

JUL - 7 1999

July 2, 1999

Senator Robert Wirch
Room 310 South
P. O. Box 7882
Madison, WI 53707-7882

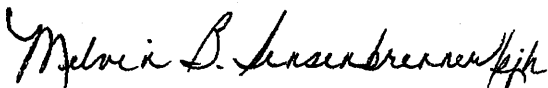
Dear Senator Wirch:

This is to confirm your meeting with the Wisconsin Retirement Consortium on July 14, 1999, at 10 a.m. at the Wisconsin Professional Police Association Building, 340 Coyier Lane, Madison. We will provide transportation at 9:45 at Martin Luther King Drive entrance to the Capitol.

I want to thank you for graciously accepting our invitation to speak to our group as the Senate Co-chair of the Joint Survey Committee on Retirement and legislative Retirement Research Committee.

I am looking forward to our meeting on July 14, 1999.

Sincerely,



Melvin B. Sensenbrenner,
President

WISCONSIN RETIREMENT CONSORTIUM MEMBERS

Association of Career Employees
AFSCME Council 24
AFSCME Council 40
Association of Supervisors and Counselors (MPS)
Milwaukee Teachers Education Association
Professional Fire Fighters of Wisconsin
School Administrators Alliance
State Engineering Association
The Association of UW Professionals
Wisconsin Association of School District Administrators
Wisconsin Association of School District Administrators-Retired
Wisconsin Council of Carpenters
Wisconsin Education Association Council
WEAC-Retired
Wisconsin Federation of Teachers
Wisconsin Retired Educators' Association
Wisconsin Professional Police Association
Professional Fire Fighters of Wisconsin-Retired

REMINDER

RETIREMENT CONSORTIUM MEETING

July 14, 1999 - 10:00 a.m.

at the Wisconsin Professional Police Association Office
340 Coyier Lane, Madison

TO: All Members

FROM: Mel Sensenbrenner

DATE: July 2, 1999

RE: Meeting Agenda

1. 10:00 a.m. to 11:00 a.m. We have guest speaker Senate Retirement Co-chair Robert Wirch coming to discuss the latest retirement proposals and actuaries report.
2. 11:00 a.m. to 11:30 a.m. Pete Christenson for TIAA-CREF
3. 11:30 a.m. to 12 noon Review priority of possible changes to WRS and review actuaries report if it is available to us.
4. Possible future meeting dates

Subject: Article for Wednesday's meeting

Date: Mon, 12 Jul 1999 14:58:28 -0500

From: "Ken Opin" <opin@wft.org>

To: ws2722@execpc.com

The badgering state

Barry Rehfeld

The view from the small, simply decorated offices is peaceful and expansive. In winter, a snow-covered lake. In summer, a pine-shaded shore. It's a lovely setting - if an incongruous one from which to plot corporate warfare.

These are the headquarters of the State of Wisconsin Investment Board, which has emerged as one of the nation's leading institutional advocates of shareholder rights. During the past decade, under executive director Patricia Lipton, the increasingly aggressive pension fund has launched many big proxy fights and claimed numerous high-profile victories. The 13th-largest U.S. pension fund has faced down billionaire financier Ronald Perelman, roiled Kmart Corp. by helping to defeat a company restructuring and elbowed aside the tort law powerhouse of Milberg Weiss Bershad Hynes & Lerach, to take the role of lead plaintiff in a precedent-setting class-action lawsuit.

In recent months the investment board - which manages in-house most of the \$49 billion worth of pension money for 420,000 current and former Wisconsin state and local employees - has burnished its reputation as a scrappy activist. Since December the 100-person staff has chalked up several important and rare victories for shareholder rights. From its headquarters on the banks of Lake Monona in Madison, Wisconsin, the fund won two class-action suits against U.S. corporations. It also triumphed in three proxy battles, preventing companies from issuing poison pills or changing stock option plans without shareholder approval.

"They're smarter" than other activists, says Nell Minow, a principal of Hermes Lens U.S. Fund. Hermes Lens is a Washington, D.C.-based money manager renowned for shareholder rights fights that is funded by institutional investors including Wisconsin. "They're always on the creative edge, and by their actions they're very credible," Minow says.

Reserved and low key - its executives generally shun the press - Wisconsin has long been in the public pension world's investment vanguard. During the 1980s Wisconsin broke ground by investing in leveraged buyouts and buying foreign stocks. Its aggressive investment stance - driven in no small part by a relatively high allocation to equities in general and small-company stocks in particular - produced outstanding returns. For the decade, Wisconsin's stock portfolio returned 17.8 percent annually, easily outdistancing the 16.9 percent turned in by the Standard & Poor's 500 index. Its 1989 return of 16.7 percent was good enough to land it in the top quartile of its peers for the fourth time in six years.

Wisconsin's activism has generated hard cash as well as moral victories. Perelman's Marvel Entertainment Group paid Wisconsin - and only Wisconsin - millions to settle a lawsuit and go away. Other targets have changed management strategies or dropped antitakeover provisions as concessions to Wisconsin's view of what would boost long-term performance. The frugal pension fund managers of the Badger State have accomplished all this on a modest corporate governance budget that has averaged about \$150,000 a year, including staff time and fees for proxy solicitations and outside consultants.

"The program is designed to encourage corporations to treat their shareholders fairly and enhance our assets' long-term returns," says general counsel Kurt Schacht, the Lipton lieutenant who leads the

shareholder effort.

But even as its high-profile, hands-on approach to corporate governance has won it increasing renown, the board's investment performance has soured. Through the 1990s Wisconsin has posted average annual returns of 12.9 percent, trailing the median 13.5 percent return for all pension funds and hovering perilously close to the 12.8 percent mark that would sink it into the the lowest quartile of its peers. The problem, in a word: stocks. Wisconsin's returns in fixed income and real estate rank in the top quartile among pension funds surveyed by Wilshire Associates in its Trust Universe Comparison Service report, but stocks are another story. Because a conservative investment board has restrained the fund from increasing its equity exposure at the same pace as its industry peers, Wisconsin had 52 percent of its assets in stocks at the end of 1998, as compared with 64 percent for all pension funds.

Making matters worse, Wisconsin's basic stock picking has flagged. The fund's equities returned just 15.0 percent annually in the past decade, well behind the S&P 500's 19.2 percent - and a stunning reversal of Wisconsin's 1980s success. The plan's equity asset returns placed in the bottom quartile of the pension funds surveyed in the TUCS report.

Most puzzling, a key culprit seems to be the very sector - domestic small caps - where Wisconsin's shareholder activism has been the greatest. These days the fund has stakes of 5 percent or more in about 80 small companies. Some \$3.5 billion, or about 18 percent of its U.S. equity assets, is invested in this sector - a higher percentage than the majority of U.S. pension funds.

The overweighting has depressed Wisconsin's performance because its small-cap holdings have produced annual returns of 10.7 percent during the past decade, or 8.5 percentage points below the S&P 500.

Wisconsin even lagged the Russell 2000, a leading benchmark for the small-cap sector, which rose 12.8 percent during the period. Small caps gave the state the same returns as its bond holdings, but with much greater risk.

Wisconsin is far from alone in its misery: Many plan sponsors have been burned in recent years by small caps. But the fund's activist bent and in-house management of its sometimes obscure small-company investments mean that Wisconsin's staff devotes considerably more time and effort to its small-cap portfolio than do its peers. Arguably, that focus should have boosted, not depressed, its returns. Has shareholder activism dulled the fund's stock-picking edge? And, in any case, given its poor performance, shouldn't Wisconsin cut back on its commitment to small-cap stocks?

At least one trustee, George Hahner, a retired history teacher from Racine, Wisconsin, who has served as a trustee of the plan for ten years, openly criticizes the fund's performance. "If you can't make it in a bull market, that's not saying much," says Hahner. Yet he stubbornly endorses the small-cap strategy. "They have historically outperformed large caps, and we think they'll turn around."

Lipton and her colleagues dismiss the idea that the fund has somehow lost its way in its fierce quest for shareholder rights, and they remain convinced that fundamentals augur a powerful rebound for their returns. "The spread between the performances of large caps and small caps is greater now than it has been in 30 years. We're in a position for a comeback in that sector," Lipton insists. "To the extent that we can augment those investment activities with corporate governance, it's time well spent. We have shown that our strategies have paid off."

Certainly, the plan is well funded - overfunded, in fact. (Actuarially, it requires only an 8 percent annual return.) And Wisconsin's persistence has begun to show some signs of paying off: Since the end of the first quarter, small-cap stock indexes have risen by nearly 10 percent, far outpacing large caps, though they remain near their cheapest relative valuations in recent memory, and they have a long way to go to make up for past years.

Some of the blame for poor returns can be placed on the directives of a thrifty state government, which has made it difficult for the pension fund to increase staff to keep up with asset growth or to pay managers competitively. Lipton is lobbying to loosen some of the strictures. For the moment, however, it is difficult for her - or anyone - to defend the fund's subpar performance.

As a group, their reputations for tenacious shareholder rights battles notwithstanding, the people running

the Wisconsin Investment Board are reserved and circumspect, more professorial than provocative. None is more reserved than the executive director. Born near Oxford, England, Lipton, 56, first came to Madison in 1972 to study for a master's in economics at the University of Wisconsin. She had received her undergraduate degree in economics from the University of California at Berkeley and worked as a research assistant at the Federal Reserve Board in Philadelphia before returning to graduate school. In 1982 she joined the board as executive assistant to the Kenneth Codlin, who was then executive director. At the time, the pension fund had already established a reputation for going its own way - an appropriate course perhaps for a state with such a long tradition of progressivism and iconoclastic political leaders. From its inception in 1951, the board was given the authority to buy common stocks, then an unusual freedom for public pension funds. By 1965 it had begun making making direct long-term loans - at market rates - to a variety of enterprises throughout the country. (At about \$3 billion today, it's the largest such program run by any U.S. public pension fund and includes loans to the Children's Hospital of Philadelphia, Green Bay Packing in Wisconsin and Circuit City Stores outlets in Illinois, Kentucky and Massachusetts.) In the 1980s Codlin pressed this leadership tradition forward, embracing alternative investments and steering money into leveraged-buyout funds. The board put \$225 million into the 1986-'87 Kohlberg Kravis Roberts & Co. funds that invested in such famous buyouts as Beatrice Cos. and Safeway Stores. Eager to diversify, Codlin also successfully lobbied the state legislature in 1986 to allow the fund to invest in foreign stocks (today 14 percent of its total portfolio is in non-U.S. equities). Under Codlin, who left in 1987 to become chief investment officer of the State Universities' Retirement System of Illinois, and his successor, Marshall Burkes, Wisconsin's returns seemed more akin to those of Peter Lynch's Magellan Fund than to the performance of other public plans. In no small part because of the fund's relatively large holdings of small-cap stocks, Wisconsin easily outperformed the S&P 500 - a rare feat for any active manager.

By the end of the decade, though, the fund found itself in the middle of a very public scandal. In 1989 the board of directors dismissed Burkes, accusing him of berating employees and not being forthright about potential investment deals. Burkes then sued the state, alleging that he was fired for blowing the whistle on a trustee who, he claimed, had arranged improper loans of pension funds. Wisconsin denied the charge. (After seven years and countless legal skirmishes, the former executive director settled his claim for \$450,000, with neither side admitting any of the charges.)

Lipton succeeded Burkes as executive director. Spurred by a national shareholder movement calling for divestment in companies doing business in South Africa, Wisconsin had begun to eye a more activist role. Unlike other funds that sold off South African holdings, Wisconsin preferred constructive engagement. "We didn't divest," says Lipton. "Our stance was that if we could add value to the stock, we would take a position on corporate governance." In 1989 Wisconsin sponsored a proposal to have confidential voting at AlliedSignal, and Lipton cemented the board's commitment to shareholder rights when she hired Kurt Schacht, one year into her tenure.

A Wisconsin native, the 45-year-old Schacht grew up in the small town of Lancaster, an hour's drive south of Madison. After attending college and law school at the University of Wisconsin, Schacht practiced securities law for five years in Cleveland. "We represented corporate clients, and that's where I learned how they felt about corporate governance activity," Schacht says. "They want to do whatever they legally can to keep shareholders at bay."

As corporate agitators go, Schacht keeps a low profile. The fund's principal voice to the outside world, he presents himself as a "spokesman" for the board. Two other executives round out the core shareholder rights team. Bearded and outgoing, Keith Johnson, the 46-year-old assistant general counsel, acts as the field general for the fund's class-action suits. Small-cap investment director John Nelson, 45, oversees all the holdings in the sector, picking stocks and alerting other members of the team to prospective targets for class-action suits and proxy issues.

The quartet has been together for most of the decade, plotting corporate battles from a row of offices overlooking Lake Monona. Things start heating up in September, when a dozen staffers attend a planning

meeting in preparation for the spring proxy season. The board looks in its portfolios for egregious underperformers that are also guilty of suspect corporate governance practices, such as repricing stock options or renewing inflexible poison pills to prevent takeovers. When Lipton approves the targets, the team begins making phone calls, writing letters and, if need be, spearheading proxy initiatives and filing lawsuits.

Wisconsin launched its first proxy contest - and scored its first success - in 1992. It took on Revlon subsidiary Marvel Entertainment Group over the \$265 million, or \$28 a share, it had paid for Fleer Corp., a Mount Laurel, New Jersey-based sports card maker that was 9.8 percent owned by Wisconsin.

The deal was a "low-ball bid," says George Garland, president of Garland Associates in New York, the board's first and only solicitor. The Wisconsin fund "wanted shareholders not to tender their shares," Garland recalls, "but the arbs were in control, and they sold out right away."

Marvel won the first round, when the proxy contest failed, but Wisconsin sued in a Delaware court to have a judge appraise the value of the stock, which the pension fund thought was worth at least \$34 a share.

A year later Marvel settled the suit by agreeing to pay Wisconsin \$34.50 a share - \$6 million more than the \$26 million the plan would have gotten had it sold when the other shareholders did.

The pension fund next played hardball with Corporate Software, a computer software maker in Canton, Massachusetts. The fund refused to tender its stock for \$15 a share in a 1993 management buyout because, Schacht recalls, "we didn't think we were receiving adequate compensation." Again, Wisconsin went to a Delaware court for an appraisal. Its dispute with Corporate Software lasted four years, and in the end CS paid \$21 for each of the board's 500,000 shares, a 40 percent premium over the price paid to other stockholders.

But it was in 1994 that Wisconsin first won national attention. That's when it challenged the management of Kmart Corp. - now a \$35 billion-in-revenues discount retailer with an \$8 billion market capitalization - certainly not a small cap. The pension fund had tangled unsuccessfully with Kmart for four years over the retailer's antitakeover poison-pill defense. Then management tried to push through a restructuring plan, and Wisconsin struck again. Using Garland for a second time, and a taking out an ad in The Wall Street Journal for good measure, it defeated management's effort to use a proxy vote to get the plan approved. Nine months later Kmart chief executive Joseph Antonini resigned, having failed to turn the company around.

A year later, over President Bill Clinton's veto, Congress passed the Private Securities Litigation Reform Act of 1995, providing an even bigger stage for the state board. Designed to stop frivolous class-action lawsuits against corporations, the legislation contained a key provision meant to encourage the largest shareholder to take over the lead plaintiff role. The idea: Institutions are more like investors than the tort lawyers of the so-called plaintiff's bar, who file numerous lawsuits under the names of token shareholders.

Wisconsin took advantage of the new law immediately. As the largest shareholder in CellStar Corp., it became, in 1996, the first pension fund to be appointed the lead plaintiff in a securities fraud case. (The public employee pension funds of California, Colorado and New York subsequently made use of the statute.)

Now a \$2 billion-in-sales cellular phone distributor in Carrollton, Texas, with a market cap of \$600 million, CellStar was accused by shareholders of fraudulently inflating its sales to boost the price of the stock. The alleged fraud preceded the company's announcement that it would have to restate earnings, which caused its stock to fall by 70 percent. As the largest shareholder, Wisconsin was entitled to assume the lead plaintiff role, seeking to recover from CellStar between \$27.5 million and \$34.8 million in damages for all stockholders.

It turned into an ugly, multiyear public battle. First, Wisconsin survived a three-month fight with law firm Milberg Weiss to win the role of lead plaintiff. Then it endured a draining two-year struggle to reach a settlement. Last December the class won \$14.5 million. That was more than 40 percent of what was

sought; the average settlement in a shareholder class-action suit is 14 percent of damages.

In the wake of that victory, Wisconsin's reputation as a scrappy opponent grew. The board "is an excellent client, more sophisticated than most," says Stuart Grant of Grant & Eisenhofer, which was Wisconsin's outside law firm in the case. "They're not easily spooked. The settlement was reached more smoothly because of their active involvement in the case." Grant calculates that the settlement was not only three times as much as Wisconsin might have gotten had a minor shareholder had the lead, but it also cost two thirds less than if the shareholders had hired an established member of the plaintiff's bar, such as Milberg Weiss.

But on another level, the case raises cost-benefit questions surrounding Wisconsin's activism. In the end, for all of its trouble, Wisconsin lost money on its CellStar investment. Initially its holdings fell \$10 million in value; Wisconsin's share of about \$3 million of the \$14.5 million settlement narrowed that loss.

Wisconsin isn't just fighting in court. The state has taken an active stance on the phenomenon of options repricing, which companies often do when their stock price falls. Lowering the exercise price of options obviously restores value to executive compensation packages. For corporations it's a tempting ploy, because accounting rules allow them to reprice the options without making changes in their financial statements. But to many shareholders, repricing is nothing more than an undeserved gift to ineffective managers.

When stocks swooned last summer and a number of companies repriced their options, shareholder activists quickly voiced their dissent. Wisconsin jumped into the fray. Its first target: Shiva Corp., a telecommunications company in Bedford, Massachusetts. Management had lowered options strike prices by more than 60 percent after the shares fell by 80 percent.

The pension fund, which owned 3 percent of the company, sought to put a resolution on Shiva's proxy prohibiting any further repricing without a shareholder vote. Company management refused, arguing that options repricing decisions were simply a part of ordinary business. Wisconsin countered by petitioning the Securities and Exchange Commission. "It's not a fair practice," says general counsel Schacht, "and we got sick and tired of being ignored."

The SEC, however, sided with Shiva. Stubbornly, Schacht took off after another company, General Datacomm Industries of Middletown, Connecticut. Not surprisingly, General Datacomm's management nixed the move to add a similar resolution to its proxy last fall. But Wisconsin still wasn't done. Schacht went back to the SEC. "It was late in the proxy filing season," he explains. "The issue had gotten some attention, so we thought it was worth another try."

This time, following a flood of negative publicity about repriced options that was driven by the efforts of Wisconsin and other shareholders, the SEC reversed itself and sided with the state, ruling that General Datacomm had to accept Wisconsin's resolution. With a spot on the ballot, Wisconsin then mounted a proxy contest. It mailed campaign literature to shareholders, calling for an end to "in your face repricing of underwater options" and noting that management had "repriced options six times in the last two years."

"It's a vendetta," William Lawrence, then General Datacomm's chief financial officer, told Institutional Investor at the time. "We're an easy target because we're losing money."

This past February Wisconsin, which owns 9.5 percent of the company, routed management by picking up 65 percent of the vote. If General Datacomm wants to reprice options, it will have to get shareholder approval.

Less than a month later, Wisconsin triumphed again. In a fight against Raytel Medical Corp., a San Mateo, California, health services provider, Wisconsin and other shareholders defeated a management proposal to increase the number of stock options. Wisconsin holds 13.4 percent of the shares in the \$34 million-market-cap company.

"They've raised the level of awareness by pushing the envelope and adding real value to shares," says Patrick McGurn, director of research at Investor Shareholders Services.

To be sure, Wisconsin is not alone in its zeal to reform options repricing - nor has it won every tilt. The

subject is debated in accounting circles, and the Financial Accounting Standards Board has been fighting to force companies to count as an expense the value of new stock options. In the judgment of Timothy Lucas, FASB's director of research, this would immediately end repricing because of its bottom-line cost to firms. Lucas goes on to suggest that Wisconsin might have helped the cause of shareholder rights by supporting the FASB's proposed reform. Says Lucas: "They might have lent FASB a little moral support." Still, it now looks like the accounting board has a good chance of winning the options battle and imposing its accounting change before the end of the year, which would do more to kill repricing than all the battles shareholder activists could mount.

Of course, corporate America continues to defend its devotion to options repricing. "Wisconsin should walk in our shoes," says Steven Van Dick, CFO of CardioThoracic Systems, of Cupertino, California, which defeated the pension fund on the repricing issue during the 1998 proxy season. That was largely because management owned 30 percent of the stock in the company, whose market cap is \$120 million. "Options are a way of finding and keeping talent," says Van Dick. "If companies can't reprice them when they have to, they'll wind up creating and giving out more options than they would have otherwise. The real loser will be the shareholder."

Even as it fights against options repricing, Wisconsin has also been campaigning to reform poison-pill arrangements. Such antitakeover provisions can depress stock prices by discouraging potential buyers from making bids for companies. In the 1999 proxy season, the fund has been actively promoting a so-called chewable pill, first developed by a well-known risk arbitrageur, Guy Wyser-Pratte. This alternative to the standard poison pill requires a company to put the provision to a shareholder vote if it receives a takeover proposal. "Wisconsin [has] got the pedigree that gives the chewable pill credence," says Wyser-Pratte.

Wisconsin first tried to shove this new pill down the throat of Applied Materials, an \$11 billion-in-sales manufacturer of semiconductor wafers in Santa Clara, California, by placing the provision on the company's proxy ballot in March. The fund has a 0.2 percent stake in the \$24 billion-market-cap company, but executives at Applied Materials feel they were unfairly singled out.

"We think [Wisconsin] should look at this case by case," argues Joseph Sweeney, vice president of legal affairs for Applied Materials. This winter Sweeney led a team to the fund's Madison office in the hopes of heading off the proxy showdown. "Management is not entrenched. We have seven of nine independent directors, and the stock has performed very well," he points out. "They say this is their policy. Yet studies have shown that pills have increased the premiums paid for companies." Schacht has heard this defense more than once. "We are not against poison pills," he says. "We just think shareholders should have the right to vote on them."

There are legitimate arguments on both sides of the issue. But even if Wisconsin is right about the unfairness of these antitakeover provisions, the fund faces more fundamental questions about its actions. Would Wisconsin create more value by rethinking its investment strategy? Today it actively manages a lot of small-cap investments, which are tough to research and are more prone to corporate governance complaints than their large-cap counterparts. How many salvage operations - and legal campaigns - can one pension fund mount without becoming distracted? The numbers are hard to ignore. Despite all the courtroom and proxy victories, management compromises and favorable SEC rulings, the fund's small-cap investments are underperforming. For the 12 months ended in March, Wisconsin's holdings in the companies it has successfully targeted - CellStar, General Datacomm, Physician Computer Network, Raytel and Union Carbide (see box) - were down in value anywhere from 15 to 90 percent.

At a time when active managers everywhere have struggled to beat the indexes, Wisconsin, by law, must handle 85 percent of its actively managed funds in-house. The board takes great pride in this self-reliant tradition. Lipton delights in describing Wisconsin as a "money management shop." And, she says, "the further you get away from that, the more you lose sight of your investment."

The Wisconsin Investment Board, like many asset management firms, confronts a bull market quandary. Rapid growth, however welcome, creates tremendous internal pressure. Although Wisconsin's total assets

under management have soared, staffing levels have not kept pace. When Lipton took over in 1989, the fund managed \$21 billion; by mid-1995 it was up to \$38 billion. Since then assets have jumped by more than 60 percent, to \$61 billion. (Of that total, Wisconsin manages \$7 billion in a separate pension fund closed since 1980 and \$5.3 billion outside of its pension funds, mostly for state agencies and local governments.) But in the past four years, the staff has grown by just 25 percent, from 80 employees to 100. Until three years ago, when Lipton hired Michael McCowin, 60, a former senior partner at Chicago's Harris Asset Management, Wisconsin didn't even have a chief investment officer.

Small-cap stocks in particular take a lot of time and attention. Manager Nelson oversees this vast operation with a staff of just four analysts and one trader. He and his colleagues track investments in 350 small-cap companies; with other fund staffers, they screen 650 more companies every year, seeing company executives in Madison or visiting them at their offices.

Lipton and her crew acknowledge the strains. The executive director's own duties are wide-ranging, extending well beyond corporate activism. She supervises staffing and administration, meets with beneficiaries, trustees and, critically, state legislators. Unusual among pension plan executive directors, Lipton actively developed the portfolio's asset allocation. She created a separate nontraditional portfolio, now about \$750 million, that includes derivatives and foreign private-equity investments. She also put about \$1 billion to work in outside funds that use quantitative strategies.

Compensation remains a persistent problem. Unlike most public pension plans, employees can supplement their modest civil service pay with annual bonuses of up to 25 percent (this year Lipton has proposed that the ceiling increase to 50 percent), but it's still not enough to attract and keep many talented staffers. Says trustee Hahner: "We can't pay enough to hire experienced people, and that has hurt performance. We depend on getting an edge with active management, and we've not been getting it." That, he says, leads to turnover, as top professionals head off to the private sector. "We're the farm team for money managers," he complains. Between 1994 and 1997 seven of 13 investment directors left the fund. Today there are only ten directors on the payroll.

In an effort to solve some of these problems, Lipton and the board are currently lobbying the state legislature and governor to be allowed to invest more money with outside managers. They would like to up the limit on outside active managers to 25 percent of total assets. Lipton is prepared to index even more. Wisconsin already uses more outside passive asset management than it has in the past. Since 1996 it has shifted its equity portfolio from 20 percent passively managed to 55 percent, dispersed among outside index funds. "As we get to the limits of what we can do, we've become more passive," says CIO McCowin.

Still, Wisconsin remains committed to active management, and to small caps in particular. Last year the pension fund had 52 percent of its assets in equities, with about one seventh of that in small caps; 40 percent in debt and cash; 4 percent in real estate; and 4 percent in alternative investments.

Wisconsin is also diligent about rebalancing its portfolio when the market moves, which has exacerbated its underperformance. When the large caps outperformed the market, as they have for the past few years, Wisconsin sold its winners and loaded up on poorer performers, such as bonds, which further depressed returns.

"It would have served us well not to rebalance," concedes McCowin, "but it's a good discipline to do so."

Certainly, Wisconsin has had some lean years, but Lipton professes to take it all in stride. "We're investing for the next 50, 60 years," she says. If she's right about a turnaround in small caps, look for the numbers to soar.

It's not easy criticizing the Wisconsin board. They work hard. They do good, and, more important, they provide enough assets to comfortably cover their beneficiaries' needs. They run an innovative investment shop. On the other hand, underperformance is no trivial offense when it comes to public pension money. On this subject the folks at Wisconsin couldn't agree more. They're also utterly confident that their small-cap portfolio will soon be vindicated. Until that day comes, Wisconsin will have to walk a fine line,

criticizing other companies even as its own performance comes in for careful scrutiny.

The board could slightly change its tack. It could, for example, go beyond fighting poison-pill measures and push poorly performing companies into play, earning a nice profit if the company is sold at a premium. But that kind of aggressive intervention would probably be out of character for Wisconsin. In their hearts, the Badgers prefer to be genteel activists.

"They would be upset to be associated with raiders," says proxy solicitor Garland. "They're civil servants, not Wall Street. They believe in a gradual process." In fact, when asked about Wisconsin's common cause with a risk arbitrageur, Wisconsin's Schacht stresses the idea - chewable poison pills - not the creator - Wyser-Pratte. "It makes no difference who is behind it," says Schacht. "It's what it is that matters."

Unfortunately for Wisconsin, the same principle applies to investment returns. It makes no difference how you get them. The bottom line is the bottom line.

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W.S.U. 7-4-99

12% increase is sought for state retirees

By Mike Flaherty
Legislative reporter

Senate Democrats Thursday proposed a revision of the state employees' retirement system that would bolster future retirees' monthly benefits by more than 12 percent.

It was immediately panned by Republicans who said the proposal will increase local property taxes and destabilize the \$40 billion state retirement system.

Democrats said a rising stock market has inflated the value of the state's retirement plan — and that retirees should be able to earn more without damaging the soundness of the state retirement system.

"I think we can have it both ways," said Sen. Bob Wirsch, D-Kenosha.

Based on an actuarial study released Thursday, the Democrats' plan would raise future retiree's monthly benefits by 12.5 percent (increasing the multiplier formula from 1.6 percent to 1.8 percent).

The plan would also eliminate the 5 percent maximum amount most retirees can earn on interest on individual accounts.

Gov. Tommy Thompson and union leaders had already agreed to a plan that would increase annual payments by 6.5 percent — and keeps the cap on interest earnings.

The Wisconsin retirement system is unique because many levels of government participate. Last year, there were 245,000 teachers, state employees, as well as county and local government workers who contributed to the system.

Republicans were not impressed with the Democrats' plan. "It would almost certainly result in a property tax increase," said Assembly Speaker Scott Jensen, R-Waukesha, who noted that local governments would have to contribute more money to the system to fund higher future benefits.

The plan has virtually no chance of passing, he added.

Senate Majority Leader Chuck Chvala said the "money belongs to the annuitants" and the plan will save local taxpayers money because an increasingly generous retirement system would encourage older and better paid workers to retire early.

State budget may be on hold for months

By Mike Flaherty
Legislative reporter

Waiting for a tax cut?
Hoping your state salary will increase?

Are you wondering about tuition at UW-Madison next fall?

Well, you may have to wait a few days.

Maybe weeks. Even months.

The new two-year \$41 billion state budget, which has passed in different versions in both the Wisconsin Senate and Assembly, appears to be on hold.

Lawmakers working on compromises between the versions met for 15 minutes Thursday — and quit work until Monday.

The eight lawmakers from the Republican-controlled Assembly and Democrat-controlled Senate are trying to settle 554 differences between the two bills. So far, they've officially settled about a third of them.

But the big issues, such as tax cuts and education funding, remain unresolved. The two sides met privately during the day — then announced their impasse.

"This could be done next week, or it could be September," said Senate Majority Leader Chuck Chvala, D-Madison.

Assembly Speaker Scott Jensen, R-Waukesha, blamed Democrats for negotiating in bad faith.

Chvala said Jensen is simply "unwilling or unable to ... cut a deal."

The state's fiscal year ended June 30 but the state government won't shut down without a budget; it will continue to be funded at last year's levels.

Democrats renew push to hike state pensions

By Matt Pommer

The Capital Times

Senate Democratic leaders today renewed their push for a 0.2 percent increase in public employee pension formulas, saying it was justified by a new actuarial study.

That is sharply higher than the

increase negotiated by the Thompson administration and six major public employee unions this spring. That plan was stalled when Democrats said it wasn't rich enough.

The formula changes would apply to years of work through 1999. For future years of service, existing formulas would apply.

In addition, Democrats would prospectively remove the 5 percent cap on interest earnings for individual accounts. Those who started work after Jan. 1, 1982, have been capped at 5 percent, something that has effectively limited their future pensions to the formulas.

Sen. Robert Wirsch, D-Kenosha,

said Democrats also were willing to reopen the "variable" pension option. It has been closed for nearly two decades.

The plan would be funded by a \$5 billion supplemental transfer from the retirement system investment earnings and lowering the assumptions of long-term wage growth.

Thursday, July 8, 1999 *

The Capital Times

Man holds cops at bay:

POLICE REPORT

Crime Stoppers at 266-6014.

•••

Man holds cops at bay: The Dane County sheriff's tactical response team spent nearly two hours in Stoughton this morning after a man refused to come out of his home after several gunshots were heard coming from inside.

Stoughton police received a call at about 4:40 a.m., and called for back-up from the sheriff's Office.

The man, identified as Jeffrey S. Zember, 36, talked to police over the phone and surrendered without incident at 5:35 a.m.

Charges are pending.

•••

Kerl in fair condition: Robin Kerl, the only survivor of the shooting at Wal-Mart last month, was listed in fair condition this morning at University hospital.

Kerl was shot once in the head by Harvey Jerome Pierce, a man she had dated previously. Kerl's fiancé, David Jones, was killed by Pierce before Pierce turned the gun on himself.

Bugher raps Dem pension plan

By Matt Pommer

The Capital Times

A Democratic plan to boost public employee pension benefits "is a little bit too rich," Administration Secretary Mark Bugher said Thursday.

Bugher also indicated that it was one-sided because it added, rather than reduced, unfunded liabilities of employers.

Earlier in the day Senate Democratic leaders, armed with a new actuarial study, renewed the push for their pension improvement idea.

Key features include:

- For service prior to Dec. 31, 1999, increase the percentage multipliers in all categories by 0.2 percent. That would generate initial benefit increases of 8 percent to 12.5 percent. For service after Jan. 1, 2000, the formulas would revert to current levels.

- For years beginning in 2000, remove the 5 percent interest cap on individual pension accounts, imposed on those who started after Jan. 1, 1982.

- Increase the maximum amounts veteran employees can get as an initial pension. Now it is 65 percent of final salary for most workers. The Democratic plan would make it 75 percent. Firefighters would go from an 85 percent to 95 percent ceiling.

The Democrats' changes would be funded by using \$5 billion in stock market profits and lowering the assumptions about future

wage increases of public employees.

The Thompson administration and six major unions had reached a tentative agreement in May on a pension deal. It also would have prospectively removed the interest cap and raised initial pension maximums.

"We have proposed a 0.1 (percent) increase and talked about a little higher than that," said Bugher in a Capital Times interview.

The deal collapsed when Senate Majority leader Charles Chvala said it wasn't rich enough. Bugher said any pension bill must have broad consensus of all parties.

At a press conference, Chvala, D-Madison, said the Democratic plan was a "win-win-win" proposition. The nearly 100,000 Wisconsin

Retirement System retirees would get \$2 billion of the stock market gains for their accounts, boosting their monthly benefits. Active workers would get initial higher pensions.

Taxpayers would win, according to Chvala, because workers would retire earlier and be replaced by those with lower wages.

The last item may cause controversy. The actuarial report suggests there would be virtually no cost increases if current retirement patterns continue.

But if workers start retiring earlier, there could be additional costs of about 0.4 percent of payroll for more than 90 percent of workers covered by the pension program, the report suggested.

On the \$8 billion annual wages

for them, that translates to an annual cost of \$32 million in higher contributions by taxpayers.

Bugher and Assembly Speaker Scott Jensen, R-Waukesha, were critical of the way Chvala has handled the pension question.

In separate interviews, they said Chvala's approach has been to drop a proposal on the table rather than work through retirement committees to develop a consensus.

Jensen said either pension bill would require a three-fourths majority vote in each house of the Legislature. That requires most people to agree on improvements, Jensen said.

"It's a very delicate negotiating process, but Sen. Chvala deviated from that," Bugher said.

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Countdown to 2000



ON THIS DAY IN HISTORY:

July 9, 1951

President Truman asked Congress to formally end the state of war with Germany.

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Will there be a rush to retire?

By **Matt Pommer**
The Capital Times

What would a pension improvement bill mean to public employees? Obviously it would raise initial pensions for most public employees. But there are side effects, actuarial effects noted in a report issued last week.

The biggest unanswered question is whether higher initial benefits would trigger a rush to retire.

The Department of Employee Trust Funds has been deluged with calls seeking advice on whether to retire now or wait until the Legislature improves benefits.

More than 60 teachers in Madison already have announced their retirement plans.



Matthews

John Matthews, executive director of Madison Teachers Inc., said the union office has been very busy this summer answering inquiries about the pension system.

"I have never seen so much interest," Matthews told *The Capital Times*.

The actuarial report commented on a pension improvement plan that would largely be financed by using \$5 billion in stock market gains.

Some \$2 billion of that would flow to the accounts of nearly 100,000 people already getting pension checks from the Wisconsin Retirement System. In turn, that would generate higher pension checks.

But the actuaries noted, in effect, you can only spend that money one time.

"The additional fixed annuity dividend generated in the first year would be followed by dividends that are smaller than they otherwise would have been in subsequent years," the actuaries noted.

Those already retired get a benefit by the distribution. There would be more retirees in the future to share in any future use of that \$2 billion.

Analysis

Another \$1.3 billion would flow to the accounts of the 245,000 active public employees. The real benefit here would be to those workers who started their WRS-covered employment before 1982. Those who started after that date have been limited to 5 percent annual interest on their account.

The pre-1982 hires are about one in every four active WRS-covered workers. Many of them will retire under the alternative "money purchase" plan. More money in their accounts will increase their initial pensions under the "money purchase."

The WRS is a hybrid system. Initial pensions are determined by whether pension formulas will produce a higher pension than what an account balance could purchase as an annuity.

More than \$1.5 billion would go to the accounts of employers. Proponents of the plan argue that would help reduce their unfunded liabilities, estimated at \$2 billion. But the higher proposed benefits, the

Thompson administration says, would drive up those unfunded liabilities.

"Funds that are used to pay for new benefits would otherwise have been available to reduce contribution rates," the actuaries said.

The taxpayers pay nearly all of the costs of the pension system.

Unexplored in the Capitol debate about public employee pensions are equity issues. The actuaries note their report doesn't get into those tricky questions.

"Changing the flow of funds to the various fixed reserves affects the distribution of benefits among individual participants," the actuaries noted.

The Thompson administration appears more cautious about exploring all facets of the pension issue before legislation is enacted.

In 1987 a pension deal was cut in the final days of the legislative session. It triggered a 9 1/2-year lawsuit that eventually cost the state treasury \$215 million.

Now most of the participants in the negotiations say public hearings on any deal should be the way to proceed.

WISCONSIN RETIREMENT SYSTEM
ACTUARIAL VALUATIONS OF
ALTERNATE BENEFIT AND FINANCING PROVISIONS

PREPARED FOR THE
SENATE COMMITTEE ON ORGANIZATION
JULY 1999



GABRIEL, ROEDER, SMITH & COMPANY

Consultants & Actuaries

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July 7, 1999

Senate Committee on Organization
State of Wisconsin
Madison, Wisconsin


Ladies and Gentlemen:

The results of supplemental actuarial valuations to measure the potential financial effect of alternate benefit provisions and financing mechanisms for the Wisconsin Retirement System (WRS) currently being considered by the Senate Committee on Organization are presented in this report.

Valuations were based upon active and inactive participant data and financial information used in the last regular annual actuarial valuation of the Wisconsin Retirement System as of December 31, 1998, and supplementary financial information furnished by the Department of Employee Trust Funds. Participant data is summarized on the following page.

Actuarial methods and assumptions were, except where otherwise noted, the same as those adopted by the Employee Trust Funds Board in 1997 pursuant to the tri-ennial experience study covering the 3 year period from January 1, 1994 to December 31, 1996. Actuarial valuations were conducted in accordance with standards of practice prescribed by the Actuarial Standards Board and Wisconsin statutes.

Respectfully submitted,
Gabriel, Roeder, Smith and Company


Norman L. Jones, F.S.A.


Brian B. Murphy, F.S.A.

NLJBBM:cg

WISCONSIN RETIREMENT SYSTEM
ACTIVE PARTICIPANTS INCLUDED IN VALUATIONS
DECEMBER 31, 1998

Active participants included in the valuations totaled 245,935 with an annual payroll totaling \$8,227.5 million, as follows:

ACTIVE PARTICIPANTS

Valuation Group	Number	Annual Earnings (\$ millions)	Group Averages			
			Earnings	Age	Years of Service	Contribs.
General	227,017	\$7,456.8	\$32,847	44.2	11.3	\$38,319
Executive Group & Elected Officials	1,450	73.5	50,664	52.5	11.9	59,292
Protective Occupation with Social Security	14,810	570.3	38,509	38.2	11.1	44,503
Protective Occupation without Social Security	2,658	126.9	47,733	40.0	13.5	79,849
Total Active Participants	245,935	\$8,227.5	\$33,454	43.8	11.3	\$39,264

CHANGES UNDER CONSIDERATION

Maximum Formula Benefit Limitation

Formula benefits (determined by application of the multiplier to creditable service and final average earnings) are as follows:

Group	Maximum % of FAE	
	Present	Proposed
General	65%	75%
Executive and Elected	65	75
Protective Occupation With Social Security	65	75
Protective Occupation Without Social Security	85	95

Interest Credited to Participant Accounts

Present. Participant accounts are credited with interest annually as follows:

Date of Participation	Rate Credited for Purpose of	
	Money Purchase Minimum	Refunds
Present		
Prior to 1982	Actual	Actual
January 1, 1982 & Later	5%	3%
Proposed	Actual	Actual

LUMP SUM DISTRIBUTIONS

Present Provision: Generally, WRS benefits to retiring participants are paid in the form of a monthly annuity over the participant's lifetime.

Proposal: For participants applying for benefits at age 55 (50 for Protective Occupation participants) or later, permit a lump sum payment of the present value of the accrued benefit in lieu of a monthly annuity. Lump sum payments would be restricted to transfers to certain qualifying plans.

COMMENTS

The proposal did not specify either (i) the basis for determining lump sum equivalents, or (ii) what would constitute a qualifying transfer. For purposes of this study, the following conventions were followed:

- **Lump Sums:** The present value of the annuity was based on a 5% interest assumption and a gender-neutral mortality assumption using 50% of male rates and 50% of female rates.
- **Qualifying Transfers:** If lump sums may be made to another IRC Section 401(a) retirement plan or to an Individual Retirement Account (IRA), they would essentially be available to all retiring participants. It was assumed that 50% of retiring male participants and 25% of retiring female participants would elect a lump sum settlement. Actual usage percentages cannot be estimated reliably at this time, and may differ materially from the above. However, we believe that the assumptions used are reasonable for the purpose of this valuation.

BENEFIT MULTIPLIER

Service Period	Present	Proposed	Group
Before 2000	2.0%	2.2%	Executive group, elected officials and protective occupation participants covered by Social Security
After 1999	2.0	2.0	
Before 2000	2.5	2.7	Protective occupation participants not covered by Social Security
After 1999	2.5	2.5	
Before 2000	1.6	1.8	All others
After 1999	1.6	1.6	

Proposed Sources of Financing

- Supplemental transfer of \$5.0 billion from the Transaction Amortization Account (TAA) to be allocated proportionately to the Fixed Annuity Reserve, Participant Contribution Reserve and Employer Accumulation Reserve.
- Increase the spread between the assumed rate of future investment income and across-the-board pay increases to 3.4% per year as follows:

Assumption	Present	Proposed
Net investment income	8.0%	8.0%
Wage inflation	<u>4.8</u>	<u>4.6</u>
Spread	3.2%	3.4%

SUMMARY OF VALUATION RESULTS

WRS Proposals Under Consideration
Summary of Valuation Results
Based on Current Actuarial Assumptions

	General	Executive & Elected	Protective Occupations	
			With Social Security	Without Social Security
Present Average Contribution Rate for				
- 1999	11.6%	15.1%	13.8%	19.7%
- 2000	11.0	14.7	12.1	17.7
Change in rates resulting from				
• Change in spread	(0.61)	(0.64)	(0.71)	(0.86)
• TAA Transfer	(0.78)	(1.27)	(1.60)	(2.18)
• Repeal of interest caps	0.52*	0.43*	0.18*	0.07*
• 0.2% Increase in Past Service Multiplier and Increase in maximum benefit	0.78	1.21	1.34	1.44
• Lump sum rollovers	0.16†	0.57	0.63	0.98
• Net change from proposals	0.07	0.30	(0.16)	(0.55)
Illustrative Rates After Changes#				
With 0.2% Multiplier Increase	11.07%	15.00%	11.94%	17.15%
With 0.15% Multiplier Increase	10.88	14.75	11.67	16.82
With 0.10% Multiplier Increase	10.69	14.50	11.39	16.48

* From prior supplemental actuarial valuation as of December 31, 1997.

The contribution rates after all changes are illustrative only. Contribution rates for 2000 have already been set. Rates for 2001 will only be determined after actual benefit changes, if any, have been made and participant and financial data have been updated through December 31, 1999. Because of the inter-relationship of benefit provisions, the combined effect of various changes is sometimes more and sometimes less than the sum of the parts.

† This relatively low figure is due to the high proportion of females in the General group. Females are disadvantaged by lump sum rollovers, due to their longer life expectancy.

Additional discussion of proposed funding mechanisms are presented on the following pages.

WRS Proposals Under Consideration

Comments on Valuation Results

Valuation results presented on the preceding page are based upon actuarial assumptions used in regular annual valuations of the present benefit program. These assumptions were derived from past WRS experience and certain historical economic patterns. However, some elements of the proposed benefit package may affect underlying plan experience, as follows:

- Increasing the benefit multipliers, uncapping interest credits and permitting lump sum settlements may all be viewed as incentives for earlier retirement. On the other hand, increasing the maximum benefit limitation may partially offset the effects of such early out incentives.
- Lump sum settlements will be most attractive to participants in poor health. This could result in increased average longevity among the cohort electing monthly annuities.
- The availability of lump sums will change cash flow patterns. Annual cash benefit payout could increase by over \$1 billion a year. As liquidity needs rise, the asset distribution may need to be changed to ensure that there are sufficient cash reserves to meet commitments. Such portfolio restructuring may make it more difficult to achieve real return targets.

The availability of lump sums is a fundamental change in the operation of WRS that will have far reaching effects on plan participants and their beneficiaries that are beyond the scope of this study. Other ETF sponsored programs may also be affected, particularly if receipt of a monthly benefit is a condition for participation in those programs.

The effect of a change in the benefit structure on underlying demographic patterns can not be accurately forecast. The normal practice is to incorporate any changes in underlying patterns after they have been monitored over a period of years. However, prudence dictates that some sensitivity testing be undertaken when significant changes in the benefit package are being considered. For this reason, the proposed package was re-valued based upon the assumption that an additional 5% of eligible participants would retire at each age (2.5% for those eligible for early retirement). Results of this test are presented below.

Net Change in Computed Contribution Rates

Valuation Basis	General	Executive & Elected	Protective Occupations	
			With Social Security	Without Social Security
Current assumptions	0.07%	0.30%	(0.16)%	(0.55)%
Alternate assumptions	0.39	1.22	0.41	(0.02)

If and when statutory changes are adopted, the actuary will consider whether to recommend assumption changes to the ETF Board prior to the succeeding valuation cycle based upon an analysis of the statute that is enacted.

DISCUSSION OF ALTERNATE FUNDING MECHANISMS

AND THE

ASSET VALUATION METHOD

Discussion of Alternate Financing Mechanisms

SUPPLEMENTAL TAA TRANSFER

Financing a benefit increase with a supplemental transfer from the TAA is a means of capitalizing (i.e., recognizing now) gains that otherwise are expected to flow through to the system more gradually in future years. This financing source should be used sparingly and with recognition of long term implications for WRS:

- ◆ The additional fixed annuity dividend generated in the first year would be followed by dividends that are smaller than they otherwise would have been in subsequent years.
- ◆ The increase in participant account balances will increase money purchase benefits for some WRS participants retiring in the first few years following the transfer.
- ◆ Funds that are used to pay for new benefits would otherwise have been available to reduce contribution rates (or at least minimize rate increases if overall experience is unfavorable) or finance other benefit increases at some future date.
- ◆ Changing the flow of funds from the TAA to the various fixed reserves affects the distribution of WRS benefits among individual participants. Equity issues are not treated in this report.
- ◆ Investment markets are volatile; the TAA is intended to provide a mechanism to lessen the extent to which such volatility may flow through to computed contribution rates. Use of the TAA for other purposes reduces the extent to which it can be used for its intended purpose, thereby increasing potential future contribution rate swings.
- ◆ While the TAA is higher than it has ever been historically, so are both the assets and liabilities of WRS. Also, the present economic expansion is one of the longest on record. When investment markets are strong, the TAA is expected to be high; when investment markets are weak, the TAA is expected to be low. The present level of the TAA should be viewed within this context.
- ◆ Each year, 20% of the TAA is transferred to the Fixed Trust Funds. These transfers have produced recognized investment gains in most recent years. However, as recently as 1994, the transfer, when combined with ordinary income, was not sufficient to meet the 8% investment return assumption that is used in developing WRS contribution rates.

**ESTIMATED DISTRIBUTION OF
ACCELERATED \$5.0 BILLION TAA TRANSFER
(\$ MILLIONS)**

Reserve Account	Fixed Annuity Reserves		Approximate TAA Transfer
	12/31/98	%	
Annuity Reserves	\$14,950.1	40.2%	\$2,010
Participant Normal	9,888.7	26.6	1,330
Participant additional	99.0	0.3	15
Employer	11,499.3	30.9	1,545
Other programs	727.1	2.0	100
Total (est.)	\$37,164.3	100.0%	\$5,000

ECONOMIC ASSUMPTIONS

Economic assumptions include long-term rates of investment return and wage inflation (the across-the-board portion of salary increases). Unlike demographic activities, economic activities do not lend themselves to analysis solely on the basis of internal historical patterns because both salary increases and investment return are more affected by external forces; namely inflation and general productivity changes which defy accurate long-term prediction. Estimates of economic activities are generally selected on the basis of the expectations in an inflation-free environment and then both are increased by some provision for long-term inflation.

If inflation and/or productivity increases are higher than expected, it will probably result in both actual rates of salary increases and investment return which exceed the assumed rates. Salaries increasing faster than expected produce unexpected liabilities. Investment return exceeding the assumed rates (whether due to manager performance, change in the mix of assets, or general market conditions) results in unanticipated assets. To the extent that inflation, productivity, and other factors have about the same effect on both sides of the balance sheet, these additional assets and liabilities can offset one another over the long-term.

Wage inflation. Average salaries in WRS have risen at a slower pace than 4.8% a year since 1981 (the average has been under 4.5%). The rate of increase in National Average earnings since 1981 has averaged 4.6% a year. It is expected that in the long run, salary increases in all parts of the country will be close to the national averages.

Investment Return and Spread. The WRS asset mix has increased from about 30% to 60% in equities over the last 10 years. Real market returns (the difference between net recognized investment return and wage inflation) through 1998 for portfolios with comparable equity holdings have substantially exceeded 3.2% over most measurement periods. However, when the extraordinary experience of the last 5 years is factored out, long-term real returns are only slightly higher than the current assumption.

Only hindsight will tell whether a particular combination of economic assumptions is optimal. If future economic patterns are as favorable as they have been in the recent past, increasing the spread would prove to be a reasonable means to finance a benefit increase. If, on the other hand, the spread is increased, and the assumed favorable experience does not materialize, a contribution increase would become likely at some future date. The following alternate economic assumptions were used in the valuations, as requested.

	<u>Present</u>	<u>Proposed</u>
Investment return	8.0%	8.0%
Wage inflation	4.8	4.6
Spread	3.2	3.4

WISCONSIN RETIREMENT SYSTEM

STATUTORY ASSET VALUATION METHOD

An essential step in the valuation process is comparing valuation assets with computed liabilities. Valuation assets are those assets that are recognized for funding purposes.

Asset valuation methods are distinguished by the timing of the recognition of investment income. Total investment income is the sum of ordinary income and capital value changes. Under a pure market value approach, ordinary investment income and all capital value changes would be recognized immediately. Because of market volatility, use of pure market values in retirement funding can result in volatile contribution rates and unstable financial ratios, contrary to WRS objectives.

Under the statutory WRS asset valuation method, all ordinary income plus 20% of capital value changes are recognized each year. The objective is to give recognition to long term changes in asset values while minimizing effect of short term fluctuations in the capital markets. Realized and unrealized capital gains and losses are treated in the same manner.

Capital value changes are recorded in the Transaction Amortization Account (TAA), which is maintained by the investment board. A summary of recent TAA activity follows.

	\$ Millions					
	1998	1997	1996	1995	1994	1993
Beginning Balance January 1	\$ 9,800.7	\$ 7,405.1	\$ 5,892.1	\$ 2,484.0	\$ 4,312.9	\$ 2,978.4
Closing Adjustments	0.0	0.0	0.0	(39.6)	0.0	0.0
Net Gains (Losses)	4,582.7	4,871.8	3,392.5	4,982.2	(1,194.4)	2,439.9
Adjustment for City of Milwaukee	(14.9)	(26.0)	(28.2)	(61.5)	(13.5)	(27.2)
Ending Balance Before Transfer	14,368.5	12,250.9	9,256.4	7,365.1	3,105.0	5,391.1
20% Transfer to Fixed Trust Funds	2,873.7	2,450.2	1,851.3	1,473.0	621.0	1,078.2
Ending Balance December 31	11,494.8	9,800.7	7,405.1	5,892.1	2,484.0	4,312.9
Statutory Value of Assets	43,390.5	38,584.6	33,962.6	30,246.2	26,954.3	25,436.5
Market Value of Assets	54,885.3	48,385.3	41,367.7	36,138.3	29,438.3	29,749.4
Ratio	79%	80%	82%	84%	92%	86%

MARKET RECOGNITION ACCOUNT

While the use of the TAA has produced reasonable results in the past, it has a number of shortcomings, including:

- (i) The present structure is not easily understood and may leave the impression that surpluses exist even when actual and assumed experience are the same. This is so because a balance of approximately 20% of fixed annuity reserves is generally required to meet the underlying 8% investment return assumption.
- (ii) The open nature of the recognition of capital value changes (20% annual transfer of year end balances) results in a high TAA growth rate in rising markets. In theory, capital value changes in any given year are never fully recognized. (It takes 10 years to recognize 90% of any given year's activity.) Conversely, in years when the market returns exactly match the assumption, the recognized rate of return falls below the assumed rate because only 20% of the capital value component of total return is immediately recognized.

A method of recognizing market activity that has gained in popularity in recent years works as follows. Assumed investment return is recognized fully each year. Differences between actual and assumed investment return are phased in over a closed period (4 years in the current proposal). During periods when investment performance exceeds the assumed rate, the funding value will tend to be less than the market value. Conversely, during periods when investment performance is less than the assumed rate, funding value will tend to be greater than market value. If assumed rates are exactly realized for 3 consecutive years, funding value will become equal to market value. The schedule on the following page demonstrates how this method would have operated if it had been in place over the last 5 Plan years. The initial remaining balance in the TAA was also assumed to be recognized over a period of 5 years.

**ILLUSTRATIVE OPERATION OF AN MRA FOR THE FIXED PORTFOLIO
BASED ON A JANUARY 1, 1994 BEGINNING DATE
(IN \$ MILLIONS)**

	1994	1995	1996	1997	1998
Beginning of Year:					
A. Funding Value of Fixed Portfolio	\$23,380.1	\$25,640.6	\$29,007.5	33,208.0	38,620.8
B. Market Value of Fixed Portfolio	27,693.0	27,531.6	33,476.6	38,091.0	44,266.7
End of Year:					
C. Market Value	27,531.6	33,476.6	38,091.0	44,266.7	50,004.7
D. Non Investment Net Cash Flow	45.5	(0.7)	(12.9)	(21.5)	(273.1)
E. Investment Income					
E1. Market Total: C - B - D	(206.9)	5,945.7	4,627.3	6,197.2	6,011.1
E2. Assumed Rate	8.00%	8.00%	8.00%	8.00%	8.00%
E3. Amount for Immediate Recognition	1,872.2	2,051.2	2,320.1	2,655.8	3,078.7
E4. Amount for Recognition from TAA	862.6	862.6	862.6	862.6	862.6
E5. Amount for Phased-In Recognition	(2,079.1)	3,894.5	2,307.2	3,541.4	2,932.4
F. Phased-In Recognition of Investment Income					
F1. Current Year: 0.25 x E5	(519.8)	973.6	576.8	885.4	733.1
F2. First Prior Year	0.0	(519.8)	973.6	576.8	885.4
F3. Second Prior Year	0.0	0.0	(519.8)	973.6	576.8
F4. Third Prior Year	0.0	0.0	0.0	(519.8)	973.6
F5. Total MRA Phase-in	(519.8)	453.9	1,030.7	1,916.0	3,168.9
G. Funding Value: A + D + E3 + E4 + F5	25,640.6	29,007.5	33,208.0	38,620.8	45,457.9
H. Difference Between Market & Funding Values	1,891.0	4,469.1	4,883.0	5,645.9	4,546.8
I. MRA Recognized Rate of Return	9.5%	13.1%	14.5%	16.4%	18.5%
J. Actual TAA Mean Balance Rate of Return*	6.9%	10.1%	11.3%	12.4%	12.6%

* Note: Mean balance returns are close, but not equal to published earnings rates.

COMMENT

This schedule shows that in the rising market environment of the last five years, the MRA would have consistently produced a higher recognized rate of return. As a result, the ending \$4.5 billion difference between market and funding values (line H) would have been much less than the \$11.5 billion ending balance in the TAA.

SUMMARY OF ACTUARIAL ASSUMPTIONS

**SUMMARY OF ASSUMPTIONS
USED FOR ANNUAL ACTUARIAL VALUATIONS
ASSUMPTIONS ADOPTED BY ETF BOARD AFTER
CONSULTING WITH ACTUARY**

ECONOMIC ASSUMPTIONS

The long-term rates of investment return used in making the valuation was 8.0% a year, compounded yearly.

Dividends for present and future retirees are assumed to be 2.86% each year.

Salary adjustment factors used to project earnings for each participant between the valuation date and the participant's retirement age are shown below for sample ages. This assumption is used to project a participant's current earnings to the earnings upon which benefits will be based.

Age	% Increase in Salaries Next Year								
	Merit				Base (Economy)	Total			
	Gen.	Teachers	Protective	Exec. & Elec.		Gen.	Teachers	Protective	Exec. & Elec.
20	5.0%	6.0%	6.0%	5.0%	4.8%	9.8%	10.8%	10.8%	9.8
25	5.0	5.4	6.0	5.0	4.8	9.8	10.2	10.8	9.8
30	3.2	4.4	3.1	3.2	4.8	8.0	9.2	7.9	8.0
35	2.2	3.4	1.6	2.2	4.8	7.0	8.2	6.4	7.0
40	1.3	2.4	0.9	1.3	4.8	6.1	7.2	5.7	6.1
45	0.7	1.5	0.5	0.7	4.8	5.5	6.3	5.3	5.5
50	0.4	0.8	0.3	0.4	4.8	5.2	5.6	5.1	5.2
55	0.3	0.4	0.1	0.3	4.8	5.1	5.2	4.9	5.1
60	0.3	0.3	-	0.3	4.8	5.1	5.1	4.8	5.1
65	0.2	0.2	-	0.2	4.8	5.0	5.0	4.8	5.0

Ref: 561 563 562 561

If the number of active participants remains constant, then the total active participant payroll will increase 4.8% a year, the base portion of the individual salary increase assumptions. This increasing payroll was recognized in amortizing unfunded actuarial accrued liabilities.

DECREMENT PROBABILITIES

The mortality table used to measure mortality for retired participants was the Wisconsin Projected Experience Table – 96 for men and women. Sample retirement values from this table are shown below. This assumption is used to measure the probabilities of participants dying before retirement and the probabilities of each benefit payment being made after retirement.

SINGLE LIFE RETIREMENT VALUES WISCONSIN PROJECTED EXPERIENCE TABLE – 96 WITH 5% INTEREST

Sample Attained Ages	Present Value of \$1 Monthly for Life		Future Life Expectancy (years)	
	Males	Females	Males	Females
40	\$203.49	\$213.51	39.7	45.1
45	193.18	205.50	34.9	40.3
50	180.98	195.63	30.2	35.4
55	166.76	183.57	25.7	30.7
60	150.13	168.96	21.4	26.1
65	131.03	151.77	17.3	21.6
70	110.56	131.92	13.5	17.3
75	90.31	110.50	10.3	13.4
80	70.75	89.29	7.6	10.1
85	54.29	69.03	5.5	7.3

For disability retirements basing mortality on an age 12 years older than the actual age recognizes impaired longevity.

ACTIVE PARTICIPANT MORTALITY RATES

Sample Attained Ages	Mortality Rates	
	Males	Females
20	0.000145	0.000085
25	0.000179	0.000113
30	0.000234	0.000153
35	0.000324	0.000212
40	0.000472	0.000305
45	0.000844	0.000454
50	0.001526	0.000699
55	0.002460	0.001057
60	0.003788	0.001782
65	0.006433	0.003126
70	0.011998	0.005513
75	0.020418	0.011278
80	0.035773	0.020671

This assumption is used to measure the probability of participants dying while in service.

RATES OF RETIREMENT FOR THOSE ELIGIBLE TO RETIRE

Normal Retirement Pattern

Age	% Retiring Next Year								Exec. & Elected
	General		Public School		University		*Protective		
	Male	Female	Male	Female	Male	Female	With S.S.	W/OS.S.	
50							4%	3%	
51							4	3	
52							4	3	
53							25	25	
54							25	25	
55							25	30	
56							25	35	
57	12%	12%	20%	15%	10%	20%	25	40	6%
58	15	15	20	15	12	20	25	40	6
59	20	20	20	15	13	20	25	40	6
60	20	20	20	15	13	20	25	40	8
61	25	30	25	15	15	20	25	40	8
62	40	40	45	30	25	20	40	40	18
63	40	40	45	20	25	20	40	30	18
64	40	40	45	20	25	20	40	30	18
65	55	55	55	40	30	38	40	30	30
66	40	52	50	35	30	38	40	30	30
67	40	40	40	35	25	25	40	30	30
68	35	35	40	30	25	25	40	30	30
69	35	35	40	30	25	25	40	30	30
70	35	35	40	30	25	25	100	100	35
71	35	35	40	30	25	25	100	100	40
72	100	100	100	100	100	100	100	100	100

* Includes early retirements.

Early Retirement Pattern

Age	% Retiring Next Year						Exec. & Elected
	General		Public School		University		
	Male	Female	Male	Female	Male	Female	
55	5%	5%	8%	7%	5%	7%	6%
56	5	5	8	7	5	7	6
57	5	6	8	8	5	7	6
58	5	6	12	9	5	8	6
59	5	7	12	10	5	10	6
60	6	10	25	12	5	10	6
61	8	10	25	15	5	10	6
62	25	25	25	28	13	15	
63	25	25	25	25	13	15	
64	25	25	25	25	13	15	

The assumed rates of separation from employment prior to service retirement due to disability and other causes are shown below for sample ages. For other terminations it was assumed that a percentage depending on age of participants terminating after age 35 with 5 or more years service will leave their contributions on deposit and be paid a benefit at normal retirement age and that the remaining participants would take a separation benefit. The percentage is 100% at age 35, grading downward to 0% at retirement eligibility. These assumptions are used to measure the probabilities of participants remaining in employment and the probabilities of being paid a disability or other termination benefits.

ASSUMED TERMINATION RATES BY ATTAINED AGE AND YEARS OF SERVICE

Age & Service		% of Active Participants Terminating								
		Protective		Public Schools		University		Exec. & Elected	Other	
		With Soc. Sec.	Without Soc. Sec.	Males	Females	Males	Females		Males	Females
	0	7.0%	5.0%	14.0%	14.0%	18.0%	20.0%	N/A%	14.0%	16.0%
	1	5.0	2.0	11.0	12.0	17.5	20.0	N/A	10.0	12.0
	2	4.0	2.0	9.0	9.0	15.0	18.0	N/A	7.0	9.0
	3	3.5	1.7	8.0	8.0	15.0	15.5	N/A	6.0	7.5
	4	3.0	1.7	6.0	7.0	12.5	13.0	N/A	5.0	7.0
25	5 & Over	3.0	1.2	5.4	6.9	12.3	12.9	10.6	4.8	6.9
30		2.3	1.0	3.8	5.3	11.3	11.7	9.7	3.9	5.8
35		1.6	0.8	2.2	3.1	8.1	8.1	7.9	2.9	4.1
40		1.3	0.6	1.5	1.9	5.0	5.6	6.1	2.1	3.2
45		1.1	0.5	1.2	1.5	3.1	4.4	4.8	1.6	2.7
50		-	-	1.1	1.5	1.8	3.2	3.5	1.3	2.5
55		-	-	1.1	1.3	1.6	2.8	3.0	1.1	1.5
60		-	-	1.1	1.0	1.3	2.8	3.0	1.1	0.5

DISABILITY RATES

Age		% of Active Participants Becoming Disabled									
		Protective		Public Schools		University		Exec. & Elected		Other	
		With SS	W/O SS	Males	Females	Males	Females	Males	Females	Males	Females
	20	0.04%	0.08%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.04%	0.03%
	25	0.05	0.08	0.02	0.02	0.02	0.02	0.02	0.02	0.04	0.03
	30	0.06	0.10	0.03	0.02	0.02	0.02	0.03	0.02	0.05	0.04
	35	0.08	0.12	0.03	0.03	0.02	0.05	0.03	0.03	0.05	0.05
	40	0.12	0.15	0.04	0.04	0.03	0.08	0.05	0.05	0.09	0.08
	45	0.18	0.22	0.07	0.07	0.05	0.10	0.08	0.08	0.15	0.13
	50	0.59	0.66	0.17	0.12	0.09	0.14	0.16	0.13	0.30	0.22
	55	0.88	1.03	0.33	0.25	0.18	0.27	0.32	0.24	0.60	0.39
	60	0.98	1.17	0.52	0.44	0.32	0.39	0.58	0.39	1.00	0.64