MAY, 2003

# **Analysis of Early Retirement Incentive Program (ERIP)**

for the Barnstable County Retirement System

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#### INTRODUCTION

The Public Employee Retirement Administration Commission (PERAC) is pleased to release our analysis of Chapter 116 of the Acts of 2002. An Act Providing for Local Government Workforce Reduction Through an Early Retirement Incentive Program (ERIP) for Certain Employees for the Barnstable County Retirement System. The ERIP was adopted by the following units: County of Barnstable, Barnstable County Hospital, Town of Barnstable, Barnstable Fire District, Barnstable Housing Authority, Town of Bourne, Bourne Recreation Authority, Bourne Water District, Town of Brewster, Cape Cod Mosquito Control, Dennis Housing Authority, Town of Eastham, Hyannis Fire District, Town of Mashpee, Town of Truro, Veteran's District and Town of Wellfleet. Section 1 of the law directed PERAC to complete an analysis of the costs and liabilities attributable to the additional benefits payable in accordance with the Act and submit a report to the board by December 31, 2003.

The law provides that retirement allowances of members who participated in the ERIP be determined by adding up to 5 years to the member's age and/or creditable service (any combination in full years up to a maximum of 5 vears). A member's enhanced benefit cannot exceed 80% of the average rate of annual compensation used in his/her calculation. Members retiring under the program had effective dates of retirement between July 31, 2002 and December 31, 2002.

This study was based on active member data as of December 31, 2001, and additional data for retirees who were eligible for and elected the ERIP. All data was supplied by the board. We previously reviewed the December 31, 2001 data as part of the 2002 data submission process. We reviewed each member's data as both an active and retired member for reasonableness and consistency.

We used the investment return assumption used in the most recent actuarial valuation report. For all other assumptions, we used the standard PERAC assumption set for performing actuarial valuations as of January 1, 2002. These assumptions differ from the assumptions used in your last actuarial valuation performed as of January 1, 2002. The assumptions are shown at the back of this report.

We believe this report represents an accurate appraisal of the costs and liabilities of the ERIP for the retirement system. This analysis was performed in accordance with generally accepted actuarial principles and practices relating to pension plans. In our opinion, the actuarial assumptions used in this report are reasonable, related to plan experience and expectations, and represent our best estimate of anticipated experience.

Respectfully submitted.

Public Employee Retirement Administration Commission

Member of the American Academy of Actuaries

Associate of the Society of Actuaries Enrolled Actuary Number 02-4709

Joseph E. Connarton

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Executive Director

Dated: May 23, 2003

### COST ANALYSIS BY GOVERNMENTAL UNIT

#### Methodology

The results of our analysis for each governmental unit that accepted the ERIP are presented on the following pages. Participating units had the option to limit the number of years and/or the number of members eligible to retire under the program. Such limitations are noted.

Our analysis of the cost of the ERIP consisted of measuring the change in both the actuarial accrued liability and normal cost before and after the application of the enhanced benefit. The amortization of the increase in actuarial accrued liability and the normal cost form the basis of the impact of the ERIP on the plan's funding schedule. These items are discussed below.

#### **Actuarial Accrued Liability**

We measured the increase in actuarial accrued liability due to the incentive for each member who retired under the program. First, we valued the group as active members on January 1, 2002 (including any changes to reflect service adjustments made after January 1, 2002, such as service buy-backs). This calculation determines the liability attributable to the employees who elected the ERIP exclusive of the additional liability associated with the incentive program. These results were then brought forward on an actuarial basis to reflect the estimated accrued liability as of the respective retirement date for each unit.

We then valued the same group as retirees after the application of the ERIP. These liabilities were determined as of the respective retirement date for each unit.

The accrued liability for the members as retirees including the ERIP less the accrued liability for the members as active employees excluding the ERIP represents the increase in accrued liability due to the ERIP. This increase will be amortized as part of the system's funding schedule and will be a component of the system's annual appropriation. We assumed the amortization of the increase in liability would begin with the FY04 appropriation.

#### **Normal Cost**

The increase in actuarial liability is somewhat offset by a decrease in normal cost. The normal cost, or actuarial cost for the current year for active members, is shown as of January 1, 2002. There is no normal cost for retired members. Any decrease in normal cost for a retiring member would only be expected to last for a few years (the period the member would have remained in active service if the ERIP were not implemented).

### **Barnstable County**

Actives		
Number of Members	26	
Average Service	23.1	
Average Compensation	\$51,666	

Retirees		
Number of Members	26	
Average Age	57.9	
Average Annual Benefit	\$32,174	

	As Actives	As Retirees
Total Regular Compensation	\$1,343,300	N/A
Total Normal Cost	\$237,100	N/A
Employee Contributions	\$89,500	N/A
Net Employer Normal Cost	\$147,600	N/A
Actuarial Liability (as of August 31, 2002)	\$6,859,700	\$9,471,200

Increase in Actuarial Liability (as of August 31, 2002)	\$2,611,500
Amortization of Increase for FY04 (assumed average payment October 1)	
4.5% annual increasing basis to 2028	\$168,300

The above results provide a measure of the increase in actuarial accrued liability and decrease in normal cost due to the ERIP. The actuarial liability and normal cost were determined as active members (before the implementation of the ERIP) and as retired members (with the enhanced ERIP benefit).

### **Barnstable County Hospital**

Activ	ves
Number of Members	2
Average Service	16.2
Average Compensation	\$34,272

Retirees		
Number of Members	2	
Average Age	58.7	
Average Annual Benefit	\$12,357	

	As Actives	As Retirees
Total Regular Compensation	\$68,500	N/A
Total Normal Cost	\$7,800	N/A
Employee Contributions	\$5,600	N/A
Net Employer Normal Cost	\$2,200	N/A
Actuarial Liability (as of August 31, 2002)	\$255,600	\$331,000

Increase in Actuarial Liability (as of August 31, 2002)	\$75,400
Amortization of Increase for FY04 (assumed average payment October 1)	
4.5% annual increasing basis to 2028	\$4,900

The above results provide a measure of the increase in actuarial accrued liability and decrease in normal cost due to the ERIP. The actuarial liability and normal cost were determined as active members (before the implementation of the ERIP) and as retired members (with the enhanced ERIP benefit).

#### Town of Barnstable – Limited to 17 Group 1 and 3 Group 4 Employees

Actives		
Number of Members	20	
Average Service	27.6	
Average Compensation	\$44,250	

Reti	rees
Number of Members	20
Average Age	59.2
Average Annual Benefit	\$30,159

	As Actives	As Retirees
Total Regular Compensation	\$885,000	N/A
Total Normal Cost	\$91,500	N/A
Employee Contributions	\$48,500	N/A
Net Employer Normal Cost	\$43,000	N/A
Actuarial Liability (as of October 31, 2002)	\$5,083,600	\$6,640,700

Increase in Actuarial Liability (as of October 31, 2002)	\$1,557,100
Amortization of Increase for FY04 (assumed average payment October 1)	
4.5% annual increasing basis to 2028	\$99,000

The above results provide a measure of the increase in actuarial accrued liability and decrease in normal cost due to the ERIP. The actuarial liability and normal cost were determined as active members (before the implementation of the ERIP) and as retired members (with the enhanced ERIP benefit).

### **Barnstable Fire District – Limited to 2 years**

Actives		
Number of Members	1	
Average Service	32.1	
Average Compensation	\$61,063	

Reti	rees
Number of Members	1
Average Age	54.0
Average Annual Benefit	\$49,069

	As Actives	As Retirees
Total Regular Compensation	\$61,100	N/A
Total Normal Cost	\$9,000	N/A
Employee Contributions	\$4,600	N/A
Net Employer Normal Cost	\$4,400	N/A
Actuarial Liability (as of October 31, 2002)	\$398,500	\$547,600

Increase in Actuarial Liability (as of October 31, 2002)	\$149,100
Amortization of Increase for FY04 (assumed average payment October 1)	
4.5% annual increasing basis to 2028	\$9,500

The above results provide a measure of the increase in actuarial accrued liability and decrease in normal cost due to the ERIP. The actuarial liability and normal cost were determined as active members (before the implementation of the ERIP) and as retired members (with the enhanced ERIP benefit).

### **Barnstable Housing Authority**

Actives		
Number of Members	2	
Average Service	18.6	
Average Compensation	\$28,837	

Reti	rees
Number of Members	2
Average Age	54.6
Average Annual Benefit	\$9,990

	As Actives	As Retirees
Total Regular Compensation	\$57,700	N/A
Total Normal Cost	\$5,600	N/A
Employee Contributions	\$4,200	N/A
Net Employer Normal Cost	\$1,400	N/A
Actuarial Liability (as of December 31, 2002)	\$234,000	\$286,100

Increase in Actuarial Liability (as of December 31, 2002)	\$52,100
Amortization of Increase for FY04 (assumed average payment October 1)	
4.5% annual increasing basis to 2028	\$3,300

The above results provide a measure of the increase in actuarial accrued liability and decrease in normal cost due to the ERIP. The actuarial liability and normal cost were determined as active members (before the implementation of the ERIP) and as retired members (with the enhanced ERIP benefit).

### Town of Bourne - Limited to 12 Group 1, 1 Group 2 and 6 Group 4 Employees

Actives		
Number of Members	18	
Average Service	23.1	
Average Compensation	\$39,312	

Retirees		
Number of Members	18	
Average Age	56.5	
Average Annual Benefit	\$23,211	

	As Actives	As Retirees
Total Regular Compensation	\$707,600	N/A
Total Normal Cost	\$85,500	N/A
Employee Contributions	\$43,900	N/A
Net Employer Normal Cost	\$41,600	N/A
Actuarial Liability (as of December 31, 2002)	\$3,703,900	\$4,864,600

Increase in Actuarial Liability (as of December 31, 2002)	\$1,160,700
Amortization of Increase for FY04 (assumed average payment October 1)	
4.5% annual increasing basis to 2028	\$72,900

The above results provide a measure of the increase in actuarial accrued liability and decrease in normal cost due to the ERIP. The actuarial liability and normal cost were determined as active members (before the implementation of the ERIP) and as retired members (with the enhanced ERIP benefit).

#### **Bourne Recreation Authority – Limited to 4 Group 1 Employees**

Actives		
Number of Members	2	
Average Service	30.0	
Average Compensation	\$46,361	

Retirees		
Number of Members	2	
Average Age	57.5	
Average Annual Benefit	\$36,174	

	As Actives	As Retirees
Total Regular Compensation	\$92,700	N/A
Total Normal Cost	\$6,800	N/A
Employee Contributions	\$6,200	N/A
Net Employer Normal Cost	\$600	N/A
Actuarial Liability (as of December 31, 2002)	\$544,100	\$778,800

Increase in Actuarial Liability (as of December 31, 2002)	\$234,700
Amortization of Increase for FY04 (assumed average payment October 1)	
4.5% annual increasing basis to 2028	\$14,700

The above results provide a measure of the increase in actuarial accrued liability and decrease in normal cost due to the ERIP. The actuarial liability and normal cost were determined as active members (before the implementation of the ERIP) and as retired members (with the enhanced ERIP benefit).

### **Bourne Water District – Limited to 1 Employee**

Activ	ves
Number of Members	1
Average Service	32.8
Average Compensation	\$38,926

Reti	rees
Number of Members	1
Average Age	59.7
Average Annual Benefit	\$31,134

	As Actives	As Retirees
Total Regular Compensation	\$38,900	N/A
Total Normal Cost	\$3,100	N/A
Employee Contributions	\$1,800	N/A
Net Employer Normal Cost	\$1,300	N/A
Actuarial Liability (as of December 31, 2002)	\$257,300	\$327,900

Increase in Actuarial Liability (as of December 31, 2002)	\$70,600
Amortization of Increase for FY04 (assumed average payment October 1)	
4.5% annual increasing basis to 2028	\$4,400

The above results provide a measure of the increase in actuarial accrued liability and decrease in normal cost due to the ERIP. The actuarial liability and normal cost were determined as active members (before the implementation of the ERIP) and as retired members (with the enhanced ERIP benefit).

### Town of Brewster - Limited to 2 Group 4 Employees

Actives		
Number of Members	2	
Average Service	28.6	
Average Compensation	\$57,120	

Reti	rees
Number of Members	2
Average Age	53.2
Average Annual Benefit	\$44,740

	As Actives	As Retirees
Total Regular Compensation	\$114,200	N/A
Total Normal Cost	\$19,400	N/A
Employee Contributions	\$5,400	N/A
Net Employer Normal Cost	\$14,000	N/A
Actuarial Liability (as of December 31, 2002)	\$718,600	\$1,018,500

Increase in Actuarial Liability (as of December 31, 2002)	\$299,900
Amortization of Increase for FY04 (assumed average payment October 1)	
4.5% annual increasing basis to 2028	\$18,800

The above results provide a measure of the increase in actuarial accrued liability and decrease in normal cost due to the ERIP. The actuarial liability and normal cost were determined as active members (before the implementation of the ERIP) and as retired members (with the enhanced ERIP benefit).

### **Cape Cod Mosquito Control – Limited to 1 Employee**

Activ	ves
Number of Members	1
Average Service	26.8
Average Compensation	\$33,293

Reti	rees
Number of Members	1
Average Age	60.4
Average Annual Benefit	\$18,446

	As Actives	As Retirees
Total Regular Compensation	\$33,300	N/A
Total Normal Cost	\$3,000	N/A
Employee Contributions	\$2,200	N/A
Net Employer Normal Cost	\$800	N/A
Actuarial Liability (as of December 31, 2002)	\$197,500	\$236,600

Increase in Actuarial Liability (as of December 31, 2002)	\$39,100
Amortization of Increase for FY04 (assumed average payment October 1)	
4.5% annual increasing basis to 2028	\$2,500

The above results provide a measure of the increase in actuarial accrued liability and decrease in normal cost due to the ERIP. The actuarial liability and normal cost were determined as active members (before the implementation of the ERIP) and as retired members (with the enhanced ERIP benefit).

### **Dennis Housing Authority**

Activ	/es
Number of Members	1
Average Service	13.9
Average Compensation	\$30,211

Reti	rees
Number of Members	1
Average Age	69.2
Average Annual Benefit	\$15,702

	As Actives	As Retirees
Total Regular Compensation	\$30,200	N/A
Total Normal Cost	\$4,700	N/A
Employee Contributions	\$1,800	N/A
Net Employer Normal Cost	\$2,900	N/A
Actuarial Liability (as of December 31, 2002)	\$112,400	\$155,500

Increase in Actuarial Liability (as of December 31, 2002)	\$43,100
Amortization of Increase for FY05 (assumed average payment October 1)	
4.5% annual increasing basis to 2028	\$2,700

The above results provide a measure of the increase in actuarial accrued liability and decrease in normal cost due to the ERIP. The actuarial liability and normal cost were determined as active members (before the implementation of the ERIP) and as retired members (with the enhanced ERIP benefit).

#### Town of Eastham – Limited to 10 Group 1 and 4 Group 4 Employees

Activ	ves
Number of Members	5
Average Service	19.2
Average Compensation	\$39,252

Reti	rees
Number of Members	5
Average Age	59.9
Average Annual Benefit	\$21,746

	As Actives	As Retirees
Total Regular Compensation	\$196,300	N/A
Total Normal Cost	\$29,400	N/A
Employee Contributions	\$13,300	N/A
Net Employer Normal Cost	\$16,100	N/A
Actuarial Liability (as of September 30, 2002)	\$897,800	\$1,248,800

Increase in Actuarial Liability (as of September 30, 2002)	\$351,000
Amortization of Increase for FY04 (assumed average payment October 1)	
4.5% annual increasing basis to 2028	\$22,500

The above results provide a measure of the increase in actuarial accrued liability and decrease in normal cost due to the ERIP. The actuarial liability and normal cost were determined as active members (before the implementation of the ERIP) and as retired members (with the enhanced ERIP benefit).

### **Hyannis Fire District**

Actives		
Number of Members	1	
Average Service	16.8	
Average Compensation	\$40,781	

Retirees		
Number of Members	1	
Average Age	72.6	
Average Annual Benefit	\$22,699	

	As Actives	As Retirees
Total Regular Compensation	\$40,800	N/A
Total Normal Cost	\$0	N/A
Employee Contributions	\$0	N/A
Net Employer Normal Cost	\$0	N/A
Actuarial Liability (as of December 31, 2002)	\$159,900	\$192,900

Increase in Actuarial Liability (as of December 31, 2002)	\$33,000
Amortization of Increase for FY04 (assumed average payment October 1)	
4.5% annual increasing basis to 2028	\$2,100

The above results provide a measure of the increase in actuarial accrued liability and decrease in normal cost due to the ERIP. The actuarial liability and normal cost were determined as active members (before the implementation of the ERIP) and as retired members (with the enhanced ERIP benefit).

#### Town of Mashpee - Limited to 3 Group 1 and 3 Group 4 Employees

Actives		
Number of Members	5	
Average Service	27.3	
Average Compensation	\$40,191	

Retirees		
Number of Members	5	
Average Age	54.1	
Average Annual Benefit	\$26,287	

	As Actives	As Retirees
Total Regular Compensation	\$201,000	N/A
Total Normal Cost	\$23,600	N/A
Employee Contributions	\$12,500	N/A
Net Employer Normal Cost	\$11,100	N/A
Actuarial Liability (as of December 31, 2002)	\$1,082,300	\$1,572,800

Increase in Actuarial Liability (as of December 31, 2002)	\$490,500
Amortization of Increase for FY04 (assumed average payment October 1)	
4.5% annual increasing basis to 2028	\$30,800

The above results provide a measure of the increase in actuarial accrued liability and decrease in normal cost due to the ERIP. The actuarial liability and normal cost were determined as active members (before the implementation of the ERIP) and as retired members (with the enhanced ERIP benefit).

#### **Town of Truro**

Actives		
Number of Members	3	
Average Service	19.1	
Average Compensation	\$40,366	

Retirees		
Number of Members	3	
Average Age	62.0	
Average Annual Benefit	\$22,227	

	As Actives	As Retirees
Total Regular Compensation	\$121,100	N/A
Total Normal Cost	\$14,900	N/A
Employee Contributions	\$7,800	N/A
Net Employer Normal Cost	\$7,100	N/A
Actuarial Liability (as of July 31, 2002)	\$557,100	\$723,400

Increase in Actuarial Liability (as of July 31, 2002)	\$166,300
Amortization of Increase for FY04 (assumed average payment October 1)	
4.5% annual increasing basis to 2028	\$10,800

The above results provide a measure of the increase in actuarial accrued liability and decrease in normal cost due to the ERIP. The actuarial liability and normal cost were determined as active members (before the implementation of the ERIP) and as retired members (with the enhanced ERIP benefit).

#### **Veteran's District**

Actives		
Number of Members	1	
Average Service	10.8	
Average Compensation	\$40,292	

Retirees		
Number of Members	1	
Average Age	61.4	
Average Annual Benefit	\$14,193	

	As Actives	As Retirees
Total Regular Compensation	\$40,300	N/A
Total Normal Cost	\$6,000	N/A
Employee Contributions	\$3,300	N/A
Net Employer Normal Cost	\$2,700	N/A
Actuarial Liability (as of December 31, 2002)	\$113,600	\$170,000

Increase in Actuarial Liability (as of December 31, 2002)	\$56,400
Amortization of Increase for FY04 (assumed average payment October 1)	
4.5% annual increasing basis to 2028	\$3,500

The above results provide a measure of the increase in actuarial accrued liability and decrease in normal cost due to the ERIP. The actuarial liability and normal cost were determined as active members (before the implementation of the ERIP) and as retired members (with the enhanced ERIP benefit).

### **Town of Wellfleet - Limited to 6 Group 1 Employees**

Actives		
Number of Members	3	
Average Service	23.6	
Average Compensation	\$39,873	

Retirees		
Number of Members	3	
Average Age	61.4	
Average Annual Benefit	\$24,277	

	As Actives	As Retirees
Total Regular Compensation	\$119,600	N/A
Total Normal Cost	\$12,300	N/A
Employee Contributions	\$7,600	N/A
Net Employer Normal Cost	\$4,700	N/A
Actuarial Liability (as of December 31, 2002)	\$617,400	\$815,100

Increase in Actuarial Liability (as of December 31, 2002)	\$197,700
Amortization of Increase for FY04 (assumed average payment October 1)	
4.5% annual increasing basis to 2028	\$12,400

The above results provide a measure of the increase in actuarial accrued liability and decrease in normal cost due to the ERIP. The actuarial liability and normal cost were determined as active members (before the implementation of the ERIP) and as retired members (with the enhanced ERIP benefit).

### EFFECT ON FUNDING SCHEDULE

#### Amortization of the Increase in Actuarial Accrued Liability

The bottom section of the cost page for each governmental unit shows the amortization of the increase in actuarial accrued liability on a 25-year, 4.5% increasing amortization basis. This basis requires an annual funding amount of \$483,100 for FY04 and increases 4.5% each year until FY28. The allocation to each governmental unit is summarized below. Future system appropriations will reflect these unit costs.

	4.5%increasing, 25-year
Governmental Unit	Effective FY04
County of Barnstable	\$168,300
Barnstable County Hospital	\$4,900
Town of Barnstable	\$99,000
Barnstable Fire District	\$9,500
Barnstable Housing Authority	\$3,300
Town of Bourne	\$72,900
Bourne Recreation Authority	\$14,700
Bourne Water District	\$4,400
Town of Brewster	\$18,800
Cape Cod Mosquito Control	\$2,500
Dennis Housing Authority	\$2,700
Town of Eastham	\$22,500
Hyannis Fire District	\$2,100
Town of Mashpee	\$30,800
Town of Truro	\$10,800
Veteran's District	\$3,500
Town of Wellfleet	\$12,400
TOTAL:	\$483,100

The legislation did not specify how the increased cost should be amortized under the schedule. The Board indicated that the ERIP will be funded on a 25–year, 4.5% increasing basis beginning in FY04.

#### **Decrease in Normal Cost**

There is a decrease in employer normal cost for all units of approximately \$301,000 in FY04 for retiring members since normal cost accrues only for active members. This decrease is only expected to last a few years (the period the member would have remained in service if the ERIP were not implemented). This decrease will be partially offset by the normal cost for any members hired to replace retiring members. Any decrease in employer normal cost will be reflected in future actuarial valuations and corresponding funding schedules. We have not estimated the normal cost for new hires as part of this study.

### **ACTUARIAL ASSUMPTIONS**

Actuarial Cost Method Entry Age Normal

Investment Return 8.25% per year

Interest Rate credited to the

Annuity Savings Fund 3.5% per year

Assumed rate of Cost of Living

Increases (COLA) 3% per year

Mortality RP- 2000 Healthy Annuitant table (gender distinct). This is

applicable to both pre-retirement and post-retirement benefits. For disabled members, the mortality rate is assumed to be in accordance with the RP- 2000 Table (gender distinct) set forward 3 years for males. It is assumed that 55% of pre-retirement deaths are job-related for Group 1 and 2 members and 90% are job-related for Group 4 members. For members retired under an Accidental Disability, 40% of deaths are assumed to be

from the same cause as the disability.

Salary Increase

Based on an analysis of past experience. Annual rates are shown below.

Service	Group 1	Group 2	Group 4
0	7.00%	7.00%	8.00%
1	6.50%	6.50%	7.50%
2	6.50%	6.50%	7.00%
3	6.00%	6.00%	6.50%
4	6.00%	6.00%	6.00%
5	5.50%	5.50%	6.00%
6	5.50%	5.50%	5.50%
7	5.00%	5.00%	5.50%
8	5.00%	5.00%	5.25%
9	4.75%	5.00%	5.25%
10+	4.75%	5.00%	5.25%

# ACTUARIAL ASSUMPTIONS (continued)

#### Retirement

	Groups 1 & 2		
Age	Male	Female	Group 4
45	0.000	0.000	0.010
46	0.000	0.000	0.010
47	0.000	0.000	0.010
48	0.000	0.000	0.010
49	0.000	0.000	0.010
50	0.010	0.015	0.020
51	0.010	0.015	0.020
52	0.010	0.020	0.020
53	0.010	0.025	0.050
54	0.020	0.025	0.075
55	0.020	0.055	0.150
56	0.025	0.065	0.100
57	0.025	0.065	0.100
58	0.050	0.065	0.100
59	0.065	0.065	0.150
60	0.120	0.050	0.200
61	0.200	0.130	0.200
62	0.300	0.150	0.250
63	0.250	0.125	0.250
64	0.220	0.180	0.300
65	0.400	0.150	1.000
66	0.250	0.200	1.000
67	0.250	0.200	1.000
68	0.300	0.250	1.000
69	0.300	0.200	1.000
70	1.000	1.000	1.000

### ACTUARIAL ASSUMPTIONS (continued)

Disability Based on an analysis of past experience. Sample annual rates are shown below.

Age	Groups 1 & 2	Group 4
20	0.00010	0.0010
30	0.00030	0.0030
40	0.00101	0.0030
50	0.00192	0.0125
60	0.00280	0.0085

Based on an analysis of past experience. It is also assumed that the percentage of job-related disabilities is 55% for Groups 1 & 2 and 90% for Group 4.

#### Withdrawal

Based on analysis of past experience. Annual rates are based on years of service. Sample annual rates for Groups 1 and 2 are shown below. For Group 4 members the rate is 0.015 each year for service up to and including 10 years. No withdrawal is assumed thereafter.

### Groups 1 & 2

Service	Groups 1 & 2
0	0.150
5	0.076
10	0.054
15	0.033
20	0.020

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