

PERAC REVIEW OF ALTERNATIVE RETIREMENT BENEFIT PLAN FEBRUARY 2000

Pursuant to Section 272 of Chapter 127 of the Acts of 1999, we have conducted an actuarial review of an alternative retirement benefit plan for higher education employees. The plan we valued parallels the Early Retirement Incentive program (ERI) offered to most state employees under Chapter 22 of the Acts of 1992. Eligibility for that program was limited to active members who at the time of the program were eligible for a superannuation benefit under Chapter 32 (age 55 and 10 years of service). Members who elected this option received the benefit determined by adding 5 years to age and/or service in the combination that produced the largest benefit with the benefit not exceeding 80% of highest 3 –year average annual pay. We used the same benefit in this analysis.

Our review is based on the number of members in the State Retirement System employed by the Board of Education and based on the January 1, 1999 data provided by the State Retirement Board. That data showed 20,809 members employed at higher education state colleges and universities. The actuarial, economic and demographic assumptions used in this review are the same as those used in our January 1, 1998 Commonwealth valuation.

We have enclosed two exhibits showing estimated costs. Exhibit 1 assumes that all members who are age 55 with 10 years of service would be eligible for and elect the benefit. There are 3,941 members in this group. Exhibit 2 assumes that all members who are age 55 with 25 years of service would be eligible for and elect the benefit. There are 1,675 members in this group. Presumably not all members would elect the benefit, so these figures represent a worst case basis.

As part of this study, we analyzed the costs including employees hired to replace the members who would elect to retire. Instead of using the number of members to be replaced, we used the amount of salary to be replaced. Usually with an early retirement incentive, even if 100% of the retiring members are replaced, salaries will be significantly less than before. For comparison, we used 25%, 50%, 75% and 100% salary replacement.

The *Replacement Hires* portion of the exhibits outline the estimated costs for replacement under the various scenarios. Item 12 reflects the additional normal cost expected for the replacement group.

The *Eligible Retirees* portion of the exhibits outline the cost for the retiring members. There is an increase in liability associated with the increased benefit (the additional years and/or service). This amount is then amortized until FY 2017 (the current period under the Commonwealth's funding schedule (item 19). There is also a decrease associated with the program since there would no longer be a normal cost for the retiring members (item 16). The net annual cost in the first year of the program, before replacement is considered, is shown in item 20. The cost including replacement hires is shown in item 21.

We are available to discuss these results further.

EXHIBIT 1

ALTERNATIVE RETIREMENT BENEFIT PLAN (ERI for HIGHER EDUCATION MEMBERS)

(Dollars in thousands)

Eligibility for Enhanced Benefit (ERI): Age 55 Service 10

1. Assumed salary replacement rate	25%	50%	75%	100%
2. Number of active members	20,809	20,809	20,809	20,809
3. Number of eligible members	3,941	3,941	3,941	3,941
4. Salary of eligible members	213,961	213,961	213,961	213,961
5. Average salary of eligible members	54.3	54.3	54.3	54.3
Replacement hires				
6. Total normal cost as % salary (State total)	14.0%	14.0%	14.0%	14.0%
7. Expected salary of replacement hires: (1) x (4)	53,490	106,981	160,471	213,961
8. Total normal cost for replacement hires: (6) x (7)	7,489	14,977	22,466	29,955
9. Expected contribution rate for replacement hires	9.5%	9.5%	9.5%	9.5%
10. Expected contribution for replacement hires: (7) x (9)	5,082	10,163	15,245	20,326
11. Expected State normal cost for replacement hires: (8) - (10)	2,407	4,814	7,221	9,628
12. Expected State normal cost 1/00 for replacement hires (11) x 1.06	2,551	5,103	7,654	10,206
Eligible retirees				
13. Active accrued liability 1/99	885,671	885,671	885,671	885,671
14. Estimated active liability 1/00	988,849	988,849	988,849	988,849
15. State portion of normal cost 1/99	15,131	15,131	15,131	15,131
16. State portion of normal cost 1/00	16,039	16,039	16,039	16,039
17. Liability as retirees 1/00 with ERI	1,235,596	1,235,596	1,235,596	1,235,596
18. Increase in liability due to ERI: (17) - (14)	246,747	246,747	246,747	246,747
19. Amortization of increase in liability (8.25%, 17 years)	25,407	25,407	25,407	25,407
20. Net cost before replacement hires: (19) - (16)	9,368	9,368	9,368	9,368
21. Estimated cost with replacement hires: (12) + (20)	11,920	14,471	17,023	19,574

Notes

- a. The overall cost of the program would reflect an increase in liability, a decrease in normal cost for the members electing the benefit, and an increase due to the cost of replacement hires. Since the replacement cost is difficult to measure, we have shown several scenarios.
- b. Total normal cost rate of 14% reflects total State 1999 valuation data.
- c. Expected employee contribution rate of 9.5% assumes new hires at \$40,000.
- d. Active accrued liability (both 1/99 and 1/00) assumes members continue as active.
- e. Data is as of 1/99. We estimated all liabilities as of 1/00.
- f. Liability as retirees assumes all members would take the enhanced ERI benefit. The ERI adds 5 years to age and/or service to determine the enhanced benefit. The 80% maximum still applies.
- g. Amortization period reflects current Commonwealth schedule.
- h. Actuarial assumptions are the same as those used in the 1/1/98 Commonwealth Valuation.

EXHIBIT 2

ALTERNATIVE RETIREMENT BENEFIT PLAN (ERI for HIGHER EDUCATION MEMBERS)

(Dollars in thousands)

Eligibility for Enhanced Benefit (ERI): Age 55 Service 25

1. Assumed salary replacement rate	25%	50%	75%	100%
2. Number of active members	20,809	20,809	20,809	20,809
3. Number of eligible members	1,675	1,675	1,675	1,675
4. Salary of eligible members	108,240	108,240	108,240	108,240
5. Average salary of eligible members	64.6	64.6	64.6	64.6
Replacement hires				
6. Total normal cost as % salary (State total)	14.0%	14.0%	14.0%	14.0%
7. Expected salary of replacement hires: (1) x (4)	27,060	54,120	81,180	108,240
8. Total normal cost for replacement hires: (6) x (7)	3,788	7,577	11,365	15,154
9. Expected contribution rate for replacement hires	9.5%	9.5%	9.5%	9.5%
10. Expected contribution for replacement hires: (7) x (9)	2,571	5,141	7,712	10,283
11. Expected State normal cost for replacement hires: (8) - (10)	1,218	2,435	3,653	4,871
12. Expected State normal cost 1/00 for replacement hires (11) x 1.06	1,291	2,582	3,872	5,163
Eligible retirees				
13. Active accrued liability 1/99	532,484	532,484	532,484	532,484
14. Estimated active liability 1/00	588,543	588,543	588,543	588,543
15. State portion of normal cost 1/99	5,569	5,569	5,569	5,569
16. State portion of normal cost 1/00	5,903	5,903	5,903	5,903
17. Liability as retirees 1/00 with ERI	737,528	737,528	737,528	737,528
18. Increase in liability due to ERI: (17) -(14)	148,985	148,985	148,985	148,985
19. Amortization of increase in liability (8.25%, 17 years)	15,341	15,341	15,341	15,341
20. Net cost before replacement hires: (19) - (16)	9,438	9,438	9,438	9,438
21. Estimated cost with replacement hires: (12) + (20)	10,728	12,019	13,310	14,601

Notes

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- b. Total normal cost rate of 14% reflects total State 1999 valuation data.
- c. Expected employee contribution rate of 9.5% assumes new hires at \$40,000.
- d. Active accrued liability (both 1/99 and 1/00) assumes members continue as active.
- e. Data is as of 1/99. We estimated all liabilities as of 1/00.
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- g. Amortization period reflects current Commonwealth schedule.
- h. Actuarial assumptions are the same as those used in the 1/1/98 Commonwealth Valuation.