

AI Regulation in the United States

Legislative trends in artificial intelligence (AI)

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Executive Summary

This white paper is a summary of an [academic paper](#) that studies the evolving landscape of artificial intelligence (AI) regulation in the United States. Examining federal bills, state bills, and executive orders, it scrutinizes the volume, targets, regulatory objectives, AI ethics themes, and partisan influences in bills of all statuses, passed, pending, and failed.

The research uncovers that AI regulation in the US is on the rise, with a marked increase in 2023. The government sector is the most common regulatory target, especially national security. Bills that target the government sector mostly recommend setting up committees and other organizational structures and writing reports and other documents. Almost no bills propose any restrictions on the public sector. Outside of the government, the most targeted sectors are HR, especially anti-discrimination in hiring decisions, and the financial sector, especially anti-discrimination in insurance underwriting. Law enforcement and criminal justice are conspicuously missing from the list of targeted sectors. Specific AI technologies don't get much direct attention, but the top ones are AI in social media algorithms and facial recognition. The top AI ethics themes were improving AI capabilities, fairness, and data rights. Three AI ethics themes notably absent are explainability, human autonomy, and risks related to Artificial General Intelligence. Democrats exhibit greater activity in introducing bills, emphasizing general AI ethics and fairness, whereas Republicans prioritize AI capabilities and data rights.

Full Paper

See the [full paper for more information, available online](#). The full paper is forthcoming in the *Handbook on Applied AI Ethics*, edited by Alexander Kriebitz, Christoph Lütge and Raphael Max, to be published by Elgar.

Scope and Methodology

The analysis includes bills and executive orders whose titles include one of the following AI-related terms: “artificial intelligence,” “machine learning,” “automatic decision system,” or “algorithm.” Bills that had the word “data” in their title were included only if the body of the text included one of the AI-related terms. The analysis excludes bills that include names of related technologies, such as “facial recognition” or “autonomous vehicles”, if those bills didn't include one of the AI-related terms. The bills were screened for duplicates and false positives and then annotated and analyzed manually (using an inductive, iterative approach). No AI was used in sourcing or in the analysis, but it was used for editing purposes.

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Sources

Federal bills were obtained from the [Congressional Record](#). The search took place on June 22, 2023 and covered legislation starting from 1973.

Executive orders (EOs) were obtained from the [Federal Register](#), which contains all executive orders since 1994.

State bills were obtained from the [National Congress of State Legislators \(NCSL\)](#). The NCSL repository offers two lists of bills related to AI: one covering 2019-August 2022 and the other covering January-April 2023.

Acknowledgments

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Limitations

The analysis does not include other regulatory efforts, such as city law and ordinances, soft law, enforcement of existing laws, and lawsuits. However, some of these are discussed in the full paper as a supplement to the analysis.

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Definitions

AI Bill: a draft of a proposed law that contains an AI-related term: “artificial intelligence,” “machine learning,” “automatic decision system,” or “algorithm.” A bill may have failed to become a law (failed bill), still await voting (pending bill), or have passed into law (passed bill).

Law: A bill that passed into law, either by passing a vote or by being embedded into another bill that passed into law.

Regulation: a rule or statute of an encompassing law; the act of creating these laws.

Passed: a bill that has been codified into law.

Pending: a bill awaiting consideration to become law.

Failed: a bill that did not pass into law.

Duplicate: a bill that contains content similar to or matching a separate bill (a bill identified by another number).

Quantity

How much regulation is happening?

The analysis identified 318 AI bills: 83 federal and 232 state. These include 8 federal AI laws, 12 pending federal bills, 26 state AI laws, 62 pending state AI bills, and 3 executive orders (EOs). Activity was notably less at the Federal level as compared to State [Figures 1, 2].

Figure 1. AI Bills

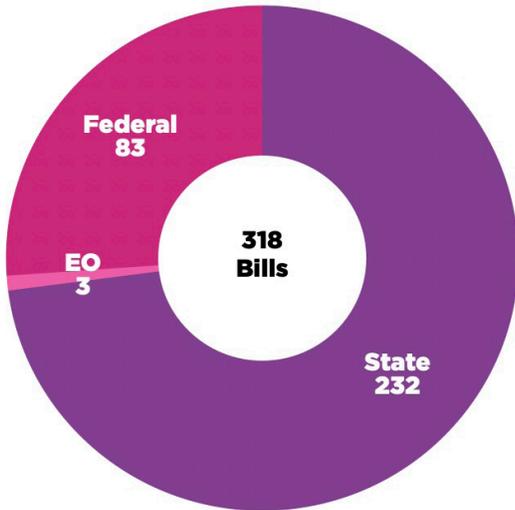
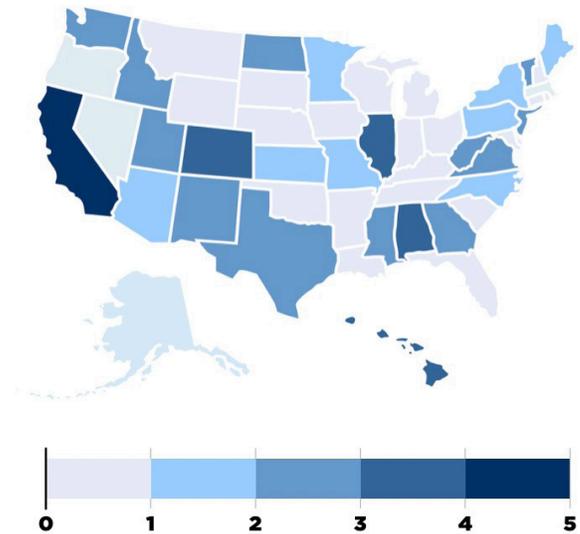


Figure 2. State Legislation - Passed and pending legislation as of Q1 of 2023.



Change Over Time

Early 2023 saw a dramatic increase in AI regulation efforts and as a result, increased pending legislation [Figure 3]. At the federal level, 14 bills were introduced between January-June 2023, which is 20% of the total AI bills introduced between 1973-2023. At the state level, 87 bills were introduced between January-April 2023, which is 60% of the total number of state AI bills found between 2019-2022. The most active states are California, Illinois, Massachusetts, New York, New Jersey, and Texas [Figure 2].

2023/2024 Projections

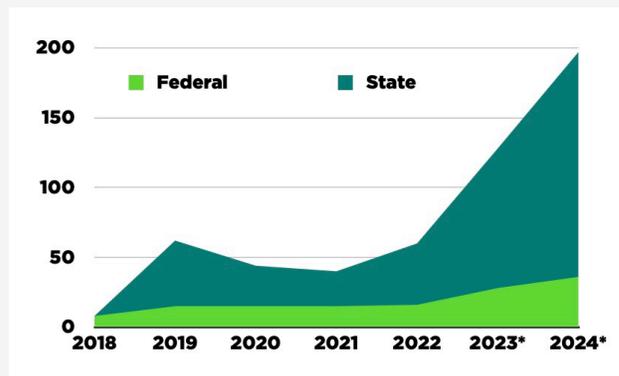
7 new federal AI laws by the end 2024

Based on activity through April 2023, the total number of federal AI bills by the end of 2024 will reach 56, almost doubling the number introduced during the previous congressional session. In addition, in the previous two Congresses, about 13% of federal AI bills have been passed into law. Assuming a similar passage rate, there will be 7 new federal AI laws by the end of 2024, doubling the total number of federal AI laws since 1973.

36 new state AI laws by the end of 2023

Similarly, based on activity in Q1 of 2023, states will have introduced 261 AI bills, over four times the number of AI bills introduced in 2022. On average, 13% of state AI bills pass each year. This would result in 36 new state AI laws by the end of 2023. This is 1.8x more than all laws passed in 2019-2022 combined (20).

Figure 3. Legislative Activity



*Projections for 2023/2024 are based on increased activity in early 2023.

Themes

What risks and opportunities are being addressed?

The most common themes legislators focus on are improving AI capabilities and general AI ethics. Bills in the general AI ethics theme address a host of topics all at once, such as civil rights, advancing American values, and general accountability. Other top themes are fairness, data rights, displacement, transparency, liability, and political stability. [Figures 4, 5]

Figure 4. **Legislative Theme** - Number of mentions for each theme in federal and state bills.

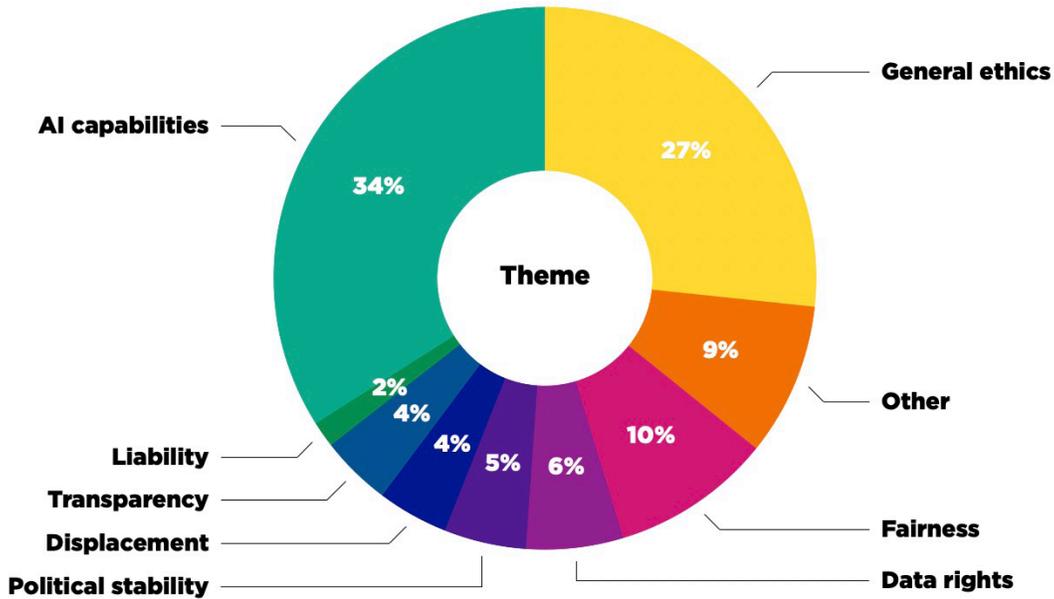
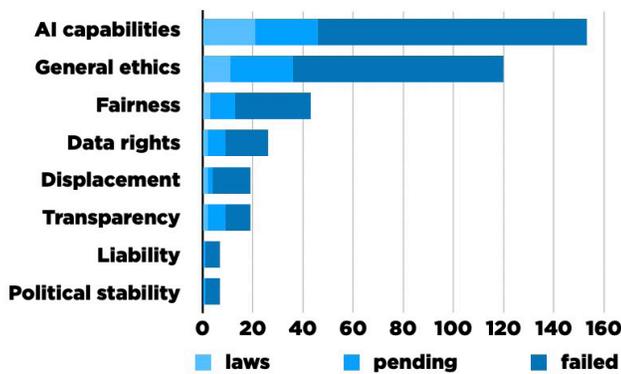


Figure 5. **Legislation Theme Activity**



Three AI ethics themes that notably get little or no attention are explainability, human autonomy, and risks related to Artificial General Intelligence (AGI, sometimes called “existential risks”).

No bills explicitly focused on explainability or AGI risk. Only two bills address issues of related to human autonomy: the federal act to prohibit nuclear launches without human oversight, (S. 1394 and H.R. 2894, both pending), and Illinois’ Safe Patient Limits Act (2023 IL H 3338 and 2023 IL S 2314, pending), which prohibits replacing the judgment of nurses with AI recommendations.

Targets

Who is the focus of regulation?

AI bills mostly target the government (73.5% of federal AI bills, 65.5% of state AI bills). Some bills target specific AI technologies (13.3% of federal AI bills, 6.5% of state AI bills). Sector-agnostic bills apply no matter the kind of AI. Sector-specific bills apply to specific segments, and the most common are Human Resources and Finance. [Figures 6, 8]

Figure 6. **Legislative Focus** - Federal and state bills combined.

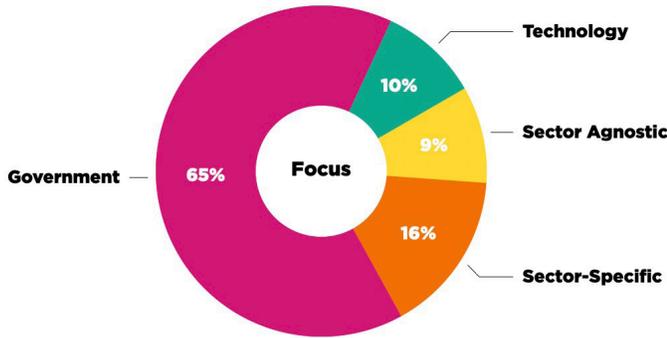
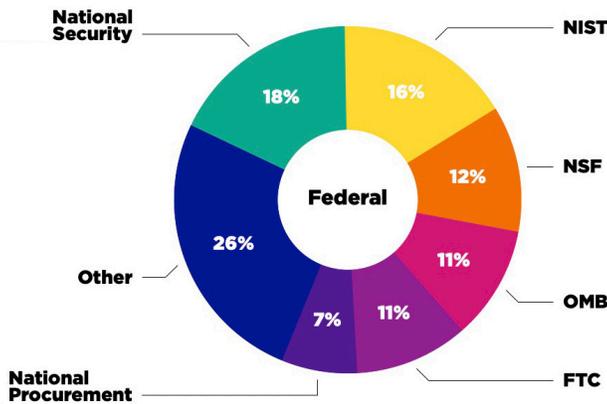


Figure 7. **Government Sector Focus** - Federal bills only.



Human Resources and Finance

The sector-specific areas that state bills target the most are Human Resources (9.9% of state AI bills) and finance (6.5% of state AI bills).

HR bills focus on preventing employment discrimination and transparency about the use of AI in the hiring process. Finance bills focus on preventing discrimination in underwriting, especially in insurance. [Figures 8, 9]

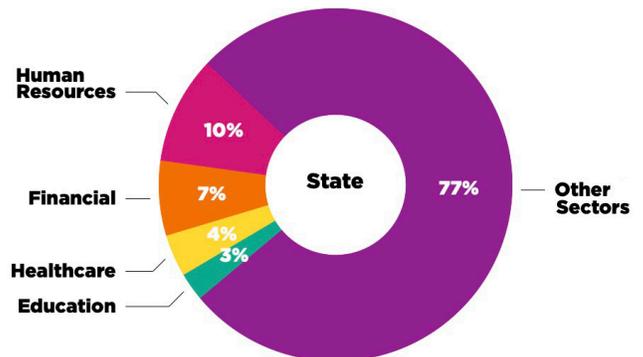
Government Sector Bills

Government sector AI bills focus mostly on establishing organizational structures, such as committees and task forces, writing documents, such as guidelines and reports, and providing funding to improve AI capabilities.

The most common targets within the government sector are national security organizations, such as the Department of Defense and the military (18.1% of all federal AI bills). Other common targets of public sector bills are the National Institute for Standards and Technology (15.7% of federal AI bills) and the National Science Foundation (12% of federal AI bills). Procurement and education are common targets in both federal and state AI bills. [Figures 7, 11]

Almost no bills aim to put restrictions on the government sector. In practice, some restrictions may come from the guidelines written by committees and task forces. However, the lack of attempts to put restrictions in place is concerning given the nature of the government sector. For example, the analysis found only one attempt to restrict AI in national security: a bill to forbid launching nuclear missiles without human oversight (S. 1394 and H.R. 2894, both pending). However, AI in national security activities may cause immense harm in numerous other ways that regulation could address.

Figure 8. **Sector-Specific Focus** - State bills only.



Healthcare and Education Bills

Healthcare and education are minimally represented (3.9% and 2.6% of state AI bills, respectively). Education bills focus on funding activities to improve AI capabilities. Healthcare bills focus on topics like patient rights in mental healthcare, and favoring human decision-making.

Given that HR and finance bills emphasize fairness issues, it is striking that healthcare and education bills do not. Both healthcare and education are prone to discrimination which can be amplified through AI-assisted decisions, such as patient care decisions and college admission decisions. In addition, in healthcare, the lack of bills that touch on issues such as patient well-being and agency is striking given the nature of the field. [Figure 9]

Technology Focused Bills

The most commonly referenced technologies are social media and other ranking algorithms, generative AI, and facial recognition. Social media bills focus on preventing surveillance and manipulation. Generative AI bills focus on transparency and limiting immunity from liability. Facial recognition bills aim to ban the technology. Biometrics and profiling were minimally represented. [Figure 10]

Scraping and Artificial General Intelligence (AGI) were absent. However, these and other technology-specific bills may fall outside the scope of this analysis, as explained in the Scope and Methodology section. Moreover, while the volume of bills targeting particular technologies is relatively low, other regulatory efforts, such as lawsuits and federal agencies' actions, target these and other technologies. See the full paper for some examples of these efforts.

Having said that, the low number of bills on profiling and biometrics is remarkable given how much attention these technologies receive elsewhere in the context of AI. In the European Union, these are among the most discussed technologies, with regulators setting intentions to outlaw certain use cases as part of the EU AI Act, the flagship AI regulation of the European Union. In addition, the lack of attention to Artificial General Intelligence (AGI) is notable, given that some groups of AI professionals are vocal about threats related to it. For example, OpenAI's CEO, Sam Altman, released a statement in February 2023 about AGI ([Altman, 2023](#)).

Law Enforcement and Criminal Justice Bills

Law enforcement and criminal justice administration topics are minimally represented in the list of areas legislators are trying to regulate [Figure 11]. The analysis found only two

Figure 9. **Sector-Specific Bills** - State bills only.

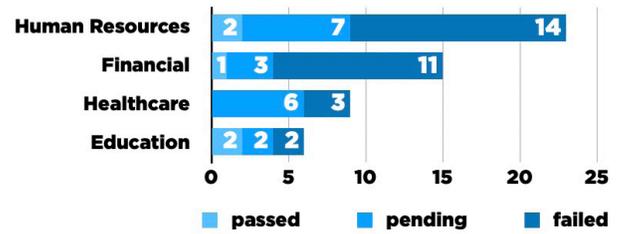


Figure 10. **Technology Bills** - State bills only.

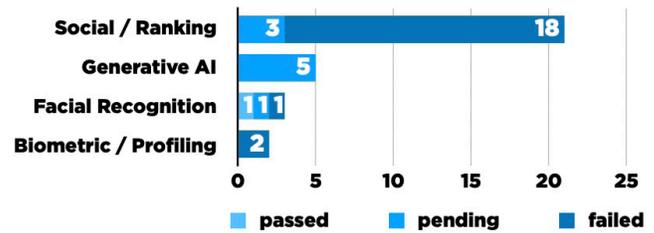
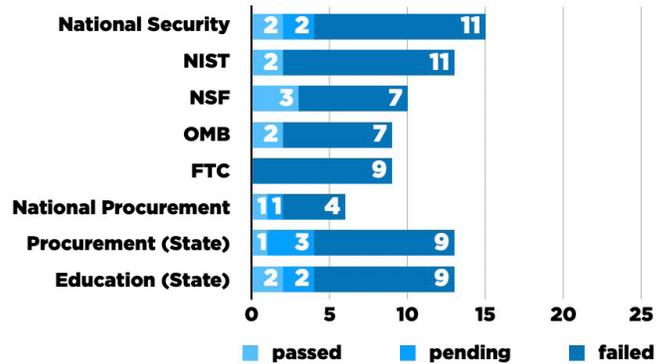


Figure 11. **Government Sector Bills** - Federal and state bills.



bills: Justice in Forensic Algorithms Act (federal bill H.R. 2438, failed) which aims to establish standards for using AI in forensic software, and Texas' 2023 TX S 2085 (pending) which aims to fund AI-enabled victim notification systems.

This low activity in the law enforcement sector is concerning, given the potential for harm reflected in multiple well-known AI scandals in this area. Examples include alleged discrimination in the COMPAS recidivism algorithm ([Angwin et al., 2016](#)) and alleged inaccuracy in ShotSpotter's gunshot noise detection algorithm ([Burke et al., 2022](#)). Moreover, the low activity in law enforcement stands in sharp contrast to the EU AI Act which classifies AI use cases in this area as "high risk" and proposes heavy regulations.

Political Origin

Where do regulatory efforts begin?

Democrats are generally more active in introducing AI bills than Republicans, although the gap is more pronounced at the state level. Bipartisanship occurs mostly at the federal level [Figures 12, 13, 14]. The dominance of Democrats in promoting AI regulation is striking because AI is not an inherently partisan topic. AI is a technology that impacts everyone and touches on topics that concern both parties. Moreover, Democrat dominance means that Republican concerns may go underrepresented and their impact steering of this powerful technology may be inhibited.

Figure 12. **Party Activity** - proportion of bills introduced by Democrats versus Republicans, federal and state combined.

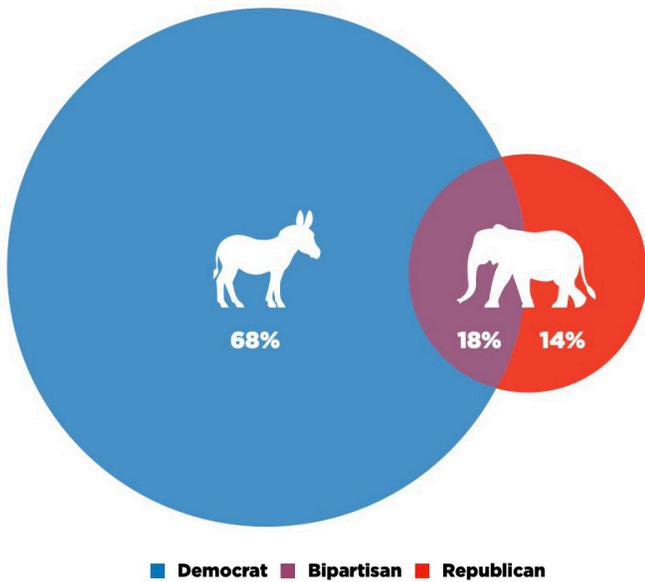


Figure 13. **Federal Bills by Party**

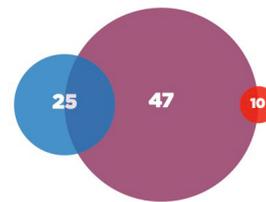
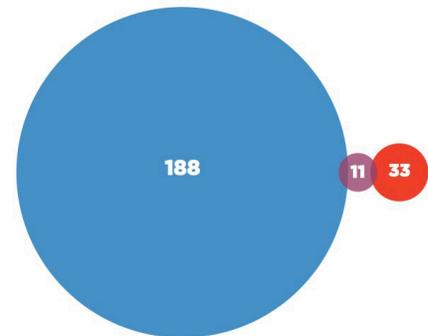


Figure 14. **State Bills by Party**



The parties focus on different AI ethics themes: Democrats focus most on improving AI capabilities, general AI ethics, and fairness; Republicans focus most on improving AI capabilities and data rights. [Figures 15, 16]

Figure 15. **Theme Activity by Party** - Quantity of Federal and state bills introduced.

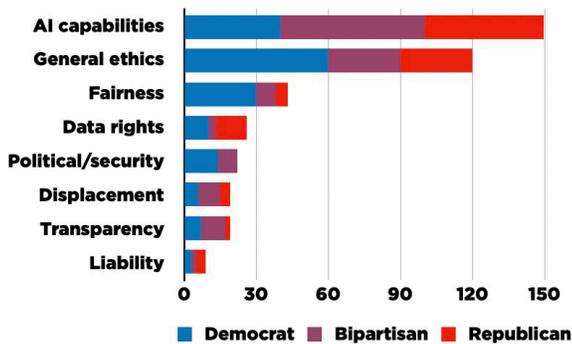
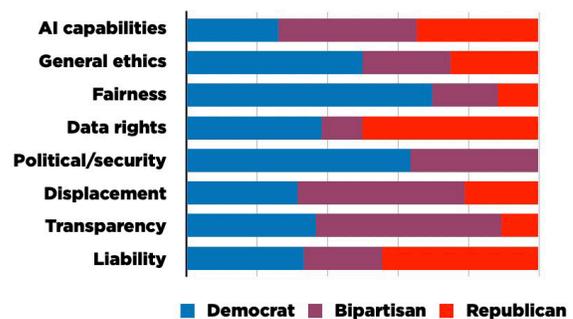


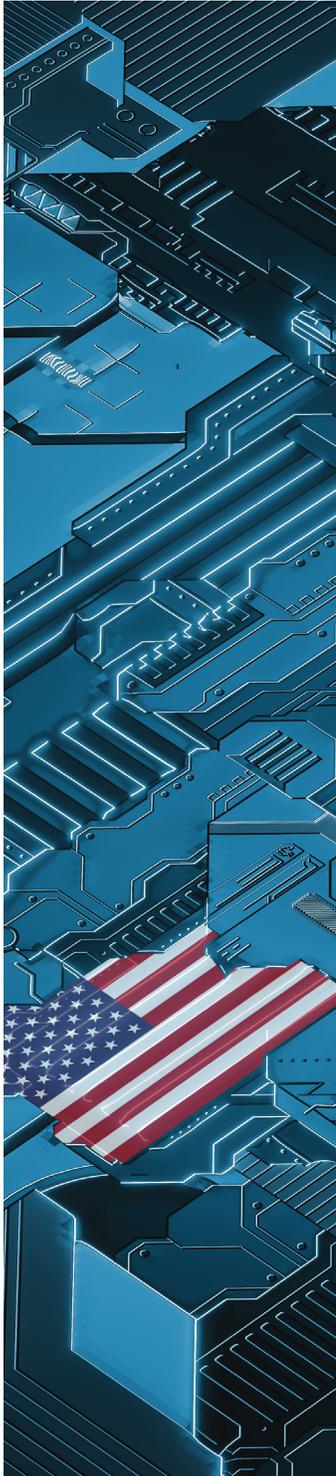
Figure 16. **Theme Dominance by Party** - Proportion of Federal and state bills.



Summary

Technology is Outpacing Regulation

Overall, AI regulation in the US is at an early stage but accelerating. Whether this pace is sufficient to protect the interests of Americans is yet to be seen. It depends, among other things, on the nature of the bills that pass, their enforcement, enforcement of non-AI-specific laws (such as non-discrimination and copyright laws, which are related to AI), and the effects of AI regulation in the European Union, United Kingdom, and other countries.



United States vs. European Union and United Kingdom

The European Union (EU) and the United Kingdom (UK) have distinct approaches to AI regulation. The EU is in favor of laws that target AI as a technology. Their flagship proposed law, the [EU AI Act](#), takes a risk-based approach. The bill aims to protect fundamental human rights by dividing AI applications into risk categories and establishing different rules for each category.

The UK disagrees with this approach. They believe that general AI regulation, like the EU AI Act, may inhibit innovation and that AI should be regulated in context-sensitive ways or addressed through soft law initiatives, such as voluntary guidance and technical standards ([Department for Science, Innovation and Technology & Office for Artificial Intelligence, March 2023](#)).

US regulation efforts contain strands that echo both approaches. For example, the Data Protection Act of 2021 (federal bill S 2134, failed) proposes a risk-based approach for AI regulation, echoing the EU approach. Another example is the Algorithmic Accountability Act of 2022 (federal bill H.R. 6580, failed). While the Algorithmic Accountability Act doesn't propose a risk-based approach, it does prescribe measures for all AI. Conversely, some bills echo the UK's context-sensitive approach. For example, 24.6% of state bills target particular sectors. In addition, the White House recently announced voluntary AI ethics commitments from several big tech companies ([The White House, July 2023](#)).

Compared to the EU and UK approaches, the US approach is decentralized, lacking a unified approach. This decentralization may create challenges for interoperability. For example, bills sometimes provide their own definitions of concepts such as artificial intelligence or automatic decision systems, and these definitions may conflict state to state, or at the federal level. Moreover, the requirements of AI laws may conflict, making enforcement and compliance challenging due to the global nature of AI operations and deployment.

However, the decentralization may be a symptom of the early stage of the regulation efforts. Some recent developments may be the beginning of a unified approach. Examples include the White House's "A Blueprint for an AI Bill of Rights" ([The White House, October 2022](#)) and the SAFE Innovation Framework by Chuck Schumer, the Senate Majority Leader ([Schumer, June 2023](#)). Such initiatives focus on the impacts of AI systems, including potential harms and opportunities. They seem different from the EU and UK's approaches: they do not highlight risks as much as the EU risk-based approach. And they do not highlight context-sensitivity and fears of inhibiting innovation as much as the UK's approach. Like most US AI bills, they belong in the "general AI ethics" and "capabilities" themes. These initiatives may signal that the US is forming an approach different from the EU and the UK: an approach based on rights, impacts, or principles.