

Illinois State Board of Investment
(An Internal Investment Pool of the State of Illinois)

State Compliance Examination

For the Two Years Ended June 30, 2023
Performed as Special Assistant Auditors for
the Auditor General, State of Illinois

Illinois State Board of Investment
(An Internal Investment Pool of the State of Illinois)

State Compliance Examination

For the Two Years Ended June 30, 2023

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State Compliance Examination

For the Two Years Ended June 30, 2023

Agency Officials

Executive Director / Chief Investment Officer (1/1/24 – Present)	Mr. Dipesh Mehta
Interim Executive Director (10/03/23 – 12/31/23)	Mr. Dipesh Mehta
Executive Director / Chief Investment Officer (through 10/2/2023)	Ms. Johara Farhadieh
General Counsel / Chief Compliance Officer	Mr. Dipesh Mehta
Chief Financial Officer / Chief Operating Officer (5/8/23 – Present)	Mr. David Schneider
Vacant (4/8/2023 – 5/7/23)	
Chief Financial Officer / Chief Operating Officer (11/14/22 – 4/7/2023)	Ms. Stratigoula Berlin
Chief Financial Officer / Chief Operating Officer (through 12/21/2022)	Mr. Jansen Hein
Portfolio Officer for Financial Reporting and Accounting	Ms. Genette Bacon-Cordova

Board Officers

Chair of the Board	Terrence Healy
Vice Chair of the Board	Treasurer Michael W. Frerichs
Recording Secretary (10/1/2022 – Present)	Trustee Gisela Attlan
Recording Secretary (9/29/2021 – 9/30/2022)	Justice Mary Seminara-Schostok
Member at Large	Comptroller Susana A. Mendoza

Board Members

Trustee	Senator Robert Martwick
Trustee	Elizabeth Sanders
Trustee	Michael Tarnoff
Trustee	Justice Debra Walker
Trustee (through 5/1/2023)	Jaye Williams
Vacant (5/2/23 – 7/27/23)	
Trustee (7/28/23 – Present)	Matthew Brewer

Illinois State Board of Investment Office is located at:
180 North LaSalle Street
Suite 2015
Chicago, Illinois 60601



MANAGEMENT ASSERTION LETTER

June 18, 2024

RSM US LLP
1450 American Lane, Suite 1400
Schaumburg, IL 60173

Ladies and Gentlemen:

We are responsible for the identification of, and compliance with, all aspects of laws, regulations, contracts, or grant agreements that could have a material effect on the operations of the Illinois State Board of Investment (ISBI). We are responsible for and we have established and maintained an effective system of internal controls over compliance requirements. We have performed an evaluation of the ISBI’s compliance with the following specified requirements during the two-year period ended June 30, 2023. Based on this evaluation, we assert that during the years ended June 30, 2022 and June 30, 2023, ISBI has materially complied with the specified requirements listed below.

- A. ISBI has obligated, expended, received, and used public funds of the State in accordance with the purpose for which such funds have been appropriated or otherwise authorized by law.
- B. ISBI has obligated, expended, received, and used public funds of the State in accordance with any limitations, restrictions, conditions, or mandatory directions imposed by law upon such obligation, expenditure, receipt, or use.
- C. ISBI has complied, in all material respects, with applicable laws and regulations, including the State uniform accounting system, in its financial and fiscal operations.
- D. State revenues and receipts collected by ISBI are in accordance with applicable laws and regulations and the accounting and recordkeeping of such revenues and receipts is fair, accurate, and in accordance with law.
- E. Money or negotiable securities or similar assets handled by ISBI on behalf of the State or held in trust by ISBI have been properly and legally administered, and the accounting and recordkeeping relating thereto is proper, accurate, and in accordance with law.

Yours truly,

Illinois State Board of Investment

SIGNED ORIGINAL ON FILE

Dipesh Mehta
Executive Director, General Counsel,
Chief Compliance Officer

SIGNED ORIGINAL ON FILE

David Schneider
Chief Financial Officer and Chief Operating Officer

SIGNED ORIGINAL ON FILE

Genette Bacon
Portfolio Officer for Financial Reporting and
Accounting

Illinois State Board of Investment
 (An Internal Investment Pool of the State of Illinois)

State Compliance Examination

For the Two Years Ended June 30, 2023

State Compliance Report

Summary

The State compliance testing performed during this examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants; the standards applicable to attestation engagements contained in *Government Auditing Standards* issued by the Comptroller General of the United States; the Illinois State Auditing Act (Act); and the *Audit Guide*.

Accountant’s Report

The Independent Accountant’s Report on State Compliance and on Internal Control Over Compliance does not contain scope limitations, disclaimers or other significant non-standard language.

Summary of Findings

Number of	Current Report	Prior Report
Findings	4	0
Repeated findings	0	0
Prior recommendations implemented or not repeated	0	2

Schedule of Findings

Item No	Page	Last/First Reported	Description	Finding Type
Current Findings				
2023-001	7	New	Failure to Implement Controls Related to Cybersecurity Programs and Practices	Significant Deficiency and Noncompliance
2023-002	9	New	Lack of Adequate Controls over the Review of Internal Controls for Service Providers	Significant Deficiency and Noncompliance
2023-003	10	New	Inadequate Computer Security Controls	Significant Deficiency and Noncompliance
2023-004	11	New	Insufficient Controls over Monthly Reconciliations	Significant Deficiency and Noncompliance

Exit Conference

ISBI waived an exit conference in a correspondence from David Schneider, Chief Financial Officer and Chief Operating Officer on May 7, 2024. The responses to the recommendations were provided by David Schneider in a correspondence dated May 16, 2024.

**Independent Accountant's Report
on State Compliance and on Internal Control Over Compliance**

Honorable Frank J. Mautino
Auditor General
State of Illinois

and

Board of Trustees
Illinois State Board of Investment

Report on State Compliance

As Special Assistant Auditors for the Auditor General, we have examined compliance by the Illinois State Board of Investment (Board) with the specified requirements listed below, as more fully described in the *Audit Guide for Financial Audits and Compliance Attestation Engagements of Illinois State Agencies (Audit Guide)* as adopted by the Auditor General, during the two years ended June 30, 2023. Management of the Board is responsible for compliance with the specified requirements. Our responsibility is to express an opinion on the Board's compliance with the specified requirements based on our examination.

The specified requirements are:

- A. The Board has obligated, expended, received, and used public funds of the State in accordance with the purpose for which such funds have been appropriated or otherwise authorized by law.
- B. The Board has obligated, expended, received, and used public funds of the State in accordance with any limitations, restrictions, conditions, or mandatory directions imposed by law upon such obligation, expenditure, receipt, or use.
- C. The Board has complied, in all material respects, with applicable laws and regulations, including the State uniform accounting system, in its financial and fiscal operations.
- D. State revenues and receipts collected by the Board are in accordance with applicable laws and regulations and the accounting and recordkeeping of such revenues and receipts is fair, accurate, and in accordance with law.
- E. Money or negotiable securities or similar assets handled by the Board on behalf of the State or held in trust by the Board have been properly and legally administered and the accounting and recordkeeping relating thereto is proper, accurate, and in accordance with law.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants, the standards applicable to attestation engagements contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the Illinois State Auditing Act (Act), and the *Audit Guide*. Those standards, the Act, and the *Audit Guide* require that we plan and perform the examination to obtain reasonable assurance about whether the Board complied with the specified requirements in all material respects. An examination involves performing procedures to obtain evidence about whether the Board complied with the specified requirements. The nature, timing, and extent of the procedures selected depend on our judgement, including an assessment of the risks of material noncompliance with the specified requirements, whether due to fraud or error. We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our opinion. We are required to be independent and to meet our other ethical responsibilities in accordance with relevant ethical requirements relating to the engagement.

Our examination does not provide a legal determination on the Board's compliance with the specified requirements.

In our opinion, the Board complied with the specified requirements during the two years ended June 30, 2023, in all material respects. However, the results of our procedures disclosed instances of noncompliance with the specified requirements, which are required to be reported in accordance with criteria established by the *Audit Guide* and are described in the accompanying Schedule of Findings as items 2023-001 through 2023-004.

The Board's responses to the compliance findings identified in our examination are described in the accompanying Schedule of Findings. The Board's responses were not subjected to the procedures applied in the examination and, accordingly, we express no opinion on the responses.

The purpose of this report is solely to describe the scope of our testing and the results of that testing in accordance with the requirements of the *Audit Guide*. Accordingly, this report is not suitable for any other purpose.

Report on Internal Control Over Compliance

Management of the Board is responsible for establishing and maintaining effective internal control over compliance with the specified requirements (internal control). In planning and performing our examination, we considered the Board's internal control to determine the examination procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the Board's compliance with the specified requirements and to test and report on the Board's internal control in accordance with the *Audit Guide*, but not for the purpose of expressing an opinion on the effectiveness of the Board's internal control. Accordingly, we do not express an opinion on the effectiveness of the Board's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with the specified requirements on a timely basis. A material weakness in internal control is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that material noncompliance with the specified requirements will not be prevented, or detected and corrected, on a timely basis. A significant deficiency in internal control is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and, therefore, material weaknesses or significant deficiencies may exist that have not been identified. We did not identify any deficiencies in internal control that we consider to be material weaknesses. However, we did identify certain deficiencies in internal control, described in the accompanying Schedule of Findings as 2023-001 through 2023-004 that we consider to be significant deficiencies.

As required by the *Audit Guide*, immaterial findings excluded from this report have been reported in a separate letter.

The Board's responses to the internal control findings identified in our examination are described in the accompanying Schedule of Findings. The Board's responses were not subjected to the procedures applied in the examination and, accordingly, we express no opinion on the responses.

The purpose of this report is solely to describe the scope of our testing of internal control and the results of that testing based on the requirements of the *Audit Guide*. Accordingly, this report is not suitable for any other purpose.

SIGNED ORIGINAL ON FILE

Schaumburg, Illinois
June 18, 2024

Illinois State Board of Investment
(An Internal Investment Pool of the State of Illinois)

Schedule of Findings – Current Findings
For the Two Years Ended June 30, 2023

Finding 2023-001 Failure to Implement Controls Related to Cybersecurity Programs and Practices

The Illinois State Board of Investment (ISBI) had not implemented adequate internal controls related to cybersecurity programs and practices.

ISBI's mission is to manage the defined benefit assets of the State Employees' Retirement System, the Judges' Retirement System, and the General Assembly Retirement System, as well as the Illinois Power Agency Trust Fund and the State of Illinois Deferred Compensation Plan. In order to carry out its mission, ISBI utilizes several Information Technology (IT) applications which contain confidential and personal information.

The Illinois State Auditing Act (30 ILCS 5/3-2.4) requires the Auditor General to review State agencies and their cybersecurity programs, practices, and control of confidential information.

During our examination, we noted the following:

- ISBI had not performed vulnerability scanning during Fiscal Year 2022 and Fiscal Year 2023.
- ISBI's risk management methodology lacked details and was limited in scope, and it did not address categorization and authorization of information systems, selection, implementation, assessment, monitoring of security controls, and authorization of system access.
- ISBI's risk assessments did not address the identification of confidential and personal information susceptible to attacks.
- ISBI did not maintain a project management framework to address the implementation, monitoring, and control of applications (projects).
- ISBI's policies and procedures related to several IT areas lacked details. These included the areas of data classification, configuration management, access control, onboarding, and change management.

The Framework for Improving Critical Infrastructure and the Security and Privacy Controls for Information Systems and Organizations (Special Publication 800-53, Fifth Revision) published by the National Institute of Standards and Technology (NIST) requires entities to consider risk management practices, threat environments, legal and regulatory requirements, mission objectives and constraints in order to ensure the security of their applications, data, and continued business mission.

The Fiscal Control and Internal Auditing Act (30 ILCS 10/3001) requires ISBI to establish and maintain a system, or systems, of internal fiscal and administrative controls to provide assurance funds, property, and other assets and resources are safeguarded against waste, loss, unauthorized use and misappropriation and to maintain accountability over the State's resources.

Illinois State Board of Investment
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Schedule of Findings – Current Findings
For the Two Years Ended June 30, 2023

Finding 2023-001 Failure to Implement Controls Related to Cybersecurity Programs and Practices (Continued)

ISBI indicated the vulnerability scanning issue was caused because ISBI only recently completed a contract to perform vulnerability scanning and scheduled it to take place after the end of Fiscal Year 2023. Additionally, ISBI indicated the risk management methodology issue was caused because ISBI was not aware that its methodology required that specific level of detail. Additionally, ISBI indicated the policies and procedures issues noted were caused partially because several of the policies and documents were procedural and were not intended to function as standalone policies. Finally, ISBI indicated that it disagreed with the remaining conditions noted.

Failure to implement internal controls related to cybersecurity programs and practices could result in unidentified risks and vulnerabilities, which could ultimately lead to ISBI's confidential and personal information being susceptible to cyber-attacks and unauthorized disclosure. (Finding Code No. 2023-001)

RECOMMENDATION

We recommend ISBI strengthen its controls over cybersecurity programs and practices.

ISBI RESPONSE

ISBI partially agrees and has implemented or is in the process of implementing corrective action where appropriate.

- With respect to vulnerability scanning, ISBI agrees and has implemented the recommendation received from the Office of the Auditor General (OAG). A penetration and vulnerability scan has been performed for FY 2024, and ISBI will be conducting these scans on an annual basis moving forward. Scans will be reviewed and any vulnerabilities remediated.
- With respect to data classification, ISBI partially agrees and is in the process of implementing the recommendation. While ISBI's Data Classification and Security Summary comprehensively delineates the information classification levels defining user access, data type, and contained information in compliance with NIST SP800-53, ISBI is in the process of adding additional detail to the policies as recommended by the OAG. Additionally, although ISBI's Asset Management Policy and Record Retention Policy outline the process of data retention and destruction as required under state law, ISBI is in the process of adding additional detail regarding processes for destruction of data in accordance with the recommendation of the OAG.
- With respect to risk management methodology, ISBI agrees and is in the process of developing a comprehensive risk management methodology in accordance with the OAG's recommendation.
- With respect to project management, ISBI disagrees. ISBI's IT Policy and Strategic Plan outline the framework for implementation, monitoring, and control of applications. Specifically, these documents outline the security requirements, procedures for implementation, ongoing monitoring of applications, controls for identification of risk associated with applications, and roles/responsibilities with regard to these requirements. However, ISBI will proceed with formalizing a project management framework in response to the OAG's recommendation.
- With respect to policies and procedures, ISBI agrees. ISBI is in the process of developing formal and comprehensive policies as recommended by the OAG, and anticipates completion by the end of the current fiscal year.

Illinois State Board of Investment
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Schedule of Findings – Current Findings
For the Two Years Ended June 30, 2023

Finding 2023-002 Lack of Adequate Controls over the Review of Internal Controls for Services Providers

The Illinois State Board of Investment (ISBI) had not implemented adequate internal controls over documenting the reviews of its service providers.

ISBI utilized four service providers for software as a service in order to carry out its mission.

During our examination, we noted that ISBI did not maintain documentation of its independent internal control review of the System and Organization Control (SOC) reports for four of four (100%) service providers.

The Framework for Improving Critical Infrastructure and the Security and Privacy Controls for Information Systems and Organizations (Special Publication 800-53, Fifth Revision) published by the National Institute of Standards and Technology (NIST), Maintenance and System and Service Acquisition sections, requires entities outsourcing their information technology environment or operations to obtain assurance over the entities' internal controls related to the services provided. Such assurance may be obtained via System and Organization Control reports or independent reviews.

The Fiscal Control and Internal Auditing Act (30 ILCS 10/3001) requires ISBI to establish and maintain a system, or systems, of internal fiscal and administrative controls to provide assurance funds, property, and other assets and resources are safeguarded against waste, loss, unauthorized use and misappropriation and to maintain accountability over the State's resources.

ISBI indicated that it reviews the SOC reports of its service providers on an informal basis and does not maintain formal documentation of the reviews.

Without formally documenting its review of SOC reports or another form of independent internal controls review, ISBI cannot demonstrate that it obtained assurance the service providers' internal controls were adequate to ensure proper accounting and safekeeping of assets and data. (Finding Code No. 2023-002)

RECOMMENDATION

We recommend ISBI implement controls to conduct formal reviews of the SOC reports of its service providers and to ensure these reviews are formally documented. Further, we recommend the review document deviations noted in the service providers' SOC reports to determine the impact to ISBI's internal control environment. Reviews should include:

- The subservice providers to determine their impact to ISBI's internal controls.
- The Complementary User Entity Controls (CUECs) as they relate to ISBI's internal controls.

ISBI RESPONSE

ISBI agrees and has implemented the recommendation received. Specifically, ISBI has begun conducting regular statement of controls reviews with our technology service provider. These reviews are being formally documented and include the components recommended.

Illinois State Board of Investment
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Schedule of Findings – Current Findings
For the Two Years Ended June 30, 2023

Finding 2023-003 Inadequate Computer Security Controls

The Illinois State Board of Investment (ISBI) had not established adequate computer security controls.

ISBI utilizes the services of the Department of Innovation and Technology (DoIT) for its Central Payroll System (CPS) applications and mainframe. ISBI is responsible for complying with Complementary User Entity Controls (CUECs) identified in DoIT's System and Organization Controls (SOC) report.

During the performance of testing, ISBI was unable to provide the following:

1. Access security reports over CPS;
2. Annual review of security software provided by DoIT; and
3. Review of security user IDs assigned to them.

As a result, we were unable to determine if ISBI was granting access to CPS based on job duties, maintaining segregation of duties, and conducting regular access reviews.

The Fiscal Control and Internal Auditing Act (30 ILCS 10/3001) requires ISBI to establish and maintain a system, or systems, of internal fiscal and administrative controls to provide assurance funds, property, and other assets and resources are safeguarded against waste, loss, unauthorized use and misappropriation and to maintain accountability over the State's resources.

The Security and Privacy Controls for Information Systems and Organizations (Special Publication 800-53, Fifth Revision) published by the National Institute of Standards and Technology (NIST), Maintenance and System and Services Acquisition sections, requires entities outsourcing their information technology environment or operations to obtain assurance over the entities' internal controls related to services provided. Such assurance may be obtained via SOC reports or independent reviews. In addition, NIST, Access Control section requires entities implement access controls such as access administration, maintaining segregation of duties, and periodic review of access rights.

ISBI personnel stated the exceptions identified were due to ISBI's belief that DoIT was responsible for maintaining the requested information.

Failure to implement adequate security controls increases the risk of unauthorized individuals gaining access to computing resources and the risk that confidentiality, integrity and availability of systems and data will be compromised. (Finding Code No. 2023-003)

RECOMMENDATION

We recommend ISBI implement controls to conduct reviews of computer security for the CPS application and mainframe, including regular reviews of access security reports, user access, and security software.

ISBI RESPONSE

ISBI agrees and has begun implementing the recommendation. ISBI utilizes services provided by DoIT via its Central Payroll System for our payroll needs. ISBI will take the guidance of the OAG in complying with the CUEC's in DoIT's SOC report. ISBI has requested an annual review with DoIT, and we will begin requesting and monitoring our security reports and our current user listing. We will continue our efforts to have DoIT to provide us with appropriate access.

Illinois State Board of Investment
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Schedule of Findings – Current Findings
For the Two Years Ended June 30, 2023

Finding 2023-004 Insufficient Controls over Monthly Reconciliations

The Illinois State Board of Investment (ISBI) had insufficient controls over monthly reconciliations.

During testing, we noted the following:

- Reconciliations of ISBI's internal records to the Office of Comptroller's (Comptroller) *Agency Contract Report* (SC14) were not performed in Fiscal Years 2022 or 2023.
- Reconciliations of ISBI's internal records to the Comptroller's *Obligation Activity Report* (SC15) were not performed in Fiscal Years 2022 or 2023.
- 4 of 4 (100%) tested monthly reconciliations of ISBI's internal records to the Comptroller's *Cash Report* (SB05) did not document when they were prepared or reviewed and thus could not be assessed for timeliness of completion.

The Statewide Accounting Management System (SAMS) Manual (Procedure 07.30.20) requires ISBI to perform monthly reconciliations of the Comptroller's SB05 and SC14 or SC15 reports to its internal records within 60 days of month end to ensure the early detection and correction of errors.

Further, the Fiscal Control and Internal Auditing Act (30 ILCS 10/3001) requires ISBI to establish and maintain a system, or systems, of internal fiscal and administrative controls to provide assurance funds applicable to operations are properly recorded and accounted for to permit the preparation of reliable financial and statistical reports.

ISBI personnel stated the exceptions identified were the result of an oversight by management related to this administrative process.

Failure to timely and properly document reconciliations of ISBI's records to the Comptroller's reports hinders the ability of staff to identify and correct errors which could result in incomplete and inaccurate financial information and represents noncompliance with the SAMS Manual.
(Finding Code No. 2023-004)

RECOMMENDATION

We recommend ISBI implement controls to perform monthly reconciliations of all Comptroller reports and to document the preparation, review, and dates of performance.

ISBI RESPONSE

ISBI agrees and has implemented new controls over the reconciliations referenced in SAMS Procedure 07.30.20. ISBI has now formalized reviews of the SB05 reconciliation, and we has begun performing formal monthly SC14 reconciliations in accordance with SAMS Procedure 15.30.10, which requires reconciliation of either the SC14 or SC15 to internal records.