

POLICY PAPER

The US' Economic Future in the Era of AI

From disruption to resilience

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1. Introduction

Artificial Intelligence (AI) has long held the promise of considerable economic transformation. Until recently, there was a global consensus around AI development: it should be approached with a degree of caution, emphasizing principles of responsibility to ensure that progress does not come at the expense of societal wellbeing. However, a major shift in the United States' (US) policy direction is now underway, with the rescinding of key executive orders around executive AI as the new Administration came into place. President Donald Trump pushed forth a new vision for AI under the "Removing Barriers to American Leadership in Artificial Intelligence" executive order (The White House, 2025), prioritizing economic competitiveness, national security, and human development.

This new approach requires the US to double down on key aspects of AI in order to unlock new efficiencies but also raises profound questions about sustainability, labor, and governance, especially as AI capabilities advance and its integration across sectors accelerates and deepens. The surge in computational demand intensifies the energy footprint of AI systems, challenging existing infrastructure and climate commitments. At the same time, automation and Al-driven decision-making are altering the nature of work, shifting labor market dynamics, and raising concerns about job displacement, inequality, and the need for workforce reskilling. And while responsible Al development and adoption is no longer a formal policy priority, it remains essential for ensuring that the economic benefits of AI are broadly shared and that its risks are equitably managed.

This brief examines the economic impact of AI in the United States through three key lenses: energy consumption, the future of work, and the imperative of responsible use, drawing on insights gathered during an international delegate's trip to Washington, D.C. and San Francisco, CA, organized by the Friedrich Naumann Foundation's Global World Order and Globalization Hub. By highlighting key takeaways from leading experts and policymakers engaged in each of these areas and their intersections, this brief seeks to offer a comprehensive

understanding of how AI is shaping the US economy today, and what policies and strategies are needed to support inclusive, sustainable growth in the age of AI.

2. Context: the US' New Approach to Al Policy

The US' new Trump-Vance administration's ambitious position on Al policy is causing a stir as it breaks with the longstanding responsible Al global consensus in order to favor an "America First" approach. Within its first days, ex-President Joe Biden's Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence was rescinded as they were considered to "hinder Al innovation and impose onerous and unnecessary government control over the development of Al" (The White House, 2025a).

The new vision, which seeks to retain leadership in Al, and enhance economic and national security, has been positioned through a new executive order "Removing Barriers to American Leadership in Artificial Intelligence, which Intelligence"), which calls for a new action plan for Al to be designed by July 22, 2025. It seeks to maintain the US' global Al leadership and ensure a better future for all Americans by developing systems "free from ideological bias or engineered social agendas" (Office of Management and Budget, 2025). In order to draft the content of the new plan, the administration issued a Request for Information in February 2025, which received over 10,000 responses from large tech companies, Al startups, and other organizations.

In early April, President Trump published two revised policies for the Heads of Executive Departments and Agencies. The first one, "Accelerating Federal Use of Al through Innovation, Governance, and Public Trust," provides guidance for agencies to offer improved services to the public via AI (Office of Management and Budget, 2025). The second one, "Driving Efficient Acquisition of Al in Government," focuses on federal procurement (Office of Management and Budget, 2025a). Both executive orders state that departments and agencies should maintain "strong safeguards for civil rights, civil liberties, and privacy [...] in order to promote human flourishing, economic competitiveness, and national security." Three key priorities are put forth: providing the best value for the taxpayer, empowering Al leaders to accelerate responsible adoption, and ensuring their use of AI works for the American people. Lynne Parker, Principal Deputy Director of the White House OSTP explained these would "allow agencies to be more efficient and cost-effective, and support a competitive American Al marketplace" (The White House, 2025b). Another Request for Information was issued by several agencies in late April 2025.

President Trump has also drafted an executive order positioning the integration of AI into K–12 education as a national priority. The proposed order directs federal agencies to equip students with AI-related skills, provide professional development for teachers to effectively incorporate AI into their instruction, and partner with the private sector to design and implement relevant educational programs. Additionally, it calls for the creation of a White House AI Education Task Force, the reallocation of federal funding to support AI education, and the development of AI-focused apprenticeship programs (The White House, 2025c).

Various experts highlight what seems to be a disconnect between key Al policy priorities such as "human flourishing" and "responsible adoption" and certain actions, such as the dismantling of agencies like the Consumer Financial Protection Bureau (CFBP), the administration's embrace of DOGE as a tool of centralized data collection and control, or the requirement to eliminate mentions of "AI safety", "responsible AI", and "AI fairness" from collaboration projects with the US government and its agencies. As a researcher at an organization working with the AISI explained: "The Trump administration has safety, fairness, misinformation, responsibility as things it values for AI, which I think speaks for itself" (Knight, 2025). Other experts echo this concern over the lack of emphasis on risks and constraints, with some alleging that the new US AI policy may be primarily driven by a desire to outpace China (Lilian Coral, 2025).

Either way, what is clear is the US' goal to continue and deepen its global AI leadership, a reality that requires rethinking key elements of its economy, from its energy supply, to its labor market, as well as its approach to AI governance if it wants to ensure inclusive human flourishing.

3. Energy

The Al's capability to maintain and grow its global Al leadership will, in large part, depend on its ability to resolve bottlenecks in the energy sector. After a decade of relatively flat electricity demand, the United States has recently experienced a sharp increase in energy load. This surge is driven by the rapid expansion of Al, with an estimated 4% of US electricity being consumed by Al (McGinty, 2024), alongside a resurgence in domestic manufacturing, the electrification of transportation, and a construction boom.

While the speed of growth in demand has been abrupt, experts believe that energy demand may gradually stabilize. Indeed, major technological innovations often trigger short-term spikes in energy consumption, which tend to level off efficiencies improve and infrastructure adapts. While projections estimate that Al could account for 6 to 12% of global energy consumption by 2030 (US Department of Energy, 2024), energy experts caution that these figures may oversimplify a complex and evolving reality.

In terms of the development of efficiencies, the US Department of Energy has a longstanding collaboration with leading tech companies to reduce energy use. These efforts include improving the efficiency of GPUs and exploring new paradigms such as training AI systems using chemical batteries instead of traditional, energy-intensive data centers, a strategy that may also help address public backlash against expanding data center footprints.

Importantly, AI is not only an energy challenge. It can also be part of the solution. A few use cases of AI for energy efficiency are shared in the box below.

Al for energy efficiency use cases

Utilidata: pioneering edge AI for energy infrastructure

Utilidata is an Nvidia-backed pioneer in edge AI for energy infrastructure, which has developed a distributed AI platform that runs locally on grid devices like smart meters and substations. This technology enables utilities to optimize energy distribution, enhance grid resilience, and integrate renewable energy sources without major hardware overhauls. (Utilidata, 2025)

Drone LiDAR for Vegetation Management

Utility companies are using drone-mounted LiDAR technology to improve vegetation management by gathering precise, high-resolution 3D data on vegetation encroachment near power lines. This enables utilities to proactively identify and address potential hazards, such as overgrown trees, before they cause outages or fires, thereby enhancing grid reliability and safety. By facilitating targeted maintenance and reducing the need for manual inspections, this technology not only improves operational efficiency but also contributes to energy efficiency by minimizing energy losses associated with vegetation-related disruptions. (Fillmer, 2024).

Looking ahead, policy experts indicated there is wide agreement across party lines on the need to expand clean energy capacity, while also continuing to grow fossil fuel production to meet rising demand and ensure energy security. A number of energy sources will meet the increased energy needs, with renewables and natural gas expected to take the lead thanks to their cost-competitiveness and availability in key markets (International Energy Agency, 2025). Experts also highlighted the importance of investing in nuclear energy as the best option to handle long-term load increases. Given the decade-long timeline for constructing new plants, the US is focusing on reviving older nuclear facilities.

Five Key Recommendations

The following recommendations seek to grow the US' energy availability in order to accelerate Al development and adoption without compromising a sustainable future.

Accelerate Clean and Flexible Energy Infrastructure

Governments should prioritize expanding lowcarbon electricity generation and modernizing grid infrastructure to support Al's growing energy demands. This includes targeted investments in renewables, Small Modular Reactors (SMRs) near Al hubs, and advanced battery technologies adapted for Al workloads to reduce emissions and stabilize peak demand.

• Promote Energy-Efficient Al Infrastructure

Incentivize the development of energy-efficient and flexible data centers through updated standards, tax incentives, and green certifications. Encourage R&D in energy-efficient GPUs, cooling systems, and modular Alcompatible battery solutions to improve the sustainability of Al training and inference operations.

Support Clean Energy Pilots for Al Systems

Fund and promote pilot projects using alternative energy sources—like hydrogen and next-generation batteries—specifically designed to power Al operations. These pilots can serve as testbeds for scaling sustainable practices across Al infrastructure.

• Further Promote Grid-Aware Al Solutions

Continue incentivizing the development and deployment of AI technologies that directly enhance grid efficiency, such as predictive maintenance and real-time optimization tools.

Institutionalize Cross-Sector Coordination

Establish regular forums for dialogue between policymakers, the energy sector, and the tech industry to align on energy needs, anticipate future infrastructure demands, and ensure long-term sustainable Al deployment. Expand collaborations with top research institutions and private companies to drive innovation in energy efficiency for Al infrastructure, including GPUs, data storage, and cooling systems.

4. Labor

One of the biggest societal concerns with regards to Al is the displacement of labor, affecting increasingly more jobs. Al is expected to transform the global workforce by 2050, starting with the automation of 30% of current US jobs by 2030 and up to 60% that will require considerable adaptation by 2050 (Kelly, 2025). Among the least impacted jobs will be those in Al-resilient sectors like health and education, as well as labor-intensive careers in construction, skilled trades, installation and repair, and maintenance (Kelly, 2025).

As President Trump attempts to bring jobs back to the US, many of the returning companies are opening dark factories¹ in an effort to maintain economic competitiveness. This underscores what experts describe as a troubling trend: while large tech-driven firms generate soaring profits, they create relatively few jobs, revealing a growing disconnect between economic growth and employment.

Although these companies may boast about job creation, for instance, thanks to the construction of a data center, it is important to note that the majority of these jobs are temporary. More people will be hired in the construction of the data center than in its operation, reducing long-term employment opportunities.

In reality, the market alone cannot drive meaningful job creation amid global economic pressures, especially among the current 36\$ trillion debt faced by the US, tariff tensions and economic uncertainty (Kelly, 2025). This challenge must be addressed by policymakers. While members of the Senate highlighted the workforce as a key bipartisan Al policy priority, they also acknowledged that consensus on how to address it remains elusive, slowing down any possible solutions.

This inertia is also evident at the local level. Responsibilities around the future of work seem to bounce between state and municipal governments, with no clear leader stepping forward. While cities acknowledge workforce-related challenges they often have yet to develop a dedicated plan to prioritize upskilling and reskilling, waiting for more clear direction from the state level. At the industry level, while some cities require companies to take specific actions (such as providing advance notice of layoffs due to automation) there is still significant work to be done to strengthen corporate responsibility in ensuring fair labor practices and supporting workforce transitions.

Despite these challenges, the US is addressing the future of work head on starting with the younger generations. President Trump recently announced the prioritization of AI education and skill building in K-12 education and adjusting educational programs to industry needs. A White House AI Education Task Force will also be created to support AI education, and the development of AI-focused apprenticeship programs (The White House, 2025c).

Five Kev Recommendations

The following recommendations address the leadership vacuum that currently exists in the US when it comes to ensuring a fair and equitable work transition, caring for all and exploring collaborative solutions.

Strengthen National and Regional Coordination on Al Workforce Planning

Encourage placing Al as a central topic in national coordination spaces such as the National League of Cities, the US Conference of Mayors, and the National Governors Association. These forums can help align strategies, share best practices, and build consensus around labor transitions driven by Al. In parallel, promote structured dialogue between municipal, state, federal governments to clarify responsibilities and coordinate programs addressing workforce disruption. A more intergovernmental response cohesive necessary to avoid duplication, address policy gaps, and deliver targeted support where it's needed most.

Scale Publicly Funded Upskilling and Reskilling Programs Aligned with Industry Needs

Develop and expand training programs that equip workers (especially those in high-risk sectors) with critical skills such as digital literacy, Al operations, and adjacent capabilities. These programs should be co-designed with industry stakeholders and labor representatives to ensure alignment with real market needs and employment opportunities. Local implementation could be supported through Al workforce innovation hubs that pilot tailored training models, assist local businesses in adapting, and connect academia, employers, and policymakers.

Incentivize Al-Augmented Jobs and Resilient Sector Growth

Offer tax incentives or grants for companies that use AI to enhance human productivity rather than replace workers. Policies should prioritize applications that assist employees, such as AI copilots or decision support tools. At the same time, incentivize job creation in AI-resilient sectors by offering R&D tax breaks and employment subsidies for industries with lower automation risk, such as education, healthcare, and creative industries.

Mandate Transparency Around Al's Labor Impact

Require large firms deploying AI at scale to conduct and publicly share assessments of expected job impacts, including projections of both displacement and creation. This transparency would allow policymakers, civil society, and affected communities to better anticipate challenges, guide public investment in

retraining, and design safety nets or transitions based on evidence.

• Ensure Worker Voice in Al Transitions

Guarantee that unions and worker organizations are actively involved in Al deployment discussions, particularly in industries undergoing rapid automation or digital transformation. Their inclusion can help surface risks early, negotiate fair transition plans, and co-create safeguards that ensure workers are not left behind in the shift to Al-powered systems.

5. Safe Al

Despite a recent shift in federal Al policy, interest in Al regulation remains strong in the US, particularly among members of Congress and state governments. While there is a general shift toward deregulation, experts note that this approach is far from unanimously accepted. Rather than a reduction in legislation, the expectation is that future regulatory efforts will become less targeted and issue-specific.

Unlike the European Union's attempt to establish a comprehensive regulatory framework through the AI Act, the US' approach is more progressive. It will rather focus on certain topics, with the current administration favoring non-prohibitive regulations. One example is a recently passed bill requiring federal government agencies to disclose their use of AI in their yearly reports, enabling the creation of a national registry. That being said, highly debated exceptions are made for homeland security applications, revealing the challenges of having consistent standards.

The good news is that AI remains a bipartisan concern. Since the Bipartisan AI Caucus was launched in 2019 by Senators Martin Heinrich and Rob Portman, it has produced various bills on privacy and intellectual property matters. Other topics that gather bipartisan support include educating the workforce on AI, the matter of intellectual property, and AI use in the military, although the way to approach each matter causes divide. In turn, the most contentious issue is that of pre-release requirements for AI systems, whereby the democrats support the idea of requiring new AI systems to go through checks before their public release and republicans oppose it, citing concerns for innovation.

Despite strong investments in certain pillars of Safe Al like cybersecurity, policymakers consider that meaningful federal Al regulation still faces two major roadblocks. First, some lawmakers remain skeptical or indifferent toward Al, viewing it as a political Pandora's box. Second, and more critically, the US still lacks a Federal Data Privacy Law, a baseline many experts consider essential for any robust Al regulatory regime. That being said, DOGE's access and potential mishandling of vast quantities of personal data has fueled a push to update US data privacy laws, with representatives and judges, among others, seeking to

update the US' 50-year-old Privacy Act to the AI era (Ng, 2025 and Oremus and Jiménez, 2025). The latter prohibits agencies from sharing sensitive information with unauthorized parties, even within the federal government.

Nevertheless, progress is happening elsewhere. State Attorneys General have begun issuing guidance on Al deployment under existing privacy laws, demonstrating that AI is not exempt from legal scrutiny just because AIspecific laws are not in place (Fulton and Witherspoon, 2025), a logic that could be extended to the Federal level. Progress is also happening with regards to AI regulation at a more local level, with California leading the way. The west-coast state passed 18 new Al laws just in January of 2025, establishing requirements around deepfake technology, Al transparency, data privacy, and Al in healthcare (Serrato, Mastromonaco, et. al., 2025). That California's political leadership said, predominantly Democratic and has different views on Al policy than the current federal administration. This poses challenges for replicating these laws at a federal level. Additionally, a new Republican bill could prohibit state regulation of AI for the next 10 years, creating potential regulatory gridlock in the country (Brown and O'Brien, 2025).

Finally, it is also worth noting that regulation is not the only route to responsible Al. Silicon Valley startups and research labs are increasingly developing tools that enable responsible Al use through better auditing, testing, and monitoring capabilities—showing that technical safeguards can complement, and even anticipate, policy efforts.

Five Key Recommendations

The following recommendations reflect the US' non-prohibitive approach to AI, as well as its focus on innovation and competitiveness:

Pass a Federal Data Privacy Law and Clarify Existing Legal Frameworks

Establish a national data privacy law to provide a consistent baseline across jurisdictions and reduce regulatory fragmentation. In parallel, issue federal guidance clarifying how existing laws (such as those governing consumer protection, discrimination, and liability) apply to Al systems.

Advance Transparency and Accountability in Al Systems

Mandate robust documentation practices such as model cards, impact assessments, and development logs to ensure AI systems are explainable, auditable, and accountable. These transparency tools are essential for building public trust and enabling oversight without curbing innovation.

Enable Innovation Through Flexible, Risk-Based Regulation

Adopt a regulatory approach that encourages innovation while providing clear, enforceable guardrails. This includes shifting toward risk-based oversight, where high-risk applications receive more scrutiny, and low-risk uses benefit from lighter-touch guidance, rather than blanket restrictions that could stifle development.

Invest in Public Sector Al Capacity and Expertise

Allocate resources to train and equip regulatory agencies and policy-makers so they can keep pace with fast-evolving Al technologies. Strengthening institutional capacity will improve the government's ability to assess risk, enforce standards, and engage in informed dialogue with the private sector.

Create Innovation-Focused Public-Private Partnerships

Support responsible AI development through dedicated collaboration spaces and incentive programs with startups, academic institutions, and civil society. These partnerships should focus on co-developing innovative technical solutions for responsible AI, such as red-teaming tools, bias detection methods, and evaluation frameworks, among others, especially leveraging the innovation and collaborative culture of ecosystems like Silicon Valley.

6. Conclusion

Al is not just a technological leap, and may be unlike any disruptive innovation faced before. It is a force reshaping the US economy at every level. From its intensifying demand on the nation's energy infrastructure, to its disruptive effects on the labor market, and the urgent need for smart, adaptive governance, Al's economic impact is vast, complex, and still unfolding. The US now faces a pivotal moment: it can either double down on a narrow vision of global leadership driven solely by immediate competitiveness, or it can lead by example, investing in energy resilience, workforce dignity, and institutional responsibility, ensuring long-term competitiveness.

This brief has shown that while the US federal government has moved away from a responsibility-first framing, there is no shortage of action, or opportunity, across the country. Local and state actors, civil society, startups, and even some agencies are pushing ahead, testing solutions, and forging new paths. But coordination, leadership, and a clear federal vision aligning words and action are still missing.

To truly unlock the economic potential of AI while minimizing its risks, the US must adopt a whole-of-economy approach. That means investing in clean, flexible energy to power AI sustainably. It means centering workers in the transition by prioritizing upskilling, AI-augmented job creation, and transparency in labor impacts. And it means building regulatory frameworks that

are risk-based and innovation-enabling.

Done right, AI can generate not only growth, but shared prosperity for all American citizens and long-term resilience. But this outcome is not guaranteed. It must be actively prioritized, and designed.

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