STATE OF WISCONSIN

APPENDIX TO 1999 ASSEMBLY BILL 495

REPORT OF JOINT SURVEY COMMITTEE ON RETIREMENT SYSTEMS

(Introduced by Representative Skindrud; cosponsored by Senator Wirch.) An Act to repeal 25.17 (14)(f); to amend 25.18 (1)(a), 25.18 (1)(m), 40.02 (6), 40.02 (7), 40.04 (3)(intro.), 40.04 (3)(a), 40.04 (3)(d), 40.04 (4)(a)2., 40.04 (4)(a) 2m., 40.04 (7)(a)(intro.), 40.23 (2m)(b), 40.23 (2m)(e) 1., 40.23 (2m)(e) 2., 40.23 (2m)(e) 3., 40.23 (2m)(e) 4., 40.26 (2)(b), 40.26 (5)(c), 40.73 (1)(a)(intro.) and 40.73 (1)(c); and to create 40.04 (3)(ab), 40.04 (3)(am), 40.04 (4)(a) 2g., 40.05 (2)(cm), 40.23 (2m)(em) and 40.73 (1)(am) of the statutes relating to benefit improvements, interest crediting, variable annuity option, contribution credits for employers, death benefits, credit for legislative service, recognition of income and capital gains and losses in the fixed retirement investment trust and affecting certain actuarial assumptions and liabilities under the Wisconsin retirement system.

EXTRACT OF COMMITTEE'S RECOMMENDATION ON THIS BILL

The Joint Survey Committee on Retirement Systems finds that Assembly Bill 495, if amended by LRBa0714/1 and LRBa0717/1, represents good public policy, and the Committee recommends its passage.

PURPOSE OF THE BILL

The purpose of Assembly Bill 495 is to make the following changes to the Wisconsin Retirement System (WRS):

1. Increase the formula factor used to determine pensions under the defined benefit portion of the WRS (the so-called "formula benefit") by 0.165% of Final Average Earnings (FAE) per year of service performed prior to January 1, 2000 and credited at the time of any member's retirement.

2. Reopen the variable annuity to active members of the WRS.

3. For general, executive, and elected members of the WRS, increase the maximum benefit that restricts the "formula benefit" for long service employees from 65% to 70% of FAE.

Note that this would not affect protective employees. Also note that the maximum benefit restriction under consideration does not apply to any retiring member's money purchase benefit. Even if that happens to exceed the maximum formula benefit, the retiree still receives the full money purchase benefit as his or her pension.

4. Permit the Department of Employe Trust Funds (DETF) to apply actuarial gains or losses to change the amount of Unfunded Accrued Liability (UAL) for the member employers.

5. Distribute into the Fixed Retirement Investment Trust (FRIT) on December 31, 1999 the sum of $4,000,000,000 (four billion dollars) of capital gains from the Transaction Amortization Account (TAA) that had not yet been recognized by the FRIT at that time. This would occur after the regular annual distribution of 20% of the TAA into the FRIT had already occurred. This distribution would be distributed among employers, current annuitants (retirees and their beneficiaries), and active employee members in proportion to their accounts in the FRIT.

   As a point of information, this $4 billion amount was estimated to be the sum of (i) an amount (approximately $650 million) sufficient to fund Item 6. (below) plus (ii) an amount such that the average employer's share would for the year 2001 only defray any additional contribution generated by this bill. "Average employer's" means that this will not be true for all employers, but will be approximately true for all WRS employers in aggregate.

6. The employers' share of approximately $600 - $650 million of the total $4 billion TAA distribution would be $200 million. (See "An Apparent Discrepancy in Data" at the top of page 5.) This would be used to establish $200 million of credit for employers that they could use to pay down their Unfunded Accrued Liability (UAL) balances, or to pay their required contributions once their UALs were paid off.

7. Widen by 0.2% the "actuarial spread" between the valuation interest rate and inflationary salary scale used by the WRS actuaries in valuing WRS contributions, from the present 3.2% to 3.4%. (There may be a legal issue here, since this is normally the prerogative of the DETF Board as WRS trustees. Based on the growth rate of payrolls over the past five years, however, there appears to this author to be no actuarial reason to object to this.)

8. Replace with full crediting of all FRIT investment return the 5% and 3% crediting rates (or "caps") on WRS money purchase accounts for employees hired after December 31, 1981. These two rates apply to those employees' money purchase accounts when used for retirement benefits and separation (or death) benefits, respectively.

9. Eliminate any age requirement at time of death for an active employee, so that his/her beneficiary will receive the employer matching contribution as well as the employee's own accumulated contributions.

10. Eliminate the requirement that the beneficiary of a deceased employee must be a spouse or dependent of the deceased in order to receive a death benefit under the WRS.

11. Allow purchase of certain credited service by former legislators and legislative employees.

AN IMPORTANT NOTE REGARDING THIS REPORT

The "Disclaimer" at the end this report applies to all actuarial estimates presented in this report. ***Please read that "Disclaimer", and bear in mind that it applies to all estimates of costs and liabilities given in this report.***

The Retirement Research Director has been required by the legislature to calculate the estimates presented in this report. Although the Director is a pension actuary, he lacks the full data and information for the WRS that is needed and normally used by the regular WRS actuaries for accurately determining costs and liabilities under the WRS. Nor is the Director equipped or staffed to fully process such data even if he had it.

To aid state officials in designing this legislation, the Director in July developed approximate methods of estimating costs of this or similar bills, based on extrapolation of results reported by the WRS actuaries in studies they did for the State over the past few years. **However, the degree of accuracy of the method of estimation the Director developed for this purpose has not yet been determined**. Fully expecting that final cost estimates for this pension bill would in due course be made by the WRS actuaries (as is appropriate), there seemed to be no reason to have these new methods thoroughly checked by them. But without such peer review, there is no guarantee that estimates in this report are without material error.

Having explained all this, the conclusions derived by this method as to the general nature of emerging employer contributions arising from this bill should still be generally correct -- provided there is no error in the complex estimates used by the Director to determine them.

A complete actuarial study of Assembly Bill 495 (as amended) by the regular WRS actuaries is being ordered by the Joint Survey Committee on Retirement Systems and will be furnished to the Legislature, Governor, and other concerned parties when it is complete. This is being expedited to the utmost possible degree.

ACTUARIAL EFFECT AND PROBABLE COST

Assumptions Used: The assumptions used for estimates in this report are generally the same as those used by the Gabriel, Roeder, Smith (GRS) actuaries for the 1998 WRS valuation.

In one important instance the Director's assumptions do differ from those used by the WRS actuaries. For estimating costs of removing the money purchase "caps", the actuaries in a December 1998 report (the "UWORS" report) assumed the $9.8 billion January 1, 1998 value of the TAA as their starting point, with an 8% constant rate of return projected in the future.

To reflect the impact of A.B 495's rapid depletion of the TAA (which will significantly lower money purchase returns), the Director for this report has assumed that the TAA on January 1, 2000 will equal about $4.8 billion (*see Table 3, Graph 3, and Graph 4*). For a future rate of return he assumed that fixed income and capital gains income in the future will each provide annual investment income equal to 4% of the Fixed Fund, for 8% total rate of return. It was assumed that this level of income would be attained gradually over a period of five years from 1998, grading smoothly from currently higher rates to the ultimate 8% during that period.

The 4% level for fixed income was set after observing that the FRIT had fixed income equal to 4.95% of assets in 1997, 4.26% in 1997, and 4.24% in 1998. The weighted least squares trend line through these rates (with 1:2:3 weighting for 1996:1997:1998) predicts a 3.89% mean rate during 1999-2001. Therefore, 4% of assets seems realistic for fixed income return. Given an expected 8% total rate of return, this implies that the MRA should stabilize at about 4% of assets. Therefore the assumption made for purposes of this report seems reasonable.

Finally, this assumption was used to estimate the cost of removing the money purchase caps by interpolating from the GRS actuaries' results presented in their December 1998 "UWORS" report. The result of using this alternative to the GRS assumption used in 1998 is a cost for removing the "caps" that is about 34% lower for the "general" employee group than the GRS estimate if it is translated to a valuation basis with a "spread" widened by 0.2%.

The Cost of Enabling Earlier Retirement: When a benefit formula is increased, some members of a retirement plan will be able to afford to retire earlier than they would have otherwise. This further increases the Normal Cost rate and Accrued Liability of the pension plan, and thereby increases its contribution rate. Gabriel, Roeder, Smith's actuaries discuss this on page 8 of their report to the Senate Committee on Organization. The Director has used their estimates, augmented by a special experience study that he did based on valuation report summaries of the WRS population, to estimate the impact of this phenomenon on this bill's cost. This tends to make the Director's cost estimates larger than those reported in July by GRS.

<u>An Apparent Discrepancy in Data</u>: The share that employers, retirees, and active employees have in the Fixed Fund seems to be reported inconsistently in the 1998 WRS valuation report and the report done by GRS in July 1999 for the Senate Committee on Organization. The share of any of these groups in the $4 billion TAA transfer varies by about $100 million, depending on which report you believe. This is very material, and will be resolved for the impending report on A.B. 495 by the actuaries. For this present report, I have used the data reported in the study done for the Senate Committee on Organization.

See "Table 2" for details of this apparent data discrepancy.

<u>Estimated Cost of This Bill</u>: The estimated cost of this bill to WRS employers is ultimately 0.47% of payroll. ***This is shown in "Table 1" and "Graph 1" included in the attachments to this report.*** The average additional contribution payable by WRS employers over the 12-year period 2001-2012 (illustrated in Table 1) is estimated to be $28.5 million annually. The State would incur about 29% of this cost, or about $8.3 million in additional contributions annually averaged over the next 12 years.

Graph 1 shows the estimated additional employer contributions generated by this bill over a longer 30-year period (2001-2030). During this time, increased contributions generated by the bill would increase substantially to a level of about 0.47% of payroll ($150 million annually by year 2030). The State's share of this is again estimated at 29%, assuming that State and non-state payrolls grow at similar rates during that time.

As a point of information, the present value (using an 8% discount rate) of additional contributions from A.B. 495 over the next 30 years could be completely defrayed for employers by an additional TAA transfer of approximately $1.7 billion (i.e., approximately $5.7 billion in total distribution from the TAA). This would be one way to make this bill revenue neutral from the standpoint of the employers -- at least for the next 30 years.

The $4 billion TAA transfer under this bill was solved for as the amount that would defray any additional contributions from this bill for the average WRS employer (not necessarily for all employers) during the year 2001 only. The best estimate now available is that $3,632 million would accomplish this. The $200 million "Unfunded Liability credit" feature of this bill, when coupled with the employers' share of the $4 billion transfer in excess of this $200 million, actually causes a net <u>reduction</u> in WRS contribution for employers for both years 2001 and 2002 that is estimated at $28.1 million. This is true in aggregate, not for every employer)

This can be seen in "Table 1" and "Graph 1". In the graphs, notice the bars below the hori-

PUBLIC POLICY

Eleven features of this bill are listed at the beginning of this report. Seven of these seem to be obviously good public policy. These include reopening the variable annuity, permitting the DETF to use experience gains to reduce employers' Unfunded Liabilities, providing employers with $200 million to pay down their Unfunded Liabilities, removing the money purchase "caps" to restore to WRS members a fully functional and "portable" "hybrid" (i.e., defined benefit plus money purchase) retirement system, improving the death benefit eligibility to meet or exceed the federal standard for private retirement plans, eliminating the requirement that a death benefit beneficiary be a spouse or dependent, and allowing the purchase of credited service for time worked for the legislature.

These seven hardly seem to merit discussion. However, there is a "sleeper" in the group of features just listed. One of this bill's features in the list above seems to be good public policy, but it has a peculiar twist that only a retirement plan expert would be likely to discover. That is the $200 million system of credits to help employers pay their Unfunded Accrued Liabilities.

A Fictitious Debt: The $2.2 billion in current "Unfunded Accrued Liability" charged against Wisconsin's public employers exists only because state statutes require the use of an archaic definition of Unfunded Accrued Liability known as the "Frozen Initial Liability Cost Method". Very few, if any, other states still use this method. Most use some version of the "Entry Age Cost Method", under which Wisconsin's public employers would actually have a fully funded retirement system -- meaning no "Unfunded Liability" at all.

It may seem like accounting sleight-of-hand, but the truth is that the only reason this $2.2 billion debt exists for the employers is that this archaic cost method is still written into statute.

By simply authorizing the DETF Board and the WRS actuaries to recommend an equitable way (for the various employers) to transition from the badly outmoded Frozen Initial Liability cost method to some version of the Entry Age method, the legislature can eliminate the entire $2.2 billion debt that the state's public employers are now bearing under present law.

The $200 million "UAL credit" idea is certainly well intended, but it will only solve one-eleventh of a $2.2 billion problem that in fact can be solved entirely simply by recognizing the true nature of the debt and legislating it away. This debt is only a debt because the law says it is. There is no logical reason whatever to believe in it.

"A picture is worth a thousand words." ***Graph 2 explains this situation much better than words alone can.***

Increasing the past service benefit under the formula plan is something that every public employee wants. A commonly heard argument in favor of this is that the employees own a share of the additional money in the trust fund that the stock market's excellent performance has put there.

If the Wisconsin Retirement System were a defined contribution plan, that would be true. But it is actually a combination of money purchase plan and defined benefit plan. As for the money purchase plan, this bill laudably would restore that plan to full functionality. All of the state's public employees, and not just the 25% of them hired before 1982, will once again through their money purchase plan have full rights to the Fixed Fund's full rate of investment return. Beyond the boundaries of the money purchase plan, however, the WRS is a defined benefit plan. And under a defined benefit plan, "surplus" investment return is intended to reduce the costs of the plan for its sponsors. This means for the employers, and in the case of a government retirement plan, for the taxpayers who finance those employers.

The other argument usually heard in favor of a benefit formula increase is that the WRS benefit formula is not as good as many other states'. This seems to be true until you learn the real value of the dividends that the WRS pays its retirees. On March 25, 1999 this author wrote a memorandum to the members of the Joint Survey Committee about putting Wisconsin's 1.6% "formula multiplier" in perspective. There it is revealed that the WRS 1.6% formula pension with post-retirement dividends is actually more valuable than ...

- 5 out of 8 state plans if the WRS dividend is based on only an 8% rate of return.
- 2 out of 3 state plans if the WRS earns an average 8.5% return while you are retired.
- 7 out of 10 state plans if a 9% rate of return.
- 11 out of 12 state plans if a 9.5% rate of return.

And, in fact, the WRS has had better than a 9.5% rate of return in 8 of the past 11 years.

It can be argued that the State's public employees only "own" enough of the assets in the retirement fund to pay for the benefits they have been promised, and no more. Any assets in excess of that amount belong to the citizens of Wisconsin through the villages, towns, cities, and state of which they are taxpaying residents.

Increasing the maximum benefit formula will not increase the pensions of most of the long career employees who probably expect to benefit from this. That is because they have not

been subject to the 5% money purchase "cap", and they have very healthy money purchase accounts that will pay them a larger benefit than the "formula benefit" would have. The maximum benefit formula does not restrict the amount of money purchase benefit paid to a WRS retiree -- it only restricts the amount of "formula pension" that can be paid. If the money purchase pension would be larger, then that is what they receive, without any maximum restriction. The 5% increase in the maximum formula benefit payable under WRS (for non-protectives only) contributes about 4% of the cost of A.B. 495.

As for using accumulated capital gains from the Transaction Amortization Account to finance part of this benefit increase legislation, this would seriously reduce the TAA and weaken its effectiveness for the retirement system as a buffer against economic adversity. And history has repeatedly taught us that bad times do follow good. ***Table 3 and its companion charts, Graphs 3 and 4, show how much this legislation would weaken the TAA.***

Finally, increasing the economic spread by legislative *fiat* weakens the system of trusteeship that has been set up as a safeguard for the Wisconsin Retirement System. It is the responsibility of the system's trustees, the Board of the Department of Employe Trust Funds, acting in consultation with the retirement system's actuaries, to determine what actuarial valuation assumptions are prudent and in the system's best interest. For the legislature to assume that duty can well be argued to be presumptuous and setting a dangerous precedent for the management of the retirement system. Most legislators are not retirement plan experts. Many of the DETF trustees are.

Hopefully, the tables and charts that accompany this report will relate many of these ideas more clearly than these 3,000 words.

RECOMMENDATION

The Joint Survey Committee on Retirement Systems finds that Assembly Bill 495, if amended by LRBa0714/1 and LRBa0717/1, represents good public policy, and the Committee recommends its passage.

10/4/99

Attachments

The Estimated Impact of This Legislation for the Next 12 Years on Employer Contributions and Current Retirees' Pensions

(Amounts in $Millions)

	RELATIVE EMPLOYER CONTRIBUTIONS			Bill's impact on the pension paid in "YEAR"
	Impact on Contributions			
YEAR	Rate	$$$	Subtotal	
2000	--	--	--	111.4%
2001	-0.22%	($21.0)	($21.0)	109.1%
2002	-0.07%	(7.1)	(28.1)	107.5%
2003	0.04%	4.4	(23.8)	106.5%
2004	0.13%	14.0	(9.8)	105.7%
2005	0.20%	22.6	12.8	105.1%
2006	0.26%	30.1	42.8	104.7%
2007	0.30%	36.7	79.6	104.4%
2008	0.34%	42.2	121.8	104.2%
2009	0.36%	47.7	169.5	104.0%
2010	0.39%	52.8	222.3	103.9%
2011	0.40%	57.6	280.0	103.8%
2012	0.42%	62.2	342.2	103.7%
	======	======		
12-year average:	0.21%	$28.5 million		

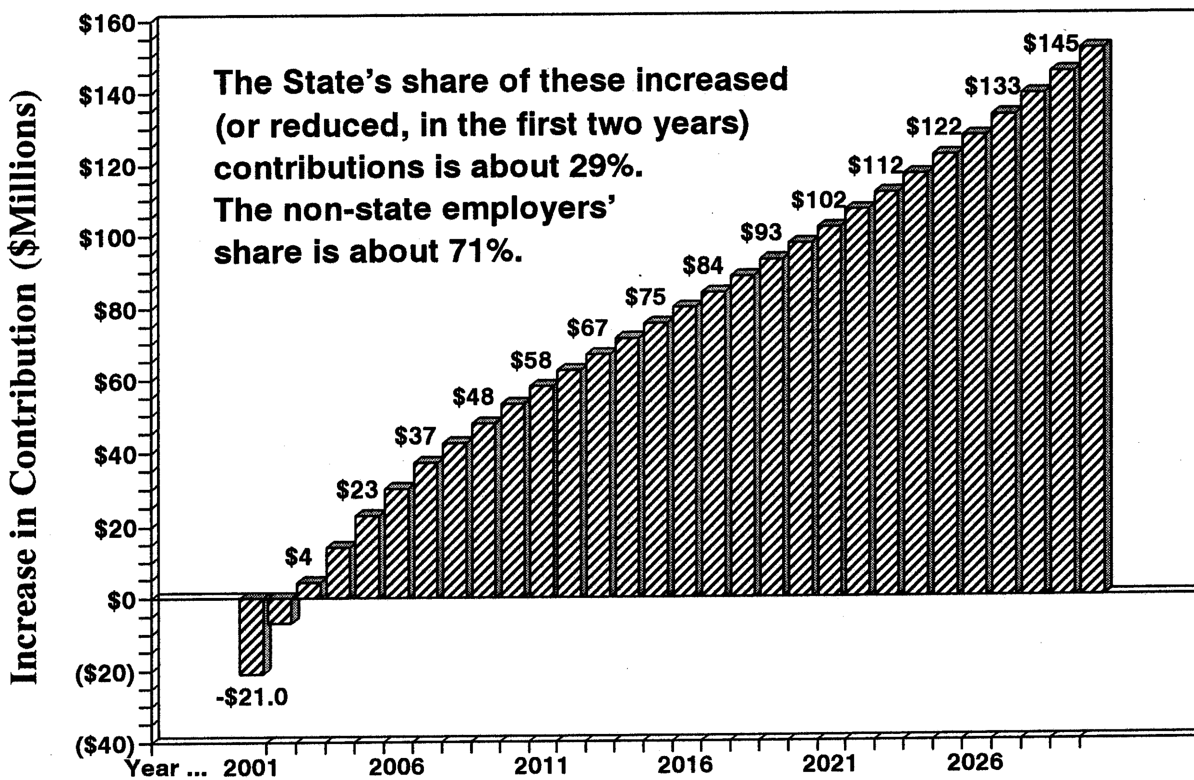
Under this bill, WRS employers in total will have lower contributions in 2001 and 2002, followed by the annual contribution increases estimated in the "Rate" and "$$$" columns above. Their contributions for the 12-year period shown would be an estimated $342 million more than without this bill, or an average of about $28.5 million annually. The rate of estimated additional contribution due to A.B. 495 ultimately levels off at about 0.47% of payroll. The amount of additional TAA transfer that would defray <u>all</u> employer costs for the new benefits during the next 30 years is ESTIMATED at $1.7 billion. "Graph 1" on the next page illustrates the "$$$" column extended to a period of 30 years.

The right hand column of this table refers to pensions of current retirees. To illustrate, "103.7%" in the line for year 2012 above means that the pensions they receive in year 2012 would still be about 3.7% larger under A.B. 495 than they would probably be without this bill.

<u>Market Recognition Account (MRA)</u>: There was insufficient time to calculate the effect of converting the TAA to the MRA asset valuation method. Under that method the total contributions and dividends paid over time would be approximately the same as under the TAA. Therefore, reflection of the MRA would not substantially alter "Table 1" or "Graph 1".

Table 1

Increase in Employers' Contributions During Years 1-30 of This Legislation



Joint Survey Committee on Retirement Systems

Graph 1

Discrepancy Between Two Gabriel, Roeder, Smith Reports

In Question: Distribution of the Fixed Fund on 1/1/99

Group	Reported by GRS Actuaries in the 1998 Valuation		July 1999 Report to Sen. Committee on Organization	
	$Millions	Share%	$Millions	Share%
Retirees	$14,951.8	37.39%	$14,950.1	40.23%
Employers	13,158.8	32.91%	11,499.3	30.94%
Employees	11,548.4	28.88%	9,888.7	26.61%
Additional	161.9	0.40%	99.0	0.27%
Other	169.1	0.42%	727.1	1.96%
	$39,990.0	100.00%	$37,164.2	100.00%

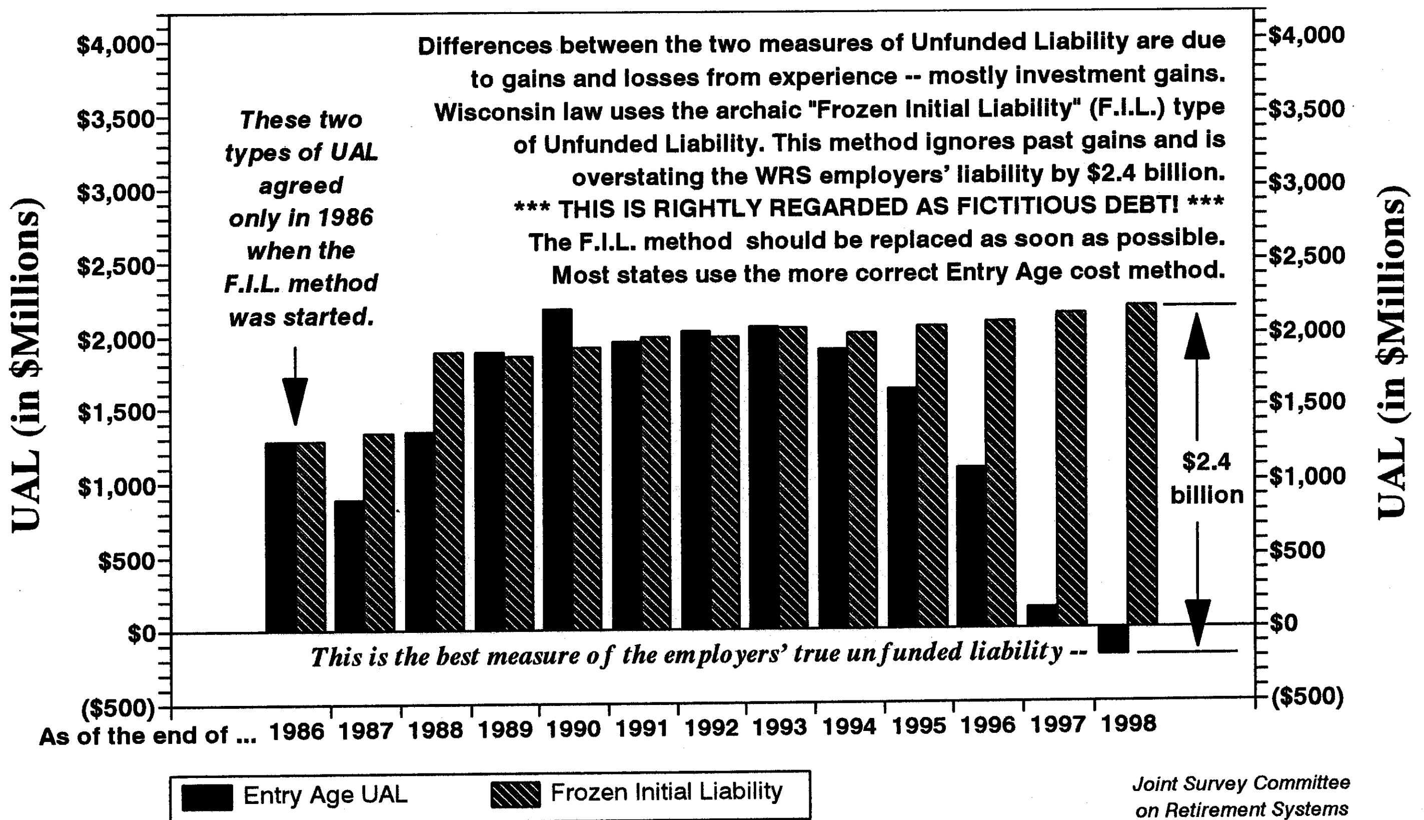
Possible Impact on the TAA Distribution

Group	Unexplained Discrepancy in Share of Fixed Fund		Potential Impact on TAA Distribution = Percent Discrepancy times $4,000,000,000
	$Millions	Percent	
Retirees	($1.7)	2.84%	$113.5 million
Employers	(1,659.5)	-1.96%	(78.5) million
Employees	(1,659.7)	-2.27%	(90.8) million
Additional	(62.9)	-0.14%	(5.5) million
Other	558.0	1.53%	61.3 million
	($2,825.8)	0.00%	

For example, under A.B. 495 the July 1999 report to the Senate would give the retirees $113.5 million more than the valuation report would seem to give them. It would give the employers $78.5 million less and the active employees almost $100 million less.

Table 2

WRS Unfunded Accrued Liability (UAL) Under the Entry Age and F.I.L. Methods



Graph 2

Recent and Projected Transaction Amortization Account

(Amounts in $Billions)

Date	Values of the TAA: Expected value	Values of the TAA: Optimistic	Explanation of the Value Shown
01/01/98	$ 9.8	$ 9.8	Actual value after 20% transfer on 12/31/97
03/31/98	13.2	13.2	End-of-quarter value reported by SWIB
06/30/98	13.5	13.5	"
09/30/98	10.4	10.4	"
12/31/98	14.4	14.4	"
01/01/99	11.5	11.5	Actual value after 20% transfer on 12/31/98
03/31/99	11.6	11.6	End-of-quarter value reported by SWIB
06/30/99	13.5	13.5	"
07/31/99	13.1	13.1	End-of-month value reported by SWIB
08/31/99	12.8	12.8	End-of-month value estimated by SWIB
09/30/99	12.2	12.2	"
10/31/99	11.6	12.2	Projected as explained below in footnotes.
11/30/99	11.1	12.2	"
12/31/99	10.5	12.2	"
12/31/99	8.4	9.8	Projected value after 20% transfer 12/31/99
1/1/2000	4.4	5.8	Projected after $4 billion transfer 12/31/99

* During the third quarter of 1999 the TAA fell in value by an estimated $1.3 billion, averaging $430 million monthly. The monthly components of this decline were: -$444 million in July, -$272 million in August, and -$580 million in September.

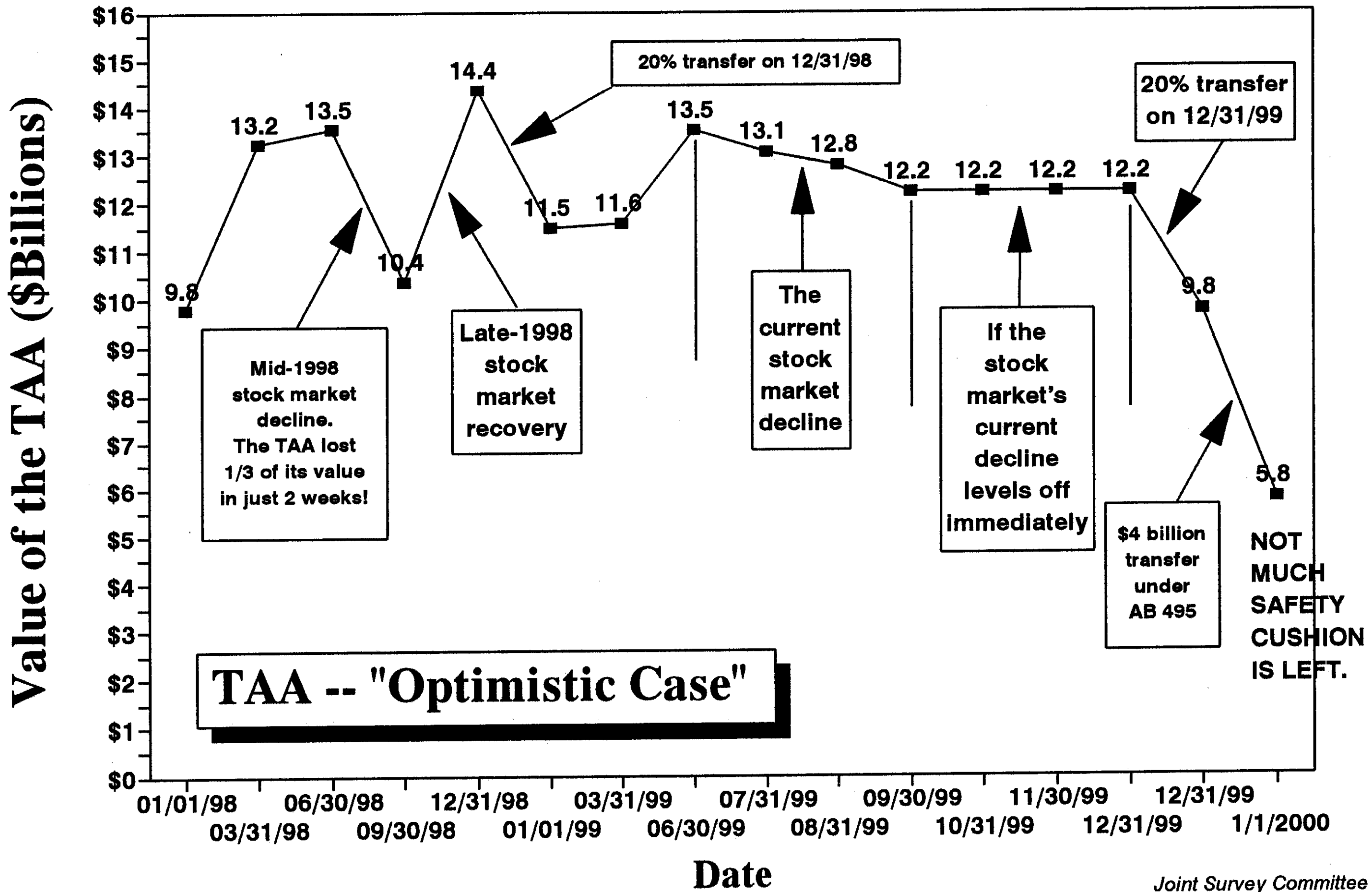
This "expected" scenario assumes that September's rate of decline will continue through the end of 1999. No doubt some will consider this too pessimistic an "expectation". However, there is no definite indication that the stock market slump of the past three months will soon change for the better. As plan fiduciaries, actuaries are required to estimate on the side of caution, and it seems reasonable and prudent to set the "expected" scenario at this level.

The "optimistic" scenario assumes that the year-end value of the TAA will equal its current (end of September) estimated value.

(This table is pictured in Graphs 3 and 4 that follow.)

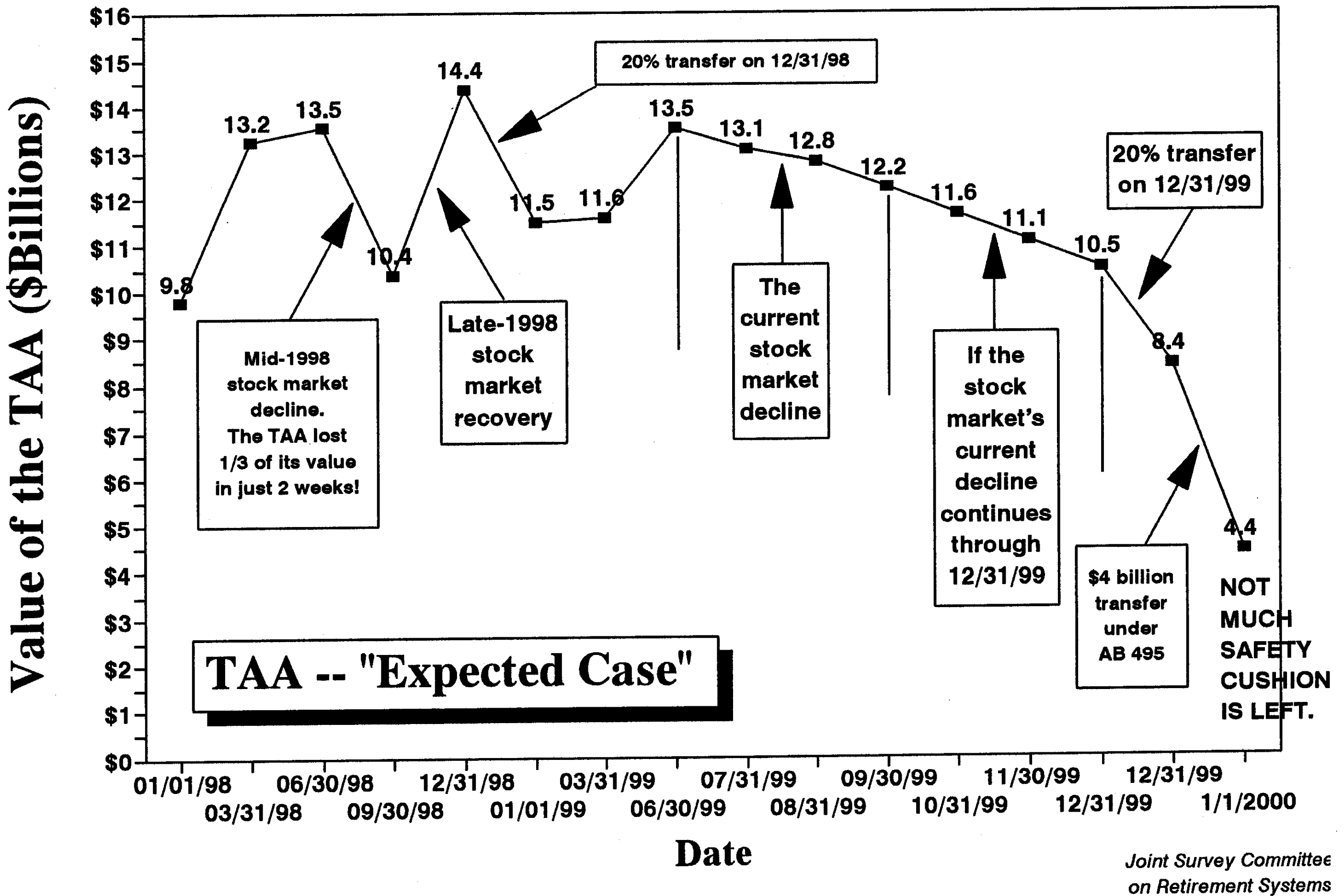
Table 3

TAA Values, Shown Quarterly 1/98 - 6/99 and Monthly 7/31/99 - 1/1/2000



Graph 3

TAA Values, Shown Quarterly 1/98 - 6/99 and Monthly 7/31/99 - 1/1/2000



Graph 4

Disclaimer

The following is the first paragraph of a memorandum the Retirement Research Director sent the members of the Joint Survey Committee on Retirement Systems on August 2, 1999. Copies of this memorandum were sent to Senator Charles Chvala, Mr. Brian Wornson in the Governor's office, and WRS actuaries Norman Jones and Brian Murphy.

> "When actuaries Norm Jones and Brian Murphy provided Senator Chvala's committee with a report on certain benefit proposals last month, Speaker Jensen's office asked me to interpret the costs estimated in the report. I spent most of July doing so, and the attached tables provide estimates for several possible benefit packages. ***These are useful for your planning purposes, but when you decide what benefit package(s) you are interested in, the actuaries should run some fresh estimates.***"

That memorandum was intended to announce to the JSCRS and other interested parties the availability of spreadsheet capability for **estimating** costs of various pension proposals that interested parties would need information about as they negotiated the contents of a pension bill. The estimated costs produced in this way are ROUGH ESTIMATES -- appropriate for comparing for discussion or general planning purposes the relative costs of several proposals under consideration, BUT HIGHLY INAPPROPRIATE for use as final estimates of a major piece of legislation under consideration.

The actuaries for the Wisconsin Retirement System are the only ones with the capability of producing reliable and accurate cost estimates for a bill of the financial magnitude and complexity of Assembly Bill 495. In offering his spreadsheet as a planning tool, the Retirement Research Director never intended that this spreadsheet's estimates would be used to provide official fiscal estimates for pension legislation, nor intimated that it was suitable for such use. Nor did he imagine that the actuaries would be bypassed at that critical stage of such legislation.

The Retirement Research Director therefore cannot guarantee the degree of accuracy of financial projections presented in this report to the Joint Survey Committee on Retirement Systems. If these estimates were found to vary by 20% or more from cost calculations subsequently performed for A.B. 495 by the WRS actuaries, that would not surprise the Director at all. This is because the estimation spreadsheet merely uses approximate methods to scale up or down costs reported by the WRS actuaries in two past reports. It does not reference cost components such as Unfunded Liabilities or Normal Costs generated by any benefits given in legislation. The actuaries have not made this information known, nor is the Director equipped to expediently use such information to perform sophisticated cost determinations -- even if he did have it.

Without such information and capability, no certain determination of the cost of such a bill can be made. Only the WRS actuaries can make a certain determination of the cost of A.B. 425.