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CONTINUOUS MORTALITY INVESTIGATION

IMMEDIATE SINGLE LIFE ANNUITIES FOR TERM CERTAIN AND LIFE THEREAFTER: 1948-56 EXPERIENCE

- 1. Starting with the year 1948, returns were made by the offices of their data under immediate single-life annuities issued for a term certain and for the remaining lifetime of the annuitant. One of the expected effects of the Finance Act, 1956, was to eliminate the demand for this type of contract, and it was decided to discontinue the collection of data after the end of 1956. Although what follows is a historical report of the mortality experienced under this class of annuity during the nine years for which data were collected, at the same time it may perhaps be regarded as having some bearing on the future to the extent that the data for ordinary immediate annuities may now be expected to include a number of lives who would, but for the 1956 Act, have purchased contracts under the "term certain and life thereafter" class.
- 2. When it was first decided to collect the data, it was thought probable that the "term certain and life thereafter" class might exhibit heavier mortality than ordinary immediate annuities. Each year, as a routine operation, the expected deaths were calculated according to the a(f) and a(m) tables, and when work on this report was started the information readily available consisted of the actual deaths and the expected deaths on this basis under the class in question for each of the years 1948-56, together with similar information under ordinary immediate annuities for each of the years 1948-52 only. As from 1953 the expected deaths under the ordinary immediate annuities had been calculated only according to the a(55) table and the generation table which was published with it.
- 3. Before calculating the expected deaths under either class on any other basis it was decided to examine the information which had already been compiled. To enable comparison, as far as possible at this stage, with the ordinary immediate annuities, the "term certain and life thereafter" data for the nine years were divided into two periods 1948-52 and 1953-56, and the experience for these periods and for the nine years combined are shown respectively in Tables 1-3.

A comparison between the experience for 1948-52 and the experience under ordinary immediate annuities for the same period is shown in Table 4.

- 4. The percentage ratios of actual to expected deaths given in Table 4 exhibit no regular pattern with age, but the ratio $100\ A/E$ is lower for the "term certain and life thereafter" class than for the ordinary single-life annuities for all age-groups but one in the male duration 0 experience, for all but one in the male durations 1 and over experience and for all groups in the female durations 1 and over experience. Only in the female duration 0 experience is the picture different, with the ordinary annuities having the lower ratio in four of the seven age-groups, but even here there is no significant difference over the whole range of ages.
- 5. It seems doubtful whether a really bad life would wish to purchase either type of contract, but if there has been any tendency for worse lives to choose the "term certain and life thereafter" annuities, the preceding paragraph leads to the conclusion that this tendency has been swamped by other forms of class selection—e.g. the selection which might have taken place if prospective annuitants in the higher income groups chose the term certain type for its tax advantages. In the case of the females at duration 0 it has been a matter of cancelling out rather than swamping, while in the case of both sexes at durations 1 and over the comparison may have been distorted if the term certain experience was of appreciably shorter average duration than the ordinary annuity experience; it is, however, interesting to note in this connexion, from Table 3, that over the whole period 1948-56 the experience for "term certain and life thereafter" annuities at durations 2-4 was not very different from the experience at durations 5 and over, and therefore any such duration effect would be of much smaller magnitude than the disparities disclosed by Table 4.
- 6. In view of these results it seemed doubtful whether any advantage could be derived either from extending the comparison between the two classes according to the a(f) and a(m) tables to include the years 1953-56, or from making the comparison according to the a(55) table. However, the possible implications for the future mentioned in paragraph 1 suggested that it might be useful to examine the data for 1951-54 and 1955-56 according to the generation table published with the a(55) table and compare the results with those given in the report on the experience of ordinary immediate annuitants over the period 1951-54 (T.F.A. 25, p. 316). To make the results directly comparable the data for durations 1-4 have been amalgamated, while

for the sake of completeness the "life thereafter" part of the experience—which has only been returned by the offices for all durations combined—has been included in the data for durations 5 and over. It is believed that the "life thereafter" experience would largely have belonged to this duration group, and as it was numerically much smaller than the term certain experience at durations 5 and over it is considered that little distortion is likely to arise.

- 7. The results of this comparison are shown in Table 5. Apart from the younger ages, at which data were scanty, it will be seen that the percentage ratios are generally lower for the "term certain and life thereafter" annuities than for the ordinary immediate annuities, and this is consistent with the results of the previous comparison given in paragraph 4. In general, the "term certain and life thereafter" experience was much smaller than that of the ordinary annuities, with the result that the precentage ratios of actual deaths to expected deaths for 1951-54 for the two classes combined were little different from the ratios for the ordinary immediate annuities only. An exception to this was the experience of male lives at durations 1-4, where the term certain class included nearly three-eighths of the total actual deaths (and $42\frac{1}{2}\%$ of the total expected deaths), with the result that the ratios for the two classes were very considerably lower than for the ordinary immediate annuities only.
- 8. It should not be deduced from this note that the experience of ordinary immediate annuities issued since the 1956 Act took effect will necessarily be of lighter mortality than would have occurred if that Act had never been passed. They may well include many lives who would not have purchased annuities of any kind under the old taxation arrangements. It is reasonable to suppose that from 1956 to 1957 there may well have been some change in class selection, giving rise to some discontinuity in the mortality experienced under ordinary immediate annuities, but until the actual results are investigated it is impossible to predict the direction or extent of the discontinuity. All that can be said is that to the extent that lives who would under the old arrangements have chosen the "term certain and life thereafter" class are diverted by the effects of the Act into the ordinary annuity class, the indications are that to this extent only some reduction in mortality may be expected.

TABLES 1-5

Table 1. Immediate single-life annuities for term certain and life thereafter. All offices 1948-52. Actual deaths compared with the expected deaths according to the a(f) and a(m) tables (ultimate for durations higher than 0)

rted 100A/E Actual Expected deaths		-	
100A/E Actual deaths	1		
	Actual Expected deaths		100A/E d
60	<u> </u>		
62 \ 117.4 5 2.25	1 2.62		152.8
54-1			
59.0			
61.5		CA C	76.4
21 21 21		× ~	
7 104.1			70.8
	.12	1	
22 72.9 141 164.71	163-22	119	84.5 119
c			
20.1		4	110.0
2	_	80	
63.8 16		01	
70.5		က်	
76.8		4	
79.1		0	72.0
61 0.10		⊒ ~	
38 \ 49.2 1 1.73	98.7		141.1
'		` I	
92 68.9 168 247.79	173 250-92		88.7
		,	

		100A/E	0.0	158.7	104-2	74.8	6-88	0.0 232.6 0.0 107.9 777.2 37.2 63.9
Life	all durations	Expected deaths	115	1.38	7.68	1.05	24.75	$\begin{bmatrix} -1 \\ 0.3 \\ 0.25 \\ 0.27 \\ 0.27 \\ 0.27 \\ 0.249 \\ 0.2$
	3	Actual deaths	11	110	4 00 4	44	22	~ w44 w ~ 0 \tilde{\pi}
		100A/E	122.5	73.5	82.1	8.16	84.9	50-8 61-8 70-3 88-9 74-0 79-0 67-0
	l and over	Expected deaths	3.32	30.27 91.14 184.42	216-37 192-55 76-05	18:34	821.70	9.78 20-67 58-05 1129-43 214-09 278-56 270-32 100-71 55-49 9-72 4-5 1-207-87
		Actual deaths	ထတ	2 6 5 5 5 6 5 5	158	10	869	242 242 242 242 243 127 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
tions		100A/E	180-2	112.5	99.1	104·1	93.5	43.0 50.3 80.1 77.1 109.0 88.2
Term certain durations	5 and over	Expected deaths	1.20	16.00 16.00 41.66	56.93 57.50	4.22	208.53	1.18 2.34 8.10 21.86 44.93 66.11 75.96 46.90 2.00 2.00 2.00 15 36.64
Term		Actual		514 814	86 57 90	ç m m	195	1 4 11 85 85 85 85 1
		100A/E	7.18	95.0 127.8	81.4 76.6	75.2	91.2	33·1 68·2 83·6 109·6 81·5 72·2 76·5
	4	Expected deaths	1.13	4.52 13.68 28.96	33.17 32.65	4.26	130.54	1.23 2.85 2.85 8.02 19.05 33.49 44.17 27.72 8.772 8.772 8.772 1.442 30 190.78
		Actual	1	13 37	222	267	119	15. 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.
	Ages		Males -50 51-55	56-60 61-65 66-70	71–75	81–85 86–90 91–95	All ages	Females -50 51-55 56-60 61-65 66-70 71-75 76-80 81-85 86-90 91-95 96-100

2. Immediate single-life annuities for term certain and life thereafter. All offices 1953-56. Actual deaths compared with the expected deaths according to the a(f) and a(m) tables (ultimate for durations higher than 0)

0
$ \begin{array}{c c} \textbf{Expected} & 100A/E & \textbf{Actual} \\ \textbf{deaths} & \textbf{deaths} & \\ \end{array} $
(%6.
73 69.9
134.9
11.22 80.2 18
0:201
$\begin{array}{c c} 1.00 & 2 & 2 \\ .52 & & \end{array}$
48.66 102.8 62
1.46 \ 33.3
}
84.6
59.7
8.69 8.69
8.44 82.9 11
155.6
71.64 81.0 89
_

Life	All durations	al Expected 100A/E deaths	0.0	8 6 6		50.60	$\begin{vmatrix} 17.98 \\ 4.82 \\ -17 \end{vmatrix}$	143.27 76.8	.02 .05 .05 .39 1.21 1.5.23 1.5.23 1.5.23 88.44 61.59 21.29 21.29 2.53 2.53 68.9
	1	100A/E Actual deaths	73.9		68.0 67.9 12		90.7	73.0 110	64.8 63.9 63.9 63.9 63.9 78.4 78.7 78.7 76.4 13
	l and over	Expected	2.60	24·50 77:27	201.51	295.27	30-60	1107.75	7.84 17.33 52.03 140.42 278.62 412.15 449.37 300.97 11.69 1.69
		Actual deaths	89	5 8 E	201	203	<u>&</u> 4	608	2 9 9 33 424 424 244 9 9 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
ations		100A/E	63.4	84.4	65.2 73.8	0-22	6.96	78.1	63.3 86.2 86.2 97.6 74.5
Term certain durations	5 and over	Expected deaths	3.05	40.27	114.97	191.01 115.17	3.78	696-51	3.59 8.00 26.34 75.54 167.76 263.04 294.01 202.50 72.86 11.54 1.54
Term		Actual deaths	60	. % ;	143	147 104	26 4	544	20 20 20 20 20 20 20 20 20 20 20 20 20 2
	Ì	100A/E	50.5	65.9	80.7 40.4	6.7.9	94.4	68.7	30.8 79.5 70.0 86.0 88.0 83.6 63.5
	4	Expected deaths	30 }	9:54	29.63 29.69	32.41 18.71	3.75	120.81	.94 2.27 6.54 17.60 31.14 48.86 35.87 14.27 14.27 14.27 14.15 1.15 1.15 1.15 1.15
		Actual	-	- 9 2	12	2 22	-	83	
	Ages		Males -50 51-55	61-65 1-65	71-75	81-85 81-85	86–90 91–95 96–100	All ages	Females -50 51-55 56-60 61-65 66-70 71-75 76-80 81-95 86-100 101-

Table 3. Immediate single-life annuities for term certain and life thereafter. All offices 1948-56. Actual deaths compared with the expected deaths according to the a(f) and a(m) tables (ultimate for durations higher than 0)

					Ţ	Term certain durations	n duratio	su				
Ages		0			1			63			က	
	Actual deaths	Expected deaths	100A/E	Actual	Expected deaths	100A/E	Actual deaths	Expected deaths	100A/E	Actual deaths	Expected deaths	100A/E
Males		(6)			-		c	00.		•	9	
50.57	4-	> 56.6 > 66.6	129.2	~ ~	3.67	90.2	9	3.16	144.7	4 ro	2.58	8.86
56-60	1 00	6.91	 	10	10.34		12	10.09	,	٠٠.	8.62	9
61-65	15	18.94	79.2	19	31.45	99 4. i	21	29.95		4.5	22.22	5 G
66 - 70	7 7	32.52	73.50 60.50	4	60.52	67.7	4 %	60.85 67.14	101.3	04	64.53	75.9
71-75	8 8	50.45	9.001	9.7	# 68:150 1:80	4:17	2.5	60.35	6.6	£ %	62.08	28.0
70-80	R 0	9.75	0.601	22	21.01	1	==	23.41	1	ន	27.39	;
06-98 	9	2.73	1001	10	5.16	111.4	-	₹.60	41.0	∞	6.72	90 15:51
91–95	_	.52	123.1	i	.75 (¥.111	1	2 9	S T	1	 06:	3
96-100	1				<u> </u>		1			l		
All ages	125	137-46	6.06	181	253-27	71.5	203	261.45	9-22	182	258·34	70.4
Females		000		-	(4.99)		¢	9.56		•	(67.6	
) 1 1 1	4 4	70.7	80.4	- 9	265.8	53.5	1 00	→ 09·2 2·90 2·09·2	59.4	1 63	6.35	78.5
56-60	15	14.11	H	12	22.57) }	=	20.81		17	17.70	
61-65	14	27.87	50.2	88	48.18	58.1	30	46.17	65.0	83	41.45	9.29
66-70	33	40.24	6.96	46	73-39	62.7	46	72.87	63.1	25 62	69-73	73.1
71–75	25	49.72	104.6	20	89.70	0.82	6.	92:41	20:0	3	86.18	0.00
76–80	65	40.72	71.2	8 i	79.69	75.3	28	88·10	77.7	75	92:20	81.07
81-85	97	22:21	c./o	3 =	16.49	7.0	<u> </u>	18.05	5	¥ =	20.35	H 2
80-90 91-95	*	1.13	1400	-	2.75	69.6	63	2.98	76.1	1	4.69	67.5
96-100	1		140.0		_ 	200	l	_ 	1	!	.15	S
101-	[1		1	<u> </u>			<u> </u>		I	1	
All ages	183	212.60	86.1	262	390.50	67.1	305	406.28	75.1	302	405.99	74.4
						_						

				Term	Term certain durations	ations					Life	
Ages		4			5 and over			I and over		,	All durations	8
	Actual deaths	Expected deaths	100A/E	Actual	Expected deaths	100A/E	Actual	Expected deaths	100A/E	Actual deaths	Expected deaths	100A/E
Males -50	67	(77.		-	1.4		=	5.99				
51-55	L	1.90	69.4	က္	4.25	95.8	15	15.56	0.101	l	10.	0-0
61-65	19	23.22	81.8	25	56.27	92.4	125	168.41	74.2	က	1.15	260.9
66-70	56	50.87	110.1	116	156.63	74.1	297	385.93	0.77	က	4.67	64.2
6/-1/. 92-92	88 74	92.50	02.0	208 204	250-67	4.1.4	361	512:24 487:89	7.87	ਤ ਹ	21.91	79.0 79.00
81-85	31	30.41	!	133	140.58	; ;	223	242.80	2	5	54.95	2
86-90 10	က	8.01	9.98	2.7 7	24.45	7.76	4,	48.94	91.0	81	20.80	81.9
96-100				0	3:93		۱ ۵	90.7		: ·	78.0 71.	
All ages	202	251-35	80.4	739	905-04	81.7	1507	1929-45	78.1	132	168.02	78.6
Females												
7 26 16		2.17	29.0		4.77	0	۲- و	17.62	r	-		9
56-60	1 10	14.56	3	24	34.44	900	69	110-08	9		26.	2
61-65	27	36.65	73.7	40	97.40	41.1	153	269.85	56.7	က	1.64	182.9
99-70	47	64.63	72.7	139	212.69	65.4	329	493.31	2-99	œ	6.55	122.1
71-75	5. Q	93.03	7.68 88 88	279	329.15	8.48 8.48 7.80	570	690-71	825 7 7 2	2 8	18:01	966.6
81-85	28	63.59	78.6	202	249.29	80.5	371	470.68	- 8. 2. 2. 2. 2. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	3.43	99.20	4.43
06-98	15	22.87		74	98.86		130	170.55)		97	67.40	
91-95 96-100	4	4.61 30	68-4	o −	14.06	77.3	17	29.09 2.14	73.3	14 5	3.62	68.4
-101		1					l			}	.20	
All ages	307	395.59	9.77	1114	1413.36	8.87	2290	3011.72	0-92	175	265.62	62.9
								-	-			

TABLE 5. Comparison of actual deaths under certain classes of annuity with deaths expected according to the "durations 5 and over" generation table published with the a(55) table

s n and fter	100A/E		_		112.7		-		_				9-69	-		99					_			_	_		80.5
1955–56 Term certain and life thereafter	B	_	.32	86.	3.55	13:00	36.83	47.61	46.07	28.05	4.52	0 <u>5</u> -	182-43	_		77.	₹ -	4.91	17:40	56.13	118.67	135.18	107-49	23.88	5.90	!	470-68
Ĕ	A		-	-	4	13	78	83	53	3 8	~	0	127		,	ن د	٠.	₹	16	ee	35	114	92	13	_	1	379
	100A/E	-	177.5	174.1	93.8	102.8	9.66	91.7	78.7	94.5	100.3	107.5	92.1			161.3	128.8	1.0.1	144.6	6.66	89.3	99.9	98.4	102.5	101.3	61.7	99.5
1951–54 Both classes combined	E	-	1.69	5.17	19.19	66.13	202.85	261.86	293-39	187-39	70.77	13.95	1122-39			1.86	4.66	19.99	72.59	245.24	592-35	971.54	989-93	630.08	188.59	52.32	3769.16
	P	4	ന	တ	18	89	202	240	231	177	71	15	1034	d over		m ·	ဗ	*	105	245	529	971	974	646	191	48	3752
iate	100A/E	Males, durations 1-4	0.0	51.8	110.3	127.4	102.3	103.5	94.0	8.96	104.8	122.6	100.6	tions 5 an		134.2	129.4	150.3	142.7	102.6	96.3	103.0	99.4	100.8	103.3	90.1	101.2
1951–54 Ordinary immediate annuities	E	Males, c	-87	1.93	7.25	24.33	101-66	139.13	164.97	137-43	55.32	12.23	645.12	Weles durations 5 and over	menos, aut	1.49	3·06	12.64	46.95	165.70	459.07	822.17	910.23	607.87	184.92	52.15	3266.28
Ordi	A	_	0	· —	00	31	104	144	155	133	28	15	649			67	4	19	67	170	442	847	902	613	191	47	3307
nd r	100A/E	-	365.9	246.9	- cc	88.5	8.96	78.2	59.2	88.1	84.1	0.0	80.7			270.3	127-4	204.1	148.2	94.3	65.3	83.0	9.98	148.5	0.0	588.2	88.5
1951–54 Term certain and life thereafter	B	* 	68.	3.54	11:94	41.80	101.19	122.73	128.42	49.96	15.45	1.72	477.27			.37	1.57	7.35	25.64	79.54	133.28	149.37	02.62	25.55	3.67	.17	502.88
Ter Li	A		64	o oc	2	3 2	86	96	92	4	13	0	385			-	61	15	88	75	87	124	69	8	30	-	445
Ages			05	51 55	26-60 56-60	61–65	02-99	71-75	26-80	81-85	06-98	91-	All ages			-50	51-55	26-60	61-65	02-99	71-75	26.0	81-85	86-90	91-95	96	All ages

	0.0 —	40.7	61.7	71.9	73.1	74.1	94.4	9.66	81.2	29.1	81.9	_		0.0	75.2	106.7	64.5	0.02	88.3	101.7	71.2	87.3	76.4	158.1	84.5	
	04.	2.46	8.11	23.64	46.49	63.46	66.75	46.18	19.70	3.44	280.93			99.	2.66	10.31	35.66	88.56	149.52	185.76	164.39	80.21	19.64	2.53	739-90	
	0	-	ō	17	34	47	63	46	16	-	230			0	2	11	23	62	132	189	117	20	15	4	625	
	127.0	123.0	86.1	77.6	81.4	81.8	88.9	88.3	84.2	81.4	85.1			181.2	158.1	83.8	73.7	98.2	103.2	104.5	106.3	104.5	114.0	101.5	104.8	
	5.51	17.07	28.07	158.54	304.62	454.50	491.50	378.19	200.61	43.02	2111.63			5.52	15.81	64.41	211.64	91.609	1394.89	2446.88	3136.46	2402.01	1098-69	301-48	11686-95	
8 1-4	2	21	23	123	248	372	437	334	169	35	1796		and over	01	25	72	156	298	1439	2558	3335	2511	1253	306	12245	
Females, durations 1-4	157.7	134.7	85.1	76.2	85.0	76.0	92.1	81.8	84.3	84.3	0.98		rations 5	204.1	187.1	83.1	84.1	101.2	104.8	105.4	107.4	105.2	114.6	102.0	106.2	-
Females,	3.17	8.91	29.36	84.03	177-67	280.39	316.93	268.07	161.31	35.58	1365.42		Females, durations 5 and over	4.41	12.29	49.33	167.56	508.97	1236.92	2269-47	2996.06	2346.90	1086.04	300.05	10977-97	
	J.C	12	25	64	151	213	292	246	136	80	1174		_	6	23	41	141	515	1296	2393	3217	2469	1245	306	11655	
	85.5	110.3	87.1	79.2	76.4	91.3	83.1	6.62	84.0	67.2	83.4			90.1	56.8	86.2	34.0	85.8	90.5	93.0	84.0	76.2	63.2	0.0	83.2	
	2.34	8.16	28.71	74.51	126.95	174-11	174.57	110.12	39.30	7:44	746.21			1.11	3.52	15.08	44.08	100.19	157.97	177-41	140.40	55.11	12.65	1.46	86-802	
	67	_ o	22	23	97	159	145	88	33	ro	622			_	01	13	15	83	143	165	118	42	00	0	290	The state of the s
	-20	51–55	26-60	61–65	02-99	71-75	76-80	81–85	06-98	-16	All ages			-50	51–55	56-60	61-65	02-99	71-75	76-80	81–85	86-90	91–95	-96	All ages	

Table 4. Immediate single-life annuities for term certain and life thereafter. All offices 1948-52. Comparison of experience with experience of ordinary single-life annuities.

Term certain and life annuities life thereafter life thereafter life thereafter life annuities life thereafter life life life life life life life life				Duration 0	ion 0				I	Durations I and over	l and ov	er	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Ages	Te _i	rm certain sife thereafte	and or	or Or	dinary sing ife annuitie	le.	Te 1	rm certain s ife thereafte	and	0	Ordinary single- life annuities	-el:
11 7.20 152.8 8 4.59 174.3 52 42.44 122.5 7 13.01 53.8 8 9.97 80.2 67 91.14 73.5 15 21.30 70.4 29 23.49 123.5 160 184.42 86.8 15 16.66 114.0 23 29.94 76.8 174 216.37 80.4 5 7.06 70.8 34 30.35 112.0 87 94.78 91.8 7 88.80 84.5 130 126.52 102.8 698 821.70 84.9 7 88.80 84.5 130 126.52 102.8 698 821.70 84.9 18 16.37 110.0 11 17.89 61.5 45 88.50 50.8 31 26.44 116.5 30 40.50 74.1 151 214.69 70.3 19 26.39 127.6 98.9		A	E	100A/E	A	E	100A/E	A	E	100A/E	A	53	1004/E
11 7.20 192.8 8 4.59 174.3 52 42.44 122.5 15 21.30 70.4 29 23.49 123.5 160 184.42 86.8 18 23.57 76.4 28 28.48 99.4 174 216.37 86.8 19 16.66 114.0 23 29.94 76.8 188 192.55 82.1 7 7.06 70.8 34 30.35 112.0 87 94.78 91.8 7 88.80 84.5 130 126.52 102.8 698 821.70 84.9 18 16.37 110.0 11 17.89 61.5 45 88.50 50.8 31 26.84 115.5 30 40.50 74.1 151 214.69 70.3 35 36.39 72.0 57.66 98.9 200 278.56 86.9 19 26.39 72.0 57.66 98.9	Males	:	1		,								
15 13.70 29.9 23.49 123.5 07 91.14 73.5 18 23.57 764 28 28.18 194.4 174.2 175.6 19 16.66 114.0 23 29.94 76.8 158 192.55 82.1 7 16.66 114.0 23 29.94 76.8 158 192.55 82.1 7 18 16.87 130 126.52 102.8 698 821.70 84.9 18 16.37 110.0 11 17.89 61.5 45 88.50 50.8 31 26.84 115.5 30 40.50 74.1 151 214.69 70.3 35 33.03 106.0 42 53.35 78.7 242 270.32 74.0 8 13.77 58.1 37 42.78 86.5 127 160.71 79.0 125 140.96 88.7 286.32 286.8 197.7<	99	11	25.2	152.8	x 0 0	4.59	174.3	25	42:44	122.5	67	60.97	6.601
18 23.57 76.4 28 28.18 1.25.9 100 16.47.2 80.4 19 16.66 114.0 23 29.94 76.8 158 192.55 82.1 7 16.66 114.0 23 29.94 76.8 158 192.55 82.1 7 88.80 84.5 130 126.52 102.8 698 821.70 84.9 18 16.37 110.0 11 17.89 61.5 45 88.50 50.8 31 26.84 115.5 30 40.50 74.1 151 214.69 61.8 35 33.03 106.0 42 53.35 78.7 242 270.3 8 13.77 58.1 37 42.78 86.5 127 160.71 79.0 8 13.77 28.1 26.74 101.1 44 65.66 67.0 125 140.96 88.7 28.7 28.7 28.7 <td>01-00</td> <td>- <u>r</u></td> <td>10.01</td> <td>0.00</td> <td>စ င</td> <td>18.80</td> <td>1000.2</td> <td>70</td> <td>91.14</td> <td>0.00</td> <td>9.5</td> <td>135.94</td> <td>87.5</td>	01-00	- <u>r</u>	10.01	0.00	စ င	18.80	1000.2	70	91.14	0.00	9.5	135.94	87.5
15 156 114.0 23 25.15 174 176 17	71-17	2 00	93.57	1.97	800	64.67	6. 621	200	184.42	80.8	200	394.51	9
75 7.06 71.7.0 72.7.2	08 92	91	16.66	114.0	96	01.07	4.66.7	1/4	100 27	4.00	200	22.028	3. c
75 88-80 84-5 130 126-52 102-8 698 821-70 84-9 18 16-37 110-0 11 17-89 61-5 45 88-50 50-8 31 26-84 115-5 24 23-40 102-6 80 129-43 61-8 31 26-84 115-5 30 40-50 74-1 151 214-69 70-3 35 33-03 106-0 42 53-35 78-7 242-6 86-9 200 270-32 74-0 8 13-77 58-1 25 24-74 101-1 44 65-66 67-0 125 140-96 88-7 256-26-74 101-1 44 65-66 67-0	200	- H	2001	0 0 0	3 6	#0.07	0.00	100	CC:Z61	82.1	1203	1250.73	7.33
75 88-80 84-5 130 126-52 102-8 698 821-70 84-9 18 16-37 110-0 11 17-89 61-5 45 88-50 50-8 31 26-84 115-5 30 40-50 74-1 151 214-69 70-3 35 33-03 106-0 42 53-35 78-7 242 278-56 86-9 19 26-39 72-0 57 57-66 98-9 200 270-32 74-0 8 13-77 58-1 25 24-74 101-1 44 65-66 67-0 125 140-96 88-7 256 260-32 86-8 1907-87 73-8	-10		3.1	0.0	*	50.35	0.211	ž.	94.18	81.8	2234	2242.54	102:3
18 16-37 110-0 11 17-89 61-5 45 88-50 50-8 31 26-84 115-5 30 40-50 74-1 151 214-69 70-3 35 33-03 106-0 42 53-35 78-7 242 278-56 86-9 19 26-39 72-0 57-66 98-9 200 270-32 74-0 8 13-77 58-1 37 42-78 86-5 127 160-71 79-0 125 140-96 88-7 226-74 101-1 44 65-66 67-0	All ages	75	08:88	84.5	130	126.52	102.8	869	821-70	84.9	4886	4909-91	99.5
18 16.37 110-0 11 17.89 61.5 45 88.50 50.8 7 19.60 35.7 24 23.40 102.6 80 129.43 61.8 31 26.84 116.5 30 42.650 74-1 151 214.69 70.3 19 26.39 106-0 42 53.55 78-7 242 276.56 80.9 19 26.39 72-0 57-66 98-9 200 270.32 74-0 7 4-96 141-1 25 24.74 101-1 44 65-66 67-0 125 140-96 88-7 296 26.32 86-8 1907.87 73-8	Females												
7 19-60 35-7 24 23-40 102-6 80 129-43 61-8 31 26-84 115-5 30 40-50 74-1 151 214-69 70-3 35 33-03 106-0 42 53-35 78-7 242 278-56 86-9 19 26-39 72-0 57 67-66 98-9 200 270-32 74-0 8 13-77 58-1 37 42-78 86-5 127 160-71 79-0 125 140-96 88-7 296 26-32 86-8 67-0	-	81	16.37	110.0	11	17.89	61.5	45	88.50	50.8	186	298.97	20.15
31 26.84 115.5 30 40.50 74·1 151 214.69 70·3 35 33.03 106·0 42 53·35 78·7 242 278·56 86·9 19 26·39 72·0 57 56·6 98·9 200 270·32 74·0 8 13·77 58·1 37 42·78 86·5 127 160·71 79·0 125 140·96 88·7 296 260·32 86·8 1907.87 73·8	61-65	7	19.60	35.7	24	23.40	102.6	æ	199.43	8:09	8	414.03	75.4
35 33.03 106.0 42 53.35 78.7 242 278.56 86.9 19 26.39 72.0 57 57.66 98.9 200 270.32 74.0 8 13.77 58.1 37 42.78 86.5 127 160.71 79.0 12 4.96 141.1 25 24.74 101.1 44 65.66 67.0 125 140.96 88.7 296 260.32 86.8 88.9 1907.87 73.8	02-99	31	26.84	115.5	္က	40.50	74.1	151	214.69	70.3		1031-88	63.5
19 26.39 72.0 57 57.66 98.9 200 270.32 74.0 8 13.77 58.1 37 42.78 86.5 127 160.71 79.0 7 4.96 141.1 25 24.74 101.1 44 65.66 67.0 125 140.96 88.7 29.6 260.32 86.8 88.9 1907.87 73.8	71–75	35	33.03	106.0	42	53.35	78.7	242	278.56	6.98	1977	2105.25	6:86
8 13.77 58·1 37 42·78 86·5 127 160·71 79·0 7 4.96 141·1 25 24·74 101·1 44 65·66 67·0 125 140·96 88·7 296 260·32 86·8 889 1907.87 73·8	76-80	19	26.39	72.0	57	57.66	6.86	200	270.32	74.0	3326	3428.51	97.0
7 4.96 141·1 25 24·74 101·1 44 65·66 67·0 125 140·96 88·7 296 260·32 86·8 889 1907.87 73·8	81-85	∞ ∞	13.77	58.1	37	42.78	86.5	127	160.71	0.62	3996	4133.22	2.96
125 140.96 88.7 226 260.32 86.8 889 1907.87 72.6	- 9 8	7	4.96	141.1	25	24.74	101.1	4	65.66	67.0	4815	4986-71	9.96
	All ages	125	140.96	88.7	226	260.32	8.98	688	1207.87	73.6	15575	16327-87	95.4

A= Actual deaths in 1948-52. E= Expected deaths according to a(f) and a(m) tables.