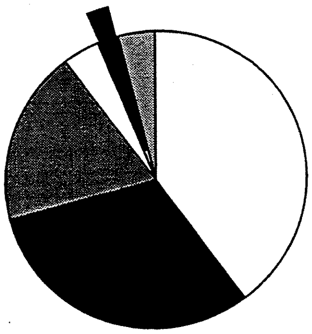
12b

Non-Traditional
2%



Non-Traditional Investments

In January 1995, the Investment Board established a portfolio, funded at $1 billion, that was intended to be global in nature, to place an emphasis on equities but allow investing across investment types, and to focus on unconventional investment instruments that have been undervalued because of complex or unique structuring, indeterminate risk exposures, or other factors creating market inefficiencies. The ultimate goal of this "non-traditional" portfolio is to invest in those areas not covered by other portfolios. In return for increased risks associated with this portfolio, the Investment Board hoped to attain higher returns than in its more traditional portfolios. The non-traditional portfolio, which is managed internally, has been invested as intended in all investment types, including derivatives. The portfolio held investments of $746 million, or 2 percent of the Fixed Retirement Trust Fund, and cash of $587 million as of December 31, 1998.

Returns in the non-traditional portfolio dropped significantly in 1998.

The non-traditional portfolio exceeded its performance goals from inception in 1995 through December 1997, with returns ranging from 17 to 27 percent, compared to benchmarks of 14.7 to 18 percent. These favorable returns appear to have been driven by the portfolio's large domestic equity holdings. Until December 1997, over half of the assets in the portfolio were, on average, domestic equities, which enjoyed strong returns during the period. However, as shown in Table 8, the non-traditional portfolio did not meet its performance goals in 1998, and overall returns since inception have fallen below the benchmark. Major factors contributing to the recent underperformance in the portfolio include staff turnover and the decline in emerging market investments.

Table 8

Non-Traditional Portfolio Performance

Period Ending December 31, 1998	Actual Performance	Investment Benchmark
1 year	5.0%	21.7%
Since Inception (1995)	16.2	17.0

In the spring of 1998, the investment director of the non-traditional portfolio announced his retirement from the Investment Board. Soon after, the portfolio manager, who was the only other investment staff member familiar with the portfolio, announced that he was resigning. The unusual nature of the investments and related strategies made it difficult for other investment staff to readily assume responsibility for the portfolio, even temporarily.

The Investment Board began to liquidate portions of the non-traditional portfolio in 1998.

With the future of the portfolio uncertain, the Investment Board began, in the summer of 1998, to liquidate portions of it, including the large holdings in domestic equities and some of the emerging market equity investments. The goal was to liquidate the portfolio until all that remained were investments in which the Investment Board had long-term commitments that could not be readily sold, such as private equity investments. The contingency plan was that these investments would be monitored by a consultant or by other Investment Board staff in the event a replacement could not be found for the portfolio.

The timing of liquidation increased losses in the non-traditional portfolio.

However, the Investment Board's liquidation of the portfolio assets came at a time that the domestic stock market experienced a short-term decline, and emerging markets were continuing a decline that had begun in 1997 and was already significantly affecting returns on this portfolio. Attempting to sell during these market declines further increased losses. During the period July 1, 1998 through December 31, 1998, when a large portion of the liquidation took place, the portfolio realized losses of $54.9 million. For example:

- Union Pacific Resources, which was purchased for $24.9 million and had a market value of $24.3 million at January 1, 1998, was sold for $16.1 million over the months of July, August, and September 1998;
- Malaysian Assurance Alliance, which was purchased for $3.0 million and had a market value of $2.6 million at January 1, 1998, was sold for $1.6 million during the months of June and July 1998; and
- Morgan Stanley Asian Pacific Fund, which was purchased for $11.0 million and had a market value of $7.8 million on January 1, 1998, was sold for $6.9 million during the months of June and July 1998.

On December 31, 1998, 44 percent of the non-traditional portfolio was held in cash.

The holdings in the portfolio changed significantly throughout this liquidation period. Domestic equities, which represented about $630.3 million, or over 50 percent of investments as of January 1, 1998, declined to less than 10 percent of the portfolio by December 31, 1998. In addition, the cash balance grew to 44 percent of total assets, or $587 million, which had a substantial effect on returns. Because of the uncertainty of the portfolio's future, the Investment Board chose to continue investing the cash balance in the State Investment Fund, earning a return of approximately 5 percent annually, rather than to attempt to invest the excess cash in higher-yielding investments.

In January 1999, the Investment Board rehired the former portfolio manager of the non-traditional portfolio to take the position of investment director, and it recently hired an entry-level analyst for this portfolio. It is expecting to staff the portfolio with an assistant portfolio manager in the future.

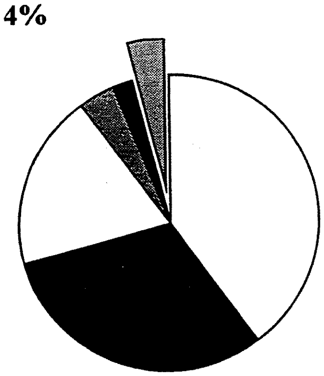
Based on past success in this portfolio, there appears to be potential for higher returns in the future. However, to achieve this goal, the Investment Board believes it needs to focus on private equity emerging market investments, which require both additional resources and frequent travel to developing countries in order to evaluate investment opportunities and monitor investments once they are made.

Some question whether the Investment Board should continue investing in the non-traditional portfolio.

Although some question whether the Investment Board should continue investing in the non-traditional portfolio, especially if staffing continues to be an issue, Investment Board staff remain committed to this portfolio. They believe continuing investments in the non-traditional area will provide the opportunity to earn significantly higher returns and that the portfolio's small size limits overall risk exposure in the Fixed Retirement Trust Fund. However, the Investment Board will need to regularly assess whether this higher-risk portfolio receives sufficient returns to justify the risk and the difficulty of ensuring that sufficient staff resources and expertise are available to manage this portfolio adequately.

Cash

Cash
4%



Generally some level of cash is necessary for settling pending trades, responding to investment opportunities, and paying liabilities. Cash balances, which made up approximately $2 billion, or 4 percent, of the Fixed Retirement Trust Fund as of December 31, 1998, are deposited with the State Investment Fund or a short-term money market account at the Investment Board's custodial bank.

As shown in Table 9, the State Investment Fund's performance has exceeded all of its benchmarks. Combining all the cash balances of the State and many local governments into one fund increases the Investment Board's flexibility to take advantage of longer-term maturities, which typically have higher interest rates.

Table 9

State Investment Fund Performance

Period Ending December 31, 1998	Actual Performance	Investment Benchmark
1 year	5.3%	5.1%
5 year	5.2	5.1
10 year	6.0	5.4

While State Investment Fund returns have been meeting benchmarks, there is an opportunity cost to holding cash in the Fixed Retirement Trust Fund. For example, the short-term earnings rate of the State Investment Fund is well below the rate of return the Investment Board earned on its public bonds or the rate of return on stocks. Therefore, care needs to be taken to ensure that the Fixed Retirement Trust Fund is as fully invested as prudently possible.

The Investment Board believes that, generally, cash balances representing between 2 to 3 percent of the Fixed Retirement Trust Fund are sufficient to meet the needs of the Fund. As shown in Figure 5, the Investment Board significantly reduced its cash balances since the early 1990s to place them in the 2 to 3 percent range; however the cash balance increased again in 1998.

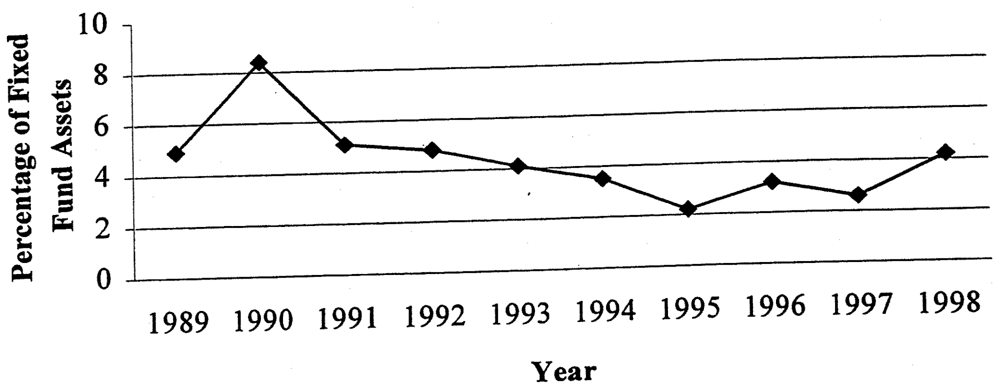
At least one reason for an increase in cash during 1998 was the liquidation of the non-traditional portfolio, as discussed previously. In addition, cash had been accumulating in a private equity portfolio because of the limited availability of investment opportunities, although recently the Investment Board invested a portion of this portfolio's excess cash in equity index funds until investment opportunities could be identified.

The Investment Board may need to consider other alternatives for investing cash balances.

However, approximately half of the cash balance at the end of 1998 was related to commitments to limited partnership investments, in which the Investment Board participates with other investors. When a limited partnership agreement is originated, funds are pledged but not forwarded until needed by the partnership. Currently, the Investment Board holds these commitments in cash because of the uncertainty of when the funds will be requested. Cash reserved for commitments to limited partnerships have doubled during the past two years. If the amount of limited partnership commitments continues to increase, the Investment Board may wish to consider strategies to estimate annual cash needs to fund these commitments and invest the remaining cash balances in higher yielding investments, such as index funds.

Figure 5

Cash Balances in the Fixed Retirement Trust Fund
As of December 31



Comparison to Other Public Pension Funds

Like other public pension funds, the Investment Board generally does not compare its overall returns directly to those of other pension funds, believing that different asset mixes, investment styles, tolerable risk levels, and restrictions on allowable investments reduce the comparability of investment performance between funds. However, comparing the overall returns and investment strategies of several large public pension funds provides a general assessment of the Investment Board's overall investment performance and the relative effectiveness of its investment strategy and allocation decisions.

Investment Board returns ranked 10th among 12 public pension funds surveyed.

Table 10 presents one-year, five-year, and ten-year investment returns for Wisconsin's Fixed Retirement Trust Fund and 11 other public pension funds as of June 30, 1998. The Investment Board's five-year return, which it and the other funds indicated are the best measure of performance, is 10th among the 12 funds surveyed; its five-year return was 14.2 percent, compared to a median of 15.0 percent for the other funds surveyed. The Investment Board did only slightly better in the short-term, where it was 9th among 12 funds. Several funds were unable to provide ten-year return information; however the Investment Board ranked 7th out of 8 among those that did. Appendix III includes a summary of our survey results.

Table 10

Comparison of Pension Funds' Overall Rates of Return
For Periods Ending June 30, 1998

Pension Fund	Five-year Return	Five-year (Rank)	One-year Return	One-year (Rank)	Ten-year Return	Ten-year (Rank)
Wisconsin Investment Board Fixed Retirement Trust Fund[1]	**14.2%**	**10**	**17.6%**	**9**	**12.9%**	**7**
New York State Teachers Retirement System	16.4	1	21.5	4	14.5	1
New Jersey Division of Investment	15.6	2	22.7	1	14.1	2
Florida Division of Retirement	15.6	3	22.0	2	NA	
Minnesota Combined Funds	15.4	4	20.9	5	13.9	4
Oregon Public Employees Retirement System	15.3	5	18.0	8	NA	
Teachers Retirement System of Texas	15.2	6	21.9	3	14.1	3
New York State Combined Funds	14.8	7	20.3	6	13.8	5
Washington State Investment Board	14.5	8	16.6	11	NA	
California Public Employees Retirement System	14.4	9	19.5	7	13.3	6
California State Teachers Retirement System	12.8	11	17.1	10	12.6	8
Ohio Public Employees Retirement System[2]	11.0	12	14.3	12	NA	

(Sorted in descending order by five-year returns)
NA = Not available

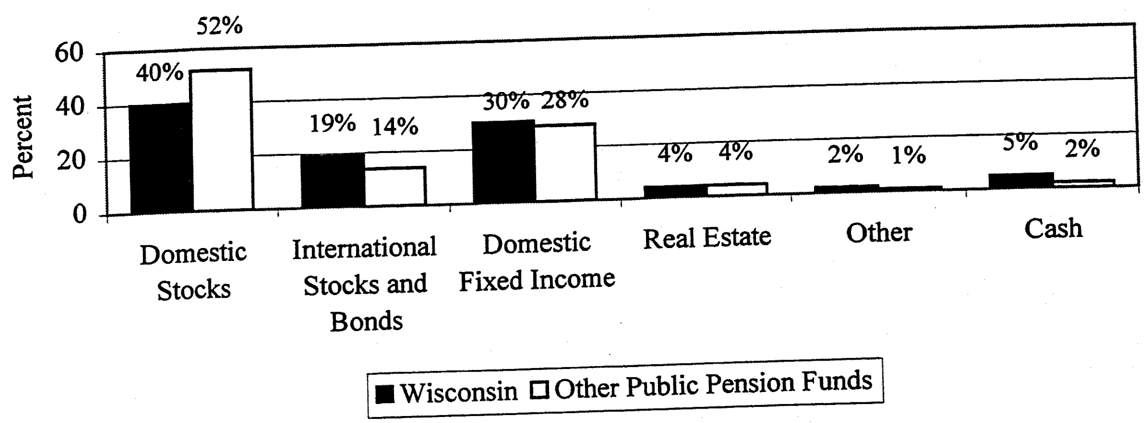
[1] These returns differ from those shown in Table 3 because the period of analysis was changed to allow comparisons with the other public pension funds we surveyed.
[2] Returns are for the period that ended December 31, 1998.

The Board's allocation decisions have affected returns.

To better understand why the Investment Board's performance lags that of the other large public pension funds surveyed, we compared its asset allocation and performance in each broad investment class to those of the other public pension funds. Overall, the biggest difference has been in the Investment Board's decision to allocate more funds to international investments and less to domestic equities. As shown in Figure 6, the Investment Board's 40 percent allocation of Fixed Retirement Trust Fund assets to domestic equities was less than the average 52 percent allocation in other public pension funds surveyed. In addition, the Investment Board allocated 19 percent of its assets to international investments, compared to the average 14 percent for the public pension funds surveyed.

Figure 6

Investment Board and Other Public Pension Fund Investment Allocations
As of June 30, 1998*



*The asset allocation for the Investment Board differs from that shown in Figure 2 because the period of analysis was changed to allow comparisons.

The Investment Board's lower domestic equity allocation had the largest effect on overall returns for the Fixed Retirement Trust Fund because domestic equities were the highest performers among all asset classes for all states. In addition, the Investment Board's returns on domestic equities were consistently lower than the average for other funds surveyed in the one-year, five-year, and ten-year periods ending June 30, 1998. The Investment Board's relatively large small-cap holdings, which overall have performed poorly over the past ten years, contributed to its lower returns in domestic equities.

The Investment Board's international equities allocation of 15 percent was relatively consistent with the average of 13 percent by the public pension funds surveyed; however the Investment Board allocated 4 percent of its total assets to international fixed-income securities, compared to an average of 1 percent for the other public pension funds surveyed. In addition, because international investments overall did not perform as well as their domestic counterparts, and international fixed-income returns were lower than those of most asset classes, the Investment Board's decision to allocate assets in those categories contributed to lower returns overall.

Another contributing factor to the Investment Board's lower rank in comparison to other public pension funds is its large cash holdings. As noted, a long-term fund such as the Fixed Retirement Trust Fund should maintain minimal cash balances to meet liquidity needs. The public pension funds we surveyed held under 2 percent of their assets, on average, in cash. The Investment Board's relatively high percentage of cash contributed to its relatively lower returns.

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FUTURE CONSIDERATIONS

Investment Board trustees and staff believe problems with the Fixed Retirement Trust Fund's investment performance are related, in part, to issues of staff turnover and administrative resources. In addition, the Investment Board believes that it should be granted more flexibility in managing its resources, both internally and through the use of external investment managers, to accommodate growth in assets and better meet its fiduciary responsibilities. The Legislature has already made a number of changes to increase the Investment Board's administrative funding and management flexibility, and it is currently considering legislation to address staff turnover and other concerns. However, we believe the Investment Board also needs to consider fundamental changes in its investment strategy to better use its staff resources and potentially improve future returns.

Legislative Action

Over the years, the Investment Board has repeatedly asked for additional funding and greater flexibility in managing its resources. The Legislature has agreed to several changes. Most significantly, since 1983 it has allowed the Investment Board to bypass the normal budgeting process for some of its expenditures. For example, the Investment Board is allowed to charge certain costs directly to the current investment income of the funds, rather than to its program revenue appropriation, which authorizes staff salaries and fringe benefits, supplies, and permanent property expenditures to be funded in amounts established by the Legislature. The 1983 statutory change increased the Investment Board's flexibility in hiring consultants, investment advisors, and external managers. As shown in Table 11, expenditures directly charged to current investment income in calendar year 1998 were over $57.0 million, or 81 percent of the Investment Board's overall expenditures.

Table 11

Investment Board Operating Costs
Calendar Year 1998

Chapter 20 Appropriation:	Total Expenditures
Salaries & Fringe Benefits	$ 7,875,845
Supplies	3,923,577
Permanent Property	579,260
Subtotal	$12,378,682
Charged to Current Investment Income:	
International and Emerging Market External Managers Fees	$23,182,388
Other Investment Management Fees	15,363,161
Real Estate Advisory Fees	13,246,360
Custodial Bank Fees	3,584,848
Consultant Fees	1,286,107
Legal Fees	365,151
Fidelity Bond Insurance	21,697
Subtotal	$57,049,712
Soft Dollars*	$ 1,002,097
Total	$70,430,491

* Includes credits received for performing trades with certain brokers. The Investment Board uses these credits to purchase electronic data services, investment publications, institutional memberships, and other miscellaneous items.

In addition to this significant change in the flexibility the Investment Board was granted to manage its investments, the Legislature has agreed to several other changes. For example:

- In 1988, professional staff were removed from the classified service and made unclassified employes in order to provide more flexibility in hiring, retaining, and competitively compensating investment professionals.

- The Investment Board has been granted flexibility in determining individual salary amounts, within amounts appropriated by the Legislature.

- A plan was implemented in FY 1988-89 to provide bonuses to staff if certain investment performance levels are met. Since the program's inception, almost $3.2 million in bonuses have been awarded. In FY 1998-99, for example, 27 of 44 eligible investment staff received bonuses ranging from a low of $3,400 to a high of $23,043.

- In 1996, $532,900 in additional funding and seven staff positions were provided in response to the derivatives loss.

- An additional $5.4 million in funding has been provided for systems improvements to allow the Investment Board to better manage and monitor its investments.

- Several Investment Board employes now qualify for a higher retirement multiplier factor and increased paid leave benefits as a result of being reclassified in the executive service classification.

In addition, two issues are currently receiving legislative attention in the ongoing budget deliberations: changes to the bonus compensation plan for the Investment Board's professional staff, and adjustments to the percentage of assets that may be managed and controlled by external investment managers.

Staffing and Compensation Issues

Investment Board members and staff are concerned about investment staff turnover.

The strong markets that have allowed growth in the Retirement Fund's assets have intensified the competition for investment professionals within the industry. Several of the trustees we interviewed, as well as management staff, expressed increasing concern about the difficulty in recruiting and retaining qualified investment staff.

The Investment Board has experienced an annual turnover rate of between 8 and 10 percent in the past four years.

In a discussion paper written during deliberations on the 1999-2001 biennial budget, the Legislative Fiscal Bureau noted that annual turnover among the Board's investment staff was approximately 8 to 10 percent for each of the last four years. Of 11 investment staff who resigned in the past two years, 9 left for private sector positions and 2 retired. The Investment Board notes that its staff are frequently and aggressively recruited by financial and investment firms in the private sector.

Staffing levels and experience may be affecting the quality of the Board's internal management and the performance of at least some of its portfolios. As noted, some portfolios, including domestic fixed-income and real estate, are managed by experienced staff and have met or exceeded their benchmarks. The Board credits the favorable returns to staff experience.

Staff turnover appears to have affected performance in some portfolios.

In contrast, it appears that staff turnover contributed to poor performance in at least one portfolio in 1998. As noted, the non-traditional portfolio, which is especially vulnerable to effects of staff turnover because of its unique and complex nature, lost both its investment director and its portfolio manager in the same year. In addition, the domestic equities division, which fell short of its five-year and ten-year benchmarks, lost four staff in the past two years; three of the replacements had no prior investment experience.

In order to assess the adequacy of its staff compensation, each year the Investment Board provides information for and analyzes results from various studies and surveys conducted for both private investment entities and public pension funds. According to recent surveys, salaries of the Investment Board's investment staff compare favorably to salaries in other public pension funds but have fallen below salaries in the private sector. The Legislative Fiscal Bureau's discussion paper notes that when the Investment Board calculated the salaries of the Investment Board's investment professionals, they found that average salaries of counterparts in the private sector were, in total, $2 million higher, based on a survey of 1997 investment salaries.

Investment staff salary increases and a new bonus program have been proposed.

Current biennial budget deliberations have considered a number of salary proposals, including providing $600,000 in increased funding to narrow the gap between Investment Board staff salaries and those in the private sector, and creating a new bonus program that would be available only for investment staff. The new plan would allow bonuses of up to 50 percent of an individual's salary, rather than the 25 percent limit under current law.

However, in June 1999, the Legislature's Joint Finance Committee approved a measure to eliminate the Investment Board's current bonus program after FY 1999-2000 and, instead, to use the savings from the elimination of the bonus programs and an additional $480,000 in funding to fund a $2.1 million increase in investment staff salaries in FY 2000-2001. This proposal is currently pending before the Legislature.

Use of External Managers

Currently, the Investment Board may delegate up to 15 percent of the retirement funds to external managers.

In response to the Investment Board's need for expertise when it first entered the real estate and international investment markets, the Legislature in 1987 first authorized the Board to retain external managers to invest a portion of retirement funds for certain assets that include real estate, mortgages, stock, and the debt of foreign corporations and governments. When this authority was provided, the Investment Board was authorized to delegate the management of up to 10 percent of the retirement funds to external managers. As the Investment Board approached this limit, the Legislature increased it to 15 percent in 1995.

In addition to its traditional use of external managers, the Investment Board recently began using external managers to augment its internal staff resources. To help manage the growing assets under management, the Investment Board requested, as part of its 1999-2001 biennial budget request, authority to invest up to 50 percent of retirement fund assets with external managers; the Governor subsequently reduced the request to 25 percent. The proposal currently pending in the Legislature would increase the external management limit to 20 percent of the retirement funds assets.

In considering future requests for increased authority to use external managers, it is important to note that a limit on the use of external managers does not necessarily result in internal investment management of the remaining assets. In determining compliance with its statutory limit, the Investment Board considers only the portfolios that are actively managed by external managers with whom the Investment Board has contracted and to whom it has delegated authority to determine the appropriate investment strategy and to purchase individual securities in the Investment Board's name, within broad guidelines established by the Investment Board. As shown in Table 12, external investments meeting this definition were 13.5 percent of total retirement fund assets as of December 31, 1998.

The Investment Board's definition of external management does not include funds that are passively invested.

However, Table 12 also shows that an additional 32.9 percent of retirement fund assets were managed by external investment managers in passive index funds, such as the S&P 500 index fund, and in commingled funds. The Investment Board does not include these funds in its calculation of the external manager limit because it makes the decision to invest in these funds based on its knowledge and acceptance of the investment strategy.

Table 12

External Investments
As of December 31, 1998

Type of External Investment	Total Assets	Percentage of Total Retirement Fund Assets
External Active Managers		
International Active Equities	$3,852,000,000	6.9%
International Active Fixed Income	2,553,000,000	4.6
Quantitative Domestic Equities	1,125,000,000	2.0
Total	$ 7,530,000,000	**13.5%**
External Passive & Commingled Funds		
Stock Index Funds	$12,953,000,000	23.3%
Fixed Income Index Funds	3,870,000,000	7.0
International Stock Index Fund	980,000,000	1.7
Emerging Market Equity Commingled Funds	493,000,000	0.9
Total	$18,296,000,000	**32.9%**
Total External Investments	$25,826,000,000	**46.4%**

External management of retirement funds has increased from 7.5 percent to 46.4 percent of assets.

The 46.4 percent of retirement fund assets not actively managed by Investment Board staff represents a significant change in the investment strategy over the decade. In the early 1990s, only 7.5 percent of retirement fund assets were invested externally. Although the Investment Board has significantly increased its use of external managers, it still actively invests a greater portion of its investments internally than do 8 of the 11 other public pension funds we surveyed.

Another consideration in the use of external managers is the ability to adequately control and monitor their investment activities. The Investment Board has instituted several operational controls to manage and monitor its internal investments and staff; however, the controls over external investments are not as comprehensive as those that exist for internal investments. Without adequate controls, external investments may represent a higher risk of exposure to financial loss or inappropriate investment of public funds.

In several of our past financial audits, we identified concerns regarding monitoring external managers' controls and compliance with investment guidelines. Furthermore, the Investment Board's own internal audit unit recently identified several areas in which controls over external managers need to be improved. In response, the Investment Board is considering improvements to its oversight of external managers, which we will review as part of our annual financial statement audits.

Finally, it is important to note that external investment management is generally more expensive than internal management. For example, the Investment Board paid its external international and emerging market managers a total of $23.2 million in management fees during 1998, which represented approximately 0.47 percent of the average assets they managed during the year. In comparison, the estimated 1998 costs of $1.2 million for the internally managed international portfolio is approximately 0.04 percent of the average assets managed. Higher costs and the need for additional controls suggest the importance of the Investment Board proceeding carefully in significantly expanding its use of external managers and investments.

Future Investment Strategies

The Investment Board has many investments that are staff intensive.

The Investment Board strives to be a leader in undertaking new investment opportunities, and it aggressively seeks to outperform the market. For example, most recently, it has moved to use a quantitative model to assess risk and potential portfolio return. It is also considering future investments in high-yield, or non-investment grade, bonds. This strategy to be an innovator can, however, be costly and staff intensive, and it can create higher risk. The Investment Board currently has a large portion of its investments allocated to areas that, by their nature, tend to be more staff intensive, such as small cap stocks, international investments, private placements, and the non-traditional portfolio. While higher levels of returns could be expected to justify the costs and risks associated with these investments, returns have been mixed and seldom exceed the returns of more traditional domestic equity and fixed-income portfolios. For example:

- performance in small cap stocks, in which the Investment Board has two times the average allocation of a broad market index of all domestic publicly traded common stocks, has failed to meet its performance benchmarks;

- international equities, while meeting their benchmarks, are not exceeding the returns of the domestic equity market, a goal established by the Investment Board to justify the risk taken with international investments;

- private placements have not provided the premium over public bonds that might be expected from these more staff-intensive investments that cannot be readily sold; and

- performance goals in the non-traditional portfolio have not been met because of staffing issues and a decline in the emerging markets.

We recognize that the performance of these portfolios may be a function of current market conditions, which include strong performance in the large cap stock market, and we acknowledge that many investment professionals believe the Investment Board's investment strategies will eventually be successful in future markets. Further, allocation of funds to these investment classes may be needed to provide diversification and investment alternatives as the Retirement Fund's assets continue to increase. However, we also believe that the Investment Board must reassess whether the investment returns of the staff-intensive and higher-risk investments warrant the level of assets and resources it has committed to them, especially given overall performance that does not achieve benchmarks or the returns of other public pension funds we surveyed. Therefore, in order to help determine whether current strategies appropriately balance risk, costs, and returns in the Fixed Retirement Trust Fund, *we recommend the State of Wisconsin Investment Board reassess the effectiveness of its overall investment strategies and asset allocations, and that in its annual report on investment goals and long-term strategies, it report to the Joint Legislative Audit Committee and the Legislature on the steps it intends to take to improve its investment performance.*

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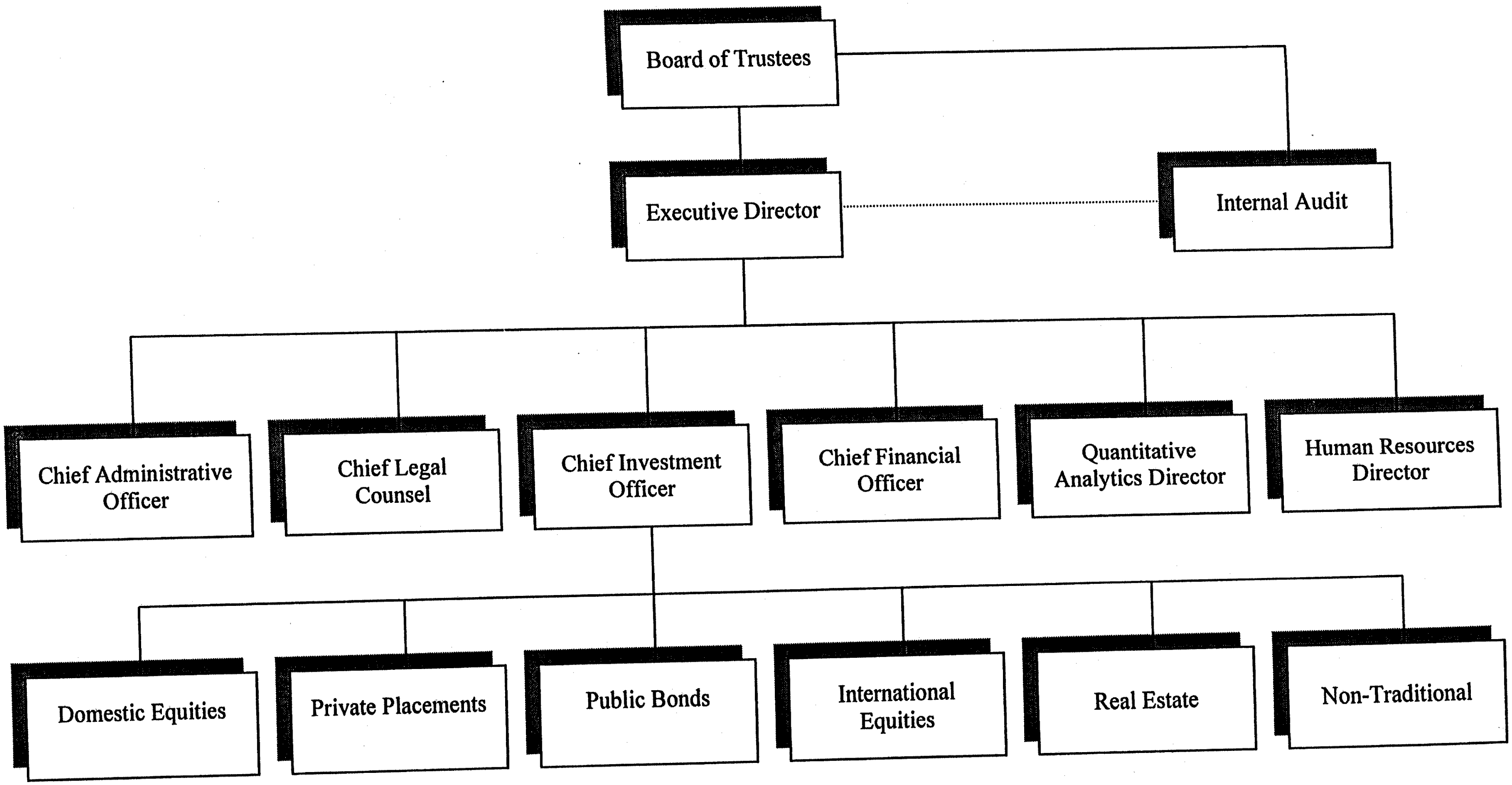
Appendix I

Investment Board Organizational Chart
As of December 31, 1998



APPENDIX II

Fixed Retirement Trust Fund
Portfolio Descriptions, Balances, and Performance
As of December 31, 1998

Domestic Equity Portfolios

Large Caps

Large Cap Issue Selection Portfolio

Created	March 31, 1997
Description	Holds undervalued large cap stocks (with market capitalization over $5 billion) to complement the S&P 500 index fund.
Managed	Internal
Balance	$1.078 billion
Benchmark	75% S&P 500, 25% peer group

Performance		Portfolio	Benchmark
	1 year	23.4%	26.5%
	Since inception	28.3	32.3

S&P 500 Index Fund

Created	October 31, 1991
Description	Tracks the S&P 500 market return.
Managed	External
Balance	$9.798 billion
Benchmark	S&P 500

Performance		Portfolio	Benchmark
	1 year	28.6%	28.6%
	5 year	24.0	24.1
	Since inception	20.1	20.1

Quantitative Portfolio

Created	June 30, 1998
Description	Risk-controlled strategy that attempts to loosely track the S&P 500 Index, yet earn excess returns by variations from the Index.
Managed	External
Balance	$386 million
Benchmark	S&P 500

Performance		Portfolio	Benchmark
	Since inception	8.6%	9.2%

Enhanced Portfolio

Created	June 30, 1998
Description	Similar to the Quantitative Portfolio, yet retains more restrictions on variations from the S&P 500 Index.
Managed	External
Balance	$451 million
Benchmark	S&P 500

Performance		Portfolio	Benchmark
	Since inception	10.5%	9.2%

Mid Caps

Mid Cap Portfolio

Created	July 31, 1990; modified July 1996
Description	Focuses on domestic companies with a market capitalization between $1 and $5 billion.
Managed	Internal
Balance	$3.551 billion
Benchmark	75% Russell Mid-Cap, 25% peer group

Performance		Portfolio	Benchmark
	1 year	10.6%	8.8%
	5 year	18.2	18.0
	Since inception	15.9	15.8

Target Portfolio

Created	February 28, 1998
Description	Focuses on the intermediary range of companies between the small cap and mid cap distinctions.
Managed	Internal
Balance	$233 million
Benchmark	75% Wilshire 750 Index, 25% peer group

Performance		Portfolio	Benchmark
	Since inception	-1.2%	-2.3%

Mid Cap Index Fund

Created	September 30, 1997
Description	Track the mid cap market return.
Managed	External
Balance	$387 million
Benchmark	Russell Mid-Cap

Performance		Portfolio	Benchmark
	1 year	16.1%	16.1%
	Since inception	14.2	14.2

Small Caps

<u>Small Cap Portfolio</u>

Created	December 31, 1982; modified July 1996
Description	Focuses on domestic companies with a market capitalization under $1 billion.
Managed	Internal
Balance	$2.695 billion
Benchmark	75% Russell 2000, 25% peer group

Performance

	Portfolio	Benchmark
1 year	-3.7%	-2.3%
5 year	9.8	14.4
10 year	10.7	12.8

Private Equity

<u>Leveraged Buy-out</u>

Created	July 31, 1985
Description	Private placement equity designed to produce superior earnings from closely held and leveraged companies. Each transaction receives prior Board of Trustees approval.
Managed	Internal
Balance	$959 million
Benchmark	None, domestic equity benchmark used for comparison.

Performance

	Portfolio	Benchmark
1 year	20.2%	18.0%
5 year	15.1	20.5
10 year	13.8	17.0

<u>Venture Capital</u>

Created	August 31, 1985
Description	Private placement equity designed to produce superior earnings from investment in companies in early stages of development. Limited to 2% of assets. Each transaction receives prior Board of Trustees approval.
Managed	Internal
Balance	$100 million
Benchmark	None, domestic equity benchmark used for comparison.

Performance

	Portfolio	Benchmark
1 year	5.8%	18.0%
5 year	14.0	20.5
10 year	10.4	17.0

Domestic Fixed Income Portfolios

Public Fixed Income

Core Portfolio

Created	June 30, 1977
Description	Holds highly diversified portfolio of fixed income securities. Longest duration of all fixed-income portfolios.
Managed	Internal
Balance	$4.038 billion
Benchmark	75% Merrill Lynch Public Bond Hybrid Index and Lehman Brothers Public Bond Index, 25% peer group

Performance

	Portfolio	Benchmark
1 year	11.1%	10.0%
5 year	9.1	8.2
10 year	11.4	10.3

Market Evaluation Portfolio

Created	December 31, 1988
Description	Hold highly diversified portfolio of fixed-income securities. Focus is corporate issues.
Managed	Internal
Balance	$1.919 billion
Benchmark	Merrill Lynch Government/Corporate Hybrid Index

Performance

	Portfolio	Benchmark
1 year	9.0%	9.7%
5 year	7.8	8.2
10 year	10.2	10.0

Intermediate Duration Portfolio

Created	December 31, 1983; modified November 1994
Description	Primarily focused on U.S. Treasury securities with a maturities range of 3 to 7 years and a duration of approximately 5 years.
Managed	Internal
Balance	$1.314 billion
Benchmark	Merrill Lynch 5-year Government Index

Performance

	Portfolio	Benchmark
1 year	10.3%	9.8%
5 year	8.7	6.7
10 year	9.4	8.2

Lehman Aggregate Index Fund

Created	September 30, 1996
Description	Track the Lehman Aggregate market return.
Managed	External
Balance	$3.870 billion
Benchmark	Lehman Aggregate Index

Performance		Portfolio	Benchmark
	1 year	8.8%	8.7%
	Since inception	9.6	9.5

Private Placements

Private Placements Portfolio

Created	June 30, 1977
Description	Privately negotiated fixed-rate intermediate-term corporate debt instruments. Illiquid nature of securities expected to provide additional return.
Managed	Internal
Balance	$3.105 billion
Benchmark	60% sector-weighted Lehman Intermediate Corporate Bond Index plus 10 basis points, 40% sector-weighted Lehman Corporate Bond Index plus 10 basis points.

Performance		Portfolio	Benchmark
	1 year	9.5%	8.6%
	5 year	7.8	7.7
	Since inception	10.1	9.7

Global Portfolio*

Global Bond Portfolio

Created	November 30, 1989; modified December 1996
Description	Authority to invest in U.S. and non-U.S. fixed-income securities. Non-U.S. fixed income limited to "free" and "partially free," as determined by the Freedom House Index.
Managed	Internal
Balance	$978 million
Benchmark	Merrill Lynch Treasury Index

Performance		Portfolio	Benchmark
	1 year	10.3%	10.0%
	Since inception	9.5	9.8

* Because of its predominant holdings in domestic fixed income securities, this portfolio's assets and returns are reflected in the domestic fixed-income statistics.

International Portfolios

International Equities

Internal International Portfolio

Created	September 30, 1989
Description	Non-U.S. securities in "free" or "partially-free" countries, as rated by Freedom House Index.
Managed	Internal
Balance	$2.621 billion
Benchmark	75% MSCI World ex. U.S. with ½ Japan and 25% peer group

Performance

	Portfolio	Benchmark
1 year	19.1%	19.1%
5 year	14.2	12.1
Since inception	14.6	9.7

External International Portfolios

Created	September 30, 1989 and June 30, 1993
Description	Non-U.S. securities in "free" or "partially-free" countries, as rated by Freedom House Index.
Managed	External (3)
Balance	$2.974 billion
Benchmark	75% MSCI World ex. U.S. with ½ Japan and 25% peer group

Performance

	Mgr.1	Mgr.2	Mgr.3	Benchmark
1 year	19.2%	16.8%	24.5%	19.1%
5 year	16.6	11.6	13.5	12.1
Since Inception	14.6	10.3	15.9	9.7*

*13.9% for Mgr. 3

EAFE Index Fund

Created	November 30, 1996
Description	Tracks the Europe, Asia, Far East (EAFE) market return.
Managed	External
Balance	$721 million
Benchmark	MSCI World ex. U.S. with ½ Japan

Performance

	Portfolio	Benchmark
1 year	20.9%	20.8%
Since inception	13.1	13.2

Equity Emerging Markets

<u>External Manager 1</u>

Created	April 30, 1992
Description	Investments limited to developing countries.
Managed	External
Balance	$202 million
Benchmark	75% Morgan Stanley Emerging Market Free Index, 25% peer group

Performance

	Portfolio	Benchmark
1 year	-24.9%	-25.7%
5 year	-2.6	-8.5
Since inception	5.4	0.8

<u>External Manager 2</u>

Created	April 30, 1992
Description	Investments limited to developing countries.
Managed	External
Balance	$192 million
Benchmark	75% Morgan Stanley Emerging Market Free Index, 25% peer group

Performance

	Portfolio	Benchmark
1 year	-25.7%	-25.7%
5 year	-3.8	-8.5
Since inception	4.1	0.8

International Fixed Income

<u>External International Portfolios</u>

Created	September 30, 1989 and June 30, 1993
Description	Non-U.S. securities in "free" or "partially-free" countries, as rated by Freedom House Index.
Managed	External (4)
Balance	$2.393 billion
Benchmark	75% Salomon Brothers Currency-Hedged non-U.S. Dollar Government Bond Index, 25% peer group

Performance

	Mgr.1	Mgr.2	Mgr.3	Mgr.4	Benchmark
1 year	10.3%	11.6%	14.3%	11.4%	11.5%
5 year	8.2	9.2	10.2	9.7	9.2
Since Inception	9.2	10.2	9.1	9.2	8.9

Fixed Income Emerging Markets

External Manager 1

Created	December 31, 1994
Description	Investments limited to developing countries.
Managed	External
Balance	$55.4 million
Benchmark	J.P. Morgan Emerging Market Bond Index

Performance		Portfolio	Benchmark
	1 year	-17.9%	-14.4%
	Since inception	17.1	14.0

External Manager 2

Created	December 31, 1994
Description	Investments limited to developing countries.
Managed	External
Balance	$53 million
Benchmark	J.P. Morgan Emerging Market Bond Index

Performance		Portfolio	Benchmark
	1 year	-17.2%	-14.4%
	Since inception	16.2	14.0

Real Estate

Real Estate Portfolio

Created	June 30, 1977
Description	Commercial real estate investments through direct ownership and participating mortgages, which serve to hedge inflation.
Managed	Internal
Balance	$1.869 billion
Benchmark	75% IDP Index and NCREIF Index Adjusted, 25% peer group

Performance		Portfolio	Benchmark
	1 year	15.3%	16.6%
	5 year	10.4	8.9
	10 year	7.1	3.9

Non-Traditional

Non-Traditional Portfolio	
Created	January 1995
Description	Cross-border, cross-asset investments. Take advantage of market inefficiencies created by complexity of securities.
Managed	Internal
Balance	$746 million
Benchmark	Morgan Stanley Capital International (MSCI) All Country Index

Performance		Portfolio	Benchmark
	1 year	5.0%	21.7%
	Since Inception	16.2	17.0

APPENDIX III

Comparison With Other Public Pension Funds

As of June 30, 1998

Retirement System	Total Assets	Percentage Internal	Percentage External	Percentage Active	Percentage Passive	Asset Class	Actual Asset Allocation	5 year Returns by Asset Class
CALIFORNIA	$ 143.4 Billion	62 %	38 %	48 %	52 %	Equities		
PUBLIC						Domestic	47.1 %	21.8 %
EMPLOYEES						International	18.7 %	11.6 %
RETIREMENT						Fixed Income		
SYSTEM						Domestic	22.7 %	8.5 %
						International	3.6 %	8.4 %
						Real Estate	4.3 %	9.3 %
						Other	2.6 %	16.9 %
						Cash equivalents	1.0 %	5.4 %
CALIFORNIA	$ 88.2 Billion	32 %	68 %	49 %	51 %	Equities		
STATE						Domestic	41.0 %	20.6 %
TEACHERS						International	21.0 %	10.6 %
RETIREMENT						Fixed Income		
SYSTEM						Domestic	29.0 %	8.2 %
						International	0.0 %	NA
						Real Estate	(in Other)	10.3 %
						Other	7.5 %	25.3 %
						Cash equivalents	1.0 %	5.6 %
FLORIDA	$ 83.4 Billion	47 %	53 %	53 %	47 %	Equities		
RETIREMENT						Domestic	62.2 %	21.7 %
SYSTEM TRUST						International	7.6 %	9.8 %
FUND						Fixed Income		
						Domestic	25.1 %	7.7 %
						International	0.0 %	NA
						Real Estate	3.8 %	7.8 %
						Other	0.0 %	NA
						Cash equivalents	1.3 %	5.9 %

NA = Not Available or Not Applicable

Retirement System	Total Assets	Percentage Internal	Percentage External	Percentage Active	Percentage Passive	Asset Class	Actual Asset Allocation	5 year Returns by Asset Class
MINNESOTA COMBINED FUNDS	$ 36.0 Billion	0 %	100 %	47 %	53 %	Equities		
						Domestic	52.2 %	21.5 %
						International	14.7 %	11.0 %
						Fixed Income		
						Domestic	25.6 %	7.3 %
						International	0.0 %	NA
						Real Estate	(in Other)	NA
						Other	5.5 %	18.5 %
						Cash equivalents	1.6 %	(included above)
NEW JERSEY DIVISION OF INVESTMENTS	$ 67.3 Billion	100 %	0 %	100 %	0 %	Equities		
						Domestic	52.0 %	21.9 %
						International	13.0 %	14.5 %
						Fixed Income		
						Domestic	25.0 %	7.1 %
						International	5.0 %	7.1 %
						Real Estate	0.0 %	NA
						Other	0.0 %	NA
						Cash equivalents	4.0 %	5.3 %
NEW YORK STATE & LOCAL RETIREMENT SYSTEMS COMMON RETIREMENT FUND	$ 106.1 Billion	66 %	34 %	30 %	70 %	Equities		
						Domestic	50.7 %	21.9 %
						International	9.9 %	11.4 %
						Fixed Income		
						Domestic	34.0 %	7.8 %
						International	0.0 %	NA
						Real Estate	2.6 %	2.7 %
						Other	2.8 %	25.9 %
						Cash equivalents		(included above)
NEW YORK STATE TEACHERS RETIREMENT SYSTEM	$ 77.0 Billion	80 %	20 %	39 %	61 %	Equities		
						Domestic	64.6 %	21.8 %
						International	8.6 %	11.8 %
						Fixed Income		
						Domestic	15.4 %	7.5 %
						International	2.5 %	NA
						Real Estate*	7.6 %	(see note)
						Other	0.5 %	24.6 %
						Cash equivalents	0.8 %	5.1 %

* Real Estate returns were 9.6 % for debt investments and 10.1 % for equity investments

NA = Not Available or Not Applicable

Retirement System	Total Assets	Percentage Internal	Percentage External	Percentage Active	Percentage Passive	Asset Class	Actual Asset Allocation	5 year Returns by Asset Class
OHIO PUBLIC	$ 51.2 Billion	88 %	12 %	84 %	16 %	Equities		
EMPLOYEES						Domestic	38.0 %	18.1 %
RETIREMENT						International	5.0 %	NA
SYSTEM*						Fixed Income		
						Domestic	43.0 %	7.8 %
						International	0.0 %	NA
						Real Estate	9.0 %	10.1 %
						Other	0.0%	NA
* Information as of December 31, 1998						Cash equivalents	5.0 %	5.4 %
OREGON PUBLIC	$ 30.1 Billion	20 %	80 %	84 %	16 %	Equities		
EMPLOYEES						Domestic	37.6 %	20.4 %
RETIREMENT						International	19.8 %	10.8 %
SYSTEM						Fixed Income		
						Domestic	24.5 %	7.4 %
						International	(in domestic)	(in domestic)
						Real Estate	7.4 %	NA
						Other	10.5 %	NA
						Cash equivalents	0.0%	NA
STATE OF	**$ 47.4 Billion**	**57 %**	**43 %**	**70 %**	**30 %**	Equities		
WISCONSIN						Domestic	**40.0 %**	**19.5 %**
INVESTMENT						International	**15.0 %**	**18.2 %**
BOARD - FIXED						Fixed Income		
RETIREMENT						Domestic	**30.0%**	**7.8 %**
TRUST FUND						International	**4.0 %**	**9.3 %**
						Real Estate	**4.0 %**	**10.3 %**
						Other	**2.0 %**	**NA**
						Cash equivalents	**5.0 %**	**5.1 %**
TEACHERS	$ 73.3 Billion	100 %	0 %	91 %	9 %	Equities		
RETIREMENT						Domestic	55.5 %	22.1 %
SYSTEM OF						International	7.8 %	15.6 %
TEXAS						Fixed Income		
						Domestic	33.3 %	8.0 %
						International	0.0 %	NA
						Real Estate	1.3 %	9.1 %
						Other	2.1 %	NA
						Cash equivalents	(in Other)	NA

NA = Not Available or Not Applicable

Retirement System	Total Assets	Percentage Internal	Percentage External	Percentage Active	Percentage Passive	Asset Class	Actual Asset Allocation	5 year Returns by Asset Class
WASHINGTON	$ 37.4 Billion	31 %	69 %	49 %	51 %	Equities		
STATE						Domestic	42.0 %	21.1 %
INVESTMENT						International	15.0 %	7.2 %
BOARD						Fixed Income		
						Domestic	29.3 %	7.2 %
						International	0.0 %	NA
						Real Estate	4.3 %	19.4 %
						Other	8.6 %	26.7 %
						Cash equivalents	0.8 %	5.2 %

NA = Not Available or Not Applicable

State of Wisconsin Investment Board

MAILING ADDRESS
PO BOX 7842
MADISON, WI 53707-7842

121 EAST WILSON ST
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September 27, 1999

Ms. Janice Mueller
State Auditor
Legislative Audit Bureau
131 West Wilson, Suite 402
Madison, WI 53702

Dear Ms. Mueller:

Thank you for the opportunity to review and respond to the management audit of the Investment Board. Our regular reports to the Legislature have discussed performance data, strategy and management matters that are covered in the audit. The following comments represent our staff response to your report.

Summary Comments

We believe that the audit supports the following conclusions about our operations and performance:

- Our management controls, oversight and reporting practices are appropriate and in compliance with legislation developed by the Joint Committee on Audit in 1995.

- The State Investment Fund is providing a superior rate of return, ranking 5th out of 217 government money market funds at the end of 1998. The number of local government participants is even higher now than it was before the 1995 derivatives loss.

- Investment returns for the Fixed Retirement Fund have been well in excess of its 8% long-term benefit-funding goal. *(Accumulated market gains reached a record $14.4 billion at the end of 1998, prompting legislation to improve retirement benefits. Favorable investment returns helped reduce taxpayer costs for the Wisconsin Retirement System for the fourth consecutive year in 1999.)*

- In four out of every five measurement periods since 1990, the Fixed Fund has surpassed five-year and ten-year investment performance benchmarks. As we reported to the Legislature and participants in March, the Fund experienced some fall-off in performance and trailed its five-year benchmark by 0.3% (three-tenths of one percent) as of December 31, 1998. As we have also reported to the Legislature, the loss of experienced staff to much higher paying positions in the private sector has affected our performance.

- The 14.2% five-year return for the Fixed Fund was 0.8% (eight-tenths of one percent) below the 15.0% median return for 12 public funds surveyed by LAB. Our more conservative weighting in large company stocks, which had strong but volatile returns, accounted for much of the difference.

- We have trimmed, but continue to maintain, an over-weighting in small company stocks. *(Our current small company stock holdings have gained over 18% since the end of 1998 and over 57% in the last 12 months.)*

State Investment Fund (SIF) Performance

- ***Very competitive returns and improved services have brought more local governments into SIF***

The State Investment Fund (SIF) is a short-term cash management fund that includes deposits of more than 1,000 local units of government, state agencies and the Wisconsin Retirement System. We are pleased that your audit confirms that we have strengthened the operations of this fund. We have limited risk in SIF investments as intended by the Legislature and our policy guidelines.

Local government participation in SIF was a major focus of your last audit. We have worked hard to provide a safe, liquid investment option that meets their needs. Because of improvements in services and an attractive rate of return, the number of local government participants in SIF has increased from 1,062 just prior to March 1995 to 1,128 at the end of 1998.

The total dollar amount deposited by local governments in SIF has, on average, tended to be somewhat less than it was before March 1995. However, we believe this is primarily because a few larger local governments are now making greater use of higher-yielding, longer-term investment options for cash balances that do not require the liquidity provided by SIF. This is not a cause for concern about the manner in which SIF is being managed.

A major objective for SIF is to serve small local governments that may have limited financial staff or expertise. Our typical local government investor has a population of less than 2,500 and makes fewer than four transactions per month. We have: (1) worked with the State Treasurer and Department of Administration to speed up the distribution of earnings information; (2) put in place less expensive and improved credit insurance coverage; and (3) increased direct communication with investors through a new policies and procedures manual, monthly newsletter and meetings around the state. Other steps taken by the State Treasurer's Office have given local governments more options to access and manage their accounts.

The audit confirms that SIF has consistently beaten its investment performance benchmarks. In addition, it compares favorably with other short-term investment options. For the year ending December 31, 1998, the 5.3% return for SIF ranked 5th out of 217 government funds in the IBC/Donoghue Government Index.

The impact of the 1995 derivatives loss on all participants has been less than expected and will diminish further next year when the first portion of the loss has been fully amortized. This should make the rate of return that participants receive even more competitive.

Fixed Retirement Fund Performance

- ***Could investment returns have been even better?***

The Fixed (or balanced) Retirement Fund is the largest trust under SWIB's management. Most participants in the Wisconsin Retirement System have all of their pension account invested in this fund. The Fixed Fund invests in a broadly diversified mix of assets, including stocks, bonds, business loans, real estate and other assets.

- The exceptional markets of recent years and the strong performance of a number of our portfolios have helped the Fixed Fund achieve significant gains. The Fixed Fund has earned double-digit returns for four consecutive years. As of December 31, 1998, accumulated market gains in the transaction

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- Investment returns for the Fixed Retirement Fund have been well in excess of its 8% long-term benefit-funding goal. *(Accumulated market gains reached a record $14.4 billion at the end of 1998, prompting legislation to improve retirement benefits. Favorable investment returns helped reduce taxpayer costs for the Wisconsin Retirement System for the fourth consecutive year in 1999.)*

- In four out of every five measurement periods since 1990, the Fixed Fund has surpassed five-year and ten-year investment performance benchmarks. As we reported to the Legislature and participants in March, the Fund experienced some fall-off in performance and trailed its five-year benchmark by 0.3% (three-tenths of one percent) as of December 31, 1998. As we have also reported to the Legislature, the loss of experienced staff to much higher paying positions in the private sector has affected our performance.

- The 14.2% five-year return for the Fixed Fund was 0.8% (eight-tenths of one percent) below the 15.0% median return for 12 public funds surveyed by LAB. Our more conservative weighting in large company stocks, which had strong but volatile returns, accounted for much of the difference.

- We have trimmed, but continue to maintain, an over-weighting in small company stocks. *(Our current small company stock holdings have gained over 18% since the end of 1998 and over 57% in the last 12 months.)*

- Our process for allocating assets among different markets is disciplined and balances risk and return objectives. We believe that our investment strategy has positioned the Fixed Fund to perform well over the long-term, including periods in which stock market returns and interest rates are not as favorable as they are today. However, our ability to successfully execute investment strategy requires the necessary resources and a compensation structure that can attract and retain experienced staff. We are seeking the Legislature's assistance in addressing this issue.

We continually review our investment process for ways to enhance performance. We recently changed consultants and have begun a fresh look at our asset allocation process. We have also split the duties of the Chief Investment Officer to give greater focus to each investment area. We are currently recruiting for a position whose sole responsibility will be the oversight of our stock portfolios. These steps should further strengthen performance.

On an annual basis, we report to Legislature regarding our strategies and performance. In our next report, we agree with your recommendation that it would be useful to revisit the strategy matters covered in the audit and to provide an update on initiatives that we have already undertaken. In addition, we would be happy to discuss any questions or concerns at any time.

With these overall comments in mind, SWIB staff have the following specific observations about each of the four major areas of the audit: (1) the management and oversight of SWIB operations; (2) the performance of the State Investment Fund; (3) the performance of the Fixed Retirement Fund; and (4) the need for additional flexibility in managing our resources.

Management and Oversight of SWIB Operations

- ***Controls are appropriate and meet the objectives of legislation enacted in 1996***

Your report is the first management audit conducted by LAB under statutory provisions enacted in 1996. We are pleased that the audit concluded that SWIB has appropriate controls and that we have "substantially implemented" provisions of law regarding the oversight and reporting of our activities. For our customers and us, this is an important finding.

Over the last three years, we have given particular attention to ensuring that our investments are appropriate and that we are effectively managing risk. In today's investment world, this is no small undertaking. The constant development of new investment products and changing business practices present management challenges that are unusual for a state agency. With respect to items that relate directly to legislation developed by the Joint Committee on Audit (1995 Wisconsin Act 274), SWIB has:

- Reviewed and updated investment guidelines to ensure that appropriate risk is taken;
- Completed a strategic plan defining business goals and resource needs for the next five years;
- Installed systems to integrate accounting, trading, portfolio management and compliance monitoring;
- Implemented internal audit and chief investment officer functions; and
- Increased reporting to the Legislature regarding our strategies, performance and policies.

Your report confirms that we have addressed the areas that prompted the Legislature to enact the management audit statute. These activities will continue to receive a significant amount of our attention.

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- The exceptional markets of recent years and the strong performance of a number of our portfolios have helped the Fixed Fund achieve significant gains. The Fixed Fund has earned double-digit returns for four consecutive years. As of December 31, 1998, accumulated market gains in the transaction amortization account reached $14.4 billion, a record both in dollar amount and as a percentage of Fixed Fund assets.

- Contribution rates paid by the state and local governments were reduced in 1999 for the fourth consecutive year, again lowering the amount that would otherwise by paid by taxpayers to finance WRS benefits for government employees. It is estimated that favorable investment performance has reduced taxpayer costs by a cumulative $125 million since 1997.

- Over 80% of the cost of the benefits retirees receive is paid from investment earnings.

Essentially, the question raised by the audit is whether investment returns for the Fixed Fund could have been even better. This is a reasonable question that requires a closer look at the investment objectives and strategy for the Fund.

Actuarial Goal

The overriding objective for the Fixed Retirement Fund is to earn an 8% annual rate of return over the long-term. The independent actuary for the Wisconsin Retirement System develops this benchmark. In some years, this is a very difficult number to beat. We have chosen a mix of assets to best ensure that the Fund will meet or exceed this expected actuarial rate of return through changing business cycles and different interest rate environments, including economic conditions less favorable than they are today. Our annual strategy report to the Legislature describes our asset allocation process and strategic targets in more detail.

In 1998, the actuary updated a cash flow projection for the Wisconsin Retirement System over the next 50 years. This study confirmed that there is a high probability that the current asset mix and risk composition for the Fixed Fund will enable the Fund to meet its long-term actuarial objectives.

In measuring our performance, it is easy to lose sight of this fundamental actuarial goal and to judge the long-term strategy for the fund against the best performing assets of recent years. For example, our international equities and private placements portfolios have beaten their benchmarks and earned solid returns. These portfolios play an important role in a diversified long-term strategy, even though some other assets may currently be generating higher rates of return.

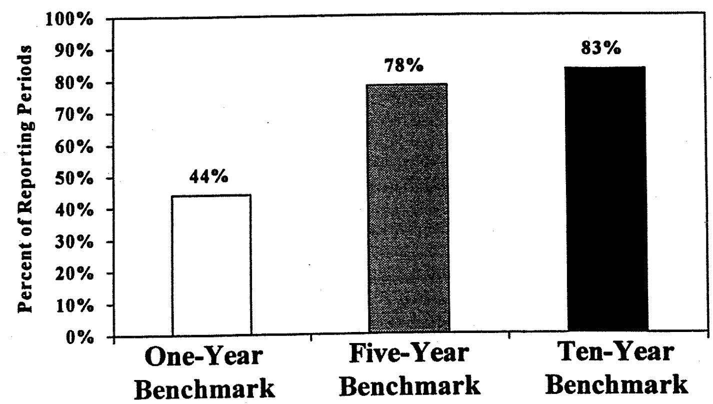
We do consider more near-term market trends in our asset allocation process. With the assistance of outside experts, in 1998 we examined the potential performance of our Fixed Fund asset allocation targets under four different economic scenarios for the next five-year period. This exercise showed that SWIB's target asset mix was the most consistent performer across the different economic scenarios.

Investment Benchmarks

SWIB compares the performance of the Fixed Fund to a benchmark that blends: (1) indices for the broader markets for stocks, bonds and other assets; and (2) the performance of privately managed funds with characteristics similar to SWIB's portfolios. In its 1995 audit, LAB examined the construction of these benchmarks and confirmed that they are appropriate measures of our performance, being neither too easy to beat, nor so difficult to reach that they encourage excessive risk taking.

For calendar and fiscal years 1990 though 1998, the returns for the Fixed Fund exceeded the five-year and ten-year investment benchmarks approximately 80% of the time. *(Since 1994, this record has been 90%).* In about half of these reporting periods, SWIB exceeded the one-year benchmark.

How Often Has SWIB Beaten Its Performance Benchmarks?
1990-1998



Our strategy has a long-term focus, and the effect of investment returns on the WRS is smoothed by the transaction amortization account. Therefore, we believe that the major focus should be on whether our strategies succeed over longer periods of time.

As we reported to the Legislature and fund participants, the Fixed Fund has experienced some fall-off in performance that is reflected in 1998 returns.

The investment return for the Fixed Fund was below its five-year benchmark as of December 31, 1998. Our report in March described the major factors that contributed to our performance. Within our allocation to domestic stocks we have maintained an over-weighting in the stocks of smaller companies. Small company stocks have been out of favor in the market, and the technology stock emphasis in our portfolio has not performed as well as the small company sector as a whole.

We have trimmed our over-weighting in small company stocks, and further diversified our strategy by shifting a portion of our holdings to a small company index fund. We continue to maintain an emphasis in this area because many observers believe that this sector of the market remains significantly under-priced relative to stocks of larger companies. It is interesting to note that prior to the unprecedented rally in large company stocks that began in late 1994, small company stocks historically outperformed both large and mid-size companies. The following 20-year comparison takes into account the generally sluggish stock markets of the 1970s and the robust markets of the ensuing years:

Annualized Rate of Return
U.S. Equity Markets: 1974 through 1993

Large Company Stocks	11.0%
Mid-Size Company Stocks	14.3%
Small Company Stocks	15.4%

More recently, our small company stock portfolio has gained over 18% since December 31, 1998 and over 57% for the last 12 months. These returns have substantially exceeded large company stock returns, as well as the small company portfolio benchmark.

Our overall performance has been affected by the loss of experienced portfolio managers and analysts to much higher paying positions in the private sector. We have had four manager changes in our large company stock portfolio since 1994. Seven of nine domestic stock analysts had less than two years experience when they were hired. Our non-traditional portfolio lost both of its staff at one point in 1998.

In contrast, in public bonds and real estate, where there has been little turnover in staff, we have had consistently solid returns over the five- and ten-year time periods.

Other Public Pension Funds

Comparisons to other public funds provide a useful perspective. However, some caution should be used in interpreting the results achieved by other pension funds because: (1) The funding status and actuarial objectives may vary; (2) The amount of investment risk taken by each fund is difficult to fully determine and compare; and (3) Wisconsin appears to be the only state in the survey that offers two retirement fund options (the Fixed Fund and the Variable Fund) to some of its members.

The LAB survey shows that the 14.2% five-year return for the Fixed Fund was 0.8% (eight-tenths of one per cent) below the median return of 15.0% for 12 large public pension funds as of June 30, 1998:

Five-Year Investment Returns
LAB Survey of 12 Public Funds

Highest	16.4%
Median	15.0%
SWIB (Fixed Fund)	**14.2%**
Lowest	11.0%

Except for the two funds with the lowest and highest rates of return, performance tended to cluster in the 14% to 15% range. In considering the rankings of fund performance, the magnitude of the difference in returns should also be kept in mind.

Pension funds with the highest five-year rate of return in 1998 had greater (in several cases much greater) exposure to the domestic stock market, the highest performing but most volatile major asset class for the last several years. The Fixed Fund has a large holding in an S&P 500 Index Fund and additional exposure to large company stocks through actively managed portfolios. While some pension funds appear to have let their stock exposure continue to "run up" with the market, we have followed a more conservative discipline by moving funds out of the stock market when the value of our holdings grew much beyond 40% of the value of Fixed Fund assets. This was done to maintain diversification and manage risk.

While SWIB took a more conservative strategy than some funds may have followed, we believe that it was the right approach. Returns from domestic stocks have been especially volatile. The extraordinary gains have actually come from a small number of large company stocks. For example, in 1998, only 15 stocks accounted for half of the entire gain in the S&P 500. In the first quarter of 1999, 18 stocks accounted for all of the gain in the index.

It is interesting to remember that at this same time last year, the market was in the midst of a major downturn. Some concerns were being expressed about whether the Fixed Fund had too much exposure to large company stocks. Then, as now, we believe that a disciplined asset allocation strategy is best.

Resources and Management Flexibility

- ***Performance affected by the loss of experienced staff and asset growth that has exceeded resources***

Our performance is affected by the mix of assets in which we invest and by the resources we have to execute investment strategies. Assets under management are now over $60 billion, placing SWIB among the world's largest investment organizations. Quite simply, our portfolios have grown much faster than our resources. Assets have nearly doubled in the last five years and are expected to increase by another $25 billion in the next five years. Over the last decade, assets have increased at nearly seven times the rate of increase in investment staff. The total staff has increased at a greater rate, reflecting the development of information technology services and the expansion of audit and other oversight activities.

Growth in Assets under Management and SWIB Resources
1989 to 1999

	Average Assets (in billions)	Investment Staff	Total Staff
1989	$19.7	38.0	63.0
1994	33.9	44.0	78.5
1999	61.5	50.0	101.5
Percent Increase (1989-99)	212%	32%	61%

We lost 11 investment staff to the private sector in just 2½ years. Several staff received compensation packages that were more than double what SWIB can offer. Adding to our concern is that our two most senior investment directors retired and several others are eligible to retire in the next few years.

All of our expenses are funded from investment earnings. Because we can pay competitive rates to outside vendors with experienced professionals, there is increasing pressure to "hire out." However, that approach is far more costly than it is to pay competitive salaries and provide the needed support services for our own staff. If our internal portfolios had to be managed outside, annual costs would increase by over $70 million annually.

Our objective is an investment strategy to succeed in markets of the next five to ten years with the resources to successfully execute this strategy. One of our major goals is to position the Fixed Fund to take greater advantage of private equity and other non-traditional markets. Investments in these markets are more labor intensive to manage but have great potential to add value after expenses.

We have taken a number of steps to stretch our resources, including greater use of passive management strategies. We have also partnered with other financial services firms in our private placements, certificate of deposit and real estate programs to gain broader access to these markets without adding staff.

The budget support and flexibility we have received from the Governor and the Legislature have made a real difference and we are appreciative. However, to continue to have a viable and cost-effective investment program, we believe that new approaches to our budget should be considered.

This issue has been recognized in model legislation recently developed by the National Conference of Commissioners on Uniform State Laws. A fundamental principle of the model law is that because pension fund trustees have full fiduciary responsibility for the results of investment decisions, they should also have flexibility to determine the resources that are used to implement those decisions. Our goal is to work with the Governor and Legislature on ways to enhance effective management while ensuring accountability.

Thank you for the opportunity to respond to your report. During the course of the audit, your staff made every effort to understand our objectives and operations. Their work has been professional and considerate.

Sincerely,

Patricia Lipton
Executive Director

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