-Sowell, *AI Could Change Public Records Requests, Professor Tells Congress*, STATESCOOP (Apr. 11, 2025), https://statescoop.com/ai-foia-public-records-government/ [https://perma.cc/TJP9-5L2Y].

23 Sven Blumberg et al., *Demystifying Digital Dark Matter: A New Standard to Tame Technical Debt*, MCKINSEY & CO. (June 23, 2022), https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/demystifying-digital-dark-matter-a-new-standard-to-tame-technical-debt [https://perma.cc/ZL5N-Q6UL]. Scholars have long examined the implications of outdated and antiquated laws. *See, e.g.*, Robert C. Berry, *Spirits of the Past — Coping with Old Laws*, 19 U. FLA. L. REV. 24, 24–26 (1966). This inquiry differs from that line of scholarship given its explicit focus on the extent to which current legal systems reflect the current state of technology.

24 Jennifer Huddleston, *AI and Privacy Rules Meant for Big Tech Could Hurt Small Businesses Most*, CATO INST. (May 20, 2024), https://www.cato.org/commentary/ai-privacy-rules-meant-big-tech-could-hurt-small-businesses-most [https://perma.cc/7PRK-FPLN]; *see* Francesco Trebbi & Miao Ben Zhang, *The Cost of Regulatory Compliance in the United States* 27–28 (Nat'l Bureau of Econ. Rsch., Working Paper No. 30691, 2022) (concluding that middle-sized firms may face higher regulatory compliance costs than larger firms).

25 David Greene, *In These Five Social Media Speech Cases, Supreme Court Set Foundational Rules for the Future*, ELEC. FRONTIER FOUND. (Aug. 14, 2024), https://www.eff.org/deeplinks/2024/08/through-line-suprme-courts-social-media-cases-same-first-amendment-rules-apply [https://perma.cc/U6GV-BUW4].

tween nineteenth-century privacy torts or twentieth-century sectoral statutes and twenty-first-century AI systems has compounded the problem, making effective, balanced reform more difficult and fueling calls for blunt, potentially innovation-stifling interventions. Allowing similar legal tech debt to accumulate around AI risks repeating this pattern on an even grander scale, potentially leading to panicked, ill-considered regulations in response to future AI-driven disruptions.

The consequences of such a failure extend beyond policy instability; they strike at the foundations of the rule of law itself. When legal frameworks appear noticeably inadequate or irrelevant to governing the technologies shaping people's lives and livelihoods, public confidence in those frameworks inevitably wanes.[26] This can manifest as a resort to private ordering, where wealthier individuals or corporations bypass dysfunctional public systems and instead opt for bespoke contractual arrangements or alternative dispute resolution mechanisms tailored to the new technological landscape.[27] While potentially efficient for participants, such fragmentation exacerbates inequality and undermines social cohesion by creating tiered and separate systems of governance. Furthermore, the perception of legal inadequacy can fuel political polarization and instability,[28] creating fertile ground

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26 *See* BROOKE AUXIER ET AL., PEW RSCH. CTR., AMERICANS AND PRIVACY: CONCERNED, CONFUSED AND FEELING LACK OF CONTROL OVER THEIR PERSONAL INFORMATION 37–39 (2019), https://www.pewresearch.org/internet/2019/11/15/americans-attitudes-and-experiences-with-privacy-policies-and-laws/ [https://perma.cc/VK5L-F88S] (detailing survey results showing broad public concern about their lack of control over data and the inadequacy of existing laws); *see also* Noemi Dreksler et al., *What the Public Thinks About AI and the Implications for Governance*, BROOKINGS INST. (Apr. 9, 2025), https://www.brookings.edu/articles/what-the-public-thinks-about-ai-and-the-implications-for-governance/ [https://perma.cc/8WVN-G83R] (reporting a lack of public faith in the capacity of the government to regulate AI); *cf.* Berry, *supra* note 23, at 28 (noting the importance of laws being "consistent and orderly").

27 Stacy-Ann Elvy, *Paying for Privacy and the Personal Data Economy*, 117 COLUM. L. REV. 1369, 1369, 1373–74 (2017); *see* Jeff Elder, *Cybercriminals Are Increasingly Trying to Attack the Ultra-Rich at Home — Here's How Concierge Security Firms are Protecting Them*, BUS. INSIDER (Nov. 22, 2020, at 6:35 PT), https://www.businessinsider.com/criminals-mansions-cybersecurity-covid-wealthy-blackcloak-aon-aristo-norton-2020-11 [https://perma.cc/VZQ7-A58C]; *see, e.g.*, David Migoya, *Colorado's Private, Often Secret Justice System Exclusively for the Wealthy*, DENV. GAZETTE: COLO. WATCH (Mar. 30, 2025), https://denvergazette.com/colorado-watch/colorado-private-judges-divorce-domestic-cases/article_49a53f8a-0dd0-42d1-856b-624e11074cae.html [https://perma.cc/VTM9-VR33].

28 *See generally* Stefanie A. Lindquist & Frank C. Cross, Stability, Predictability and the Rule of Law: Stare Decisis as Reciprocity Norm 1 (Mar. 26, 2010) (unpublished manuscript) (available at https://law.utexas.edu/conferences/measuring/The%20Papers/Rule%20of%20Law%20Conference.crosslindquist.pdf) [https://perma.cc/CV42-VT7U] (detailing the connection between the rule of law and political stability).

for extreme reactions against both technology and the legal institutions seen as failing to manage it.[29] The resulting pendulum swings between regulatory neglect and heavy-handed intervention, creating profound uncertainty, hindering long-term investment, and undermining the predictability that is essential for both technological progress and societal flourishing.[30]

The antidote to this scholarly deficiency and its attendant risks is not simply *more* scholarship, but a *different kind* of scholarship: one that embraces systemic thinking and engages in disciplined forecasting of legal futures. Systemic legal scholarship, as conceived here, moves beyond adjusting discrete rules within existing frameworks. Instead, it questions the suitability of those frameworks themselves in light of anticipated technological and societal shifts. It asks not only how AI fits into current law, but also how the law *itself* might need to be fundamentally redesigned to align with a future where AI is deeply integrated into the fabric of society. As Ajay Agrawal, Joshua Gans, and Avi Goldfarb illustrate in their book, *Power and Prediction*, the most profound impacts of AI, in the context of business strategy, arise not from its use as a "point solution" to optimize existing processes, but from redesigning entire systems around AI's predictive capabilities.[31] An incremental change in education might involve using AI for personalized tutoring while maintaining the outdated approach of forcing students of the same age to progress as one cohort, grade by grade; a systemic change, enabled by AI, might eliminate age-based cohorts entirely in favor of continuous, competency-based progression.[32] Systemic legal scholarship applies analogous thinking to legal structures, contemplating wholesale reforms to foundational legal units or values rather than marginal rule changes.

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29 *See, e.g.*, Robert D. Atkinson et al., *A Policymaker's Guide to the "Techlash" — What It Is and Why It's a Threat to Growth and Progress*, INFO. TECH. & INNOVATION FOUND. (Oct. 28, 2019), https://itif.org/publications/2019/10/28/policymakers-guide-techlash/ [https://perma.cc/D3JY-KJRY]; Dreksler et al., *supra* note 26 (reporting high levels of skepticism of AI among the public as well as a general lack of trust in private and public actors to regulate the technology); *see also Survey Highlights an Emerging Divide Over Artificial Intelligence in the U.S.*, RUTGERS NEW BRUNSWICK (Feb. 9, 2025), https://newbrunswick.rutgers.edu/news/survey-highlights-emerging-divide-over-artificial-intelligence-us [https://perma.cc/82A9-3379] (highlighting survey results that suggest that Americans with lower incomes distrust AI to a greater extent than their wealthier counterparts and also use it less frequently).

30 *See, e.g.*, Atkinson et al., *supra* note 29.

31 AJAY AGRAWAL, JOSHUA GANS & AVI GOLDFARB, POWER AND PREDICTION: THE DISRUPTIVE ECONOMICS OF ARTIFICIAL INTELLIGENCE 17, 23–24 (2022).

32 *Id.* at 70–71.

This approach necessitates incorporating insights from technical forecasting. While legal scholars cannot and should not attempt to predict specific technological breakthroughs with certainty, they can and should engage with the methods used by technologists and foresight practitioners to map plausible, probable, and possible futures. AI researchers, technology firms, and specialized forecasters dedicate significant resources to analyzing capability trends, resource requirements (like data and computation), potential bottlenecks, and deployment scenarios.[33] Legal scholars can leverage this body of work, not to make definitive technical predictions, but to understand the range of plausible technological trajectories and their potential legal implications. By adapting foresight methodologies—such as scenario planning, which allows for the structured exploration of multiple potential futures and their consequences[34]—legal scholarship can move beyond reactive analysis. It can begin to identify areas where legal tech debt is likely to accumulate most rapidly, anticipate the kinds of systemic pressures AI might place on existing legal institutions (like courts or regulatory agencies), and proactively design legal frameworks that are robust and adaptive across a range of potential AI futures. This involves not only proposing overhauls of entire regulatory frameworks but also identifying areas where deregulation or legal simplification might be needed to enable beneficial, system-level adoption of AI.

This Article aims to provide a template and an impetus for such systemic legal scholarship focused on AI. It proceeds in three parts. Part II delves deeper into the critique of incrementalism, elaborating on the concept of legal tech debt and the specific ways in which conventional legal analysis falls short in the face of AI's transformative potential. Part III articulates a framework and guiding principles for conducting systemic AI legal scholarship. It distinguishes this approach from incrementalism, explores the adaptation of forecasting methodologies such as scenario planning for legal analysis, and proposes specific guidelines

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33 *See, e.g.*, Mario Krenn et al., *Forecasting the Future of Artificial Intelligence with Machine Learning-Based Link Prediction in an Exponentially Growing Knowledge Network*, 5 NATURE MACH. INTEL. 1126, 1126–30 (Oct. 16, 2023), https://www.nature.com/articles/s42256-023-00735-0 [https://perma.cc/H3AB-XLJ4]; Daniel Kokotajlo et al., *AI 2027*, A.I. FUTURES PROJECT (Apr. 3, 2025), https://ai-2027.com [https://perma.cc/5M4Z-BQKR]; Long Phan et al., *Superhuman Automated Forecasting*, CTR. FOR AI SAFETY: BLOG (Sep. 9, 2024), https://safe.ai/blog/forecasting [https://perma.cc/P4BA-L86Y].

34 *See, e.g.*, Kokotajlo et al., *supra* note 33.

for scholars seeking to undertake this work. Part IV then applies this framework, offering concrete examples of systemic legal reform proposals across three critical domains: (1) Build, focusing on the legal infrastructure needed to develop beneficial AI (particularly data governance); (2) Understand, addressing the legal and educational changes required for broad societal adaptation and AI literacy; and (3) Use, examining reforms necessary for effective and responsible government adoption of AI, including in public services and national security. These proposals, while specific, are intended primarily as illustrations of the kind of thinking required, inviting further research and debate on alternative systemic solutions. The ultimate goal is not to prescribe definitive answers, but to catalyze a necessary shift in legal academia away from the comfortable confines of incremental adjustments and toward the challenging but essential task of designing legal frameworks—frameworks capable of navigating the complex, uncertain, and potentially transformative era of AI—thereby ensuring that technological progress aligns with human flourishing and the enduring principles of the rule of law.

II. FLAWS WITH AN INCREMENTALIST APPROACH IN THE AGE OF AI

The allure of incrementalism in legal scholarship is understandable. It mirrors the traditional, cautious evolution of legal doctrine through case-by-case adjudication and measured legislative refinement.[35] It comports with an association between the rule of law and stability generally made by lawyers.[36] It allows scholars to operate within established frameworks, employing familiar analytical tools to address discrete problems generated by new technologies like AI.[37] Yet, as argued in Part I, this conventional approach proves insufficient and actively detrimental when attempting to orient entire systems around AI with the aim of realizing its full potential to accelerate progress in important domains. In an era demanding foresight and structural adaptation, clinging to incremental adjustments represents a form of deficient scholarship—a failure to engage responsibly with foreseeable technological trajectories and their systemic legal

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35 *See* Cuéllar, *supra* note 8; Saul Levmore, *Interest Groups and the Problem with Incrementalism* 1–2 (Univ. of Chi. L. Sch., Working Paper, No. 501, 2009).

36 Brian J. Levy, *The Legal Instability Hypothesis*, 51 GONZ. L. REV. 573, 573 n.2 (2016).

37 *Cf.* Oliver Wendell Holmes, *The Path of the Law*, 10 HARV. L. REV. 457, 457–61 (1897) (sharing a narrow goal for the study of law that turns on simply investigating the existing legal system).

implications. This Part elaborates on the specific dimensions of this deficiency, demonstrating how incrementalism ignores impending change, abdicates the unique role of legal scholarship, exacerbates the dangerous accumulation of legal tech debt, and ultimately undermines the stability and legitimacy of the rule of law.[38]

The deficiency in scholarship brought on by incremental thinking manifests in several interconnected ways. First, incrementalism displays a willful blindness to the widely anticipated trajectory of AI development and diffusion, focusing on present-day applications while ignoring the strong likelihood of future capabilities that will render marginal adjustments obsolete.[39] Even accounting only for the delayed integration of *existing* AI, a process hindered by outdated legal frameworks,[40] incremental scholarship fails to address the systemic changes needed to realize AI's potential benefits or mitigate its foreseeable risks.[41] Second, incremental scholarship represents an abdication of the unique role legal scholars can play in anticipating and shaping legal futures by confining their contributions to doctrinal adjustments rather than leveraging their capacity for structural critique and foresight, a capacity society increasingly calls upon.[42] Third, by delaying necessary systemic reforms, incrementalism allows legal tech debt—the costly burden of outdated laws and processes—to accumulate, increasing the probability of eventual policy overcorrection and eroding public trust, as occurred with the regulation of earlier internet technologies.[43] Ultimately,

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38 *See infra* Part I.

39 *Cf. Is Colorado Getting Cold Feet About AI Regulation? New Bill Would Loosen Groundbreaking Law Set to Take Effect Next Year*, FISHER PHILLIPS (Apr. 30, 2025), https://www.fisherphillips.com/en/news-insights/is-colorado-getting-cold-feet-about-ai-regulation.html [https://perma.cc/C5SS-XFHT] (reporting on political efforts in Colorado to delay implementation of its comprehensive AI legislation given developments in the technology).

40 *Cf.* Kevin Frazier, *Using AI to Improve the Government—Without Violating the Privacy Act*, LAWFARE (Feb. 10, 2025, at 14:00 PT), https://www.lawfaremedia.org/article/using-ai-to-improve-the-government-without-violating-the-privacy-act [https://perma.cc/GX72-TBPV]) (analyzing how the Privacy Act of 1974 may prevent some attempts to integrate AI into government services and systems).

41 *See* Ran Xi, *On Emerging Technologies: The Old Regime and the Proactivity*, 8 CARDOZO INT'L & COMPAR. L. REV. 75, 77–78 (2025) (enumerating the negative outcomes resulting from outdated legal systems amid technological progress).

42 *See infra* Section II.B.

43 Irving Wladawsky-Berger, *Why the 'Techlash' Is a Threat to Growth and Progress*, WALL ST. J. (June 6, 2020, at 13:30 ET), https://www.wsj.com/articles/why-the-techlash-is-a-threat-to-growth-and-progress-01591464654 [https://perma.cc/7XDJ-XYC2] (discussing Atkinson et al., *supra* note 29).

these failures converge to undermine the rule of law itself, fostering legal uncertainty, encouraging private ordering that exacerbates inequality, and risking destabilizing pendulum swings between regulatory neglect and panicked intervention. The subsequent sections will explore each of these dimensions in greater detail.

A. Ignoring Inevitable, Impending Technological Progress

The most immediate manifestation of incrementalism's shortcomings is its failure to adequately account for the high probability of continued, significant AI advancement and diffusion—changes of which legal scholars, particularly those engaged with technology law, should be keenly aware of. The professional responsibility norms embraced by many state bars, which mandate technological competence for practicing attorneys,[44] implicitly extend a similar, if not heightened, expectation of awareness to the academics who study, teach, and shape the law governing those technologies;[45] this duty encompasses not just familiarity with current tools but a responsibility to understand the trajectory and potential impact of relevant technological trends.[46] While the precise pace and ultimate ceiling of AI capabilities remain subjects of debate,[47] the overwhelming momentum behind AI re-

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44 The Model Rules of Professional Conduct, upon which most state bar associations rely on for their respective rules, mandate technological competency. MODEL RULES OF PRO. CONDUCT r. 1.1 cmt. 8 (A.B.A. 2012); *see* Robert J. Ambrogi, *Tech Competence*, LAWSITES, https://www.lawnext.com/tech-competence [https://perma.cc/4638-G65G] (last visited Aug. 26, 2025) (reporting widespread adoption by state bars of a tech competence requirement).

45 *See* Jill Scoggins, *UofL Law Professor Developing Generative AI Toolkit to Aid Legal Writing Instruction*, UNIV. OF LOUISVILLE NEWS (Nov. 14, 2023), https://www.uoflnews.com/section/science-and-tech/uofl-law-professor-developing-generative-ai-toolkit-to-aid-legal-writing-instruction/ [https://perma.cc/U7VW-5G6B] (summarizing the work of Professor Susan Tanner to share a toolkit for incorporating generative AI into legal writing courses); Jennifer Tran, *LSU Law Professors Release 'The Law Prof's AI Sandbox' to Help Colleagues Explore, Enhance Artificial Intelligence in the Classroom*, LA. ST. U.L. (Feb. 21, 2025), https://law.lsu.edu/news/2025/02/21/lsu-law-professors-release-the-law-profs-ai-sandbox-to-help-colleagues-explore-enhance-artificial-intelligence-in-the-classroom/ [https://perma.cc/865F-WY24] (covering the efforts of Will Monroe and Tracy Norton to help professors learn the ins and outs of AI and, therefore, help comfortably integrate AI into the classroom). *But see* Noah C. Chauvin, *Against Gap-Filling*, 2024 CARDOZO L. REV. DE NOVO 1, 1 (cautioning against the generation of scholarship intended to fill gaps in the understanding of the law merely for the sake of comprehensive coverage of the law).

46 Hedda Litwin, *The Ethical Duty of Technology Competence: What Does it Mean for You?*, NAT'L ASS'N OF ATT'YS GEN. (Nov. 17, 2017), https://www.naag.org/attorney-general-journal/the-ethical-duty-of-technology-competence-what-does-it-mean-for-you/ [https://perma.cc/GL8H-QJAQ].

47 *See* Krenn et al., *supra* note 33 and accompanying text (addressing the range of forecasts around AI progress).

search, development, and investment points toward ongoing, substantial progress.[48] Major technology firms pour vast resources into building larger models,[49] global competition provides powerful incentives for innovation,[50] and the fundamental nature of AI as a general-purpose technology suggests broad future applicability.[51] To focus legal analysis primarily on the capabilities of *current* AI systems, or those expected only months ahead, is to ignore clear, persistent signals of dramatic future shifts—signals the legal academy has a professional imperative to heed. Such myopia risks rendering today's legal solutions structurally inadequate for tomorrow's realities.

Some might counter that the inherent uncertainty surrounding AI's long-term development justifies a cautious, incremental approach; predicting the precise contours of AGI or pinpointing the exact year of specific breakthroughs is, after all, fraught with difficulty.[52] But this defense misconstrues the task. Effective legal foresight does not require perfect prediction of distant futures. Rather, it demands a reasoned engagement with plausible medium-term trajectories based on current trends, expert forecasts (even acknowledging their limitations), resource commitments, and potential bottlenecks. Legal scholars need not become technologists, but they can—and should—look beyond the immediate doctrinal puzzle by consulting with technically inclined colleagues, collaborating with computer scientists, economists, and ethicists, and leveraging structured foresight methodologies, like scenario planning.[53] This interdisciplinary, medium-term per-

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48 *See* Josh Taylor, *Rise of Artificial Intelligence Is Inevitable but Should Not Be Feared, 'Father of AI' Says*, THE GUARDIAN (May 6, 2023, at 20:00 ET), https://www.theguardian.com/technology/2023/may/07/rise-of-artificial-intelligence-is-inevitable-but-should-not-be-feared-father-of-ai-says [https://perma.cc/7TDV-9Y73]; Ryan Greenblatt, *What's Going on with AI Progress and Trends? (As of 5/2025)*, REDWOOD RSCH. (May 3, 2025), https://blog.redwoodresearch.org/p/whats-going-on-with-ai-progress-and [https://perma.cc/K8A4-45L6].

49 *See, e.g.*, Mike Isaac, *Meta to Increase Spending to $65 Billion This Year in A.I. Push*, N.Y. TIMES (Jan. 27, 2025), https://www.nytimes.com/2025/01/24/technology/meta-data-center.html [https://perma.cc/44X3-VXN9].

50 *Cf.* Sam Meacham, *A Race to Extinction: How Great Power Competition Is Making Artificial Intelligence Existentially Dangerous*, HARV. INT'L REV. (Sep. 8, 2023), https://hir.harvard.edu/a-race-to-extinction-how-great-power-competition-is-making-artificial-intelligence-existentially-dangerous/ [https://perma.cc/K43J-6LPB] (noting the connection between racing dynamics and a push for AI innovation).

51 Beth Stackpole, *The Impact of Generative AI as a General-Purpose Technology*, MIT SLOAN SCH. OF MGMT. (Aug. 6, 2024), https://mitsloan.mit.edu/ideas-made-to-matter/impact-generative-ai-a-general-purpose-technology [https://perma.cc/2EY6-H3RQ].

52 *See* Greenblatt, *supra* note 48.

53 *See, e.g.*, Kokotajlo et al., *supra* note 33.

spective, focused on understanding the *range* of plausible developments and their systemic implications over the next five, ten, or fifteen years, is vastly superior to reactive incrementalism, even amidst uncertainty surrounding the pace and nature of technological progress and adoption. It allows for the proactive identification of emerging legal pressures and the development of more robust, adaptive legal frameworks, rather than perpetually adjusting deck chairs on a technological ship rapidly charting a new course.

Furthermore, even if AI progress was to unexpectedly stagnate, society has yet to fully absorb or adapt to the capabilities *already* available. As Ethan Mollick highlights, we are living in an era of underutilized "co-intelligence," where existing AI tools could drive substantial gains in productivity, creativity, and problem-solving,[54] but their integration is hampered by inertia, lack of understanding, and inadequate supporting structures.[55] This delayed integration represents progress unrealized—opportunities missed and efficiencies foregone. A significant portion of this blame lies with outdated rules and legal systems that create friction and uncertainty.[56] Ambiguous liability standards can chill the deployment of AI in critical sectors like healthcare or transportation; restrictive data governance regimes can starve AI models of the information needed for effective training and public benefit applications; and inflexible intellectual property laws struggle to accommodate AI-driven innovation and creation. Incrementalist legal scholarship, by its nature, focuses on patching these existing, often inadequate, systems rather than questioning their foundational suitability. It seeks to tweak liability rules at the margins, propose narrow exceptions to data privacy laws, or reinterpret existing copyright doctrines for AI outputs. While potentially offering temporary fixes, this approach fails to

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54 *See* Peter High, *Ethan Mollick on the Four Rules of Co-Intelligence with AI*, FORBES (May 7, 2024, at 09:35 ET), https://www.forbes.com/sites/peterhigh/2024/05/07/ethan-mollick-on-the-four-rules-of-co-intelligence-with-ai/ [https://perma.cc/M9D9-QGLV] (interviewing Ethan Mollick).

55 *See, e.g.*, AGRAWAL, GANS & GOLDFARB, *supra* note 31, at 3–4, 8–9, 10, 17.

56 *See, e.g.*, Tori Noble, *AI and Copyright: Expanding Copyright Hurts Everyone—Here's What to Do Instead*, ELEC. FRONTIER FOUND. (Feb. 19, 2025), https://www.eff.org/deeplinks/2025/02/ai-and-copyright-expanding-copyright-hurts-everyone-heres-what-do-instead [https://perma.cc/9W4Q-GJ8L]; Todd Mayover, *When AI Technology and HIPAA Collide*, HIPAA J. (May 2, 2025), https://www.hipaajournal.com/when-ai-technology-and-hipaa-collide/ [https://perma.cc/NJ3W-4LTK]; Maya Weinstein, *School of Surveillance: The Students' Rights Implications of Artificial Intelligence as K-12 School Security*, 98 N.C. L. REV. 438, 442 (2020).

address the underlying structural impediments hindering the deeper, more beneficial integration of AI. By perpetuating these outdated aspects of the legal ecosystem, incrementalism ensures that the law remains a lagging indicator, perpetually catching up to technological reality rather than proactively shaping it, thereby compounding the costs of delayed adaptation and unrealized potential.

B. Abdicating the Scholarly Role

Beyond ignoring foreseeable technological shifts, scholarly incrementalism represents an abdication of the unique institutional role and capacity of the legal academy to engage in the kind of systemic, forward-looking analysis that the age of AI demands. Other key actors within the legal ecosystem are structurally constrained from undertaking this necessary work. Judges, bound by the case-or-controversy requirement and retrospective focus of adjudication, lack the mandate—and often the resources—to engage in broad, prospective analysis of technological trends and their systemic legal implications.[57] Legislators, while empowered to enact broad reforms, operate within a political environment characterized by intense competition for agenda space, immediate constituent pressures, and often short-term electoral cycles, making sustained focus on long-range, complex technological governance difficult.

In contrast, legal scholars possess the relative independence, mandate for deep inquiry, and interdisciplinary potential necessary to examine the fundamental interactions between law, technology, and society over longer time horizons. To confine this unique potential primarily to refining existing doctrines in response to AI-generated disputes is to neglect a critical function: anticipating structural challenges and exploring alternative legal architectures capable of governing transformative technologies responsibly and effectively. The need for such proactive and systemic legal thinking is not only a matter of filling gaps in the

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[57] Michael C. Dorf, *Dicta and Article III*, 142 U. PA. L. REV. 1997, 1997–98 (1994) (exploring the tension between the mandates of Article III and the explanatory inclinations of a court); *see* David Gray, *Dangerous Dicta*, 72 WASH. & LEE L. REV. 1181, 1182–83 (2015) (reviewing the potential negative consequences arising from dicta); Pierre N. Leval, *Judging Under the Constitution: Dicta About Dict*a, 81 N.Y.U. L. REV. 1249, 1263 (2006) (warning about frequent citation of dictum); *see also* Judith M. Stinson, *Preemptive Dicta: The Problem Created by Judicial Efficiency*, 54 LOY. L.A. L. REV. 587, 601 (2021) (distinguishing between different types of dicta and warning that some may pose more rule of law concerns than others).

academic record; it is increasingly voiced by policymakers themselves. The U.S. Senate's AI Insight Forums, for instance, repeatedly surfaced calls from diverse stakeholders for greater regulatory clarity and forward-looking governance frameworks[58]—precisely the type of analysis legal scholars are uniquely positioned to initiate and inform. The frequent invitations extended to law professors to provide expert testimony before congressional committees grappling with AI policy further underscore the societal expectation that the legal academy will contribute substantively to navigating these complex issues.[59]

One might object that specialized policy think tanks, industry consortia, or government research agencies are better equipped for this task as they possess deeper technical expertise or closer ties to policy implementation. While these actors undoubtedly play vital roles, they often operate under different constraints or incentives. Think tanks often focus on shorter-term policy briefs, industry groups naturally advocate for particular interests, and government agencies typically work within existing statutory mandates and bureaucratic structures. Legal academia, at its best, offers a distinct intellectual space—one conducive to more detached, long-term analysis, critical examination of foundational assumptions, and the exploration of normative frameworks that transcend immediate political or commercial pressures.[60] Moreover, the university setting intrinsically facilitates the crucial interdisciplinary collaboration among computer scientists, ethicists, economists, sociologists, and others—which is essential for understanding AI's multifaceted impacts and for designing holistic legal solutions.

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58 *See* Gabby Miller, *US Senate AI 'Insight Forum' Tracker*, TECH POLICY PRESS (Dec. 8, 2023), https://www.techpolicy.press/us-senate-ai-insight-forum-tracker [https://perma.cc/HP4U-7SP5]; *see also* Bipartisan A.I. H. Task Force, 118th Cong., Report on Artificial Intelligence, at iv (2024), https://www.speaker.gov/wp-content/uploads/2024/12/AI-Task-Force-Report-FINAL.pdf [https://perma.cc/WC3E-RK79] (noting that the House AI Task Force relied extensively on expert input to put together its recommendations).

59 *See The Philosophy of AI: Learning from History, Shaping Our Future: Hearing Before the S. Comm. on Homeland Sec. & Governmental Affs.*, 118th Cong. 6 (2023) (statement of Margaret Hu, Professor of L., Wm. & Mary L. Sch.) https://www.congress.gov/118/chrg/CHRG-118shrg53996/CHRG-118shrg53996.pdf [https://perma.cc/V76F-RPVW].

60 *See* E. Blythe Stason, *Why a Profession?*, 21 LA. L. REV. 153, 157 (1960) (setting forth the "*architectural* role of the lawyer" as "pushing *outward* the frontiers of jurisprudence and *upward* many new and useful legal and governmental structures"); *cf.* David F. Cavers, *New Fields for the Legal Periodical*, 23 VA. L. REV. 1, 6–10 (1936) (calling for an expanded field of inquiry among legal scholars).

Incrementalism squanders this unique potential, defaulting instead to a narrower, doctrine-bound approach that fails to leverage the academy's comparative advantages.[61] By choosing the path of marginal adjustment over systemic inquiry, incrementalist scholarship effectively withdraws from the vital societal conversation about how to fundamentally align our legal infrastructure with a future increasingly shaped by AI, leaving a void that reactive policy or private ordering may dangerously fill.

C. Exacerbating Legal Tech Debt and Inviting Reactionary Policy

The failure to anticipate change and the abdication of the academy's foresight role converge on a third dimension of deficient scholarship: the active worsening of legal tech debt. This accumulating deficit—representing the misalignment between aging legal frameworks and accelerating technological realities—imposes tangible costs through inefficiency, uncertainty, and foregone innovation.[62] More perniciously, however, the persistence of incrementalist approaches, which prioritize minor patches over necessary structural reforms, allows this debt to compound, creating fertile ground for future crises and increasing the likelihood of eventual policy overcorrection.[63] When legal systems appear fundamentally incapable of addressing the challenges posed by powerful new technologies, public frustration mounts, trust in institutions erodes, and the political pressure for drastic, often ill-considered, intervention grows.[64]

The recent history of social media governance provides a sobering case study in the dynamics of accumulating legal tech debt. For years, as online platforms grew exponentially in scale and influence, foundational legal frameworks governing privacy,

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61 *See* Cavers, *supra* note 60, at 5–11 (critiquing the narrowness and rigidity of legal scholarship).

62 *Cf.* Julie E. Cohen, *Information Platforms and the Law*, 2 GEO. L. TECH. REV. 191, 191 (2018) (introducing concerns among some scholars that new technologies will challenge the rule of law by exposing "antiquated models of social control and regulation").

63 *See* Xi, *supra* note 41, at 90–91; Atkinson et al., *supra* note 29.

64 *See Americans' Solutions for Trust-Related Problems*, PEW RSCH. CTR. (July 22, 2019), https://www.pewresearch.org/politics/2019/07/22/americans-solutions-for-trust-related-problems/ [https://perma.cc/U8JZ-ARKF] (identifying dysfunction and opacity as causes for popular distrust and disappointment in the government); *cf.* Michael Guihot, Anne F. Matthew & Nicolas P. Suzor, *Nudging Robots: Innovative Solutions to Regulate Artificial Intelligence*, 20 VAND. J. ENT. & TECH. L. 385, 421 (2017) (warning about technological "decoupling" from regulations and calling on legislators to prevent such an outcome).

consumer protection, competition, and intermediary liability remained largely unchanged or were adapted only at the margins.[65] Scholars produced countless articles analyzing how existing torts might apply to online harms or debating interpretations of section 230 of the Communications Decency Act,[66] yet fundamental questions about platform power, algorithmic amplification, and data exploitation received insufficient systemic legal attention from lawmakers. This period of perceived regulatory neglect allowed significant legal tech debt to accrue. The result was not stable governance, but a volatile situation characterized by growing public backlash against platform practices,[67] widespread distrust fueled by controversies over misinformation and data breaches,[68] and, eventually, a surge of reactive legislative proposals at the state level.[69] Many of these proposals, born of frustration with federal inaction and the perceived inadequacy of existing law, have been criticized as overly broad, potentially infringing on constitutional rights, and creating a chaotic patchwork of conflicting regulations[70]—precisely the kind of pendulum

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65 *See, e.g.*, Ashley Deeks, *Foreword: Facebook Unbound?*, 105 VA. L. REV. ONLINE *1, *2 (2019); Cecilia Kang & David McCabe, *Efforts to Rein in Big Tech May Be Running Out of Time*, N.Y. TIMES (Jan. 20, 2022), https://www.nytimes.com/2022/01/20/technology/big-tech-senate-bill.html [https://perma.cc/G8XX-J5K7]; Siva Vaidhyanathan, *Facebook and the Folly of Self-Regulation*, WIRED (May 9, 2020, at 14:58 PT), https://www.wired.com/story/facebook-and-the-folly-of-self-regulation/ [https://perma.cc/RE5W-P87C].

66 Mary Graw Leary, *The Failed Experiment of Section 230 of the Communications Decency Act: How It Facilitates Exploitation and How It Must Be Reformed*, 70 VILL. L. REV. 49, 55 (2025); Michael Daly Hawkins & Matthew J. Stanford, *Uproot or Upgrade? Revisiting Section 230 Immunity in the Digital Age*, U. CHI. L. REV. ONLINE *1, *1 (2020); Enrique Armijo, *Reasonableness as Censorship: Section 230 Reform, Content Moderation, and the First Amendment*, 73 FLA. L. REV. 1199, 1201 (2021).

67 *See, e.g.*, Sarah Grevy Gotfredsen, *Section 230 Is Under Attack (Again)*, COLUM. JOURNALISM REV. (Mar. 27, 2025), https://www.cjr.org/the_media_today/section_230_bipartisan_bill_repeal.php [https://perma.cc/K6YQ-VQEY].

68 *See* Megan Brenan, *Americans' Trust in Media Remains at Trend Low*, GALLUP (Oct. 14, 2024), https://news.gallup.com/poll/651977/americans-trust-media-remains-trend-low.aspx [https://perma.cc/PN4L-ABP7]; David Kemp & Emily Ekins, *Poll: 75% Don't Trust Social Media to Make Fair Content Moderation Decisions, 60% Want More Control over Posts They See*, CATO INST. (Dec. 15, 2021), https://www.cato.org/survey-reports/poll-75-dont-trust-social-media-make-fair-content-moderation-decisions-60-want-more [https://perma.cc/7SYY-WY9Z]; KENNETH OLMSTEAD & AARON SMITH, PEW RSCH. CTR., AMERICANS AND CYBERSECURITY 2–3 (2017), https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2017/01/Americans-and-Cyber-Security-final.pdf [https://perma.cc/A7BN-FBM8].

69 *Social Media and Children 2024 Legislation*, NAT'L CONF. OF STATE LEGISLATURES (Nov. 22, 2024), https://www.ncsl.org/technology-and-communication/social-media-and-children-2024-legislation [https://perma.cc/LG23-XTXG].

70 Kyooeun Jang, Lulia Pan & Nicol Turner Lee, *The Fragmentation of Online Child Safety Regulations*, BROOKINGS INST. (Aug. 14, 2023), https://www.brookings.edu/articles/patchwork-protection-of-minors/ [https://perma.cc/PBK8-QC5P]; Hope Schumak-

swing from neglect to overreach that systemic foresight aims to avoid.

To argue that the complexity or political difficulty of reforming areas like privacy or intermediary liability justifies an incremental approach is to ignore the lesson of this recent history: delay does not simplify the problem; it allows the underlying tensions to fester and magnifies the eventual political and legal disruption.[71] Procrastination only guarantees more complexity; whether the resulting delay will facilitate increased understanding and wisdom is far less certain. While systemic reform is undoubtedly challenging, perpetuating known inadequacies in legal frameworks facing transformative technologies like AI is arguably far riskier. It creates vulnerabilities that bad actors can exploit,[72] allows harms to scale unchecked,[73] and increases the odds that when change finally comes, it will be driven by panic rather than prudence.[74] Incrementalist scholarship, by normalizing minor adjustments and deferring fundamental questions, becomes complicit in this accumulation of risk. It provides an intellectual justification for inaction, fostering a dangerous illusion of control while the gap between law and technology widens, ultimately making the legal system more brittle and less capable of navigating the future responsibly.

D. Undermining the Rule of Law

Ultimately, the cumulative effect of ignoring technological trajectories, abdicating the scholarly role of foresight, and allowing legal tech debt to fester strikes at the heart of the rule of law itself. The rule of law depends crucially on attributes like predictability, stability, equal application, and public confidence in legal institutions as legitimate arbiters of disputes and effective governors of societal challenges.[75] Incrementalism in the face of

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er, *The Patchwork That Won't Work*, PELICAN INST. PUB. POL'Y (Feb. 27, 2025), https://pelicanpolicy.org/technology-innovation/the-patchwork-that-wont-work/ [https://perma.cc/YTF2-FH96].

71 *See, e.g.*, Solove, *supra* note 1, at 16–17 (offering an extensive analysis of how AI challenges an outdated privacy regime).

72 *Id.* at 42–43.

73 *See, e.g.*, *id.* at 6.

74 *See id.* at 15–16.

75 *See* Jeff Rosen, *The Regulatory Pendulum*, NAT'L AFFS. (2024), https://www.nationalaffairs.com/publications/detail/the-regulatory-pendulum [https://perma.cc/B9R7-QJUF]; *see also* Anna Butenko & Pierre Larouche, *Regulation for Innovativeness or Regulation of Innovation*, 7 L. INNOVATION & TECH. 52, 68 (2015) (listing stability and predictability as commonly sought values for a legal system).

transformative AI actively corrodes each of these pillars.[76] The widening gap between technological capability and legal frameworks breeds uncertainty, making it difficult for individuals and organizations to plan their affairs or assess the legal consequences of deploying new technologies. This uncertainty is then amplified by the policy instability described previously.

When public legal systems appear inadequate or unresponsive to technologically driven problems, actors with sufficient resources are incentivized to seek refuge in private ordering. This might involve increasingly complex contractual arrangements designed to circumvent ambiguous public laws, greater reliance on private arbitration (potentially employing bespoke rules), or the development of entirely separate ecosystems for commerce and dispute resolution governed by platform rules rather than public law.[77] Such fragmentation, while presumably beneficial for participants, undermines the universality principle inherent in the rule of law, creating tiered systems of justice and exacerbating social and economic inequalities.[78] Consider, by analogy, the manner in which wealthier individuals or communities may bypass perceived inadequacies in public services by funding private security patrols or even private firefighting services, creating disparities in safety and responsiveness based on ability to pay.[79] A similar divergence could occur in access to effective governance and dispute resolution if public systems fail to keep pace with technology, leaving those without resources subject to increasing-

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76 *Cf.* Butenko & Larouche, *supra* note 75, at 67–68 (specifying the conditions under which the related concept of "regulatory disconnect" may occur).

77 *See* David Moscrop, *The Rich Want Their Own Cities*, JACOBIN (Jan. 27, 2024), https://jacobin.com/2024/01/rich-private-city-inquality-public [https://perma.cc/V42Z-5AFD]; David Morris, *We Now Have* a *Private Judicial System Just for Corporations*, INST. FOR LOC. SELF-RELIANCE (Sep. 28, 2015), https://ilsr.org/articles/we-now-have-a-private-judicial-system-just-for-corporations/ [https://perma.cc/R8FY-JTAX]. Note that this is not a new phenomenon. *See, e.g.*, Charles L. Lindner, *With the Courts Crowded, Private 'Justice' for the Rich and Famous*, L.A. TIMES (Dec. 25, 1994, at 00:00 PT), https://www.latimes.com/archives/la-xpm-1994-12-25-op-12908-story.html [https://perma.cc/HN65-6S29].

78 *See* Robert A. Stein, *What Exactly Is the Rule of Law?*, 57 HOU. L. REV. 185, 193 (2019) (including the idea that "[t]he law applies to everyone in society whatever their station in life" among other attributes of the rule of law).

79 *See, e.g.*, Laurel Wamsley & Leila Fadel, *Insurance Companies and Wealthy LA Residents Hire Private Firefighters for Protection*, NPR (Jan. 17, 2025, at 3:56 ET), https://www.npr.org/2025/01/17/nx-s1-5258240/insurance-companies-and-wealthy-la-residents-hire-private-firefighters-for-protection [https://perma.cc/L53W-EJ3K]; Hilary Brueck, *I Visited a 'Private ER' Where People Pay Up to $5,000 a Year to Skip the Hospital—Take a Look*, BUS. INSIDER (Dec. 19, 2019, at 6:30 PT), https://www.businessinsider.com/concierge-medicine-what-is-a-private-emergency-room-photos-2019-12 [https://perma.cc/ZCK5-ZL6V].

ly dysfunctional or irrelevant legal frameworks. This erosion of a common legal foundation damages social cohesion and trust.

Furthermore, the cycle of neglect followed by reactive, often constitutionally dubious, regulation injects instability into the legal landscape.[80] Businesses and individuals face a constantly shifting regulatory environment, characterized by conflicting state laws, ongoing litigation, and uncertain enforcement prospects.[81] This regulatory thrashing makes long-term planning difficult, chills innovation (particularly for smaller actors lacking resources to navigate complexity), and diminishes respect for the law as a stable guide for conduct. The resulting environment, marked by unpredictability, inequality of access, and wavering public confidence, is antithetical to the core tenets of the rule of law. Incrementalist scholarship, by failing to promote the timely, systemic reforms needed to avoid this cycle, contributes directly to this degradation.

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In sum, the prevailing incrementalist mode of legal scholarship, when applied to the challenges of AI, exhibits a dangerous pattern of unproductive thinking. By failing to engage seriously with plausible technological futures, neglecting the unique capacity of the legal academy for structural analysis and foresight, and consequently allowing legal tech debt to accumulate, this approach actively contributes to policy instability, erodes public trust, and ultimately undermines the rule of law. The argument here is not that all incremental legal analysis is without value; refining existing doctrines and addressing immediate conflicts remain necessary tasks. Rather, the central critique is one of proportion and priority. In an era defined by the potential for rapid, systemic technological change, the current imbalance—which overwhelmingly favors incremental adjustments over founda-

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80 *See* Catherine L. Carpenter, *Panicked Legislation*, 49 J. LEGIS. 1, 4–5 (2023) (flagging the destabilizing effects of governing in response to fear and popular risk estimates, which tend not to reflect the actual probability and severity of the risk in question); Dylan Tokar, *The Regulatory State Is in Flux Like Never Before, and Businesses Are Hating It*, WALL ST. J. (Sept. 3, 2024, at 5:30 ET), https://www.wsj.com/articles/the-regulatory-state-is-in-flux-like-never-before-and-businesses-are-hating-it-e7c7444a [https://perma.cc/8A9R-CMGG].

81 *See* DANIEL CASTRO, LUKE DASCOLI & GILLIAN DIEBOLD, THE LOOMING COST OF A PATCHWORK OF STATE PRIVACY LAWS 1, 14 (2022). *But see* MARK TRESKON ET AL., DO THE EFFECTS OF A REGULATORY PATCHWORK JUSTIFY STATE PREEMPTION OF LOCAL LAWS? 1 (2021) (flagging that proponents of state governments preempting local laws to create a uniform regulatory ecosystem often lack evidence to support their view).

tional inquiry—is untenable and perilous. Correcting this imbalance by fostering a more robust body of systemic, forward-looking legal scholarship is a necessity for increasing the odds that our legal infrastructure can effectively navigate the complexities of the AI era and uphold the principles of justice and the rule of law. The specific characteristics and methodologies of such systemic scholarship are the focus of the Part that follows.

III. DEFINING SYSTEMIC SCHOLARSHIP

Having established the limitations of prevailing incrementalist approaches to AI law and policy, the task becomes articulating a viable alternative. If adjusting existing legal rules at the margins is insufficient to navigate the transformative potential of AI, what kind of legal scholarship is required? This Part proposes and defines *systemic legal scholarship* as the necessary paradigm shift. It distinguishes this approach from incrementalism by focusing on its engagement with foundational legal structures, values, and processes rather than discrete rules. Furthermore, this Part outlines key methodological components for conducting such scholarship, emphasizing the adaptation of foresight techniques like scenario planning to anticipate and shape legal futures in alignment with technological trajectories. Finally, it distills these concepts into guiding principles for scholars seeking to contribute to this crucial endeavor. The objective is not to prescribe rigid dogma, but to foster a more ambitious, structurally aware, and ultimately more effective mode of legal inquiry capable of meeting the governance challenges posed by the age of AI.

A. Defining Systemic Versus Incremental Legal Analysis

The core distinction between systemic and incremental legal scholarship lies in the level of analysis and the scope of proposed reform. Incrementalism, as critiqued in Part II, operates primarily within the confines of existing legal frameworks. It accepts the fundamental architecture of a given legal domain—be it tort law, administrative procedure, or intellectual property—as largely sound and focuses on adapting specific rules, standards, or doctrines to accommodate new factual circumstances presented by AI. Its interventions are targeted, aiming to resolve specific ambiguities or address narrow conflicts generated by technology without fundamentally questioning the underlying legal structure.

Systemic scholarship, in contrast, takes the existing legal framework itself as the object of analysis and potential reform. It

does not merely ask how a new technology like AI fits into established legal categories; rather, it interrogates whether those categories, and the foundational assumptions, values, or operational logics they embody, remain suitable in light of potentially transformative technological shifts. Its scope is broader, targeting not just individual rules but the organizing principles, core values, or operational logics that underpin entire legal regimes. A systemic approach asks whether the very foundations need rethinking.

Consider the distinction as illuminated by Ajay Agrawal, Joshua Gans, and Avi Goldfarb using the example of AI in education.[82] An incremental approach might deploy AI tools to enhance existing educational structures—using AI to automate grading within conventional courses, provide personalized tutoring supplementary to standard curricula, or optimize bus routes for traditional school schedules.[83] These are valuable "point" applications, improving efficiency or effectiveness within the established paradigm. A systemic approach, however, contemplates how AI enables a fundamental redesign of the educational system itself. It might envision eliminating age-based grade levels entirely, replacing them with a fluid, competency-based progression tailored to individual student learning curves as assessed and guided by AI.[84] This latter approach abandons the easy path of small amendments to the rules of the existing game and demands changes to the game itself. This approach restructures the foundational unit (the grade level) and the core process (pedagogy and progression) around the capabilities of the new technology.[85]

A compelling legal analogy can be found in the potential adaptation of the *Federal Rules of Civil Procedure* (*FRCP*)—the foundational architecture governing federal litigation—to the realities of AI. An incremental approach, reflecting current scholarship and proposed rule amendments, focuses on adapting specific *FRCP* rules to AI-related challenges. For instance, scholars, practitioners, and jurists debate how Rule 26 (governing discovery duties) might be modified to address the unique challenges of accessing and understanding relevant AI training data or algorithmic decision-making processes.[86] They also analyze potential

82 *See* AGRAWAL, GANS & GOLDFARB, *supra* note 31, at 69–70.

83 *See id.*

84 *See id.* at 67, 69–70.

85 *See id.* at 69–71.

86 *See, e.g.*, Kizzy Jarashow & Artem Skorostensky, *Opening the Black Box of Generative AI: Explainability in Bankruptcy Cases*, GOODWIN LAW (July 22, 2024), https://www.goodwinlaw.com/en/insights/publications/2024/07/insights-practices-aiml-

amendments to Rule 11 (governing representations to the court) to account for attorney use of AI tools in drafting pleadings.[87] These are necessary adjustments, attempting to fit AI-related issues into the existing procedural framework by modifying discrete components.

A systemic approach to the *FRCP* in the age of AI, however, would step back and question the suitability of the entire framework's adversarial, party-driven, and often human-centric assumptions.[88] It might ask, for example, whether the fundamental structure of party-controlled discovery, established long before the existence of massive datasets and complex algorithms, remains the most efficient or just method for uncovering truth when AI systems are involved.[89] Perhaps AI tools themselves could enable a shift toward a more inquisitorial model, where neutral, court-appointed AI systems assist in identifying relevant information or even conducting a preliminary assessment of case merits, fundamentally altering the roles of litigants and the court.[90] Alternatively, a systemic approach might re-evaluate the very concept of notice pleading under Rule 8 in an era where AI could potentially analyze factual patterns and predict legal outcomes with increasing accuracy from the outset, perhaps justify-

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generative-ai-bankruptcy-cases [https://perma.cc/3BZH-EZXD]; John Connolly, *New Question for Expert Witness: Who Drafted This Report, You or Your Machine?*, JD SUPRA (Jan. 15, 2025), https://www.jdsupra.com/legalnews/new-question-for-expert-witness-who-7761463/ [https://perma.cc/MDC3-L8G9].

87 *See* Jessica R. Gunder, *Rule 11 Is No Match for Generative AI*, 27 STAN. TECH. L. REV. 308, 351, 361 (2024).

88 *Cf.* Stephanos Bibas, *Lawyers' Monopoly and the Promises of AI*, YALE L.J. FORUM (Mar. 14, 2025), https://www.yalelawjournal.org/forum/lawyers-monopoly-and-the-promises-of-ai [https://perma.cc/8EFY-PBGD] (hinting at the need for a more holistic reassessment of the *FRCP* in the age of AI).

89 Some members of the legal community have briefly reflected on broader reforms to the core aspects of civil litigation in light of AI advances. *See* John Villasenor, *How AI Will Revolutionize the Practice of Law*, BROOKINGS INST. (Mar. 20, 2023), https://www.brookings.edu/articles/how-ai-will-revolutionize-the-practice-of-law/ [https://perma.cc/QLH3-FY3E] (specifying that discovery may undergo particular changes due to AI); Jonathan Ciottone, *A Paradigm Shift in Legal Practice: Enhancing Civil Litigation with Artificial Intelligence*, NAT'L L. REV. (Apr. 24, 2024), https://natlawreview.com/article/paradigm-shift-legal-practice-enhancing-civil-litigation-artificial-intelligence [https://perma.cc/2GE3-X9E6] (asserting that AI may cause a paradigm shift in civil litigation); *cf. Generative AI: How It Will Change Litigation*, QUINN EMANUEL (May 23, 2023), https://www.quinnemanuel.com/thefirm/publications/generative-ai-how-it-will-change-litigation/ [https://perma.cc/4PUF-LVMV] (exploring the potential for generative AI to automate repetitive tasks in the legal field).

90 For an example of scholarship more in line with this approach, see Felix Steffek, *A Story of Two Holy Grails: How Artificial Intelligence Will Change the Design and Use of Corporate Insolvency Law*, U. CHI. L. REV. ONLINE *1, *2–3 (2024) (analyzing whether AI can predict court decisions).

ing more demanding initial pleading standards or entirely different mechanisms for filtering meritorious claims.[91] Such proposals involve more than tweaking Rule 26 or Rule 11; they call for redesigning the foundational stages and underlying logic of the litigation process itself, leveraging AI not just as a tool within the old system, but as a catalyst for creating a new one. This is the essence of systemic legal scholarship: it engages with the possibility of fundamental architectural change, rather than confining itself to renovating the fixtures within the existing structure.

B. The Imperative of Systemic Analysis amid Foundational Technological Shifts

The critique of incrementalism in Part II underscores its inadequacy as well as the pressing need for a fundamentally different approach. The imperative for adopting *systemic legal scholarship* arises directly from the nature of AI itself and the predictable patterns of how transformative technologies reshape society.[92] Specifically, the importance of this approach is grounded in AI's potential for system-level impact,[93] the tendency for foundational innovation to originate in the private sector before influencing public frameworks,[94] and the consequent necessity for legal scholarship to engage in anticipatory, system-level design thinking rather than reactive adaptation.

First, the most compelling justification for systemic legal analysis lies in the understanding that AI's truly transformative effects, like those of prior general-purpose technologies, will manifest most profoundly through the redesign of entire systems, not

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91 *See id.* at *3.

92 *See* Robert D. Atkinson & Jackie Whisman, *Podcast: General-Purpose Technologies and the Rise of Great Nations, with Jeffrey Ding*, INFO. TECH. & INNOVATION FOUND. (Aug. 5, 2024), https://itif.org/publications/2024/08/05/general-purpose-technologies-rise-great-nations-with-jeffrey-ding/ [https://perma.cc/H6B4-AA7C] (interviewing Jeffrey Ding on the tendency of general-purpose technologies, such as AI, to transform society).

93 *See* AGRAWAL, GANS & GOLDFARB, *supra* note 31, at 17.

94 *See* Robert Delorme, *Digital Strategies in Local Government: Private Sector and Early Adopters Lessons Learned*, W. UNIV. (July 2016), https://localgovernment.uwo.ca/resources/docs/research_papers/2016/Delorme,%20Robert%20-%202016%20%20PUBLIC.pdf [https://perma.cc/8FHK-6JBF] (discussing the tendency of the private sector to adopt new technologies sooner than public sector actors); Audrey Kurth Cronin, *How Private Tech Companies Are Reshaping Great Power Competition*, JOHN HOPKINS SCH. OF ADVANCED INT'L STUD.: HENRY A. KISSINGER CTR. FOR GLOB. AFFS. (Aug. 2023), https://kissinger.sais.jhu.edu/programs-and-projects/kissinger-center-papers/how-private-tech-companies-are-reshaping-great-power-competition/ [https://perma.cc/J4JM-XVEZ] (providing an overview of how private companies, rather than governments, create novel technologies).

merely the optimization of discrete tasks.[95] As forcefully argued by Agrawal, Gans, and Goldfarb, the paradigm shift enabled by AI as a prediction technology occurs when organizations move beyond using it as a "point solution" within existing structures and instead re-architect core processes and strategies around its capabilities.[96] Just as electricity eventually led to redesigned factories and workflows, not just electrically powered versions of older machines,[97] AI's ultimate impact involves reimagining how information is processed, decisions are made, and value is created at a systemic level.[98] Legal scholarship must mirror this reality. If AI's potential is systemic, then the legal thinking required to govern it responsibly and effectively must also be systemic: capable of envisioning and evaluating fundamental changes to legal architecture, not just adjustments to existing components.

Second, historical patterns strongly suggest that these foundational, AI-driven system redesigns are likely to emerge first in the private sphere, necessitating proactive public law engagement.[99] Private actors, often facing fewer regulatory constraints and possessing greater agility, are typically the earliest adopters and innovators in leveraging new technologies for systemic advantage.[100] We can foresee the plausible rise of sophisticated, AI-

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95 *Cf.* Matt Kapko, *'Point Solutions Just Need to Die': The End of the One-Trick Security Tool*, CYBERSECURITY DIVE (Oct. 31, 2022), https://www.cybersecuritydive.com/news/security-tool-strategy/635280/ [https://perma.cc/VK5N-U586] (observing that the pitfalls of point-based solutions often befall firms looking to bolster their cybersecurity and concluding that "[o]rganizations are often better served by cybersecurity tools that integrate across an entire stack").

96 *See* AGRAWAL, GANS & GOLDFARB, *supra* note 31, at 15–16.

97 *Id.* at 8, 10.

98 The transformative potential of system-wide adoption of AI has already caught on in the private sector. An increasing number of "AI-native" firms have designed their entire operations around AI. Investors have made sizable bets on these early initiatives. *See, e.g.*, Steven Rosenbush, *AI-Native Companies Are Growing Fast and Doing Things Differently*, WALL ST. J. (Feb. 7, 2025, at 5:00 ET), https://www.wsj.com/articles/ai-native-companies-are-growing-fast-and-doing-things-differently-97af5e56 [https://perma.cc/UN5B-TGJJ]; Kent Bennett et al., *Part I: The Future of AI is Vertical*, BESSEMER VENTURE PARTNERS (Sep. 3, 2024), https://www.bvp.com/atlas/part-i-the-future-of-ai-is-vertical [https://perma.cc/N3WH-U2M7].

99 *See* Tod Newcombe, *The Complicated History of Government Technology*, GOV'T TECH. (Oct. 2, 2017), https://www.govtech.com/computing/the-complicated-history-of-government-technology.html [https://perma.cc/5FFC-LMUS].

100 *See* Stephanie Kanowitz, *The Late-Mover Advantage: Faster, More Successful Tech Adoption*, ROUTE FIFTY (July 19, 2022), https://www.route-fifty.com/infrastructure/2022/07/late-mover-advantage-faster-more-successful-tech-adoption/374671/ [https://perma.cc/AZ7U-L8KL]; *cf.* Klaus Schwab, *The Fourth Industrial Revolution: What It Means, How to Respond*, WORLD ECON. F. (Jan. 14, 2016), https://www.weforum.org/stories/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/ [https://perma.cc/7E3Q-ZCNG] (detailing how private actors leaned

native platforms for private governance, such as end-to-end alternative dispute resolution systems or bespoke contractual ecosystems operating largely outside traditional legal oversight.[101] The crucial insight from history is that such private innovations rarely remain isolated; they exert gravitational pulls on public law. Consider the development of commercial arbitration: originating as a private mechanism among merchants seeking expertise and efficiency unavailable in royal courts.[102] Its principles and demonstrated utility gradually led to judicial acceptance and ultimately legislative endorsement via statutes like the Arbitration Act of 1925[103] and, later, the Federal Arbitration Act,[104] altering the landscape of public dispute resolution.[105] Similarly, the evolution of negotiable instruments,[106] stock exchange self-regulation eventually codified in securities law,[107] and private credit reporting systems[108] all illustrate a recurring dynamic: private solutions to governance problems generated by new economic realities often precede and profoundly influence public legal development. Systemic legal scholarship is vital precisely because it allows us to anticipate this dynamic in the context of AI.[109] By analyzing potential AI-driven private innovations, it

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into "agile" workflows before the public sector). *Contra* Stuart Bretschneider, *Idea to Retire: Government Lags in Adopting Technology*, BROOKINGS INST. (Apr. 5, 2016), https://www.brookings.edu/articles/idea-to-retire-government-lags-in-adopting-technology/ [https://perma.cc/T3ME-HPUL].

101 *See About – Future Dispute Resolution*, STAN. UNIV., https://conferences.law.stanford.edu/future-dispute-resolution/about/ [https://perma.cc/28N9-78B6] (last visited May 5, 2025) (detailing a conference focused on the integration of generative AI into dispute resolution systems hosted by Stanford Law School); Bryan Jung, *Will AI Transform Dispute Resolution As We Know It?*, THOMSON REUTERS (Apr. 15, 2021), https://mena.thomsonreuters.com/en/resources/legal/articles/2021/will-ai-transform-dispute-resolution-as-we-know-it.html [https://perma.cc/3Z3J-8URC].

102 *See generally* Frank D. Emerson, *History of Arbitration Practice and Law*, 19 CLEV. ST. L. REV. 155 (1970) (providing a history of arbitration); Earl S. Wolaver, *The Historical Background of Commercial Arbitration*, 83 UNIV. PA. L. REV. 132 (1934) (discussing the situations and practices that formed the origin of commercial arbitration).

103 *See* Emerson, *supra* note 102, at 162–63.

104 *See* Imre Stephen Szalai, *Exploring the Federal Arbitration Act Through the Lens of History*, 2016 J. DISP. RESOL. 115, 115 (2016).

105 *See id.* at 115–16.

106 *See* Frederick K. Beutel, *The Development of State Statutes on Negotiable Paper Prior to the Negotiable Instruments Law*, 40 COLUM. L. REV. 836, 836–37 (1940).

107 *See* John I. Sanders, *Break from Tradition: Questioning the Primacy of Self-Regulation in American Securities Law*, 7 MICH. BUS. & ENTREPRENEURIAL L. REV. 93, 93–99 (2017).

108 *See* Austin H. Krist, *Large-Scale Enforcement of the Fair Credit Reporting Act and the Role of State Attorneys General*, 115 COLUM. L. REV. 2311, 2313–16 (2015).

109 As it stands, some forecasted the need for system-wide AI governance far before the current AI wave. *See* Michael Guihot, Anne F. Matthew & Nicolas P. Suzor, *Nudging*

can proactively develop public law frameworks that channel these developments toward broader societal goals, rather than waiting to react defensively after private systems become deeply entrenched.

Therefore, the central role of systemic legal scholarship is anticipatory design. It involves moving beyond the reactive posture inherent in incrementalism and embracing the challenge of designing legal frameworks robust enough to accommodate a range of plausible AI futures.[110] This proactive stance is particularly critical in legal domains already burdened by significant legal tech debt, those areas identified in Part II where the accumulated weight of outdated rules and processes creates the greatest friction with technological advancement. Foundational frameworks like the *FRCP*[111] or complex regulatory regimes governing government procurement[112] represent prime examples where the failure to modernize has created deep structural impediments. Systemic scholarship targets precisely these areas, recognizing that the inertia of such rule-bound systems makes marginal adjustments insufficient. Again, as Agrawal, Gans, and Goldfarb explain, changes to individual rules in such systems result in very little, if any, improvements because of the interdependent nature of systems made up of complex and interconnected rules.[113] Instead, this approach to scholarship explores how these domains might be fundamentally re-architected, leveraging or accounting for AI, to better serve societal needs for innovation, justice, efficiency, and responsible governance in the twenty-first century. This requires not only identifying where existing struc-

*Robots: Innovative Solutions to Regulate Artificial Intelligenc*e, 20 VAND. J. ENT. & TECH. L. 385, 391–92 (2017) (stating that in order for the government to influence AI development and direct it toward the public interest, "it must be able to understand and influence this complex and intricate web of actors that often have diverse goals, intentions, purposes, norms, and powers").

110 *See* Max Roser, *AI Timelines: What do Experts in Artificial Intelligence Expect for the Future?*, OUR WORLD IN DATA: AI (Feb. 7, 2023), https://ourworldindata.org/ai-timelines [https://perma.cc/DTA7-MD55] (summarizing the range of estimates by experts regarding AI progress).

111 *See* LAWS. FOR CIV. JUST., DRI – THE VOICE OF THE DEF. BAR, FED'N OF DEF. & CORP. COUNS., & INT'L ASS'N OF DEF. COUNS., RESHAPING THE RULES OF CIVIL PROCEDURE FOR THE 21ST CENTURY 3–5 (2010), https://www.uscourts.gov/file/document/reshaping-rules-civil-procedure-21st-century-need-clear-concise-and-meaningful [https://perma.cc/V9SJ-F8BM].

112 *Cf.* Dan Chenok, *How Can Governments Use AI to Improve Procurement?*, THE REGUL. REV. (June 30, 2022), https://www.theregreview.org/2022/06/30/chenok-how-can-governments-use-ai-to-improve-procurement/ [https://perma.cc/W565-2JM6] (describing the myriad and outdated regulations shaping the federal government's procurement practices).

113 *See* AGRAWAL, GANS & GOLDFARB, *supra* note 31, at 65–70.

tures fail but also engaging creatively with the design of viable, values-aligned alternatives.

C. Leveraging Foresight Methodologies for Systemic Legal Design

The commitment to anticipatory design, central to systemic legal scholarship as outlined above, necessitates a structured approach to looking ahead. Identifying which legal domains are most susceptible to disruption by AI, where legal tech debt poses the greatest impediment, or where proactive legal frameworks can best channel technological development requires more than intuition; it requires disciplined foresight. While legal scholars should avoid the pitfalls of attempting precise technological prediction—a task best left to technologists and superforecasters[114]—they can and must learn from the methodologies employed in technical forecasting to inform a more rigorous legal forecasting. This involves understanding the hallmarks and limitations of AI forecasting itself, then adapting appropriate foresight techniques to anticipate legal pressures and design robust, adaptive legal systems. The goal is not to predict the future with certainty,[115] but to map the landscape of plausible futures and prepare the legal infrastructure accordingly, potentially identifying areas ripe for comprehensive reform—reform that involves changing entire decision-making structures, standards, and principles.

Technical forecasting in the AI domain employs a range of methods to anticipate future capabilities and impacts. Common approaches include extrapolating performance trends on established benchmarks,[116] analyzing scaling laws related to computational power and dataset size,[117] surveying expert opinion on de-

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114 *See How Accurate Are the Superforecasters?*, GOOD JUDGMENT, https://goodjudgment.com/resources/the-superforecasters-track-record [https://perma.cc/W98M-75H4] (last visited May 5, 2025); Jack Clark, *Import AI 404: Scaling Laws for Distributed Training; Misalignment Predictions Made Real; and Alibaba's Good Translation Model*, IMPORT AI (Mar. 17, 2025), https://importai.substack.com/p/import-ai-404-scaling-laws-for-distributed [https://perma.cc/66F9-G9MG] (reporting instances of forecasters accurately predicting developments in AI).

115 This is the case in AI forecasting, too. *See* Ross Gruetzemacher et al., *Forecasting AI Progress: A Research Agenda*, 170 TECH. FORECASTING & SOC. CHANGE 1, 1 (2021) (framing AI forecasting as imperfect, yet important to planning for certain risks).

116 *See* MASLEJ ET AL., *supra* note 2, at 20–22.

117 *See, e.g.*, Clark, *supra* note 114.

velopment timelines,[118] tracking investment flows and talent migration,[119] and modeling the potential economic or societal consequences of anticipated breakthroughs.[120] Organizations like the Stanford Institute for Human-Centered AI (producing the annual *AI Index Report*)[121] and research groups like Epoch AI[122] play significant roles in consolidating data and providing structured analyses of these trends. These efforts, while invaluable, are subject to inherent limitations and valid critiques. AI forecasting is often highly speculative, particularly concerning long-term predictions or the emergence of fundamentally novel capabilities.[123] Forecasts can be influenced by the biases or incentives of the experts surveyed, may overemphasize quantifiable metrics while neglecting qualitative shifts, and struggle to account for unpredictable geopolitical events or paradigm-shifting discoveries.[124]

Despite these imperfections, engaging with AI forecasting remains essential from both societal and scholarly perspectives. Even imperfect forecasts provide crucial inputs for strategic planning, resource allocation, and risk mitigation.[125] They help frame the range of possibilities, identify potential bottlenecks (like data scarcity or energy constraints),[126] highlight emerging

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118 *See, e.g.*, KATJA GRACE ET AL., THOUSANDS OF AI AUTHORS ON THE FUTURE OF AI 1–3, 19 (2024), https://arxiv.org/pdf/2401.02843v1 [https://perma.cc/P37T-7P7M].

119 *Cf.* REMCO ZWETSLOOT, ROXANNE HESTON & ZACHARY ARNOLD, CTR. FOR SEC. & EMERGING TECH., STRENGTHENING THE U.S. AI WORKFORCE 1–5, 7 (2019) (citing a dearth of AI talent as a potential cause for slower AI progress in the US).

120 *See, e.g.*, James Pethokoukis, *AI and the Economy: Scenarios for a World with Artificial General Intelligence*, AM. ENTER. INST. (Mar. 18, 2024), https://www.aei.org/articles/ai-and-the-economy-scenarios-for-a-world-with-artificial-general-intelligence [https://perma.cc/BKZ2-C37K].

121 *See* MASLEJ ET AL., *supra* note 2.

122 *Fostering a Rigorous Understanding of the Future of AI*, EPOCH AI, https://epoch.ai/research [https://perma.cc/VF3R-7WKW] (last visited May 5, 2025).

123 *See* Yoshua Bengio, *Implications of Artificial General Intelligence on National and International Security*, ASPEN INST. 1 (Oct. 2024), https://www.aspeninstitute.org/wp-content/uploads/2024/10/Bengio_National-and-International-Security-in-an-AGI-Context_Final.pdf [https://perma.cc/6PP2-MFBU]; Stephen McAleese, *AGI as a Black Swan Event*, LESSWRONG (Dec. 4, 2022), https://www.lesswrong.com/posts/B823KjSvD5FnCc6dc/agi-as-a-black-swan-event [https://perma.cc/W5GE-ZG3C].

124 *See* Kelsey Piper, *Where AI Predictions Go Wrong*, VOX (June 7, 2024, at 06:00 PT), https://www.vox.com/future-perfect/354157/ai-predictions-chatgpt-google-future [https://perma.cc/8B8N-2LPL]; Jeffrey Funk & Gary Smith, *Why A.I. Moonshots Miss*, SLATE (May 4, 2021, at 05:45 PT), https://slate.com/technology/2021/05/artificial-intelligence-moonshots-usually-fail.html [https://perma.cc/69J9-95KN].

125 *See, e.g.*, Gruetzemacher et al., *supra* note 115, at 1–2.

126 *See* Tim Fist & Arnab Datta, *How to Build the Future of AI in the United States*, INST. FOR PROGRESS (Oct. 23, 2024), https://ifp.org/future-of-ai-compute [https://perma.cc/AB9X-QNNU].

safety and ethical concerns,[127] and inform public discourse and policy debates.[128] For legal scholars, understanding the methodologies, assumptions, and uncertainties within technical AI forecasts is critical not for adopting their specific predictions, but for grasping the potential scale and speed of change that the legal system may need to accommodate. It allows legal analysis to be grounded in a realistic appraisal of technological momentum, rather than operating in a vacuum.

The crucial step is translating these insights into effective legal forecasting. The objective here shifts from predicting technological milestones to anticipating the resulting pressures on legal doctrines, institutions, and values, and exploring potential legal responses. Several foresight methodologies can be adapted for this purpose:

1. *Delphi Method*: This involves structured, iterative surveys of experts (including legal scholars, technologists, ethicists, social scientists, and affected stakeholders) to elicit and refine judgments about future legal challenges and potential solutions.[129] Its strength lies in leveraging diverse expertise and facilitating consensus-building or clarifying disagreements.[130] However, it can be resource-intensive and susceptible to expert biases or groupthink if not carefully managed.[131]
2. *Trend Analysis*: This method focuses on extrapolating existing trends relevant to the legal system, such as patterns in AI-related litigation, evolving regulatory approaches in adjacent fields or other jurisdictions, or the adoption rates of specific AI tools within legal practice or

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127 *See* Darrell M. West, *How AI Can Enable Public Surveillance*, BROOKINGS INST. (Apr. 15, 2025), https://www.brookings.edu/articles/how-ai-can-enable-public-surveillance [https://perma.cc/3UFX-Q383].

128 Daniel Kokotajlo et al., *supra* note 33 (choose "Why is it valuable?" from dropdown).

129 *See* Supachai Chuenjitwongsa, *How To: Conduct a Delphi Study*, CARDIFF UNIV. (2017), https://www.cardiff.ac.uk/__data/assets/pdf_file/0010/1164961/how_to_conduct_a_delphistudy.pdf [https://perma.cc/ZVG4-CF2E]; Daniel Beiderbeck et al., *Preparing, Conducting, and Analyzing Delphi Surveys: Cross-Disciplinary Practices, New Directions, and Advancements*, 8 METHODSX 1, 2 (2021).

130 *See The Delphi Method*, THE DECISION LAB, https://thedecisionlab.com/reference-guide/management/the-delphi-method [https://perma.cc/S7PM-JK9F] (last visited May 5, 2025); NORMAN C. DALKEY, RAND, THE DELPHI METHOD: AN EXPERIMENTAL STUDY OF GROUP OPINION 16–17 (1969), https://www.rand.org/content/dam/rand/pubs/research_memoranda/2005/RM5888.pdf [https://perma.cc/M4W9-4N2H].

131 *See The Delphi Method*, *supra* note 130; *cf.* DALKEY, *supra* note 130, at 75 (noting that certain factors such as the timing of the exercise may alter results).

regulated industries.[132] While potentially offering data-grounded insights, its primary limitation is its reliance on historical patterns, making it less effective at anticipating discontinuous change or novel legal issues.[133]

3. *Prediction Markets*: These employ market mechanisms where participants make financial bets based on the likelihood of specific future legal or regulatory events (e.g., "Will the Supreme Court overturn Doctrine X related to AI by 2030?").[134] Proponents argue they effectively aggregate dispersed information and provide probabilistic forecasts.[135] Challenges include designing effective markets for complex legal questions, ensuring sufficient liquidity and participation, and the potential for manipulation.[136]
4. *Scenario Planning*: This technique involves developing a set of distinct, plausible, and internally consistent narratives about the future based on key driving forces and critical uncertainties.[137] For AI legal forecasting, uncertainties might include the pace of capability development, the nature of dominant AI architectures, primary modes of societal adoption (e.g., centralized vs. decentralized), or prevailing regulatory philosophies (e.g., permissive vs. precautionary). Legal scholars would then analyze the legal needs, challenges, and optimal framework designs within each plausible scenario.

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132 *See* Steffi Friedrichs, *Trend-Analysis of Science, Technology and Innovation Policies for BNCTs* 5, 19 (OECD, Working Paper No. 2018/08, 2018); CTR. FOR PUB. POL'Y, *Forecasting: Trend Analysis and Pattern Detection: Current Techniques*, UNIV. OF HOU.: HOBBY SCH. OF PUB. AFFS., https://uh.edu/hobby/cpp/forecasting/current-techniques/ [https://perma.cc/CK8C-85RP] (last visited May 5, 2025) (detailing specific techniques for performing trend analysis as applied in the public policy context); *cf.* John C. Chambers, Satinder K. Mullick & Donald D. Smith, *How to Choose the Right Forecasting Technique*, HARV. BUS. REV. (July 1971), https://hbr.org/1971/07/how-to-choose-the-right-forecasting-technique [https://perma.cc/H5MA-HVDK] (assessing the value of the X-11 technique, a form of trend analysis).

133 *See What Is Trend Analysis? Understanding Its Role in Finance*, SANTA CLARA LEAVEY SCH. OF BUS.: BLOG (Mar. 28, 2025, at 09:17 PT), https://onlinedegrees.scu.edu/media/blog/what-is-trend-analysis [https://perma.cc/NG4N-DSQE].

134 *See* Tom W. Bell, *Government Prediction Markets: Why, Who, and How*, 116 PENN. ST. DICK. L. REV. 403, 404–05 (2011) (setting forth the key aspects of prediction markets).

135 *See id.* ("Prediction markets, because they collect and quantify relatively accurate estimates about the likelihood of future events, offer a promising solution to the problem of government ignorance.").

136 *See id.* at 414–15 (listing some potential legal issues and design flaws with prediction markets).

137 *See* CONSORTIUM FOR SCENARIO PLAN., *What Is Scenario Planning*, LINCOLN INST. OF LAND POL'Y, https://www.lincolninst.edu/centers-initiatives/consortium-scenario-planning/introduction-scenario-planning/ [https://perma.cc/8HVN-HG6T] (last visited May 5, 2025).

While each method offers potential value, scenario planning appears particularly well-suited for the demands of systemic AI legal scholarship. Its primary strength lies in its explicit embrace of deep uncertainty, allowing scholars to explore legal implications across a range of divergent but plausible futures rather than betting on a single predicted outcome. This aligns perfectly with the unpredictable nature of AI development.[138] Furthermore, scenario planning inherently facilitates interdisciplinary collaboration, providing a structured framework for integrating insights from technologists, economists, ethicists, and others in constructing the scenarios and analyzing their legal dimensions.[139] Its narrative format makes complex futures more accessible and promotes transparency regarding underlying assumptions.[140] Crucially, by generating a menu of potential legal challenges and corresponding adaptive strategies tailored to different future contexts, scenario planning directly supports the goal of designing robust, resilient, and dynamic legal frameworks—the core objective of systemic legal scholarship.[141] It moves beyond prediction toward strategic preparedness, equipping the legal community to navigate multiple potential pathways rather than optimizing for one potentially incorrect forecast.

D. Guiding Principles for Systemic AI Legal Scholarship

Equipped with an understanding of systemic analysis and the potential of foresight methodologies like scenario planning, the challenge remains translating these concepts into a concrete scholarly practice. Moving beyond the critique of incrementalism requires not just a different perspective but also a distinct approach to formulating research questions and developing legal proposals. What principles, then, should guide legal academics seeking to contribute to the development of robust, future-

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138 *See* Rafael Ramírez et al., *Using Scenario Planning to Reshape Strategy*, MIT SLOAN MGMT. REV., Summer 2017, at 31–32, https://sloanreview.mit.edu/article/using-scenario-planning-to-reshape-strategy/ [https://perma.cc/2Y6Z-HUHA] (recommending the use of scenario planning amid "periods of turbulence, unpredictable uncertainty, novelty, and ambiguity").

139 *See* Annika Steele, *Scenario Planning*, THE DECISION LAB, https://thedecisionlab.com/reference-guide/organizational-behavior/scenario-planning [https://perma.cc/E9HH-7XRD] (last visited May 5, 2025).

140 *See id.*

141 *See* Ramírez et al., *supra* note 138, at 32 (providing case studies in which organizations relied on scenario planning to develop specific investment initiatives responsive to the ins and outs of scenario).

oriented AI governance? This section distills the preceding analysis into three core guidelines for conducting systemic AI legal scholarship. Adherence to these principles can help ensure that legal inquiry actively shapes, rather than reacts to, the profound societal shifts portended by AI.

First, systemic scholarship must identify and prioritize legal domains ripe for foundational change, informed by disciplined forecasting. Instead of addressing issues randomly as they arise, this approach requires a deliberate effort to pinpoint areas where existing legal frameworks are most likely to falter or create significant friction under plausible future scenarios involving advanced AI. The insights gleaned from legal forecasting methodologies, particularly scenario planning as advocated above, are crucial here. By exploring diverse trajectories of AI development and adoption, scholars can identify legal regimes prone to accumulating high levels of legal tech debt, systems whose foundational assumptions are directly challenged by AI capabilities, or areas where proactive legal redesign is essential to unlock significant societal benefits or mitigate substantial risks anticipated across multiple scenarios.[142] This prioritization might focus on longstanding areas of legal inadequacy exacerbated by AI (like privacy law)[143] or on novel governance challenges emerging directly from AI's unique characteristics (like algorithmic accountability or the regulation of AGI).[144] Identification of such scholarly gaps can be driven by both descriptive forecasting (what legal pressures are likely?) and normative commitments (what legal changes are needed to steer AI toward desirable societal goals, like equity or human flourishing?).

Second, having identified a priority domain, systemic scholarship must propose wholesale, structural reforms under the assumption of deep, system-level AI integration. This principle marks the sharpest departure from incrementalism. Rather than

142 Related forecasts inform the debate over the future of work in the age of AI—pinpointing industries and professions that may require greater reskilling and upskilling opportunities in the near future. *See, e.g.*, Molly Kinder et al., *Generative AI, the American Worker, and the Future of Work*, BROOKINGS INST. (Oct. 10, 2024), https://www.brookings.edu/articles/generative-ai-the-american-worker-and-the-future-of-work/ [https://perma.cc/D4AZ-FPTB]; RAKESH KOCHHAR, PEW RSCH. CTR., WHICH U.S. WORKERS ARE MORE EXPOSED TO AI ON THEIR JOBS? 19–21 (2023), https://www.pewresearch.org/social-trends/2023/07/26/which-u-s-workers-are-more-exposed-to-ai-on-their-jobs [https://perma.cc/2225-6U4M].

143 *See* Solove, *supra* note 1, at 15–16, 18.

144 *See* Yavar Bathaee, *The Artificial Intelligence Black Box and the Failure of Intent and Causation*, 31 HARV. J.L. & TECH. 889, 895 (2018).

suggesting modifications to existing rules to accommodate AI as an add-on, systemic proposals envision how the entire legal domain might be re-architected with AI considered a foundational element, not an exception or a mere addition to an existing system. This involves questioning the core operational logic, entrenched values, and basic structural components of the targeted legal system. Drawing again from the *FRCP* analogy, systemic proposals would not stop at tweaking discovery rules but might reimagine the entire fact-finding process or the adversarial balance itself, assuming the availability of sophisticated AI tools for analysis and prediction. Similarly, systemic reform of data governance might move beyond patchwork consent requirements to propose entirely new frameworks like data trusts or public data commons designed for an AI-driven world. This requires intellectual boldness—a willingness to challenge long-held assumptions and propose potentially paradigm-shifting alternatives, justified by their alignment with plausible future needs and desired societal outcomes as revealed through foresight analysis.

Third, and critically, systemic legal proposals must infuse dynamism and adaptability into their design. Recognizing the inherent uncertainty surrounding AI's long-term trajectory—the possibility that progress might accelerate beyond current forecasts, stagnate unexpectedly, or veer in unforeseen directions[145]—systemic frameworks built around AI cannot be rigid blueprints. Instead, they must incorporate mechanisms allowing them to evolve and adapt as technological realities and societal understanding change.[146] This principle of dynamism acts as a crucial hedge against the risks of forecasting errors and ensures that systemic reforms do not simply replace old rigidities with new ones. Adaptability can be embedded through various means: incorporating mandatory periodic reviews and sunset clauses for new regulations;[147] designing principles-based rules

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145 *See* Nathan Lambert, *State of Play of AI Progress (and Related Brakes on an Intelligence Explosion)*, INTERCONNECTS (Apr. 30, 2025), https://www.interconnects.ai/p/brakes-on-an-intelligence-explosion [https://perma.cc/F3M3-L3UR] (reviewing the predictions made in the AI 2027 forecast and identifying points of divergence).

146 *Cf.* Anton Leicht, *The New AI Policy Frontier*, THREADING THE NEEDLE (May 5, 2025), https://writing.antonleicht.me/p/the-new-ai-policy-frontier [https://perma.cc/4U95-ETNN] (evaluating a change in AI policy discourse that reflects increased agreement that dynamic, decentralized governance frameworks may work best given AI's characteristics).

147 *See, e.g.*, Sofia Ranchordás, *Innovation-Friendly Regulation: The Sunset of Regulation, The Sunrise of Innovation*, 55 JURIMETRICS 201, 201, 216–20 (2015); Mike Turley, William D. Eggers & Pankaj Kishnani, *5 Principles for Regulating Emerging Technologies*, WALL ST. J.: RISK & COMPLIANCE J. (May 22, 2019, at 18:01 PT),

supplemented by evolving technical standards or guidance;[148] establishing regulatory sandboxes or experimental safe harbors to test novel approaches;[149] building in feedback loops that monitor real-world impacts and trigger adjustments;[150] or creating adaptive governance structures capable of learning and modifying rules over time. By embedding such mechanisms, systemic scholarship can propose foundational change without succumbing to brittle inflexibility, thereby fostering legal regimes that are both transformative in vision and resilient in practice, capable of navigating the enduring uncertainties of the AI era.

These three principles—prioritizing domains through forecasting, proposing wholesale structural change, and embedding dynamism—provide a framework for moving legal scholarship beyond the limitations of incrementalism. They encourage a more ambitious, forward-looking, and ultimately more responsible engagement with the governance challenges and opportunities presented by AI. Part IV will now illustrate the application of this framework by exploring potential systemic reforms across three critical areas with respect to integrating AI into public education: creating the regulatory and investment ecosystem necessary to develop responsive AI tools, ensuring widespread understanding and adaptation, and enabling effective governmental use.

IV. SYSTEMIC AI SCHOLARSHIP CASE STUDY: PUBLIC EDUCATION

Parts II and III established the profound shortcomings of incrementalist legal scholarship in the face of AI and articulated an alternative paradigm: systemic legal scholarship guided by fore-

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https://deloitte.wsj.com/riskandcompliance/5-principles-for-regulating-emerging-technologies-01558573333 [https://perma.cc/KRF4-59BY].

148 *See* DOUGLAS ARNER ET AL., A PRINCIPLES-BASED APPROACH TO THE GOVERNANCE OF BIGFINTECHS 12 (2021), https://www.undp.org/sites/g/files/zskgke326/files/2021-10/UNDP-UNCDF-TP-3-3-A-Principles-based-Approach-to-the-Governance-of-BigFintechs-EN.pdf [https://perma.cc/5UF4-KQ3J].

149 *See, e.g.*, *Removing Barriers for Utah Innovators*, UTAH DEP'T OF COM.: OFF. OF A.I. POL'Y, https://ai.utah.gov/regulatory-mitigation/ [https://perma.cc/Y6AJ-SP2G] (last visited May 6, 2025).

150 *See* Lori S. Bennear & Jonathan B. Wiener, Adaptive Regulation: Instrument Choice for Policy Learning over Time 2, 6 (Feb. 12, 2019) (unpublished working paper) (available at https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/files/Regultion%20%20adaptive%20reg%20%20Bennear%20Wiener%20on%20Adaptive%20Reg%20Instrum%20Choice%202019%2002%2012%20clean.pdf) [https://perma.cc/W99RT4WC]; Mark Fenwick, Erik P. M Vermeulen & Marcelo Corrales Compagnucci, *Business and Regulatory Responses to Artificial Intelligence: Dynamic Regulation, Innovation Ecosystems and the Strategic Management of Disruptive Technology*, ARXIV (July 28, 2024), https://arxiv.org/pdf/2407.19439 [https://perma.cc/53MS-NT4G].

sight, architectural ambition, and adaptive design. Moving from theoretical framework to practical application, this Part illustrates how such an approach might be employed to reimagine a critical domain ripe for transformation: public education. Education serves as a particularly salient case study due to its fundamental importance for individual opportunity and societal progress, the significant potential for AI to reshape pedagogical methods and outcomes,[151] and the substantial legal tech debt currently hindering innovation within existing educational structures.[152] Embracing the normative stance that AI *should* be leveraged to create a more effective, equitable, and personalized educational experience for all,[153] this Part applies the principles of systemic scholarship to explore potential wholesale reforms. It proceeds by examining three essential pillars for integrating AI foundationally into public education: first, building the necessary data infrastructure and innovation ecosystem (Section IV.A); second, fostering widespread understanding and adaptation among students, educators, and the workforce (Section IV.B); and third, enabling the effective use and procurement of AI tools by governmental and educational institutions (Section IV.C). The proposals offered are illustrative—not as definitive solutions but as exemplars of the kind of systemic thinking required to align our legal and institutional frameworks with the transformative potential of AI in this vital sphere.

A. An Antiquated Public Education System

Applying the systemic framework begins with identifying critical areas where foundational change is most needed. Public

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151 *See* MIGUEL A. CARDONA, ROBERTO J. RODRIGUEZ & KRISTINA ISHMAEL, U.S. DEP'T OF EDUC., OFF. OF EDUC. TECH., ARTIFICIAL INTELLIGENCE AND THE FUTURE OF TEACHING AND LEARNING 2–5 (2023); Claire Chen, *AI Will Transform Teaching and Learning. Let's Get It Right.*, STAN. INST. FOR HUM.-CENTERED A.I. (Mar. 9, 2023), https://hai.stanford.edu/news/ai-will-transform-teaching-and-learning-lets-get-it-right [https://perma.cc/3FP4-V7KJ].

152 *See* Elise Young, *Educational Privacy in the Online Classroom: FERPA, MOOCs, and the Big Data Conundrum*, 28 HARV. J.L. & TECH. 549, 550, 570 (2015) ("[The Family Educational Rights and Privacy Act] is so dated that when confronted with a technology that can collect and use big data, like MOOCs, the statute practically breaks down.").

153 *But see* Jen Roberts, *Proactively Limiting the Use of AI in the Classroom*, EDUTOPIA: CHATGPT & GENERATIVE AI (Jan. 23, 2025), https://www.edutopia.org/article/addressing-ai-use-proactively-classroom/ [https://perma.cc/YV7X-4QL5] (examining the need for limits on the use of AI in the classroom); Brad East, *Luddite Pedagogy: It's OK to Ignore AI in Your Teaching*, THE CHRON. OF HIGHER EDUC. (Apr. 3, 2025), https://www.chronicle.com/article/luddite-pedagogy-its-ok-to-ignore-ai-in-your-teaching [https://perma.cc/G6XD-EM6X].

education emerges as a prime candidate, not only because of AI's potential to revolutionize learning,[154] but also because the sector is encumbered by decades of accumulated legal and institutional legal tech debt that actively thwarts innovation.[155] Key laws governing the use of student data, including the Family Educational Rights and Privacy Act (FERPA), provide for well-intentioned privacy protections that nevertheless stymie adoption of new educational tools and methods.[156] This debt, as defined in Part III, represents the profound misalignment between the existing, often antiquated, rules and structures governing education and the requirements for developing and deploying advanced technologies like AI effectively and equitably. Overcoming this inertia to build the necessary foundations for beneficial AI—particularly robust data infrastructure and supportive regulatory ecosystems—constitutes the first essential step toward systemic transformation.

At the heart of this challenge lies the fundamental currency of modern AI: data.[157] The remarkable capabilities of contemporary AI models, from large language models to sophisticated analytical tools, are predicated on their training over vast quantities of high-quality data.[158] It is from this data that models learn patterns, relationships, and representations of the world.[159] Conse-

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154 *See* ROBIN LAKE & BREE DUSSEAULT, CTR. ON REINVENTING PUB. EDUC., WICKED OPPORTUNITIES: LEVERAGING AI TO TRANSFORM EDUCATION 2 (2024), https://crpe.org/wp-content/uploads/ThinkForward-2024.pdf [https://perma.cc/BMY7-U4ZL] ("Generative AI's rapidly maturing capabilities offer the opportunity to shift education systems in positive ways and create new models for teaching and learning.").

155 *See* An-Me Chung et al., *Empowering Student Agency in the Digital Age: The Role of Privacy in EdTech*, NEW AM. (Feb. 27, 2025), https://www.newamerica.org/education-policy/briefs/empowering-student-agency-in-the-digital-age-the-role-of-privacy-in-edtech/ [https://perma.cc/FJ8S-MFWE] (noting that the Children's Online Privacy Protection Rule (COPPA), the Children's Internet Protection Act (CIPA), and FERPA can slow or prevent districts from adopting new technology); Young, *supra* note 152, at 550–53.

156 *See* Chung et al., *supra* note 155.

157 *See* Kevin Frazier, *Unlocking AI for All: The Case for Public Data Banks*, LAWFARE (Oct. 2, 2024, at 13:00 PT), https://www.lawfaremedia.org/article/unlocking-ai-for-all--the-case-for-public-data-banks [https://perma.cc/R37L-C4BM].

158 *See* Ilia Shumailov et al., *AI Models Collapse When Trained on Recursively Generated Data*, 631 NATURE 755, 755, 757–58 (2024); Thomas C. Redman, *Ensure High-Quality Data Powers Your AI*, HARV. BUS. REV. (Aug. 12, 2024), https://hbr.org/2024/08/ensure-high-quality-data-powers-your-ai [https://perma.cc/S52T-PKUC]; Deepa Seetharaman, *For Data-Guzzling AI Companies, the Internet Is Too Small*, WALL ST. J. (Apr. 1, 2024, at 05:30 ET), https://www.wsj.com/tech/ai/ai-training-data-synthetic-openai-anthropic-9230f8d8 [https://perma.cc/6TD6-6VJZ].

159 Kevin Roose, *The Data That Powers A.I. Is Disappearing Fast*, N.Y. TIMES (July 19, 2024), https://www.nytimes.com/2024/07/19/technology/ai-data-restrictions.html [https://perma.cc/H675-R64Z].

quently, the availability, scale, diversity, and integrity of training data are critical determinants of an AI system's performance, reliability, fairness, and ultimate utility.[160] Indeed, concerns are already mounting within the broader AI field about potential future bottlenecks arising from the exhaustion of readily available, high-quality human-generated text and image data on the public internet.[161] This trend highlights the strategic importance of securing access to rich, domain-specific datasets for continued progress, particularly for applications aimed at specialized fields or the public good.[162] Without sufficient and appropriate data, the development of capable, safe, and unbiased AI tools is simply not possible.

This general imperative for data access collides with particular force against the realities of the public education sector, creating a paradox where a domain rich in potentially valuable data operates, in practice, as a data desert for AI innovation aimed at public benefit.[163] The accumulation of legal tech debt in public education manifests as a complex web of interlocking rules, fragmented governance, and institutional resistance that collectively stifle the data flows necessary for building effective AI tools. At the federal level, statutes like FERPA, COPPA, and CIPA, enacted long before the advent of modern AI, impose restrictions on the use and disclosure of student data.[164] While crucial for protecting student privacy, FERPA's ambiguous provisions and often conservative interpretations by institutions

160 *See id.*; Redman, *supra* note 158.

161 *See* Roose, *supra* note 159; Cade Metz et al., *How Tech Giants Cut Corners to Harvest Data for A.I.*, N.Y. TIMES (Apr. 8, 2024), https://www.nytimes.com/2024/04/06/technology/tech-giants-harvest-data-artificial-intelligence.html [https://perma.cc/AU3P-LGJW].

162 *See* Carlos S. Saldana, *From Data to Care: How AI Can Transform Public Health*, IDSA: SCI. SPEAKS BLOG (Apr. 9, 2024), https://www.idsociety.org/science-speaks-blog/2024/from-data-to-care-how-ai-can-transform-public-health/ [https://perma.cc/SWJ8-7TNF] (discussing how an incomplete data record hinders the usefulness of AI tools in the public health domain); Hope Hodge Seck, *Good Data, Trust Critical to AI in Public Health*, GOVCIO (June 27, 2024), https://govciomedia.com/good-data-trust-critical-to-ai-in-public-health/ [https://perma.cc/W8KG-V7KA] (drawing the connection between a high quantity of high-quality data to robust AI tools for public health purposes).

163 *See* Dylan Walsh, *A Data-Centered Approach to Education AI*, STAN. UNIV. FOR HUM.-CENTERED A.I. (Feb. 26, 2024), https://hai.stanford.edu/news/data-centered-approach-education-ai [https://perma.cc/6EMF-ZQEF] (interviewing Mei Tan about the need for more high-quality data to develop useful educational AI tools); *cf.* JULIA H. KAUFMAN ET AL., RAND, UNEVEN ADOPTION OF ARTIFICIAL INTELLIGENCE TOOLS AMONG U.S. TEACHERS AND PRINCIPALS IN THE 2023–2024 SCHOOL YEAR 15–16 (2025) (reporting data privacy concerns as a reason for slow AI adoption by schools).

164 *See* Chung et al., *supra* note 155.

create significant uncertainty and chill the use of educational data for developing and validating AI tools, even for clearly beneficial purposes like personalized learning or identifying at-risk students.[165] This federal layer is further complicated by a patchwork of state-specific student privacy laws, adding further compliance burdens and hindering the creation of interoperable systems or datasets that could support AI development at scale.[166]

Compounding these regulatory hurdles is the highly fragmented governance structure of American public education.[167] With primary control often residing at the state and local district levels, decisions regarding technology adoption, data management practices, curriculum choices, and pedagogical approaches vary immensely.[168] This fragmentation results in siloed data systems incapable of communicating with each other, inconsistent technical standards, and procurement processes that favor large incumbents or bespoke local solutions over potentially more effective, scalable AI platforms.[169] Consequently, developers seeking to build AI educational tools face enormous challenges in access-

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165 *See* Yeseul Do, *Beyond Privacy: Regulating ChatGPT for Young Adults in Educational Contexts*, 14 N.Y.U. J. INTELL. PROP. & ENT. L. 263, 290–91 (2025) (discussing uncertainty around the extent to which FERPA limits the use of AI in educational settings); *cf.* ROLAND HANCOCK ET AL., RECONSIDERING EDUCATION POLICY IN THE ERA OF GENERATIVE AI 5 (2023) (recognizing that FERPA and related regulations do not entirely account for the policy questions by educational AI tools).

166 *See* NEIL CHILSON & TAYLOR BARKLEY, ABUNDANCE INST., COMMENT ON REQUEST FOR INFORMATION TO EXPLORE DATA PRIVACY AND SECURITY FRAMEWORK 2 (2025), https://cdn.hubabudance.institute/pdf/AbundanceInstitute_2025_EmergingTech_Publications_APR_CommentOnRequestForInformationToExploreDataPrivacyAndSecurityFramework.pdf [https://perma.cc/4AM9-AHAV]; Erik Dullea, *Will Federal Initiatives Stave Off Disparate State-Level Regulation of Artificial Intelligence?*, HUSCH BLACKWELL (Feb. 26, 2024), https://www.huschblackwell.com/newsandinsights/will-federal-initiatives-stave-off-disparate-state-level-regulation-of-artificial-intelligence [https://perma.cc/XP4Q-LER9] (exploring the possibility of a patchwork of state-specific AI laws).

167 *See* Jennifer Ayscue & Gary Orfield, *States with Highly Fragmented School Districts Have Greater Levels of School Segregation*, LSE (Apr. 22, 2015), https://blogs.lse.ac.uk/usappblog/2015/04/22/states-with-highly-fragmented-school-districts-have-greater-levels-of-school-segregation/ [https://perma.cc/TN99-YPHC] (pointing to the fragmented nature of the U.S. public school system as a source of some of its faults).

168 *See* Bree Dusseault, *New State AI Policies Released: Signs Point to Inconsistency and Fragmentation*, CTR. ON REINVENTING PUB. EDUC. (Mar. 2024), https://crpe.org/new-state-ai-policies-released-inconsistency-and-fragmentation/ [https://perma.cc/43FU-8KWE] (reviewing a hodge-podge of approaches to integrating AI into the classroom among America's school districts).

169 *Cf.* Natasha Singer, *How Google Took Over the Classroom*, N.Y. TIMES (May 13, 2017), https://www.nytimes.com/2017/05/13/technology/google-education-chromebooks-schools.html [https://perma.cc/J2F2-MAHM] (chronicling how Google managed to become the default tech provider to districts across the country).

ing representative, high-quality data for training and validation, navigating myriad procurement processes, and integrating their tools across diverse technical environments.[170] Furthermore, deeply ingrained institutional factors—including standardized testing regimes that incentivize traditional instruction, inadequate funding for technology infrastructure and teacher training, and cultural resistance to novel pedagogical models—reinforce the status quo and make the systemic adoption of AI-enabled approaches exceedingly difficult.[171] This mountain of interconnected regulatory constraints, structural fragmentation, and institutional inertia constitutes a formidable barrier, preventing the sector from realizing the potential benefits of data-driven insights and AI-powered tools that require precisely the kind of scale, interoperability, and data access that the current system inhibits.

Addressing this foundational legal tech debt requires much more than incremental adjustments to existing rules, such as making it easier for teachers to integrate AI into lesson planning. A systemic, bottoms-up redesign of student data governance, conceived with the development and deployment of beneficial AI explicitly in mind, is necessary. How best to achieve this redesign is the subject of the second stage of systemic AI scholarship.

B. Wholesale Change

Addressing the foundational legal tech debt also necessitates that scholars embrace the second stage of systemic AI scholarship: the proposal of wholesale, structural changes designed for an AI-suffused future. The goal is for scholars to envision and articulate concrete, alternative architectures for governing educational data that enable AI innovation while safeguarding student rights. The specific proposals outlined below are illustrative examples of such systemic thinking, focusing first on reforming pri-

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170 See Courtney Radsch, *Dismantling AI Data Monopolies Before It's Too Late*, TECH POL'Y. PRESS (Oct. 9, 2024), https://www.techpolicy.press/dismantling-ai-data-monopolies-before-its-too-late [https://perma.cc/RM83-2XP4].

171 *See* Alyson Klein, *Schools Are Taking Too Long to Craft AI Policy. Why That's a Problem*, EDUCATIONWEEK (Feb. 19, 2024), https://www.edweek.org/technology/schools-are-taking-too-long-to-craft-ai-policy-why-thats-a-problem/2024/02 [https://perma.cc/P6SQ-ZVFT]; Bree Dusseault & Justin Lee, *AI Is Already Disrupting Education, but Only 13 States Are Offering Guidance for Schools*, CTR. ON REINVENTING PUB. EDUC. (Oct. 2023), https://crpe.org/ai-disrupt-ed-13-states/ [https://perma.cc/Z9BP-VNLY]. *But see* Melissa Kay Diliberti, Robin J. Lake & Steven R. Weiner, *More Districts Are Training Teachers on Artificial Intelligence*, RAND (Apr. 8, 2025), https://www.rand.org/pubs/research_reports/RRA956-31.html [https://perma.cc/AT59-LQYS].

vacy law, second on standardizing data infrastructure within the public system, and third on creating mechanisms for governed data access and collaboration.

First, confronting the chilling effect of outdated privacy regulations necessitates re-architecting the legal framework governing student data use for AI. Instead of endless interpretive debates around FERPA's ambiguities, a systemic approach might involve enacting new federal legislation specifically tailored to the opportunities and risks of AI in education. Such legislation could establish clear, nationally consistent rules for accessing and using educational data for AI research, development, and deployment under specific conditions. This might involve creating tiered data access regimes based on data sensitivity and use case, defining robust standards for anonymization, pseudonymization, and aggregation suitable for AI training, and establishing explicit safe harbors for researchers and developers who adhere to stringent ethical guidelines, technical safeguards, and independent oversight protocols. Alternatively, or additionally, Congress could amend FERPA itself to explicitly authorize certain beneficial AI-related uses under defined conditions, moving beyond its current framework focused primarily on disclosure restrictions. The key systemic element is the shift from defensively interpreting old rules to proactively designing a new legal regime optimized for responsible innovation within clearly defined ethical boundaries, potentially preempting conflicting state laws to ensure national consistency.

Second, overcoming the debilitating effects of administrative and technical fragmentation requires systemic intervention to mandate standardized data infrastructure and collection protocols across the public education system. These reforms focus on building the capacity for consistent, high-quality data collection and aggregation within and between educational institutions. Voluntary initiatives will likely prove insufficient.[172] A more potent mechanism involves leveraging the federal government's

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172 *Cf.* GILLIAN DIEBOLD, CTR. FOR DATA INNOVATION, OVERCOMING BARRIERS TO DATA SHARING IN THE UNITED STATES 12 (2023), https://www2.datainnovation.org/2023-data-sharing-barriers.pdf [https://perma.cc/T4GG-2H4P] (observing that the federal government mandates the sharing of certain data rather than hoping that voluntary measures suffice); Noah Teixeira & Jae June Lee, *Insufficient Transparency in Data Sharing: A Call for Change*, CTR. ON POVERTY & INEQ.: BLOG (Nov. 16, 2023), https://www.georgetownpoverty.org/issues/insufficient-transparency-in-data-sharing-a-call-for-change/ [https://perma.cc/WVT7-RRGA] (contending that less formal data sharing agreements may often lack the sort of transparency necessary to allow for accountability).

spending power: Congress could condition significant federal education funding streams (such as those under the Elementary and Secondary Education Act)[173] on state and district adoption of mandatory technical standards. These standards, potentially developed and maintained by a newly chartered national educational technology standards body comprising diverse stakeholders, would dictate common formats for data collection (encompassing not just administrative records but also the granular learning process data vital for AI), require the use of secure, open APIs for interoperability, and ensure baseline capabilities for data management across all participating districts. This represents a systemic attack on the data silo problem, aiming to create a coherent, interoperable data foundation across the nation's schools, ensuring data relevant to AI development is collected consistently and can be aggregated meaningfully, at least within the public system's boundaries.

Third, having established clearer legal permissions (Proposal 1) and standardized infrastructure (Proposal 2), a functional ecosystem requires creating new, governed mechanisms for data access and collaboration, including with external partners. While standardization enables aggregation, effective AI development often necessitates access by researchers and specialized tool developers, including those in the private sector. This requires moving beyond current restrictive and ad hoc sharing practices toward secure, managed access pathways. A systemic solution could involve state-level initiatives to create Educational Data Trusts or Commons.[174] These independent or quasi-governmental entities, operating under clear statutory mandates and robust governance structures (including ethical review boards with parent and community representation), could securely house pseudonymized or aggregated longitudinal data from participating districts. They would act as trusted intermediaries, managing controlled access for vetted researchers and certified private partners under strict data use agreements that mandate privacy safeguards, security protocols, regular audits, and potentially benefit-sharing arrangements. Complementing such institutional structures, systemic reform could also promote the development

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173 Elementary and Secondary Education Act of 1965, Pub. L. No. 89-10, 79 Stat. 27 (codified as amended in scattered sections of 20 U.S.C.).

174 *See* Kevin Frazier & Kevin Wei, *Beyond Big Tech: The Revolutionary Potential of State Data Commons*, LAWFARE (Mar. 27, 2025, at 13:00 PT), https://www.lawfaremedia.org/article/beyond-big-tech—the-revolutionary-potential-of-state-data-commons [https://perma.cc/CRP3-F9YX].

and adoption of standardized legal templates for data use agreements, further enabling valuable analysis and tool development while minimizing raw data exposure. These mechanisms all work toward creating secure gateways and clear rules for utilizing the data foundation established by Proposals 1 and 2, facilitating collaboration with external innovators under rigorous oversight.

These examples—redesigning privacy law for AI use cases, mandating interoperable data infrastructure, and creating new data sharing institutions and technical capabilities—illustrate the kind of ambitious, structural thinking required by the second principle of systemic scholarship. They aim not just to adjust existing rules but to build fundamentally new legal and administrative foundations better suited to the demands and potential of the AI era in public education. The final necessary element, addressed next, is ensuring these new systems possess the capacity for ongoing adaptation.

C. Embedding Dynamism: Ensuring Adaptive Governance for Educational AI

The systemic reforms proposed for educational data governance—encompassing revised privacy laws, mandated infrastructure standards, and new data access mechanisms—represent a necessary architectural shift. Yet, proposing such foundational changes fulfills only two of the three core principles of systemic scholarship. The final, critical element is to embed mechanisms for dynamism and adaptation directly into the new framework. Without such features, even the most thoughtfully designed systemic reform risks succumbing to the same forces of technological change and societal evolution that rendered the previous regime obsolete by simply substituting one form of legal tech debt for another down the line. Ensuring that the governance system can coevolve with AI requires building in processes for ongoing monitoring, evaluation, and revision from the outset.

A primary mechanism for achieving this adaptability involves instituting mandatory, periodic reviews and potentially outcome-triggered sunset provisions for the core statutes and regulations governing educational AI data. Unlike traditional legislation that often remains unchanged for decades,[175] systemic

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175 *See* Frank H. Easterbrook et al., *Showcase Panel IV: A Federal Sunset Law*, 16 TEX. REV. L. & POL. 339, 343–44 (2012) (restating the views of scholars (and jurists) who regard sunset clauses as a necessary tool to clear obsolete laws from the books); Jody Freeman & David B. Spence, *Old Statutes, New Problems*, 163 U. PA. L. REV. 1 *passim*

frameworks in rapidly evolving domains should incorporate requirements for regular, substantive re-evaluation—perhaps every five or seven years.[176] Critically, these reviews should be more than procedural; they should be tied to assessments of whether the framework is achieving specific, predefined goals related to innovation, equity, privacy protection, and educational outcomes. Failure to meet key performance indicators or the emergence of significant unforeseen negative consequences could trigger not just review, but potentially automatic sunsetting of certain provisions, forcing legislative reconsideration and preventing the ossification of ineffective or harmful rules. While designing appropriate metrics and causal attribution presents challenges, building in such accountability loops is essential for ensuring the framework remains aligned with its intended purposes and responsive to real-world results.

Complementing periodic legislative review, agile regulatory bodies with defined authority to update specific rules and technical standards are essential for maintaining dynamism at an operational level. The national educational technology standards body proposed earlier, or the governance boards overseeing state-level data trusts or commons, should be explicitly empowered to revise technical protocols, data security requirements, ethical guidelines for AI use, and potentially data access criteria more rapidly than is possible through full legislative or notice-and-comment rulemaking processes. Such bodies, operating within clear statutory bounds and composed of diverse experts (including technologists, educators, ethicists, privacy advocates, and community representatives), could respond more nimbly to emerging best practices, new technological capabilities, or identified vulnerabilities, ensuring that the operational rules keep pace with the field without requiring constant statutory amendment.

Furthermore, the sheer scale and complexity of monitoring a dynamic AI ecosystem suggests the need for technology-assisted regulatory oversight. Human regulators alone may struggle to track the proliferation of educational AI tools, analyze their impacts across diverse student populations, or detect subtle compli-

(2014) (analyzing the ramifications of serial congressional failures to update antiquated laws).

176 *See* Martin Totaro & Connor Raso, *Agencies Should Plan Now for Future Efforts to Automatically Sunset Their Rules*, BROOKINGS INST. (Feb. 25, 2021), https://www.brookings.edu/articles/agencies-should-plan-now-for-future-efforts-to-automatically-sunset-their-rules/ [https://perma.cc/JYK7-VZEV] (evaluating a proposal for mandatory sunsetting of agency rules pursuant to specific time limitations).

ance failures or emergent risks within complex data flows. Here, AI itself can be leveraged responsibly as a regulatory tool—a possibility already explored by the Administrative Conference of the United States, albeit in different contexts.[177] AI systems could be developed to continuously monitor anonymized system logs, analyze aggregate data on tool usage and performance, audit algorithmic systems for bias or security vulnerabilities, and identify anomalous patterns requiring human investigation. Such systems would function as powerful analytical support for human regulators and oversight bodies, enabling faster detection of problems, more comprehensive evaluation of the framework's effectiveness, and more evidence-based decision-making regarding necessary adjustments. Ensuring the transparency, fairness, and contestability of these regulatory AI tools themselves would, of course, be paramount.

Finally, embedding dynamism also involves maintaining space for ongoing learning and experimentation within the regulatory framework. Mechanisms like regulatory sandboxes or time-limited safe harbors can provide controlled environments where novel educational AI applications or data governance approaches can be tested under regulatory supervision before potentially being approved for wider deployment. This allows regulators and the ecosystem to learn about the real-world implications of new technologies in a lower-risk setting, generate valuable data to inform future rule updates, and prevent the premature prohibition of potentially beneficial innovations due to uncertainty.

Collectively, these mechanisms—mandatory outcome-based reviews, agile regulatory updating, AI-assisted monitoring, and structured experimentation—aim to create a governance framework for educational AI that is not static but *learning* and *adaptive*. By embedding dynamism as a core design principle, systemic legal scholarship seeks to avoid repeating the cycle of legal tech debt accumulation, fostering a legal ecosystem that can promote responsible innovation and navigate the enduring uncertainties of technological progress while remaining true to fundamental societal values. This forward-looking, adaptive quality

177 *See, e.g.*, *Using Algorithmic Tools in Regulatory Enforcement*, ADMIN. CONF. OF THE U.S. (Dec. 17, 2024), https://www.acus.gov/document/using-algorithmic-tools-regulatory-enforcement [https://perma.cc/M5QA-83AQ] (exploring ways AI could function as a cost-effective regulatory tool in the context of federal agencies automating the administration of the law).

is the hallmark distinguishing truly systemic reform from mere structural replacement.

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The exploration of AI within the context of public education underscores the practical application and necessity of the systemic scholarship framework advanced in this Article. By identifying education as a domain burdened by significant legal tech debt yet ripe with potential for AI-driven transformation, the analysis moved beyond incremental fixes. Instead, it illustrated the potential for wholesale, architectural reforms targeting the foundational issues of data governance—encompassing proposals for modernizing privacy laws, mandating interoperable data infrastructure, and establishing new mechanisms for secure data sharing and collaboration. Crucially, embedding principles of dynamism—through outcome-tied reviews, agile regulatory bodies, technology-assisted monitoring, and structured experimentation—directly into these proposed reforms addresses the inherent uncertainties of technological progress and aims to prevent the future accumulation of debilitating legal tech debt. These intertwined steps exemplify the core tenets of systemic scholarship articulated in Part III: prioritizing domains through forecasting, proposing foundational change rather than marginal adjustments, and infusing adaptability to ensure resilience. While the specific proposals offered here for reforming data governance in education are illustrative rather than exhaustive, they demonstrate how a systemic approach, informed by foresight and committed to adaptive design, can generate concrete pathways toward aligning our legal and institutional structures with the profound challenges and opportunities presented by AI. This mode of analysis provides the necessary toolkit for navigating not only the future of education but also the myriad other domains poised for transformation in the age of AI.

V. CONCLUSION

The rapid ascent of AI confronts the legal system with a challenge unparalleled in recent history, demanding more than the cautious incrementalism that has traditionally characterized legal scholarship and reform. This Article has argued that clinging to marginal adjustments of existing rules in the face of potentially exponential technological change constitutes a form of deficient or unproductive scholarship, one that ignores foreseeable developments, abdicates the academy's unique role in anticipatory governance, exacerbates the costly accumulation of legal

tech debt, and ultimately risks undermining public trust and the stability of the rule of law itself.

As an antidote, this Article proposes and elaborates a framework for *systemic legal scholarship*—an approach defined by its commitment to identifying domains ripe for foundational change through disciplined foresight, its ambition in proposing wholesale architectural reforms suited for deep technological integration, and its insistence on embedding dynamism and adaptability into new legal designs. The application of this framework to the critical area of data governance in public education illustrates how such systemic thinking might generate concrete proposals aimed at overcoming entrenched barriers and responsibly harnessing AI's potential for societal benefit.

While this Article has focused on articulating the systemic framework and illustrating its application in one domain, the work of reimagining our legal infrastructure for the age of AI is vast and extends far beyond the specific proposals discussed here. Several crucial areas, touched upon only briefly or not at all, demand similar systemic inquiry. Foremost among these is the future of adjudication. How might court procedures, evidentiary rules, standards of review, and even the role of judges need to adapt systemically in a world where AI plays significant roles in generating evidence, predicting case outcomes, or potentially even assisting in judicial decision-making? Incremental adjustments to evidence rules or discovery practices will likely prove insufficient. A systemic approach must grapple with the fundamental structure and assumptions of the dispute resolution process itself. Furthermore, the inherently international dimension of AI development and deployment requires systemic consideration. This Article's focus on domestic legal reform must be complemented by scholarship exploring how international law, transnational governance regimes, and cross-border regulatory coordination need to evolve systemically to address global challenges like AI arms races, differing ethical standards, and international data flows vital for AI training.

Beyond these specific domains, several broader considerations warrant ongoing attention as we navigate the AI transition. The systemic framework presented here, while motivated by AI, holds relevance for future emerging technologies as well. Whether confronting advances in synthetic biology, neurotechnology, or quantum computing, the core principles of engaging in foresight, contemplating structural legal change, and prioritizing adaptability offer a valuable methodology for legal scholarship seeking

to stay ahead of the curve. Moreover, the practical success and societal acceptance of any AI governance framework will depend critically on real-world adoption rates and public trust. Legal scholars must remain attuned to these dynamics, recognizing that even well-designed systemic reforms may require further adaptation based on how AI is actually used, perceived, and integrated into the social fabric.

Ultimately, however, the most crucial takeaway extends beyond specific technologies or legal domains. The accelerating pace of change in the twenty-first century demands a fundamental reorientation within legal academia itself. The comfortable habit of incremental analysis, while possessing its own intellectual traditions and satisfying rigors, is no longer sufficient when confronting potentially foundational societal shifts. Embracing a systemic, forward-looking, and adaptive approach to legal scholarship is an imperative for fulfilling the legal profession's enduring responsibility to serve as stewards of the rule of law. During turbulent periods of technological and social transformation, the capacity of our legal institutions to maintain order, facilitate justice, and command public legitimacy hinges on their ability to adapt meaningfully. Legal scholarship, by daring to think systemically and proactively engage with the challenges of the future, plays an indispensable role in ensuring that adaptation is guided by reason, informed by foresight, and committed to the enduring pursuit of human flourishing.

Death by Discretion: Executive Power and the Arbitrary Machinery of Federal Capital Punishment

Reem Haikal

CONTENTS

Death by Discretion: Executive Power and the Arbitrary Machinery of Federal Capital Punishment

Reem Haikal∗

This Article argues that the federal death penalty is not merely at risk of being cruel; it is increasingly at risk of becoming arbitrary and lawless. Despite the procedural safeguards embedded in the Federal Death Penalty Act (FDPA), executive practices have reintroduced many of the same constitutional flaws that the Supreme Court identified in Furman v. Georgia. *Through detailed analysis of the FDPA's structure, this Article shows that the statute fails to meaningfully constrain the Attorney General's charging discretion, allowing life-and-death decisions to hinge on opaque and often politicized processes. The Trump administration's revival of federal executions, culminating in sweeping executive orders and policy memoranda, demonstrates how prosecutorial independence can collapse under political pressure, while the Biden administration's later reversal underscores how the death penalty's implementation now depends more on presidential ideology than on law. The result is a capital punishment regime defined not by uniform standards, but by partisan fluctuation and institutional instability.*

This Article critiques the constitutional inadequacy of relying on internal Department of Justice protocols and discretionary judgment in matters of irreversible punishment. It examines the erosion of due process under the FDPA, the judiciary's limited ability to enforce executive restraint, and the broader implications of permitting death sentences to be shaped by electoral outcomes rather than legal principle. As a solution, this Article calls for legislative intervention, drawing on Congress's prior responses to systemic dysfunction in federal sentencing and national security prosecutions. Specifically, it proposes the establishment of a politically independent federal death penalty commission, modeled after the U.S. Sentencing Commission, to promote transparency, consistency, and proportionality. Without institutional reform, the federal death penalty will continue to defy constitutional expectations and remain vulnerable to the very arbitrariness the Eighth Amendment was intended to prevent.

∗ Assistant Professor of Law, Texas Southern University Thurgood Marshall School of Law. My sincere thanks, once again, to my friend Professor Ana M. Otero for her generous guidance. Rachelle Bordabehere provided excellent research assistance. I am deeply grateful to the Editorial Board of the *Chapman Law Review* for their care, insight, and kindness throughout the publication process. To my Criminal Procedure students, Class of 2026, with love.

I. INTRODUCTION

The federal death penalty has grown increasingly unstable, not because of new legal developments or scientific breakthroughs, but due to abrupt ideological shifts within the executive branch. Federal execution policy has veered sharply with each administration, moving from revival to restraint and back again, revealing a system driven more by presidential preference than consistent legal principle. This volatility revives the constitutional concerns that animated *Furman v. Georgia* and underscores the urgent need for institutional safeguards.[1]

This Article argues that the federal capital punishment regime is at risk of becoming not just cruel, but arbitrary and lawless. It attributes this instability to unchecked executive discretion, insufficient legislative oversight, and the absence of structural mechanisms to ensure fair and principled enforcement. Without institutional restraints, including renewed congressional action and structural reforms, capital punishment at the federal level will continue to defy constitutional guarantees of due process, equal protection, and fairness. What should be a domain governed by calibrated legal reasoning and scientifically informed medical protocols has instead become a political instrument, vulnerable to executive whim.

Part II traces the evolution of federal death penalty policy across the last four administrations. It begins with the Obama administration, which maintained the federal death penalty in a state of dormancy without abolishing it, reflecting moral discomfort and procedural caution.[2] That caution gave way to the Trump administration's aggressive revival, marked by a rapid expansion of executions, a new protocol using pentobarbital, and a retributive philosophy that culminated in thirteen executions within six months.[3] President Biden's subsequent moratorium[4]

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1 408 U.S. 238 *passim* (1972).

2 *See* Madeleine Carlisle, *In a Year Marked By Death, the Trump Administration Cements a Legacy of Unprecedented Executions*, TIME (Dec. 30, 2020, at 9:48 ET), https://time.com/5923973/trump-executions-death-penalty-covid-19/ [https://perma.cc/A38G-7BDK]; Peter Baker, *Obama Orders Policy Review on Executions*, N.Y. TIMES (May 2, 2014), https://www.nytimes.com/2014/05/03/us/flawed-oklahoma-execution-deeply-troubling-obama-says.html [https://perma.cc/YY7G-HNV3].

3 Carlisle, *supra* note 2.

4 *See* Memorandum from Merrick B. Garland, Att'y Gen., to Deputy Att'y Gen. et al., Moratorium on Federal Executions Pending Reviews of Policies and Procedures 1 (July 1, 2021) [hereinafter Garland Memorandum], https://www.justice.gov/d9/2022-12/attorney_general_memorandum_july_1_2021.pdf [https://perma.cc/L9YV-NRY2].

and clemency efforts,[5] though framed as a return to fairness and restraint,[6] relied on executive discretion rather than structural reform.[7] The executions resumed with even greater force following President Trump's return to office in 2025.[8] This Part highlights how life-and-death decisions have increasingly reflected political ideology, not legal continuity.

Part III revisits *Furman v. Georgia*, where the Supreme Court condemned the arbitrary and inconsistent imposition of the death penalty.[9] It argues that the same defects, disparity, inconsistency, and unchecked discretion[10] have resurfaced in the modern federal framework. But unlike the jury-driven arbitrariness of *Furman*,[11] the new form stems from executive decision-making, especially the Attorney General's broad charging discretion[12] and the ideological posture of the presidency.[13] By revisiting *Furman*'s key concurrences, the discussion underscores that arbitrariness now takes a new form—not through unguided jury sentencing, but through the unbounded discretion of the Attorney General and the ideological volatility of the executive branch. Despite Congress's attempt to codify due process protections

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5 *See* Presidential Statement on Fed. Death Row Commutations, 2024 DAILY COMP. PRES. DOC. 202401099 (Dec. 23, 2024) [hereinafter Biden Statement]; Press Release, The White House, Fact Sheet: President Biden Commutes the Sentences of 37 Individuals on Death Row (Dec. 23, 2024) [hereinafter White House Fact Sheet], https://bidenwhitehouse.archives.gov/briefing-room/statements-releases/2024/12/23/fact-sheet-president-biden-commutes-the-sentences-of-37-individuals-on-death-row/ [https://perma.cc/2XCH-7WV3].

6 Garland Memorandum, *supra* note 4.

7 *See id.*; CAROL S. STEIKER & JORDAN M. STEIKER, COURTING DEATH: THE SUPREME COURT AND CAPITAL PUNISHMENT 278–84 (2016) (discussing the fragility of death penalty reform and its dependency on political leadership); LISA N. SACCO, CONG. RSCH. SERV., IN11474, THE FEDERAL DEATH PENALTY: RECENT DEVELOPMENTS 2 (2020).

8 Exec. Order No. 14164, 90 Fed. Reg. 8463, 8463–64 (Jan. 20, 2025); Alanna Durkin Richer, *Trump Signs Death Penalty Order Directing Attorney General to Help States Get Lethal Injection Drugs*, AP NEWS (Jan. 20, 2025, at 19:10 PT), https://apnews.com/article/federal-executions-trump-d9b15ffc1db366a717f2f605330999e8 [https://perma.cc/Z6JT-Y85C].

9 *See* 408 U.S. 238, 239–40 (1972) (per curiam).

10 *See id.* at 248–49 (Douglas, J., concurring).

11 *Id.* at 246–47.

12 *See* United States v. Purkey, 428 F.3d 738, 748–49 (8th Cir. 2005); *but see* United States v. Frank, 8 F. Supp. 2d 253, 264 (S.D.N.Y. 1998).

13 *See* Baker, *supra* note 2; Rebecca Morin, *'They Admitted Their Guilt': 30 Years of Trump's Comments About the Central Park Five*, USA TODAY (June 20, 2019, at 6:14 ET), https://www.usatoday.com/story/news/politics/2019/06/19/what-trump-has-said-central-park-five/1501321001/ [https://perma.cc/6NLZ-P7BV]; J. Richard Broughton, *The Federal Death Penalty, Trumpism, and Civil Rights Enforcement*, 67 AM. U. L. REV. 1611, 1621 (2018); Lee Kovarsky, *The Trump Executions*, 100 TEX. L. REV. 622, 623–24 (2022); Garland Memorandum, *supra* note 4.

through the Federal Death Penalty Act of 1984 (FDPA),[14] meaningful review of death-seeking decisions remains absent, resulting in irrational disparities by race, geography, and prosecutorial preference.[15] As Justice Stewart once warned, the death penalty cannot be imposed so "wantonly and so freakishly" that it resembles being struck by lightning.[16] That warning now echoes through a system where the imposition of death reflects not the facts of a case, but the will of the President.

Part IV shifts focus to the structural deficiencies that permit federal executions to proceed with minimal checks on executive power. It identifies two central flaws: (1) the erosion of prosecutorial independence under political pressure,[17] and (2) the FDPA's delegation of authority without sufficient legislative oversight.[18] This Part begins by exploring how unchecked discretion, particularly when driven by presidential demands, undermines the objectivity and fairness required by due process.[19] It then turns to the statutory structure of the FDPA, demonstrating how gaps in its design allow the executive branch to impose and implement the death penalty without meaningful accountability.[20] In doing so, this Part exposes how federal capital punishment has been permitted to drift from its constitutional moorings, not through defiance of law, but through exploitation of its silences.

Part V concludes by proposing legislative reform, drawing on the Sentencing Reform Act of 1984 and the Military Commissions Act of 2006 to illustrate Congress's capacity to construct stable, principled frameworks in high-stakes areas of criminal law.

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14 *See* United States v. Catalan Roman, 376 F. Supp. 2d 108, 111 (D.P.R. 2005).

15 *See* Glossip v. Gross, 576 U.S. 863, 918–19 (2015) (Breyer, J., dissenting); *The 2% Death Penalty: The Geographic Arbitrariness of Capital Punishment in the United States*, DEATH PENALTY INFO. CTR. [hereinafter *2% Death Penalty*], https://deathpenaltyinfo.org/stories/the-clustering-of-the-death-penalty [https://perma.cc/F843-E7AT].

16 *Furman*, 408 U.S. at 309–10 (Stewart, J., concurring).

17 *See* Garland Memorandum, *supra* note 4; Exec. Order No. 14164, 90 Fed. Reg. 8463, 8463 (Jan. 20, 2025).

18 *See* Federal Death Penalty Act, 18 U.S.C. §§ 3591–98; *see also* United States v. Purkey, 428 F.3d 738, 748–50 (8th Cir. 2005) (demonstrating litigation resulting from the questions of law presented by the unclear constitutionality and scope of authority delegated to the executive branch by the FDPA); Mitchell v. United States, 140 S. Ct. 2624, 2625 (2020) (questioning whether the "manner prescribed" by the FDPA includes procedures set forth by a state agency's execution protocol and remarking that clarification of the FDPA is needed).

19 *See* Garland Memorandum, *supra* note 4; Exec. Order No. 14164, 90 Fed. Reg. at 8463–64.

20 *See Mitchell*, 140 S. Ct. at 2625; *Purkey*, 428 F.3d at 748.

These statutes serve as workable models, having been structured to reduce disparity, enhance accountability, and reassert constitutional consistency.[21]

II. THE COLLAPSE OF STABILITY

This Part traces the shifting trajectory of federal capital punishment across recent presidential administrations. It begins by examining President Obama's cautious approach, characterized by dormancy without abolition, then turns to Trump's first term, which aggressively revived and expanded federal executions. It next considers Biden's moratorium and limited clemency, revealing the fragility of reforms rooted in executive action alone, before addressing Trump's second term, which formalized and reinforced capital enforcement policies. Together, these case studies illustrate how the federal death penalty has become a volatile, politically driven system, dependent not on consistent legal principles but on the ideology of whoever holds the presidency.

A. Obama: Dormancy Without Abolition

During Obama's presidency from 2008 to 2016, the federal death penalty remained legally in place but dormant, as no executions were carried out during his administration.[22] The last federal execution before Obama's presidency occurred in 2003, and the long hiatus stemmed in part from litigation surrounding the government's execution protocols.[23] In 2014, following a botched state execution in Oklahoma,[24] Obama called the inci-

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21 *See* 28 U.S.C. § 991(b)(1)(B); U.S. SENT'G GUIDELINES MANUAL § 1A1.3 (U.S. SENT'G COMM'N 2021); Hamad v. Gates, 732 F.3d 990, 998–99 (9th Cir. 2013); *In re* Al-Nashiri, 835 F.3d 110, 115 (D.C. Cir. 2016); Boumediene v. Bush, 553 U.S. 723, 738–39 (2008).

22 Carlisle, *supra* note 2.

23 *Id.*

24 *Oklahoma Botches Execution of Clayton Lockett*, DEATH PENALTY INFO. CTR.: NEWS (Mar. 14, 2025), https://deathpenaltyinfo.org/oklahoma-botches-execution-of-clayton-lockett [https://perma.cc/PQ4E-A4RF]. On April 29, 2014, Oklahoma inmate Clayton Lockett suffered a fatal heart attack roughly forty minutes after officials began carrying out a revised lethal injection protocol. *Id.* Lockett was given midazolam, the initial drug in a three-drug sequence, at 6:23 p.m. *Id.* Although he was declared unconscious by 6:33 p.m., witnesses soon noticed him moving, mumbling, and reacting on the execution table just minutes later, with some observers comparing his motions to a seizure. *Id.* Lockett was pronounced dead from a severe heart attack at 7:06 p.m. *Id.* A spokesperson for the Oklahoma Department of Corrections, Jerry Massie, explained that it appeared a vein had ruptured or collapsed, preventing the drugs from properly entering Lockett's bloodstream. *Id.* In response, Governor Mary Fallin put a temporary halt on the execution of Charles Warner, which had been set for later that evening, and requested a full investigation into the execution process to understand what went wrong. *Id.*

dent "deeply disturbing" and directed the Department of Justice (DOJ) to review the administration of capital punishment.[25] While Obama continued to support the death penalty in extreme cases,[26] he raised concerns about racial disparities, wrongful convictions, and the reliability of lethal injection—reinforcing a cautious, restrained federal approach during his presidency.[27] Then-Attorney General Eric Holder, though personally opposed to the death penalty, acknowledged that his views did not represent the official position of the Obama administration.[28] In his 2013 American Bar Association address, Holder expressed broader concerns about punitive excess, mass incarceration, and racial disparities in sentencing.[29] His emphasis on proportionality, systemic fairness, and moral restraint reflects a deeper skepticism of capital punishment as consistent with a just and modern criminal justice system.[30] In contrast to Holder's more critical perspective, his successor, Attorney General Loretta Lynch, maintained a more conventional approach to the federal death

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25 Baker, *supra* note 2 (reporting that Obama initiated a DOJ review following a botched execution in Oklahoma, expressing concerns about racial disparities and wrongful convictions while maintaining support for the death penalty in extreme cases).

Senior DOJ officials explored declaring a formal moratorium due to medical uncertainty surrounding lethal injection drugs, but the proposal ultimately stalled due to political caution and internal disagreement. *Id.* The administration also faced logistical concerns about what to do with inmates already on federal death row, and some advisors warned that a sweeping policy change might provoke backlash and undermine growing bipartisan opposition to the death penalty at the state level. *Id.*

26 Mark Berman, *The Justice Dept. Is Seeking Its First Federal Death Sentences Under Sessions and Expects More to Follow*, WASH. POST (Jan. 9, 2018), https://www.washingtonpost.com/news/post-nation/wp/2018/01/09/the-justice-department-is-seeking-its-first-federal-death-sentences-under-sessions-and-expects-more-to-follow/ [https://perma.cc/9XET-RQMU] (clarifying that the Obama administration nonetheless pursued and secured death sentences in prominent cases including those of Dzhokhar Tsarnaev, responsible for the Boston Marathon bombing, and Dylann Roof, who carried out the mass shooting at a Charleston, South Carolina church).

27 Baker, *supra* note 2.

28 Josh Gerstein, *Holder Backs Death Penalty Moratorium*, POLITICO: UNDER THE RADAR (Feb. 18, 2015, at 9:06 ET), https://www.politico.com/blogs/under-the-radar/2015/02/holder-backs-death-penalty-moratorium-202716 [https://perma.cc/A94D-ETFP].

29 Eric H. Holder, Jr., U.S. Dep't of Just., Attorney General Eric Holder Delivers Remarks at the Annual Meeting of the American Bar Association's House of Delegates (Aug. 12, 2013), https://www.justice.gov/archives/opa/speech/attorney-general-eric-holder-delivers-remarks-annual-meeting-american-bar-associations [https://perma.cc/YZ7A-XYPE].

30 *See id.* (calling for sweeping criminal justice reform, criticizing mass incarceration as unsustainable, and denouncing racial disparities in sentencing as "shameful").

Holder emphasized that the system too often imposes harsh punishments—including long prison terms—for reasons unrelated to public safety, and urged a shift toward fairness, proportionality, and rehabilitation. *Id.* His framing reflects deep skepticism of extreme punishments like the death penalty in a system he viewed as morally and structurally compromised. *Id.*

penalty, affirming its use in high-profile cases where the facts, in her words, "compelled" such action.[31]

B. Trump I: Policy Revival and Expanded Use

It is no secret that Trump is an advocate for the death penalty.[32] From the outset of his first presidency, Trump's administration signaled a likely expansion of the federal death penalty, with expectations that it would preserve, and possibly strengthen, capital punishment through strategic appointments to the DOJ and the federal judiciary.[33] Legal scholars widely predicted that his presidency would halt any momentum toward judicial abolition and entrench capital punishment as a political and punitive tool.[34] His long-standing and vocal support, rooted in populist appeal, dehumanizing rhetoric, and distrust of experts, stood in sharp contrast to the constitutional principles of individualized sentencing, scientific credibility, and fundamental human dignity underlying the Eighth Amendment.[35] Prior to Trump's presidency, federal executions had been extremely rare: only three were carried out since the federal death penalty's reinstatement in 1988—all under President George W. Bush—including the execu-

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31 Press Release, U.S. Dep't of Just., Attorney General Loretta E. Lynch Statement on the Case of Dylann Roof (May 24, 2016), https://www.justice.gov/opa/pr/attorney-general-loretta-e-lynch-statement-case-dylann-roof [https://perma.cc/4AHP-AXG8] ("Following the department's rigorous review process to thoroughly consider all relevant factual and legal issues, I have determined that the Justice Department will seek the death penalty. The nature of the alleged crime and the resulting harm compelled this decision."); *see* Luke C. Beasley & William D. Ferraro, Note, *How the Obama Administration Used Retroactivity to Advance Its Sentencing Priorities*, 53 HARV. C.R.-C.L. L. REV. 259, 262–63 (2018) (illuminating how Holder viewed mandatory minimums as contributing to unjust and excessive sentences and and how he instructed that recidivist enhancements be avoided except in extreme circumstances).

Beasley and Ferraro note that these reforms were broadly implemented within the DOJ and aligned with the Obama administration's "smart on crime" agenda, which the President credited to Holder's leadership. *Id.*

32 *See* Morin, *supra* note 13. Donald Trump's one-page advertisement about the Central Park Five serves as a well-documented illustration of his advocacy for the death penalty going back to 1989. *Id.* Following the attack on a jogger in Central Park, Trump paid for full-page ads in major New York newspapers, explicitly urging the return of capital punishment in New York State. *Id.* The ads, titled "BRING BACK THE DEATH PENALTY," pushed for severe punishment of the accused. *Id.* Even though DNA evidence and a confession from the true perpetrator later cleared the five teenagers, Trump has never apologized for these ads and, even decades later, continues to defend his position and assert the guilt of the Central Park Five, despite their exoneration. *Id.*

33 Broughton, *supra* note 13.

34 *See* Chance Meyer, *Death Penalty "Trump Effect,"* 9 LAW J. FOR SOC. JUST. 65, 70 (2018).

35 *See id.* at 76.

tion of the Oklahoma City Bomber, Timothy McVeigh.[36] From 2003 until 2020, no federal executions occurred at all.[37] This punitive orientation would soon take clearer shape through official policy initiatives. One of the earliest and most prominent initiatives came in the context of the opioid crisis.[38] Trump declared the opioid epidemic "the worst drug crisis in American history," framing it as both a "public health emergency" and a national tragedy that warranted aggressive federal enforcement and punishment.[39] Echoing this punitive stance, Trump told supporters at a 2018 rally in Pennsylvania that drug dealers "kill thousands of people" and often "go to jail for 30 days," suggesting that the country should "start thinking about" the death penalty for such crimes.[40] He praised countries like Singapore and China for their tough drug policies and insisted that "the only way to solve the drug problem is through toughness."[41] His preference for swift and severe punishment extended beyond drug crimes. Following the 2017 New York City truck attack, Trump tweeted that the suspect, Sayfullo Saipov, "SHOULD GET DEATH PENALTY!" and later added, "Should move fast. DEATH PENALTY!"[42]

That broader retributive posture was reflected in then-Attorney General Jeff Sessions' Memorandum (Sessions Memorandum), which encouraged federal prosecutors to pursue capital

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36 Holly Honderich, *In Trump's Final Days, a Rush of Federal Executions*, BBC (Jan. 15, 2021), https://www.bbc.com/news/world-us-canada-55236260 [https://perma.cc/J8UY-CL55].

37 *Id.*

38 *See* Remarks on Signing a Memorandum on Combatting the National Drug Demand and Opioid Crisis, 2017 DAILY COMP. PRES. DOC. 201700787 (Oct. 26, 2017).

39 *Id.* In his public remarks, Trump emphasized the devastating scale of the crisis, noting that drug overdoses had become the leading cause of unintentional death in the United States. *Id.* He called the epidemic a "national shame" and stated, "We must stop the flow of all types of illegal drugs into our communities." *Id.* He praised the DOJ for indicting major traffickers and asserted that "illegal drug use is not a victimless crime," pledging to pursue "very major lawsuits" against companies and individuals fueling the epidemic. *Id.* These statements aligned with the administration's retributive posture and its emphasis on capital prosecution in drug-related cases. *See id.*

40 Lizzie Dearden, *Donald Trump Says US Should Consider Giving Drug Dealers Death Penalty in Pennsylvania Speech*, INDEP. (Mar. 11, 2018, at 14:06 GT), https://www.independent.co.uk/news/world/americas/us-politics/donald-trump-drug-dealers-death-penalty-speech-saccone-north-korea-steel-a8250076.html [https://perma.cc/DC68-G6GB].

41 *Id.*

42 Benjamin Weiser, *In Truck Attack Case, an Unlikely Complication: Trump's Tweets*, N.Y. TIMES (Sept. 6, 2018), https://www.nytimes.com/2018/09/06/nyregion/truck-attack-trump-tweets.html [https://perma.cc/7YF5-9XB8].

punishment in certain drug-related cases.[43] Sessions framed the opioid crisis as a "deadly epidemic" and cast "[d]rug traffickers, transnational criminal organizations, and violent street gangs" as central contributors to the devastation.[44] He called on federal prosecutors to deploy "every lawful tool at their disposal," including enhanced coordination, data-driven enforcement, and both civil and criminal remedies against opioid manufacturers and distributors.[45] The Sessions Memorandum referenced several federal statutes: 18 U.S.C. § 1959, which authorizes the death penalty for murder committed to gain entrance to, maintain, or advance position in a racketeering enterprise;[46] 18 U.S.C. § 924(j)(1), which permits capital punishment when death results from the use of a firearm during a drug trafficking crime or crime of violence;[47] 21 U.S.C. § 848(e)(1)(A), which authorizes the death penalty for intentional killings committed in furtherance of a continuing criminal enterprise involving drug trafficking;[48] and 18 U.S.C. § 3591(b)(1), which allows for capital punishment in drug offenses involving exceptionally large quantities of controlled substances where the defendant acted with specific intent.[49] Despite public perception, the Sessions Memorandum did not alter the formal process for pursuing capital punishment.[50] Under the DOJ's death penalty protocol, only the Attorney General may authorize the government to seek the death penalty; U.S. Attorneys are limited to making recommendations following the Capital Review Committee submission.[51] Thus, while the Sessions Memorandum encouraged greater attention to existing capital statutes, it did not confer unilateral authority.[52] Instead, it reflected the administration's broader commitment to more aggressive use of the federal death penalty.[53] The Congressional Research Service (CRS) confirms that the DOJ's use of the feder-

43 *See* Memorandum from Jefferson Sessions, Att'y Gen., U.S. Dep't of Just., to U.S. Att'ys 1 (Mar. 20, 2018) [hereinafter Sessions Memorandum], https://www.justice.gov/archives/opa/press-release/file/1045036/dl?inline [https://perma.cc/LSD8-A78S].

44 *Id.*

45 *Id.*

46 18 U.S.C. § 1959.

47 § 924(j)(1).

48 21 U.S.C. § 848(e)(1)(A).

49 18 U.S.C. § 3591(b)(1).

50 *See* J. Richard Broughton, *The Opioid Crisis and the Federal Death Penalty*, 70 S.C. L. REV. 611, 617 (2019).

51 U.S. Dep't of Just., U.S. Att'ys' Manual § 9-10.130 (2020) [hereinafter U.S. Att'ys' Manual].

52 *See* Broughton, *supra* note 50, at 618.

53 *Id.*

al death penalty is governed by the FDPA and the internal protocol of the DOJ, including the Attorney General's final authority.[54] As such, no statutory amendments were required to activate this shift in federal executions, underscoring how dependent federal death enforcement remains on executive discretion rather than legislative reform.[55]

That commitment to reviving the federal death penalty culminated formally in July 2019, when Attorney General William Barr announced the resumption of federal executions after a nearly two-decade lapse.[56] Citing Congress's express authorization of capital punishment and emphasizing the need to "carry forward the sentence imposed by our justice system," Barr directed the Federal Bureau of Prisons to adopt a revised federal execution protocol.[57] This revision, formalized in a 2019 Addendum to the protocol (2019 Addendum), replaced the prior three-drug procedure with a single-drug method using pentobarbital, a change modeled on practices in several death penalty states and upheld by federal courts as consistent with the Eighth Amendment.[58] As noted in the administrative record, the new protocol specified three injections: two syringes containing 2.5 grams of pentobarbital in 50 milliliters of diluent each, followed by a 60 milliliter saline flush.[59] However, the protocol made no mention of the drug's form or source, nor did it include any quality control measures.[60] It also gave broad discretion to the Bureau of Prisons Director to determine the method of venous access, stating only that if peripheral access is used, two separate lines must be inserted and determined to be patent by qualified personnel.[61]

Barr also ordered the scheduling of executions for five death-row inmates[62] convicted of especially brutal crimes, describing

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54 LISA N. SACCO, CONG. RSCH. SERV., IN11474, THE FEDERAL DEATH PENALTY: RECENT DEVELOPMENTS 2 (2020).

55 *See id.*

56 Press Release, U.S. Dept. of Just., Federal Government to Resume Capital Punishment After Nearly Two Decade Lapse (July 25, 2019) [hereinafter Cap. Punishment Press Release], https://www.justice.gov/archives/opa/pr/federal-government-resume-capital-punishment-after-nearly-two-decade-lapse [https://perma.cc/V648-GQ5C].

57 *Id.*

58 *Id.*

59 *In re* Fed. Bureau of Prisons' Execution Protocol Cases (*Fed. Bureau II*), 471 F. Supp. 3d 209, 215–16 (D.D.C. 2020), *vacated*, 591 U.S. 979 (2020).

60 *Id.* at 216.

61 *Id.* at 215–16.

62 Tessa Stuart, *William Barr Orders Executions for 5 Prisoners, First Use of Federal Death Penalty in 16 Years*, ROLLING STONE (July 25, 2019),

them as "the most horrific," including murders involving children, the elderly, and acts of sexual violence and torture.[63] Each of the inmates, the DOJ noted, had exhausted legal remedies, clearing the way for executions to begin at the federal facility in Terre Haute, Indiana.[64] That announcement laid the groundwork for what followed in 2020, when the Trump administration carried out the first federal executions in seventeen years.[65] With the revised protocol in place, the government implemented the use of single-drug pentobarbital and proceeded to execute ten individuals over the course of six months—more than in any year since 1896.[66] The first of these, Daniel Lewis Lee, was executed on July 14, 2020.[67] His execution marked the beginning of an unprecedented and intensely active period in modern federal death penalty history. By the end of Trump's term, the federal government had executed thirteen people—a total surpassing the number of federal executions carried out in the previous five decades combined.[68]

Lee's execution also marked the start of a troubling procedural trend: the Supreme Court repeatedly intervened to lift stays of execution and allow the government to carry out sentences before the legal claims had been fully adjudicated.[69] In Lee's case, the U.S. District Court for the District of Columbia found that he and several others were likely to succeed on their Eighth Amendment claims challenging the use of compounded pentobarbital and issued a preliminary injunction.[70] The D.C. Circuit declined to lift the injunction, acknowledging the constitutional issues were novel and serious.[71] But just hours before the scheduled execution, the Supreme Court summarily vacated the injunction in a brief order, emphasizing that pentobarbital had been used in prior executions without incident.[72] The Court

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https://www.rollingstone.com/politics/politics-news/william-barr-orders-executions-first-use-of-federal-death-penalty-in-16-years-862464/ [https://perma.cc/T88L-WLH3].

63 Cap. Punishment Press Release, *supra* note 56.

64 *Id.*

65 *See* Carlisle, *supra* note 2.

66 *Id.*

67 Kovarsky, *supra* note 13, at 622.

68 *Id.*

69 *See* Dan Noble, *Thirteen Federal Executions Under the Trump Administration: What Was the Constitutional Price?*, 37 W. MICH. U. COOLEY L. REV. 15, 29–30 (2022).

70 *See Fed. Bureau II*, 471 F. Supp. 3d 209, 219 (D.D.C. 2020), *vacated*, 591 U.S. 979 (2020).

71 Josh Gerstein, *Trump Administration Carries Out First Federal Execution in 17 Years*, POLITICO (July 14, 2020, at 07:13 ET), https://www.politico.com/news/2020/07/14/supreme-court-federal-execution-injunction-360490 [https://perma.cc/WWQ4-656A].

72 *See* Barr v. Lee, 591 U.S. 979, 980–81.

acknowledged conflicting expert testimony about the drug's effects, particularly whether it causes pulmonary edema while the prisoner is still conscious, but deemed those disputes insufficient to block the government's request.[73] Lee was executed shortly after the decision was issued.[74] What followed was a surge culminating in a controversial string of executions carried out during the presidential transition, departing from a 130-year tradition of pausing executions during changes in administration.[75] These executions—many conducted under accelerated timelines—raised significant concerns about due process, mental competency, and public health risks during the COVID-19 pandemic.[76] The CRS also notes that in late 2020, the DOJ expanded methods of execution to include alternatives such as electrocution, lethal gas, and firing squad, illustrating the administration's willingness to broaden federal enforcement tools far beyond lethal injection alone.[77]

In *United States v. Higgs*, Justice Sotomayor, in her dissent, condemned the Supreme Court for facilitating the government's unprecedented rush to carry out executions.[78] She argued that the Court repeatedly shut down credible legal challenges from prisoners and actively dissolved stays imposed by lower courts, ensuring that inmates were denied any real chance to have their claims properly heard.[79] These sweeping, life-or-death decisions were made on an emergency basis, with little briefing or deliberation, often in a matter of hours, and almost never with a meaningful explanation.[80] Sotomayor charged that the Court went even further, blocking lower courts from addressing critical legal questions.[81] She pointed to the case of Lisa Montgomery, whose stay of execution granted by the D.C. Circuit was vacated without explanation, leading to her execution only hours later.[82] Sotomayor stressed it was the government, not the prisoners, that had manufactured a false sense of urgency by pushing forward with executions under a contested protocol, manipulating the

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73 *Id.* at 981.

74 *See* Kovarsky, *supra* note 13, at 622.

75 *See* Honderich, *supra* note 36.

76 *See* Carlisle, *supra* note 2.

77 *See* LISA N. SACCO, CONG. RSCH. SERV., IN11474, THE FEDERAL DEATH PENALTY: RECENT DEVELOPMENTS 2 (2020).

78 141 S. Ct. 645, 647 (2021) (Sotomayor, J., dissenting).

79 *Id.*

80 *Id.*

81 *Id.* at 649.

82 *Id.*

process to shut down standard judicial review, a strategy the Court permitted without hesitation.[83] Sotomayor also highlighted the disturbing evidence of Montgomery's dissociative psychotic state, so severe that she could not comprehend why she was being executed.[84] According to Sotomayor, these grave constitutional concerns would never be resolved because the Court signed off on the government's relentless timetable.[85] Sotomayor concluded: "[T]he Court has allowed the United States to execute thirteen people in six months under a statutory scheme and regulatory protocol that have received inadequate scrutiny, without resolving the serious claims the condemned individuals raised. Those whom the Government executed during this endeavor deserved more from this Court."[86]

C. Biden: Moratorium and Limited Review

Despite the unprecedented pace of executions carried out under Trump's first administration following the 2019 Addendum to the Federal Execution Protocol, that resurgence in federal capital punishment proved short-lived. Within six months of Trump's departure, the Biden administration announced a pause on federal executions, halting the use of capital punishment at the federal level.[87] In July 2021, then-Attorney General Merrick Garland issued a memorandum (Garland Memorandum) formally imposing a moratorium and suspending use of the Barr Addendum pending review.[88] Garland's directive marked a stark institutional shift: while not repudiating capital punishment outright, Garland emphasized the DOJ's duty to "treat individuals humanely and avoid unnecessary pain and suffering."[89] It acknowledged that although the use of pentobarbital had been upheld by the Supreme Court, it still raised "important questions about our responsibility" to ensure humane treatment.[90]

The Garland Memorandum also acknowledged widespread concerns about the fairness and reliability of the federal death penalty, citing "arbitrariness in its application, disparate impact on people of color, and the troubling number of exonerations in

83 *Id.* at 650.
84 *Id.* at 651.
85 *Id.* at 652.
86 *Id.*
87 *See* Kovarsky, *supra* note 13, at 623–24.
88 Garland Memorandum, *supra* note 4.
89 *Id.*
90 *Id.*

capital and other serious cases."[91] Beyond the protocol itself, the same memorandum called for reassessment of the November 2020 regulation changes and the late-stage amendments to the Justice Manual, both of which had been used to expand methods of execution and accelerate the pace of federal killings in the final months of the Trump administration.[92]

Although framed as a principled stand, the Garland Memorandum did not represent a permanent resolution, nor did it dismantle the machinery of execution reactivated under Trump. Instead, it highlighted the deep political contingency at the heart of federal death penalty enforcement. One administration reignited executions after a nearly two-decade hiatus; the next halted them within months. Nothing, legally or structurally, prevents a future administration from reversing course yet again. In this way, the moratorium served less as a durable reform than as a reminder of how profoundly the administration of death now depends on who holds executive power. The policy lacks coherence and constitutional evolution; it is a reactive and reversible system shaped less by principled reform than by the ideological orientation of the executive branch. Garland's call for review may have been framed as a return to "fairness and humane treatment,"[93] but absent structural reform, it risks becoming a temporary deviation rather than a meaningful reckoning.[94] Notably, the Garland Memorandum does not call for the abolition of capital punishment, nor does it recommend legislation to repeal the FDPA,[95] leaving the future of federal executions subject to executive discretion. That very dependence underscores the arbitrariness of the system: its operation fluctuates not through constitutional guidance or legislative consensus, but through administrative preference.

Biden's April 2024 decision to commute the sentences of thirty-seven of the forty individuals on federal death row[96] highlights the ongoing volatility in the administration of federal capital punishment. The commutations came shortly before President-

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91 *Id.*

92 *Id.* at 2.

93 *Id.* at 1.

94 *See* STEIKER & STEIKER, *supra* note 7 (discussing the fragility of death penalty reform and its dependency on political leadership); LISA N. SACCO, CONG. RSCH. SERV., IN11474, THE FEDERAL DEATH PENALTY: RECENT DEVELOPMENTS 2 (2020) (noting policy shifts between administrations).

95 *See* Garland Memorandum, *supra* note 4.

96 Biden Statement, *supra* note 5; White House Fact Sheet, *supra* note 5.

elect Trump, an advocate for expanding capital punishment, was set to take office.[97] While consistent with the Biden administration's earlier moratorium,[98] the commutations, issued by executive action alone, reflect the same structural fragility: they can be reversed as easily as they were imposed. Biden acknowledged the severity of the crimes and expressed sympathy for the victims but declared that "we must stop the use of the death penalty at the federal level" and that he could not "stand back and let a new administration resume executions that [he] halted."[99]

Like presidents before him, Biden turned to his clemency power, a tool historically capable of stopping individual executions.[100] Article II, Section 2 of the United States Constitution provides, "The President . . . shall have Power to grant Reprieves and Pardons for Offences against the United States, except in Cases of Impeachment."[101] This expansive clemency power permits presidents to unilaterally reduce or eliminate federal sentences,[102] but it remains a discretionary act of mercy, not a durable safeguard against the arbitrary and reversible nature of federal capital punishment. In contrast, the authority to enact lasting reform lies with Congress.[103] As the CRS notes, Congress retains the authority to modify, reaffirm, or repeal capital stat-

97 Will Weissert & Darlene Superville, *Biden Gives Life in Prison to 37 of 40 Federal Death Row Inmates Before Trump Can Resume Executions*, AP NEWS (Dec. 23, 2024, at 15:11 PT), https://apnews.com/article/biden-death-row-commutations-trump-executions-f67b5e04453cd1aa6383c516bc14f300 [https://perma.cc/W95A-D95E]. The individuals spared had been convicted of a range of federal killings, including the murders of law enforcement and military personnel, killings on federal property, and deaths resulting from violent drug or robbery-related crimes. *Id.* Three inmates remain on federal death row: Dylann Roof, responsible for the racially motivated murder of nine churchgoers in Charleston in 2015; Dzhokhar Tsarnaev, the Boston Marathon bomber; and Robert Bowers, who committed the 2018 Pittsburgh synagogue shooting—the deadliest antisemitic attack in U.S. history. *Id.* Biden's decision followed growing pressure from advocacy groups urging him to act preemptively to limit Trump's capacity to revive the federal death penalty. *Id.* The announcement also came days after Biden issued a record-setting single-day clemency order, commuting the sentences of roughly 1,500 individuals released during the COVID-19 pandemic and thirty-nine others convicted of nonviolent offenses. *Id.* It also followed his post-election pardon of his son, Hunter Biden, a move that generated political controversy and sparked speculation about the potential for broader preemptive pardons ahead of Trump's return to office. *Id.*

98 Biden Statement, *supra* note 5; White House Fact Sheet, *supra* note 5.

99 Biden Statement, *supra* note 5; White House Fact Sheet, *supra* note 5.

100 *See* Margaret Colgate Love, *The Twilight of the Pardon Power*, 100 J. CRIM. L. & CRIMINOLOGY 1169, 1169 (2010).

101 U.S. CONST. art. II, § 2, cl. 1.

102 *See* Schick v. Reed, 419 U.S. 256, 266 (1974).

103 LISA N. SACCO, CONG. RSCH. SERV., IN11474, THE FEDERAL DEATH PENALTY: RECENT DEVELOPMENTS 2 (2020).

utes,[104] and proposals have been introduced both to abolish the death penalty and to expand it, including adding fentanyl-related offenses and killings of first responders as capital crimes.[105] Yet none of these efforts has resolved the broader question of consistency or constitutional stability. But in the absence of congressional action, federal execution policy remained vulnerable to political reversal.

D. Trump II: Formal Reinstitution and Enforcement

Trump was elected to a second term as President in November 2024.[106] His campaign had centered on restoring the death penalty and reversing what he described as a collapse of law and order under the prior administration.[107] Trump's 2025 Executive Order, *Restoring the Death Penalty and Protecting Public Safety* (*Trump Order*),[108] illustrates with unusual clarity the instability at the core of the modern federal capital punishment regime. Signed on the first day of his return to office,[109] the *Trump Order* declares that capital punishment is "an essential tool for deterring and punishing" violent crime and laments that "politicians and judges who oppose capital punishment have defied and subverted the laws of our country."[110] The *Trump Order* directs the Attorney General to "pursue the death penalty for all crimes of a

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104 *Id.*

105 *Id.* at 2–3.

106 *Donald J. Trump*, WHITE HOUSE, https://www.whitehouse.gov/administration/donald-j-trump/ [https://perma.cc/EYR9-GAE3] (last visited Sep. 25, 2025).

107 Erik Ortiz, *Trump Wants to Expand the Federal Death Penalty, Setting Up Legal Challenges in Second Term*, NBC NEWS (Nov. 9, 2024, at 04:00 PT), https://www.nbcnews.com/politics/2024-election/trump-wants-expand-federal-death-penalty-setting-legal-challenges-seco-rcna178979 [https://perma.cc/HU5D-FZVG].

108 Exec. Order No. 14164, 90 Fed. Reg. 8463, 8463–64 (Jan. 20, 2025). The *Trump Order* is divided into six substantive sections. *Id.* Section 1 defends capital punishment as a traditional and essential tool for punishing and deterring the most serious crimes, while condemning politicians, judges, and the prior administration for obstructing its use. *Id.* at 8463. Section 2 establishes a federal policy of fully enforcing the death penalty and resisting efforts to weaken it. *Id.* Section 3 directs the Attorney General to aggressively pursue capital punishment in all eligible cases, especially those involving the murder of law enforcement officers or committed by undocumented immigrants, and to reexamine the conditions and potential further prosecution of the thirty-seven individuals whose sentences were commuted by Biden. *Id.* at 8463–64. Section 4 instructs the Attorney General to ensure states have adequate lethal injection supplies and to manage requests for execution procedure approvals. *Id.* at 8464. Section 5 requires the Attorney General to seek the overruling of Supreme Court precedents that restrict federal or state use of the death penalty. *Id.* Finally, Section 6 emphasizes prioritization of violent crime prosecutions and encourages state and local prosecutors to adopt parallel policies, while coordinating with federal law enforcement to combat transnational crime. *Id.*

109 Richer, *supra* note 8.

110 Exec. Order No. 14164, 90 Fed. Reg. at 8463.

severity demanding its use," to revise the Justice Manual, and to explore whether individuals whose sentences were previously commuted can be subject to "State capital crimes."[111] It further mandates efforts to "seek the overruling of Supreme Court precedents that limit the authority of State and Federal governments to impose capital punishment."[112] Notably, the *Trump Order* also directs the Attorney General to "take all necessary and lawful action" to assist states in acquiring the drugs needed for lethal injection.[113] These provisions collectively signal an intent to consolidate executive influence over the death penalty, not only at the federal level but through coordinated engagement with state systems.[114] Consequently, in this increasingly politicized environment, the continuation of executions is now tied directly to the results of an election.

The DOJ appeared to extend that same philosophy internally. On January 21, 2025, just one day after the *Trump Order* reinstating federal executions,[115] Acting Deputy Attorney General Emil Bove issued a memorandum (Bove Memorandum) titled *Interim Policy Changes Regarding Charging, Sentencing, and Immigration Enforcement*, pending confirmation of the Attorney General.[116] Framed as a response to transnational cartels, violent crime by undocumented immigrants, and the fentanyl crisis, the Bove Memorandum signals a renewed commitment to aggressive enforcement and immediate implementation of the President's Executive Orders.[117] At its core, the Bove Memorandum reaffirms the DOJ's commitment to pursuing "the most serious, readily provable offenses," including those punishable by death and those carrying significant mandatory minimum sentences.[118] Prosecutorial discretion is expressly narrowed: any departure from this approach must be justified by "significant extenuating

111 *Id.* at 8463–64.

112 *Id.* at 8464.

113 *Id.*; *see* Richer, *supra* note 8.

114 *See* Exec. Order No. 14164, 90 Fed. Reg. at 8463–64; *see also* Ayden Runnels, *Texas Legislators Seek More Protections for Death Penalty Defendants in Wake of Trump Executive Order*, TEX. TRIB. (Jan. 30, 2025, at 05:00 CT), https://www.texastribune.org/2025/01/30/trump-texas-death-penalty-executive-order/ [https://perma.cc/6NNP-QCZ9] (noting that Executive Order 14164 provides states with a pathway to more executions).

115 *See* Exec. Order No. 14164, 90 Fed. Reg. at 8463.

116 *See* Memorandum from Emil Bove, Acting Deputy Att'y Gen., U.S. Dep't of Just., to All Dep't Emps., U.S. Dep't. of Just. 1 (Jan. 21, 2025) [hereinafter Bove Memorandum], https://www.fd.org/sites/default/files/public/News/memorandum-from-the-acting-deputy-attorney-general-01-21-2025.pdf [https://perma.cc/NGS7-YPD8].

117 *Id.*

118 *Id.* at 2.

circumstances."[119] It simultaneously rescinds any prior policy inconsistent with this standard,[120] effectively displacing the discretion-oriented guidance issued under Attorney General Merrick Garland.[121] While not mentioning capital punishment directly, the Bove Memorandum's emphasis on charging the most serious provable offenses narrows discretion in a way that may increase the likelihood of pursuing death-eligible charges when applicable.[122] In doing so, it complements the *Trump Order* issued the previous day[123] by creating a prosecutorial culture centered on maximum punishment and completing the structure necessary for restoring executions.

While the Bove Memorandum revived a punitive charging philosophy by narrowing prosecutorial discretion and emphasizing the "most serious, readily provable offenses,"[124] Attorney General Pam Bondi's February 5, 2025, memorandum (Bondi Memorandum) transformed that philosophy. The Bondi Memorandum, titled *Reviving the Federal Death Penalty and Lifting the Moratorium on Federal Executions*,[125] implemented Trump's Order by rescinding prior DOJ policies and mandating a comprehensive return to federal executions.[126] It explicitly lifted the moratorium imposed by Attorney General Merrick Garland in his July 1, 2021, memorandum, stating that "[w]hen a death sentence is imposed by a federal court, the Department will carry out its mandate to implement that sentence consistent with the

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119 *Id.*

120 *Id.*

121 *See id. See generally* Memorandum from Merrick Garland, Att'y Gen., U.S. Dep't of Just., to All Fed. Prosecutors, U.S. Dep't of Just. (Dec. 16, 2022), https://www.justice.gov/archives/ag/file/1265326/dl?inline [https://perma.cc/D4SB-MJE6] (emphasizing individualized judgment, proportionality, and restraint in federal prosecutions).

The memorandum reaffirmed that prosecutors must conduct an "individualized assessment" of charges based on factors including culpability, deterrent effect, personal circumstances, and available alternatives to federal prosecution. *Id.* at 1–2. It also cautioned against automatic use of charges carrying mandatory minimums, stating they should be pursued only when other charges "would not sufficiently reflect the seriousness of the defendant's criminal conduct." *Id.* at 3. Additionally, it instructed that prosecutors consider whether a sentence would be "sufficient, but not greater than necessary" under 18 U.S.C. § 3553(a), and required supervisory approval for mandatory minimum charges, plea agreements, and sentencing variances. *Id.* at 3–4.

122 Bove Memorandum, *supra* note 116, at 2.

123 *See id.*; Exec. Order No. 14164, 90 Fed. Reg. 8463, 8463 (Jan. 20, 2025).

124 Bove Memorandum, *supra* note 116, at 2.

125 Memorandum from Pamela Bondi, Att'y Gen., U.S. Dep't of Just., to All Dep't. Emps., U.S. Dep't of Just. 1 (Feb. 5, 2025) [hereinafter Bondi Memorandum], https://www.justice.gov/ag/media/1388561/dl?inline=&utm_medium=email&utm_source=govdelivery [https://perma.cc/FMW8-LL3X].

126 *Id.* at 2.

law."[127] Bondi directed that federal prosecutors "shall seek the death penalty . . . for the most serious, readily provable offenses," particularly in cases involving the murder of law enforcement officers or capital crimes committed by undocumented immigrants, absent significant mitigating circumstances.[128] The directive that prosecutors "shall seek the death penalty"[129] removes case-by-case judgment and effectively eliminates individualized prosecutorial discretion. If the Attorney General and federal prosecutors feel obligated to pursue the death penalty whenever the President demands it publicly, the internal review process loses credibility and becomes merely performative.[130] The Sessions Memorandum was reinstated and its scope expanded by Bondi to include not only drug-related prosecutions but also capital crimes committed by cartels, transnational criminal organizations, and individuals unlawfully present in the United States.[131] The Bondi Memorandum also directed a review of all no-seek decisions made between January 20, 2021, and January 19, 2025, with a focus on offenses tied to cartels, immigration status, and crimes within federal or tribal jurisdictions.[132] Bondi suspended all Justice Manual revisions made under the Biden administration for a forty-five day review and rescinded Garland's January 15, 2025, memorandum, which had directed the Bureau of Prisons to revoke the 2019 Barr Addendum to the federal execution protocol.[133] Additional directives called for strengthening internal capital enforcement mechanisms, accelerating finality in death cases, and seeking judicial reconsideration of "precedents that limit the authority of state and federal governments to impose capital punishment."[134] Bondi also instructed the Bureau of Prisons to coordinate with states in implementing executions and supplying lethal injection drugs.[135] Describing the Garland-era as one that "betrayed our sacred duty," the Bondi Memorandum reframed prosecutorial discretion as a threat to justice and restored

127 *Id.*

128 *Id.*

129 *Id.*

130 Broughton, *supra* note 13, at 1626.

131 Bondi Memorandum, *supra* note 125, at 2.

132 *Id.* at 3.

133 *Id.*; Memorandum from Merrick Garland, Att'y Gen., U.S. Dep't of Just., to the Dir., Fed. Bureau of Prisons 2 (Jan. 15, 2025), https://www.justice.gov/archives/media/1384571/dl [https://perma.cc/VUP5-8QJV].

134 Bondi Memorandum, *supra* note 125, at 3–4.

135 *See id.* at 4.

capital punishment.[136] That recommitment to aggressive capital enforcement swiftly materialized. On April 1, 2025, Bondi directed federal prosecutors to seek the death penalty in *United States v. Luigi Mangione*, a politically charged homicide case involving the December 4, 2024, killing of UnitedHealthcare executive Brian Thompson.[137] In her public statement, Bondi called it a "cold-blooded assassination" and emphasized that pursuing the death penalty was aligned with Trump's broader agenda to "Make America Safe Again."[138] The decision to seek capital punishment in such high-profile, politically symbolic cases exemplifies the administration's swift operationalization of its revised death penalty policies and illustrates how prosecutorial directives are now tightly synchronized with executive ideology. Yet Mangione is charged with the murder of a single victim and had no criminal record at the time of the alleged homicide,[139] in sharp contrast to other recent federal capital cases involving mass casualties, such as Sayfullo Saipo, who killed eight people but did not receive a death sentence,[140] and Payton Gendron, who killed

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136 *Id.* at 1.

137 *See* Press Release, Pamela Bondi, Att'y Gen., U.S. Dep't of Just., Attorney General Pamela Bondi Directs Prosecutors to Seek Death Penalty for Luigi Mangione (Apr. 1, 2025) [hereinafter Mangione Death Penalty Press Release], https://www.justice.gov/opa/pr/attorney-general-pamela-bondi-directs-prosecutors-seek-death-penalty-luigi-mangione [https://perma.cc/2X9X-CTAH]; *see also* Madeline Halpert & Mike Wendling, *Who Is Luigi Mangione, CEO Shooting Suspect?*, BBC (Apr. 25, 2025), https://www.bbc.com/news/articles/cp9nxee2r0do [https://perma.cc/5P6S-9LCG] (providing background on Mangione's identity and role as the alleged shooter).

138 Mangione Death Penalty Press Release, *supra* note 137.

139 Press Release, U.S. Att'y's Office, S. Dist. of N.Y., Luigi Mangione Charged With the Stalking and Murder of UnitedHealthcare CEO Brian Thompson and Use of a Silencer in a Crime of Violence (Dec. 19, 2024) [hereinafter Mangione Charged Press Release], https://www.justice.gov/usao-sdny/pr/luigi-mangione-charged-stalking-and-murder-unitedhealthcare-ceo-brian-thompson-and-use [https://perma.cc/X7WB-LBSW]; Andrew Hay, *Luigi Mangione: What We Know About Suspect in UnitedHealth CEO Shooting*, REUTERS (Dec. 9, 2024, at 18:23 PT), https://www.reuters.com/world/us/what-we-know-about-suspect-killing-unitedhealthcare-ceo-2024-12-10/ [https://perma.cc/F938-X487]. An Ivy League-educated defendant from a prominent Maryland family faces state murder charges for allegedly shooting a UnitedHealthcare executive outside a Manhattan hotel during the company's annual investor conference. Halpert & Wendling, *supra* note 137. In addition, Pam Bondi directed federal prosecutors to seek the death penalty, marking the first capital case initiated by the DOJ since Trump returned to office and renewed his push to resume federal executions. *Id.*; Kristin Wright, *Luigi Mangione's Case Marks a Shift in Politics of the Death Penalty in the U.S.*, NPR (Apr. 25, 2025, at 15:04 ET), https://www.npr.org/2025/04/25/g-s1-62736/luigi-mangione-death-penalty-white-house-capital-punishment [https://perma.cc/JN9N-2Q3N].

140 Press Release, U.S. Dept. of Just., Judge Imposes Eight Consecutive Life Sentences Plus 260 Years in Prison for ISIS-Inspired 2017 Murder of Eight Victims and Attempted Murder of 18 Others in NYC Truck Attack (May 17, 2023), https://www.justice.gov/archives/opa/pr/judge-imposes-eight-consecutive-life-sentences-plus-260-years-prison-isis-inspired-2017 [https://perma.cc/4U62-FGUV]. Saipov, an ISIS-

ten and awaits trial.[141] The choice to seek death against Mangione nonetheless underscores the administration's willingness to pursue capital punishment even in single-victim homicides[142] if the crime carries sufficient political or symbolic weight,[143] raising questions about proportionality and consistency in federal death penalty enforcement.

This aggressive approach also reflects Bondi's deeper, longstanding philosophy on capital punishment.[144] Bondi's support for Florida's Timely Justice Act[145] highlights her commitment to minimizing delay in capital cases: the Act expedites executions by requiring the Governor to sign a death warrant within 30 days of final review and carry out the execution within 180 days.[146] That same commitment was evident throughout her ear-

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inspired terrorist who was convicted on twenty-eight federal counts for a 2017 truck attack on a Manhattan bike path, killed eight people and injured over twenty others. *Id.* The charges included murder and attempted murder in aid of racketeering, material support to a terrorist organization resulting in death, and destruction of a motor vehicle causing death. *Id.* The court imposed eight consecutive life sentences, two concurrent life terms, and an additional 260 years in prison. *Id.*

141 Press Release, U.S. Dept. of Just., Federal Grand Jury Indicts Accused Tops Shooter on Federal Hate Crimes and Firearms Charges in Buffalo, New York (July 14, 2022) [hereinafter Accused Tops Shooter Press Release], https://www.justice.gov/archives/opa/pr/federal-grand-jury-indicts-accused-tops-shooter-federal-hate-crimes-and-firearms-charges [https://perma.cc/33XF-QT3K]; Aaron Katersky & Bill Hutchinson, *Gunman in 2022 Buffalo Mass Shooting Wants Federal Trial Moved to NYC*, ABC NEWS (Apr. 1, 2025, at 10:15 PT), https://abcnews.go.com/US/buffalo-mass-shooting-trial-payton-gendron-nyc-move/story?id=120374663 [https://perma.cc/C4P9-E54H]. On May 14, 2022, Payton Gendron allegedly carried out a racially motivated mass shooting at a Tops grocery store in Buffalo, New York, killing ten Black individuals and injuring three others. Accused Tops Shooter Press Release, *supra*. A federal grand jury later returned a twenty-seven-count indictment charging him with hate crimes and firearms offenses, including fourteen counts under the Shepard-Byrd Hate Crimes Prevention Act and thirteen related to firearm use. *Id.* The indictment cites substantial planning and premeditation, and the charges carry a potential sentence of life imprisonment or the death penalty, pending the Attorney General's decision. *Id.*

142 *See* Mangione Charged Press Release, *supra* note 139.

143 *See* Halpert & Wendling, *supra* note 137.

144 *See* Bondi Memorandum, *supra* note 125; Adolfo Pesquera, *Pam Bondi Opposes Petition Against Timely Justice Act*, LAW.COM (July 23, 2013, at 19:00 PT), https://www.law.com/dailybusinessreview/almID/1202611887362/ [https://perma.cc/G5A5-LPUV]; *see also* Abdool v. Bondi, 141 So. 3d 529, 536 (Fla. 2014) (illustrating Pam Bondi's long history of supporting the death penalty through her prior efforts to uphold Florida's accelerated capital punishment regime under the Timely Justice Act); JLPP, *Executive Overreach: Executive Orders and the Death Penalty in Florida*, HARV. C.R.-C.L. L. REV. AMICUS BLOG (Apr. 10, 2017), https://journals.law.harvard.edu/crcl/executive-overreach-executive-orders-and-the-death-penalty-in-florida/ [https://perma.cc/3B4A-F5N7].

145 Pesquera, *supra* note 144.

146 *Abdool*, 141 So. 3d at 536. Florida's Timely Justice Act of 2013 "was enacted to 'reduce delays in capital cases and to ensure that all appeals and postconviction actions in capital cases are resolved as soon as possible after the date a sentence of death is imposed

lier career.[147] Bondi's support for capital punishment long predates her tenure as U.S. Attorney General.[148] As Florida's Attorney General, Bondi publicly criticized State Attorney Aramis Ayala's announcement that she would not seek the death penalty in any case within her jurisdiction, describing Ayala's position as "a categorical policy decision" rather than a legitimate exercise of discretion.[149] Bondi framed Ayala's refusal as incompatible with Florida law and contrary to the will of voters, who had recently reaffirmed capital punishment through new legislation.[150] Her stance in that controversy[151] echoes the tone of her memorandum.[152] In this light, Bondi's federal directive mandating capital enforcement in all provable cases is not a departure, but a national extension of her long-standing legal and political philosophy.

III. *FURMAN*'S WARNING AND DUE PROCESS

This Part examines how the constitutional concerns first articulated in *Furman v. Georgia* remain relevant today, particularly regarding the arbitrary and inconsistent administration of federal capital punishment. It explores how modern executive practices have reintroduced discretionary distortions that undermine due process and fair application of the death penalty. By revisiting *Furman*'s emphasis on guided discretion, and evaluating the FDPA's procedural guarantees, this Part highlights how the federal death penalty has become increasingly vulnerable to

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in the circuit court.'" *Id.* (citing Florida's Timely Justice Act of 2013, ch. 2013-26, Fla. Laws, 1, 16). To achieve this purpose, the Act amended provisions across chapters 27, 922, and 924 of the Florida Statutes. *Id.*; *see* FLA. STAT. § 922.052(2)(a) (2023). Under the Act, once a prisoner has completed all direct appeals, state postconviction proceedings, and federal habeas review or has allowed the federal habeas deadline to lapse—the clerk of the Florida Supreme Court must notify the Governor by certifying that the individual has satisfied the statutory criteria. *Id.*; *see also* FLA. STAT. § 922.052(2)(b) (2023) (requiring that within thirty days of receiving the certification, and provided that the clemency process has concluded, the Governor must issue a death warrant directing the warden to carry out the execution within 180 days). *But see* Susanna Bagdasarova, *Florida Accelerates Death Penalty Process with "Timely Justice Act*,*"* A.B.A. (June 1, 2013), https://www.americanbar.org/groups/committees/death_penalty_representation/project_press/2013/summer/florida-accelerates-death-penalty-process-with-timely-justice-ac/ [https://perma.cc/VD3S-5TT3] (criticizing the Act for exacerbating systemic flaws in Florida's capital system, including high error rates, inadequate counsel, and racial disparities; noting that the law accelerates executions without addressing these foundational problems).

147 *See* Pesquera, *supra* note 144; JLPP, *supra* note 144.

148 *See* JLPP, *supra* note 144.

149 *Id.*

150 *Id.*

151 *Id.*

152 Bondi Memorandum, *supra* note 125, at 3.

political shifts and ideological preferences rather than neutral, consistent application of law.

A. *Furman* Revisited: Executive Discretion as the New Arbitrariness

The Supreme Court held in *Furman* that the imposition and execution of the death penalty in the three cases before it, one for murder and two for rape, constituted cruel and unusual punishment in violation of the Eighth and Fourteenth Amendments.[153] Among the concurring opinions,[154] Justice Douglas offered a particularly influential analysis of why such punishment was unconstitutional in practice. In his concurrence, Douglas emphasized that a punishment may be unconstitutional not because of how the law is written, but because of how it is applied.[155] He argued that the death penalty becomes "unusual" when it is used in a way that reflects discrimination based on race, religion, wealth, or social class.[156] Drawing on the English Bill of Rights of 1689, he noted that the historical purpose of the Cruel and Unusual Punishments Clause was to prohibit arbitrary and irregular applications of severe penalties.[157] Douglas also discussed how American criminal law evolved to give juries discretion in capital cases.[158] Originally, lawmakers tried to address concerns about mandatory death sentences by narrowing the definitions of capital crimes.[159] But juries often resisted those laws by refusing to convict when a death sentence was mandatory.[160] To resolve this, legislatures chose to give juries the discretion they were already using in practice.[161] Although this approach was upheld in *McGautha v. California*, Douglas remained concerned that discretion, when left unchecked, could result in arbitrary decisions.[162] He further observed that when death sentences are rarely imposed under laws that authorize them, it strongly suggests that the punishment is being applied in a selective and unpredictable way.[163] In his view, a legal system that leaves the deci-

153 Furman v. Georgia, 408 U.S. 238, 239–40 (1972) (per curiam).
154 *See id.* at 240–57 (Douglas, J., concurring).
155 *See id.* at 242.
156 *Id.*
157 *Id.*
158 *Id.* at 246–47.
159 *Id.* at 246.
160 *Id.* at 246–47.
161 *Id.* at 247.
162 *Id.* at 248.
163 *Id.* at 249.

sion between life and death entirely to the unregulated judgment of judges or juries, without guiding standards, allows outcomes to be driven by personal inclination.[164] In such a system, a person's life may depend not on law, but on the will of a single judge or a group of jurors.[165]

Stewart turned his attention to the unique severity of the death penalty itself and the moral consequences of its irreversible nature.[166] Stewart, in his concurrence, emphasized that the death penalty is fundamentally different from all other forms of punishment.[167] He described it as distinct not merely in severity but in nature.[168] It is permanent and cannot be undone.[169] It rejects any possibility of rehabilitating the offender.[170] And it represents a complete denial of the principles that define humane treatment in the justice system.[171]

While Stewart's concurrence highlighted the death penalty's absolute finality,[172] Justice White's concurrence shifted the focus to the death penalty's practical operation, examining whether capital punishment actually served its intended social purposes.[173] White focused on the extreme infrequency with which the death penalty was imposed.[174] He argued that when the punishment is used so rarely, it becomes doubtful that it serves any meaningful purpose.[175] He explained what he believed to be "a near truism: that the death penalty could so seldom be imposed that it would cease to be a credible deterrent or measurably to contribute to any other end of punishment in the criminal justice system."[176] In his view, punishment can influence behavior only

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164 *Id.* at 253.

165 *Id.*

166 *Id.* at 306 (Stewart, J., concurring); *see also* Gregg v. Georgia, 428 U.S. 153, 188 (1976) ("While *Furman* did not hold that the infliction of the death penalty *per se* violates the Constitution's ban on cruel and unusual punishments, it did recognize that the penalty of death is different in kind from any other punishment imposed under our system of criminal justice. Because of the uniqueness of the death penalty, *Furman* held that it could not be imposed under sentencing procedures that created a substantial risk that it would be inflicted in an arbitrary and capricious manner.").

167 *Furman*, 408 U.S. at 306 (Stewart, J., concurring).

168 *Id.*

169 *Id.*

170 *Id.*

171 *Id.*

172 *Id.*

173 *Id.* at 311–12 (White, J., concurring).

174 *Id.*

175 *Id.* at 311.

176 *Id.*

when it is applied with enough consistency to be seen as a real possibility.[177] A rarely enforced death penalty, he explained, fails to function as a credible threat and does little to deter serious crime.[178] While he accepted that punishment can deter and did not reject the death penalty in theory, he maintained that laws that are almost never enforced lose their effectiveness.[179] For White, the death penalty's constitutional justification depended on its social utility, but that utility disappears when it is applied so sporadically that it cannot meaningfully influence conduct.[180] He emphasized that there is no consistent or principled way to distinguish between the few individuals who receive death sentences and the many who do not, despite similar offenses.[181] The delegation of sentencing authority to juries—intended to temper the harshness of the law and reflect community sentiment—produced such inconsistent results that, in practical terms, capital punishment under the statutes then in effect had nearly ceased to function.[182] He added that legislative support for the death penalty is weakened by the continued practice of assigning sentencing discretion to juries.[183] Since a jury may refuse to impose the death penalty in any case, regardless of the crime and without violating any statute or duty, the actual effect of the law is shaped not by what legislatures authorize, but by how that discretion is exercised.[184] In his view, what occurred in these cases violated the Eighth Amendment.[185]

The arbitrariness identified in *Furman* reflected the broader concern that the death penalty, without meaningful standards to guide its application, left life-and-death decisions to the unstructured judgments of individual decision-makers.[186] In response to *Furman*, more than thirty-five states enacted new laws specifying the circumstances and crimes for which the death penalty could be applied.[187] One of these revised statutes was reviewed in *Gregg v. Georgia*, where the Supreme Court upheld sentencing procedures that weigh aggravating and mitigating factors to

177 *Id.* at 312.
178 *Id.*
179 *Id.*
180 *Id.*
181 *Id.* at 313.
182 *Id.*
183 *Id.* at 314.
184 *Id.*
185 *Id.*
186 *See id.* at 249, 253 (Douglas, J., concurring).
187 Gregg v. Georgia, 428 U.S. 153, 179–80 (1976).

bitrary imposition of the death penalty.[188] Throughout the 1970s, courts affirmed that the death penalty was not inherently unconstitutional, and state-chosen methods would be presumed valid unless shown to be inhumane or arbitrarily applied.[189] Interest in the federal death penalty remained limited until the 1990s, when Congress enacted the Federal Death Penalty Act (FDPA) to address concerns about arbitrariness by clearly listing the federal crimes for which execution could be imposed.[190]

B. Due Process and the FDPA Undermined

The Due Process Clause prohibits the federal government from depriving individuals of life, liberty, or property without fair procedures.[191] Congress enacted the FDPA, codified at 18 U.S.C. § 3591, to ensure an individualized sentencing process for capital cases, aligning with constitutional requirements.[192] This was influenced by the Supreme Court's decision in *Gregg v. Georgia*.[193] The FDPA mandates such procedures, requiring the government to notify defendants of aggravating factors justifying a death sen-

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188 *See id.* at 196–98. In this case, the Court upheld Georgia's revised capital sentencing scheme as a constitutionally permissible response to *Furman v. Georgia*. *Id.* The Court explained that *Furman*'s central concern was that the death penalty had been imposed "in an arbitrary or capricious manner." *Id.* at 195. The Court concluded that it was "possible to construct capital-sentencing systems capable of meeting *Furman*'s constitutional concerns." *Id.* To remedy these concerns, Georgia created a structured system requiring that at least one of ten statutory aggravating factors be found beyond a reasonable doubt before a death sentence could be imposed. *Id.* at 196–97. As a result, Georgia's statute narrowed the class of death-eligible defendants. *Id.* The jury was also permitted to consider any mitigating evidence and was required to assess both "the circumstances of the crime" and "the characteristics of the person who committed the crime." *Id.* at 197. The Court emphasized that a death sentence must not be left to the uncontrolled discretion of a jury and that *Furman* had condemned the imposition of death "without guidance or direction." *Id.* It explained that Georgia's new procedure directed the jury's attention to "specific circumstances of the crime" (e.g., whether the killing occurred during another felony or involved particular cruelty), as well as to mitigating factors such as the defendant's age, mental state, or cooperation with law enforcement. *Id.* As the Court stated, "[T]he discretion to be exercised is controlled by clear and objective standards so as to produce non-discriminatory application." *Id.* at 198 (quoting Coley v. State, 231 Ga. 829, 834 (1974)). Additionally, the Court noted that Georgia's post-*Furman* procedures included a proportionality review by the Georgia Supreme Court to ensure that death sentences were not imposed in a manner that was out of step with outcomes in similar cases. *Id.* This further protection addressed the concern that, without a meaningful basis to distinguish the few cases in which death is imposed from the many in which it is not, capital punishment would continue to operate arbitrarily. *Id.*

189 Noble, *supra* note 69, at 21.

190 *Id.*

191 U.S. CONST. amend. V.

192 United States v. Catalan Roman, 376 F. Supp. 2d 108, 111 (D.P.R. 2005).

193 *Id.*

tence and ensuring that the jury considers these factors before imposing the death penalty.[194]

Enacted in 1994, the FDPA dramatically expanded the number of federal offenses eligible for the death penalty while simultaneously establishing a federal framework to impose and review death sentences, reflecting Congress's intent to meet the constitutional safeguards articulated in *Gregg v. Georgia*.[195] Among its key features, the FDPA spelled out the precise manner of implementing a federal death sentence, including requirements that the prisoner remain in the Attorney General's custody during appeals and then be transferred to a U.S. Marshal for supervision of the execution under the law of the sentencing state, with fallback provisions if that state lacks a death penalty.[196] Congress also included procedural protections to minimize discrimination in federal capital cases, such as explicit jury instructions prohibiting consideration of race, sex, or other protected categories.[197] Congress further exempted pregnant women, individuals with intellectual disabilities, and those incompetent to understand their punishment from execution eligibility.[198]

The FDPA does not itself create capital crimes but instead governs the procedures that must be followed once a death-eligible offense is charged under a substantive federal statute.[199]

The authority to impose a death sentence comes from the underlying criminal statutes, which define specific crimes and include the death penalty as a potential punishment.[200] These statutes apply uniformly across all federal jurisdictions,[201] including jurisdictions like Puerto Rico, where local laws may prohibit the death penalty.[202] The FDPA's role is to ensure procedural con-

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194 *Id.*

195 *See* John P. Cunningham, *Death in the Federal Courts: Expectations and Realities of the Federal Death Penalty Act of 1994*, 32 U. RICH. L. REV. 939, 952–53, 957 (1998); 18 U.S.C. §§ 3591–3593.

196 Cunningham, *supra* note 195, at 957 (citing § 3596(a)).

197 *Id.* at 958 (citing § 3593(f)).

198 *Id.* at 958 (citing § 3596(b)–(c)).

199 United States v. Acosta-Martinez, 252 F.3d 13, 19 (1st Cir. 2001).

200 *Id.*

201 *See id.*

202 *See id.* The First Circuit addressed whether the FDPA applies to federal prosecutions in Puerto Rico. *Id.* at 15. The defendants were indicted on multiple charges, including count two, which alleged that they committed an intentional crime of violence resulting in death by firearm in violation of 18 U.S.C. § 924(j), and count three, which alleged that they killed an individual in retaliation for providing information to law enforcement, in violation of 18 U.S.C. § 1513(a)(1)(B). *Id.* Both statutes authorize the imposition of the death penalty and expressly apply to offenses committed in Puerto Rico. *Id.* The govern-

sistency wherever they are enforced.[203] The statute does not specify geographic limits because its purpose is not to regulate where the death penalty may be applied, but rather how it may be imposed.[204] Under the FDPA, a defendant may be sentenced to death only if specific intent elements are met and the sentencing procedures under sections 3592 and 3593, including the required aggravating and mitigating factor analysis, are properly followed.[205] Before imposing a federal death sentence, the sentencing body must consider any mitigating factors relevant to the defendant's background, role, or mental state, including a broad range of individualized circumstances.[206] Although section 3593 outlines a formalized sentencing process requiring notice, jury findings, and individualized consideration of aggravating and mitigating factors,[207] the statute vests broad charging discretion in the Attorney General, who decides whether to seek the death penalty even before these safeguards apply.[208] This decision may

ment filed a notice of intent to seek the death penalty pursuant to 18 U.S.C. § 3593(a), part of the FDPA. *Id.* The district court struck the notice, holding that the FDPA was inapplicable in Puerto Rico because Congress had not explicitly extended its procedural provisions to the territory and, even if it had, Congress lacked the authority to override Puerto Rico's constitutional ban on capital punishment. *Id.* On appeal, the First Circuit reversed, holding that the FDPA does apply in federal cases arising in Puerto Rico and that the death penalty could be pursued under federal law regardless of local constitutional prohibitions. *Id.* at 16. The court also confirmed its jurisdiction to hear the government's appeal and reinstated the death penalty notice, allowing capital sentencing to proceed if the defendants were convicted on the relevant charges. *Id.* at 16–17.

203 *See id.* at 19.

204 *See id.*

205 *See* 18 U.S.C. § 3591(a). This statute provides that a death sentence may be imposed for certain federal offenses only if the defendant is found, beyond a reasonable doubt, to have met one of four intent thresholds: (A) intentionally killing the victim; (B) intentionally inflicting serious bodily injury resulting in death; (C) participating in a life-threatening act with intent to use lethal force; or (D) committing a violent act with reckless disregard for human life. *Id.* § 3591(a)(2)(A)–(D). The sentence must also comply with the aggravating and mitigating factor analysis required under 18 U.S.C. §§ 3592 and 3593. *Id.* No individual may be sentenced to death under this statute if they were under the age of eighteen at the time of the offense. *Id.*

206 *See id.* § 3592(a). The statute enumerates several mitigating factors that must be considered by the finder of fact, including impaired capacity, duress, minor participation, disparate sentencing of equally culpable defendants, lack of prior criminal history, emotional or mental disturbance, the victim's consent, and any other relevant factors concerning the defendant's character, background, or the offense itself. *Id.* § 3592(a)(1)–(8). These factors are intended to ensure that the decision to impose death is individualized and proportional.

207 *Id.* § 3593.

208 *See* U.S. Att'ys' Manual, *supra* note 51, §§ 9-10.010 to -10.200.

be based solely on the belief that death is justified.[209] While this decision is informed by a multi-layered internal review process meant to ensure objectivity,[210] its actual implementation often lacks transparency and consistency.[211] Capital defendants are represented by specialized counsel and have the opportunity to present mitigating arguments to DOJ leadership, reinforcing the idea that the process is meant to be deliberative, objective, and non-political.[212] However, defendants with similar or greater culpability often receive vastly different treatment, with no clear reason why capital charges are pursued in some cases and not others.[213] Even when aggravating factors are present across co-defendants, only one may face death.[214]

Congress's enactment of the FDPA demonstrates its willingness to create comprehensive, constitutionally guided standards for federal capital punishment,[215] rather than allowing the administration of death sentences to vary across presidential administrations. Yet, the statute's careful design has not prevented troubling inconsistencies in how federal capital cases are initiated and pursued, in part because the FDPA's structured sentencing procedures do not constrain the Attorney General's broad discretion at the charging stage.[216] As a result, the most consequential decision, whether to pursue the death penalty at all, remains largely immune to meaningful constraint or review. This concern is not theoretical. Justice Breyer, dissenting in *Glossip v. Gross*,[217] found

209 *See id.* § 9-10.140(C) (requiring a qualitative weighing of aggravating and mitigating factors to determine whether death is justified and noting that "a single, sufficiently strong aggravating factor may outweigh several mitigating ones").

210 *See* Broughton, *supra* note 13, at 1619.

211 *See* Ryanne L. Wright, *Until Death Due Us Part: The Due Process Clause's Broken Vow to Protect Against Arbitrary and Discriminatory Enforcement of Federal Capital Punishment*, 31 GEO. MASON U. C.R. L.J. 1, 20–21 (2020).

212 Broughton, *supra* note 13, at 1620–21.

213 *See* Wright, *supra* note 211, at 20–21. Wright highlights how prosecutorial discretion in federal capital cases can lead to stark disparities: despite similar crimes, such as the cases of Lezmond Mitchell and Tommy Dean Bullcoming—both involving violent homicides on tribal land—only Mitchell, who had no prior record and acted with co-defendants, was sentenced to death. *Id.* In contrast, Bullcoming, who acted alone and had a criminal history, was not. *Id.* at 21. Wright argues this inconsistency exemplifies arbitrary punishment that undermines due process. *Id.* at 22.

214 *See id.* at 24.

215 *See* Cunningham, *supra* note 195, at 957.

216 *See* 18 U.S.C. §§ 3591–99.

217 576 U.S. 863, 867 (2015) (upholding Oklahoma's three-drug lethal injection protocol of using midazolam as first drug).

The Court held that prisoners challenging a method of execution under the Eighth Amendment must identify a known and available alternative that entails a lesser risk of

"no rational explanation" for the discrepancies in who is sentenced to death and who is not.[218] Breyer cited a comprehensive study of Connecticut's capital punishment system, which revealed that only one of nine executed individuals ranked among the "most egregious" offenders, while dozens of equally or more culpable defendants were spared.[219] This undermines any argument that the federal system functions as a rational or principled mechanism for selecting the "worst of the worst." Even more troubling, the very factors that should never influence death decisions—race, gender, and geography—often do.[220] Breyer's dissent in *Glossip* pointed to studies confirming that defendants accused of killing white victims were far more likely to face capital charges than those accused of killing Black or Latino victims.[221] Other research confirms that geography plays a decisive role.[222] Fewer than 2% of counties have produced all federal death sentences, a pattern driven not by case facts but by the political posture and priorities of local prosecutors.[223] These outcomes are not consistent with the constitutional values of equal protection or due process.[224] The arbitrary and racially biased application of the

pain. *Id.* It further concluded that the district court did not clearly err in finding midazolam did not create a substantial risk of severe pain. *Id.*

218 *Id.* at 922 (Breyer, J., dissenting).

219 *Id.* at 917–18 (citing John J. Donohue III, *An Empirical Evaluation of the Connecticut Death Penalty System Since 1973: Are There Unlawful Racial, Gender, and Geographic Disparities*, 11 J. EMPIRICAL LEGAL STUD. 637, 641, 643–45, 678–79 (2014)).

220 *Glossip*, 576 U.S. at 918–19.

221 *Id.* at 918.

222 *Id.* at 918–19.

223 *See id.* at 919; *2% Death Penalty*, *supra* note 15.

224 *See* Jay Inslee, *Governor Inslee's Remarks Announcing a Capital Punishment Moratorium*, OFF. OF THE GOVERNOR OF WASH. STATE (Feb. 11, 2014), https://governor.wa.gov/sites/default/files/2023-01/20140211_death_penalty_moratorium.pdf [https://perma.cc/R62P-S7S8]. Following an internal review of Washington's capital punishment system, Governor Jay Inslee declared in 2014, "I have decided to impose a moratorium on executions while I'm Governor of the state of Washington." *Id.* His decision rested on fundamental concerns about fairness and systemic integrity. *Id.* "Equal justice under the law is the state's primary responsibility. And in death penalty cases, I'm not convinced equal justice is being served," Inslee stated. *Id.* He emphasized that the death penalty was "unequally applied, sometimes dependent on the budget of the county where the crime occurred." *Id.* Beyond geographic disparity, he cited deeper structural failings: "There are too many flaws in the system. And when the ultimate decision is death there is too much at stake to accept an imperfect system." *Id.* Data from Washington reinforced his concern; since 1981, 60% of capital sentences had been overturned, with one man exonerated and eighteen others resentenced to life imprisonment. *Id.* "When the majority of death penalty sentences lead to reversal, the entire system itself must be called into question." *Id.* Inslee also highlighted the extreme cost burden: "[c]ounties spend hundreds of thousands of dollars – and often many millions – simply to get a case to trial," followed by decades of appellate expenses. *Id.* He noted that capital trials are "more expensive than keeping someone in prison for the rest of their lives – even if they live to be 100 years of

death penalty defies the evolving standards of decency that shape a just and maturing society,[225] making such disparities even more constitutionally intolerable.[226] As Stewart emphasized in *Furman*, and as Breyer later echoed in *Glossip*, capital punishment has too often been imposed in a random and capricious fashion;[227] Stewart even likened it to "being struck by lightning,"[228] underscoring the intolerable unpredictability of who receives a death sentence. As Stewart further warned in *Furman*, the Constitution cannot tolerate a death penalty system "so wantonly and so freakishly imposed."[229] That warning remains just as urgent today. The federal death penalty no longer reflects the gravity of the crime or uniform legal standards but fluctuates with the ideological inclinations of each administration. When Attorney General Barr resumed federal executions in 2019 after a seventeen-year pause, no formal justification was provided beyond a vague reference to "uphold[ing] the rule of law."[230] Similarly, the *Trump Order* reinstated the federal death penalty through sweeping administrative directives, grounded in the belief that capital punishment is not only a historical and constitutional practice, but also the only fitting and effective response to the "most heinous crimes," essential for deterring violence, delivering justice, and restoring public order.[231] Attorney General Bondi's Memorandum went even further, eliminating case-by-case discretion by requiring federal prosecutors to pursue capital charges in all eligible cases unless "significant mitigating circumstances" exist;[232] a standard left undefined. This concentration of unchecked authority violates the core tenet of due process: that life-taking decisions must follow fair, consistent, and transparent procedures.[233] A punishment as irreversible as death

age." *Id.* Moreover, he rejected deterrence as a justification, citing national studies: "there is no credible evidence that the death penalty is a deterrent to murder." *Id.* Inslee ultimately concluded that Washington's system failed to target the worst offenders and fell far short of its constitutional promise. *Id.* "That is a system that falls short of equal justice under the law and makes it difficult for the State to justify the use of the death penalty." *Id.*

225 *See* Trop v. Dulles, 356 U.S. 86, 101–02 (1958).

226 *See* State v. Gregory, 427 P.3d 621, 636 (Wash. 2018).

227 Furman v. Georgia, 408 U.S. 238, 309–10 (Stewart, J., concurring); *Glossip*, 576 U.S. at 922–23 (Breyer, J., dissenting).

228 *Furman*, 408 U.S. at 309.

229 *Id.* at 310.

230 *See* Cap. Punishment Press Release, *supra* note 56.

231 Exec. Order No. 14164, 90 Fed. Reg. 8463, 8463–64 (Jan. 20, 2025).

232 Bondi Memorandum, *supra* note 125, at 2.

233 *See* U.S. CONST. amend. V.

cannot rest on silence or ambiguity. Although the Supreme Court responded to *Furman* by requiring guided discretion in jury sentencing,[234] the constitutional concern animating that decision—arbitrary and capricious enforcement—has returned in a new form. Today, the federal death penalty does not hinge on the facts of a case or the neutral application of law, but on the ideological orientation of the executive branch. Whether the government seeks, pauses, or resumes executions is no longer determined by constitutional consistency or legislative reform. It is determined by who holds the presidency.

IV. CAPITAL PUNISHMENT AND THE ABSENCE OF EXECUTIVE RESTRAINT

This Part analyzes two structural flaws in the federal death penalty framework. First, it examines how unchecked prosecutorial and presidential discretion can undermine individualized, objective decision-making, threatening the constitutional promise of due process and impartial enforcement. Second, it explores how the FDPA's delegation of authority, combined with limited legislative oversight, creates gaps that allow executive power to operate with minimal accountability. Together, these dynamics expose the persistent risk of arbitrary and politically driven capital punishment within the federal system.

A. Unchecked Discretion

The Trump administration signaled a clear intent to preserve and possibly expand the federal government's use of capital punishment, as reflected in political appointments to the DOJ and the federal judiciary.[235] Presidential demands for the death penalty risk turning the DOJ's internal protocol review into a mere formality.[236] When federal prosecutors—particularly the Attorney General—feel pressured to follow public statements by the President, prosecutorial discretion collapses into political obedience.[237] This dynamic raises serious concerns about prosecu-

234 *See* Gregg v. Georgia, 428 U.S. 153, 196–98 (1976).

235 *See* Broughton, *supra* note 13, at 1621. The Trump administration appeared committed to preserving—and potentially expanding—the federal government's use of capital punishment. *Id.* This agenda was reflected in political appointments to top positions at the DOJ and in judicial nominations, reinforcing an institutional alignment with capital enforcement that extended beyond any single memo or case. *Id.*; *see* Bove Memorandum, *supra* note 116; Bondi Memorandum, *supra* note 125.

236 *See* Broughton, *supra* note 13, at 1626–27.

237 *See id.* As argued by Richard Broughton, this concern is particularly acute in administrations where public disagreement with the President is perceived as disloyalty and

torial independence and the President's power to dictate federal charging decisions, plainly undermining a process intended to produce individualized, objective judgments free from political influence.[238] Yet even when prosecutorial discretion is distorted by ideology or executive pressure, courts remain constitutionally barred from intervening, for, as the Fifth Circuit put it, "[T]he courts are not to interfere with the free exercise of the discretionary powers of the attorneys of the United States in their control over criminal prosecutions."[239]

Courts have made clear that internal DOJ policies, including the Death Penalty Protocol, create no enforceable rights for defendants.[240] Even under their supervisory authority, judges may not interfere with the executive branch's exclusive discretion to decide whether and how to pursue the death penalty.[241] The DOJ's Death Penalty Protocol and related guidelines confer no enforceable rights and are beyond the reach of judicial enforcement.[242] Judicial intervention in capital charging decisions is

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where DOJ officials have been subject to presidential criticism. *Id.* at 1626. In such an environment, the Attorney General may feel obligated to pursue capital charges regardless of the outcome of internal deliberation. *Id.* at 1627. Although the DOJ's death penalty protocol does not create enforceable rights and is generally shielded from judicial review, Broughton warns that presidential pressure can undermine the legitimacy of prosecutorial decisions and distort the separation of powers by subordinating legal discretion to political signaling. *Id.*

238 *See id.* at 1624–25. Broughton argues that allowing the President to steer charging decisions undermines the very purpose of the DOJ's death penalty protocol, which is intended to ensure individualized, fact-based determinations free from political pressure. *See id.* at 1625. Such interference compromises the structural integrity of the DOJ and blurs the constitutional line between executive oversight and prosecutorial independence. *See id.* at 1624–25.

239 United States v. Cox, 342 F.2d 167, 171 (5th Cir. 1965); *see also* United States v. Slone, 969 F. Supp. 2d 830, 838–39 (E.D. Ky. 2013) ("The Constitution leaves implementation of the Death Penalty Protocol to the sound discretion of the Department of Justice. And a heavy judicial hand might actually do more harm to capital defendants than good. Intrusive micromanagement of the Justice Department might deter the development of policies like the Protocol or even cause DOJ to abandon it altogether.").

240 *See Slone*, 969 F. Supp. 2d at 833.

241 *See id.* at 833–34. The court held that the Death Penalty Protocol and the Judicial Conference's Criminal Justice Act (CJA) Guidelines are merely internal guidance documents and do not create substantive or procedural rights. *Id.* at 833. The court emphasized that while it has inherent power to manage its docket, the separation of powers bars judicial direction over how the executive branch carries out prosecutorial functions—particularly in capital cases. *Id.* at 833–34. The authority to decide whether a death sentence is appropriate, or to implement internal protocol steps, lies solely with the DOJ. *Id.* at 834. Judicial Conference recommendations, even when urging courts to control litigation costs in capital cases, remain advisory and cannot override the DOJ's discretion. *Id.*

242 *See id.* at 833–35. The Death Penalty Protocol, as part of the U.S. Attorneys' Manual, is expressly characterized as internal guidance with no intent to create legal rights—substantive or procedural—for defendants. *Id.* at 832–33. According to the Manual's own disclaimer, it is

constitutionally barred, as the separation of powers protects the executive branch's discretion from court-imposed procedures.[243]

The Constitution grants the President sweeping clemency authority over federal offenses, including full and unconditional pardons that eliminate all legal consequences and restore civil rights, an authority that remains supreme within the federal sphere and cannot be restricted by state governments.[244] Although clemency was intended as a safeguard against disproportionate punishment, its modern use has revealed the dangers of unconstrained presidential authority.[245] During his first term in office, Trump frequently used the pardon power not as a mechanism of mercy, but as a tool for advancing personal and political interests.[246] Trump's approach to executive clemency reflected a broader pattern of institutional bypass, driven by personal loyalty, media exposure, and disregard for established DOJ procedures.[247] His use of the pardon power underscored the risks of

not enforceable in court and exists solely to guide prosecutorial discretion. *Id.* at 834. The court emphasized that policies like the Death Penalty Protocol and the Judicial Conference's CJA Guidelines are merely advisory tools designed to aid internal DOJ management and not to constrain it. *Id.* Courts across all circuits have recognized that even if such policies are not followed, defendants have no recourse to enforce them. *Id.* The court reaffirmed that courts may not impose remedies for any alleged deviation from DOJ policy, because suspects and defendants are on notice that they hold no enforceable interest in such internal procedures. *Id.* Judicial Conference guidance is similarly nonbinding, lacking the statutory authority to carry the force of law and existing only as policy recommendations. *Id.* at 834–35.

243 *See id.* at 836–38. The court held that any attempt by the judiciary to control or direct how the DOJ applies its Death Penalty Protocol would violate the Constitution. *Id.* at 836. Even a well-intentioned use of judicial supervisory power cannot override constitutional boundaries. *Id.* Prosecutorial discretion—including the decision to seek capital punishment—falls squarely within the executive branch's authority and is not subject to judicial oversight. *Id.* at 837. Courts may not encroach upon this core executive function, nor may they impose timelines or processes requiring DOJ consideration of mitigating evidence. *Id.* at 837–38. The decision to pursue death is akin to any other charging choice regarding punishment severity and remains unreviewable by the courts. *Id.* at 837. Any interference by the judiciary would improperly intrude upon the structural role assigned to prosecutors in the constitutional order. *Id.*

244 *See* Bradford v. Cardoza, 240 Cal. Rptr. 648, 649–50 (Ct. App. 1987) (citing Bjerkan v. United States, 529 F.2d 125, 127, 129 (7th Cir. 1975)).

245 *See* Rachel E. Barkow & Mark Osler, *Clemency*, 7 ANN. REV. CRIMINOLOGY 311, 313, 320 (2024).

246 *See id.* at 319–20. Trump's clemency record in his first term was limited in volume yet marked by controversy, with a significant number of grants issued to politically connected individuals and public speculation over whether he would pardon himself. *See id.* Unlike the structured review process managed by the Office of the Pardon Attorney, Trump often relied on television reports, media headlines, and personal advocates within his circle to identify clemency candidates. *See id.* at 320. Of the 238 clemency grants issued during his presidency, only about 11% had the Pardon Attorney's support. *Id.*

247 *See id.* at 319–20.

unreviewable executive discretion and renewed calls for structural limits on presidential clemency.[248] On August 25, 2017, Trump issued a pardon to former Maricopa County Sheriff Joe Arpaio, who had been convicted of criminal contempt for defying a federal court order to cease racial profiling of Latinos.[249] Framing the conviction as unjust, Trump tweeted that Arpaio was "an American patriot."[250] Trump also extended clemency to close allies, including Charles Kushner,[251] the father of his son-in-law Jared Kushner.[252] In December 2020, Trump similarly granted pardons to four Blackwater contractors involved in the 2007 Nisour Square massacre, where they killed seventeen Iraqi civilians while guarding a U.S. diplomatic convoy.[253] That episode had triggered criminal convictions, global outrage, and intense scrutiny of Blackwater's practices, while raising broader concerns about accountability, legal jurisdiction, and the role of private military companies in modern warfare.[254] On the first day of his second presidency in January 2025, Trump issued a sweeping proclamation pardoning all individuals convicted of offenses related to the January 6 Capitol attack, ordering their immediate release, and directing the dismissal of all pending related charges.[255]

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248 *See id.* Legal scholars and commentators proposed various mechanisms to curb abuse, including constitutional amendments, statutory limits, and reinterpretations of the Pardon Clause. *See id.* Although most proposals were seen as unlikely or constitutionally strained, they reflected growing alarm over the unchecked nature of presidential clemency, particularly when used as a shield against accountability. *See id.*

249 *Id.* at 319; S.A. v. Trump, 363 F. Supp. 3d 1048, 1060 (N.D. Cal. 2018).

250 *S.A.*, 363 F. Supp. 3d at 1060.

251 *See* Press Release, The White House, Statement from the Press Secretary Regarding Executive Grants of Clemency (Dec. 23, 2020), https://trumpwhitehouse.archives.gov/briefings-statements/statement-press-secretary-regarding-executive-grants-clemency-122320/ [https://perma.cc/M3BN-8X68]; Sudiksha Kochi, *Who Did Donald Trump Pardon? What to Know About Charles Kushner, Steve Bannon, Other Top Allies*, USA TODAY (Dec. 2, 2024, at 14:52 ET), https://www.usatoday.com/story/news/politics/elections/2024/12/02/trump-pardoned-during-first-term/76705964007/ [https://perma.cc/NC8Y-ZX85]; *Pardons Granted by President Donald J. Trump (2017–2021)*, U.S. DEPT. OF JUST. (Oct 23, 2024), https://www.justice.gov/pardon/pardons-granted-president-donald-j-trump-2017-2021 [https://perma.cc/9Z6T-DM2W]. Charles Kushner was convicted on sixteen counts of fraud and false statements, as well as charges of witness retaliation and making false entries. *Id.*

252 Kochi, *supra* note 251.

253 Eric Tucker, *Trump Pardons Security Contractors in Deadly Iraq Shooting*, AP NEWS (Dec. 22, 2020, at 21:01 PT), https://apnews.com/article/donald-trump-politics-iraq-baghdad-massacres-371cbf4b621ee8a08c307777c29abc14 [https://perma.cc/EN6Y-UFG2]; *see also* Casper Alexander Daugaard, *Blackwater and Private Military Contractors*, 2 YALE REV. INT'L STUD. 83, 85 (2012) (detailing the events and actions of the contractors immediately preceding the massacre).

254 *See* Daugaard, *supra* note 253, at 85–86.

255 *See* Proclamation No. 10887, 90 Fed. Reg. 8331 (Jan. 20, 2025). On his first day back in office, Trump issued a sweeping executive proclamation granting a "full, complete

Likewise, Biden exercised his clemency power to pardon his son, Hunter Biden, shortly before leaving office.[256] Representative James Comer criticized Biden's pardon of his son as an attempt to avoid accountability, calling the charges "just the tip of the iceberg" and accusing the Biden family of decades of wrongdoing.[257]

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and unconditional pardon" to all individuals convicted of offenses stemming from the January 6, 2021, Capitol attack. *Id.* The directive instructed the Attorney General to issue immediate certificates of pardon and to ensure the release of all such individuals who remained incarcerated. *Id.* Additionally, the DOJ was ordered to seek dismissal with prejudice of all pending indictments related to January 6. *Id.* The Bureau of Prisons was directed to immediately carry out these orders. *Id.* This reflects an extraordinary and controversial use of presidential clemency powers aimed at absolving participants in a violent attack on the legislative branch. Joyce Vance, writing for the Brennan Center for Justice, warned that Trump's campaign pledge to pardon January 6 defendants, announced as beginning "in the first hour . . . [m]aybe the first nine minutes" of his presidency, represented not an act of mercy, but a transactional abuse of the clemency power. Joyce Vance, *Trump Pardoning Jan. 6 Insurrectionists Would Endorse Attacks on Democracy*, BRENNAN CTR. FOR JUST. (Jan. 21, 2025), https://www.brennancenter.org/our-work/analysis-opinion/trump-pardoning-jan-6-insurrectionists-would-endorse-attacks-democracy [https://perma.cc/VX79-U3WW]. Trump repeatedly referred to the rioters as "political prisoners" and "great patriots," despite convictions by juries and guilty pleas for violent conduct, including the use of weapons and participation in seditious conspiracy. *Id.* Vance emphasized that such sweeping pardons would not only undermine the rule of law but also mark an unprecedented misuse of Article II authority—rewarding loyalty to the President over fidelity to the Constitution. *Id.* By signaling clemency as a political payoff, Trump sent a chilling message: violence in service of his power would be sanctioned, not punished. *See id.*

256 Zeke Miller, Alanna Durkin Richer & Colleen Long, *Biden Pardons His Son Hunter Despite Previous Pledges Not To*, AP NEWS (Dec. 2, 2024, at 04:49 PT), https://apnews.com/article/biden-son-hunter-charges-pardon-pledge-24f3007c2d2f467fa48e21bbc7262525 [https://perma.cc/EMH2-T5YN]. Despite repeated public assurances that he would not use the powers of the presidency to aid his son, Biden issued a sweeping pardon for Hunter Biden shortly before leaving office. *Id.* The pardon came after Hunter was convicted in a federal gun case and pleaded guilty to tax offenses, and just weeks before he was scheduled to be sentenced. *Id.* The pardon reversed Biden's prior statements that he would respect the jury's verdict and refrain from granting clemency. *Id.* In his statement, the President claimed that "raw politics" had tainted the prosecution and led to a miscarriage of justice. *Id.* The pardon extended beyond the known charges to cover any federal offenses committed or participated in by Hunter Biden between January 1, 2014, and December 1, 2024, casting a shadow over Biden's legacy and his prior commitment to restoring norms following Trump's presidency. *Id.*

257 *Id.*; *see* James Comer, *Rep. James Comer: Biden Family Pardons a Confession to Selling Out America*, FOX NEWS (Jan. 25, 2025, at 08:28 ET), https://www.foxnews.com/opinion/rep-james-comer-biden-crime-family-pardons-were-just-cover-up-30-million-dirty-deeds [https://perma.cc/EV54-Y3DG]. In a public letter, Representative James Comer sharply criticized Biden's unprecedented pardon of his son and what he described as preemptive pardons for other family members, framing them as an implicit confession of wrongdoing. *Id.* Citing DOJ precedent that accepting a pardon implies guilt, Comer argued that the pardons signal that the Biden family "sold out the American people to enrich themselves." *Id.* He referenced bank records obtained during the House Oversight Committee's investigation, which, according to Comer, revealed over $30 million in payments from foreign entities and individuals in countries including China, Russia, and Ukraine. *Id.* These payments allegedly flowed through a network of more

B. The Lack of Legislative Oversight Under the FDPA

The death penalty is fundamentally different from other punishments, not simply because of its severity but because of its final, irreversible nature.[258] Its unique gravity demands a correspondingly heightened standard of reliability in deciding whether death is appropriate.[259] That need for reliability in capital sentencing makes the absence or vagueness of legislative safeguards particularly troubling. Although democratically enacted statutes may reveal evolving social standards, they do not define the boundaries of the Eighth Amendment, which is meant to protect against legislative failures or excesses.[260] The FDPA delegates substantial authority to prosecutors,[261] making this concern particularly salient in the federal context, where legislative silence has enabled executive discretion to expand with limited oversight.[262] Under the FDPA, capital sentencing proceeds in a separate penalty phase after a defendant is convicted under 18 U.S.C. § 3591.[263] In homicide cases, the jury must make three findings to impose a death sentence: (1) unanimously and beyond a reasonable doubt, that the defendant had the required mental state under 18 U.S.C. § 3591(a)(2); (2) that at least one statutory aggravating factor exists under 18 U.S.C. §§ 3592(c) and 3593(d); and (3) that the aggravating factors sufficiently outweigh the mitigating factors, or alone justify the sentence if no mitigation is found, as required by 18 U.S.C. § 3593(e).[264] Under the FDPA, prosecutors have significant authority to identify non-statutory aggravating factors.[265] Courts have generally upheld the FDPA against such challenges to prosecutorial discretion, emphasizing the procedural safeguards embedded in the statute.[266] However, uncer-

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than twenty shell companies tied to Hunter Biden, James Biden, and other associates, with incremental distributions made to at least ten Biden family members—some of which, Comer claimed, were sent directly to Joe Biden's Delaware residence. *Id.* He concluded that the family's business was the sale of access to Biden's influence, a charge he says was confirmed by Biden associate Devon Archer, who testified that foreign oligarchs attended private dinners with then-Vice President Biden. *Id.*

258 *See* Woodson v. North Carolina, 428 U.S. 280, 305 (1976).

259 *Id.*

260 *See* Weems v. United States, 217 U.S. 349, 370–373 (1910).

261 *See* United States v. Purkey, 428 F.3d 738, 748 (8th Cir. 2005).

262 *See* Mitchell v. United States, 140 S. Ct. 2624, 2625 (2020) (Sotomayor, J., concurring).

263 *Purkey*, 428 F.3d at 749.

264 *Id.*

265 *See id.* at 748–49; United States v. Frank, 8 F. Supp. 2d 253, 264 (S.D.N.Y. 1998).

266 *See Purkey*, 428 F.3d at 748; *Frank*, 8 F. Supp. 2d at 266.

tainties remain in its implementation.[267] For instance, in *Mitchell v. United States*, Sotomayor noted the uncertainty surrounding the interpretation of the FDPA's requirement to implement death sentences "in the manner prescribed by the law of the State."[268] This lack of clarity, according to Sotomayor, has led to differing judicial opinions on the scope of the FDPA, further emphasizing the need for legislative guidance to resolve these ambiguities.[269]

Similarly, in *In re Federal Bureau of Prisons' Execution Protocol Cases*, the D.C. Circuit panel produced three conflicting readings of that same provision ("in the manner prescribed by the law of the State"); each judge diverged on what constitutes the relevant "manner" of execution and whether federal authorities must follow state protocols in method, procedure, or merely substance.[270] The circuit court determined that the 2019 execution protocol and its addendum qualify as internal agency rules concerning organization, procedure, or practice.[271] As such, the 2019 execution protocol and its addendum are exempt from the Administrative Procedure Act's notice-and-comment requirements.[272]

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267 *See Mitchell*, 140 S. Ct. at 2624–25.

268 *Id.* at 2624. As Justice Sotomayor noted in her concurrence, the FDPA's requirement that executions be carried out "in the manner prescribed by the law of the State in which the sentence is imposed" remains unsettled. *Id.* In the most detailed analysis to date, three D.C. Circuit judges offered three conflicting interpretations of the term "manner" and its source in state law. *Id.* Although the Ninth Circuit assumed a reading favorable to the petitioner and still denied relief, the lack of definitive guidance from the Supreme Court persists. *Id.* at 2624–25.

269 *See id.* at 2625. With additional executions scheduled, Justice Sotomayor emphasized the urgent need for the Court to clarify this ambiguity. *Id.*

270 *In re* Fed. Bureau of Prisons' Execution Protocol Cases (*Fed. Bureau I*), 955 F.3d 106, 108, 110–11 (D.C. Cir. 2020). This appeal stems from a consolidated set of cases in which twelve federal death-row inmates challenged the government's execution procedures. *Id.* at 110. The litigation began in 2005 but was repeatedly stayed due to pending Supreme Court cases (*Hill v. McDonough* and *Baze v. Rees*) and, later, the government's inability to obtain the required lethal injection drugs. *Id.* For several years, the DOJ reported that it was revising the federal execution protocol. *Id.* at 110–11. In 2019, the DOJ finalized a revised protocol based on a single-drug method using pentobarbital and scheduled executions for four inmates: Daniel Lee, Wesley Purkey, Dustin Honken, and Alfred Bourgeois. *Id.* at 111. The inmates filed motions for a preliminary injunction, arguing that the new protocol violated the FDPA, the Administrative Procedure Act (APA), the Federal Food, Drug, and Cosmetic Act (FDCA), the Controlled Substances Act (CSA), and several constitutional provisions, including the First, Fifth, Sixth, and Eighth Amendments. *Id.* The district court granted the injunction, finding that the plaintiffs were likely to succeed on their FDPA claim. *Id.* Specifically, the district court held that the FDPA requires the federal government to carry out executions according to the state's method and procedures—not through a uniform federal protocol—and that the new protocol exceeded the DOJ's statutory authority. *Id.*

271 *Id.* at 112.

272 *Id.*

Based on this conclusion, the circuit court found in favor of the government on this issue.[273] In his concurrence, Judge Katsas emphasized that "a death sentence is of course serious business,"[274] a premise that underscores the stakes of judicial and executive fidelity to statutory text. He dismissed reliance on failed legislative proposals as an unreliable guide to statutory meaning and reinforced that the DOJ has the authority to implement execution protocols through the Attorney General's statutory powers.[275] Katsas further observed that the federal execution protocol was neither promulgated through notice-and-comment rulemaking nor published in the Code of Federal Regulations.[276] Rather, the federal execution protocol was framed as a procedural manual that "does not create any legally enforceable rights or obligations," and explicitly allows deviations at the discretion of the Bureau of Prisons' Director or Warden.[277] This structural leeway, while legally permissible, illustrates how significantly the procedural implementation of the death penalty under the FDPA can shift in the absence of meaningful legislative oversight. In their respective concurrences, both Katsas and Judge Rao cautioned that courts must enforce statutes as written rather than based on policy goals, or risk overriding the legislative compromises that enabled their passage.[278] According to Rao, even under the DOJ's interpretation, the FDPA permits flexibility in execution methods only when state law is silent—limits that reflect Congress's deliberate choices.[279]

Additionally, in *United States v. Purkey*, the Eighth Circuit addressed a challenge to the FDPA's delegation of authority to prosecutors to charge aggravating factors without presenting them to a grand jury.[280] The court upheld the FDPA, noting that while the statute does not mandate grand jury review of aggravating factors, it does not preclude such review, and the statute's framework remains constitutionally valid.[281] The FDPA also

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273 *Id.*

274 *Id.* at 128 (Katsas, J., concurring).

275 *See id.* at 122, 125.

276 *Id.* at 126.

277 *Id.*

278 *See id.* at 126 n.12; *id.* at 129, 140–41 (Rao, J., concurring).

279 *See id.* at 135, 141–142.

280 428 F.3d 738, 748 (8th Cir. 2005). To comply with the Fifth Amendment, a prosecution under the FDPA requires that both the mens rea element and at least one statutory aggravating factor be found by a grand jury and included in the indictment. *Id.* at 749.

281 *See id.* at 748–50. To make a defendant eligible for the death penalty under the FDPA, the indictment must include at least one statutory aggravating factor ultimately

permits a broad scope of admissible evidence during capital sentencing, setting minimal restrictions on what may be presented to the jury.[282]

Likewise, in *United States v. Frank*, the District Court for the Southern District of New York addressed the argument that the FDPA violates the nondelegation doctrine by granting prosecutors broad discretion to define non-statutory aggravating factors.[283] In *Frank*, the defendant argued that the FDPA's allowance for undefined, case-specific aggravating factors invites arbitrary outcomes and grants prosecutors broad discretion unmoored from clear constitutional limits.[284] The district court disagreed, finding that this discretion is constrained by the Supreme Court's death penalty jurisprudence, the statutory notice requirement, and judicial review, ensuring that the factors are relevant to the sentencing decision.[285] The district court held that the FDPA does not violate the nondelegation doctrine because it does not give prosecutors unchecked authority to invent aggravating factors. Rather, Congress defined the initial class of death-eligible offenders by specifying qualifying crimes and mental states under 18 U.S.C. § 3591.[286] That class is then narrowed further by requiring the jury to unanimously find the existence of at least one statutory aggravating factor beyond a reasonable doubt.[287] Still, this combination of prosecutorial discretion[288] and ambiguous procedural constraints[289] risks the kind of arbitrary

found by the jury, as this elevates the possible sentence from life imprisonment to death. *Id.* at 749.

282 *Id.* at 756 (citing United States v. Lee, 274 F.3d 485, 494 (8th Cir. 2001)).

283 8 F. Supp. 2d 253, 264–67 (S.D.N.Y. 1998). The defendant argued that the FDPA fails to meet constitutional standards because it permits prosecutors to invent and introduce non-statutory aggravating factors that vary by case, resulting in the kind of arbitrary and inconsistent application of the death penalty denounced in *Furman v. Georgia*. *Id.* at 264. The statute allows the government to propose "any other aggravating factor," without offering meaningful guidance on how such factors should be selected or defined. *Id.* This broad discretion risks verdicts based not on "clear and objective" criteria, as required by *Gregg v. Georgia*, but on the prosecutor's own subjective judgment. *See id.* Combined with the expansive scope of admissible evidence at the penalty phase, this standardless framework fosters a constitutionally impermissible risk that capital sentencing will be driven by prosecutorial imagination rather than principled limitations—inviting precisely the arbitrary and capricious outcomes the Eighth Amendment was intended to prevent. *See id.*

284 *See id.* at 260.

285 *See id.* at 261–66.

286 *See id.* at 266.

287 *See id.*

288 *See id.* at 264; United States v. Purkey, 428 F.3d 738, 748–49 (8th Cir. 2005).

289 *See* Mitchell v. United States, 140 S. Ct. 2624, 2624–25 (2020).

enforcement the Eighth Amendment was designed to prevent. As Douglas emphasized in *Furman*, the Eighth Amendment obliges legislatures to create laws that are fair, consistent, and nonarbitrary, and demands that judges ensure those laws are applied evenly and without favoritism.[290]

These shortcomings do not mean that the FDPA should be discarded. Rather, they demonstrate the urgent need to revisit and strengthen it. Just as *Furman* exposed how unguided discretion in capital sentencing could lead to arbitrary and capricious outcomes,[291] and *Gregg* validated structured discretion,[292] promoting a congressional response in the form of the FDPA,[293] the moment now demands a renewed legislative response. The FDPA provides a foundational framework, one that reflects Congress's capacity to craft detailed, constitutionally guided procedures. But its original design now needs adaptation, not abandonment. The following Part is a look at how past legislative interventions can serve as a guide for restoring fairness and stability to the federal death penalty system.

V. PAST CONGRESSIONAL RESPONSES AS A BLUEPRINT FOR FUTURE REFORM

The need for uniform, evidence-based execution standards is underscored by the DOJ Office of Legal Policy's (OLP) 2025 Review of the federal lethal injection protocol.[294] The OLP 2025 Review revealed deep scientific uncertainty about pentobarbital's risks,[295] including its potential to cause flash pulmonary edema and severe pain through high-alkaline injection, particularly if

290 *See* Furman v. Georgia, 408 U.S. 238, 249, 256 (1972) (Douglas, J., concurring).

291 *See id.* at 253.

292 *See* Gregg v. Georgia, 428 U.S. 153, 195–98 (1976).

293 *See* United States v. Catalan Roman, 376 F. Supp. 2d 108, 111 (D.P.R. 2005).

294 Bondi Memorandum, *supra* note 125, at 1, 3. The OLP was tasked with evaluating whether to reinstate pentobarbital as the primary method of execution and whether to expand authorized methods under 18 U.S.C. § 3596(a). *Id.* at 3.

295 OFF. OF LEGAL POL'Y, U.S. DEP'T. OF JUST., REVIEW OF THE FEDERAL EXECUTION PROTOCOL ADDENDUM AND MANNER OF EXECUTION REGULATIONS 2, 6–7 (2025), https://www.justice.gov/archives/ag/media/1384566/dl [https://perma.cc/MJ2R-FY29]. Pentobarbital is an FDA-approved barbiturate used in humans for emergency seizure treatment, short-term sedation for insomnia, and as a pre-anesthetic agent, typically in therapeutic doses between 150 and 200 milligrams. *Id.* at 6. Toxic effects generally occur around one gram, with death reported between two and ten grams. *Id.* While the FDA has approved pentobarbital for animal euthanasia and it has been used in physician-assisted dying under state regulatory frameworks, the FDA has not reviewed or approved pentobarbital's use in high doses for the purpose of intentional human execution. *Id.*

improperly administered.[296] Compounded pentobarbital, sourced outside traditional FDA oversight, heightens the unpredictability,[297] as it remains scientifically unclear whether a five-gram dose of pentobarbital truly renders individuals unconscious or merely unresponsive yet still able to feel suffering.[298] The OLP ultimately concluded that these unresolved concerns warranted halting pentobarbital's use until more rigorous, scientifically validated procedures could be developed.[299] The same OLP Review further highlighted that under the FDPA, federal executions are tied to the method of execution specified by the law of the state where the federal court imposed the sentence,[300] whether that means lethal injection, electrocution, or another method. The FDPA also authorizes federal authorities to use state or local facilities and personnel to carry out the execution, allowing federal officials to rely on state prison staff as needed.[301] This way, the FDPA locks the federal government into following state execution methods.[302] As a result, the federal government is exposed to the volatility of evolving state practices. Because state protocols continue to shift, uncertainty persists, particularly as federal courts begin to scrutinize the constitutionality of new methods such as nitrogen hypoxia.[303] In anticipation of potential legal disputes arising from this framework, the DOJ in 2020 amended its regulations[304] to essentially mirror the FDPA's language.[305] This revi-

296 *See id.* at 11–12.

297 *See id.* at 7–8.

298 *See id.* at 15–16.

299 *Id.* at 16–17.

300 *Id.* at 18–19.

301 *See id.*

302 *See id.*

303 *See* Hoffman v. Westcott, No. 25-169-SDD-SDJ, 2025 U.S. Dist. LEXIS 43627, at *6–12 (M.D. La. Mar. 11, 2025); Sara Cline, *A Federal Judge Has Halted Louisiana's First Nitrogen Gas Execution. The State Says It Will Appeal*, AP NEWS (Mar. 11, 2025, at 16:03 PT), https://apnews.com/article/louisiana-execution-nitrogen-468b8b1d56b0f3bbb394259a35bf20f8 [https://perma.cc/XY6S-46WN]. In addressing whether nitrogen hypoxia constitutes cruel and unusual punishment under the Eighth Amendment, U.S. District Court Judge Shelly Dick issued a preliminary injunction to halt what would have been Louisiana's first execution in fifteen years. *Id.* She emphasized that the public has a strong interest in preventing potential constitutional violations and noted that the question before the court is not whether Hoffman will be executed, but how. *Id.* Following the ruling, Louisiana announced it would appeal the decision. *Id.*

304 28 C.F.R. §§ 26.1–.5 (2025). In 2020, the DOJ proposed amendments to 28 C.F.R. part 26 to expand federal flexibility in carrying out executions by permitting any method authorized under 18 U.S.C. § 3596(a), and to effectuate the statutory authority under § 3597(a) allowing use of state or local facilities and personnel. *See id.* The proposed rule further included technical updates to streamline procedures, such as eliminating redundant requirements for filing a judgment and order with the sentencing court, and modernizing administrative authority by permitting the Director of the Bureau of Prisons or a

sion was intended to safeguard federal flexibility by confirming that executions could proceed under any method permitted by the relevant state,[306] including alternatives such as a firing squad or nitrogen hypoxia. The DOJ also explained that if a state had a different execution method, the "most expedient means" would be to work directly with the state's personnel and facilities to carry out the execution quickly.[307] The following Part draws on several examples of how Congress has acted in the past to curb excessive discretion and promote consistent, constitutionally sound criminal justice policy. By examining the Sentencing Reform Act of 1984 and the Military Commissions Act of 2006, this discussion highlights potential models and lessons for designing a more stable, fair, and principled framework for imposing the federal death penalty.

A. The Sentencing Reform Act of 1984 as a Framework

An example of Congress's efforts to promote fair and consistent criminal policy can be seen in the Sentencing Reform Act of 1984 (SRA), which was upheld in *Mistretta v. United States*.[308] In *Mistretta*, the Supreme Court affirmed that "Congress . . . has the power to fix the sentence for a federal crime" and that judicial sentencing discretion "is subject to congressional control."[309] Historically, sentencing judges had enjoyed broad discretion, including the authority to suspend sentences and impose probation.[310] But Congress determined that this indeterminate system produced "unjustified" and "shameful" consequences: substantial disparities among similarly situated offenders and serious uncer-

designee to make certain decisions, rather than limiting that authority to the warden of the designated facility. *See id.*

305 REVIEW OF FED. EXECUTION PROTOCOL, *supra* note 295, at 1.

306 *See id.*

307 *Id.* at 19.

308 488 U.S. 361, 412 (1989). In 1987, John M. Mistretta was indicted in federal court in Missouri on three cocaine-related charges. *Id.* at 370. He pleaded guilty to one count—conspiracy to distribute cocaine—and was sentenced under the newly established Sentencing Guidelines to eighteen months in prison, three years of supervised release, a $1,000 fine, and a $50 special assessment. *Id.* at 370–71. Mistretta challenged the constitutionality of the Sentencing Guidelines, arguing that the Sentencing Commission violated the separation of powers and involved an excessive delegation of congressional authority. *Id.* at 370. The district court rejected these claims, and both parties petitioned for certiorari before judgment due to the issue's national importance. *Id.* at 370–71.

309 *Id.* at 364. The issue before the Court was whether the Sentencing Guidelines, promulgated by the United States Sentencing Commission under the Sentencing Reform Act of 1984, violated the Constitution by infringing on the separation of powers or by involving an improper delegation of legislative authority. *Id.* at 362.

310 *See id.* at 364.

tainty regarding the time actually served.[311] As the Court noted in *Mistretta*, these features had been a "serious impediment" to the fair and effective operation of the criminal justice system.[312] Through the SRA, Congress aimed to enhance the criminal justice system's fairness and effectiveness by ensuring honesty, uniformity, and proportionality in sentencing.[313] First, Congress sought to eliminate confusion and misleading practices associated with indeterminate sentencing and parole, which often led to defendants serving far less time than courts initially imposed.[314] Second, Congress addressed unreasonable disparities in sentences for similar crimes and similar offenders, creating a more predictable and even-handed system.[315] Third, Congress aimed to promote proportionality, matching punishment severity more closely to the seriousness of the offense.[316] As Congress once acted to constrain judges,[317] it should now intervene to stabilize the standards for imposing the federal death penalty, which today swing dramatically with each administration.

Congress also created the United States Sentencing Commission (the Commission) as part of the Sentencing Reform Act.[318] The Commission is comprised of seven voting members, appointed by the President with Senate confirmation after consultation with judges, prosecutors, defense counsel, crime victims, and other stakeholders, and one non-voting member.[319] At least three members must be federal judges recommended by the Judicial Conference, and no more than four voting members may belong to the same political party.[320] Of the three Vice Chairs, no more than two may share the same party affiliation.[321] The Attorney General, or a designee, serves as a nonvoting ex officio member.[322] Members may only be removed by the President for cause,[323] further reinforcing the Commission's independent character. The Commission, housed within the judicial branch,[324] was

311 *See id.* at 366.
312 *Id.*
313 U.S. SENT'G GUIDELINE MANUAL § 1A3 (U.S. SENT'G COMM'N 2021).
314 *See id.*
315 *See id.*
316 *See id.*
317 *See Mistretta*, 488 U.S. at 364–65.
318 *Id.* at 361; 28 U.S.C. § 991(b)(1)(A).
319 § 991(a).
320 *Id.*
321 *Id.*
322 *Id.*
323 *Id.*
324 *Id.*

created to promote fairness and certainty in sentencing outcomes.[325] Its mandate includes reducing unwarranted disparities among similarly situated defendants, yet preserving enough flexibility to allow individualized sentences based on unique aggravating or mitigating factors.[326] Additionally, the Commission is tasked with incorporating advances in behavioral and criminal justice research,[327] and with developing ways to measure how effective sentencing and correctional practices achieve their intended purposes.[328] The Commission does far more than merely draft guidelines; it systematically collects, analyzes, and publishes extensive data on federal crime and sentencing practices.[329] By gathering case-level data from courts nationwide, the Commission produces public reports on sentencing patterns and provides research-based advice to the judiciary, Congress, and the executive branch.[330]

In this light, a politically independent federal death penalty commission could serve the same stabilizing function as the Sentencing Commission, ensuring that ultimate life-and-death decisions do not fluctuate with presidential priorities. By drawing on rigorous evidence, public data reporting, and transparent analyses, such a commission could help bring the "administrative law" values of expertise, proportionality, and accountability into

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325 *Id.* § 991(b)(1)(B).

326 *Id.*; *see also* Neal v. United States, 516 U.S. 284, 290–91 (1996) (discussing the identical goal and similar flexibility based on specified factors).

327 § 991(b)(1)(C).

328 *Id.* § 991(b)(2).

329 *See generally Research*, U.S. SENT'G COMM'N, https://www.ussc.gov/research [https://perma.cc/T4YB-FQMA] (last visited July 3, 2025) (displaying the Commission's quarterly sentencing updates, annual federal sentencing statistics, and compassionate release data reports).

The Commission also analyzes retroactivity motions and performs sentencing and prison impact reports, guideline application frequency studies, and research reports on topics such as overdoses in drug trafficking crimes, cybercrime, and methamphetamine trafficking. *See Data Reports*, U.S. SENT'G COMM'N, https://www.ussc.gov/topic/data-reports [https://perma.cc/TD7H-HHJB] (last visited Oct. 15, 2025); *Research Reports*, U.S. SENT'G COMM'N, https://www.ussc.gov/topic/research-reports [https://perma.cc/RA7S-QUSL] (last visited Oct. 15, 2025). In addition, the Commission provides datafiles on sentenced individuals and organizations, and releases data briefings to support public comment on guideline amendments, including recent briefings on prison contraband, drug offenses, and machinegun conversion devices. *See Data Briefings*, U.S. SENT'G COMM'N, https://www.ussc.gov/topic/data-briefings [https://perma.cc/V2HS-ELT9] (last visited Oct. 15, 2025).

330 *Research*, *supra* note 329.

the federal capital punishment system.[331] At present, criminal law often departs from these principles of sound governance, favoring gut reactions and emotionally charged, high-profile cases instead of reasoned, evidence-based policymaking.[332] These dynamics allow policy to swing wildly with political cycles or media outrage, rather than remain anchored in principled, fair criteria.[333] Like the Sentencing Commission, which was created to promote fairness,[334] a dedicated federal death penalty commission could help counter these pressures by establishing consistent standards for imposing capital punishment, thereby reducing arbitrary enforcement.

B. The Military Commissions Act of 2006 as a Framework

The pattern of congressional intervention to constrain problematic executive practices is not unique to judicial sentencing. After Congress passed the Authorization for Use of Military Force (AUMF) in response to the September 11 attacks, President George W. Bush initiated the detention of enemy combatants at Guantánamo Bay.[335] He sought to prosecute them through military commissions, including the defendant in *In re Al-Nashiri*, who was charged with capital offenses such as terrorism and murder in violation of the law of war.[336] The Supreme Court, however, in *Hamdan v. Rumsfeld*, determined that the President's military commissions did not comply with procedural protections set out in the Uniform Code of Military Justice and the Geneva Conventions.[337] In direct response to *Hamdan*, Congress passed the Military Commissions Act of 2006 (MCA).[338] 28 U.S.C. § 2241(e)[339] was amended by the MCA to explicitly strip federal courts of jurisdic-

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331 *Cf.* Rachel E. Barkow, *Prisoners of Politics: Breaking the Cycle of Mass Incarceration*, 104 MINN. L. REV. 2625, 2627 (2020) (contrasting how policy is created in administrative law versus criminal law).

332 *See id.* at 2627–28.

333 *See id.* at 2627.

334 28 U.S.C. § 991(b)(1)(B); *see also* Neal v. United States, 516 U.S. 284, 290–91 (1996) (highlighting the Commission's goal of eliminating sentencing disparities).

335 *In re Al-Nashiri*, 835 F.3d 110, 114 (D.C. Cir. 2016).

336 *Id.*

337 548 U.S. 557, 567 (2006). Justice Kennedy, concurring, emphasized that because Congress had prescribed those procedural limits on presidential authority, only Congress could change them. *Id.* at 653 (Kennedy, J., concurring).

338 Hamad v. Gates, 732 F.3d 990, 998 (9th Cir. 2013).

339 *Id.*; s*ee also* § 2241(e) (restricting federal court jurisdiction over habeas petitions filed by non-citizens detained as enemy combatants).

> Unless otherwise authorized by the Detainee Treatment Act of 2005, courts may not hear such petitions or related legal challenges concerning the detention, transfer, treatment, or trial of these individuals. *Id.* § 2241(e)(2).

tion to hear habeas petitions filed by Guantánamo detainees held after September 11, 2001—even those already pending in court.[340] The MCA created a new military commission system, exempted it from many of the previous procedural limits, and established a Court of Military Commission Review.[341] When the MCA was challenged in *Boumediene v. Bush*, the Court concluded that Congress had indeed expressed a clear and unmistakable intent to bar federal court review of these cases.[342]

This history suggests that Congress is fully capable of stepping in to correct flawed or overly discretionary executive frameworks in matters of grave consequence, even when those frameworks affected noncitizens detained abroad.[343] By establishing new military commissions,[344] clarifying jurisdiction,[345] and replacing inadequate executive procedures with a legislated system,[346] Congress showed its willingness to stabilize processes critical to due process. In the same way, Congress today should exercise its constitutional authority to prevent arbitrary swings in how and when the federal death penalty is imposed, and adopt uniform standards that guard against inconsistent or politically driven decision-making.

VI. CONCLUSION

The modern federal death penalty no longer functions as a stable or principled system of justice. Over the past four administrations, capital punishment has shifted in response to presidential ideology rather than constitutional consistency. What remained dormant under Obama was aggressively revived by Trump, paused under Biden, and reinstated with sweeping mandates during Trump's second term. These reversals demonstrate that federal capital punishment now operates less as a legal institution and more as a political instrument, vulnerable to partisan cycles and executive priorities.

The constitutional concerns first raised in *Furman v. Georgia*, such as arbitrariness, inconsistency, and the unchecked use

340 *See Hamad*, 732 F.3d at 998; § 2241(e)(1).

341 *In re Al-Nashiri*, 835 F.3d at 115.

342 *See* 553 U.S. 723, 738–39 (2008).

343 *See Hamad*, 732 F.3d at 998; *In re Al-Nashiri*, 835 F.3d at 114–15; Hamdan v. Rumsfeld, 548 U.S. 557, 558–59 (2006).

344 *See In re Al-Nashiri*, 835 F.3d at 115.

345 *See Hamad*, 732 F.3d at 997–98; *In re Al-Nashiri*, 835 F.3d at 115–16; *Boumediene*, 553 U.S. at 738–39.

346 *See In re Al-Nashiri*, 835 F.3d at 115.

of discretion, have resurfaced through the unbounded authority of the executive branch. While the FDPA introduced procedural safeguards at the sentencing stage, those protections are undercut by the Attorney General's unilateral charging power. Who faces death can depend more on political ideology than on law or fact. These vulnerabilities are compounded by patterns of racial and geographic disparity, confirming that the imposition of death is still shaped by forces external to justice.

The structural weaknesses within the FDPA itself further entrench these problems. Courts have recognized the broad scope of executive and prosecutorial discretion and have largely refrained from imposing procedural limits. DOJ protocols lack legal enforceability, and judicial review remains minimal. The result is a regime where life-and-death decisions can be shaped by political allegiance, personal loyalty, or media attention, rather than by objective standards. Ambiguities in the statute have led to divergent interpretations, exposing capital enforcement to uncertainty and inconsistency across administrations.

Yet this state of instability is not inevitable. Congress has intervened before to bring fairness and structure to areas of criminal law prone to abuse. The Sentencing Reform Act and the Military Commissions Act reflect a legislative capacity to craft principled, enduring frameworks that resist executive overreach. Similar reform is both possible and necessary for the federal death penalty. A politically independent commission, grounded in data, transparency, and constitutional principle, could restore credibility to a system now marked by volatility.

Without such institutional safeguards, the federal death penalty remains at risk, not merely of being cruel, but of becoming wholly arbitrary and lawless. The Constitution demands more than procedural formality. It requires a system where the gravest punishment is imposed through fair, consistent, and accountable processes. That demand remains unmet. The time for legislative recalibration is now.

Through a Glass Darkly: Targeting Cyber and Space Infrastructure in the Law of War

Major Michael D. Minerva

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Through a Glass Darkly: Targeting Cyber and Space Infrastructure in the Law of War

*Major Michael D. Minerva**

As modern militaries become more capable in the cyber and space domains, much of the legal debate has focused on how to legally conduct cyber and space operations. While important, that discussion has largely overlooked the legal implications for the rapidly growing cyber and space infrastructure that exists in the physical domain—commercial satellites like Starlink filling the night skies and data centers like those popping up all over northern Virginia. Most of this infrastructure is commercially developed and privately owned—presumptively civilian in nature—and yet used by militaries all over the world.

The same way bridges form critical ground lines of communication subject to lawful attack under the Law of War, rapidly growing cyber and space infrastructure forms digital lines of communication that will become lawful military targets subject to attack. Kinetically targeting this infrastructure will have far-reaching distinction and proportionality implications that have largely been unaddressed despite perhaps being the simplest and most likely way states can affect the cyber and space domains. This Article takes a first step in assessing how the Law of War applies to this infrastructure and some of the targeting implications legal advisors and commanders must consider.

* Major Minerva is a judge advocate in the United States Marine Corps, presently assigned as the War Plans Officer at the United States Marine Corps Forces Central Command. He holds a Master of Operational Studies from the School of Advanced Warfighting, Marine Corps University, an LL.M. in National Security Law from the U.S. Army Judge Advocate General's School, a J.D. from Liberty University School of Law, and B.A.s in history and political science from Arizona State University. The opinions and conclusions expressed herein are solely those of the individual author and do not necessarily represent the positions of the Department of Defense, the Department of the Navy, or the United States Marine Corps.

I. INTRODUCTION: WE DREAMED THE FUTURE AND IT IS NOW

"For a few ecstatic moments Phaëthon felt himself the Lord of the Sky. But suddenly there was a change."[1]

The prospect of cyber and space war has loomed large in the American psyche for decades—whether it is Captain Kirk fighting tribbles, 007 fighting diamond-encrusted laser satellites, or John McClane protecting all of America's personal data. As the plots evolve into possibilities, the law struggles to keep up despite the decades of anticipation.

Not only are the plots of science fiction becoming realities, but capabilities are quickly outpacing our imaginations. Despite continuously evolving, the Law of War, like any body of law, struggles to address the evolving character of cyber and space warfare. Perhaps more than in other areas of the Law of War, the shroud of secrecy cast over cyber- and space-related technology makes discerning state practice and customary norms more difficult. Consequently, the literature on the topic tends to plod along at best, and to grope about in the dark at worst.

Despite prolific representation in films and television, actual space and cyber wars are even more common today than their media metaphors suggest. Unlike in film, however, at the center of space and cyber war is a commercially developed, privately owned infrastructure.[2] There is an ever-increasing military use of commercial satellites for access to cyber and space.[3] SpaceX's

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1 EDITH HAMILTON, MYTHOLOGY 133 (12th prtg. 1959). Helios grants his mortal son, Phaëthon, one wish to prove his paternity. *Id.* at 132. Phaëthon, ignoring all wisdom and reason and not understanding the gravity of what he sought, chose to take his father's place for a day and drive the sun chariot through the sky. *Id.* at 132–33. "For a few ecstatic moments Phaëthon felt himself the Lord of the Sky," and then his feeble clutches at the reins alert the Sun's immortal horses that he has no control, so they run wild. *Id.* at 133. The chariot crashes into the constellations and then plunges to the earth below, setting the world on fire and turning rivers to steam. *Id.* Though repentant, Phaëthon perishes. *Id.* Greatly he dared, but, ignoring the customs and usages of the law, greatly he failed. *Id.*

2 *See, e.g.*, Julia Siegel, *Commercial Satellites Are on the Front Lines of War Today. Here's What This Means for the Future of Warfare.*, ATL. COUNCIL (Aug. 30, 2022), https://www.atlanticcouncil.org/content-series/airpower-after-ukraine/commercial-satellites-are-on-the-front-lines-of-war-today-heres-what-this-means-for-the-future-of-warfare/ [https://perma.cc/EEA6-BFAS].

3 *See* Brandi Vincent & Mark Pomerleau, *Starlink Terminals Give Navy 'Game-Changing' Flexibility*, DEFENSESCOOP (Apr. 11, 2024), https://defensescoop.com/2024/04/11/starlink-terminals-navy-spacex-shipboard-c4i/ [https://perma.cc/AL9H-HY4D].

growing commercial satellite internet constellation has gained widespread military use—particularly as distributed operations, like those proposed in Expeditionary Advanced Base Operations (EABO), are implemented.[4] Commercial satellites are just one example of dual-use infrastructure relied on in cyber and space operations. Ultimately, any cyber operation that uses the internet as a method of gaining access or infiltrating a network makes that infrastructure dual-use.[5]

Cyberspace is often viewed as a public common akin to the ocean or the physical area of outer space (as distinguished from space infrastructure) or some sort of virtual reality matrix with no physical component. In reality, however, cyberspace is physically composed of networked computers and systems that are predominantly owned and operated by civilians.[6] This cyber infrastructure does far more than just provide internet for popular streaming platforms—markets and economies almost entirely rely on the existence of this infrastructure.[7] Moreover, operations in cyberspace inherently rely on this infrastructure. So, while it is comfortable to imagine cyber and space war as occurring in a galaxy far, far away, the truth is it is already streaming on a computer or server near you.

The existing literature tends to assess the Law of War implications of cyber and space operations as a world unto itself—separate from actual armed conflict—focusing singularly on how the Law

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4 *See* Vincent & Pomerleau, *supra* note 3; Courtney Albon, *Reliant on Starlink, Army Eager for More SATCOM Constellation Options*, DEFENSENEWS (Aug. 21, 2024), https://www.defensenews.com/space/2024/08/21/reliant-on-starlink-army-eager-for-more-satcom-constellation-options/ [https://perma.cc/YJC3-7CUQ]; Paul Mozur & Adam Satariano, *Russia, in New Push, Increasingly Disrupts Ukraine's Starlink Service*, N.Y. TIMES (May 25, 2024), https://www.nytimes.com/2024/05/24/technology/ukraine-russia-starlink.html [https://perma.cc/L3TW-R5ZM]; DEP'T OF THE NAVY, TENTATIVE MANUAL FOR EXPEDITIONARY ADVANCED BASE OPERATIONS 4-9 to -10 (2d ed. 2023).

5 Dual-use here refers to having a military and civilian use, vice nuclear and conventional use as in political science literature.

6 JOINT CHIEFS OF STAFF, JOINT PUBLICATION 3-12, CYBERSPACE OPERATIONS, at GL-4 (2018) (describing cyberspace as "[a] global domain within the information environment consisting of the interdependent networks of information technology infrastructures and resident data, including the Internet, telecommunications networks, computer systems, and embedded processors and controllers"); G. Alexander Crowther, *National Defense and the Cyber Domain*, THE HERITAGE FOUND. (Oct. 4, 2017), https://www.heritage.org/military-strength-topical-essays/2018-essays/national-defense-and-the-cyber-domain [https://perma.cc/4F7C-7E92].

7 See OECD, *Cybersecurity Policy Making at a Turning Point: Analysing a New Generation of National Cybersecurity Strategies for the Internet Economy* 17 (OECD, Working Paper No. 211, 2012).

of War applies to operations in cyberspace.[8] This Article will situate cyber operations within the context of armed conflict and flesh out the implications of the kinetic targeting of cyber and space infrastructure, exploring what happens when nominally civilian infrastructure becomes dual-use. Some questions this Article will address include: What does proportionality look like in that context? How much and what type of military use of a network is necessary in order for it to be a lawful military objective? Does attribution even matter if a country can identify and locate the cyber or space infrastructure used to attack it, and then kinetically destroy that infrastructure in self-defense regardless of where it physically resides?

These questions will become more and more prevalent as militaries continue to move toward contracted communications capabilities and support infrastructure. Unlike the historical Law of War developments relating to air and nuclear war, these questions must be addressed before the next major conflict—lest decision makers, like proud and youthful Phaëthon, lose control of capabilities they barely understand with consequences they refuse to foresee. This Article will explore these implications by using recent case studies as a starting point, but adding the additional facts necessary to contextualize them within the framework of armed conflict. Engaging in these hypotheticals will help develop a framework for decision making in response to cyber operations and normalize discussing kinetic responses to non-kinetic operations in the context of armed conflict.

To that end, Part II of this Article will describe the problem as it is today. Part III will present a possible cyber war scenario as a set of facts to analyze. Part IV will briefly survey fundamental principles of the Law of War and some specific implications in cyber and space war. Part V proposes a framework for analyzing the legal implications of targeting cyber and space infrastructure in *jus ad bellum* and *jus in bello* paradigms. Finally, Part VI applies that framework to the scenario developed in Part III. Ultimately, dual-use infrastructure—cyber, space, or otherwise—can

8 Gary Solis, and indeed most scholars, conceptually grant that a kinetic reprisal is a legitimate response to a cyber operation that constitutes a use of armed force. That, however, is as deep as most of the scholarship goes, without parsing out what cyber or space infrastructure becomes a military object. Much has been written about critical national infrastructure (e.g., power grids, transportation, finance, water supply systems, etc.) and its vulnerabilities, but again, the focus there has been on the lawfulness of cyber operations targeting critical national infrastructure, not the lawfulness of kinetically targeting cyber infrastructure. *See, e.g.*, GARY D. SOLIS, THE LAW OF ARMED CONFLICT: INTERNATIONAL HUMANITARIAN LAW IN WAR 532–61 (3d ed. 2022).

be lawfully targeted, as long as the strikes provide a definite military advantage and reasonable precautions are taken to minimize collateral damage. Whether leaders are prepared to do so or the public is comfortable with that conclusion is another question entirely—that is why a sound targeting framework is critical.

II. THE FACTUAL AND LEGAL PROBLEMS OF DUAL-USE CYBER AND SPACE INFRASTRUCTURE

A. As a Matter of Fact

Cyber and space war receive a significant amount of written attention, both scholarly and journalistic. The more fact-intensive writing takes the form of investigative journalism, campaign analyses, or case studies, focusing on explaining what happened. Examples of these include *Countdown to Zero Day*,[9] *Dawn of the Code War*,[10] and *Dark Territory*.[11]

Of note, this body of literature often draws comparisons to other technological developments, primarily airplanes, nuclear weapons, and unmanned aerial vehicles (UAVs). While these comparisons are useful, they tend to fall short because those three technologies are more strictly military in nature, not dual-use, and, of even greater distinction, do not rely on civilian infrastructure as predominantly as cyber and space capabilities. The legal developments that those technologies drove (primarily about targeting dual-use objects) remain their chief utility for addressing cyber and space problems.

Finally, there is an almost myopic assumption throughout the literature that the only fathomable governmental responses to cyber operations fall into the diplomatic, informational, or economic parts of DIME,[12] with little thought given to what a traditional military response might entail.[13] Responses discussed tend

9 *See generally* KIM ZETTER, COUNTDOWN TO ZERO DAY: STUXNET AND THE LAUNCH OF THE WORLD'S FIRST DIGITAL WEAPON (2014) (exploring the Israeli-American cyber operation against Iranian enrichment facilities).

10 *See generally* JOHN P. CARLIN WITH GARRETT M. GRAFF, DAWN OF THE CODE WAR: AMERICA'S BATTLE AGAINST RUSSIA, CHINA, AND THE RISING GLOBAL CYBER THREAT (2018) (chronicling the Department of Justice's campaign against Chinese and Islamic State of Iraq (ISIL) cyber operations).

11 *See generally* FRED KAPLAN, DARK TERRITORY: THE SECRET HISTORY OF CYBER WAR (2016) (outlining the history of cyber war).

12 JOINT CHIEFS OF STAFF, JOINT PUBLICATION 1, DOCTRINE FOR THE ARMED FORCES OF THE UNITED STATES, at I-12 to -13 (2017) (defining Diplomatic, Informational, Military, and Economic (DIME) as "instruments of national power").

13 As opposed to a military response that is a purely cyber operation response (tending to fall more in the informational category), vice a kinetic response. N.B.: No insinuation is intended that cyber operations are not "traditional . . . military activities" under 50

to include démarches, expulsion of diplomatic representatives, sanctions, criminal indictments and prosecutions, and punitive non-kinetic cyber operations. This tendency unfortunately has the side effect of narrowing discussion of the Law of War's applicability to cyber operations as explained below.

B. Legally Speaking

While there is a significant amount of literature arguing for policy change and legislation, many scholarly law review articles more thoroughly address the Law of War implications of cyber operations. They focus on how to conduct cyber operations in compliance with the Law of War. Often, they lack the factual details that investigative campaign analyses include, using only the minimum amount of facts necessary to make their legal arguments. While this is a norm in legal writing and helps frame legal rules, it does not necessarily guide the practitioner through the shadows of real-life variations.

Much about how the Law of War applies to cyber and space operations remains unsettled. Significant questions are still actively being debated by scholars and states alike. Some of these questions include: What is a cyber attack? Do all cyber operations amount to a use of force or act of aggression under article 2(4) of the U.N. Charter? Do they amount to armed attack under article 51 of the U.N. Charter? Is data an object? Should cyber and space infrastructure be treated as a protected class (similar to hospitals) to give the Law of War meaning in terms of minimizing suffering to civilians? Is space a global common? States (to the extent they have articulated a position) and scholars alike come down on different sides of each of these questions.[14]

U.S.C. § 3093(e). Of note, however, political science research discussing the escalation and deterrence impacts of cyber operations and comparing them to kinetic operations' escalatory and deterrent effects demonstrates that cyber operations do not have the same escalatory effect as kinetic operations. *See generally* BENJAMIN JENSEN & BRANDON VALERIANO, ATL. COUNCIL: SCOWCROFT CTR. FOR STRATEGY AND SEC., WHAT DO WE KNOW ABOUT CYBER ESCALATION? OBSERVATIONS FROM SIMULATIONS AND SURVEYS (2019), https://www.atlanticcouncil.org/in-depth-research-reports/issue-brief/what-do-we-know-about-cyber-escalation-observations-from-simulations-and-surveys/ [https://perma.cc/3354-83PV] (demonstrating that cyber operations do not have the same escalatory effect as kinetic operations).

14 *Compare* Sean Watts & Theodore Richard, *Baseline Territorial Sovereignty and Cyberspace*, 22 LEWIS & CLARK L. REV. 771, 771 (2018) (examining "emerging State cyber practice" and legal views surrounding the application of State sovereignty to cyberspace), *with* Noah Weisbord, *Judging Aggression*, 50 COLUM. J. TRANSNAT'L L. 82, 152 (2011) (arguing for clear judicial standards regarding what constitutes an "armed attack"), *and* Andrew Moore, *Stuxnet and Article 2(4)'s Prohibition Against the Use of Force: Customary Law & Potential Models*, 64 NAVAL L. REV. 1, 2 (2015) (addressing "the customary inter-

Unfortunately, due to the inherent secrecy associated with cyber and space operation capabilities, many state policies and positions remain classified or unstated. When coupled with the twin difficulties of attribution and private/non-state actor operations, discerning state practice is often a murky enterprise. Consequently, amongst the literature on the topic, there is a disproportionate amount of scholarly debate as compared to historical Law of War developments, where states have traditionally led the debate, with scholars filling in the gaps. With states declining to weigh in with authoritative positions—or stating very general positions—researchers are left citing high-ranking legal advisors' unclassified speeches as authoritative.[15] Examples of these include: Harold Koh's (Department of State Legal Advisor) speech at the U.S. Cyber Command (CYBERCOM) legal conference,[16] Brian Egan's (Department of State Legal Advisor) speech at the Berkeley Center for Law and Technology,[17] and Roy Schondorf's (Israeli Deputy Attorney General) speech at the Stockton Center for International Law.[18] Often, these legal advisors opine on some of the critical questions listed above, but other states do not, leaving the researcher with only one state's position—hardly enough to deduce a norm.

The *Tallinn Manual 2.0* represents the widest-ranging application of international law to cyber and space operations.[19] It

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pretation of force prohibited by Article 2(4)" of the U.N. Charter), *and* Peter Pascucci, *Distinction and Proportionality in Cyberwar: Virtual Problems with a Real Solution*, 26 MINN. J. INT'L L. 419, 422 (2017) (analyzing international humanitarian law regarding distinction and proportionality in cyberwar).

15 *See generally* Scott Sullivan, *Toward Clarity in Cyber's "Fog of Law*,*"* 10 CYBER DEF. REV. 59 (2025) (highlighting the persistent and intentional ambiguity surrounding legal positions on state-sponsored cyber operations).

Unclassified speeches are not an abnormal source for Law of War developments but, because these speeches are inherently generic, when they are the only source and are made few and far between, they tend to be less useful for discerning a developing norm.

16 Harold Hongju Koh, Legal Advisor, U.S. Dep't of State, International Law in Cyberspace (Sep. 18, 2012), https://2009-2017.state.gov/s/l/releases/remarks/197924.htm [https://perma.cc/4LYK-LTJE].

17 Brian J. Egan, Legal Advisor, U.S. Dep't of State, Remarks on International Law and Stability in Cyberspace (Nov. 10, 2016), https://2009-2017.state.gov/s/l/releases/remarks/264303.htm [https://perma.cc/K2VQ-43VR].

18 Roy Schondorf, Israeli Deputy Att'y Gen. (Int'l Law), Israel's Perspective on Key Legal and Practical Issues Concerning the Application of International Law to Cyber Operations (Dec. 9, 2020), https://www.ejiltalk.org/israels-perspective-on-key-legal-and-practical-issues-concerning-the-application-of-international-law-to-cyber-operations/ [https://perma.cc/8DS2-CJVX].

19 *See generally* INT'L GRP. OF EXPERTS, TALLINN MANUAL 2.0 ON THE INTERNATIONAL LAW APPLICABLE TO CYBER OPERATIONS (Michael N. Schmitt ed., 2017) [hereafter TALLINN MANUAL 2.0] (explaining the scope of how international law governs cyber operations).

is the widest-ranging because it is both the most thorough and includes the most diverse group of international contributors.[20] The trouble, as every practitioner (especially Americans) is quick to point out, is that the *Tallinn Manual 2.0* is neither a treaty nor has it been adopted by any state as an authoritative statement of the law.[21] It is a consensus view of experts, not a *jus cogens* norm carrying the weight of law.[22]

Finally, legal writing in general addresses whether the object of a cyber operation is a military object or a civilian object, but very little of this literature addresses the implications of military use of cyber and space infrastructure and the impacts that use may have on its classification as a lawful target. This may be because, under the Law of War, cyber and space infrastructure is like any other dual-use object; targetable assuming it complies with the other Law of War requirements. This may also be because there are few articulable norms regarding cyber operations. One that does appear to be nascently developing is that cyber operations in and of themselves do not merit kinetic responses. Or put another way, only cyber responses are proportionate to cyber operations. Whether that is a *jus cogens* legal norm that is forming (doubtful) or a political decision about escalation and deterrence (most likely) remains to be seen. The one point most of the legal writing agrees on is that cyber and space weapons are in fact subject to the Law of War.

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20 The lists of contributors span eleven pages and includes representation from many countries, academics, military practitioners, and government employees. *Id.* at xii–xxii. The group is largely western, though some contributors hail from Japan and China. *See id*. No doubt this is due to it being a product of an International Group of Experts hosted by NATO's Cooperative Cyber Defence Centre of Excellence. *Id.* at iv.

21 Nonetheless, in breadth, depth, substance, format, explanatory comments, and thoroughness, the *Tallinn Manual 2.0* is essentially a Restatement of Law, which in every other field of law is a foundational starting point. *See* Michael Schmitt, *Tallinn Manual 2.0 on the International Law of Cyber Operations: What It Is and Isn't*, JUST SEC. (Feb. 9, 2017), https://www.justsecurity.org/37559/tallinn-manual-2-0-international-law-cyber-operations/ [https://perma.cc/7PXB-HKCG]. Every jurisdiction varies slightly from the Restatement, but it is generally a reliable statement of the law. *Id.* The very fact of most practitioner's reluctance to endorse the *Tallinn Manual 2.0* (despite having a copy on their desks) is in and of itself a commentary on the state of the Law of War as it applies to cyber operations.

22 *Jus Cogens*, BLACK'S LAW DICTIONARY (9th ed. 2009) ("A mandatory or peremptory norm of general international law accepted and recognized by the international community as a norm from which no derogation is permitted.").

III. HYPOTHETICAL SCENARIO: CYBER CASCADE[23]

The year is 2026 and the political tensions in the South Asian Sea that have been rising for the past 30 years are at a fever pitch. The Hague's Permanent Court of Arbitration recently ruled that State A had no legal claim to the Johnson Atolls, a series of maritime features in the South Asian Sea that do not qualify as islands.[24] The Johnson Atolls are in the Exclusive Economic Zone (EEZ) of State B, a relatively underdeveloped military power.[25] State A continues to develop military infrastructure on these non-island features. While tensions are high, States A and B remain at peace. State A operates airborne intelligence, surveillance, and reconnaissance (ISR) platforms from the Johnson Atolls—both manned and unmanned—and conducts regular resupply missions to the atolls. In addition to the ISR systems in the Johnson Atolls, State A regularly patrols the area with warships that harass State B commercial activity (fishing and oil drilling), and scrambles fighter jets to intercept any aircraft that enters what State A claims is national airspace above the Johnson Atolls.[26]

State C, a major world power, is a treaty ally with State B. State C launches a complex cyber operation, codenamed CASCADE, that uses Stuxnet-like technology to worm its way through cyberspace and is specifically designed to identify air traffic control (ATC) and air defense systems utilized by State A

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23 The scenario presented in this section is a hypothetical cyber operation based on historical cyber operations and publicly available information. Every effort has been made to use realistic components of historical examples to identify that these are realistic possibilities today, rather than futuristic ideas.

24 An island is defined as "a naturally formed area of land, surrounded by water, which is above water at high tide" and can sustain human habitation or economic life of its own. *See* U.N. Convention on the Law of the Sea art. 121, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter UNCLOS]; DEP'T OF THE NAVY, NWP 1-14M, THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS 1-7 (2022) [hereinafter NWP 1-14M]. Each island has its own territorial sea, contiguous zone, and exclusive economic zone. *Id.* N.B.: While the United States has not ratified UNCLOS, it played a major role in the negotiation process, and the U.S. position is that these provisions are consistent with customary international law. *See* Off. of the Staff Judge Advoc., U.S. Indo-Pac. Command, *The U.S. Position on the U.N. Convention on the Law of the Sea*, 97 INT'L L. STUD. 81, 82–83 (2021); Presidential Statement on United States Oceans Policy, 19 WEEKLY COMP. PRES. DOC. 383 (Mar. 10, 1983).

25 The EEZ is defined as "an area beyond and adjacent to the territorial sea," out to "200 nautical miles from the baselines," in which the coastal state has exclusive and sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources. UNCLOS, *supra* note 24, arts. 55–57. Of note, it includes the rights and jurisdiction over "the establishment and use of artificial islands." *Id.* art. 56.

26 National airspace is that airspace superjacent to "the State's territory, internal waters, territorial sea, and, in the case of an archipelagic State, archipelagic waters." NWP 1-14M, *supra* note 24, at 2-16.

on the Johnson Atolls.[27] In searching for the targeted systems, CASCADE moves through various communications networks, largely privately owned, passing through both computer networks and communication satellite constellations that provide internet services. When CASCADE identifies that a particular terminal is not a targeted system, it deletes itself from the system and continues its hunt. Once CASCADE identifies the target systems, it notifies the sender, and after a built-in delay period of several months, it deploys its payload.

CASCADE's payload is designed to erase all data on the target systems. By doing so, the ATC systems used to ensure safe flight operations are rendered inoperable, causing a State A military unmanned ISR aircraft to crash into one of the airfields on the Johnson Atolls, causing significant damage to the infrastructure and destroying the aircraft. Several State A manned military ISR aircraft had to divert and conduct emergency landings in State B's sovereign territory, initiating what is becoming a protracted dispute between State A and B over the return of the pilots and aircraft.

Because State A has developed a significant cyber force capability over the last ten years, it is able to relatively quickly identify CASCADE, build countermeasures that prevent it from causing further damage to State A systems, and identify several Amazon Web Service (AWS) data center sites in State C and specific commercial satellite constellations that CASCADE passed through while searching for the targeted systems.[28] State A was not able to directly attribute CASCADE to State C; however, State A has nonetheless publicly blamed State C for the CASCADE attack, arguing that, because of State C's level of sophistication, State C either conducted the attack itself or knew

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27 For an in-depth case study of Stuxnet, see generally ZETTER, *supra* note 9. A worm is a type of computer program that is difficult to detect, self-replicates, burrows deep into computer systems, and rapidly spreads across networks. *See id.* at 13.

28 AWS has hundreds of data centers in countries all over the world. *See AWS Global Infrastructure*, AMAZON WEB SERVS., https://aws.amazon.com/about-aws/global-infrastructure/https://aws.amazon.com/about-aws/global-infrastructure/ [https://perma.cc/XT5H-3PBW] (last visited Sep. 29, 2025). AWS is used in this hypothetical simply because the majority of its data transactions are presumptively commercial and civilian. *Id.* Furthermore, because of the breadth of AWS's physical international presence, it provides an element of placement and access. *Id.* Google or Microsoft would just as easily make the point. *See, e.g.*, *Discover Where the Internet Lives*, GOOGLE: DATA CTRS., https://www.google.com/about/datacenters/locations/ [https://perma.cc/Q7AA-GR2H] (last visited Sep. 29, 2025); *The Backbone of Microsoft Cloud: Our Datacenters*, MICROSOFT DATACENTERS, https://datacenters.microsoft.com [https://perma.cc/Q3RR-K93H] (last visited Sep. 29, 2025).

the attack was conducted from its infrastructure and was unwilling or unable to prevent it.

Consequently, State A views CASCADE as an act of war, and conducts a missile strike on one of the data centers in State C and uses an anti-satellite missile against a commercial satellite internet constellation. The strike on the data center kills approximately 300 civilian employees and destroys servers that many companies rely on for secure data storage and cloud support. The strike on the satellite constellation destroys several satellites and creates a massive field of space debris in low Earth orbit. Several other countries' national and commercial satellites are damaged by the resulting space debris.

While not directly attributed to State C, State A claims that the strike was in self-defense and that it was lawful, given State C's advanced cyber capability and apparent unwillingness to prevent cyber attacks from passing through its cyber and space infrastructure. Further, State A claimed self-defense because CASCADE was still active in cyberspace, seeking additional systems that meet the target criteria—systems that State A relies on in other parts of the South Asian Sea.

IV. LAW OF WAR FOUNDATIONS AND CYBER AND SPACE IMPLICATIONS

A. General Rules Defined

There are five foundational Law of War principles: military necessity, distinction, proportionality, humanity (or avoiding unnecessary suffering), and honor.[29] There is a host of nuance to each principle and whole treatises have been written about each individually. This section expounds the basic rules with a focus on how they manifest in the cyber and space domains. In the interests of relevance and brevity, this scenario focuses on the principles of military necessity, distinction, and proportionality. While humanity and honor remain relevant to all aspects of armed conflict, they are beyond the scope of this Article. These principles are part of the subset of International Law known as the Law of War or the Law of Armed Conflict (LOAC). The Law

29 OFF. OF GEN. COUNS., DEP'T OF DEF., DEPARTMENT OF DEFENSE LAW OF WAR MANUAL § 2.1.2.3 (2023) [hereinafter DOD LAW OF WAR MANUAL]. Note that while honor is included in the DoD Law of War Manual, it is not always enumerated as a core principle. *See, e.g.*, SOLIS, *supra* note 8, at 209–45; GEOFFREY CORN ET AL., THE LAW OF ARMED CONFLICT: AN OPERATIONAL APPROACH 112 (1st ed. 2012); Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, ¶ 78 (July 8).

of War is a *lex specialis*, which means it only applies to armed conflicts, and it supersedes other bodies of law during armed conflicts.[30]

The principle of military necessity justifies the conduct of war: killing and destroying both people and property. It "justifies the use of all measures needed to defeat the enemy as quickly as possible" so long as those measures are not otherwise prohibited by the Law of War.[31] Simply put, military necessity is what justifies violence. While distinct, there is a natural and inherent consistency here with self-defense doctrines requiring that force be a last resort, i.e., that it be necessary to mitigate the threat.[32] While naturally consistent with self-defense in a *jus ad bellum* context, military necessity is not an admission ticket—useful for getting into a war, and then cast aside. It remains applicable for the duration of the conflict. Military necessity affirmatively justifies offensive operations in a *jus in bello* context and imposes a corollary restriction: killing and destruction that are not militarily necessary are prohibited. It is a requirement that the conduct be necessary.

Because the Law of War principles evolved with war in mind—indeed, that is their reason for existing—they account for the exigencies of war.[33] In other words, the concept of military necessity recognizes and assumes certain types of military actions are inherently necessary.[34] It does not, however, justify unnecessary, wanton destruction: destruction for destruction's sake, killing for killing's sake. Such an interpretation defies the meaning of the word *necessity* and guts the principle wholesale.

The principle of distinction is the hallmark of a professional military. Essentially, it stands for limiting the *intentional* effects of war to military objectives. The principle imposes a two-fold requirement. First, it requires belligerents to attack only the enemy, as opposed to civilian populations and other protected persons and objects.[35] Second, it requires belligerents to distinguish themselves from non-military persons and objects.[36] Significant

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30 WILLIAM WINTHROP, MILITARY LAW AND PRECEDENTS 773 (2d ed. photo. reprt. 1920) (1896); DOD LAW OF WAR MANUAL, *supra* note 29, § 1.3.2.1.

31 DOD LAW OF WAR MANUAL, *supra* note 29, § 2.2.

32 *Compare id.* § 1.11 (explaining *jus ad bellum* criteria), *with id.* § 2.2 (explaining military necessity).

While consistent, § 1.11.1.3 makes clear that "The *jus ad bellum* criterion of *necessity* is different from the *jus in bello* concept of *military necessity*." *Id.* § 1.11.1.3.

33 *Id.* § 2.2.2.1.

34 *Id.* § 2.2.3.2.

35 *Id.* § 2.5.2.

36 *Id.* § 2.5.3.

implications flow from these two requirements, and civilian objects are presumed as non-military without a requirement of any distinctive sign, placing the onus on the belligerent militaries to discriminate between civilian and military.[37]

In simple terms, the principle of proportionality is a balancing test: incidental harm cannot be excessive when weighed against the concrete and direct military advantage to be gained by an attack. Accordingly, belligerents are obligated to refrain from attacks that cause excessive collateral harm, when that collateral harm is not outweighed by the military advantage to be gained. Proportionality also requires belligerents to take "feasible precautions" to minimize collateral damage.[38] The analysis of proportionality is inherently subjective and can have nearly infinite variations. What was acceptable incidental harm fifty or one hundred years ago, may not be lawfully acceptable today, given what is technologically feasible today.

The principle of proportionality injects the age-old legal standard of reasonableness into the notion of military necessity. While killing and destruction are lawful in war, it must not be unreasonable or excessive. The principle is distinct from *jus ad bellum* self-defense proportionality, which limits the use of force to the amount required to mitigate the threat. In war, incidental destruction of civilian property and civilian casualties—often referred to as collateral damage—are tragic, but are expected and accepted as inevitable.[39] Just as military necessity is not license for unnecessary destruction, it is not license for excessive, unreasonable collateral damage either.

Proportionality has taken a distinctive predominance in the post-World War II era, especially with the advent of Additional Protocol I in 1977.[40] Nonetheless, the notion of minimizing collateral damage is not a new concept, though the weighing of it against military necessity is relatively modern. Hugo Grotius wrote, "As for the killing of persons who are slaughtered incidentally, without intention, . . . except for grave reasons affecting the safety of multitudes, nothing should be done that may

37 SOLIS, *supra* note 8, at 209–10.

38 DOD LAW OF WAR MANUAL, *supra* note 29, § 5.10.

39 *Id.* § 2.4.1.2.

40 Protocols Additional to the Geneva Conventions of 12 August 1949 and Relating to the Protection of Victims of International Armed Conflicts, arts. 50–58, June 8, 1977, 1125 U.N.T.S. 3 [hereinafter AP I].

threaten the destruction of innocent people."[41] Historically, the concept of minimizing collateral damage has been discussed as a subset and outgrowth of distinction, rather than a separate principle as it is today. This evolution reflects the technological growth of weapons capable of killing and destroying in a disproportionate manner and so proportionality has grown into a standalone principle in its own right.[42]

B. Specific Implications for Cyber and Space

Cyber and space operations, like all military operations, can range on a spectrum from defensive operations to reconnaissance operations to offensive operations. This includes passive information and data collection operations, akin to any spying activity that has existed as long as war itself, and active measures using 1s and 0s in the virtual world to cause actual destruction in the physical world. Since cyber and space operations are not always as clear as kinetic military operations, it is helpful to tease out specific implications for how the Law of War applies in cyberspace.

First, it is an accepted norm that international law applies in cyberspace.[43] Stated inversely, cyberspace is not a lawless realm where state sovereignty and international law has no reach (as advocated in the early days of the internet.)[44] So, the principles discussed above apply to cyber operations during armed conflict.[45]

Second, a cyber operation may amount to a use of force under article 2(4) of the United Nations (U.N.) Charter. The *Tallinn Manual 2.0* defines a cyber attack as "a cyber operation, whether offensive or defensive, that is reasonably expected to cause injury or death to persons or damage or destruction to objects."[46] The *Tallinn Manual 2.0* adopts the definition of attack found in Additional Protocol I, which means violence against an adversary,

41 HUGO GROTIUS, THE LAW OF WAR AND PEACE 353 (Louise R. Loomis, trans., Classics Club 1949) (1625). *See generally id.* ch. XI–XII (explaining when killing is permitted in lawful wars and the situations that allow for the destruction of another's property).

42 GEOFFREY BEST, WAR AND LAW SINCE 1945, at 323–24 (1994).

43 Koh, *supra* note 16; TALLINN MANUAL 2.0, *supra* note 19, at 16 ("Rule 3 – External sovereignty[.] A State is free to conduct cyber activities in its international relations, subject to any contrary rule of international law binding on it."); *id.* at 375 ("Rule 80 – Applicability of the law of armed conflict[.] Cyber operations executed in the context of an armed conflict are subject to the law of armed conflict.").

44 *See generally* THOMAS RID, RISE OF THE MACHINES: A CYBERNETIC HISTORY (2016) (explaining the history of the rise of the internet and the cultural debate about whether the law generally had any effect in cyberspace).

Harold Koh responded to this question with the now-accepted international norm: "Emphatically no. Cyber space is not a 'law-free' zone." Koh, *supra* note 16.

45 DOD LAW OF WAR MANUAL, *supra* note 29, §§ 16.2, 16.5.

46 TALLINN MANUAL 2.0, *supra* note 19, at 415.

whether offensive or defensive in nature.[47] Doing so eliminates non-violent military operations (e.g., psychological or cyber espionage) from the definition of a cyber attack. Further, this definition is effects-focused, as the definition of a use of force generally is in international law.[48] There is also an element of causation that is necessary: did the cyber operation proximately result in death, injury, or significant destruction? If so, it would constitute a use of force.[49] Ultimately, if the cyber operation causes physical consequences that a kinetic operation would cause, the cyber operation should equally be considered a use of force.[50]

There is an open debate about whether the destruction of data—vice physical destruction of the computers—constitutes an attack. There are valid arguments on both sides of the debate. An example is illustrative here. A scenario in which the destruction of international exchange data that causes no physical destruction would not constitute an attack under the Law of War, despite the widespread and long-term economic harm that would surely follow. To some, this hardly seems reasonable given that the purpose of the Law of War is to protect bystanders from the effects of war.[51] On the other hand, the lack of physical destruction does not satisfy the requirement of violence that seems inherent in the meaning of the word attack when discussing the Law of War. Further, a cyber operation that involves a psychological campaign to erode confidence in a market, without actually doing anything to the objective data, could cause as much damage as the data-destroying cyber operation, making this an even thornier problem to weigh. In essence, a state could achieve the same effects through different means, and one would constitute an armed attack under the Law of War and the other would not. Ultimately, whether destruction of data constitutes a use of force depends on the circumstances: did the destruction of data proximately cause physical effects? If so, then it is a use of force; if not, then it is not a use of force.[52]

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47 AP I, *supra* note 40, art. 49; *see* THE JUDGE ADVOC. GEN'S. LEGAL CTR. & SCH., NAT'L SEC. L. DEP'T, LAW OF ARMED CONFLICT DOCUMENTARY SUPPLEMENT 214, 249–51 (2022) (outlining how the United States signed the AP I, but did not ratify it, and explaining the portions of the AP I the United States considers customary international law).

48 Koh, *supra* note 16.

49 *Id.*

50 *Id.*; *see also* TALLINN MANUAL 2.0, *supra* note 19, at 330 ("Rule 69 – Definition of use of force[.] A cyber operation constitutes a use of force *when its scale and effects are comparable to non-cyber operations* rising to the level of a use of force." (emphasis added)).

51 Pascucci, *supra* note 14, at 460.

52 *Id.* at 437–38. If not a use of force, and the Law of War does not apply, that does not necessarily make the conduct lawful—it is just subject to a different legal regime.

But that is the crux of the issue. Violence actually matters in the law. Persuasion in the cognitive realm is legitimate, force in the physical realm (when unlawful) is not. Data lies somewhere in the middle. Because of this dilemma and the centrality of data to the modern world, some argue that data should be given a protected status, similar to hospitals and cultural property.[53] Still others argue that the principles of distinction and proportionality adequately limit a state's ability to wreak such widespread and long-lasting catastrophic damage.[54]

The principle of distinction equally applies to cyber operations. The secondary requirement of distinction is that militaries should distinguish themselves from civilians. While attribution is written about extensively, the relation of cyber operations to the concept of distinction appears only tangentially. Yet, attribution is one of the biggest problems of cyber operations because the target of the operation cannot distinguish whether the perpetrator of the cyber operation is a civilian or a military entity. Code does not wear a uniform. Often the nature of the cyber operation is indicative, but not always.[55] Take the North Korean cyber operation against Sony Pictures prior to the release of the movie *The Interview*, for example. There a state actor targeted a civilian entity, but not for a military-related purpose. For an even more poignant example, take the case of Jonathan James, a private citizen who, in 1999 at the age of fifteen, hacked into Department of Defense and NASA systems.[56] While neither of these examples constitute a use of force, they demonstrate the point that indi-

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53 *Id.* at 458–60 (advocating the adoption of an Additional Protocol affording data a protected status).

54 *Id.* at 419, 430. This author's position is that if the principles of distinction and proportionality are insufficient to address these kinds of concerns, an additional protection of naming data a protected class is not going to have any efficacy. Further, a blanket protection of data would be too broad and eliminate many legitimate military targets—intelligence data, for example.

55 It remains a largely unanalyzed question whether cyber operations that amount to a use of force but do not distinguish themselves as military actors violate the principle of distinction. Traditional applications of distinction indicate this would be a violation, and at the same time, the covert nature of these operations tend to make them more analogous to espionage-like acts of sabotage. Furthermore, the law will not require states to leave a calling card of sorts to identify their cyber weapons as military. Hence, this aspect of distinction largely remains a deductive analysis based on the nature of the act. By way of comparison, a bomb dropped from a plane is rarely identified explicitly as being dropped by a military actor vice a civilian actor, and yet, that does not violate the principle of distinction because of the nature of the attack is presumptively military. Because this is a topic that exceeds the scope of this Article, it will not be addressed more thoroughly.

56 Vilius Petkauskas, *How a Florida Teenager Hacked NASA's Source Code*, CYBERNEWS (July 28, 2023), https://cybernews.com/editorial/how-a-florida-teenager-hacked-nasas-source-code/ [https://perma.cc/2WSC-YSAJ].

and non-state actors both conduct and are targeted by cyber operations that easily could lead to a use of force.

Here, it bears mentioning that the Law of War has traditionally tolerated covert actions in the form of espionage without finding a violation of this aspect of distinction. That is, the Law of War does not forbid such actions (even though the actor is often trying to blend in with a civilian population), however, the consequence if caught is that the individual actors forfeit any protected status they may have had as combatants. They surrender themselves to the laws of the country against which they are taking an action. Historically, this has meant peremptory execution. Because cyber operations in many ways afford countries the opportunity to engage in these espionage-like covert actions without ever placing a person within the physical jurisdiction or control of the opposing country, cyberspace enables covert actions without the risk of physical capture. Accordingly, cyber tools that are intended to look harmless and be accepted by the target system are not violations of the principles of distinction nor perfidious in nature.[57] In essence, they are more akin to the Trojan Horse than to a combatant failing to distinguish himself from the civilian population or abusing a protected symbol to do violence.

Finally, and worth noting, cyberspace is not a public common, like international waters or airspace. A missile flying through air, does not make the airspace dual-use—it is occupying a piece of physical space for a period of time. But a cyber weapon flying through cyberspace is a weapon flying through (or dwelling in) privately owned infrastructure, which is materially different. The owner may not have consented to that use of the infrastructure. Indeed, the owner may not have even known that it occurred. Nonetheless, a military sending a cyber weapon through privately owned infrastructure, has potentially turned that infra-

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57 Perfidy is the illegal use of a protected class or symbol (e.g., acting wounded, or wearing the red cross, or using a white flag to lure enemy combatants in) specifically to kill, injure, or capture the enemy. *Perfidy*, INT'L COMM. OF THE RED CROSS, https://casebook.icrc.org/a_to_z/glossary/perfidy [https://perma.cc/ABZ8-3GCW] (last visited Nov. 7, 2025). This is a customary rule of the Law of War that has been incorporated into AP I. *See* AP I, *supra* note 40, art. 37 ("It is prohibited to kill, injure, or capture an adversary by resort to perfidy. Acts inviting the confidence of an adversary to lead him to believe that he is entitled to, or is obligated to accord, protection under the rules of international applicable in armed conflict, with intent to betray that confidence, shall constitute perfidy."); *see also* SOLIS, *supra* note 8, at 350–66 (discussing how perfidy is a violation of LOAC and might be a grave breach).

The United Kingdom Manual of the Law of Armed Conflict and the DoD Law of War Manual adopt the same language. MINISTRY OF DEF., THE JOINT SERVICE MANUAL OF THE LAW OF ARMED CONFLICT §§ 5.9–.10 (2004); DOD LAW OF WAR MANUAL, *supra* note 29, §§ 5.21–.24.

structure into a dual-use object subject to lawful destruction. This is materially different from the sea, land, and air domains. Cyberspace is not a naturally occurring physical thing, like the electromagnetic spectrum, air space, outer space, or the ocean. It is a man-made thing owned by many people and companies.

V. PROPOSED ANALYTICAL FRAMEWORK

A. What a Framework Must Do

Analytical frameworks come in all shapes and sizes, and with varying names and degrees of usefulness. It is helpful to identify who it is intended for and to define what an analytical framework should do.

The target audience for this kind of analytical framework is military commanders and military legal advisors who often have to make decisions under pressure, with limited time, and without complete information. While these circumstances help shape how to think about such a framework, they do not limit the use of the framework to rapid response scenarios—the framework should also serve the function of enabling prudent planning. An inquisitive outline that promotes analysis for the sake of deeper understanding, while valuable, is not necessarily helpful in this situation, though using one can help a decision maker ensure she is not missing vital pieces of information that create gaps in understanding.

For an analytical framework to be useful, it should meet certain criteria. It should facilitate decision making or prudent planning. It should be simple enough to work through in a time-constrained environment. It should enable comprehensive decisions. It should account for minority or outlier data points and ascribe appropriate weight to them. An analytical framework need not be innovative. It need not prescribe previously unused elements or factors. It need not propose changes to the existing law (and if the intent is problem solving, it arguably should not). An analytical framework can be as simple as a checklist of elements, like those often used by television prosecutors. It can be as complicated as an if-then flow chart that accounts for multiple variables.

For purposes of responding to a problem set like a strike on a known belligerent during an international armed conflict, it could be a simple listing of Law of War principles plus additional operational authorities, like rules of engagement. For a more complex problem set, like the CASCADE hypothetical, something

more robust is advisable—even for a commander or legal advisor who is very comfortable with the Law of War and has a strong background working through these types of problems. For the novice legal advisor, something more robust is advisable even for the simpler tactical problems. Frameworks inject discipline into legal analysis. They ensure consistency. Finally, from a practical perspective, this Article recommends turning the framework into a worksheet that practitioners can use as they analyze problems. See Appendix A for an example.

B. Proposed Framework

The following is a proposed framework for assessing kinetic targeting of cyber and space infrastructure. Because of the nature of it as a dual-use object, there will be a significant amount of discussion focusing on proportionality and distinction. Figure 1 graphically outlines a proposed analytical framework. Subsequent subsections explain the framework in detail. Part VI will apply the framework to the CASCADE hypothetical.

Figure 1

Does the Law of War Apply?	• The Law of War is a *lex specialis* that applies only to armed conflicts. • Is there an armed conflict? International or non-international? • Does the cyber operation constitute a use of force?
Distinction	• Is it an inherently military person or object? • Is it a military object by its nature, use, location, or purpose?
Proportionality	• Identify collateral effects • Identify military advantages to be gained • Balance • Identify feasible precautions to mitigate potential collateral damage • If dual-use: ○ Is it predominantly military or predominantly civilian? If predominantly civilian, when assessing proportionality, the military interest must be commensurately greater. (i.e., the greater the collateral effects, the greater the military advantage to be gained must be.)
Operational Authorities	• Does your commander have the operational authorities in an EXORD or OPORD to conduct the operation? • Do the Rules of Engagement permit the operation? • If not, at what level is the approval authority? • Authority at the right time? In the right place? For the right target? For the right weapon?

Does the Law of War Apply? This step may seem elementary, and, depending on the context, may not be necessary. But it is critical. As a *lex specialis*, the Law of War only applies to armed conflict—whether it is an international or non-international armed conflict will determine which portions of it apply and how. As an initial step, determining whether there is an armed conflict matters. In a *jus in bello* context, whether an armed conflict is occurring will be apparent and already established. In a *jus ad bellum* assessment, however, whether an armed conflict is beginning will hinge on whether an act constitutes a use of force and possibly even how a nation responds to that use of force. This need not be a cyber operation, though it could be.

Does the cyber operation constitute a use of force? This Article is predominantly focused on the kinetic targeting of cyber and space infrastructure. Plenty has been written and said about what constitutes a use of force in cyberspace. Despite the focus of this Article, whether a cyber operation constitutes a use of force is still relevant to the assessment of a lawful response. If it is not a use of force, there is no justification for a forceful response in self-defense.[58] Accordingly, whether a cyber or space operation constitutes a use of force matters in both *jus in bello* and *jus ad bellum*.

Distinction. The basic principle of distinction is outlined above. More practically though, how is one to distinguish between military and non-military persons/objects? The test for determining if a person or thing is a military objective is whether by its inherent nature (e.g., a fighter jet or a soldier), location, purpose, or use (e.g., using a normal pickup truck as a military vehicle), it makes an effective contribution to military action.[59] Because "use" is the most relevant to this discussion, that will be the focus of analysis here, to the exclusion of nature, location, and purpose (in another context any of those may be the focus).

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58 *See* DOD LAW OF WAR MANUAL, *supra* note 29, § 1.11.5.2 (explaining that the United States views any illegal use of force as sufficient to invoke the right of self-defense, but many states draw a finer distinction between uses of force and "armed attack[s]").

Because this distinction elevates when a state may respond in self-defense, it actually has the effect of permitting some degree of force and requires states to accept it. *Id.* In fact, this distinction encourages the low-level uses of forces that do not cross the armed attack threshold. *Id.* While this Article has adopted the use of force threshold, the *Tallinn Manual 2.0* draws a distinction between use of force and armed attack (perhaps a reason why many American practitioners are quick to note the limitations of the *Tallinn Manual 2.0*). TALLINN MANUAL 2.0, *supra* note 19, at 37.

59 DOD LAW OF WAR MANUAL, *supra* note 29, § 5.6.3.

> "Use" refers to an object's present function. For example, using an otherwise civilian building to billet combatant forces makes the building a military objective. Similarly, using equipment and facilities for military purposes, such as using them as a command and control center or a communications station, would result in such objects providing an effective contribution to the enemy's military action.[60]

Accordingly, there is a temporal quality to "use" as a test for whether an object is a military object. Its use must be present. Now, if an object is routinely militarily used, the need for present use diminishes. Whether one-time use of a building, for example, is sufficient to make it a military object for the remainder of the conflict, however, is a less certain thing. And that is where the definite military advantage to be gained comes into the analysis.

Whether there is a definite military advantage to be gained is assessed at the time of the proposed strike, "in the circumstances ruling at the time."[61] If the building is intermittently used and it is likely to be used accordingly throughout the conflict, then under those circumstances, its destruction would offer a military advantage, and it would be considered a military object. If, however, it was used one time, several months ago, it is significantly less likely that the destruction of such a building would offer any military advantage. The same is true of cyber and space infrastructure: the circumstances ruling at the time, as well as the context of the conflict to date, matter.[62]

"Dual-use" as a term is descriptive, rather than a specific legal regime or term of art. From a legal perspective, dual-use is not a category: objects are either military objects lawfully subject to attack or they are not.[63] Indeed, some scholars eschew the use of the term altogether because the dual-use nature of an object "d[oes] not alter its singular and unequivocal status as a military

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60 *Id.* § 5.6.6.1.

61 *Id.* § 5.6.7.2 (noting that "definite" means concrete and perceptible, not speculative or hypothetical); *id.* § 5.6.7.3.

62 In the context of whether a person is a military objective or not, the discussion analogous to dual-use is that of direct participation in hostilities (DPH). Much ink has been spilled discussing whether and when a civilian is directly participating in hostilities and the consequences of that participation. While the United States has rejected a so-called "revolving door" theory of DPH, there has been shockingly little discussion about when an object becomes dual-use and the persistence of that status through intermittent use. *See id.* § 5.8.4.2; NILS MELZER, INT'L COMM. OF THE RED CROSS, INTERPRETIVE GUIDANCE ON THE NOTION OF DIRECT PARTICIPATION IN HOSTILITIES UNDER INTERNATIONAL HUMANITARIAN LAW 70 (2009); SOLIS, *supra* note 8, at 191–94. This is likely due to the fact that the destruction of objects often (and rightly) receives less scrutiny than the killing of people. DPH is largely beyond the scope of this Article, since cyber operations typically target objects.

63 DOD LAW OF WAR MANUAL, *supra* note 29, § 5.6.1.2.

objective."[64] The problem of dual-use objects is two-fold. It is both a distinction problem and a proportionality problem. In terms of distinction, under a plain reading of the law, the dual-use problem is easier to resolve. If it serves a military purpose, and the destruction of it would offer a military advantage, it is a military object.

Proportionality. It is easy to articulate the analysis for proportionality. Applying it in the real world, however, is another matter. It is fraught with value judgments and subjectivity—as are most command decisions. Frequently second-guessed and deconstructed by pundits and higher headquarters alike, proportionality is often the murkiest of all the principles of the Law of War.[65] Providing an additional layer of confusion, the same word is used in two legal concepts: Law of War proportionality and self-defense proportionality—both of which must be discussed here. Proportionality as a self-defense concept is relevant here in a *jus ad bellum* context.

When it comes to dual-use objects—especially infrastructure—proportionality becomes more complicated than the simple recitation. In plain terms, the Law of War requires the identification of the military advantage to be gained, the identification of potential collateral damage and implementation of feasible precautions to minimize such collateral damage, and then the weighing of the two. No mathematical precision is required. It cannot and should not be reduced to a comparison of quantity of enemy troops killed versus quantity of potential civilian casualties. Value judgments are inherent in this process.

Some factors to consider, depending on the facts and circumstances, during this stage in the analysis include the following questions: What is the gravity of the military advantage to be gained—is this likely to be a war ending strike, or a routine strike? Will a combination of fusing and precision guided munitions minimize collateral damage? Will the timing of the strike minimize collateral damage? Will the opportunity be lost if waiting for less collateral damage? Is the target mobile? Was the target intentionally placed by protected objects—placing a command and control center right next to a hospital, for example? How

64 Yoram Dinstein, *Discussion: "Dual-Purpose" Targets*, 78 INT'L L. STUD. 218, 218–19 (2002).

65 Anaïs Maroonian, *Proportionality in International Humanitarian Law: A Principle and a Rule*, LIEBER INST. AT WEST POINT (Oct. 24, 2022), https://lieber.westpoint.edu/proportionality-international-humanitarian-law-principle-rule [https://perma.cc/5MZ8-M665] (explaining the dual role of proportionality as both a foundational principle and an enforceable rule in international humanitarian law).

much data is stored or transmits through the data center? Is data actually stored there, or is it a transit hub? Is that data predominantly civilian in nature or military? Recency, quantity, and duration of both military and civilian uses of the target are all relevant. Is a lesser means of achieving the same military advantage available? That is, would simply disrupting or degrading the data center accomplish the same effect needed for the military goal, or is actual destruction required? And, importantly, what is the feasibility of that lesser means?

Often when advising on proportionality questions, using historical examples help paint the picture of acceptable precautions and a balanced approach—to gain both a sense of what precautions the law expects and of what constitutes proportionality in real terms.[66] During the 1991 Gulf War, coalition forces targeted the Iraqi integrated power grid that generated and distributed electrical power to both civilian and military entities.[67] Because it supported military entities including anti-air radars and command and control capabilities, the power grid itself was a lawful military objective.[68] The incidental impacts on the civilian population made it a proportionality issue rather than a distinction issue. The NATO campaign in Kosovo provides an illustrative example of feasible precautions. In attacking the integrated electrical power stations that serviced both civilian and military entities, rather than destroying the power stations, NATO forces "dropped munitions that deployed tinfoil-like streamers to drape over power lines and short them out, requiring days to repair."[69] Note that this precaution does not minimize the impact in terms of scope (it still terminated power to civilians), but it does limit it in terms of duration (requiring only days to repair, vice completely destroying it). This is a confluence of Law of War principles: a dual-use object is targetable despite incidental civilian harm when feasible precautions are taken to minimize that harm in accordance with the existing military necessity. Thus, destroying

66 Note, however, that because precautions are tied to reasonableness and feasibility, historical examples, while illustrative, are inherently of limited application. What was reasonable in the days before precision munitions may not be required today. What is feasible today may be more than what was required yesterday. An example of this might be leaflet drops being sufficient in previous conflicts, but mass text message notifications, if technologically feasible, being required in future conflicts as a method of advance warning to civilian populations. In short, this is an inherently evolving standard and so historical examples, while useful, are not necessarily binding.

67 SOLIS, *supra* note 8, at 535.

68 Yoram Dinstein, *Legitimate Military Objectives Under the Current Jus in Bello*, 78 INT'L L. STUD. 139, 156 (2002).

69 SOLIS, *supra* note 8, at 535.

the power stations may have been disproportionate if the military need was only to interrupt power.

Operational Authorities. This step in the analysis is not a Law of War check; it concerns domestic law and authorities. Operational authorities are usually classified, so the discussion will be necessarily general in nature. Considerations in this step of the process will address a wide a variety of control measures. Who is the approval authority for the strike? Does that approval authority include all kinds of munitions or only certain types? Does that authority require any notifications? Is that authority limited by time? Is that authority limited by level of anticipated civilian casualties? Does this strike comply with the rules of engagement in effect at the time? If not a self-defense strike, is the target a declared hostile force—or in the case of cyber or space infrastructure—being used by a declared hostile force? Is a delegation required or permitted, depending on the level one is at? A helpful way to think about operational authorities is by ensuring the decision maker has the authority for that period of time, in that space, for that target, and with that munition.[70]

VI. FRAMEWORK APPLICATION: CYBER CASCADE

The purpose of an analytical framework is to impose discipline and process onto complex problems for consistent solutions. This Part assesses the analytical framework proposed in Part V using the CASCADE scenario from Part III.

A. Does the Law of War Apply?

Whether the Law of War applies turns on whether CASCADE qualifies as a use of force. In this case, CASCADE is designed to disable military ATC systems by erasing all data on the targeted systems, i.e., it is designed to destroy data only. As a direct consequence of that, however, a military unmanned ISR platform is also destroyed. This physical damage is likely foreseeable given the nature of unmanned aerial systems requiring a control connection of some sort and is proximately caused by CASCADE. Accordingly, CASCADE likely constitutes a use of force or an armed attack, meaning the Law of War applies. Because CASCADE is still active in cyberspace and State A relies

70 Because of the operation-specific nature of operational authorities and their generally classified substance, this step of the analytical framework will not be addressed in the application section of this Article. The list of general factors provided here, while not exhaustive, are nearly universal to every operation and will serve the practitioner well in reviewing or planning nearly any operational plan.

on other systems that could be affected by it, CASCADE represents an imminent threat of the continued use of force, entitling State A to use force in self-defense. Furthermore, because CASCADE also targets air defense systems, it reeks of an opening salvo to some larger attack.

B. Distinction

1. State C CASCADE Attack

Even though CASCADE arguably violates article 2(4) of the U.N. Charter's prohibition on the use of force in international politics, as an attack subject to the Law of War it must still comply with the principles of the Law of War. While the focus of this Article is the targeting of cyber and space infrastructure, assessing the CASCADE attack is important for determining an appropriate response in self-defense.

As a weapon, CASCADE is programmed to deploy its payload only on the targeted systems. In many ways this represents the pinnacle of compliance with the goal of distinction. Just as precision guided munitions are not required today but may establish a standard of expected precautions in the attack, so too may cyber weapons that narrowly target precise, discreet military objectives. Whether CASCADE complies with the principle of distinction, however, will depend on the coding of the cyber weapon. For example, it would be important to know whether civilian agencies rely on the same ATC programs and systems that the State A military does in the Johnson Atolls, or whether CASCADE was programmed to target only those specific systems. This determination would drive the intelligence requirements during the target development phase. Alternatively, do State C's command and control capabilities of CASCADE include real time control of where and when CASCADE deploys its payload or is that automated? These are the kinds of issues the legal advisor should raise during the planning process. It bears noting that it took months to deconstruct the Stuxnet attack on which CASCADE is loosely based. So, while the attack may still serve as a *casus belli*, until capabilities are developed to analyze and attribute cyber attacks in near real-time, lawful retaliation likely will not be based on a self-defense rationale as the imminence of the weapon has been neutered by time.

At this juncture, attribution must be addressed. In the scenario, State A was able to rapidly identify the routing of the CASCADE attack, but not necessarily attribute it to a specific

state actor. This is problematic given the interconnectedness of cyberspace. The "unwilling or unable" doctrine is helpful here but remains unsatisfying. Briefly, the unwilling or unable doctrine stands for the prospect that a belligerent state may, consistent with article 51 of the U.N. Charter, use force against hostile armed forces inside of a neutral state's territory when that neutral state is "unwilling or unable to curb the ongoing violation of its neutrality."[71] Sometimes this is referred to as self-help. Its application to terrorists acting from safe haven countries is readily apparent, but, and while little to nothing has been written about it, the doctrine will be difficult to apply to cyberspace operations for the host of questions it inherently raises. Was the neutral state witting? Is the neutral state technically capable of knowing a belligerent routed a cyber weapon through its infrastructure? Do neutral states even have a duty to be aware given the private nature of most cyberspace infrastructure? Given the rate at which data moves, was the neutral state targeted based on an event that took mere seconds? This factor of duration stands in stark contrast to a terrorist cell establishing a base of operations within the neutral country. This issue, while somewhat tangential, is raised merely to highlight the complexity of legal issues associated with attribution. This is likely less complicated in a *jus in bello* context, but if the event is conflict-initiating, as it is in the CASCADE hypothetical, it quickly becomes a technical and intelligence intensive problem.

2. State A Kinetic Response

The data centers and satellite constellations through which CASCADE deployed in search of its targeted systems and which were subsequently attacked by State A were sets of dual-use infrastructure used by both the military and civilian entities. Accordingly, both targets raise the same distinction concerns. State C's military used the data center and the satellite constellation, so these objects satisfy the first part of the test: they make an effective contribution to military action. The second part of the test however, poses a more significant hurdle: does attacking, capturing, or neutralizing the object offer a definite military advantage to the attacker in the circumstances prevailing at the time? This is where State A's kinetic response becomes more questionable. If the destruction of the data center that CASCADE had previously passed through would stop CASCADE from identifying and deploying its payload on future State A targets, then the answer is

71 DOD LAW OF WAR MANUAL, *supra* note 29, §§ 15.2.3.1 n.40, 15.4.2.

easily yes. But if it is unlikely (as it seems) for CASCADE to pass through the data center again, then does it still offer a military advantage? The same doubt applies to the satellite constellation.

Now, before creating nuance where there should not be, it bears noting that "[g]enerally, the reason why the object meets the first part of the definition also satisfies the second part of the definition."[72] Further, "the concept of definite military advantage is broader than simply denying the adversary the benefit of the object's effective contribution to its military operations."[73] This assessment is made in the totality of the circumstances of the overall conflict. For a potential target to be a military object does not require continuous use or even "immediate tactical gains."[74] An example from another domain is helpful here. Take a bridge for example. The destruction of a bridge on a potential line of communication (LOC) in hostile territory may not serve any immediate tactical aim, however, it may serve to isolate enemy forces in a specific region.[75] World War II is replete with examples of lawful bridge destructions throughout Europe despite the fact that those bridges served as both military avenues of approach as well as civilian thoroughfares and even potential civilian evacuation routes.[76] Essentially, these are dual-use objects the denial of which renders a definite military advantage. The data center and satellite constellation in the CASCADE scenario, in many ways, serve as bridges on State C's digital LOC. Cutting that digital LOC denies State C a potential avenue of approach and limits their operations to other access points. Again, the physicality of the cyber and space domain is more determinative than one intuitively assumes.

In this case, both the data center and satellite constellation contributed to States C's use of force, and the destruction of them provides a definite military advantage to State A; consequently, they are lawful military targets. Some scholars may reasonably come to a different conclusion here, likely because the predominant use of the data center is commercial data stor-

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72 *Id.* § 5.6.5.

73 *Id.*

74 *Id.* § 5.6.7.3.

75 *Id.*

76 MICHAEL BOTHE, KARL JOSEF PARTSCH & WALDEMAR A. SOLF, NEW RULES FOR VICTIMS OF ARMED CONFLICTS: COMMENTARY ON THE TWO 1977 PROTOCOLS ADDITIONAL TO THE GENEVA CONVENTIONS OF 1949, at 366 (2013) (analyzing the destruction of bridges in anticipation of the Normandy invasion in 1944).

Indeed, some bridges were destroyed purely for the deceptive effect the destruction would have on the enemy. *Id.*

age/transmission. Any weighing of predominant uses though, is an admission that it served at least some military purpose. Furthermore, the weighing and balancing of uses is truly more of a proportionality objection than a distinction objection. The actual use of the data center and satellite constellation make it a dual-use object the destruction of which denies the enemy a digital LOC, and consequently, makes it a lawful military object. That said, all dual-use objects raise a proportionality question because their destruction inherently has a collateral effect, and in terms of cyber and space infrastructure, balancing those factors is going to be even more difficult than the farmer-by-day, insurgent-by-night dilemma of the past twenty years.

C. Proportionality

It is useful to address both Law of War proportionality and self-defense proportionality here, analyzing both the CASCADE strike, and the kinetic response. Often, when a proposed strike initially fails during the planning process for want of appropriate distinction, it is really a proportionality problem, and appropriate feasible precautions can rescope the strike in a way that targets a purely military objective. Finally, unlike in the distinction analysis, the data center strike and the satellite constellation have different effects and thus require separate proportionality analyses.

1. Proportionality of CASCADE Attack

Again, while CASCADE violates the prohibition on the use of force in international politics found in the U.N. Charter and foundational to the rules-based international order, it must still comply with the principle of proportionality because it is a use of force subject to the Law of War. Accordingly, the incidental collateral damage caused by CASCADE must not be clearly excessive when weighed against the definite military advantage to be gained and State C must use reasonable feasible precautions to minimize such collateral damage.

Just as the precision of cyber weapons technologically enables distinction, it can also be used to minimize incidental collateral damage and comply with the proportionality requirements. In this case, CASCADE is designed to only deploy its payload on the targeted systems. The precision of the distinction mechanism enables proportionality, highlighting the interconnectedness of the two principles. As mentioned above, knowing whether and to what extent the targeted systems are also used for civilian ATC

purposes should drive intelligence requirements in the target development phase as that would change the analysis. As drafted, there is no collateral damage in the CASCADE strike, and consequently there is no proportionality concern. A proportionality concern could arise if the CASCADE strike also caused civilian planes to crash—but only if such collateral was foreseeable. There is no proportionality requirement to mitigate the unforeseeable.

2. Self-Defense Proportionality of State A's Kinetic Response

In the CASCADE scenario, State A's kinetic response in self-defense must be proportionate to the CASCADE attack. For force in self-defense to be proportionate does not mean that it has to be of like kind.[77] Self-defense can be a decisive response.[78] If the strikes on the data center and the satellite constellation are calculated (as they appear to be) to terminate the CASCADE operation, and State A is able to correctly identify that State C is the attacker, then the strikes comply with the self-defense requirements of the Law of War. This is particularly the case as CASCADE appears to be actively seeking additional targets. Because the State A strike is narrowly tailored to end the imminent threat from State C, it is proportionate. Here, in self-defense, proportionality does not require a weighing of potential collateral damage. The doctrine of self-defense is about national preservation and the vindication of rights. Accordingly, it is gauging the level of response.[79] Put another way, self-defense doctrines are about national protection—not mitigation of the effect of war, like the Law of War principle of proportionality.

3. Law of War Proportionality of State A's Kinetic Response

State A's kinetic response must also comply with the Law of War principle of proportionality in that the collateral damage caused by its kinetic strike must not be clearly disproportionate to the military advantage gained by the strike.

Beginning with the data center strike, the first step is to clearly identify the potential collateral damage and the potential military advantage to be gained. The strike on the data center destroyed the data center and killed approximately 300 civilian

77 Raffaele Petroni, *The Principles of Self-Defence and Proportionality in International Law: The Case of War Between Israel and Hamas*, CTR. FOR INT'L RELS. & INT'L SEC. (Nov. 13, 2023), https://www.ciris.info/articles/the-principles-of-self-defence/ [https://perma.cc/VR4S-J3V5].

78 *Id.*

79 DOD LAW OF WAR MANUAL, *supra* note 29, § 1.5.1.

employees. The AWS data center predominantly serviced civilian/commercial interests. The military advantages gained by the strike include eliminating that digital LOC to future State C use and cut off any command-and-control connection that it provided to CASCADE.

While the destruction of the data center could cause significant hardship to a variety of civilians and companies depending on the nature of the data stored there, the main collateral damage is the death of 300 civilian employees. Whether that strike on cyber infrastructure is proportionate will depend on the definiteness of the military advantage gained by State A. Here the advantage gained seems speculative, depending on the quantity of other data centers in the region (likely many). If the data center represented State C's only real connection to the internet, then the military advantage gained is quite definite. Similarly, if the data center was the sole connection through which command and control data was flowing, the advantage is even more definite. Whether this is viewed as a violation of the principle of proportionality will largely depend on State A's ability to articulate the definiteness of the advantage gained. Here too, the context matters. Is this the opening salvo of a war, or a singular strike followed by de-escalation? In the scope of wider conflict, this would likely be determined to be a proportionate strike. Especially if State A takes the feasible precautions of striking when the least number of civilians are present or attempting to warn in advance.

Here too a cross-domain comparison is helpful. A strike on a munitions factory conducted at a time to minimize civilian casualties, and which reduces the adversary's ability to produce munitions for the ongoing conflict is usually considered proportionate. While not a perfect comparison because the data center is not creating cyber weapons, the analysis is the same. Another helpful example would be striking a dual-use airport to prevent the deployment of military aircraft despite killing civilian aviation personnel and impacting civilian transportation. Such a strike is proportionate despite the collateral impacts. The data center is a port through which weapons have been deployed and destroying it will definitely reduce the enemy's ability to do so with relatively few casualties.

Turning to the strike on the satellite constellation, the analysis is the same. The anti-satellite missile response destroyed a privately-owned communications satellite constellation consisting of several satellites. The resulting cloud of space debris remained in orbit presenting potential hazards to all other satel-

lites operating in that orbit regardless of category or nationality. The debris cloud will continue to expand over the course of the next several years, continuing to cause collisions and damage to additional space vehicles.

The destruction of the communications satellite gives a military advantage to State A in terms of cutting off a pathway used by State C to deploy and possibly command and control CASCADE. The incidental collateral damage is extensive, long-lasting, and, in many ways, impossible to predict. Not only does it destroy elements of a commercial communications infrastructure used by the general public (a relatively minor inconvenience, likely tolerated by the Law of War), but it also created a cloud of space debris that will go on destroying for potentially years to come. What is uncertain and unforeseeable about it is how much damage it will actually cause.

In 2007, the People's Republic of China conducted an anti-satellite missile (ASAT) test on a non-operational weather satellite that created a cloud of more than 3,000 trackable pieces of space debris expected to remain in orbit for decades.[80] While not conducted during a conflict and not subject to the Law of War, the extensive nature of that incident should inform any assessment of proportionality for space infrastructure proportionality analysis. What remains true is that the collateral damage it may cause is largely speculative, and the Law of War does not require such uncertainty to be accounted for. Further, because there is a lack of customary norms[81] in this domain, it is difficult to assess how the impacts to various orbits should weigh in a proportionality analysis. Finally, while the United States did maneuver a satellite to eliminate a 7% chance of colliding with the space debris and there was significant international outcry over the inci-

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80 BRIAN WEEDEN, SECURE WORLD FOUND., 2007 CHINESE ANTI-SATELLITE TEST FACT SHEET 1 (2010), https://www.thecipherbrief.com/files/74832/chinese_asat_fact_sheet_updated_2012.pdf [https://perma.cc/GPG3-EDEX].

81 It is worth noting that the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (commonly referred to as the Outer Space Treaty) generally stands for the proposition that outer space should not be militarized and is to be used for peaceful purposes only. *See* Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, Jan. 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205. To the extent that state behavior has complied with those provisions since the adoption of the treaty in 1967, such a norm exists. Like much of cyber and space law, however, this assertion remains undeveloped and contested, and is beyond the scope of this Article.

dent, there is little to no information available about any damage actually caused by this ASAT test.[82]

The radioactive fallout from a nuclear weapon provides a *limited* point of comparison when conducting a proportionality analysis on a strike like this because there is a long-term effect that cannot be accurately accounted for prior to the strike. Where the comparison falls apart, however, is in the sheer scope and scale of civilian casualties likely to be caused in the blast of a nuclear weapon, whereas in space there would almost certainly be none.

In short, in this scenario there are no civilian casualties from the State A ASAT strike, which significantly reduces proportionality concerns, even though there is an indeterminable potential for damage to other civilian space infrastructure.

VII. CONCLUSION

As with any dual-use object, targeting cyber and space infrastructure can be lawful as long as it comports with the principles of the Law of War. In one sense, that is about as helpful as saying it is legal so long as it is done lawfully. While that may sound trite, in substance it is actually packed full of factors for planners, commanders, and legal advisors to consider. This Article lays out one method for approaching this problem in the form of an analytical framework based on a hypothetical intended to raise more questions than space allows answers for, but which can serve as a starting point to address the complexities that the next major war will present as customs develop. Because the hypothetical focused the discussion on distinction and proportionality, that is what the framework focuses on. That does not mean the other principles do not apply—they just were not as prominent in this discussion, which is why they are included in the worksheet in Appendix A.

This Article is limited to mere legality—a basic threshold in military operations. It has only barely alluded to prudential wisdom, moral implications, and military efficacy—judgments essential to every military decision—and subjects on which military legal advisors are obligated to advise.[83] Accordingly, a final step in the analyt-

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82 WEEDEN, *supra* note 80, at 3.

83 *See generally* DEP'T OF THE NAVY, JUDGE ADVOC. GEN. INSTRUCTION 5803.1E, PROFESSIONAL CONDUCT OF ATTORNEYS PRACTICING UNDER THE COGNIZANCE OF AND SUPERVISION OF THE JUDGE ADVOCATE GENERAL (2015) (providing guidance for how attorneys must conduct themselves when practicing law under the supervision of the Judge Advocate General).

Rule 2.1 states in part, "In rendering advice, a lawyer may refer not only to the law but to other considerations such as moral, economic, social, and political factors that may be relevant to the client's situation." MODEL RULES OF PRO. CONDUCT r. 2.1 (A.B.A. 2020); *see* DEP'T OF THE

ical framework beyond the scope of this Article might be: should the target be struck? Once the law in this area is settled, no doubt, the debate will turn to these finer points.

Finally, this Article highlights the degree to which a commander or legal advisor must rely on technical experts and intelligence professionals when making Law of War determinations involving cyber operations—whether planning, executing, or responding to them. This reliance, while perhaps more necessary than in more traditional means and methods of warfare, does not negate the need for either of those professionals to understand the capabilities they are employing. To do so would be to lose oneself in the hubristic feelings of a few ecstatic moments as Lord of the Sky and, like Phaëthon, miss the impending change.

ARMY, ARMY REGUL. 27-26, LEGAL SERVICES: RULES OF PROFESSIONAL CONDUCT FOR LAWYERS r. 2.1 (2018); DEP'T OF THE AIR FORCE, AIR FORCE INSTRUCTION 51-110, PROFESSIONAL RESPONSIBILITY PROGRAM r. 2.1 (2018).

Appendix A: Analytical Framework Worksheet

Law of War Planning Worksheet—Dual Use Focus

	Factors	Notes
Does the Law of War Apply	• The Law of War is a *lex specialis* that applies only to armed conflicts. • Is there an armed conflict? International or non-international? • Does the cyber operation constitute a use of force?	
Military Necessity	• Operation necessary for overall war aims • Does operation create unnecessary death/destruction? • Is the conduct otherwise prohibited by LOAC?	
Distinction	• Is it an inherently military person or object • Is it a military object by its nature, use, location, or purpose	
Proportionality	• Identify collateral effects • Identify military advantages to be gained • Balance • Identify feasible precautions to mitigate potential collateral damage • If dual use: • Is it predominantly military or predominantly civilian? If predominantly civilian, when assessing proportionality, the military interest must be commensurately greater. (I.e., the greater the collateral effects, the greater the military advantage to be gained must be.)	
Humanity	• Identify legitimate military purpose for death/destruction • Is all death/destruction tied to a military objective?	
Honor	• Avoid attempts to skirt LOAC requirements • Avoid undermining protections of LOAC • Perfidy	
Operational Authorities	• Does your commander have the operational authorities in an EXORD or OPORD to conduct the operation? • Do the Rules of Engagement permit the operation • If not, at what level is the approval authority? • Authority at the right time? In the right place? For the right target? For the right weapon?	
Prudential Factors	• Legal, moral, ethical? Economic, social, political factors relevant? • Lawful by awful? • "Headline test" I.e., within the customs and norms?	

The Outer Space Legal Regime: Peace in Name, Power in Practice, and the Call for a New Treaty

Jaeden Esquivel

CONTENTS

The Outer Space Legal Regime: Peace in Name, Power in Practice, and the Call for a New Treaty

Jaeden Esquivel*

Space warfare poses grave dangers that many fail to appreciate. Modern technologies and data-driven services have transformed the domain of space from a distant scientific frontier into the backbone of twenty-first century life. GPS navigation, supply chain logistics, aviation systems, weather forecasting, disaster planning, emergency services, and countless other essential, everyday data-driven systems depend on satellites operating in orbit. If these satellites were permanently disabled or destroyed, the critical Earth-bound infrastructure that relies on them would collapse as well.

For nearly fifty years, space as a geopolitical domain has relied on the 1967 Outer Space Treaty *(*OST*) to ensure that it is used for "peaceful purposes." Despite this, the dominant military superpowers—the United States, China, and Russia—are openly preparing for conflict in orbit. This Note examines how the militarization and weaponization of outer space have proliferated under the outdated* OST. *Although the* OST *was intended to preserve space for peaceful purposes, its narrow prohibition on nuclear weapons and other weapons of mass destruction has permitted States to deploy both destructive and non-destructive space weapons under the guise of national security.*

Because the superpowers increasingly rely on both Earth-based and space-based weapons for deterrence, this Note argues that any realistic response must account for that reliance rather than ignore it. Accordingly, this Note proposes a new, U.S.-led treaty that would prohibit debris-generating space weapons while allowing reversible, non-destructive weapons. Disarmament under this treaty would occur gradually and be modeled after the Strategic Arms Reduction Treaty. *This treaty would protect critical infrastructure on which billions of people depend not only for convenience, but for survival.*

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* Jaeden Esquivel is a United States Marine Corps veteran and a third-year law student at Chapman University Dale E. Fowler School of Law. He thanks Professor Nahal Kazemi for her advice and guidance.

I. INTRODUCTION

In *Star Wars*, the fates of civilizations are not decided on terrestrial battlefields, but in space, where fleets clash and "evil space lasers" are unleashed against one another. That vision has shaped public understanding of space as a future hypothetical battlefield. Today, however, it is no longer mere speculation. Lasers may remain largely fictional, but conflict in space is rapidly becoming reality, and the next major war may well hinge on one decisive factor: space superiority.[1] The start of a modern war for space superiority will not be the crack of a pistol shot; it will be the gradually fading thunder of a missile launch.

This reality is reflected in the views of three of the world's major military powers—the United States (U.S.), Russia, and China[2]—which now regard space as a "distinct warfighting domain."[3] The danger that follows this reality is the use of destructive space weapons in the pursuit of space superiority. Such weapons could disrupt the lives of millions of citizens worldwide, making their prevention a top priority for the international community.[4]

However, not all space weapons pose the same danger. Non-destructive space weapons may, in fact, *prevent* the unnecessary loss of life and collateral damage. For these reasons, to protect the infrastructure and citizens of these countries, only the use of destructive space weapons should be banned. Alterna-

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1 *See* C. Todd Lopez, *Shanahan: Next Big War May Be Won or Lost in Space*, U.S. DEP'T OF DEF. (Apr. 9, 2019), https://www.defense.gov/News/News-Stories/Article/Article/1810100/shanahan-next-big-war-may-be-won-or-lost-in-space/ [https://perma.cc/7A94-6W27].

2 This Note will only discuss a multilateral treaty between these three countries, as the only other country that has demonstrated destructive anti-satellite capability is India. *See generally* SECURE WORLD FOUND., GLOBAL COUNTERSPACE CAPABILITIES (Brian Weeden & Victoria Samson eds., 2024) (assessing the counterspace capabilities of countries actively developing this technology).

3 *See* U.S. DEP'T OF DEF., DEFENSE SPACE STRATEGY SUMMARY 1 (2020) [hereinafter DEFENSE SPACE STRATEGY].

4 NAT'L SPACE INTEL. CTR. & NAT'L AIR & SPACE INTEL. CTR., COMPETING IN SPACE 1 (2d ed. 2023) [hereinafter COMPETING IN SPACE] ("Every day, billions of people rely on spacecraft orbiting hundreds and thousands of miles above Earth. Complex satellite constellations support the world's finances, transportation, and agriculture, providing essential services that transcend international borders and touch the lives of virtually every person on Earth. Major disruptions to satellite services would cause significant, perhaps irreparable, damage to 21st century life.").

tively, this could be phrased as a ban on all debris-generating space weapons.[5]

The weaponization of space has been debated since the creation of the *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies* (*OST*), which only explicitly bans the use of nuclear weapons and weapons of mass destruction (WMD).[6] This debate is primarily focused on the limited ban on the weaponization of space. This narrowly tailored ban has left a gap in the legal regime governing the use of space and cannot prevent an arms race in outer space.[7]

Because the *OST* does not explicitly prohibit the weaponization of space, its historical interpretation has allowed these countries to use space weapons for decades.[8] Outside the United Nations (U.N.), the closest effort toward a binding agreement has been the proposed *Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force against Outer Space Objects* (*PPWT*), co-sponsored by China and Russia.[9] Un-

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5 For purposes of this Note, the terms "debris-generating space weapons" and "destructive space weapons" are used interchangeably to refer to the same category of weapons.

6 *See* Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies art. IV, *opened for signature* Jan. 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205 [hereinafter OST]; *see also* Adam G. Quinn, Note, *The New Age of Space Law: The Outer Space Treaty and the Weaponization of Space*, 17 MINN. J. INT'L L. 475, 481–87 (2008) (discussing post-treaty disagreements about the appropriation of space resources).

7 *See* G.A. Res. 36/97, at 73 (Dec. 9, 1981); Rep. of the Grp. of Governmental Experts on Further Prac. Measures for the Prevention of an Arms Race in Outer Space, transmitted by Letter dated 23 August 2024 from the Chair of the Grp. of Governmental Experts on Further Prac. Measures for the Prevention of an Arms Race in Outer Space Established Pursuant to G.A. Res. 77/250 (2022), ¶ 42, U.N. Doc. A/79/364 (Sep. 20, 2024) [hereinafter U.N. Expert Report]; Saada Daher Hassan (Rapporteur), *Prevention of an Arms Race in Outer Space*, at 5, U.N. Doc. A/69/438 (Nov. 12, 2014) ("*Recognizing* that the prevention of an arms race in outer space would avert a great danger for international peace and security[.]"); G.A. Res. 78/238, at 2 (Dec. 28, 2023) ("[W]hile the existing international treaties related to outer space and the legal regime provided for therein play a positive role in regulating outer space activities, they are unable to fully prevent an arms race in outer space, the placement of weapons in outer space and the threat or use of force in outer space, from space against Earth and from Earth against objects in outer space, and preserve outer space for peaceful purposes . . . .").

8 *See* G.A. Res. 78/238, *supra* note 7.

9 *See* Permanent Rep. of the Russian Federation & Permanent Rep. of the People's Republic of China to the Conference on Disarmament, Letter Dated 12 Feb. 2008 from the Permanent Rep. of the Russian Federation and the Permanent Rep. of China to the Conference on Disarmament Addressed to the Secretary-General of the Conference Transmitting the Russian and Chinese Texts of the Draft "Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force Against Outer Space Objects

fortunately, this proposed treaty has little to no support from the U.S., primarily because it does not require complete disarmament.[10] This Note will explore the impracticality of complete disarmament in today's geopolitical climate, where mutually assured destruction remains a necessary deterrent.

Accordingly, this Note argues that, to preserve future generations' access to space and to ensure the self-preservation of States themselves, debris-generating space weapons must be banned. However, disarmament must happen gradually over decades, not instantaneously. Such an approach would build confidence between these three military superpowers and help establish international norms of using space for peaceful purposes.

Today, technology is advancing faster than ever before, which in turn has made the space domain more relevant than it was in the past. This relevance is true for both civilians and the military.[11] If destructive space weapons were used, the harm would not be limited to just the military; the result would be permanent, irreversible damage to critical infrastructure, with civilians paying the ultimate price.[12]

Part II of this Note will first discuss the historical development and creation of the legal regime that governs space law to this day. Part III analyzes how the U.S., Russia, and China have

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(PPWT)" Introduced by the Russian Federation and China, U.N. Doc. CD/1839 (Feb. 29, 2008) [hereinafter 2008 PPWT Draft]; Permanent Rep. of the Russian Federation & Permanent Rep. of the People's Republic of China to the Conference on Disarmament, Letter Dated 10 June 2014 from the Permanent Rep. of the Russian Federation and the Permanent Rep. of China to the Conference on Disarmament Addressed to the Acting Secretary-General of the Conference Transmitting the Updated Russian and Chinese Texts of the Draft Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force Against Outer Space Objects (PPWT) Introduced by the Russian Federation and China, U.N. Doc. CD/1985 (June 12, 2014) [hereinafter 2014 PPWT Draft].

10 *See* Permanent Rep. of the United States of America to the Conference on Disarmament, Letter Dated 19 Aug. 2008 from the Permanent Rep. of the United States of America Addressed to the Secretary-General of the Conference Transmitting Comments on the Draft "Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force Against Outer Space Objects (PPWT)" as Contained in Document CD/1839 of 29 February 2008, ¶ 7-10, U.N. Doc. CD/1847 (Aug. 26, 2008) [hereinafter 2008 PPWT U.S. Analysis]; Delegation of the United States of America to the Conference on Disarmament, Note Verbale Dated 2 September 2014 from the Delegation of the United States of America to the Conference on Disarmament Addressed to the Acting Secretary-General of the Conference Transmitting the United States of America Analysis of the 2014 Russian–Chinese Draft Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force Against Outer Space Objects, ¶ 1, U.N. Doc. CD/1998 (Sep. 3, 2014) [hereinafter 2014 PPWT U.S. Analysis].

11 *See* COMPETING IN SPACE, *supra* note 4.

12 *See id.*

interpreted the *OST*'s call for space to be used for "peaceful purposes" in a way that essentially makes it obsolete with today's technology. Part IV will then discuss the militarization and weaponization of space that has resulted from this interpretation. Part V then analyzes how this interpretation has impacted the current state of space law. Part VI considers various proposals to bridge the gap in space law and their feasibility. Finally, Part VII sets forth a treaty that the U.S. should propose to abate the looming arms race in outer space.

II. ORIGINS OF SPACE LAW: *THE OUTER SPACE TREATY* AND BEYOND

The "Magna Carta of space law[,]" the *OST*, was a direct result of the space race between the U.S. and the Soviet Union (USSR) during the height of the Cold War.[13] These years were a time of extreme tension between the U.S. and the USSR, and rightfully so. The tension was at its peak in 1957 due to the USSR's tests of the first intercontinental ballistic missile (ICBM),[14] and the launch of Sputnik.[15] These developments raised immediate fears of a possible arms race in outer space and prompted the U.N. to establish the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS) as an ad hoc committee in 1958.[16]

This eighteen-member ad hoc committee attempted to reflect a balance between the rival blocs (East and West), with eleven aligned with the West, four aligned with the East, and three neutral.[17] Its purpose was to halt the arms race in space between the U.S. and the USSR and to ensure space was only used for peaceful purposes[18] by fostering dialogue between the two sides.[19] But the ad hoc committee failed to foster that dialogue, primarily be-

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13 *See* MICHAEL FRIEDL, SECURE WORLD FOUND., THE COPUOS BRIEFING BOOK 16, 34 (Christopher D. Johnson ed., 2d ed. 2025).

14 *See Sputnik, 1957*, U.S. DEP'T OF STATE: OFF. OF THE HISTORIAN, https://history.state.gov/milestones/1953-1960/sputnik [https://perma.cc/8V7F-AEQK] (last visited May 1, 2025).

15 *See id.*

16 *See* G.A. Res. 1348 (XIII), at 5–6 (Dec. 13, 1958).

17 *See id.* at 6.

18 *See* FRIEDL, *supra* note 13, at 11 ("Given the geopolitical context in which COPUOS was created, the aim of maintaining international peace and security in outer space played a role in the creation of COPUOS.").

19 *See Committee on the Peaceful Uses of Outer Space*, U.N. OFF. FOR OUTER SPACE AFFS., https://www.unoosa.org/oosa/en/ourwork/copuos/index.html [https://perma.cc/M4KH-PVB5] (last visited Oct. 23, 2025).

cause the Soviet bloc refused to attend either of the two meetings held by the committee in 1959.[20] In response, the General Assembly passed a resolution establishing UNCOPUOS as a permanent committee of twenty-four members.[21]

The creation of UNCOPUOS was just the first (and easiest) step toward halting the arms race in space.[22] During the height of the Cold War, negotiations between the two nations were anything but swift. President Kennedy advocated for a "peace race" rather than an "arms race," but the USSR instead accelerated nuclear testing, conducting thirty-one tests in just a three-month span in 1961.[23] In response, the U.S. carried out the Starfish Prime nuclear test on July 9, 1962.

That test, conducted over the Pacific near Hawaii, stunned the population. The detonation of a nuclear warhead in outer space briefly turned night into day, and its electromagnetic pulse (EMP) caused blackouts that left streets in Hawaii, over 900 miles away, in darkness.[24] But streetlight blackouts were the least of the world's concerns because "[o]f the 24 satellites in orbit in 1962, Starfish Prime damaged at least" eight of them.[25] At the time, the loss of one third of all satellites was significant; today, it would be catastrophic. With over 13,000 satellites currently in orbit, a comparable explosion could damage over 4,000 satellites and devastate critical infrastructure worldwide.[26]

Fortunately, both the U.S. and the USSR understood the repercussions of an arms race in outer space, and the first step toward preventing it was put into motion: the *Limited Test Ban*

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20 FRIEDL, *supra* note 13, at 5.

21 *See* G.A. Res. 1472 (XIV), at 5 (Dec. 12, 1959).

22 It is relatively "easier" than getting rival countries to cooperate with another because article 22 of the U.N. Charter allows the General Assembly to establish subsidiary organs it deems necessary to perform its functions. *See* U.N. Charter art. 22.

23 *Nuclear Test Ban Treaty*, JOHN F. KENNEDY PRESIDENTIAL LIBR. & MUSEUM (Nov. 7, 2024, at 15:43 ET), https://www.jfklibrary.org/learn/about-jfk/jfk-in-history/nuclear-test-ban-treaty [https://perma.cc/BGD2-6C7S].

24 *See* Liz Boatman, *Sixty Years After, Physicists Model Electromagnetic Pulse of a Once-Secret Nuclear Test*, AM. PHYSICAL SOC'Y: APS NEWS (Nov. 10, 2022), https://www.aps.org/apsnews/2022/11/electromagnetic-pulse [https://perma.cc/T8HR-UK4V].

25 *Id.*

26 *See Online Index of Objects Launched into Outer Space*, U.N. OFF. OF OUTER SPACE AFFS. [hereinafter UNOOSA], https://www.unoosa.org/oosa/osoindex/ [https://perma.cc/BH9V-NU3W] (choose "filter by" dropdown; then click "in orbit"; then click "yes") (last visited Feb. 25, 2025); *see also* COMPETING IN SPACE, *supra* note 4, at 2 (explaining the various types of infrastructure that rely on satellites).

Treaty (*LTBT*) was drafted.[27] Formerly known as the *1963 Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Underwater*, the *LTBT* prohibited these tests but also included a pledge toward disarmament and an end to the arms race.[28] This took the international community one step closer to ending the arms race in outer space. But the biggest step of all, and the focus of this Note, the *OST*—the first of five legal instruments developed by UNCOPUOS that governed activities in space—took eight years of negotiations before it was ratified by the U.S. and the USSR.[29]

The second treaty, *The Agreement on the Rescue of Astronauts, the Return of Astronauts and Return of Objects Launched into Outer Space* (*Rescue Agreement*), entered into force in 1968.[30] As the name implies, the *Rescue Agreement* elaborated further on what obligations States have with regard to distressed astronauts under article 5 of the *OST* and distressed spacecraft under article 8 of the *OST*.[31] In 1971, UNCOPUOS then drafted the *Convention on International Liability for Damage Caused by Space Objects* (*Liability Convention*), which elaborated on the *OST*'s obligations even further.[32] The *Liability Convention* established that if a State's space object causes damage, the determination of liability that follows will be fault-based or absolute, depending on the circumstances.[33] Conversely, the *OST* does not categorize liability.[34]

The last two legally binding treaties created by UNCOPUOS were the *Convention on Registration of Objects Launched into Outer Space* (*Registration Convention*)[35] and the *Agreement Governing the Activities of States on the Moon and Other Celestial Bodies* (*Moon Agreement*).[36] The *Registration Convention* required States to register space objects that were launched into orbit or beyond, and to provide the U.N. Secretary General with that registry.[37] Lastly, the *Moon Agreement* elaborated on the

27 *See* Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water, Aug. 5, 1963, 14 U.S.T. 1313, 480 U.N.T.S. 43.

28 *Id.*

29 *See* OST, *supra* note 6.

30 *See* G.A. Res. 2345 (XXII), at 5–7 (Dec. 19, 1967).

31 *See id.* annex.

32 *See* G.A. Res. 2777 (XXVI), ¶¶ 1–4 (Nov. 29, 1971).

33 *Id.* art. IV(1)(a)–(b).

34 *See* OST, *supra* note 6, art. VII.

35 G.A. Res. 3235 (XXIX), at 16 (Nov. 12, 1974).

36 G.A. Res. 34/68, at 77 (Dec. 5, 1979).

37 G.A. Res. 3235, *supra* note 35, arts. II(1)–(2), IV.

OST's principles by reaffirming the use of the Moon for peaceful purposes.[38] Although these treaties build on the principles of the *OST*, it is important to note that States Parties to the *OST* have no obligation to become parties to any of the mentioned treaties, and many have not.[39]

Because these four aforementioned treaties expand on the basic principles of the *OST*, the *OST* is the most important legal instrument governing space law (in a military context). As such, it is sometimes referenced as the "Magna Carta of space law"[40] and consists of seventeen articles, but this Note will focus on article IV, which states:

> States Parties to the Treaty undertake not to place in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner.
>
> The Moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military maneuvers on celestial bodies shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility necessary for peaceful exploration of the Moon and other celestial bodies shall also not be prohibited.[41]

At the time, the narrow limitations on prohibited weapons reflected both the grave consequences that would result if they were ever used and the limited technology available. When the *OST* was ratified, neither the U.S. nor the USSR could envision the technology used in space today. This six-decade gap in technological development is why the U.S. should propose a new treaty banning the use of all debris-generating space weapons.

III. THE ILLUSION OF PEACEFUL PURPOSES AND ITS STRATEGIC AMBIGUITY

Throughout history, technological advancements have consistently driven military capabilities to new heights.[42] The tech-

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38 G.A. Res. 34/68, *supra* note 36, art. 3(1).

39 As of 2025, there are 116 States party to the *OST*, 100 to the *Rescue Agreement*, 100 to the *Liability Convention*, 76 to the *Registration Convention*, and 17 to the *Moon Agreement*. FRIEDL, *supra* note 13, at 36 tbl. 1.5.

40 *Id.* at 34.

41 OST, *supra* note 6, art. IV.

42 The invention of gunpowder in the 1300s initiated the Gunpowder Revolution, introducing "'fiery weapons'" which "revolutionized the art of war." Geoffrey Parker, *The*

nology available today would have been unimaginable to the U.S. and the USSR when the *OST* was drafted. To put this into perspective, the ubiquitous smartphone has more processing power than the computers used by NASA to launch Apollo 11, the first manned mission to the moon.[43] Modern-day technology has far outpaced the language of the *OST*, and the *OST*'s original notion of "peaceful purposes" has been subject to continual reinterpretation. Combined with its narrow prohibition on weaponization, this evolving interpretation has rendered the *OST* outdated.

No article of the *OST* explicitly requires that *all* of outer space should be used exclusively for peaceful purposes. Rather, the notion that outer space should be used for peaceful purposes is found in the annex.[44] Although the annex is not legally binding, it nonetheless carries significant weight when interpreting the purpose of the *OST*.[45] The 1969 *Vienna Convention on the Law of Treaties* provides that "the purpose of the interpretation of a treaty shall comprise, in addition to the text, . . . annexes."[46] Thus, while the *OST*'s express language lists only a few specific activities to be carried out for peaceful purposes, the treaty's overall purpose is clear—outer space is to be used for peaceful purposes only.[47]

In principle, peaceful purposes would exclude both the weaponization and militarization of space. Yet that is not how the U.S., China, and Russia have interpreted it. The prevailing view among these three countries is that "peaceful purposes" encompasses national security and other non-aggressive purposes.[48] Under this interpretation, the military use of space—if used in pursuit of national security or for non-aggressive reasons—is not considered a violation of the *OST*. Such uses include the use of satellites for military support functions such as intelligence collection (surveillance and reconnaissance), monitoring troop movement, military communications, and related activities.[49]

Gunpowder Revolution, *in* THE CAMBRIDGE HISTORY OF WARFARE 101, 101 (Geoffrey Parker ed., 2d ed. 2020).

43 *See* Wendy Gittleson, *Today's Computers vs. the Apollo 11 Moon Landing Machine*, HACK REACTOR (July 15, 2021), https://www.hackreactor.com/resources/todays-computers-vs-the-apollo-11-moon-landing-machine/ [https://perma.cc/PLF4-TL83].

44 *See* OST, *supra* note 6, annex.

45 Vienna Convention on the Law of Treaties, art. 31, *opened for signature* May 23, 1969, 1155 U.N.T.S. 331 [hereinafter Vienna Convention].

46 *Id.*

47 *See* OST, *supra* note 6, art. IV.

48 *See infra* Sections III.A–C.

49 *See infra* Section IV.A.1.

A. United States

Eight years before the *OST* was ratified, the U.S. was already searching for ways to ensure its space activities remained unconstrained. When negotiations to prevent the arms race in outer space began, the U.S. had made arrangements to interpret peaceful purposes in a way that would not impair its military advantage.[50] Its solution to this problem was simple—interpret "peaceful purposes" to permit actions taken in the interest of national security.[51] President Eisenhower first mentioned this solution in 1959, in America's first Space Policy, when he asked for a study to interpret "peaceful uses of outer space" in a way "that would best serve the interests of the U.S."[52] Notably, the Eisenhower administration specifically indicated that peaceful purposes "does not necessarily exclude military applications."[53]

In 1962, the U.S. shared its findings in the U.N. General Assembly's First Committee meeting. There, Senator Gore articulated the U.S. position "that outer space should be used only for peaceful – that is, non-aggressive and beneficial – purposes."[54] At the same time, the U.S. was careful in its phrasing and reiterated that this stance *does not exclude military uses*, even going as far as to assert that there was no difference between "military and non-military uses of space."[55] However, the definition of peaceful purposes went "officially" undefined by American Space Policy until 1978, when the Carter administration released its Space Policy. That Space Policy declared that peaceful purposes of outer space included "military and intelligence-related activities" if used for national security or "other goals."[56] Under this interpretation, almost anything could be justified as a peaceful purpose as long as the purpose—peaceful or hostile—is in pursuit of a "goal."[57]

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50 *See* NAT'L AERONAUTICS & SPACE COUNCIL, EXEC. OFF. OF THE PRESIDENT, NSC 5918/1, U.S. POLICY ON OUTER SPACE ¶ 44 (1959).

51 *See id.*

52 *Id.*

53 *Id.* ¶ 45.

54 U.N. GAOR, 17th Sess., 1289th mtg. at 13, U.N. Doc. A/C.1/PV.1289 (Dec. 3, 1962).

55 *Id.*

56 OFF. OF SCI. & TECH. POL'Y, EXEC. OFF. OF THE PRESIDENT, NSC-37, NATIONAL SPACE POLICY ¶ 1(a) (1978).

57 *See id.*

This interpretation was carried forward by successive administrations until 1996,[58] when President Clinton's Space Policy fundamentally went against the express purpose of the *OST*. It reaffirmed the U.S.'s treaty obligations, but simultaneously declared that it would maintain space superiority to ensure its own freedom of action, and, if necessary, "deny such freedom of action to adversaries."[59] In line with this directive, the U.S. Air Force developed a counter-space operations doctrine that detailed how the U.S. would achieve and preserve its superiority in space.[60] The doctrine defined space superiority as encompassing both the "freedom *to* attack as well as freedom *from* attack."[61] But the U.S.'s inclusion of military superiority in its interpretation of peaceful purposes is not unique to the *OST* or space.

An analogous provision, calling for a warfighting domain (the sea) to be used for peaceful purposes, can be found in the *United Nations Convention on the Law of the Sea* (*UNCLOS*).[62] Signed in 1982, the *UNCLOS* mandates that State parties enjoy "freedom of navigation" and that the "high seas shall be reserved for peaceful purposes."[63] Despite this language, the U.S.'s Naval Doctrine on Naval Warfare provided that the basic role of its naval forces was to "promote and defend [its] national interests by maintaining maritime superiority."[64] This maritime superiority protected the principle of "freedom-of-navigation operations" and "[d]en[ied] the enemy commercial and military use of the seas."[65] Evidently, regardless of the warfighting domain, the U.S. recognizes military superiority and military presence as peaceful purposes.

The U.S.'s Space Policy continued along this trajectory by consistently expanding on its interpretation of peaceful purposes even further in its 2006 Space Policy. That policy diverged even

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58 *See id.*; OFF. OF SCI. & TECH. POL'Y, EXEC. OFF. OF THE PRESIDENT, NSDD-42, NATIONAL SPACE POLICY 1 (1982); OFF. OF SCI. & TECH. POL'Y, EXEC. OFF. OF THE PRESIDENT, NSPD-1, NATIONAL SPACE POLICY 1 (1989); OFF. OF SCI. & TECH. POL'Y, EXEC. OFF. OF THE PRESIDENT, NATIONAL SPACE POLICY 1 (1996) [hereinafter 1996 SPACE POLICY].

59 1996 SPACE POLICY, *supra* note 58, ¶ 6(g).

60 *See* U.S. A.F., AIR FORCE DOCTRINE DOCUMENT 2-2.1, COUNTERSPACE OPERATIONS 1 (2004).

61 *Id.*

62 *See* U.N. Convention on the Law of the Sea art. 88, Dec. 10, 1982, 1833 U.N.T.S. 397.

63 *Id.* arts. 87–88.

64 DEP'T OF THE NAVY, NAVAL DOCTRINE PUBLICATION 1: NAVAL WARFARE 15 (Mar. 28, 1994).

65 *See id.* at 21, 26.

further from the *OST*'s purpose and provided that the U.S. will oppose any legal regimes that prohibit or limit its use of space.[66] Furthermore, it expressed that "[p]roposed arms control agreements or restrictions must not impair the rights of the United States to conduct research, development, testing, and operations or other activities in space for U.S. national interests."[67] With this declaration, President George W. Bush's administration became the first to explicitly state its opposition to any limits on the weaponization of space.

Just four years later, President Obama recognized the incompatibility between the *OST* and America's Space Policy. In contrast to President Bush's Space Policy, President Obama's Space Policy provided that, "[t]he United States will consider proposals and concepts for arms control measures if they are equitable, effectively verifiable, and enhance the national security of the United States and its allies."[68] The Obama administration's view on peaceful purposes remained the same, "allow[ing] for space to be used for national and homeland security activities."[69] President Obama's Space Policy thus came the closest to realigning U.S. Space Policy with the *OST* since the Clinton era.

This progress was short-lived and quickly erased when President Trump reframed the U.S. conception of space. In 2019, President Trump created the Space Force, transferring responsibility for space superiority from the Air Force to the new branch.[70] Its mission statement is to "secure our Nation's interests in, from, and to space."[71] These interests are articulated into three core functions: defend the domain (space control), integrate the domain (passive militarization), and access the domain.[72] The following year, President Trump released his Space Policy, the first to declare unequivocally that space "has become a warfighting domain," and emphasized that both the inherent right of

66 *See* OFF. OF SCI. & TECH. POL'Y, EXEC. OFF. OF THE PRESIDENT, NATIONAL SPACE POLICY OF THE UNITED STATES OF AMERICA 1 (2006).

67 *Id.* at 1–2.

68 *See* OFF. OF SCI. & TECH. POL'Y, EXEC. OFF. OF THE PRESIDENT, U.S. NATIONAL SPACE POLICY OF THE UNITED STATES OF AMERICA 7 (2010).

69 *Id.* at 3.

70 U.S. A.F., *supra* note 60, at 1.

71 U.S. SPACE FORCE, SPACE FORCE 101, at 2, https://www.spaceforce.mil/Portals/2/Documents/SF101/ussf_101_glossy_FINAL_e-version.pdf [https://perma.cc/923X-7TS4] (last visited Nov. 3, 2025).

72 *Id.*

self-defense and the freedom to operate in space are vital national interests.[73]

In effect, the U.S. conception of peaceful purposes has come to encompass anything tied to national security, including military superiority and presence in a warfighting domain (land, sea, air, and space).

B. China

Unlike the U.S. and Russia (previously part of the USSR), China did not become a party to the *OST* until 1983, sixteen years after its adoption.[74] And due to China's space industry being run entirely by the State, China's space program remained far behind the U.S.[75] This continued until 2014, when China opened up its space industry to private investment and China has spent the last decade transforming its space program to compete with the U.S.[76]

This competition was publicly announced in 2015, when China issued a white paper that stated "[t]hreats from such new security domains as outer space and cyber space will be dealt with to maintain the common security of the world community."[77] Four years later, China described outer space as "a critical domain in international strategic competition."[78] Despite acknowledging space as a military domain, China has simultaneously ridiculed the U.S., accusing it of being the chief proponent of a space war by "pursu[ing] unilateral military and strategic superiority

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73 *See* NAT'L SPACE COUNCIL, EXEC. OFF. OF THE PRESIDENT, NATIONAL SPACE POLICY OF THE UNITED STATES OF AMERICA 1 (2020).

74 *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies*, U.S. DEP'T OF STATE, https://2009-2017.state.gov/t/isn/5181.htm [https://perma.cc/5Z2H-ZKRQ] (last visited Sep. 25, 2025).

75 Ryan Nelson, Taylor Rhoten & Brian MacCarthy, *Eastern Stars Rising: The Rise of China's Commercial Space Industry*, WAR ON THE ROCKS (July 29, 2025), https://warontherocks.com/2025/07/eastern-stars-rising-the-rise-of-chinas-commercial-space-industry/ [https://perma.cc/2GPN-HG9G].

76 *See id.*

77 *See* THE STATE COUNCIL INFO. OFF. OF THE PEOPLE'S REPUBLIC OF CHINA, CHINA'S MILITARY STRATEGY (2015) [hereinafter CHINA 2015 WHITE PAPER], https://english.www.gov.cn/archive/white_paper/2015/05/27/content_281475115610833.htm [https://perma.cc/3USS-HE5Q].

78 THE STATE COUNCIL INFO. OFF. OF THE PEOPLE'S REPUBLIC OF CHINA, CHINA'S NATIONAL DEFENSE IN THE NEW ERA 10 (2019), https://english.www.gov.cn/archive/whitepaper/201907/24/content_WS5d3941ddc6d08408f502283d.html [https://perma.cc/8TWE-MVBN].

in space."[79] However, China's explicit statements to the U.N. General Assembly indicate that it doesn't believe space is a warfighting domain.[80] Thus, to discern the true stance of China, its conduct and military activities are the most determinative; while China has not explicitly admitted it, China's view on space is clear—it's a military domain.[81]

China has not explicitly defined its interpretation of peaceful purposes, but its military strategy makes that interpretation clear. China's military strategy details that it will monitor outer space and address threats, protect its space assets for national development, and uphold space security.[82] In effect, China has committed itself to doing whatever is necessary to preserve its security in both space and on Earth, without formally stating so.[83] Accordingly, China's interpretation of peaceful purposes aligns closely with that of America, despite vehemently opposing America's position.

China's actions further confirm this alignment. In 2015, it created the Strategic Support Force (SSF), its counterpart to the U.S. Space Force.[84] The SSF's mission was to "centralize the [People's Liberation Army]'s strategic space, [and] cyberspace" capabilities.[85] Within the SSF were two departments: the Space Systems Department (SSD), responsible for all of China's military space operations,[86] and the Network Systems Department (NSD), responsible for information warfare.[87] Surprisingly, in April 2024, China unexpectedly dissolved the SSF without offering a detailed explanation.[88] Despite the dissolution of the SSF, both the SSD and NSD survived, moving directly under the authority of the Central Military Commission (CMC), China's high-

79 U.N. Secretary-General, *Reducing Space Threats Through Norms, Rules and Principles of Responsible Behaviours*, at 30, U.N. Doc. A/76/77, annex (July 13, 2021).

80 *Id.* at 30 ("The North Atlantic Treaty Organization has for the first time defined space as an operational domain . . . . Such actions have exacerbated the trend of an arms race in outer space [and] increased the risk of turning outer space into a war-fighting domain . . . .").

81 *See* SECURE WORLD FOUND., *supra* note 2, at 03-23.

82 *See* CHINA 2015 WHITE PAPER, *supra* note 77.

83 *See generally id.* (explaining China's goals to develop its national defense in a new military domain, outer space).

84 U.S. DEP'T OF DEF., ANNUAL REPORT TO CONGRESS: MILITARY AND SECURITY DEVELOPMENTS INVOLVING THE PEOPLE'S REPUBLIC OF CHINA 68 (2024).

85 *Id.*

86 *Id.*

87 *Id.*

88 *Id.* at 67–68.

est military decision-making body.[89] The NSD was rebranded as the Cyberspace Force, while the SSD became the Aerospace Force.[90]

Although China has created and maintained its own functional equivalent of a Space Force, it continues to publicly condemn the U.S. for doing the same, casting the U.S. as a warmonger while pursuing nearly identical capabilities itself.[91]

C. Russia

Russia's conduct demonstrates it views space as a warfighting domain and believes space superiority will be a key factor in future conflicts.[92] Publicly, though, Russia's stance is the complete opposite.[93] Russia's stance is that any military use of space, whether offensive or defensive, is motivated by the pursuit of military dominance.[94] Implicitly, then, Russia seems to interpret any use of space for a military purpose as incompatible with the *OST*'s principle of peaceful purposes.[95]

Yet just three years earlier, Russia defended the creation of its own space force under the guise that it was only for "purely defensive" activities.[96] Specifically, Russia "believes that developing and fielding counterspace capabilities will deter aggression from adversaries reliant on space" and, if deterrence fails, Russia will destroy its adversaries' space systems.[97] In other words, Russia's military activities in space are for national security.[98] Therefore, Russia's position mirrors that of the U.S. and China: military activities in space are permissible so long as they are tied to national security.

This interpretation provided the foundation for Russia's establishment of the Russian Aerospace Forces in 2015, which merged the Air Force and Aerospace Defense Force into a single

89 *Id.* at 69.

90 *Id.*

91 U.N. Secretary-General, *supra* note 79, at 30.

92 *See* DEF. INTEL. AGENCY, CHALLENGES TO SECURITY IN SPACE 21 (2022) [hereinafter CHALLENGES IN SPACE].

93 *See* U.N. Secretary-General, *supra* note 79, at 79.

94 *Id.*

95 *See id.*

96 Kyle Rempfer, *Russia Warns of a 'Tough Response' to Creation of US Space Force*, A.F. TIMES (June 21, 2018), https://www.airforcetimes.com/flashpoints/2018/06/21/russia-warns-of-a-tough-response-to-creation-of-us-space-force/ [https://perma.cc/G2FM-3NHV].

97 *See* CHALLENGES IN SPACE, *supra* note 92, at 21.

98 *Id.*

branch.[99] After the merger, Russia's Aerospace Forces were divided into three branches: the Air Force, the Air and Missile Defense Forces, and the Space Forces.[100] Russia's Space Forces was tasked with overseeing all military operations in outer space, including preventing attacks from space.[101] Despite this, Russia publicly opposed the creation of the U.S. Space Force.[102] Victor Bondarev, then Commander-in-Chief of the Russian Aerospace Forces, even warned that "[m]ilitarization of outer space is the path to disaster,"[103] and described it as a direct violation of international law, presumably referring to the *OST*.[104]

Russia's Space Forces is nearly equivalent to America's, but Russia maintains that it complies with using space for peaceful purposes because it has a defensive, rather than an offensive, purpose.[105] This stance is inconsistent with Russia's previous statements to the U.N., which rejected military activity in space altogether, regardless of whether it was defensive or offensive.[106] In practice, regardless of the label or name, Russia's, China's, and America's space forces all perform similar functions with the same overarching mission—achieving space superiority.

IV. ARMING THE STARS: MILITARIZATION AND WEAPONIZATION OF THE GALACTIC DOMAIN

The *OST*'s primary purpose was to halt the looming arms race in space and to ensure that outer space was used for peaceful purposes.[107] Fifty-eight years ago, this was a world-changing multilateral treaty. Today, though, it carries little weight. In-

99 *See* SECURE WORLD FOUND., *supra* note 2, at 02-39; *see also* U.S. DEP'T OF DEF., SPACE POLICY REVIEW AND STRATEGY ON PROTECTION OF SATELLITES 3 (2023) ("The Russian Federation (Russia) reorganized its military in 2015 to create a separate space force because Russia sees achieving supremacy in space as a decisive factor in winning conflicts.").

100 Matthew Bodner, *Russian Military Mergers Air Force and Space Command*, MOSCOW TIMES (Aug. 3, 2015), https://www.themoscowtimes.com/2015/08/03/russian-military-merges-air-force-and-space-command-a48710 [https://perma.cc/PD3V-M8ZE].

101 *See* GEN. STAFF OF THE ARMED FORCES OF THE RUSSIAN FED'N, THE MILITARY DOCTRINE OF THE RUSSIAN FEDERATION art. 32(f) (2014), https://rusmilsec.blog/wp-content/uploads/2021/08/mildoc_rf_2014_eng.pdf [https://perma.cc/K57M-C4R3].

102 Rempfer, *supra* note 96.

103 *Id.*

104 *Id.*; *see also* ALEXIS A. BLANC ET AL., RAND, CHINESE AND RUSSIAN PERCEPTIONS OF AND RESPONSES TO U.S. MILITARY ACTIVITIES IN THE SPACE DOMAIN 2 (2022) (noting that the Kremlin has publicly denounced the militarization of space as a violation of international law).

105 Rempfer, *supra* note 96.

106 U.N. Secretary-General, *supra* note 79, at 79.

107 *See supra* Part II.

deed, the arms race was halted, but only for a specific class of arms, nuclear weapons, and "any other kinds of weapons of mass destruction."[108] Modern technology allows space to be weaponized in ways the drafters of the *OST* could not have anticipated, leaving most forms of weaponization unrestricted. Likewise, outer space being reserved for peaceful purposes inherently requires that space not be militarized either. Today, neither is true.[109]

A. Militarization

In the context of the *OST*, militarization refers broadly to any military use of space.[110] Militarization is not a concept of fiction; it is a well-established reality and includes activities such as early warning systems, navigation and GPS, surveillance and reconnaissance, and military communications.[111] Now, within the last decade, the militarization of space includes America's, Russia's, and China's space forces.[112]

Although article IV of the *OST* allows military personnel to be used for "scientific research or for any other peaceful purposes," the current interpretation of "peaceful" is boundless.[113] Today, the U.S., Russia, and China interpret peaceful purposes to encompass almost any activity tied to national security.[114] Under this interpretation, militarization is deemed problematic only when it is purely aggressive.

1. Military Support Functions: The Backbone of Space Superiority

Space was militarized well before the *OST* entered into force. The U.S. Missile Defense Alarm System (MIDAS) began in the early 1960s and was designed to detect Soviet missile launches.[115] The USSR followed suit and created the "Oko" program in the 1970s, its version of MIDAS.[116]

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108 OST, *supra* note 6, art. IV.

109 *See supra* Sections III.A–B.

110 *See* Carl Q. Christol, *Missile Launches, Militarization, Weaponization: Security in Space*, 52 PROCS. INT'L INST. SPACE L. 99, 106 (2009).

111 U.S. SPACE FORCE, *supra* note 71, at 13.

112 *See supra* Sections III.A–C.

113 OST, *supra* note 6, art. IV.

114 *See supra* Part II.

115 *Satellite Systems – Infrared Early Warning Systems*, U.S. SPACE FORCE, https://www.losangeles.spaceforce.mil/Portals/16/documents/AFD-150806-079.pdf [https://perma.cc/4U6T-5WX3] (last visited Apr. 26, 2025).

116 Pavel Podvig, *History and the Current Status of the Russian Early-Warning System*, 10 SCI. & GLOB. SEC. 21, 23–26, 35 (2002).

Oko famously triggered a false nuclear alarm in 1983 when sunlight reflected off clouds was misinterpreted as a nuclear missile launch, nearly prompting the USSR to launch its entire arsenal (40,000+) of nuclear weapons.[117] Fortunately, a USSR military officer recognized that the U.S. would launch hundreds of nuclear missiles, rather than the five detected by Oko, and did not pass the warning on to his superiors.[118] These mishaps exemplify the worries surrounding militarized use of space. Nevertheless, six decades later, military reliance on space assets has only intensified.

Today, thousands of satellites orbit Earth,[119] and each has a specific mission: remote sensing, communications, position/navigation, scientific and technology development, and others.[120] Military remote sensing satellites track and monitor hostile installations and troop movement, and civilian remote sensing satellites are used to monitor the weather and crops.[121] Military navigation and position satellites transmit information for land, air, and sea navigation, and precision weapons guidance systems.[122] Civilian navigation and position satellites play a crucial role in everyday life, supporting "civilian transportation; precision farming; autonomous vehicle guidance; time synchronization for electrical power grids and banking transactions; communications across wireless Internet and emergency medical, fire, and police services."[123] Communication satellites, as the name implies, allow data to be transmitted by terrestrial communications (e.g., cellphones and the internet) even in remote areas.[124]

Only a small percentage of satellites in orbit are purely military, though. Of the thousands of satellites owned by the U.S.,[125]

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117 *See id.* at 35, 40.

118 James Osborne, *The Soviet Soldier Who Saved the World: How Did Stanislav Petrov Prevent Nuclear Armageddon?*, HISTORYEXTRA (Sep. 26, 2024, at 13:11 PT), https://www.historyextra.com/period/cold-war/stanislav-petrov-soviet-soldier-saved-the-world/ [https://perma.cc/S4K8-CBMV]. It should be noted that America's early-warning systems have had similar false alarms. *False Warnings of Soviet Missile Attacks Put U.S. Forces on Alert in 1979–1980*, NAT'L SEC. ARCHIVE (Mar. 16, 2020), https://nsarchive.gwu.edu/briefing-book/nuclear-vault/2020-03-16/false-warnings-soviet-missile-attacks-during-1979-80-led-alert-actions-us-strategic-forces [https://perma.cc/B7F8-WN9G].

119 UNOOSA, *supra* note 26.

120 COMPETING IN SPACE, *supra* note 4, at 6.

121 CHALLENGES IN SPACE, *supra* note 92, at 2.

122 *Id.*

123 *Id.*

124 *Id.*

125 COMPETING IN SPACE, *supra* note 4, at 6.

only 247 are distinctly military;[126] of China's 647 satellites in orbit,[127] only 157 are military.[128] More significant is the prevalence of dual-use satellites, which support both civilian and military functions.[129] Because the U.S., China, and Russia all interpret peaceful purposes to include national security, any dual-use satellite could be permanently disabled or destroyed for that reason.[130] Russia has already made such a threat. During its ongoing invasion of Ukraine, the Ukrainian military relied heavily on Starlink satellites, prompting a Russian representative to warn that these commercial satellites "may become a legitimate target for retaliation."[131] This dual-use vulnerability poses risks not only to militaries but also to millions of civilians who depend on satellites for communications, navigation, financial transactions, and emergency services.[132]

Conversely, if a non-destructive space weapon was used, the satellite would likely only be temporarily disabled.[133] While the civilian population would still be inconvenienced, it would only be temporary.[134] The duality of these satellites is one of the primary reasons debris-generating space weapons should be banned.

B. Weaponization

In the context of space, weaponization has not been precisely defined, but a general consensus is that the weaponization of space occurs when a space object with destructive capabilities is

126 Conor Brighton, *Countries by Number of Military Satellites*, WORLDATLAS (Sep. 26, 2024), https://www.worldatlas.com/space/countries-by-number-of-military-satellites.html [https://perma.cc/6GJM-G7QB].

127 COMPETING IN SPACE, *supra* note 4, at 6.

128 Brighton, *supra* note 126.

129 Jennifer A. Cannon, *Targeting Dual-Use Satellites: Lessons Learned from Terrestrial Warfare*, 2 AIR & SPACE OPERATIONS REV. 37, 38 (2023).

130 *See supra* Part II.

131 Kari A. Bingen, Kaitlyn Johnson & Zhanna Malekos Smith, *Russia Threatens to Target Commercial Satellites*, CTR. FOR STRATEGIC & INT'L STUD. (Nov. 10, 2022), https://www.csis.org/analysis/russia-threatens-target-commercial-satellites [https://perma.cc/H64C-WGV2] ("[C]ommercial 'dual-use' satellites are being used for both civilian and military purposes. During armed conflict, military force can be lawfully applied against 'military objectives' . . . .").

132 *See* COMPETING IN SPACE, *supra* note 4, at 2.

133 *See infra* Section IV.B.2 (explaining that while in theory a non-destructive space weapon can permanently disable a space object, in practice the effects are generally temporary).

134 *See infra* Section IV.B.2.

placed in orbit.[135] Weaponization is always a form of militarization, but militarization is not always a form of weaponization.[136]

The flaw in the *OST* is that it only prohibits nuclear weapons and weapons of mass destruction from being placed in space.[137] This means that the weaponization of space is not illegal under the *OST* per se; rather, only two classes of weapons are illegal. This gap underscores the urgency of banning debris-generating space weapons while permitting reversible space weapons that minimize collateral damage.

This proposal is bolstered further by the following reasons:

First, a regrettable truth is that these three military superpowers rely on mutually assured destruction as a deterrent. The problem with space-based destructive weapons is that some satellites are dual-use and can be designed to crash into other space objects or explode.[138] Consequently, if a country disguised these weapons as ordinary satellites and Earth-to-space weapons were banned, the offending country would gain an immediate, decisive advantage, and the deterrent of mutually assured destruction would disappear.

Second, non-destructive space weapons can potentially reduce collateral damage and casualties in conflict. For example, by spoofing an adversary's signal, the adversary could be directed to an area free of civilians or to an area that would reduce the overall damage from military action.[139] Indeed, non-destructive space weapons can achieve the same purpose—denying the adversary's use of space—but without the permanent effects of destructive weapons.

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135 *See* KIRAN NAIR, U.N. INST. FOR DISARMAMENT RSCH., CELEBRATING THE SPACE AGE: 50 YEARS OF SPACE TECHNOLOGY, 40 YEARS OF THE OUTER SPACE TREATY, at 102, UNIDIR/2007/4, U.N. Sales No. GV.07.0.8 (2007). The Merriam-Webster Dictionary reflects this consensus, defining weaponize as "to adapt for use as a weapon of war." *Weaponize*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/weaponize [https://perma.cc/2W8M-V5C4] (last visited Apr. 17, 2025). This means that America, China, and Russia could avoid being criticized for weaponizing space if the weapon was launched from Earth.

136 Christol, *supra* note 110 ("[N]on-peaceful or aggressive activities resulting from military activities in the space environment . . . would constitute an unlawful weaponization.").

137 *See* OST, *supra* note 6, art. IV.

138 *See* MICHAEL P. GLEASON & PETER L. HAYS, GETTING THE MOST DETERRENT VALUE FROM U.S. SPACE FORCES 2–3 (2020).

139 *See* CLAYTON SWOPE ET AL., SPACE THREAT ASSESSMENT 2024, at 4 (2024) ("Spoofing is a form of electronic attack where an attacker tricks a receiver into believing a fake signal produced by the attacker is the real signal it is trying to receive.").

1. Destructive Space Weapons

Destructive weapons are the primary concern in today's world due to the debris they generate once they strike their intended target (space object). While destructive space weapons can be considered Earth-to-space, space-to-space, and space-to-Earth, the primary focus of this Note is the most prevalent destructive space weapon: a direct-ascent anti-satellite weapon (ASAT).

A direct-ascent ASAT is launched from Earth to kinetically destroy satellites through force of impact.[140] Direct-ascent ASATs have been tested repeatedly throughout history, with the U.S. conducting the first test in 1962.[141] But it was China's ASAT test in 2007 that demonstrated their true destructiveness.

When China launched a direct-ascent ASAT at one of its own satellites, it resulted in over 35,000 pieces of debris, with at least 2,087 pieces that were capable of being tracked by the U.S. Space Surveillance Network (US SSN).[142] Since the US SSN only tracks space objects in low Earth orbits "larger than a softball" and "basketball-sized objects, or larger, in higher, geosynchronous orbits," China's test resulted in thousands of *at least* softball-sized debris.[143] Although this test resulted in significant destruction, it is a stark reminder of what mutually assured destruction could look like in a space context.

2. Non-Destructive Space Weapons

Non-destructive space weapons are used by the U.S., Russia, and China nearly every day.[144] The most prevalently used non-destructive space weapons are electronic warfare and directed-energy systems.

Electronic warfare is defined by the Department of Defense as "[m]ilitary action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to at-

140 SECURE WORLD FOUND., *supra* note 2, at xxxviii.

141 *See id.* at 01-15 tbl. 1-3.

142 T.S. KELSO, ANALYSIS OF THE 2007 CHINESE ASAT TEST AND THE IMPACT OF ITS DEBRIS ON THE SPACE ENVIRONMENT 321 (2007).

143 *Space Debris 101*, AEROSPACE, https://aerospace.org/article/space-debris-101 [https://perma.cc/8DNK-37B3] (last visited Apr. 14, 2025).

144 Josh Rogin, *A Shadow War in Space Is Heating up Fast*, WASH. POST (Nov. 30, 2021), https://www.washingtonpost.com/opinions/2021/11/30/space-race-china-david-thompson/ [https://perma.cc/BAJ6-XTNN].

tack the enemy."[145] Electronic warfare includes the use of jamming and spoofing to control and/or limit the adversary's use of the electromagnetic spectrum.[146] Electronic warfare is generally considered a type of reversible space weapon, meaning that once the jammer is deactivated, the interference disappears and service is restored.[147]

Jamming can target a satellite directly (uplink jamming), which disrupts service for all users in its coverage area, or it can target the recipient of the signal (downlink jamming), which affects only users within the jammer's range.[148] Because it interrupts service for *all* users, uplink jamming poses the greater risk to the civilian population. Spoofing, by contrast, alters the information of a signal to deceive the intended recipient.[149]

Directed energy weapons "harness concentrated beams of electromagnetic waves or subatomic particles."[150] The most prevalent directed energy weapon is referred to as "laser dazzling."[151] Dazzling involves using a low-power laser to temporarily or permanently (depending on the strength of the laser) blind the satellite's optical sensors, disabling the satellite's ability to capture images.[152] The effects of dazzling are predominantly reversible, unless the power of the laser is intensified to damage a satellite's optical sensors permanently.[153] Dazzling can have both offensive

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145 *Electronic Warfare*, DOD DICTIONARY OF MILITARY AND ASSOCIATED TERMS 78 (2017) [hereinafter DOD DICTIONARY], https://apps.dtic.mil/sti/pdfs/AD1029823.pdf [https://perma.cc/27HR-MLQC]. While the Department of Defense groups electronic warfare with directed energy weapons, that categorization is not universally recognized. *See* SECURE WORLD FOUND., *supra* note 2, at xxxviii.

146 CHALLENGES IN SPACE, *supra* note 92, at 44.

147 *See* SWOPE ET AL., *supra* note 139, at 6 tbl. 1.

148 SECURE WORLD FOUND., *supra* note 2, at 01-19. Uplink jamming is considered an Earth-to-space weapon, whereas downlink jamming is considered a space-to-Earth weapon because the signal originates from a space object. *See* GLEASON & HAYS, *supra* note 138, at 2.

149 SECURE WORLD FOUND., *supra* note 2, at 01-19.

150 *Id.* at 01-24. For a recent test of the U.S. HELIOS laser, a type of directed energy weapon currently in development by the U.S., see Riley Ceder, *US Navy Hits Drone with HELIOS Laser in Successful Test*, NAVY TIMES (Feb. 4, 2025), https://www.navytimes.com/news/your-navy/2025/02/04/us-navy-hits-drone-with-helios-laser-in-successful-test/ [https://perma.cc/JJ86-PSAC].

151 SECURE WORLD FOUND., *supra* note 2, at 01-24 to -25.

152 *See id.* at 01-25 to -26; *see also* CHALLENGES IN SPACE, *supra* note 92, at 45 (describing space and counterspace concepts in the context of threats to U.S. space capabilities).

For a practical example on how even a commercially used laser can damage optical sensors, see *Do Lasers Damage Video or Photo Cameras?*, LASERWORLD, https://www.laserworld.com/en/laser-safety-faq/1045-do-lasers-damage-video-or-photo-cameras.html [https://perma.cc/Z65P-RHXE] (last visited Sep. 5, 2025).

153 *See* SECURE WORLD FOUND., *supra* note 2, at 01-25 to -26.

and defensive capabilities. Offensively, it could prevent a satellite from tracking the movement of troops.[154] Defensively, it could be placed near a ground facility to prevent it from being imaged.[155]

Electronic warfare has consistently been used in conflicts since the early 1990s,[156] but the war in Ukraine has showcased what electronic warfare looks like against two modern militaries. Russia's 2022 invasion was described as "its largest combat deployment of EW capabilities to date."[157] However, Russia is not alone in using electronic warfare; Ukraine is also employing significant electronic warfare measures defensively against Russian drones and missiles.[158] Ukraine has also been using electronic warfare offensively, by jamming Russia's communications and tracking targets by hijacking the electromagnetic spectrum.[159] Russia eventually scaled back its use of electronic warfare when it began disrupting its own systems, but both sides demonstrated the decisive role of non-destructive space weapons.[160]

Russia's invasion of Ukraine showcased how non-destructive space weapons are used in open conflict, but their reach extends well beyond active battlefields. Even America's space assets have fallen victim to electronic warfare recently.[161] The Space Force has publicly acknowledged that China and Russia are attacking U.S. satellites "every single day" with "non-kinetic means, including lasers, radio frequency jammers and cyber attacks."[162] Significantly, the Space Force affirmed that the attacks resulted in reversible damage but would not comment on whether any of the attacks resulted in non-reversible damage.[163] Granted, the U.S. likely engages in similar activity through the Counter Commu-

154 *See id.* at 01-25.

155 *Id.*

156 *See* David Vergun, *Space Domain Critical to Combat Operations Since Desert Storm*, U.S. DEP'T OF DEF. (Mar. 19, 2021), https://www.defense.gov/News/NewsStories/Article/Article/2543941 [https://perma.cc/ZG9U-7RLA].

157 Duncan McCrory, *Electronic Warfare in Ukraine: Preliminary Lessons for NATO Air Power Capability Development*, 36 J. JOINT AIR POWER COMPETENCE CTR. 69, 70 (2023).

158 *See* Chris Gordon, *'More EW Than We Have Ever Seen Before' in Ukraine, Space Force Official Says*, AIR & SPACE FORCES MAG. (Apr. 24, 2024), https://www.airandspaceforces.com/ew-ukraine-space-force-training-electronic-warfare-leader-says/ [https://perma.cc/MTX7-K8D2].

159 *See* McCrory, *supra* note 157, at 70.

160 *Id.*

161 *See* Rogin, *supra* note 144.

162 *Id.*

163 *Id.*

nications System (CCS), a classified program that is used primarily for satellite jamming.[164]

Each military superpower has used these weapons and has fallen victim to the effects of these weapons as well. An important lesson from Russia's invasion of Ukraine is that unintentional disruptions caused by electronic warfare can be undone by simply disabling the jammer.[165] But if a destructive space weapon were used, the effects would be irreversible and a heavy price would be paid in both the civilian and military domains.[166] Allowing non-destructive space weapons to be used while banning debris-generating ones would significantly reduce the risk of collateral damage to civilian populations while preserving deterrence.[167]

V. FROM SPUTNIK TO STARLINK: COLD WAR ORIGINS, MODERN NEEDS

The consequences of using a destructive space weapon highlight the deficiencies in the *OST*, which prohibits only two classes of weapons: nuclear weapons and WMDs.[168] The Department of Defense defines WMDs as "[c]hemical, biological, radiological, or nuclear weapons capable of a high order of destruction or causing mass casualties."[169] Similarly, the U.N. defines WMDs as "atomic explosive weapons, radioactive material weapons, lethal chemical and biological weapons and any weapons developed in the future which might have characteristics comparable in destructive effect to those of the atomic bomb."[170] While the use of such weapons plainly contradicts the *OST*'s intended purpose of using outer space for peaceful purposes, it does not bar their use so long as they are not placed in orbit around a celestial body or stationed in outer space.[171]

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164 *See* 1 U.S. A.F., U.S. DEP'T OF DEF., FISCAL YEAR (FY) 2026 BUDGET ESTIMATES 1-7 (2025) ("The Counter Communications System (CCS) Pre-planned Product Improvement (P3I) program provides expeditionary, deployable, reversible offensive space control (OSC) effects applicable across the full spectrum of conflict. It prevents adversary satellite communications (SATCOM) in the Area of Responsibility (AOR) including Command and Control (C2), Early Warning, and Propaganda; and hosts Rapid Reaction Capabilities in response to Urgent Needs.").

165 *See* McCrory, *supra* note 157, at 70.

166 *See* COMPETING IN SPACE, *supra* note 4, at 1, 14–15.

167 *See* GLEASON & HAYS, *supra* note 138, at 2–3, 5.

168 *See* OST, *supra* note 6, art. IV.

169 DOD DICTIONARY, *supra* note 145, at 252.

170 G.A. Res. 32/84, ¶ B(3) (Dec. 12, 1977).

171 *See* OST, *supra* note 6, art. IV.

Recognizing this gap in the legal regime, Russia and China spearheaded negotiations for a new treaty, the *PPWT*. The 2008 draft *PPWT* called upon States "not to place in orbit around the Earth any objects carrying any kinds of weapons, not to install such weapons on celestial bodies, and not to station such weapons in outer space in any other manner."[172] The draft's language essentially mirrored the *OST*'s language but extended the prohibition to cover all types of space weapons, rather than just nuclear weapons and WMDs.

The U.S. strongly opposed the *PPWT*, raising several fundamental objections.[173] First, the *PPWT* did not prohibit the research, development, production, or storage of space-based weapons, and it imposed no restrictions on Earth-based space weapons, leaving States free to build up "breakout capability."[174] Second, it failed to prohibit tests against a State's own space objects, meaning China's 2007 destructive ASAT test would have been in compliance.[175] Even more troubling, States could conduct "fly-by" (i.e., non-contact) tests of Earth-based ASATs against the space objects of other States.[176] Finally, the *PPWT* contained no verification or monitoring obligations. But this omission reflected the reality at the time, with the U.S. itself conceding that "it is not possible to develop an effectively verifiable agreement."[177] That said, substantively, the 2008 draft *PPWT* provided no further protection than the *OST*, since Earth-based space weapons are fully capable of damaging and/or destroying space assets just as effectively as space-based weapons.[178]

When the 2008 draft *PPWT* failed to gain traction, a revised draft of the *PPWT* was introduced in 2014.[179] The second draft left most U.S. concerns unaddressed: it omitted prohibitions on Earth-based space weapons, failed to establish a verification regime, and maintained the same limited restrictions on space-based weapons.[180]

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172 2008 PPWT Draft, *supra* note 9, art. II.

173 *See generally* 2008 PPWT U.S. Analysis, *supra* note 10 (detailing U.S. opposition to the 2008 draft *PPWT* and outlining its substantive and procedural concerns).

174 *Id.* ¶ 25.

175 *Id.* ¶ 12.

176 *Id.* ¶ 13.

177 *Id.* ¶¶ 18, 24.

178 *See id.* ¶¶ 7–10; OST, *supra* note 6, art. IV.

179 2014 PPWT Draft, *supra* note 9, at 1.

180 *See* 2014 PPWT U.S. Analysis, *supra* note 10, ¶ 1.

Underlying both the 2008 and 2014 drafts is a central U.S. concern—the absence of prohibitions on Earth-based direct-ascent ASATs.[181] These weapons are especially destructive, and all three countries have tested them repeatedly: thirty-three times by the U.S., eleven by Russia, and thirteen by China.[182] Such tests, while destabilizing, are presumably intended as demonstrations of capability and as deterrents to aggression. This deterrence rationale may also explain why the *PPWT* would have permitted "fly-by" tests.[183]

Ultimately, the feasibility of any legal instrument to prevent an arms race in outer space depends on the willingness of the major military superpowers to acknowledge their own conflicting positions. For example, at a 2021 U.N. General Assembly meeting, China emphasized that ASATs threaten the peaceful use of outer space and accused the U.S. of creating the most debris through destructive ASAT tests.[184] This is a striking accusation by China, given that the U.S. has not tested a direct-ascent ASAT since 2008 while China has carried out eleven since then,[185] and China's 2007 test remains the "worst debris-generating event on record."[186]

In the same meeting, Russia adopted a similar stance, urging Member States "[n]ot to construct, test or deploy space weapons, regardless of where they are based."[187] This position directly contradicts Russia's previous position in the *PPWT* negotiations, where the lack of prohibitions on direct-ascent ASATs was America's chief objection with both drafts.[188] Since 2014, Russia itself has conducted eleven direct-ascent ASAT tests, further highlighting the inconsistency of its position.[189]

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181 *See id.* ¶ 14 ("The PPWT does not address the most pressing, existing threat to outer space systems: terrestrially-based anti-satellite weapon systems.").

182 *See* SECURE WORLD FOUND., *supra* note 2, at 01-15 to -16 tbl. 1-3, 02-19 tbl. 2-4, 03-15 to -16 tbl. 3-2.

183 *See* CHING WEI SOOI, SECURE WORLD FOUND., DIRECT-ASCENT ANTI-SATELLITE MISSILE TESTS: STATE POSITIONS ON THE MORATORIUM, UNGA RESOLUTION, AND LESSONS FOR THE FUTURE 25 (Oct. 2023). The data in this report was gathered by interviews with high-level representatives from these governments, but no official designations or positions were provided. *Id.* at 4.

184 *See* U.N. Secretary-General, *supra* note 79, at 30.

185 SECURE WORLD FOUND., *supra* note 2, at 03-15.

186 KELSO, *supra* note 142, at 330.

187 U.N. Secretary-General, *supra* note 79, at 81.

188 *See* 2008 PPWT U.S. Analysis, *supra* note 10, ¶ 9; *see also* 2014 PPWT U.S. Analysis, *supra* note 10, ¶ 1(c) (noting that terrestrially-based anti-satellite weapon systems are not addressed).

189 *See* SECURE WORLD FOUND., *supra* note 2, at 02-19 tbl. 2-4.

Although China and Russia have taken contradictory and, at times, self-serving positions, the fact that both States are engaged in U.N. discussions signals at least some willingness to work toward a new agreement.

VI. LEGAL PATHWAYS FOR PEACEFUL GOVERNANCE IN THE NEXT FRONTIER

A. Hard Law Proposals

In international law, there are two types of law: "hard law" and "soft law."[190] Hard law refers to binding instruments, such as the *OST*, while soft law refers to non-binding instruments, such as a U.N. General Assembly resolution.[191] For an instrument to qualify as hard law, three conditions must be met: "the existence of an obligation, precision in presenting the content of the obligation[,] and the existence of a body in order to hold the state which does not fulfill its obligations accountable."[192]

With respect to ensuring space is used for peaceful purposes, the *OST* stands alone.[193] Historically, further hard law proposals governing activities in space have met significant resistance. The *PPWT* illustrates the fundamental divergence in expectations. As reflected in the 2008 and 2014 drafts, China and Russia advocated for a total ban on space-based weapons but wanted the freedom to construct, test, and store Earth-based space weapons.[194] The U.S., by contrast, sought not only a ban on the weaponization of space but also prohibitions on the development and testing of such weapons.[195]

1. START Treaty Framework

Nuclear arms control during the Cold War suggests a potential middle ground between these two conflicting positions.

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190 Felicia Maxim, Hard Law *Versus* Soft Law *in International Law*, 8 CONFERINTA INTERNATIONALA DE DREPT 113, 121 (2020).

191 *See id.* at 115.

192 *Id.*

193 *See generally* OST, *supra* note 6 (stating that outer space is an interest shared by all mankind and therefore should be explored peacefully to the benefit of all countries).

The *Moon Agreement* also requires space to be used for peaceful purposes but only has 17 signatories. FRIEDL, *supra* note 13, at 36 tbl. 1.5.

194 2008 PPWT U.S. Analysis, *supra* note 10, ¶¶ 8–9; 2014 PPWT U.S. Analysis, *supra* note 10, ¶¶ 9, 14.

195 *See* 2008 PPWT U.S. Analysis, *supra* note 10, ¶¶ 25–26; 2014 PPWT U.S. Analysis, *supra* note 10, ¶ 1(b)–(c).

The nuclear arms race between the U.S. and the USSR was fueled by a policy of mutually assured destruction, and today's space competition is driven by the shared belief among the U.S., China, and Russia that space superiority will be decisive in future conflicts.[196] These shared views indicate that a call for complete disarmament in space, as advanced by the U.S., is unrealistic. Besides the bilateral treaty between the U.S. and the USSR, the *Intermediate-Range Nuclear Forces Treaty* (*INF*),[197] no treaty among these powers has ever mandated total disarmament. A more pragmatic path forward may be modeled after the *Strategic Arms Reduction Treaty I* (*START I*), which sought reductions rather than complete disarmament.[198]

During the Cold War, the U.S. and the USSR collectively amassed more than 50,000 nuclear warheads, each seeking to deter the other from launching a first strike.[199] Recognizing the unsustainability of this buildup, the two sides began negotiations for an arms control agreement that would cap their nuclear arsenals.[200] After a tumultuous ten years, President George H.W. Bush and Soviet President Gorbachev signed *START I* on July 31, 1991.[201] *START I*, limited to fifteen years, required each country to reduce its nuclear stockpile to 6,000 "accountable" warheads, with sublimits of 4,900 deployed on ICBMs, 1,100 on mobile ICBMs, and 1,600 on ICBMs in strategic locations.[202] Compliance was structured in three phases over seven years, supported by an unprecedented verification regime that allowed

196 *See* Lisa M. Schenck & Robert A. Youmans, *From Start to Finish: A Historical Review of Nuclear Arms Control Treaties and Starting Over with the New Start*, 20 CARDOZO J. INT'L & COMPAR. L. 399, 404 (2012); 1996 SPACE POLICY, *supra* note 58, ¶ 6(g)–(h); *see also* DEFENSE SPACE STRATEGY, *supra* note 3, at 7 (reflecting U.S. efforts to achieve space superiority).

197 The *INF* called only for disarmament of short and intermediate range ballistic missiles, cruise missiles, and other missile launchers, and did not apply to air- or sea-launched missiles. *See* Treaty on the Elimination of Their Intermediate-Range and Shorter-Range Missiles, U.S.–U.S.S.R., Dec. 8, 1987, 1657 U.N.T.S. 2.

198 Daryl Kimball, *Start I at a Glance*, ARMS CONTROL ASS'N (July 2022), https://www.armscontrol.org/factsheets/start-i-glance [https://perma.cc/9VV5-KAP4].

199 *See* OFF. OF THE DEPUTY ASSISTANT SEC'Y OF DEF. FOR NUCLEAR MATTERS, U.S. DEP'T OF DEF., NUCLEAR MATTERS HANDBOOK 2020 [REVISED] 3 (2024); *Russia*, NUCLEAR THREAT INITIATIVE (May 27, 2025), https://www.nti.org/countries/russia/ [https://perma.cc/ZQ8N-42XK].

200 *Strategic Arms Reduction Treaty (START I)*, CTR. FOR ARMS CONTROL & NON-PROLIFERATION (Nov. 16, 2022), https://armscontrolcenter.org/wp-content/uploads/2022/11/START-I-Fact-Sheet.pdf [https://perma.cc/Z2AR-W2PK].

201 Kimball, *supra* note 198.

202 Treaty on the Reduction and Limitation of Strategic Offensive Arms, U.S.–U.S.S.R., arts. II, ¶ 1, XVII, ¶ 2, July 31, 1991, S. TREATY DOC. No. 102-20.

extensive inspections and monitoring.[203] *START I* is "considered one of the most successful arms control agreements" because it reduced the number of nuclear warheads by approximately 80%.[204]

An unforeseen event soon placed the validity of *START I* in question—the collapse of the USSR.[205] When the USSR dissolved into fifteen sovereign countries, its immense stockpile of roughly 30,000 nuclear warheads was distributed among four of them: Russia, Ukraine, Belarus, and Kazakhstan.[206] This was extremely concerning for the West because, under article 34 of the *Vienna Convention on the Law of Treaties*, "[A] treaty does not create either obligations or rights for a third State without its consent."[207] "[T]hird State" refers to a state that is not a party to the treaty.[208] These concerns were resolved in 1992 through the *Lisbon Protocol*, in which Russia, Ukraine, Belarus, and Kazakhstan agreed to assume the former USSR's obligations under *START I*.[209] Under the Protocol, Ukraine, Belarus, and Kazakhstan agreed to transfer their arsenal of nuclear weapons to Russia for disposal[210] and later joined the *Nuclear Non-Proliferation Treaty*, which prevented them from becoming nuclear States again.[211] Although the *Lisbon Protocol* was signed relatively soon after the collapse of the USSR, *START I* did not formally enter into force until December 5, 1994.[212] As a result, the treaty's duration was extended to 2009, with a compliance deadline of 2001.[213]

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203 *Id.* arts. II, ¶¶ 2–3, XI.

204 *Strategic Arms Reduction Treaty (START I)*, *supra* note 200.

205 *See generally* Protocol to the Treaty on the Reduction and Limitation of Strategic Offensive Arms, U.S.–U.S.S.R., May 23, 1992, S. TREATY DOC. No. 102-32 [hereinafter Lisbon Protocol] (establishing protocol in response to "the altered political situation resulting from the replacement of the former Union of Soviet Socialist Republics with a number of independent states").

206 Mariana Budjeryn, *Inheriting the Bomb: The Collapse of the USSR and the Nuclear Disarmament of Ukraine*, HARV. KENNEDY SCH. BELFER CTR. FOR SCI. AND INT'L AFFS. (Dec. 27, 2022), https://www.belfercenter.org/publication/inheriting-bomb-collapse-ussr-and-nuclear-disarmament-ukraine [https://perma.cc/GKC7-WPH9].

207 Vienna Convention, *supra* note 45, art. 34.

208 *Id.* art. 2, ¶ 1(h).

209 Lisbon Protocol, *supra* note 205, art. I.

210 *See id.* arts. IV–VI.

211 Treaty on the Non-Proliferation of Nuclear Weapons art. II, *opened for signature* July 1, 1968, 21 U.S.T. 483, 729 U.N.T.S. 161.

212 *See* Kimball, *supra* note 198.

213 *See id.*

Years before its expiration, the U.S., and Russia signaled their continued commitment to further reductions with the *Treaty Between the United States of America and the Russian Federation on Strategic Offensive Reductions* (*SORT*), also known as the *Treaty of Moscow*.[214] *SORT* required each country to reduce its deployed nuclear warheads to between 1,700 and 2,200 by December 31, 2012, a reduction of up to 3,800 nuclear warheads.[215] Importantly, *SORT* did not supersede *START I*, leaving all of *START I*'s provisions in force.[216]

START I ran its full fifteen-year term, expiring on December 5, 2009, while *SORT* remained in force until *New START* entered into force in 2011.[217] Building on *START I*, *New START* required the U.S. and Russia to reduce their nuclear stockpile to an amount not to exceed 1,550 within seven years.[218] *New START* had an initial ten-year duration with an option to extend it in five-year increments, and in February 2021, each country agreed to an extension, extending its duration until February 2026.[219]

New START also created an inspection regime providing each country numerous on-site inspections to verify compliance.[220] These inspection obligations have been essentially ignored by Russia since 2022, with the U.S. responding in kind.[221] Then, in February 2023, Russia informed the U.S. that it was suspending *New START*, but would still comply with the nuclear warhead limits.[222] Moreover, President Trump's recent call to resume nuclear testing by the U.S. underscores the idea that we are drifting away from disarmament and toward accumulation.[223] Giv-

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214 Treaty on Strategic Offensive Reductions, at V, U.S.–Russ., May 24, 2002, S. TREATY DOC. No. 107-8 (2002).

215 *See id.* art. I.

216 *Id.* art. II.

217 *See* Kimball, *supra* note 198; Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms, at 3, U.S.–Russ., Apr. 8, 2010, S. TREATY DOC. No. 111-5 [hereinafter New START].

218 *See* New START, *supra* note 217, art. II.

219 *New START Treaty*, U.S. DEP'T OF STATE (June 1, 2023), https://www.state.gov/new-start-treaty [https://perma.cc/95UC-XPHY].

220 *See* Protocol to the Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms pt. 5, U.S.–Russ., Apr. 8, 2010, S. TREATY DOC. No. 111-5.

221 *See* BUREAU OF ARMS CONTROL, DETERRENCE & STABILITY, U.S. DEP'T OF STATE, NEW START TREATY ANNUAL IMPLEMENTATION REPORT 4–5 (2025).

222 *See id.* at 6.

223 William J. Broad, *The Forgotten Nuclear Weapon Tests That Trump May Seek to Revive*, N.Y. TIMES (Nov. 24, 2025), https://www.nytimes.com/2025/11/24/science/hydro-nuclear-testing-trump.html [https://perma.cc/9NQS-T7TX].

en this pattern of noncompliance, *New START* will likely expire after February 2026.

Nevertheless, four years of uncertainty should not overshadow nearly three decades of compliance and success under the START framework. These treaties provide both guidance and precedent for designing future framework to prevent an arms race in outer space. They also highlight the impracticality of America's position, which seeks a complete ban on *all* space weapons, including their storage. Just twenty-eight years ago, it took a decade of negotiations to come to an agreement merely capping nuclear arsenals at 6,000 warheads.[224] The same dynamics apply in space: just as nuclear weapons became indispensable for deterrence during the Cold War, space weapons are increasingly viewed in the same light for deterrence against adversaries in today's world.[225] This reality suggests that neither Russia nor China will ever agree to complete disarmament in outer space.

Instead, the U.S. should look to the START treaties as guidance. All three States recognize that preventing an arms race in outer space is a pressing issue in today's world, but they approach the problem from opposite sides of the spectrum. A compromise could be achieved by meeting in the middle: permitting non-destructive space weapons with reversible effects, while prohibiting destructive space weapons. Such an approach would preserve deterrence, while reducing the risk of catastrophic collateral damage.

This could be accomplished by a "negative limiting treaty," modeled on the START framework, that specifies what States may not do rather than what they must do. A proposed draft could limit the number of destructive space weapons each State may possess and prevent further production. Over time, as compliance is demonstrated, further limitations could be negotiated in subsequent treaties, like *New START*. As exemplified by the START treaties, an arms race cannot be stopped instantaneously and will happen over decades of negotiations and further limita-

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224 *See* Kimball, *supra* note 198.

225 *See* SECURE WORLD FOUND., *supra* note 2, at 03-01 ("Much has been written about how reliant the United States is on space capabilities to project global military power, and thus being able to counter US space capabilities is a key element of China's ability to assure its freedom of action and deter potential US military operations in its sphere of influence."); *id.* at 02-01 ("Russia also has renewed political will to obtain counterspace capabilities for much the same reason as China: to bolster its regional power and limit the ability of the United States to impede on Russia's freedom of action.").

tions. These phased concessions by both sides would allow each State to retain sufficient deterrent capabilities while building confidence toward further arms control agreements.

Still, the greatest obstacle remains—a verification and compliance regime. Both drafts of the *PPWT* lacked a verification regime, a flaw emphasized by the U.S. repeatedly.[226] Even though the 2014 draft recognized the need for effective verification measures to be negotiated later, it garnered no support from the U.S.[227] Notably, the U.S., Russia, and China all agreed that the technology to verify space-based weapons effectively did not exist at the time.[228] A group of governmental experts organized pursuant to a U.N. General Assembly Resolution later agreed that verification of space-based weapons involves challenges but acknowledged verification measures are indeed possible and "would take time and require engagement by technical, military and legal experts."[229]

Verification measures to ensure compliance are essential, but when the technology does not exist, the demand is unrealistic. The first step should not be to insist on perfect verification measures. Instead, the U.S. should tackle one problem at a time—getting pen to paper, building trust, and, as technology becomes available, negotiating and implementing adequate verification measures.

Now is an opportune moment for such a proposal. After Russia's invasion of Ukraine in February 2022, President Biden had no further interactions with President Putin.[230] By contrast, under President Trump's current administration, President Putin recently set foot on American soil for the first time since 2015.[231] Although the purpose of the meeting was to discuss ending the war in Ukraine, the fact that it occurred at all demonstrates Russia's willingness to engage with American proposals.

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226 2008 PPWT Draft, *supra* note 9, arts. V, VI.

227 *See* 2014 PPWT U.S. Analysis, *supra* note 10, ¶ 1(a).

228 *Id.* ¶¶ 1(a), 5.

229 U.N. Expert Report, *supra* note 7, ¶ 42.

230 *See* Dasha Litvinova, *A Look at the Past Meetings Between Putin and American Presidents*, PBS NEWS (Sep. 1, 2025, at 16:35 ET), https://www.pbs.org/newshour/world/at-look-at-the-past-meetings-between-putin-and-american-presidents [https://perma.cc/RRX6-7U39].

231 *See* Andrew Osborn, *A Look at Putin's Past Trips to the US Ahead of Planned Alaska Summit*, REUTERS (Aug. 11, 2025, at 09:33 PT), https://www.reuters.com/world/europe/recent-history-russian-presidential-visits-us-2025-08-11 [https://perma.cc/2ZFQ-YM47].

2. Amending the *OST*

The most straightforward way to avoid an arms race in outer space would be by simply amending the *OST* pursuant to article XV to fill in the gaps that have emerged over the years. Article XV of the *OST* states:

> Any State Party to the Treaty may propose amendments to this Treaty. Amendments shall enter into force for each State Party to the Treaty accepting the amendments upon their acceptance by a majority of the States Parties to the Treaty and thereafter for each remaining State Party to the Treaty on the date of acceptance by it.[232]

Amending the *OST* is much easier said than done, though. While any State may propose an amendment, in practice only a handful of States (the U.S., China, and Russia) would be interested in doing so.[233] Even then, an amendment would require majority approval, and would only apply to the States that explicitly accept it.[234] This could lead to even more uncertainty in the space law regime: some States would remain governed by the original *OST*, while others would be bound by the amended version. Still, the fact that only three military superpowers have demonstrated extensive counterspace capabilities may limit the scale of this problem. Because the actors most capable of deploying space weapons are the same ones most likely to negotiate and ratify amendments, the risk of fragmentation, which is highly likely, would not be insurmountable.

That said, the only article that needs immediate attention is article IV. Multiple shortcomings have been recognized in this article and the difficulties in reaching a universally supported proposal have been clearly identified.[235] The main problem is that drafting an amendment to include all possible space weapons, as the U.S. has advocated, is nearly impossible due to the varying definitions and technologies. For example, the 2014 draft *PPWT* called for States to "not place any weapons in outer space," which would not apply to any Earth-based space weapons.[236]

Equally problematic was its narrow definition of "use of force," limited to only actions that "inflict damage to outer space

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232 OST, *supra* note 6, art. XV.

233 Besides these three States, India is the only one that has "some" destructive ASAT capability, so it is presumed that other States would not be interested in putting forth such amendment. *See* SECURE WORLD FOUND., *supra* note 2, at xvi.

234 OST, *supra* note 6, art. XV.

235 *See* U.N. Expert Report, *supra* note 7, ¶¶ 25, 42.

236 2014 PPWT Draft, *supra* note 9, art. II.

object[s]."[237] By that standard, Earth-to-space electronic warfare and directed energy weapons would not be included due to their reversible effects.[238] This definition reveals China's and Russia's unwillingness to relinquish their capability to deploy and use reversible space weapons, whether Earth-based or space-based.[239] This is exactly what the U.S. should pursue—precluding only the use of debris-generating weapons, not complete disarmament. All three military superpowers rely heavily on the space domain, and none will agree to completely eliminate their deterrence measures.

Regardless, even if these concerns were properly addressed, the amendment would only apply to the States that accept it. Given that the *OST* has neither been amended nor faced a proposed amendment, this approach is impracticable.

3. U.N. Security Council Resolution

Another hard-law approach that the U.S. could pursue is through a U.N. Security Council resolution. Unlike U.N. General Assembly resolutions, which are not legally binding,[240] U.N. Security Council resolutions are legally binding on all Member States under article 25 of the U.N. Charter.[241] Article 25 provides that "[T]he Members of the United Nations agree to accept and carry out the decisions of the Security Council," which is comprised of fifteen States, with five permanent Members, the U.S., the United Kingdom, Russia, China, and France, and ten elected Members on rotation.[242] For a Security Council resolution to pass, nine affirmative votes are required for procedural matters.[243] For all other matters, nine affirmative votes are also required, but these must include the concurring votes of all five permanent Members.[244] Abstentions do not count as votes. Consequently, if any permanent Member votes in the negative through a veto, the Security Council resolution is defeated.

In theory, a Security Council resolution would likely be the quickest way to bridge the gap between the *OST*'s outdated lan-

237 *Id.* art. I.

238 *See* discussion *supra* Section IV.B.2.

239 *See* 2014 Draft PPWT, *supra* note 9, art. II.

240 *See* Maxim, *supra* note 190, at 121.

241 *Id.*

242 U.N. Charter art. 25; *The UN Security Council*, COUNCIL ON FOREIGN RELS. (Aug. 27, 2025, at 12:45 ET), https://www.cfr.org/backgrounder/UN-Security-Council [https://perma.cc/8FPF-JG2C].

243 U.N. Charter art. 27, ¶ 2.

244 *Id.* ¶ 3.

guage and today's technology. Unlike an amendment to the *OST*, which would bind only consenting States, a Security Council resolution would become immediately binding on all U.N. Members.[245] In practice, however, the same roadblock exists, the competing interests of the U.S., China, and Russia, each of which holds veto power. Russia's recent veto of a Security Council resolution affirming the *OST* exemplifies that roadblock.[246]

That resolution was prompted by U.S. reports of Russia developing a nuclear co-orbital ASAT.[247] U.S. intelligence described it as a "destabilizing foreign military capability" and confirmed that it would violate the *OST* if deployed.[248] Although the U.S. did not publicly confirm whether it was a nuclear ASAT, the limited scope of prohibited weapons under the *OST* suggests that it likely is. Publicly, Russia deemed the rumor a "malicious fabrication," and President Putin affirmed Russia's position as "categorically against" the placement of nuclear weapons in space.[249]

The Security Council debated the proposed resolution in April, just two months after the U.S. reports.[250] Thirteen Members voted in favor, China abstained, and Russia exercised its veto.[251] Vasily Nebenzia, Russia's representative to the U.N., reasoned that the *OST* already prohibits nuclear weapons in orbit and denounced the resolution as a "rogue show," a "cynical forgery," and "absolutely absurd."[252]

At the same time, Nebenzia insisted that the only way to prevent an arms race and ensure space is used for peaceful purposes is to "exclude outer space from the sphere of an arms race."[253] This position is difficult to reconcile with Russia's earlier actions where in a U.N. General Assembly meeting, Russia called for Members to reaffirm their commitment to the *OST* and to preserve the use of space for strictly peaceful purposes.[254] Yet when presented with the opportunity to make that commitment,

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245 *Id.* art. 25.

246 *See* U.N. SCOR, 79th Sess., 9616th mtg. at 5, U.N. Doc. S/PV.9616 (Apr. 24, 2024) [hereinafter S.C. mtg. 9616].

247 *See* MARC BERKOWITZ & CHRIS WILLIAMS, RUSSIA'S SPACE-BASED, NUCLEAR-ARMED ANTI-SATELLITE WEAPON: IMPLICATIONS AND RESPONSE OPTIONS 1 (2024).

248 *Id.*

249 *Id.* at 2.

250 *See* S.C. mtg. 9616, *supra* note 246, at 1.

251 *See id.* at 5.

252 *Id.* at 3.

253 *Id.*

254 *See* U.N. Secretary-General, *supra* note 79, at 79.

Russia vetoed it, contradicting its statements from just a few years earlier.

These contradictions signal that the arms race in outer space will not be resolved instantaneously by a Security Council resolution. Even if a resolution garners near-unanimous support, the veto power of the very States whose conduct it seeks to regulate remains.

B. Soft Law Proposals

1. Customary International Law[255]

Customary international law may be another potential avenue for preventing the use of destructive debris-generating space weapons, shown by an advisory opinion of the International Court of Justice (ICJ).

During the negotiations of the *OST*, the U.S. proposed a provision that would have required any dispute to be referred to the ICJ, but the proposal never came to fruition.[256] Instead, article III provides that the activities in space shall be carried out "in accordance with international law, including the Charter of the United Nations."[257] The U.N. Charter, in turn, requires that international disputes be settled by "peaceful means," and if those fail, authorizes the Security Council to require States to settle their dispute through other options such as negotiation or arbitration.[258] The issue with this approach is that any decision by the ICJ would require the U.S., Russia, and China to submit to the ICJ's jurisdiction,[259] which is unlikely.

Alternatively, if they did not submit to the ICJ's jurisdiction, the Security Council can request an advisory opinion from the ICJ on the legality of destructive space weapons.[260] Even though advisory opinions are not legally binding, they carry significant legal weight, and could compel the U.S., Russia, and China to align their practices with the ICJ's opinion to promote interna-

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255 It is worth noting that no definition of customary international law has been universally accepted. RESTATEMENT (THIRD) OF FOREIGN RELS. L. § 102 reps. note 2 (A.L.I. 1987).

256 Karl-Heinz Böckstiegel, *Settlement of Disputes Regarding Space Activities*, 21 J. SPACE L. 1, 4 (1993).

257 OST, *supra* note 6, art. III.

258 U.N. Charter art. 2, ¶ 3; *id.* art. 33, ¶ 1.

259 *See Declarations Recognizing the Jurisdiction of the Court as Compulsory*, INT'L CT. OF JUST., https://www.icj-cij.org/declarations [https://perma.cc/Z368-N3NG] (last visited Apr. 16, 2025).

260 U.N. Charter art. 96, ¶ 1.

tional peace.[261] To determine if debris-generating space weapons were illegal, the ICJ would have to conclude that there was "international custom, as evidence of a general practice accepted as law."[262] Accordingly, for customary international law to arise, both an objective element (general and consistent practice) and a subjective element (legal obligation) must be present.

For the objective element, there is no definitive rule as to what constitutes "general and consistent" State practice, but the *Restatement (Third) of Foreign Relations Law* provides helpful guidance.[263] It explains that general practice does not require universal adherence; rather, broad acceptance among States engaged in the relevant activity is required.[264] The flexibility of this rule was expressed by the ICJ in *Nicaragua v. United States*:

> It is not to be expected that in the practice of States the application of the rules in question should have been perfect . . . . The Court does not consider that, for a rule to be established as customary, the corresponding practice must be in absolutely rigorous conformity with the rule. In order to deduce the existence of customary rules, the Court deems it sufficient that the conduct of States should, in general, be consistent with such rules, and that instances of State conduct inconsistent with a given rule should generally have been treated as breaches of that rule, not as indications of the recognition of a new rule.[265]

Evidently, customary international law does not include a temporal requirement, only a general and consistent practice.[266] As the ICJ affirmed in the North Sea Continental Shelf Cases, consistent State practice over even a relatively short period is sufficient provided that the conduct was "extensive and virtually uniform" in that time period.[267]

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261 *Advisory Jurisdiction*, INT'L CT. OF JUST., https://www.icj-cij.org/advisory-jurisdiction [https://perma.cc/YK7J-9T3Z] (last visited Oct. 24, 2025) ("[A]dvisory opinions also contribute to the clarification and development of international law and thereby to the strengthening of peaceful relations between States.").

262 Statute of the International Court of Justice art. 38, ¶ 1(b).

263 *See* RESTATEMENT (THIRD) OF FOREIGN RELS. L. § 102 cmt. b (A.L.I. 1987).

264 *Id.*

265 Military and Paramilitary Activities in and Against Nicaragua (Nicar. v. U.S.), Judgment, 1986 I.C.J. 14, ¶ 186 (June 27).

266 North Sea Continental Shelf (Ger./Den.; Ger./Neth.), Judgment, 1969 I.C.J. 3, ¶ 74 (Feb. 20) ("[T]he passage of only a short period of time is not necessarily, or of itself, a bar to the formulation of a new rule of customary international law . . . [but] an indispensable requirement would be that within the period in question, short though it might be, State practice, including that of States whose interests are specially affected, should have been both extensive and virtually uniform in the sense of the provision invoked . . . .").

267 *Id.* ¶ 74.

Applied here, it must be shown that the U.S., Russia, and China have exhibited a general, consistent, extensive, and uniform pattern of objecting to the use of destructive space weapons.[268] To ascertain this, the ICJ would examine States' words (oral or written), actions and inactions, diplomatic communications, and all other political statements.[269] The most recent destructive ASAT tests of the three military superpowers that resulted in debris were Russia in 2021, the U.S. in 2008, and China in 2007.[270] Prior to China's 2007 test, there had been no destructive ASAT tests since 1994.[271] This decades-long abstention weighs in favor of a general and consistent practice among these three space-faring countries across nearly four decades.

Even so, it is likely insufficient to conclusively establish a customary norm, because the boundaries of this rule are not quite clear enough to definitively conclude that a rule is established. For instance, while China has not destroyed an orbital target with a destructive ASAT since its 2007 test; in 2010 and 2013, it destroyed two suborbital objects.[272] In total, since 2010, China has conducted nine suborbital ASAT tests, including one medium Earth orbit test.[273] Russia has also conducted twelve ASAT tests with unknown apogees, but since these tests were from the same system used for its 2021 test, the "NUDOL," it can be presumed they reached low Earth orbit.[274] These actions are contrary to Russia's and China's statements calling for a complete ban on the weaponization of space, and the ICJ will attach greater weight to their conduct than to their rhetoric.[275]

Historically, China's statements to the U.N. indicate that it wants only space-based weapons proscribed, but not Earth-based

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268 It is important to emphasize that if customary international law was created, it would only apply to these three countries. *See* Nicar. v. U.S., 1986 I.C.J. at ¶ 269 ("[I]n international law there are no rules, other than such rules as may be accepted by the State concerned, by treaty or otherwise, whereby the level of armaments of a sovereign State can be limited, and this principle is valid for all States without exception.").

269 *See* Andrew T. Guzman, *Saving International Law*, 27 MICH. J. INT'L L. 115, 125 (2005).

270 *See* SECURE WORLD FOUND., *supra* note 2, at 05-01 tbl. 5-1.

271 *See id.*

272 *See id.* at 03-15 tbl. 3-2, 03-16 tbl. 3-2.

273 *See id.*

274 *See id.* at 02-19 tbl. 2-4.

275 *See* Michael Byers, Note, *Custom, Power, and the Power of Rules*, 17 MICH. J. INT'L L. 109, 143–44 (1995).

weapons.[276] Russia has adopted a similar position, calling on States "[n]ot to destroy, damage, disrupt or alter the trajectory of the space objects of other States" as well as "[n]ot to use space objects as weapons against any targets on Earth, in the air or in outer space."[277] These statements suggest that both China's and Russia's "general and consistent practice" is that these weapons can be tested freely if used in a non-hostile manner, which differs from the U.S. The *PPWT* supports this interpretation, as it prohibited destructive ASATs from being used against other countries but allowed testing against their own space objects.[278]

Furthermore, this general practice appears primarily motivated by deterrence—meaning China and Russia may view destructive ASATs as last-resort or self-defense measures.[279] This view was explicitly recognized by a representative for China when they voted against a U.N. General Assembly resolution banning direct-ascent ASATs.[280] A Russian representative also implicitly recognized this view, reasoning that the resolution prevents other countries from developing their own deterrence measures.[281] Similarly, America's national defense space strategy embraces the same logic: deterrence first, and if that fails, deny the adversary's use of space.[282] Together, it appears that all three powers view destructive ASATs as deterrence measures only.

The timing of the U.S. 2008 ASAT test further reinforces this dynamic. Following China's 2007 ASAT test (the most destructive in history),[283] the U.S. shot down one of its own reconnaissance satellites with a direct-ascent ASAT just a year later, its

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276 U.N. Secretary-General, *supra* note 79, at 32 ("All countries should support prevention of the placement of weapons in outer space and the threat or use of force anywhere against outer space objects through legally binding measures.").

277 *Id.* at 80.

278 2014 PPWT Draft, *supra* note 9, art. II ("States Parties to this Treaty shall . . . not resort to the threat or use of force against outer space objects of States Parties . . . .").

279 *See* Le Tian, *Outer Space Experiment 'No Threat,'* CHINA DAILY (Jan. 24, 2007, at 07:24 PT), https://www.chinadaily.com.cn/china/2007-01/24/content_790806.htm [https://perma.cc/69MF-WXJL] ("China has never participated, and will never participate in, any arms race in outer space."); Jaganath Sankaran, *Russia's Anti-Satellite Weapons: A Hedging and Offsetting Strategy to Deter Western Aerospace Forces*, 43 CONTEMP. SEC. POL'Y 436, 436–37 (2022) ("Russia's Defense Minister, Sergey Shoigu, described the [ASAT] test as a routine operation of a 'cutting-edge future weapon system' intended to strengthen Russia's deterrent and defense against America's attempts to attain 'comprehensive military advantage' in space." (citation omitted)).

280 *See* CHING WEI SOOI, *supra* note 183, at 25.

281 *See id.* at 26.

282 *See* DEFENSE SPACE STRATEGY, *supra* note 3, at 6–8.

283 *See* KELSO, *supra* note 142, at 330.

first since 1986.[284] The U.S. denounced it as a test, and insisted that it was "an emergency response to prevent the possible loss of life. . . . [and] not part of an anti-satellite development and testing program."[285] Nevertheless, the international community disputed this explanation, given the extremely low probability that it could result in death,[286] and some suspected that the true reason was to "remind the Chinese that the United States maintains [ASAT] capability."[287] Thus, while there may be evidence of a general and consistent practice of refraining from the use of ASATs, what weapons are prohibited is unclear, which implicitly suggests that there is no custom.

Additionally, the recent statements by Russia and China further complicate matters and suggest that they may be deemed "persistent objectors" and would not be bound by a prohibition of all debris-generating space weapons.[288] The "persistent objector rule provides that, if a State objects to the establishment of a norm while it is becoming law and persistently objects up to the present, it is exempt from that norm."[289] This rule protects sovereign States by ensuring they are bound only by the rules and laws they consent to.[290] Within the last year, both Russia and China have stated that only weapons in outer space should be banned, while the U.S. advocates for a complete ban on all space weapons regardless of the location.[291] These countervailing positions undermine the possibility of any custom on a specific type of space weapon being prohibited by customary international law.

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284 *See* Nicholas L. Johnson, *Operation Burnt Frost: A View from Inside*, 56 SPACE POL'Y 1, 1 (2021); SECURE WORLD FOUND., *supra* note 2, at 05-01 tbl. 5-1.

285 Permanent Rep. of the United States to the Conference on Disarmament, Letter dated Feb. 15, 2008 from the Permanent Rep. of the United States to the Conference on Disarmament addressed to the President of the Conference on Disarmament (Feb. 15, 2008) (explaining the satellite was filled with highly-toxic hydrazine gas and likely to survive reentry, which would endanger human life on Earth).

286 *See* GEOFFREY FORDEN, A PRELIMINARY ANALYSIS OF THE PROPOSED USA-193 SHOOT-DOWN 2–3 (Mar. 12, 2008), https://web.mit.edu/stgs/pdfs/Forden_Preliminary_analysis_USA_193_Shoot_down.pdf [https://perma.cc/ALV2-D5XZ] (estimating the risk of casualty to be between 0.5% and 3%).

287 Jim Cooper, *From the Space Age to the Anti-Satellite Age*, CTR. FOR STRATEGIC & INT'L STUD. (Oct. 31, 2024), https://www.csis.org/analysis/space-age-anti-satellite-age [https://perma.cc/7336-K8U2].

288 *See* S.C. mtg. 9616, *supra* note 246, at 3–4.

289 Jonathan I. Charney, *Universal International Law*, 87 AM. J. INT'L L. 529, 538 (1993).

290 *See* Military and Paramilitary Activities in and Against Nicaragua (Nicar. v. U.S.), Judgment, 1986 I.C.J. 14, ¶ 269 (June 27).

291 *See generally* 2014 PPWT U.S. Analysis, *supra* note 10 (discussing the U.S.'s stance); S.C. mtg. 9616, *supra* note 246, at 3–6 (discussing Russia's and China's viewpoints).

Even if the ICJ determined there was a general and consistent practice, the subjective element, *opinio juris*, is not present. To satisfy a finding of *opinio juris*, States must feel a "legal obligation" to refrain from a specific action (the use of debris-generating weapons).[292] This would require the U.S., Russia, and China to believe that the use of these weapons is already illegal. The U.N. General Assembly's recent resolution proposing a ban on destructive ASATs conclusively indicates otherwise.

The resolution called for States to refrain from conducting destructive ASAT tests and was adopted with overwhelming support.[293] In total, there were 154 votes in favor, 10 abstentions, and 8 against.[294] This is direct evidence that the U.S. believed there was no legal obligation and submitted this resolution as a way to build toward international custom. The ICJ expressed in a previous advisory opinion regarding the legality of the use or threat of nuclear weapons that if a U.N. General Assembly resolution were adopted, it would indicate that there is no international custom present.[295] Specifically, the ICJ noted that "if such a rule had existed, the General Assembly could simply have referred to it" rather than adopting a resolution prohibiting the use.[296]

The ICJ also refused to infer *opinio juris* from the fact that nuclear weapons had not been used since 1945.[297] Its reasoning was that these countries were not refraining from using nuclear weapons out of a sense of legal obligation, but simply because circumstances justifying their use had not arisen.[298] A similar argument could be made with respect to the use of these debris-generating ASATs. Their development and testing have been justified primarily as deterrence, and deterrence does not support a finding of *opinio juris*.[299] Since the development and tests of debris-generating ASATs have been primarily for deterrence purposes, it refutes any possibility of *opinio juris* being present.

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292 North Sea Continental Shelf (Ger./Den.; Ger./Neth.), Judgment, 1969 I.C.J. 3, ¶ 77 (Feb. 20).

293 G.A. Res. A/C.1/77/L.62, ¶¶ 1–2 (Oct. 13, 2022).

294 Rep. of the G.A., at 2–3, U.N. Doc. A/77/383 (Nov. 14, 2022).

295 *See* Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, ¶ 72 (July 8).

296 *Id.*

297 *Id.* ¶¶ 66–67.

298 *Id.*

299 *See id.* ¶ 67; Sankaran, *supra* note 279, at 436–37.

VII. RESTORING ORDER AMONG THE STARS: A U.S.-LED TREATY

The U.S. should propose a treaty that bans all debris-generating space weapons, regardless of location, with terms modeled on the START framework. History demonstrates that complete disarmament is not achieved overnight but through incremental reductions over several years, as exemplified by *START I*.[300] *START I* called for disarmament over seven years, and since the verification capabilities do not currently exist, a similar treaty would allow the development of these capabilities over the years. To strengthen compliance, the treaty could also require States to accept the jurisdiction of the ICJ.

A prohibition on debris-generating space weapons would encompass all destructive space weapons and eliminate any possible ambiguities.[301] Such a treaty would still allow China and Russia to retain deterrent measures, while opening a path toward eventual disarmament. It would also help establish international norms, foster confidence-building, and reinforce the peaceful use of space. The U.S., which first demonstrated how important space is for modern warfare,[302] cannot expect China and Russia to abandon their military capabilities in space entirely. Rather than demanding the impossible, the U.S. must address the most urgent threat in space—debris-generating space weapons.

The consequences of using destructive space weapons would extend far beyond disabling an adversary's military assets.[303] Their use would likely destroy critical civilian infrastructure and cause significant loss of life, not mere temporary inconveniences such as loss of internet access on your smartphone.[304] Destroying a navigation or communication satellite, for example, could cripple GPS networks that underpin aviation safety, shipping routes, financial transactions, and even emergency services. Attacks on weather satellites would hinder storm prediction and disaster re-

300 *See* discussion *supra* Section VI.A.1.

301 *See* U.N. Expert Report, *supra* note 7, ¶¶ 35–37.

302 *See* Vergun, *supra* note 156.

303 *See* COMPETING IN SPACE, *supra* note 4, at 1 ("This publication identifies those capabilities, trends, and dangers that constitute the present and future of our space-integrated lives.").

304 *See id.* ("Major disruptions to satellite services would cause significant, perhaps irreparable, damage to 21st century life.").

sponse, exposing millions of civilians across the globe to floods, hurricanes, and other natural hazards without warning.[305]

Not only would these effects be felt immediately, but their devastation would also be felt for generations to come.[306] Debris-generating space weapons would impair the ability to place any space object in orbit, due to the debris generated from the destruction.[307] China's 2007 destructive ASAT test is a perfect example of the long-term effects as the worst debris-generating event in history.[308] This satellite's destruction resulted in thousands of softball-sized and basketball-sized debris, and increased the total amount in Earth orbit by 20%.[309] Significantly, 79% of the debris is predicted to be in orbit 100 years after the event.[310] This is from *one space object* being destroyed.

By contrast, non-destructive weapons such as electronic warfare do not produce debris and their effects are reversible.[311] The effects would even be centralized to specific targets if electronic warfare were used. If downlink jamming were used, only the targeted recipient would be affected,[312] while if destructive means were used, the harm would go far beyond just the target.[313] Electronic warfare has its downsides, but its benefits significantly outweigh debris-generating space weapons. America is significantly ahead in space capabilities, and to expect China and Russia not to feel threatened by this is naïve. The pragmatic course of action is to accept the lesser of two evils by proposing a treaty that bans debris-generating weapons, caps their numbers, and permits the use of non-destructive space weapons.

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305 *See Weather Satellite Technology*, L3HARRIS, https://www.l3harris.com/all-capabilities/weather-satellite-technology [https://perma.cc/8BQT-QLHP] (last visited Nov. 17, 2025) ("Forecasters rely on detailed satellite data to keep people out of harm's way during extreme weather events, like wildfires, tornadoes, hurricanes and floods.").

306 *See Space Debris 101*, *supra* note 143.

307 See *id.*

308 KELSO, *supra* note 142, at 330.

309 *Id.* at 321; *Space Debris 101*, *supra* note 143 (explaining that the US SSN only tracks objects that are larger than a softball in low Earth orbit, and basketball sized objects in higher orbits).

310 KELSO, *supra* note 142, at 329.

311 *See* discussion *supra* Section IV.B.2.

312 *See* discussion *supra* Section IV.B.2.

313 *See* GLEASON & HAYS, *supra* note 138, at 4 ("[T]he use of destructive, non-reversible kinetic Earth-to-space or space-to-space weapons would likely leave a persistent cloud of debris and pose a long-term (potentially decades or much longer) hazard to all satellites, including commercial and scientific satellites as well as satellites from non-adversary nations. Using weapons with non-kinetic, non-permanent affects would mitigate this risk.").

VIII. CONCLUSION

Preventing space from becoming a battlefield may be unrealistic today, but there is still time to prevent it from becoming a minefield. The *OST* neither addresses nor constrains the most pressing threats, and its interpretation by the U.S., Russia, and China has allowed militarization and weaponization of space to go unchecked. The U.S. should lead the charge on developing a new treaty that preserves the use of space for future generations. The Russian-Chinese *PPWT* shows they are willing to engage in proposals short of total disarmament. The U.S. must recognize this reality and work toward an agreement that bridges the divide by prohibiting the most urgent threat, while building the foundation for further disarmament.

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