



Comment on the Request for Information Regarding Procurement of Artificial Intelligence Tools in Government

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Prepared with the input and guidance of the ASA [Scientific and Public Affairs Advisory Committee](#) and [Committee on Data Science and Artificial Intelligence](#)

We appreciate the opportunity to comment on the [request for information](#) (RFI) from the Office of Management and Budget (OMB) regarding the use of artificial intelligence (AI) within the government particularly in regards to procurement. This RFI refers to the implementation of the guidance provided in the [Memorandum for the Heads of Executive Departments and Agencies](#) published on March 28, 2024.

We are glad to see guidance regarding the responsible use of AI in government. This comment addresses questions 5, 6, and 10 posed in the RFI, which concern the more statistical aspects of procurement. We begin with question 10 to form the basis of our comments on questions 5 and 6.

Question 10: How might OMB ensure that agencies procure AI systems or services in a way that advances equitable outcomes and mitigates risks to privacy, civil rights, and civil liberties?

OMB might ensure risk mitigation in AI acquisitions by setting procedures and requirements based on sound, longstanding information and statistical policy principles. AI is an approach that uses data, statistical methods, and technology and has enormously increased in scope over the last several years. Like other technological innovations of the last century, aspects of existing ethical frameworks remain relevant. The statistical profession has well established ethical frameworks that align with others that address the use of data, statistical methods, and technology. Examples include the [ASA Ethical Guidelines for Statistical Practice](#), the [ACM Statement on Principles for Responsible Algorithmic Systems](#), [Principles and Practices for a Federal Statistical Agency, 7th ed.](#), the National Institute of Standards and Technology's (NIST) [AI Risk Management Framework](#), and the UK's [Ethics, Transparency and Accountability Framework for Automated Decision-Making](#). These frameworks align with relevant information policy laws such as the Privacy Act, the Paperwork Reduction Act as

amended by the Information Quality Act and the Foundation for Evidence-Based Policymaking Act, and the Confidential Information Protection and Statistical Efficiency Act.

Common across these frameworks are the objectives such as those outlined in the [1977 Report of the Privacy Protection Study Commission](#) (PPSC). We quote these objectives from the first chapter of the report:

1. “minimize intrusiveness”;
2. “maximize fairness”; and
3. “create legitimate, enforceable expectations of confidentiality.”

AI models, as the OMB Memorandum notes, often use data directly and indirectly about humans and can be used to make decisions that affect the rights, privileges, and responsibilities of individuals. Therefore, the PPSC objectives are still applicable beyond the record-keeping context about which the original report was written, and encompass issues of transparency, documentation, and quality. They should inform the procurement procedures to ensure that they are upheld with clear protocols in place to resolve any conflicts between objectives.

More generally, AI procurement policy should include principles of professional statistical practice, as statistics plays a central role in AI, as explained in this [August 2023 statement of the ASA Board of Directors](#):

Framing questions statistically allows leveraging data resources to extract knowledge and obtain better answers. The central dogma of statistical inference, that there is a component of randomness in data, enables researchers to formulate questions in terms of underlying processes, quantify uncertainty in their answers, and separate signal from noise. A statistical framework allows researchers to distinguish between causation and correlation, and thus to identify interventions that will cause changes in outcomes. It also allows them to establish methods for prediction and estimation, to quantify their degree of certainty, and to do it all using algorithms that exhibit predictable and reproducible behaviour. In this way, statistical methods aim to focus attention on findings that can be reproduced by other researchers with different data resources. Simply put, statistical methods enhance researchers’ abilities to accumulate knowledge.

Question 5: What access to documentation, data code, models, software, and other technical components might vendors provide to agencies to demonstrate compliance with the requirements established in the AI-memo?

Developing suitable procedures for procurement which adhere to the principles listed above and subsequently implementing those procedures requires statistical, computing, and data context expertise. Across the federal government, there are people with each type of expertise. Examples of technical expertise include the Defense Research Projects Agency (DARPA) use of the common task framework (Donoho 2017) and the statisticians who work throughout the government, particularly in the 13 statistical agencies, accessible to agency leadership through the statutory Statistical Official role in each large agency. This existing expertise can be leveraged to develop standardized blueprints of protocols to assess the

statistical rigor in vendor AI products. These protocols would include independent verification of the representativeness of data sets, the appropriateness of modelling techniques, and the presence of safeguards to mitigate bias. Thresholds can be set to demonstrate adherence to requirements, such as the representativeness of the data. Other statistical issues include assessing data quality, evaluating whether a model is appropriate for the context, developing and choosing appropriate metrics for model comparison, visualising data and forecasts, overfitting, measuring uncertainty in forecasts, interpreting model forecasts, and data stewardship.

Question 6: Which elements of testing, evaluation, and impact assessments are best conducted by the vendor, and which responsibilities should remain with the agencies?

In order to ensure that the objectives listed in the PPSC report and other similar frameworks are upheld, it is vital for verification to be done by a governmental agency independent of the vendor with the technical capability to assess vendor AI models in an independent and statistically robust way. This would allow for relative comparisons between AI models offered by competing vendors. Furthermore, it would allow for a determination of whether an AI model is needed at all or whether a more traditional, possibly more interpretable model would be sufficient (Hickok and Hu 2024). Finally, it would also allow for continual evaluation of the AI model given that such models may yield different outcomes each time it is run. These steps would help ensure that the objectives within the PPSC report are upheld throughout the use of the vendor product and not just at the initial point of purchase.

Questions can be sent to ASA Director of Science Policy, Steve Pierson (pierson@amstat.org).

Selected References

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