

**PUBLIC EMPLOYEES' RETIREMENT
ASSOCIATION OF COLORADO**

Legislative Audit Committee Report
Year Ended December 31, 2002

With Report of Independent Accountants

To the Participants and Retirement Board of the
Public Employees' Retirement Association of Colorado
and the Legislative Audit Committee:

We have completed our audit of the financial statements of the Public Employees' Retirement Association of Colorado ("PERA") for the year ended December 31, 2002, and have issued an unqualified opinion thereon dated May 30, 2003. Our audit was conducted in accordance with auditing standards generally accepted in the United States of America.

We were engaged to conduct our audit pursuant to Section 24-51-204(6) of the Colorado Revised Statutes, which authorizes the State Auditor to conduct or cause to conduct audits of PERA. The accompanying Table of Contents sets forth the recommendations we have issued as part of our audit. Our audit opinion is located in the Comprehensive Annual Financial Report available from PERA.



Denver, Colorado
July 22, 2003

LEGISLATIVE AUDIT COMMITTEE
2003 MEMBERS

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Chairman

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State Auditor

Sally W. Symanski
Deputy State Auditor

PUBLIC EMPLOYEES' RETIREMENT
ASSOCIATION OF COLORADO
DECEMBER 31, 2002

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Comprehensive Annual Report for the year ended December 31, 2002	Under Separate Cover

SECTION I
DESCRIPTION OF PERA

DESCRIPTION OF PERA

The Public Employees' Retirement Association of Colorado ("PERA") was established in 1931 under Title 24, Article 51 of the Colorado Revised Statutes. PERA administers cost-sharing multiple-employer defined benefit plans for the State and School Division Trust Fund, Municipal Division Trust Fund and Judicial Division Trust Fund ("Division Trust Funds"). PERA also administers a cost-sharing multiple-employer defined benefit healthcare plan ("Healthcare Trust Fund"), the Insurance Dividend Reserve, and a multiple-employer Internal Revenue Code Section 401(k) defined contribution plan ("Voluntary Investment Program"). The purpose of the Division Trust Funds is to provide benefits to members at retirement or disability, or to their beneficiaries in the event of death. Members of PERA are employed by public employers located in the State of Colorado and affiliated with PERA.

Responsibility for the organization and administration of the Division Trust Funds, Healthcare Trust Fund, Voluntary Investment Program and Insurance Dividend Reserve is placed with the Board of Trustees of PERA.

SECTION II
AUDIT REPORT SUMMARY

PUBLIC EMPLOYEES' RETIREMENT
ASSOCIATION OF COLORADO
AUDIT REPORT SUMMARY
DECEMBER 31, 2002

**Audits of PERA
Benefit Plans for the
Year Ended
December 31, 2002**

Our audits of the December 31, 2002 financial statements of PERA are complete and we issued our unqualified report on May 30, 2003. There are no matters which we believe require the Audit Committee's specific attention.

- The financial statements of PERA have been prepared in conformity with accounting principles generally accepted in the United States of America and the applicable requirements of the Governmental Accounting Standards Board.
- There is one immaterial uncorrected financial statement error to be brought to the attention of the Audit Committee – refer to Exhibit I.
- The scope of our audits was reported to the PERA Audit Committee at the November 14, 2002 meeting of the PERA Audit Committee. There were no significant variations from the planned scope.

As part of our audits of the financial statements of PERA, we considered its internal control in order to determine our auditing procedures for the purpose of expressing an opinion on the financial statements and not to provide assurance on internal control. Based on the results of our work, our review of the internal control of PERA has not disclosed any weaknesses which we believe to be material weaknesses under standards established by the American Institute of Certified Public Accountants. Refer to the Report of Independent Accountants on page VI-1.

**Cooperation With
Management**

We are pleased to inform you that we received cooperation of the officers and employees of PERA and we were furnished with all of the information and explanations required to perform our audits.

**Communications with
Audit Committee**

Our responsibility for assuring that the Audit Committee is made aware of significant matters, as required by our professional standards, is outlined in Exhibit II.

Independence

We reiterate our firm's policy on independence, which stipulates that neither PricewaterhouseCoopers LLP partners nor staff assigned to the audits of PERA are permitted to have any direct or material indirect interest in PERA. Adherence to the policy of independence is reaffirmed annually in writing by each member of our professional staff.

To the best of our knowledge, there are no circumstances or relationships between PERA and PricewaterhouseCoopers LLP that would impair our independence in reporting on the PERA's financial statements. We hereby confirm that as of July 22, 2003 we are independent accountants with respect to PERA.

Denver, Colorado
July 22, 2003

SECTION III
RECOMMENDATION SUMMARY

RECOMMENDATION SUMMARY

Rec. No.	Page No.	Recommendation	PERA Response	Implementation Date
1	IV-2	Review of Comprehensive Annual Financial Report	Agree	May 2004
2	IV-4	Review of changes to Electronic Funds Transfer information	Agree	December 2003
3	IV-5	Security of the AS/400 Platform	Agree	July 2003
4	IV-7	Security of the Ross Accounting Application	Agree	July 2003

SECTION IV
CURRENT YEAR FINDINGS AND RECOMMENDATIONS

CURRENT YEAR FINDINGS AND RECOMMENDATIONS

We have audited the financial statements of the Public Employees' Retirement Association of Colorado ("PERA") for the year ended December 31, 2002, and have issued our report thereon dated May 30, 2003. In planning and performing our audit of the financial statements, we considered PERA's internal control solely to determine our auditing procedures for the purpose of expressing our opinion on the financial statements and not to provide assurance on internal control. We have not considered internal control since May 30, 2003.

Our procedures were designed primarily to enable us to form an opinion on the financial statements, and therefore may not bring to light all weaknesses in policies or procedures that may exist.

Recommendations noted in connection with the December 31, 2002 audit are detailed in the following pages.

Recommendation No. 1

Review of the Comprehensive Annual Financial Report

Issue:

Each year PERA prepares the Comprehensive Annual Financial Report (CAFR), as required under governmental accounting standards. The CAFR contains a Financial Section with the annual financial statements and footnotes. The CAFR also contains extensive information about PERA's investment portfolio, the annual actuarial report and related schedules, and a statistical section that provides data on PERA's expenses, revenue, membership, and benefits. It is the responsibility of PERA management to ensure that information contained in the CAFR is correct. As part of the audit of the financial statements and related disclosures, we are responsible for reviewing the entire CAFR for consistency with the information in the Financial Section.

In order to gain additional comfort on PERA's overall reporting process, we asked for supporting documentation for statistics and various data in the CAFR that were not included in the Financial Section. In some instances, adequate supporting documentation was not readily available from PERA staff.

Additionally, during our review of information provided by PERA we identified errors in both the Investment and Statistical Sections of the CAFR. The first error identified was located in the Investment Section – Schedule of Investment Results; in this schedule the rates of returns related to PERA's international stocks were incorrect. The second and third errors identified were located in the Investment Section – Colorado Investment Profile; in this schedule the amounts of money committed to future funding and funds under management of Colorado companies were incorrect. The fourth and fifth errors identified were located in the Statistical Section – Health Care Program Enrollments; in this graphic the numbers of benefit recipients and spouses and dependents were incorrect. PERA subsequently corrected all errors.

Risk and Implication:

Without adequate control procedures in place over the preparation of the CAFR, there is a risk that incorrect information could be reported to the public.

Recommendation No. 1:

PERA should improve control procedures over the reporting process by:

Maintaining appropriate supporting documentation, such as reports and third party documents, for all numbers in the CAFR.

Performing a thorough review of all information in the CAFR prior to releasing the document to executive management and the external auditors for final review.

PERA's Response:

Agree. PERA agrees with this recommendation and will require appropriate supporting documentation to be submitted and maintained for all information in the Comprehensive

Annual Financial Report (CAFR) before the final draft is made available for outside review. Individuals who submit CAFR information will be required to review their information and supporting documentation for agreement and accuracy.

During the CAFR production process, numerous drafts and iterations are prepared and reviewed internally and externally before the final copy is sent to print. All CAFR information for the fiscal year ended December 31, 2002, was corrected while the report was still in draft status.

Implementation Date: May 2004

Recommendation No. 2

Review of changes to Electronic Funds Transfer information

Issue:

PERA is responsible for payment of benefits to retirees. Each month, benefit payroll is generated through the AS400 system, and retirees are issued payments either with a manual check or by an Electronic Funds Transfer (EFT). Over 90% of retirees participate in EFT with PERA, and PERA disburses approximately \$90 million monthly to these participants electronically. In order to generate an EFT payment, PERA requires retirees to complete and submit an authorization form, which includes either a voided check or the bank name and routing number. If the retiree submits the bank name and routing number, PERA confirms the name on the account, the routing number, and the account number directly with the bank. The WorkQueues application in the PERAFlo processing system recognizes the authorization form has been submitted and will be included in the EFT WorkQueue for processing. The information is then input into the AS400 system by an Operational Support Specialist, who is granted password protected access, based on the request in the WorkQueue. All of the work done based on the requests in the WorkQueue is subject to review by a different Operational Support Specialist. During a review, the EFT information on the authorization form is verified against the information input to the AS400 system. When a retiree wishes to change EFT information, PERA requires another authorization form to process the change. These changes are also reviewed 100% as they are included in the WorkQueue. However, a change made directly to the AS400 database without a form or paper document, as it is not recognized by the WorkQueues application, is not subject to an additional review.

Risk and Implication:

As subsequent changes to EFT information already processed in the AS400 system may not be subject to review, an incorrect or false change could be made to the information. Therefore, a benefit payment could be transmitted to an account that should not be receiving it.

Recommendation No. 2:

PERA should improve controls over the change process of the EFT information for retirees by requiring all changes made directly to the AS400 system, that are processed outside of the WorkQueue, be subject to review.

PERA's Response:

Agree. All Electronic Funds Transfer (EFT) set-ups and changes processed outside the Work Queues system will be subject to review by the Operations Support Division (OSD). OSD management will receive a daily report identifying set-ups/changes made without an electronic document, which bypass the EFT Work Queue. This will detect database changes made directly to the AS/400.

Currently, all set-ups and changes made in the AS/400 are recorded and can be reviewed in the Audit Trail program.

Implementation Date: December 2003

Recommendation No. 3

Security of the AS/400 Platform

Issue:

The AS/400 is the software platform upon which the Benefit Administration System resides. The primary purpose of the Benefit Administration System is to maintain member data and perform benefit calculations. As of December 31, 2002 there were 58,357 retired members on the System with average monthly benefit payments of \$1,997.

During our review, it was noted that a consistent process does not exist to proactively monitor the security settings of the AS/400 platform. We compared PERA's AS/400 system security settings with the recommended best practice standards and noted areas where changes to the settings would result in improved security:

Administrator Account: The administrator account provides unrestricted access to the AS/400 system, programs, and data. A single individual owns the user access to this account; however, it is shared with PERA's Information Technology upper management, which consists of a Director and two Managers. Due to the powerful access level of the administrator account, sharing of the account should only be performed in emergency situations and then the password should be promptly changed. We noted that this password was last changed six months previous to the time of our review. Additionally, a process does not exist for reviewing the activities performed by the administrator account.

User Accounts: When a new user account is created on the AS/400 platform, users are assigned a default password that is easily guessable. After their first login, the user is responsible for changing their password. Since this default password is easily guessable, it creates the risk that unauthorized individuals can gain undetected access to the system prior to the new user changing the password.

Inactive Accounts: A review of all user ID profiles on the AS/400 platform identified six user IDs that had been inactive for over 90 days. We determined that although these individuals were authorized to have accounts, they no longer required access to the AS/400. Currently, a process does not exist to periodically monitor the appropriateness of user access to the AS/400.

Risk and Implication:

Unauthorized access to the AS/400 could compromise data integrity and result in the potential misstatement or misuse of financial data.

Recommendation No. 3:

PERA should implement an internal process to periodically review the AS/400 platform security to ensure the security settings meet best practice specifications. Management should take the following steps to address the specific findings noted during our review:

Only the AS/400 Administrator should be given administrator access. Administrator authority should only be granted to others for emergency situations. The password should be kept in a

secure place for use in emergencies and when the password is shared, it should be promptly changed. Access should be monitored through the use of a log each time the ID is used. A manager responsible for the AS/400 administrator's activities should review the log regularly.

The new user set-up process should be modified to ensure all passwords are unique and not easily guessable.

All unused and expired profiles should be researched, and if no longer required, removed from the system. A process should be implemented to periodically review the user profile list on the AS/400 to determine if unused and expired accounts are necessary.

PERA's Response:

Agree. The administrator account has been modified so the password will automatically expire and thus require changing every 30 days. Due to backup requirements for AS/400 support, the account will still be used in emergency situations by upper ISD management. The password is stored in a secure folder on the network. Only the people that have been authorized to use the account can access this folder. The account is only used in emergency situations and when it is used the administrator will be notified and the password will be changed.

When new AS/400 accounts are created the password is set to be the same as the user ID. The account is built so the password will expire the first time the new account is used. This forces the user to change their password before they can access the system. Based on the recommendation, ISD will modify procedures to require a unique password for each new user account. The user will still be required to change the password the first time the account is used.

Based on the recommendation, ISD will implement new procedures for notifying the AS/400 administrator whenever a user account has not been used for 90 days. At this point the account will be locked until the user contacts ISD to have the account re-activated.

Implementation Date: July 2003

Recommendation No. 4

Security of the Ross Accounting Application

Issue:

PERA uses the ROSS Accounting System to record and track accounts payable and general ledger activity. During our testing of the application security on ROSS, we noted the existence of active generic and shared accounts. For actions performed under these accounts, the system is not able to track the specific individual who is responsible for performing the update, such as journal entries, granting application access, and accounts payable entries. The use of generic and shared IDs reduces the effectiveness of both the audit trail and user accountability policies. Additionally, we did not find evidence that PERA was monitoring the activity of these IDs on the system through an audit log.

Risk and Implication:

If a generic ID or a shared ID was used in performing an inappropriate update to the accounting system, PERA might not be able to identify the user who performed the update. Generic and shared IDs on the accounting application compromise the security of the application and could result in financial data integrity issues. Additionally, accounts with manager connotations have an increased vulnerability due to their higher authority levels.

Recommendation No. 4:

PERA should ensure user IDs are unique, assigned to specific individuals, and that their use is properly monitored.

PERA's Response:

Agree. Access to Ross Accounting System production data is controlled by user ID's that are unique and assigned to specific individuals. ROSSMGR is an administrative account ID that is assigned to one individual who performs account administration and performs technical support for the Ross environment. Based on your recommendation, the ROSSMGR account has been disabled and a new administrative account has been created. The new account is again assigned to one individual, and the ID includes the last name of the Ross system administrator within the username.

Implementation Date: July 2003

SECTION V
DISPOSITION OF PRIOR YEAR RECOMMENDATIONS

DISPOSITION OF PRIOR YEAR RECOMMENDATIONS

The following are the audit recommendations included in the Public Employees' Retirement Association of Colorado audit report for the year ending December 31, 2001, and their disposition as of December 31, 2002:

Recommendation	Disposition
Establish a formal review process on reconciliation of financial information between PORTIA and the general ledger	Implemented
Perform reconciliation on externally managed investments	Partially implemented; Policy created and reconciliation process to be implemented by 07/31/2003.
Establish monitoring control over 401(k) loan and distribution calculations	Implemented
Improve controls over salary limitations of highly compensated members	Implemented
Improvements to the disaster and business recovery plan	Implemented
Follow established approval process for firewall changes	Implemented

SECTION VI
REPORT OF INDEPENDENT ACCOUNTANTS

Report of Independent Accountants

To the Participants and Retirement Board of the
Public Employees' Retirement Association of Colorado
and the Legislative Audit Committee:

In planning and performing our audit of the financial statements of the Public Employees' Retirement Association of Colorado ("PERA") for the year ended December 31, 2002, we considered its internal control, including control activities for safeguarding securities, in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements, not to provide assurance on internal control.

The management of PERA is responsible for establishing and maintaining internal control. In fulfilling this responsibility, estimates and judgments by management are required to assess the expected benefits and related costs of controls. Generally, controls that are relevant to an audit pertain to the entity's objective of preparing financial statements for external purposes that are fairly presented in conformity with generally accepted accounting principles. Those controls include the safeguarding of assets against unauthorized acquisition, use or disposition.

Because of inherent limitations in internal control, errors or fraud may occur and not be detected. Also, projection of any evaluation of internal control to future periods is subject to the risk that controls may become inadequate because of changes in conditions or that the effectiveness of their design and operation may deteriorate.

Our consideration of internal control would not necessarily disclose all matters in internal control that might be material weaknesses under standards established by the American Institute of Certified Public Accountants. A material weakness is a condition in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements caused by error or fraud in amounts that would be material in relation to the financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. However, we noted no matters involving internal control and its operation, including controls for safeguarding securities, that we consider to be material weaknesses as defined above as of December 31, 2002.

This report is intended solely for the information and use of management, the board of trustees and the Legislative Audit Committee, and is not intended to be and should not be used by anyone other than these specified parties. However, this report is a matter of public record upon release by the Legislative Audit Committee.



May 30, 2003

EXHIBIT I
UNADJUSTED FINANCIAL STATEMENT RECLASSIFICATION

Exhibit I – Unadjusted Financial Statement Reclassification

During testing, we noted negative cash balances in the combined investment fund (which is allocated to the funds for reporting purposes). We noted there are several bank cash accounts that comprise a total negative cash balance of approximately \$14.9 million.

Book overdrafts representing outstanding checks in excess of funds on deposit should be classified as liabilities at the balance sheet date. We do not view credit book balances as offsets to other cash accounts or cash equivalent accounts (including time deposits, certificates of deposit, money market funds and similar temporary investments) except where the legal right of offset may exist within the same bank. Where right of offset does not exist, we view the credit balances as a reinstatement of the liabilities that were cleared in the bookkeeping process. When outstanding checks in excess of funds on deposit are reclassified, we believe that it is preferable that they be separately classified; if they are included in accounts payable, the amounts so included should be disclosed, if material. We believe the above position is widely accepted and is the appropriate practice in preparing financial statements.

As there is no right of offset, we recommended the following reclassification be made to reflect the negative cash balance at December 31, 2002 as a liability:

Cash	\$14,861,735
Accounts Payable	\$14,861,735

However, after discussions with management, the reclassification was not made. As the negative cash balance was shown in the notes in the Financial Section of the CAFR, we did not feel that the financial statements would be materially misleading if the negative cash balance was not separately identified.

Response by PERA management:

Colorado PERA has considered all cash to be an investment asset of the plan. According to GASB statement 25, paragraph 20, the statement of plan net assets should be prepared on the accrual basis and all purchases and sales of investments should be recorded on a trade-date basis. Historically, Colorado PERA has shown these outstanding checks and electronic payments as a reduction to the cash account on the date written rather than the date the checks clear and settle with the bank. This would follow the trade date rules for investments.

After researching this issue, it is clear that the approach discussed by the auditors, while not universal, is the one predominately used by other public employee pension systems. Colorado PERA will change its method of accounting for benefit and administrative cash to follow this approach in the future.

Due to the late discovery of this issue, Colorado PERA did not make the change in 2002, as the change would have resulted in a large number of small edits to the CAFR.

EXHIBIT II
PRICEWATERHOUSECOOPERS LLP RESPONSIBILITY

Exhibit II – PricewaterhouseCoopers LLP Responsibility

It is our responsibility to ensure that you, the Audit Committee, receive information regarding the scope and results of the audits that may assist you in overseeing PERA's financial reporting and disclosure process for which management is responsible. In this regard, generally accepted auditing standards require us to:

Based upon our audit procedures completed, we would like to advise you that:

The auditor's responsibility under generally accepted auditing standards

- Communicate to you the nature of the assurance provided by an audit and the level of responsibility we assume under generally accepted auditing standards.

- This was communicated through this report to the Legislative Audit Committee.

Auditor's judgments about the quality of accounting principles

- Discuss the quality, not just the acceptability, of the accounting principles applied in PERA's financial reporting.

- This was discussed with the PERA Audit Committee and will be discussed with the Legislative Audit Committee at the August 18, 2003 meeting.

Significant accounting policies

- Determine that you have been informed about the initial selection of and changes in significant accounting policies or their application, as well as methods used to account for significant unusual transactions.

- No changes in significant accounting policies or their application have taken place nor have there been any significant unusual transactions.

Management judgments and accounting estimates

- Determine that you have been informed about the process used by management in formulating particularly sensitive accounting estimates.

- Significant estimates made by management include valuation of certain investments not traded on exchanges for which a quoted market price exists, valuation of certain real estate investments, the actuarial valuation of its assets and liabilities and certain self-insured liabilities of the Health Care Fund.

Exhibit II – PricewaterhouseCoopers LLP Responsibility

Significant audit adjustments	<ul style="list-style-type: none">• Inform you about adjustments arising from the audits which could, in our judgment, either individually or in the aggregate, have a significant effect on PERA’s financial reporting process.	<ul style="list-style-type: none">• No significant adjustments resulted from our audits – refer to Exhibit I.
Uncorrected misstatements	<ul style="list-style-type: none">• Inform you of any uncorrected misstatements identified by us during the audit that were determined by management to be immaterial, individually and in the aggregate, to the financial statements taken as a whole.	<ul style="list-style-type: none">• There was one uncorrected misstatement identified during our audits – refer to Exhibit I.
Other information in documents containing audited financial statements	<ul style="list-style-type: none">• Advise you that we have no responsibility to perform any audit work on other information in documents containing audited financial statements. However, we will read the other information and consider whether such information is materially inconsistent with information appearing in the financial statements or our knowledge of the operations of PERA.	<ul style="list-style-type: none">• We have read the information contained in the CAFR and have no matters to communicate.
Disagreements with management	<ul style="list-style-type: none">• Discuss with you any disagreements with management, whether or not satisfactorily resolved, about matters that individually or in the aggregate could be significant to PERA’s financial statements or our reports thereon.	<ul style="list-style-type: none">• We have had no such disagreements with management.
Consultation with other accountants	<ul style="list-style-type: none">• Discuss with you our views on significant accounting and auditing matters that were the subject of management’s consultation with other accountants, when we have been informed of such consultations.	<ul style="list-style-type: none">• We are not aware of any such consultations.
Major issues discussed with management	<ul style="list-style-type: none">• Advise you of major issues discussed with management prior to our retention or reappointment.	<ul style="list-style-type: none">• No such issues were discussed.

Exhibit II – PricewaterhouseCoopers LLP Responsibility

Difficulties encountered in performing the audits

- Advise you of any serious difficulties encountered in performing the audits.
- We encountered no serious difficulties.

Fraud

- Communicate any fraud that comes to our attention involving senior management and fraud (whether caused by senior management or other employees) that causes a material misstatement of the financial statements.
- No such matters came to our attention.

Illegal acts

- Communicate any illegal acts involving senior management that come to our attention and obtain assurance that you are adequately informed about any other illegal act that came to our attention, unless clearly inconsequential.
- No such matters came to our attention.

Denver, Colorado
July 22, 2003

Distribution

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