HB 1271

Department of Legislative Services

Maryland General Assembly
2024 Session

FISCAL AND POLICY NOTE
First Reader

House Bill 1271 (Delegate J. Lewis, *et al.*)
Health and Government Operations

Information Technology - Artificial Intelligence - Policies and Procedures (Artificial Intelligence Governance Act of 2024)

This bill (1) expands the responsibilities of the Secretary of Information Technology and Department of Information Technology (DoIT) as they relate to artificial intelligence (AI); (2) requires units of State government to conduct data inventories, AI inventories, and impact assessments of data systems that use AI; (3) exempts certain information technology (IT) projects from Board of Public Works (BPW) approval; (4) authorizes and establishes a process for "proof of concept" procurements; (5) codifies the AI Subcabinet of the Governor's Executive Council; and (6) requires the subcabinet to submit two reports. **The bill takes effect July 1, 2024.**

Fiscal Summary

State Effect: General fund expenditures increase by $8.3 million in FY 2025. Future years reflect annualization, ongoing operating expenses and the elimination of one-time costs. State expenditures (all funds) may increase, as discussed below, to conduct data inventories, AI inventories, and impact assessments (this potential impact is not shown below). Revenues are not affected.

($ in millions)	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Revenues	$0	$0	$0	$0	$0
GF Expenditure	8.3	7.0	7.1	7.1	7.2
Net Effect	($8.3)	($7.0)	($7.1)	($7.1)	($7.2)

Note:() = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate increase; (-) = indeterminate decrease

Local Effect: The bill is not anticipated to materially affect local government operations or finances.

Small Business Effect: Potential meaningful.

Analysis

Bill Summary:

Secretary of Information Technology – Responsibilities

The responsibilities of the Secretary of Information Technology are expanded to include conducting inventories and ongoing assessments of systems that employ AI that are used by a unit of State government.

Artificial Intelligence Policies and Procedures

By December 1, 2024, DoIT must adopt policies and procedures concerning the development, procurement, implementation, use, and ongoing assessment of systems that employ AI by a unit of State government. DoIT must make the policies and procedures publicly available on its website. The policies and procedures must:

- subject to any other applicable law, govern the procurement, implementation, and ongoing assessment of systems that employ AI by a unit of State government;
- be sufficient to ensure that the use of any system that employs AI by any unit of State government is not high-risk;
- require each unit of State government to assess the likely impact of any system that employs AI before implementing the system;
- requires DoIT to notify and provide guidance to individuals that have been impacted by a system that employs AI, as specified; and
- provides guidance to units of State government on procurement of a system that employs AI that ensure data privacy and compliance with applicable statutes and regulations.

Data Inventories

By December 1, 2024, and annually thereafter, each unit of State government must conduct a data inventory that identifies data that meets criteria established by the Chief Data Officer and that is:

- necessary for the operations of the unit or otherwise required to be collected as a condition to receive federal funds or by federal or State law; and
- in a form prescribed by the Chief Data Officer, including when the data is used in AI.

DoIT must develop and publish guidance on policies and procedures for the data inventory.

Artificial Intelligence Inventories and Impact Assessments

By December 1, 2024, and annually thereafter, each unit of State government must conduct an inventory of systems that employ AI. For each system, the inventory required must include specified information, including the name of the system and a statement of purpose and the intended uses of the system, and DoIT must make each inventory publicly available on its website.

By February 1, 2025, each unit of State government must conduct an impact assessment (meaning a documented risk-based evaluation of a system that employs AI) of a system that involves a high-risk action. "High-risk action" means an act that is likely to (1) result in any unlawful discrimination; (2) have an unlawful disparate impact on any individual or group or individuals on the basis of any actual or perceived characteristic; or (3) have a negative impact on the health, safety, or well-being of an individual.

Procurement Requirements and Exemptions

Beginning July 1, 2025, a unit of State government may not procure or implement a system that employs AI unless the system complies with the policies and procedures adopted by DoIT.

The bill modifies an existing provision that exempts procurements by the Department of General Services (DGS) for the purpose of modernizing cybersecurity infrastructure for the State valued at $1.0 million from BPW approval to instead exempt procurements made by DGS *and DoIT* for the purposes of *modernizing IT and* cybersecurity infrastructure for the State valued at $1.0 million from BPW approval. The bill also exempts competitive proof of concept procurements valued at less than $1.0 million and made in the manner discussed in the following section from BPW approval; however, DGS must submit a report to BPW by December 1 each year with specified information about any such procurements.

Proof of Concept Procurements

"Proof of concept" means a test, evaluation, or pilot project of a good or service in a real-world environment to evaluate whether the good or service can be successfully deployed and is beneficial to the State. A competitive proof of concept procurement is a formal competitive procurement method that may be used to solicit proposals for the conduct of a proof of concept prior to full implementation when the head of a unit determines the process to be appropriate and in the best interests of the unit, including testing specified products, services, and software. After obtaining the approval of the head of a unit and before conducting a competitive proof of concept procurement, the unit must obtain approval from the Secretary of Information Technology, or the Secretary's designee.

A competitive proof of concept procurement may be conducted through the issuance of a solicitation by any method of procurement authorized in State procurement law. A competitive proof of concept procurement solicitation must include a statement of (1) the scope of work or project description, as specified and (2) the factors, including the price, that will be used in evaluating proposals and the relative importance of each. A solicitation may be distributed to vendors known to offer goods or services within the scope of the proof of concept and must, except for procurements under $15,000 not otherwise required by law to be posted, be posted on eMaryland Marketplace Advantage (eMMA).

After receipt of proposals, but before award of a procurement contract, a unit may (1) conduct discussions with an offeror, as specified, and (2) request product samples for testing by the unit or a demonstration of a product or service and use these samples or demonstrations in its evaluation process. A request for product samples for testing or demonstration must be issued to all offerors deemed reasonable at the time of the request.

A unit may award one or more of the proposals a contract for the proof of concept and provide an option for the State to proceed with a full implementation of an awarded proposal.

DGS must consult with DoIT to adopt policies and procedures for the development and implementation of competitive proof of concept procurements.

Governor's Artificial Intelligence Subcabinet of the Governor's Executive Council

The bill codifies the Governor's AI Subcabinet of the Governor's Executive Council, which was established by Executive Order 01.01.2024.02. Broadly, the subcabinet must:

- develop strategy, policy, and monitoring processes for AI, as specified;
- oversee the State's implementation of various aspects of AI;
- support AI and data innovation across units of State government and in private sector enterprise;
- develop and implement a comprehensive action plan for responsible and productive use of AI and associated data by units of State government;
- establish partnerships, memoranda of understanding, and contracts, as specified;
- promote AI knowledge, skills, and talent in the State by taking specified actions; and
- identify AI use cases and build foundational infrastructure by requiring specified evaluations and modeling, and coordination between State agencies, as specified.

The Governor must provide the subcabinet with sufficient resources to perform its duties. For each fiscal year, the Governor may include in the annual budget bill an appropriation

of up to $3.0 million for partnerships and contracts to support the functions of the subcabinet.

By December 1, 2024, the subcabinet must, in collaboration with appropriate stakeholders, submit an interim report and recommendations to the Governor and the General assembly on the risks and opportunities and associated recommendations related to specified AI issues. In completing the report, the subcabinet must collaborate and consult with specified State and federal agencies.

By December 1, 2025, the subcabinet must submit a report and recommendations to the Governor and the General Assembly on the sufficiency of the subcabinet to accomplish the AI goals of the State and the efficacy of the potential transition of the subcabinet to a department or independent unit of State government.

Current Law: For additional information on the status of AI in the nation and State, please see the **Appendix – Artificial Intelligence**.

Department of Information Technology

DoIT and the Secretary of Information Technology are responsible for:

- developing and enforcing IT policies, procedures, and standards;
- providing technical assistance, advice, and recommendations to any unit of State government;
- reviewing agency project plans to make information and services available to the public over the Internet;
- developing and maintaining a statewide IT Master Plan, as specified;
- developing a statewide cybersecurity strategy, as specified;
- adopting and enforcing nonvisual access standards to be used in the procurement of IT services, as specified;
- in consultation with the Maryland Cybersecurity Coordinating Council (MCCC), advising and overseeing a consistent cybersecurity strategy for units of State government, as specified;
- advising and consulting with the Legislative and Judicial branches of State government regarding a cybersecurity strategy;
- in consultation with MCCC, developing guidance on consistent cybersecurity strategies for specified local government entities;
- upgrading IT and cybersecurity-related State government infrastructure; and
- annually evaluating (1) the feasibility of units of State government providing public services using AI, machine learning, commercial cloud computer services,

device-as-a-service procurement models, and other emerging technologies and (2) the development of data analytics capabilities to enable data-driven policymaking by units of State government.

"IT" means all electronic information processing, including maintenance, telecommunications, hardware, software, and associated services.

Procurement

State procurement law identifies multiple procurement methods available to State procurement officials depending on the nature and circumstances of the procurement. The two most common methods are competitive sealed bids and competitive sealed proposals. In general, procurement officials have the discretion to use whichever method best suits the nature and circumstances of the procurement. However, the competitive sealed proposal method is identified as the preferred (but not required) method for the procurement of human, social, cultural, or educational services and for real property leases.

The basis for award under competitive sealed bids is (1) the lowest bid price; (2) the lowest evaluated bid price; or (3) under specified circumstances, the bid most favorable to the State.

For competitive sealed proposals, procurement officials establish (1) the factors, including price, that are the basis for the contract award and (2) the relative importance of each factor. They must then communicate those factors in the solicitation and award the contract to the offeror whose proposal or best and final offer is determined to be the most advantageous to the State based on the identified factors. This method, therefore, allows State agencies to award contracts based on factors other than lowest price if so specified in the solicitation.

eMMA is the State's cloud-based procurement portal.

State Expenditures: General fund expenditures increase by $8.3 million in fiscal 2025, which reflects anticipated costs for the AI Subcabinet of the Governor's Executive Council, DoIT, and DGS, with ongoing costs totaling $7.2 million in fiscal 2029. State expenditures (all funds) may increase to conduct the data inventories, AI inventories, and impact assessments required by the bill; however, any such impact cannot be reliably estimated at this time.

The following sections include additional detail for costs anticipated for State agencies, the AI Subcabinet of the Governor's Executive Council, DoIT, and DGS.

State Agencies

The bill creates new and ongoing responsibilities for units of State government by requiring ongoing data inventories, AI inventories, and impact assessments for systems that employ AI. Estimates from State agencies that responded to a request for information for this fiscal and policy note generally fall into three categories.

- Most State agencies advise that the bill has minimal or no effect on their operations or finances since they do not employ any systems that use AI.
- Various State agencies advise that the bill's requirements can be handled using existing budgeted resources or have minimal or no impact on their operations generally because the agency (1) plans to rely on DoIT to meet the bill's requirements or (2) has very few systems to inventory.
- Some State agencies anticipate moderate to significant costs, generally for new expert staff with experience in AI to implement the bill's requirements, including the Department of Service and Civic Innovation, the Office of the Attorney General, the Maryland State Archives, and the University of Maryland, College Park.

The Department of Legislative Services does not have the technical expertise, nor the knowledge of each State agency's systems, needed to independently verify these estimates, but acknowledges that expenditures (all funds) for some agencies may increase if they make extensive use of AI.

Artificial Intelligence Subcabinet

In accordance with the bill's authorization for the Governor to include in the annual budget bill an appropriation of up to $3.0 million for partnerships and contracts to support the functions of the AI Subcabinet of the Governor's Executive Council, this analysis assumes that $3.0 million in general funds are provided for this purpose annually beginning in fiscal 2025. This analysis assumes that any costs incurred by the subcabinet to complete the two required reports, if realized, are included in these funds.

Department of Information Technology

DoIT requires additional staff and expert consultant assistance to (1) implement the bill's various requirements for DoIT and the Secretary of Information Technology related to AI; (2) support State agencies in conducting the required data and AI inventories and performing impact assessments when necessary; and (3) support State agencies and DGS in implementing the "proof of concept" procurements. These new duties are substantial and cannot be handled by existing staff using existing budgeted resources. Specifically, multiple agencies advised that, even though the bill requires them to conduct the annual inventories and impact assessments, they expect to rely on DoIT to conduct them instead

because they lack expertise. Therefore, DoIT requires substantial contractual support from expert consultants.

Thus, general fund expenditures for DoIT increase by $5.3 million in fiscal 2025, which assumes a 90-day start-up delay from the bill's July 1, 2024 effective date for new staff. This estimate reflects the cost of hiring four full-time AI subject matter experts (including a data scientist, data analyst, AI product manager, and machine learning engineer) and hiring three contractual graduate students from University of Maryland, Baltimore County. It includes a salary, fringe benefits, one-time start-up costs, and ongoing operating expenses. It also includes (1) $2.0 million in contractual costs for expert AI consultant assistance; (2) $1.5 million to purchase sandbox software for AI governance and testing; and (3) $1 million for AI technology upgrades and software licensing likely needed to implement "proof of concept" procurements.

Regular Positions	4
Contractual Positions	3
Salaries and Fringe Benefits	$695,009
Expert Consultant Costs	2,000,000
Sandbox Software	1,500,000
AI Technology and Software Licensing	1,000,000
Other Operating Expenses	58,048
Total FY 2025 DoIT Expenditures	**$5,253,057**

Future year expenditures reflect full salaries with annual increases and employee turnover as well as annual increases in ongoing operating expenses. The estimate includes ongoing costs for expert consultant assistance and AI technology and software licensing. This estimate does not include any health insurance costs that could be incurred for specified contractual employees under the State's implementation of the federal Patient Protection and Affordable Care Act.

Total expenditures for DoIT may vary significantly from the estimate depending on findings from the initial data and AI inventories required by the bill and depending on how many "proof of concept" procurements are implemented in any given fiscal year. For example, if many more State agencies require impact assessments than anticipated, DoIT may require additional expert consultants to ensure the impact assessments are conducted in the timeframe required by the bill.

Department of General Services

Although the bill authorizes DoIT to perform procurements for modernizing IT and cybersecurity infrastructure, this analysis assumes that DGS continues to be responsible for any such procurement since the Office of the Chief Procurement Officer in DGS

oversees procurements for most Executive Branch agencies, including DoIT. General fund expenditures for DGS increase by $96,089 in fiscal 2025, which assumes a 90-day start-up delay from the bill's July 1, 2024 effective date. This estimate reflects the cost of hiring one procurement officer to manage the procurement process for "proof of concept" procurements. It includes a salary, fringe benefits, one-time start-up costs, and ongoing operating expenses.

Position	1
Salary and Fringe Benefits	$88,833
Operating Expenses	7,256
Total FY 2025 DGS Expenditures	**$96,089**

Future year expenditures reflect a full salary with annual increases and employee turnover as well as annual increases in ongoing operating expenses. This analysis assumes that DGS relies considerably on the expertise of DoIT (including new staff hired to implement the bill) to provide technical guidance and support for the implementation of any "proof of concept" procurement (which are expected to be few in number). To the extent that DGS requires more in-house technical expertise to conduct any such procurement, multiple additional staff are likely necessary for DGS to work with State agencies to conduct the procurements.

Small Business Effect: Small businesses in the technology or AI industries may benefit significantly from $3.0 million allocated for partnerships and contracts to support the work of the AI Subcabinet. They may also benefit from the opportunity to bid on "proof of concept" procurements authorized by the bill.

Additional Information

Recent Prior Introductions: Similar legislation has not been introduced within the last three years.

Designated Cross File: SB 818 (Senator Hester, *et al.*) - Education, Energy, and the Environment.

Information Source(s): Department of Information Technology; Governor's Office of Small, Minority, and Women Business Affairs; Maryland Department of Aging; State Board of Contract Appeals; Department of Commerce; Maryland Commission on Civil Rights; Maryland Institute for Emergency Medical Services Systems; Maryland Longitudinal Data System Center; Maryland Department of Emergency Management; Alcohol, Tobacco, and Cannabis Commission; Maryland Cannabis Administration; Office of the Attorney General; Judiciary (Administrative Office of the

Courts); Maryland State Department of Education; Maryland School for the Deaf; Baltimore City Community College; Maryland State Library Agency; University System of Maryland; Morgan State University; Interagency Commission on School Construction; Maryland Center for School Safety; Maryland Public Television; Maryland Department of Agriculture; Department of Budget and Management; Maryland Department of the Environment; Department of General Services; Department of Human Services; Department of Juvenile Services; Maryland Department of Labor; Department of Natural Resources; Maryland Department of Planning; Department of Public Safety and Correctional Services; Board of Public Works; Department of State Police; Maryland Department of Transportation; Department of Veterans Affairs; Office of Administrative Hearings; Maryland State Archives; Department of Service and Civic Innovation; State Ethics Commission; Maryland Insurance Administration; Maryland State Lottery and Gaming Control Agency; Department of Housing and Community Development; Comptroller's Office; Public Service Commission; State Retirement Agency; Baltimore City Public Schools; Baltimore County Public Schools; Montgomery County Public Schools; Prince George's County Public Schools; Department of Legislative Services

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Analysis by: Richard L. Duncan

Direct Inquiries to:
(410) 946-5510
(301) 970-5510

Appendix – Artificial Intelligence

Artificial Intelligence – Generally

Artificial intelligence (AI) is a broad field of computer science that deals with the creation of "intelligent" systems that can reason, learn, and act autonomously. There are many different branches of AI, each with its own focus and set of techniques, such as machine learning, neural networks, robotics, expert systems, fuzzy logic, and natural language processing. AI research has been successful in developing algorithms for solving a wide range of problems, from game playing to conversation simulation.

Though a variety of forms of AI are now in use, experts have not established an agreed-upon definition for the technology. An early definition in 1955 branded AI as "making a machine behave in ways that would be called intelligent if a human were so behaving." A more recent and expansive consensus definition of AI emerging in academic circles as cited by Stuart Russell and Peter Norvig in their computer science textbook *Artificial Intelligence: A Modern Approach*, defines it as "the designing and building of intelligent agents that receive percepts from the environment and take actions that affect that environment."

In Executive Order 01.01.2024.02, which is discussed in more detail below, for State regulatory purposes, AI means a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments. AI systems use machine- and human-based inputs to perceive real and virtual environments; abstract such perceptions into models through analysis in an automated manner; and use model inference to formulate options for information or action.

History of Artificial Intelligence

Though the general public's awareness of AI may be relatively recent, AI has existed conceptually for nearly 70 years. In 1950, Alan Turing, the English mathematician and computer scientist, wrote Computing Machinery and Intelligence, one of the first papers that posed the question of whether machines can think. The phrase "artificial intelligence" was first coined in 1956 at an academic conference on the subject. From 1964 to 2017, numerous developments were made in the field, including the Massachusetts Institute of Technology's "ELIZA," a chatbot that simulates conversation; IBM's Watson, a cognitive computing platform that uses AI to help businesses and individuals make decisions; and Apple's Siri, a voice assistant for consumers that uses speech recognition.

More recently, in November 2022, OpenAI's ChatGPT (Chat Generative Pre-Trained Transformer) was released for public beta testing and by January 2023 had become one of the fastest growing consumer software applications in history, gaining more than 100 million users in that time. As users interact with the software, the software learns from the conversations and improves its capabilities. The continued development of this and other generative AI software systems is drawing the attention of policymakers to better understand the technology, regulate it to protect individuals from potential risks, and promote the development of safe applications of the technology.

Major Risks – Data Privacy, Bias, and Academic Integrity

Although data privacy has been a matter of concern since the advent of the Internet, the complexity of the algorithms that power AI has prompted interest in government regulation of the technology to prevent the improper or unethical use of personal data. However, regulation of this aspect of AI is sometimes challenging due to intellectual property claims and resistance by the private owners of these technologies to allow exploration of the internal workings of their systems.

As AI algorithms and neural networks are trained by humans, existing societal discriminations can be incorporated into the internal and inherent biases of the data sets that AI systems use and can affect the way an AI model functions. One set of AI functions that has been identified as potentially having some bias is the use of facial recognition software in security or policing contexts. In use by various law enforcement agencies throughout the nation, this software has been shown to be prone to error and unable to accurately recognize people of color, women, and young people. Similarly, some AI software designed to screen resumes for employment consideration has been found to be biased against minorities, women, and older individuals.

Academic institutions, including secondary and postsecondary institutions, have also raised concerns about AI's potential to compromise academic integrity. Generative AI systems can produce written works in response to prompts that can be presented by students as their work product. These institutions have struggled to develop policies and practices to limit the potential for such adverse uses of AI.

Federal Initiatives

The National Artificial Intelligence Initiative Act of 2020 became law on January 1, 2021. The aim of the Act is to promote U.S. leadership in AI research and development with the goal of accelerating the nation's economic prosperity and national security through the development and use of trustworthy AI in the public and private sectors and preparation of the workforce for the inevitable integration of AI systems. This multi-agency initiative has included work by the U.S. Department of Energy, in consultation with the National

Institute of Standards and Technology, to develop the AI Risk Management Playbook as a reference guide to support responsible and trustworthy AI use and development. Though not a binding document, the playbook addresses common AI risks and steps that AI leaders, practitioners, and procurement teams can take to manage data privacy and bias risks.

In addition, the White House introduced its Blueprint for an AI Bill of Rights, a set of five principles and associated practices (safe and effective systems; algorithmic discrimination protections; data privacy; notice and explanation; and human alternatives, consideration, and fallback) to help guide the design and deployment of automated systems to protect the rights and opportunities of the public, as well as public access to critical resources and services, and to serve as a guide for how new AI resources are developed. The blueprint is designed to apply to speech-related systems, surveillance and criminal justice algorithms, voting-related systems, and any other systems that could lead to potential algorithmic discrimination.

In October 2023, the White House issued an executive order to establish new standards for AI safety and security and direct actions that aim to protect privacy of Americans, advance equity and civil rights, protect consumers and workers, and promote innovation and competition.

Maryland Law

Maryland has certain statutes in effect that govern AI directly or indirectly. The Department of Information Technology and the Secretary of Information Technology are statutorily responsible for annually evaluating the feasibility of units of State government providing public services using AI, machine learning, commercial cloud computer services, device-as-a-service procurement models, and other emerging technologies.

Indirectly, Chapter 446 of 2020 prohibits employers from using facial recognition services to create facial templates of job applicants without their consent, and Chapter 41 of 2022 requires courts to consider the results of algorithmic tools before detaining juveniles. Additionally, Maryland's broader consumer protection and data privacy laws, such as the Consumer Protection Act and the Maryland Personal Information Protection Act (MPIPA), offer certain protections against AI-related risks. For example, MPIPA requires businesses that collect, maintain, or license personal information to implement reasonable security measures.

Regulatory Framework by Executive Order

In January 2024, the Governor issued Executive Order 01.01.2024.02 to direct, guide, and regulate the use of AI by State agencies. Primarily, the executive order establishes an AI subcabinet to, among other things, (1) promote the foundational principles that State

agencies must adhere to when using AI (*i.e.*, fairness, equity, privacy, safety, validity, and transparency); (2) provide advice and recommendations to the Governor on the use of AI; (3) facilitate statewide coordination on the responsible, ethical, and productive use of AI; (4) develop an AI action plan to operationalize the AI principles; (5) find, evaluate, and offer training programs for state workers on the use of AI; and (6) study and make recommendations to the Governor and the General Assembly on how AI affects the State workforce, economic development, and security.