Hon. Wes Moore
Governor
Hon. Aruna Miller
Lt. Governor
Elaine Rice Bachmann
State Archivist and
   Commissioner of Land Patents
Mark Letzer
Chairman, Maryland Commission
   on Artistic Property

Hall of Records Commission:
Hon. Matthew J. Fader, *Chair*
Katie Caljean
Robert L. Caret, Ph.D.
Atif Chaundry, J.D.
Ronald Daniels, L.L.M., J.D.
Nora Demleitner, L.L.M., J.D.
Hon. Dereck E. Davis
Hon. William C. Ferguson IV
Hon. Brooke E. Lierman
Hon. Samuel I. Rosenberg
David Wilson, Ed.D.

February 14, 2024

House Appropriations Committee
Public Safety and Administration Subcommittee
The Honorable Jazz Lewis, Chair

Chair Lewis, Vice Chair Ivey, Members of the Subcommittee:

I am Elaine Rice Bachmann, State Archivist and Commissioner of Land Patents. Also attending are Assistant State Archivists Emily Oland Squires and Corey Lewis as well as Teresa Fawley, Director of Administration, and Wei Yang, Chief Information Officer.

For your reference and further reading, our annual report is provided on our website. It includes the Minutes and Agendas of the bi-annual meetings of the Hall of Records Commission and can be found at:

https://msa.maryland.gov/megafile/msa/speccol/sc5300/sc5339/000113/025900/025909/20230300e.pdf

I would like to thank Jacob Pollicove for his thoughtful analysis, and for the time he has taken throughout the year to speak with our leadership staff and to visit the Archives.

The FY25 Archives budget is a reflection of the essential components that allow us to fulfill our core mission of preservation and access to Maryland's permanent records: our human resources, the maintenance of our purpose built facilities, and the IT infrastructure that supports all of our operations. Personnel costs constitute $7.9 million, with state-mandated costs adding another half million. Thus, 79% of our total appropriation is committed before the fiscal year even begins. After all fixed costs are accounted for, there is approximately $600,000 budgeted to cover IT infrastructure including the procurement of new and replacement equipment, software systems, IT maintenance contracts, IT training, software licenses, systems analysis/design, and other outside services. Looking forward over the next three years and

beyond, this level of funding for IT infrastructure is inadequate to support the state's electronic archives.

As more and more records are "born digitally" the Archives must keep pace to plan for transfer and preservation of, and access to, permanent record material. Preserving electronic archives differs greatly from preserving paper records. In addition to requiring adequate server space, electronic archives must be checked and verified frequently. Digital media and technology that supports the electronic archives must be updated every five years at a minimum. This is in contrast to permanent paper media, which can be kept for decades with no recurring costs associated with intervention or storage issues. So while the need for physical space to house records may decrease, the need for electronic storage space– along with all its associated maintenance– will increase. I am gratified that the DBM analysis recognizes the challenges of keeping up with the necessary upgrades to IT infrastructure and how that impacts our ability to maintain public access to records as well as providing appropriate cybersecurity protections. These issues are addressed below in responding to the Analysis.

In speaking directly to the two items mentioned in the Analysis, the first relates to data for public programs as reported in the MFR (Managing for Results).

 From the Analysis:

The State Archives should work with the Department of Budget and Management (DBM) to include detailed data in their Managing for Results submission. Data should include the different types of events held by the State Archives and attendance at virtual and in-person programs hosted by the State Archives.

Public programming and educational outreach are integral parts of the mission of this agency, and over the past few years we have maintained–and expanded–our efforts to provide information to the public both in person and virtually. We are taking under consideration the recommendation to review how we track attendance, and since receiving this analysis have instituted a new protocol for specifically measuring audience size at our varied presentations and events. In addition, we are also planning to discuss making updates to our MFR measures with DBM. Although formal programs are an important part of our public service, in fact we are conducting daily outreach in our search room through in-person reference appointments and walk-in service as well as over the phone and through email. These public interactions result in thousands of individual touch points, educational opportunities, and orders being fulfilled on a daily basis. As recorded in our MFR, in FY23, staff hosted 3,072 in-person visits, 31,952 virtual reference sessions via email and telephone, and filled 12,836 records order requests. Coupled with our group presentations and other educational programs, these efforts result in another 47,860 personal outreach points by staff to the public. We are proud of the extensive, varied public outreach services that we provide on a continual basis.

We are committed to continuing to develop and offer dynamic public programs as staff time allows, but want to assure the General Assembly that it is our daily interaction with the public that constitutes the fulfillment of the agency's core mission.

The second area we have been asked to comment on relates directly to the information provided above regarding electronic archives.

From the Analysis:

The State Archives should comment on what specific equipment is approaching the end of its useful life, as well as what can be done to prolong the life of existing equipment without compromising cybersecurity protections.

IT infrastructure at the Archives ranges from servers, where data is stored, to computer workstations utilized daily by staff, along with all the hardware and software necessary to manage the millions of images maintained for preservation and public access. We are seeing increases of 20-30% on costs of critical IT equipment facing end-of-usable life, making the eventual replacement, if delayed, more expensive in the long run. If aged-out IT equipment cannot be replaced in the recommended time frame, the operating system, hardware, firmware, and applications running on the equipment may not be updated, especially for crucial security patches. Also, IT equipment needs to be able to work together. If some units are out of date for too long they will have compatibility issues with others, creating obstacles in operating effectively and efficiently. We also face the increase in born-digital records as a whole. Both the pace at which we receive electronic records, and the number of records managed, require infrastructure that can effectively and efficiently contain and make accessible permanent record material.

Our IT staff is actively taking measures to prolong the life of our servers and workstations. This includes the installation of software updates and regular maintenance. Updates can contain important security patches and bug fixes, and regular maintenance can prevent slow operation and crashes. However, these software updates can only provide security and ensure preservation for limited periods and are not a long term solution.

Below is a chart listing specific equipment and an estimate of associated costs for replacement over the next three years:

ADDENDUM Maryland State Archives IT Projected Budget and Specific Equipment Lifecycle Commentary (in response to DBM Analysis) 2/14/2024					
Item	Category	FY24	FY25	FY26	FY27
Nutanix	replacement	$900,000	n/a	$220,000	$520,000
Isilon	replacement	n/a	$350,000	n/a	$700,000
Bandwidth	new	n/a	$250,000	$250,000	$275,000
60 Workstations	replacement	$150,000	$150,000	$150,000	$150,000
Backups	new & replacement	n/a	$360,000	n/a	$150,000
Cloud Storage	new	n/a	$100,000	$150,000	$200,000
Backbone Switch	replacement	n/a	$140,000	n/a	n/a
Network Security Monitoring	new	n/a	$100,000	$100,000	$100,000
Software Support	replacement	n/a	$450,000	$450,000	$500,000
Zero Trust Network Access (NTNA)	new	n/a	$180,000	n/a	n/a
Consultants		n/a	$130,000	$130,000	$169,000
Staff Training		n/a	$25,000	$25,000	$25,000
Content Management System	new	n/a	$300,000	$40,000	$40,000
Security Device & IPS	replacement	n/a	n/a	$360,000	$360,000
EndPoint Security System Upgrade	replacement	n/a	n/a	$30,000	n/a
Wireless Network	replacement	n/a	n/a	$25,000	n/a
Network Access Control	new	n/a	n/a	$110,000	n/a
Services Load Balancer	replacement	n/a	n/a	n/a	$120,000
Baltimore City Archives Wireless & Network Security	new	n/a	$120,000	n/a	n/a
Baltimore City Archives - 15 Workstations	replacement	n/a	$37,500	n/a	n/a
		$1,050,000	$2,692,500	$2,040,000	$3,309,000

We will be happy to provide additional information about the lifecycle of this equipment and the context for Archives' decision making for IT infrastructure planning, if that would be helpful.

Our agency is responsible for the preservation, care and accessibility of Maryland's permanent records in all formats. As the state considers a future where "paperless government" relies on electronic records for its day-to-day operations, the Archives must be equipped to ensure the continuance of our mission to document Maryland's history for posterity and provide public access to those digital records that will tell our story to future generations. Although we are intellectually ready to take on this challenge, having the appropriate resources for fulfilling this critical mission is essential to our success on behalf of all the people of Maryland.

With that I would be happy to answer any questions.

Respectfully submitted,

Elaine Rice Bachmann
State Archivist and Commissioner of Land Patents
Secretary, State House Trust
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410.260.6402
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Hon. William C. Ferguson IV
Hon. Brooke E. Lierman
Hon. Samuel I. Rosenberg
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February 19, 2024

Senate Budget and Taxation Committee
Health and Human Services Subcommittee
The Honorable Cory V. McCray, Chair

Chair McCray, Members of the Subcommittee:

I am Elaine Rice Bachmann, State Archivist and Commissioner of Land Patents. Also attending are Assistant State Archivists Emily Oland Squires and Corey Lewis as well as Teresa Fawley, Director of Administration.

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