

Highlights of GAO-24-105980, a report to congressional addressees

Why GAO Did This Study

While there are varying definitions of AI, they generally refer to computing systems that "learn" how to improve their performance. AI has the potential to rapidly change the world and holds substantial promise for improving government operations. However, AI poses risks that can negatively impact individuals, groups, organizations, communities, and society.

The President's fiscal year 2023 budget request included \$1.8 billion for nondefense research and development investment in AI. In addition, some agencies are using AI operationally to identify information security threats and facilitate the review of large datasets, among other uses. Given the rapid growth in capabilities and widespread adoption of AI, the federal government should have safeguards to manage AI's complexities, risks, and societal consequences.

In this report, GAO reviewed the implementation of AI at major federal agencies. This report examines (1) federal agency reported current and planned uses of AI, (2) the extent to which federal agencies' AI reporting was comprehensive and accurate, and (3) the extent to which federal agencies have complied with selected federal policy and guidance on AI.

This review focused on agencies with government-wide roles in Al implementation (including OMB and OPM) as well as agencies with individual responsibilities for Al implementation (including 23 of the 24 Chief Financial Officers (CFO) Act of 1990 agencies). The Department of Defense was excluded because GAO had issued recent Al reports on that department.

View GAO-24-105980. For more information, contact Kevin Walsh at (202) 512-6151 or WalshK@gao.gov.

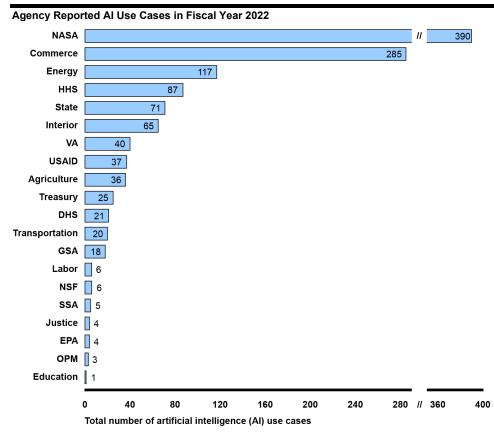
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ARTIFICIAL INTELLIGENCE

Agencies Have Begun Implementation but Need to Complete Key Requirements

What GAO Found

Twenty of 23 agencies reported about 1,200 current and planned artificial intelligence (AI) use cases—specific challenges or opportunities that AI may solve. Three agencies reported not having uses for AI. Agency reported uses included analyzing data from cameras and radar to identify border activities, analyzing photographs from drones, and targeting of scientific specimens for planetary rovers. The National Aeronautics and Space Administration (NASA) and the Department of Commerce (Commerce) reported the highest number of AI use cases (see figure).



Legend: NASA = National Aeronautics and Space Administration; Commerce = Department of Commerce; Energy = Department of Energy; HHS = Department of Health and Human Services; State = Department of State; Interior = Department of the Interior; VA = Department of Veterans Affairs; USAID = U.S. Agency for International Development; Agriculture = Department of Agriculture; Treasury = Department of the Treasury; DHS = Department of Homeland Security; Transportation = Department of Transportation; GSA = General Services Administration; Labor = Department of Labor; NSF = National Science Foundation; SSA = Social Security Administration; Justice = Department of Justice; EPA = Environmental Protection Agency; OPM = Office of Personnel Management; Education = Department of Education.

Source: GAO analysis of agency Al use case inventory submissions to Office of Management and Budget. | GAO-24-105980

GAO reviewed the 23 civilian CFO Act agencies' Al inventories and analyzed reported use cases and supporting data. GAO also compared agency reported data to the requirements for developing an Al inventory outlined in federal guidance.

In addition, GAO identified requirements from executive orders, OMB guidance, and a law regarding the implementation of AI. GAO then assessed agencies' implementation of these requirements. GAO also interviewed relevant officials.

What GAO Recommends

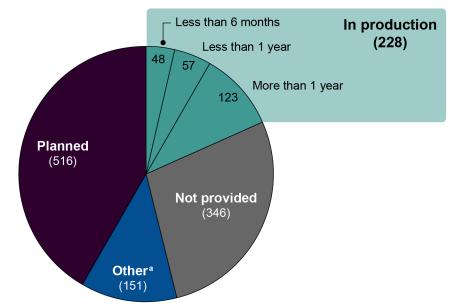
GAO is making 35 recommendations to 19 agencies, including OMB, to fully implement federal AI requirements. Specifically, GAO is recommending that:

- Fifteen agencies update their Al use case inventories to include required information and take steps to ensure the data aligns with guidance.
- OMB, OSTP, and OPM implement Al requirements with governmentwide implications, such as issuing guidance and establishing or updating an occupational series with Al-related positions.
- Twelve agencies fully implement Al requirements in federal law, policy, and guidance, such as developing a plan for how the agency intends to conduct annual inventory updates; and describing and planning for regulatory authorities on Al.

Of the 19 agencies, ten agencies agreed with their recommendations; three agencies partially agreed with one or more recommendations; four agencies neither agreed nor disagreed; and one agency did not agree with its recommendation. OMB agreed with one recommendation but disagreed with another because it had taken recent action. GAO maintains that the recommendations in the report are warranted.

Most of the reported AI use cases were in the planning phase and not yet in production (i.e., currently used) (see figure). In about 200 instances, agencies reported that they were currently using AI.

Agency Reported Artificial Intelligence (AI) Use Case Lifecycle Stage, as of Fiscal Year 2022



Source: GAO analysis of agency AI use case inventory submissions to Office of Management and Budget. | GAO-24-105980

^a"Other" includes life cycle stage responses not included in the *2021 Guidance for Creating Agency Inventories of Artificial Intelligence Use Cases*, such as "research and design" and "exploratory."

GAO's analysis of agencies' inventories of use cases identified instances of incomplete and inaccurate data. Specifically, five agencies provided comprehensive information for each of their reported use cases while the other 15 had instances of incomplete and inaccurate data. For example, some inventories did not include required data elements, such as the AI life cycle stage or an indication of whether an AI use case was releasable or not. In addition, two inventories included AI uses that were later determined by the agencies to not be AI. Without accurate inventories, the government's management of its use of AI will be hindered by incomplete and inaccurate data.

Federal agencies have taken initial steps to comply with AI requirements in executive orders and federal law; however, more work remains to fully implement these.

- Commerce and the General Services Administration (GSA) fully implemented selected requirements. Specifically, Commerce created a plan to develop AI technical standards and GSA established the AI Center of Excellence.
- The Offices of Management and Budget (OMB) and Personnel Management (OPM) did not fully implement selected requirements. OMB has not yet developed guidance for the acquisition and use of AI. OPM has not yet established or updated an occupational category for those employees performing AI work.
- The Office of Science and Technology Policy (OSTP) did not communicate its designation of which agencies were expected to fulfill specific Al requirements.
- Ten of 23 agencies implemented all AI requirements specific to their agencies, 12 implemented some but not all, and one was exempt from the requirements. These requirements included preparing an inventory on the use of AI, planning for inventory updates, and planning for AI regulatory authorities.

Addressing these requirements will improve agency identification, development, implementation, and oversight of AI.