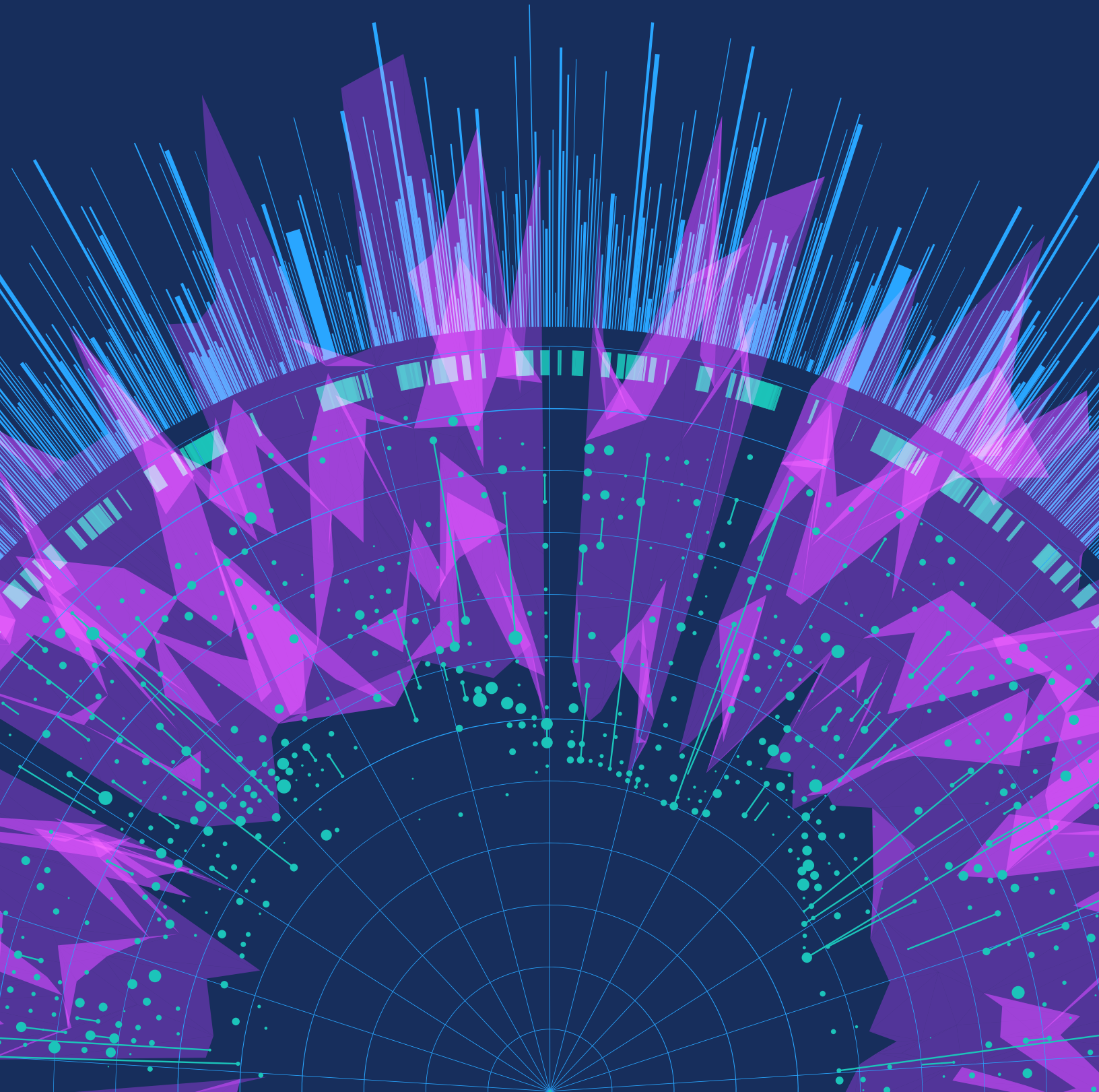




Artificial Intelligence
Index Report 2024

CHAPTER 7: Policy and Governance



Preview

Overview	3	7.4 AI Regulation	28
Chapter Highlights	4	U.S. Regulation	28
7.1 Overview of AI Policy in 2023	5	Overview	28
7.2 AI and Policymaking	11	By Relevance	29
Global Legislative Records on AI	11	By Agency	30
Overview	11	By Approach	31
By Geographic Area	13	By Subject Matter	32
By Relevance	14	EU Regulation	33
By Approach	15	Overview	33
By Subject Matter	16	By Relevance	34
U.S. Legislative Records	17	By Agency	35
Federal Level	17	By Approach	36
State Level	18	By Subject Matter	37
AI Mentions	20	7.5 U.S. Public Investment in AI	38
Overview	20	Federal Budget for AI R&D	38
U.S. Committee Mentions	23	U.S. Department of Defense Budget Requests	40
7.3 National AI Strategies	26	U.S. Government AI-Related Contract Spending	41
By Geographic Area	26	AI Contract Spending	41
		Microelectronics and Semiconductor Spending	44
		Appendix	46

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Overview

AI's increasing capabilities have captured policymakers' attention. Over the past year, several nations and political bodies, such as the United States and the European Union, have enacted significant AI-related policies. The proliferation of these policies reflect policymakers' growing awareness of the need to regulate AI and improve their respective countries' ability to capitalize on its transformative potential.

This chapter begins examining global AI governance starting with a timeline of significant AI policymaking events in 2023. It then analyzes global and U.S. AI legislative efforts, studies AI legislative mentions, and explores how lawmakers across the globe perceive and discuss AI. Next, the chapter profiles national AI strategies and regulatory efforts in the United States and the European Union. Finally, it concludes with a study of public investment in AI within the United States.

Chapter Highlights

1. The number of AI regulations in the United States sharply increases. The number of AI-related regulations in the U.S. has risen significantly in the past year and over the last five years. In 2023, there were 25 AI-related regulations, up from just one in 2016. Last year alone, the total number of AI-related regulations grew by 56.3%.

2. The United States and the European Union advance landmark AI policy action. In 2023, policymakers on both sides of the Atlantic put forth substantial AI regulatory proposals. The European Union reached a deal on the terms of the AI Act, a landmark piece of legislation enacted in 2024. Meanwhile, President Biden signed an Executive Order on AI, the most notable AI policy initiative in the United States that year.

3. AI captures U.S. policymaker attention. The year 2023 witnessed a remarkable increase in AI-related legislation at the federal level, with 181 bills proposed, more than double the 88 proposed in 2022.

4. Policymakers across the globe cannot stop talking about AI. Mentions of AI in legislative proceedings across the globe have nearly doubled, rising from 1,247 in 2022 to 2,175 in 2023. AI was mentioned in the legislative proceedings of 49 countries in 2023. Moreover, at least one country from every continent discussed AI in 2023, underscoring the truly global reach of AI policy discourse.

5. More regulatory agencies turn their attention toward AI. The number of U.S. regulatory agencies issuing AI regulations increased to 21 in 2023 from 17 in 2022, indicating a growing concern over AI regulation among a broader array of American regulatory bodies. Some of the new regulatory agencies that enacted AI-related regulations for the first time in 2023 include the Department of Transportation, the Department of Energy, and the Occupational Safety and Health Administration.

This chapter begins with an overview of some of the most significant AI-related policy events in 2023, as selected by the AI Index Steering Committee.

7.1 Overview of AI Policy in 2023

Jan. 10,
2023

China introduces regulation on administration of deep synthesis of the internet

China introduces regulations aimed at “deep synthesis” technology to tackle security issues related to the creation of realistic virtual entities and multimodal media, including “deepfakes.” These regulations apply to both providers and users across different media and mandate measures, such as preventing illegal content, adhering to legal compliance, verifying user identities, securing consent for biometric editing, safeguarding data security, and enforcing content moderation.



Source: [China Talk, 2022](#)
Figure 7.1.1

Mar. 22,
2023

U.S. legislators propose AI for National Security Act

This legislation clarifies and solidifies the Department of Defense’s (DoD) authority to acquire AI-based endpoint security tools, enhancing its cyber-defense capabilities. It aims to enable the DoD to employ AI for the automatic detection and mitigation of threats to its networks and digital infrastructure. This bipartisan initiative ensures the DoD can adopt innovative commercial technologies to strengthen its cyber defenses, matching the pace of adversaries.



Source: [Brookings, 2018](#)
Figure 7.1.2

The sources cited in this section are for the images included in the text.

May 11,
2023

U.S. policymakers introduce AI Leadership Training Act

This legislation aims to enhance AI literacy among federal leaders in response to AI's widespread adoption across government agencies. It mandates the director of the Office of Personnel Management (OPM) to create and periodically refresh an AI training program, promoting responsible and ethical AI usage within the federal government. Building on previous laws, the initiative expands AI training to include federal employees involved in procuring AI technologies for government use.



Source: [Fox News, 2023](#)
Figure 7.1.3

Jun. 20,
2023

U.S. policymakers propose National AI Commission Act

The National AI Commission Act calls for establishing a National AI Commission tasked with crafting a comprehensive AI regulatory framework. Highlighting the importance of expert input due to AI's rapid innovation and complexity, this bipartisan initiative focuses on mitigating risks, preserving U.S. leadership in AI research and development, and ensuring consistency with American values.

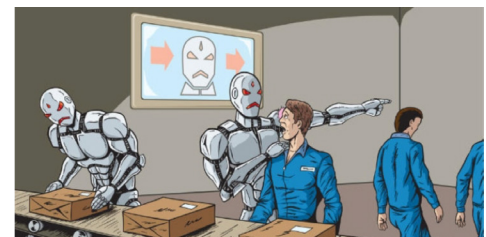


Source: [Nextgov, 2023](#)
Figure 7.1.4

Jul. 06,
2023

House of Representatives advances Jobs of the Future Act

The bill endorses a study to evaluate industries and occupations anticipated to grow due to AI, assess its effects on workers' skills or potential replacement, examine stakeholder influence opportunities, identify the demographics most impacted, evaluate the required skills and education, review data accessibility, investigate efficient skill delivery methods, and explore the role of academic institutions in offering critical training.

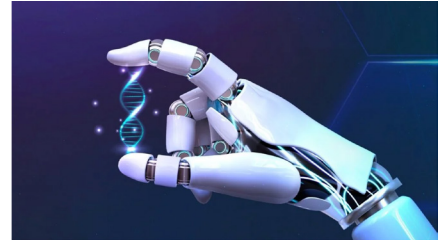


Source: [LSE Business Review, 2019](#)
Figure 7.1.5

Jul. 19,
2023

U.S. Senate puts forward Artificial Intelligence and Biosecurity Risk Assessment Act

The act mandates the assistant secretary for preparedness and response to assess and address threats to public health and national security from technical advancements in artificial intelligence. It emphasizes evaluating the potential use of AI, including open-source models, for developing harmful agents. The proposed initiatives include monitoring global biological risks and integrating risk assessment summaries into the National Health Security Strategy.



Source: [Clinical Trials Arena, 2023](#)
Figure 7.1.6

Jul. 21,
2023

Private AI labs sign voluntary White House AI commitments

The Biden-Harris administration obtains voluntary pledges from seven major AI firms—Google, Microsoft, Meta, Amazon, OpenAI, Anthropic, and Inflection—to promote the development of AI that is safe, secure, and reliable. These commitments involve conducting internal and external security assessments of AI systems prior to launch, sharing information on identified risks, enabling public reporting of issues, and disclosing when content is AI-generated.



Source: [Medium, 2023](#)
Figure 7.1.7

Jul. 25,
2023

U.S. Senate passes Outbound Investment Transparency Act

This initiative aims to scrutinize U.S. investments in critical sectors, especially those involving China, with a focus on evaluating risks in crucial industries and technologies such as AI that impact national security. The objective is to increase awareness of potential vulnerabilities and risks linked to foreign access to American technology in these domains.



Source: [AI CIO, 2023](#)
Figure 7.1.8

Jul. 27,
2023

U.S. Senate proposes CREATE AI Act

The CREATE AI Act establishes the National Artificial Intelligence Research Resource (NAIRR), a national research infrastructure to improve AI researchers' and students' access to essential resources. NAIRR offers compute, curated datasets, educational tools, and AI testbeds. It aims to bolster the nation's AI research capabilities by supporting the testing and evaluation of AI systems.



Source: Stanford HAI, 2023
Figure 7.1.9

Aug. 15,
2023

China updates cyberspace administration of generative AI measures

China's updated policy adopts a more targeted regulatory approach, focusing on applications with public implications rather than a blanket regulation. The amendments soften the regulatory language, changing directives like “ensure the truth, accuracy, objectivity, and diversity of the data” to “employ effective measures to enhance the quality of training data and improve its truth, accuracy, objectivity, and diversity.” Additionally, the revised regulations encourage generative AI development, shifting away from the prior punitive focus.



Source: South China Morning Post, 2023
Figure 7.1.10

Sep. 12,
2023

U.S. Senate puts forward Protect Elections from Deceptive AI Act

The bipartisan bill seeks to prohibit the use of AI to create materially deceptive content that falsely represents federal candidates in political advertisements. This act addresses the risks of AI-driven disinformation in elections by banning the distribution of materially deceptive AI-generated audio or visual content related to candidates running for federal office.

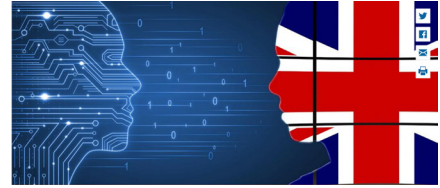


Source: The Economist, 2023
Figure 7.1.11

Sep. 18,
2023

U.K. proposes principles to guide competitive AI markets and protect consumers

The U.K.'s Competition and Markets Authority proposes principles to foster competitive AI markets while ensuring consumer protection. These principles are designed to guarantee accountability for AI outputs, maintain continuous access to essential inputs, promote a diversity of business models, provide businesses with choices, offer flexibility to switch between models, and ensure fair practices to prevent anticompetitive behavior.



Source: [Science Business, 2022](#)
Figure 7.1.12

Oct. 30,
2023

President Biden issues Executive Order on Safe, Secure, and Trustworthy AI

The executive order establishes new benchmarks for AI safety, security, privacy protection for Americans, advancement of equity and civil rights, and the fostering of competition and innovation. It mandates the creation of a national security memorandum to guide the safe and ethical application of AI in military and intelligence operations, ensuring the protection of Americans' privacy and the cultivation of an open, competitive AI market that emphasizes U.S. innovation. Additionally, the Department of Education is tasked with addressing AI's safe and responsible use in education, while the Federal Communications Commission is encouraged to assess AI's impact on telecommunications. The National Institute of Standards and Technology (NIST) is instructed to formulate guidelines and best practices to support industry consensus on developing and deploying secure, reliable, and ethical AI.



Source: [AP, 2023](#)
Figure 7.1.13

Oct. 30,
2023

Frontier AI taskforce releases second progress report

The task force forms new alliances with leading AI organizations and facilitates the development of the U.K.'s AI Research Resource (AIRR), to be known as Isambard-AI, an AI supercomputer designed for compute-intensive safety research. Moreover, the report highlights the task force's initiatives to mitigate risks inherent in advanced AI development and its partnerships with premier AI companies to gain early access to their models.



Source: [PYMNTS, 2022](#)
Figure 7.1.14

Nov. 01,
2023

U.K. hosts AI Safety Summit (2023)

The UK AI Safety Summit at Bletchley Park seeks to tackle AI risks and promote global cooperation, culminating in the Bletchley Declaration. This declaration, endorsed by 28 countries, including China and the United States, signifies a significant global agreement on AI safety. The U.K. also unveiled the world's inaugural AI Safety Institute, dedicated to safety assessments and research. Despite these developments, reactions are mixed, with certain experts advocating for more comprehensive and ambitious policy measures.



Source: [CGTN, 2023](#)
Figure 7.1.15

Nov. 02,
2023

U.K. announces AI Safety Institute

The AI Safety Institute, the first government-supported entity dedicated to advancing AI safety in the public interest, aims to safeguard the U.K. and humanity from unforeseen AI advancements. Its goal is to build the sociotechnical framework required to comprehend and govern the risks associated with advanced AI. By conducting fundamental AI safety research, the institute intends to enhance worldwide comprehension of the dangers posed by advanced AI systems and create the technical tools vital for effective AI governance. Furthermore, it aspires to position the U.K. as a global center for safety research, thereby reinforcing the nation's strategic investment in this critical technology.



Source: [Gov.uk, 2024](#)
Figure 7.1.16

Dec. 09,
2023

Europeans reach deal on EU AI Act

European lawmakers reach a tentative deal on the AI Act. The act establishes a risk-based regulatory framework for AI, prohibiting systems with unacceptable risks, such as behavioral manipulators, and classifying high-risk systems into product-based and critical sectors. Generative AI, such as ChatGPT, is required to adhere to transparency standards. Meanwhile, low-risk AI, including deepfake technologies, is subject to fundamental transparency obligations.



Source: [Stanford HAI, 2023](#)
Figure 7.1.17

7.2 AI and Policymaking

Global Legislative Records on AI

Overview

The AI Index analyzed legislation containing “artificial intelligence” in 128 countries from 2016 to 2023.² Of these, 32 countries have enacted at least one AI-related bill (Figure 7.2.1).³ In total, the countries have passed 148 AI-related bills. Figure 7.2.2 illustrates the annual

count of AI-related bills passed since 2016. While the total dropped to 28 in 2023 from 39 in the previous year, the number of AI-related bills passed in 2023 significantly exceeds the total passed in 2016.

Number of AI-related bills passed into law by country, 2016–23

Source: AI Index, 2024 | Chart: 2024 AI Index report

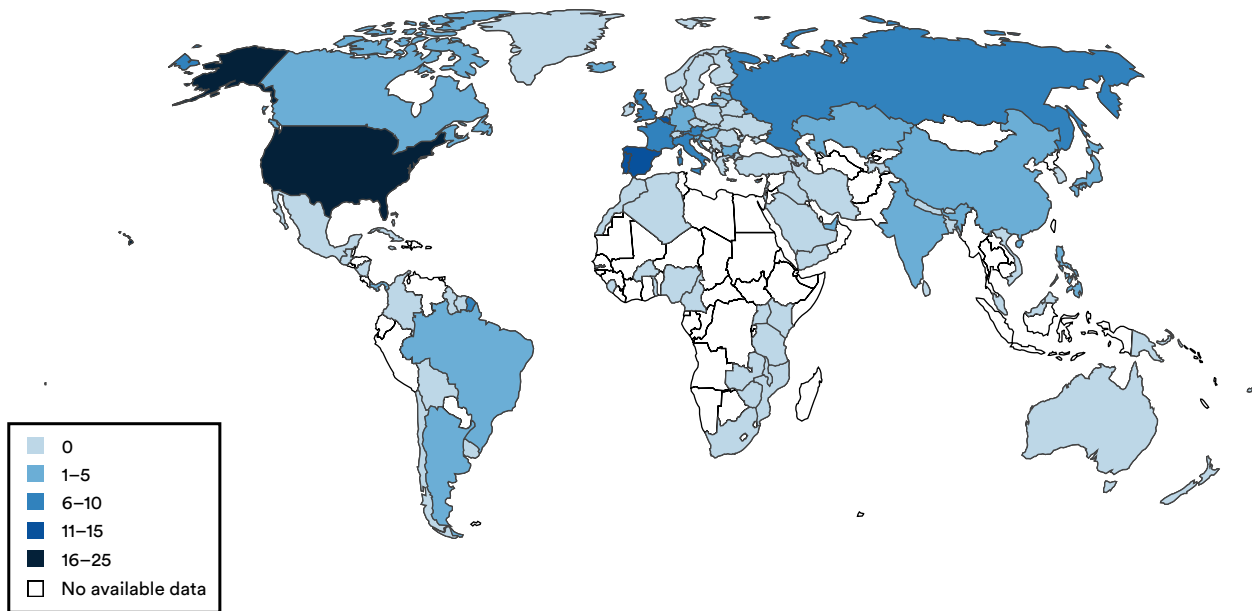


Figure 7.2.1

² The analysis of passed AI policies may undercount the number of actual bills, given that large bills can include multiple sub-bills related to AI; for example, the CHIPS and Science Act passed by the United States in 2022.

³ The AI Index monitored AI-related bills passed in Hong Kong and Macao, despite these not being officially recognized countries. Thus, the Index covers a total of 130 geographic areas. Laws passed by Hong Kong and Macao were counted in the overall tally of AI-related bills. This year, the Index expanded its country sample compared to previous years, resulting in a difference between the number of AI-related bills reported this year and those in prior reports.

Number of AI-related bills passed into law in 128 select countries, 2016–23

Source: AI Index, 2024 | Chart: 2024 AI Index report

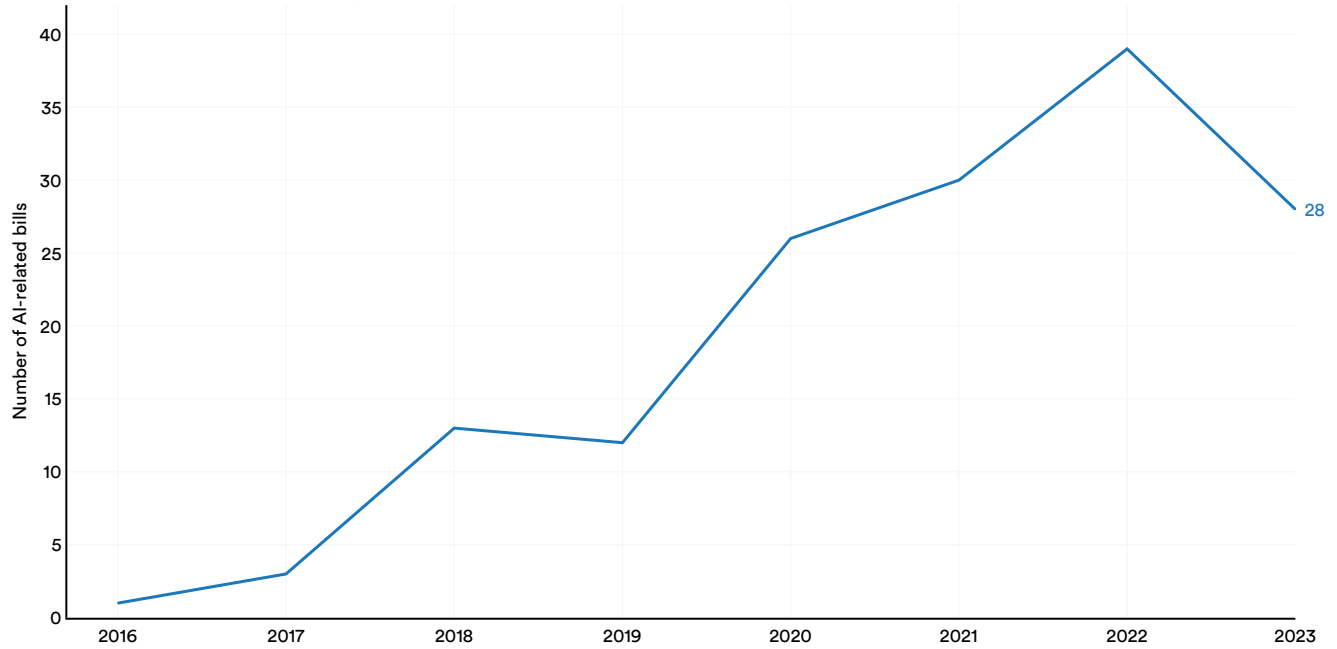


Figure 7.2.2

By Geographic Area

Figure 7.2.3 highlights the number of laws containing mentions of AI that were enacted in 2023. Belgium led with five laws, followed by France, South Korea, and the United Kingdom, each of which passed three. Figure 7.2.4 shows the total number of laws passed since 2016. The United States (23) has passed the most AI-related laws since 2016, followed by Portugal (15), and Belgium (12).

Number of AI-related bills passed into law in select countries, 2023

Source: AI Index, 2024 | Chart: 2024 AI Index report

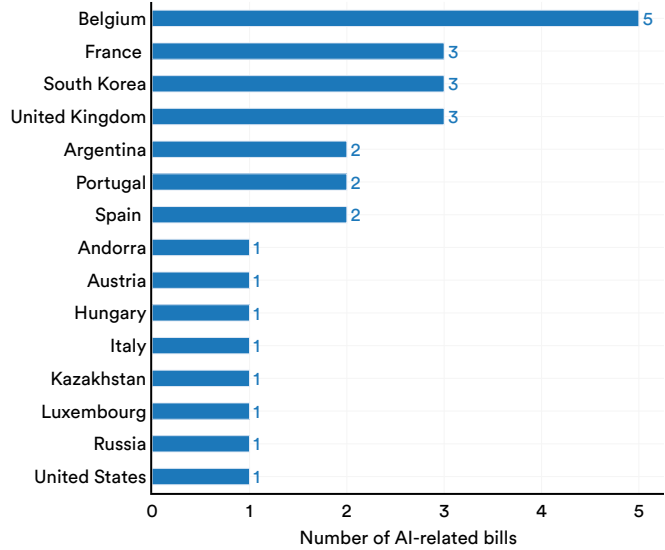


Figure 7.2.3

Number of AI-related bills passed into law in select countries, 2016–23 (sum)

Source: AI Index, 2024 | Chart: 2024 AI Index report

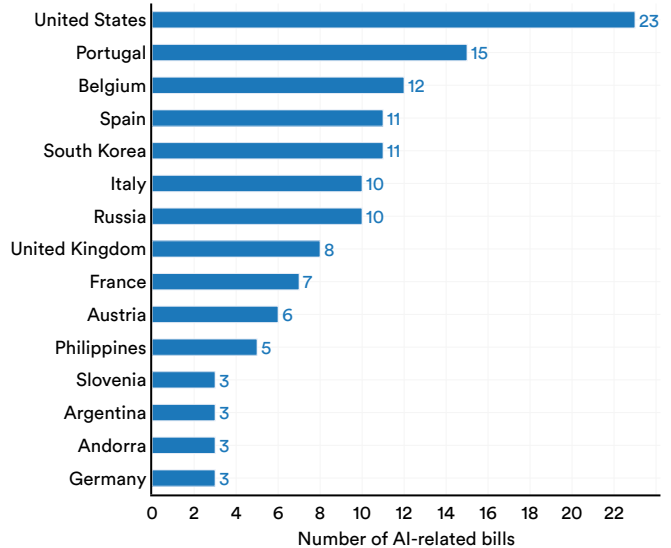


Figure 7.2.4

By Relevance

The AI Index team further disaggregated AI-related bills based on their relevance to AI, as not every bill mentioning AI prioritizes it equally. A bill deemed to have high relevance to AI is fundamentally focused on AI-related policy, like the [AI Training Act](#) passed in 2022, which mandates AI training programs for executive agency workers. Conversely, bills with medium relevance incorporate significant AI policy elements but are not fundamentally focused on AI-related matters. For example, the [National Defense Authorization Act for Fiscal Year 2022](#) includes sections on AI performance metrics and AI capabilities development for the Department of Defense. However, because it has a broader focus, namely authorizing various Defense Agency programs, and is not completely centered on AI, it was assigned

a medium AI relevance. Low relevance AI bills merely mention AI in passing without a substantial legislative focus on AI. An example of a low relevance AI bill is the [Energy and Water, Legislative Branch, and Military Construction and Veterans Affairs Appropriations Act, 2019](#). This bill allocates funding to various federal agencies, and mentions AI primarily in the context of encouraging these agencies to consider workforce training opportunities for sectors like cybersecurity, energy, and AI.

Figure 7.2.5 illustrates the distribution of AI-related bills passed into law globally in 2023, categorized by their relevance to AI. Out of 28 AI-related bills enacted, two were classified as having high relevance to AI, while 18 were deemed to have medium relevance.

Number of AI-related bills passed into law in select countries by relevance to AI, 2016–23

Source: AI Index, 2024 | Chart: 2024 AI Index report

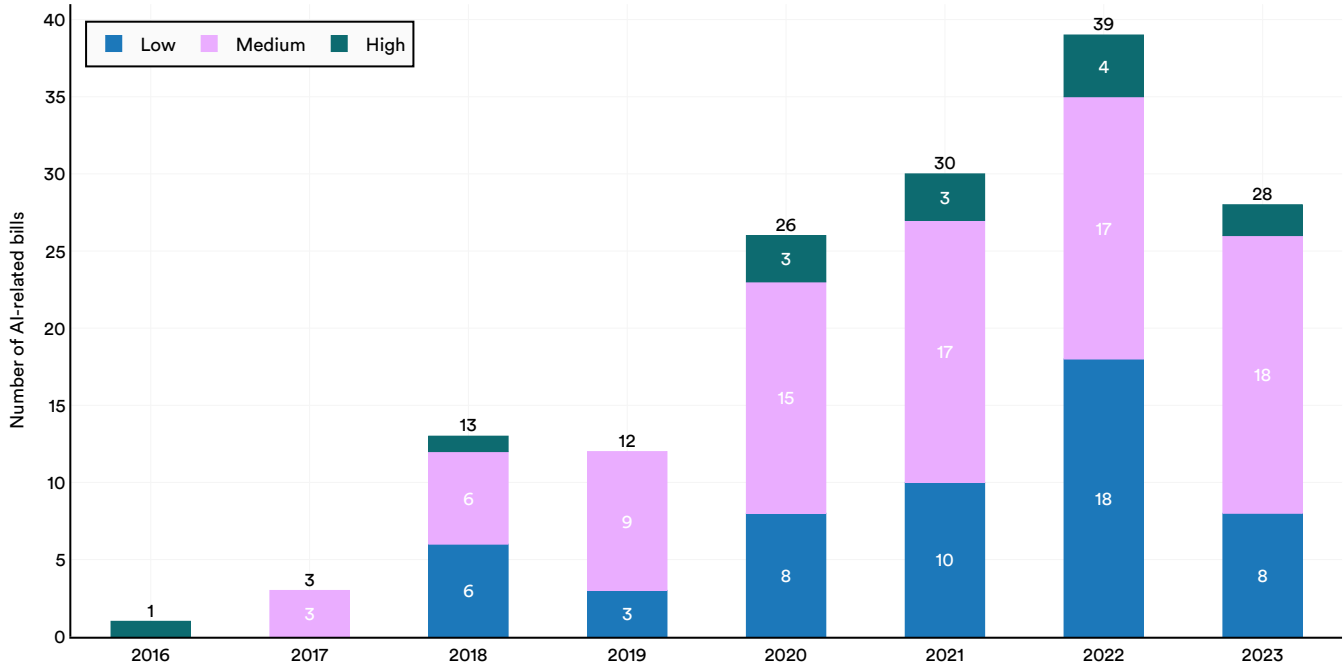


Figure 7.2.5

By Approach

The AI Index also categorized AI-related bills as either expansive or restrictive. Expansive bills aim to enhance a nation’s AI capabilities, such as establishing a network of publicly accessible supercomputers. Restrictive bills, on the other hand, impose limitations on AI usage, like setting rules for deploying facial recognition technology. A bill can be both, or neither.⁴ Distinguishing between expansive or restrictive bills can highlight legislator priorities: whether

policymakers focus on expanding AI capabilities, imposing restrictions, or balancing both.

Figure 7.2.6 indicates a global trend toward regulating AI usage, showing that, while the commitment to enhancing AI capabilities remains, there is a growing shift toward restrictive legislation. This change suggests that legislators are increasingly focused on mitigating the potential harms of AI’s integration into society.

Number of AI-related bills passed into law in select countries by approach, 2016–23

Source: AI Index, 2024 | Chart: 2024 AI Index report

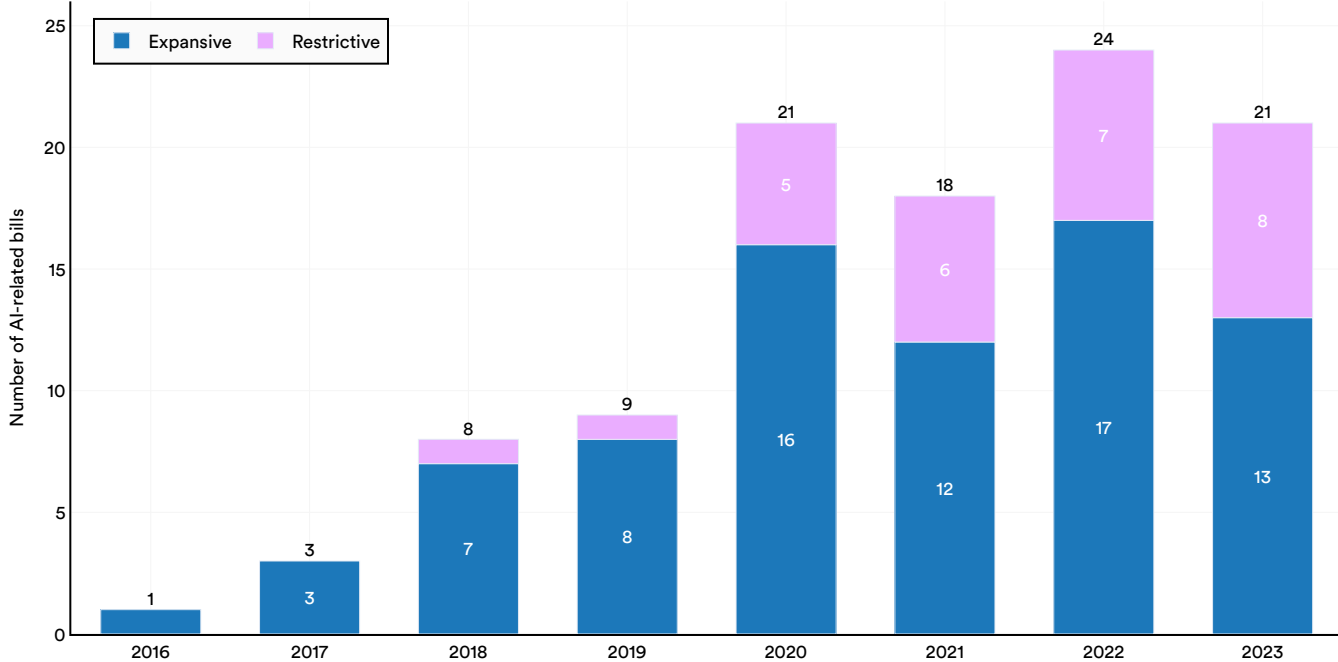


Figure 7.2.6

⁴ The AI Index only categorized bills as being expansive or restrictive if they were identified as having medium or high AI relevance. Consequently, the totals depicted in Figure 7.2.5 may not fully correspond with those presented earlier in the chapter.

By Subject Matter

The AI Index’s global analysis of AI legislation classifies bills by their primary subject matter according to the typology used by the U.S. Congress to classify American legislation.⁵ Historically, economics and public finance have been the predominant focus of AI-related legislation, reflecting the fact that AI-related policymaking matters are often incorporated within budgetary bills related to public appropriations (Figure 7.2.7). However,

in 2023 the distribution of primary topics among passed bills broadened significantly, encompassing a diverse range of policy areas. Specifically, two bills were passed in each of the following categories: armed forces and national security; civil rights and liberties, minority issues; commerce; education; labor and employment; science, technology, and communication. This diversity indicates that AI policy concerns are increasingly spanning various sectors.

Number of AI-related bills passed into law in select countries by primary subject matter, 2016–23

Source: AI Index, 2024 | Chart: 2024 AI Index report

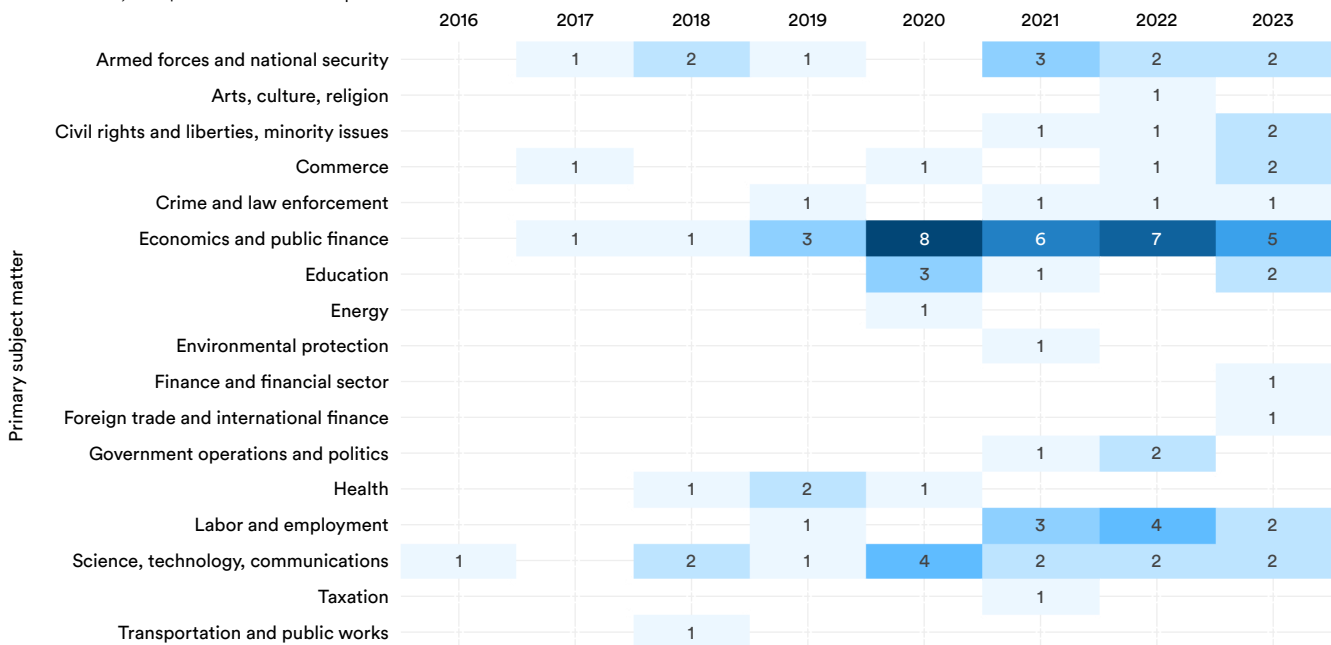


Figure 7.2.7

⁵ Similar to the classification of bills as either expansive or restrictive, only bills coded as having a medium or high relevance to AI were coded for their primary subject matter. Consequently, not all AI-related bills featured in this section’s analysis have subject matter coding available.

U.S. Legislative Records

Federal Level

Figure 7.2.8 illustrates the total number of passed versus proposed AI-related bills in the U.S. Congress, highlighting a significant increase in proposed legislation. In the last year, the count of proposed AI-related bills more than doubled, rising from 88 in 2022

to 181 in 2023. This significant increase in U.S. AI-related legislative activity likely reflects policymakers' response to the increasing public awareness and capabilities of AI technologies, such as ChatGPT.

Number of AI-related bills in the United States, 2016–23 (proposed vs. passed)

Source: AI Index, 2024 | Chart: 2024 AI Index report

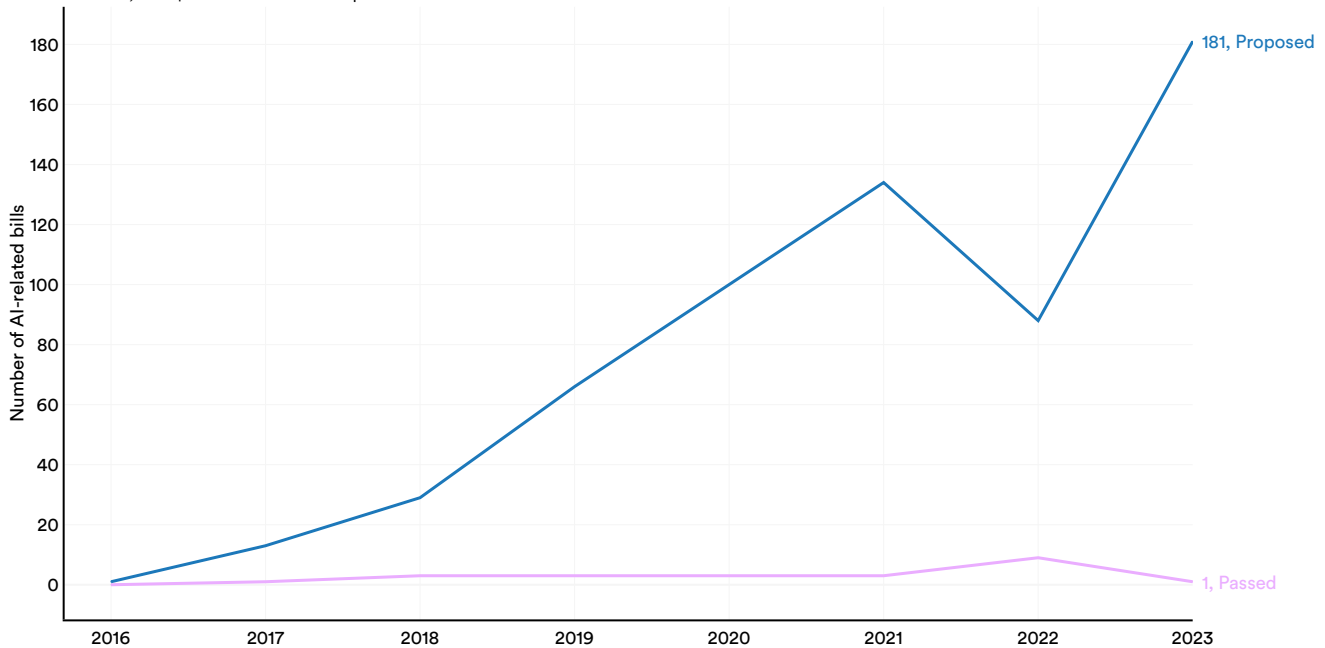


Figure 7.2.8

State Level

The AI Index also tracks data on the enactment of AI-related legislation at the state level. Figure 7.2.9 highlights the number of AI-related laws enacted by U.S. states in 2023. California leads with seven laws, followed by Virginia with five, and Maryland with three. Figure 7.2.10 displays the total amount of legislation passed by states from 2016 to 2023. California again tops the ranking with 13 bills, followed by Maryland (10) and Washington (7).

Number of AI-related bills passed into law in select US states, 2023

Source: AI Index, 2024 | Chart: 2024 AI Index report

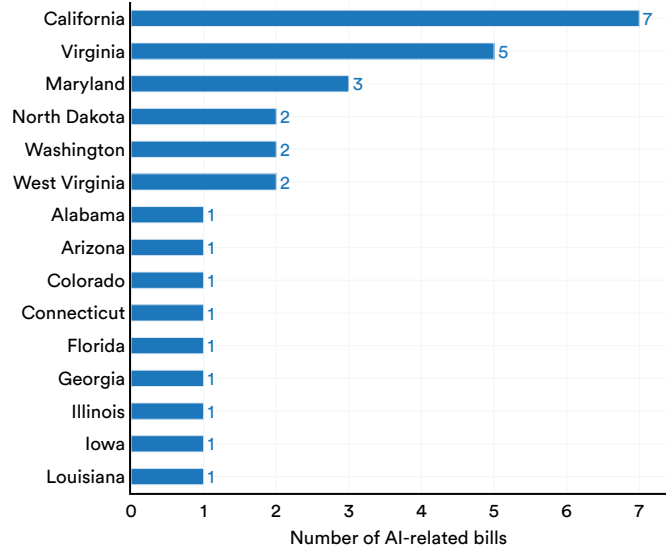


Figure 7.2.9

Number of state-level AI-related bills passed into law in the United States by state, 2016–23 (sum)

Source: AI Index, 2024 | Chart: 2024 AI Index report

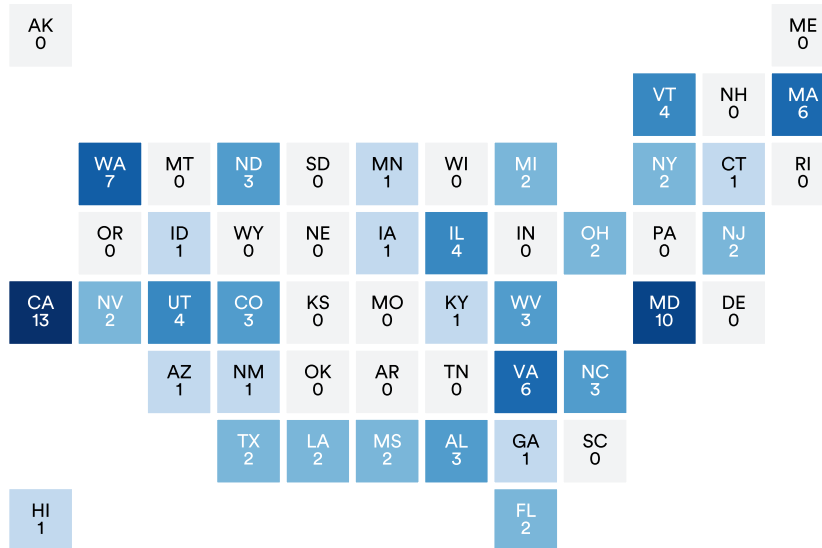


Figure 7.2.10

Figure 7.2.11 displays the total number of state-level AI-related bills proposed and passed in the United States since 2016. In 2023, 150 total state-level bills were proposed, a significant increase from the 61 bills

proposed in 2022. A significantly greater proportion of AI-related bills are enacted into law at the state level in the United States, compared to the federal level.

Number of state-level AI-related bills in the United States, 2016–23 (proposed vs. passed)

Source: AI Index, 2024 | Chart: 2024 AI Index report

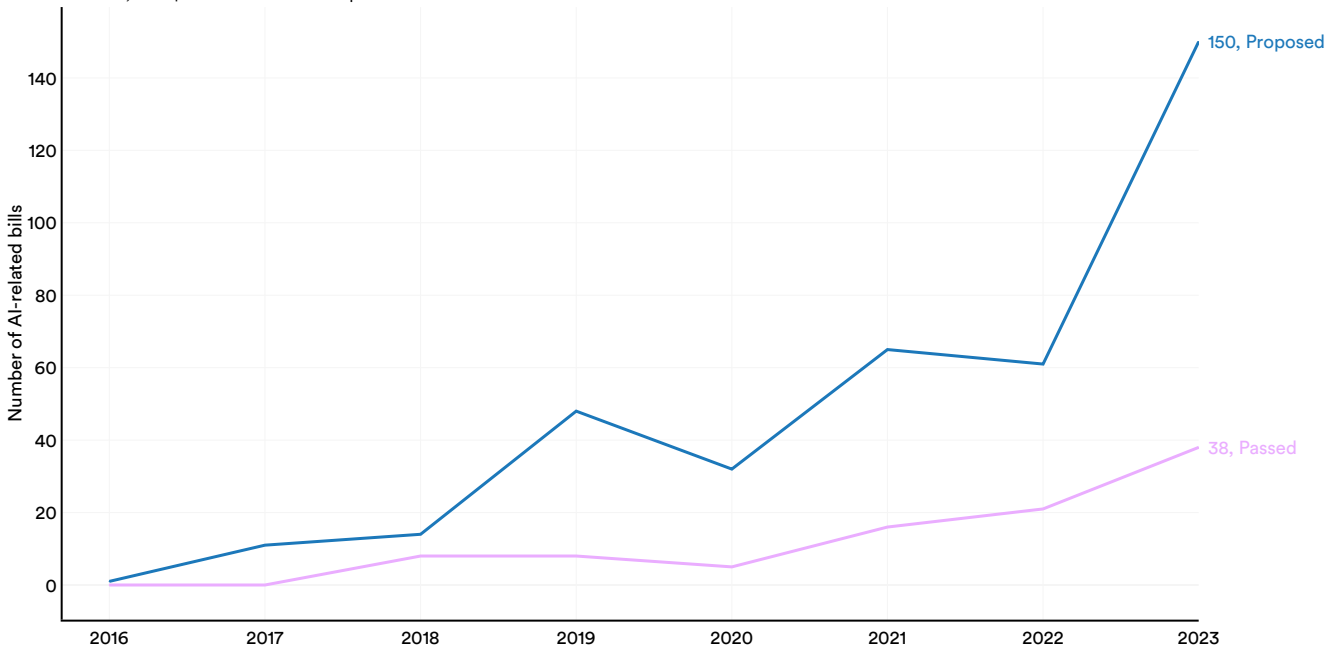


Figure 7.2.11

AI Mentions

Another barometer of legislative interest is the number of mentions of artificial intelligence in governmental and parliamentary proceedings. The AI Index conducted an analysis of the minutes or proceedings of legislative sessions in 80 countries that contain the keyword “artificial intelligence” from 2016 to 2023.⁶

Overview

Figure 7.2.12 reveals a significant increase in the mentions of AI in legislative proceedings across the globe, nearly doubling from 1,247 in 2022 to 2,175 in 2023. Since 2016, AI mentions in legislative discussions have risen almost tenfold. This data suggests that the emergence of AI systems such as ChatGPT in 2023 has notably captured policymakers’ attention.

Number of mentions of AI in legislative proceedings in 80 select countries, 2016–23

Source: AI Index, 2024 | Chart: 2024 AI Index report

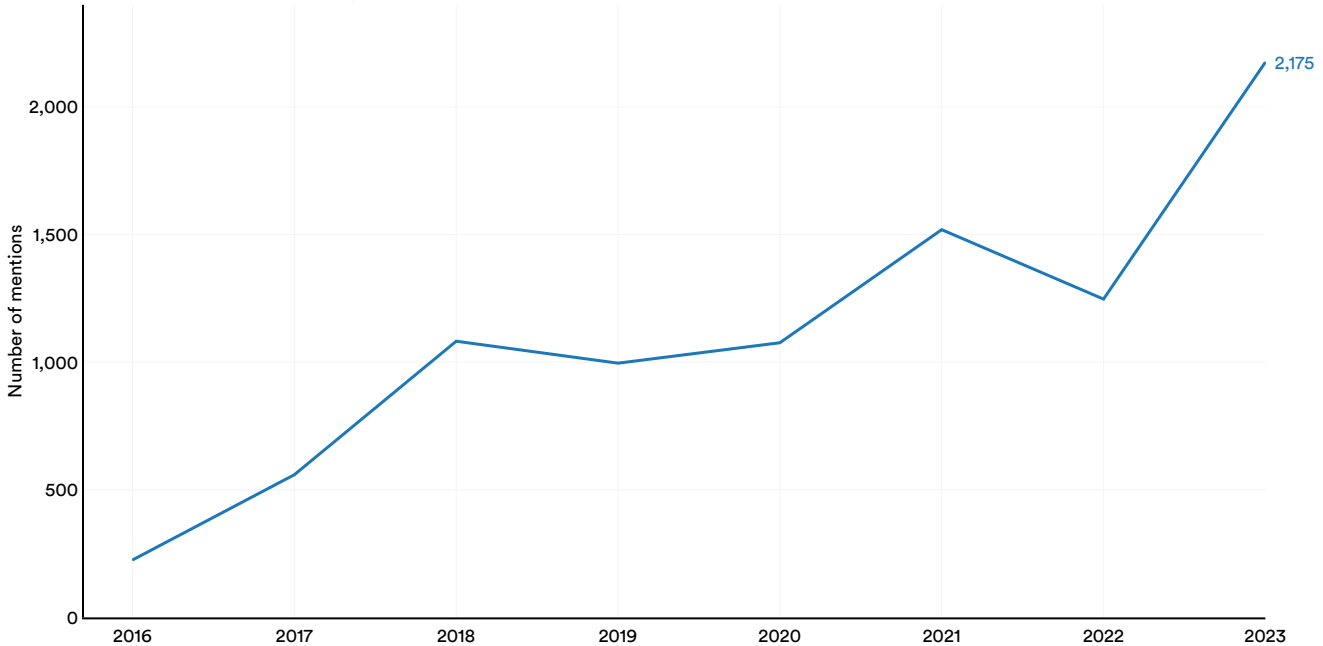


Figure 7.2.12

⁶ The full list of countries analyzed can be found in the Appendix. The AI Index research team attempted to review the governmental and parliamentary proceedings of every country in the world; however, publicly accessible governmental and parliamentary databases were not made available for all countries.

In 2023, the United Kingdom led in AI mentions within its legislative proceedings (405), followed by the United States (240) and Australia (227) (Figure 7.2.13). Out of 80 countries analyzed, 48 mentioned AI at least once. Moreover, AI discussions reached legislative platforms in at least one country from every continent in 2023, underscoring the truly global reach of AI policy discourse.

When legislative mentions are aggregated from 2016 to 2023, a somewhat similar trend emerges (Figure 7.2.14). The United Kingdom is first, with 1,490 mentions, followed by Spain (886) and the United States (868).

Number of mentions of AI in legislative proceedings by country, 2023

Source: AI Index, 2024 | Chart: 2024 AI Index report

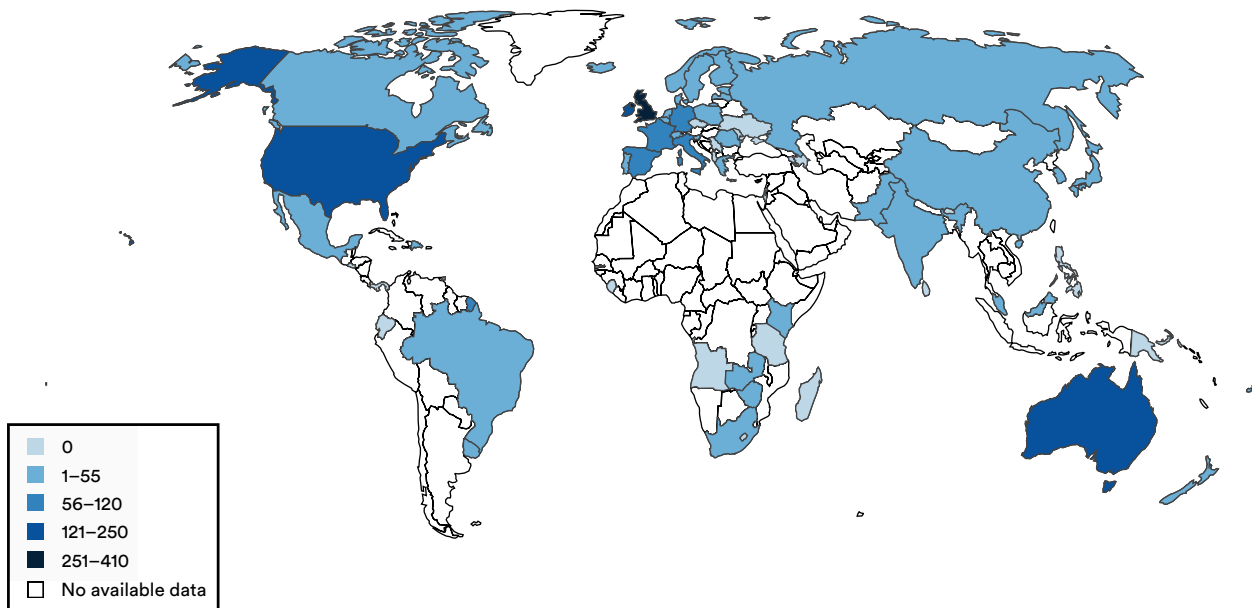


Figure 7.2.13

Number of mentions of AI in legislative proceedings by country, 2016–23 (sum)

Source: AI Index, 2024 | Chart: 2024 AI Index report

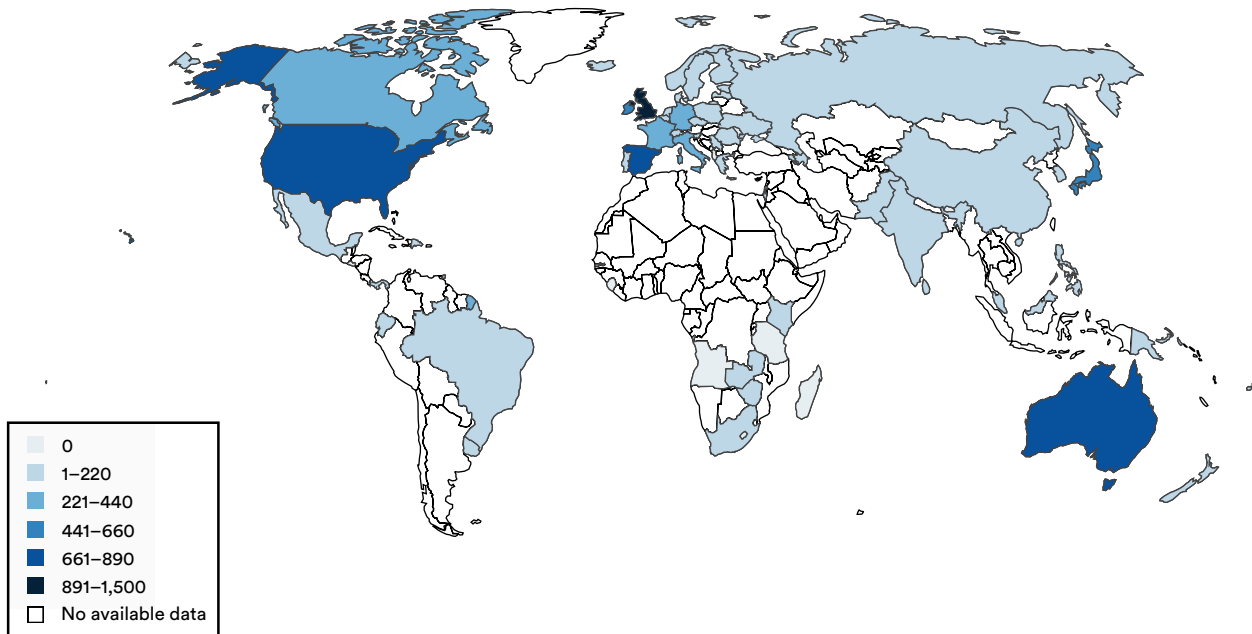


Figure 7.2.14

U.S. Committee Mentions

Mentions of artificial intelligence in committee reports by House and Senate committees serve as another indicator of legislative interest in AI in the United States. Typically, these committees focus on legislative and policy issues, investigations, and internal matters.

Figure 7.2.15 shows the frequency of AI mentions in U.S. committee reports by legislative session from 2001 to 2023. Mentions of AI have decreased for the current 118th session; however, it is important to note that this session is only about halfway through, with an end date set for January 2025. Continuing at the current rate, the 118th legislative session is poised to surpass all previous sessions in terms of AI mentions.

Mentions of AI in US committee reports by legislative session, 2001–23

Source: AI Index, 2024 | Chart: 2024 AI Index report

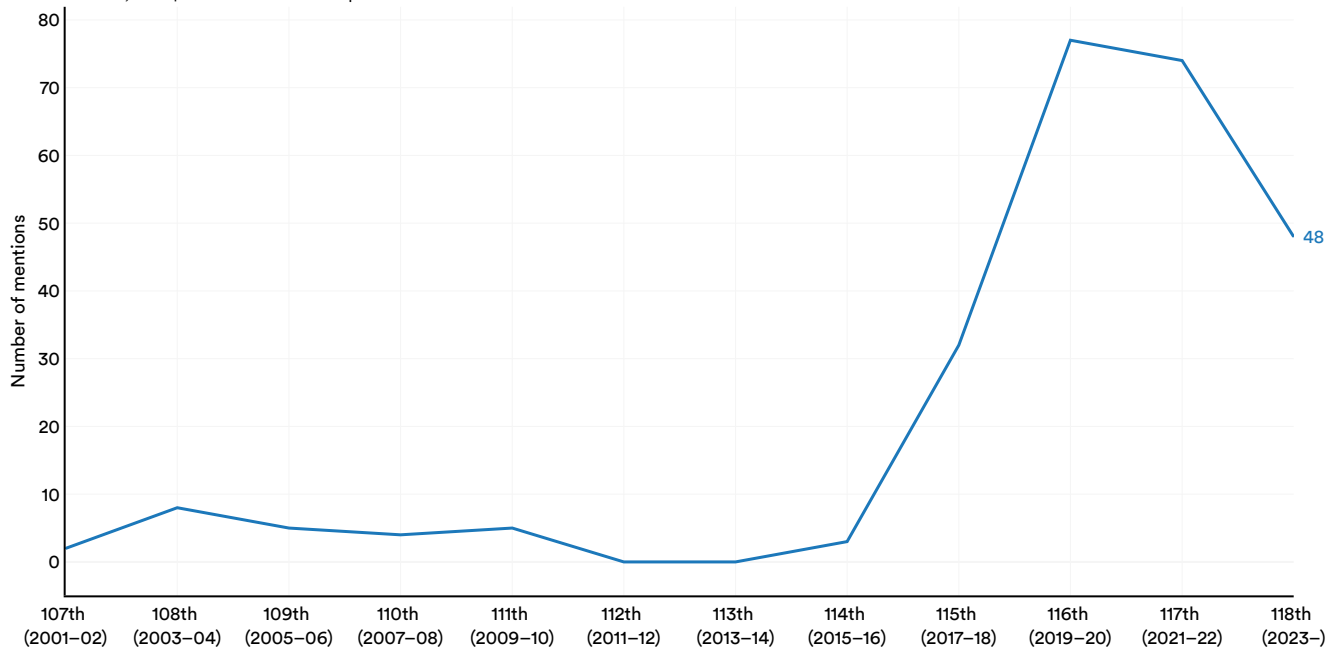


Figure 7.2.15

Figure 7.2.16 depicts AI mentions in the committee reports of the U.S. House of Representatives during the ongoing 118th congressional session. The Appropriations and Science, Space, and Technology committees feature the highest number of AI mentions. Meanwhile, Figure 7.2.17 highlights AI mentions in Senate committee reports, with Appropriations leading (9), followed by the Homeland Security and Governmental Affairs Committee (3).

Mentions of AI in committee reports of the US House of Representatives for the 118th congressional session, 2023

Source: AI Index, 2024 | Chart: 2024 AI Index report

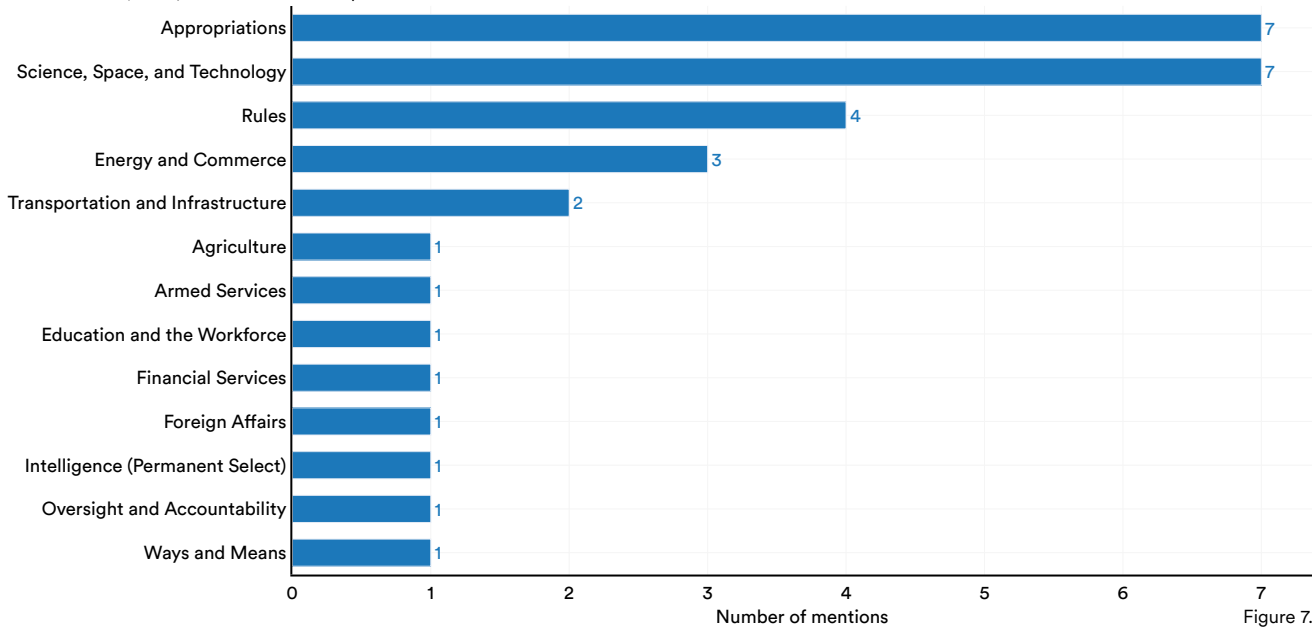


Figure 7.2.16

Mentions of AI in committee reports of the US Senate for the 118th congressional session, 2023

Source: AI Index, 2024 | Chart: 2024 AI Index report

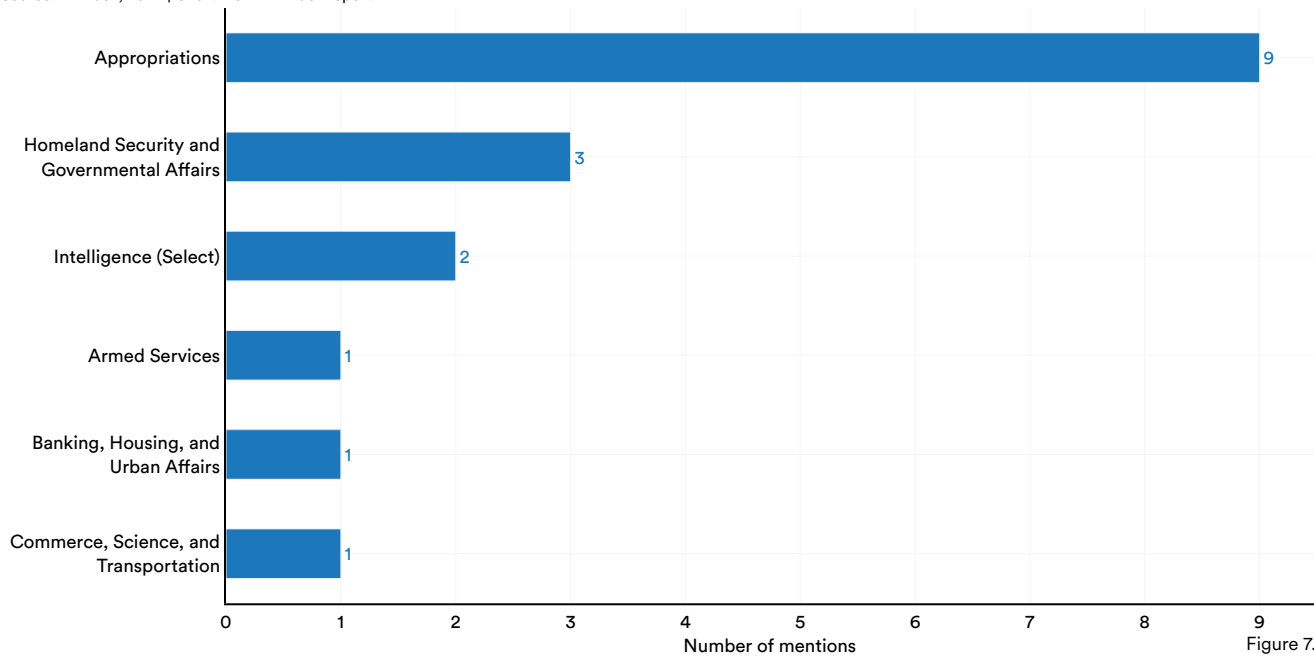


Figure 7.2.17

Figures 7.2.18 and 7.2.19 show the total number of mentions in committee reports from congressional sessions occurring since 2001. The House and Senate Appropriations committees, which regulate expenditures of money by the federal government, lead their respective lists.

Mentions of AI in committee reports of the US House of Representatives, 2001–23 (sum)

Source: AI Index, 2024 | Chart: 2024 AI Index report

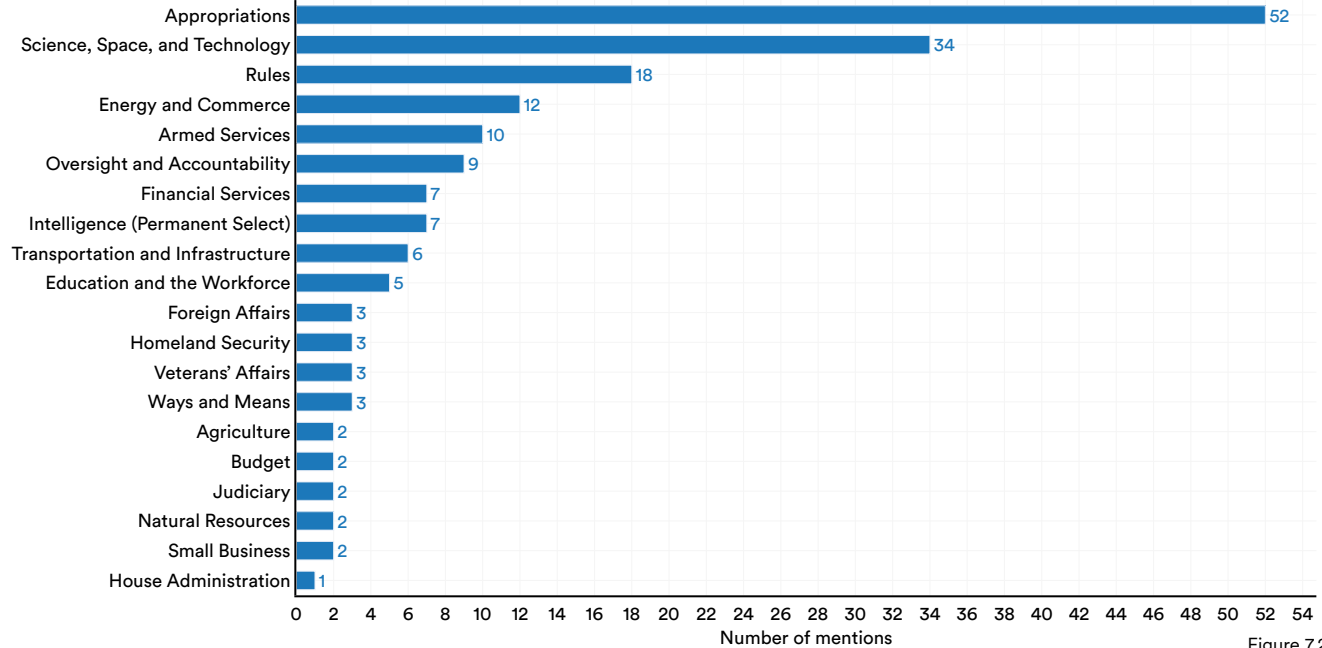


Figure 7.2.18

Mentions of AI in committee reports of the US Senate, 2001–23 (sum)

Source: AI Index, 2024 | Chart: 2024 AI Index report

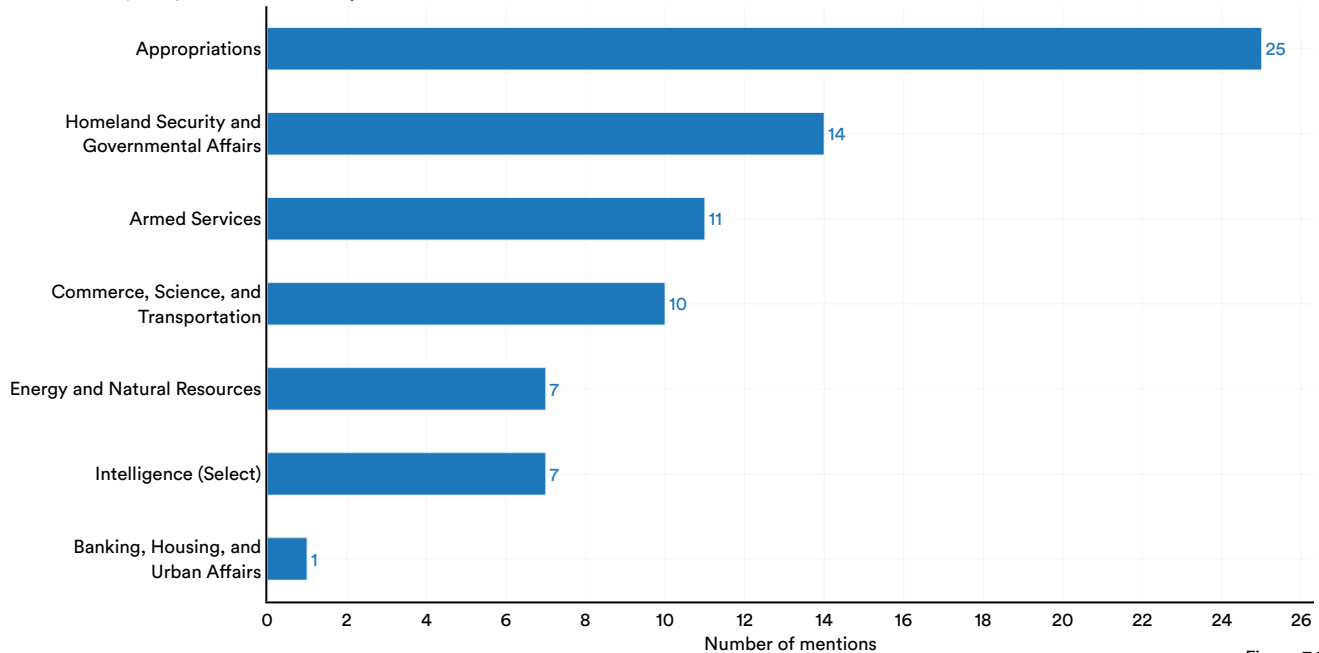


Figure 7.2.19

This section offers an overview of national AI strategies, which are policy plans created by governments to guide the development and deployment of AI within their country. Monitoring trends in these strategies is important for assessing how countries prioritize the development and regulation of AI technologies. Sources include national or regional government websites, the OECD AI Policy Observatory (oecd.ai), and news reports.⁷

7.3 National AI Strategies

By Geographic Area

Canada initiated the first national AI strategy in March 2017. To date, 75 national AI strategies have been unveiled. The peak year was 2019, when 24 strategies were released. In 2023, eight new strategies were added, from countries in the Middle East, Africa, and the Caribbean, showcasing the worldwide expansion of AI policymaking discourse.

Figure 7.3.1 identifies countries that have either released or are in the process of developing a national AI strategy as of January 2024. Figure 7.3.2 lists the countries that are in the process of developing an AI strategy within the past three years. The list of new countries developing national AI strategies include: Antigua and Barbuda, Barbados, Belarus, Costa Rica, Jamaica, Pakistan, and Senegal. Figure 7.3.3 provides a timeline of the release of national AI strategies.

Countries with a national strategy on AI, 2023

Source: AI Index, 2024 | Chart: 2024 AI Index report

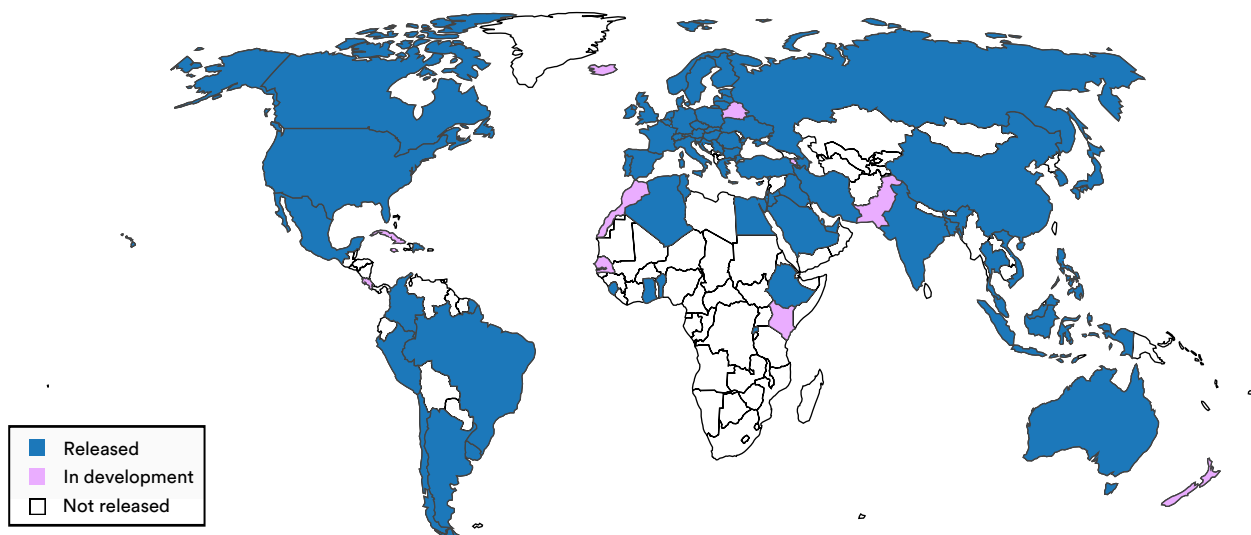


Figure 7.3.1

⁷ The AI Index research team made efforts to identify whether there was a national AI strategy that was released or in development for every nation in the world. It is possible that some strategies were missed.

AI national strategies in development by country and year

Source: AI Index, 2024 | Table: 2024 AI Index report

Year	Country
2021	Andorra, Armenia, Cuba, Iceland, Morocco, New Zealand
2022	Kenya
2023	Antigua and Barbuda, Barbados, Belarus, Costa Rica, Jamaica, Pakistan, Senegal

Figure 7.3.2

Yearly release of AI national strategies by country

Source: AI Index, 2024 | Table: 2024 AI Index report

Year	Country
2017	Canada, China, Finland
2018	France, Germany, India, Mauritius, Mexico, Sweden
2019	Argentina, Bangladesh, Chile, Colombia, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Japan, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Qatar, Romania, Russia, Sierra Leone, Singapore, Slovak Republic, United Arab Emirates, United States of America, Uruguay
2020	Algeria, Bulgaria, Croatia, Greece, Hungary, Indonesia, Latvia, South Korea, Norway, Poland, Saudi Arabia, Serbia, Spain, Switzerland
2021	Australia, Austria, Brazil, Hong Kong, Ireland, Malaysia, Peru, Philippines, Slovenia, Tunisia, Turkey, Ukraine, United Kingdom, Vietnam
2022	Belgium, Ghana, Iran, Italy, Jordan, Thailand
2023	Azerbaijan, Bahrain, Benin, Dominican Republic, Ethiopia, Iraq, Israel, Rwanda

Figure 7.3.3

The advent of AI has garnered significant attention from regulatory agencies—federal bodies tasked with regulating sectors of the economy and steering the enforcement of laws. This section examines AI regulations within the United States and the European Union. Unlike legislation, which establishes legal frameworks within nations, regulations are detailed directives crafted by executive authorities to enforce legislation. In the United States, prominent regulatory agencies include the Environmental Protection Agency (EPA), Food and Drug Administration (FDA), and Federal Communications Commission (FCC). Since the specifics of legislation often manifest through regulatory actions, understanding the AI regulatory landscape is essential in order to develop a deeper understanding of AI policymaking.

7.4 AI Regulation

U.S. Regulation

This section examines AI-related regulations enacted by American regulatory agencies between 2016 and 2023. It provides an analysis of the total number of regulations, as well as their topics, scope, regulatory intent, and originating agencies. To compile this data, the AI Index team performed a keyword search for “artificial intelligence” on the [Federal Register](#), a comprehensive repository of government documents

from nearly all branches of the American government, encompassing more than 436 agencies.⁸

Overview

The number of AI-related regulations has risen significantly, both in the past year and over the last five years (Figure 7.4.1). In 2023, there were 25 AI-related regulations, a stark increase from just one in 2016. Last year alone, the total number of AI-related regulations grew by 56.3%.

Number of AI-related regulations in the United States, 2016–23

Source: AI Index, 2024 | Chart: 2024 AI Index report

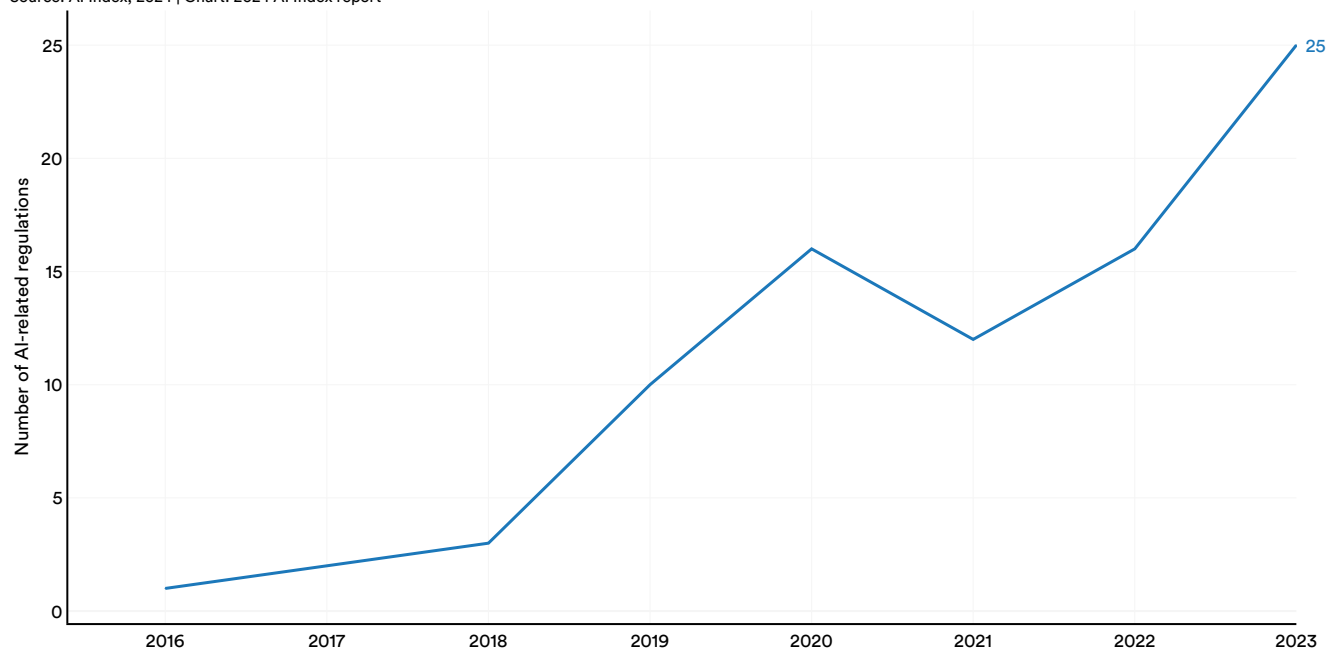


Figure 7.4.1

⁸ A full description of the project’s methodology can be found in the Appendix.

By Relevance

The AI Index categorized AI-related regulations—those mentioning AI—into three levels of relevance: low, medium, and high.⁹ In 2023, the number of high and medium relevance AI-related regulations increased compared to 2022. For instance, a high relevance AI regulation was the Copyright Office and Library of Congress’ Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence. This policy statement clarified registration practices for works incorporating AI-generated material. Meanwhile, a medium-relevance

example is the Securities and Exchange Commission’s Cybersecurity Risk Management Strategy, Governance, and Incident Disclosure, which established standardized disclosure practices for public companies concerning cybersecurity risk management, strategy, governance, and incidents.

Figure 7.4.2 categorizes AI-related regulations in the United States based on their relevance to AI. A growing proportion of these regulations is highly relevant to AI. Among the 25 AI-related regulations enacted in 2023, four were identified as being highly relevant, the greatest amount since tracking began in 2016.

Number of AI-related regulations in the United States by relevance to AI, 2016–23

Source: AI Index, 2024 | Chart: 2024 AI Index report

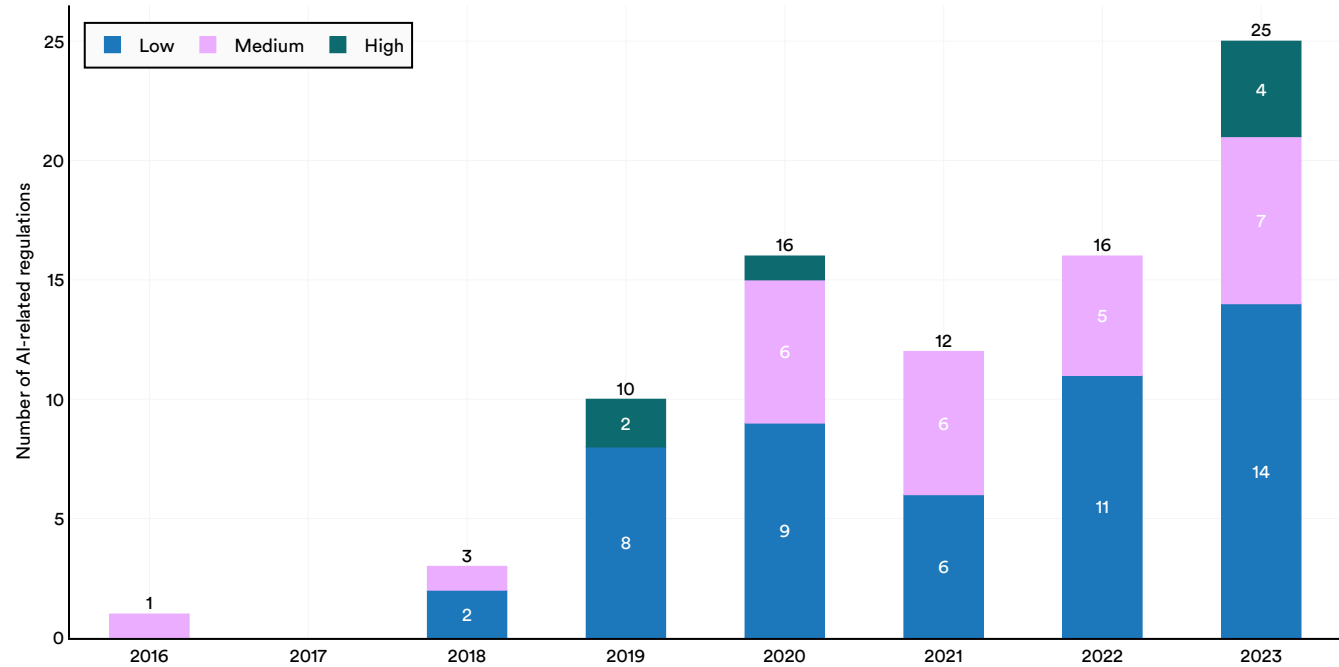


Figure 7.4.2

⁹ A high relevance regulation focuses entirely on AI or AI-related issues. A medium relevance regulation includes meaningful mentions of AI but is not solely centered on it. A low relevance regulation mentions AI in passing, without a significant focus on AI-related matters.

By Agency¹⁰

Which agencies are the primary sources of AI regulations? In 2023, the Executive Office of the President and the Commerce Department led with five AI-related regulations each, followed by the Health and Human Services Department and the Industry and Security Bureau, with each issuing four

(Figure 7.4.3). Furthermore, the number of agencies issuing AI regulations increased from 17 in 2022 to 21 in 2023, indicating a growing need for clarity and concern regarding AI among a broader array of American regulatory bodies.

Number of AI-related regulations in the United States by agency, 2016–23

Source: AI Index, 2024 | Chart: 2024 AI Index report

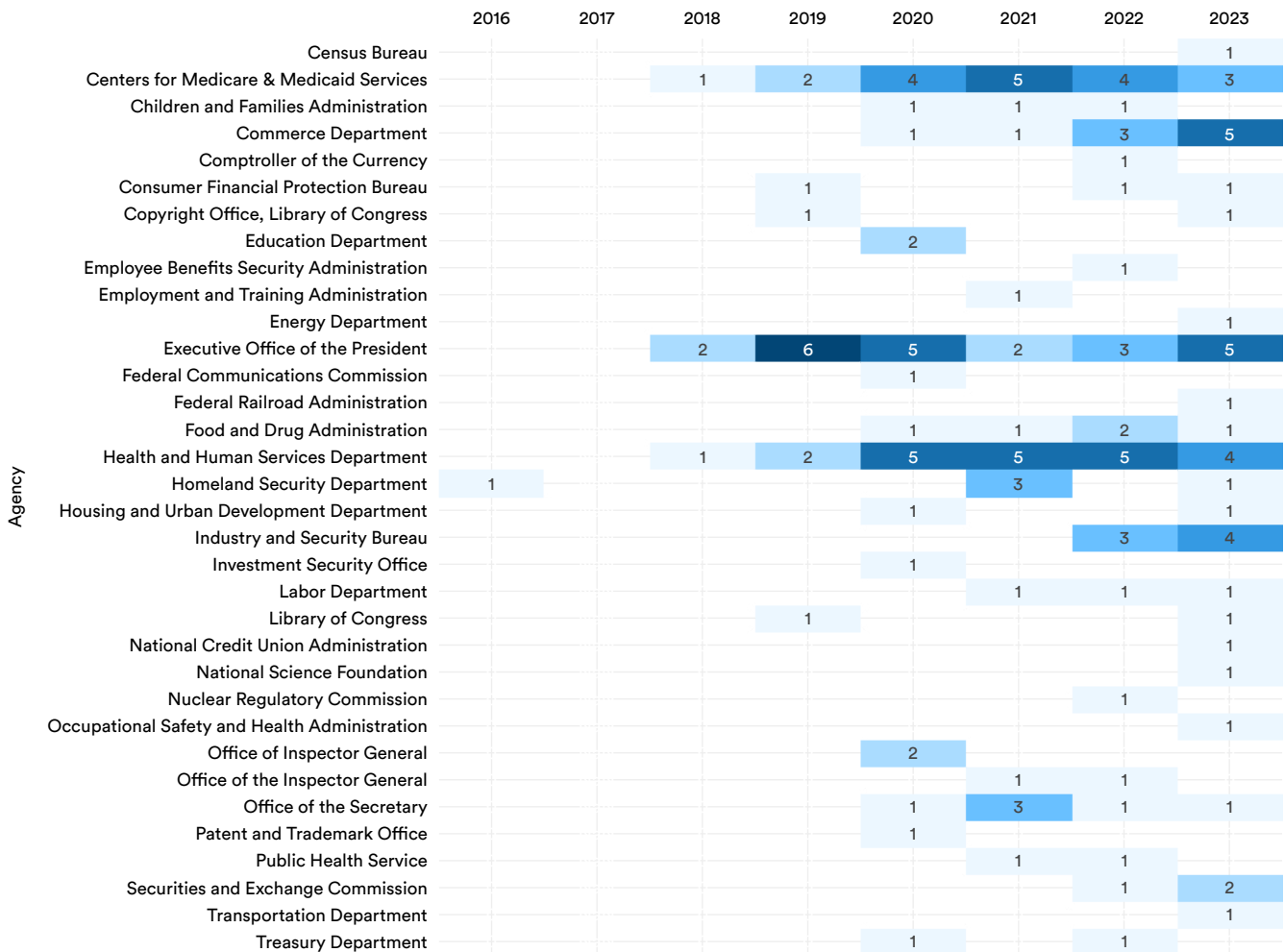


Figure 7.4.3

¹⁰ Regulations can originate from multiple agencies, so the annual totals in Figure 7.4.3 may exceed those in Figure 7.4.1.

By Approach

The AI Index categorized regulations based on their approach: whether they expanded or restricted AI capabilities.¹¹ Over time, the trend in AI regulations in the United States has shifted significantly toward

restriction (Figure 7.4.4). In 2023, there were 10 restrictive AI regulations compared to just three that were expansive. Conversely in 2020, there were four regulations that were expansive and one that was restrictive.

Number of AI-related regulations in the United States by approach, 2016–23

Source: AI Index, 2024 | Chart: 2024 AI Index report

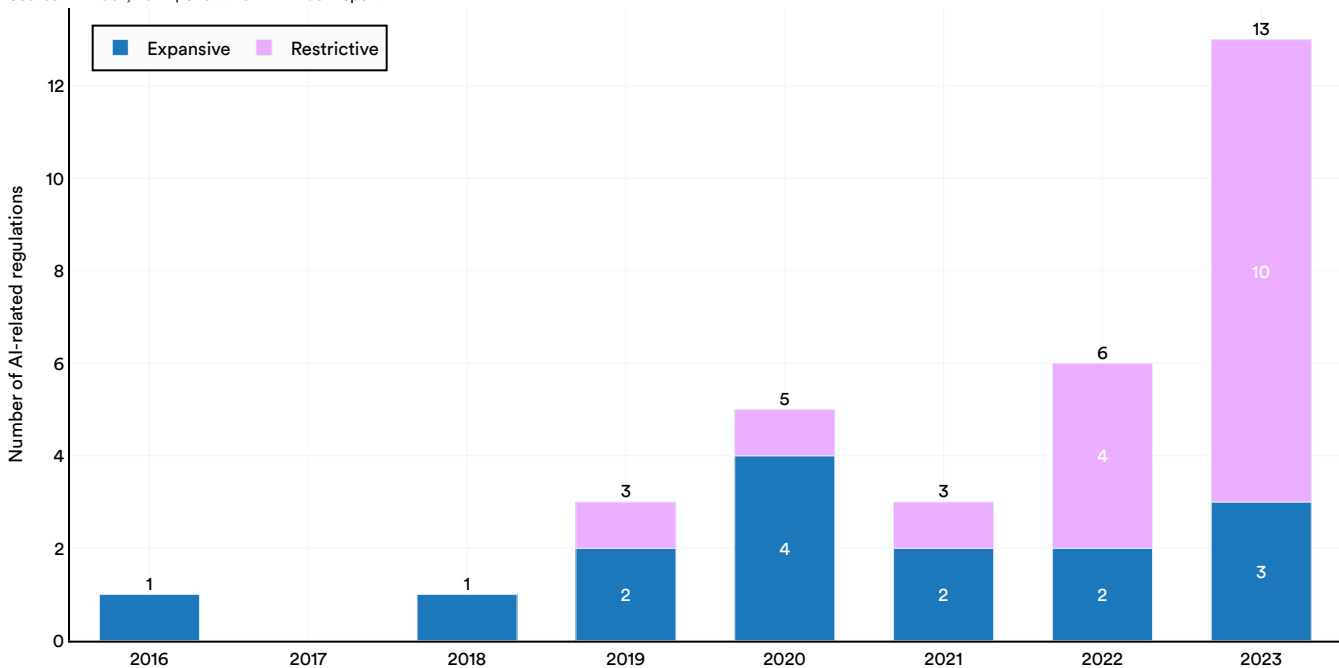


Figure 7.4.4

¹¹ Expansive regulations refer to actions by regulatory agencies or governments aimed at augmenting AI capacity, including investments in supercomputing infrastructure. Restrictive regulations involve steps to curtail AI capabilities, such as imposing restrictions on the use of facial recognition algorithms. Restrictive AI regulations may also be intended to address underlying policy concerns, such as AI's potential impact on citizens' civil liberties. According to this coding typology, a regulation can be classified as both expansive and restrictive, or it may fit neither category. The AI Index assigned the labels "expansive" or "restrictive" only to regulations deemed to have medium to high relevance to AI. Therefore the regulation totals in Figure 7.4.4 are less than those reported earlier in the section.

By Subject Matter

In 2023, American AI regulations were categorized by primary subject matter. The most prevalent subject matter in AI-related regulation was foreign trade and international finance, with three instances. Three

topics tied for second place, with two occurrences each: health; commerce; and science, technology, and communications (Figure 7.4.5).

Number of AI-related regulations in the United States by primary subject matter, 2016–23

Source: AI Index, 2024 | Chart: 2024 AI Index report

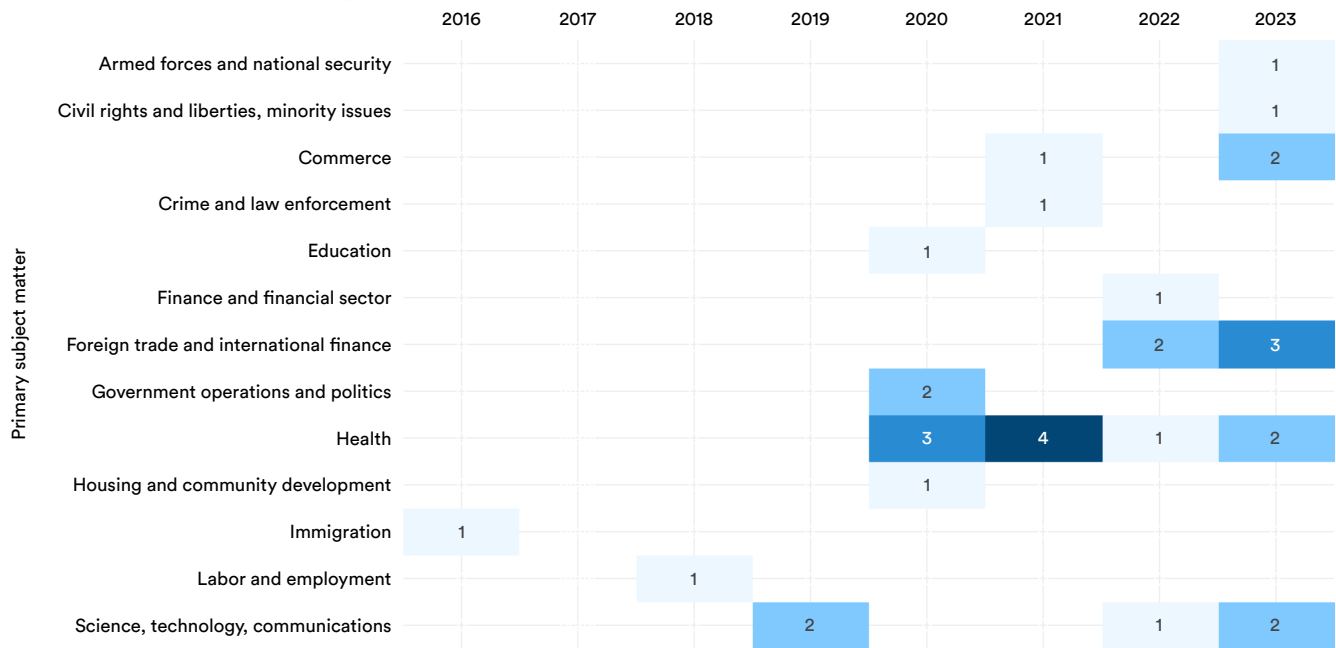


Figure 7.4.5

¹² The AI Index team used Congress' policy categorization typology. Only regulations that have medium and high AI relevance were coded for their primary subject matter.

EU Regulation

The AI Index also gathered information on AI-related regulations enacted in the European Union between 2017 and 2023. To compile this data, the Index team conducted a keyword search for “artificial intelligence” on [EUR-Lex](#), a comprehensive database of EU legislation, regulations, and case law. EUR-Lex provides access to a wide range of regulatory documents, such as legal acts, consolidated texts, international agreements, preparatory documents, and legislative procedures. The analysis in this section focused exclusively on documents with binding

regulatory authority. The search for AI-related regulation in the European Union was limited to legal acts, international agreements, and consolidated texts. The same methodological approach was used to code EU regulations, as was used to code U.S. regulations.¹³

Overview

The number of AI-related regulations passed by the European Union increased from 22 in 2022 to 32 in 2023 (Figure 7.4.6). Despite this increase, the number of AI-related regulations passed by the European Union peaked in 2021 with 46.

Number of AI-related regulations in the European Union, 2017–23

Source: AI Index, 2024 | Chart: 2024 AI Index report

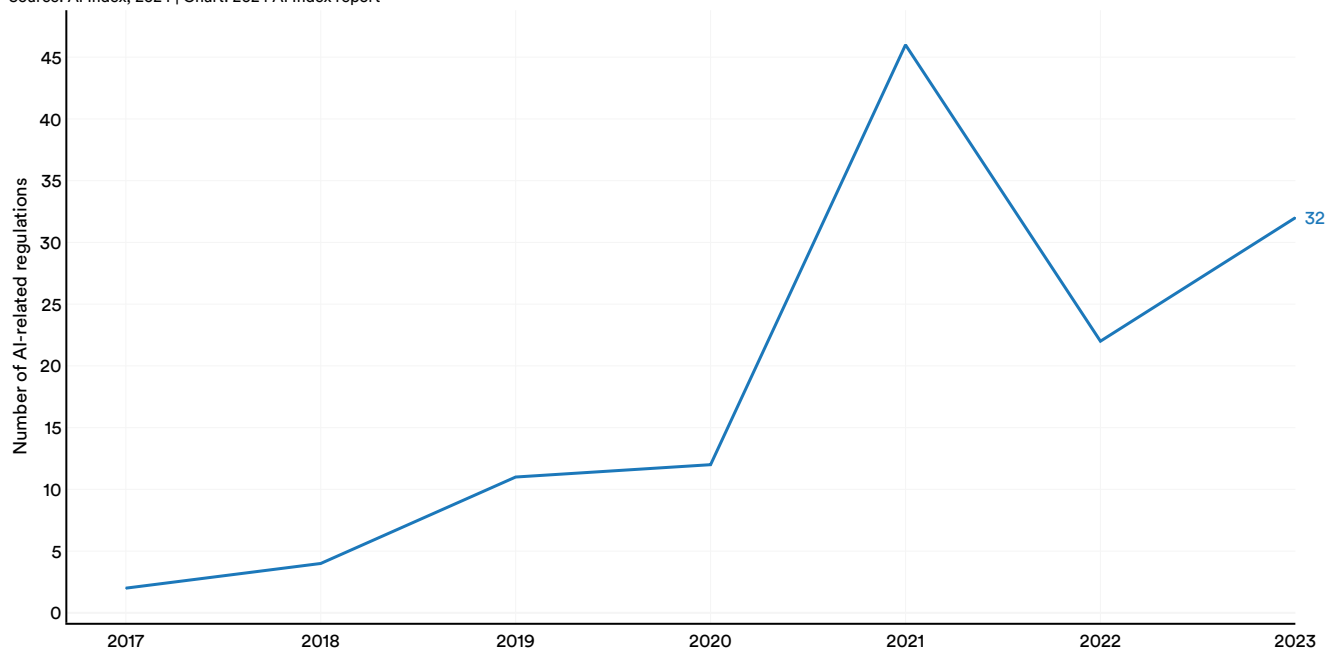


Figure 7.4.6

¹³ The methodological approach refers to coding regulations based on relevance, originating agency, approach, and subject matter.

By Relevance

In 2021, the European Union passed its first highly relevant AI-related regulations. These regulations established the Digital Europe Programme and

Horizon Europe, a framework program for research and innovation. Of the 32 regulations passed in 2023, two had high relevance to AI, 13 had medium relevance, and 17 had low relevance (Figure 7.4.7).

Number of AI-related regulations in the European Union by relevance to AI, 2017–23

Source: AI Index, 2024 | Chart: 2024 AI Index report

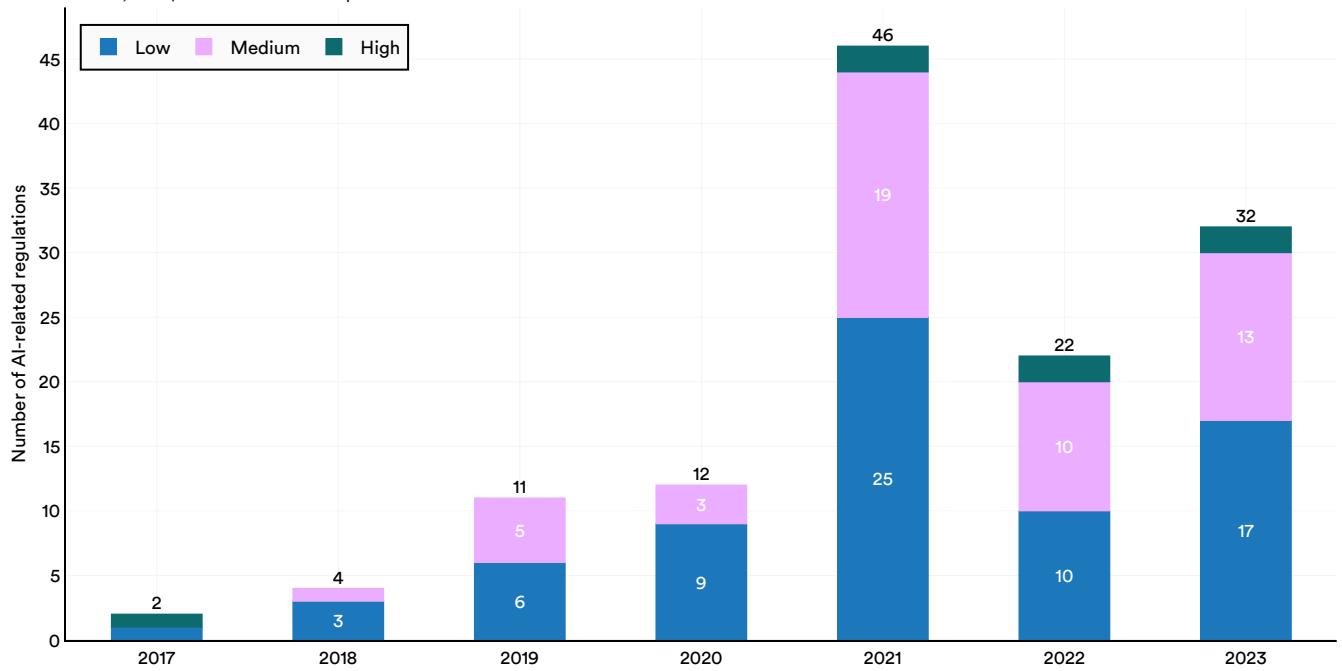


Figure 7.4.7

By Agency

The two most prominent originator agencies for European Union AI regulations in 2023 were the Council of the European Union (13) and European Parliament (9) (Figure 7.4.8).¹⁴

Number of AI-related regulations in the European Union by institution and body, 2017–23

Source: AI Index, 2024 | Chart: 2024 AI Index report

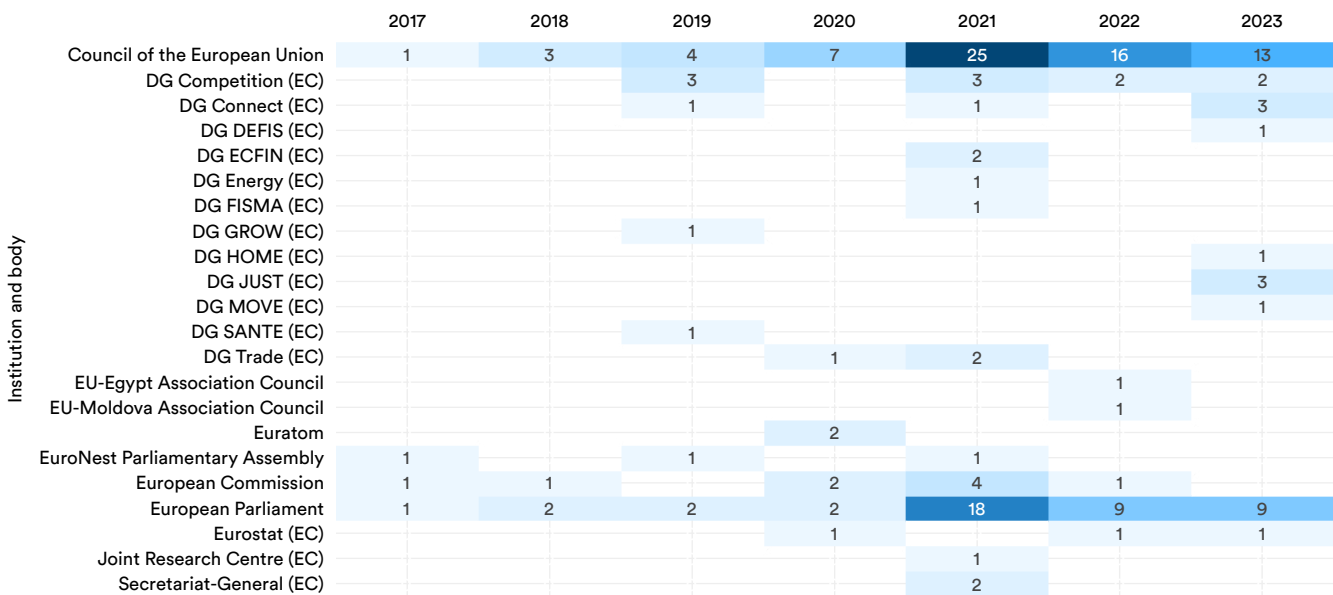


Figure 7.4.8

¹⁴ Institutions abbreviated with DG are Directorates-General. These are departments with specific areas of ministerial responsibility.

By Approach

In recent years, AI-related regulation in the European Union has tended to take a more expansive approach (Figure 7.4.9). In 2023, there were eight regulations with a restrictive focus compared to 12 with an expansive one.

Number of AI-related regulations in the European Union by approach, 2017–23

Source: AI Index, 2024 | Chart: 2024 AI Index report

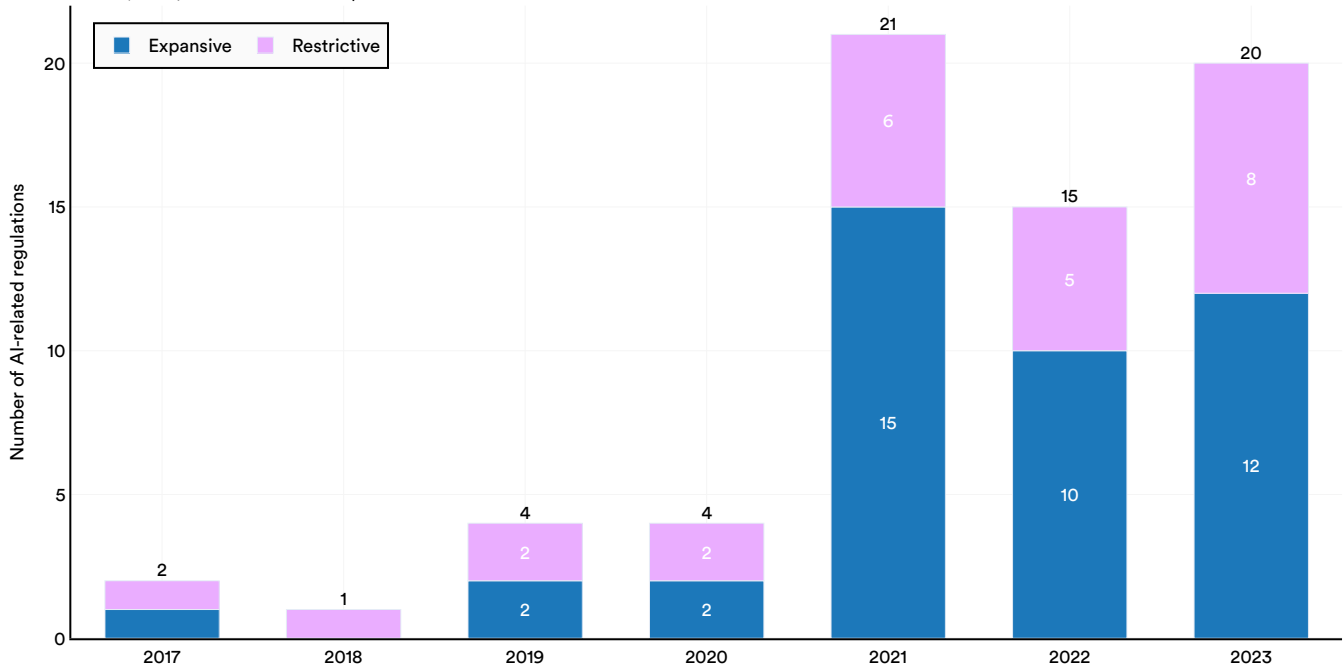


Figure 7.4.9

By Subject Matter

In 2023, the most common subject matters for AI-related regulations in the European Union were science, technology, and communications (5); followed by government operations and politics (3) (Figure 7.4.10). Regulations concerning government operations and politics involve setting rules for how governments and associated governmental processes operate. One such regulation was the Commission Recommendation (EU) on inclusive

and resilient electoral processes in the Union and enhancing the European nature and efficient conduct of the elections to the European Parliament. This regulation acknowledged that AI could be used to generate political misinformation and outlined steps the Commission has taken to ensure AI does not challenge the legitimacy of elections. Evidently, European Union legislators are considering how AI will impact their government’s work.

Number of AI-related regulations in the European Union by primary subject matter, 2017–23

Source: AI Index, 2024 | Chart: 2024 AI Index report

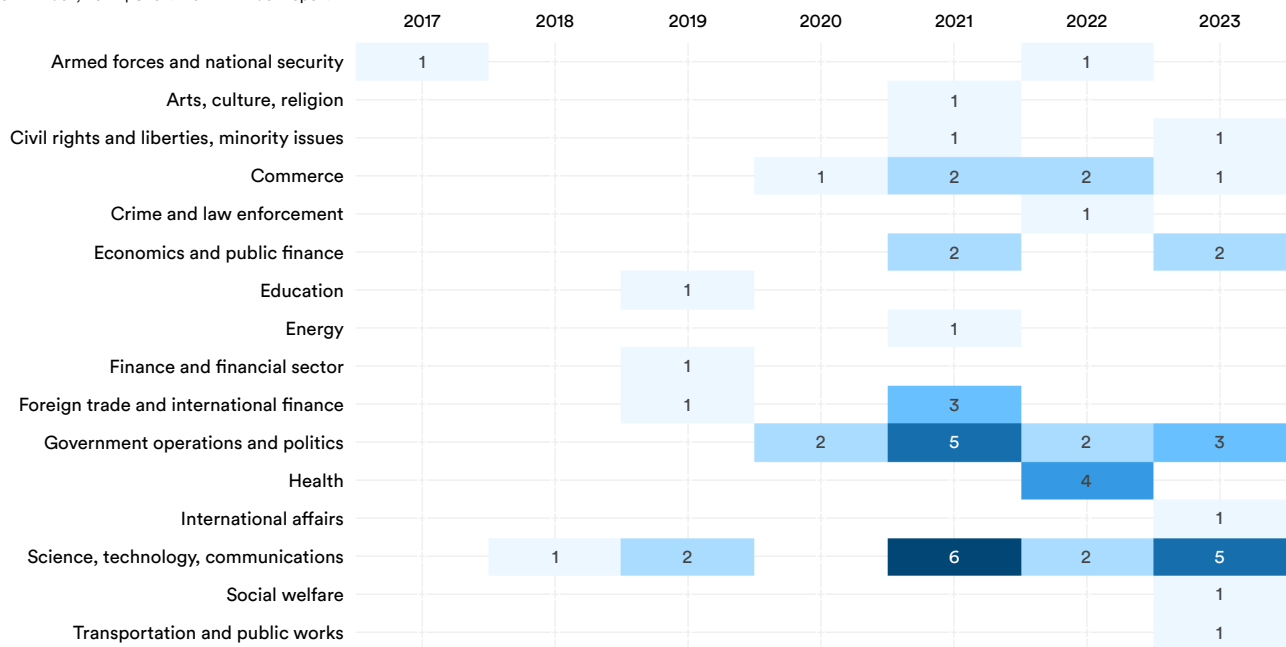


Figure 7.4.10

This section examines public AI investment in the United States based on data from the U.S. government and Govini, a company that uses AI and machine learning technologies to track U.S. public and commercial spending.

7.5 U.S. Public Investment in AI

Federal Budget for AI R&D

Every year in December, the National Science and Technology Council publishes a report on the public sector AI R&D budget across various departments and agencies that participate in the Networking and Information Technology Research and Development (NITRD) Program and National Artificial Intelligence Initiative. These reports, however, do not include

information on classified AI R&D investment.

According to the 2023 report, in the fiscal year 2023, U.S. government agencies allocated a total of \$1.8 billion to AI research and development spending (Figure 7.5.1). The funding for AI R&D has risen annually since FY 2018, more than tripling since then. For FY 2024, a larger budget of \$1.9 billion has been requested.¹⁵

US federal NITRD budget for AI, FY 2018–24

Source: U.S. NITRD Program, 2023 | Chart: 2024 AI Index report

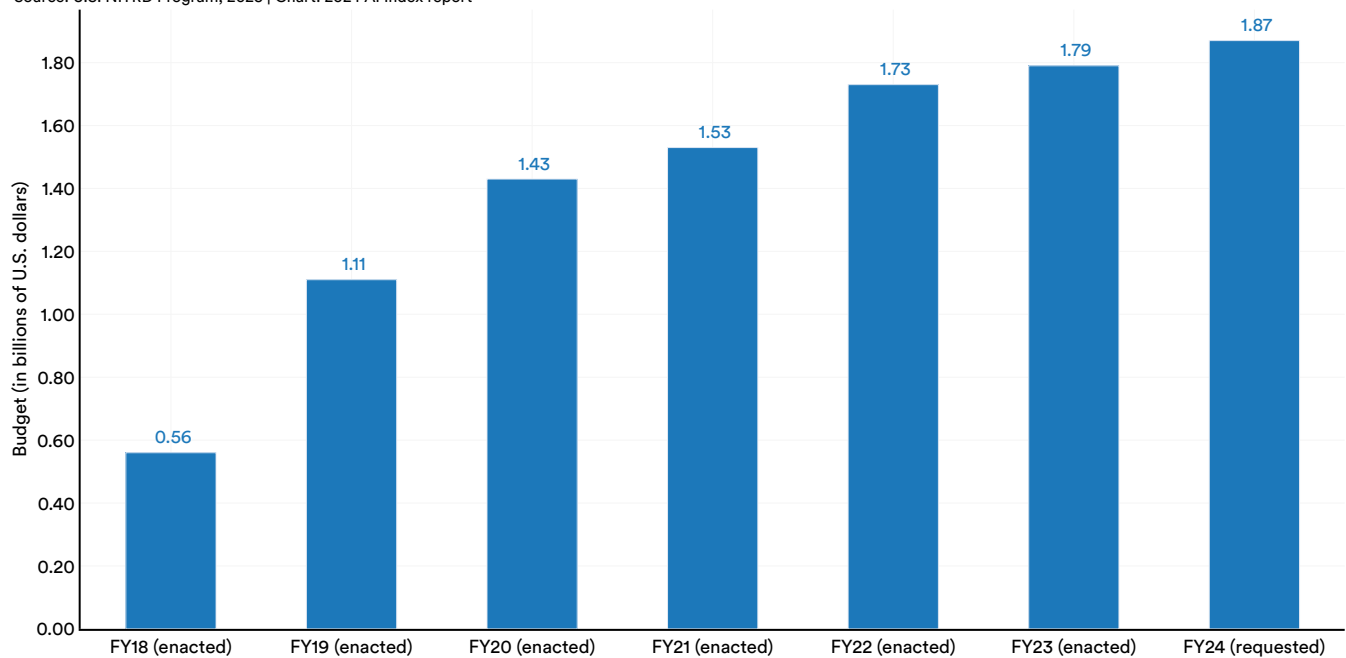


Figure 7.5.1

Figure 7.5.2 details the breakdown of NITRD AI R&D budget requests by agency. For FY 2024, the National Science Foundation (NSF) had the highest request at \$531 million, followed by the Defense Advanced Research Projects Agency (DARPA) at \$322.1 million, and the National Institutes of Health (NIH) at \$284.5 million.

¹⁵ Previous editions of the NITRD report have included spending figures for past years that differ slightly from those reported in the most recent edition. The AI Index reports the spending amounts documented in the latest NITRD reports.

US governmental agency NITRD budgets for AI, FY 2021–24

Source: U.S. NITRD Program | Chart: 2024 AI Index report

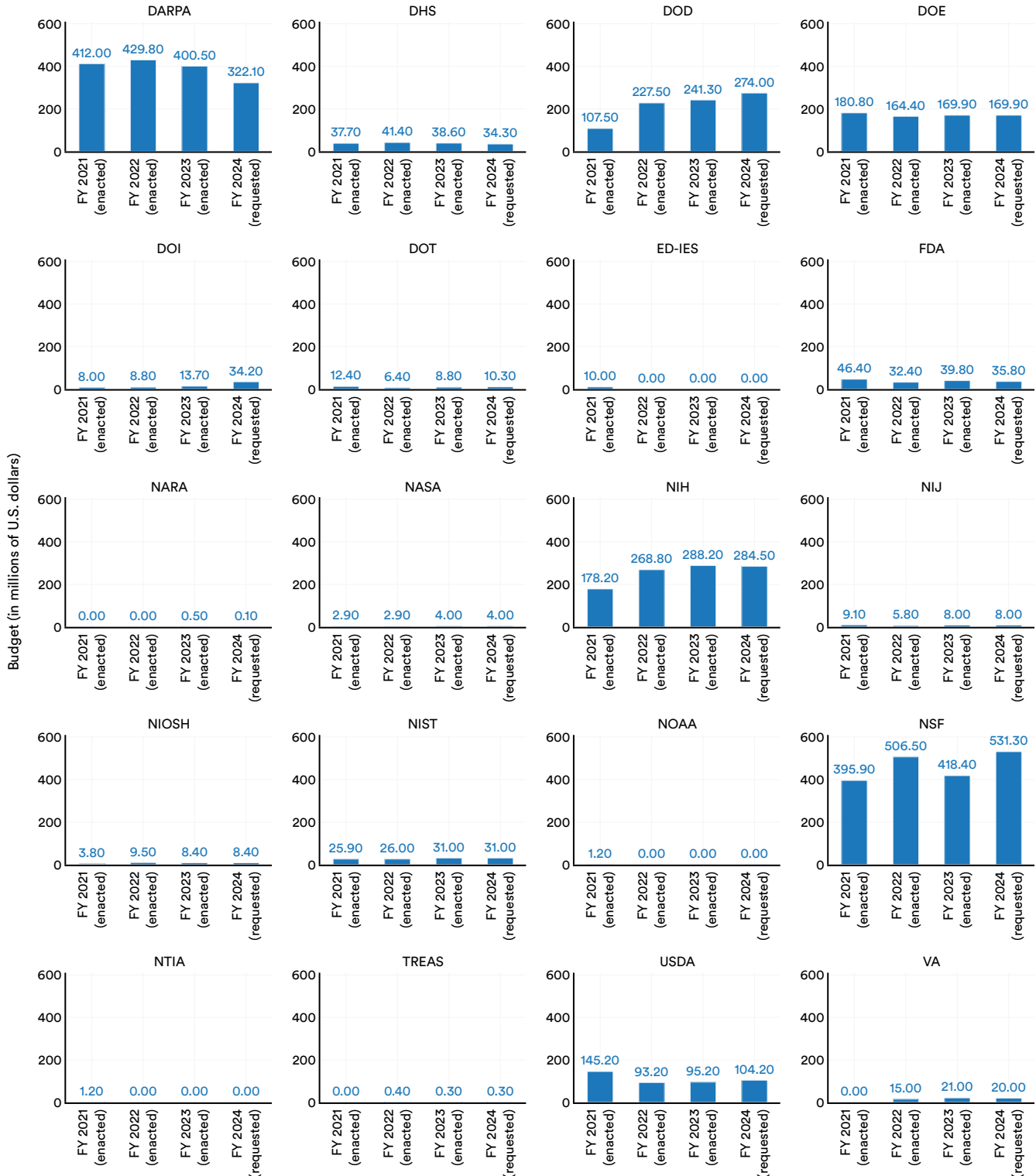


Figure 7.5.2

U.S. Department of Defense Budget Requests

Every year the DoD releases the amount of funding they request for nonclassified AI-specific research,

development, test, and evaluation. According to its 2023 report, the DoD requested \$1.8 billion in FY 2024, a significant increase from the \$1.1 billion that was requested in FY 2023 (Figure 7.5.3).

US DoD budget request for AI-specific research, development, test, and evaluation (RDT&E), FY 2020–24

Source: U.S. Office of the Under Secretary of Defense (Comptroller), 2023 | Chart: 2024 AI Index report

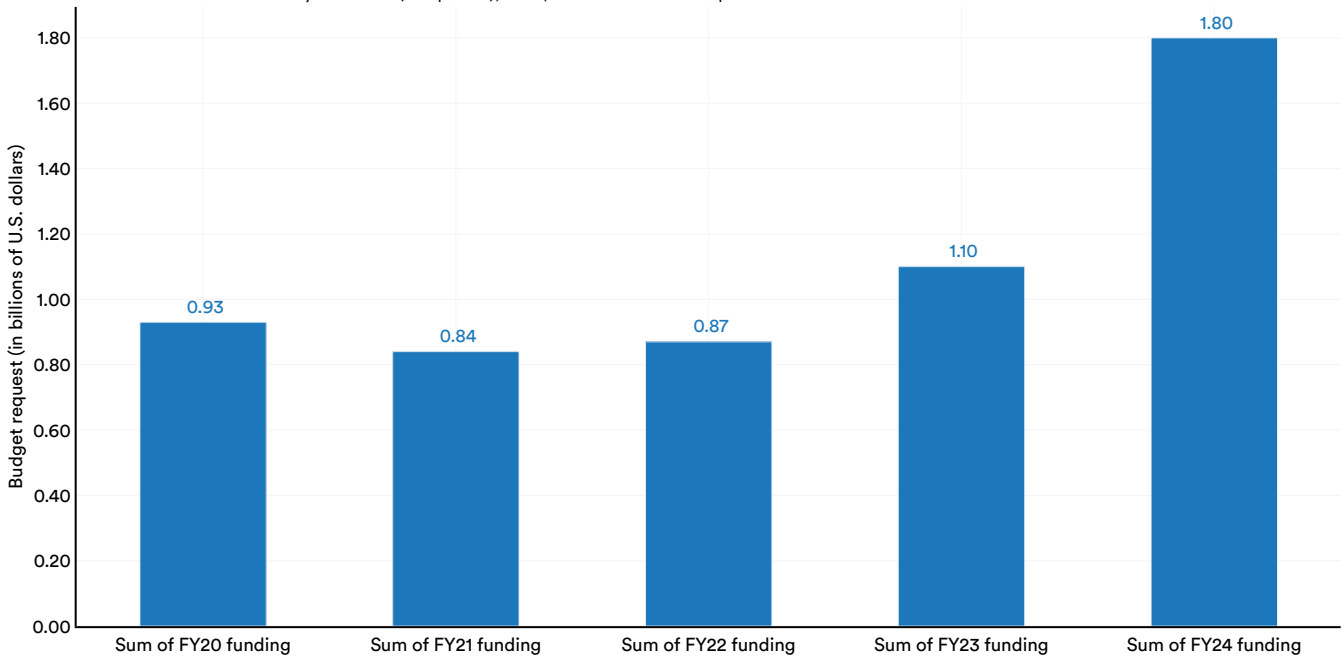


Figure 7.5.3

U.S. Government AI-Related Contract Spending

Public investment in AI can also be measured by federal government spending on the contracts awarded to private companies for goods and services. Such contracts typically occupy the largest share of an agency’s budget.

Data in this section comes from Govini, which created a taxonomy of spending by the U.S. government on critical technologies including AI. Govini applied supervised machine learning and natural language processing to parse, analyze, and categorize large

volumes of federal contracts data, including prime contracts, grants, and other transaction authority (OTA) awards. The use of AI models enables Govini to analyze data that is otherwise often inaccessible.

AI Contract Spending

Figure 7.5.4 highlights total U.S. government spending on AI, subdivided by various AI segments. From 2022 to 2023, total AI spending increased marginally from \$3.2 billion to \$3.3 billion.¹⁶ Since 2018, total spending has increased nearly 2.4 times. In 2023, the AI subsegments that saw the greatest amount of government spending included machine learning (\$1.5 billion) and computer vision (\$1.0 billion).

US government spending in AI/ML and autonomy by segment, FY 2018–23

Source: Govini, 2023 | Chart: 2024 AI Index report

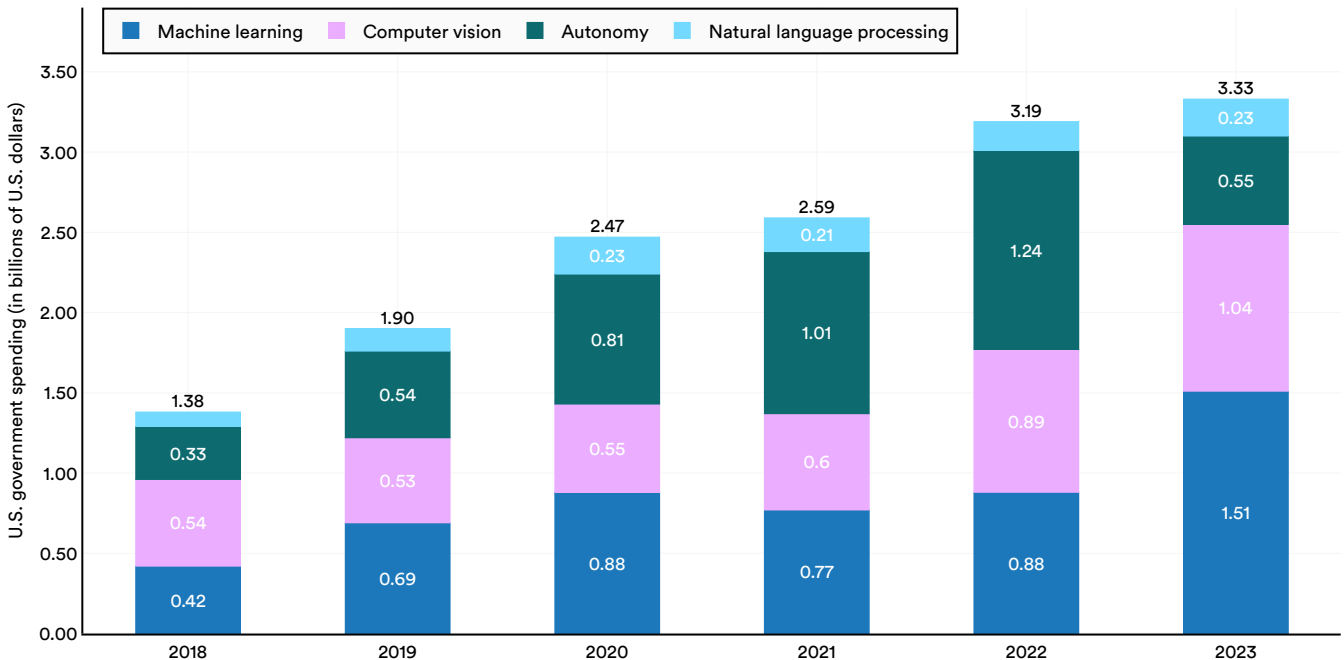


Figure 7.5.4

¹⁶ In 2023, Govini made minor adjustments to their classification methodology. Consequently, the contract totals presented in Figure 7.5.4 may vary slightly from those reported in earlier editions of the AI Index.

Figure 7.5.5 shows U.S. government spending by AI segment in FY 2022 and FY 2023. Spending significantly increased for machine learning. Computer vision and natural language processing spending also rose, albeit less prominently.

US government spending in AI/ML and autonomy by segment, FY 2022 vs. 2023

Source: Govini, 2023 | Chart: 2024 AI Index report

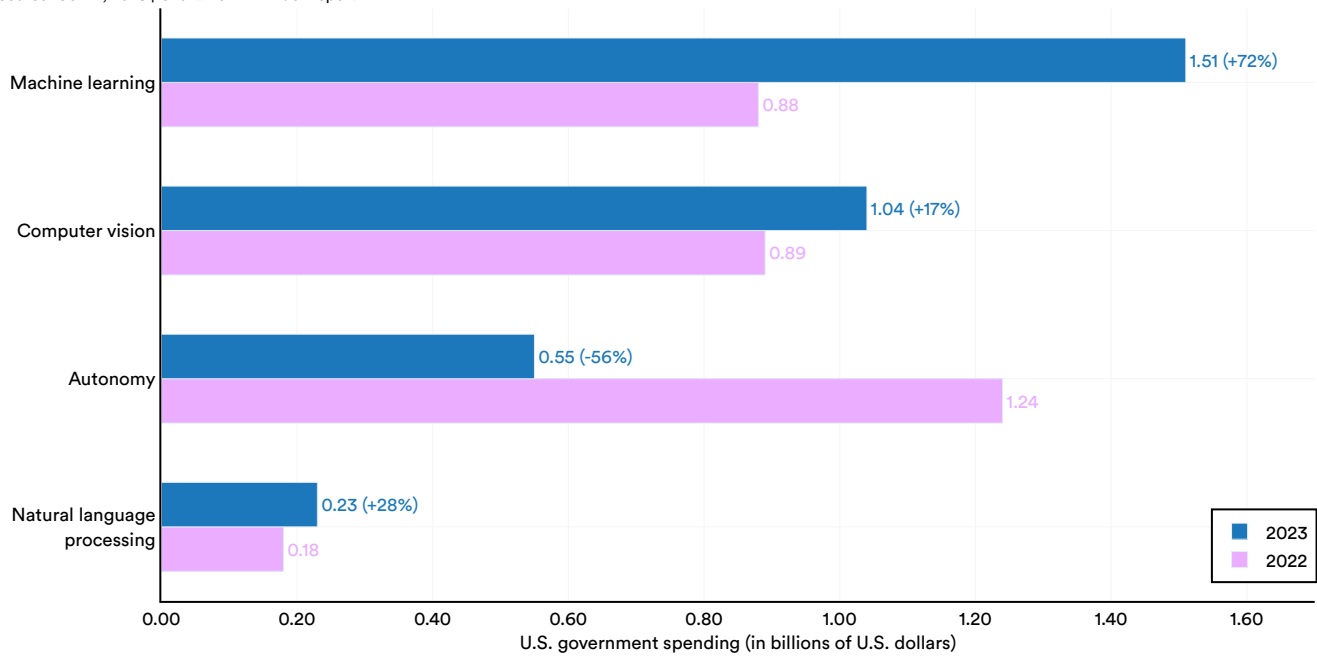


Figure 7.5.5

In FY 2023, the majority of federal AI contracts were prime contracts (50.6%), followed by grants (47.6%) (Figure 7.5.6). In the last year, the share of contracts has declined, while the share of grants has increased.

Total value of contracts, grants, and OTAs awarded by the US government for AI/ML and autonomy, FY 2018–23

Source: Govini, 2023 | Chart: 2024 AI Index report

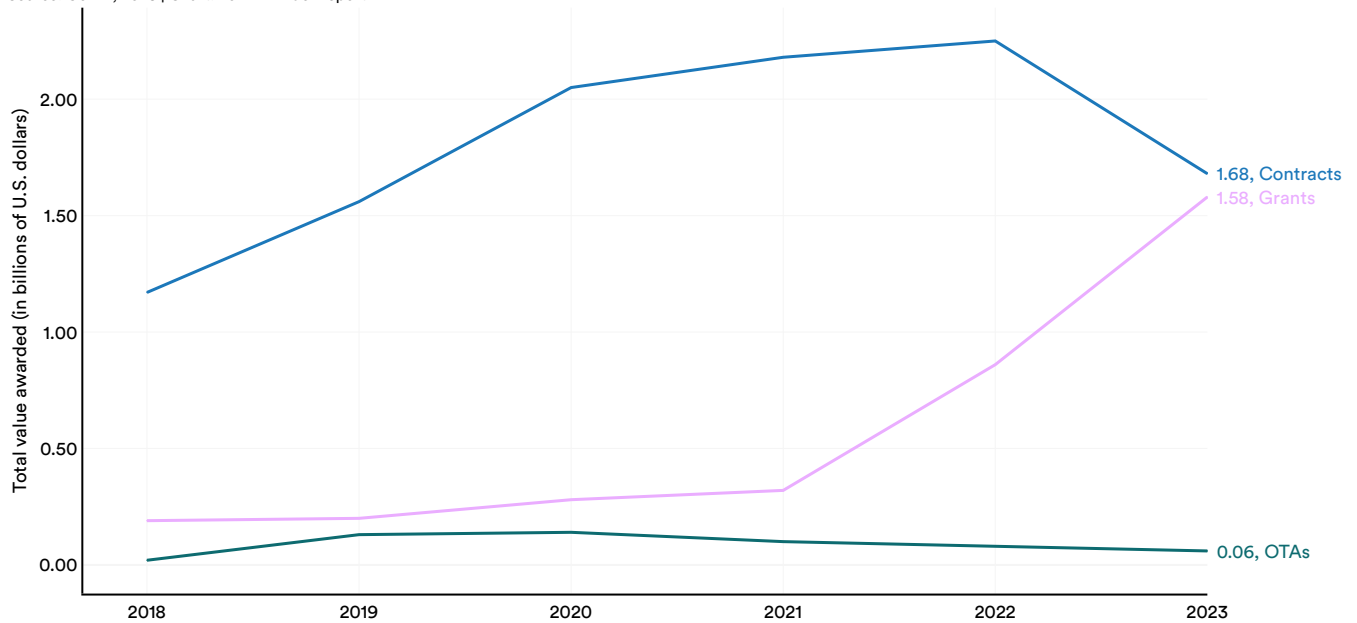


Figure 7.5.6

Microelectronics and Semiconductor Spending

Govini also monitors U.S. government microelectronics spending, which is becoming increasingly vital due to the crucial role that semiconductors, like GPUs, have played in powering recent AI technical improvements. The way governments allocate funds for semiconductors is poised to increase in geopolitical significance.

Figure 7.5.7 visualizes U.S. government spending on microelectronics by segment. Total spending on microelectronics has grown significantly in the last year, increasing to \$3.9 billion from \$2.5 billion in 2022. The large majority of American government microelectronic spending is allocated as contracts (Figure 7.5.8).

US government spending in microelectronics by segment, FY 2018–23

Source: Govini, 2023 | Chart: 2024 AI Index report

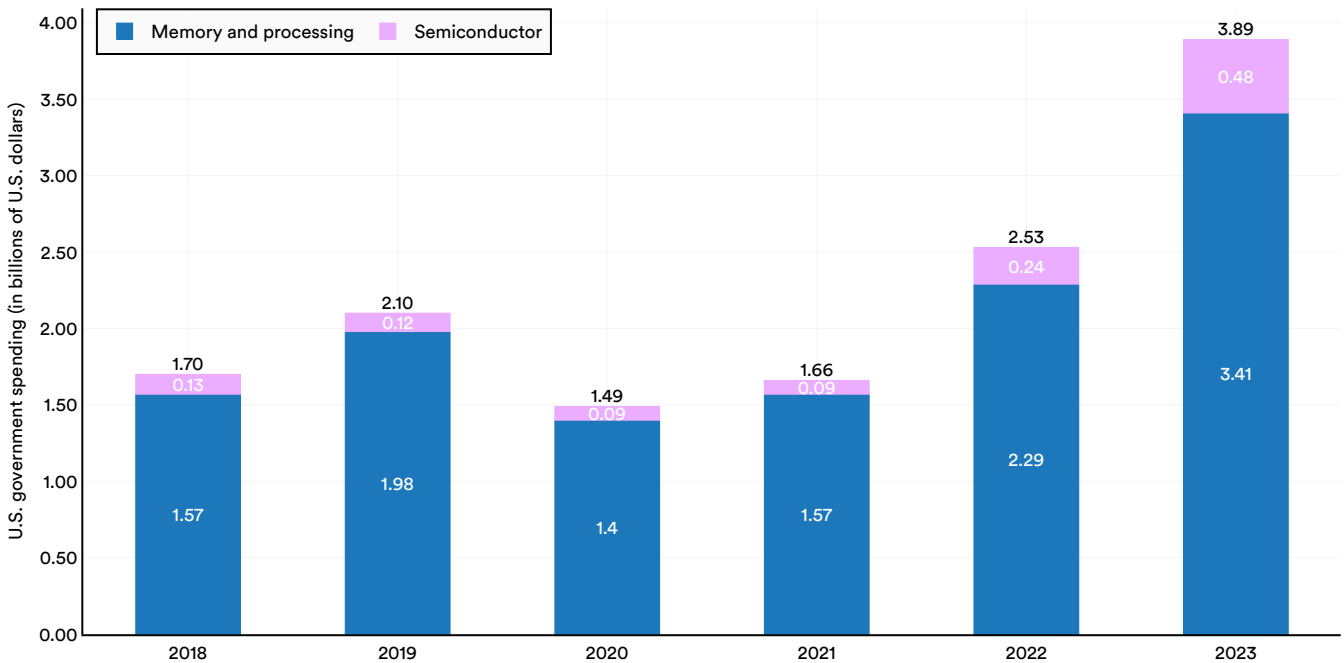


Figure 7.5.7

Total value of contracts, grants, and OTAs awarded by the US government for microelectronics, FY 2018–23

Source: Govini, 2023 | Chart: 2024 AI Index report

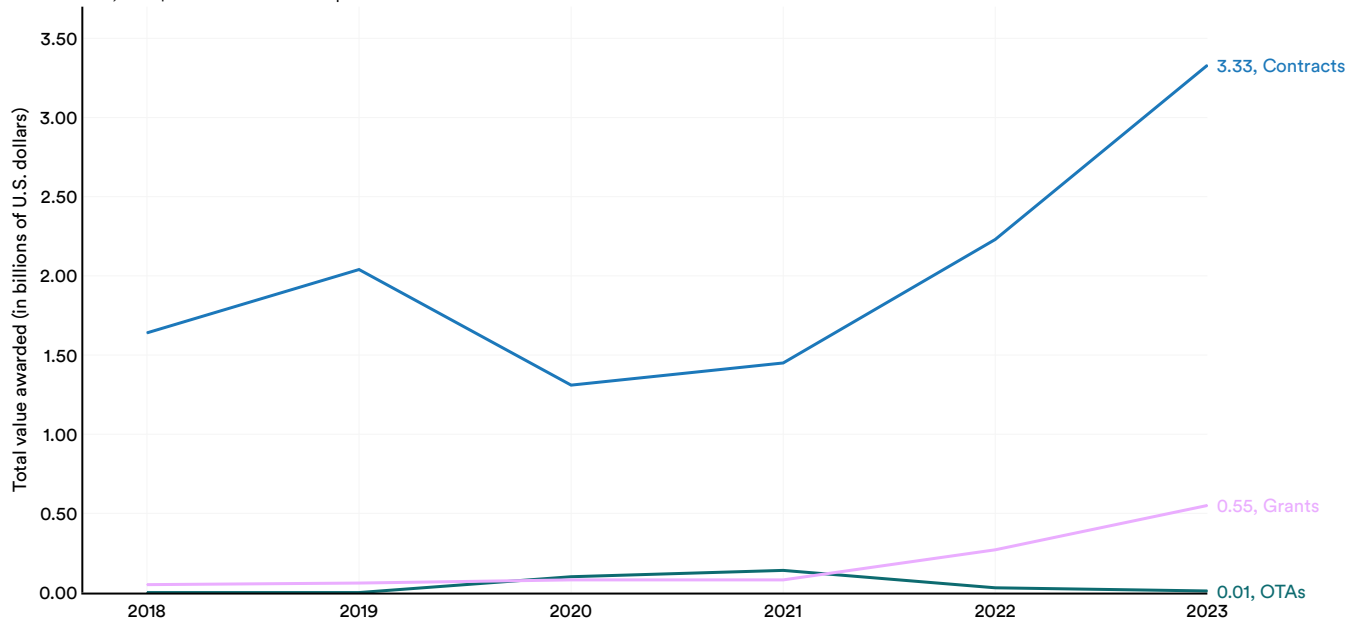


Figure 7.5.8

Appendix

Acknowledgments

The AI Index would like to acknowledge Simba Jonga for his work collecting information on significant AI policy events and conducting a survey of AI national strategies. Additionally, the Index would like to acknowledge the efforts of Ethan Duncan He-Li Hellman, Julia Betts Lotufo, Alexandra Rome, and Emma Williamson in collecting, coding, and analyzing AI-related legislation and regulations. The Index is also grateful for the guidance provided by Caroline Meinhardt on AI legislation and regulation tracking.

Global AI Mentions

For mentions of AI in AI-related legislative proceedings around the world, the AI Index performed searches of the keyword “artificial intelligence” on the websites of 80 countries’ congresses or parliaments (in the respective languages), usually under sections named “minutes,” “hansard,” etc. In some cases, databases were only searchable by title, so site search functions were deployed. The AI Index team surveyed the following databases:

Andorra, Angola, Armenia, Australia, Azerbaijan, Barbados, Belgium, Bermuda, Bhutan, Brazil, Cabo Verde, Canada, Cayman Islands, China,¹² Czech Republic, Denmark, Dominican Republic, Ecuador, El Salvador, Estonia, Fiji, Finland, France, The Gambia, Germany, Gibraltar, Greece, Hong Kong, Iceland, India, Ireland, Isle of Man, Israel, Italy, Japan, Kenya, Kosovo, Latvia, Lesotho, Liechtenstein, Luxembourg, Macao

SAR, China, Madagascar, Malaysia, Maldives, Malta, Mauritius, Mexico, Moldova, Netherlands, New Zealand, Northern Mariana Islands, Norway, Pakistan, Panama, Papua New Guinea, Philippines, Poland, Portugal, Romania, Russia, Samoa, San Marino, Seychelles, Sierra Leone, Singapore, Slovenia, South Africa, South Korea, Spain, Sri Lanka, Sweden, Switzerland, Tanzania, Trinidad and Tobago, Ukraine, United Kingdom, United States, Uruguay, Zambia, Zimbabwe

Global Legislation Records on AI

For AI-related bills passed into laws, the AI Index performed searches of the keyword “artificial intelligence” on the websites of 128 countries’ congresses or parliaments (in the respective languages) in the full text of bills. Note that only laws passed by state-level legislative bodies and signed into law (i.e., by presidents or through royal assent) from 2016 to 2023 are included. Laws that were approved but then repealed are not included in the analysis. In some cases, there were databases that were only searchable by title, so site search functions were deployed. Future AI Index reports hope to include analysis on other types of legal documents, such as regulations and standards, adopted by state- or supranational-level legislative bodies, government agencies, etc. The AI Index team surveyed databases for the following countries:

¹² The National People’s Congress is held once per year and does not provide full legislative proceedings. Hence, the counts included in the analysis only searched mentions of “artificial intelligence” in the only public document released from the Congress meetings, the Report on the Work of the Government, delivered by the premier.

Albania, Algeria, American Samoa, Andorra, Angola, Antigua and Barbuda, Argentina, Armenia, Australia, Austria, Azerbaijan, The Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Bermuda, Bhutan, Bolivia, Brazil, Brunei, Bulgaria, Burkina Faso, Cameroon, Canada, Cayman Islands, Chile, China, Colombia, Croatia, Cuba, Curacao, Cyprus, Czech Republic, Denmark, Estonia, Faroe Islands, Fiji, Finland, France, The Gambia, Georgia, Germany, Gibraltar, Greece, Greenland, Grenada, Guam, Guatemala, Guyana, Hong Kong, Hungary, Iceland, India, Iran, Islamic Republic, Iraq, Ireland, Isle of Man, Israel, Italy, Jamaica, Japan, Kazakhstan, Kenya, Kiribati, Korea Republic, Kosovo, Kyrgyz Republic, Latvia, Lebanon, Liechtenstein, Lithuania, Luxembourg, Macao SAR, China, Malawi, Malaysia, Malta, Mauritius, Mexico, Monaco, Montenegro, Morocco, Mozambique, Nauru, The Netherlands, New Zealand, Nicaragua, Niger, Northern Mariana Islands, Norway, Panama, Papua New Guinea, Philippines, Poland, Portugal, Romania, Russia, Samoa, Saudi Arabia, Serbia, Seychelles, Sierra Leone, Singapore, Slovak Republic, Slovenia, South Africa, Spain, Sri Lanka, St. Kitts and Nevis, Suriname, Sweden, Switzerland, Tajikistan, Tanzania, Togo, Tonga, Turkey, Tuvalu, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Vietnam, Yemen, Zambia, Zimbabwe

The legislation was then coded by a team of two human coders for: (1) relevance to AI, (2) regulatory approach, and (3) subject matter. The relevance to AI categories were low, medium, and high. The regulatory approach categories were expansive or restrictive. For the subject matter categories, the Index employed the Congress policy typology. In cases where there were disagreements on the coding schemas, a third coder was brought in to settle the differences.

EU AI Regulation

The AI Index also gathered information on AI-related regulations enacted in the European Union between 2017 and 2023. To compile this data, the Index team conducted a keyword search for “artificial intelligence” on EUR-Lex, a comprehensive database of EU legislation, regulations, and case law. EUR-Lex provides access to a wide range of regulatory documents, such as legal acts, consolidated texts, international agreements, preparatory documents, and legislative procedures. The analysis in this section focused exclusively on documents with binding regulatory authority. The search for AI-related regulation in the European Union was limited to legal acts, international agreements, and consolidated texts.

The regulation was then coded by a team of two human coders for: (1) relevance to AI, (2) regulatory approach, and (3) subject matter. The relevance to AI categories were low, medium, and high. The regulatory approach categories were expansive or restrictive. For the subject matter categories, the Index employed the Congress policy typology. In cases where there were disagreements on the coding schemas, a third coder was brought in to settle the differences.

Federal Budget for Nondefense AI R&D

Data on the federal U.S. budget for nondefense AI R&D was taken from previous editions of the AI Index (namely the 2021 and 2022 versions) and from the following National Science and Technology Council reports:

[Supplement to the President’s FY 2024 Budget](#)
[Supplement to the President’s FY 2023 Budget](#)
[Supplement to the President’s FY2022 Budget](#)

Govini

Govini is a defense technology company. [Ark](#), Govini’s flagship software, is a suite of AI-enabled applications, powered by integrated government and commercial data, that accelerate the Defense Acquisition Process.

With Ark, the acquisition community eliminates slow, manual processes and gains the ability to rapidly imagine, produce, and field critical warfighting capabilities. Analysts and decision-makers are equipped to solve challenges across the entire spectrum of Defense Acquisition, including Supply Chain, Science and Technology, Production, Sustainment, and Modernization.

Govini curated USG AI spend data from their annual Scorecard Taxonomy by applying supervised machine learning (ML) and natural language processing (NLP) techniques to parse, analyze, and categorize large volumes of federal contracts data, including prime contracts, grants, and other transaction authority (OTA) awards. Govini’s most recent Scorecard focused on Critical Technologies, of which AI/ML Technologies and Microelectronics were segments. The AI/ML segment consisted of five subsegments: Data Integration, Computer Vision, Machine Learning, Autonomy, and Natural Language Processing. Microelectronics is divided into two subsegments: Memory and Processing, and Semiconductors. By initially generating search terms and then subsequently excluding specific

terms that yield erroneous results, Govini delivers a comprehensive yet discriminant taxonomy of subsegments that are mutually exclusive. Repeated keyword searches and filters allow a consensus, data-driven taxonomy to come into focus. Govini SMEs conduct final review of taxonomic structure to complement this iterative, data-driven process.

The use of artificial intelligence (AI) and supervised ML models enables analysis of the large volumes of irregular data contained in federal contracts—data that often is inaccessible through regular government reporting processes or human-intensive analytical approaches.

Moreover, beyond simply making usable an expansive body of data sources, Govini’s Ark platform and National Security Knowledge Graph establishes high-fidelity standards in categorized and fused data to produce a comprehensive and accurate depiction of federal spending, and the supporting vendor ecosystem, over time.

National AI Strategies

The AI Index did a web search to identify national strategies on AI. Below is a list of countries that were identified as having a national AI strategy, including a link to said strategy. For certain countries, noted with an asterisk (*), the actual strategy was not found, and a news article confirming the launch of the strategy was linked instead.

Countries with AI Strategies in Place

[Algeria](#),* [Argentina](#), [Azerbaijan](#),* [Australia](#), [Austria](#), [Bahrain](#), [Bangladesh](#), [Benin](#),* [Botswana](#),* [Brazil](#), [Belgium](#),* [Bulgaria](#), [Canada](#), [Chile](#), [China](#), [Colombia](#), [Croatia](#), [Cyprus](#), [Czech Republic](#), [Denmark](#), [Dominican Republic](#),* [Egypt](#), [Arab Republic](#), [Ethiopia](#), [Estonia](#), [Finland](#), [France](#), [Germany](#), [Ghana](#), [Greece](#), [Hong Kong](#), [Hungary](#), [India](#), [Indonesia](#), [Iran](#),* [Iraq](#),* [Ireland](#), [Israel](#),* [Italy](#), [Japan](#), [Jordan](#),* [Kenya](#), [Korea Republic](#), [Latvia](#), [Lithuania](#), [Luxembourg](#), [Malta](#), [Malaysia](#), [Mauritius](#), [Mexico](#), [The Netherlands](#), [North Korea](#), [Norway](#), [Peru](#), [Philippines](#), [Poland](#), [Portugal](#), [Qatar](#), [Romania](#), [Russia](#), [Rwanda](#), [Saudi Arabia](#), [Serbia](#), [Sierra Leone](#), [Singapore](#), [Slovak Republic](#), [Slovenia](#), [Spain](#), [Sweden](#), [Switzerland](#), [Thailand](#), [Tunisia](#),* [Turkey](#), [Ukraine](#), [United Arab Emirates](#), [United Kingdom](#), [United States](#), [Uruguay](#), [Vietnam](#)

Countries with AI Strategies in Development

[Andorra](#),* [Antigua and Barbuda](#),* [Barbados](#),* [Armenia](#),* [Belarus](#),* [Costa Rica](#),* [Cuba](#),* [Iceland](#), [Jamaica](#),* [Kenya](#), [Morocco](#), [New Zealand](#),* [Nigeria](#),* [Pakistan](#),* [Senegal](#),* [Uzbekistan](#)

US AI Regulation

This section examines AI-related regulations enacted by American regulatory agencies between 2016 and 2023. It provides an analysis of the total number of regulations, as well as their topics, scope, regulatory intent, and originating agencies. To compile this data, the AI Index team performed a keyword search for “artificial intelligence” on the [Federal Register](#), a comprehensive repository of government documents from nearly all branches of the American government, encompassing more than 436 agencies.

The regulation was then coded by a team of two human coders for: (1) relevance to AI, (2) regulatory approach, and (3) subject matter. The relevance to AI categories were low, medium, and high. The regulatory approach categories were expansive or restrictive. For the subject matter categories, the Index employed the [Congress](#) policy typology. In cases where there were disagreements on the coding schemas, a third coder was brought in to settle differences.

US Department of Defense Budget Requests

Data on the DoD nonclassified AI-related budget requests was taken from previous editions of the AI Index (namely the [2021](#) and [2022](#) versions) and from the following reports:

[Defense Budget Overview United States Department of Defense Fiscal Year 2024 Budget Request](#)
[Defense Budget Overview United States Department of Defense Fiscal Year 2023 Budget Request](#)
[Defense Budget Overview United States Department of Defense Fiscal Year 2022 Budget Request](#)

US State-Level AI Legislation

For AI-related bills passed into law, the AI Index performed searches of the keyword “artificial intelligence” on the legislative websites of all 50 U.S. states in the full text of bills. Bills are only counted as passed into law if the final version of the bill includes the keyword, not just the introduced version. Note that only laws passed from 2015 to 2022 are included. The count for proposed laws includes both

laws that were proposed and eventually passed as well as laws that were proposed that have not yet been passed, or are now inactive. In some cases, databases were only searchable by title, so site search functions were deployed. The AI Index team surveyed the following databases:

Alabama, Alaska, Arizona, Arkansas, California,
Colorado, Connecticut, Delaware, Florida, Georgia,
Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky,
Louisiana, Maine, Maryland, Massachusetts, Michigan,
Minnesota, Mississippi, Missouri, Montana, Nebraska,
Nevada, New Hampshire, New Jersey, New Mexico,
New York, North Carolina, North Dakota, Ohio,
Oklahoma, Oregon, Pennsylvania, Rhode Island,
South Carolina, South Dakota, Tennessee, Texas,
Utah, Vermont, Virginia, Washington, West Virginia,
Wisconsin, Wyoming

US Committee Mentions

In order to research trends on the United States' committee mentions of AI, the following search was conducted:

Website: [Congress.gov](https://www.congress.gov)

Keyword: artificial intelligence

Filters: Committee Reports