

**TRANSACTIONS OF SOCIETY OF ACTUARIES
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**REPORT OF THE GENERAL COMMITTEE ON PUBLICA-
TION OF MONETARY TABLES**

**SECTION I. TABLE OF UNIFORM SENIORITY FOR JOINT LIFE
CALCULATIONS BASED UPON THE 1958 CSO
AND CET MORTALITY TABLES**

GENERAL METHOD

After exploring various possible methods of calculating approximate joint life values for the 1958 CSO Table, your Committee used the method suggested by Mr. Valentine Howell (*TASA XXI*, 178). This method involves treating the 1958 CSO Table as if it were a Makehamized table and using an appropriate table of uniform seniority to obtain equivalent equal ages for various combinations of unequal ages. Monetary values for two lives of equal age will be exact and calculated on the basis of the 1958 CSO Table, without any modification.

Our preliminary studies indicated that the 1958 CSO Table was not amenable to regraduation by a Makeham formula. Any Makeham graduation would have significantly distorted the 1958 CSO Table mortality rates at some important range of ages. In view of the considerable discussion about the appropriate level of the mortality margins included in the 1958 CSO Table, it was felt inadvisable to adopt a method involving a significant modification of the 1958 CSO Table mortality rates. Furthermore, our studies indicated that Mr. Howell's method generally produces far more accurate values than any Makehamized 1958 CSO Table, particularly for the numerous cases where the difference in age is relatively small.

TABLE OF UNIFORM SENIORITY

Our tests indicated that sufficiently accurate results would be produced by using the traditional form for the table of uniform seniority. This table shows the addition to be made to the age of the younger of two lives in order to obtain the equivalent equal ages. The table is a single entry table with the addition to the younger age depending only on the difference between the two ages. While greater accuracy could have been achieved by using a double entry table, with the addition to the younger age depending on both the age of the younger life and the difference in ages, it was felt that the increase in accuracy did not justify the increased complexity of a double entry table.

Our next problem was to determine an appropriate value of $\log_{10} c$ for the table of uniform seniority. Extensive tests were made on the basis of various values of $\log_{10} c$, ranging from $\log_{10} c = .035$ to $\log_{10} c = .0425$. These tests (which involved comparisons of exact and approximate values of annuities, net annual premiums, and terminal reserves at various durations) indicated that the optimum value of $\log_{10} c$ for one particular function and combination of ages was not the same as the optimum value of $\log_{10} c$ for some other function or combination of ages. While the possibility of using some mathematical criterion to determine the optimum value of $\log_{10} c$ was carefully considered, our tests indicated that the degree of judgment involved in determining the functions, ages, and weights that would be used in establishing any such mathematical criterion was so great that very little would have been gained over making an empirical choice of the optimum value of $\log_{10} c$ on the basis of our tests.

After reviewing these extensive tests, we selected $\log_{10} c = .04$ as the basis for the table of uniform seniority. This value was chosen because it produced values that were reasonably close to the exact values for the various functions and combinations of ages that were tested and because it produced reserves that were generally slightly higher than the exact reserves. Our tests indicated that the objective of producing approximate reserves that would always be greater than the exact reserves for every plan, duration, and combination of ages could not be attained without producing substantial distortions of the exact values at some important points. Our tests indicated that, for any reasonable distribution of business, aggregate reserves calculated on the basis of the proposed table of uniform seniority will exceed the corresponding exact reserves.

Parenthetically, we also considered the possibility of constructing a table of uniform seniority based on values of $\log_{10} c$ that vary by difference in age. This approach was discarded because the increase in accuracy did not appear to justify the increase in complexity. In addition, the use of various values of $\log_{10} c$ in a single table of uniform seniority would have created problems in calculating joint life values involving more than two lives.

Table 1 shows the proposed table of uniform seniority based on $\log_{10} c = .04$.

TESTS OF ACCURACY OF PROPOSED METHOD

Tables 2, 3, and 4 compare interpolated annuity values obtained by using the table of uniform seniority shown in Table 1 with corresponding exact annuity values. Table 2 compares life annuities, Table 3 compares

TABLE 1

COMMISSIONERS 1958 STANDARD ORDINARY
MORTALITY TABLE

TABLE SHOWING THE ADDITION TO BE MADE TO THE AGE
OF THE YOUNGER OF TWO LIVES IN ORDER TO OBTAIN
THE EQUIVALENT EQUAL AGES*

Difference of Age	Addition to Younger Age	Difference of Age	Addition to Younger Age
1.....	.512	41.....	33.720
2.....	1.046	42.....	34.699
3.....	1.603	43.....	35.679
4.....	2.183	44.....	36.661
5.....	2.785	45.....	37.645
6.....	3.409	46.....	38.630
7.....	4.055	47.....	39.617
8.....	4.721	48.....	40.604
9.....	5.407	49.....	41.593
10.....	6.113	50.....	42.582
11.....	6.837	51.....	43.573
12.....	7.580	52.....	44.564
13.....	8.340	53.....	45.556
14.....	9.116	54.....	46.549
15.....	9.907	55.....	47.543
16.....	10.714	56.....	48.537
17.....	11.534	57.....	49.531
18.....	12.368	58.....	50.526
19.....	13.214	59.....	51.522
20.....	14.072	60.....	52.517
21.....	14.940	61.....	53.514
22.....	15.819	62.....	54.510
23.....	16.707	63.....	55.507
24.....	17.604	64.....	56.504
25.....	18.509	65.....	57.502
26.....	19.422	66.....	58.499
27.....	20.342	67.....	59.497
28.....	21.268	68.....	60.495
29.....	22.201	69.....	61.493
30.....	23.139	70.....	62.491
31.....	24.082	71.....	63.490
32.....	25.030	72.....	64.489
33.....	25.982	73.....	65.487
34.....	26.938	74.....	66.486
35.....	27.898	75.....	67.485
36.....	28.862		
37.....	29.828		
38.....	30.797		
39.....	31.769		
40.....	32.744		

* Based on $\log_{10} = .04$.

TABLE 2
 COMPARISON OF INTERPOLATED* AND EXACT VALUES OF LIFE
 ANNUITIES FOR TWO LIVES AT VARIOUS AGES
 (Based on 1958 CSO Table and 2½% Interest)

AGE OF YOUNGER LIFE (x)	EXACT VALUE OF $\ddot{a}_{x:x+n}$	INTERPOLATED* VALUE OF $\ddot{a}_{x+t:x+t}$	EXCESS OF INTERPOLATED* OVER EXACT VALUE	
			Col. (2) - Col. (1) (3)	% of Col. (1) (4)
Two Year Difference in Age (n=2, t=1.046)				
20.....	\$25.485	\$25.485	\$.000	0.0%
30.....	22.180	22.181	.001	0.0
40.....	18.098	18.097	-.001	-0.0
50.....	13.653	13.652	-.001	-0.0
60.....	9.400	9.399	-.001	-0.0
70.....	5.937	5.934	-.003	-0.1
Five Year Difference in Age (n=5, t=2.785)				
20.....	\$24.960	\$24.966	\$.006	0.0%
30.....	21.515	21.523	.008	0.0
40.....	17.339	17.336	-.003	-0.0
50.....	12.890	12.883	-.007	-0.1
60.....	8.732	8.722	-.010	-0.1
70.....	5.462	5.457	-.005	-0.1
Ten Year Difference in Age (n=10, t=6.113)				
20.....	\$23.881	\$23.911	\$.030	0.1%
30.....	20.176	20.195	.019	0.1
40.....	15.874	15.858	-.016	-0.1
50.....	11.465	11.437	-.028	-0.2
60.....	7.558	7.502	-.056	-0.7
70.....	4.616	4.611	-.005	-0.1
Twenty Year Difference in Age (n=20, t=14.072)				
20.....	\$20.921	\$21.020	\$.099	0.5%
30.....	16.778	16.767	-.011	-0.1
40.....	12.392	12.319	-.073	-0.6
50.....	8.365	8.237	-.128	-1.5
60.....	5.212	5.120	-.092	-1.8
70.....	3.050	3.018	-.032	-1.0
Forty Year Difference in Age (n=40, t=32.744)				
20.....	\$12.935	\$12.901	\$-.034	-0.3%
30.....	8.914	8.738	-.176	-2.0
40.....	5.658	5.468	-.190	-3.4
50.....	3.329	3.232	-.097	-2.9

* Calculated on basis of table of uniform seniority based on $\log_{10} e = .04$.

TABLE 3

COMPARISON OF INTERPOLATED* AND EXACT VALUES OF TEMPORARY LIFE ANNUITIES TO AGE 65 (OLDER LIFE)
 FOR TWO LIVES AT VARIOUS AGES
 (Based on 1958 CSO Table and 2½% Interest)

AGE OF OLDER LIFE (x)	EXACT VALUE of $\ddot{a}_{x:n:\overline{65-x}}$	INTERPOLATED* VALUE OF $\ddot{a}_{x-n+(x-n)+(65-x)}$	EXCESS OF INTERPOLATED* OVER EXACT VALUE	
			Col. (2) - Col. (1) (3)	% of Col. (1) (4)
(1)	(2)			
Two Year Difference in Age (n=2, t=1.046)				
20.....	\$24.641	\$24.641	\$.000	0.0%
30.....	21.021	21.022	.001	0.0
40.....	16.428	16.428	.000	0.0
50.....	10.968	10.968	.000	0.0
60.....	4.401	4.401	.000	0.0
Five Year Difference in Age (n=5, t=2.785)				
20.....	\$24.815	\$24.812	\$-.003	-0.0%
30.....	21.217	21.225	.008	0.0
40.....	16.650	16.653	.003	0.0
50.....	11.133	11.132	-.001	-0.0
60.....	4.438	4.438	.000	0.0
Ten Year Difference in Age (n=10, t=6.113)				
20.....	\$25.033	\$25.018	\$-.015	-0.1%
30.....	21.430	21.462	.032	0.1
40.....	16.894	16.920	.026	0.2
50.....	11.328	11.330	.002	0.0
60.....	4.481	4.481	.000	0.0
Twenty Year Difference in Age (n=20, t=14.072)				
20.....	\$25.077	\$25.242	\$.165	0.7%
30.....	21.664	21.703	.039	0.2
40.....	17.098	17.196	.098	0.6
50.....	11.516	11.539	.023	0.2
60.....	4.526	4.526	.000	0.0
Forty Year Difference in Age (n=40, t=32.744)				
40.....	\$17.125	\$17.347	\$.222	1.3%
50.....	11.597	11.656	.059	0.5
60.....	4.544	4.552	.008	0.2

* Calculated on basis of table of uniform seniority based on $\log_{10} e = .04$.

TABLE 4

COMPARISON OF INTERPOLATED* AND EXACT VALUES OF TEMPORARY LIFE ANNUITIES FOR TWENTY YEARS FOR TWO LIVES AT VARIOUS AGES

(Based on 1958 CSO Table and 2½% Interest)

AGE OF OLDER LIFE (x)	EXACT VALUE of $\ddot{a}_{x:\overline{20} }$	INTERPOLATED* VALUE OF $\ddot{a}_{x-n+t:\overline{20} }$	EXCESS OF INTERPOLATED* OVER EXACT VALUE	
			Col. (2) - Col. (1) (3)	% of Col. (1) (4)
(1)	(2)	(3)	(4)	
Two Year Difference in Age ($n=2, t=1.046$)				
20.....	\$15 449	\$15 448	\$-.001	-0.00%
30.....	15 242	15 243	.001	0.0
40.....	14 508	14 508	.000	0.0
50.....	12 795	12 795	.000	0.0
60.....	9 876	9 875	-.001	-0.0
70.....	6 519	6 515	-.004	-0.1
Five Year Difference in Age ($n=5, t=2.785$)				
20.....	\$15 468	\$15 463	\$-.005	-0.00%
30.....	15 282	15 287	.005	0.0
40.....	14 645	14 647	.002	0.0
50.....	13 079	13 078	-.001	-0.0
60.....	10 302	10 295	-.007	-0.1
70.....	6 929	6 910	-.019	-0.3
Ten Year Difference in Age ($n=10, t=6.113$)				
20.....	\$15 503	\$15 483	\$-.020	-0.1%
30.....	15 320	15 335	.015	0.1
40.....	14 788	14 810	.022	0.1
50.....	13 421	13 422	.001	0.0
60.....	10 852	10 836	-.016	-0.1
70.....	7 511	7 457	-.054	-0.7
Twenty Year Difference in Age ($n=20, t=14.072$)				
20.....	\$15 434	\$15 511	\$.077	0.5%
30.....	15 385	15 380	-.005	-0.0
40.....	14 898	14 975	.077	0.5
50.....	13 767	13 794	.027	0.2
60.....	11 488	11 462	-.026	-0.2
70.....	8 266	8 149	-.117	-1.4
Forty Year Difference in Age ($n=40, t=32.744$)				
40.....	\$14 892	\$15 062	\$.170	1.1%
50.....	13 917	14 009	.092	0.7
60.....	11 808	11 844	.036	0.3
70.....	8 757	8 607	-.150	-1.7

* Calculated on basis of table of uniform seniority based on $\log_{10} e = .04$.

TABLE 5

EXCESS OF INTERPOLATED* OVER EXACT VALUES
 NET ANNUAL PREMIUMS AND TERMINAL RESERVES
 FOR ORDINARY LIFE PLAN—TWO LIVES AT VARIOUS AGES
 (Based on 1958 CSO Table and 2½% Interest)

NET ANNUAL PREMIUMS AND TERMINAL RESERVES	YOUNGER AGE 20		YOUNGER AGE 30		YOUNGER AGE 40		YOUNGER AGE 50		YOUNGER AGE 60	
	Excess per \$1,000	% Excess	Excess per \$1,000	% Excess	Excess per \$1,000	% Excess	Excess per \$1,000	% Excess	Excess per \$1,000	% Excess
Two Year Difference in Age										
N.A.P.	\$.00	0.0%	\$.01	-0.0%	\$.01	0.0%	\$.01	0.0%	\$.03	0.0%
T.R. 1st Yr.	.06	0.5	.06	0.4	.05	0.2	.08	0.2	-.02	-0.0
5th Yr.	.21	0.3	.11	0.1	.12	0.1	.08	0.0	-.59	-0.3
10th Yr.	.40	0.3	.14	0.1	.16	0.1	-.07	-0.0	-.35	-0.1
20th Yr.	.32	0.1	.07	0.0	-.12	-0.0	-.36	-0.1	-1.08	-0.2
30th Yr.	.10	0.0	-.26	-0.0	-.38	-0.1	-.86	-0.1	.60	0.1
40th Yr.	-.27	-0.0	-.45	-0.1	-.73	-0.1	.27	0.0		
Five Year Difference in Age										
N.A.P.	\$.00	0.0%	\$.02	-0.1%	\$.02	0.1%	\$.06	0.1%	\$.17	0.2%
T.R. 1st Yr.	.03	0.2	.07	0.4	.09	0.4	.07	0.2	.01	0.0
5th Yr.	.26	0.4	.39	0.4	.28	0.2	.27	0.2	.00	0.0
10th Yr.	.51	0.4	.53	0.3	.43	0.2	.23	0.1	-.55	-0.1
20th Yr.	.69	0.2	.51	0.1	.18	0.0	-.36	-0.1	-.89	-0.1
30th Yr.	.47	0.1	.09	0.0	-.35	-0.1	-.65	-0.1	-6.30	-0.8
40th Yr.	-.04	-0.0	-.39	-0.1	-.57	-0.1	-4.40	-0.5		
Ten Year Difference in Age										
N.A.P.	\$.05	-0.3%	\$.04	-0.2%	\$.07	0.2%	\$.23	0.4%	\$ 1.01	0.9%
T.R. 1st Yr.	-.03	-0.2	.29	1.4	.17	0.6	.23	0.6	.87	2.0
5th Yr.	.11	0.1	1.36	1.3	.79	0.6	1.10	0.6	1.61	0.8
10th Yr.	.55	0.4	1.68	0.8	1.09	0.4	2.51	0.7	-3.47	-0.9
20th Yr.	1.69	0.5	1.87	0.4	2.39	0.5	-.83	-0.1	-3.45	-0.5
30th Yr.	1.66	0.3	2.45	0.4	-.32	-0.0	-1.40	-0.2		
40th Yr.	2.03	0.3	.05	0.0	-.84	-0.1				
Twenty Year Difference in Age										
N.A.P.	\$.23	-1.0%	\$.04	0.1%	\$.48	0.9%	\$ 1.87	2.0%		
T.R. 1st Yr.	.28	1.5	.64	2.5	.52	1.5	2.08	4.9		
5th Yr.	2.23	2.3	2.72	2.1	2.62	1.5	6.75	3.4		
10th Yr.	4.33	2.2	3.97	1.5	6.22	1.9	1.34	0.4		
20th Yr.	6.21	1.5	7.07	1.4	4.70	0.8	-2.81	-0.4		
30th Yr.	7.59	1.3	4.96	0.7	.31	0.0				
40th Yr.	5.13	0.7	1.09	0.1						
Forty Year Difference in Age										
N.A.P.	\$.22	0.4%	\$ 2.30	2.6%						
T.R. 1st Yr.	1.14	3.5	2.95	7.3						
5th Yr.	5.70	3.5	10.96	5.7						
10th Yr.	11.67	3.8	8.51	2.3						
20th Yr.	13.06	2.3	1.72	0.3						
30th Yr.	5.40	0.7								
40th Yr.										

* Calculated on basis of table of uniform seniority based on log₁₀e = .04.

TABLE 6

EXCESS OF INTERPOLATED* OVER EXACT VALUES
 NET ANNUAL PREMIUMS AND TERMINAL RESERVES
 FOR TWENTY PAYMENT LIFE PLAN—TWO LIVES AT VARIOUS AGES
 (Based on 1958 CSO Table and 2½% Interest)

NET ANNUAL PREMIUMS AND TERMINAL RESERVES	YOUNGER AGE 20		YOUNGER AGE 30		YOUNGER AGE 40		YOUNGER AGE 50		YOUNGER AGE 60	
	Excess per \$1,000	% Excess	Excess per \$1,000	% Excess	Excess per \$1,000	% Excess	Excess per \$1,000	% Excess	Excess per \$1,000	% Excess
Two Year Difference in Age										
N.A.P.	\$.00	0.0%	\$ - .01	-0.0%	\$.00	0.0%	\$.01	0.0%	\$.03	0.0%
T.R. 1st Yr.	.04	0.2	.02	0.1	.01	0.0	.06	0.2	.05	0.1
5th Yr.	.14	0.1	.02	-0.0	.11	-0.1	.03	-0.0	.33	-0.2
10th Yr.	.24	0.1	.12	-0.0	.28	-0.1	.33	-0.1	.03	-0.0
20th Yr.	.15	0.0	.11	-0.0	.38	-0.0	.46	-0.1	.52	-0.1
30th Yr.	.04	0.0	.03	0.0	.06	0.0	.08	0.0	.18	-0.0
40th Yr.	.03	0.0	.06	0.0	.08	0.0	.18	-0.0		
Five Year Difference in Age										
N.A.P.	\$ - .01	-0.0%	\$ - .03	-0.1%	\$.01	0.0%	\$.04	0.1%	\$.16	0.2%
T.R. 1st Yr.	.01	-0.0	.03	0.1	.05	0.1	.05	0.1	.11	0.2
5th Yr.	.11	0.1	.15	0.1	.06	-0.0	.06	0.0	.34	0.2
10th Yr.	.20	0.1	.03	0.0	.27	-0.1	.34	-0.1	.14	-0.0
20th Yr.	.28	0.0	.03	-0.0	.39	-0.0	.55	-0.1	.52	-0.1
30th Yr.	.18	0.0	.23	0.0	.13	0.0	.29	0.0	1.86	-0.2
40th Yr.	.23	0.0	.13	0.0	.29	0.0	1.86	-0.2		
Ten Year Difference in Age										
N.A.P.	\$ - .07	-0.3%	\$ - .09	-0.3%	\$.03	0.1%	\$.17	0.3%	\$.99	0.9%
T.R. 1st Yr.	.07	-0.3	.20	0.7	.09	0.3	.19	0.5	.90	2.0
5th Yr.	.12	-0.1	.91	0.6	.37	0.2	.81	0.4	1.75	0.8
10th Yr.	.02	0.0	.80	0.2	.16	0.0	1.58	0.4	3.14	-0.8
20th Yr.	.45	0.1	.42	0.1	.74	0.1	.32	-0.0	.43	-0.0
30th Yr.	.68	0.1	1.37	0.2	.12	0.0	.16	-0.0		
40th Yr.	1.37	0.2	.12	0.0	.16	-0.0				
Twenty Year Difference in Age										
N.A.P.	\$ - .33	-1.0%	\$ - .06	-0.1%	\$.30	0.5%	\$ 1.77	1.8%		
T.R. 1st Yr.	.13	0.5	.49	1.4	.34	0.9	2.04	4.7		
5th Yr.	1.42	1.0	1.88	1.1	1.50	0.8	6.38	3.1		
10th Yr.	2.40	0.8	2.10	0.6	3.33	0.9	.22	0.1		
20th Yr.	1.62	0.2	2.69	0.3	1.83	0.2	.30	0.0		
30th Yr.	3.10	0.4	2.23	0.3	.80	0.1				
40th Yr.	2.23	0.3	.80	0.1						
Forty Year Difference in Age										
N.A.P.	\$ - .10	-0.2%	\$ 2.10	2.4%						
T.R. 1st Yr.	.77	2.0	2.79	6.7						
5th Yr.	3.70	1.9	9.92	4.9						
10th Yr.	6.56	1.7	5.71	1.4						
20th Yr.	3.96	0.5	1.55	0.2						
30th Yr.	2.36	0.3								

* Calculated on basis of table of uniform seniority based on log 10e = .04.

temporary life annuities to age 65, and Table 4 compares temporary life annuities for 20 years.

Tables 5 and 6 compare interpolated and exact values of net annual premiums and terminal reserves. Table 5 covers the ordinary life plan and Table 6 the 20 payment life plan.

As the family insurance plans of some companies involve joint life contingencies with respect to the insurance on the wife, special tests of the accuracy of the proposed table of uniform seniority were made for the family insurance plans of two large companies.

Table 7 compares interpolated and exact values of the additional reserves on the wife's benefit under the family insurance policy of Company

TABLE 7
 COMPARISON OF INTERPOLATED* AND EXACT VALUES
 OF ADDITIONAL RESERVES ON WIFE'S BENEFIT UNDER
 FAMILY POLICY OF COMPANY A—WIFE 5 YEARS
 YOUNGER THAN HUSBAND

(Based on 1958 CSO Table and 2½% Interest)

DURATION	EXACT VALUE OF RESERVE (1)	INTERPOLATED* VALUE OF RESERVE (2)	EXCESS OF INTERPOLATED* OVER EXACT VALUE	
			Col. (2) - Col. (1) (3)	% of Col. (1) (4)
Issue Ages for Husband and Wife Are 30 and 25				
1	\$ 16.72	\$ 16.73	\$.01	0.1%
10	185.08	185.20	.12	0.1
20	400.50	400.71	.21	0.1
30	616.43	616.66	.23	0.0
40	779.54	779.94	.40	0.1
50	742.03	742.04	.01	0.0
55	500.00	500.00	.00	0.0
Issue Ages for Husband and Wife Are 40 and 35				
1	\$ 24.60	\$ 24.66	\$.06	0.2%
10	257.27	257.44	.17	0.1
20	515.16	515.40	.24	0.0
30	715.31	715.83	.52	0.1
40	710.52	710.49	-.03	-0.0
45	500.00	500.00	.00	0.0

* Calculated on basis of table of uniform seniority based on log 10e = .04.

TABLE 8

COMPARISON OF INTERPOLATED* AND EXACT VALUES OF
 TERMINAL RESERVES FOR \$1,000 OF INSURANCE ON THE
 LIFE OF THE WIFE UNDER FAMILY POLICY OF COMPANY B

(Based on 1958 CSO Table and 3% Interest)

AGE OF HUS- BAND	AGE OF WIFE	EXACT	EXCESS	EXACT	EXCESS	EXACT	EXCESS	EXACT	EXCESS
		RE- SERVE	OF IN- TERPO- LATED* OVER EXACT VALUE	RE- SERVE	OF IN- TERPO- LATED* OVER EXACT VALUE	RE- SERVE	OF IN- TERPO- LATED* OVER EXACT VALUE	RE- SERVE	OF IN- TERPO- LATED* OVER EXACT VALUE
		End of 5th Year		End of 10th Year		End of 15th Year		End of 20th Year	
Husband 10 Years Older than Wife									
25	15	\$ 41.45	\$-.21	\$ 88.55	\$-.26	\$142.62	\$-.18	\$203.92	\$.03
30	20	50.11	-.06	107.62	.00	172.71	.24	245.16	.24
35	25	61.99	.07	132.03	.35	209.85	.34	293.70	.36
40	30	76.77	.36	161.88	.36	253.42	.39	350.45	.29
45	35	95.23	.06	197.46	.16	305.69	.10	419.44	.08
50	40	117.49	.15	241.72	.08	372.47	.05	514.58	.29
55	45	147.73	-.06	303.45	-.05	474.17	.05		
Husband 5 Years Older than Wife									
20	15	\$ 40.38	\$-.08	\$ 86.31	\$-.10	\$139.30	\$-.11	\$199.89	\$-.04
25	20	48.63	-.02	104.73	-.04	168.87	.02	240.76	.05
30	25	60.12	-.02	128.83	.05	205.78	.08	289.47	.08
35	30	74.88	.08	158.64	.12	249.69	.12	347.18	.10
40	35	93.21	.06	194.49	.07	302.95	.07	418.28	.05
45	40	115.84	.02	239.92	.04	372.25	.02	516.86	.00
50	45	147.10	.01	304.46	.00	477.98	-.02		
55	50	197.03	-.01	416.37	-.03				
Wife 5 Years Older than Husband									
15	20	\$ 47.32	\$-.09	\$101.83	\$-.11	\$164.50	\$-.11	\$235.55	\$-.05
20	25	58.08	-.03	124.88	-.05	200.64	.02	284.14	.05
25	30	72.28	-.03	154.31	.05	244.82	.09	343.03	.08
30	35	90.64	.08	190.80	.12	299.68	.11	416.95	.09
35	40	113.89	.06	237.96	.06	372.18	.06	519.38	.03
40	45	146.56	.02	305.88	.03	482.20	.01		
45	50	199.57	.01	422.58	.00				
50	55	310.68	-.02						
Wife 10 Years Older than Husband									
15	25	\$57.83	\$-.27	\$124.17	\$-.32	\$199.49	\$-.23	\$282.73	\$.02
20	30	71.68	-.08	153.14	-.02	243.30	.25	341.71	.23
25	35	89.83	.07	189.45	.39	298.48	.34	416.33	.30
30	40	113.03	.42	237.12	.38	371.88	.36	519.86	.18
35	45	146.35	.06	306.15	.14	483.22	.05		
40	50	200.15	.14	424.13	.04				
45	55	312.55	-.06						

* Calculated on basis of table of uniform seniority based on $\log_{10} e = .04$.

A. This policy provides insurance on the wife that is fully paid-up at the husband's death. The insurance on the wife is \$1,560 term to husband's age 85 and \$500 pure endowment payable at husband's age 85.

Table 8 compares interpolated and exact values of the additional reserves on the wife's benefit under the family insurance policy of Company B. This policy provides \$1,000 of life insurance on the wife with the premium for this coverage payable until the wife attains age 65 or until the prior death of either the husband or wife.

CONCLUSION

In the publication of the 1958 CSO and CET Monetary Tables, the Committee is including the table of uniform seniority based on $\log_{10} c = .04$ shown in Table 1, and considers it appropriate if adopted as a legal standard for use with these new tables in all calculations involving joint lives.