

# TRANSACTIONS OF SOCIETY OF ACTUARIES 1953 REPORTS

## SECTION III. GROUP ANNUITY MORTALITY

THE current study has been prepared on the same basis as the previous reports. Tables I and II show the experience for the year 1952 by attained age for lives retiring on and after normal retirement date and for lives retiring prior to normal retirement date, respectively. Table III compares the experience for the year 1952 of lives retir-

TABLE I  
INTERCOMPANY GROUP ANNUITY MORTALITY  
MATURED LIFE EXPERIENCE FOR THE YEAR 1952  
RETIREMENT ON OR AFTER NORMAL RETIREMENT DATE

ATTAINED AGES	NUMBER OF LIVES		AMOUNT OF ANNUAL INCOME		COMPARISON WITH 1937 STANDARD ANNUITY TABLE			
	Exposed	Actual Deaths	Exposed	Actual Deaths	By Number of Lives		By Amount of Annual Income	
					Expected Deaths	Ratio† Act./Exp.	Expected Deaths	Ratio† Act./Exp.
<b>MEN</b>								
50 and under	4.41	0	\$ 2,135	\$ 0	.04	(*) *	\$ 18	(*) *
51-55	58.40	1	90,640	2,979	.75	(*) *	1,154	(*) *
56-60	425.96	14	488,612	15,253	7.70	(199) 182%	8,639	(128) 177%
61-65	13,267.52	405	9,852,543	310,586	373.87	(96) 108	276,327	(106) 112
66-70	46,132.11	1,728	29,961,508	1,125,396	1,636.49	(105) 106	1,060,912	(96) 106
71-75	20,353.52	1,129	12,711,463	696,922	1,037.78	(113) 109	651,720	(110) 107
76-80	6,939.08	552	4,866,988	402,463	508.92	(115) 108	358,544	(105) 112
81-85	2,030.55	258	1,694,285	184,573	213.00	(127) 121	179,379	(145) 103
86-90	436.40	79	380,635	80,935	64.75	(124) 122	56,397	(102) 144
91-95	58.42	14	83,585	55,042	12.02	(157) 116	17,061	(67) 323
96 and over	8.00	6	7,232	5,985	2.89	(*) *	2,919	(*) *
All	89,714.37	4,186	\$60,139,626	\$2,880,134	3,858.21	(109) 108%	\$2,613,970	(105) 110%
<b>WOMEN</b>								
50 and under	4.84	0	\$ 1,570	\$ 0	.02	(*) *	9	(*) *
51-55	172.96	1	82,339	363	1.59	(*) *	750	(*) *
56-60	1,262.04	5	581,525	2,150	15.86	(74) *	7,315	(68) *
61-65	4,303.67	63	1,803,006	24,958	75.43	(89) 84%	31,269	(99) 80%
66-70	5,590.01	110	2,113,642	44,430	135.52	(85) 81	51,306	(98) 87
71-75	2,016.16	74	843,448	30,158	70.93	(104) 104	29,753	(99) 101
76-80	814.58	48	424,062	22,780	41.33	(109) 116	21,695	(112) 105
81-85	245.50	28	131,327	16,605	17.96	(171) 156	9,601	(183) 173
86-90	54.00	10	26,107	6,696	5.70	(*) 175	2,810	(*) 238
91-95	8.00	2	3,323	834	1.11	(*) *	469	(*) *
96 and over	2.00	1	718	58	.58	(*) *	191	(*) *
All	14,473.76	341	\$ 6,011,067	\$ 148,974	366.03	(97) 93%	\$ 155,168	(105) 96%

† Percentages in parentheses are for the year 1951.

\* Less than 10 deaths.

ing on and after normal retirement date with the experience of other periods. The expected deaths are calculated according to the 1937 Standard Annuity Table. Attention is directed to the fact that there were a number of deaths reported in 1952 which actually occurred prior to 1952. The figures in this report relating to the 1951 experience have been

TABLE II  
INTERCOMPANY GROUP ANNUITY MORTALITY  
MATURED LIFE EXPERIENCE FOR THE YEAR 1952  
RETIREMENT PRIOR TO NORMAL RETIREMENT DATE

ATTAINED AGES	NUMBER OF LIVES		AMOUNT OF ANNUAL INCOME		COMPARISON WITH 1937 STANDARD ANNUITY TABLE			
	Exposed	Actual Deaths	Exposed	Actual Deaths	By Number of Lives		By Amount of Annual Income	
					Ex-pected Deaths	Ratio† Act./Exp.	Ex-pected Deaths	Ratio† Act./Exp.
MEN								
50 and under..	139.51	6	\$ 24,675	\$ 583	1.06	(*) *	\$ 202	(*) *
51-55.....	585.26	21	221,675	7,728	7.39	(316) 284%	2,796	(321) 276%
56-60.....	4,247.48	150	2,079,132	89,486	74.74	(233) 201	37,010	(175) 242
61-65.....	8,408.34	442	4,963,319	219,035	211.26	(178) 209	124,893	(147) 175
66-70.....	6,312.63	328	3,602,416	174,803	222.82	(133) 147	127,061	(126) 138
71-75.....	2,236.26	148	1,329,529	90,477	114.06	(155) 130	68,386	(150) 132
76-80.....	848.83	74	597,544	54,006	62.51	(104) 118	43,937	(126) 123
81-85.....	172.58	27	208,095	24,524	17.84	(144) 151	21,935	(118) 112
86 and over...	26.92	5	22,028	4,643	3.94	(*) *	3,266	(*) *
All.....	22,977.81	1,201	\$13,048,413	\$665,285	715.62	(162) 168%	\$429,506	(141) 155%
WOMEN								
50 and under..	66.66	0	\$ 13,054	\$ 0	.29	(*) *	\$ 59	(*) *
51-55.....	366.03	8	86,433	2,295	3.01	(*) *	716	(*) *
56-60.....	980.49	20	275,357	6,748	11.68	(*) 171%	3,310	(*) 204%
61-65.....	1,281.30	31	447,522	11,178	21.79	(96) 142	7,612	(103) 147
66-70.....	731.39	14	244,021	2,348	17.67	(111) 79	5,900	(100) 40
71-75.....	292.51	10	111,581	2,575	10.29	(128) 97	3,972	(90) 65
76-80.....	86.75	6	42,426	3,872	4.30	(*) *	2,151	(*) *
81-85.....	18.00	1	9,131	87	1.34	(*) *	669	(*) *
86 and over...	4.00	1	4,406	862	.64	(*) *	582	(*) *
All.....	3,827.13	91	\$ 1,233,931	\$ 29,965	71.01	(110) 128%	\$24,971	(108) 120%

† Percentages in parentheses are for the year 1951.

\* Less than 10 deaths.

adjusted to recognize these deaths and these figures are intended to supersede those included in the last preceding report.

In the aggregate the mortality experience for the year 1952 shows no significant variation from that for the year 1951 or the years 1946-1950 combined.

TABLE III  
 INTERCOMPANY GROUP ANNUITY MORTALITY  
 MATURED LIFE EXPERIENCE TO DECEMBER 31, 1952  
 RETIREMENT ON OR AFTER NORMAL RETIREMENT DATE

CALENDAR YEARS	NUMBER OF LIVES		AMOUNT OF ANNUAL INCOME		COMPARISON WITH 1937 STANDARD ANNUITY TABLE			
	Exposed	Actual Deaths	Exposed	Actual Deaths	By Number of Lives		By Amount of Annual Income	
					Expected Deaths	Ratio Act./Exp.	Expected Deaths	Ratio Act./Exp.
MEN								
1924-1940	56,449.77	2,909	\$ 59,602,837	\$2,970,512	\$ 2,377.66	122%	\$2,563,378	116%
1941-1945	114,011.55	5,830	86,617,580	4,763,390	4,903.63	119	3,918,008	122
1946-1950	255,073.87	11,837	170,552,450	8,169,605	10,879.45	109	7,522,169	109
1951	78,070.35	3,642	51,830,344	2,373,068	3,332.95	109	2,255,543	105
1952	89,714.37	4,186	60,139,626	2,880,134	3,858.21	108	2,613,070	110
WOMEN								
1925-1940	9,905.51	274	\$ 5,821,092	\$ 153,349	\$ 220.89	124%	\$ 127,330	120%
1941-1945	17,451.84	480	8,915,053	234,277	413.97	116	213,750	110
1946-1950	38,389.45	891	16,941,132	418,845	938.77	95	426,556	98
1951	12,517.58	305	5,257,846	140,909	313.21	97	134,688	105
1952	14,473.76	341	6,011,067	148,974	366.03	93	155,168	96

The following companies have contributed experience for the investigation covered by this section:

Aetna Life Insurance Company  
 Canada Life Assurance Company  
 Confederation Life Association  
 Connecticut General Life Insurance Company  
 Equitable Life Assurance Society  
 Great-West Life Assurance Company  
 John Hancock Mutual Life Insurance Company  
 Metropolitan Life Insurance Company  
 Prudential Insurance Company of America  
 Sun Life Assurance Company of Canada  
 The Travelers Insurance Company