
CHAPTER 3

Funding the plan requires balancing liabilities and assets

Chapter Summary

Pre-funding retirement benefits requires complex actuarial estimates of their eventual cost.

WRS operates the Public Employee Plan, and all the pension plans within the system, as actuarially funded (or *pre-funded*) plans. Having a pre-funded retirement plan means that combined contributions from employers and employees, made during employees' working years, plus investment gains, fund employees' future retirement benefits. Determining what the cost of those retirement benefits will be, and how much must be contributed and invested throughout employees' careers to fund them, involves complex actuarial estimates. Wyoming statute requires the WRS Board to employ a consulting actuary for this purpose.

The WRS Board has exclusive authority to manage the system.

While the Legislature retains ultimate policy control over WRS insofar as it sets benefit and contribution levels and retirement qualifications in statute, the WRS Board has exclusive statutory authority to administer and operate the retirement system. Part of this duty involves selecting the assumptions used in making actuarial computations of the benefit liability, or the pension obligations. Exercising its broad mandate to manage the plan in an actuarially sound manner, the board primarily relies upon the advice of the plan's actuary in selecting these assumptions.

Realizing actuarial assumptions is critical to maintaining plan funding.

Realizing these assumptions is critical to maintaining the level of funding necessary for the plan to be *actuarially sound*. Many policymakers have a role in affecting the experience that determines whether or not actuarial assumptions are met. For example, allocating funds that lead to plan member salary increases much higher than anticipated affects the plan's funded level. WRS relies upon verbal testimony to convey the intricacies of actuarial considerations, but we believe this approach has not provided the background necessary for policymakers and stakeholders to fully understand what is necessary to keep the plan adequately funded. Therefore, in this chapter, we present a general discussion of the actuarial concepts involved in managing a defined benefit plan like the Public Employee Plan.

Glossary of actuarial terms

actuarial costs	The annual costs required to fund a retirement plan: the normal cost (see below), the UAAL amortization payment (if there is one), and administrative expenses.
actuarially accrued liabilities	Retirement plan benefits owed to <u>all</u> employees, working, inactive, and retired, accrued to date for past service.
actuarially sound (also see pages 32-33)	Generally, as it relates to a retirement plan, being able to pay pension obligations as they become due, and being systematically managed to continue to do so. The WRS operates under a more specific interpretation: the statutory contribution rate of 11.25 percent of total covered plan payroll must cover all plan annual actuarial costs.
actuarial gains and losses	When experience is more favorable than what assumptions project, there is a gain. For example, earning higher returns than the actuarial projection is an actuarial gain. Experience less favorable than assumptions results in an actuarial loss – for example, retirees living longer to draw more years of retirement benefits than projected
actuarial value of assets	Actuarial value is derived from market value by “smoothing” it over a certain number of years, currently five years for WRS. Using this smoothing technique allows for a more even plan valuation from year to year by reducing the impact of market volatility.
funding margin (deficit)	The excess or deficit of funding from annual contributions when they exceed or fall short of annual actuarial plan costs.
funded ratio	Plan assets divided by plan liabilities.
normal cost	The percentage of pay required to fund the retirement benefits earned by active employees each year.
pay-as-you-go	Pay benefits with the funds available when they are paid. In other words, do not <i>pre-fund</i> them. Pay-as-you-go is more expensive in the long-term because no interest generates on the funds used to pay benefits to help cover their costs.
pre-fund	Pay for benefits by contributing an amount each year while the employee is working so that when invested, the accumulation of contributions will generate enough to pay that employee’s benefits in retirement. However, because these contributions go into a pool, the amount needed to cover each employee’s pension is less because not all employees in the pool will collect their full pensions because, for example, they die prematurely or leave covered employment.
unfunded actuarially accrued liability (UAAL)	The difference between the actuarial projection of liabilities owed and the actuarial value of assets as of a date certain.

Pre-funding retirement plans avoids shifting costs to future generations

Pooled plan assets, comprised of contributions and earnings, fund members' pensions.

Although not explicitly stated, there are statutory inferences that all of the WRS-sponsored retirement plans are to be operated as pre-funded plans. This method requires the system to accumulate funds through contributions during the active working years of its members; at retirement, the accumulated funds plus earnings are expected to be sufficient to pay all retirement benefits. In defined benefit plans, members' individual account balances do not fund their pensions; the pooled balances of all members do.

By pre-funding pensions, their costs are paid while employees are working.

Funding retirement benefits this way contrasts with the *pay-as-you-go* method used by the federal Social Security program. With pay-as-you-go, current contributions are immediately paid out in benefits to current retirees, and have no opportunity to earn investment income. For Social Security, it is estimated that it takes the payroll taxes on the incomes of 3.3 current workers to support the retirement benefits of one current retiree.

Pay-as-you-go systems are funded as employees retire and receive benefits.

The difference between these two approaches to funding retirement lies in when employees' benefits are earned in relation to when they are paid. In pay-as-you-go systems, benefit costs are incurred in the future, when current employees retire and begin to receive benefits. With pre-funded plans, employers and employees pay pension costs through contributions, as employees earn them. However, the actual payment of benefits is deferred until the employees retire.

Pre-funding requires the plan actuary to make benefit projections

Pension obligations are actuarially accrued liabilities.

Conceptualizing a retirement plan's assets is relatively simple. While these assets have two values, market and actuarial (as discussed on page 35), one can easily conceive of them as an actual amount of money allocated to investments. However, retirement plan liabilities – or the pension obligations owed in the future – do not tangibly exist; instead they are actuarial projections.

Actuaries use two kinds of assumptions to project the value of future benefits.

Pre-funding retirement benefits requires the plan actuary to project or calculate the expected future pension payments for each participant in the plan. To project these amounts, called *actuarially accrued liabilities*, actuaries make complex calculations using specific data such as employees' current salaries and ages. Also critical in projecting the value of future benefits in pre-funded plans are two kinds of actuarial assumptions. Economic assumptions are concerned with determining the current value of the benefits to be awarded in the future, while demographic assumptions relate to the probability that participants will receive benefits and for how long.

Most critical is the interest assumption: contributions must grow at this rate to pay future benefits.

Economic assumptions Of the economic assumptions, the most critical is the interest, or investment yield, assumption. This is what the actuary and plan sponsor assume the plan's investments will earn each year. Since 1990, WRS' interest assumption has been 8 percent on an actuarial (not market value) basis, net of investment fees/expenses. Other WRS economic assumptions include general economic inflation (3 percent) and individual members' salary growth (5 percent).

Demographic assumptions Actuaries use rates or probabilities to model the uncertainty of member behavior. For example, these assumptions are used to determine when, and in some cases, if, plan members will receive their retirement benefits and for how long. Assumptions in this category include mortality and disability of members, age at retirement, and active member terminations prior to retirement. Some demographic assumptions are the same for many plans (such as mortality rates), while others are specific to a given workforce.

Plan actuarial assumptions can change over time

In 1997, WRS lowered its salary growth assumption from 6% to 5% to match experience at that time.

Plan actuarial assumptions are based primarily on previous plan experiences, and by statute WRS must have actuarial experience studies done at least every eight years. WRS' two most recent experience studies were done in 1997 and 2003, covering the plan's actual experience from 1990 through 2002 relative to both economic and demographic assumptions. The WRS Board made these notable changes in its assumptions based on what the studies showed to be plan experience: it reduced the inflation assumption from 4.5 to the current 3 percent, and the employee salary growth assumption from 6 percent to the current 5 percent assumption.

Using benefit projections and actuarial assumptions, actuaries determine the annual cost of funding retirement benefits

The normal cost funds the annual cost of the retirement benefits earned by all members.

Once actuaries project what active employees' pensions will be in the future, they must determine those values today (present values), or the amount of money that needs to be set aside each year to grow into the full pension amounts. This is the *normal cost*, or the percentage of pay required to fund the benefits earned by active employees each year. For a defined benefit retirement plan to remain sound, this amount should be paid (through retirement contributions) in every year so that it can be invested and accumulate enough money to pay the pensions members eventually receive. Fully funding the cost of benefits that active members earn each year, or in actuarial terms, paying the normal cost, is basic to public plan finance principles and relates to the undesirability of shifting costs across generations.

The normal cost is one of a retirement plan's three annual actuarial cost components

In actuarial reports, all of these expenses are expressed as a percentage of total covered payroll.

Besides the normal cost, there are two other actuarial cost components: administrative expenses; and when a plan has an unfunded liability, an amortization payment on that debt. Combined, these three components create the annual actuarial costs for all of the retirement plans WRS administers.

With an actuarial deficit (UAAL), plan costs will be higher due to the amortization payment on the debt.

Administrative expenses Each plan under WRS management is allocated a proportionate share of WRS' overall administrative expenses as presented in its budget requests to the Legislature, and logically, the Public Employee Plan has the largest. Like the normal cost, this expense is also expressed as a percentage of total covered payroll. Notably, it does not include the fees paid to investment managers. The WRS Board manages the plan with minimal administrative expenses, as discussed in Chapter 5.

Amortization payment The third annual plan cost component is an amortization payment on any plan unfunded liability that exists. In actuarial terms, such a debt is called an *unfunded actuarially accrued liability* (UAAL or actuarial deficit). Since the value of future benefits is an actuarial projection, it follows that the UAAL is also a projection, because it is the difference between the

actuarial projection of liabilities and the *actuarial value of assets* as of a date certain. If a plan has a UAAL, its current asset level is below its projected liability level, and its annual costs are higher because of the added cost of amortizing the debt. Like the other two cost components, the UAAL payment is expressed as a percentage of the total covered payroll.

WRS Board manages the plan in an actuarially sound manner

Each year, WRS pays plan actuarial costs and keeps its amortization period to 30 years or less.

In researching this plan, we reviewed several years of WRS actuarial reports and other documents, held multiple interviews with WRS officials and actuarial consultants, and broadly reviewed the general topic of actuarial funding of retirement systems. From this review, we conclude that the WRS Board is operating the plan according to a generally accepted concept of actuarial soundness: it is paying benefit costs (discussed above) as they accrue and amortizing any UAAL over not more than 30 years into the future.

Actuarial soundness has different interpretations.

Actuarial soundness broadly relates to the ability of a retirement plan to provide the benefits promised, although there are different interpretations in the literature. A conservative definition would be having current assets sufficient to pay for all plan benefits accrued to date (*actuarially accrued liabilities*), or having a *funded ratio* of 100 percent. This means that a plan does not have an actuarial deficit or UAAL, as defined above.

GASB set a 30-year amortization period as the maximum.

A more liberal and general definition of actuarial soundness is that the fund's current assets, plus anticipated future contributions and investment earnings, are expected to be sufficient to provide all benefit payments and expenses at all future points in time. In other words, a plan is actuarially sound even if it has a UAAL, as long as that debt can be amortized in 30 years or less and the plan's contribution rate covers its annual actuarial costs. This meets the Governmental Accounting Standards Board (GASB) standard that requires amortization periods not to exceed 30 years (open or closed) when computing the plan's annual required contribution. However, if the UAAL grows and thus requires higher amortization payments, it may be necessary to increase the contribution rate.

In 2005, WRS adopted a 30-year rolling amortization schedule.

The WRS Board recently (2005) adopted a rolling (open) 30-year amortization schedule, having in the past used shorter, closed periods to pay off any unfunded liabilities. WRS officials told us the decision to move to the rolling-30 year period was made because the plan employers (which in its case are public or government entities) will in theory operate indefinitely. Thus, they did not believe it was necessary to obligate the plan to amortize within a closed or shorter period.

WRS plan contributions must cover annual actuarial costs

A 2004 statute change led WRS to apply this concept of actuarial soundness.

Although not explicitly stated or explained anywhere in WRS documents or policies, a 2004 change in law (2004 Laws, Ch. 55) led the board to apply a more specific concept of actuarial soundness to WRS plans: the statutory contribution rate of 11.25 percent of total covered plan payroll must cover all plan annual actuarial costs (discussed above). As its intuitive logic implies, this is a basic actuarial measure of plan soundness, and one to which WRS had generally adhered before 2004.

Figure 3.1 shows the actuary's calculation of these costs as of January 1, 2007 as percentages of the plan payroll and in real dollars. Overall, the actuary estimated covered payroll at nearly \$1,285,096,152, meaning required contributions to cover the three cost components would total about \$145 million (including the approved 1 percent cost-of-living adjustment for 2007).

Figure 3.1

January 1, 2007: Public Employees' Plan annual actuarial costs

11.25% of payroll (the statutory contribution rate) must cover all annual actuarial costs.

	As % of Salaries	Dollar Cost
Normal cost	9.73%	\$125,039,855
Cost to amortize UAAL	1.36%	\$17,477,308
Administrative expenses	<u>0.16%</u>	<u>\$2,056,154</u>
Total cost	11.25%	\$144,573,317
Total contribution (5.68% + 5.57%)	11.25%	\$144,573,317

Source: State of Wyoming Retirement System, Report on Actuarial Valuation as of January 1, 2007, Buck Consultants. Based upon a .99% COLA and total annual valuation salary of \$1,285,096,152.

Mature plans pay more in benefits than they receive from contributions in a year.

The plan is mature Notably, the costs enumerated above do not include the benefits actually paid to retirees. As of January 1, 2007, the annual benefits for the plan's 17,010 retirees and beneficiaries totaled \$228 million, demonstrating the efficiency of pre-funding pension benefits, the importance of investment returns, and the maturity of the plan. Mature defined benefit retirement plans are those in which annual benefits exceed contribution revenue. If the plan were younger, like the Judicial Plan also administered by the board, some of the contributions would fund the actual benefit payments.

From the late 1990's through 2002, the plan had funding margins, but in 2003, it had a deficit.

Funding margins and deficits result when the contribution is more or less than enough to cover costs

If the contribution rate more than covers the three cost components, there is a *funding margin*. Such margins can be used to increase benefits, or banked as a cushion for down market years. Banking the surplus funds creates a surplus of assets, which means that plan funding is ahead of expected levels to pay plan liabilities.

The 1990's margins went toward improving benefits and increasing assets.

From the late 1990's through 2002, the plan operated with funding margins each year. The WRS Board dedicated some of this excess annual funding to augment assets, and the plan's funded ratio grew to nearly 114 percent in 2001. Also in 2001, the Legislature improved benefits by increasing both the statutory cost-of-living adjustment and the plan multiplier (see Chapter 1).

Like all retirement systems, WRS was adversely affected by the decline in equity markets, 2000-2002.

The years of plan funding margins ended when WRS, like all retirement systems, was negatively affected by the sustained decline in equity markets from 2000-2002. Because of the way retirement plan assets are actuarially valued (discussed on the next page), and because of the higher benefits being awarded, in 2003 the WRS Board experienced a funding deficit, as the 11.25 percent contribution rate was not enough to cover plan costs. This meant some plan assets had to be used to pay annual actuarial costs: the plan went from being over 100 percent funded to a funded ratio of approximately 92 percent. At this point, the board had not yet adopted its current policy of balancing contributions and actuarial costs.

The 2004 legislation enabled WRS to vary COLA levels, which it does to keep plan costs at 11.25%.

Within the years for which we reviewed actuarial valuations, 1997 through 2007, 2003 was the only year in which the plan had a funding deficit. In 2004, in the legislation noted on page 33, the Legislature gave the board full discretion to determine the level of the COLA awarded in order to keep costs within the statutory 11.25 percent contribution rate. Since 2004, plan costs have totaled exactly 11.25 percent of the covered payroll, like those shown in the third column in Figure 3.2.

Figure 3.2

Examples of a funding margin, deficit, and costs equal to the contribution rate

	2000 Cost as a % of Salaries (2.50% COLA)	2003 Cost as a % of Salaries (3.00% COLA)	2006 Cost as a % of Salaries (1.05% COLA)
Normal Cost	10.22%	11.19%	9.87%
UAAL Amortization Cost	(1.44%)	2.61%	1.21%
Administrative Expenses	0.15%	0.14%	0.17%
Total Cost	8.93%	13.94%	11.25%
Total Contribution	11.25%	11.25%	11.25%
Funding Margin/(Deficit)	2.32%	(2.69%)	0
Plan funding ratio	105.85%	92.24%	95.13%

Source: State of Wyoming Retirement System, Reports on Actuarial Valuation as of January 1, 2000, 2003, and 2006, Buck Consultants.

Actuaries value assets differently

Actuarial value is not the same as market value.

To now, this chapter has discussed how retirement plan annual actuarial costs and benefit liabilities are established. While determining the actuarial value of plan assets is more straightforward, it also has a feature that is not intuitive. This is that the *actuarial value of assets* is not the same as the market value of investments.

Smoothing market values over 5 years reduces the impact of market volatility.

Actuarial value is derived from market value by smoothing it over a certain number of years, currently five years. Using this smoothing technique allows for a more even plan valuation from year to year by reducing the impact of market volatility. Because WRS smoothes in this manner, its asset appreciation trails the market value when the market is doing well and exceeds it when the market is doing poorly.

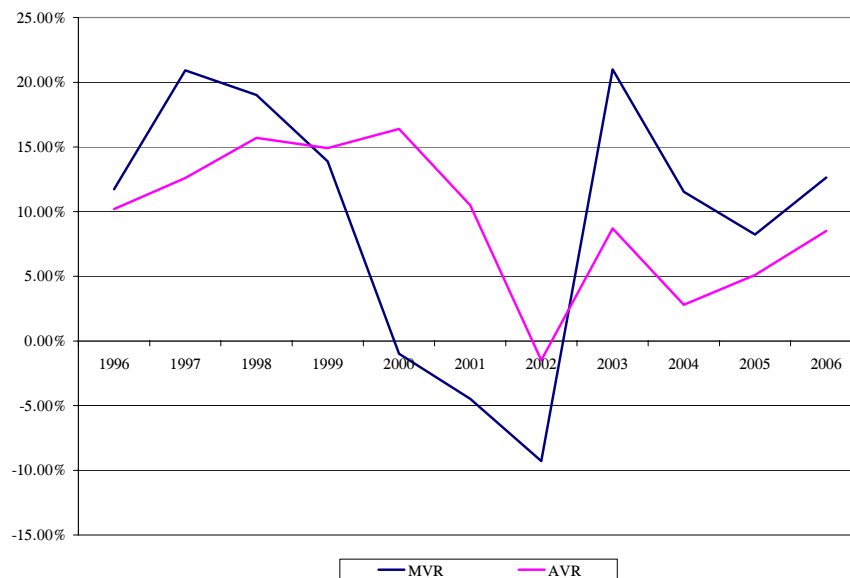
With actuarial smoothing, asset values are somewhat higher or lower than market values.

For example, WRS investments returned 8.2 percent in 2005 as measured on market value. However, because investment losses from 2001 and 2002 were still being recognized, and some of the investment gains from 2003 through 2005 were being deferred into the future, the actuarial interest return was 5.1 percent, well below the actuarial interest assumption of 8 percent.

This same smoothing process resulted in 2006's market value return of 12.63 percent having an actuarial value of 8.5 percent, approximately the interest assumption. Figure 3.3 shows the difference in how returns on plan investments have been valued on market and actuarial bases for ten years.

Figure 3.3

CY 1996 – 2006: Market value return (MVR) vs. actuarial value return (AVR)



Source: LSO summary of WRS' January 1, 2007 Public Employees' Plan valuation.

An actuarial valuation establishes the plan's costs, liabilities, and funded level each year

The WRS Board contracts for an actuarial valuation of the plan each year, as required by statute (W.S. 9-3-410 (b)). Actuarial valuations have two basic purposes: 1) to determine the contribution rate for each year that will fund the system on a sound basis (e.g. will cover the three cost components); or 2) to

Statute directs the board to annually state the required contribution rate, but it has not asked for a change since 1981.

determine whether a fixed contribution rate (which WRS has) will maintain the plan's funding level. Although Wyoming statute directs the board to prepare an annual statement of the required contribution rate which "after approval by the legislature, shall be payable by employers," that has not been the board's tradition. Instead, the plan's contribution rate has remained the same since 1981 at 5.57 percent for employees and 5.68 percent for employers, for a total of 11.25 percent.

Experience different from actuarial assumptions affects costs and funded level

Gains or losses occur when events (experience) during the year do not match long-term assumptions.

If plan experience on either the asset (investments) or liability (actuarial projected benefits) side is different than projected by the actuarial valuation, there will be *actuarial gains* or *losses*. A gain occurs when experience is more favorable than what assumptions project; examples of this would be higher than 8 percent actuarial interest returns, higher than expected turnover of employee members, or members retiring after the date they become eligible. A loss occurs when experience is less favorable than assumptions, such as retirees living longer to draw more years of retirement benefits than projected. The plan has recently had two distinct periods of experience, one good and one bad, generally separated by the year 2000.

The 1990s were years when the plan had significant actuarial gains

Investment returns were well above assumptions, while employee salary increases were lower than projected.

During the 1990s, the WRS portfolio experienced investment gains of at least 8 percent (the actuarially assumed rate) every year except for two: 1990 and 1994. During the six-year period 1997 to 2002, the 11.25 percent contribution rate more than covered the costs of the plan, in part because there was no UAAL. Even with two years of negative returns, the interest return for the plan on an actuarial, or smoothed, basis averaged 11.43 percent, which was well above the interest assumption.

Also in the 1990s, employee salary increases did not increase to the level projected, producing actuarial gains that lowered plan costs. This salary contraction prompted the board to approve lowering the expected salary growth assumption from 6 percent to 5 percent in 1997, after an actuarial experience study.

Since 2000, the plan has sustained actuarial losses

While experiencing asset gains relative to both the interest and salary growth assumptions in the 1990s, the plan has since been hit with losses on those same assumptions.

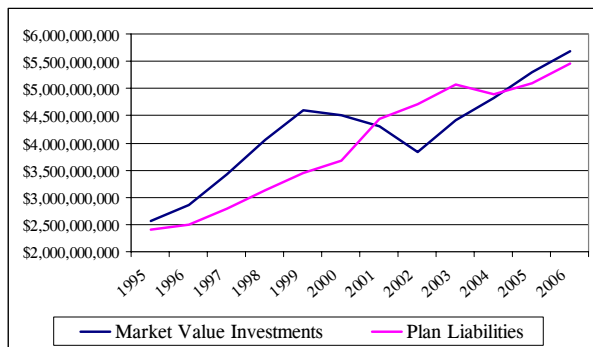
Plan investments did not meet the 8% assumption in three years since 2000, while the higher benefits set in 2001 increased plan costs.

Investments The plan had three straight years of negative investment returns (2000 through 2002) and its positive returns since then have not been at levels experienced in the late 1990s. From 2000 to 2006, annual plan investment returns averaged 5.5 percent on a market basis, not accounting for the growth of the corpus, whereas they averaged just more than 14 percent in the previous seven-year period. While actuarial smoothing eased some of the market volatility, the plan did not meet its 8 percent actuarial assumption in three of the years since 2000. At the same time, the plan was providing the higher benefits awarded in 2001 (when the Legislature increased the statutory COLA to 3 percent, and increased the salary/service multiplier). Since investment return is the most critical economic assumption, missing it made funding higher benefits a challenge.

Even with higher returns since 2003, assets still lag liabilities because of smoothing.

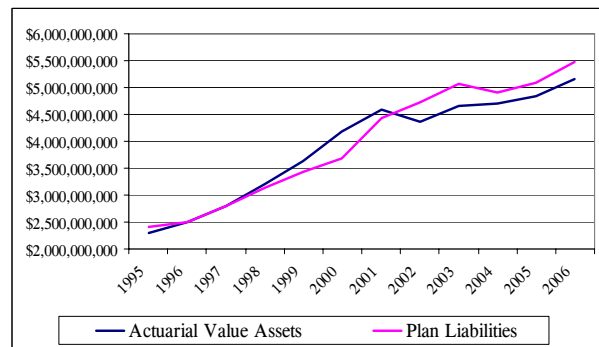
Since 2003, the plan’s market value investment returns have improved, and in 2007, the actuarial return will no longer be diminished by smoothing in poor investment returns from the 2000-2002 market declines. While recent favorable returns have moved investments, on a market value, above liabilities as shown in Figure 3.4 (below), Figure 3.5 shows that plan assets continue to lag liabilities when smoothed.

Figure 3.4
1995 – 2006: Market value of assets and liabilities



Source: LSO analysis of WRS documents.

Figure 3.5
1995 – 2006: Actuarial (smoothed) assets and liabilities



Source: LSO analysis of WRS documents.

Public school employees -- nearly half of plan members -- have received salary increases far above the actuarial assumption of 5%.

Salary growth In recent years, particularly in 2006, active plan members have been receiving larger salary increases than in the 1990s; this is especially true for the largest membership population, public school employees. As shown in Chapter 1, school employees make up nearly half of plan membership. Salaries for this group are estimated to have increased by 16 percent in 2006, far above the actuarial assumption of 5 percent.

Because many of the recipients are close to retiring, they will be able to leverage all their years of service against the higher salaries in determining their base retirement benefits. According to the actuary, this sort of increase in salaries creates an unfunded liability in final average salary plans like the Public Employee Plan. The plan's January 1, 2007 actuarial valuation showed the impact of these raises as an \$81 million increase in the UAAL. However, since the salary increases took effect in mid-year, this valuation recognized only part of the increases. The actuary expects an additional loss in the 2008 valuation due to these pay raises that exceeded actuarial assumptions.

This has increased annual costs, resulting in less of a funding margin for a COLA.

An increase in the UAAL such as this requires a higher amortization payment, which in turn leaves less of the total contribution to fund the other plan costs, including a COLA, which the board currently funds from any available funding margin (see Chapter 4). Further, these salary increases also increase the normal costs. Thus, unless this actuarial loss is directly repaid, gains from other plan experience, particularly investment returns, are necessary to balance or overcome the actuarial loss from the higher salaries.

WRS Board has broad authority with actuarial assumptions and funding policy

WRS determines what constitutes actuarial soundness for the plan.

Statute vests responsibility for the administration and operation of the retirement system "solely and exclusively in the WRS Board," and is essentially devoid of specific actuarial definitions. Moreover, selecting actuarial assumptions has been called "an esoteric process" of interest only to retirement plan sponsors; statutes give total flexibility to the WRS Board, working with its actuary, to determine what constitutes actuarial soundness using the assumptions the board itself chooses.

Board members are highly reliant on the plan actuary, but have ultimate responsibility as fiduciary trustees.

In turn, WRS Board members told us that they depend upon the system's consulting actuary to tell them what is a sound funding level and policy for the plan. However, especially since the Legislature incorporated the Uniform Management of Public Employee Retirement Systems Act (W.S. 9-3-433- 452) into WRS statutes in 2005, the board's Attorney General counsel has advised board members that as plan fiduciary trustees, they cannot defer their responsibility to fully understand all aspects of plan funding.

Keeping annual actuarial costs level is the de facto funding policy.

The WRS Board does not have an explicit funding policy, but it employs the individual entry-age normal actuarial cost method to determine the funding necessary to provide benefits. This method is preferred in the public sector because it results in a contribution that is a relatively level percentage throughout members' working careers. Thus, keeping costs level is the board's de facto funding policy.

Conclusion: Funding the plan soundly depends upon experience meeting actuarial assumptions about the growth of liabilities and assets.

The WRS Board is focused upon investment decision-making.

The focus of operating the WRS system is generally upon investments or the asset side of the pension management. While investing is not a field in which all plan policymakers and other stakeholders are experts, many are likely to have some experience or level of understanding. Meeting the plan's 8 percent investment return assumptions is critical to its ability to meet projected pension obligations. From both our observation of WRS Board activities and review of minutes, its focus is clearly upon investment decision-making.

However, meeting the actuarial assumptions that project plan liabilities is equally important to keeping the plan adequately financed. While the board can apply its professional advice and own expertise in attempting to reach and exceed the plan's investment return, it cannot similarly affect the growth of liabilities. Instead, policymakers outside of WRS must consider the impacts their decisions may have upon plan funding.

WRS communication may not suffice to bring about a broad understanding of the actuarial principles that determine plan funding.

Yet, understanding the actuarial fundamentals that are critical to plan funding is not intuitive to all those who are in a position to affect the plan with their decisions. There is little available beyond the actuary's annual valuation presentation to the WRS Board to provide an understanding of how actuarial considerations affect the plan. WRS could do more to summarize and explain actuarial information in an accessible written format so that all policymakers and stakeholders can better monitor the system. In particular, being familiar with actuarial funding concepts helps in understanding why, as shown in the next chapter, the plan's COLA has steadily declined over the last five years to 1 percent.

