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POLICY BRIEF

Executive Orders on AI: How to (Lawfully) Apply the Defense Production Act

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January 2025

Artificial intelligence (AI) has achieved significant advancements over the past decade, showcasing superhuman problem-solving capabilities and an unparalleled efficiency in analyzing vast troves of data.[1] Despite the significant potential of AI technology to contribute to a flourishing society, President Joe Biden issued "Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence," which he described as the "most sweeping actions ever taken to protect Americans from the potential risks of AI systems."[2] The order was driven by concerns about broader AI "societal harms" and "potential risks," including "algorithmic discrimination" against certain disfavored groups and job displacement from the advancement of AI.

Notably, in Section 4.2 of the executive order, which imposes AI model testing and reporting requirements,[3] President Biden derives his authority from the Defense Production Act (DPA), a Cold War–era law that grants the president powers to ensure the nation's defense. President Biden's invocation of the DPA stretches the statute beyond its textual and historical purposes. The executive order focuses on information gathering and requiring disclosures, which lack a connection to the DPA's traditional goals of boosting production, stockpiling, or prioritizing the acquisition of tangible goods.

President Donald Trump has vowed to repeal Biden's executive order when he returns to the White House for a second term,[4] but it is unclear whether the order will be repealed in its entirety or in part, whether this will be a priority for the Trump administration, and how the administration will approach the need for powerful and resilient AI systems. Although the technical foundations of AI have been laid over many decades, AI regulation presents a new frontier for US presidents: President Trump was the first president to sign an executive order about AI, with E.O. 13859 ("American AI Initiative").[5] Near the end of his first term, President Trump signed a second executive order, E.O. 13960 ("Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government").[6] Both of these executive orders took a measured approach: The

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first directed federal agencies to "prioritize" research and development in the field of AI, and the second established "principles" for the use of AI in the federal government outside of national security and defense purposes.

President Biden's AI executive order, by contrast, adopts an expansive and interventionist approach. Important sections of the order constitute a significant overreach of presidential statutory authority and set a problematic precedent for leveraging the DPA beyond its intended scope to exercise regulatory power over AI. To illustrate this overreach, part II of this brief analyzes the DPA's text and the statutory definition of "national defense" to underscore the Act's confined scope. Part III looks at historical uses of the DPA to illustrate how previous presidential administrations have used the statute for tangible supply-chain and production crises. Part IV argues that, in light of the DPA's textual scope and historical use cases, President Biden did not have the statutory authority to issue specific provisions in his executive order. Finally, part V outlines how the president can and should use the DPA in the context of AI. The time is ripe to reform how the president invokes and exercises his authority under the DPA given that Congress is working on reauthorizing the DPA in 2025 and that fights over the scope of the president's broad powers under the Act have already been begun in earnest.[7]

I. Textual Analysis: Scope and Limits of the DPA

The DPA gives the president the authority to take "appropriate actions" to assure that critical components and technology are available "when needed to meet defense requirements during peacetime, graduated mobilization, and national emergency."[8] The "appropriate actions" that the president can take under the DPA include restricting contract requests to reliable and domestic sources, stockpiling essential materials, and developing substitutes for critical items.[9] The DPA clearly and consistently emphasizes empowering the president to create plans of action that ensure the availability of critical materials necessary for national defense. This focus is evident in the DPA's declaration of policy, its overall structure, and the repeated language throughout the statute.

The declaration of policy states that "[f]ederal departments and agencies that are responsible for national defense acquisition" should utilize the DPA to "ensure the adequacy of productive capacity and supply" of the "domestic industrial base" and help foster cooperation between the defense and commercial sectors to carry out this purpose.[10] The DPA is divided into three main subchapters:

- **Title I:** Allows the president to require that certain production and supply contracts or orders be given priority over all others to ensure the availability of goods critical to national defense.
- **Title III:** Provides tools to expand production capacity for essential goods when they are needed for defense, through loan guarantees, subsidies, direct loans to private businesses, and other measures.

- **Title VII:** Includes miscellaneous authorities related to the role of commerce in national defense, such as allowing voluntary agreements between industries to prepare for a future crisis and providing plans of action that support national defense in ways that normally would run afoul of antitrust statutes. Notably, the Exon–Florio Amendment of 1988 provides the president the broad powers to block foreign investment threatening US national security and to prevent American firms from coming under foreign control. This authority is currently exercised under Committee on Foreign Investment in the United States (CFIUS) for the president.

The DPA allows the president to direct resources and enhance the nation's production capabilities swiftly when they are most needed for defense purposes; the DPA also establishes oversight mechanisms for Congress to monitor and report on the use of these presidential powers, ensuring they are exercised responsibly. The scope and limits of the president's authority under the DPA depend on how "national defense" is defined. The first step in interpreting the meaning of "national defense" is to refer to its statutory definition.[11] National defense is defined as

> programs for military and energy production or construction, military or critical infrastructure assistance to any foreign nation, homeland security, stockpiling, space, and any directly related activity. Such term includes emergency preparedness activities conducted pursuant to title VI of the Robert T. Stafford Disaster Relief and Emergency Assistance Act and critical infrastructure protection and restoration.[12]

When a statute explicitly defines a word or phrase as having a specific meaning, it implies that this is the *only* meaning.[13] In the statutory definition of "national defense," many terms are clear from their plain meaning. For instance, the plain meaning of "military and energy production or construction" suggests building equipment, producing weapons, and ensuring energy resources are secure and available for essential defense efforts.

Other terms, like "critical infrastructure," are given explicit definitions elsewhere in the DPA. "Critical infrastructure" means systems and assets, "whether physical or cyber-based, so vital to the United States that the degradation or destruction of such systems and assets would have a debilitating impact on national security, including, but not limited to, national economic security and national public health or safety."[14] However, even within this given definition, certain words or phrases are ambiguous in meaning and require further interpretation. For instance, how broadly inclusive is the phrase "national security"? Where words or phrases in the definition are ambiguous, interpreters should follow their ordinary meaning[15] because "[i]t should take the strongest evidence to make us believe that Congress has defined a term in a manner repugnant to its ordinary and traditional sense."[16] Following the ordinary meaning also ensures that the statute remains clear, knowable, and accessible to the American public, as well as holds elected representatives accountable for the statutes they adopt.[17]

The first step in assessing ordinary meaning is to consider intuitive understandings of the term and common-sense notions shared by others. The typical American would intuitively think about "national security" largely in the terms already given, that is, in terms of "safety" of the homeland (shaped by events like 9/11), "public health" (lessons from COVID-19 pandemic), and "national economic security" (affected by the 2008 crisis). With the rise of digital threats and a largely online American public, intuitions have probably extended "national security" to include "cybersecurity." For instance, national security might be thought of as including safeguarding power grids and communication networks against cyberattacks.

The meaning of "national security" in the defense context may also carry technical nuances, as a term of art. The ordinary-meaning canon of interpretation requires consulting a law dictionary to understand the technical sense of "national security."[18] The most frequently used legal dictionary, *Black's Law Dictionary*, defines "national security" as "the safety of a country and its governmental secrets, together with the strength and integrity of its military, seen as being necessary to the protection of its citizens."[19] Similarly, *Ballentine's Law Dictionary* defines "security" as the "protection of the nation against attacks from abroad and subversion from within."[20]

That said, a term's core meaning should be accessible to members of the public through reasonable efforts, like consulting English-language dictionaries.[21] In *Merriam-Webster's Collegiate Dictionary* online, "national" is defined as "of or relating to a nation"[22] and "security" is defined as "the quality or state of being secure, such as freedom from danger," "protection," or "the state of being able to reliably afford or access what is needed to meet one's basic needs."[23] Taking into account the context of the DPA, a reasonable reader might understand "national security" more specifically as referring to efforts to protect a nation's sovereignty, safety, and critical interests from threats.[24] This ordinary meaning, by reference to dictionary definitions, aligns closely with the intuitive understanding of its scope and importance.

Finally, "emergency preparedness activities" are defined in the DPA as being a part of "national defense." To begin, the given statutory definition of "national defense" in Title VI of the Stafford Act refers to preparation, mitigation, response, and recovery from the effects of a "hazard" upon the civilian population. A "hazard" is further defined as an emergency or disaster resulting from "a natural disaster" or "an accidental or man-caused event."[25] However, what qualifies as an emergency or disaster severe enough to be considered a "hazard" is fairly ambiguous.

When confronted with ambiguity, context matters. The Stafford Act's "emergency preparedness" language emphasizes efforts to stockpile materials, establish warning systems, and provide firefighting and medical services in response to accidental events. Thus, accidental events can be understood to likely refer to incidents such as industrial accidents or damage to vital facilities that have tangible effects and necessitate both proactive and responsive measures.[26] Whereas "emergency preparedness" efforts in response to human-caused events include "monitoring for specific dangers of special weapons" and "unexploded bomb reconnaissance."[27] Thus, human-caused

events might be understood to encompass deliberate human actions, such as terrorism, sabotage, or military attacks.

In sum, the president's authority under the DPA is to ensure essential materials are available for "national defense." This authority encompasses overseeing the production of military and energy resources to counter foreign threats, protecting critical physical and cyber infrastructure vital to the United States' security and economic stability, and coordinating emergency preparedness activities on a national level to mitigate the effects of natural disasters, accidental incidents, and deliberate attacks. The defined scope of this authority implies that the president cannot use DPA powers to address supply- and production-capacity issues specific to a locality or region or that affect only a particular group, industry, or sector, unless these issues have broader national repercussions related to defense.

II. Historical Practice: How Past Implementation Informs Present Interpretation

A review of past uses of the DPA by US presidents and the statute's evolution over time in response to these uses highlights the statute's consistent focus on tangible, crisis-driven applications directly tied to national defense.

The DPA was originally signed into law by President Harry Truman in 1950 to expand the industrial base of the United States during the Korean War. Modeled on the emergency powers used during World War II, the original purpose of the DPA was to ensure that the federal government could compel private industry to produce strategically necessary resources to meet the needs of national defense during an emergency.[28]

The original DPA of 1950 limited the meaning of "national defense" to include military and atomic energy operations.[29] Pursuant to this definition, the Truman and Eisenhower administrations invoked the DPA to prioritize defense contracts for critical and strategic goods and to continue expanding the industrial base, ensuring readiness to respond to military conflicts during the Korean War. President Dwight Eisenhower also used the DPA to expand the mining and production of minerals to grow the National Defense Stockpile.

President Gerald Ford used his authority under the DPA to streamline the construction of the Trans-Alaska Pipeline System, and President Jimmy Carter used the DPA to fund research into synthetic fuels during the 1970s energy crisis, which severely disrupted US access to oil. President Carter famously called this energy crisis "the moral equivalent of war."[30] Thereafter, during the 1980 reauthorization of the DPA, Congress designated programs for "energy production" as part of the definition of "national defense." During the Cold War, President Ronald Reagan invoked this use of the DPA to direct research and development into the mining of rare earth minerals and to design fiber optics and microelectronics used in important US military weapons systems, like Army helicopters.[31]

Although President George H. W. Bush invoked the DPA in 1989, Congress allowed the statute to lapse in September 1990. This lapse meant that the DPA was not in effect during the Gulf War. Instead, President Bush used an executive order to mimic some of the DPA's provisions for the duration of the war.[32]

In 1994, during President Bill Clinton's administration, Congress incorporated "emergency preparedness" as defined by Title VI of the Stafford Act into the DPA to address natural disasters or other events that caused national emergencies. With this revised authority, President Clinton authorized the Federal Emergency Management Agency (FEMA) to serve as an advisor to the National Security Council on issues of national security and resource preparedness.[33] President Clinton also made the Department of Commerce responsible for the DPA's priority authority regarding the acquisition of critical materials.

Then during the George W. Bush administration, Congress expanded the definition of "national defense" to include the protection of "critical infrastructure." This change came in response to the 9/11 attacks on the World Trade Center and the Pentagon. At the time, Congress was primarily concerned with protecting the United States against acts of terrorism that could strike vulnerable telecommunication systems, financial and banking networks, transportation systems, power grids, and other elements of the nation's critical infrastructure.[34] Finally, in 2009, Congress made a final few, relatively minor amendments to the definition of "national defense."[35]

This historical trajectory provides a foundation for understanding how recent administrations have invoked the DPA in response to modern crises. Presidents Trump and Biden have since invoked the DPA repeatedly to combat the COVID-19 pandemic emergency. Both presidents invoked the DPA to expedite critical materials in the production of the coronavirus vaccine. At the peak of the pandemic, accelerating the vaccine supply was arguably essential to national public health, a component of national defense under the DPA. For similar reasons, President Trump used the DPA's Title I authority to direct General Motors, General Electric, and other companies to make ventilators, to order FEMA to acquire N95 masks from companies like 3M, and to form the Strategic National Stockpile for PPE and other medical supplies.[36]

However, in three important instances, the DPA was invoked for purposes beyond the statute's scope. In the first instance, President Trump designated meat-processing plants as "critical infrastructure" and directed them to remain open to ensure the food supply chain continued to operate during the pandemic;[37] President Biden let this executive order stand.[38] While food and labor shortages during a pandemic are serious, meat-processing plant disruptions are confined to a single sector within a well-diversified food industry. These disruptions are not so serious as to have broader national defense repercussions, since other sectors of the food industry can compensate for the shortfall and ensure overall food security and stability.

In the second instance, President Biden used DPA authorities to direct funds for the development of a long-term manufacturing strategy and contingency planning for "future pandemics and biological threats."[39] The DPA's Title VII authority can be invoked to coordinate voluntary agreements among manufacturers to plan for future crises, and Title II authority can be used to boost production capacity for future emergencies; however, the DPA does not broadly authorize its use for the purpose of coordinating planning among agencies in the executive branch for future pandemics and public health emergencies that have yet to emerge.

Thirdly, when Abbott Nutrition, the nation's largest baby-formula plant, closed because of contamination issues, President Biden invoked the DPA to speed up domestic production of baby formula.[40] The executive order required that suppliers of key ingredients in infant formula prioritize delivery to baby-formula producers over other customers. The supply chain disruption of baby formula is comparable to the disruption of meat-processing facilities during the COVID-19 pandemic. Just as alternative food supplies mitigated disruptions in meat and poultry, store-brand formulas rather than big-brand Abbott were available as safe alternatives in the short-term for many families.[41] By contrast, the need for rapid vaccine production posed a national defense concern, as there was no scientific evidence that any alternative remedy to vaccines could prevent or combat COVID-19.

Beyond the weak legal justification for invoking the DPA to address the formula shortage, the policy failures that preceded it underscore the inefficiencies of this approach. FDA regulations have arguably stifled competition in the formula industry, creating a fragile market susceptible to shortages.[42] Policymakers had from February 2022, when the Abbott plant shut down, to May 2022 to implement a plan to prevent the crisis but failed to act. This lack of timely action led to a reliance on the DPA as a reactive measure. Rather than addressing the underlying causes—such as excessive regulation in the formula industry and lack of competition—this reliance perpetuated a cycle of inefficient government intervention.

III. Why Biden's Invocation of the DPA in the AI Executive Order Exceeds Statutory Bounds

President Biden's use of the DPA departs from the statute's textual meaning and historical application. In light of courts' renewed commitment to enforcing the Constitution's separation of powers, President Biden's executive order should also raise serious doubts about its ability to survive judicial scrutiny.

Biden's executive order on AI resembles uses of the DPA in recent years that have arguably exceeded the statute's lawful scope, including funding efforts to

a) address potential future crises (i.e., other pandemic outbreaks) that have yet to emerge, and

b) respond to current crises (i.e., baby-formula supply shortages, meat-processing supply chain disruptions) that lack a direct and immediate connection to the national security of the United States.

President Biden likewise frames AI as both

a) a speculative future threat, emphasizing mitigating AI's security risks *before* they materialize, and

b) a contributor to current "crises," like workforce attrition, that do not have a direct connection to national security.

For instance, the executive order mandates information gathering and reporting requirements from developers, including details of their development and training process, ownership of model weights (i.e., the core algorithm data after training), and model vulnerabilities to do the following:

- "[H]elp ensure that AI systems function as intended, are resilient against misuse or dangerous modifications, are ethically developed and operated in a secure manner, and are compliant with applicable Federal laws and policies."[43]
- "[D]evelop effective labeling and content provenance mechanisms, so that Americans are able to determine when content is generated using AI and when it is not."[44]
- "[M]itigate . . . irresponsible use [that] could exacerbate societal harms such as fraud, discrimination, bias, and disinformation; displace and empower workers; stifle competition; and pose risks to national security."[45]

President Biden plausibly derived the authority for the disclosure requirements in his executive order from a particular section of the DPA: "The [p]resident shall be entitled . . . to obtain such information from, require such reports and the keeping of such records by, make such inspection of the books, records, and other writings, premises, or property of . . . any person as may be necessary or appropriate, in his discretion, to the enforcement or administration of this Act and the regulations or orders issued thereunder . . . [and] to obtain information in order to perform industry studies assessing the capabilities of the United States industrial base to support the national defense."[46]

This broad language would grant the president significant discretion to issue reporting requirements for AI developers that he deems "necessary or appropriate." However, this discretion is explicitly tied "to the enforcement or administration" of the Act as written, limiting the president's authority to actions that align with the statute's primary purposes: here, ensuring the availability of critical goods and services directly tied to "national defense." Congress has not left the meaning of "national defense" as an "open field"[47] but has explicitly confined it to include tangible areas such as military operations, critical infrastructure, energy production, and emergency

preparedness—domains explicitly tied to immediate and foreseeable threats to the security of the United States.

President Biden's invocation of the DPA in Section 4.2 of the executive order to counter generic societal harms from the potential misuse of AI is not sufficiently tied to national defense requirements and represents a significant departure from the statute's intended scope and purpose. As shown, the DPA has historically been a tool to address active crises or foreseeable emergencies directly tied to "national defense." Although the nature of crises addressed by the DPA has expanded over time—from military conflicts to critical supply chain shortages to public health emergencies—the statute's uses have consistently focused on restoring and supporting assets and systems essential to the nation's safety and ability to function.

However, the executive order's grounds for imposing costly requirements rest on vague concerns about ethical development, transparency, and algorithmic bias without offering any clear connection to national defense. Furthermore, the executive order targets abstract knowledge, when historically the DPA has been used to address production capacity, supply chain vulnerabilities, or resource prioritization directly tied to national defense. Although some might argue that advanced AI tools (or model weights) fall under "critical infrastructure," which can include "cyber"-based infrastructure, the historical usage and textual structure of the DPA confirm a focus on supply constraints or tangible needs. AI, by contrast, is not in short supply but is an ongoing technological development, with the AI market having created more than $214 billion in revenues in the year since President Biden released his executive order.[48] This represents yet another mismatch with the proper use of the DPA.

While vague in places, the executive order also emphasizes concerns about the concentration of AI development in the hands of a few powerful entities and employs technical thresholds to target the most computationally intense models.[49] While this narrow focus may reflect legitimate concerns about market concentration, transparency, or ethical risks, it suggests that the information collected under the executive order primarily serves purposes outside DPA-supported actions. Specifically, these statutory requirements seem more oriented toward informing future regulatory frameworks rather than directly supporting the immediate production or protection of goods and services critical to national defense. Anticipatory measures that resemble preemptive regulatory actions, rather than the emergency powers historically granted under the DPA, stretch the statute beyond its historical and textual purposes.

Youngstown Sheet & Tube Co. v. Sawyer, a case concerning whether President Truman could seize control of steel mills during the Korean War, confirms the principle that the courts will not blindly accept a president's legal conclusions regarding their own authority.[50] Thus, Biden's executive action warrants evaluation under judicial scrutiny. Courts may deem the executive action sufficiently broad enough in its economic or political significance to trigger the major questions doctrine.[51] A challenge to the major questions doctrine is applicable where Congress "divest[s] itself of its

legislative power by transferring that power to an executive agency."[52] The authoritative case here is *West Virginia v. EPA*, in which the Supreme Court has explained that in cases where there is something extraordinary about the "history and breadth of the authority" an agency asserts or the "economic and political significance" of that assertion, courts should "hesitate before concluding that Congress meant to confer such authority."[53] Although the major questions doctrine has traditionally been applied to agency regulations, it is not inconceivable that courts would extend this analysis to the evaluation of executive orders that delegate authority to agencies to carry out plans of action.

While specific dollar amounts are not readily available, several factors suggest that the costs to carry out President Biden's executive requirements may be economically significant. AI companies would need to prepare detailed disclosures about their models—such as design, vulnerabilities, and security measures—which may require significant investments in compliance infrastructure and specialized personnel. Additionally, compliance measures could delay the deployment of AI products, leading to opportunity costs and competitive disadvantages for US-based firms that could have significant, deleterious economic effects. In assessing the political impact of President Biden's executive order on AI, courts might also find it relevant that 694 AI-related bills were introduced across 45 states in 2024, with 80 enacted into law, including prominent debates over vetoed legislation like California Assembly Bill 1047.[54] This active state legislative engagement signals that Congress has yet to fully address the issue, raising questions about executive overreach.

IV. How the President Can Lawfully Use the DPA in the Context of AI

While the DPA has been expanded over time to address foreseeable national defense needs, President Biden's use of the DPA to address speculative ethical and governance risks of AI moves into preemptive territory that departs from the DPA's historical uses and extends the statute beyond its intended purposes.

There are legitimate national security concerns with AI that the president can address by invoking the DPA in an executive order. For instance, there is an urgent need to develop resilient AI to counter foreseeable threats from technically advanced foreign adversaries like China. Congress has specifically delegated statutory authority to the president to issue executive orders to address such defense-related concerns quickly and effectively.

The legal basis for this executive action would be the president's authority granted by Congress, but also "the very delicate, plenary and exclusive power of the [p]resident as the sole organ of the federal government in the field of international relations."[55] According to *United States v. Curtiss-Wright Export Corporation*, Congress delegated broad power to the president to criminalize arms sales to warring countries if he found that the prohibition "may contribute to the reestablishment of peace between those countries."[56] Because the authorization related to the president's independent powers over neutrality and diplomacy, as Jack Goldsmith notes, the president had broad discretion to fill in the details under the statute.[57]

When Congress authorizes the executive branch in areas where the president has independent power like foreign affairs, it is reasonable to expect that the executive branch will make major policy decisions related to that power. In turn, statutes delegating authority to the president based on his foreign affairs powers are less susceptible to attack on grounds of the major questions doctrine compared to statutes that delegate power over areas where the president has less or no inherent constitutional authority.[58] Justice Gorsuch observes this in his *Gundy v. United States* dissent, finding that "when a congressional statute confers wide discretion to the executive, no separation-of-powers problem may arise if 'the discretion is to be exercised over matters already within the scope of executive power.' "[59]

For instance, the court did not raise a major questions doctrine challenge in the 2018 Supreme Court case *Trump v. Hawaii*, which concerned President Trump's executive order restricting entry into the United States for nationals of countries deemed to pose national security risks. The court found that President Trump acted within his independent constitutional authority over foreign affairs and his broad statutory authority under the Immigration and Nationality Act.[60] The court held that the "area of national security" warranted a particularly deferential review and that the president's executive order was constitutional under rational basis review—the minimal level of scrutiny applied by courts.[61] It is reasonable to think that courts would extend the same level of deference to President Trump, were his executive order to require AI companies to disclose security vulnerabilities in order to guard against foreign adversary threats, as such action could be justified under his independent constitutional authority over foreign affairs or his broad statutory authority under the DPA to respond to national defense needs.

A modified executive order on AI, framed as a response to foreign threats, would still need to satisfy three key requirements under the DPA. The order would need to demonstrate the following:

a) A concrete "nexus" between the executive order and national defense capabilities
b) A focus on specific, identifiable threats
c) Measures that are tied to tangible defense needs

A concrete "nexus" between the executive order and national defense capabilities

The Supreme Court has provided little meaningful insight into the standards that should guide a review of presidential orders.[62] Thus, the lower court decision out of the Court of Appeals for the DC Circuit, *Chamber of Commerce of the United States v. Reich*,[63] has taken on "near-canonical status"[64] for its meaningful engagement with broad doctrinal questions affecting presidential orders. *Reich* can provide us with guidance. In this case, the court reviewed an executive order issued by President Clinton under the Procurement Act. While acknowledging the Act's broad language, which vests the president with the authority to act "as he shall deem necessary to effectuate [its] provisions," the court emphasized the need for a clear "nexus" between the president's executive

order and the statutory purposes of the Procurement Act.[65] The court rejected the notion that the president has unlimited authority to make decisions merely because they might yield beneficial outcomes, such as government savings, without showing a direct connection to the Act's core purposes.

Following *Reich*, President Trump's executive order would need to show how information gathering and disclosure requirements directly relate to the DPA's statutory purposes, namely, ensuring the availability of goods and services critical to national defense. Merely claiming that these requirements, which help reduce the risk of AI misuse, could theoretically benefit the United States against foreign adversaries is insufficient.

A focus on specific, identifiable threats

Historical DPA usage (e.g., to mine for rare earth minerals critical to the production of military technologies and to stockpile PPE equipment to ensure the health and readiness of frontline workers) addressed specific military and homeland security needs. For the executive order on AI to align with the DPA, the required actions must similarly target specific, demonstrable risks to national defense rather than to speculative future scenarios. Generic concerns about technological competition are not enough of a justification for the president to use his authority under the DPA and would likely exceed the statute's lawful scope.

Mandates that are tied to tangible defense needs

The executive order must show a clear path between its mandated actions and concrete national defense outcomes. If the goal is addressing foreign adversary competition, President Biden's executive requirements that impose artificial computing thresholds and burdensome disclosure mandates get the means-end connection exactly backward. These requirements slow down AI development and undermine, rather than advance, national defense interests in maintaining technological superiority over competitors like China. The surest way to lose a technology arms race is to tie your shoelaces together at the starting line.

By narrowly focusing on using the DPA to strengthen AI's capacity for supporting US national defense needs, the Trump administration can ensure that the executive requirements adhere to the statute's purpose of addressing tangible threats to security and readiness. This redirected focus would also avoid imposing burdensome costs that might raise challenges to the major questions doctrine or hinder efforts by the US to maintain a strategic lead in AI development. Mandates directly tied to concrete national defense objectives could include the following:

- Funding the development of autonomous weapons or AI tools for battlefield decision-making to ensure US military superiority[66]

- Protecting the integrity of supply chains for AI hardware (e.g., semiconductors) critical to defense applications—from military defense to energy security to public health and financial systems
- Requiring developers to evaluate and train their AI models to be able to counter potential adversarial use of AI, such as cyberattacks targeting US defense networks or critical infrastructure

While I have proposed that the president remedy President Biden's unlawful use of the DPA by modifying the executive order to address critical AI defense needs, others might argue that a more enduring solution lies with Congress. Congress could craft a new legislative framework or empower existing agencies (such as the Federal Trade Commission or a dedicated AI commission) to tackle issues of algorithmic transparency, safety, and competition without relying on an emergency statute, they might argue. But Congress has already introduced more than 120 bills related to AI,[67] and only a handful of these have successfully navigated the legislative process and been signed into law. These few enacted bills have primarily been components of larger omnibus bills, such as the NDAA[68] and the CHIPS and Science Act,[69] which are focused on promoting AI research and development rather than imposing restraints via regulatory measures. This legislative track record suggests that efforts to impose significant restraints or address safety concerns may struggle to survive the bicameral process, potentially prompting reliance on executive action as a faster workaround.[70]

Furthermore, members of Congress, recognizing their limited expertise in AI technology, are likely to delegate significant regulatory authority to federal agencies. This broad delegation will raise serious concerns about the separation of power and will increase the potential for executive overreach, exactly the problem in need of a remedy. Given that the algorithms that power AI technologies are complex and relatively opaque, agencies may depend on industry-provided information to understand and regulate these technologies effectively.[71] Agencies may develop close working relationships with industry experts, consultants, and lobbyists who provide much of the specialized knowledge. Collaborating with industry firms and affiliates can help agencies craft more informed policies and minimize unnecessarily costly regulations, as the incoming president's Council of Advisors on Science and Technology plans to do.[72] But an overreliance on industry firms, as American businessman Bill Gurley has noted,[73] can lead to regulatory capture where the dominant AI firms wield the power of agencies to establish regulations that are prohibitively onerous for startups to comply with. This can undercut competition and hamper important progress in AI innovation.

V. Conclusion

For over two millennia, humans have imagined creating self-operating machines.[74] The ancient Greeks mythologized Talos, a giant bronze automaton "programmed" to defend Crete by hurling boulders at invading ships. Powered by ichor, the life force of the gods, Talos was undone when Medea tricked him into unsealing the bolt that sustained him, leaving him lifeless. Artificial

intelligence—once a mythical dream, now a reality—holds extraordinary promise to strengthen US national defense, much like Talos. However, without robust designs capable of resisting manipulation, AI in defense applications could pose a greater liability than an asset.

The Defense Production Act gives the president specific authority to address AI's vulnerabilities when used for national defense purposes to ensure that AI's potential can be realized without compromising security. Outside the realm of national defense, however, the president should not be relied on to navigate the challenges of general-purpose AI by invoking his powers under an emergency production statute—President Biden did so, and if this use of the DPA continues, it will harm market-place competition and innovation in the development of AI, undermine the legislative process by contravening Congress' intent in authorizing the DPA, and erode trust in the proper separation of powers between the executive and legislative branches.

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Notes

1. Alison Snyder, "AI Gets Its Nobel Moment," *Axios*, October 10, 2024.
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5. Exec. Order No. 13859, 84 Fed. Reg. 3967 (Feb. 11, 2019).
6. Exec. Order No. 13960, 85 Fed. Reg. 78939 (Dec. 3, 2020).
7. Andres Picon, "The Next Big Energy Fight: Defense Production Act Renewal," *E&E News by Politico*, April 30, 2024.
8. Defense Production Act of 1950, 50 U.S.C. § 4501 et seq.
9. Defense Production Act of 1950 § 107, 50 U.S.C. 4517(b).
10. Defense Production Act of 1950 § 2, 50 U.S.C. 4502(b).
11. Antonin Scalia and Bryan A. Garner, *Reading Law: The Interpretation of Legal Texts* (Thomson West, 2012), chapter 36, Interpretive-Directive Canon.
12. Defense Production Act of 1950, § 702, 50 U.S.C. § 4552(14).

13. Scalia and Garner, *Reading Law*, chapter 36, Interpretive-Directive Canon.

14. Defense Production Act of 1950, § 702, 50 U.S.C. § 4552(2).

15. Scalia and Garner, *Reading Law*, chapter 6, Ordinary-Meaning Canon. ("The ordinary meaning rule is the most fundamental semantic rule of interpretation.")

16. Scalia and Garner, *Reading Law*, chapter 36, Interpretive-Directive Canon (citing Babbitt v. Sweet Home).

17. US Senate drafting manuals emphasize common usage and everyday meanings as "prime directives" for legislative drafters.

18. Scalia and Garner, *Reading Law,* chapter 6, Ordinary-Meaning Canon.

19. *Black's Law Dictionary*, 12th ed. (2024), under "national security" (reflecting the same definition since the term, 'national security,' first appeared in 10th ed., 2014).

20. *Ballentine's Law Dictionary*, (3rd. ed.) 1969.

21. Lawrence B. Solum, "The Public Meaning Thesis: An Originalist Theory of Constitutional Meaning," *Boston University Law Review* 101, no. 1953 (2021).

22. *Merriam-Webster Dictionary*, "national," accessed January 1, 2025, https://www.merriam-webster.com/dictionary/national.

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24. This is a good example of the "pet fish" canon where the term "pet fish" might convey a distinct meaning that neither the word "pet" nor "fish" captures individually. For example, while a "pet" may include dogs and cats, and a "fish" includes carp or salmon, a "pet fish" typically narrows the scope to specific species like goldfish. See also Scalia and Garner, *Reading Law,* chapter 62, "The false notion that words should be strictly construed." (Because "adhering to the fair meaning of the text (the textualist's touchstone) does not limit one to the hyperliteral meaning of each word in the text," it is also important to consider the context of the DPA that can "alter the literal meaning of individual words.")

25. The Robert T. Stafford Disaster Relief and Emergency Assistance Act § 602(1), 42 U.S.C. § 5195a.

26. The Robert T. Stafford Disaster Relief and Emergency Assistance Act § 602(3), 42 U.S.C. § 5195a*.*

27. The Robert T. Stafford Disaster Relief and Emergency Assistance Act § 602(3), 42 U.S.C. § 5195a.

28. The Robert T. Stafford Disaster Relief and Emergency Assistance Act § 602(3), 42 U.S.C. § 5195a*.* For instance, Title I mimicked Second War Powers Act of 1942, which allowed the US government to compel a business to accept war emergency production contracts for strategically necessary resources.

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32. Exec. Order No. 12742, 56 Fed. Reg. 1079 (Jan. 8, 1991).

33. Exec. Order No. 13603, 77 Fed. Reg. 16651 (March 16, 2012).

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35. "Defense Production Reauthorization Act of 2009," Pub. L. No. 111–67, 50 U.S.C., 123 Stat. 2006, (Sept. 30, 2009).

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45. Exec. Order No. 14110, 88 Fed. Reg. 75191 (Nov. 1, 2023) (see section 1).

46. Defense Production Act of 1950, § 705, 50 U.S.C. § 4555.

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