

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

## EARLY RETIREMENT

Table 1

Age at Retirement				Mos Early	Factor	Age at Retirement				Mos Early	Factor
GSI	GS2	PF	Mo			GSI	GS2	PF	Mo		
N/A	55	50	0	60	.600	56	58	53	0	24	.840
			1	59	.607				1	23	.847
			2	58	.613				2	22	.853
			3	57	.620				3	21	.860
			4	56	.627				4	20	.867
			5	55	.633				5	19	.873
			6	54	.640				6	18	.880
			7	53	.647				7	17	.887
			8	52	.653				8	16	.893
			9	51	.660				9	15	.900
			10	50	.667				10	14	.907
			11	49	.673				11	13	.913
N/A	56	51	0	48	.680	57	59	54	0	12	.920
			1	47	.687				1	11	.927
			2	46	.693				2	10	.933
			3	45	.700				3	9	.940
			4	44	.707				4	8	.947
			5	43	.713				5	7	.953
			6	42	.720				6	6	.960
			7	41	.727				7	5	.967
			8	40	.733				8	4	.973
			9	39	.740				9	3	.980
			10	38	.747				10	2	.987
			11	37	.753				11	1	.993
			0	36	.760	58	60	55	0	0	1.000
			1	35	.767						
			2	34	.773						
			3	33	.780						
			4	32	.787						
			5	31	.793						
			6	30	.800						
			7	29	.807						
			8	28	.813						
			9	27	.820						
			10	26	.827						
			11	25	.833						

**The factor is 1.000 if member has at least 30 years of membership.  
 The factor is 1.000 if PF member is age 50 or more and has 25 or more years of membership.  
 For factors required prior to ages shown, subtract .0067 per month.  
 GSI for membership prior to 1996.**

Effective date: January 1, 1996

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

## ADDITIONAL UNIT BENEFITS – BEFORE AGE 60

Table 6  
Page 1 of 2

Number of Payments	Factor	Number of Payments	Factor	Number of Payments	Factor
60	\$40.02	90	\$29.16	120	\$23.82
61	39.49	91	28.92	121	23.69
62	38.97	92	28.69	122	23.56
63	38.47	93	28.46	123	23.43
64	37.98	94	28.24	124	23.31
65	37.51	95	28.02	125	23.19
66	37.05	96	27.81	126	23.07
67	36.60	97	27.60	127	22.95
68	36.17	98	27.40	128	22.83
69	35.76	99	27.20	129	22.72
70	35.35	100	27.01	130	22.61
71	34.96	101	26.82	131	22.50
72	34.57	102	26.63	132	22.39
73	34.20	103	26.45	133	22.28
74	33.84	104	26.27	134	22.18
75	33.48	105	26.09	135	22.07
76	33.14	106	25.92	136	21.97
77	32.81	107	25.75	137	21.87
78	32.48	108	25.58	138	21.77
79	32.17	109	25.42	139	21.67
80	31.86	110	25.26	140	21.58
81	31.56	111	25.11	141	21.48
82	31.26	112	24.95	142	21.39
83	30.98	113	24.80	143	21.30
84	30.70	114	24.65	144	21.21
85	30.43	115	24.51	145	21.12
86	30.16	116	24.36	146	21.03
87	29.90	117	24.22	147	20.94
88	29.65	118	24.09	148	20.86
89	29.40	119	23.95	149	20.78

**Basis: 8% interest. The amounts shown are only for members retiring on or before age 60.**

Effective date: January 1, 1996

**MILLIMAN & ROBERTSON, INC.**

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

## ADDITIONAL UNIT BENEFITS – BEFORE AGE 60

Table 6  
Page 2 of 2

Number of Payments	Factor	Number of Payments	Factor	Number of Payments	Factor
150	\$20.69	180	\$18.67	210	\$17.28
151	20.61	181	18.62	211	17.24
152	20.53	182	18.56	212	17.20
153	20.45	183	18.51	213	17.16
154	20.37	184	18.46	214	17.13
155	20.30	185	18.40	215	17.09
156	20.22	186	18.35	216	17.05
157	20.15	187	18.30	217	17.02
158	20.07	188	18.25	218	16.98
159	20.00	189	18.20	219	16.95
160	19.93	190	18.15	220	16.91
161	19.86	191	18.10	221	16.88
162	19.79	192	18.06	222	16.84
163	19.72	193	18.01	223	16.81
164	19.65	194	17.96	224	16.77
165	19.58	195	17.92	225	16.74
166	19.52	196	17.87	226	16.71
167	19.45	197	17.82	227	16.67
168	19.39	198	17.78	228	16.64
169	19.32	199	17.74	229	16.61
170	19.26	200	17.69	230	16.58
171	19.20	201	17.65	231	16.55
172	19.14	202	17.61	232	16.52
173	19.08	203	17.56	233	16.49
174	19.02	204	17.52	234	16.45
175	18.96	205	17.48	235	16.42
176	18.90	206	17.44	236	16.39
177	18.84	207	17.40	237	16.37
178	18.78	208	17.36	238	16.34
179	18.73	209	17.32	239	16.31
				240	16.28

**Basis: 8% interest. The amounts shown are only for members retiring on or before age 60.**

Effective date: January 1, 1996

**MILLIMAN & ROBERTSON, INC.**

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

## ADDITIONAL UNIT BENEFITS – AFTER AGE 60

Table 5

(Amount of Monthly Annuity per \$1,000 – Member's Portion Only)

Number of Payments	Factor	Number of Payments	Factor
1	\$1000.00	31	\$35.46
2	501.60	32	34.46
3	335.47	33	33.52
4	252.41	34	32.63
5	202.57	35	31.80
6	169.35	36	31.01
7	145.62	37	30.26
8	127.82	38	29.56
9	113.98	39	28.89
10	102.91	40	28.25
11	93.85	41	27.65
12	86.30	42	27.07
13	79.92	43	26.52
14	74.44	44	26.00
15	69.70	45	25.50
16	65.55	46	25.02
17	61.89	47	24.57
18	58.64	48	24.13
19	55.72	49	23.71
20	53.10	50	23.30
21	50.73	51	22.92
22	48.58	52	22.54
23	46.61	53	22.18
24	44.81	54	21.84
25	43.15	55	21.51
26	41.62	56	21.19
27	40.21	57	20.88
28	38.89	58	20.58
29	37.67	59	20.29
30	36.53	60	20.01

**Basis: 8% interest. The amounts shown are only for members retiring after age 60 and before age 65.**

Effective date: January 1, 1996

**MILLIMAN & ROBERTSON, INC.**

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

## ADDITIONAL UNIT PAYROLL DEDUCTIONS

Table 7

(Based on Purchase of 8 Units and on Monthly Pay Period)

Years	Age of Election											
	Months											
	0	1	2	3	4	5	6	7	8	9	10	11
20	\$1.28	\$1.28	\$1.28	\$1.28	\$1.28	\$1.28	\$1.28	\$1.28	\$1.28	\$1.28	\$1.36	\$1.36
21	1.36	1.36	1.36	1.36	1.36	1.36	1.44	1.44	1.44	1.44	1.44	1.44
22	1.44	1.44	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.60	1.60
23	1.60	1.60	1.60	1.60	1.60	1.60	1.68	1.68	1.68	1.68	1.68	1.68
24	1.68	1.76	1.76	1.76	1.76	1.76	1.76	1.84	1.84	1.84	1.84	1.84
25	1.84	1.84	1.92	1.92	1.92	1.92	1.92	1.92	2.00	2.00	2.00	2.00
26	2.00	2.08	2.08	2.08	2.08	2.08	2.08	2.16	2.16	2.16	2.16	2.16
27	2.24	2.24	2.24	2.24	2.24	2.32	2.32	2.32	2.32	2.32	2.40	2.40
28	2.40	2.40	2.40	2.48	2.48	2.48	2.48	2.48	2.56	2.56	2.56	2.56
29	2.64	2.64	2.64	2.64	2.72	2.72	2.72	2.72	2.80	2.80	2.80	2.80
30	2.80	2.88	2.88	2.88	2.96	2.96	2.96	2.96	3.04	3.04	3.04	3.04
31	3.12	3.12	3.12	3.20	3.20	3.20	3.20	3.28	3.28	3.28	3.36	3.36
32	3.36	3.36	3.44	3.44	3.44	3.52	3.52	3.52	3.60	3.60	3.60	3.68
33	3.68	3.68	3.76	3.76	3.76	3.84	3.84	3.84	3.92	3.92	4.00	4.00
34	4.00	4.08	4.08	4.08	4.16	4.16	4.24	4.24	4.24	4.32	4.32	4.40
35	4.40	4.40	4.48	4.48	4.56	4.56	4.64	4.64	4.64	4.72	4.72	4.80
36	4.80	4.88	4.88	4.96	4.96	5.04	5.04	5.12	5.12	5.20	5.20	5.28
37	5.28	5.36	5.36	5.44	5.44	5.52	5.52	5.60	5.60	5.68	5.68	5.76
38	5.84	5.84	5.92	5.92	6.00	6.00	6.08	6.16	6.16	6.24	6.24	6.32
39	6.40	6.40	6.48	6.56	6.56	6.64	6.72	6.72	6.80	6.88	6.88	6.96
40	7.04	7.12	7.12	7.20	7.28	7.36	7.36	7.44	7.52	7.60	7.60	7.68
41	7.76	7.84	7.92	7.92	8.00	8.08	8.16	8.24	8.32	8.40	8.48	8.48
42	8.56	8.64	8.72	8.80	8.88	8.96	9.04	9.12	9.20	9.28	9.36	9.44
43	9.52	9.60	9.68	9.76	9.84	10.00	10.08	10.16	10.24	10.32	10.40	10.48
44	10.64	10.72	10.80	10.88	11.04	11.12	11.20	11.28	11.44	11.52	11.60	11.76
45	11.84	11.92	12.08	12.16	12.32	12.40	12.56	12.64	12.80	12.88	13.04	13.12
46	13.28	13.44	13.52	13.68	13.84	13.92	14.08	14.24	14.40	14.56	14.64	14.80
47	14.96	15.12	15.28	15.44	15.60	15.76	15.92	16.08	16.24	16.40	16.56	16.80
48	16.96	17.12	17.28	17.52	17.68	17.92	18.08	18.32	18.48	18.72	18.88	19.12
49	19.36	19.52	19.76	20.00	20.24	20.48	20.72	20.96	21.20	21.44	21.68	21.92
50	22.24	22.48	22.72	23.04	23.28	23.60	23.92	24.16	24.48	24.80	25.12	25.44
51	25.76	26.08	26.40	26.80	27.12	27.52	27.84	28.24	28.64	29.04	29.44	29.84
52	30.24	30.64	31.12	31.52	32.00	32.48	32.96	33.44	33.92	34.48	34.48	35.52
53	36.08	36.64	37.20	37.76	38.40	39.04	39.68	40.32	40.96	41.68	42.40	43.12
54	43.84	44.64	45.44	46.24	47.04	47.92	48.80	49.76	50.72	51.68	52.72	53.76
55	54.80	55.92	57.12	58.32	59.52	60.88	62.16	63.60	66.48	66.48	68.08	69.68
56	71.36	71.12	74.96	76.96	78.96	81.04	83.28	85.60	90.56	90.56	93.28	96.08
57	99.12	102.24	105.60	109.20	112.96	117.04	121.28	125.92	136.16	136.16	141.84	148.00
58	154.64	161.92	169.84	178.48	188.08	198.56	210.32	223.44	254.88	254.88	273.92	296.00
59	321.68	352.08	388.56	433.12	488.88	560.48	656.00	789.76	13624.80	1324.80	1993.60	4006.00

**Basis: 8% interest. Accumulates to \$4,000.00 at age 60.**

Effective date: January 1, 1996

**MILLIMAN & ROBERTSON, INC.**

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

## PROJECTED ACCOUNT BALANCES

Table 8

Years to Retirement	Amount at Retirement		Years to Retirement	Amount at Retirement	
	\$1 per Year to Retirement	\$1 Current Account Balance		\$1 per Year to Retirement	\$1 Current Account Balance
1	\$1.08	\$1.08	21	\$54.46	\$5.03
2	2.25	1.17	22	59.89	5.44
3	3.51	1.26	23	65.76	5.87
4	4.87	1.36	24	72.11	6.34
5	6.34	1.47	25	78.95	6.85
6	7.92	1.59	26	86.35	7.40
7	9.64	1.71	27	94.34	7.99
8	11.49	1.85	28	102.97	8.63
9	13.49	2.00	29	112.28	9.32
10	15.65	2.16	30	122.35	10.06
11	17.98	2.33	31	133.21	10.87
12	20.50	2.52	32	144.95	11.74
13	23.21	2.72	33	157.63	12.68
14	26.15	2.94	34	171.32	13.69
15	29.32	3.17	35	186.10	14.79
16	32.75	3.43	36	202.07	15.97
17	36.45	3.70	37	219.32	17.25
18	40.45	4.00	38	237.94	18.63
19	44.76	4.32	39	258.06	20.12
20	49.42	4.66	40	279.78	21.72

**Basis: 8% interest.**

Effective date: January 1, 1996

**MILLIMAN & ROBERTSON, INC.**

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

## AVERAGE LIFE EXPECTANCY

Table 9

(Years after Service Retirement)

Age	Male	Age	Female
50	30	50	35
51	29	51	34
52	29	52	33
53	28	53	32
54	27	54	31
55	26	55	31
56	25	56	30
57	24	57	29
58	23	58	28
59	23	59	27
60	22	60	26
61	21	61	25
62	20	62	24
63	19	63	24
64	18	64	23
65	18	65	22
66	17	66	21
67	16	67	20
68	15	68	19
69	15	69	19
70	14	70	18
71	13	71	17
72	13	72	16
73	12	73	15
74	12	74	15
75	11	75	14
76	10	76	13
77	10	77	12
78	9	78	12
79	9	79	11
80	8	80	10

**Basis: Mortality experience of retired members during the period 1990-1993.**

Effective date: January 1, 1996

**MILLIMAN & ROBERTSON, INC.**

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

## Refund, NonRefund, and 15-Year Certain Annuities

(Amount of Monthly Annuity per \$1,000)

Age at Retirement	Actuarial Equivalence Factor		
	Option 0	Option 1	Option 4
80	\$12.73	\$16.57	.555824
81	13.02	17.33	.533179
82	13.31	18.14	.510474
83	13.64	19.02	.487907
84	13.97	19.97	.465699
85	14.29	21.00	.443333
86	14.60	22.13	.421148
87	15.24	23.36	.398973
88	15.85	24.70	.377733
89	16.48	26.16	.356641
90	17.13	27.76	.336095
91	17.80	29.51	.316164
92	18.89	31.41	.297039
93	19.77	33.51	.278723
94	20.68	35.82	.260748
95	21.64	38.38	.243356
96	22.63	41.20	.226699
97	23.65	44.31	.210788
98	25.31	47.78	.195479
99	26.75	51.65	.180833
100	28.28	56.00	.166786

**Effective Date: January 1, 1996**

For disabled members, add five years to the member's age before calculating the difference in ages.



# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

## 100% Joint & Survivor Annuity – Option 2

(Factor Multiplied by Option 1 Annuity)

Beneficiary Age Difference	Attained Age at Retirement									
	50 or less	51	52	53	54	55	56	57	58	59
15 or more*	0.91	0.91	0.90	0.90	0.89	0.89	0.88	0.88	0.87	0.86
14	0.92	0.91	0.91	0.90	0.90	0.89	0.88	0.88	0.87	0.86
13	0.92	0.91	0.91	0.90	0.90	0.89	0.89	0.88	0.87	0.87
12	0.92	0.91	0.91	0.91	0.90	0.89	0.89	0.88	0.88	0.87
11	0.92	0.92	0.91	0.91	0.90	0.90	0.89	0.89	0.88	0.87
10	0.92	0.92	0.91	0.91	0.90	0.90	0.89	0.89	0.88	0.88
9	0.92	0.92	0.92	0.91	0.91	0.90	0.90	0.89	0.89	0.88
8	0.93	0.92	0.92	0.91	0.91	0.90	0.90	0.89	0.89	0.88
MEMBER OLDER THAN BENEFICIARY	7	0.93	0.92	0.92	0.92	0.91	0.91	0.90	0.90	0.89
	6	0.93	0.93	0.92	0.92	0.91	0.91	0.90	0.90	0.89
	5	0.93	0.93	0.92	0.92	0.92	0.91	0.91	0.90	0.89
	4	0.93	0.93	0.93	0.92	0.92	0.91	0.91	0.91	0.90
	3	0.94	0.93	0.93	0.93	0.92	0.92	0.91	0.91	0.90
	2	0.94	0.94	0.93	0.93	0.92	0.92	0.92	0.91	0.90
	1	0.94	0.94	0.93	0.93	0.93	0.92	0.92	0.92	0.91
	0	0.94	0.94	0.94	0.93	0.93	0.93	0.92	0.92	0.91
	-1	0.94	0.94	0.94	0.94	0.93	0.93	0.93	0.92	0.91
	-2	0.95	0.94	0.94	0.94	0.94	0.93	0.93	0.93	0.92
	-3	0.95	0.95	0.95	0.94	0.94	0.93	0.93	0.93	0.92
	-4	0.95	0.95	0.95	0.94	0.94	0.94	0.93	0.93	0.93
	-5	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.93
MEMBER YOUNGER THAN BENEFICIARY	-6	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.94
	-7	0.96	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
	-8	0.96	0.96	0.95	0.95	0.95	0.95	0.95	0.95	0.95
	-9	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95	0.95
	-10	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
	-11	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
	-12	0.97	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
	-13	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
	-14	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
	-15 or More	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97

\*15 or More use Greater of (1) or (2)

(1)  $0.865 - 0.003(Y) = \text{Age Difference in Years}$

(2) A-B (Y)

(A)	0.920	0.930	0.910	0.920	0.910	0.920	0.900	0.910	0.900	0.890
(B)	0.0007	0.0013	0.0007	0.0013	0.0013	0.0020	0.0013	0.0020	0.0020	0.0020

**For disabled members, add five years to the member's age before calculating the difference in ages.**

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

Table 4

## 100% Joint & Survivor Annuity – Option 2

(Factor Multiplied by Option 1 Annuity)

		Attained Age at Retirement										
		60	61	62	63	64	65	66	67	68	69	70 or More
MEMBER OLDER THAN BENEFICIARY		0.85	0.85	0.84	0.83	0.82	0.82	0.82	0.82	0.82	0.82	0.82
		0.86	0.85	0.84	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
		0.86	0.85	0.85	0.84	0.83	0.83	0.83	0.83	0.83	0.83	0.83
		0.86	0.86	0.85	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
		0.87	0.86	0.85	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
		0.87	0.86	0.86	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
		0.87	0.87	0.86	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
		0.88	0.87	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
		0.88	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
		0.88	0.88	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
MEMBER YOUNGER THAN BENEFICIARY		0.89	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
		0.89	0.89	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
		0.90	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
		0.90	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
		0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
		0.91	0.91	0.91	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
		0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
		0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
		0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
		0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	
MEMBER YOUNGER THAN BENEFICIARY		0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
		0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
MEMBER YOUNGER THAN BENEFICIARY		0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
		0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
		0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
		0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
		0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
		0.880	0.890	0.880	0.870	0.860	0.850	0.840	0.840	0.830	0.820	0.820
		0.0020	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0033	0.0033	0.0033	0.0040

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

## 100% Joint & Survivor Annuity – Option 2A Pop-Up

(Factor Multiplied by Option 1 Annuity)

Beneficiary Age Difference	Attained Age at Retirement									
	50 or less	51	52	53	54	55	56	57	58	59
15 or more*	0.90	0.90	0.89	0.89	0.88	0.88	0.87	0.87	0.86	0.84
14	0.91	0.90	0.90	0.89	0.89	0.88	0.87	0.87	0.86	0.84
13	0.91	0.90	0.90	0.89	0.89	0.88	0.88	0.87	0.86	0.85
12	0.91	0.90	0.90	0.90	0.89	0.88	0.88	0.87	0.87	0.85
11	0.91	0.91	0.90	0.90	0.89	0.89	0.88	0.88	0.87	0.85
10	0.91	0.91	0.90	0.90	0.89	0.89	0.88	0.88	0.87	0.86
9	0.91	0.91	0.91	0.90	0.90	0.89	0.89	0.88	0.88	0.86
8	0.92	0.91	0.91	0.90	0.90	0.89	0.89	0.88	0.88	0.86
MEMBER OLDER THAN BENEFICIARY	7	0.92	0.91	0.91	0.91	0.90	0.90	0.89	0.89	0.87
6	0.92	0.92	0.91	0.91	0.90	0.90	0.89	0.89	0.88	0.87
5	0.92	0.92	0.91	0.91	0.91	0.90	0.90	0.89	0.89	0.87
4	0.92	0.92	0.92	0.91	0.91	0.90	0.90	0.90	0.89	0.88
3	0.93	0.92	0.92	0.92	0.91	0.91	0.90	0.90	0.89	0.88
2	0.93	0.93	0.92	0.92	0.91	0.91	0.91	0.90	0.90	0.88
1	0.93	0.93	0.92	0.92	0.92	0.91	0.91	0.91	0.90	0.89
0	0.93	0.93	0.93	0.92	0.92	0.92	0.91	0.91	0.91	0.89
-1	0.93	0.93	0.93	0.93	0.92	0.92	0.92	0.91	0.91	0.89
-2	0.94	0.93	0.93	0.93	0.93	0.92	0.92	0.92	0.91	0.90
-3	0.94	0.94	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.90
-4	0.94	0.94	0.94	0.93	0.93	0.93	0.92	0.92	0.92	0.91
-5	0.94	0.94	0.94	0.94	0.93	0.93	0.93	0.93	0.92	0.91
MEMBER YOUNGER THAN BENEFICIARY	-6	0.94	0.94	0.94	0.94	0.94	0.93	0.93	0.93	0.92
-7	0.95	0.94	0.94	0.94	0.94	0.94	0.93	0.93	0.93	0.92
-8	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.93
-9	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.93
-10	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.93
-11	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.94
-12	0.96	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.94
-13	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.95
-14	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.95
-15 or More	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.95

\*15 or More use Greater of (1) or (2)

(1)  $0.865 - 0.003(Y) = \text{Age Difference in Years}$

(2) A-B (Y)

(A)	0.910	0.920	.0900	0.910	0.900	0.910	0.890	0.900	0.890	0.870
(B)	0.0007	0.0013	0.0007	0.0013	0.0013	0.0020	0.0013	0.0020	0.0020	0.0020

**For disabled members, add five years to the member's age before calculating the difference in ages.**

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

Table 4

## 100% Joint & Survivor Annuity – Option 2A Pop-Up

(Factor Multiplied by Option 1 Annuity)

		Attained Age at Retirement										
		60	61	62	63	64	65	66	67	68	69	70 or More
MEMBER OLDER THAN BENEFICIARY		0.86	0.83	0.82	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
		0.83	0.83	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
		0.83	0.83	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
		0.84	0.84	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
		0.85	0.84	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
		0.85	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
		0.85	0.85	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
		0.86	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
		0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
		0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
		0.87	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
		0.87	0.87	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
		0.88	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
		0.88	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
		0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
		0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
		0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
		0.90	0.90	0.90	0.90	0.90	0.89	0.89	0.89	0.89	0.89	0.89
		0.90	0.90	0.90	0.90	0.90	0.89	0.89	0.89	0.89	0.89	0.89
		0.91	0.91	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90
	0.91	0.91	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	
	0.92	0.92	0.92	0.92	0.92	0.91	0.91	0.91	0.91	0.91	0.91	
	0.92	0.92	0.92	0.92	0.92	0.91	0.91	0.91	0.91	0.91	0.91	
	0.93	0.93	0.93	0.93	0.93	0.92	0.92	0.91	0.91	0.91	0.91	
	0.93	0.93	0.93	0.93	0.93	0.92	0.92	0.91	0.91	0.91	0.91	
	0.93	0.93	0.93	0.93	0.93	0.92	0.92	0.91	0.91	0.91	0.91	
	0.94	0.94	0.94	0.94	0.94	0.93	0.93	0.92	0.92	0.92	0.92	
	0.94	0.94	0.94	0.94	0.94	0.93	0.93	0.92	0.92	0.92	0.92	
	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.93	0.93	0.92	0.92	
	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.93	0.93	0.92	0.92	
	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.93	0.93	0.92	0.92	
	0.860	0.870	0.860	0.850	0.840	0.820	0.810	0.800	0.790	0.770	0.770	
	0.0020	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0033	0.0033	0.0033	0.0040	

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

## 100% Joint & Survivor Annuity – Option 3

(Factor Multiplied by Option 1 Annuity)

Beneficiary Age Difference	Attained Age at Retirement									
	50 or less	51	52	53	54	55	56	57	58	59
15 or more*	0.96	0.95	0.95	0.95	0.94	0.94	0.94	0.93	0.93	0.93
14	0.96	0.95	0.95	0.95	0.94	0.94	0.94	0.93	0.93	0.93
13	0.96	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.93	0.93
12	0.96	0.96	0.95	0.95	0.95	0.94	0.94	0.94	0.93	0.93
11	0.96	0.96	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.93
10	0.96	0.96	0.96	0.95	0.95	0.95	0.94	0.94	0.94	0.93
9	0.96	0.96	0.96	0.95	0.95	0.95	0.95	0.94	0.94	0.94
8	0.96	0.96	0.96	0.95	0.95	0.95	0.95	0.94	0.94	0.94
MEMBER OLDER THAN BENEFICIARY	7	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.94	0.94
	6	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.94
	5	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.94
	4	0.97	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95
	3	0.97	0.97	0.96	0.96	0.96	0.96	0.95	0.95	0.95
	2	0.97	0.97	0.96	0.96	0.96	0.96	0.96	0.95	0.95
	1	0.97	0.97	0.97	0.96	0.96	0.96	0.96	0.96	0.95
	0	0.97	0.97	0.97	0.97	0.96	0.96	0.96	0.96	0.96
	-1	0.97	0.97	0.97	0.97	0.97	0.96	0.96	0.96	0.96
	-2	0.97	0.97	0.97	0.97	0.97	0.96	0.96	0.96	0.96
	-3	0.97	0.97	0.97	0.97	0.97	0.97	0.96	0.96	0.96
	-4	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.96	0.96
	-5	0.98	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.96
MEMBER YOUNGER THAN BENEFICIARY	-6	0.98	0.98	0.97	0.97	0.97	0.97	0.97	0.97	0.97
	-7	0.98	0.98	0.98	0.97	0.97	0.97	0.97	0.97	0.97
	-8	0.98	0.98	0.98	0.98	0.97	0.97	0.97	0.97	0.97
	-9	0.98	0.98	0.98	0.98	0.98	0.97	0.97	0.97	0.97
	-10	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.97	0.97
	-11	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
	-12	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
	-13	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
	-14	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
	-15 or More	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98

\*15 or More use Greater of (1) or (2)

(1)  $0.865 - 0.003(Y) = \text{Age Difference in Years}$

(2) A-B (Y)

(A)	0.970	0.960	0.960	0.960	0.950	0.950	0.960	0.940	0.950	0.950
(B)	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0013	0.0007	0.0013	0.0013

**For disabled members, add five years to the member's age before calculating the difference in ages.**

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

Table 4

## 100% Joint & Survivor Annuity – Option 3

(Factor Multiplied by Option 1 Annuity)

		Attained Age at Retirement										
		60	61	62	63	64	65	66	67	68	69	70 or More
MEMBER OLDER THAN BENEFICIARY		0.92	0.92	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90
		0.92	0.92	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90
		0.92	0.92	0.92	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
		0.93	0.92	0.92	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
		0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
		0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
		0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
		0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
		0.94	0.94	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92
		0.94	0.94	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
		0.94	0.94	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
		0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
		0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
		0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
		0.95	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
		0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
		0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	
	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	
	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	
	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	
	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	
	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	
	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	
	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	
	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	
	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	
	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	
	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	
	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	
	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	
	0.940	0.940	0.960	0.940	0.920	0.930	0.920	0.910	0.910	0.900	0.890	
	0.0013	0.0013	0.0013	0.0020	0.0013	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

## 100% Joint & Survivor Annuity – Option 3A Pop-UP

(Factor Multiplied by Option 1 Annuity)

Beneficiary Age Difference	Attained Age at Retirement									
	50 or less	51	52	53	54	55	56	57	58	59
15 or more*	0.95	0.94	0.94	0.94	0.93	0.93	0.92	0.92	0.92	0.92
14	0.95	0.94	0.94	0.94	0.93	0.93	0.93	0.92	0.92	0.92
13	0.95	0.94	0.94	0.94	0.94	0.93	0.93	0.93	0.92	0.92
12	0.95	0.95	0.94	0.94	0.94	0.93	0.93	0.93	0.92	0.92
11	0.95	0.95	0.94	0.94	0.94	0.94	0.93	0.93	0.93	0.92
10	0.95	0.95	0.95	0.94	0.94	0.94	0.93	0.93	0.93	0.92
9	0.96	0.95	0.95	0.94	0.94	0.94	0.94	0.93	0.93	0.93
8	0.96	0.96	0.95	0.94	0.94	0.94	0.94	0.93	0.93	0.93
MEMBER OLDER THAN BENEFICIARY	7	0.96	0.96	0.95	0.95	0.94	0.94	0.94	0.93	0.93
	6	0.96	0.96	0.95	0.95	0.95	0.94	0.94	0.93	0.93
	5	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.93
	4	0.96	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
	3	0.96	0.96	0.95	0.95	0.95	0.95	0.94	0.94	0.94
	2	0.96	0.96	0.95	0.95	0.95	0.95	0.95	0.94	0.94
	1	0.96	0.96	0.96	0.95	0.95	0.95	0.95	0.94	0.94
	0	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95	0.94
	-1	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
	-2	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
	-3	0.96	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95
	-4	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.95	0.95
	-5	0.97	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.95
MEMBER YOUNGER THAN BENEFICIARY	-6	0.97	0.97	0.96	0.96	0.96	0.96	0.96	0.96	0.96
	-7	0.97	0.97	0.97	0.96	0.96	0.96	0.96	0.96	0.96
	-8	0.97	0.97	0.97	0.97	0.96	0.96	0.96	0.96	0.96
	-9	0.97	0.97	0.97	0.97	0.97	0.97	0.96	0.96	0.96
	-10	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.96	0.96
	-11	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
	-12	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
	-13	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
	-14	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
	-15 or More	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97

\*15 or More use Greater of (1) or (2)

(1)  $0.865 - 0.003(Y) = \text{Age Difference in Years}$

(2) A-B (Y)

(A)	0.960	0.950	0.950	0.950	0.940	0.940	0.950	0.930	0.940	0.940
(B)	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0013	0.0007	0.0013	0.0013

**For disabled members, add five years to the member's age before calculating the difference in ages.**

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

Table 4

## 50% Joint & Survivor Annuity – Option 3A Pop-Up (Factor Multiplied by Option 1 Annuity)

		Attained Age at Retirement										
		60	61	62	63	64	65	66	67	68	69	70 or More
MEMBER OLDER THAN BENEFICIARY		0.91	0.91	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
		0.91	0.91	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
		0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
		0.92	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
		0.92	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
		0.92	0.92	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
		0.92	0.92	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
		0.92	0.92	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
		0.93	0.93	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
		0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
		0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
		0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
		0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
		0.94	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
		0.94	0.94	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
		0.94	0.94	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
		0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
		0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
		0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
		0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	
	0.96	0.96	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
	0.96	0.96	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
	0.96	0.96	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
	0.96	0.96	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
	0.97	0.97	0.96	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	
	0.97	0.97	0.96	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	
	0.97	0.97	0.96	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	
	0.97	0.97	0.96	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	
	0.97	0.97	0.96	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	
	0.930	0.930	0.910	0.920	0.900	0.910	0.900	0.890	0.880	0.870	0.860	
	0.0013	0.0013	0.0013	0.0020	0.0013	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	



Refund Annuity – Option 0  
 (Amount of Monthly Annuity per \$1,000)

Age	Months of Attained Age at Retirement											
	0	1	2	3	4	5	6	7	8	9	10	11
15	\$6.50	\$6.50	\$6.50	\$6.50	\$6.50	\$6.50	\$6.51	\$6.51	\$6.51	\$6.51	\$6.51	\$6.51
16	6.51	6.51	6.51	6.51	6.51	6.51	6.51	6.51	6.51	6.51	6.51	6.51
17	6.51	6.51	6.51	6.51	6.51	6.51	6.52	6.52	6.52	6.52	6.52	6.52
18	6.52	6.52	6.52	6.52	6.52	6.52	6.52	6.52	6.52	6.52	6.52	6.52
19	6.52	6.52	6.52	6.52	6.52	6.52	6.53	6.53	6.53	6.53	6.53	6.53
20	6.53	6.53	6.53	6.53	6.53	6.53	6.54	6.54	6.54	6.54	6.54	6.54
21	6.54	6.54	6.54	6.54	6.54	6.54	6.55	6.55	6.55	6.55	6.55	6.55
22	6.55	6.55	6.55	6.55	6.55	6.55	6.56	6.56	6.56	6.56	6.56	6.56
23	6.56	6.56	6.56	6.56	6.56	6.56	6.57	6.57	6.57	6.57	6.57	6.57
24	6.57	6.57	6.57	6.57	6.57	6.57	6.58	6.58	6.58	6.58	6.58	6.58
25	6.58	6.58	6.58	6.58	6.58	6.58	6.59	6.59	6.59	6.59	6.59	6.59
26	6.59	6.59	6.59	6.60	6.60	6.60	6.60	6.60	6.60	6.61	6.61	6.61
27	6.61	6.61	6.61	6.61	6.61	6.61	6.62	6.62	6.62	6.62	6.62	6.62
28	6.62	6.62	6.62	6.62	6.62	6.62	6.63	6.63	6.63	6.63	6.63	6.63
29	6.63	6.63	6.63	6.64	6.64	6.64	6.64	6.64	6.64	6.65	6.65	6.65
30	6.65	6.65	6.65	6.66	6.66	6.66	6.66	6.66	6.66	6.67	6.67	6.67
31	6.67	6.67	6.67	6.68	6.68	6.68	6.68	6.68	6.68	6.69	6.69	6.69
32	6.69	6.69	6.69	6.70	6.70	6.70	6.70	6.70	6.70	6.71	6.71	6.71
33	6.71	6.71	6.71	6.72	6.72	6.72	6.72	6.72	6.72	6.73	6.73	6.73
34	6.73	6.73	6.73	6.74	6.74	6.74	6.74	6.74	6.74	6.75	6.75	6.75
35	6.75	6.75	6.75	6.76	6.76	6.76	6.76	6.76	6.76	6.77	6.77	6.77
36	6.77	6.77	6.77	6.78	6.78	6.78	6.78	6.78	6.78	6.79	6.79	6.79
37	6.79	6.79	6.80	6.80	6.80	6.80	6.81	6.81	6.81	6.81	6.82	6.82
38	6.82	6.82	6.83	6.83	6.83	6.83	6.84	6.84	6.84	6.84	6.85	6.85
39	6.85	6.85	6.86	6.86	6.86	6.86	6.87	6.87	6.87	6.87	6.88	6.88
40	6.88	6.88	6.89	6.89	6.89	6.90	6.90	6.90	6.91	6.91	6.91	6.92
41	6.92	6.92	6.93	6.93	6.93	6.94	6.94	6.94	6.95	6.95	6.95	6.96
42	6.96	6.96	6.97	6.97	6.97	6.98	6.98	6.98	6.99	6.99	6.99	7.00
43	7.00	7.00	7.01	7.01	7.01	7.02	7.02	7.02	7.03	7.03	7.03	7.04
44	7.04	7.04	7.05	7.05	7.05	7.06	7.06	7.06	7.07	7.07	7.07	7.08
45	7.08	7.08	7.09	7.09	7.09	7.10	7.10	7.10	7.11	7.11	7.11	7.12
46	7.12	7.12	7.13	7.13	7.14	7.14	7.15	7.15	7.15	7.16	7.16	7.17
47	7.17	7.17	7.18	7.18	7.19	7.19	7.20	7.20	7.20	7.21	7.21	7.22

Table 3

Refund Annuity – Option 0  
(Amount of Monthly Annuity per \$1,000)

Age	Months of Attained Age at Retirement											
	0	1	2	3	4	5	6	7	8	9	10	11
48	7.22	7.22	7.23	7.23	7.24	7.24	7.25	7.25	7.25	7.26	7.26	7.27
49	7.27	7.27	7.28	7.28	7.29	7.29	7.30	7.30	7.30	7.31	7.31	7.32
50	7.32	7.33	7.33	7.34	7.34	7.35	7.35	7.36	7.36	7.37	7.37	7.38
51	7.38	7.39	7.39	7.40	7.40	7.41	7.41	7.42	7.42	7.43	7.43	7.44
52	7.44	7.45	7.45	7.46	7.46	7.47	7.47	7.48	7.48	7.49	7.49	7.50
53	7.50	7.51	7.51	7.52	7.53	7.53	7.54	7.55	7.55	7.56	7.57	7.57
54	7.58	7.59	7.59	7.60	7.61	7.61	7.62	7.63	7.63	7.64	7.65	7.65
55	7.66	7.67	7.68	7.68	7.69	7.70	7.71	7.71	7.72	7.73	7.74	7.74
56	7.75	7.76	7.76	7.77	7.78	7.78	7.79	7.80	7.80	7.81	7.82	7.82
57	7.83	7.84	7.84	7.85	7.86	7.86	7.87	7.88	7.88	7.89	7.90	7.90
58	7.91	7.92	7.93	7.93	7.94	7.95	7.96	7.96	7.97	7.98	7.99	7.99
59	8.00	8.01	8.02	8.02	8.03	8.04	8.05	8.05	8.06	8.07	8.08	8.08
60	8.09	8.10	8.11	8.12	8.12	8.13	8.14	8.15	8.16	8.17	8.17	8.18
61	8.19	8.20	8.21	8.22	8.23	8.24	8.25	8.26	8.27	8.28	8.29	8.30
62	8.31	8.32	8.33	8.35	8.36	8.37	8.38	8.39	8.40	8.42	8.43	8.44
63	8.45	8.46	8.47	8.49	8.50	8.51	8.52	8.53	8.54	8.56	8.57	8.58
64	8.59	8.60	8.62	8.63	8.65	8.66	8.68	8.69	8.70	8.72	8.73	8.75
65	8.76	8.77	8.79	8.80	8.82	8.83	8.85	8.86	8.87	8.89	8.90	8.92
66	8.93	8.95	8.96	8.98	8.99	9.01	9.03	9.04	9.06	9.07	9.09	9.10
67	9.12	9.14	9.15	9.17	9.18	9.20	9.21	9.23	9.24	9.26	9.27	9.29
68	9.30	9.32	9.34	9.35	9.37	9.39	9.41	9.42	9.44	9.46	9.48	9.49
69	9.51	9.53	9.55	9.57	9.58	9.60	9.62	9.64	9.66	9.68	9.69	9.71
70	9.73	9.75	9.77	9.79	9.81	9.83	9.85	9.86	9.88	9.90	9.92	9.94
71	9.96	9.98	10.00	10.02	10.04	10.06	10.09	10.11	10.13	10.15	10.17	10.19
72	10.21	10.23	10.25	10.27	10.29	10.31	10.33	10.35	10.37	10.39	10.41	10.43
73	10.45	10.47	10.50	10.52	10.54	10.56	10.59	10.61	10.63	10.65	10.68	10.70
74	10.72	10.75	10.77	10.80	10.82	10.85	10.87	10.90	10.92	10.95	10.97	11.00
75	11.02	11.05	11.07	11.10	11.12	11.15	11.18	11.20	11.23	11.25	11.28	11.30
76	11.33	11.36	11.39	11.42	11.44	11.47	11.50	11.53	11.56	11.59	11.61	11.64
77	11.67	11.70	11.72	11.75	11.77	11.80	11.82	11.85	11.87	11.90	11.92	11.95
78	11.97	12.00	12.03	12.06	12.09	12.12	12.16	12.19	12.22	12.25	12.28	12.31
79	12.34	12.37	12.41	12.44	12.47	12.50	12.54	12.57	12.60	12.63	12.67	12.70
80	12.73											

For disabled members, add five years to the member's age.

Nonrefund Annuity – Option 1  
 (Amount of Monthly Annuity per \$1,000)

Age	Months of Attained Age at Retirement											
	0	1	2	3	4	5	6	7	8	9	10	11
15	\$6.51	\$6.51	\$6.51	\$6.51	\$6.51	\$6.51	\$6.52	\$6.52	\$6.52	\$6.52	\$6.52	\$6.52
16	6.52	6.52	6.52	6.52	6.52	6.52	6.52	6.52	6.52	6.52	6.52	6.52
17	6.52	6.52	6.52	6.52	6.52	6.52	6.53	6.53	6.53	6.53	6.53	6.53
18	6.53	6.53	6.53	6.53	6.53	6.53	6.54	6.54	6.54	6.54	6.54	6.54
19	6.54	6.54	6.54	6.54	6.54	6.54	6.54	6.54	6.54	6.54	6.54	6.54
20	6.54	6.54	6.54	6.54	6.54	6.54	6.55	6.55	6.55	6.55	6.55	6.55
21	6.55	6.55	6.55	6.55	6.55	6.55	6.56	6.56	6.56	6.56	6.56	6.56
22	6.56	6.56	6.56	6.56	6.56	6.56	6.57	6.57	6.57	6.57	6.57	6.57
23	6.57	6.57	6.57	6.57	6.57	6.57	6.58	6.58	6.58	6.58	6.58	6.58
24	6.58	6.58	6.58	6.58	6.58	6.58	6.59	6.59	6.59	6.59	6.59	6.59
25	6.59	6.59	6.59	6.60	6.60	6.60	6.60	6.60	6.60	6.61	6.61	6.61
26	6.61	6.61	6.61	6.61	6.61	6.61	6.62	6.62	6.62	6.62	6.62	6.62
27	6.62	6.62	6.62	6.62	6.62	6.62	6.63	6.63	6.63	6.63	6.63	6.63
28	6.63	6.63	6.63	6.64	6.64	6.64	6.64	6.64	6.64	6.65	6.65	6.65
29	6.65	6.65	6.65	6.66	6.66	6.66	6.66	6.66	6.66	6.67	6.67	6.67
30	6.67	6.67	6.67	6.67	6.67	6.67	6.68	6.68	6.68	6.68	6.68	6.68
31	6.68	6.68	6.68	6.69	6.69	6.69	6.69	6.69	6.69	6.70	6.70	6.70
32	6.70	6.70	6.71	6.71	6.71	6.71	6.72	6.72	6.72	6.72	6.73	6.73
33	6.73	6.73	6.73	6.74	6.74	6.74	6.74	6.74	6.74	6.75	6.75	6.75
34	6.75	6.75	6.75	6.76	6.76	6.76	6.76	6.76	6.76	6.77	6.77	6.77
35	6.77	6.77	6.78	6.78	6.78	6.78	6.79	6.79	6.79	6.79	6.80	6.80
36	6.80	6.80	6.81	6.81	6.81	6.81	6.82	6.82	6.82	6.82	6.83	6.83
37	6.83	6.83	6.84	6.84	6.84	6.84	6.85	6.85	6.85	6.85	6.86	6.86
38	6.86	6.86	6.87	6.87	6.87	6.87	6.88	6.88	6.88	6.88	6.89	6.89
39	6.89	6.89	6.90	6.90	6.90	6.90	6.91	6.91	6.91	6.91	6.92	6.92
40	6.92	6.92	6.93	6.93	6.93	6.94	6.94	6.94	6.95	6.95	6.95	6.96
41	6.96	6.96	6.97	6.97	6.97	6.98	6.98	6.98	6.99	6.99	6.99	7.00
42	7.00	7.00	7.01	7.01	7.01	7.02	7.02	7.02	7.03	7.03	7.03	7.04
43	7.04	7.04	7.05	7.05	7.06	7.06	7.07	7.07	7.07	7.08	7.08	7.09
44	7.09	7.09	7.10	7.10	7.11	7.11	7.12	7.12	7.12	7.13	7.13	7.14
45	7.14	7.14	7.15	7.15	7.16	7.16	7.17	7.17	7.17	7.18	7.18	7.19
46	7.19	7.19	7.20	7.20	7.21	7.21	7.22	7.22	7.22	7.23	7.23	7.24
47	7.24	7.25	7.25	7.26	7.26	7.27	7.27	7.28	7.28	7.29	7.29	7.30

Nonrefund Annuity – Option 0  
 (Amount of Monthly Annuity per \$1,000)

Age	Months of Attained Age at Retirement											
	0	1	2	3	4	5	6	7	8	9	10	11
48	7.30	7.31	7.31	7.32	7.32	7.33	7.33	7.34	7.34	7.35	7.35	7.36
49	7.36	7.37	7.37	7.38	7.38	7.39	7.40	7.40	7.41	7.41	7.42	7.42
50	7.43	7.44	7.44	7.45	7.45	7.46	7.47	7.47	7.48	7.48	7.49	7.49
51	7.50	7.51	7.51	7.52	7.52	7.53	7.54	7.54	7.55	7.55	7.56	7.56
52	7.57	7.58	7.58	7.59	7.60	7.60	7.61	7.62	7.62	7.63	7.64	7.64
53	7.65	7.66	7.67	7.67	7.68	7.69	7.70	7.70	7.71	7.72	7.73	7.73
54	7.74	7.75	7.76	7.77	7.78	7.79	7.80	7.81	7.82	7.83	7.84	7.85
55	7.86	7.87	7.88	7.90	7.91	7.92	7.93	7.94	7.95	7.97	7.98	7.99
56	8.00	8.01	8.03	8.04	8.05	8.07	8.08	8.09	8.11	8.12	8.13	8.15
57	8.16	8.17	8.19	8.20	8.21	8.23	8.24	8.25	8.27	8.28	8.29	8.31
58	8.32	8.33	8.35	8.36	8.38	8.39	8.41	8.42	8.43	8.45	8.46	8.48
59	8.49	8.51	8.52	8.54	8.55	8.57	8.58	8.60	8.61	8.63	8.64	8.66
60	8.67	8.69	8.70	8.72	8.74	8.75	8.77	8.79	8.80	8.82	8.84	8.85
61	8.87	8.89	8.91	8.92	8.94	8.96	8.98	8.99	9.01	9.03	9.05	9.06
62	9.08	9.10	9.12	9.14	9.15	9.17	9.19	9.21	9.23	9.25	9.26	9.28
63	9.30	9.32	9.34	9.36	9.38	9.40	9.42	9.44	9.46	9.48	9.50	9.52
64	9.54	9.56	9.58	9.60	9.62	9.64	9.67	9.69	9.71	9.73	9.75	9.77
65	9.79	9.81	9.84	9.86	9.88	9.90	9.93	9.95	9.97	9.99	10.02	10.04
66	10.06	10.08	10.11	10.13	10.15	10.18	10.20	10.22	10.25	10.27	10.29	10.32
67	10.34	10.37	10.39	10.42	10.44	10.47	10.49	10.52	10.54	10.57	10.59	10.62
68	10.64	10.67	10.69	10.72	10.75	10.77	10.80	10.83	10.85	10.88	10.91	10.93
69	10.96	10.99	11.02	11.05	11.08	11.11	11.14	11.16	11.19	11.22	11.25	11.28
70	11.31	11.34	11.37	11.40	11.43	11.46	11.50	11.53	11.56	11.59	11.62	11.65
71	11.68	11.71	11.75	11.78	11.82	11.85	11.89	11.92	11.95	11.99	12.02	12.06
72	12.09	12.13	12.16	12.20	12.23	12.27	12.31	12.34	12.38	12.41	12.45	12.48
73	12.52	12.56	12.60	12.64	12.68	12.72	12.76	12.79	12.83	12.87	12.91	12.95
74	12.99	13.03	13.07	13.12	13.16	13.20	13.24	13.28	13.32	13.37	13.41	13.45
75	13.49	13.53	13.58	13.62	13.67	13.71	13.76	13.80	13.84	13.89	13.93	13.98
76	14.02	14.07	14.12	14.16	14.21	14.26	14.31	14.35	14.40	14.45	14.50	14.54
77	14.59	14.64	14.69	14.75	14.80	14.85	14.90	14.95	15.00	15.06	15.11	15.16
78	15.21	15.26	15.32	15.37	15.43	15.48	15.54	15.59	15.64	15.70	15.75	15.81
79	15.86	15.92	15.98	16.04	16.10	16.16	16.22	16.27	16.33	16.39	16.45	16.51
80	16.57											

For disabled members, add five years to the member's age.

## August 7 1997 Factors

### 1997 15 YEAR CERTAIN FACTOR

AGE	0	1	2	3	4	5	6	7	8	9	10	11
15	0.998464	0.998464	0.998464	0.998464	0.998464	0.996933	0.996933	0.996933	0.996933	0.996933	0.996933	0.996933
16	0.996933	0.996933	0.996933	0.996933	0.996933	0.996933	0.998466	0.998466	0.998466	0.998466	0.998466	0.998466
17	0.998466	0.998466	0.998466	0.998466	0.998466	0.998466	0.996937	0.996937	0.996937	0.996937	0.996937	0.996937
18	0.996937	0.996937	0.996937	0.996937	0.996937	0.996937	0.996942	0.996942	0.996942	0.996942	0.996942	0.996942
19	0.996942	0.996942	0.996942	0.996942	0.996942	0.996942	0.998471	0.998471	0.998471	0.998471	0.998471	0.998471
20	0.998471	0.998471	0.998471	0.998471	0.998471	0.998471	0.998473	0.998473	0.998473	0.998473	0.998473	0.998473
21	0.998473	0.998473	0.998473	0.998473	0.998473	0.998473	0.998476	0.998476	0.998476	0.998476	0.998476	0.998476
22	0.998476	0.998476	0.998476	0.998476	0.998476	0.998476	0.996956	0.996956	0.996956	0.996956	0.996956	0.996956
23	0.996956	0.996956	0.996956	0.996956	0.996956	0.996956	0.996960	0.996960	0.996960	0.996960	0.996960	0.996960
24	0.996960	0.996960	0.996960	0.998480	0.998480	0.998480	0.996965	0.996965	0.996965	0.998483	0.998483	0.998483
25	0.998483	0.996983	0.998483	0.996970	0.996970	0.996970	0.996985	0.996985	0.996985	0.996974	0.996974	0.996974
26	0.996974	0.998474	0.996974	0.996974	0.996974	0.996974	0.996979	0.996979	0.996979	0.996979	0.996979	0.996979
27	0.996979	0.996979	0.996979	0.996979	0.996979	0.996979	0.996983	0.996983	0.996983	0.996983	0.996983	0.996983
28	0.996983	0.996983	0.996983	0.996988	0.996988	0.996988	0.996988	0.996988	0.996988	0.996992	0.996992	0.996992
29	0.996992	0.996992	0.996992	0.995495	0.995495	0.995495	0.996997	0.996997	0.996997	0.995502	0.995502	0.995502
30	0.995502	0.995502	0.995502	0.997001	0.997001	0.997001	0.995509	0.995509	0.995509	0.997006	0.997006	0.997006
31	0.997006	0.997006	0.997006	0.997010	0.997010	0.997010	0.997010	0.997010	0.997010	0.997015	0.997015	0.997015
32	0.997015	0.997015	0.995529	0.997019	0.997019	0.997019	0.995536	0.995536	0.995536	0.997024	0.995542	0.995542
33	0.995542	0.995542	0.995542	0.995549	0.995549	0.995549	0.995549	0.995549	0.995549	0.995556	0.995556	0.995556
34	0.995556	0.995556	0.995556	0.995562	0.995562	0.995562	0.995562	0.995562	0.995562	0.995569	0.995569	0.995569
35	0.995569	0.995569	0.994100	0.995575	0.995575	0.995575	0.994109	0.994109	0.994109	0.995582	0.994118	0.994118
36	0.994118	0.994118	0.992658	0.994126	0.994126	0.994126	0.992669	0.992669	0.992669	0.994135	0.992679	0.992679
37	0.992679	0.992679	0.991228	0.992690	0.992690	0.992690	0.992701	0.992701	0.992701	0.992701	0.992711	0.992711
38	0.992711	0.992711	0.992722	0.992722	0.992722	0.992722	0.992733	0.992733	0.992733	0.992733	0.992743	0.992743
39	0.992743	0.992743	0.991304	0.992754	0.992754	0.992754	0.991317	0.991317	0.991317	0.992764	0.991329	0.991329
40	0.991329	0.991329	0.991342	0.991342	0.991342	0.989914	0.991354	0.991354	0.989928	0.989928	0.991367	0.989943
41	0.989943	0.989943	0.989957	0.989957	0.989957	0.988539	0.989971	0.989971	0.988555	0.988555	0.989986	0.988571
42	0.988571	0.988571	0.988588	0.988588	0.988588	0.988604	0.988604	0.988604	0.988620	0.988620	0.988620	0.988636
43	0.988636	0.988636	0.988652	0.988652	0.988652	0.988652	0.987270	0.987270	0.987270	0.985876	0.987288	0.985896
44	0.985896	0.985896	0.985915	0.985915	0.984529	0.985935	0.984551	0.984551	0.985955	0.984572	0.984572	0.984594
45	0.984594	0.984594	0.984615	0.984615	0.983240	0.984637	0.983264	0.983264	0.984658	0.983287	0.983287	0.983310
46	0.983310	0.983310	0.983333	0.983333	0.981969	0.983356	0.981994	0.981994	0.983380	0.982019	0.982019	0.982044
47	0.982044	0.980690	0.982069	0.980716	0.980716	0.980743	0.980743	0.979396	0.980769	0.979424	0.979424	0.979452
48	0.979452	0.978112	0.979480	0.978142	0.979508	0.978172	0.979536	0.978202	0.978202	0.978231	0.978231	0.978261
49	0.978261	0.976934	0.978290	0.976965	0.976965	0.976996	0.975676	0.975676	0.975709	0.975709	0.974394	0.975741
50	0.974428	0.973118	0.974462	0.973154	0.974497	0.973190	0.973226	0.973226	0.971925	0.973262	0.971963	0.973298

## August 7 1997 Factors

### 1997 15 YEAR CERTAIN FACTOR

AGE	0	1	2	3	4	5	6	7	8	9	10	11
51	0.972000	0.970706	0.972037	0.970745	0.972074	0.970784	0.970822	0.970822	0.969536	0.970861	0.969577	0.970899
52	0.969617	0.969657	0.969657	0.969697	0.968421	0.969737	0.968463	0.968504	0.968504	0.968545	0.967277	0.968586
53	0.967320	0.966057	0.966102	0.966102	0.966146	0.964889	0.964935	0.964935	0.963684	0.963731	0.962484	0.963777
54	0.962532	0.962581	0.961340	0.961390	0.960154	0.960205	0.958974	0.959027	0.957801	0.957854	0.956633	0.956688
55	0.955471	0.955527	0.954315	0.953165	0.951960	0.952020	0.950820	0.950882	0.949686	0.772217	0.947368	0.947434
56	0.946250	0.946317	0.943960	0.944030	0.942857	0.941760	0.940594	0.940667	0.938348	0.938424	0.937269	0.936196
57	0.935049	0.935129	0.932845	0.932927	0.931790	0.930741	0.930825	0.929697	0.928658	0.927536	0.927624	0.925391
58	0.925481	0.925570	0.923353	0.923445	0.921241	0.921335	0.920333	0.919240	0.919336	0.917160	0.917258	0.915094
59	0.915194	0.914219	0.913146	0.912178	0.911111	0.910152	0.910256	0.908140	0.908246	0.906141	0.906250	0.904157
60	0.904268	0.903337	0.902299	0.901376	0.899314	0.899429	0.898518	0.896473	0.896591	0.894558	0.893665	0.892655
61	0.891770	0.890889	0.888889	0.889013	0.887025	0.886161	0.885301	0.884316	0.883463	0.881506	0.880663	0.879691
62	0.878855	0.878022	0.876096	0.875274	0.875410	0.873501	0.872688	0.871878	0.869989	0.869189	0.869330	0.867457
63	0.866667	0.865880	0.864026	0.863248	0.862473	0.860638	0.859873	0.859110	0.857294	0.856540	0.855789	0.853992
64	0.853249	0.852510	0.850731	0.850000	0.849272	0.847510	0.845915	0.845201	0.843460	0.842754	0.842051	0.840328
65	0.839632	0.838940	0.836382	0.835700	0.835020	0.833333	0.831823	0.831156	0.829488	0.828829	0.827345	0.825697
66	0.825050	0.824405	0.821958	0.821323	0.820690	0.818271	0.817647	0.817025	0.814634	0.814021	0.813411	0.811047
67	0.810445	0.809065	0.807507	0.806142	0.805556	0.803247	0.802669	0.801331	0.799810	0.798486	0.797923	0.795669
68	0.795113	0.793814	0.792329	0.791045	0.789767	0.788301	0.787037	0.785780	0.784332	0.783088	0.781852	0.780421
69	0.779197	0.777980	0.775862	0.774661	0.773466	0.771377	0.770197	0.769713	0.767650	0.766488	0.765333	0.763298
70	0.762157	0.761023	0.759015	0.757895	0.756780	0.754799	0.753043	0.751951	0.750000	0.748921	0.747849	0.745923
71	0.744863	0.743809	0.741277	0.740238	0.737733	0.736709	0.735071	0.733221	0.732218	0.733111	0.728785	0.726368
72	0.725393	0.723825	0.722039	0.720492	0.718724	0.717196	0.715678	0.713938	0.712439	0.710717	0.709237	0.707532
73	0.706070	0.704618	0.702381	0.700949	0.698738	0.697327	0.695925	0.694292	0.692907	0.690754	0.689388	0.687259
74	0.685912	0.684574	0.677297	0.680640	0.678571	0.677273	0.675982	0.67946	0.672673	0.670157	0.668904	0.666914
75	0.665678	0.663710	0.662003	0.660059	0.658376	0.656455	0.654797	0.652899	0.651012	0.649388	0.647523	0.645923
76	0.644080	0.642502	0.640227	0.639124	0.636875	0.635344	0.633124	0.632056	0.629861	0.628374	0.626207	0.625172
77	0.623029	0.620902	0.619469	0.616949	0.614865	0.613468	0.611409	0.609365	0.608000	0.605578	0.603574	0.602243
78	0.600263	0.598296	0.596606	0.594665	0.593001	0.591085	0.589447	0.587556	0.585678	0.584076	0.582222	0.580645
79	0.578815	0.576633	0.575094	0.572943	0.570807	0.568688	0.567201	0.565458	0.563380	0.561318	0.559878	0.557844
80	0.555824	0.553818	0.552096	0.550119	0.548157	0.545885	0.544543	0.542622	0.540398	0.538506	0.537209	0.535032
81	0.533179	0.531034	0.528907	0.527667	0.525568	0.523486	0.521421	0.519663	0.517627	0.516165	0.514159	0.512452
82	0.510474	0.508233	0.506288	0.504902	0.502984	0.500810	0.498924	0.497051	0.494928	0.493617	0.491786	0.489710
83	0.487907	0.485864	0.483837	0.482347	0.480352	0.478619	0.476655	0.474706	0.472774	0.471363	0.469460	0.467572
84	0.465699	0.463609	0.461768	0.459713	0.457903	0.455882	0.454368	0.452601	0.450629	0.448675	0.446952	0.445029
85	0.443333	0.441232	0.439358	0.406550	0.435454	0.433628	0.432082	0.430286	0.428506	0.426545	0.424795	0.422868
86	0.421148	0.419253	0.417376	0.415330	0.413487	0.411661	0.409850	0.407877	0.406100	0.404338	0.402592	0.400860

## August 7 1997 Factors

1997 15 YEAR CERTAIN FACTOR												
AGE	0	1	2	3	4	5	6	7	8	9	10	11
87	0.398973	0.397103	0.395250	0.393415	0.391597	0.389632	0.388265	0.386495	0.369505	0.383005	0.381283	0.379423
88	0.377733	0.375907	0.374098	0.372306	0.370532	0.368629	0.366890	0.365166	0.363459	0.361768	0.359954	0.358295
89	0.356651	0.354888	0.353008	0.351280	0.349569	0.347745	0.346068	0.344408	0.342637	0.341009	0.339396	0.337676
90	0.336095	0.334289	0.332620	0.330851	0.329217	0.327483	0.325882	0.324183	0.322503	0.320949	0.319302	0.317779
91	0.316164	0.314459	0.312772	0.311207	0.309555	0.307921	0.306303	0.304703	0.303119	0.301551	0.300000	0.298560
92	0.2970.93	0.295347	0.293766	0.292110	0.290564	0.288944	0.287739	0.286152	0.284669	0.283116	0.281665	0.280144
93	0.278723	0.277151	0.275516	0.273981	0.272462	0.270960	0.269397	0.267929	0.266476	0.264965	0.263544	0.262139
94	0.260748	0.259156	0.257655	0.256171	0.254635	0.253185	0.251752	0.250335	0.248868	0.247483	0.246113	0.244695
95	0.243356	0.241906	0.240412	0.238936	0.237538	0.236097	0.234732	0.233325	0.231992	0.230617	0.229315	0.227972
96	0.226699	0.225277	0.223873	0.222487	0.221117	0.219765	0.218428	0.217159	0.215854	0.214565	0.213291	0.212032
97	0.210788	0.209417	0.208064	0.206729	0.205410	0.204153	0.202867	0.201597	0.200343	0.199105	0.197881	0.196673
98	0.195479	0.194179	0.192895	0.191590	0.190340	0.189107	0.187852	0.186651	0.185465	0.184294	0.183101	0.181960
99	0.180833	0.179546	0.178312	0.177095	0.175895	0.174677	0.173509	0.172357	0.171219	0.170066	0.168958	0.167865
100	0.166786											