




TO: Members of the Legislative Commission on Pensions and Retirement  
FROM: Ed Burek, Deputy Director   
RE: Review of Minnesota Defined Benefit Public Employee Retirement Plan  
Post Retirement Adjustment Mechanisms, Third Consideration  
DATE: October 23, 2013

This third consideration packet contains the following staff memos:

- a. Concept of Benefit Adequacy ..... p. 3
- b. Retiree Purchasing Power Issues ..... p. 7
- c. Retiree Cohort Information..... p. 11
- d. Survey of Post-Retirement Adjustment Procedures in Comparable States..... p. 19
- e. Correspondence from the Laura and John Arnold Foundation..... p. 25





TO: Members of the Legislative Commission on Pensions and Retirement  
FROM: Ed Burek, Deputy Director *EB*  
RE: Review of Minnesota Defined Benefit Public Employee Retirement Plan Post-Retirement Adjustment Mechanisms: Concept of Benefit Adequacy  
DATE: September 30, 2013

### Introduction

At the September 12, 2013, meeting of the Legislative Commission on Pensions and Retirement, when post-retirement adjustments procedures from the various states were being discussed, Representative O'Driscoll asked staff questions about the concept of benefit adequacy, including the appropriate level of income replace. This memo attempts to provide some background on the benefit adequacy concept, the appropriate level of replacement of pre-retirement income deemed appropriate, and what guidance the Commission's Principles of Pensions Policy provide on this matter.

### Commission's Principles of Pension Policy Related to Benefit Adequacy

According to the Commission's Principles of Pension Policy, retirement benefits for long-term employees who retire at normal retirement age ought to be set at a level which, when combined with Social Security and income from personal savings, is "adequate." However, the Principles do not attempt to define what specific level of income replacement is deemed to be adequate. Thus, the concept is general, leaving the term "benefit adequacy" to be interpreted as deemed appropriate by the current Commission and Legislature. More specifically, Principle II.A.1. states:

- II.A.1. Minnesota public pension plans exist to augment the Minnesota public employer's personnel and compensation system by assisting in the recruitment of new qualified public employees, the retention of existing qualified public employees, and the systematic out-transitioning of existing public employees at the normally expected conclusion of their working careers or the systematic phasing-out of existing employees who are nearing the normally expected conclusion of their full-time working careers by providing, in combination with federal Social Security coverage, personal savings and other relevant financial sources, retirement income that is adequate and affordable.

Basically, what is described in the principle is the notion of the "three-legged stool" that income in retirement comes from three sources: 1) the pension plan or plans, 2) personal savings, and 3) Social Security. If the plans are well designed and the individual had sufficient ability and initiative during his or her working life to accumulate adequate savings, the combined income from these three sources ought to be adequate to support the individual during retirement at a reasonable standard of living.

The Principles also include an item specifically addressing adequacy of benefits at retirement, which provides at least some additional specification:

- II.C.7. Adequacy of Benefits at Retirement
  - a. Benefit adequacy requires that retirement benefits respond to changes in the economy.
  - b. The retirement benefit should be adequate at the time of retirement.
  - c. Except for local police or firefighter relief associations, the retirement benefit should be related to an individual's final average salary, determined on the basis of the highest five successive years' average salary unless a different averaging period is designated by the Legislature.
  - d. Except for local police or firefighter relief associations, the measure of retirement benefit adequacy should be at a minimum of thirty years service, which would be a reasonable public employment career, and at the generally applicable normal retirement age.
  - e. Retirement benefit adequacy must be a function of the Minnesota public pension plan benefit and any Social Security benefit payable on account of Minnesota public employment.

In relevant part, the principle states that the retirement benefits ought to be set at a level which is adequate at retirement, when combined with Social Security benefits and presumably amounts from personal savings, for individuals who have provided a minimum of 30 years of public service and who are retiring at normal retirement age for the given plan. The statement is specific to the case of individuals who provided a long public career and who retire at normal retirement age, typically age 65 or 66 for general employee plans or at age 55 for public safety plans. There is no expectation that individuals should be kept whole in retirement if they retire early, at ages before normal retirement, or if they provide less than

a full career in public service. This suggests that those who retire early after reasonable long public employment careers, if they are to not have a noticeable drop in standard of living in retirement, will need to rely more heavily on past personal savings. Regarding other short service individuals, they will need to rely to a larger extent on savings and on retirement plans or assets derived from other employment.

### Economic and Non-Economic Benefit Adequacy Approaches

If the Commission were to adopt a specific policy objective regarding benefits at the time of retirement, the Commission can use either an economic or a non-economic approach. Selecting a particular income replacement target for long-term employees at or near normal retirement age is essentially a non-economic approach, because it is not directly based on labor market conditions. Rather, it is based primarily on a perception of fairness or justice. The income replacement standard or standards could be set at a level to create a living standard at retirement that is somewhat below, at, or above pre-retirement living standards. Alternatively, the Commission could reject this approach entirely and adopt an approach which is based directly on economic factors, adjusting the income replacement standard not based on notions of fairness, but rather in response on labor market conditions. Workers, in choosing employment and in deciding whether to remain in current employment, are influenced by many different factors, including a comparison of salary and benefits offered by various potential employers. If Minnesota public employers were unable to attract and retain a capable work force, that would indicate a need to improve salaries and benefits, which could include pensions. If public employers are not having trouble retaining capable workers, it could indicate that the package of current salary, benefits, and pensions is adequate.

### Standards or Reference Points Used in Retirement Policy Studies

As previously noted, prior Commissions have never tried to specify an income replacement standard, beyond the statement that for long-term employees the income replacement from the combination of the Minnesota public pension plan, Social Security, and private savings ought to be "adequate." In 1988, the Wyatt Company, the actuarial firm retained at that time by the Commission, presented the 1988 Benefit Adequacy Study to the Commission. This study extensively examined the adequacy of retirement benefits provided by Minnesota public pension plans. Two measures were used; the first examining relative living standards pre-retirement compared to post-retirement, while the second examined the value of a retirement benefit throughout retirement. Basically, the second measure examined whether the post-retirement procedures would maintain the value of the benefit at retirement or whether deterioration during retirement would occur. The Wyatt Company also performed an extensive follow-up study a few years later for the Commission, to examine in detail the implications of extensive benefits improvements enacted in 1989. The Wyatt studies depicted several income replacement lines, including 100% after-tax income replacement with certain additional adjustments. The Wyatt Company used this as a reference point, not as an indication of Commission policy.

The President's Commission on Pension Policy appointed by President Carter published a report in 1981 entitled Coming of Age: Toward a National Retirement Income Policy. That Commission adopted a policy target or national goal of retirement income sufficient to maintain the pre-retirement standard of living. That presidential commission, however, did not attempt to specify the level of after tax income replacement needed to achieve that aim, because it recognized that the necessary result would differ by income level and many other circumstances. While the general objective may be clear, the relationship between pre-retirement income and post-retirement income needed to achieve the target is not unique or consistent. Many other studies of retirement income needs exist, and the objective of maintaining the same standard of living pre-retirement and post-retirement is well accepted, although not necessarily universally accepted. But all the studies do recognize the difficulty of specifying the relationship between the level of preretirement and post retirement income needed to achieve the objective, because of the complexity of circumstances, including the recognition that Social Security benefits replace a decline percentage of income in retirement the higher the person's pre-retirement income.

### Difficulty in Identifying a Specific Income Replacement Standard

Even if there were agreement among Commission members regarding an income replacement standard in concept, an array of specific income replacement standards from the various Minnesota plans would be needed to express the results, with different results varying by plan, marital status and age of spouse, and income level. This also assumes that the Commission focused solely on long-service employees (30 years) at normal retirement age. The following serves to illustrate some of the complexity in determining whether the income being received in retirement is adequate.

Minnesota general employee plans are the General State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-General), the General Employees Retirement Plan of the Public Employees Retirement Association (PERA-General), the Teachers Retirement Association (TRA), and the first class city teacher plans. For individuals retiring at normal retirement age, MSRS-General and PERA-General provide a benefit of 1.7% of the highest five years' average salary for each year of service.

That would create an annual benefit from the plan for the person retiring with 30 years of service equal to 51% of the high-five, if the person elects a single life annuity. But, the person might choose to provide survivor coverage to a spouse, which would require an actuarial reduction in the annual and monthly benefits to offset the cost of providing continue benefits to the second person covered by the joint-and-survivor annuity following the death of the primary annuitant. The necessary monthly reduction would depend on the level of income to be provided following the death of the primary annuitant. A 100% joint-and-survivor annuity (which continues income to secondary annuitant at the same level) would require a larger reduction than one providing 75% of that continuing income, or 50%. The amount of the reduction would also depend on the age of the spouse; the younger the spouse, the larger the reduction necessary to provide continuing coverage to that spouse. Thus, a considerable array of different monthly benefits is generated, depending on whether the a single life annuity is chosen or a joint-and-survivor annuity, with joint-and-survivor annuity results varying based on the extent of continuing benefit to be provided in the event of death to the primary annuitant and the age of the covered spouse.

TRA and the first class city teacher plans had a 1.7% accrual rate, like MSRS-General and PERA-General, but the teacher plans were recently provided with a benefit improvement, a shift to a 1.9% accrual rate applicable for new service only. The TRA increase applies to post-June 30, 2006, service, while the increases for the first class city teacher plans will begin in 2014. With these plans, any review of income replacement would need to take into account when an individual retired. Depending on when the person retired, all the benefit might be at a 1.7% accrual rate, while those retiring at later dates would have an increasing percentage of the annuity computed using the higher 1.9% rate. In addition there is the same survivor coverage issues just mentioned.

Ignoring the impact of joint-and survivor coverage on monthly benefits received, and phased-in benefit improvements like those just mentioned for teacher plans, we can say that for an individual retiring with 30 years of service and at normal retirement age the Minnesota plan is paying a fixed percentage of the high-five average salary as a benefit and that percentage does not vary with income level. An individual retiring from a given plan with a \$20,000 high-five average salary will of course receive a lesser monthly benefit amount than an otherwise similar individual with a \$50,000 high-five, but they will both have a benefit which is the same percentage of the high-five. Therefore, regardless of pre-retirement income level, the Minnesota public pension plan is replacing the same percentage of pre-retirement salary. In contrast, Social Security old age benefits replace different percentages of pre-retirement salary, depending upon the income level. The reason is that the Social Security old age program was designed as an anti-poverty program, intended to reduce or eliminate poverty in old age. To achieve that, Social Security provides very high income replacement at low income levels with progressively less income replacement as a person's pre-retirement income rises. (The Social Security benefit computation can be divided into three tiers. For those retiring in 2013, the Social Security benefit would be 90% of the first \$791 of average monthly earnings, 32% of the next \$3,977, and 15% of any higher income. The salaries defining the end of one tier and the beginning of the next are revised periodically due to inflation.) When payments from the Minnesota plan are combined with payments from Social Security, to review the percentage of pre-retirement income replaced by these combined sources, the results will vary considerably depending upon income level. Those with very low incomes will have nearly complete income replacement from Social Security alone. For these individuals, the combination of Social Security plus the Minnesota pension plan may result in income which exceeds the pre-retirement standard of living. For individuals at higher pre-retirement income levels, the benefit combination of Social Security plus the Minnesota plan might leave the individual well below the pre-retirement standard of living, requiring distributions from personal savings to boost the living standard. In addition to the combined impact of the Minnesota retirement plan and Social Security that the retired Minnesota employee receives, Social Security spousal benefits may need to be considered, at least in the case of a non-working spouse. A non-working spouse would be eligible to receive a Social Security benefit equal to 50 % of the retired employee's earned Social Security benefit. Thus, a totally different set of income replacement results occurs if the retiree is single rather than married with a non-working spouse.

In addition to general employee plans, Minnesota has two correctional employee plans, the Correctional State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-Correctional) and the Local Government Correctional Service Retirement Plan (PERA-Correctional), whose members are also covered by Social Security for the Minnesota public employment. However, these Minnesota plans, because of the quasi-public-safety nature of the employment, use an age 55 normal retirement age rather than the age 65 or 66 normal retirement ages used in general employee plans. Reviewing the combined effect of the benefits from the Minnesota plan and Social Security for retirees of these plans will yield different results than for the general plans, and will yield different results if the years before Social Security benefits commence are examined rather than the years after. (The earliest age for receipt of Social Security old age benefits is age 62, and the benefits would be reduced due to receipt prior to the Social Security normal retirement age of 65 or later.)

The State Patrol Retirement Plan and the Public Employees Police and Fire Retirement Plan (PERA-P&F) are public safety plans which do not include Social Security old age benefit coverage. For these two plans, there is no need to consider the impact of combining the impact of the Minnesota plan's benefit with that of an anti-poverty program, but other complexities would remain.

Whatever standard the Commission might choose to apply for Minnesota public plans, it is the income which people have to spend (their purchasing power) which matters, and not gross income. Whether the objective is to maintain the same living standard or a lesser one, differences in pre-retirement versus post-retirement tax treatment would need to be considered. Exemptions increase in old age, and income from Social Security (if any), is taxed differently than other income. It is also necessary to make adjustments for deductions applicable to pre-retirement income but not post-retirement. For instance, after retirement the individual does not make employee contributions to Social Security programs, including Medicare, but is likely to be incurring expenditures to supplement the Medicare coverage. The retired individual is no longer making contributions to the Minnesota retirement plan. As a retiree, the individual is not incurring certain employee-related expenses, such as recurring parking expenses, certain clothing or uniform expenses, and may no longer be purchasing life insurance. Thus, whatever the standard, it cannot be measured by straightforward comparisons of pre-retirement and post-retirement income. In all probability, less income will be needed post-retirement than before, whatever the standard, but there is no unique answer. Even if we are only considering results at normal retirement age with 30 years of service, results differ based on whether the plan is coordinated with Social Security, marital status, and pre-retirement income level.

If the Commission did agree on a specific income replacement standard and how to measure compliance with that standard, that may shed light on the adequacy of income at retirement. The next question would be whether that income remains adequate during retirement, requiring a review of the adequacy of post-retirement adjustment procedures. Commission Policy Principle II.C.8. states that adjustments ought to match inflation to maintain purchasing power:

II.C.8. Postretirement Benefit Increases

- a. Retirement benefits should be increased during the period of retirement to offset the impact of economic inflation over time in order to maintain a retirement benefit that was adequate at the time of retirement.
- b. The system of periodic post retirement increases should be funded on an actuarial basis.



TO: Members of the Legislative Commission on Pensions and Retirement  
 FROM: Ed Burek, Deputy Director *EB*  
 RE: Review of Minnesota Defined Benefit Public Employee Retirement Plan Post-Retirement Adjustment Mechanisms: Retiree Purchasing Power Issues  
 DATE: September 30, 2013

Introduction

At the September 12, 2013, meeting of the Legislative Commission on Pensions and Retirement, when post-retirement adjustments procedures from the various states were discussed, Senator Rosen asked staff to provide examples illustrating retiree lost purchasing power if post-retirement adjustments were delayed or if adjustments did not fully compensate for inflation. This memo provides that requested information.

Dollar Values Needed to Maintain Purchasing Power

Table 1 is useful to illustrate the amounts needed to maintain purchasing power given various potential long-term inflation rates. Specifically, the table indicates, for every dollar received when retirement begins, the dollar amount needed at future dates to have the same purchasing power. For example, if inflation is 3%, for every dollar of benefits the annuity is providing at the time of retirement the individual would need to receive \$1.09 by Year 3, \$1.34 by Year 10, and \$1.81 by Year 20. At any positive inflation rate, the amounts needed each year increase by an increasing amount due to compounding, and this effect is much more noticeable at higher inflation rates. Consider the implications of 3.5% inflation rather than 1%. If an individual retired now and inflation were a constant 1% per year, every dollar of benefits the individual receives now would have to increase to \$1.22 by Year 20 to keep the individual whole, a 22% increase from the starting value. But with 3.5% inflation, which could be a reasonable approximation of long-term inflation, the table indicates that the individual would need to be receiving \$1.99 in Year 20 to stay whole, which is a near doubling of the benefit level.

Table 1  
 Dollars Needed to Maintain Constant Purchasing Power

Inflation rate	3 yrs	5 yrs	10 yrs	15 yrs	20 yrs	25 yrs	30 yrs	35 yrs	50 yrs
0.0%	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
1.0%	1.03	1.05	1.10	1.16	1.22	1.28	1.35	1.42	1.65
2.0%	1.06	1.10	1.22	1.35	1.49	1.64	1.81	2.00	2.70
3.0%	1.09	1.16	1.34	1.56	1.81	2.09	2.43	2.81	4.38
3.5%	1.11	1.19	1.41	1.68	1.99	2.36	2.81	3.33	5.59
4.0%	1.13	1.22	1.48	1.80	2.19	2.67	3.24	3.95	7.11
5.0%	1.16	1.28	1.63	2.08	2.65	3.39	4.32	5.52	11.47
10.0%	1.33	1.61	2.59	4.18	6.73	10.84	17.45	28.10	117.39

Table 1 indicates the impact of inflation for various periods ranging from a few years to 50 years. While few individuals or couples will be in benefit receipt status for 50years, these cases will occur. Long periods in benefit receipt are most likely in public safety plans, given the early retirement ages permitted in those plans and the possibility of disability, or a line of duty death resulting in survivor benefits to a young spouse. A member of the Public Employees Retirement Association Police and Fire (PERA-P&F) plan or the State Patrol Retirement Plan who becomes permanently disabled at a young age could be receiving benefits for more than 50 years. If that disabilitant has an even younger spouse covered by a joint-and-survivor annuity, benefits might continue well beyond 50 years.

Purchasing Power Given No Post-Retirement Adjustments: Various Inflation Rates

Table 2 provides another way of viewing the same information. Table 2 is derived by dividing \$1.00 by the dollar values in Table 1. The results can be interpreted as indicating the retiree's purchasing power if there are no post-retirement adjustments. If there is no inflation, purchasing power does not erode. It remains at 100% regardless of the length of the period. But with inflation the results change, getting progressively worse the longer the period or the higher the inflation rate. Even with modest 2% inflation, purchasing power noticeably erodes. Ten years after retirement, the benefit being received is only 82% of the amount needed to maintain purchasing power. By 25 years, the amount received would be only 61% of the amount needed. Three percent to 3.5% inflation may be reasonable estimates for long-term inflation. With 3.0 % inflation, in the tenth year the benefit would be only 75% of the amount needed for constant purchasing

power, while it would be only 71% of the amount needed if inflation were 3.5%. At 20 years, the amount received would be only 55% needed amounts if inflation were 3%, or 50% of the necessary amount if inflation is 3.5%. With still higher rates, purchasing power erodes very quickly. With 5% inflation, by Year 10 purchasing power would be 61% of the amount needed. If inflation were 10% for ten years, purchasing power would be only 39% of the amount needed. With 10% inflation, by Year 30 purchasing power would have eroded to only 6% of the necessary amount. By Year 50, purchasing power would have eroded to 1%. (Actually, it would be less than 1%. The amount shown was rounded up to equal 1%).

Table 2  
Purchasing Power Given No Post-Retirement Adjustments

Inflation rate	3 yrs	5 yrs	10 yrs	15 yrs	20 yrs	25 yrs	30 yrs	35 yrs	50 yrs
0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1.0%	97%	95%	91%	86%	82%	78%	74%	70%	61%
2.0%	94%	91%	82%	74%	67%	61%	55%	50%	37%
3.0%	92%	86%	75%	64%	55%	48%	41%	36%	23%
3.5%	90%	84%	71%	60%	50%	42%	36%	30%	18%
4.0%	88%	82%	68%	56%	46%	38%	31%	25%	14%
5.0%	86%	78%	61%	48%	38%	30%	23%	18%	9%
10.0%	75%	62%	39%	24%	15%	9%	6%	4%	1%

Table 2 also is useful for observing the impact of delays in starting post-retirement adjustments. Staff noted in prior memos and in discussion at the September Commission meeting that Minnesota's PERA-P&F will have a three-year delay before the commencement of full post-retirement adjustments, and one of more plans in Ohio will impose a five-year delay before the first adjustment. The table indicates that even with modest inflation these delays will cause harm. With 2% inflation, if the first adjustment occurred at Year 3, each dollar being received will have declined in purchasing power to 94 cents. If the first adjustment were to occur at Year 5, each dollar being received will have declined in purchasing power to 91 cents; or, alternatively, the purchasing power of the dollars received will have declined by about 9%. This is a noticeable lessening of purchasing power even if benefit adjustments matched inflation once adjustments commence. If inflation were 5% in the years immediately after retirement, the benefit would have declined to 86% of its purchasing power at Year 3 or to 78% at Year 5. With 10% inflation, which is conceivable for a several-year period, the dollar benefit would have lost one-quarter of its purchasing power by Year 3, or nearly 40% of its purchasing power by Year 5. This illustrates that delays in the first receipt of adjustments create harm, and that the harm can be quite significant if the delay is long and inflation is high.

#### Impact of Adjustments Not Matching Inflation: Various Inflation Scenarios

Tables 1 and 2 above illustrated the impact on retirees (or more correctly, disabilitants, retirees, and survivors) in various inflation situations if no adjustments are provided. But in Minnesota public plans and in those of nearly every other state, some form of adjustment is provided. If adjustments are designed to match inflation and if no delay in receiving a partial adjustment occurs during the first year of benefit receipt, the annuity's purchasing power is kept whole throughout retirement. The interesting question is what happens to purchasing power if adjustments are provided but they do not match inflation. Further results, shown in Tables 3 through 8 and derived from Table 1, can provide insight on this matter. Tables 3 to 8 demonstrate the impact of providing adjustments ranging from 1% annually to 5% given various rates of inflation. Table 3 is based on a 1% inflation rate; Table 4 is based on a 2% inflation rate, continuing on up to Table 8, which is based on 5% inflation.

Table 1 provides information on the dollars needed to keep the individual whole given different rates of inflation. For instance, at the three-year mark, Table 1 indicates that for each dollar of benefits at the time of retirement, the individual would need \$1.03 if inflation were 1%, but would need \$1.06 if inflation were 2%. Alternatively, we could note that if the plan is paying a 2% adjustment, at Year 3 the individual will be receiving \$1.06 for each dollar initially received, but if inflation is only 1% the person needs only \$1.03 to stay whole. By dividing \$1.06 by \$1.03, we determine that the benefit the individual will receive in Year 3 is 103% of that needed to keep him or her whole.

Using this approach, the results in Table 3 are derived. Table 3 assumes 1% annual inflation and shows the results of paying post-retirement increases of 1% or more. If the plan provides 1% post-retirement adjustments, then the amounts provided will match that needed to stay whole (indicated in the first row of Table 3). The benefit remains fully adequate regardless of the number of years in retirement. If adjustments exceed inflation, the benefit becomes more than necessary to remain whole. With 2% adjustments, at Year 3 the provided annual benefit is 103% of that needed to keep the individual whole, and by Year 10 the benefit is 111% of that necessary. As expected, the gap gets larger the longer increases in excess of inflation are paid, and the gap increases as the percentage adjustment departs further from the inflation rate. For example, at 10 years, the benefit being received will be 111% of that needed if 2% adjustments are provided, 128% of that needed if 3.5% adjustments are paid, and 148% of that needed if the adjustments are 5% per year. Tables 4 to 8 provide results assuming higher inflation rates.



Table 3  
1.0% Inflation Rate  
Percentage of Purchasing Power Maintained Under Various Annual Adjustments

Post-Retirement Adjustment Rate	3 yrs	5 yrs	10 yrs	15 yrs	20 yrs	25 yrs	30 yrs	35 yrs	50 yrs
1.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%
2.0%	103%	105%	111%	116%	122%	128%	134%	141%	164%
3.0%	106%	111%	122%	134%	148%	163%	180%	198%	265%
3.5%	108%	113%	128%	145%	163%	184%	208%	235%	339%
4.0%	110%	116%	135%	155%	180%	209%	240%	278%	431%
5.0%	113%	122%	148%	179%	217%	265%	320%	389%	695%

Table 4  
2% Inflation Rate  
Percentage of Purchasing Power Maintained Under Various Annual Adjustments

Post-Retirement Adjustment Rate	3 yrs	5 yrs	10 yrs	15 yrs	20 yrs	25 yrs	30 yrs	35 yrs	50 yrs
1.0%	97%	95%	90%	86%	82%	78%	75%	71%	61%
2.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%
3.0%	103%	105%	110%	116%	122%	127%	134%	141%	162%
3.5%	105%	108%	116%	124%	134%	144%	155%	167%	207%
4.0%	107%	111%	121%	133%	147%	163%	179%	198%	263%
5.0%	109%	116%	134%	154%	178%	207%	239%	276%	425%

Estimates of long-term inflation vary with the person or organization doing the predicting. Long-term inflation of 3% to 3.5% is a reasonable guess, but arguments certainly can be made for higher or lower rates. Table 5 presents results assuming 3% inflation and indicates that the amounts an individual will receive over time will be fully adequate to retain the individual's purchasing power if adjustments match that 3% inflation rate. If adjustments exceed 3%, the amounts to be received are more than necessary. For example, if 5% adjustments are provided, by Year 10 the benefits will be 122% of that necessary to keep the individual whole. Even percentage adjustments which are modestly higher than inflation will create benefits that are noticeably more than needed. Adjustments that are just one-half a percent high, 3.5% rather than 3.0%, will create a benefit by Year 10 that is 105% of that necessary to keep the individual whole, and 110% of that needed by Year 20.

Table 5 also indicates the harmful impact if adjustments are too low. If inflation is 3% but post-retirement adjustments of just 1% annually are paid, by Year 3 the benefit provided will be only 94 percent of that needed to keep the individual whole. By Year 10, the benefit will be only 82% of that needed, and by Year 20, the benefit will have lost one-third of its purchasing power. If the plan instead is providing 2% adjustments, that helps, but the deterioration is still noticeable. By Year 10 the benefit is only 91% of that needed to keep the individual whole, and at 20 years the benefit is only 82% of that needed.

Table 5  
3% Inflation Rate  
Percentage of Purchasing Power Maintained Under Various Annual Adjustments

Post-Retirement Adjustment Rate	3 yrs	5 yrs	10 yrs	15 yrs	20 yrs	25 yrs	30 yrs	35 yrs	50 yrs
1.0%	94%	91%	82%	75%	67%	61%	56%	51%	38%
2.0%	97%	95%	91%	87%	82%	78%	75%	71%	62%
3.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%
3.5%	102%	103%	105%	108%	110%	113%	116%	119%	128%
4.0%	104%	105%	110%	115%	121%	128%	133%	141%	162%
5.0%	106%	110%	122%	133%	146%	162%	178%	196%	262%

Table 6 depicts results assuming the true long-term inflation rate is 3.5%. Adjustments above 3.5% will produce excessive benefit levels. Adjustments of 5%, which is only 1.5% above inflation, produce results which are considerably more than needed. At Year 20, for example, the benefit will be 133% of that needed to keep the individual whole. On the flip side, adjustments which are considerably less than inflation can cause considerable harm. If the adjustments are only 1% per year, by Year 5 the benefits retain only 88% of the original purchasing power, and by Year 20, only 61% of original purchasing power.

Table 6  
3.5% Inflation Rate  
Percentage of Purchasing Power Maintained Under Various Annual Adjustments

Post-Retirement Adjustment Rate	3 yrs	5 yrs	10 yrs	15 yrs	20 yrs	25 yrs	30 yrs	35 yrs	50 yrs
1.0%	93%	88%	78%	69%	61%	54%	48%	43%	30%
2.0%	95%	92%	87%	80%	75%	69%	64%	60%	48%
3.0%	98%	97%	95%	93%	91%	89%	86%	84%	78%
3.5%	100%	100%	100%	100%	100%	100%	100%	100%	100%
4.0%	102%	103%	105%	107%	111%	113%	115%	119%	127%
5.0%	105%	108%	116%	124%	133%	144%	154%	166%	205%

Table 7 depicts results assuming 4% inflation. With that inflation rate, if 1% adjustments are paid the benefits will retain only 74% of original purchasing power by Year 10, and will have lost nearly half its

purchasing power by Year 20. If 3.5% adjustments are paid, only 0.5% less than the assumed 4% inflation rate, by Year 10 the benefits paid will be 95% of that needed to stay whole, deteriorating to 91% at Year 20.

Table 7  
4% Inflation Rate  
Percentage of Purchasing Power Maintained Under Various Annual Adjustments

Post-Retirement Adjustment Rate	3 yrs	5 yrs	10 yrs	15 yrs	20 yrs	25 yrs	30 yrs	35 yrs	50 yrs
1.0%	91%	86%	74%	64%	55%	48%	42%	36%	23%
2.0%	94%	90%	82%	75%	68%	61%	56%	51%	38%
3.0%	96%	95%	91%	87%	83%	78%	75%	71%	62%
3.5%	98%	98%	95%	93%	91%	88%	87%	84%	79%
4.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%
5.0%	103%	105%	110%	116%	121%	127%	133%	140%	161%

Table 8  
5% Inflation Rate  
Percentage of Purchasing Power Maintained Under Various Annual Adjustments

Post-Retirement Adjustment Rate	3 yrs	5 yrs	10 yrs	15 yrs	20 yrs	25 yrs	30 yrs	35 yrs	50 yrs
1.0%	89%	82%	67%	56%	46%	38%	31%	26%	14%
2.0%	92%	86%	75%	65%	56%	48%	42%	36%	24%
3.0%	94%	91%	82%	75%	68%	62%	56%	51%	38%
3.5%	96%	93%	87%	81%	75%	70%	65%	60%	49%
4.0%	97%	95%	91%	87%	83%	79%	75%	72%	62%
5.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%

### Observations, Conclusions

1. The adequacy of the benefit during retirement is just as important as the adequacy of the benefit at retirement, and both are needed for consistency with the Commission's Principles of Pension Policy. Principle II.C.7. states that the benefit should be adequate at the time of retirement for those who have provided at least 30 years of public employment. Principle II.C.8. states that these benefits should be kept adequate during retirement by adjustments which increase benefits to compensate for inflation.
2. Post-retirement adjustments matching inflation are needed to avoid considerable harm to retiree purchasing power. Adjustments in excess of inflation place an unnecessary burden on plan contributors. Adjustments below the rate of inflation harm the retirees.
3. While retirees from all plans are at considerable risk, the impact of lost purchasing power may be most serious in public safety plans because of the long period in benefit receipt by disabilitants, and the long period in benefit receipt by retirees and survivors due to the early normal retirement age in these public safety plans.
4. Delays in the start of adjustments can cause considerable loss of purchasing power, and, even if inflation matching adjustments were provided thereafter, that loss will never be recovered.

Tables 4 to 8 amply demonstrate that adjustments which are less than inflation can lead to significant loss of purchasing power. These losses are greater the larger the difference between the adjustment percentage and the inflation rate, and the longer the time period.

Fixed percentage adjustments designed to match the long-term inflation rate could reasonably approximate a system paying variable adjustments, whatever rate is necessary given the most recent year's inflation. A fixed percentage adjustment intended to match long-term inflation would work reasonably well if the inflation estimate on which it is based is accurate. Under this approach, the retirees are at some risk. If 2.5% adjustments are provided, based on a belief that the long-term inflation rate will be 2.5%, retirees could receive a considerable windfall if there is a prolonged period of 2% inflation. On the other hand, retirees could lose considerable purchasing power if inflation turns out to be 3% or higher.

A system which provided, on an annual basis, whichever rate of adjustment is needed given the most recent year's inflation would keep retirees whole. Risk is shifted from the retirees to the plan contributors; high inflation could burden plan contributors. In response to the needs of retirees and the risk to plan financing, the Minnesota Legislature has created capped inflation matches in a few plans, although in current law those will not be effective financial stability is regained. For the Duluth Teachers Retirement Fund Association and the St. Paul Teachers retirement Fund Association, once these associations achieve a 90% funding ratio they will begin paying an inflation match, capped at 5%. The plan law does not include any provision to later make whole any individual who had one or more years of capped increases because actual inflation in a year exceeded 5%. Accepting this imperfection may be a reasonable compromise, but the result will not be fully consistent with the Commission's policy principles.



TO: Members of the Legislative Commission on Pensions and Retirement  
 FROM: Ed Burek, Deputy Director *EB*  
 RE: Review of Minnesota Defined Benefit Public Employee Retirement Plan Post-Retirement Adjustment Mechanisms: Retiree Cohort Information  
 DATE: October 14, 2013

Introduction

At the September 12, 2013, meeting of the Legislative Commission on Pensions and Retirement, Commission staff was asked to provide information about whether various cohorts of retirees were maintaining their purchasing power, given the post-retirement adjustments received and the rates of inflation over time. This memo updates a 2006 Commission staff memo on this topic by adding more recent information and by expanding the analysis.

Overview: Major Plan Post-Retirement Adjustments and Inflation Rates

We begin by looking at the major plans and demonstrating that post-retirement adjustments rarely matched inflation; some adjustments were excessive, at other times too small. Thus, the adjustments rarely provided amounts needed to maintain purchasing power.

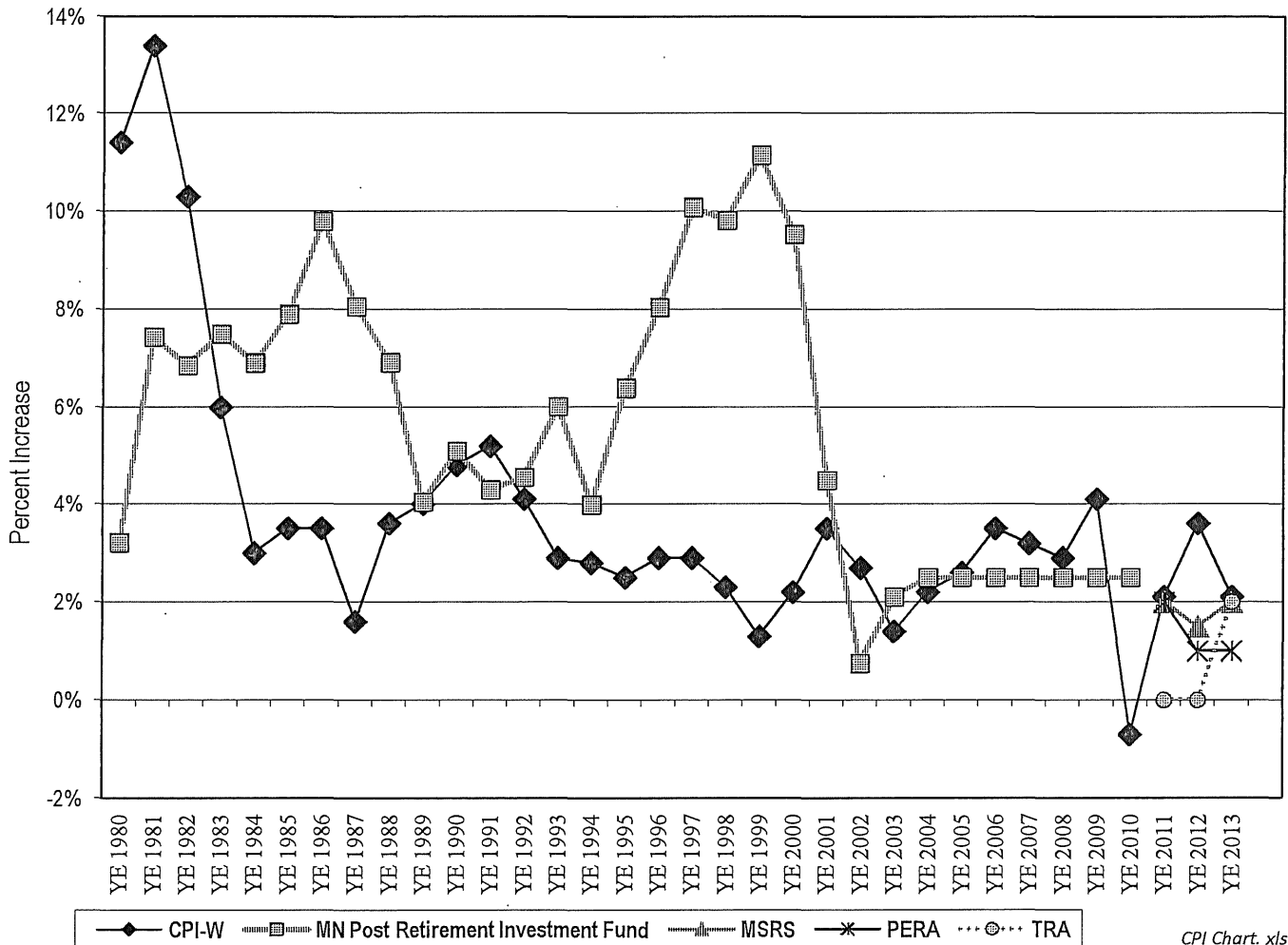
Table 1 and the accompanying graph compare inflation with post-retirement increases provided to retirees of Minnesota State Retirement System (MSRS) plans, Public Employees Retirement Association (PERA) plans, and the Teachers Retirement Association (TRA). The years covered in the table are 1980 through 2012. The adjustments shown for nearly all the covered years are those generated by the Post Retirement Adjustment Fund (Post Fund) or its processor. The Post Fund was dissolved in 2008, and the post-retirement adjustment provision was revised to provide 2.5% adjustments annually. In 2010, under the Financial Sustainability Provisions (Laws 2010, Ch. 359, Art. 1), post-retirement adjustment law was again revised, and each of the major systems began paying adjustments (if any) which differed between systems and, in some cases, differed by plan within each system. The first adjustments under the Financial Sustainability Provisions were provided on January 1, 2011. For 2011 and 2012, the law specified that TRA would provide no increases, while PERA-General provided 1.0% increases and MSRS-General provided 2.0% increases. Some public safety plans within these systems paid adjustments which differ from those just mentioned. Looking at the information in the table, it is clear that the post-retirement adjustment rarely matched the inflation rate.

**Table 1**  
**Post-Retirement Adjustments: 1980-2013**  
**MSRS, PERA, and TRA**

Year	Post-Retirement Adjustment Percentage Increase	Inflation Rate (CPI-W)	Year	Post-Retirement Adjustment Percentage Increase	Inflation Rate (CPI-W)
1980	0%	11.4%	1997	8.0%	2.9%
1981	3.2%	13.4%	1998	10.1%	2.3%
1982	7.4%	10.3%	1999	9.8%	1.3%
1983	6.9%	6.0%	2000	11.1%	2.2%
1984	7.5%	3.0%	2001	9.5%	3.5%
1985	6.9%	3.5%	2002	4.5%	2.7%
1986	7.9%	3.5%	2003	0.7%	1.4%
1987	9.8%	1.6%	2004	2.1%	2.2%
1988	8.1%	3.6%	2005	2.5%	2.6%
1989	6.9%	4.0%	2006	2.5%	3.5%
1990	4.0%	4.8%	2007	2.5%	3.2%
1991	5.1%	5.2%	2008	2.5%	2.9%
1992	4.3%	4.1%	2009	2.5%	4.1%
1993	4.6%	2.9%	2010	2.5%	-0.7%
1994	6.0%	2.8%	2011	0.0-2.0%	2.1%
1995	4.0%	2.5%	2012	0.0-2.0%	3.6%
1996	6.4%	2.9%	2013	2.0%	2.1%

The failure of the provided increases to track inflation is visually evident from the following graph of the information provided above.

**Post-Retirement Increases: MSRS, PERA, TRA vs.  
Consumer Price Index for Urban Wage Earners and Clerical Workers**



CPI Chart. xls

**Impact on Retiree Cohorts**

In this section we review the impact of inflation and the post-retirement adjustments that were provided for various cohorts of retirees. We examine the impact on 1975 retirees, and also the groups that retired in 1980, 1985, 1990, 1995, 2000, and 2005. Those results can be summarized as follows:

- **1975 Retirees.** This group lost considerable purchasing power during the early years of retirement. Despite an approximately two decade period starting in about 1982 where post-retirement adjustments exceeded inflation nearly every year, this group did not again have an annual benefit matching the initial purchasing power until 1998, about 23 years after retirement.
- **1980 Retirees.** After a brief period of reduced purchasing power, by 1986 this group was receiving annual benefits which exceeded the original benefit's purchasing power. Given generous increases provided during the late 1980s through the early 2000s, in later years this cohort's purchasing power greatly exceeded the initial benefit.
- **1985 Retirees.** This group has been receiving benefits which exceed original purchasing power from the very first post-retirement adjustment onwards. This group has been very generously treated by the market based adjustment mechanism that was in place during the first two decades of their retirement.
- **1990 Retirees.** After the first two years of adjustments, which essentially matched inflation, this group's benefits were substantially increased through the very large increases provided in the late 1990s and early 2000s. Current benefits greatly exceed the inflation matching amounts.
- **1995 Retirees.** The purchasing power of this group's benefits exceeded the original benefit with the first post-retirement adjustment. The very large increases provided in the late 1990s and early 2000s cause current benefits to greatly exceed the inflation matching amounts.
- **2000 Retirees.** This group benefitted from the last of the generous Post Fund adjustments, which caused the benefits to somewhat exceed initial purchasing power. More recent benefit adjustments have been modest and some have been less than inflation. At the present time, the value of the benefit for an MSRS retiree is somewhat above the initial purchasing power, but not by much. A TRA retiree would be right at the margin, because members of that plan received no increase in 2011 and 2012. The PERA-General retiree would be slightly better off than the TRA retiree, because PERA continued to provide increases, although only 1%. Going forward, all members of the 2000 cohort are

vulnerable, at risk of having benefits which fall below original purchasing power. Even modest inflation will quickly outdistance the 1% adjustments PERA is likely to provide in the near future, and inflation is also likely to exceed the 2.0% adjustments which MSRS-General and TRA are now providing. Unlike the 1985, 1990, and 1995 cohorts, which have benefits considerably in excess of the inflation-matching benefit level, the 2000 cohort of retirees has no cushion. The 2000 cohort will fall below initial purchasing power years before the earlier cohorts would.

- 2005 Retirees. This group has benefits with less purchasing power than the initial retirement benefit. The situation will worsen further if provided adjustments are less than inflation, which appears likely.
- 2010 Retirees. Although 2010 retirees are not formally covered here, it is clear that this group has suffered a loss in purchasing power. Inflation rates have exceeded the 2% adjustment rate in law for MSRS-General, while PERA-General is paying 1%, and TRA provided no increase in 2011 and 2012.

Moving to detailed analysis of each group, for the 1975 retirees it is necessary to briefly mention adjustments and inflation rates in the 1975 through 1979 period, since that information was not provided earlier. For this group we will assume a group of retired TRA teachers. The later 1970s was a period of high inflation, and the TRA-provided adjustments were considerably less than inflation. In 1976 a 2.3 % adjustment was provided, but inflation as measured by the CPI-W was 9.1%. The next year a total adjustment of about 1% was provided, but inflation was 5.7%. In 1978, the adjustment was fairly large, 4%, but that was noticeably less than inflation, which was 6.5%. In 1979 no adjustment was provided while inflation was 7.7%. For 1980 and later, inflation rates and post-retirement adjustment percentages are as shown earlier.

For an individual who retired in 1975, the high inflation in the latter half of the 1970s and the minimal adjustments caused a considerable loss of purchasing power. Table 1 and the above graph showed that post-retirement adjustments provided in the 1980s and 1990s were often in excess of inflation. But because of the large loss in purchasing power in the first five years of retirement, it was not until more than two decades after retirement that the individual who retired in 1975 was receiving a benefit amount with purchasing power comparable to the original retirement benefit, as shown in Table 2:

**Table 2**  
**\$12,000 Initial Annual Benefit – 1975 Retirement Date**

Year	Annual Benefit Amount	Amount Needed to Match Original Purchasing Power	Difference	Year	Annual Benefit Amount	Amount Needed to Match Original Purchasing Power	Difference
1975	\$12,000	\$12,000	--	1995	\$31,596	\$35,232	-\$3,636
1976	\$12,276	\$13,092	-\$816	1996	\$33,624	\$36,264	-\$2,640
1977	\$12,396	\$13,836	-\$1,440	1997	\$36,312	\$37,308	-\$996
1978	\$12,900	\$14,736	-\$1,836	1998	\$39,948	\$38,172	+\$1,776
1979	\$12,900	\$15,876	-\$2,976	1999	\$43,848	\$38,664	+\$5,184
1980	\$12,900	\$17,688	-\$4,788	2000	\$48,684	\$39,516	+\$9,168
1981	\$13,308	\$20,052	-\$6,744	2001	\$53,304	\$40,896	+\$12,408
1982	\$14,292	\$22,116	-\$7,824	2002	\$55,704	\$42,000	+\$13,704
1983	\$15,276	\$23,448	-\$8,172	2003	\$56,100	\$42,588	+\$13,512
1984	\$16,428	\$24,144	-\$7,716	2004	\$57,276	\$43,524	+\$13,752
1985	\$17,232	\$24,996	-\$7,764	2005	\$58,704	\$44,664	+\$14,040
1986	\$18,948	\$25,872	-\$6,924	2006	\$60,168	\$46,224	+\$13,944
1987	\$20,796	\$26,280	-\$5,484	2007	\$61,672	\$47,703	+\$13,969
1988	\$22,488	\$27,228	-\$4,740	2008	\$63,214	\$49,087	+\$14,127
1989	\$24,036	\$28,320	-\$4,284	2009	\$64,794	\$51,099	+\$13,695
1990	\$24,996	\$29,676	-\$4,680	2010	\$66,414	\$50,741	+\$15,673
1991	\$26,268	\$31,224	-\$4,956	2011*	\$66,414	\$51,807	+\$14,607
1992	\$27,408	\$32,496	-\$5,088	2012*	\$66,414	\$53,672	+\$12,742
1993	\$28,668	\$33,444	-\$4,776	2013	\$67,742	\$54,799	+\$12,943
1994	\$30,384	\$34,380	-\$3,996				

\* TRA law provided no benefit increases in 2011 and 2012.

In this, and all later tables, we assume the retiree has an initial benefit of \$1,000 per month or \$12,000 per year. For the 1975 retirees that annual benefit would have increased to \$12,276 in 1976, but because of inflation the amount needed to keep pace with inflation was \$13,092. In a single year, the person has lost \$816 of purchasing power. In each succeeding year we apply the applicable inflation rate to the previous amount needed to keep pace with inflation to obtain the new result, and similarly we apply the post-retirement adjustment percentage to the previous benefit to obtain the new benefit level. It is not until 1998, 23 years after retirement, that the person's annual benefit amount has comparable purchasing power to the benefit initially received. Actually, in 1997 the person's purchasing power lagged by \$996. Due to the next adjustment, in 1998 the benefit amount was \$1,776 more than necessary to achieve the initial purchasing power. So 1998 is the "flip" point. From that date forward the annual benefit the individual receives is considerably more than needed to match the original purchasing power.

Further comments on the 1998 flip point may be helpful. First, that date is not influenced by the initial benefit we assumed, \$12,000 per year. The flip point depends only on the percentage adjustments that were provided compared to the inflation rates occurring over time. If we had assumed an individual began with a \$6,000 annual benefit the numbers would be half those shown in the table, while if the individual had a \$24,000 annual benefit the numbers would be twice those shown in the table. But the general result would be the same: it is not until 1998 that the individual finally has an annual benefit with the same (or greater) purchasing power as the original benefit received. Second, the result does not mean that by 1998 the individual is fully compensated for the prior losses of purchasing power. It simply means that no further harm will occur. It would take many years of benefit amounts in excess of that needed to maintain purchasing power to offset the prior shortfalls. But this ignores an essential point--the individual may no longer be alive or sufficiently healthy to enjoy these late windfalls. The year 2005, for example, would be 30 years after the individual's retirement date. A person who retired at age 60 would now be 90 if still alive, while the person who retired at age 65, the normal retirement age, would be 95, and in all likelihood would have preferred larger benefit amounts earlier in retirement rather than excess amounts later because of the time value of money, which is not taken into account by the analysis provided here.

**Table 3**  
**\$12,000 Initial Annual Benefit – 1980 Retirement Date**

Year	Annual Benefit Amount	Amount Needed to Match Original Purchasing Power	Difference	Year	Annual Benefit Amount	Amount Needed to Match Original Purchasing Power	Difference
1980	\$12,000	\$12,000	--	1998	\$37,176	\$25,908	+\$11,268
1981	\$12,384	\$13,608	-\$1,224	1999	\$40,812	\$26,268	+\$14,544
1982	\$13,296	\$15,000	-\$1,704	2000	\$45,300	\$26,820	+\$18,480
1983	\$14,220	\$15,912	-\$1,692	2001	\$49,608	\$27,756	+\$21,852
1984	\$15,288	\$16,392	-\$1,104	2002	\$51,840	\$28,500	+\$23,340
1985	\$16,332	\$16,956	-\$624	2003	\$52,200	\$28,908	+\$23,292
1986	\$17,628	\$17,556	+\$72	2004	\$53,304	\$29,544	+\$23,760
1987	\$19,356	\$17,832	+\$1,524	2005	\$54,636	\$30,312	+\$24,324
1988	\$20,928	\$18,480	+\$2,448	2006	\$55,992	\$31,368	+\$24,624
1989	\$22,368	\$19,212	+\$3,156	2007	\$57,392	\$32,372	+\$25,020
1990	\$23,268	\$20,136	+\$3,132	2008	\$58,827	\$33,311	+\$25,516
1991	\$24,456	\$21,192	+\$3,264	2009	\$60,298	\$34,677	+\$25,621
1992	\$25,500	\$22,056	+\$3,444	2010	\$61,805	\$34,434	+\$27,371
1993	\$26,676	\$22,692	+\$3,984	2011*	\$63,041	\$35,157	+\$27,884
1994	\$28,272	\$23,328	+\$4,944	2012*	\$64,302	\$36,423	+\$27,879
1995	\$29,412	\$23,916	+\$5,496	2013	\$65,588	\$37,188	+\$28,400
1996	\$31,284	\$24,612	+\$6,672				
1997	\$33,792	\$25,320	+\$8,472				

\* TRA law provided no benefit increases in 2011 and 2012.

Table 3 displays results for 1980 retirees. From 1980 until very recently (2011 and 2012), the MSRS and PERA general employee plans and TRA provided identical percentage adjustments, so for this table and many that follow, it makes no material difference which plan we assume the individual retired from. The 1980 retiree group started retired life with high inflation in 1981 and 1982 and benefit increases which did not keep up. But soon the Post Fund began paying increases in excess of inflation, and by 1986 this group had benefits which began to exceed the inflation matching benefit amount. This occurred much sooner for this group than for the 1975 retirees discussed earlier, because the 1980 retirees were working through the last half of the 1970s, when inflation was high, but the 1975 retirees were already retired and losing considerable purchasing power due to that inflation. The 1980 retirees had much less of a deficit to overcome, so for the 1980 retirees the flip point occurs much earlier, in 1986. That is the date where the retirees are no longer being harmed going forward, but given the prior shortfalls, it will take a few years of excess benefits after 1986 to compensate for past harm, and longer if we were to be realistic and take into account the time value of money.

When assessing how this 1980 retiree group did under the system of post-retirement adjustments in place, the answer depends on how long the individual lives in retirement. Given benefit payments during the first several years of retirement which were below that necessary to maintain constant purchasing power, individuals who died several years after retiring may have been better off if they had received inflation matching benefits. On the other hand, individuals who lived longer began to receive annual benefit amounts considerably in excess of that necessary to keep them whole. So those who lived long did well financially.

Table 4 (below) shows results for 1985 retirees. In retrospect, these individuals retired at a very opportune time. From 1985 to the current time, inflation has generally been modest while post-retirement adjustments were often generous. Since the very first post-retirement adjustment for this group in 1986, this group's benefits exceed the inflation indexed benefit. An individual with a \$12,000 annual benefit in 1985 would need a \$26,303 annual benefit in 2013 to have the same purchasing power, but that individual is now receiving \$48,514. That is 184% of the inflation matching amount.

**Table 4**  
**\$12,000 Initial Annual Benefit – 1985 Retirement Date**

Year	Annual Benefit Amount	Amount Needed to Match Original Purchasing Power	Difference	Year	Annual Benefit Amount	Amount Needed to Match Original Purchasing Power	Difference
1985	\$12,000	\$12,000	--	2000	\$33,276	\$18,972	+\$14,304
1986	\$12,948	\$12,420	+\$528	2001	\$36,432	\$19,632	+\$16,800
1987	\$14,220	\$12,624	+\$1,596	2002	\$38,076	\$20,172	+\$17,904
1988	\$15,372	\$13,068	+\$2,304	2003	\$38,340	\$20,448	+\$17,892
1989	\$16,428	\$13,596	+\$2,832	2004	\$39,144	\$20,904	+\$18,240
1990	\$17,088	\$14,244	+\$2,844	2005	\$40,128	\$21,444	+\$18,684
1991	\$17,952	\$14,988	+\$2,964	2006	\$41,124	\$22,188	+\$18,936
1992	\$18,732	\$15,600	+\$3,132	2007	\$42,152	\$22,898	+\$19,254
1993	\$19,596	\$16,056	+\$3,540	2008	\$43,513	\$23,562	+\$19,951
1994	\$20,772	\$16,512	+\$4,260	2009	\$44,601	\$24,528	+\$20,073
1995	\$21,600	\$16,908	+\$4,692	2010	\$45,716	\$24,356	+\$21,360
1996	\$22,980	\$17,412	+\$5,568	2011*	\$46,630	\$24,867	+\$21,763
1997	\$24,816	\$17,916	+\$6,900	2012*	\$47,563	\$25,762	+\$21,801
1998	\$27,300	\$18,324	+\$8,976	2013	\$48,514	\$26,303	+\$22,211
1999	\$29,976	\$18,564	+\$11,412				

\* TRA law provided no benefit increases in 2011 and 2012.

Table 5 displays the results for the 1990 cohort. This is another group that did well financially. In 1991 the post-retirement adjustment was only .1% less than the inflation rate, resulting in a very minor loss of purchasing power. But this was immediately reversed in 1992, when the provided adjustment was slightly above inflation. From 1992 onward, this group has been receiving benefits in excess of amounts necessary to maintain purchasing power. An individual who started 1990 with a \$12,000 annual benefit would need \$22,164 in 2013 to stay whole given inflation, but would be receiving \$33,861, an amount which is 153% of the inflation-matching amount.

**Table 5**  
**\$12,000 Initial Annual Benefit - 1990 Retirement Date**

Year	Annual Benefit Amount	Amount Needed to Match Original Purchasing Power	Difference	Year	Annual Benefit Amount	Amount Needed to Match Original Purchasing Power	Difference
1990	\$12,000	\$12,000	--	2002	\$26,760	\$16,980	+\$9,780
1991	\$12,612	\$12,624	-\$12	2003	\$26,952	\$17,220	+\$9,732
1992	\$13,152	\$13,140	+\$12	2004	\$27,516	\$17,604	+\$9,912
1993	\$13,764	\$13,524	+\$240	2005	\$28,200	\$18,060	+\$10,140
1994	\$14,580	\$13,896	+\$684	2006	\$28,908	\$18,696	+\$10,212
1995	\$15,168	\$14,244	+\$924	2007	\$29,631	\$19,294	+\$10,337
1996	\$16,140	\$14,664	+\$1,476	2008	\$30,372	\$19,854	+\$10,518
1997	\$17,436	\$15,084	+\$2,352	2009	\$31,131	\$20,668	+\$10,463
1998	\$19,188	\$15,432	+\$3,756	2010	\$31,909	\$20,523	+\$11,386
1999	\$21,072	\$15,636	+\$5,436	2011*	\$32,547	\$20,954	+\$11,593
2000	\$23,388	\$15,984	+\$7,404	2012*	\$33,198	\$21,708	+\$11,490
2001	\$25,608	\$16,536	+\$9,072	2013	\$33,861	\$22,164	+\$11,697

\* TRA law provided no benefit increases in 2011 and 2012.

Table 6 shows the 1995 retiree results. Like the 1985 retirees, this is another group which from the first post-retirement adjustment to the current time has been receiving annual benefit amounts in excess of the amount needed to maintain original purchasing power. The 1995 retirees started retirement just prior to the very high post fund adjustments of the late 1990s and early 2000s. This group's current benefits are 144% of the inflation-matching amount.

**Table 6**  
**\$12,000 Initial Annual Benefit – 1995 Retirement Date**

Year	Annual Benefit Amount	Amount Needed to Match Original Purchasing Power	Difference	Year	Annual Benefit Amount	Amount Needed to Match Original Purchasing Power	Difference
1995	\$12,000	\$12,000	--	2005	\$22,308	\$15,204	+\$7,104
1996	\$12,768	\$12,348	+\$420	2006	\$22,872	\$15,744	+\$7,128
1997	\$13,788	\$12,708	+\$1,080	2007	\$23,444	\$16,248	+\$7,196
1998	\$15,180	\$12,996	+\$2,184	2008	\$24,030	\$16,719	+\$7,311
1999	\$16,668	\$13,164	+\$3,504	2009	\$24,631	\$17,404	+\$7,227
2000	\$18,504	\$13,452	+\$5,052	2010	\$25,247	\$17,282	+\$7,965
2001	\$20,256	\$13,932	+\$6,324	2011*	\$25,752	\$17,645	+\$8,107
2002	\$21,168	\$14,304	+\$6,864	2012*	\$26,267	\$18,280	+\$7,987
2003	\$21,324	\$14,508	+\$6,816	2013	\$26,792	\$18,664	+\$8,128
2004	\$21,768	\$14,820	+\$6,948				

\* TRA law provided no benefit increases in 2011 and 2012.



**Table 7**  
**\$12,000 Initial Annual Benefit – 2000 Retirement Date**

Year	Annual Benefit Amount	Amount Needed to Match Original Purchasing Power	Difference	Year	Annual Benefit Amount	Amount Needed to Match Original Purchasing Power	Difference
2000	\$12,000	\$12,000	--	2008	\$15,583	\$14,897	+\$686
2001	\$13,140	\$12,420	+\$720	2009	\$15,973	\$15,508	+\$465
2002	\$13,728	\$12,756	+\$972	2010	\$16,372	\$15,399	+\$973
2003	\$13,824	\$12,936	+\$888	2011	\$16,699	\$15,722	+\$977
2004	\$14,112	\$13,224	+\$888	2012*	\$17,033	\$16,288	+\$745
2005	\$14,472	\$13,560	+\$912	2013*	\$17,374	\$16,630	-\$744
2006	\$14,832	\$14,028	+\$804				
2007	\$15,203	\$14,477	+\$726				

\* TRA law provided no benefit increases in 2011 and 2012.

Table 7 shows results for the year 2000 retirees. A glance back at the graph of post-retirement adjustments and inflation, early in this memo, indicates that this group had an initial adjustment that was in excess of inflation. Since then, adjustments and inflation have been fairly modest, with inflation exceeding adjustments in some years while post-retirement adjustments modestly exceeded inflation in others. As a result there has been very little change for this group over time, as indicated by the difference column. Given the assumed \$12,000 annual benefit at retirement, after the first post-retirement adjustment the annual benefit would be \$720 more than needed to maintain purchasing power. Over the years that changes very little. In each year the benefit being received is modestly above that necessary to maintain original purchasing power. The most recent benefit amount, \$17,374, is about 104% of the amount needed to maintain original purchasing power.

It should be mentioned that results will differ slightly depending upon whether the retiree is from the MSRS, PERA, or TRA plan. There was no need to mention this refinement in discussing most previous tables because the general results were not dependent on the specific plan. But the 2000 retiree cohort retired more recently than the previous groups covered in this memo, so the differences between the post-retirement adjustments paid in 2011 and 2012, due to post-retirement adjustment revisions in the 2010 Financial Sustainability provisions, begin to make noticeable differences because the total period in retirement is shorter for this group. In 2011 and 2012, MSRS provided 2% adjustments (which is the adjustment used in the table), while PERA-General provided 1% adjustments and TRA provided none. On January 1, 2013, TRA began paying a 2% adjustment, the same as that applicable to MSRS-General, while PERA-General will continue to pay a 1% adjustment. PERA-General will provide 1% adjustments until financial stability is restored, defined in law for that plan as when two consecutive actuarial valuations show a funding ratio of at least 90% based on market value. For a TRA member retiring in 2000 with a \$12,000 annual benefit, the benefit received in 2011 and 2012 would have been \$16,372, the same as the amount indicated for 2010 in the table. For 2013, TRA would have increased the benefit by 2%, providing a \$16,699 benefit. But by 2013 the amount needed to keep pace with inflation would be \$16,630, so the TRA benefit would have exceeded the inflation-matching amount by only \$69. So the margin would be getting very slim for the TRA retiree. Another year or two of adjustments even modestly less than inflation would cause the TRA retiree to start receiving annual benefits with less purchasing power than when the person retired in 2000. The PERA-General retiree, who is now receiving 1% adjustments, is marginally ahead of the TRA retiree but behind the MSRS retiree. Going forward, retirees from all these plans are at risk because post-retirement increases are likely to be less than inflation. Of the groups covered here, the PERA-General retirees are the most vulnerable because of the likelihood of only 1% adjustments in the coming years.

**Table 8**  
**\$12,000 Initial Annual Benefit – 2005 Retirement Date**  
*(\$1,000 Initial Monthly Benefit)*

Year	Annual Benefit Amount	Amount Needed to Match Original Purchasing Power	Difference	Year	Annual Benefit Amount	Amount Needed to Match Original Purchasing Power	Difference
2005	\$12,000	\$12,000	--	2010	\$13,577	\$13,634	-\$57
2006	\$12,300	\$12,420	-\$120	2011*	\$13,849	\$13,920	-\$71
2007	\$12,608	\$12,817	-\$209	2012*	\$14,126	\$14,421	-\$295
2008	\$12,923	\$13,189	-\$266	2013	\$14,409	\$14,724	-\$315
2009	\$13,246	\$13,730	-\$484				

\* TRA law provided no benefit increases in 2011 and 2012.

Table 8 displays results for the year 2005 retirees. Glancing back to the inflation/post-retirement adjustment graph indicates that in the first few years of retirement the adjustments were less than inflation. This group has never recovered. In each year following retirement the benefit amount being received is less than that needed to maintain purchasing power, but the difference column shows that the shortfalls are not large, at least not yet.



Again, results must be modified somewhat to fully recognize the difference in 2011 and 2012 post-retirement adjustments between the MSRS plan and the PERA and TRA plans, and PERA's lower adjustment going forward. The TRA benefit in 2011 and 2012 would have remained at the 2010 level, a benefit of \$13,577, which would have been increased in 2013 by 2%, to \$13,849 - noticeably below the \$14,724 benefit indicated in 2013 as necessary to maintain purchasing power. For the TRA retiree, instead of a 2013 annual benefit that is \$295 too low to maintain purchasing power, the annual benefit would be \$875 too low. The PERA result would be between that indicated for MSRS and TRA.

Therefore, all retirees from the 2005 cohort from the plans covered here currently have a benefit with less purchasing power than when they retired; that will worsen going forward if inflation exceeds the post-retirement adjustments that will be provided, which is likely. The most vulnerable retirees will be from PERA-General if the adjustments provided by that plan continue to lag behind those provided by MSRS-General and TRA.

### Observations

Based on this review, a few observations can be made:

- Because of changes in post-retirement adjustment procedures over the years and different inflation experience, it is not possible to draw any universal conclusion regarding the purchasing power of past retirees. Depending on when the individuals retired, some cohorts have benefits considerably in excess of that needed to maintain purchasing power, while others have considerably less. For some groups, a general assessment would depend on how long the individuals live in retirement, because generous benefits late in retirement are of no value to those who do not live to enjoy them.

Very generous benefit adjustments occurred during the approximate 1982-2002 period, adjustments which were often considerably in excess of inflation. Groups that retired during that period appear now have benefits considerably in excess of that necessary to maintain purchasing power, although that is less true at the margins. The 1975 cohort lost considerable purchasing power prior to the beginning of generous adjustments during the 1980s. Despite later generous benefit adjustments, it took a few decades before their purchasing power recovered. The 1980 cohort lost purchasing power during the first few years of retirement, not regaining the initial purchasing power until 1986. The 2000 retiree cohort retired at the very end of this golden period. They had an initial boost, creating benefits somewhat in excess of the inflation matching benefit, but this modest excess is eroding and is likely to soon disappear.

- Post-retirement adjustment experience during the early portion of retirement plays a critical role in how well a group will fair during the entire retirement period. If purchasing power is permitted to seriously erode during the early years of retirement, the retiree's purchasing power may never recover. On the other hand, if overly generous adjustments are received in the early years of retirement, it might take a prolonged period of deficient adjustments before purchasing power falls back that that of the original benefit.

If individuals were to receive inflation matching adjustments during the early portion of the retirement period, a continuation of that practice will maintain the purchasing power of the benefit received from the plan throughout the retiree's life. If, during the first several years of retirement the value of the benefit is permitted to seriously erode due to no adjustments or adjustments which seriously lag inflation, the retiree's purchasing power may never recover. Implementing inflation-matching adjustments at some later point only serves to lock in the prior losses. Even if later there were a prolonged period of adjustments which exceed inflation, it may take years before the annual benefit has the same purchasing power as the initial benefit, because those adjustments are being applied to a base that was first permitted to erode. This is demonstrated by the 1975 retiree cohort reviewed in this memo, which lost considerably purchasing power in the initial years of retirement and which did not again have an annual benefit with the same purchasing power until 23 years after they retired.





funding ratio. Mortality and demographic assumptions differ. Even if everything else were the same except for the asset smoothing methodology, the results will differ. Actuarial value is used to smooth the changes in market value over time. If one state recognizes more of the difference between market value and actuarial value than another state, the computed funding ratios will differ.

A final comment regards the use of different actuarial methodologies. Different methodologies applied to the same data would yield different computed funding ratios. In the PEW presentation, Wisconsin has the highest funding ratio of any state, 100%. This might be an artifact of Wisconsin's methodology. Wisconsin uses an actuarial methodology rarely used by public plans, the "entry age frozen initial liability method." Information available on the internet suggests that under that methodology the unfunded liability (if any) that existed when the plan was first created is recognized. But after the initial unfunded liability is paid off, no unfunded liability is recognized thereafter regardless of the experience of the plan. Consider a shock to the plan, such as a large loss of asset value due to the Great Recession. Under the entry age normal method used by Minnesota and most other states, the computations would indicate an unfunded liability, to be amortized through an amortization contribution. Under the Wisconsin approach, the needed contribution amounts may instead be captured by the normal cost computation. A consequence of the procedure is that the computed funding ratio is always 100%.

The Great Recession decimated pension fund asset values. Prior to that, Minnesota had plans with very high funding ratios, including some in past years that were considerably in excess of 100%. Plans now are recovering from the market value hit which occurred in 2008-2009. According to the PEW material, by fiscal year 2010, Minnesota had climbed back to 80% funded while Wisconsin was 100% funded. It seems odd that either Wisconsin somehow avoided the Great Recession market value losses, or was able to fully recover far quicker than plans in any other state.

#### Survey of Other States with High Reported Funding Ratios

With the previous reservations, the following provides the following survey of post-retirement adjustment procedures used in states located in the northern half of the country and which PEW identified as having at least 80% funding ratios in fiscal 2010. In considering the options indicated in the memo, Commission members may wish to consider that the approach being used by a given state may reflect recent pension fund actuarial problems, rather than the policies which that state's legislature would support in more normal times. The post-retirement procedures may also reflect a legislature's failure to more directly address other problem areas. Rather than discourage early retirement directly by revising early retirement ages or by reducing or eliminating subsidies for early retirement, that legislature may be discouraging early retirement by providing inadequate post-retirement adjustments. Similarly, a legislature may be providing inadequate post-retirement adjustments to offset benefits at the time of retirement which are deemed to be excessive.

##### a. Wisconsin

- Reported funding ratio: 100%.
- Post-Retirement Procedure. Wisconsin provides adjustments to retirees solely based on investment performance. In years of high performance increases are distributed to retirees in the form of percentage adjustments to the annuity amount. In bad years benefits can be reduced. There is a floor: the benefit being received will never be lower than the initial benefit at the time of retirement.
- Comments: Available materials suggest no stated policy objective beyond a willingness to share a portion of investment gains with retirees, if investment returns permit a distribution. Retiree booklets state that any distributions should not be considered as cost-of-living increases and should not be relied upon.

##### b. Iowa

- Reported funding ratio: 81%.
- Post-Retirement Procedure. Iowa's procedures vary depending upon when the individual retired. For those retired prior to July 1, 1990, a capped inflation match may be provided if certified by the actuary as being affordable. The increase must not exceed 3%, or the percentage certified by the actuary as affordable.

For those who retire after June 30, 1990, a different procedure is used. The actuary computes an adjustment factor per year of service, deemed to be affordable for the plan but not to exceed 3%. Any amounts distributed under this system are paid in a lump sum, and are not guaranteed and are not built into the base. The lump sum amount for the individual is computed by multiplying the person's annual benefit by the adjustment factor and by years in retirement.

- Comments: Iowa had been using a capped inflation match, but the newer procedure applicable to those retiring after mid-1990 seems to be a move away from that practice. Under the newer procedure, the increase amounts might not be related to inflation. They may instead be some form of distribution of investment earnings deemed “excessive.” In the actuary’s summary of plan provisions, distributions under the older procedure are referred to as a capped inflation match, with the added caveat of actuary certification. But adjustments under the newer procedure are referred to as “favorable experience distributions.” So under the new procedure distributed amounts may not have a firm tie to inflation and they can be temporarily or permanently discontinued.

c. South Dakota

- Reported Funding Ratio: 96%.
- Post-Retirement Procedure. South Dakota has three separate procedures depending on the plan’s health as measured by funding ratios, but the adjustment cannot be less than 2.1%:
  - 1) If the funding ratio based on market value is less than 80%, a 2.1% increase is paid.
  - 2) For funding ratios of at least 80% but less than 100%, capped inflation matches with a floor are used. If the funding ratio is at least 80% but less than 90%, the adjustment will match inflation up to 2.4% but must be at least 2.1%. If the funding ratio is at least 90% to less than 100%, the adjustment will match inflation up to 2.8% but must be at least 2.1%.
  - 3) If the plan has a funding ratio of 100% or more, a 3.1% adjustment is paid regardless of the inflation rate.
- Comments: South Dakota has a combination not currently seen in Minnesota plans, a capped inflation match with a floor. Lacking firsthand knowledge of the situation, we can only speculate on the policy underpinnings for a fixed 3.1% adjustment paid when the funding ratio is at least 100%. Perhaps it is simply based on what is deemed affordable. Perhaps it reflects an estimate of long-term inflation. Another possibility is that it is set at a rate slightly higher than expected long-term inflation, with an intention of compensating for prior years where post-retirement adjustments were less than the inflation rate.

- d. Nebraska. Nebraska state and county employees, at least newer employees, do not have access to a defined benefit plan. Their options are between two plans, a defined contribution plan and a cash balance plan. The defined contribution plan is typical, with the employees selecting their own investment options from those made available to them. The cash balance plan could be viewed as a defined contribution plan with a minimum guaranteed return. With the cash balance plan, contributions are deposited in the plan trust and are invested by the state rather than the employee. Guaranteed returns, at the “federal mid-term rate” plus 1.5%, with a floor rate of 5%, are credited to the account. If the actual investment returns are deficient as revealed by an actuarial review, any deficiency is covered by an appropriation. If the review reveals an excess, a special dividend might be allocated to the member accounts.

No true post-retirement adjustment provision is applicable to either of these plans. At the member’s request, Nebraska will annuitize the member’s account value from the cash balance plan upon retirement, and Nebraska does offer an optional annuity under which benefits will be escalated during retirement by 2.5% per year. But this appears to be an actuarial equivalent annuity form, since there is no other funding source to provide these increases. The annual benefit at retirement will be considerably reduced, then escalated at 2.5% annually. The reductions during the early portion of retirement are computed to be sufficient to cover the excess benefits to be received later in retirement.

Nebraska teachers, and all other employees of school districts, do have a defined benefit plan, and it appears to be the only option other than withdrawal of the account. On the Nebraska government website this is referred to as the School Pension Plan. The plan computes benefits based on the high three average salary and uses 2% accrual rate (benefit multiplier). Post-retirement features of this teacher plan are described below:

- Reported Funding Ratio: 84%.
- Post-Retirement Procedure. The Nebraska School Pension Plan provides an inflation match capped at 2.5%, coupled with a minimum purchasing power guarantee. If the capped inflation match adjustments are insufficient to maintain at least 75% of the retirement benefit’s original purchasing power, additional payment is made to bring the individual up to the 75% level.
- Comments: The minimum purchasing power guarantee is an interesting feature we have not found in other plans. It could be used separately, or coupled with a capped inflation match provision, to ensure that no retiree suffers a decline in purchasing power deemed unacceptable by the Legislature.

- e. Wyoming. Wyoming recently revised pension plans, with a new plan or Tier being applicable to those starting service after August 2012 or later. Employees who started service earlier are in Tier 1, while the new employees are in Tier 2. Tier 1 employees have a 2.125% accrual rate and are eligible for unreduced retirement at age 60 or upon achieving the Rule of 85 (when years of service plus age equals at least 85). Tier 2 employees have a 2.0% accrual rate, and can retire with full benefits at age 65 or upon attaining the Rule of 85.
- Reported Funding Ratio: 86%.
  - Post-Retirement Procedure. No automatic adjustments are provided. The Wyoming Public Employee Pension Plan Handbook includes a statement that the Legislature may grant occasional ad hoc increases, but only if the plan has a funding ratio in excess of 100%, and only if the pension fund, after the increase, remains at least 100% funded.
  - Comments: The design of the Wyoming plan or plans can be questioned. The accrual rate, whether for Tier 1 or Tier 2, is above national averages, and the accrual rate is coupled with very low effective retirement age because of the Rule of 85. Individuals who enter public employment at an early age will hit the Rule of 85 while comparatively young. For example, an individual entering covered employment at age 20 could qualify for the Rule of 85 at age 52 and one half. The high benefit payable at a very young age makes the plan expensive. A post-retirement adjustment procedure would provide some protection against benefit erosion during the long expected retirement, but this would further add to cost. Wyoming has chosen to provide no scheduled increases, but this will allow the retiree's purchasing power to seriously erode during retirement. Perhaps the Wyoming legislature views this as an appropriate treatment to remedy a benefit that is too generous at retirement, or to discourage individuals from using the Rule of 85 provision.
- f. New York State. New York has many different tiers of employee pension plans, depending upon when the employee began employment. Procedures described here apply to the general employee plan members, Tiers 3 and 4, covering employees who entered the system during the 1976 through 2009 period, and Tier 6, applicable to the newest employees, those who entered service in April 2012 or later.
- Reported Funding Ratio: 94%.
  - Post-Retirement Procedure. The percentage adjustment is half the inflation rate, but the adjustment cannot be less than 1% or more than 3%. Also, adjustments apply to only the first \$18,000 of annual benefit.
  - Comments: New York State plans have several employee tiers, with the applicable tier depending on when the employee started employment. Commission staff reviewed employee booklets for a few of these tiers, and they all appear to use the post-retirement adjustment provision described above.
- g. Oregon. Oregon is in a transition phase. Two prior plans were closed to new members, while the new general employees hired since 2003 becoming members of a plan called the Oregon Public Service Retirement Plan (OPSRP). Each OPSRP member is covered by two separate components, a defined benefit plan and an individual account program. Materials on line suggest that the defined benefit component is financed solely by the employer. At retirement, that component will provide benefits not much below those that would be provided by our MSRS-General and PERA-General Plans. Our two plans use a high-five average salary and a 1.7% accrual rate. The Oregon defined benefit component will use a high-three average salary and a 1.5% accrual rate. The other component in the Oregon system is the individual account program. That component is financed by mandatory employee contributions, but it appears that Oregon law will permit those to be instead paid, in whole or part, by the employer. At retirement, the individual will receive the benefit from the defined benefit component plus the value of the account in the individual account program. The value of the two benefits combined is likely to be considerably more than the value of the benefit a comparable individual would receive if the person were in Minnesota public employment, covered by MSRS-General or PERA-General.

The following description, other than the funding ratio which presumably captures both the new defined benefit plan or plans and previous closed plans, applies to the defined benefit component of the OPRSP:

- Reported Funding Ratio: 94%.
- Post-Retirement Procedure. Beginning in 2014, fixed percentage increases will be provided, but different adjustment percentages will apply to different portions of the benefit. A 2% increase will be applied to the first \$20,000 of annual benefit. Any benefit amount between \$20,001 and \$40,000 will be increased by 1.5%. Any benefit amounts between \$40,001 and \$60,000 will be increased by 1%. A 0.25% increase will apply to amounts in excess of \$60,000.

- Comments: These procedures may be subject to further revision. Since this is a new plan, applicable to 2003 and later hires, these provisions have limited current application because few individuals have retired. Overall, the combined benefits from the defined benefit and individual account program appear generous. The level of that combined benefit may have played a role in deciding to use a specified percentage increase at a fairly low level, rather than an inflation match up to some higher percentage, and the decision to apply very low adjustment percentages to portions of high-value benefits.

h. Utah. Utah is also in a transition phase. General employees hired before July 1, 2011, are in the Tier 1 program, which is a defined benefit plan having a 2% accrual rate (benefit multiplier). New hires since July 2011 are Tier 2 members.

The employee handbook suggests that Tier 2 plans are funded solely by the employer through a 10% of pay contribution. Tier 2 members have a choice between two types of retirement coverage. The first is a hybrid plan and the second is a defined contribution plan. If the defined contribution plan is selected, the employer contributes 10% of pay into that plan on behalf of the employee. If the hybrid plan is selected, the individual's primary coverage is a defined benefit plan with a 1.5% accrual rate. This plan is funded by the employer by a 10% of pay contribution. If the required contribution as determined by the actuary is less than 10%, the residual amount is deposited in a defined contribution account for the member.

- Reported Funding Ratio: 82%.
- Post-Retirement Procedure. For employees covered by the Tier 1 plan, which is a defined benefit plan, the post-retirement adjustment is a 4% capped inflation match. If the employee is covered by the Tier 2 defined benefit plan, the post-retirement adjustment is a 2.5% capped inflation match.

i. Washington State. Washington has separate plans for general employees, depending on whether the employee is a teacher, other school district employee, or other state or local employee. But the plans seem to be quite similar. These Washington plans have similarities to Utah, by having pure defined benefit plans and also hybrid plans which are a combination of a downsized defined benefit plan with a defined contribution component. With the hybrid, the employer finances the defined benefit component while employee contributions finance the defined contribution component.

There are a few differences between the Utah and Washington plans. Nothing in the Washington employee booklets available online suggests that any general employees are covered solely by a defined contribution plan. Also, while new employees in Utah must be covered by the hybrid plan, Washington is headed in the opposite direction. Washington employees hired in the 1996 to 2007 period had mandatory hybrid coverage. Newer employees, however, have the option of pure defined benefit plan coverage or coverage by the hybrid. If no election is made, default coverage is the hybrid. The accrual rate in the pure defined benefit plans is 2% while in the hybrid plans it is 1%.

- Reported Funding Ratio: 82%.
- Post-Retirement Procedure. The post-retirement adjustment procedure for the pure defined benefit plan is a 3% capped inflation match. The post-retirement adjustment procedure for the defined benefit component of the hybrid is the same, a 3% capped inflation match.

j. Delaware. Delaware has a few different plans covering general employees, including one for state employees and another for local and county employees.

- Reported Funding Ratio: 82%.
- Post-Retirement Procedure. For the state employee plan, any post-retirement adjustments are on an ad hoc basis. Commission staff can find no mention of post-retirement increase provisions in the local plan on line plan actuarial report. Presumably none is provided except on an ad hoc basis.
- Comments: Delaware's plans are bare-bones defined benefit plans. The accrual rate in the Delaware state plan is 2% for service before 1997 and 1.85% for service thereafter. The rate for the Delaware local employee plan is 1.66% for all years of service. For comparison, the accrual rate for Minnesota's MSRS-General and PERA-General is 1.7%, while TRA's is 1.7% for pre 2006 service and 1.9% thereafter. So while the Delaware rates are not that different from those in the Minnesota plans, the lack of any post-retirement adjustment provision in the Delaware plans quickly erodes the real value of the Delaware plan benefits.





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**From:** Karla Sainz [KSainz@arnoldfoundation.org]  
**Sent:** Tuesday, October 22, 2013 7:53 AM  
**To:** Ed Burek  
**Cc:** Josh McGee; Stuart Buck  
**Subject:** Follow up- Inquiry-Laura and John Arnold Foundation

Dear Mr. Burek,

We appreciate you reaching out to the Foundation in regards to this very pressing issue. At this time we will not be able to attend the Commissions Oct. 23<sup>rd</sup> meeting but we are able to provide a brief overview of our policy recommendations when it comes to Cost of Living Adjustments and their implications for reform:

1. A COLA is a substantial and important benefit for employees
2. COLAs are intended to protect benefits from inflation and as such it is always a good idea to link COLAs to the CPI
3. COLAs should always be paid for before they are given (never add to the UAAL) either through normal cost or through annual appropriations

If you would prefer a formal submission from the Foundation, please submit a letter from the Commission to the Foundation and we will provide additional information as time permits.

Sincerely,

*Karla Sainz*  
Laura and John Arnold Foundation  
Public Accountability Manager  
2800 Post Oak Blvd., Suite 225  
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