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New Mexico Legislative Council Service

Fiduciary Review of the

Educational Retirement Board

February 28, 2010

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Introduction

The State of New Mexico Legislative Council Service (LCS) and the State Board of Finance retained Ennis, Knupp & Associates, Inc. (EnnisKnupp) to conduct an independent operational and fiduciary review of the governance, organizational structure, current policies, procedures, and practices of the Educational Retirement Board (ERB). EnnisKnupp, an independent consulting firm that specializes in reviewing investment portfolios and governance frameworks, was selected through a competitive bidding process. EnnisKnupp has extensive experience working with public retirement systems on the topics outlined in the scope of work in the request for proposal.

Purpose

The LCS sought an independent evaluation of the adequacy of ERB's policies. Additionally, the LCS viewed the review as an opportunity to evaluate the investment and oversight roles and responsibilities within ERB. This analysis compares current ERB practices to both those of industry standards and to those of best practices. The review focused exclusively on investment activities and did not include a review of practices and policies related to benefits administration.

An "industry standard" is a generally accepted way of doing business used by state investment boards and public retirement systems, while a "best practice" is typically viewed as the experience-tested or emerging optimal standard. The "best practice" for an organization is ascertained by examining how a particular function is carried out and then determining if a different course of action or methodology would enhance the process. The optimal standard for one organization may not be the best for another. It must be tailored to suit the particular organization. To appreciate the importance of "best practices" it is essential to recognize the difference between a function merely being performed adequately and a function being performed in the most effective and efficient manner—the distinction is analogous to the difference between being good and being great.

To make this determination, EnnisKnupp relied on a combination of factors, including acknowledged industry standards (e.g., ERISA, UPIA, UMPERSA, AICPA, IIA, CFA Institute, Stanford Law School),[1] secondary research from respected, reliable industry sources (e.g., NASRA, NCTR, DOL, SEC),[2] empirical facts gained from performing similar reviews of other public retirement systems, and the extensive experience of our Fiduciary Services team and other consultants in the firm.

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[1] ERISA: Employee Retirement Income Security Act; UPIA: Uniform Prudent Investor Act; UMPERSA: Uniform Management of Public Employee Retirement Systems Act; AICPA: American Institute of Certified Public Accountants; IIA: Institute of Internal Auditors; CFA Institute: Chartered Financial Analysts Institute, Centre for Financial Market Integrity Code of Conduct for Members of a Pension Scheme Governing Body; Stanford Law School: The Stanford Institutional Investors' Forum Committee on Fund Governance Best Practice Principles.

[2] NASRA: National Association of State Retirement Administrators; NCTR: National Council on Teacher Retirement; DOL: Department of Labor; SEC: Securities and Exchange Commission.

Scope of Review

In this review, we refer to the Educational Retirement Board organization as “the ERB.” The governing body of the ERB is referred to as “the Board,” and the trust fund assets are referred to as “the fund.” The scope of work for this review included two areas:

1. Governance and Organizational Structure – including composition and size of the Board, terms of service on the Board, expertise of the Board members, Board responsibilities, ethical considerations and compliance, delegation by the Board, staff responsibilities, staff qualifications and adequacy, budget, and financial resources.

2. Policies, Procedures, and Practices – including asset allocation, asset classes, rebalancing of assets, investment goals and risk tolerances, written investment policy, internal and external management, manager structure, selection of investment managers and custodian, alternative investments, benchmarks, compensation of managers, role and qualification of placement agents, and performance reporting.

In each area we made findings and summarized our analysis. We made conclusions and offered “recommendations” for the benefit of the ERB. The recommendations state our independent advice about which current practices or policies ought to change.

Methodology

This review was conducted from October 2009 to January 2010. The methodology we used to perform this review consisted of the following:

- Document review – We submitted document requests to the LCS Project Coordinator and the ERB staff. The reports, policies, statutes, and other documents we reviewed are listed in Appendix H.
- Interviews – After reviewing the documents referred to above, we interviewed the Board members, key ERB staff, and selected service providers. We interviewed certain individuals numerous times. The list of interviewees is also found in Appendix H.
- Findings – The pertinent facts relevant to the ERB’s governance, organizational structure, policies, procedures, and actual practices were based on documents received and confirmed with staff and outside service providers.
- Analysis – The EnnisKnupp team of consultants met internally and debated issues, challenged assumptions, discussed alternatives, and brought the firm’s best thinking to the analysis.
- Recommendations – The EnnisKnupp team and the peer reviewers discussed preliminary recommendations for each area under review. We made sure recommendations were consistent and could be implemented.
- Drafting – A draft of the report was reviewed by all members of the EnnisKnupp team and facts were once again checked with the appropriate and relevant sources. A draft was submitted to the LCS Project Coordinator and the ERB staff for their review and discussion.

- Presentation of the report – Refinements were made to the draft and this final report was presented to the LCS, the Board Finance, and the ERB in January 2010.

Acknowledgements

EnnisKnupp thanks the Legislative Council Service, the Educational Retirement Board, ERB staff, and outside service providers for their time and effort in answering questions and providing materials for this review. We relied upon them for information. We especially want to thank the Executive Director and staff of the ERB for being very accommodating in meeting with us, participating in conference calls, and verifying facts and current practices.

Disclaimer

This fiduciary review was limited to those topics outlined in the preceding table of contents. This was not an all-encompassing review of the entire ERB operation. This review provides reasonable assurance that the practices we discussed in our findings are accurate. This was not an investigation and should not be construed as an absolute guarantee that all reviewed practices fully meet fiduciary standards.

Our findings and recommendations were based upon information we received from third parties, including but not limited to, ERB's Investment Committee members, ERB staff, legal counsel, investment consultants, and ERB's custodian bank. Due to the scope and timeframe proposed for this review, we did not independently verify all facts; however, we did request that all sources review the facts we relied upon for our analysis.

The opinions and recommendations expressed in this report reflect the independent judgment of EnnisKnupp. No one associated with the LCS or ERB attempted to unduly influence the scope, findings, analysis, conclusions, or recommendations expressed in this report.

This report dated February 28, 2010 contains technical corrections and replaces the original report dated January 11, 2010.

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Overview of Governance and Organizational Structure

The governance and authority of public retirement systems are ordinarily established through state laws, administrative regulations, and internal policies created by the systems. The laws and regulations generally impose fiduciary duties of loyalty and prudence on the governing bodies to act solely in the interest of the retirement systems' beneficiaries and to act as an expert would act in carrying out their responsibilities. The internal policies usually clarify how the overall responsibility is to be handled by the boards. Boards that govern the systems are not expected to have the expertise to perform every function, particularly in the investment area. They are, however, expected to operate at a policy level, delegate to those with the appropriate expertise, and monitor those delegations prudently.

Well-run public retirement systems, like private sector corporations, are dependent upon sound governance. In a general sense, "governance" refers to the method by which an entity is directed and controlled. Research has shown that poorly governed corporations typically underperform, whereas corporations with good governance practices have stronger performance,[3] and the same is true for public retirement systems. The importance of sound governance today cannot be overstated. The memberships and general public deserve to know that business is being conducted in a fair, open, and efficient manner and that those on the boards and staff take their responsibilities seriously. Best practices are to ensure accountability, transparency, legal compliance, effectiveness, and efficiency in a governance framework.

Findings and Analysis

Our findings and analysis for issues related to the governance, organizational structure, staffing, and resources of the ERB were based upon our review of relevant statutes, policies, procedures, meeting minutes, contracts, consultant reports, and discussions with members of the Board and the staff. We discussed issues and debated our analysis internally as we made comparisons to industry standards and best practices. Each topic addressed below begins with background information on the subject, followed by industry standards and best practices, and the ERB specific information pertaining to the topic.

Composition and Size of the Board

The governing body of a public retirement system is usually a board of trustees that is selected to serve in one or more of these three ways: (1) elected by members of the system;[4] (2) appointed by a government official or governmental entity (e.g., the governor, the legislature, the mayor); or (3) by being an ex-officio member as a result of holding a particular public office (e.g., treasurer, attorney general, secretary of state). In rare instances the highest fiduciary body is a sole trustee, instead of a board.[5]

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[3] Wilshire study of "CALPERS effect." Steven L. Nesbitt, Long-Term Rewards From Shareholder Activism: A Study of the "CalPERS Effect," J. of Applied Corp. Fin. (Winter 1994). and Steven L. Nesbitt, The "CalPERS Effect": A Corporate Governance Update, July 19, 1995. The 1994 and 1995 studies were more extensive and supported Wilshire's initial 1992 study indicating that a company's stock performance seemed to improve as a result of good governance.

[4] Members can include active members in the system or retirees.

[5] Examples include New York, North Carolina, Michigan, and Connecticut.

While there is no model for the optimal size or make-up of public retirement boards, it is common for them to include board members from the retirement systems' most significant stakeholders: the members, retirees, and their contributing employers. Larger boards sometimes prove to be difficult to manage in terms of coordinating meetings and maintaining focus, while smaller boards sometimes suffer from a limited perspective.

A recent survey conducted by the National Association of State Retirement Administrators (NASRA) in April 2009 highlights the number and types of members serving on public retirement boards.

NASRA Survey Results – Board Size

Average Number of Board Members	Median Number of Board Members	Highest Number of Board Members	Lowest Number of Board Members
9.6	9	19	5

NASRA Survey Results – Board Composition

Percent of systems with one or more appointed Board Member(s)	Percent of systems with one or more elected Board Member(s)	Percent of systems with one or more ex-officio Board Member(s)	Percent of systems with at least one of each type of Board Member
90%	67%	72%	38%

In our view, if all board members are acting as fiduciaries, it should not matter whether they are active members of the system, retirees, elected officials, or individuals outside of the system. Best practices are simply that they act in the best interest of the retirement system and for the sole benefit of its members.

New Mexico law[6] determines the ERB composition. The Board is made up of seven members consisting of the Secretary of Public Education, the State Treasurer, one member elected by the New Mexico Association of Educational Retirees, one member elected by the New Mexico Education Association, one member elected by the American Association of University Professors in New Mexico, and two members appointed by the Governor. Although Board members join in different ways, their fiduciary responsibility to the members and beneficiaries of the ERB is identical. The composition of the Board is diverse and while the size of the Board is slightly smaller than the industry average, it does not appear to negatively impact the functions of the Board.

Terms of Service on the Board

The terms of service for board members is usually set forth in statutes. The average term for appointed board members is four years,[7] while ex-officio board members serve until the end of their terms in elected

[6] NMSA 1978, § 22-11-3.
[7] National Education Association survey, Characteristics of Large Public Education Pension Plans, December 2006 and independent research conducted by other industry organizations.

office. There are no clear best practices with regard to term lengths. In our experience many board members believe that it takes about three years to feel comfortable in their fiduciary role. Given this information, short term lengths are not advisable. Staggered terms of service is a best practice in order to share institutional knowledge.

In our experience there are typically no limitations to the number of terms that may be served by a board member; however, a few systems have term limits for elected or appointed board members.

The ERB's elected and appointed Board members have staggered four year terms. The ex-officio Board members take their positions upon qualifying for their respective appointed offices. All Board members serve until their successors are "qualified" to take over the position regardless of length of term and office.[8] In actual practice, this means until the successors are sworn in. The terms of service for the ERB members are consistent with common practice in the industry.

The Board Chair, the Vice-Chair, and the Secretary are elected annually by members of the Board for a one-year term, without term limits. The election of a Chair and a Vice-Chair from among its respective members is common practice among boards; however, the election of a Secretary position is less common. Oftentimes, boards assign a staff member to serve as the secretary of the board.

Expertise of the Board Members

In recent years, much attention has been focused on the expertise of board members of public retirement systems. This, we believe, is due to the overall market downturn, the widely publicized unfunded liabilities of many systems nationwide, and also to the increasing number of complex investment vehicles in which systems invest. The complexities of the portfolios and the fiduciary requirement to prudently invest the assets impose a continuing responsibility on board members and staff alike to stay abreast of the trends and ever-evolving best practices among institutional investors.

The need for "appropriately qualified, experienced individuals" as part of a board's composition is endorsed as a best practice by the Stanford Institutional Investors' Forum Committee on Fund Governance.[9] Ideal board members possess knowledge of institutional investment practices, understanding of benefits administration, an appreciation of fiduciary responsibilities, and the ability to manage actual or perceived conflicts of interest. Lack of experience and knowledge can be a concern if board members become overly reliant on consultants and staff and do not apply adequate oversight, which potentially could lead to liability. While it is not necessary for all of the board members to be experts in all areas, collectively the board should possess the necessary skills to carry out its duties and responsibilities.[10]

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[8] New Mexico Administrative Code, Section 2.82.1.8.
[9] The Stanford Institutional Investors' Forum: Committee on Fund Governance: Best Practice Principles. Peter Clapman, Chair. (Published May 31, 2007 in cooperation with the Stanford Law School, Stanford Program in Law, Economics and Business, the Rock Center for Corporate Governance, and the Stanford Law School Fiduciary College).
[10] Ibid.

From a national perspective, at least one-third of the states and the District of Columbia have a requirement that one or more members have professional experience.[11] The experience required often relates to finance, investments, or actuarial practices. When an investment expertise requirement is set in law, some view it as a positive factor, enhancing the ability of the board to oversee the investment activities of the staff and the advice of the investment consultants. On the other hand, some view set expertise requirements as creating an increased potential for conflicts of interest if the board members are brokers, investment managers, third party marketers, or those who make their livelihood from institutional investors. The best practices for investment experts who serve on the boards are for them to be fully aware of the potential for conflicts of interest and avoid them wherever possible. When avoidance is not possible, full and timely disclosure and recusal from voting is the best course of action.

In our experience many trustees who are appointed as experts actually have limited or no experience managing or overseeing large institutional portfolios, particularly pension funds with long-term liabilities. Some have experience with smaller portfolios of individual investors, which is helpful but not entirely relevant.

Whether board members have relevant experience or not, most will not have had exposure to all aspects of a complex public retirement system. For this reason, best practices among public retirement systems now include much more intensive new board member orientation than ever before for all new members, regardless of their backgrounds. Orientations are best if they are comprehensive, held before the board members take their seats, and customized for the particular retirement system and the individuals' knowledge base. Topics covered are wide-ranging and include everything from the history and purpose of the organization, to fiduciary responsibility, prudent investor standards, actuarial concepts, benefits and services, asset liability modeling, setting asset allocation, asset class definitions, risk management, due diligence in selecting managers, setting benchmarks, evaluating investment performance, reporting responsibilities, custodian bank services, the operating budget, current topics in the industry, and much more.

The New Mexico statute governing the ERB does not set any specific expertise requirements for Board members. In recent practice, the Governor's two appointees have had investment or financial experience. It is a best practice for those Boards without in-depth investment expertise to delegate duties to staff or the consultant(s) with the requisite expertise. Delegation is not however abdication; therefore, board members still have oversight responsibility and therefore must be educated enough on the issues to effectively monitor the functions they have delegated. It is also a prudent practice, albeit an uncommon one, for members of investment committees to have special orientations and additional training tailored to their role in investments.

As of July 2009 all Board members are required to have at least eight hours of education pertaining to "pension fund investing, fiduciary obligations or ethics."[12] The law is unclear as to the form and entity by

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[11] See, National Education Association, *Characteristics of Large Public Education Pension Plans*, December 2006. The information related to the board membership is not limited to education pension funds.
[12] NMSA 1978 § 10-11-133(F)2009

which the education must be provided. A Board member who fails to meet this requirement two years in a row is considered to have resigned from the Board.[13] The eight hours of education as required by law sets a minimum requirement. The ERB also has a policy for each Board member to attend at least one, and ideally two, educational conferences or seminars every year, provided funding is available.[14] The Executive Director is responsible for providing the Board members with a list of relevant upcoming educational events that will assist the members in overseeing the investments.

Furthermore, the ERB has made it a regular practice to incorporate educational items into most Board meetings. Four of the past eight regular Board meetings have included time for education on hedge funds, private equity, and securities lending. The Board members are encouraged to attend an annual two-day educational retreat. The retreat is dedicated to training members on investment related topics, and covers fiduciary responsibilities and pension specific issues as well. Attendance at the retreat over the past few years has been good. Board members also have subscriptions to the Wall Street Journal, which helps to keep them apprised of financial news. Several Board members have received a Certificate of Achievement in Public Plan Policy.[15] Ongoing education and access to industry periodicals to ensure that Board members stay up-to-date on current industry practices and investment issues, is a best practice.

Along with investment education, training on the fiduciary responsibilities of a public retirement system governing board is just as important because the fiduciary standard is the highest standard imposed by law. The Board members receive annual fiduciary training, as necessary, from the consultant(s) and other outside service providers. Board meeting minutes from December 5, 2008 indicate the Investment and Pensions Oversight Committee (IPOC) expressed an interest in understanding the ERB's practices regarding fiduciary education. This inquiry highlights how external parties are becoming increasingly interested in whether boards understand and are meeting their fiduciary duty. We anticipate that the focus on fiduciary education will continue in the industry. Best practices are to hold annual fiduciary training sessions which highlight current topics in the public retirement arena and relate them to the duties of the Board. These sessions are often several hours in length and involve both the General Counsels and outside fiduciary counsels for the systems.

The ERB does not have a formal written policy on orientation curriculum; however, the "Board Policies and Procedures" state that new Board members will attend an orientation session within the first year. The session is conducted by the Executive Director, General Counsel, and the Chief Investment Officer (CIO) and includes a presentation covering a broad range of topics related to fiduciary responsibilities. When Board members join the Board, they receive copies of the relevant statutes, regulations, and policies. Best practice is to have a policy outlining the curriculum as well as the timing for an orientation. A sample orientation outline has been provided in Appendix A; however, best practice is to have orientations customized for the particular retirement system.

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[13] Ibid.
[14] New Mexico Educational Retirement Board Policies and Procedures, Section IV.A.2, Provided by the ERB.
[15] CAPPP – offered by the International Foundation of Employee Benefit Plans.

Board Responsibilities

The New Mexico Constitution vests sole and exclusive fiduciary responsibility for administration and investment of the trust assets in ERB[16] and the Educational Retirement Act broadly defines the duties of the ERB, including investing in accordance with the Uniform Prudent Investor Act, and being indemnified by the state for all liability in the performance of their duties.[17]

The Prudent Investor Act gives wide latitude to the fiduciaries it covers, but it does not grant immunity for those who are negligent and breach their fiduciary duties of prudence or loyalty.[18] In the private sector, ERISA's section 410(a) imposes strong personal liability on any person considered a "fiduciary" in violation of their duties, including negligent behavior. ERISA does not apply to public pension funds, but the governing laws of many public funds are modeled after ERISA. The Uniform Management of Public Employee Retirement Systems Act (UMPERSA), an effort by the Commissioners on Uniform State Laws to impose consistent fiduciary standards among public funds, also imposes personal liability on trustees or other fiduciaries for a breach of fiduciary responsibility. It is our understanding that in New Mexico the legal interpretation of the statutes covering ERB provides that the Board members are covered by the Tort Claims Act or have indemnification or even immunity. In our opinion, such coverage, indemnification, or immunity lessens the seriousness of a violation and diminishes the high fiduciary responsibility and liability standards intended by the drafters of the Uniform Prudent Investor Act. In other states,[19] where the potential for personal liability exists, the members of the governing bodies of public funds have accepted the potential for personal liability as a reasonable trade-off for having the ability to operate under Modern Portfolio Theory and act as a prudent investor.

It is common and best practices for the governing statues to provide a definition of who is a fiduciary and impose duties of loyalty and care. The governing laws of ERB do not provide a definition of fiduciary. Thus, while it can be inferred that Board members of ERB are fiduciaries, since they are vested with sole and exclusive fiduciary duty in the New Mexico Constitution, the laws do not explicitly state that. The Educational Retirement Act does not define others who may be fiduciaries (e.g., the CIO and investment managers). To be consistent with common and best practices, the statute would include a definition of who is a fiduciary. The definition of fiduciary should include anyone that exercises discretionary authority or control with respect to the management or disposition of ERB, the administration of ERB, or anyone that renders investment advice for a fee or other compensation, direct or indirect, with respect to any ERB assets or has the authority or responsibility to do so.

Generally, the responsibilities of public retirement boards are only briefly, and often incompletely, stated in governing statutes. Rarely, do the statutes cover all the details associated with fiduciary responsibilities. Such is the case with the law governing ERB; the Board's duties are very broadly described. In some systems, written board charters are established to reflect the board's consensus about their scope of

[16] New Mexico State Constitution, Section 22B.
[17] NMSA 1978, § 22-11-6 and §22-11-13.
[18]Generally a fund is allowed to use trust assets to purchase fiduciary insurance.
[19] Examples include Colorado, Illinois, Nebraska, and West Virginia.

responsibilities and operating procedures. Board charters cannot exceed the authority set in statutes or otherwise violate legal restrictions. In some cases, they incorporate relevant statutes by reference. The Board may benefit from guidance from the CFA Institute about the proper role of a governing board when updating governance policies.[20] In Appendix B we include examples of responsibilities that could be included in a board charter to more fully explain the actual role of the Board.

In addition to a board charter, or sometimes in place of it, well-run public retirement systems compile major policies in a board governance manual for reference and orientation purposes. In the chart below we compare the contents of a comprehensive governance manual to ERB's undated document entitled "Board Policies and Procedures." We have noted with a checkmark (✓) those best practice items which are included in ERB's document. The ERB also has some information that is located in different documents, statutes, the New Mexico Administrative Code (NMAC), and formats. We have indicated the items not included in the "Board Policies and Procedures" document but present elsewhere.

Checklist for a Governance Manual	The ERB "Board Policies and Procedures" Document
Introduction about governance policies	✓ Best practice
Purpose	
Description of the purpose of the document	✓ Best practice
Brief Overview	
History of the ERB	Included on website
Creation by law	✓ Best practice
Statistical information	Included in Annual Report
Organizational chart	Provided in a separate document
Summary of outside service providers	Not available
Members of the Board	
Board composition	Described in statutes
Names, pictures, and terms	Included on website
Contact information	Provided in a separate document
Calendar of Meetings and Events	
Meetings	Described in statute and listed on website
Educational sessions	Provided in a separate document
Board Responsibilities	
Board authority and duties	✓ Best practice (authority and duties also listed in Statutes, NMAC,[21] and Investment Policy Statement)
Accountability chart	None existing
Board orientation and education requirements	Partially included
Board self-evaluation process	None existing

[20] Code of Conduct for Members of a Pension Scheme Governing Body, CFA Institute 2008.
[21] New Mexico Administrative Code.

Executive Director evaluation process	✓ Best practice
Board Meeting Protocol	
Agenda setting	Partially addressed in NMAC and in "Board Policies and Procedures"
Organization of discussion items	Partially addressed in NMAC and in "Board Policies and Procedures"
Consent agenda	Partially addressed in NMAC and in "Board Policies and Procedures"
Information-only items	Partially addressed in NMAC and in "Board Policies and Procedures"
Rules of order	Partially addressed in NMAC and in "Board Policies and Procedures"
Board Seats and Position Descriptions	
Board member position description	Limited
Board member election and appointment processes	Statutes; NMAC
Board chair position description	✓ Best practice
Board vice-chair position description	✓ Best practice
Board Secretary position description	Limited description in NMAC
Board officer election process	Limited description in statutes and addressed in NMAC and in "Board Policies and Procedures"
Board Committees and Assignments	
Process for establishing committees	✓ Best practice
Audit committee	No existing charter
Investments committee	No existing charter, some requirements listed in NMAC
Evaluation committee	No existing charter
Committee evaluation process	None existing
Board Policies	
Standards of Conduct	✓ Best practice
Investment policy Statement	Provided in a separate document
Communication policy	Provided in a separate document
Audit policy	None existing
Trustee education policy	✓ Best practice
Board travel policy	✓ Best practice
Board expense reimbursement policy	✓ Best practice
Strategic Plan	
Current Strategic plan	Included in a separate document
Progress reports	Included in a separate document
Strategic planning process	Included in Strategic Plan
Miscellaneous	
Board application/election forms	Not applicable
Financial disclosure/conflicts of interest forms	Included in a separate document

Educational opportunities	Included in a separate document
Retirement industry periodicals and websites	Informal practice
Expense reimbursement form	Included in a separate document
Executive Director position description	✓ Best practice

The ERB may benefit from reviewing the "Board Policies and Procedures" document. This document includes many of the best practice elements of a governance manual, and with some additions, references to other documents, and enhancements it could become a comprehensive governance manual. Guidance from the CFA Institute on the proper role of a governing board when updating governance policies could be very useful for the ERB throughout this process.[22]

With regard to the individual Board member responsibilities, the ERB's "Board Policies and Procedures" contains a brief outline of the responsibilities of its individual members.[23] The description includes the Board members' fiduciary responsibility, duty to review and implement the adopted policies, and rules to which they must adhere. Best practice is for a position description to be carefully conceived and drafted to succinctly communicate to existing board members, as well as to external stakeholders and others interested in serving on the board, the expectations for individual board members. In Appendix C we include examples of specific responsibilities that could be included in a board member position description or otherwise enhance what is contained in the "Board Policies and Procedures."

If such a detailed position description is created and made available during the Board member election and appointment processes, then the Governor and the voting membership will better understand and appreciate the requirements placed upon individuals who serve in this high level fiduciary capacity. While it is a great honor to serve on the ERB, it is also a significant time commitment and requires analysis of complex issues, the courage to ask tough questions, and the ability to take action when it is called for.

The ERB has position descriptions for the Chair and Vice Chair in the "Board Policies and Procedures" document, which is a best practice. The position descriptions outline the specific duties, which were delegated by the Board. The Board members also elect a Secretary on an annual basis. The NMAC states that the responsibility of the Secretary is to "attest to the official actions of the board when such is required."[24] Many public retirement systems no longer have a secretary position filled by a board member since staff usually take board meeting minutes for the full board's approval. A more complete position description outlining the role and expectations for the Secretary, whether the position is filled by a Board member or a staff member, would be useful.

[22] Code of Conduct for Members of a Pension Scheme Governing Body, CFA Institute 2008.
[23] ERB Board Policies and Procedures, Section II.C.1-5.
[24] New Mexico Administrative Code, Section 2.82.1.8.

The ERB currently has three standing investment-related committees which each serve a unique purpose, the Investment Committee, Audit Committee, and Evaluation Committee. Best practices are to create committee charters, which clarify member responsibility and accountability. The best committee charters include the following:

- Purpose
- Authority
- Composition
- Governance
- Meeting frequency
- Responsibility
- Staff assistance
- Reporting requirements

ERB's Investment Committee is charged with overseeing the investments of the fund. The composition of the Investment Committee and the roles and responsibilities of the members are outlined in the Investment Policy Statement (IPS). The Audit Committee works closely with ERB's internal audit function, which has a written charter for staff that lays out the mission, scope, authority, standards and reporting requirements.[25] The Internal Audit Charter specifies that the internal audit function will have free access to the Audit Committee, and that the Chief Audit Executive will report functionally to the Audit Committee (and administratively to the Executive Director). These are in conformance with best practices. The Evaluation Committee facilitates the Executive Director's performance evaluation. Per policy, the Executive Director is to be formally evaluated by the Board at least annually, which is a best practice. It is also a best practice for the full Board to be involved in the evaluation process. The Board may benefit from creating and adopting charters for all of its Committees.

The Board is required to hold four regular meetings each year by law,[26] however, the Board adheres to the adopted Rules and Regulations in the NMAC that require bimonthly meetings in addition to any special or emergency meetings that the Chair, the Executive Director, or any three members may call.[27] The ERB Board approves an annual calendar of meetings every year, which is a best practice so that all Board members may schedule accordingly. Rescheduling meetings is problematic and may cause poor attendance and undue hardship on Board members.

Board meeting minutes do not detail how much time is devoted to different topics, but the minutes do clearly indicate that a significant portion of time is spent dealing with investments, or about one hour per meeting according to ERB's general consultant, New England Pension Consultants (NEPC). The attendance is generally strong for all of these meetings, with the exception of 1 member who has missed 6 of the last 14 meetings. Some other public funds allow ex-officio board members to send designees to board meetings, which is not currently allowed at the ERB. When a specific designee participates in meetings, as well as in

[25] ERB Internal Audit Charter, Effective July 13, 2009.
[26] NMSA 1978, § 22-11-4.
[27] New Mexico Administrative Code, Section 2.82.1.9.

orientation and training, some public funds have found that the practice allows for more consistent participation in meetings. The Investment Committee meets monthly for approximately three hours to address investment related items pertaining to the fund. The previously mentioned two day Board retreat also focuses on investment issues.

Collectively, the Board and the Investment Committee devote approximately 40-50 hours a year to addressing investment related items. This is not inclusive of any time spent preparing for meetings or attendance at external education sessions. Given the complexity and importance of investment issues, many investment committees and boards spend a significant amount of time discussing investment issues. ERB is consistent with common and best practices.

Ethical Considerations and Disclosure

Conflict of interest and ethics policies define the guidelines boards and staffs are to use when conducting business for public retirement systems. Best practices in this area are clear; fiduciaries are to avoid conflicts of interest (actual or perceived) if possible. If avoidance is not possible, they are to disclose conflicts promptly, refrain from discussing the issue, and recuse themselves from discussing or voting on matters where conflicts exist.

Written policies clearly stating ethical expectations are necessary so that individual interpretations do not lead to unintended violations. In our experience, the best policies adopted by public retirement systems tend to be stricter than the policies of other industries due to the public scrutiny and fiduciary status of the boards.

Policies often contain restrictions on gifts from parties with whom the system does business. For example, some policies allow trustees and staff members to accept meals from current vendors in connection with educational sessions, while others permit attendance at meals, but require trustees and staff attendees to pay for their own expenses. Some policies go even further, prohibiting attendance at any meals in order to avoid even the appearance of undue influence. A best practice that highlights the importance of ethical conduct is to require annual affirmations from trustees declaring that they have reviewed, understand, and agree to comply with the code of ethics.

The ERB has adopted a Standards of Conduct (the ERB Standards), which is included in its "Board Policies and Procedures" manual. We found that most of the items addressed in the policy are inline with industry common practices. The ERB Standards provide guidelines on the following areas: conduct; prohibited transactions and acts; conflicts of interest; financial conflicts and disclosure; gifts, contributions, disclosures, and solicitations; confidential information; outside employment and other outside activity; subsequent employment; and procurement oversight.

Each Board member and the Executive Director are required to submit an annual disclosure statement[28] to the Secretary of State. The disclosure statement addresses a number of issues, including their personal

[28] Board members and the Executive Director are required to submit updated disclosure forms within 45 days of any trigger events, as stated in the Standards of Conduct.

financial interests that may cause a conflict, financial interests of family members in ERB transactions, and any payments (direct or indirect) received related to ERB business. This type of reporting is a good practice; however, the Board (not just the Secretary of State) also needs to be aware of any conflicts of interest that individual Board members may have. This is partially accomplished by the Board members submitting a Gift Report Form to the General Counsel who reviews these forms, along with the Executive Director, in order to apprise the Board and Audit Committee of any violations of the gift policy. The General Counsel also reviews the compliance forms submitted by all Board members.

Gifts have caused many problems for several public pension funds, due to the actual or perceived conflict of interest that results from accepting anything of value from a current or potential service provider. As such, some public systems have instituted a strict no gift policy, which we believe is a best practice. More common, however, is the practice of setting per occurrence and annual limits on gifts. The ERB follows the latter approach; the gift limit is $50 for a single gift and $150 total in a calendar year. These levels are inline with industry common practice. The ERB further limits gifts by restricting Board members from accepting anything of value[29] from current or potential contractors with the ERB. This is a strict policy, but one which we believe helps to mitigate actual and perceived conflicts of interest.

The ERB Standards state that third parties "may" be required to disclose gifts they have given, or been asked to give, to Board members.[30] The current language suggests that third party disclosure is not always mandatory. It would be advisable to update the policy to replace the word "may" with "are required." A best practice is to require all gifts, entertainment, and meals above a minimum threshold to be disclosed by vendors and outside service providers annually.[31]

Political contributions have also been an issue recently receiving attention in the industry. The SEC is considering whether investment advisers should be prohibited from providing advisory services to a government client for two years after making a political contribution of more than $250. The ERB Standards require that contributions from specified parties cannot exceed $25. It is a good practice to set such limits. Some funds have gone further by requiring disclosure of contributions made by service providers to statewide elected officials or board members when any vote involving that service provider is addressed by the board.[32] This is a best practice, but not a common one.

The ERB Standards go beyond the ethics policies of many other public pension funds by addressing outside employment issues. The ERB Standards prescribe outside employment or other outside activities that must be avoided while serving as a Board member or the Executive Director. It also states that Board members may not accept employment with any business or individual who contracts with the ERB within one year after leaving the Board. While enforceability of this requirement has not been tested it sets a clear expectation and standard that is consistent with best practices.

[29] Anything of value includes food, drink, gifts, compensation, tickets, complimentary passes, contributions, reimbursements for travel, or any other activity that is not permitted in NMSA 1978, 22-11-5.1.
[30] The staff's Standards of Conduct include this same requirement.
[31] CalSTRS and OhioPERS have adopted such a policy.
[32] CalSTRS has adopted such a policy.

The ERB Standards set several communication protocols, notably a "quiet period" between potential vendors and Board members and staff. The ERB Standards specify that during a procurement process, there is to be no communication concerning any topic with the Board or staff members, except as described in the procurement document. This is in conformance with best practice and serves to protect the Board from potential conflicts of interest.

Overall the ERB Standards are comprehensive; however, unless compliance is monitored and enforced, and violations are addressed, it falls short of best practices. Some public funds have a compliance officer to be responsible for compliance with ethics policies. The first step toward compliance is to ensure that all parties have read and understand the ERB Standards. Requiring Board members to acknowledge in writing that they have read, understand, and will comply with the ERB Standards would be a best practice. Annual training on the ERB Standards and disclosure requirements would also be beneficial.

The "Board Policies and Procedures" manual outlines enforcement activities related to compliance with the ERB Standards and other Board policies, as well as sanctions for when policies are violated. The policy calls for the Board to respond to any policy violations or fiduciary breaches. By a majority vote, the Board can also authorize an investigation conducted by an investigator. It is best to assign a specific entity or person the responsibility for oversight. Furthermore, authorizing the Board to conduct an investigation into ethical breaches is a good practice.

The policy allows for the Board, after the investigation and a hearing, to vote to remove a member from the Board.[33] This is not common practice. Typically a Board has limited or no ability to remove a Board member from their seat. The ERB policy does empower the Board to supervise its own behavior. A Board member can also be sanctioned by the Board, including formal reprimand and public censure, suspension from participation on the Board, restitution to repay assets that have been dissipated because of that Board member's behavior, or repayment of the value of a gift.

Delegation by the Board

Fiduciaries are not only allowed to delegate certain tasks but they are expected and encouraged to do so.[34] Boards, especially those made up of volunteers, cannot reasonably be expected to fulfill every function the retirement system is responsible to perform, particularly in the area of investments. To meet fiduciary standards, boards must be prudent in their delegations. This means they must carefully assign work only to those who are qualified to handle it and their delegations must be clear and unambiguous. Furthermore, they must engage in ongoing monitoring to ensure that those, to whom they have delegated certain tasks, are actually fulfilling their responsibilities as expected. The fiduciary duty of prudence is always present even when boards assign work to other individuals or entities.

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[33] Public officers or ex-officio Board members cannot be removed by a vote from the Board; they can only be removed by impeachment.
[34] *Donovan v. Cunningham*, 716 F.2d 1455, 1467 (5th Cir. 1983).

Most board delegations related to investments are made to subcommittees of the boards, internal staffs, or outside service providers including investment consultants and investment managers. While oftentimes delegations are only made verbally, best practices are for major delegations to be documented so that all parties share the same understanding about duties, authority, and communication.

a. Delegation to the Investment Committee

Investment related tasks are often delegated to investment committees. They provide a systematic way to focus in-depth on important issues, tend to save valuable time for boards, and are more likely to help board members develop greater investment expertise. In our experience 75% of public retirement systems use some form of an investment committee. In a recent survey the average size of an investment committee was seven, ranging from three to twelve members.[35] The size and composition of an investment committee can vary among funds and can even change over time at the same retirement system. We know of no reliable research that defines the optimal size of an investment committee. A few public retirement systems add outside "experts," who are not members of the board, to their investment committees,[36] while at least one uses only staff.[37] It is rare for a public fund to have an investment committee that includes both board and staff.

The frequency in which investment committees meet ranges from an as-needed basis to monthly, with the average being seven times per year.[38]

The duties of investment committees often include such things as recommending asset allocations, approving active and passive strategies, evaluating the use of internal versus external management, selecting and reviewing investment managers, appointing and reviewing custodians, recommending and reviewing investment consultants, and reviewing the comprehensive annual financial report. Delegation to an investment committee does not relieve the board from its fiduciary responsibilities, but rather places the responsibility of monitoring and oversight on the board to ensure the investment committee is prudently fulfilling their responsibilities.

Currently the Board has an Investment Committee. It previously also had a Real Estate Committee and Private Equity Committee, but the responsibilities of those have been merged into the Investment Committee. The Investment Committee is made up of four members serving one-year terms. It is comprised of the Executive Director, the Chair of the Board, and two members who are appointed by the Chair and approved by the Board. Having the Executive Director serve as a voting member on the Investment Committee blurs the line between governance and management and is not something we recommend. The membership size of the Investment Committee is relatively small in comparison with others.

[35] 2008 NASRA survey of ten statewide public pension funds.
[36] Commonwealth of Massachusetts Pension Reserves Investment Management Board, and Kentucky Teachers' Retirement System.
[37] State of Wisconsin Investment Board.
[38] NASRA 2003 survey regarding frequency of investment committee meetings.

The role of the Investment Committee is described in the IPS. The responsibilities include reviews of actuarial valuations, asset and liability studies, asset allocation, the investment structure, investment performance, and manager due diligence. The Investment Committee is also responsible for recommending and establishing investment policies, guidelines, and effective practices.[39] The IPS has a fairly thorough list of the Investment Committee's responsibilities and is inline with common practices. In order to fulfill its fiduciary oversight responsibilities, the Investment Committee must receive sufficient reporting and information from the staff, investment consultants, and other parties. We have attached in Appendix D a sample list of information that an investment committee may receive and review as it monitors the investment program.

b. Delegation to the Internal Staff

Delegations at public retirement systems primarily flow from the boards to the executive directors, who in turn delegate tasks to the rest of the staff. Investment committees may also delegate investment-related tasks to the chief investment officers. Delegations to staff, like delegations to committees, are best made with some degree of formality and in writing.

Generally, when boards delegate investment matters to staff, documentation exists in one or more of the following: (1) job descriptions; (2) investment policies; (3) directives made at board or committee meetings and recorded in meeting minutes; (4) strategic planning goals and annual business plans; or (5) statements of delegation or an accountability matrix. Best practices are for these documents to explicitly describe the delegations, and to make sure they are not contradictory or ambiguous about who has responsibility for certain functions and who has oversight for them.

Currently there are two documents describing the Executive Director's responsibilities. One is contained in a job posting document, and addresses most areas of importance: duties, authority, delegation, and communications. The job qualifications include the ability to "read, understand, determine and recommend a best course of action regarding the findings of financial, investment, and actuarial statements for a pension fund with $9 billion plus in net assets."[40] This job description focuses mostly on management and investment oversight and does not clearly state that the Executive Director is a fiduciary. There is also a position description for the Executive Director, included in ERB's "Board Policies and Procedures," that clearly states that the Executive Director is a fiduciary. It is a best practice for the Executive Director's fiduciary status to be stated in writing. The ERB may benefit by comparing the two position descriptions to identify areas that are lacking in either document. It is also a best practice to have one comprehensive and unambiguous position description for the Executive Director.

The ERB has a Chief Investment Officer (CIO) position description that appears to be a job posting document. The document sets forth the role and addresses minimum qualifications, knowledge, skills, and abilities. The ERB document contains many of the responsibilities commonly found in a well-defined CIO position description. A comprehensive job description details the essential duties and requirements of the

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[39] New Mexico Educational Retirement Board Investment Goals, Objectives, and Policies, Adopted February 2006.
[40] Executive Director Position Description, Provided by the ERB.

job so that employees understand what is expected of them and how their position fits within the broader organization. The best job descriptions also define the results that are expected from the employee. A sample CIO position description is included in Appendix E. While there are many similarities between the ERB document and this sample, there are some additional items in the sample that ERB may want to consider adding.

The ERB and the Investment Committee meeting minutes clearly show investment-related delegations made to staff and include supporting documentation. This is a best practice.

The ERB's Strategic Plan[41] identifies six strategic goals, including objectives, strategies, and performance measurements for each goal. One of the goals relates to investments and is to "strengthen the fund." The associated benchmark is to maintain an average return of eight percent. This return ties to the investment goals and objectives as listed in the IPS.

The ERB does not have a statement of delegation, nor an accountability matrix, which is not unusual. Most systems have not developed them either. Recently, however, some large systems have benefited from using an accountability matrix to clarify and document roles and responsibilities. This is an evolving best practice. We have attached a sample accountability matrix in Appendix F.

c. Delegation to the Service Providers

When public retirement boards delegate to outside service providers, the delegations are most often made in contracts that contain the scope of work and fees for services. Typically, contracts are executed by either the executive director or board chair after receiving close review by the chief investment officer, investment consultant(s), and legal counsel. The terms of the contracts vary to some degree, but best practices are for contracts to impose fiduciary standards (prudent expert or prudent investor) on investment managers and consultants to the extent of the services they provide. The best contracts also give the retirement systems quick termination rights without cause.

The ERB has retained NEPC for general investment consulting and recently hired NEPC, LLC for private equity investment consulting. The contracts for these consultants clearly state their fiduciary status. NEPC does not acknowledge the standard of care as being the prudent investor standard in their contracts. The ERB has also retained ORG Portfolio Management LLC for real estate consulting and Courtland Partners Limited for infrastructure consulting. The contracts for these two consultants do not explicitly state that they are fiduciaries for the services they provide to the ERB. Best practice is for a consultant to be named as a fiduciary within the scope of services they provide and have the prudent expert or prudent investor standard imposed upon them. In New Mexico, the prudent investor standard would be appropriate. It is also best practice for the contract to specify for whom the consultant works. A direct reporting relationship from the consultant to the board increases the likelihood that the board will receive independent advice.

[41] Educational Retirement Board, Strategic Plan: Fiscal Year 2011-2013.

The ERB currently uses 58[42] different external investment managers. Staff verified that there are contracts in place for all managers and each was reviewed by the CIO and General Counsel before being executed. We reviewed two contracts that the ERB staff represented were the standard form used, and we found them to be clear and inline with industry best practices.

ERB delegates appropriate legal matters, such as review of investment contracts to Foster Pepper PLLC, which is best practice to utilize specialty service providers. Wachovia Bank N.A. handles securities lending services for the ERB and per the contract, acts as a fiduciary and has the duty to exercise a skill greater than that of an ordinary person. The New Mexico Board of Finance has selected The Northern Trust Company to assume the custodial bank responsibilities for the ERB, as well as the Public Employees Retirement System, and the State Investment Council.

Staffing

A key element to a successful investment program is staffing - staff roles, skill sets, and size. There is no industry standard in terms of an ideal staffing model, and therefore a system's staffing should be based on its purpose, core business functions, and unique circumstances. Staffing decisions in the investments area are often impacted by the type of funds for which the system has responsibility, asset size, asset classes used, internal versus external management, active or passive strategies used, number of managers, roles and responsibilities of outside consultants, and other available resources.

Best practices for attracting and retaining a strong investment staff are to have clearly defined roles and responsibilities. The ERB has separate position descriptions for all seven investment staff positions.[43] Several of the Board's policies also set forth staff responsibilities. It is best for position descriptions to be inclusive of all responsibilities delegated by the Board.

The IPS states that the Investment Division shall manage the portfolio in compliance with Board policies and the New Mexico State statutes, assist with development and review of the investment philosophy and the policies, advise and inform the Board about investment managers, and prepare regular and requested reports on the progress of meeting set investment objectives. The ERB also has Investment Policies for each of the alternative investment groups that also contain specific responsibilities of the staff. All the responsibilities identified in the policies are included in the position descriptions.

Best practices and increasingly common practices are for investment staffs to be comprised of individuals with advanced degrees or professional certifications (i.e., MBAs, CFAs, CAIAs, and CPAs).[44] Of the six members of the investment staff, three have professional certifications and three have advanced degrees. Staff is strongly encouraged to pursue investment related education, such as CFA and CAIA advanced certifications. Currently, two staff members are pursuing these certifications. It is also best practices for

[42] External manager count based on 9/30/2009 Performance Report.
[43] Some of the position descriptions are contained in "Position Assignment Questionnaires".
[44] MBA: Master of Business Administration; CFA: Chartered Financial Analyst; CAIA: Chartered Alternative Investment Analyst; CPA: Certified Public Accountant.

continuing educations programs, and reasonable career paths given the size of the organization, be offered to the staff members.

There is no set number or ratio to determine the “right” staff size. Generally, as the assets and complexities within the portfolio grow, so do the number of staff supporting the investment functions. From a process perspective, best practices are for a retirement system to have autonomy in prudently setting staff size regardless of layoffs, hiring freezes, or furloughs imposed upon other public employees who are not serving in a fiduciary capacity. A prudent process is to set staffing levels by identifying the tasks that must be performed and the time required to perform each task. Indicators of whether staffing is adequate involve assessing (1) how often deadlines have to be extended; (2) how well communication is handled with the board; (3) whether processes and procedures are followed or cut short; (4) whether proper documentation of the investment process is maintained; (5) employees’ expressed concerns about their workloads; (6) increases in the incidence of sick leave; (7) how frequently outsourcing has been necessary; (8) how often employees have to work extended hours; and (9) the level of deferred or forfeited annual leave. Another major factor in determining the appropriate staff size is whether or not assets are managed internally or externally. Internally managed assets require experts capable of handling the responsibilities, as well as additional layers of oversight.

The ERB Investment Division includes a CIO, the Deputy CIO, three Investment Officers (one vacancy which is in the process of being filled), and two Financial Analyst positions. In October 2009, the ERB’s CIO was asked to assume the CIO position at the New Mexico State Investment Council. The ERB’s Executive Director assumed the CIO responsibilities in addition to her own; until recently when that position was filled by a contractor. The Deputy CIO and one of the Investment Officers have assumed the tasks of the vacant Investment Officer position in the interim in addition to their regular responsibilities. Four positions at the ERB are “exempt” (Executive Director, General Counsel, CIO, and Deputy Director) and do not require hiring approval from the state; however, all other positions are “classified” and subject to state procurement practices. While this requirement could hinder the agency from adequately staffing critical roles which are needed to carry out investment related activities, it has not yet done so. Both the Executive Director and the Deputy CIO have taken on extra responsibilities that require an enormous amount of time.

Of ERB’s seven positions, five are directly involved in asset management and oversight, while two (the financial analyst positions) are involved in processing and reconciling transactions and other such support tasks. A national survey by Greenwich Associates in 2008[45] indicates that systems of comparable size to the ERB have an average staff size of 5.8 people for an externally managed fund and a staff size of 8.1 people for an internally managed fund, compared to the ERB’s 5 positions responsible for internal and external management. The survey did not specifically indicate the staff sizes of those funds that invest in alternative asset classes, but we would expect that funds with these types of investments would have a larger-than-average staff size.

[45] Greenwich Associates – 2008 Investment Consulting Business – Market Dynamics Report.

The average fund has 4.6 people who provide “Administrative Services,” compared to ERB’s 2 positions. Relative to this survey, the ERB investment staff size is somewhat smaller than the industry average.

	Select and Supervise External Investment Managers			Managing Investments Internally			Provide Administrative Services		
	2006	2007	2008	2006	2007	2008	2006	2007	2008
Public Funds	2.8	2.4	2.6	4.1	9.2	4.6	3.1	2.6	2.4
State	3.5	3.7	4.6	5.7	12.4	8.3	4.5	4.2	3.8
Municipal	2.2	1.7	1.6	1.8	2.1	2.0	1.9	1.6	1.6
Over $5 billion	4.9	4.5	5.8	5.7	11.5	8.1	5.1	4.9	4.6
$1-5 billion	1.6	1.5	1.5	1.0	1.7	1.3	1.5	1.3	1.5
$501 million-$1 billion	1.2	1.1	1.4	1.4	--	1.0	1.9	1.1	1.4
$500 million and under	1.3	0.8	0.9	1.3	--	0.6	1.5	1.1	1.2

Budget and Financial Resources

Operating budgets for public retirement systems are either appropriated by legislatures or set by boards themselves. In nearly all situations the funds for the budgets come directly from the assets of the trusts and not from the general revenue of the states. Having legislatures control or have the right to control the operating budgets for public retirement systems is still common; however, the best practices are for independent boards to have the authority to set budget, subject to ongoing oversight. If non-fiduciaries (legislative and executive branches of a state) impose unreasonable restrictions on the budgets, they can hinder or even prevent boards from fulfilling their fiduciary obligations. The real concern is that boards may be so constrained that they cannot support an infrastructure to meet the high fiduciary standards of prudent experts in investing assets, as the law requires.

The ERB’s operating budget is set by the Board and is subject to the approval of the Legislature. In the past three years the ERB has received less than it requested, as illustrated in the following chart.

Fiscal Year	Budget Amount Requested[46]	Budget Amount Approved
2010	$35,808,200	$28,551,300
2009	$32,569,300	$32,423,300
2008	$33,398,400	$30,051,200

Budget autonomy is not an “open checkbook” without restrictions. The fiduciary duties of prudence and loyalty impose strong controls on boards when they set the budget. Generally, these duties require that boards incur only reasonable and necessary expenses. The duties do not require fiduciaries to incur only the lowest possible costs in operating the retirement system, but costs must be reasonable for the services

[46] Provided by the ERB Staff.

provided.[47] If fiduciaries spend trust assets on unnecessary or unreasonable expenses, they could be found to have breached their fiduciary duties which could lead to personal liability. The best practice is for boards to have discretion about how to allocate resources in the budget to fulfill the system's responsibilities. Further, best practices are for this to be a transparent exercise, subject to open meetings and open records laws, and readily accessible to all interested parties.

The financial resources required to handle an investment program for a public retirement system are dependent on many factors. Those with the greatest impact are:

- Number of separate trust funds managed
- Types of asset classes used
- Internal versus external management of assets
- Active versus passive strategies
- Division of labor between staff and outside consultants
- Revenue from securities lending to offset expenses
- Soft dollar arrangements, rebates, and commission recapture

ERB's annual operating budget is funded by the trust funds assets and not the general revenue of the State, which is common practice. The budget for ERB is prepared by the staff and approved by the Board before being sent to the Legislative Finance Committee (LFC) for recommendation to the Legislature for appropriation, and then goes to the Governor to sign or veto. As noted earlier, legislative appropriation is no longer the best practice and as a result has the potential to significantly hinder the ERB in prudently managing the Fund. Legislative appropriation is also arguably contrary to the ERB's Constitutional grant of sole and exclusive responsibility for the administration and investment of trust assets.

The ERB, with nearly $8 billion in assets, had a total operating budget for fiscal year 2009 of approximately $32 million. The ERB's investment related fees and expenses are shown in the following chart.

Fiscal Year 2009 Investment Related Fees and Expenses[48]	
Fee Category	Amount ($ in 000s)
Total Investment Management Costs	29,369
Consultant	1,502
Custodian	671
Fund Oversight (salaries, expenses)[49]	3,894
Other (legal, etc)	389
Total Costs	35,825
Total Basis Points	51 bps

[47] Marc Gertner, Trustees Handbook: A Basic Text on Labor-Management Employee Benefit Plans (New York: International Foundation of Employee Benefit Plans, 1990).
[48] Fees and expenses for FY 09 provided by ERB.
[49] ERB salaries and benefits provided by 2009 Budget.

To determine if 51 bps is a reasonable amount to spend on investment related expenses, our first step was to consider the reasonableness of outside investment management fees since they make up the largest portion of the total expenses. ERB's management fees are low, as we further explain in the next section of the report. Generally, investment costs for public funds average about 50 basis points, but the range is very broad. For example, PERA's costs were 27 basis points. Best practices are for boards to seek an evaluation of its total investment costs from an independent source[50] with an extensive database and the ability to take into account the complexity of the portfolio to set a benchmark for costs.

Conclusions

We conclude that the size and composition of the Board is common and reasonable. The terms of service are comparable to what other public retirement systems have, and ERB is not experiencing any problems with the loss of institutional knowledge as the Board turns over. Board members have no term limits, which is not uncommon, and has not been a problem.

No statutory expertise requirement exists for the ERB Board members; but, there is a statutory requirement of at least eight hours of relevant education. Because of the expertise of the internal experts on staff and the expert external support from the investment consultants, the Board does not need to have in-depth portfolio management skills; however, the Board does need to have enough expertise to be conversant in institutional investing and be able to analyze and question the recommendations of staff and the consultants. Board members would benefit from intensive orientation and ongoing training related to relevant investment issues. More experienced and knowledgeable boards can better evaluate information they are given and recommendations that are made.

The Board's responsibilities and delegations are partially documented in the "Board Policies and Procedures." This document contains useful information; however, it could be enhanced to be a complete governance manual with more detail and information.

Written charters for all three of the Board's Committees would help to clarify responsibilities.

The Board appropriately delegates to the Investment Committee.

The organizational structure of the ERB is straightforward and reflects the best practice of the Chief Investment Officer (CIO) reporting to the Board through the Executive Director. The investment staff appears to understand their roles and responsibilities. The job descriptions for the Executive Director and CIO are available in some form, although they could be improved to be more accurate and comprehensive. Delegations to the staff from the Board are primarily documented in the IPS and Board and Investment Committee meeting minutes.

[50] Cost Effectiveness Measures (CEM) is a recognized leader in analyzing the cost effectiveness of public funds (primarily the investment costs of public retirement systems), obtaining standardized information from peers, and comparing results.

Staff responsibilities are what we would expect for a portfolio of $8 billion with alternative investments, bimonthly Board meetings, and monthly Investment Committee meetings. The staff size is small even when the services provided by the investment consultants are taken into account. The most critical staffing issue is the recent reassignment of the CIO, leaving a vacancy that is being temporarily filled by a contractor. Another critical vacancy is that of the Investment Officer position. The ERB effectively only has four individuals overseeing and managing the total fund, which is relatively small for such a complex portfolio with assets being managed internally.

The budget approval process is understood by all stakeholders and while it is workable, it does not reflect the best practice of placing budget authority with the Board and holding the Board members accountable for the reasonableness of the budget and for budget compliance.

Recommendations on Governance and Organizational Structure

Composition and Size of the Board

- None

Terms of Service on the Board

- None

Expertise of the Board Members

1. Seek a statutory change requiring new Board member orientation and more hours of ongoing education, including annual fiduciary training.
2. Provide by policy a specific orientation and formalized ongoing education for Investment Committee members.
3. Continue to ensure all new Board members receive a timely and thorough orientation session as well as annual training on fiduciary responsibilities.

Board Responsibilities

4. Examine the intent of the Prudent Investor Act and its application to ERB and determine whether protections, indemnification, or immunity provided under the Education Retirement Act, the Torts Claims Act, or other laws are appropriate.
5. Amend the Education Retirement Act to include a definition of who is a fiduciary.
6. Update and formally approve the “Board Policies and Procedures” document so that it is a comprehensive governance manual that can be distributed to new Board members.
7. Create a more detailed position description for individual Board members and distribute it during the election and appointment process.
8. Create comprehensive charters for the Investment Committee, the Audit Committee, and the Evaluation Committee.
9. Evaluate whether an ex-officio member should be allowed to designate a specific person to attend, participate, and vote at meetings.

Ethical Considerations and Disclosure

10. Modify the language in the ERB Standards of Conduct to require that third party disclosure regarding gifts, entertainment, and travel is required on an annual basis.
11. Have the Audit Committee review disclosure forms so that any conflicts of interest can be appropriately managed as ERB business is conducted.
12. Require Board members and staff to annually acknowledge in writing that they have read and will comply with their respective ERB Standards of Conduct.
13. Conduct annual training regarding the ERB Standards of Conduct to highlight the importance of ethical standards and conflicts of interest.
14. Clarify who has responsibilities for ongoing monitoring of compliance.

Delegation to the Investment Committee

15. Modify the composition of the Investment Committee to include only Board members.

Delegation to Internal Staff

16. Discuss what value an accountability matrix may have in documenting and clarifying roles and responsibilities.
17. Ensure there is a comprehensive and unambiguous position description for the Executive Director and for the CIO, and review and update them as necessary.

Delegation to Service Providers

18. Amend the contracts with ORG and Courtland and clearly specify that each consultant is a fiduciary for the services they provide, the consultants work for the Board, and the consultant's standard of care is that of a prudent investor.

Staffing

19. Seek staffing autonomy to allow the ERB to fill all investment positions without being bound by state personnel procurement practices.
20. Fill the vacant positions on the investment staff as soon as possible.
21. Reevaluate the staff size in light of portfolio complexity, internal management, and oversight of alternative investments.

Budget and Financial Resources

22. Seek budget autonomy but maintain fiduciary standards, transparency, and reporting requirements.
23. Consider working with an independent external party to monitor and benchmark investment related costs.

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Overview of Policies, Procedures, and Practices

The most critical policies, procedures, and practices related to the investment of assets by public retirement systems ensure that the boards and staffs fulfill their fiduciary responsibility of prudence. Prudence is an ever-evolving standard that has become increasingly high as the investment vehicles and strategies used by institutional investors have become more complex.

The Prudent Investor Rule[51] is not only a common standard imposed on those who invest public retirement funds, but it is also the optimal standard. It is stricter than the Prudent Man Rule[52] that merely requires fiduciaries to invest assets of others as they would invest their own. The Prudent Investor Rule, on the other hand, says that the actions of fiduciaries will be judged by the care, skill, and diligence that a person acting in a like capacity and familiar with such matters would use under the same circumstances. Essentially this means that the contemporary best practices of other public retirement systems and relevant institutional investors are the appropriate standards not out-dated standards of the past. This standard of prudence is parallel to what is required by federal law[53] of those who manage assets of pension funds in the private sector.

While fiduciaries are not guarantors that every investment decision will be profitable or turn out as expected, they must employ pure, thorough, and scrupulous processes in their decision-making in order to meet the high standards of prudence and avoid personal liability. Anything less is not good enough. Therefore, the policies, procedures, and actual practices of boards, staffs, consultants, and investment managers must reflect sound processes.

Findings and Analysis

Our findings and analysis of issues related to policies, procedures, and actual practices of the ERB were based upon our review of internal policies, documents, meeting minutes, contracts, consultant reports, and discussions with members of the Investment Committee, staff, and consultants. We discussed issues and debated our analysis internally as we made comparisons to policies of peers, industry standards, and best practices related to the ERB portfolio.

Asset Allocation

Asset allocation is one of the most important decisions a public retirement board is called upon to make. It is the essential, strategic decision in determining the expected long-term rate of return and risk profile for an investment portfolio. Boards typically set asset allocation with the assistance and advice of actuaries, investment consultants, and professional staff. Asset allocation decisions are usually reviewed annually but changed less frequently. A shift in the asset allocation is usually made to either increase returns, lower risk, achieve additional diversification, or in some cases, all three.

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[51] NMSA 1978, § 45-7-601.
[52] Restatement of the Law, 3rd, Trusts: Prudent Investor Rule.
[53] Employee Retirement Income Security Act (ERISA) § 404(a)(1)(B), 29 U.S.C. § 1104(a).

Asset allocation decisions are typically based on either an asset allocation review or an asset liability study. An asset allocation review is an asset-only optimizing exercise based on Modern Portfolio Theory (MPT)[54] holding that for every combination of a specified group of asset classes there is a portfolio having the highest expected return for a given level of risk.

The result of an optimization is a portfolio of asset classes that have the highest level of return for a given level of risk. Assumptions regarding expected return, expected risk as measured by volatility, and historical correlations[55] between asset classes are key inputs to this exercise. Highly correlated asset classes have similar returns under the same market conditions, while poorly correlated assets offset each other. The effect of a single asset class is therefore moderated by the combination with others, and so the inclusion of particular types of investments or asset classes that by themselves are considered unattractive for reasons of volatility can find a reasonable place in a portfolio of other investments that are not as well correlated. The optimization exercise identifies these portfolios and provides the decision-makers with a tool to measure their own risk tolerance for certain combinations of asset classes.

While asset allocation reviews are useful in aligning a portfolio with a return goal, they do not take into consideration the liabilities of a pension plan. Results from asset liability studies model anticipated growth rates in liabilities and cash flows, based on a fund's specific benefit formula and demographics. They explore how each asset allocation affects the probability of meeting the fund's actuarial benchmark, funding status, contribution rates, and ability to pay benefits as they come due. By recognizing that a fund's liabilities have certain characteristics and potentially change over time, an asset allocation strategy, or set of strategies, can be considered to most likely maintain or improve the funded status of the plan. An asset liability study provides results that are truly customized to the plan's unique characteristics. Best practices are to have asset liability studies performed every three to five years or when major modifications are made to the benefits offered by the system.

The ERB is required by the IPS to have an asset liability study conducted every three to five years, which reflects best practice. The last one was completed by NEPC in January 2006. In general, the study seemed comprehensive and considered the liability characteristics of the plan. The metrics used (economic cost based on expected contributions adjusted for final year funded status) were appropriate. The study also examined relevant risk measures of economic cost (i.e., cost during bad economic outcomes measured as the 95th percentile result) when evaluating differing asset allocation alternatives. This analysis provided the decision makers with the right tools to assess if they were comfortable with the level of risk involved in particular asset allocation targets.

The asset allocation mixes considered in the 2006 asset liability study did not include a wide range of variation in the equity versus fixed income exposure. The alternative mixes considered where minor modifications compared to the asset allocation that existed at that time. For instance, the total allocation to

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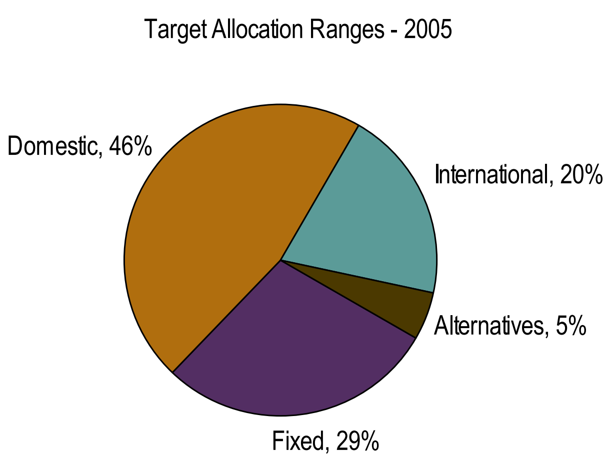
[54] Modern Portfolio Theory was developed by Harry Markowitz and is outlined in the paper "Portfolio Selection" published in *The Journal of Finance*, Vol. VII, No. 1 in March 1952. Markowitz later received the Nobel Prize in Economics for his work on Modern Portfolio Theory.
[55] Correlation is a measure of the difference in behavior between asset classes.

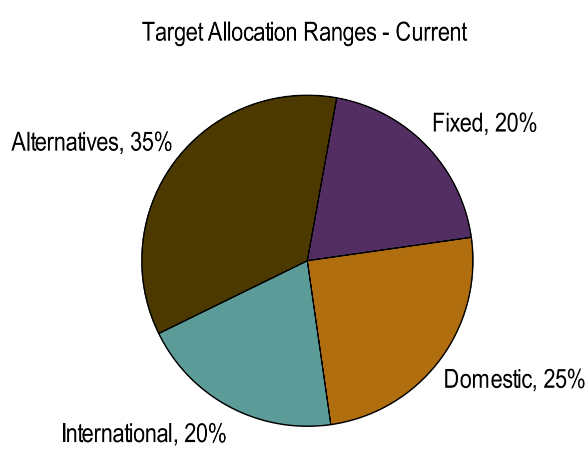
fixed income only ranged from 25% to 30%. It can be useful for a board to consider a wider range of possible allocations so that it can analyze the full range of options available and its impact on the economic cost.

NEPC completed an asset allocation review in 2007, inclusive of two efficient frontier models, that analyzed asset allocation mixes that were much different from the existing allocations. The main themes of the review were to further diversify asset classes and extend investments in the alternative asset classes. The Board debated this topic at length during the October 2007 Board meeting, since the shift in asset allocation would extend the portfolio into assets outside of traditional fixed income and equities and require additional education and review by the Board. Ultimately the Board came to the decision that investing in new strategies and asset classes would benefit the fund with enhanced return potential and additional diversification.

In light of the market turmoil over the past few years NEPC has recommended the Board conduct another asset liability study in 2010, which is anticipated to be completed in March. Furthermore, the Board reviews its asset allocation with NEPC and staff on a quarterly basis per the requirement within the IPS. These reviews assist the Board in determining if the asset allocation is still consistent with the Board's expectations for returns and tolerance for risk and continues to meet the needs of the ERB.

The charts below compare the 2005 target allocations with those currently in place.





The chart below calculates an expected return and risk level for the ERB portfolio. Based on the current target allocations, we calculate[56] the ERB's long-term expected return to be 7.8% with a risk level (volatility) of 13.8%.

Asset Classes	Long-Term Policy Target	Long-Term Expected Return	Expected Risk
Total U.S. Equity	25.0%	7.4%	16.8%
Developed International	10.0%	7.1%	19.0%
Emerging Markets International	10.0%	6.9%	27.3%
Core Bonds	15.0%	4.8%	6.6%
High Yield Credit	5.0%	6.1%	11.6%
Absolute Return[57]	10.0%	7.2%	10.1%
Private Equity	10.0%	9.8%	32.0%
REITs	3.5%	6.2%	19.0%
Private Real Estate	1.5%	6.4%	11.9%
Infrastructure	4.0%	7.8%	24.6%
Timber	1.0%	6.8%	8.1%
Global Tactical Asset Allocation[58]	5.0%	6.6%	7.4%
Total	100.0%	7.8%	13.8%

While we estimate that the ERB portfolio will earn a roughly 7.8% return, the uncertainty surrounding this expectation, based on historical volatility of asset classes, is quite large. The following table illustrates the range of expected returns over the next 15 years, along with probabilities of achieving these returns. The results indicated that there is a 50% chance of achieving a 7.8%[59] return over the long-term, just below the fund's expected return of 8.0%. The 7.8% expected return can be improved if there is outperformance earned by active managers.

Percentile Probability	Expected Returns
5.0%	13.8%
25.0%	10.3%
50.0%	7.8%
75.0%	5.5%
95.0%	2.2%

[56] Based on EnnisKnupp's Capital Markets Assumptions for the Second Half of 2009.
[57] The Capital Market Assumption for Broad Hedge Funds was used for absolute return.
[58] Expected risk and return are estimates based on a 40% allocation to hedge fund strategies, 40% to bonds, and 20% to equity.

One of the ERB's goals in setting the new asset allocation in 2007 was to achieve its 8% actuarial assumption for investment earnings, which would also serve to improve funding levels. As of June 30, 2009 the actuarial valuation performed by Gabriel Roeder Smith & Company indicated the ERB was 67.5% funded. The most significant change in the target allocation was the 35% allocation to alternatives. When compared to other public funds, this is a fairly material allocation to alternatives; but it is diversified between several different asset classes.

Notable characteristics of alternative investments are illiquidity and the contractual commitment to funding. With the majority of the ERB's assets in liquid marketable securities (equities and fixed income), the allocation to alternatives should not present a problem from a liquidity standpoint. Also, liquidity issues are moderated by the development of secondary markets.

While the proper asset allocation for a system ought to be based upon that system's liabilities, cash flow, risk tolerance, and legal restrictions, some systems find it useful to compare their asset allocation to that of other systems. Below we compare the actual and target allocations of the ERB against average public fund allocations.[60] While a comparison to peers should not drive policy decisions, it can be useful to know what decisions peers have made.

ERB Target and Actual Allocation as of 6/30/2009[61] versus Greenwich Average					
Asset Class	2008 Greenwich Average[62]	ERB Target Allocation	Difference from Greenwich	ERB Actual Allocation	Difference from Greenwich
U.S. Equity	36.5%	25.0%	-11.5%	29.8%	-6.7%
Non-U.S. Equity	18.8%	20.0%	1.2%	17.3%	-1.5%
Total Equity	55.3%	45.0%	-10.3%	47.1%	-8.2%
Fixed Income	27.2%	20.0%	-7.2%	36.6%	9.4%
Private Equity	6.6%	10.0%	3.4%	2.3%	-4.3%
Absolute Return/Hedge	1.7%	10.0%	8.3%	7.6%	5.9%
Real Assets	0.0%	5.0%	5.0%	0.6%	0.6%
Real Estate	7.3%	5.0%	-2.3%	4.6%	-2.7%
Global Tactical Asset Allocation	0.0%	5.0%	5.0	0.0%	0.0%
Other[63]	2.0%	0.0%	0.0%	1.2%	-0.8
Total Fund	100%	100.0%	--	100.0%	--

60 As reported in Greenwich Associates' 2008 survey of 328 public funds (defined benefit assets only) of all asset sizes. For the 87 public funds greater than $5 billion included in the survey, the results were similar and as follows: U.S. Equity 36.2%, Non-U.S. Equity 19.0%, Fixed Income 26.9%, Private Equity 6.9%, Hedge Funds 1.6%, Real Assets not reported, Real Estate 7.4%, GTAA not reported, Other 1.9%.

61 ERB 2nd Quarter 2009 Performance Report.

62 Column may not add up to 100% due to rounding.

63 Greenwich does not specify what investments are classified as "other". Other investments that may fall within this category in the survey are Real Assets, Global Tactical Asset Allocation, or Cash. ERB's 1.2% allocation to "Other" is cash.

The average allocation to alternatives for the public funds universe is 17.6%, which is much lower than the ERB's target allocation of 35%, but nearly identical to the ERB's actual allocations. The Greenwich survey information reflects actual allocations and not target allocations. Many public pension funds have already revisited their allocations to alternative investments or plan to do so in the near future, which is prudent.

Since actual allocations lag target allocation during the funding period of new investments, we would anticipate that over the next several years as allocations to absolute return, real assets, and other alternative areas are funded, the Greenwich results may not be as divergent from the ERB's targets as they appear currently. Nevertheless, recognizing that the ERB's target allocations are significantly different than the actual allocations of many public funds, signals the need for the ERB to truly understand the risks of this allocation and evaluate the impact on the cost for maintaining the pension plan during poor economic conditions.

The main difference between the ERB's target allocations and those of peers are ERB's allocations to absolute return strategies (hedge funds), real assets, and global tactical asset allocation. Together, these three categories represent 20% of the ERB's target allocation. Global tactical asset allocation, however, can be thought of as an implementation strategy for allocations within the U.S. equity, non-U.S. equity, fixed income, and other asset classes. If the 5% is considered part of the ERB's allocations in those areas, the effective allocation to alternatives is approximately 30%. Hedge funds, then, make up a significant portion of the ERB's alternative allocation.

Hedge funds have become increasingly popular in recent years, with now more than 8,000 funds in existence with assets in excess of $1.7 trillion.[64] The term "hedge fund" has become somewhat synonymous with expectations for high risk, and while there are several key risks to be aware of when investing in hedge funds (such as investment risk, lack of transparency, event risk, and lock ups), not all hedge funds are high risk investment opportunities. There are a large number of investment strategies, risk levels, and approaches used by hedge funds. There have also been positive developments from the investment management community, such as greater transparency, flexibility in fee structure, and strategies with lower levels of leverage, which have allowed public fund investors to feel more comfortable considering them as a part of the portfolio. It is important, however, for any allocation to hedge funds to be fully supported by an asset-liability study, and for the risks to be understood and monitored by the fiduciaries. Arguably the greatest risk is operational risk.[65]

Asset Classes

Asset class diversification is a crucial fiduciary responsibility and essential to risk management. Thus, exploring and investing in new asset classes requires thoughtful planning and implementation. Public retirement systems diversify by asset type (stocks, bonds, real estate, etc.) and then further diversify within

[64] Morgan Stanley. As of October 2008.
[65] Operational risk, as described in the Buy Side Risk Managers Forum February 2008 paper "Risk Principles for Asset Managers", includes "all aspects of errors and mistakes that can be made in the ordinary course of business as well as in a disaster." Adequate systems, processes, and resources are an important part of operational risk management.

each asset class according to factors such as sector, credit quality, and geography. In order to achieve appropriate diversification, a program must have an organized and customized approach to investment selection.

Under Modern Portfolio Theory, the appropriate way to structure a portfolio is to diversify investments among asset classes. No investment is considered, *per se*, imprudent. An investment can be risky in isolation and still be prudent if a particular investment fits within the overall investment portfolio. Asset class correlation is another fundamental tenet of MPT. For example, if one type of investment tends to increase in value during certain market conditions while another one declines, then the overall portfolio is strengthened, and risk can be reduced by including both asset classes.

A program that follows best practices will have a broad range of asset classes, leveraging internal and external resources to generate ideas. It will provide advance education to board members and staff about the risks and expected returns of various asset classes and strategies before any are introduced into the portfolio. Decisions to include new assets classes are best made by the boards with input from the staff and consultants. Discussions of the positive and negative aspects, as well as the rationale in support of a new asset class, should be documented in board meeting minutes and maintained with any written materials that influenced the board's decision.

The ERB's draft IPS, dated June 2009, outlines the allowable asset classes and types of investments. The asset classes used by the ERB are comparable to those used by other sophisticated institutional investors, and include the following:

- Equities – Includes both domestic and international active and passive strategies utilizing growth and value styles, in addition to core styles.
- Fixed Income – Composition may include corporate and government issued debt including, but not limited to; mortgages, bank loans, loan participations, and structured notes.
- Real Estate – Consists of a combination of publicly traded equity securities of Real Estate Investment Trusts (REITs) and private real estate investments held in partnerships or other fund structures.
- Absolute Return – Conservative hedge funds are expected to provide an absolute rate of return above that of fixed income with a low correlation to the more traditional asset classes. Preferred vehicle is fund-of-funds, but limited use of individual hedge funds is allowed.
- Private Equity – Primarily includes investment vehicles of limited partnerships and/or fund-of-funds.
- Real Assets – The portfolio will be comprised of investments in infrastructure and natural resources, in assets such as toll roads, electricity generators and distributors, seaports, airports, and similar assets.
- Global Tactical Asset Allocation – Used to provide an additional layer of diversification. Will use various global markets and make opportunistic investment shifts.

Currently, the ERB views the domestic and international markets as separate asset classes. Some institutional investors are moving away from dividing equities into domestic and international categories and instead viewing them as one category of global equities. The economic argument for investing on a global basis is compelling. First, the distinction between U.S.-based and international companies is becoming less important from an investment perspective. Also, the definition of what is a U.S. versus a non-U.S. company is becoming increasingly unclear with non-U.S. companies having operations in the U.S. and vice-versa. Also, many companies domiciled in the U.S. derive a significant portion of their revenues overseas just as many large non-U.S. companies receive a large portion of their revenue from U.S. sales.

Another argument for global investing is that top companies in different industries are located throughout the world. Some are in the U.S. and some are not. For example, the ten largest construction firms in the world[66] are located outside of the U.S. and seven of the ten largest banks are located outside of the United States. Leading information technology firms on the other hand, are largely domiciled in the United States. A global portfolio can disregard country distinctions and select investments notwithstanding the physical location of the company.

We believe it is best to think of global equity as an asset class; where U.S. and non-U.S. equity are "market segments" under the global equity umbrella. Modern Portfolio Theory suggests that the "market portfolio" is the most efficient portfolio (in terms of risk and return trade-off) an investor can hold. The "market portfolio" is a market-cap weighted sum of all available asset classes. Based on this theory, we believe the most efficient total equity portfolio is one where U.S. and non-U.S. equity is held in proportions approximating that which is available in the marketplace. This would eliminate the "home country bias[67]" present in many institutional portfolios.

Global Tactical Asset Allocation (GTAA) is an investment strategy, not an asset class, that attempts to exploit short-term market inefficiencies by taking positions in various markets with a view to profiting from relative movements across those markets. The approach focuses on general movements in the markets rather than on performance of individual securities within them. Positions are generally taken with a relatively short-term time horizon (3 – 6 months) – hence the term tactical asset allocation – and in markets across the globe. The ERB has a targeted allocation of 5% to this investment strategy.

The Investment Committee has voiced concerns over the GTAA investment strategy and believes the 5% allocation belongs in absolute return (hedge funds). The manager hired to implement GTAA, Bridgewater, uses a hedge fund model for 2% of the allocation,[68] therefore effectively increasing the ERB's absolute return target allocation to 12%. The other strategy[69] managed by Bridgewater has persistent market exposure. Approximately 80% of this strategy is presently held in fixed income securities and gold.

The Board works closely with NEPC, the Investment Committee, and staff in determining when to allocate to new asset classes. Board meeting minutes indicate that the ERB relies heavily on NEPC for due diligence and recommendations in regard to making investment decisions. This process is prudent, so long as these recommendations are vetted by the Board and thorough education and analysis has been presented to the Board members before they make any formal decision to move forward. The minutes reflect that discussions take place during the meetings, with guidance from NEPC.

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[66] Brandes and MSCI.
[67] "Home Country Bias" is an overweight to the stock market of the country in which the institutional investor is located.
[68] Pure Alpha strategy.
[69] All Weather strategy.

Rebalancing of Assets

A rebalancing process ensures that the strategic asset allocation and resulting risk and return characteristics are maintained. Due to continuous market movements, specific target allocations to an asset class are difficult to maintain, so allowable "ranges" for asset class exposures are typically approved by the board as part of the asset allocation policy. Each approved allocation to an individual asset class may then fluctuate from its expressed target as long as it remains within the allowable range. If a range is exceeded, reallocation of assets or rebalancing is triggered to bring the actual allocation back to its appropriate level. It is common practice for public pension funds to initiate rebalancing either every quarter or every month when the actual allocations exceed the allowable ranges. Often, public pension funds will also use normal cash flows to keep the actual allocation within the ranges.

Rebalancing ranges are set to frame a portfolio that generally maintains the expected return and risk characteristics defined by the asset allocation decision. The ranges are typically expressed as plus or minus a percent around the asset allocation target. If there were no trading costs to rebalance a portfolio, the optimal strategy would be one of continual rebalancing to the target allocations. Ranges are typically no wider than plus or minus 5%. Tighter ranges are often used for asset classes with smaller allocations. Wider ranges are not preferred for two important reasons; (1) a wider range allows for tactical asset allocation, a particularly difficult and not historically successful strategy, and (2) a wider range effectively negates the asset allocation decision by materially changing the expected return and risk profile of the portfolio.

Rebalancing to targets results in a lower benchmark risk than rebalancing to the edge of the range; this is because the resulting actual allocations will closely match the policy targets. Benchmark risk is defined as tracking error or standard deviation of the difference between actual fund performance and the policy benchmark performance. While reducing benchmark risk is a good outcome, rebalancing to the target typically incurs a higher cost than rebalancing to the edge of the range. Institutional investors must balance goals of reducing benchmark risk and minimizing transaction costs when deciding upon a rebalancing methodology.

Standard institutional practice, and EnnisKnupp's recommendation, is to rebalance when actual allocations deviate materially from target allocations, rather than rebalancing at specified time intervals. Actual allocations should be examined monthly or quarterly for rebalancing purposes. Special consideration needs to be given to illiquid asset classes where rebalancing is not possible or is very costly. Our analysis, based on a simulation analysis[70] that randomly generated 10,000 observations from distributions built using our capital markets expectations, indicates that in cases when managers must buy and sell securities in order to rebalance, it is best to do so only to the edge of the range. This superior risk/cost control outcome assumes that actual securities are being bought and sold during the rebalancing procedure (i.e., separate account managers are being instructed to buy/sell securities to affect the rebalance). In cases where a free trade

[70] Assumptions for the simulation analysis included: goal of rebalancing to control risk, 5 years of equity and fixed income returns, policy of 70% equity and 30% fixed income, one way trading costs of 24 basis points for equity and 12 basis points for fixed income, portfolio size of approximately $1.2 billion.

may exist with an index fund manager or the cost of buying/selling shares of a commingled fund or mutual fund is the same no matter the dollar amount, rebalancing back to the policy target is appropriate.

The following table shows the ERB's allocation ranges for each asset class. All of the ranges are very broad, which we do not believe to be best practice. NEPC stated the broad ranges are due primarily to the market turmoil over the past year which has resulted in some managers holding distressed equities that are now worth less than the book value. By increasing the minimum and maximum target allocation ranges, the fund is able to apply tactical allocation and minimize the need to sell the distressed equities for less than their value, which would negatively impact the overall value of the fund. The IPS does not specify a rebalancing process that staff must follow.

Asset Class	Minimum	Maximum	Current Allocation[71]	Long-Term Target Allocation
Domestic U.S. Equity	10.0%	40.0%	29.8%	25.0%
International Equity	10.0%	35.0%	17.3%	20.0%
Fixed Income	5.0%	40.0%	36.6%	20.0%
Absolute	2.0%	20.0%	7.6%	10.0%
Private Equity	2.0%	20.0%	2.3%	10.0%
Real Estate	0.0%	10.0%	4.6%	5.0%
Real Assets	0.0%	10.0%	0.6%	5.0%
Global Asset Allocation	0.0%	10.0%	0.0%	5.0%
Cash Equivalent	0.0%	10.0%	1.2%	0.0%
Totals			100.0%	100.0%

As previously mentioned, asset allocation, largely determines the risk and return of a portfolio. By having asset class targets with wide allowable ranges, coupled with a delegation of authority to the CIO to make tactical decisions within those broad ranges, the Board has essentially allowed one person to have more control over the portfolio than many would say is prudent and effectively negates the asset allocation decision of the Board.

A status update and recap of investment activities, including any rebalancing, is included as part of the ERB's discussions in monthly Investment Committee meetings and quarterly Board meetings. Best practice would be to document a schedule in which rebalancing must take place, such as monthly or quarterly, and also require rebalancing within a specified time period once the minimum or maximum ranges are exceeded.

[71] Current allocation percentages based on 6/30/2009 NEPC performance report.

Investment Goals and Risk Tolerance

The investment goals of public retirement systems are different from those of endowments and foundations because retirement systems have liabilities that are set in law. Investment goals can include achieving a specified absolute return (for example, 8%), limiting volatility, earning enough income so that contribution rates do not have to increase, protecting principal, or meeting certain cash flow and liquidity requirements. Investment goals should tie directly to the risk tolerance of the board. Boards with a higher tolerance for risk can also have a higher return goal, and the opposite is true as well. When investment returns are strong, boards often do not focus on investment goals and risk tolerances. Difficult markets, as experienced over the past few years, highlight the importance of these two issues. Many boards have taken a fresh look at their risk tolerances and corresponding investment goals. More than half the respondents to a recent Greenwich Associates survey[72] have reviewed or changed their policies in the last 12 months. Cutting volatility and boosting predictability appeared to be the primary goals.

The ERB's stated investment goals and objectives, as listed in its IPS, are as follows:

- Generate sufficient returns over time to provide committed level of benefits to plan participants
- Minimize risk and maximize investment return
- Comply with state and federal statutes
- Provide an adequate return compared to policy targets
- Provide an adequate real return over the expected rate of inflation
- Prove an adequate return over the assumed actuarial rate of interest of 8%

We find these investment goals to be reasonable, but believe they would be enhanced by explicitly stating that one of the investment goals is to outperform the policy portfolio on a risk adjusted basis. While minimizing volatility is a current goal, and speaks to the issue of risk, it alone is not sufficient. Achieving a commensurate return for the level risk taken is an important goal for a public pension fund.

Risk budgets typically specify a cap or range of risk that is allowed for each major publicly-traded asset class as well as for the total fund. Risk budgeting should never be done, however, in isolation. In periods when the market's volatility is higher than normal (as was the case over the last two years), active risk will also tend to be higher. As active risk is linked to the market, risk budgeting should take this into account, and any caps or ranges should be reflective of the changing levels of risk in the market. Using risk budgeting techniques may assist the Board and staff in setting and monitoring appropriate risk tolerances for the fund.

The ERB's risk tolerances were formally reviewed in 2006 in the asset liability study, and in 2007 during the asset allocation study when the target allocations were modified. Additionally, the investment consultant performs an annual asset allocation review, when portfolio risk at the total fund and asset class levels are discussed. It is a best practice to periodically review and discuss the risk tolerance of the fiduciaries.

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[72] Greenwich Associates Market Pulse survey of 152 institutions with assets under management greater than $1 billion. Among those participating in the survey were 97 corporate pension funds, 34 public funds, and 21 endowments.

The ERB has a Strategic Plan which focuses on member benefits and communication. The mission, vision, and goals of the Strategic Plan are well laid out, which is a best practice. However, the only reference to investment objectives is to seek and preserve the long-term corpus of the fund. While having a plan in place is a step in the right direction toward prudent oversight of the fund, not adequately addressing a plan to achieve the goals of the fund is a shortcoming.

The ERB Strategic Plan also addresses investment goals. Specifically, objectives in the Strategic Plan include reducing the unfunded actuarially accrued liability and maintaining the Fund's defined benefit structure. In actuality, the ERB has limited control over these two issues. The accrued liability is directly impacted by benefit design (determined by statute) and contribution levels. Whether the ERB maintains its defined benefit structure is also a legislative issue. Certainly, however, the ERB can participate and potentially impact the discussions and decisions surrounding these issues.

Written Investment Policy

An Investment Policy Statement (IPS) is one of the most important documents of a retirement system's governance framework. The purpose of the IPS is to provide a clear direction for investment program structure and management. It should reflect the investment goals and risk tolerance that the Board has agreed upon for the fund. It should also take into account the system's financial and actuarial characteristics and delineate responsibilities and reporting lines for all key parties.

In most jurisdictions, the law does not specifically require pension funds to have a written IPS; however, there are some states and municipalities that do require a written IPS for public pension funds. For private sector pension funds, ERISA[73] does not require a written IPS; however, the Department of Labor strongly encourages trustees to create and adopt these statements. EnnisKnupp believes that having a well-crafted IPS document is a best practice for all pension plans, both public and private. There is no uniform standard for the content and no absolute model to follow. Public retirement industry organizations, however, have provided guidance[74] with regard to crafting an IPS commensurate with best practices.

The ERB's IPS is contained in the Investment Goals, Objectives, and Policies draft document, dated June 2009, which outlines the ERB's purpose, mission, governing law, investment philosophy, investment goals, roles and responsibilities, procedures, asset allocation, manager asset policy, performance objectives, and investment manager objectives. Also included in the appendices are proxy voting guidelines, assignment of the investment advisory agreements policy, asset pricing policy, and a manager reconciliation policy. In addition, the ERB has approved Investment Goals, Objectives, and Policies documents for each alternative asset class, specifically for private equity, real estate, hedge funds, and infrastructure and natural resources (real assets).

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73 Employee Retirement Income Security Act, 29 USC 1001-1461 (1974).
74 See for example, The Government Finance Officers Association (GFOA) Recommended Practice, Committee on Retirement and Benefits Administration "Investment Policy Checklist for Pension Funds" 2003.

In the chart below we compare the ERB's IPS against a best practice checklist. We have noted with a checkmark (✓) those elements that are already include in the ERB's IPS. We have also noted those elements where we believe enhancement is needed. Enhancements could include more in-depth documentation and clarification related to the specific subject. Best practice is not necessarily a standard phrase or language included in a document, but rather a process or definition which is clear and understandable to all vested individuals.

Best Practice Investment Policy Statement Subject Areas	
Introduction	Included in the ERB's IPS
Reference to state law creating the plan with specific reference to investment related sections of the law.	✓ Best practice
Reference to the board's right to have an investment committee and to set policy.	✓ Best practice
Description of intended beneficiaries of the plan (e.g., the plan is created for certain employees and their dependents).	✓ Best practice
Scope (e.g., limited in application to pension fund assets or may include other assets).	Needs enhancement
Statement of Purpose	
Description of the sole or fundamental purpose of the retirement system.	✓ Best practice
Language describing that plan fiduciaries must act in the sole interest of members and beneficiaries and for the exclusive purpose of providing benefits.	✓ Best practice
Listing of investment goals that could include:	
Preserving the actuarial soundness of the plan in order to meet benefit obligations.	✓ Best practice
Obtaining a long-term rate of return (one or two market cycles), net of fees, equal to or in excess of the policy benchmark.	✓ Best practice
Clarification of how investment risks will be managed.	Needs enhancement
Establishment of the risks that may be taken to achieve return goals.	Needs enhancement
Definition of the policy benchmark and asset allocation targets.	Needs enhancement
Reference of the duty to incur only reasonable expenses.	Needs enhancement
Identification of Roles and Responsibilities	
Board of trustees – general and investment related duties.	✓ Best practice
Investment committee – role to make recommendations or final decisions.	✓ Best practice
Internal staff – general and investment related duties, reporting lines, and expectations, particularly as among the Executive Director, Director of Investments, and any other senior investment-related staff (e.g., Legal Counsel, Internal Auditor).	✓ Best practice
Investment consultants – duties, reporting lines, expectations regarding the frequency of communications, and acknowledgement of fiduciary responsibilities.	Needs enhancement

Best Practice Investment Policy Statement Subject Areas	
Investment managers – duties, acknowledgement of fiduciary responsibilities, and frequency of communication; could incorporate their contractual mandates.	✓ Best practice
Custodian bank – role as custodian or trustee, and role regarding cash management, performance calculations, etc.	✓ Best practice
Description of other service providers' duties, such as proxy voting, evaluating trading efficiency, portfolio analytics, etc.	Needs enhancement
Asset Allocation	
Acknowledgement of its primary importance.	✓ Best practice
Recognition of the allocation's purpose, such as to provide an optimal mix of investments to produce desired returns and meet current and future liabilities, with minimal volatility.	Needs enhancement
Description of frequency and methodology of asset liability modeling and allocation resetting.	✓ Best practice
Description of permissible asset classes as well as minimum, maximum, and target ranges.	Needs enhancement
Standards regarding diversification, including limits to a single issuer, single asset class, economic sector, or country.	Needs enhancement
Asset Class Guidelines and Benchmarks	
Definition of each asset class and rationale for inclusion in the portfolio.	Needs enhancement
Rationale for selected benchmarks, who sets them, and how often they are revisited.	Needs enhancement
Description of any prohibited investments (e.g., short selling, margin, investments precluded by law or regulation).	Needs enhancement
Detailed overview of allowable credit risk in the portfolio (e.g., minimum credit rating for any fixed income investment as determined by a nationally recognized credit rating agency).	Needs enhancement
Rebalancing Policy	
Statement of the purpose of rebalancing (i.e., to ensure that the investment program adheres to its strategic asset allocation).	Needs enhancement
Description of the method used to rebalance (e.g., most cost effective manner, use of excess cash, index strategies as a source, or liquidation of over funded managers).	Needs enhancement
Describe how often the portfolio will be reviewed for rebalancing and whether a fixed threshold or proportional threshold will be used.	Needs enhancement
Monitoring and Reporting	
Statement of purpose for monitoring and reporting (i.e. to ensure compliance with the IPS and applicable law, to manage risk, and assess manager performance).	Needs enhancement

Best Practice Investment Policy Statement Subject Areas	
Description of quarterly reporting for both external managers and other external investment professionals; can include an outline of current strategy and investments, performance vs. benchmark, and portfolio composition relative to the asset allocation policy.	Needs enhancement
Purpose and scope of annual and more frequent reporting.	Needs enhancement
Shareholder Activities	
Description of the proxy voting policy and how votes are cast and recorded.	✓ Best practice
Statement of the circumstances under which the board will sign on to or initiate a shareholder proposal.	Needs enhancement
Statement of how (or if) a focus list of underperforming companies will be identified and what communication the board takes to engage companies in dialogue.	Needs enhancement
Description of the process of opting in and out of shareholder class actions.	Needs enhancement
Identification of core principles of corporate governance (board independence, CEO compensation, access to the proxy, audit committee, etc.).	Needs enhancement
Delegation	
Statement of any delegations to the staff; could incorporate by reference the Executive Director and CIO position descriptions.	✓ Best practice
Alignment of the Strategic Plan with the annual plan for investments.	✓ Best practice
Requirement to annually review IPS.	✓ Best practice

Internal versus External Management of Assets

Public pension fund assets are frequently managed internally by investment staffs, externally by outside investment managers, or through a combination of both internal and external management. The decision about the level and type of assets managed internally most often rests with boards; although in some circumstances state statutes control what must be measured internally and externally. Generally, the larger and more sophisticated the fund, the greater the percentage of assets managed internally.

Managing assets in-house usually has a cost advantage over external management. The cost advantage, however, is only meaningful if performance is not sacrificed and, therefore, costs should not solely drive the decision. The ability to consistently and safely achieve an appropriate return net of expenses is the criteria to use when deciding whether to bring or maintain investment management responsibilities in-house.

The benchmarks for internally managed portfolios should be established as they are for externally managed portfolios, by the board in consultation with independent investment consultants. Likewise, performance should also be evaluated the same way with no distinction (advantage or disadvantage) between the internal and external managers. The internal staff should be on par with external managers and be held to the same standards with regard to performance, trading efficiency, and costs. Additionally, internal managers should not only have specialized skills for portfolio management, but also have an infrastructure in place with sufficient support from investment operations and accounting.

Risks associated with internal management of assets are different and can be greater than those associated with external management. The risks, however, can be mitigated with sufficient depth of staff, well-documented processes, clear roles and responsibilities, strong internal controls, strict adherence to trading policies, and regular monitoring by an independent consultant and internal auditor. Insider trading policies are included in the Board's policies and the Staff's Code of Conduct. Requirements regarding confidential information and explanations of prohibited trading and materiality are included.

It is a best practice for a public fund with internal investment management to have a policy prohibiting insider trading and a personal trading policy. Such policies define required disclosures, outline prohibited transactions, and require periodic submission of information regarding personal securities trade activity. A number of public funds have adopted a policy that incorporates the CFA Institute's Code of Ethics and Standards of Professional Care by reference. [75] The CFA Institute's Code and Standards are considered best practice. The ERB's Code of Conduct for Management and Investment Staff addresses insider trading and stipulates that investment staff will also be covered by the CFA Institute's Code of Ethics and Standards of Professional Conduct. The "Board Policies and Procedures" document addresses insider trading for Board members. Neither the Code of Conduct nor the Board's policy, outline a systematic compliance and disclosure process concerning personal trading. A personal trading policy mitigates the likelihood that staff will engage in activities that will benefit them personally (e.g. insider trading and front running). Attached, in Appendix G, is a sample outline for a personal trading policy.

The ERB Internal Auditor (Chief Audit Executive) reports administratively to the Executive Director and functionally to the Audit Committee. The Office of Internal Audit provides an independent appraisal function to examine and evaluate the ERB's operations. A comprehensive Internal Audit manual describing the mission, vision, and values of the Internal Audit department is in place, which is a best practice.

The ERB Investment Committee is charged with the responsibility of implementing the strategic asset allocation plan, as adopted by the Board. The Investment Committee has the authority to use internal and external managers to accomplish the long-term investment objectives of the fund, so long as they follow the standards set forth in the Uniform Prudent Investor Act.[76]

The ERB has been managing assets internally for over fifteen years. The Board has traditionally thought that in the best interest of the fund, a portion of the assets should be internally managed. This same sentiment exists today and two index funds are managed internally. NEPC completes an annual asset allocation review and has been requested to assess the entire portfolio for reasonableness of fees, active and passive management of funds, and internal versus external management.

There is one member of the investment staff responsible for internal management and trading. The portfolio manager has 10 years of experience in accounting and finance. The resources and qualifications of the

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[75] Members of the investment staff that have attained the CFA designation would already be subject to the CFA Institute's Code of Ethics and Standards of Professional Care. Investment staff without the CFA designation would not be covered.
[76] NMSA 1978, § 45-7-601.

investment staff are discussed in more detail in the Organizational Review section of this report. The Internal Auditor is responsible for creating and implementing a monitoring process to ensue that appropriate checks are in place related to managing the internal index funds.

The chart below[77] compares the ERB's use of internal management with assets of other public funds. The ERB, with $7.9 billion,[78] uses more internal management (18%) than do other funds ranging from $5 to $10 billion, which on average manage only 3% of assets internally.

Asset Range	Percentage Externally Managed	Percentage Internally Managed
Over $20B	67.1%	33.0%
$10B - $20B	67.2%	32.8%
$5B – $10B	97.0%	3.0%
$1B - $5B	95.2%	4.8%
$500mm - $1B	100.0%	0.0%
$100mm - $500mm	98.6%	1.4%
New Mexico ERB	82%	18%

Currently, the ERB internally manages an S&P 500 Index Fund and a REIT Index Fund, collectively representing a little over $1 billion in total assets. It is not uncommon for publicly traded index funds to be managed internally, although it is more common to internally manage an S&P 500 Index fund than a REIT index fund.

Performance of the S&P 500 Index has not closely tracked the targeted index over recent periods. Over the three-year period (ending 9/30/2009) the fund has lagged the S&P 500 Index by 90 basis points annually.[79] Staff reported that the reason for the tracking error was due to a larger than average holding of cash and the need to rebalance the portfolio. Since the fund's inception in 1999, tracking error has been negative 20 basis points, which is a more reasonable level. The REIT Index fund has also not matched the target return, posting between 40[80] and 50[81] basis points of positive tracking. Tracking error, whether positive or negative, is an undesirable result in an index fund.

Applying the negative tracking error to the hundreds of millions of dollars invested in the internally managed S&P 500 Index Fund account, we calculate an approximate $30 million negative impact over the past twenty

[77] R.V.Kuhns Public Funds Universe Analysis.
[78] As of 9/30/2009.
[79] Per NEPC Third Quarter 2009 Performance Report.
[80] For the 1 year period ending 9/30/2009, per NEPC performance report.
[81] For the 3 year period ending 9/30/2009, per NEPC performance report.

months.[82] Top tier externally managed index funds typically have negligible tracking errors over a multiple year period.

External S&P 500 index funds typically have low expense ratios, ranging from less than 1 basis point to 4 basis points so while there is a cost advantage to managing indexed assets internally, it is small. The ERB "saved" approximately $200,000 - $700,000 in investment management fees on the S&P 500 Index Fund, but the negative tracking error has offset any cost savings of internal management. REIT Index Funds are more expensive, and externally managed strategies can charge between 15 – 20 basis points. The positive tracking in the REIT Index Fund resulted in was a "gain" but as the asset base was smaller, so was the dollar impact. As noted earlier, any tracking error is a sub-optimal outcome as the explicit goal of an index fund is to match the index return.

In 2010, the level of internal management is expected to increase when approximately $322 million in assets currently managed by BGI in an enhanced index fund will be transitioned to internal S&P Index Fund. This new allocation will increase the ERB's internally managed assets to approximately 21%. Based on the track record of the internally managed S&P 500 Index Fund, we would encourage the Board to revisit this decision, absent any confirmation that the negative tracking is not expected to persist going forward.

Manager Structure

After the allocation to each asset class in a portfolio has been determined, many decisions need to be made regarding how that allocation will be implemented. These decisions will determine the investment management structure and will directly impact performance and fees. At the most basic level, investment manager structure begins with a determination of how much passive and active management to use. It also includes determining whether and to what extent to include internal and external management in the portfolio. Next, the number and types of managers must be selected. All of these decisions must be made with the overall goals and objectives of the total portfolio in mind.

Modern Portfolio Theory suggests that the most efficient portfolio an investor can hold is the "market portfolio," which would be the market-cap weighted sum of all available asset classes. Within the public markets asset classes, the market portfolio would suggest a market neutral positioning, absent a particular outlook for one or more segments of the market. For the private markets asset classes, factors such as liquidity requirements, portfolio objectives, and return goals must be considered when setting the structure.

The implication for any investment management structure is that attention must be paid to what the portfolio looks like when the individual managers are aggregated. The structure must be in alignment with the IPS and be monitored for compliance. Structural biases toward certain segments of the market can result in unintended misfit risk between the portfolio and the benchmark. It could also result in additional risk, which can be thought of as an unexpected result.

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[82] The calculation was performed on a 20-month period as that was the monthly return history that was provided to us. The time-weighted monthly returns were applied to EnnisKnupps's calculation model, which included all contributions and withdrawals during that time period.

Determining the investment management structure is an important function that fiduciaries of public funds are required to perform. As such, it is imperative that prudent decision-making processes support the ultimate decisions. Discussions and decisions regarding the structure of an institutional investment program require careful thought and unbiased advice from experts on staff and qualified consultants. Sometimes investment management decisions are delegated to staff or outside service providers. When this responsibility is delegated, it must be done in a prudent manner. The highest fiduciary must still periodically monitor whether the delegation of responsibilities remains appropriate, and whether it is being done in a satisfactory manner.

The following chart[83] shows the percentage of the ERB assets that are invested actively and passively and compared to a broad universe of peers.

Asset Range	Percentage Actively Managed	Percentage Passively Managed
Over $20B	77.7%	22.3%
$10B - $20B	71.4%	28.6%
$5B – $10B	81.9%	18.1%
$1B - $5B	87.6%	12.4%
$500mm - $1B	97.0%	3.0%
$100mm - $500mm	88.3%	11.7%
New Mexico ERB	82%	18%

The ERB Investment Committee is allowed to utilize a combination of active and passive investments to try and fulfill the investment objectives of meeting or exceeding the actuarial assumed rate of return of 8%. As indicated by the chart, the ERB uses active management in approximately the same amount as similarly sized funds. As funds increase in size, so does the allocation to passive management. Even though the overall numbers indicate that the ERB is inline with its peers, it should be noted that all of the ERB's passive management exposure is in publicly traded equity securities (an S&P 500 Index Fund and a REITs Index Fund).

We believe a material allocation to index funds is appropriate for most public pension funds as investment theory suggests that the average investment fund will underperform a properly constructed benchmark by the amount of its cost of operations. This theory supports the use of active managers when there is considerable confidence in the manager's ability to add value (based upon an assessment of organizational factors and the manager's skill), or there are inefficiencies in the market which can be exploited by active management.

Compelling research exists with regard to active versus passive management that shows implementation of active asset management is not an easy endeavor. The case for passive management is strengthened by

[83] Per R.V. Kuhns Public Fund Universe Analysis Report.

the highly efficient nature of the U.S. and non-U.S. stock and bond markets. Information on publicly-traded companies flows freely and it is difficult for one investor to have a material advantage over another. Also, broadly representative and investable market indices are available. Finally, the cost differential between active and passive equity managers is significant, and since active managers have not consistently beaten the market averages after considering all costs, a diversified, low-cost investment approach is a compelling investment thesis.

Once decisions regarding the use of internal or external and active or passive asset management are made, then the investment managers must be selected. There is no absolute model to use when determining the most appropriate number of investment managers to use in structuring a portfolio. Fewer managers can result in larger allocations of assets to a manager, which will usually reduce expenses if certain thresholds are met. On the other hand, larger allocations can increase manager-specific risk. Smaller allocations may diversify manager-specific risk, but could result in increased fees and "closet indexing."[84] The chart below summarizes the ERB's use of external managers by asset class.

Asset Class	Number of Managers	Percentage of Assets[85]
Large Cap Equities	4	25.6%
Small Cap Equities	3	4.2%
International Equities	5	17.3%
Fixed Income	5	36.6%
Real Estate	10	4.6%
Real Assets	3	0.6%
Private Equity	22	2.3%
Absolute Return	6	7.6%

Within the U.S. equity portfolio, the ERB has structured the portfolio with large and small cap managers. The internally managed S&P 500 Index Fund serves to "anchor" the portfolio to the S&P 500 Index, the benchmark for the large cap equity portfolio. Active large cap managers with growth and value strategies are utilized to cover the different style segments of the market. Within the small cap portfolio, growth and value managers are also used. This portfolio structure does not include an allocation to mid-cap stocks. This market segmentation approach is fairly common within the public fund industry, but there is a trend to view the market more holistically.

Such an approach would begin with anchoring the portfolio to a broad market index fund, such as a Russell 3000 Index Fund or a DJ Broad Market Index Fund, in order to achieve diversified, low-cost exposure to the full opportunity set. This structure corresponds to investment theory that indicates the most efficient portfolio is a "market portfolio." Active managers would then be selected based on an assessment of their skill, and

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[84] Closet indexing is a term used to describe when a portfolio of active managers, when aggregated, essentially creates an index fund, but at active management fee levels.
[85] Per 6/30/2009 performance report.

the likelihood that they will be able to add value over their benchmark going forward, instead of their style or capitalization.

Within the non-U.S. equity portfolio, the ERB has structured the portfolio with developed and emerging markets managers. The main advantage to this type of structure is that “specialty” managers with expertise focused on either the developed or emerging markets are hired. One drawback, however, is that many active managers invest in both markets. Essentially, the structure of the international equity portfolio limits the consideration of managers with an all-country focus. The ERB has not elected to use passive management in the international equity portfolio. The arguments promoting passive management apply equally to U.S. equity and non-U.S. equity portfolios.

The ERB has adopted an active approach within the fixed income portfolio structure. Like the ERB, many institutional investors have also predominately followed an active approach. The benefits of active management over passive management in the fixed markets had historically been that available fixed income indices were not sufficiently broad, all encompassing, or did not accurately track to the overall bond market. Instead, they tended to only capture a segment of the bond market. As a result, active managers could improve the efficiency of their portfolios by opportunistically allocating to non-U.S. bonds, high yield bonds, emerging market bonds, convertible bonds, floating rate bonds, etc. More and better passive index funds have become available in the fixed income markets that allow access to these same bond market betas, therefore reducing the need to pay active management fees for these submarket exposures. As such, passive fixed income has become a more appropriate consideration today than several years ago. The fee differential between active and passive fixed income managers, however, is much smaller than in the equity markets.

Another question to consider when structuring the fixed income portfolio is regarding the appropriate level of risk to incur. Some fixed income portfolios are structured in a “core plus” manner, meaning investments are made in the core segments of the aggregate bond index (government, corporate, mortgages, and asset backed securities) as well as additional segments of the bond market, including high yield, emerging market debt, and non-dollar bonds. The desired duration is also considered when there is a desire to “match” the duration of the fixed income portfolio with the liability stream of the fund.

An alternative approach is to view the fixed income portfolio as a low risk allocation which would serve to dampen volatility of the total portfolio. This approach would result in a structure that consists mainly of Treasury and other low-risk, low-volatility investments. The ERB structure is more closely aligned to the “core plus” approach with its exposure to high yield bonds.

The structure of each asset class portfolio is reviewed annually when NEPC completes an asset allocation review, as well as quarterly as managers are reviewed and discussed. It is a best practice to dedicate time to periodically review the structure of each asset class portfolio to ensure it remains the optimal given the Board’s risk tolerance, investment philosophy, and the fund’s circumstances.

The private markets portfolios are addressed in the “Alternative Investments” section of this report.

Selection of the Investment Managers and the Custodian

In the public pension fund arena, investment managers have historically been selected through a Request for Proposal (RFP) process. Many public pension funds, like the ERB, continue to use a formal RFP process, which often parallels the routine other governmental entities use for purchasing goods and services. From a public policy perspective, such a process is designed to offer equal opportunity for doing business with the government and to ensure fairness in the selection process. Certainly in situations where goods and services are fungible, the process works well as a means to obtain the best price and terms. The RFP process, in theory, opens up the procurement to a large number of investment managers. We believe, however, that a suitably large number of managers can be considered by using an alternative process that is consistent with the need for fairness.

Approximately 65% of EnnisKnupp's public fund clients have moved to a search process that does not include a formal RFP. Such a process can be done in as quickly as six to eight weeks. In this type of search process, the investment consultant identifies a list of suitable candidates that are appropriate for the mandate, using a manager database as the starting point. Leading investment consulting firms can have from 4,000 – 6,000 managers in their databases. Of those managers, the investment consultant can readily identify, based on their knowledge of the managers and the client's needs, the firms that they believe would be best suited for the mandate.

Many public funds find a search process that does not include a formal RFP to be more efficient as it avoids the delays associated with issuing RFPs and at the same time is equally accessible, transparent, fair, and prudent. Although the ERB currently has the statutory ability to use a search process that does not include an RFP, the Investment Committee has historically used the formal RFP process. We are aware, however, that the ERB staff has discussed the possibility of using an alternative search process going forward to save time and resources.

Whether an RFP or an alternative process is used, the most critical aspect of investment manager selection is the due diligence process. The following chart compares the steps in the ERB public equities investment manager due diligence process with those of industry best practices. We indicate with a checkmark (✓) those best practice elements that are included in the ERB's process.

Best Practices Public Markets Manager Due Diligence	Current ERB Practice
Screen manager databases	
Identify management firms that meet criteria	✓ Yes
Issue questionnaire	
Review biographies	✓ Yes
Review employee turnover	✓ Yes
Review team additions/departures	✓ Yes
Determine portfolio management responsibilities	✓ Yes

Review philosophy/process	✓ Yes
Identify strategy changes	✓ Yes
Conduct meetings/conference calls	
Ask questions regarding the questionnaire response	✓ Yes
Begin assessment of skill	✓ Yes
Determine if manager warrants moving to next stage	✓ Yes
Assess perceived skill (cogent investment thesis, information advantage, unusual insight, talent, sound investment process, sustainability)	✓ Yes
Evaluate trading efficiency	Case-by-Case basis
Assess management fees	✓ Yes
Review consistency of past performance (short-term trends, results v. style, themes, risk-adjusted)	Limited
Determine product fit	Limited
Evaluate product importance	Limited
Review ownership structure (depth and breadth of employee ownership, recent or upcoming changes)	✓ Yes
Evaluate organizational factors (governance, agency issues, compensation structure, clients gained/lost)	✓ Yes
Complete comprehensive profile	✓ Yes
Onsite visit	
Meet portfolio manager(s)	✓ Yes
View trading desk	Case-by-Case basis
Assess administrative issues (SEC action, legal issues, etc.)	✓ Yes
Clarify questions on process/strategy	✓ Yes
Legal review of documents	
Review fees	✓ Yes
Establish guidelines	✓ Yes
Review contract terms	✓ Yes

We found most aspects of the due diligence process that the ERB usesd for public equity managers to be thorough and inline with industry best practices. Staff and consultants informed us that the selection for fixed income managers is comparable. The general consultant, NEPC, works with staff and the Board by assisting in the RFP development, publishing the RFP, acting as a gatekeeper for questions and submissions from managers, collecting research information, preparing finalist interview research packets and assisting in due diligence calls and meetings.

Due diligence procedures can be exemplary, but if they are not well-documented, they fall short of best practices. The ERB's IPS does not outline due diligence steps in sufficient detail. Documentation of ratings, questions, answers, and preliminary decisions are maintained by both the staff and consultants. Maintaining documented support of manager selection decisions, which evidence the prudent process, is a best practice.

We reviewed two recent search reports, prepared by NEPC, as well as a search memo prepared by staff and provided to the Board. The search reports included a summary of the firms and the products under consideration, performance exhibits, portfolio characteristics of the strategies, reviews of each candidate, and supporting data. We found the reports were well organized and provided the Investment Committee and staff useful background information on each manager candidate. The reports did not however include a detailed assessment of the strengths and weakness of each manager, or an analysis of the information that was provided. The best search reports provide useful analysis and discussion of the differences between each manager, as well as how the managers' strategies will fit within the existing portfolio (for example, whether there is overlap or redundancies with any of the managers currently in the portfolio). The manager search memo, presented to the Board, provided a summary of the search process and an explanation of the Board's decision in regard to the specific search. This type of documentation is useful to evidence the process that was followed. Finalist candidates are rated on six factors including firm profile, investment philosophy, investment process, research capabilities, professional staff, and results. We believe a lower weight should be assigned to past performance as there is no documented relationship between past performance and future results. Rather, greater emphasis should be placed on the manager's skill and organizational factors that will improve the possibility for a positive outcome.

For alternative investments, the ERB works in conjunction with specialty consultants to complete due diligence and to make manager selections to the Board. Alternative asset due diligence and involvement is discussed further in the Alternative Investments section of this report.

In addition to selecting investment managers, many public retirement boards and staffs have some involvement in selecting custodian banks. Custodian banks safeguard pension fund assets and are responsible for arranging settlement of any securities purchased or sold, managing cash transactions, filing securities class action claims, and reporting information to the plan sponsor. The custodian bank often serves as the official "book of record." It is on this information that performance is typically calculated, so ensuring that custodial services are accurate and timely is important. Some custodians also provide other services to clients, such as performance measurement, compliance monitoring, and securities lending.

Custodian banks with sizeable assets benefit from economies of scale and function more efficiently than smaller banks. Further, banks with larger custody businesses accrue more experience and tend to maintain state-of-the-art operations, which is important as the custody business has become an increasingly technology-driven business. Also, banks that derive a significant portion of their revenues from the custody business are likely to be more stable and make the necessary investments to remain competitive.
The best fit for a public retirement system is to use a custodian bank with sufficient experience and expertise with similar organizations in order to meet their specialized needs. Top-tier custodians will also offer high quality client servicing.

The ERB, like the Public Employees Retirement Association and the State Investment Council, uses The Northern Trust Company (Northern Trust) as its custodian. The May 2008 contract with Northern Trust covers all three agencies and was negotiated by the Board of Finance pursuant to authority under law.[86] Our research has indicated that the current contract, which encompasses all three agencies, is not the most competitive and exploring other options to lowering fees would be in the best interests of the agencies. While having an outside department or statewide office holder select the custodian bank is not unusual, it does not reflect best practices. We believe that as the highest governing fiduciary body responsible for the investment program, the Board should have the ability to freely choose its own custodian and negotiate the scope of responsibilities, the service levels, and fees. Likewise, the Board should be able to extend custodian contracts or terminate them at any time in the best interest of the fund.

Alternative Assets

The private markets universe can offer pension funds thousands of investment opportunities. In alternative investments, the best practices are to have detailed strategies that include pre-planned sub-asset class exposures. Portfolios should be constructed over a multi-year period, diversified by manager style, strategy, geographic region, and other portfolio characteristics.

The ERB's entry into alternative investments followed a change in statutes that, until early 2005, limited New Mexico pension investments to mainly stocks and bonds. NEPC completed an asset liability study in January 2006 and also conducted educational sessions, in order to further inform the Board of the benefits and considerations of alternative assets; namely absolute return, private equity, and real estate strategies. NEPC completed an asset allocation report in 2007, which aided the ERB in making the decision to increase the allocation to alternatives from 15% to 35%. Subsequently the ERB, though an RFP process, hired specialty alternative asset consultants. Aldus Equity was hired as the private equity consultant, ORG Portfolio Management LLC as the real estate consultant, and Courtland Partners Limited for infrastructure consulting. NEPC, in addition to serving as the general consultant, was also hired to design and implement the absolute return program. We find the process used by the ERB to hire external experts to be appropriate.

In April 2009, the ERB suspended operations with Aldus Equity and subsequently terminated its contract in May 2009. The Board also decided to suspend all commitments to Erasmus ERB's Co-Investment Fund, Aldus' specialty investment vehicle. Through research and discussions, the ERB also chose to suspend and terminate Aldus' contract. In addition, we are aware that the ERB has chosen to reevaluate the private equity portfolio in light of ERB's termination of Aldus.

The ERB's decision to invest in alternatives was made after well-paced, educated consideration by staff, the Board, and upon recommendation by the generalist consultant. The Board sought to better position the plan on the risk/return spectrum while providing non-correlated public markets returns. These expectations are appropriate and within industry standards.

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[86] NMSA 1978, § 6-1-1.

The ERB's alternative investment program currently has the following asset class exposures as of 9/30/2009:

- Private Equity, 2.3%
- Real Estate Investment Trusts (REITS), 3.5%
- Real Estate Funds, 1.0%
- Infrastructure, 0.5%
- Absolute Returns, 6.7%

These alternative asset classes and corresponding exposures are appropriate, yet are below exposure targets. The alternatives program is still relatively young and target allocations are meant to be achieved over a multi-year period. The ERB adheres to best practices by updating the pacing models and investment planning annually to further pre-plan and inform the Board of short and long-term alternatives planning.

Reporting and monitoring for alternative asset classes are completed by alternative asset consultants in conjunction with staff. It would be beneficial if the ERB delineated, in policy, the roles and responsibilities with regard to investment monitoring. The ERB can augment existing investment staff or perhaps expand consultants' contracts in order to ensure coverage of fund organizational changes, operational changes, partnership agreement changes, strategy drift, and investment activities.

Alternative investments require special due diligence to thoroughly and accurately gauge the quality and risk factors associated with each before a commitment is made. Many alternative investments, like limited partnership interests, can be illiquid. Exit opportunities for these instruments are limited and if exercised, often result in a discount to the fund value.

ERB's investment opportunities for alternative investments could be impacted by New Mexico's Open Meetings and Public Records Acts,[87] which state that all investment related meetings, minutes, and records, are open to the public. As the ERB continues to make investments in alternative asset classes, opportunities with certain managers could be missed if, as part of the due diligence process, certain proprietary information or investment strategies must be disclosed to the public before the investments are made or during the life of the fund. An exemption to this law would allow certain discussions and materials to be kept confidential.[88] Currently, this problem may be more theoretical than real for ERB, since the staff informed us they do not believe that the requirements have negatively impacted their ability to participate in alternative investments. However, it has been a problem for a number of other public funds.

The steps in the due diligence process should include identifying skilled managers, validating a verifiable track record, assessing the compatibility of the general partnerships (GPs) with issues of investment strategy, reference checks, understanding the group's economics, achieving a comfort level with their

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[87] NMSA 1978, § 10-15-1 (Open Meetings Act), NMSA 1978, § 14-2-1 (Inspection of Public Records Act).
[88] Examples of states that enacted legislation to limit open meetings disclosure requirements related to private equity include the following: Illinois, California, Colorado, Massachusetts, Minnesota, Pennsylvania, Texas, and Virginia.

decisions, ensuring proper corporate governance, reviewing legal terms and conditions, and making sure adequate reporting policies and procedures are in place Programs can use internal staff or outside consultants, or both to ensure full-coverage during due diligence.

The following chart compares the steps of the ERB's due diligence process for alternative investments to those of best practices. The ERB's alternative investments consultants work in conjunction with staff to complete many steps of due diligence.

Best Practices Due Diligence for Private Market Manager Selection	Current ERB Practice		
	Real Estate / Infrastructure	Private Equity	Hedge Funds
Market scan – Completed by Investment Consultants and Staff			
Screen for available opportunities	✓ Yes	✓ Yes	✓ Yes
Identify appropriate mandates	✓ Yes	✓ Yes	✓ Yes
Deal/fund screening – Completed by Investment Consultants and Staff			
Initial assessment of portfolio fit and stage	✓ Yes	✓ Yes	✓ Yes
Initial assessment of management experience	✓ Yes	✓ Yes	✓ Yes
Preliminary assessment of strategy	✓ Yes	✓ Yes	✓ Yes
Preliminary due diligence – Completed by Investment Consultants and Staff			
Summary review of strategy	✓ Yes	✓ Yes	✓ Yes
Assessment of experience of the general partner	✓ Yes	✓ Yes	✓ Yes
Review of track record	✓ Yes	✓ Yes	✓ Yes
Examination of offering documents	✓ Yes	✓ Yes	✓ Yes
Completion of telephone interviews	✓ Yes	✓ Yes	✓ Yes
In-depth due diligence – Completed by Investment Consultants and Staff			
Interview with investment management team	✓ Yes	✓ Yes	✓ Yes
Contact references	✓ Yes	✓ Yes	✓ Yes
Research of GP's incentives and alignment of interests	✓ Yes	✓ Yes	✓ Yes
Review of public information on the fund/management team	✓ Yes	✓ Yes	✓ Yes
Review track record	✓ Yes	✓ Yes	✓ Yes
Recalculate IRRs for each investment	Limited	Limited	N/A
Recalculate IRRs for each portfolio (net of fees and profit participations)	Limited	Limited	N/A
Benchmark IRRs, cash flow multiples, and distributions	Limited	✓ Yes	N/A
Independently analyze performance by strategy	✓ Yes	✓ Yes	✓ Yes
Complete in-depth research report	✓ Yes	✓ Yes	✓ Yes
Assess perceived skill (industry/market opportunity, information advantage, proprietary deal flow, relevant	✓ Yes	✓ Yes	✓ Yes

Best Practices Due Diligence for Private Market Manager Selection	Current ERB Practice		
	Real Estate / Infrastructure	Private Equity	Hedge Funds
experience, depth of investment talent, quality of co-investors, stability of strategy, benefit to underlying companies)			
Review of fund size/competing accounts	✓ Yes	✓ Yes	✓ Yes
Review of cost and fees	✓ Yes	✓ Yes	✓ Yes
Assess product fit	Limited	Limited	Limited
Assess ownership	✓ Yes	✓ Yes	✓ Yes
Review partner turnover	✓ Yes	✓ Yes	✓ Yes
Review GP's competing lines of business	✓ Yes	✓ Yes	✓ Yes
Assess firm culture	✓ Yes	✓ Yes	✓ Yes
Review General Partner's reputation	✓ Yes	✓ Yes	✓ Yes
Assess reporting and risk management platforms	✓ Yes	✓ Yes	Limited
Review internal process documentation	✓ Yes	✓ Yes	Limited
Assess investor relations capabilities	✓ Yes	✓ Yes	Limited
Legal review and negotiations – Completed by Internal and External ERB Counsel			
Evaluate key man provisions	✓ Yes	✓ Yes	✓ Yes
Review distribution waterfall	✓ Yes	✓ Yes	N/A
Review claw back provisions	✓ Yes	✓ Yes	N/A
Review side letters	✓ Yes	✓ Yes	✓ Yes
Review investment limitations	✓ Yes	✓ Yes	✓ Yes
Exhaustive review of Limited Partnership Agreement	✓ Yes	✓ Yes	✓ Yes

Investment consultants and staff collaborate on many aspects of due diligence, such as deal screening, terms and conditions review and track record evaluation are completed. Based on our research, it was not apparent from the due diligence reports that product fit is assessed in a best practice manner and to the extent necessary. This process could be better emphasized, addressed, and documented going forward.

We also found that not all track records were reconstructed by the investment consultant, but rather were received directly from the investment managers. Best practice is for the investment consultant to gather cash flows independently. Both ERB's internal and external legal counsel assist in evaluating partnership terms and conditions. Unlike with the other asset classes, hedge fund-of-fund searches are completed using a public RFP process with the assistance of specialty hedge fund consultant, NEPC. The ERB's RFP questions address many aspects of hedge fund manager research, although can be further enhanced by addressing manager operational capabilities. The Board can further ensure complete operational due diligence by requiring this analysis within hedge fund due diligence policies and procedures. In addition, the

ERB should consistently remain knowledgeable of hedge fund-of-fund operational capabilities and changes through manager monitoring.

Benchmarks

Boards set benchmarks and measure actual portfolio performance against them to determine the success of an investment program. Benchmarks are set for the total fund, each asset class, and each individual investment manager. Best practices are for the total fund to be measured against a policy portfolio benchmark, which is a passive representation of the target allocations of the fund. The most appropriate asset class benchmarks and manager benchmarks are those that broadly represent the entire opportunity set in a particular asset class or within a particular manager's mandate. When measuring actual performance against benchmarks, staffs at large public pension funds usually track performance monthly and generally report results to the boards quarterly.

A common secondary measure of performance is a universe ranking. Universe rankings give an understanding of how the fund or asset class portfolio has performed relative to peers. Universe rankings, however, are flawed in that the universe data is often not an "apples-to-apples" comparison. Different institutional investors have different investment objectives and risk parameters and thus may structure their portfolios very differently. Other shortcomings can include inaccurate data (most universes have self-reported returns) and survivorship bias. Survivorship bias exists in manager-level universes because underperforming managers may cease to report their results, skewing the universe returns upward. Because of these shortcomings, the most important performance comparison is against the stated performance benchmark which takes into account the portfolio's asset allocation or manager strategy.

The ERB's 2009 draft IPS requires clear and unambiguous market-based benchmarks for each investment strategy. The Investment Committee is then responsible for monitoring the investment performance against these specific benchmarks and evaluating each manager to ensure it is fulfilling its role within the ERB's investment structure and is adding value relative to its respective market and in comparison to its peer group. Fund and manager performance in relation to benchmarks are topics regularly discussed in Board meetings and discussions include insight from NEPC as well. The IPS notes that the Investment Committee has the responsibility to take appropriate actions with managers based on performance.

The IPS sets forth performance benchmarks for the total fund and each asset class, which is common and best practice. A custom total fund index is identified within the policy and has been constructed by using public market indices to represent each portfolio asset class and is intended to reflect the asset allocation policy of the fund. The performance reports also compare the actual fund performance against a fund policy index. The composition of the quarterly performance index does not match what is listed in the IPS, which may be the result of the IPS being out of date. The table on the following page shows the benchmark assigned to each asset class in the IPS and used in the performance reports and our assessment of whether it is appropriate.

Asset Class	Benchmark Shown in Performance Reports	Benchmark Per IPS	Assessment
Domestic Equity	Russell 3000 Index	None Indicated	The Russell 3000 Index is a broad measure of the U.S. equity market and an acceptable benchmark for a diversified portfolio. The DJ Total Stock Market Index is also often used as a total domestic equity benchmark and would also be appropriate. Consider including a total domestic equity benchmark in the IPS.
Domestic Large Cap	S&P 500 Index	S&P 500 Index	Appropriate; the S&P 500 Index is a broad measure of the large cap U.S. equity market and an acceptable benchmark for a diversified large-cap portfolio.
Domestic Small Cap	Russell 2000 Index	Russell 2000 Index	Appropriate; the Russell 2000 Index measures the performance of the small portion of domestic stocks; it is an acceptable benchmark for a small cap portfolio.
Non-U.S. Developed Markets	MSCI EAFE Net Index	MSCI EAFE Net Index	Appropriate; the MSCI EAFE Index is a measure of large-cap developed, markets and is an acceptable benchmark for an international equity portfolio focused on these types of markets.
Non-U.S. Developed Small Cap	None Indicated	MSCI EAFE Small Cap Index	Appropriate; the MSCI EAFE Small Cap Index is a measure of small-cap developed, markets and is an acceptable benchmark for an international equity portfolio focused on these types of markets.
Non-U.S. Emerging Markets	MSCI Emerging Markets Index	MSCI Emerging Markets Index	Appropriate; the MSCI Emerging Markets Index is a broad measure of emerging markets, and is an acceptable benchmark for an international equity portfolio focused on these types of markets.
Domestic Fixed Income (High Yield)	Merrill Lynch U.S. High Yield BB-B Constrained Index	Merrill Lynch U.S. High Yield BB-B Constrained Index	Appropriate; the Merrill Lynch BB/B U.S. High Yield Constrained Index is a broad measure of below investment grade bonds of corporate issuers, and is an acceptable benchmark for a high yield domestic fixed income portfolio.
Domestic Fixed Income (Investment Grade)	Barclays Capital Aggregate Bond Index	Barclays Capital Aggregate Bond Index	Appropriate; the Barclays Aggregate U.S. Bond Index is a broad measure of the investment grade bond market and an acceptable benchmark for a core or core-plus portfolio.
Absolute	90 Day T-Bill+200	90 Day T-Bill+200	The 90 Day T-Bill+200 bps is a common

Asset Class	Benchmark Shown in Performance Reports	Benchmark Per IPS	Assessment
Return	bps	bps	benchmark for hedge fund strategies. We believe a better benchmark is the HFRI Funds-of-Funds - Conservative Index as it reflects a broad universe of investments and the volatility inherent in the portfolio.
Private Equity	Cambridge Private Equity Index	Cambridge Private Equity Index	Appropriate; the Cambridge Private Equity Index is a composite index representing roughly 750 private equity funds and is an acceptable benchmark for a private equity portfolio.
Real Estate/ REITS	NCREIF Property Index/ Dow Jones Wilshire REIT Index	NCREIF Property Index/ Dow Jones Wilshire REIT Index	Appropriate; the NCREIF index is the industry standard benchmark for private real estate investments while the Dow Jones Wilshire REIT Index is an acceptable broad measure of domestic real estate investment trusts.
Global Tactical Asset Allocation	None Indicated	60% MSCI World Index/ 40% Citigroup World Government Bond Index	Appropriate; the MSCI World Index is a broad measure of developed markets while the Citigroup World Government Index is a broad measure of developed government debt. Together these indexes represent a broad passive measure of the global tactical asset allocation strategy.
Real Assets (Infrastructure and Timber)	None Indicated	CPI+5%	Appropriate; real asset investments are typically used as inflation hedges and therefore the CPI plus a premium is an acceptable benchmark for a portfolio of real assets. The performance benchmark shown in the performance reports should match what is listed in the IPS.

The IPS and quarterly performance reports are generally aligned regarding the benchmarks to use for every asset class. Moreover, we believe most of the benchmarks to be appropriate. The Board and staff may want to evaluate the HFRI Funds-of-Funds - Conservative Index as a benchmark for the hedge fund strategies.

The performance reports do not provide a benchmark for the GTAA investment, which may be due to the fact that the strategy for this investment changes periodically based on the manager's philosophy based on present market conditions or the short performance history. It is best if the benchmark, as indicated in the IPS, is included in the performance report to assist the Board in its prudent oversight and monitoring of the portfolio.

The performance reports also do not include the benchmark for the real assets allocation. The IPS indicates that the CPI+5% should be used as the benchmark for this asset class and so the report should be updated to include this benchmark.

Compensation of Managers

Research indicates that, in general, the performance of managed funds suffers dollar-for-dollar as a result of management fees. There is no evidence of a positive relationship between fees and performance. Accordingly, differentials in management fees are assumed to translate directly to differentials in net return.

Consultants, investment managers, and their clients have long debated alternative compensation arrangements for investment managers. Traditionally, managers have charged clients a fee for services computed as a declining percentage of assets, or an asset-based fee. Performance fee arrangements, which are less common for public markets, call for the client to pay the manager a smaller percentage of assets as a base fee, and an additional payment contingent upon performance, i.e., a return in excess of an agreed-upon benchmark.

In tying manager compensation to superior performance, rather than solely to asset size, performance based fees better align the interests of asset manager and client. Under an asset-based fee, the manager has an incentive to increase assets under management through marketing. But larger portfolios are more difficult to trade profitably, so the growth-oriented manager runs the risk of becoming too large to outperform when trading costs are taken into account. Performance fees, on the other hand, reward the manager for performance, an inducement, in principle at least, to control growth in assets under management.

Ultimately, there is no one right approach to manager compensation. In general, the ERB has traditionally preferred asset-based fees; however, they are currently negotiating with all managers to lower the current fee structure and are open to considering performance-based fees. These recent negotiations have already resulted in the reduction of fees within the ERB's allocation to hedge funds. Further, some of the ERB's current allocations to alternative asset managers already include performance based compensation in their fee structure.

The chart on the following page lists the ERB's investment manager fees for all assets classes for fiscal year 2009 and compares them to an industry average.[89] The ERB's external management is exclusively in actively managed strategies. The ERB's only passively managed strategies are the S&P 500 Index Fund and the REIT Index Fund and both are managed internally.

[89] Basis point fees were calculated for each asset class within the ERB's portfolio by dividing the fees paid within each asset class during fiscal year 2009 by the total market value (or committed capital when appropriate) of its respective asset class as of June, 6 2009.

Asset Class	The ERB's Fees in bps Excluding Internally Managed Money	The ERB's Fees in bps Including Internally Managed Money[90]	Pension Fund Asset Class Fee Average [91]
Domestic Equities	37.7	22.4	35.4
International Equities	43.1	43.1	42.5
Fixed Income	17.9	17.9	19.6
Real Assets	94.0[92]	94.0	60-200[93]
Real Estate	81.2[94]	28.1	150.0[95]
Hedge Funds	102.2	102.2	100.0
Private Equity	103.7[96]	103.7	100 - 200[97]
Total Fund	45.0	38.5	N/A

Our analysis shows that fees within the ERB's allocation to actively managed publicly traded securities are comparable to industry standards. Also, we find that asset class level fees within the ERB's allocation to domestic equity and real estate drop significantly when the costs of internally managed passive strategies are considered.

Asset class level fees within the ERB's allocation to domestic equity and real estate drop significantly when including the costs of internally managed passive strategies.

Alternative asset managers (real estate, real asset, absolute return, and private equity) are compensated with a management fee, an incentive-based fee or both. Closed-end real estate and real asset funds will charge an annual management fee of 1.0%-2.0% on total commitments (further reduced over the life of the fund), with an incentive fee (carried interest) of 15%-20% over a preferred return (typically 8-9%). Actively managed REIT strategies will typically charge 50-70 basis points per annum on net asset value. Open-end real estate funds will charge, on average, 100 basis points per annum based on net asset value.

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[90] A comprehensive measure of internal costs would include the salaries and benefits of the ERB investment staff portfolio manager(s), a pro-rata share of office expenses, technology support, internal controls, and other such things. Such information was not available for the making of this report and so costs were estimated to be zero for each internally managed fund. Typically, internally managed index funds range in cost from 0 to 5 bps.

[91] Greenwich Associates 2008 Fee Information except where noted. Public Funds with assets from $>5 billion. Fees for actively managed assets.

[92] Fee may not be representative of fees experienced by the ERB within real assets going forward. An estimated fee based on manager reported agreements, as provided by ERB, is 152 bps annually.

[93] EnnisKnupp internal assessment based on current markets for Infrastructure and timber investments.

[94] Fee is based on percentage of committed capital.

[95] Industry average based on the portfolio containing closed end commingled value added and opportunistic funds.

[96] Fee is based on percentage of committed capital.

[97] Information is sourced from the Dow Jones, Private Equity Analyst, Terms and Conditions Report, Fourth Edition (2008).

Infrastructure funds will typically charge a management fee of 1-2% on committed capital plus a 20% profit sharing arrangement (carried interest). Timber and agriculture funds will typically charge a management fee of 60-100 basis points per annum on net asset value. Absolute return funds will charge a management fee of 1-2% of net asset value plus a 20% profit sharing arrangement (carried interest). Private equity funds will generally charge an annual management fee of 1.0%-2.5% on total commitments (further reduced over the life of the fund), with an incentive fee (carried interest) of 15%-25% over a preferred return (typically 8.0%).

EnnisKnupp has reviewed almost all alternative asset fund manager compensation arrangements, as reported by the ERB staff, and finds each within an acceptable range in light of the above stated industry standards and expectations.

It is important to note that the ERB's allocation to alternative investments is in its initial stages. As a result the fees experienced initially within the alternative asset classes, as reported in the above table, may not be representative of the fees that the ERB will experience going forward. In some cases these initial fees will be higher than those experienced in the future due to initial start up costs and fees payable to the manager for prior investment periods.

The following table compares the ERB's total investment management fees with several benchmarks. As the table reflects, ERB's fees are inline with the averages reported by Greenwich.

Source	Fee (in basis points)
ERB Investment Management Fees	*38.5*[98]
Greenwich Average -- All Public Funds	46
Greenwich Average -- Public Funds >$5 Billion	35
Greenwich Average – Corporate DB Plans	53
Greenwich Average – Corporate DB Plans >$5 Billion	41
Greenwich Average – Endowment Funds	64
Greenwich Average – Endowment Funds >$1 Billion	61

Role and Qualifications of Placement Agents

A placement agent is any third-party intermediary that is directly or indirectly hired, used, retained, compensated, or otherwise given anything of monetary value or benefit, tangible or intangible, by an investment manager to assist the investment firm in securing an institutional investor's commitment. For example, many private equity fund managers will enlist the services of placement agent to assist with the marketing and relationship building aspects of raising a fund. Recent investigations revealing abuses related

[98] This fee was calculated using data provided by ERB staff and therefore provides a basic understanding of the fee experience at the total fund level, but should not be considered authoritative. This fee includes both internally and externally managed strategies.

to the use of placement agents have resulted in significant controversy and increased scrutiny of conflicts of interest in the management of public fund assets.

In early August 2009, the SEC issued a proposed rule that would prohibit an investment manager and its their employees from paying a third party, such as a placement agent, to solicit a government client on behalf of the advisor.[99] While this proposed rule has not yet been adopted, the institutional investment community has reacted by implementing placement agent policies. Some policies, developed by those who believe that placement agents serve a legitimate purpose, require significant disclosure.[100] Other policies go even further. Several pension funds, such as the New York State Common Retirement Fund[101] and those in the State of Illinois,[102] completely ban any investment in a fund that uses placement agents. In our opinion, placement agent usage by fund managers is acceptable, when reputable agents have proper FINRA registration and can comply with each plan's disclosure requests. Simultaneously, a plan's investment staff and investment consultant needs to keep its board informed of placement agent usage and adequately track this information. Implementing a placement agent policy and procedures document is beneficial to ensure that placement agents possess the proper qualifications and that disclosure requirements are adequately fulfilled.

Best practices for a plan's placement agent usage contain the following steps:

- Staff provides a copy of the placement agent disclosure law and/or policies upfront to the investment manager during preliminary due diligence.
- Early in the due diligence process, staff sends the investment manager specific placement agent disclosure requirements. This can be in the form of a placement agent disclosure questionnaire, which clearly outlines the information needed to comply with placement agent policy and applicable laws. In addition, staff and/or investment consultants provide the investment manager with side letter provisions stating necessary disclosure requirements.
- Investment manager completes the placement agent disclosure questionnaire and submits it back to the staff and the investment consultant.
- Staff and investment consultant independently review the questionnaire responses and ensure that the placement agent usage is in compliance with law and policy. Any conflicts or issues of concerns are discussed. Staff and investment consultant include questionnaire responses in due diligence reports, which are then presented to and reviewed by the Investment Committee and the Board.

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[99] The Securities and Exchange Commission ("SEC") proposed rule 206(4)-5.
[100] Arizona State Retirement System; California Public Employees' Retirement System; California State Teachers' Retirement System; and Teacher Retirement System of Texas.
[101] On April 22, 2009, New York State Comptroller Thomas DiNapoli imposed a ban on the use of placement agents, paid intermediaries and registered lobbyists with respect to the state's $122 billion Common Retirement Fund, including arrangements under which any of these persons are compensated on a flat fee, contingent fee or any other basis.
[102] In Illinois, Public Act 096-0006 became effective on April 3, 2009. One of the reforms adopted in this act is a ban on contingent fee arrangements and placement fees to influence the outcome of an investment decision or the procurement of investment services by an Illinois state or local retirement system, pension fund or investment board.

- During legal review and side letter negotiations, staff, investment consultant and/or legal counsel (applicable party) ensure that investment manager agrees to the appropriate side letter placement agent disclosure provisions.
- If an investment is approved, the investment staff and investment consultant independently record placement agent usage.
- Staff and/or investment consultant report quarterly on placement agent usage to applicable legislative bodies where appropriate.

On June 26, 2009 the ERB adopted a policy prohibiting investments where a placement agent was used. Then, in July 2009, legislation became effective requiring ERB's investment managers to disclose the identity of placement agents used by the managers and the fees paid to them. The legislation permits ERB to invest assets with managers who use placement agents as long as the fund manager discloses the identity and the fee paid to any third-party marketer.[103] On December 11, 2009, the Board approved a new placement agent policy, detailing procedures and responsibilities for disclosure.

We were informed that the ordinary practice of the ERB, consistent with best practices, is to require the disclosure of placement agents, contingency, third-party marketing, and agent fees through a negotiated side letter in every instance involving a direct alternative investment. Disclosure of placement agent fees is made quarterly by the ERB to both the Legislative Finance Committee (LFC) and Department of Finance and Administration (DFA).

The ERB currently reviews and tracks placement agent usage in a variety of ways, most of which are commensurate with the best practices stated above. ERB staff communicates disclosure policies to the investment manager at the beginning of the process, the investment manager then provides the proper placement agent disclosure information, the staff collects/tracks the placement agent disclosure details, and lastly, both the Board and the Investment Committee review the placement agent information prior to investment approval. Some other funds have delegated the responsibility for reviewing placement agent usage to an external party.

[103] NMSA 1978, Section 22-11-54 NMSA 1978 (Laws 2009, ch.152 3) Disclosure of third-party marketers; penalty. – (A) The retirement board shall not make any investments, other than investments in publicly traded equities or publicly traded fixed-income securities, unless the recipient of the investment discloses the identity of any third-party marketer who render services on behalf of the recipient in obtaining the investment and also discloses the amount of any fee, commission, or retainer paid to the third-party marketer for the services rendered. (B) Information disclosed pursuant to Subsection A of this section shall be included in the quarterly performance reports of the retirement board. (C Any person who knowingly withhold information required by Subsection A of this section is guilty of a fourth degree felony and shall be punished by a fine of not more than twenty thousand dollars ($20,000) or by imprisonment for a definite term not to exceed eighteen months or both. (D) As used in this section, "third-party marketer" means a person who, on behalf of an investment fund manager or other person seeking an investment from the fund and under a written or implied agreement, receives a fee, commission or retainer for such services from the person seeking an investment from the fund and the fee paid to any third-party marketer who provided services on behalf of the recipient. (This bill is effective June 19, 2009.)

Performance Reporting

Regular monitoring and reporting of investment performance are important functions in fulfilling the fiduciary duty of prudence. Fiduciaries that delegate the investment decisions of purchasing and selling securities, as the boards of public retirement systems generally do, have a responsibility not only to use care in the selection of the investment managers, whether internal or external, but also in the oversight of the managers' performance. Failure to monitor and take action, when warranted, can produce the same degree of fiduciary risk as that resulting from imprudent due diligence in hiring managers.

Periodic performance reports provide the type of information needed by the board and staff to make decisions regarding manager retention and termination, portfolio strategy, and structure. They also help the board and staff to assess strengths and weaknesses in the portfolio. Manager successes and deficiencies are kept in the forefront through these reports. The overall structure of the portfolio and the strategies employed are best evaluated through regular reporting that compares performance of the portfolio and individual managers to reasonable benchmarks.

Having a sound system in place to calculate the rates of return for the portfolio benefits both the board and staff. It also gives information to external parties that are interested in the success of the investment program. It is a best practice for investment performance to be calculated and reported quarterly and for reports to be presented verbally at meetings where questions can be asked and answered. With today's high level of scrutiny of public retirement systems, it is very important to establish and adhere to best practices in performance reporting.

Currently, NEPC is responsible for providing quarterly performance reports to the ERB and monthly "flash" reports to Investment Committee members. Monthly and quarterly performance results are calculated using custodial data and returns are reconciled with manager reported performance. Monthly Investment Committee meetings devote a significant portion of time to reviewing monthly performance as reported by the investment consultant, and Committee members ask insightful questions and debate any issues that may arise. Performance is also monitored quarterly at Board meetings where performance related questions can be asked and addressed. These actions are consistent with the policies outlined in the IPS and are inline with best practices for monitoring the fund.

The table on the following page lists items and elements of performance reports that we believe to be best practices. We compared the NEPC performance reports against best practices and noted, with a checkmark (✓), those elements that are included in the NEPC reports. [104]

[104] Comparison based on 2Q2009 NEPC performance report.

Best Practice Elements included in Performance Reports	Included in NEPC Performance Reports
Capital Markets Review	✓
— Return detail of markets	✓
— Hedge Fund market review	Not included
— Historical asset class summary	Not included
Asset allocation summary	✓
— Asset class over/underweight vs. policy	✓
— Change in asset allocation over the period	✓
— Asset allocation vs. peers	✓ (For equity allocation only)
— Asset allocation by manager (% and dollars)	✓
Return summary versus benchmark(s)	✓
— Total fund level performance	✓
— Total fund rolling excess return	✓
— Asset class level performance	✓
— Manager level performance	✓
— Performance shown net of fee[105]	Not included
— Trailing period returns (including since inception)	✓ (Not since inception at the total fund level)
— Annual period returns	✓
— Performance versus peers	✓
Total Fund Attribution	✓
Asset class attribution analysis	Not included
Ratio of cumulative wealth graphs	Not included
Annualized risk/return exhibits for the total fund	✓
Annualized risk/return exhibits for each manager	Not included
Equity style analysis	✓
Manager sector allocation (versus benchmark)	Not included
Manager sector performance (versus benchmark)	Not included
Manager characteristics (versus benchmark)	Not included
Manager peer group scattergram	Not included
Manager up/down markets chart	Not included
Manager country/region allocations (versus benchmark)	Not included
Manager investment philosophy/strategy	Not included
Manager performance commentary	Not included

[105] Traditional assets are gross of fees, while all alternative assets are net of fees.

Attestation of manager guideline compliance[106]	Not included
Appendix/Glossary	✓
– Summary of Investment Policy and Objectives	Not included
– Definitions and benchmark descriptions[107]	Not included

The performance reports provided by NEPC include basic information related to performance and asset allocation. One shortcoming we note is that the quarterly performance reports show most returns gross of fees. Alternative investment results are reported net-of-fees. NEPC chooses to report performance this way in order to make an appropriate comparison with the peer universes that show returns gross of fees. We believe that measuring returns net-of-fees against market benchmarks is of primary importance and a best practice.

There are several other elements listed in the chart that the NEPC reports do not include. The Board may want to discuss the value of adding these items to the report. In particular, some boards find it useful to have asset class attribution included in performance reports, as well as more detail on each asset class portfolio, including sector allocations and characteristics versus the appropriate benchmark. This information is crucial to any comprehensive performance report, particularly as it applies to the proper oversight of compliance with Board approved investment guidelines. Also, the quarterly performance books do not include since inception performance at the total fund level. Reporting since inception performance for the total fund provides insight into the long-term affects of Board approved investment policies and therefore provides a valuable measure of overall investment effectiveness. It is best practice to provide this level of reporting detail in the quarterly performance book.

Having a sound performance reporting process is only part of the equation in monitoring performance. Equally important is interpreting the reports correctly and making adjustments to the fund policy or manager structure when information warrants such a change. We examined the fund's performance over the past ten years and found that the ERB has consistently underperformed its policy benchmark. Furthermore, over the ten-year period, the ERB's performance ranks in the bottom half of a public fund universe.

In the chart on the following page, we compare the ERB's actual rate of return (ROR) against a universe of other public funds. We have also included the Total Fund Policy Index, which is a passive representation of the Board's strategic allocations. A rank of 1 is the best, and a rank of 99 is the worst.

[106] If manager compliance is monitored and reported via a separate report, it may not be necessary to include it in a performance report.
[107] A description of the total fund benchmark is included in the appendix, but no other definitions or descriptions are included.

Annualized Performance As of 6/30/2009[108]	1 Year ROR	1 Year Rank	3 Years ROR	3 Years Rank	5 Years ROR	5 Years Rank	10 Years ROR	10 Years Rank
NM ERB Total Fund	-17.3	42	-3.0	46	2.4	35	2.1	82
Total Fund Policy Index	-15.4	26	-2.2	31	2.7	25	2.6	71

Although performing a detailed portfolio attribution analysis is not within the scope of this project, our high level observations, based upon the interpretation of information we obtained, are provided below.

The one-, three-, five-, and ten- year performance of the fund has been weak compared to the total fund policy index. The fund ranks above median in a public fund universe for the one-, three-, and five- year periods, but ranks in the fourth quartile over the ten-year period. Of note, NEPC uses a different public fund universe to monitor peer performance than the one we report in the above table. That being stated, the same trend in peer-related performance is observable using either universe, with both universe comparisons ranking the ERB in the bottom fourth quartile over the ten-year period. On a risk-adjusted basis for the five-year period, performance was also weak. The fund incurred more risk, and earned less return, than the total fund policy index.

Over the five-year period, the U.S. equity, non-U.S. equity, and fixed income asset class portfolios underperformed their respective benchmarks. The managers in each portfolio collectively underperformed. Within the U.S. equity portfolio, the small cap managers performed relatively well while the large cap managers underperformed. Also serving to detract from performance was the negative tracking error in the S&P 500 Index Fund. With over $800 million in assets in the account, the 60 basis points of annualized underperformance over the five-year period served to significantly hamper performance.

Within the non-U.S. equity portfolio, another source of underperformance over the five-year period was the emerging markets equity portfolio. Collectively, the active emerging markets managers underperformed the MSCI Emerging Markets Index by 1.0 percentage points. The non-U.S. developed markets equity portfolio also hurt performance as it lagged the asset class benchmark by 0.4 percentage points annually over the last five years.

Since 2005 the ERB has been transitioning assets into an alternatives portfolio, consisting of real estate, private equity, real assets, and absolute return strategies. Over the four-year period, the real estate portfolio has performed relatively well and was a source of added-value for the ERB. Due to the short term performance history of the other alternative investments, results are not yet meaningful. From a diversification perspective, we would expect these types of investments to enhance the fund's risk and return characteristics going forward.

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[108] Returns per the NEPC 2009 2nd Quarter Performance Report for the quarter ended 6/30/2009. Performance is gross of fees for traditional assets and net of fees for alternative assets. Ranks are calculated versus the public funds universe provided by BNY Mellon Performance & Risk Analytics, LLC and includes 90 public funds of varying sizes as of 6/30/2009.

Conclusions

The ERB follows best practices in setting its asset allocation by using asset liability studies and asset allocation modeling to analyze risk and return. The asset classes employed by the ERB, including those in the alternatives portfolio, are commonly used by other public pension funds; however, the ERB's total allocation to alternatives is high compared to its peers. The diversification in the portfolio likely will benefit the ERB over the long run. The ERB's unique asset allocation requires a heightened level of education and analysis. Considering global mandates, instead of or in addition to domestic and non-U.S. mandates, may be beneficial.

The ERB's processes for rebalancing of the portfolio should be improved. The ranges around the target allocations are very wide. Tactical asset allocation authority has been granted to the investment staff, allowing actual allocations to deviate materially from the targets. Discretion for tactical asset allocation has the potential to introduce significant risk relative to the long term policy benchmark. Such wide ranges and the level of discretion given to staff are unusual and should be reconsidered.

The ERB is currently operating under a draft version of the IPS. Before formally adopting the draft version, enhancements could be made based on recommendations noted in this Report.

NEPC has been requested to assess the entire portfolio structure and specifically to examine the use of internal and external management, as well as passive and active managers. Periodic reviews of manager structure are a best practice. The ERB would be best served by having this assessment completed as soon as possible.

The internally managed accounts have experienced tracking error. The tracking error in the S&P 500 Index Fund has "cost" the ERB approximately $30 million. The cause for the tracking error in both the internally managed accounts should be identified and eliminated. It would be best for the investment consultant, or another independent party, to periodically provide the Board with an assessment of the performance and costs of the internally managed assets. Such a review would assist the Board in determining whether the assets are best managed internally or externally.

The Board's approved due diligence process could be more thoroughly documented in the IPS or a separate policy. Consultants can add great value and insight into the due diligence process, and reliance upon them is appropriate as long as proper oversight is maintained by the Board. Past performance should not be a focus during the manager selection process; rather, an analysis of skill and organizational factors that increase the likelihood of a positive outcome should be emphasized.

The selection of the custodian bank is not under the ERB's control. It is handled by the Board of Finance. Therefore, the ERB is not able to extend or terminate the contract based of its assessment of the services provided by the custodian bank. It is best for the fiduciaries to be able to hire and terminate its service providers.

The ERB follows best practice by measuring its total fund performance against a custom policy index in the quarterly performance reports produced by NEPC. The benchmarks for the asset classes the ERB uses are generally appropriate, with a few exceptions. We found the quarterly performance reports closely mirror the benchmarks assigned in the IPS, however, discrepancies exist in the performance reports and IPS by not defining benchmarks for real assets, domestic equity, absolute return, and GTAA. We also believe a better benchmark for the Absolute Return asset class is the HFRI Funds-of-Funds Conservative Index as it reflects a broad universe of investments and the volatility inherent in the portfolio.

The compensation paid to managers was lower than what comparable funds pay. The ERB has traditionally preferred asset-based fees, but is currently working with every manager to negotiate for lower fees and is open to possibly paying managers using performance-based fees.

The ERB is not prohibited from hiring investment managers who use placement agents; however, a new law requires disclosure of certain information about placement agents. Recently, the ERB approved a placement agent disclosure policy.

Performance reporting to the Board and staff comes from an independent consultant, which is a best practice. The reports are complete with basic performance statistics; however, there are several reporting elements that the Board may want to introduce to the reports to help monitor Fund performance. Additional information included in quarterly performance reports would be useful to the Board to more closely scrutinize not only the internally managed assets, but also all of the externally managed assets to aide in the identification of poorly performing funds. The reports also show returns for publicly marketed securities gross of fees. It is best practice to report all returns net of fees. The ERB's performance over the past one, three, five, and ten years has been below its benchmark and below universe averages.

Recommendations on Policies, Procedures, and Practices.

Asset Allocation

24. Complete an asset liability study to either confirm or adjust, as appropriate, the long-term target allocations of the fund.
25. Ensure the Board receives ongoing education and information related to the risks in the alternatives portfolio, specifically regarding the absolute return strategies.

Asset Classes

26. Evaluate the suitability of the global mandates for equities.
27. Ensure thorough education and analysis is presented and discussed with the Board or Investment Committee regarding the asset classes included or contemplated for the portfolio.
28. Re-visit Global Tactical Asset Allocation to ensure the Board is comfortable with the approach being utilized.

Rebalancing of Assets

29. Establish and document a prudent rebalancing process.
30. Tighten the allowable ranges for each asset class.

31. Reevaluate the tactical asset allocation authority granted to staff.

Investment Goals and Risk Tolerance

32. Revise the stated investment objectives in the IPS to include earning an appropriate risk adjusted return compared to the policy portfolio.
33. Explore the benefits of risk budgeting with the consultants.
34. Enhance the Strategic Plan to include goals to achieve investment objectives.

Written Investment Policy Statement

35. Update and improve the IPS with the assistance of the consultant.

Internal versus External Management of Assets

36. Have the investment consultant periodically assess internally managed assets to determine whether the performance and costs remain more beneficial than managing the same assets externally.
37. Ensure that internal controls are in place to adequately safeguard the internally managed assets.
38. Evaluate whether Board members and staff should be subject to a personal trading policy requiring disclosures.
39. Formally approve the "Board Policies and Procedures" and staff Code of Conduct, which include Insider Trading Policies.

Manager Structure

40. Consider whether passive management is appropriate for additional asset classes.
41. Complete an equity structure review that evaluates the number and types of managers, as well as any style or market segment biases in the portfolio.
42. Complete a fixed income structure review that evaluates the portfolio structure from an allocation, quality, risk, and liability standpoint.
43. Ensure manager structure is periodically reviewed by the Investment Committee and/or Board.

Selection of Investment Managers and the Custodian

44. Evaluate whether a formal RFP process remains the most efficient and effective way to conduct manager searches.
45. Incorporate manager selection guidelines within the Investment Policy Statement and supporting documentation.
46. Ensure documentation of the search process is maintained and analysis presented to the Board is complete and useful.
47. Seek statutory authority to hire the custodian bank.

Alternative Investments

48. Consider tightening the acceptable sub-asset class minimum and maximum target ranges within alternatives to align with industry peers.
49. Seek a statutory change to allow discussions and materials of private market investments with proprietary investment strategies to be kept confidential.

50. Consider updating policy to delineate the roles and responsibilities with regard to investment monitoring and asset sub-classes within the alternative asset classes.
51. Obtain independent, audited cash flow information in order to reconstruct manager performance.

Benchmarks

52. Evaluate the HFRI Funds-of-Funds Index to use as the primary benchmark for the absolute return portfolio.
53. Include the GTAA benchmark in the quarterly performance reports.
54. Include the benchmark for real assets in the performance report.

Compensation of Managers

- None

Roles and Qualifications of Placement Agents

55. Consider delegating placement agent qualification review and usage tracking to an external party.

Performance Reporting

56. Evaluate whether including additional or different elements in the quarterly performance reports would be useful to the Board.
57. Show returns net-of-fees in the performance reports.

New Mexico Legislative Council Service
Fiduciary Review for the
Educational Retirement Board
Listing of All Recommendations

Below is a complete list of the recommendations that are included in the review. For ease of reference, the section and page number in which the topic is discussed is provided. We also mention the initial step required to address the recommendation, if the Board chooses to do so. The Board has the ultimate authority to prioritize, accept, modify, and reject any and all recommendations based on the ERB's needs and resources.

	Recommendations	Requirement
1	Seek a statutory change requiring new Board member orientation and more hours of ongoing education, including annual fiduciary training. (see page 8)	Statutory Change
2	Provide by policy a specific orientation and formalized ongoing education for Investment Committee members. (see page 8)	Board Policy Enhancement
3	Continue to ensure all new Board members receive a timely and thorough orientation session as well as annual training on fiduciary responsibilities. (see page 9)	Board Policy Enhancement
4	Examine the intent of the Prudent Investor Act and its application to ERB and determine whether protections provided under the Education Retirement Act, the Torts Claims Act, or other laws are appropriate. (see page 10)	Board Discussion
5	Amend the Education Retirement Act to include a definition of who is a fiduciary. (see page 10)	Statutory Change
6	Update and formally approve the Board Policies and Procedures document so that it is a comprehensive governance manual that can be distributed to new Board members. (see page 11)	Board Policy Enhancement
7	Create a more detailed position description for individual Board members and distribute it during the election and appointment process. (see page 13)	Board Policy Enhancement
8	Create comprehensive charters for the Investment Committee, the Audit Committee, and the Evaluation Committee. (see page 14)	Committee Charter Development
9	Evaluate whether an ex-officio member should be allowed to designate a specific person to attend, participate, and vote at meetings. (see page 14 and 15)	Board Discussion
10	Modify the language in the ERB Standards of Conduct to require that third party disclosure regarding gifts, entertainment, and travel is required on an annual basis. (see page 16)	Board Policy Enhancement
11	Have the Audit Committee review disclosure forms so that any	Process/Procedure

	Recommendations	Requirement
	conflicts of interest can be appropriately managed as ERB business is conducted. (see page 16)	Enhancement
12	Require Board members and staff to annually acknowledge in writing that they have read and will comply with their respective ERB Standards of Conduct. (see page 17)	Board Policy Enhancement
13	Conduct annual training regarding the ERB Standards of Conduct to highlight the importance of ethical standards and conflicts of interest. (see page 17)	Process/Procedure Enhancement
14	Clarify who has responsibilities to monitor compliance. (see page 17)	Board Discussion
15	Modify the composition of the Investment Committee to only include Board members. (see page 18)	Committee Composition Change
16	Discuss what value an accountability matrix may have in documenting and clarifying roles and responsibilities. (see page 20)	Board Discussion and possible Document Creation
17	Ensure there is a comprehensive and unambiguous position description for the Executive Director and for the CIO, and review and update them as necessary. (see page 19 and 20)	Position Description Enhancement
18	Amend contracts with ORG and Courtland and clearly specify that each consultant is a fiduciary for the services they provide, the consultants work for the Board, and the consultant's standard of care is that of a prudent investor. (see page 20)	Contract Modification
19	Seek staffing autonomy to allow the ERB to fill all investment positions without being bound by state personnel procurement practices. (see page 22)	Statutory Change
20	Fill the vacant positions on the investment staff as soon as possible. (see page 22)	Hire Staff
21	Reevaluate the staff size in-light of portfolio complexity, internal management, and oversight of alternative investments. (see page 22 and 23)	Evaluation of Current Practices
22	Seek budget autonomy but maintain fiduciary standards, transparency, and reporting requirements. (see page 23 and 24)	Statutory Change
23	Consider working with an independent external party to monitor and benchmark investment related costs. (see page 25)	Modification of Existing Practices
24	Complete an asset liability study to either confirm or adjust, as appropriate, the long-term target allocations of the fund. (see page 30)	Asset Liability Study
25	Ensure the Board receives ongoing education and information related to the risks in the alternatives portfolio, specifically regarding the absolute return strategies. (see page 34)	Modification to Existing Practices

	Recommendations	Requirement
26	Evaluate the suitability of global mandates for equities. (see page 35 and 36)	Board Discussion
27	Ensure thorough education and analysis is presented and discussed with the Board or Investment Committee regarding the asset classes included or contemplated for the portfolio. (see page 36)	Modification to Existing Practices
28	Re-visit Global Tactical Asset Allocation to ensure the Board is comfortable with the approach being utilized. (see page 36)	Board Discussion and/or Policy Enhancement
29	Establish and document a prudent rebalancing process. (see page 37 and 38)	Board Policy Enhancement
30	Tighten the allowable ranges for each asset class. (see page 38)	Board Policy Enhancement
31	Reevaluate the tactical asset allocation authority granted to staff. (see page 38)	Board Discussion and/or Policy Enhancement
32	Revise the stated investment objectives in the IPS to include earning an appropriate risk adjusted return compared to the policy portfolio. (see page 39)	Board Policy Enhancement
33	Explore the benefits of risk budgeting with consultants. (see page 39)	Staff/consultant Analysis and Board Discussion
34	Enhance the Strategic Plan to include goals to achieve investment objectives. (see page 39 and 40)	Board Strategic Plan Enhancement
35	Update and improve the IPS with the assistance of the consultant. (see page 40)	Board Policy Enhancement
36	Have the investment consultant periodically assess internally managed assets to determine whether the performance and costs remain more beneficial than managing the same assets externally. (see page 44)	Evaluation of Current Practices
37	Ensure that internal controls are in place to adequately safeguard the internally managed assets. (see page 43)	Modification of Existing Practices
38	Evaluate whether Board members and staff should be subject to a personal trading policy requiring disclosures. (see page 44)	Evaluation of Current Practices
39	Formally approve the Board policies and Staff Code of Conduct, which include Insider Trading Policies. (see page 44)	Board Discussion and Policy Approval
40	Consider whether passive management is appropriate for additional asset classes. (see page 47)	Board Discussion
41	Complete an equity structure review that evaluates the number and types of managers, as well as any style or market segment	Evaluation of Current Structure

	Recommendations	Requirement
	biases in the portfolio. (see page 49)	
42	Complete a fixed income structure review that evaluates the portfolio structure from an allocation, quality, risk, and liability standpoint. (see page 49)	Evaluation of Current Structure
43	Ensure manager structure is periodically reviewed by the Investment Committee and/or Board. (see page 49)	Board Policy Enhancement
44	Evaluate whether a formal RFP process remains the most efficient and effective way to conduct manager searches. (see page 49 and 50)	Board Discussion and possible Practice Modification
45	Incorporate manager selection guidelines within the Investment Policy Statement and supporting documentation. (see page 51)	Board Policy Enhancement
46	Ensure documentation of the search process is maintained and analysis presented to the Board is complete and useful. (see page 51)	Additional Reporting
47	Seek statutory authority to hire the custodian bank. (see page 52)	Statutory Change
48	Consider tightening the acceptable sub-asset class minimum and maximum target ranges within alternatives to align with industry peers. (see page 53)	Board Policy Enhancement
49	Seek a statutory change to allow discussions and materials of private market investments with proprietary investment strategies to be kept confidential. (see page 54)	Statutory Change
50	Consider updating policies to delineate the roles and responsibilities with regard to investment monitoring and asset sub-classes within the alternative asset classes. (see page 54)	Board Policy Enhancement
51	Obtain independent, audited cash flow information in order to reconstruct manager performance (see page 55 and 56)	Evaluation of Current Practices
52	Evaluate the HFRI Funds-of-Funds Index as the primary benchmark for the absolute return portfolio. (see page 58 and 59)	Evaluation of Current Practices
53	Include the GTAA benchmark in the quarterly performance reports. (see page 59)	Board Policy Enhancement
54	Include the benchmark for real assets in the performance report. (see page 59)	Performance Report Enhancement
55	Consider delegating placement agent qualification review and usage tracking to an external party. (see page 64)	Modification of Existing Practice
56	Evaluate whether including additional or different elements in the quarterly performance reports would be useful to the Board. (see page 67)	Board Discussion
57	Show returns net-of-fees in the performance reports. (see page 67)	Performance Report Enhancement

Appendix A
Sample Board Education and Orientation Policy

General

Fiduciary duties are not limited to investment decisions. All decisions, especially those involving benefits, must be made from the perspective of a fiduciary. Fiduciaries have the duties of loyalty to the best interests of the trust, to deal impartially with regard to all beneficiaries, to participate in decision-making, to delegate decisions when it is prudent to do so, to prevent breaches of duties by others, and to compel performance and redress breach of duties by others. This standard recognizes the ever-changing nature of investment and benefits issues the Board members will encounter.

Education of Board members is, therefore, essential to ensure that they meet their fiduciary responsibilities. It is the Board's policy that all Board members have a full understanding of the issues facing the ERB so that they may properly oversee the administration of the Association.

To that end, this policy sets forth the new Board member orientation and mentoring programs, the parameters for ongoing Board member education, mandatory fiduciary education and ethics training sessions, and the availability of retirement industry periodicals to foster Board member continuing education.

Orientation

Each Board member is strongly encouraged to attend an orientation session within the first three to four weeks of being appointed to the Board (preferably before having to vote during an actual Board meeting). Orientation leaders will be the Executive Director and other executive staff members. Others inside or outside the organization may also participate, if determined to be appropriate by the Executive Director. The orientation sessions will be developed by the Executive Director and will, at a minimum, include the following topics:

- A brief history and overview of the ERB, including the mission and purpose of the Association
- A summary of the laws and rules governing the ERB and the Board
- An explanation of the legal status of the ERB as a political subdivision of the State in contrast to the status of state agencies
- An explanation of fiduciary responsibility, conflicts of interest and ethics
- An explanation of the strategic plan and the planning process
- A high level review of existing Board policies
- A briefing on current and emerging issues before the Board
- Biographical information on the other Board members and executive staff
- A review of the Board's Governance Handbook
- An introduction to the ERB executive staff, and an overview provided by each of them regarding the operations of their various operating divisions
- A tour of the ERB offices

At or before the orientation session, the new Board members will receive the Board Governance Handbook, minutes from the prior six months of meetings, a sample Board packet, a list of upcoming recommended educational conferences and any other relevant information or documents deemed appropriate by the Executive Director.

Mentoring

Any new Board member may request a mentor to assist them in becoming familiar with their responsibilities on the Board. If a request is made, the Board Chair will designate one experienced Board member to be a mentor to the new Board member for a period of six to twelve months. The mentor will contact the new Board member at least once each month, outside of regularly scheduled Board meetings, for consultation or discussion related to new Board member orientation.

Ongoing Education

Board members may attend any of the educational conferences approved as shown on the recommended list included in each month's Board packet. The Executive Director will regularly update a list of valuable conferences from which the Board members may choose. The list will also be modified to reflect the evaluations from Board members who have attended specific conferences to ensure that the conferences remain worthy of the Board's time and the ERB's expense. Based on the personal education needs of the Board members, the Executive Director will arrange for staff or outside service providers to conduct educational sessions throughout the year at regularly scheduled Board meetings or the annual planning session.

Board members are encouraged to attend one educational session or conference designed to give them a general understanding of the responsibilities of a public retirement system fiduciary. Board members must complete an Education Evaluation form upon completion of any educational conference and such form must be turned in with any request for reimbursement of expenses associated with the conference.

Fiduciary Education Session

Each year the General Counsel will arrange for a fiduciary education session that will update the Board members on issues affecting their service on the Board. The session may involve outside speakers. Board members may submit questions in advance of this session so that their concerns can be addressed. This session may also be expanded to include discussion on state and the ERB ethics policies and requirements.

Retirement Industry Periodicals

Board members are encouraged to subscribe to periodicals selected from an approved list of pension and investment-related periodicals. The expense for the periodicals will be paid by the ERB. The Executive Director will annually review and update this list with input from the Board members.

Appendix B
Examples of Board Responsibilities for a Board Charter

The Board has the following responsibilities:

- Adopt a strategic plan including a mission statement and core values that set forth proper standards of behavior.
- Establish governance policies to guide the Board in an effective and efficient manner.
- Elect officers through a fair and open process.
- Set a reasonable meeting schedule.
- Establish and disband standing and special committees of the Board, as necessary.
- Articulate and adopt a statement of risk management principles.
- Adopt a comprehensive investment policy consistent with statutory requirements and current best industry practices.
- Set and periodically review the asset allocation of the portfolio.
- Hire and monitor the necessary professionals (e.g., actuaries, investment consultants, investment managers, and legal counsel) to support the investment functions.
- Adopt a funding policy with necessary contribution rates to keep the fund actuarially sound.
- Adopt reasonable actuarial assumptions and methodologies upon the advice of the actuary.
- Adopt a sufficient administrative budget and closely monitor compliance.
- Ensure that an independent audit of the fund’s financial statements takes place each year.
- Undertake an annual board self-evaluation to promote continual improvement.
- Evaluate the Executive Director annually.
- Evaluate key consultants and advisors annually.
- Make relevant information publicly available in a timely manner.

Please note that this list is not all inclusive. It does not include responsibilities related to benefits administration. For a board charter to be comprehensive, those should be added as well.

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Appendix C
Examples of Responsibilities for Individual Board Members for a Board Member Position Description

Each Board Member is responsible for:

- Working constructively with the other Board Members to govern the organization.
- Interacting appropriately with staff, outside service providers, employers, members, retirees, beneficiaries, and others.
- Discharging his or her fiduciary duties with care, skill, diligence, and prudence, solely in the interest of all members and beneficiaries, and for their exclusive benefit, in accordance with the laws governing the organization.
- Incurring only reasonable expenses in carrying out his or her duties as a Board Member.
- Preparing for Board and Committee meetings by reading materials in the Board packet in advance of the meeting and asking questions of staff.
- Attending Board and Committee meetings and participating in discussions.
- Respecting the time commitment required for meetings by arriving prior to the start of the meeting and staying until its conclusion.
- Refraining from acting on behalf of the entire Board unless specifically delegated that authority.
- Respecting open meetings laws by not convening meetings, including conference calls or video conferences, with fellow Board Members outside the properly noticed meetings.
- Attending statutorily required educational sessions.
- Acquiring and maintaining knowledge to effectively make decisions and evaluate those to whom duties have been delegated.
- Promptly reporting any ethical concerns to the Board Chair, Executive Director, or General Counsel.
- Avoiding conflicts of interest or even the appearance of conflicts of interest and disclosing conflicts of interest as required by statute or administrative rules.
- Refraining from any self-dealing with system assets or using the system to promote a personal business or to gain financial rewards.
- Maintaining confidentiality of member records and certain investment activity pursuant to law or system policy.
- Using reasonable care to prevent any other fiduciary of the organization from committing a breach of fiduciary duty.
- Allowing the Executive Director to oversee the operational management of the organization.
- Refraining from performing any function delegated or normally assigned to staff unless prior approval is obtained from the Board.

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Appendix D
Useful Reports for an Investment Committee

The following outline sets forth the type of information investment committees (IC) of large public retirement systems might use in their oversight role. A meaningful exercise for the IC and staff is to inventory the reports currently provided to the IC and discuss their usefulness and frequency. Once the optimal types and frequency are decided upon, best practices are to document it in a policy.

In some instances the information will be in the form of a written report; in other instances the reports will be presented in person by the staff or consultants who are the authors of the reports so that the IC members may ask questions of them.

Investments

Description	Current Frequency	Suggested Frequency
A review of the asset allocation of the trust funds presented jointly by the investment consultant and the CIO		
A review of the Investment Policy Statement along with any changes recommended by the investment consultant, the CIO, or other members of the IC		
An inventory of security investments and their valuations		
An update of the activities of the managers connected with alternative investments		
A report of brokerage commissions paid to each firm and historical information regarding the trends in costs		
A report detailing the deviations from the target allocations for the portfolio		
An investment performance report for the previous quarter and the previous five years prepared by the investment consultant		
Investment manager presentations		
Review of each investment manager’s adherence to guidelines; comparison to other similar managers; portfolio risk; material changes in the organization, its philosophy or processes; and analysis of new opportunities		
Securities lending reports prepared by the custodian bank and verified by the investment office or the investment consultant		
Valuations of private equity investments prepared by the investment consultant or Staff		
A summary of proxy voting and deviations from the Proxy Policy		
Shareholder activities in addition to proxy voting such as submission of resolutions, attendance at annual meetings, correspondence with corporations, involvement with class		

Description	Current Frequency	Suggested Frequency
actions, etc.		
An analysis of the passive/active strategy with recommended changes, if necessary		
A request to allow a deviation from the Investment Policy Statement along with the rationale for doing so		
Profiles of the top money manager candidates for a particular asset category, as recommended by Staff and the investment consultant		
Portfolio rebalancing activities		
Information about the departure of key people from Staff, current money management or consulting firms		
Placement of investment managers on the “Watch List”		
Overall status of investments		
Detailed information about real estate or private equity investments that is needed by fiduciaries		
Review and evaluation of key consultants and vendors, including investment consultant, custodian bank, and securities lending firm within the context of service level agreements		
Requests for adding or deleting permissible asset classes		

Audits

Description	Current Frequency	Suggested Frequency
The independent financial audit of the trust funds along with the System’s responses to any findings and comments in the management letter		
The operational audit report along with the System’s responses		
The System’s plan to address any of the findings or comments in the financial or operational audit reports		

Actuarial Reports

Description	Current Frequency	Suggested Frequency
Asset/liability modeling study		
Actuarial valuations of the various trust funds		
Actuarial experience studies of the various trust funds		

Legal Matters

Description	Current Frequency	Suggested Frequency
A review of the class actions where the System is taking the role of lead plaintiff		
General litigation updates regarding progress, strategy, or proposed settlements		

Governance

Description	Current Frequency	Suggested Frequency
Negative publicity about the IC, the System, or any fiduciary connected with the trust funds		
The IC's requests for opinions from the State Ethics Commission regarding conflicts of interest		

Legislation

Description	Current Frequency	Suggested Frequency
A summary of proposed state and federal legislation affecting the trust funds		
Detailed information about important pending legislation		
Lobbying activities relating to legislation that could affect the IC		

Operations

Description	Current Frequency	Suggested Frequency
The performance evaluation of the CIO and the salary range increases for that position		

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Appendix E
Sample CIO Position Description

General

1. Manage investments in accordance with all relevant laws, Board policies, and goals.
2. Act as an expert advisor to the Board on all matters involving the investment or proposed investment of System assets.
3. Oversee all investment activities with overall responsibility for achieving investment performance targets.
4. Perform all supervisory functions for management of staff and resources in the investment group.

Duties and Responsibilities

The CIO will:

1. Implement the annual goals and objectives for the Investment Department as adopted by the Board; this would include annual asset allocation recommendations.
2. Oversee and monitor portfolio management by staff with respect to performance benchmarks and costs.
3. Continuously monitor all external portfolio managers, advisors, and consultants to determine if such are abiding by their respective contracts with the System and report to the Board at least every twelve (12) months with findings and recommendations.
4. Make recommendations to the Board with respect to investment related matters including, but not limited to, asset allocation decisions and the structure of the investment program with respect to external managers, advisors, consultants, and short-term and long-term investment strategy.
5. Monitor and report with regard to recommendations accepted by the Board.
6. Monitor capital markets, economic forecasts, and provide the Board with an ongoing analysis of the state of the global economic situation as it relates to the System's investment program.
7. Demonstrate a thorough knowledge of the institutional investment industry, latest investment research, and good judgment in investment issues.
8. Advise the Board as to the impact of potential legislation on the System's investment program.
9. Monitor Board's proxy policies and advise as to recommended changes in such policies.
10. Develop procedures and processes to effectively implement the Investment Policy Statement as adopted and amended by the Board.
11. Constantly reevaluate policies, process, standards, measurements, and methods to incorporate best practices into the management of the investment area.
12. Establish reporting mechanisms to keep the Board and Executive Director sufficiently and appropriately informed as to the status of the System's investment program and procedures used for implementation.
13. Recommend to the Executive Director regarding contracts or amendments for investment personnel, investment management firms, investment advisors, and consultants, including compensation structure, content of requests for proposals, and selections of competitor.
14. Make recommendations on expenditures for investment services to be paid out of the continuous appropriation or through directed commission (soft dollars).

15. Monitor the use of directed brokerage fees.
16. Advise the Executive Director as to the impact on the investment program of information released to the public, press, legislature, or other press releases and similar matters, as needed.
17. Recommend to the Board and the Executive Director appropriate investment procedures that ensure due diligence and appropriate written documentation for all actions taken to invest the funds of the System.
18. As required, on a periodic basis, advise the Executive Director and the Board as to the status and completion of each of the above duties and responsibilities.
19. Perform other duties as directed by the Board or the Executive Director that are consistent with and contemplated by the foregoing.
20. Maintain a well-functioning investment team.
21. Serve as a liaison between investment staff and Board and Executive Director.
22. Work with the Board and investment staff to enhance the decision-making process.
23. Develop and enhance the capabilities of other investment staff.
24. Address succession planning for key investment staff personnel.
25. Evaluate overall performance of senior investment staff, including their supervisory duties.
26. Attend Board and committee meetings as required.
27. Review investment-related materials to be included in the Comprehensive Annual Financial Report.

Appendix F
Sample Accountability Matrix for Key Investment Responsibilities

Responsibility	Board	Board Investment Committee	Executive Director	CIO	Other Staff	Consultants
1. Risk tolerance						
2. Monitoring risk levels						
3. Investment objectives						
4. Asset allocation targets and ranges						
5. Compliance with asset allocation						
6. Active v. passive strategy (%'s)						
7. Compliance with active/passive strategy						
8. Types of asset classes						
9. Number of external managers						
10. Selection of specific external investment management firms						
11. Investment manager contracts						
12. Performance of external investment managers						
13. Selecting custodian and sub-custodian banks						
14. Selecting investment consultant for general advice						
15. Selecting investment consultant for performance evaluation						

Responsibility	Board	Board Investment Committee	Executive Director	CIO	Other Staff	Consultants
16. Selecting specialty investment consultants						
17. "Watch list" additions/deletions						
18. Rebalancing policy						
19. Compliance with rebalancing policy						
20. Securities lending costs/benefits						
21. Valuation of real estate						
22. Purchase and sale agreements on real estate						
23. Valuation of private equity						
24. Partnership agreements on private equity						
25. Documentation of investment decisions						
26. Commission recapture/soft dollars policy						
27. Compliance with commission recapture/soft dollars policy						
28. Statutory compliance of DB investments parameters						
29. Proxy voting issues and positions						
30. Class actions – opting out						
31. Lead plaintiff role for the Association						

Appendix G
Sample Outline for a Personal Trading Policy

1. Purpose
2. Statement of Importance/Policy
3. Background and Implementation
4. Definitions
5. Prohibited Transactions
6. Exempt Transactions
7. Pre-Clearance of Covered Security Transactions
8. Reporting Requirements
   Duplicate Confirmations
   Initial Holdings Reports
   Change in Status of Personal Investment Accounts
   New Personal Investment Accounts
   Holdings Reports and Transaction Statements
9. Annual Certifications
10. Enforcement
11. Questions and Interpretations
12. Compliance

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Appendix H
List of Interviews and Documents Reviewed

INTERVIEWS

For the review, EnnisKnupp held discussions with the following parties:

Board Members
- Bruce Malott, Board Chair
- Mary Lou Cameron, Board Vice Chair
- Russell Goff, Board member
- Veronica Garcia, Board member
- James Lewis, Board member
- Beulah Woodfin, Board member

Staff
- Jan Goodwin, Executive Director/CIO
- Jeff Riggs, Deputy Director
- Chris Schatzman, General Counsel
- Mark Canavan, Investment Officer Real Assets and Infrastructure
- Steve Neel, Deputy CIO Private Equity and Hedge Funds
- Christina Ortega, Financial Analyst

Consultants
- Allan Martin – NEPC
- Steven Novick – Courtland Partners, LTD.
- Steve Gruber – ORG Portfolio Management LLC

LCS Staff
- Paula Tackett, LCS Director
- Raul Burciaga, Assistant Director for Drafting Services

DOCUMENTS REVIEWED

For the review, EnnisKnupp reviewed the following documents:

- Select laws and statutes:
  - New Mexico statutes and court rules
  - NLRB v. Amax 453 US 322 (1981) – Duty of a fiduciary
  - ERB Rules
  - NMSA 1978, § 10-15-1(Open Meetings Act)
  - NMSA 1978, § 14-2-1 (Inspection of Public Records Act)
  - NMSA 1978, § 22-11-1 (Educational Retirement Act)
  - NMSA 1978, § 6-3-1 (State Budgets)
- Comprehensive Annual Financial Reports (2008)
- Board policies
  - Board policies and procedures
  - Hedge fund policy
  - Real estate policy
  - Private equity policy
  - Natural resources policy
  - Infrastructure policy
  - Proxy voting guidelines
  - Communications policy
  - Placement agent fee policy
- Code of conduct
- Board meeting minutes (2008-2009)
- Investment committee meeting minutes (2008-2009)
- Organizational Chart
  - Educational Retirement Board
  - Investment division
- Position descriptions
  - Executive director
  - Chief investment officer
  - Financial analyst advanced
  - Financial analyst operational
  - Real estate/infrastructure investment officer
  - Securities, commodities, and financial service agent A
- Investment goals, policies and objectives (2006 and 2009)
- Changes to investment policy
- Budget review system
- Independent audit report (2007-2008)
- Internal audit and controls
  - Internal audit manual (2009)
  - Internal controls and compliance protocols (2009)

  - Preliminary investment risk assessment and audit plan control objectives
  - Internal audit charter (2009)
- Internal auditor reports
  - Audit review memo (2008)
- Manager searches
  - Public fund search process
  - Custodian bank
  - Emerging markets Board memo (2007)
  - Robeco response and presentation (2008)
  - Global asset allocation manager search (2008)
  - Risk parity manager search (2008)
- Managers contracts and fees
  - Alliance Bernstein (2007)
  - Alliance Bernstein fee change (2009)
  - Alliance Capital Management (2004)
  - Barclays Global Investors (2009)
  - Baring International (2007)
  - Beach Point Capital Management (2009)
  - Brandywine Global Investment Management (2007)
  - Bridgewater fee agreement (2009
  - Courtland Partners (2007)
  - Golden Tree Asset Management (2009)
  - Goldman Sachs Asset Management (2003)
  - Goldman extension and fee change (2009)
  - Institutional Shareholder Services (2008)
  - Lehman Brothers (2006)
  - Wilshire Associates (2008)
- Other contracts and fees
  - Foster Pepper (2006)
  - Foster Pepper (2009)
  - New England Pension Associates (2005)
  - NEPC Hedge Fund Consultant (2006)
  - NEPC Private Equity Consultant (2000)
  - Wachovia Bank (2005)
  - Wachovia Bank extension (2009)
- Commission recapture (2007)
- CEM report (2008)
- Financial disclosure statement (2009)
- Asset allocation (2007)
- Asset liability study (2006)
- ERB target ranges
- Fees
  - Alternative manager fees

  - Manager fees
- Performance reports (2008-2009)
- ORG market overview (2009)
- ORG Real estate and natural resources portfolio summary (200(
- Morning Star box score report (2009)
- Listing and description of all peer universes
- PE marketers (2009)
- SP 500 returns (2009)
- SPX large cash flows (2009)
- Fundfire ad for hedge fund advisor
- Hedge fund glossary of terms
- Hedge fund of funds
  - NEPC answers to response questions (2006)
  - Manager search scoring sheet (2006)
  - Interview schedule (2006)
  - List of finalists (2006)
- Fiduciary responsibilities presentation by Groom Law Group (2006)

Please note: Any omission of documents from the list above that we used for the findings and conclusions in this report is unintentional.