EY Pulse Survey: insights into the integration of AI in government

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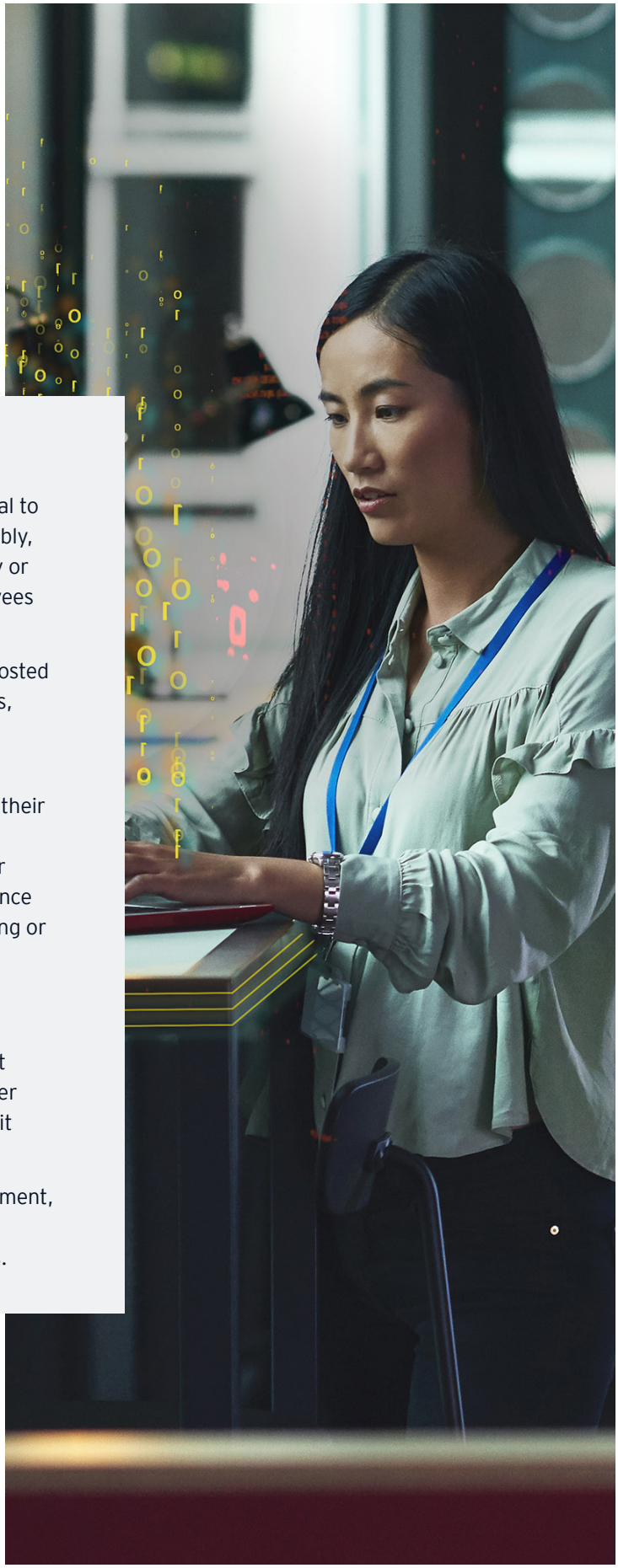
Building a better working world

Introduction

Artificial intelligence (AI) is rapidly transforming major segments of the workforce, and the latest EY survey targeting public sector reveals significant insights into the current landscape of AI trends for government, the advantages it offers and the requirements for broader adoption.



Key findings of this study include the following:

- Approximately half of public sector employees, spanning federal to local levels, engage with AI applications nearly every day. Notably, 61% of respondents acknowledge the availability of proprietary or official AI tools provided by their agencies, with federal employees reporting the highest availability.
- AI users highlight key benefits such as enhanced efficiency, boosted creativity and the ability to allocate more time to complex tasks, underscoring AI's positive impact on productivity.
- Despite the growing use of AI, approximately one-third of participants reported a lack of AI-related training initiatives by their agencies within the current year, while only a fifth experienced monthly training sessions. The primary obstacle to AI's broader implementation was identified as the absence of clear governance and ethical guidelines, rather than issues like insufficient funding or lack of leadership interest.
- Agencies aligned with defense are notably ahead in embracing AI compared with civilian and state or local agencies. Defense agency personnel report more regular use of AI, more frequent training opportunities, greater authorization for AI usage, better understanding of AI policies and a stronger inclination to recruit individuals with AI expertise.
- When it comes to the skills necessary for thriving in AI development, critical and strategic thinking are ranked highest by leaders, overshadowing the need for technical and quantitative abilities.

The survey was conducted online, targeting senior professionals and leaders from federal, state and local agencies. The data collection spanned from June 5 to June 11, 2024, and garnered 445 responses.

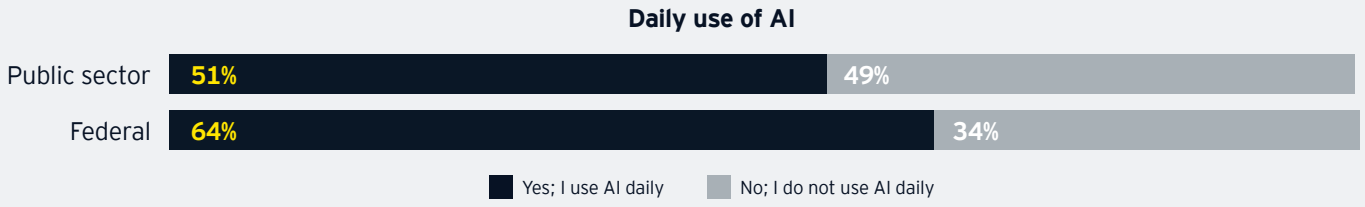
Use of AI technology among public sector leaders

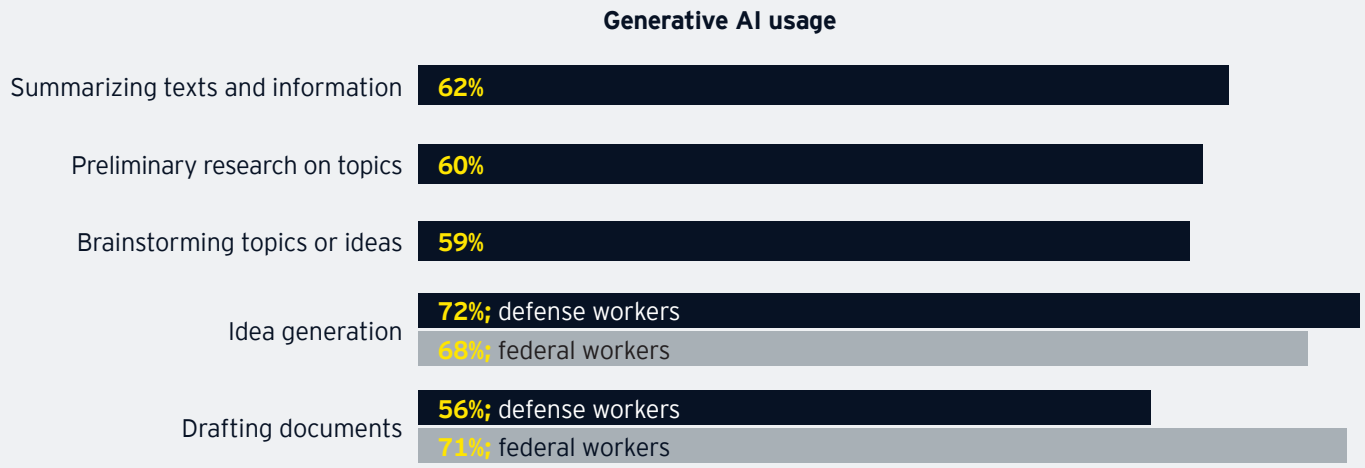
AI technologies and tools have been adopted widely by leaders and managers in the public sector. According to the EY survey, just over half (51%) report using an AI application either daily or several times a week. Federal agencies show a higher frequency of near-daily AI usage at 64%, in contrast to state and local agencies. Both federal civilian and defense personnel engage with AI applications with similar regularity. Since the start of the year, only 26% of respondents have not engaged with any AI applications.

Generative AI emerges as the most prevalent type of application. The top application is for summarizing texts and information (62%), closely followed by conducting preliminary research on topics (60%) and brainstorming topics or ideas (59%). This pattern holds true across federal and local levels, including both civilian and defense sectors. However, defense workers are more inclined to use AI for idea generation (72%) than other federal counterparts (68%), and less inclined to use AI for drafting documents or reports (56%) compared with the broader federal workforce (71%).

Survey participants acknowledge that AI contributes to greater work efficiency and allows them to concentrate on more complex tasks. The foremost benefit recognized by those who have incorporated AI into their workflow is time savings and improved efficiency (71%), followed by a boost in creativity (62%) and the ability to dedicate more time to complex tasks (61%). Civilian federal employees are the most likely (80%) to highlight time savings as the key benefit and are the most likely to cite all possible benefits of AI use in the workplace. Unsurprisingly, those who cited time savings and efficiency gains were more likely to have used AI in the workplace.

As AI becomes more integral to agency operations, there is a growing trend among leaders to seek out individuals with AI expertise. More than half of the survey respondents (52%) are beginning to value AI experience in job candidates to some degree, with nearly one in four (22%) looking for such experience extensively. Defense agency respondents are more proactive (43%) in this pursuit compared with their civilian counterparts (33%). State and local agencies are the least likely (23%) to prioritize AI experience in their recruitment efforts.



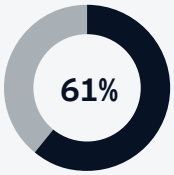


Agency policy on AI

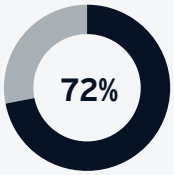
A majority of public sector workers are reporting that their agencies have made proprietary AI applications available for use. Overall, 61% of survey participants reported that their current agency has made a proprietary or official AI application available. Federal workers were more likely (72%) to indicate that their agency had made applications available, with both civilian and defense workers equally likely to report the availability of an official AI application. Local agencies have been slower to deploy proprietary applications, with 59% of state and local government respondents indicating that their agency had made a proprietary application available.

The survey found that public sector agencies are taking a mixed approach to regulating open-source AI technology such as Generative AI in the workplace. About half of respondents (47%) report that their agency allows the use of open-source AI with some restrictions, followed by 21% who indicated that their agency allows use with no restrictions. Just under a fifth (19%) of federal and local agencies do not allow the use of open-source AI technology, and 13% of respondents indicated that they weren't sure.

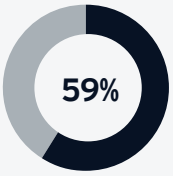
The survey has found that few federal and local agencies offer training on use of AI despite nearly half of public sector office workers using applications multiple times a week. Just over a third of respondents have indicated that their current agency has not offered training on using AI this year, in contrast to nearly one fifth (22%) reporting at least monthly training. Respondents at local agencies were the most likely (39%) to indicate that they have never offered training compared with 28% overall. About half of respondents (53%) indicated that they understood their agency's policies somewhat to generally well. Respondents at federal agencies were the most likely to report this level of understanding (67%) compared with 50% for those at local agencies. Notably, state and local respondents were more than three times as likely to indicate that their agency does not have a policy on AI use (22% vs. 7%).



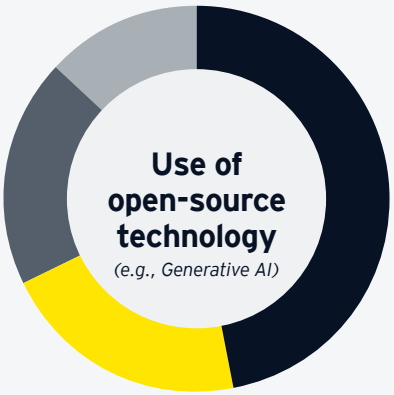
Reported that their current agency has made a proprietary or official AI application available



Federal workers indicated their agency had made applications available



State and local government respondents indicating that their agency had made a proprietary application available



47%
Use of open-source AI with some restrictions

21%
Use of open-source AI with no restrictions

19%
Do not allow the use of open-source AI technology

13%
Unknown

Data use

The effectiveness of AI hinges on the caliber of data it uses for processing and training. Public sector entities, especially at the federal level, are recognizing the critical importance of data integrity as they increasingly implement AI. High-quality data is crucial for the reliability of AI-generated outputs and models. Ensuring data quality is therefore essential for the safe and efficient expansion of AI applications across organizations. According to the EY survey, agency leaders are actively taking measures to safeguard data quality for AI use. Verifying data sources is the most common measure, with 45% of leaders doing so, followed by checks on data formatting (38%) and setting standards for data freshness (37%). Federal agencies are particularly diligent in this regard, with their leaders more likely than those at local levels to undertake multiple steps to certify data suitability for AI. Notably, federal leaders are nearly twice as likely (60% vs. 31%) as their local counterparts to maintain standards for the timeliness of data. Defense agencies stand out, with 71% of their leaders conducting data source checks.

AI systems are now frequently developed and trained using synthetic data, which is designed to mimic the complexities of real-world information. This type of data enables the preliminary development and training of AI within a controlled environment prior to its deployment in actual scenarios. The quality of synthetic data is critical for the successful scaling of robust AI applications, and understanding its attributes is key for effective AI governance. Leaders from various agencies, as highlighted in our survey, are keen on implementing measures to guarantee that the synthetic data used in AI systems meets quality standards. The most common approach reported by respondents involves blending synthetic data with actual data for training purposes (34%), closely followed by the creation of standardized procedures for synthetic data generation (32%) and the implementation of synthetic data validation processes (32%). Federal agencies, and defense agencies in particular, are more proactive in establishing quality controls for synthetic data. Defense agencies surpass their civilian counterparts in rigorously checking synthetic data for biases, conducting validations, and maintaining thorough reviews and documentation of the processes used to create synthetic data.

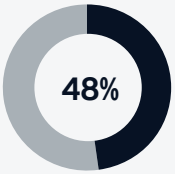
Adoption

Unclear governance and/or ethical frameworks was identified as the top barrier to the expansion of AI (48%) followed somewhat distantly by lack of technology infrastructure (30%) and AI applications not aligned with current agency needs (30%). Respondents at defense aligned agencies identified lack of proper data infrastructure as their top barrier to expansion (57%). Respondents at defense agencies were equally concerned about unclear governance and/or ethical frameworks as workers at civilian agencies but were comparatively more concerned about AI applications not aligned with current agency needs (+18%) and lack of proper data infrastructure (+19%). Of note, concerns about both funding and leadership support were not cited as a top concern by any key segments of the survey.

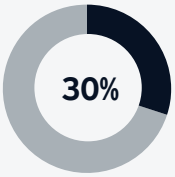
Respondents have identified compliance/regulatory concerns (28%) as the top data governance issue followed closely by resistance to change (26%) and technological challenges (26%). Respondents at state and local agencies were the most likely to report resistance to change as the top challenge (28%). Otherwise, this pattern of concern about regulatory issues, resistance to change and tech issues was shared between federal and local as well as civilian and defense agencies.

Survey participants expressed varied opinions on the key skills required for effective AI development, with an unexpected emphasis on nontechnical abilities. It was the universally applicable skills that were most sought after, with critical thinking leading (32%) and strategic thinking close behind (30%). Familiarity with machine learning was also valued (29%). More specialized technical skills, such as expertise in cloud computing, model evaluation and statistical analysis, were less frequently chosen, except by those from defense-related agencies. Interestingly, respondents from defense agencies particularly highlighted the importance of ethical judgment and strategic thinking, both at 43%, as the top competencies needed for employees to excel in AI development.

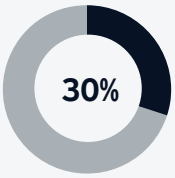
Top barriers of AI expansion



Unclear governance and/or ethical frameworks

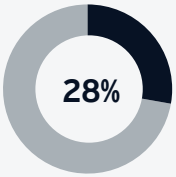


Lack of technology infrastructure

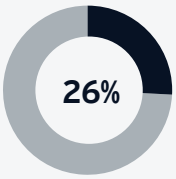


AI applications not aligned with current agency needs

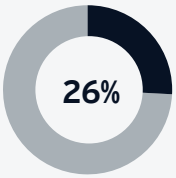
Top data governance issue



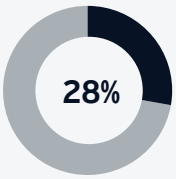
Compliance/regulatory concerns



Resistance to change



Technological challenges



Resistance to change as the top challenge at state and local agencies

EY insights

This AI public sector pulse survey reminds us that the integration of AI is not just about technology — it's about preparing people to use it effectively. The true value of AI lies not only in its ability to automate tasks, but also in its potential to enhance human judgment and creativity, underscoring the importance of AI literacy among public sector employees. Critical thinking and strategic decision-making are valued even more than specific technical expertise. Large language models (LLMs) like GPT-3 are able to translate between written language and complex coding. These models excel at constructing sound, technical algorithms. Since LLMs are generative by nature, they will infer when there's ambiguity in the prompt, meaning the quality of the output hinges on the user's ability to ask the right questions.

It also highlights the urgency for clear AI governance and ethical standards to maintain public trust and align AI use with the public interest. The lack of such structures is not merely an administrative oversight; it is a fundamental vulnerability that could undermine public trust and the efficacy of AI initiatives. This emphasis on cognitive and ethical skills suggests a paradigm shift in what it means to be proficient in AI — where understanding the implications and strategic applications of AI is as important as the technology itself. We have to nurture a workforce that is not only technically adept but also equipped to navigate the ethical and strategic use of AI in an evolving landscape of public service.

EY teams can help agencies with employee training and upskilling. Learn to use data literacy to your agency's advantage by understanding data sources, analytical methods and techniques applied and how to describe the use-case application and resulting value. Driving data and AI literacy across all levels of the agency prepares today's workforce to meet tomorrow's challenges and help ensure successful AI adoption.

About this research

Ernst & Young LLP fielded a web survey to an audience of senior federal, state and local professional workers. Federal survey participants were screened into the survey if they had a General Schedule ranking of GS-13 to GS-15 or Senior Executive Service. Local and state participants were admitted to the survey if they identified as a director/executive/program or division leader or had management duties at a local agency. The survey admitted federal workers at both civilian and defense agencies. Respondents were recruited via a panel provider and the survey received 445 usable responses, including 90 federal professionals and 355 state or local professionals. The instrument collected data from June 5, 2024 to June 11, 2024.

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