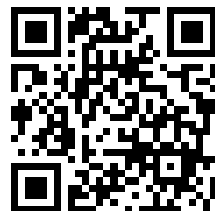

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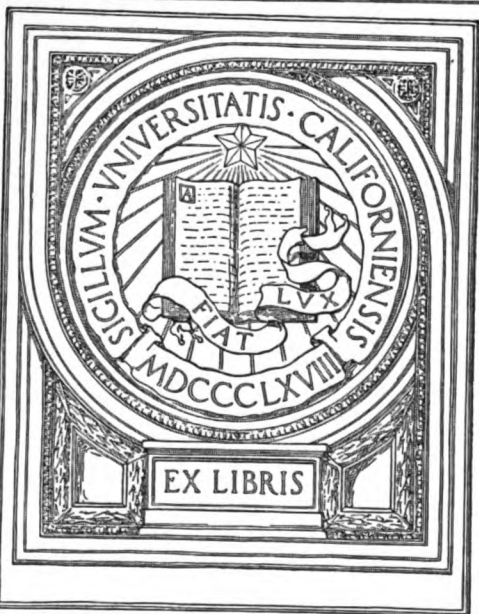
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PRACTICAL LESSONS
IN
ACTUARIAL SCIENCE

AN ELEMENTARY TEXT-BOOK

SECOND EDITION

REVISED

CONTAINING ALSO QUESTIONS AND EXAMPLES

Volume II. TABLES

BY

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VOLUME II.
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AMERICAN EXPERIENCE MORTALITY TABLE. INTRODUCTION.

THIS table is an adaptation of the Seventeen Offices or Actuaries' Table to the early experience of the Mutual Life Insurance Company of New York, assuming age ninety-five instead of 100 as the final or extreme limit of life.

It was adopted by the State of New York as its legal standard, interest being taken at four and one-half per cent, and this was followed by its adoption in several other States. When New York changed its interest assumption to four per cent, it also changed to the Actuaries' Table, but now to the American Experience Table and $3\frac{1}{2}$ per cent.

The American Experience Table is, however, largely employed by New York companies in their calculations, and notably in more recent departures, such as three per cent and three and one-half per cent reserves.

For permission to use the three per cent tables in this series we are indebted to the Connecticut Mutual Life Insurance Company, which computed them and has copyrighted them. For assistance in supplying other tables thanks are due John Tatlock, Jr., assistant actuary of the Mutual Life Insurance Company of New York. The tables, American Experience $3\frac{1}{2}$ per cent, are taken by permission from tables with 20 places of decimals, published by W. S. Smith, actuary of the John Hancock Mutual Life Insurance Company. The valuation columns, 3 per cent and $3\frac{1}{2}$ per cent, are taken from "Various Derived Tables." These columns, as printed in the former edition of this book, were found to be too inexact for use in computations.

The American Experience Table is regarded a safe ultimate table by American actuaries.

TABLE I.
AMERICAN EXPERIENCE TABLE OF MORTALITY.

Age	Number Living.	Number Dying.	Yearly Probability of Dying.	Yearly Probability of Living.	Age	Number Living.	Number Dying.	Yearly Probability of Dying.	Yearly Probability of Living.
10	100,000	749	.007490	.992510	53	66,797	1,091	.016333	.983667
11	99,251	746	.007516	.992484	54	65,706	1,143	.017396	.982604
12	98,505	743	.007543	.992457	55	64,563	1,199	.018571	.981429
13	97,762	740	.007569	.992421	56	63,364	1,260	.019885	.980115
14	97,022	737	.007596	.992404	57	62,104	1,325	.021335	.978665
15	96,285	735	.007634	.992366	58	60,779	1,394	.022936	.977064
16	95,550	732	.007661	.992339	59	59,385	1,468	.024720	.975280
17	94,818	729	.007688	.992312	60	57,917	1,546	.026693	.973307
18	94,089	727	.007727	.992273	61	56,371	1,628	.028880	.971120
19	93,362	725	.007765	.992235	62	54,743	1,713	.031292	.968708
20	92,637	723	.007805	.992195	63	53,030	1,800	.033943	.966057
21	91,914	722	.007855	.992145	64	51,230	1,889	.036873	.963127
22	91,192	721	.007906	.992094	65	49,341	1,980	.040129	.959871
23	90,471	720	.007958	.992042	66	47,361	2,070	.043707	.956293
24	89,751	719	.008011	.991989	67	45,291	2,158	.047647	.952353
25	89,032	718	.008065	.991935	68	43,133	2,243	.052002	.947998
26	88,314	718	.008119	.991879	69	40,890	2,321	.057762	.943238
27	87,596	718	.008197	.991803	70	38,569	2,391	.061993	.938007
28	86,878	718	.008264	.991736	71	36,178	2,448	.067005	.932335
29	86,160	719	.008345	.991655	72	33,730	2,487	.073733	.926267
30	85,441	720	.008427	.991573	73	31,243	2,505	.080178	.919822
31	84,721	721	.008510	.991490	74	28,738	2,501	.087028	.912972
32	84,000	723	.008607	.991393	75	26,237	2,476	.094371	.905629
33	83,277	726	.008718	.991282	76	23,761	2,431	.102311	.897689
34	82,551	729	.008831	.991169	77	21,330	2,369	.111064	.888936
35	81,822	732	.008946	.991054	78	18,961	2,291	.120827	.879173
36	81,090	737	.009089	.990911	79	16,670	2,196	.131734	.868266
37	80,353	742	.009234	.990766	80	14,474	2,091	.144400	.855534
38	79,611	749	.009408	.990592	81	12,383	1,964	.158605	.841395
39	78,862	756	.009586	.990414	82	10,419	1,816	.174297	.825703
40	78,106	765	.009794	.990206	83	8,603	1,648	.191561	.808439
41	77,341	774	.010008	.989992	84	6,955	1,470	.211359	.788641
42	76,567	785	.010252	.989748	85	5,485	1,292	.235552	.764448
43	75,782	797	.010517	.989483	86	4,193	1,114	.265681	.734319
44	74,985	812	.010829	.989171	87	3,079	933	.303020	.696980
45	74,173	828	.011163	.988837	88	2,146	744	.346692	.653308
46	73,345	848	.011562	.988438	89	1,402	555	.395863	.604137
47	72,497	870	.012000	.988000	90	847	385	.454545	.545455
48	71,627	896	.012509	.987491	91	462	240	.532406	.497534
49	70,731	927	.013106	.986894	92	216	137	.634259	.365741
50	69,804	962	.013781	.986219	93	79	58	.734177	.265823
51	68,842	1,001	.014541	.985459	94	21	18	.857143	.142857
52	67,841	1,044	.015389	.984611	95	3	3	1.000000	.000000

TABLE II.
 COMMUTATION COLUMNS, AMERICAN EXPERIENCE,
 FOUR AND ONE-HALF PER CENT.

Age.	D_x	N_x	C_x	M_x	R_x
10	64,302.77	1,140,751.32	461,5329	12,109.051	322,708.03
11	61,158.34	1,088,592.98	439,8892	11,647.519	310,598.98
12	58,084.84	1,030,508.14	419,2534	11,207.629	298,951.46
13	55,164.32	975,343.82	399,5799	10,788.375	287,743.83
14	52,389.25	922,954.57	380,8230	10,388.796	276,955.46
15	49,752.43	873,202.15	363,4350	10,007.973	266,566.66
16	47,246.54	825,055.60	349,3651	9,641.538	256,558.69
17	44,865.64	781,080.96	330,0915	9,268.173	246,914.15
18	42,603.53	738,486.43	315,0104	8,968.081	237,615.98
19	40,453.92	698,032.51	300,6161	8,653.071	228,647.90
20	38,411.27	659,621.24	286,8773	8,352.455	219,991.83
21	36,470.32	623,150.92	274,1440	8,065.577	211,042.37
22	34,625.68	588,525.23	261,9754	7,791.433	203,576.79
23	32,872.65	555,652.58	250,3465	7,529.458	195,785.36
24	31,206.73	524,445.85	239,2333	7,279.111	188,255.90
25	29,623.67	494,822.18	228,6139	7,039.878	180,976.79
26	28,119.40	466,702.78	218,7054	6,811.295	173,936.91
27	26,689.75	440,013.04	209,3478	6,592.407	167,125.65
28	25,331.08	414,681.96	200,3328	6,383.149	160,533.15
29	24,039.93	390,642.02	191,9730	6,182.816	154,150.00
30	22,812.75	367,820.28	183,9617	5,990.843	147,967.19
31	21,646.42	346,182.86	176,2844	5,806.881	141,976.34
32	20,537.99	325,644.86	169,1612	5,630.597	136,190.46
33	19,484.42	306,160.14	162,5484	5,461.436	130,538.87
34	18,482.83	287,677.61	156,1915	5,298.887	125,077.43
35	17,530.73	270,146.89	150,0806	5,142.696	119,778.54
36	16,625.73	253,521.15	144,5088	4,992.015	114,635.85
37	15,752.20	237,755.66	139,3108	4,848.016	109,643.23
38	14,947.00	222,808.96	134,5675	4,708.706	104,795.22
39	14,168.78	208,640.18	129,9751	4,574.136	100,066.51
40	13,428.66	195,211.51	125,8617	4,441.158	95,512.375
41	12,724.53	182,486.08	121,8558	4,318.296	91,008.217
42	12,054.73	170,432.25	118,2655	4,196.438	86,749.020
43	11,417.36	159,014.00	114,9057	4,078.169	82,553.483
44	10,810.79	148,204.10	112,0271	3,963.263	78,475.314
45	10,233.23	137,970.87	109,3153	3,851.236	74,512.050
46	9,683.250	128,287.62	107,1347	3,741.921	70,660.814
47	9,159.133	119,128.49	105,1810	3,634.786	66,918.843
48	8,659.512	110,498.95	103,6507	3,529.665	63,284.107
49	8,182.981	102,285.96	102,6278	3,425.916	59,754.502
50	7,727.076	94,557.992	101,9164	3,323.318	56,328.556
51	7,293.276	87,264.715	101,4815	3,221.401	53,005.239
52	6,877.730	80,389.985	101,2831	3,119.920	49,783.837
53	6,480.277	73,906.705	101,2850	3,018.937	46,603.918
54	6,099.937	67,806.768	101,5131	2,917.352	43,645.281

AMERICAN EXPERIENCE TABLE.

TABLE II.—Cont.
COMMUTATION COLUMNS, AMERICAN EXPERIENCE,
FOUR AND ONE-HALF PER CENT.

Age.	D _x	N _x	C _x	M _x	R _x
55	5 735.717	62,071.052	101 9312	2,815.809	40,727 929
56	5,386.794	56,684.258	102.5043	2,713 877	37,912 121
57	5 054.322	51,631.936	103 1504	2,611.373	35,198 243
58	4,731.609	46,900.329	103.8488	2,508 223	32,586 870
59	4,424 005	42,476.324	104.6523	2,404.374	30,078.647
60	4,128 846	38,347 478	105.4668	2,299.722	27,674.274
61	3,845.582	34,501.897	106.2782	2,194 255	25,374.552
62	3 573.704	30 928.193	107.0117	2,087.977	23,180 297
63	3,312.801	27,615.392	107.6044	1,980.995	21,092 320
64	3,092.540	24,552.851	108.0620	1,873.361	19,111.356
65	2,822.598	21,730.253	108 3902	1,765.299	17,237.995
66	2,592.661	19,137.592	108.4373	1,656.908	15,472 697
67	2,372.578	16,795 014	108 1792	1,548.471	13,815 788
68	2,102.230	14,602.784	107.5983	1,440.292	12,267 317
69	1,901.522	12,641.263	106 5454	1,332.694	10,827.025
70	1,770.509	10,870.754	105 0323	1,226 148	9,494 3319
71	1,589.234	9,281.520	102.9055	1,121.116	8,268 1839
72	1,417 863	7,863 627	100.0430	1,018.210	7,147 0681
73	1,2 6,792	6,606.834	96.42778	918.1673	6,128 8578
74	1,106.244	5,500 590	92.12806	821.7395	5,210.6905
75	966 4790	4,534.111	87.27957	729.6114	4,388.9510
76	837 5807	3,696.530	82.00317	642 3319	3,659.3395
77	719 5095	2,977.021	76.47059	560 3287	3,017.0777
78	612.0552	2,374.666	70.76821	483.8581	2,456.6789
79	514 9306	1,850.035	64.91460	413.0899	1,972.8208
80	427 8440	1,422.191	59.14724	348.1773	1,559.7309
81	350.2727	1,071.0185	53.16253	289.0401	1,211 5535
82	282.0267	789 89177	47 03961	235.8675	922.52352
83	222.8124	567.24938	40.84970	188.8279	686.65598
84	172.3966	394 05274	34.86844	147.9782	497.82805
85	130.1044	264 54837	29 32659	113 1098	340.83984
86	95.17523	199 37314	24 19730	83 78319	236.71004
87	66 87940	102 49372	19 39314	59.58583	152.95684
88	44 60029	57.88742	14.79868	40.19269	93.37498
89	27.88976	30.00064	10.56396	25.39401	53.178320
90	16.12194	13 87871	7.012586	14.83005	27.784310
91	8.415106	5 46,611	4 28,819	7 8174567	12 954265
92	3.764915	1.698697	2.285102	3.520396	5.1308062
93	1 317687	0 381009	.9257566	1.2445372	1.6071665
94	0.335188	0.045822	.2749418	.3187806	.36262938
95	0.045822	0.000000	.0438488	.0438488	.04384878

TABLE III.
COMMUTATION COLUMNS, AMERICAN EXPERIENCE,
FOUR PER CENT.

Age.	D_x	N_x	M_x	R_x
10	6755.641	131152.680	1451.4759	42004.234
11	6447.156	124705.524	1402.8223	40552.758
12	6152.593	118552.931	1356.2274	39149.936
13	5871.333	112681.598	1311.6047	37793.709
14	5602.778	107078.820	1268.8716	36482.104
15	5346.364	101732.456	1227.9486	35213.232
16	5101.492	96630.964	1188.7063	33985.283
17	4867.702	91763.262	1151.1274	32796.577
18	4644.497	87118.765	1115.1419	31645.449
19	4431.356	82687.409	1080.6354	30530.307
20	4227.832	78459.577	1047.5473	29449.672
21	4033.496	74420.081	1015.8195	28402.125
22	3847.894	70578.187	985.3544	27386.305
23	3670.647	66907.540	956.1015	26400.951
24	3501.380	63406.160	928.0128	25444.849
25	3339.739	60066.421	901.0419	24516.836
26	3185.391	56881.030	875.1444	23615.794
27	3037.974	53843.056	850.2430	22740.650
28	2897.185	50945.871	826.2993	21890.407
29	2762.733	48183.138	803.2765	21064.108
30	2634.305	45548.833	781.1084	20266.831
31	2511.641	43037.192	759.7633	19479.723
32	2394.487	40642.705	739.2106	18719.961
33	2282.574	38360.131	719.3936	17980.750
34	2175.649	36184.482	700.2597	17261.356
35	2073.496	34110.986	681.7857	16561.096
36	1975.910	32135.076	663.9491	15879.310
37	1882.645	30252.431	646.6814	15215.361
38	1793.520	28458.911	629.9652	14568.680
39	1708.314	26750.597	613.7403	13938.715
40	1626.862	25123.735	597.9936	13324.975
41	1548.970	23574.765	582.6723	12726.981
42	1474.492	22100.273	567.7670	12144.308
43	1403.242	20697.031	553.2313	11576.541
44	1335.081	19361.950	539.0410	11023.310
45	1269.830	18092.120	525.1397	10484.269
46	1207.350	16884.760	511.5097	9959.1241
47	1147.501	15737.259	498.0873	9447.6194
48	1090.126	14647.133	484.8464	8949.5321
49	1035.085	13612.048	473.7342	8464.6857
50	982.2302	12629.817	458.6901	7992.9515
51	931.4364	11698.381	445.6742	7534.2014
52	882.5892	10815.792	432.6615	7088.5872
53	835.5838	9980.2079	419.5918	6655.9357
54	790.3230	9189.8849	406.4691	6236.3439

AMERICAN EXPERIENCE TABLE.

TABLE III.—Cont.
COMMUTATION COLUMNS, AMERICAN EXPERIENCE,
FOUR PER CENT.

Age.	D _x	N _x	M _x	R _x
55	746.7065	8443.1784	393.2497	5829.8748
56	704.6535	7738.5249	379.9160	5436.6251
57	664.0783	7074.4466	366.4428	5056.7091
58	624.9134	6449.5332	352.8195	4695.2663
59	587.0969	5862.4303	339.0380	4337.4468
60	550.5613	5311.8750	325.0831	3998.4088
61	515.2547	4796.6203	310.9520	3673.3257
62	481.1291	4315.4912	296.6437	3362.3737
63	448.1477	3867.3435	282.1674	3065.7300
64	416.2850	3451.0585	267.5410	2783.5626
65	385.5146	3065.5439	252.7817	2516.0216
66	355.8122	2709.7319	237.9064	2263.2399
67	327.1735	2382.5584	222.9531	2025.3335
68	299.6005	2082.9579	207.9637	1802.3804
69	273.0969	1809.8610	192.9831	1594.4167
70	247.6878	1562.1732	178.0778	1401.4336
71	223.3970	1338.7762	163.3135	1223.3558
72	200.2700	1138.5062	148.7786	1060.0423
73	178.3688	960.1374	134.5801	911.2637
74	157.7573	802.3801	120.8289	776.6836
75	138.4886	663.8915	107.6277	655.8547
76	120.5954	543.2661	95.0611	548.2270
77	104.0936	439.2025	83.1975	453.1659
78	88.97350	350.2290	72.0811	369.9684
79	75.21453	275.0144	61.7442	297.8873
80	62.79449	212.2199	52.2170	236.1431
81	51.65655	160.5624	43.4942	183.9261
82	41.79190	118.7715	35.6104	140.4310
83	33.18048	85.59102	28.6722	104.8155
84	25.79209	59.79833	22.5007	76.2031
85	19.55883	40.23950	17.2589	53.7024
86	14.37665	25.86285	12.8290	36.4435
87	10.15101	15.71184	9.15627	23.6145
88	6.802926	8.908914	6.19861	14.4582
89	4.273472	4.635442	3.93081	8.25962
90	2.482463	2.152970	2.30417	4.32881
91	1.301991	.8509883	1.21918	2.02464
92	.5853109	.2656774	.552581	.805462
93	.2058384	.0598390	.195621	.252881
94	.0526121	.0072269	.0503106	.0572596
95	.0072269	.0000000	.0069490	.0069490

AMERICAN EXPERIENCE TABLE.

COMMUTATION COLUMNS—AMERICAN EXPERIENCE.
THREE AND ONE-HALF PER CENT.

Age	D_x	N_x	S_x	M_x	R_x
10	70 891.9	I 504 643.4	28 677 206	17 612.91	552 495.74
11	67 981.5	I 436 661.9	27 172 502	17 009.89	534 882.83
12	65 189.0	I 371 472.9	25 735 001	16 606.20	517 782.94
13	62 509.4	I 308 963.5	24 304 428	16 131.12	501 170.74
14	59 938.4	I 249 025.0	23 055 464	15 673.96	485 045.63
15	57 471.6	I 191 553.4	21 806 439	15 234.05	469 371.67
16	55 104.2	I 136 449.2	20 614 886	14 810.17	454 137.61
17	52 832.9	I 083 610.2	19 478 437	14 402.30	439 327.44
18	50 653.9	I 032 962.4	18 394 820	14 009.83	424 925.14
19	48 562.8	984 399.6	17 361 858	13 631.68	410 915.31
20	46 556.2	937 843.4	16 377 458	13 267.32	397 283.63
21	44 630.8	893 212.6	15 439 615	12 916.25	384 010.31
22	42 782.8	850 429.9	14 546 402	12 577.53	371 100.05
23	41 009.2	809 420.6	13 695 972	12 250.71	358 522.53
24	39 307.1	770 113.6	12 880 552	11 935.38	346 271.82
25	37 673.6	732 439.9	12 116 438	11 631.14	334 336.44
26	36 106.1	696 333.8	11 383 048	11 337.59	322 795.31
27	34 601.5	661 732.4	10 687 604	11 053.97	311 367.72
28	33 157.4	628 575.0	10 025 932	10 779.94	300 313.75
29	31 771.3	596 803.6	9 397 357	10 515.18	289 533.80
30	30 440.8	566 362.9	8 800 553	10 259.02	279 018.62
31	29 103.5	537 109.3	8 234 191	10 011.17	268 759.60
32	27 937.5	509 201.8	7 696 901	9 771.375	258 748.43
33	26 760.5	482 501.3	7 187 729	9 539 044	248 977.06
34	25 630.1	456 871.2	6 705 228	9 313.638	239 438.01
35	24 544.7	432 326.5	6 248 357	9 094.955	230 124.37
36	23 502.5	408 824.0	5 816 030	8 882.708	221 029.42
37	22 501.4	386 322.6	5 407 206	8 676.415	212 146.62
38	21 539.7	364 782.9	5 020 884	8 475.658	203 470.21
39	20 615.5	344 167.4	4 656 101	8 279.800	194 994.55
40	19 727.4	324 440.0	4 311 934	8 088.915	186 714.69
41	18 873.6	305 566.3	3 987 494	7 902.231	178 625.77
42	18 052.9	287 513.4	3 681 947	7 719.738	170 723.54
43	17 233.6	270 249.8	3 394 414	7 540.910	163 003.81
44	16 504.4	253 745.5	3 124 164	7 365.489	155 462.90
45	15 773.6	237 971.9	2 870 419	7 192.809	148 097.41
46	15 070.0	222 901.9	2 632 447	7 022 682	140 904.60
47	14 392.1	208 509.8	2 409 545	6 854 337	133 881.92
48	13 738.5	194 771.3	2 201 035	6 687.466	127 027.58
49	13 107.9	181 663.4	2 006 204	6 521.419	120 340.11
50	12 498.6	169 164.7	1 824 600	6 355 436	113 818.69
51	11 909.6	157 255.2	1 655 436	6 189 012	107 463.26
52	11 339.5	145 915.7	1 498 181	6 021.696	101 274.25
53	10 787.4	135 128.2	1 352 265	5 853.005	95 252.55
54	10 252.4	124 875.8	1 217 137	5 682.801	89 399.46

COMMUTATION COLUMNS—AMERICAN EXPERIENCE.
THREE AND ONE-HALF PER CENT.

Age	D _x	N _x	S _x	M _x	R _x
55	9 733.40	115 142.4	1 092 261	5 510 544	83 716 59
56	9 229.60	105 912.8	977 118 5	5 335.898	78 206.05
57	8 740.17	97 172.64	871 205.7	5 158.573	72 870.15
58	8 264.44	88 908.20	774 033.0	4 978 495	67 711 58
59	7 801.82	81 106.38	685 124.8	4 795.266	62 733.17
60	7 351.65	73 754.73	604 018.4	4 608.926	57 937.91
61	6 913.44	66 841.28	530 263.7	4 419.322	53 328.98
62	6 486.75	60 354.54	463 422.4	4 226 413	48 909 66
63	6 071.27	54 283.27	403 067.9	4 030.296	44 683 25
64	5 666.85	48 616.41	348 784.6	3 831.187	40 652.95
65	5 273.33	43 343.08	300 168.2	3 629.300	36 821.76
66	4 890.55	38 452 53	256 825.1	3 424 843	33 192.46
67	4 518.65	33 933 88	218 372.6	3 218.321	29 707.62
68	4 157.82	29 779 06	184 438.7	3 010 299	26 549 30
69	3 808.32	25 997.74	154 602.7	2 801.396	23 539.00
70	3 470.67	22 497 07	128 694.9	2 592.538	20 737.61
71	3 145 43	19 351.64	106 197.8	2 384.657	18 145 07
72	2 833.42	16 518.22	86 846.20	2 179.018	15 760.41
73	2 535 75	13 982.47	70 327.98	1 977.167	13 581.39
74	2 253.57	11 728 90	56 345.51	1 780.731	11 604.22
75	1 987.87	9 741 028	44 616 62	1 591.240	9 823.494
76	1 739.39	8 001.633	34 875.59	1 409.988	8 232.253
77	1 508.63	6 492 999	26 873.95	1 238 047	6 822.265
78	1 295.73	5 197 271	20 380.96	1 076.158	5 584 218
79	1 100.65	4 096 624	15 183.69	924.8937	4 508.060
80	923 338	3 173.286	11 087.06	784.8046	3 583.166
81	763.234	2 410 052	7 913.775	655.9245	2 798.361
82	620.465	1 789 587	5 503.723	536.9657	2 142.437
83	494.995	1 294 592	3 714.136	434 4776	1 603.471
84	386.641	907.9513	2 419.544	342 8624	1 108.993
85	294.610	613.3417	1 511.592	263 0059	826.1310
86	217.598	395.7438	898.2505	196 8569	562.2251
87	154.383	241.3609	502.5068	141.0003	365.3682
88	103.963	137.3978	261.1459	95.80107	224.3679
89	65.6231	71.77470	123.7481	60.97681	128.5668
90	38.3047	33.47001	51.97338	35.87752	67.58998
91	20.1869	13.28309	18.50337	19 05509	31 71246
92	9 11868	4.16421	5.22028	8.66695	12.65737
93	3 22236	.94184	1.05608	3.081545	3.987676
94	.82761	.11423	.11423	.795762	.906131
95	.11423	.00000	.00000	.110369	.110369

COMMUTATION COLUMN—AMERICAN EXPERIENCE.
 THREE PER CENT.

Age	D _x	N _x	S _x	M _x	R _x
10	74 409.3	I 736 936 2	35 170 109	21 651.75	734 215.97
11	71 701.0	I 665 235.3	33 433 173	21 110.66	712 564.22
12	69 089.4	I 596 145.9	31 767 938	20 587.43	691 453.57
13	66 571.2	I 529 574.7	30 171 792	20 081.48	670 860.14
14	64 143.0	I 465 431.7	28 642 217	19 592.25	650 784.66
15	61 801 7	I 403 630.1	27 176 785	19 119.20	631 192.41
16	59 543 6	I 344 086.5	25 773 155	18 661.17	612 073.21
17	57 366.4	I 286 720.0	24 429 069	18 218.30	593 412.04
18	55 267.4	I 231 452.6	23 142 349	17 790.09	575 193.74
19	53 243.0	I 178 209.6	21 910 896	17 375.49	557 493 65
20	51 290.9	I 126 918.7	20 732 687	16 974.08	540 028.16
21	49 468.3	I 077 510.4	19 605 768	16 585.43	523 054.08
22	47 592.4	I 029 918.0	18 528 257	16 208.62	506 468.66
23	45 850.9	984 077.1	17 498 339	15 843.30	490 260.03
24	44 151 5	939 925.6	16 514 262	15 489.11	474 416.74
25	42 522.2	897 403.4	15 574 337	15 145.71	458 927.63
26	40 950.7	856 452.7	14 676 933	14 812.77	443 781.93
27	39 434.8	817 017.9	13 820 480	14 489.54	428 969.15
28	37 972 4	779 045 5	13 003 463	14 175.72	414 479.61
29	36 561.7	742 483.8	12 224 417	13 871.04	400 303.90
30	35 200.6	707 283 3	11 481 933	13 574.82	386 432.86
31	33 887.3	673 396.0	10 774 650	13 286.83	372 858 04
32	32 620 3	640 775.7	10 101 254	13 006.84	359 571.22
33	31 397.6	609 378.0	9 460 479	12 734.25	346 564.38
34	30 217.4	579 160.7	8 851 103	12 468.50	333 830.13
35	29 078.1	550 082.5	8 271 940	12 209.42	321 361.64
36	27 978.7	522 103.8	7 721 857	11 956.86	309 152.21
37	26 916.9	495 186.9	7 199 753	11 709.98	297 195.36
38	25 891.6	469 295.4	6 704 567	11 468.66	285 485.38
39	24 901.0	444 394.4	6 235 271	11 232.16	274 016.72
40	23 943.9	420 450.5	5 790 877	11 000.40	262 784.56
41	23 018 8	397 431.6	5 370 426	10 772.72	251 784.16
42	22 124.7	375 306.9	4 972 905	10 549.06	241 011 44
43	21 260.1	354 046.8	4 597 688	10 328.84	230 462 38
44	20 423.8	333 623.0	4 243 641	10 111.76	220 133.54
45	19 614.2	314 008.8	3 910 018	9 897.062	210 021.786
46	18 830.3	295 178.4	3 597 009	9 684.454	200 124 754
47	18 070.5	277 107.9	3 300 831	9 473 083	190 440 300
48	17 333 6	259 774 3	3 023 723	9 262.544	180 967.217
49	16 618.3	243 156 0	2 763 949	9 152.028	171 704.674
50	15 922.8	227 233 2	2 520 793	8 840.573	162 652.645
51	15 246.0	211 987 3	2 293 559	8 627.525	153 812.072
52	14 568.7	197 400.6	2 081 572	8 412 298	145 184.547
53	13 943 9	183 456.7	1 884 172	8 194.362	136 772 230
54	13 316 6	170 140.0	1 700 715	7 973.249	128 577.887

COMMUTATION COLUMN—AMERICAN EXPERIENCE.
THREE PER CENT.

Age	D _x	N _x	S _x	M _x	R _x
55	12 703.88	157 436.2	I 530 575	7 748.344	120 604.64
56	12 104.81	145 331.3	I 373 139	7 519.292	112 856.29
57	11 518.55	133 812.8	I 227 807	7 285.597	105 337.00
58	10 944.47	122 868.3	I 093 995	7 047.005	98 051.41
59	10 381.99	112 486.3	971 126 3	6 803.299	91 004.40
60	9 830.431	102 655.9	858 640.0	6 554.130	84 201.10
61	9 289.344	93 366.56	755 984.0	6 299.366	77 646.97
62	8 758.317	84 608.24	662 617.5	6 038.903	71 347.61
63	8 237.140	76 371.10	578 009.3	5 774.823	65 308.70
64	7 725.774	68 645.33	501 638.2	5 501.373	59 535.88
65	7 224.176	61 421.15	432 992.9	5 224.798	54 034.51
66	6 732.300	54 688.84	371 571.7	4 943.343	48 809.71
67	6 250.545	48 438.30	316 882.9	4 657.666	43 866.37
68	5 779.342	42 658.96	268 444.6	4 368.518	39 208.70
69	5 319.228	37 339.73	225 785.6	4 076.734	34 840.18
70	4 871.163	32 468.57	188 445.9	3 783.598	30 763.45
71	4 436.103	28 032.46	155 977.3	3 490.416	26 979.85
72	4 015.468	24 017.00	127 944.8	3 198.988	23 489.44
73	3 611.065	20 405.93	103 927.8	2 911.541	20 290.45
74	3 224.794	17 181.14	83 521.92	2 630.446	17 378.91
75	2 858.396	14 322.74	66 340.78	2 357.974	14 748.46
76	2 513.250	11 809.49	52 018.04	2 096.083	12 390.49
77	2 190.406	9 619.086	40 208.55	1 846.440	10 294.40
78	1 890.417	7 728.668	30 589.46	1 610.250	8 447.963
79	1 613.596	6 115.072	22 860.79	1 388.489	6 837.713
80	I 360.225	4 754.848	16 745.72	I 182.116	5 449.224
81	I 129.824	3 625.024	11 990.87	991.3330	4 267.108
82	922.9403	2 702.084	8 365.850	817.3571	3 275.775
83	739.8783	I 962.206	5 663.766	661.1768	2 458.418
84	580.7247	I 381.481	3 701.561	523.5730	I 797.241
85	444.6441	936.8367	2 320.080	404.4068	I 273.668
86	330.0073	606.8294	I 383.243	302.7208	869.2616
87	235.2725	371.5570	776.4136	217.5978	566.5408
88	159.2040	212.3530	404.8566	148.3819	348.0430
89	100.9799	111.3731	192.5037	94.79488	200.5610
90	59.22884	52.14422	81.13062	55.98496	105.7661
91	31.36567	20.77855	28.98640	29.84690	49.78119
92	14.23735	6.54120	8.20785	13.63215	19.93429
93	5.05551	1.48569	I 66665	4.86499	6.30214
94	1.30473	.18096	.18096	1.26146	1.43715
95	.18096	.00000	.00000	.17569	.17569

AMERICAN EXPERIENCE TABLE—VALUATION COLUMNS,
THREE PER CENT.

Age.	u_x	c_x	k_x	Age.	u_x	c_x	k_x
20	1.038103	.007777	.007866	58	1.054178	.022268	.023474
21	1.038155	.007626	.007917	59	1.056107	.024000	.025347
22	1.038208	.007476	.007969	60	1.058248	.025916	.027425
23	1.038263	.007327	.008022	61	1.060631	.028039	.029739
24	1.038318	.007178	.008076	62	1.063272	.030380	.032362
25	1.038374	.007030	.008130	63	1.066190	.032954	.035136
26	1.038433	.006883	.008197	64	1.069433	.035799	.038285
27	1.038492	.006738	.008264	65	1.073001	.038960	.041807
28	1.038553	.006594	.008333	66	1.077076	.042434	.045704
29	1.038608	.006452	.008415	67	1.081532	.046260	.050031
30	1.038753	.006311	.008498	68	1.086500	.050487	.054854
31	1.038841	.006172	.008583	69	1.091983	.055109	.060178
32	1.038942	.006036	.008682	70	1.098073	.060187	.066099
33	1.039058	.005904	.008795	71	1.104754	.065695	.072566
34	1.039177	.005774	.008910	72	1.111990	.071585	.079602
35	1.039298	.005646	.009027	73	1.119782	.077843	.087167
36	1.039447	.005524	.009172	74	1.128183	.084493	.095323
37	1.039600	.005405	.009320	75	1.137330	.091622	.104201
38	1.039783	.005291	.009480	76	1.147160	.099331	.113971
39	1.039970	.005180	.009679	77	1.158689	.107829	.124941
40	1.040188	.005070	.009891	78	1.171555	.117308	.137433
41	1.040412	.004961	.010109	79	1.186272	.127897	.151720
42	1.040669	.004854	.010359	80	1.203026	.140258	.168861
43	1.040948	.010211	.010629	81	1.221157	.153985	.188102
44	1.041276	.010513	.010947	82	1.247422	.169220	.211089
45	1.041628	.010838	.011289	83	1.274660	.185982	.236952
46	1.042018	.011125	.011697	84	1.306044	.205203	.268004
47	1.042511	.011651	.012146	85	1.347377	.228691	.308133
48	1.043043	.012145	.012668	86	1.402000	.257913	.361806
49	1.043678	.012724	.013280	87	1.477805	.294195	.434762
50	1.044393	.013380	.013974	88	1.576591	.336534	.530670
51	1.045198	.014117	.014755	89	1.704911	.384333	.655254
52	1.046008	.014941	.015629	90	1.888333	.441306	.833333
53	1.047102	.015857	.016604	91	2.203050	.516959	1.138889
54	1.048235	.016889	.017704	92	2.810203	.615785	1.734177
55	1.049460	.018030	.018922	93	3.874756	.712793	2.761005
56	1.050847	.019395	.020289	94	7.210046	.832177	6.000000
57	1.052451	.020714	.021800				

AMERICAN EXPERIENCE TABLE.

AMERICAN EXPERIENCE TABLE—VALUATION COLUMNS,
THREE AND ONE-HALF PER CENT.

Age.	u_x	c_x	k_x	Age.	u_x	c_x	k_x
20	1.043141	.007541	.007866	58	1.059295	.022160	.023474
21	1.043195	.007590	.007917	59	1.061235	.023884	.025347
22	1.043249	.007636	.007969	60	1.063185	.025791	.027425
23	1.043303	.007689	.008022	61	1.065179	.027903	.029739
24	1.043359	.007740	.008076	62	1.068434	.030234	.032308
25	1.043414	.007792	.008130	63	1.071366	.032795	.035136
26	1.043484	.007855	.008197	64	1.074625	.035626	.038285
27	1.043553	.007920	.008264	65	1.078269	.038772	.041807
28	1.043627	.007985	.008333	66	1.082303	.042229	.045704
29	1.043708	.008063	.008415	67	1.086783	.046036	.050031
30	1.043798	.008142	.008498	68	1.091773	.050243	.054854
31	1.043884	.008222	.008583	69	1.097287	.054843	.060178
32	1.043983	.008316	.008682	70	1.103401	.059896	.066000
33	1.044104	.008423	.008795	71	1.110118	.065377	.072526
34	1.044221	.008532	.008910	72	1.117389	.071239	.079602
35	1.044344	.008644	.009027	73	1.125215	.077467	.087167
36	1.044491	.008781	.009172	74	1.133661	.084085	.095323
37	1.044648	.008922	.009320	75	1.142855	.091179	.104204
38	1.044830	.009090	.009493	76	1.152959	.098851	.113971
39	1.045019	.009262	.009679	77	1.164309	.107308	.124941
40	1.045238	.009463	.009891	78	1.177241	.116741	.137433
41	1.045461	.009699	.010109	79	1.192034	.127279	.151720
42	1.045720	.009960	.010359	80	1.209771	.139581	.168861
43	1.046000	.010161	.010629	81	1.230100	.153241	.188502
44	1.046331	.010463	.010947	82	1.253477	.168403	.211089
45	1.046689	.010786	.011289	83	1.280244	.185083	.236952
46	1.047102	.011171	.011697	84	1.312382	.204211	.268004
47	1.047574	.011595	.012146	85	1.353919	.227586	.308133
48	1.048108	.012086	.012668	86	1.409469	.256696	.361806
49	1.048749	.012663	.013280	87	1.484980	.292773	.434762
50	1.049456	.013315	.013974	88	1.584244	.334968	.530670
51	1.050276	.014049	.014755	89	1.713187	.382476	.655254
52	1.051180	.014869	.015629	90	1.897503	.430174	.833333
53	1.052183	.015781	.016604	91	2.213745	.514461	1.138889
54	1.053322	.016807	.017704	92	2.829879	.612811	1.734177
55	1.054585	.017943	.018922	93	3.893568	.709350	2.761905
56	1.055998	.019213	.020289	94	7.245001	.828157	6.000000
57	1.057504	.020614	.021800				

AMERICAN EXPERIENCE TABLE.

(HUNTER'S MAKEHAMIZED.)

INTRODUCTION.

THIS table is a regraduation of the American Experience Table by "Makeham's first law." It was presented to the Actuarial Society of America in May, 1902, by its author, Arthur Hunter, A. I. A., actuary of the New York Life Insurance Company; and the Society undertook the publication of a very complete volume of commutation, premium and reserve tables, for joint lives, especially, Mr. Hunter doing the work. The tables which follow are republished by permission of the Society and their author.

Reference should be made to the book of tables mentioned, for values for two and for three lives.

AMERICAN EXPERIENCE TABLE.

(HUNTERS MAKEHAMIZED.)

Age.	l_x	d_x	p_x	q_x	Age.	l_x	d_x	p_x	q_x
10	100.081	766	.99235	.00765	55	64.383	1.196	.98142	.01858
11	99.315	762	.99233	.00767	56	63.187	1.251	.98020	.01980
12	98.553	757	.99232	.00768	57	61.936	1.310	.97835	.02115
13	97.799	752	.99231	.00769	58	60.625	1.373	.97735	.02255
14	97.044	748	.99229	.00771	59	59.253	1.441	.97568	.02432
15	96.296	744	.99227	.00773	60	57.812	1.512	.97385	.02615
16	95.542	740	.99226	.00774	61	56.300	1.589	.97178	.02822
17	94.812	736	.99224	.00776	62	54.711	1.667	.96953	.03047
18	94.079	733	.99221	.00779	63	53.044	1.750	.96701	.03299
19	93.343	729	.99219	.00781	64	51.294	1.835	.96423	.03577
20	92.614	726	.99216	.00784	65	49.459	1.923	.96112	.03888
21	91.888	723	.99213	.00787	66	47.539	2.010	.95772	.04228
22	91.165	721	.99209	.00791	67	45.526	2.097	.95394	.04606
23	90.444	718	.99206	.00794	68	43.429	2.183	.94973	.05027
24	89.726	716	.99202	.00798	69	41.246	2.264	.94511	.05489
25	89.010	715	.99197	.00803	70	38.982	2.347	.93997	.06003
26	88.295	714	.99194	.00809	71	37.042	2.407	.93431	.06569
27	87.581	713	.99186	.00814	72	34.235	2.462	.92819	.07191
28	86.868	712	.99180	.00820	73	31.773	2.524	.92119	.07831
29	86.156	714	.99171	.00829	74	29.269	2.530	.91356	.08644
30	85.442	714	.99164	.00836	75	26.739	2.535	.90519	.09181
31	84.728	715	.99156	.00841	76	24.204	2.517	.89611	.10399
32	84.013	718	.99145	.00855	77	21.687	2.476	.88533	.11417
33	83.295	720	.99136	.00864	78	19.211	2.406	.87470	.12524
34	82.575	725	.99122	.00878	79	16.805	2.310	.86254	.13746
35	81.850	729	.99109	.00891	80	14.495	2.186	.84919	.15081
36	81.121	734	.99095	.00905	81	12.309	2.036	.83459	.16541
37	80.387	741	.99078	.00922	82	10.273	1.863	.81865	.18135
38	79.646	750	.99058	.00942	83	8.410	1.671	.80131	.19899
39	78.896	758	.99039	.00961	84	6.739	1.465	.78201	.21739
40	78.138	769	.99016	.00984	85	5.274	1.255	.76204	.23796
41	77.369	780	.98992	.01008	86	4.019	1.045	.73999	.26001
42	76.539	795	.98962	.01038	87	2.974	.844	.71021	.28379
43	75.791	809	.98933	.01097	88	2.130	.659	.66061	.30939
44	74.985	827	.98897	.01103	89	1.471	.495	.60349	.33651
45	74.118	847	.98858	.01142	90	976	357	.63422	.36578
46	73.311	868	.98800	.01184	91	619	245	.60420	.39530
47	72.443	892	.98769	.01231	92	374	160	.57219	.42781
48	71.551	920	.98714	.01286	93	214	99	.53733	.46262
49	70.631	948	.98658	.01342	94	115	57	.50435	.49595
50	69.683	981	.98592	.01408	95	58	31	.46552	.53448
51	68.702	1,017	.98520	.01480	96	27	16	.40741	.56259
52	67.685	1,057	.98438	.01562	97	11	7	.30364	.60366
53	66.628	1,099	.98351	.01649	98	4	3	.25000	.75000
54	65.529	1,146	.98251	.01749	99	1	1	.....	1.00000

AMERICAN EXPERIENCE TABLE.

*(HUNTER'S MAKEHAMIZED.)

COMMUTATION COLUMNS. ONE LIFE. THREE AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
10	70950	1504846	28690717	17661.57	553278.87
11	68025	1436821	27185871	17136.90	535617.30
12	65221	1371600	25749050	16632.61	518480.40
13	62532	1309068	24377450	16148.57	501847.79
14	59953	1249115	23068382	15683.99	485699.22
15	57478	1191637	21829267	15237.52	470015.23
16	55105	1136532	20627630	15808.46	454777.71
17	52829	1083703	19491098	14396.13	438969.25
18	50647	1033056	18407395	13999.00	424573.12
19	48552	984504	17374339	13618.63	410573.22
20	46455	937959	16389835	13252.26	396954.59
21	44618	893341	15451876	12899.73	383702.33
22	42770	850571	14558535	12500.53	370802.60
23	40997	809574	13707964	12223.71	358242.07
24	39296	770278	12898390	11919.26	346018.36
25	37664	732614	12128112	11616.29	334099.10
26	36099	696515	11395498	11323.97	322482.81
27	34596	661919	10698983	11041.93	311158.84
28	33154	628765	10037064	10769.81	300116.91
29	31770	596995	9408299	10507.26	289347.10
30	30441	566554	8811304	10252.88	278839.84
31	29166	537388	8244750	10007.10	268586.96
32	27942	509446	7707362	9769.30	258579.86
33	26766	482680	7197916	9538.58	248810.56
34	25638	457042	6715236	9315.04	239271.98
35	24553	432489	6258104	9097.55	229956.94
36	23511	408478	5825705	8886.26	220859.39
37	22511	386467	5416727	8680.71	211973.13
38	21549	364918	5030260	8480.22	203292.42
39	20625	344293	4665342	8284.16	194812.20
40	19736	324557	4321049	8092.71	186528.04
41	18881	305670	3994402	7905.05	178435.33
42	18058	287618	3690816	7721.14	170530.28
43	17266	270352	3403198	7540.03	162809.14
44	16504	253848	3132846	7361.97	155209.11
45	15770	238078	2878968	7186.10	147907.14
46	15063	223015	2640920	7012.07	140721.04
47	14381	208634	2417905	6839.76	133708.97
48	13724	194910	2204271	6668.67	126869.21
49	13089	181821	2014361	6498.18	120200.54
50	12477	169344	1832540	6328.44	113702.36
51	11885	157459	1663196	6158.72	107373.92
52	11313	146146	1505737	5988.74	101215.20
53	10760	135386	1359591	5818.04	95226.46
54	10225	125160.6	1224204.5	5646.56	89408.42

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(HUNTER'S MAKEHAMIZED.)

COMMUTATION COLUMNS. ONE LIFE. THREE AND ONE-HALF PER CENT.—Cont.

Age.	D _x	N _x	S _x	M _x	R _x
55	9706.2	115454.4	1099043.9	5473.79	83761.86
56	9203.9	106250.5	983589.5	5299.58	78288.07
57	8716.5	97534.0	877339.0	5123.52	74988.49
58	8243.7	89290.3	779805.0	4945.39	67864.97
59	7784.5	81505.8	690514.7	4765.01	62919.58
60	7338.4	74167.4	609008.9	4582.10	58154.57
61	6904.8	67262.6	534841.5	4396.67	53572.47
62	6482.9	60779.7	467578.9	4208.38	49175.80
63	6073.0	54706.7	406799.2	4017.53	44967.42
64	5674.0	49032.7	352092.5	3823.95	40949.89
65	5286.0	43746.7	303059.8	3627.83	37125.94
66	4908.6	38838.1	259313.1	3429.26	33498.11
67	4542.1	34296.0	220475.0	3228.72	30268.85
68	4186.4	30109.6	186179.0	3026.58	26840.13
69	3841.5	26268.1	156069.4	2823.26	23813.55
70	3507.8	22760.3	129801.3	2619.53	20990.29
71	3185.8	19574.5	107041.0	2416.08	18370.76
72	2875.8	16698.7	87466.5	2213.89	15954.68
73	2578.8	14119.9	70767.8	2014.07	13740.79
74	2295.2	11824.7	56647.9	1817.72	11726.72
75	2025.9	9798.8	44823.2	1626.03	9909.00
76	1771.8	8027.0	35024.4	1440.46	8282.97
77	1533.9	6403.1	26997.4	1262.44	6842.51
78	1312.8	5180.3	20504.3	1093.24	5580.07
79	1109.6	4070.65	15323.98	934.38	4486.83
80	924.68	3145.97	11253.33	787.02	3552.45
81	758.66	2387.31	8107.36	652.29	2765.43
82	611.77	1775.54	5720.05	531.04	2113.14
83	483.89	1291.65	3944.51	423.489	1582.097
84	374.64	917.01	2652.86	330.954	1158.248
85	283.28	633.73	1735.85	252.266	827.294
86	208.57	425.16	1102.12	187.138	575.028
87	149.12	276.04	676.96	134.741	387.890
88	103.19	172.852	400.924	93.854	253.149
89	68.853	103.999	228.072	63.008	159.295
90	44.139	59.860	124.073	40.622	96.287
91	27.047	32.813	64.213	25.023	55.665
92	15.789	17.024	31.400	14.6796	30.6421
93	8.729	8.295	14.376	8.1533	15.9625
94	4.532	3.763	6.081	4.2516	7.8092
95	2.209	1.554	2.318	2.0812	3.5576
96	.993	.561	.764	.9407	1.4764
97	.391	.170	.203	.3720	.5357
98	.137	.033	.033	.1316	.1637
99	.033	.000	.000	.0321	.0321

*(HUNTER'S MAKEHAMIZED.)

COMMUTATION COLUMNS. TWO LIVES. THREE AND ONE-HALF PER CENT.

Equal Ages.	D _{xx}	N _{xx}	S _{xx}	M _{xx}	R _{xx}
10	7100700000	128026500000	2123131900000	2531020000	58760230000
11	6755000000	121270700000	1605105300000	240360000	57229910000
12	6428000000	114842900000	1873834600000	232176000	53803550000
13	6153000000	108727600000	1758001700000	2231680000	51476700000
14	5818200000	102409500000	1650264100000	2141236000	49245107000
15	5534900000	97374600000	1547354600000	2054926000	47103871000
16	5265100000	92109200000	1449000000000	1972573000	45048045000
17	5008800000	87100400000	1357870800000	1894080000	43079372000
18	4761600000	82335800000	1270770400000	1819231000	41182394000
19	4532000000	77803800000	1188434600000	1747711000	39393133000
20	4310700000	73493100000	1110630800000	1679714000	37615422000
21	4090920000	69393200000	1037137700000	1614649000	35935708000
22	3880200000	65494000000	967744500000	1552533000	34321005000
23	3707900000	61786100000	902250500000	1493153000	32768520000
24	3525900000	58260200000	840404400000	1436525000	31275373000
25	3352500000	54907700000	782204200000	1382362000	29838848000
26	3187400000	51720300000	727206500000	1330502000	28456486000
27	3020000000	48604000000	675570200000	1280008000	27125924000
28	2860000000	45810400000	626885800000	1233469000	25845016000
29	2732000000	43073200000	581075400000	1188076000	24611547000
30	2600000000	40472300000	538002200000	1144361000	23423471000
31	2471200000	38001100000	497520900000	1102571000	22279110000
32	2347500000	35653600000	459528800000	1062400000	21176539000
33	2226500000	33424100000	423875200000	1023335000	20114079000
34	2117000000	31307100000	390451100000	986764000	19090244000
35	2009700000	29297400000	359144000000	951006000	18103480000
36	1903300000	27390100000	329840600000	916515000	17152274000
37	1800700000	25589500000	302456500000	883387000	16235959000
38	1716300000	23864200000	276870000000	851244000	15352572000
39	1627200000	22237000000	253011800000	820214000	14501328000
40	1542100000	20694900000	230774800000	790107000	13681114000
41	1460800000	19231100000	210076900000	760045000	12891007000
42	1383100000	17851000000	190845800000	732051000	12130062000
43	1308700000	16512300000	172994800000	704995000	11397411000
44	1237500000	15304800000	156452500000	678143000	10692416000
45	1160500000	14135300000	141147700000	651660000	10014273000
46	1104300000	13031000000	127012400000	626282000	9362308000
47	1041800000	11989230000	113981380000	601189000	8730026000
48	9819700000	11007200000	101992150000	579542000	8134837000
49	9245330000	10082730000	90994890000	552302000	7558293000
50	8664400000	9213270000	80902160000	528480000	7005993000
51	8165400000	8399750000	71988870000	504995000	6477595000
52	7657400000	7631010000	63202120000	481700000	5972510000
53	7109400000	6914070000	55661110000	458895000	5490715000
54	6700100000	6244060000	48747040000	430208000	5031820000

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(HUNTER'S MAKEHAMIZED.)

COMMUTATION COLUMNS. TWO LIVES. THREE AND ONE-HALF PER CENT.—Cont.

Equal Ages.	D _{xx}	N _{xx}	S _{xx}	M _{xx}	R ₁ .
55	624910000	5619150000	42502980000	413760000	4595612000
56	581570000	5037580000	36883830000	301547000	4181852000
57	539860000	4497720000	31846250000	369508000	3790395000
58	499780000	3997940000	27348530000	347631000	3420797000
59	461250000	3536690000	23350590000	326059000	3073112000
60	424250000	3112440000	19813900000	304658000	2747054000
61	388740000	2723700000	16701460000	283490000	2442396000
62	354680000	2369020000	13977760000	262576000	2158906000
63	322140000	2046880000	116608740000	242026000	1896330000
64	291040000	1755840000	9561860000	221827000	1654304000
65	261440000	1494400000	7806020000	202065000	1432477000
66	233340000	1291060000	6311620000	182796000	1230412000
67	206790000	1054270000	5050560000	164139000	1047616000
68	181810000	872460000	3966290000	146161000	883477000
69	158450000	714010000	3123830000	128940000	737316000
70	136740000	577270000	2409820000	112598000	608376000
71	116730000	460539000	1832547000	97209000	495778000
72	98453000	362086000	1372003000	82878000	398569000
73	81935000	280151000	1009922000	69689000	315691000
74	67178000	212973000	729771000	57705000	246002000
75	54171000	158802000	516798000	46969500	188296900
76	42835000	115917000	357696000	37515400	141327400
77	33265000	82652000	242079000	29345600	103812000
78	25220000	57432000	159427000	22425200	74466400
79	18646000	38786000	101995000	16704100	52041200
80	13403000	25382500	63209200	12091000	35337100
81	9338300	16044200	37826700	8480000	23245200
82	6284800	9759400	21782500	5742500	14765200
83	4064600	5669800	12023100	3739500	9022700
84	2524700	3165100	6333300	2332290	5283240
85	1494000	1671070	3168160	1386970	2950950
86	838240	832830	1497090	781770	1563680
87	443480	389350	664260	415320	782210
88	219700	166560	274910	206930	366800
89	101280	68275	105352	95548	160264
90	43079	25196	37077	40772	64716
91	10742	8454.1	11881.1	15891	23944
92	5705.1	2549.0	3427.0	5619.5	8032.6
93	1868.0	681.00	877.09	1781.8	2433.1
94	521.21	159.79	196.99	498.17	651.31
95	128.000	31.703	37.293	122.690	153.136
96	28.819	4.884	5.500	25.748	30.416
97	4.301	.583	.016	4.1359	4.6978
98	.550	.033	.033	.5293	.5619
99	.033	.000	.000	.0321	.0321

AMERICAN EXPERIENCE TABLE.

(HUNTER'S MAKEHAMIZED), THREE PER CENT.
COMMUTATION COLUMNS—ONE LIFE.

Age	D _x	N _x	S _x	C _x	M _x	R _x
10	74470	1811702	37000410	553.38	21701.71	733961.72
11	71746	1737232	35188708	534.45	21148.33	712260.01
12	69123	1665486	33451476	515.49	20613.88	691111.68
13	66595	1596363	31785990	497.16	20098.39	670497.80
14	64158	1529768	30189027	480.11	19601.23	650399.41
15	61809	1465610	28659859	463.63	19121.12	630798.18
16	59544	1403801	27194249	447.71	18657.49	611677.06
17	57393	1344257	25799448	432.32	18209.78	593019.57
18	55260	1286894	24446191	418.01	17777.46	574809.79
19	53232	1231634	23159297	403.64	17359.45	557032.33
20	51279	1178402	21927663	390.27	16955.81	539672.88
21	49395	1127123	20749261	377.33	16565.54	522717.07
22	47578	1077228	19622138	365.33	16188.21	506151.53
23	45827	1030150	18544410	353.21	15822.88	489963.32
24	44140	984323	17514260	341.96	15469.67	474140.44
25	42512	940183	16529937	331.54	15127.71	458670.77
26	40942	897971	15589754	321.43	14796.17	443543.06
27	39428	856729	14692083	311.64	14474.74	428746.89
28	37958	817301	13835354	302.13	14163.10	414272.15
29	36560	779333	13018053	294.16	13860.97	400109.05
30	35201	742773	12238720	285.59	13566.81	386248.08
31	33891	707572	11495947	277.66	13281.22	372681.27
32	32626	673681	10788375	270.70	13003.56	359400.05
33	31404	641055	10114694	263.55	12732.86	346396.49
34	30226	609651	9473639	257.66	12469.31	333663.63
35	29088	579425	8863988	251.53	12211.65	321194.32
36	27989	550337	8284563	245.88	11960.12	308982.67
37	26928	522348	7734226	241.00	11714.24	297022.55
38	25903	495420	7211878	236.82	11473.24	285308.31
39	24912	469517	6716458	232.37	11236.42	273735.07
40	23954	444605	6246941	228.88	11004.05	262598.65
41	23027	420651	5802336	225.39	10775.17	251504.60
42	22131	397624	5381685	223.03	10549.78	240819.43
43	21263	375493	4984061	220.35	10326.75	230260.65
44	20423	354230	4608568	218.69	10106.40	219942.90
45	19610	333807	4254338	217.46	9887.71	209836.50
46	18822	314197	3920531	216.36	9670.25	199948.79
47	18057	295375	3606331	215.86	9453.89	190278.54
48	17315	277318	3310959	216.16	9238.03	180824.65
49	16595	260003	3033641	216.25	9021.87	171586.62
50	15895	243408	2773638	217.26	8805.62	162564.75
51	15215	227513	2530230	218.67	8588.36	153759.13
52	14553	212298	2302717	220.65	8369.69	145170.77
53	13909	197745	2090419	222.74	8149.04	136801.08
54	13281	183836	1892674	225.49	7926.30	128652.04

(HUNTER'S MAKEHAMIZED), THREE PER CENT.
COMMUTATION COLUMNS—ONE LIFE.—Cont.

Age	D _x	N _x	S _x	C _x	M _x	R _x
55	12668	170555	1708838	228.48	7700.81	120725.74
56	12071	157887	1538283	232.03	7472.33	113024.93
57	11487	145816	1380396	235.89	7240.30	105552.60
58	10917	134329	1234580	240.03	7004.41	98312.30
59	10359	123412	1100251	244.59	6764.38	91307.89
60	9812.7	113053.4	976838.7	249.16	6519.79	84543.51
61	9277.7	103240.7	863785.3	254.22	6270.63	78023.72
62	8753.1	93963.0	760544.6	258.93	6016.41	71753.09
63	8239.3	85209.9	666581.6	263.91	5757.48	65736.68
64	7735.5	76970.6	581371.7	268.67	5493.57	59979.20
65	7241.5	69235.1	504401.1	273.35	5224.90	54485.63
66	6757.1	61993.6	435166.0	277.40	4951.55	49260.73
67	6283.0	55236.5	373172.4	280.98	4674.15	44309.18
68	5819.0	48953.5	317935.9	283.97	4393.17	39635.03
69	5365.5	43134.5	268982.4	285.94	4109.20	35241.86
70	4923.2	37769.0	225847.9	286.93	3823.26	31132.66
71	4493.0	32845.8	188078.9	286.55	3536.33	27309.40
72	4075.6	28352.8	155233.1	284.56	3249.78	23773.07
73	3672.3	24277.2	126880.3	280.98	2953.22	20523.29
74	3284.4	20604.9	102603.1	275.63	2684.24	17558.07
75	2913.1	17320.5	81998.2	268.13	2408.61	14873.83
76	2560.1	14407.4	64677.7	258.47	2140.48	12465.22
77	2227.1	11847.3	50270.3	246.86	1882.01	10324.74
78	1913.4	9620.2	38423.0	232.89	1635.15	8442.73
79	1626.7	7704.8	28802.8	217.09	1402.26	6807.58
80	1362.2	6078.1	21098.0	199.45	1185.17	5405.32
81	1123.1	4715.9	15019.9	180.36	985.72	4220.15
82	910.02	3592.83	10304.02	160.22	805.36	3234.43
83	723.29	2682.81	6711.19	139.52	645.14	2426.07
84	562.69	1959.52	6028.38	118.76	505.62	1783.93
85	427.54	1396.83	4068.86	98.773	386.856	1278.312
86	316.32	969.29	2672.03	79.851	288.013	891.456
87	227.25	652.97	1702.74	62.612	208.232	603.373
88	158.02	425.72	1049.77	47.466	145.620	395.141
89	105.95	267.70	624.05	34.615	98.154	249.521
90	68.250	161.746	356.349	24.237	63.539	151.367
91	42.074	93.496	194.603	16.149	39.302	87.828
92	24.652	51.472	101.107	10.239	23.153	48.526
93	13.695	26.820	49.635	6.1509	12.9135	25.3734
94	7.145	13.125	22.815	3.4382	6.7626	12.4599
95	3.499	5.980	9.690	1.8155	3.3244	5.6973
96	1.581	2.481	3.710	.9097	1.5089	2.3729
97	.625	.900	1.229	.3804	.5992	.8640
98	.221	.275	.329	.1608	.2128	.2648
99	.054	.054	.054	.0520	.0520	.0520

AMERICAN EXPERIENCE TABLE.

(HUNTER'S MAKEHAMIZED), THREE PER CENT.
COMMUTATION COLUMNS—TWO LIVES.

Equal Ages.	D _{xx}	N _{xx}	S _{xx}	C _{xx}	M _{xx}	R _{xx}
55	815630	849604	6714881	99183	570204	6470386
56	762750	761042	5871777	29045	541071	5900182
57	711480	684767	5110735	28901	512026	5359111
58	661850	613619	4425068	28776	483125	4847085
59	618790	547434	3812349	28617	454849	4393960
60	587300	489055	3264915	28443	426732	3909611
61	522340	423225	2778860	28238	397289	3483879
62	478890	377091	2349535	27881	369061	3086590
63	437050	329203	1972444	27537	341170	2717529
64	396790	285498	1643241	27072	313633	2370369
65	358160	245619	1357743	26525	286561	2062736
66	321200	210003	1111924	25806	260036	1778175
67	286040	177883	90921	24989	234022	1516139
68	252710	149279	724038	24053	209239	1281911
69	221300	124006	574759	22936	185186	1072672
70	191920	101878	459751	21704	162250	887486
71	164630	826660	3489732	20310	140546	725236
72	136530	662230	2616722	18781	120236	584690
73	116680	522700	1999642	17149	101455	464454
74	961320	406016	1476942	15437	84306	362999
75	778950	309884	1070926	13660	69899	276693
76	619660	231959	761042	11862	55209	209824
77	482980	170023	529053	10497	42347	154615
78	367960	121725	359030	83873	32250	111268
79	273360	84929	237305	67915	24625	780178
80	197450	57593	152376	53166	180660	531553
81	139240	37848	94783	40721	127214	350673
82	934870	240239	569849	29939	86493	223059
83	698290	146752	329110	21136	56554	137166
84	379200	85923	182358	14268	35418	80612
85	225490	48008	96435	91765	211502	451939
86	127130	25454	49432	55844	119717	240437
87	675830	12741	22978	31957	63873	120720
88	396570	5687	102968	17093	31916	56847
89	155850	26170	42541	84697	148226	249310
90	66012	105851	163709	38658	61529	101084
91	26013	39239	57858	16036	21871	37555
92	9219.8	13225.5	18619.1	620.9	8934.9	12688.6
93	2930.6	4005.7	5393.6	2024.6	2414.0	3848.7
94	821.67	1075.10	1387.85	594.81	700.35	1084.67
95	202.92	253.43	312.75	154.32	105.54	244.32
96	42.692	50.569	59.317	34.569	4.221	48.781
97	6.880	7.817	8.808	5.796	6.632	7.580
98	.883	.937	.991	.804	.856	.908
99	.051	.051	.054	.052	.052	.052

AMERICAN EXPERIENCE TABLE.

(HUNTER'S MAKEHAMIZED), THREE PER CENT.
COMMUTATION COLUMNS—TWO LIVES.

Equal Ages.	D _{xx}	N _{xx}	S _{xx}	C _{xx}	M _{xx}	R _{xx}
10	74530	153390	2714959	110390	208518	7451777
11	71254	143937	2561569	105560	287479	7153209
12	68122	1388116	24156310	10120	276923	6885730
13	65127	1399994	22768203	95788	2667974	65888070
14	62262	1254867	21368209	92813	2571186	63220096
15	59520	1192605	20113342	88988	2478373	60648910
16	56866	1133085	18920737	85308	2389385	58170537
17	54386	1076189	17787652	81589	2304077	55781152
18	51986	1021803	16711463	78413	2222488	53477075
19	49688	969817	15689660	74913	2144075	51254587
20	47492	920129	14719843	72031	2069162	49110512
21	45388	872637	13799714	69099	1997131	47041350
22	43375	827249	12927077	66376	1928032	4504219
23	41448	783874	12099828	63008	1861656	43116187
24	39605	742426	11315954	61134	1798048	41254531
25	37840	702221	10573528	58750	1736914	39456483
26	36150	664981	9870707	56589	1678164	37719569
27	34531	628831	9215726	54329	1621575	36041405
28	32982	594300	8586895	52237	1567246	34410830
29	31499	561318	7992595	50550	1515009	32852584
30	30076	529819	7431277	48559	1464459	31337575
31	28715	499743	6901458	46834	1415900	29743116
32	27410	471028	6401715	45318	1369066	28457216
33	26158	443618	5930687	43705	1323748	27088150
34	24959	417460	5487069	42362	1280043	25764402
35	23809	392501	5069609	41059	1237681	24484359
36	22705	368692	4677108	39628	1196622	23246678
37	21647	345987	4308416	38638	1156994	22050056
38	20631	324340	3962429	37480	1118356	20893062
39	19655	303709	3638089	36542	1080876	19774706
40	18717	284054	3334380	35566	1044534	18693830
41	17816	266337	3050326	34675	1008768	17640496
42	16950	247521	2784989	34058	974093	16640728
43	16116	230571	2537468	33229	940035	15666635
44	15314	214455	2306897	32552	906860	14726600
45	14543	199141	2092442	32092	874254	13819794
46	13798	184598	1893301	31506	842162	12945540
47	13081	170800	1708703	31096	810656	12103378
48	12389	157719	1537903	30732	779560	11292722
49	11721	145330	1380184	30338	748828	10513162
50	11076	133609	1234854	30075	718490	9761334
51	10453	122533	1101245	29844	688415	9045844
52	98501	1120803	9787116	29601	658571	8357429
53	92672	1022302	8666313	29468	628970	7698858
54	87026	929630	7644011	29298	599502	7069888

(HUNTER'S MAKEHAMIZED), FORCE OF MORTALITY.

Age.	μ_x	Age.	μ_x	Age.	μ_x	Age.	μ_x
10	.00768	38	.00863	56	.01818	77	.11531
11	.00769	39	.00875	57	.01936	78	.12729
12	.00770	36	.00888	58	.02066	79	.14060
13	.00772	37	.00902	59	.02212	80	.15540
14	.00773	38	.00918	60	.02373	81	.17183
15	.00775	39	.00935	61	.02553	82	.19010
16	.00776	40	.00955	62	.02752	83	.21040
17	.00778	41	.00977	63	.02974	84	.23205
18	.00781	42	.01001	64	.03220	85	.25801
19	.00783	43	.01028	65	.03494	86	.28586
20	.00786	44	.01058	66	.03798	87	.31681
21	.00788	45	.01091	67	.04136	88	.35120
22	.00792	46	.01128	68	.04512	89	.38941
23	.00795	47	.01169	69	.04929	90	.43187
24	.00799	48	.01215	70	.05393	91	.47905
25	.00804	49	.01265	71	.05908	92	.53149
26	.00809	50	.01321	72	.06481	93	.58975
27	.00814	51	.01384	73	.07117	94	.65449
28	.00821	52	.01453	74	.07824	95	.72043
29	.00827	53	.01531	75	.08610	96	.80637
30	.00835	54	.01617	76	.09483	97	.89521
31	.00843		.01712		.10453	98	.99392
32	.00853						

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

Difference of Ages.	Addition to Younger Ages.	Difference of Ages.	Addition to Younger Ages.	Difference of Ages.	Addition to Younger Ages.
1	0.513	18	12.751	35	28.660
2	1.053	19	13.626	36	29.637
3	1.618	20	14.513	37	30.016
4	2.209	21	15.410	38	31.593
5	2.826	22	16.316	39	32.581
6	3.467	23	17.230	40	33.565
7	4.132	24	18.153	41	34.552
8	4.820	25	19.083	42	35.539
9	5.530	26	20.019	43	36.528
10	6.261	27	20.961	44	37.518
11	7.013	28	21.909	45	38.509
12	7.784	29	22.862	46	39.501
13	8.572	30	23.819	47	40.493
14	9.378	31	24.781	48	41.487
15	10.200	32	25.746	49	42.481
16	11.037	33	26.714	50	43.475
17	11.887	34	27.686		

AMERICAN EXPERIENCE TABLE.

SELECT AND ULTIMATE.

INTRODUCTION.

THIS table assumes that the benefits of fresh medical selections endure for five years and that the ultimate mortality, to be expected after five years, is as per the American Experience Mortality Table, while the mortality rates during the five years bear the following ratios to the ultimate mortality rates at the same ages, viz.:

The first year after admission, . . .	50 per cent
The second year after admission, . . .	65 “
The third year after admission, . . .	75 “
The fourth year after admission, . . .	85 “
The fifth year after admission, . . .	95 “

The tables were computed especially for this book, the work being done by Scott's Five Place Logarithms throughout, and are not more accurate than this method admits of, great accuracy not being considered to be important.

SELECT AND ULTIMATE.

[x]	$l[x]$	$l[x]+1$	$l[x]+2$	$l[x]+3$	$l[x]+4$	$l_x + 5$
20	91690	91331	90866	90328	89716	89032
21	90668	90611	90145	89607	89096	88314
22	90246	80890	89425	88887	88277	87596
23	89528	89172	88707	88170	87561	86878
24	88808	88452	87989	87452	86842	86160
25	88089	87734	87271	86734	86125	85441
26	87370	87014	86551	86014	85404	84721
27	86650	86296	85832	85294	84684	84000
28	85933	85578	85114	84577	83965	83277
29	85212	84857	84392	83853	83240	82551
30	84491	84136	83670	83130	82514	81822
31	83768	83412	82947	82404	81786	81090
32	83041	82684	82215	81671	81051	80353
33	82317	81958	81487	80941	80316	79611
34	81585	81225	80753	80203	79574	78862
35	80850	80483	80013	79458	78822	78106
36	80111	79746	79268	78703	78067	77341
37	79364	78997	78515	77951	77302	76567
38	78612	78242	77755	77184	76528	75782
39	77852	77478	76984	76406	75741	74985
40	77081	76704	76206	75621	74945	74173
41	76301	75919	75414	74819	74131	73345
42	75509	75122	74609	74003	73301	72497
43	74707	74314	73790	73173	72454	71627
44	73884	73484	72951	72319	71581	70731
45	73045	72637	72092	71443	70684	69804
46	72186	71768	71208	70541	69754	68842
47	71302	70875	70298	69607	68701	67841
48	70390	69950	69354	68637	67789	66797
49	69445	68991	68372	67627	66742	65766
50	68462	67991	67349	66572	65648	64663
51	67440	66950	66281	65470	64502	63394
52	66374	65864	65164	64315	63299	62104
53	65257	64725	63993	63102	62035	60779
54	64088	63532	62765	61830	60799	59385
55	62861	62277	61472	60490	59310	57917
56	61572	60959	60113	59080	57839	56371
57	60213	59570	58683	57594	56287	54743
58	58783	58107	57174	56030	54655	53030
59	57277	56569	55588	54384	52937	51230
60	55692	54918	53916	52651	51133	49441
61	54022	53241	52159	50831	49238	47361
62	52266	51448	50313	48922	47253	45391
63	50420	49594	48376	46920	45177	43133
64	48484	47590	46349	44830	43015	40850
65	46458	45526	44232	42652	40767	38569
66	44341	43373	42040	40391	38441	36178
67	42137	41133	39744	38052	36047	33730
68	39843	38807	37376	35630	33596	31243
69	37494	36430	34962	33188	31108	28738
70	35072	33984	32490	30693	28602	26237

SELECT AND ULTIMATE.

[x]	d[x]	d[x]+1	d[x]+2	d[x]+3	d[x]+4	d _{x+5}
20	359	465	538	612	684	718
21	357	466	538	611	682	718
22	356	465	538	610	681	718
23	356	465	537	609	683	718
24	356	463	537	610	682	719
25	355	463	537	609	684	720
26	356	463	537	610	683	721
27	354	464	538	610	684	723
28	355	464	537	612	688	726
29	355	465	539	613	689	729
30	355	466	540	616	692	732
31	356	465	543	618	696	737
32	357	469	544	620	698	742
33	359	471	546	625	705	749
34	360	472	550	629	712	756
35	362	475	555	636	716	765
36	365	478	560	641	726	774
37	367	482	564	649	735	785
38	370	487	571	656	746	797
39	374	494	578	665	756	812
40	377	498	585	676	772	828
41	382	505	595	688	786	848
42	387	513	606	702	804	870
43	393	524	617	719	827	896
44	400	533	632	738	850	927
45	408	545	649	759	880	962
46	418	560	667	787	912	1001
47	427	577	691	816	950	1044
48	440	596	717	848	992	1091
49	454	619	745	885	1036	1143
50	471	642	777	924	1085	1199
51	490	669	811	968	1138	1260
52	510	700	849	1016	1195	1325
53	532	732	891	1067	1256	1394
54	556	767	935	1121	1324	1468
55	584	805	982	1180	1393	1546
56	613	846	1033	1241	1468	1628
57	643	887	1089	1307	1544	1713
58	674	935	1144	1375	1625	1800
59	708	981	1204	1447	1707	1889
60	744	1032	1265	1518	1792	1980
61	781	1082	1328	1593	1877	2070
62	818	1135	1391	1669	1962	2158
63	856	1188	1456	1743	2044	2243
64	894	1241	1519	1815	2125	2321
65	932	1294	1580	1885	2198	2391
66	968	1343	1639	1950	2263	2448
67	1004	1389	1692	2005	2317	2487
68	1036	1431	1737	2043	2353	2505
69	1064	1468	1774	2080	2370	2501
70	1088	1494	1797	2091	2365	2476

SELECT AND ULTIMATE.

[x]	$p_{[x]}$	$p_{[x]+1}$	$p_{[x]+2}$	$p_{[x]+3}$	$p_{[x]+4}$	P_{x+5}
20	.996097	.994894	.994070	.993236	.992399	.991935
21	.996072	.994861	.994031	.993191	.992338	.991870
22	.996047	.994827	.993992	.993145	.992276	.991803
23	.996021	.994793	.993951	.993089	.992213	.991736
24	.995994	.994758	.993902	.993033	.992149	.991655
25	.995967	.994715	.993852	.992976	.992072	.991573
26	.995935	.994672	.993802	.992907	.991994	.991490
27	.995901	.994628	.993741	.992837	.991915	.991393
28	.995868	.994576	.993680	.992766	.991823	.991282
29	.995827	.994522	.993617	.992684	.991718	.991169
30	.995786	.994468	.993545	.992590	.991611	.991054
31	.995745	.994405	.993461	.992494	.991501	.990911
32	.995696	.994333	.993377	.992396	.991365	.990766
33	.995641	.994260	.993290	.992274	.991228	.990592
34	.995584	.994185	.993183	.992151	.991062	.990414
35	.995527	.994102	.993074	.992003	.990893	.990206
36	.995455	.993998	.992944	.991852	.990696	.989992
37	.995383	.993885	.992810	.991675	.990492	.989748
38	.995296	.993769	.992654	.991493	.990261	.989483
39	.995207	.993634	.992494	.991286	.990009	.989171
40	.995103	.993495	.992311	.991061	.989712	.988837
41	.994990	.993336	.992112	.990795	.989395	.988438
42	.994874	.993164	.991878	.990511	.989016	.988000
43	.994741	.992961	.991628	.990172	.988600	.987491
44	.994585	.992744	.991328	.989800	.988116	.986894
45	.994418	.992485	.991000	.989367	.987549	.986219
46	.994219	.992200	.990618	.988860	.986968	.985459
47	.994000	.991869	.990170	.988286	.986186	.984611
48	.993745	.991481	.989664	.987640	.985380	.983667
49	.993447	.991042	.989094	.986919	.984484	.982604
50	.993109	.990548	.988458	.986117	.983474	.981429
51	.992729	.989907	.987750	.985213	.982358	.980115
52	.992305	.989384	.986953	.984215	.981109	.978665
53	.991833	.988693	.986072	.983098	.979732	.977064
54	.991302	.987929	.985086	.981865	.978211	.975280
55	.990714	.987075	.983999	.980504	.976516	.973307
56	.990057	.986132	.982798	.978688	.974642	.971120
57	.989332	.985092	.981460	.977311	.972564	.968708
58	.988532	.983932	.979980	.975452	.970273	.966557
59	.987640	.982650	.978340	.973402	.967754	.963127
60	.986653	.981228	.976531	.971148	.964971	.959871
61	.985500	.979660	.974543	.968658	.961877	.956293
62	.984354	.977937	.972345	.965890	.958478	.952353
63	.983028	.976033	.969903	.962849	.954735	.947998
64	.981563	.973916	.967220	.959500	.950598	.943238
65	.979935	.971590	.964265	.955798	.946076	.938007
66	.978146	.969029	.960908	.951752	.941107	.932335
67	.976176	.966199	.957428	.947306	.935718	.926267
68	.973999	.963105	.953505	.942685	.929954	.919822
69	.971619	.959705	.949251	.937327	.923831	.912702
70	.969003	.956018	.944700	.931849	.917323	.905629

SELECT AND ULTIMATE.

[x]	.50 q _(x)	.65 q _{(x)+.15}	.75 q _{(x)+.25}	.85 q _{(x)+.35}	.95 q _{(x)+.45}	1.00 q _{x+}
20	.003903	.005106	.005930	.006764	.007610	.008065
21	.003928	.005139	.005969	.006809	.007662	.008130
22	.003953	.005173	.006008	.006855	.007724	.008197
23	.003979	.005207	.006049	.006911	.007787	.008264
24	.004006	.005242	.006098	.006967	.007851	.008345
25	.004033	.005285	.006148	.007024	.007928	.008427
26	.004065	.005328	.006198	.007093	.008006	.008510
27	.004099	.005372	.006259	.007163	.008085	.008607
28	.004132	.005424	.006320	.007234	.008177	.008718
29	.004173	.005478	.006383	.007316	.008282	.008831
30	.004214	.005532	.006455	.007410	.008389	.008946
31	.004255	.005595	.006539	.007506	.008499	.009089
32	.004304	.005667	.006623	.007604	.008635	.009234
33	.004359	.005740	.006710	.007726	.008772	.009408
34	.004416	.005815	.006817	.007849	.008938	.009586
35	.004473	.005908	.006926	.007997	.009107	.009794
36	.004545	.006002	.007056	.008148	.009304	.010008
37	.004617	.006115	.007190	.008325	.009508	.010252
38	.004704	.006231	.007346	.008507	.009739	.010517
39	.004793	.006366	.007506	.008714	.009991	.010829
40	.004897	.006505	.007689	.008939	.010288	.011163
41	.005004	.006664	.007888	.009205	.010605	.011522
42	.005126	.006836	.008122	.009489	.010984	.012000
43	.005259	.007039	.008372	.009828	.011400	.012509
44	.005415	.007256	.008672	.010200	.011884	.013106
45	.005582	.007515	.009000	.010633	.012451	.013781
46	.005781	.007800	.009382	.011140	.013092	.014541
47	.006000	.008131	.009830	.011714	.013814	.015389
48	.006255	.008519	.010336	.012360	.014620	.016333
49	.006553	.008958	.010906	.013081	.015516	.017396
50	.006881	.009452	.011542	.013883	.016526	.018571
51	.007271	.010003	.012250	.014787	.017642	.019885
52	.007695	.010616	.013047	.015785	.018891	.021335
53	.008167	.011307	.013928	.016902	.020268	.022936
54	.008698	.012071	.014914	.018135	.021789	.024720
55	.009286	.012925	.016001	.019496	.023484	.026693
56	.009943	.013868	.017202	.021012	.025358	.028880
57	.010668	.014908	.018540	.022689	.027436	.031292
58	.011468	.016068	.020020	.024548	.029727	.033943
59	.012360	.017350	.021660	.026598	.032246	.036873
60	.013347	.018772	.023469	.028852	.035029	.040129
61	.014440	.020340	.025457	.031342	.038123	.043707
62	.015646	.022063	.027655	.034110	.041522	.047647
63	.016972	.023967	.030097	.037151	.045265	.052002
64	.018437	.026084	.032780	.040500	.049402	.056762
65	.020055	.028410	.035735	.044202	.053924	.061993
66	.021854	.030971	.039002	.048248	.058893	.067665
67	.023824	.033801	.042572	.052694	.064282	.073733
68	.026001	.036895	.046495	.057515	.070046	.080178
69	.028381	.040295	.050749	.062673	.076169	.087028
70	.030997	.043982	.055300	.068151	.082677	.094371

AMERICAN EXPERIENCE TABLE.

SELECT AND ULTIMATE.
THREE AND ONE-HALF PER CENT.

Age [x]	D[x]	D[x]+1	D[x]+2	D[x]+3	D[x]+4	D _{x+5}	Age x+5
20	46080	44348	42629	40944	39292	37674	25
21	44171	42510	40801	39244	37658	36106	26
22	42339	40746	39164	37612	36091	34601	27
23	40582	39054	37536	36047	34588	33157	28
24	38894	37428	35973	34545	33144	31772	29
25	37274	35869	34473	33102	31759	30441	30
26	35720	34372	33032	31718	30428	29164	31
27	34228	32935	31650	30389	29151	27938	32
28	32797	31557	30324	29114	27926	26761	33
29	31422	30233	29050	27889	26749	25630	34
30	30102	28962	27828	26713	25619	24545	35
31	28836	27742	26654	25585	24534	23503	36
32	27618	26570	25526	24500	23491	22501	37
33	26452	25446	24444	23460	22491	21540	38
34	25330	24366	23405	22460	21530	20616	39
35	24253	23328	22406	21499	20605	19727	40
36	23219	22332	21447	20575	19718	18874	41
37	22224	21374	20525	19688	18864	18053	42
38	21270	20454	19639	18836	18044	17264	43
39	20352	19569	18787	18015	17254	16504	44
40	19469	18718	17968	17227	16495	15774	45
41	18620	17900	17180	16468	15764	15070	46
42	17804	17114	16421	15737	15061	14392	47
43	17019	16356	15692	15035	14383	13739	48
44	16262	15627	14989	14357	13730	13108	49
45	15534	14925	14312	13703	13099	12499	50
46	14832	14247	13658	13073	12490	11909	51
47	14155	13594	13027	12463	11901	11339	52
48	13501	12963	12418	11874	11331	10787	53
49	12869	12353	11828	11304	10779	10253	54
50	12258	11762	11257	10751	10243	9733.3	55
51	11667	11191	10704	10216	9724.1	9229.5	56
52	11094	10637	10168	9695.9	9220.2	8740.2	57
53	10539	10099	9647.4	9191.4	8730.5	8264.4	58
54	10000	9577.9	9142.4	8701.6	8254.9	7801.9	59
55	9476.8	9071.3	8651.3	8225.1	7792.0	7351.7	60
56	8968.5	8579.1	8173.9	7761.8	7341.8	6913.5	61
57	8474.0	8100.1	7709.6	7310.7	6903.2	6486.8	62
58	7993.0	7634.1	7257.4	6871.6	6476.3	6071.3	63
59	7524.9	7180.6	6817.4	6442.2	6060.7	5666.8	64
60	7069.2	6738.0	6388.8	6028.0	5656.1	5273.4	65
61	6625.4	6308.8	5971.6	5622.8	5262.4	4890.6	66
62	6193.3	5890.2	5565.4	5228.5	4879.4	4518.7	67
63	5772.4	5482.6	5170.2	4845.1	4507.3	4157.9	68
64	5363.2	5086.3	4786.1	4472.7	4146.5	3808.4	69
65	4965.2	4701.1	4413.1	4111.5	3796.9	3470.7	70
66	4578.8	4327.3	4051.5	3761.8	3459.2	3145.4	71
67	4204.0	3965.1	3701.6	3424.2	3134.1	2833.4	72
68	3840.7	3614.3	3363.3	3098.6	2822.1	2535.6	73
69	3492.0	3278.2	3039.8	2787.9	2524.8	2253.6	74
70	3156.0	2954.7	2729.2	2491.1	2242.8	1987.8	75

AMERICAN EXPERIENCE TABLE.

SELECT AND ULTIMATE.
THREE AND ONE-HALF PER CENT.

Age [x]	N[.]	N[.] ₊	N[.] ₊	N[.] ₊	N[.] ₊	N[.] ₊	Age x + 6
20	983407	937327	892979	850350	809406	770114	25
21	936884	892713	850203	809342	770098	732440	26
22	892286	849947	809201	770037	732425	696334	27
23	849539	808957	769903	732367	696320	661732	28
24	808559	769665	732237	696264	661719	628575	29
25	769281	732007	696138	661665	628563	596804	30
26	731633	695913	661541	628509	596791	566363	31
27	695552	661324	628389	596739	566350	537199	32
28	660980	628183	596626	566302	537188	509262	33
29	627844	596422	566189	537139	509250	482501	34
30	596095	565993	537031	509203	482490	456871	35
31	565678	536842	509100	482446	456861	432327	36
32	535229	508911	482341	456815	432315	408824	37
33	506166	482164	456718	432274	408814	386323	38
34	481874	456544	432178	408773	386313	364783	39
35	456258	432005	408677	386271	364772	344167	40
36	431731	408512	386180	364733	344158	324440	41
37	408241	386017	364643	344118	324430	305566	42
38	385756	364486	344032	324393	305557	287513	43
39	364227	343875	324306	305519	287504	270250	44
40	343622	324150	305435	287467	270240	253745	45
41	323904	305284	287384	270204	253736	237972	46
42	305039	287235	270121	253700	237963	222902	47
43	289955	269976	253620	237928	222893	208510	48
44	269736	253474	237847	222858	208501	194771	49
45	253236	237702	222777	208465	194762	181663	50
46	237465	222633	208386	194728	181655	169165	51
47	222395	208240	194646	181619	169156	157255	52
48	208003	194502	181539	169121	157247	145916	53
49	194261	181392	169039	157211	145907	135128	54
50	181147	168889	157127	145870	135119	124876	55
51	168644	156977	145786	135082	124866	115142	56
52	156728	145634	134997	124829	115133	105913	57
53	145380	134841	124742	115095	105904	97173	58
54	134585	124585	115007	105865	97163	88908	59
55	124322	114845	105774	97123	88898	81106	60
56	114581	105612	97033	88859	81097	73755	61
57	105339	96865	88765	81055	73744	66841	62
58	96587	88594	80960	73703	66831	60355	63
59	88311	80786	73605	66788	60344	54284	64
60	80497	73428	66689	60300	54272	48616	65
61	73134	66509	60200	54228	48605	43343	66
62	66209	60016	54126	48561	43332	38453	67
63	59711	53939	48456	43286	38441	33934	68
64	53631	48268	43182	38396	33923	29776	69
65	47956	42991	38290	33877	29765	25968	70
66	42676	38097	33770	29718	25956	22497	71
67	37781	33577	29612	25910	22486	19352	72
68	33257	29416	25802	22439	19340	16518	73
69	29105	25613	22335	19295	16507	13982	74
70	25303	22147	19192	16463	13972	11729	75

SELECT AND ULTIMATE.
THREE AND ONE-HALF PER CENT.

Age [x]	S _[x]	S _{[x]+1}	S _{[x]+2}	S _{[x]+3}	S _{[x]+4}	S _{x+5}	Age x+6
20	17360021	16376614	15439287	14546308	13695958	12886552	26
21	16375678	15438794	14546081	13695878	12886536	12116438	27
22	15537894	14645608	13795661	12986460	12216423	11483998	28
23	14544750	13695211	12886254	12116351	11383984	10687664	29
24	13694376	12885817	12116152	11383915	10687651	10025932	30
25	12885011	12115730	11383723	10687585	10025920	9397357	31
26	12114941	11383308	10687395	10025854	9397345	8800554	32
27	11382545	10683993	10025669	9397280	8800541	8234191	33
28	10682670	10025290	9397107	8800481	8234179	7666991	34
29	10024572	9396728	8800306	8234117	7666978	7187728	35
30	9396040	8799945	8233952	7666921	7187718	6705227	36
31	8799284	8233606	7666764	7187664	6705218	6248358	37
32	8232941	7666412	7187501	6705160	6248345	5816030	38
33	7665792	7187176	6705012	6248294	5816020	5407206	39
34	7180565	6704691	6248147	5815969	5407166	5020883	40
35	6704084	6247826	5815821	5407144	5020873	4656101	41
36	6347248	5915517	5507005	5120825	4756092	4311934	42
37	5814943	5406702	5020685	4656042	4311924	3987494	43
38	5406151	5020395	4655909	4311877	3987484	3681927	44
39	5019845	4655618	4311743	3987437	3681918	3394414	45
40	4655081	4311459	3987306	3681871	3394404	3124164	46
41	4310931	3987027	3681743	3394359	3124155	2870419	47
42	3986595	3681466	3394231	3124110	2870410	2632447	48
43	3680957	3393962	3123986	2870366	2632438	2409545	49
44	3393451	3123715	2870241	2632394	2409536	2201035	50
45	3123206	2869970	2632268	2409491	2201026	2006264	51
46	2869467	2632002	2409369	2200947	2006255	1824600	52
47	2631492	2409097	2200857	2006211	1824592	1655436	53
48	2408593	2200590	2006688	1824549	1655428	1498181	54
49	2200075	2005814	1824422	1655383	1498172	1352265	55
50	2005289	1824142	1655253	1498126	1352256	1217137	56
51	1823616	1654972	1497995	1352209	1217127	1092261	57
52	1654439	1497711	1352077	1217080	1092251	977118	58
53	1497168	1351788	1216947	1092205	977110	871206	59
54	1351238	1216653	1092068	977061	871196	774033	60
55	1216086	1091764	976919	871145	774022	685124	61
56	1091200	976619	871007	773974	685115	604018	62
57	976032	870693	773828	685063	604008	530264	63
58	870097	773510	684916	603956	530253	463422	64
59	772902	684591	603805	530200	463412	403068	65
60	683971	603474	530046	463357	403057	348785	66
61	602844	529710	463201	403001	348773	300168	67
62	529069	462860	402844	348718	300157	256825	68
63	462206	402495	348556	300100	256814	218373	69
64	401839	348208	299940	256758	218362	184439	70
65	347542	299586	256595	218305	184428	154663	71
66	298912	256236	218139	184369	154651	128695	72
67	255564	217783	184206	154594	128684	106198	73
68	217100	183843	154427	128625	106186	86846	74
69	183183	154078	128465	106130	86835	70328	75
70	153423	128120	105973	86781	70318	56346	76

SELECT AND ULTIMATE.
THREE AND A HALF PER CENT.

Age [x]	M _[x]	M _{[x]+1}	M _{[x]+2}	M _{[x]+3}	M _{[x]+4}	M _{x+5}
20	12824.94	12650.62	12432.47	12189.60	11920.57	11631.14
21	12489.29	12321.80	12110.57	11874.95	11616.41	11337.59
22	12165.03	12003.66	11800.01	11572.36	11322.97	11053.97
23	11853.38	11697.47	11500.71	11281.17	11040.61	10779.94
24	11551.52	11400.88	11211.59	10999.47	10766.66	10515.18
25	11260.27	11115.13	10932.24	10727.29	10502.72	10259.02
26	10978.96	10838.34	10661.63	10463.61	10246.28	10011.17
27	10706.72	10571.62	10400.52	10208.84	9998.86	9771.37
28	10444.74	10313.83	10148.52	9963.67	9760.13	9539.04
29	10190.36	10063.88	9903.81	9724.54	9527.56	9313.64
30	9944.51	9822.31	9667.32	9493.80	9302.55	9094.96
31	9706.33	9587.93	9438.51	9269.92	9084.53	8882.80
32	9475.37	9360.05	9215.04	9051.85	8872.15	8676.41
33	9252.43	9140.97	8999.68	8841.43	8666.41	8475.66
34	9034.98	8926.99	8790.19	8636.17	8465.99	8279.86
35	8824.10	8719.18	8586.17	8436.01	8269.75	8088.91
36	8619.23	8517.02	8387.69	8241.30	8079.40	7902.23
37	8419.17	8319.87	8193.87	8051.42	7893.04	7719.74
38	8224.59	8127.87	8004.87	7865.53	7710.86	7540.91
39	8034.66	7940.20	7819.65	7683.37	7531.88	7365.49
40	7848.46	7756.46	7639.04	7505.77	7356.98	7192.81
41	7666.56	7576.49	7461.45	7330.49	7184.18	7022.68
42	7488.13	7399.97	7287.06	7158.19	7013.95	6854.34
43	7313.74	7227.24	7115.59	6988.82	6846.09	6687.47
44	7140.52	7055.46	6945.95	6820.49	6678.94	6521.42
45	6970.17	6886.34	6778.15	6653.67	6513.01	6355.44
46	6801.69	6718.71	6611.30	6487.69	6346.78	6189.01
47	6634.22	6552.32	6445.39	6321.66	6180.49	6021.70
48	6467.33	6385.79	6279.07	6155.03	6013.29	5853.09
49	6300.34	6219.05	6111.96	5987.43	5844.51	5682.86
50	6132.56	6051.08	5943.77	5818.29	5674.11	5510.54
51	5964.08	5882.18	5774.14	5647.60	5501.66	5335.90
52	5794.31	5711.95	5602.73	5474.74	5326.75	5158.57
53	5622.50	5539.49	5420.14	5299.36	5149.20	4978.41
54	5448.77	5364.95	5253.23	5121.64	4969.21	4795.27
55	5272.66	5187.59	5074.30	4940.77	4785.75	4608.93
56	5093.91	5007.64	4892.60	4756.89	4599.36	4419.32
57	4911.86	4824.43	4707.90	4569.67	4409.37	4226.41
58	4726.80	4638.25	4519.57	4379.27	4216.34	4030.30
59	4538.52	4448.65	4328.34	4185.67	4020.01	3831.19
60	4347.11	4255.86	4133.57	3988.74	3820.82	3629.30
61	4152.24	4059.70	3935.82	3788.92	3618.66	3424.84
62	3954.29	3860.64	3735.09	3586.42	3414.07	3218.32
63	3753.24	3658.55	3531.58	3381.23	3207.33	3010.30
64	3549.53	3453.98	3325.83	3174.28	2999.32	2801.40
65	3343.54	3247.30	3118.20	2965.89	2790.33	2592.54
66	3135.57	3038.99	2909.53	2756.88	2581.41	2384.66
67	2926.58	2829.60	2700.23	2547.97	2373.65	2179.02
68	2716.71	2620.22	2491.45	2340.34	2168.14	1977.17
69	2507.80	2412.05	2284.41	2135.39	1966.58	1780.73
70	2300.34	2205.74	2080.24	1934.39	1779.42	1591.24

AMERICAN EXPERIENCE TABLE.

SELECT AND ULTIMATE.
THREE AND ONE-HALF PER CENT.

Age [x]	R[x]	R[x]+1	R[x]+2	R[x]+3	R[x]+4	R _{x+6}	Age x+6
20	306353.64	383528.70	370878.08	358445.61	346257.01	334336.44	25
21	383118.33	370629.04	358307.24	346106.67	334321.72	322705.31	26
22	370231.75	358066.72	346063.06	334263.05	322690.69	311367.72	27
23	357637.09	345833.71	334136.24	322635.53	311354.36	300313.75	28
24	345463.92	333912.40	322511.52	311299.03	300300.46	289533.80	29
25	333556.27	322296.00	311180.87	300248.63	289521.34	279018.62	30
26	321948.42	310969.46	300131.12	289469.49	279005.88	268759.60	31
27	310634.99	299928.27	289356.65	278956.13	268747.29	258748.43	32
28	299607.95	289163.21	278849.38	268700.86	258737.19	248977.06	33
29	288848.16	278657.80	268593.92	258690.11	248965.57	239438.01	34
30	278354.86	268410.35	258588.04	248920.72	239426.92	230124.37	35
31	268116.64	258410.31	248822.38	239383.87	230113.95	221029.42	36
32	258121.68	248646.31	239285.66	230070.62	221018.77	212146.62	37
33	248371.13	239118.70	229977.73	220978.05	212136.62	203470.21	38
34	238848.87	229813.89	220886.90	212069.71	203460.54	194994.55	39
35	229549.90	220725.80	212006.62	203420.45	194984.44	186714.69	40
36	220470.41	211851.18	203334.16	194946.47	186705.17	178625.77	41
37	211600.91	203181.74	194861.87	186668.60	178616.58	170723.54	42
38	202937.53	194712.94	186585.07	178580.20	170714.67	163003.81	43
39	194472.66	186438.00	178497.80	170678.15	162994.78	155462.90	44
40	186204.12	178355.66	170599.20	162960.16	155454.39	148097.41	45
41	178123.77	170457.21	162880.72	155419.27	148088.78	140904.60	46
42	170229.22	162741.09	155341.12	148054.06	140895.87	133881.92	47
43	162519.06	155205.32	147978.08	140862.49	133873.67	127027.58	48
44	154981.47	147840.95	140785.49	133839.54	127019.05	120340.11	49
45	147620.03	140649.86	133763.52	126985.37	120331.70	113818.69	50
46	140429.43	133627.74	126909.03	120297.73	113810.04	107463.26	51
47	133408.33	126774.11	120221.79	113776.40	107454.74	101274.25	52
48	126553.06	120085.73	113699.94	107420.87	101265.84	95252.55	53
49	119862.75	113562.41	107343.36	101231.40	95243.97	89399.46	54
50	113336.41	107203.85	101152.77	95209.00	89390.71	83716.60	55
51	106975.71	101011.63	95129.45	89355.31	83707.71	78206.05	56
52	100780.63	94986.32	89274.37	83671.64	78196.90	72879.15	57
53	94751.27	89128.77	83589.28	78160.14	72860.78	67711.58	58
54	88890.98	83442.21	78077.26	72824.03	67702.39	62733.18	59
55	83198.98	77926.32	72738.73	67664.43	62723.66	57937.91	60
56	77679.38	72585.47	67577.83	62685.23	57928.34	53328.98	61
57	72332.89	67421.03	62596.60	57888.70	53319.03	48909.66	62
58	67163.48	62436.68	57798.43	53278.86	48899.59	44683.25	63
59	62173.14	57634.62	53185.97	48857.63	44672.96	40652.95	64
60	57367.80	53020.75	48764.89	44631.32	40642.58	36821.76	65
61	52747.86	48595.56	44535.86	40600.04	36811.12	33292.46	66
62	48318.13	44363.84	40503.20	36768.11	33181.69	29767.62	67
63	44081.23	40327.99	36669.44	33137.86	29756.63	26549.30	68
64	40041.94	36492.41	33038.43	29712.60	26538.32	23539.00	69
65	36202.87	32859.33	29612.03	26493.83	23527.94	20737.61	70
66	32567.45	29431.88	26392.89	23483.36	20726.48	18145.07	71
67	29138.24	26211.86	23382.26	20682.03	18134.06	15760.41	72
68	25918.35	23091.64	20581.42	18089.07	15749.53	13581.39	73
69	22910.46	20202.66	17990.61	15706.20	13570.81	11604.23	74
70	20114.62	17814.28	15608.54	13528.30	11593.91	9823.49	75

AMERICAN EXPERIENCE TABLE.

SELECT AND ULTIMATE.
THREE PER CENT.

Age x	D _[x]	D _{[x]+1}	D _{[x]+2}	D _{[x]+3}	D _{[x]+4}	D _{[x]+5}	Age x+6
20	50767	49095	47422	45768	44135	42523	25
21	48000	47289	45675	44081	42505	40951	26
22	47099	45546	43992	42453	40934	39434	27
23	45363	43867	42367	40884	39418	37973	28
24	43688	42245	40800	39370	37957	36562	29
25	42072	40682	39288	37910	36547	35201	30
26	40513	39172	37829	36500	35185	33888	31
27	39009	37718	36423	35140	33873	32620	32
28	37560	36314	35066	33830	32607	31398	33
29	36159	34960	33756	32563	31383	30217	34
30	34809	33653	32492	31342	30204	29078	35
31	33507	32392	31273	30163	29066	27979	36
32	32248	31174	30094	29025	27955	26917	37
33	31036	30000	28959	27927	26904	25892	38
34	29863	28866	27862	26866	25880	24901	39
35	28733	27771	26803	25842	24889	23944	40
36	27641	26713	25780	24853	23932	23019	41
37	26585	25692	24791	23896	23007	22125	42
38	25567	24705	23836	22972	22114	21260	43
39	24582	23751	22912	22079	21249	20423	44
40	23630	22829	22021	21215	20413	19614	45
41	22709	21938	21157	20378	19603	18830	46
42	21819	21075	20321	19569	18819	18070	47
43	20958	20241	19513	18786	18060	17334	48
44	20124	19432	18729	18026	17322	16618	49
45	19316	18649	17970	17289	16607	15923	50
46	18533	17889	17232	16574	15911	15246	51
47	17773	17151	16517	15878	15235	14586	52
48	17034	16435	15820	15201	14575	13944	53
49	16316	15737	15142	14541	13933	13317	54
50	15617	15057	14481	13897	13305	12704	55
51	14936	14395	13836	13269	12692	12105	56
52	14271	13749	13207	12655	12093	11519	57
53	13623	13118	12592	12055	11566	10944	58
54	12990	12501	11991	11468	10932	10382	59
55	12369	11897	11401	10892	10369	9830.6	60
56	11763	11306	10825	10329	9817.3	9289.5	61
57	11168	10727	10259	9775.7	9275.6	8758.3	62
58	10585	10159	9704.4	9233.2	8744.2	8237.0	63
59	10013	9601.7	9160.3	8700.8	8222.6	7725.7	64
60	9452.8	9054.8	8626.0	8178.2	7711.2	7224.2	65
61	8902.3	8518.0	8101.8	7665.7	7209.1	6732.2	66
62	8362.0	7991.3	7587.5	7162.8	6716.9	6250.6	67
63	7831.6	7474.6	7082.9	6669.6	6234.9	5779.4	68
64	7311.7	6967.9	6588.4	6187.0	5793.5	5319.2	69
65	6802.1	6471.4	6104.5	5714.9	5303.2	4871.1	70
66	6303.0	5985.9	5631.6	5254.2	4855.0	4436.1	71
67	5815.3	5511.4	5170.1	4805.8	4420.1	4015.5	72
68	5339.6	5049.3	4721.4	4370.9	3999.5	3611.0	73
69	4877.4	4601.0	4287.1	3950.9	3595.4	3224.9	74
70	4429.5	4167.2	3867.9	3547.5	3209.5	2858.4	75

SELECT AND ULTIMATE.
THREE PER CENT.

Age [x]	N _(x)	N _{(x)+1}	N _{(x)+2}	N _{(x)+3}	N _{(x)+4}	N _{x+5}	Age x+6
20	1177113	1126346	1077251	1029829	984061	939926	25
21	1125853	1076953	1029604	983989	939908	897403	26
22	1076477	1029378	983832	939840	897387	856453	27
23	1028917	983554	939687	897320	856436	817018	28
24	983106	939418	897173	856373	817003	779046	29
25	938983	896911	856229	816941	779031	742484	30
26	896482	855969	816797	778968	742468	707283	31
27	855559	816550	778832	742409	707269	673396	32
28	816153	778593	742279	707213	673383	640776	33
29	778199	742040	707080	673324	640761	609378	34
30	741661	706852	673199	640707	609355	579161	35
31	706484	672977	640585	609312	579149	550083	36
32	672610	640362	609188	579094	550069	522104	37
33	640013	608977	578977	550018	522091	495187	38
34	608632	578769	549993	522041	495175	469295	39
35	578432	549699	521928	495125	469283	444394	40
36	549399	521728	495015	469235	444382	420450	41
37	521403	494818	469126	444335	420439	397432	42
38	494501	468934	444229	420393	397421	375397	43
39	468620	444038	420287	397375	375296	354047	44
40	443731	420101	397272	375251	354036	333623	45
41	419794	397085	375147	353990	333612	314009	46
42	396781	374962	353887	333956	313997	295178	47
43	374666	353708	333497	313954	295168	277108	48
44	353407	333283	313851	295122	277096	259774	49
45	332987	313671	295022	277052	259763	243156	50
46	313372	294839	276950	259718	243144	227233	51
47	294541	276768	259617	243100	227222	211987	52
48	276466	259432	242997	227177	211976	197401	53
49	259126	242810	227073	211931	197390	183457	54
50	242497	226880	211823	197342	183445	170140	55
51	226594	211628	197233	183397	170128	157436	56
52	211306	197035	183286	170079	157424	145131	57
53	196707	183084	169966	157374	145319	133813	58
54	182749	169790	157259	145298	133800	122868	59
55	169414	157045	145148	133747	122855	112486	60
56	156696	144933	133627	122802	112473	102656	61
57	144573	133495	122678	112419	102643	93367	62
58	133033	122448	112289	102585	93352	84608	63
59	122070	112057	102455	93295	84594	76371	64
60	111668	102215	93100	84534	76356	68645	65
61	101818	92916	84398	76296	68630	61421	66
62	92510	84148	76157	68599	61406	54689	67
63	83733	75991	68426	61343	54673	48438	68
64	75478	68166	61198	54610	48423	42659	69
65	67736	60934	54463	48358	42643	37340	70
66	60499	54196	48210	42578	37324	32466	71
67	53754	47939	42428	37258	32452	28032	72
68	47498	42158	37109	32388	28017	24017	73
69	41717	36840	32239	27952	24001	20406	74
70	36404	31974	27807	23939	20391	17181	75

SELECT AND ULTIMATE.
THREE PER CENT.

Age |_x	S _(x)	S _{(x)+1}	S _{(x)+2}	S _{(x)+3}	S _{(x)+4}	S _{x+5}	Age x+ ₅
20	21908862	20731749	19605403	18528152	17498323	16514262	25
21	20730704	19604851	18527898	17498234	16514245	15574337	26
22	19603847	18527370	17497992	16514100	15574320	14676933	27
23	18526395	17497478	16513924	15574237	14676917	13820481	28
24	17496530	16513430	15574012	14676839	13820466	13003463	29
25	16512512	15573529	14676618	13820389	13003448	12224417	30
26	15572617	14676135	13820166	13003369	12224401	11481933	31
27	14675269	13819710	13003160	12224328	11481919	10774650	32
28	13818875	13002722	12224129	11481850	10774637	10101254	33
29	13001883	12223684	11481644	10774564	10101240	9460479	34
30	12222884	11481223	10774371	10101172	9460465	8855100	35
31	11480447	10773993	10100986	9460401	8855109	8271940	36
32	10773180	10100570	9460208	88551020	8271926	7721857	37
33	10099829	9459816	8850839	8271862	7721844	7199753	38
34	9459087	8850455	8271686	7721783	7199742	6704507	39
35	8849738	8271306	7721607	7199679	6704554	6235271	40
36	8270006	7721237	7199509	6704494	6235259	5790877	41
37	7720547	7199144	6704320	6235200	5790805	5370426	42
38	7198473	6703972	6235308	5790809	5370416	4972995	43
39	6703304	6234684	5790646	5370359	4972984	4597688	44
40	6234032	5790301	5370200	4972928	4597677	4243641	45
41	5789646	5369852	4972767	4597620	4243630	3910018	46
42	5369202	4972421	4597459	4243572	3910006	3596009	47
43	4971794	4597128	4243420	3909953	3595999	3300819	48
44	4596482	4243075	3909792	3595941	3300810	3023723	49
45	4242444	3909457	3595786	3300764	3023712	2763949	50
46	3908816	3595444	3300605	3023655	2763937	2520793	51
47	3591807	3300266	3023498	2763811	2520781	2293559	52
48	3299620	3023154	2763722	2520725	2293548	2081572	53
49	3022502	2763376	2520566	2293493	2081562	1884172	54
50	2762702	2520205	2293325	2081502	1884160	1700715	55
51	2519525	2292961	2081333	1884100	1700703	1590575	56
52	2292209	2080993	1883928	1700642	1530563	1373139	57
53	2080257	1883550	1700466	1530500	1373126	1227867	58
54	1882831	1700082	1530322	1373063	1227795	1093995	59
55	1699335	1529921	1372876	1227728	1093981	971126	60
56	1529171	1372475	1227542	1093915	971113	858640	61
57	1371702	1227129	1093724	971046	858627	755984	62
58	1224325	1093292	970844	858555	755970	662618	63
59	1092480	970410	858353	755898	662603	578009	64
60	960571	857993	755308	662528	577994	501638	65
61	857951	755233	662317	577919	501623	432993	66
62	754362	661852	577794	501547	432978	371572	67
63	660959	577226	501325	432899	371556	316883	68
64	576320	500842	432676	371478	316868	268445	69
65	499920	432184	371250	316787	268429	227866	70
66	431253	370754	316558	268348	225770	188446	71
67	369808	316054	268115	225687	188429	155977	72
68	315115	267617	225459	188350	155962	127945	73
69	266677	224960	188120	155881	127929	103928	74
70	224037	187633	155659	127852	103913	83522	75

AMERICAN EXPERIENCE TABLE.

SELECT AND ULTIMATE.
THREE PER CENT.

Age [x]	M _[x]	M _{[x]+1}	M _{[x]+2}	M _{[x]+3}	M _{[x]+4}	M _{x+5}	Age x+6
20	16481.72	16288.74	16046.06	15773.46	15472.40	15145.71	25
21	16107.93	15921.61	15685.49	15420.83	15129.01	14812.77	26
22	15745.05	15564.67	15335.92	15078.97	14796.12	14489.54	27
23	15394.62	15219.49	14997.40	14748.40	14474.24	14175.72	28
24	15053.53	14883.50	14668.81	14427.06	14160.44	13871.04	29
25	14722.80	14558.19	14349.76	14115.05	13856.62	13574.82	30
26	14401.84	14241.57	14039.20	13811.33	13560.02	13286.83	31
27	14089.73	13935.01	13738.11	13516.46	13272.47	13006.84	32
28	13787.89	13637.25	13446.09	13231.30	12993.64	12734.25	33
29	13493.37	13347.12	13161.13	12951.82	12720.70	12468.50	34
30	13207.39	13065.39	12884.42	12680.83	12455.35	12209.42	35
31	12928.96	12790.71	12615.39	12416.63	12197.00	11956.86	36
32	12657.65	12523.05	12351.38	12158.05	11944.13	11709.98	37
33	12394.50	12263.09	12095.70	11907.31	11697.95	11468.66	38
34	12136.58	12008.64	11845.79	11661.55	11456.98	11232.16	39
35	11885.22	11760.32	11601.21	11420.71	11219.89	11000.40	40
36	11639.85	11517.58	11362.12	11185.30	10988.80	10774.72	41
37	11399.06	11279.70	11127.51	10954.61	10761.45	10549.06	42
38	11163.76	11046.93	10897.64	10727.69	10538.13	10328.84	43
39	10932.93	10818.28	10671.25	10504.23	10317.67	10111.76	44
40	10705.52	10593.32	10449.42	10285.30	10101.18	9897.03	45
41	10482.28	10371.90	10230.23	10068.17	9886.24	9684.45	46
42	10262.27	10153.70	10013.97	9853.72	9673.49	9473.08	47
43	10046.17	9939.13	9800.30	9641.89	9462.67	9262.54	48
44	9830.48	9724.71	9587.87	9430.34	9251.74	9052.03	49
45	9617.28	9512.53	9376.68	9219.63	9041.30	8840.57	50
46	9405.44	9301.25	9165.73	9009.02	8829.50	8627.53	51
47	9193.79	9090.46	8954.89	8797.27	8616.56	8412.30	52
48	8981.89	8878.51	8742.56	8583.77	8401.44	8194.36	53
49	8768.79	8665.23	8528.14	8367.96	8183.22	7973.25	54
50	8553.65	8449.34	8311.30	8149.10	7961.83	7748.34	55
51	8336.55	8231.19	8091.53	7927.16	7736.69	7519.29	56
52	8116.72	8010.26	7868.39	7701.33	7507.24	7285.60	57
53	7893.14	7785.32	7641.29	7471.07	7273.17	7047.00	58
54	7665.98	7556.58	7410.05	7236.63	7034.77	6803.30	59
55	7434.57	7323.00	7173.69	6996.86	6790.57	6554.13	60
56	7198.54	7084.85	6932.51	6751.92	6541.28	6299.37	61
57	6956.99	6841.21	6686.14	6501.30	6285.92	6038.00	62
58	6710.26	6592.43	6433.73	6245.21	6025.23	5772.82	63
59	6458.01	6337.84	6176.18	5983.55	5758.79	5501.37	64
60	6200.29	6077.69	5912.58	5716.09	5487.17	5224.80	65
61	5936.68	5811.73	5643.66	5443.39	5210.15	4943.34	66
62	5667.59	5540.53	5369.36	5165.70	4928.45	4657.67	67
63	5392.94	5263.85	5089.91	4882.94	4642.39	4368.52	68
64	5113.28	4982.39	4805.99	4596.35	4353.16	4076.73	69
65	4829.17	4696.69	4518.11	4306.41	4061.20	3783.60	70
66	4540.93	4407.34	4227.39	4014.18	3767.91	3490.42	71
67	4249.58	4115.06	3934.37	3720.68	3474.83	3198.99	72
68	3955.59	3820.82	3640.09	3426.98	3183.50	2911.54	73
69	3662.38	3528.00	3347.99	3136.80	2896.40	2630.45	74
70	3369.24	3235.83	3057.97	2850.27	2615.63	2357.97	75

AMERICAN EXPERIENCE TABLE.

SELECT AND ULTIMATE.
THREE PER CENT.

Age. [x]	R _[x]	R _{[x]+1}	R _{[x]+2}	R _{[x]+3}	R _{[x]+4}	R _{[x]+5}	Age x+5
20	538990.01	522508.29	506219.55	490173.49	474400.03	458927.63	25
21	522046.80	505938.87	490017.26	474331.77	458910.94	443781.93	26
22	505489.88	489744.83	474180.16	458844.24	443765.27	428669.15	27
23	489313.76	473919.14	458699.65	443702.25	428653.85	414470.61	28
24	473497.24	458443.71	443560.21	428891.40	414464.34	400303.90	29
25	458035.28	443312.48	428754.29	414404.53	400289.48	386432.86	30
26	442912.00	428510.16	414268.59	400229.39	386418.06	372858.04	31
27	428123.00	414033.27	400098.26	386360.15	372843.69	359571.22	32
28	413660.55	399872.66	386235.41	372789.32	359558.02	346564.38	33
29	399504.27	386010.90	372663.78	359502.65	346550.83	333830.13	34
30	385655.02	372447.63	359382.24	346497.82	333816.99	321361.64	35
31	372100.90	359171.94	346381.23	333765.84	321349.21	309152.21	36
32	358829.62	346171.97	333648.92	321297.54	309149.49	297195.36	37
33	345843.93	333449.43	321186.34	309090.64	297183.33	285485.38	38
34	333126.26	320989.68	308981.04	297135.25	285473.70	274116.72	39
35	320671.91	308786.69	297026.37	285425.16	274004.45	262784.56	40
36	308477.81	296837.96	285320.38	273958.26	262772.96	251784.16	41
37	296533.77	285134.71	273855.01	262727.50	251772.89	241011.44	42
38	284836.53	273672.77	262625.84	251728.20	241000.51	230462.38	43
39	273377.90	262444.97	251626.69	240955.44	230451.21	220133.54	44
40	262156.53	251451.01	240857.69	230408.27	220122.97	210021.79	45
41	251163.57	240681.29	230309.39	220079.16	210010.99	200124.75	46
42	240397.45	230135.18	219981.48	209967.51	200113.79	190440.30	47
43	229857.38	219191.21	209872.08	200071.78	190429.89	180967.22	48
44	219529.81	209609.33	199974.62	190386.75	180956.41	171704.67	49
45	209420.07	199802.79	190290.26	180913.58	171693.95	162652.65	50
46	199523.01	190117.57	180816.32	171650.59	162641.57	153812.07	51
47	189837.52	180643.73	171553.27	162598.38	153801.11	145184.55	52
48	180360.42	171378.53	162500.02	153757.46	145173.69	136772.25	53
49	171091.23	162322.44	153657.11	145129.07	136761.11	128577.89	54
50	162029.86	153476.21	145026.87	136715.57	128566.47	120604.64	55
51	153179.41	144842.86	136611.67	128520.14	120592.98	112856.29	56
52	144540.94	136424.22	128413.96	120545.57	112844.24	105337.00	57
53	136115.40	128222.26	120436.94	112795.05	105324.58	98051.41	58
54	127908.41	120242.43	112685.85	105275.80	98039.17	91004.40	59
55	119919.79	112485.22	105162.22	97988.53	90991.67	84201.10	60
56	112156.07	104957.53	97872.68	90940.17	84188.25	77646.97	61
57	104619.17	97662.18	90820.97	84134.83	77633.53	71347.61	62
58	97315.56	90605.30	84012.87	77579.14	71333.93	65308.70	63
59	90250.25	83792.24	77454.40	71278.22	65294.67	59535.88	64
60	83428.33	77228.04	71150.35	65237.77	59521.68	54034.51	65
61	76855.32	70918.64	65106.91	59403.25	54019.86	48809.71	66
62	70538.00	64870.41	59329.88	53960.52	48794.82	43866.37	67
63	64480.73	59087.79	53823.94	48734.03	43851.09	39208.70	68
64	58691.35	53578.07	48595.68	43789.69	39193.34	34840.18	69
65	53175.03	48345.86	43649.17	39131.06	34824.65	30763.45	70
66	47937.60	43396.67	38989.33	34761.94	30747.76	26979.85	71
67	42983.96	38734.38	34619.32	30684.95	26904.27	23489.44	72
68	38317.43	34361.84	30541.02	26900.93	23473.95	20290.45	73
69	33950.48	30288.10	26760.10	23412.11	20275.31	17378.91	74
70	29877.40	26508.16	23272.33	20214.36	17364.09	14748.46	75

THE ACTUARIES' OR COMBINED EXPERIENCE TABLES.

INTRODUCTION.

THE 17 Offices Table of Mortality, which has in America come to be known as the Actuaries' or Combined Experience Table, was the first table deduced from the combined experience of companies with insured lives. It was decided upon at a meeting of actuaries in London, March 19, 1838, and was undertaken by a committee of actuaries, headed by Messrs. Charles Ansell, Griffith Davies and Benjamin Gompertz. Only 62,537 insurances in all were involved. The graduation was by the graphic system.

The table became far more popular and was more generally used in America than in Great Britain, where it was long ago wholly superseded as an authority by the Institute of Actuaries' H^M and H^F tables. In America, as a result of Hon. Elizur Wright's initiative, the Actuaries' Table was adopted as the standard of legal solvency in Massachusetts, and it has since been made the standard in nearly every State. New York was the last important State to abandon its former standard—the American Experience Table—for the Actuaries'.

The Actuaries' Table, together with commutation tables based thereon, was first published in "A Series of Tables of Annuities and Assurances Calculated from a New Rate of Mortality amongst Insured Lives," by Jenkin Jones, published in 1843, in London. This book is now a classic, and is familiarly known as "Jenkin Jones." It is out of print and brings a high price.

The commutation columns at three and three and one-half per cent are taken from this book. The columns at four per cent are taken from "Principles and Practice of

INTRODUCTION TO ACTUARIES' MORTALITY TABLE.

Life Insurance," the N column being revised to correspond with the English notation.

Valuation columns (Wright's Accumulation) are also given for 3 per cent, $3\frac{1}{2}$ per cent and 4 per cent. The last mentioned are from Wright's reports, and, for the other two, thanks are due Walter C. Wright, Esq., actuary

ACTUARIES' MORTALITY TABLE.

TABLE I.

ACTUARIES' OR COMBINED EXPERIENCE MORTALITY TABLE.
PROBABILITIES FROM ACTUARIES' TABLE.

Completed Age.	Number Surviving at Each Age.	Deaths in Each Year.	Probability of Dying in One Year.	Probability of Surviving One Year.	Completed Age.	Number Surviving at Each Age.	Deaths in Each Year.	Probability of Dying in One Year.	Probability of Surviving One Year.
10	100000	676	.0067600	.9932400	55	63469	1375	.0216643	.9783357
11	99324	674	.0067859	.9932141	56	62094	1436	.0231261	.9768739
12	98650	672	.0068119	.9931881	57	60658	1497	.0246793	.9753207
13	97978	671	.0068484	.9931516	58	59161	1561	.0263856	.9736144
14	97307	671	.0068959	.9931041	59	57600	1627	.0282464	.971736
15	96636	671	.0069434	.9930566	60	55973	1698	.0303352	.9696638
16	95965	672	.0070026	.9929974	61	54275	1770	.0326116	.9673884
17	95293	673	.0070625	.9929375	62	52505	1844	.0351204	.9648796
18	94620	675	.0071336	.9928664	63	50661	1917	.0378398	.9621602
19	93945	677	.0072064	.9927936	64	48744	1990	.0408266	.9591744
20	93268	680	.0072909	.9927091	65	46754	2061	.0440818	.9559182
21	92588	683	.0073768	.9926232	66	44693	2128	.0476138	.9523862
22	91905	686	.0074641	.9925359	67	42565	2191	.0514741	.9485259
23	91219	690	.0075523	.9924357	68	40374	2246	.0556030	.9443700
24	90529	694	.0076405	.9923341	69	38128	2291	.0600072	.9399128
25	89835	698	.0077290	.9922300	70	35837	2327	.0646938	.9350672
26	89137	703	.0078186	.9921134	71	33510	2351	.0701581	.9298419
27	88434	708	.0080061	.9919939	72	31159	2362	.0758049	.9241951
28	87726	714	.0081939	.9918611	73	28797	2358	.0818834	.9181666
29	87012	720	.0082750	.9917250	74	26439	2339	.0884679	.9115321
30	86292	727	.0084248	.9915752	75	24100	2303	.0955602	.9044398
31	85565	734	.0085784	.9914216	76	21797	2249	.1031794	.8968206
32	84831	742	.0087468	.9912532	77	19548	2179	.1114622	.8885308
33	84089	750	.0089191	.9910809	78	17369	2092	.1204444	.8795556
34	83339	758	.0090955	.9909045	79	15277	1987	.1300614	.8699352
35	82581	767	.0092877	.9907123	80	13290	1866	.1404064	.8595936
36	81814	776	.0094849	.9905151	81	11424	1730	.1514357	.8485613
37	81038	785	.0096867	.9903133	82	9694	1582	.1631938	.8368062
38	80253	795	.0099064	.9900936	83	8112	1427	.1759121	.8240879
39	79458	805	.0101311	.9898689	84	6685	1268	.1896785	.8103215
40	78653	815	.0103619	.9896381	85	5417	1111	.2050951	.7949049
41	77838	826	.0106118	.9893882	86	4306	958	.2224804	.7775106
42	77012	839	.0108943	.9891057	87	3348	811	.2422340	.7577660
43	76173	857	.0112509	.9887491	88	2537	673	.2652741	.7347259
44	75316	881	.0116973	.9883027	89	1864	545	.2923820	.7076180
45	74435	909	.0122120	.9877880	90	1319	427	.3237300	.6762700
46	73526	944	.0128389	.9871611	91	892	322	.3609866	.6399134
47	72582	981	.0135157	.9864843	92	570	231	.4052632	.5947368
48	71601	1021	.0142595	.9857405	93	339	155	.4572271	.5427729
49	70580	1063	.0150611	.9849389	94	184	95	.5163043	.4837957
50	69517	1108	.0159385	.9840614	95	89	52	.5842697	.4157303
51	68409	1156	.0168982	.9831018	96	37	24	.6686486	.3513514
52	67253	1207	.0179473	.9820527	97	13	9	.7623077	.3076923
53	66046	1261	.0190927	.9809073	98	4	3	.8650000	.2500000
54	64785	1316	.0203133	.9796867	99	1	1	1.0000000	.0000000

ACTUARIES' TABLE.

TABLE II.
COMMUTATION COLUMNS—FOUR PER CENT.

Age.	D_x	N_x	S_x	M_x	R_x
10	67 556.4	1 314 214.9	23 433 050.1	14 411.37	427 355.12
11	64 519.0	1 249 695.9	22 118 835.2	13 972.25	412 943.75
12	61 616.5	1 188 079.4	20 869 139.3	13 551.27	398 971.50
13	58 843.0	1 129 236.4	19 681 059.9	13 147.68	385 420.23
14	56 192.4	1 073 044.0	18 551 823.5	12 760.20	372 272.55
15	53 658.5	1 019 385.5	17 478 779.5	12 387.616	359 512.35
16	51 236.5	968 148.99	16 459 394.0	12 029.364	347 124.73
17	48 920.9	919 228.12	15 491 245.0	11 684.377	335 095.37
18	46 707.1	872 521.02	14 572 016.9	11 352.165	323 410.99
19	44 590.3	827 930.74	13 699 495.9	11 031.782	312 058.83
20	42 566.3	785 364.44	12 871 565.2	10 722.808	301 027.05
21	40 630.7	744 733.72	12 086 200.8	10 424.401	290 304.24
22	38 779.8	705 953.91	11 341 467.1	10 136.205	279 879.84
23	37 010.0	668 943.96	10 635 513.2	9 857.877	269 743.63
24	35 317.3	633 626.65	9 960 569.2	9 588.693	259 885.76
25	33 698.6	599 928.03	9 332 942.6	9 328.362	250 297.06
26	32 150.8	567 777.28	8 733 014.6	9 076.601	240 968.70
27	30 670.4	537 106.90	8 165 237.3	8 832.789	231 892.10
28	29 254.6	507 852.25	7 628 130.4	8 596.687	223 059.31
29	27 900.5	479 951.73	7 120 278.1	8 367.742	214 462.62
30	26 605.4	453 340.30	6 640 326.4	8 145.752	206 094.88
31	25 366.6	427 979.68	6 186 980.1	7 930.226	197 940.13
32	24 181.8	403 797.93	5 759 000.4	7 720.993	190 018.90
33	23 048.3	380 749.62	5 355 202.5	7 517.615	182 297.91
34	21 964.2	358 785.45	4 974 452.9	7 319.951	174 780.29
35	20 927.3	337 858.15	4 615 667.4	7 127.862	167 460.34
36	19 935.5	317 922.64	4 277 809.2	6 940.969	160 332.48
37	18 986.9	298 935.69	3 959 886.6	6 759.154	153 391.51
38	18 079.8	280 855.86	3 660 950.9	6 582.305	146 632.36
39	17 212.2	263 643.62	3 380 095.0	6 410.092	140 050.05
40	16 382.6	247 261.06	3 116 451.4	6 242.419	133 639.96
41	15 589.2	231 671.83	2 869 190.3	6 079.193	127 397.542
42	14 830.6	216 841.25	2 637 518.5	5 920.126	121 318.349
43	14 104.8	202 736.43	2 420 677.3	5 764.770	115 393.224
44	13 409.7	189 326.69	2 217 940.9	5 612.184	109 633.454
45	12 743.15	176 583.54	2 028 614.2	5 461.358	104 021.270
46	12 103.40	164 480.14	1 852 030.7	5 311.724	98 559.912
47	11 488.46	152 991.67	1 687 550.6	5 162.305	93 248.188
48	10 897.30	142 094.38	1 534 558.9	5 013.002	88 085.883
49	10 328.76	131 765.62	1 392 464.5	4 863.588	83 072.881
50	9 781.92	121 983.70	1 260 608.9	4 714.010	78 209.293
51	9 255.78	112 727.92	1 138 715.2	4 564.097	73 495.283
52	8 749.39	103 978.53	1 025 997.3	4 413.706	68 931.185
53	8 261.89	95 716.64	922 008.75	4 262.718	64 517.480
54	7 792.45	87 924.18	826 292.11	4 111.043	60 254.761

ACTUARIES' TABLE.

TABLE II.—Cont.
COMMUTATION COLUMNS.—FOUR PER CENT.

Age.	D_x	N_x	S_x	M_x	R_x
55	7 340.54	80 583.64	738 367.93	3 958.840	56 143.718
56	6 905.30	73 678.34	657 784.29	3 805.930	52 184.878
57	6 486.16	67 192.18	584 105 95	3 652 379	48 378.948
58	6 082.78	61 109.41	516 913.77	3 498.461	44 726 569
59	5 694.50	55 414.91	455 804.36	3 344.137	41 228.107
60	5 320.82	50 094.09	400 389.45	3 189.473	37 883.971
61	4 960.96	45 133.13	350 295.36	3 034.269	34 694.497
62	4 614.60	40 518.53	305 162.23	2 878.706	31 660.229
63	4 281.28	36 237.25	264 643.70	2 722 872	28 781.523
64	3 960.84	32 276.41	228 406.45	2 567.101	26 058.650
65	3 653.02	28 623.40	196 130.04	2 411.617	23 491.549
66	3 357.68	25 265.72	167 506.64	2 256.779	21 079.933
67	3 074.81	22 190.90	142 240.92	2 103.056	18 823.154
68	2 804.37	19 386.54	120 050.02	1 950.870	16 720.098
69	2 546.50	16 840.04	100 663.48	1 800.864	14 769.228
70	2 301.43	14 538.61	83 823.44	1 653 737	12 968.364
71	2 069.22	12 469.383	69 284.83	1 510.016	11 314.6275
72	1 850.05	10 619.334	56 815.45	1 370.457	9 804.5814
73	1 644.04	8 975.290	46 196.115	1 235 6082	8 434.1247
74	1 451.37	7 523.921	37 220.825	1 106.1658	7 198.5165
75	1 272.086	6 251.835	29 696.904	982.7048	6 092.3507
76	1 106.275	5 145.560	23 445.069	865.8194	5 109.6459
77	953.971	4 191.589	18 299.509	756 0649	4 243.8265
78	815.031	3 376.557	14 107.020	653.8165	3 487.7616
79	689.294	2 687.264	10 731.363	559.4261	2 833.9451
80	576.578	2 110.686	8 044.099	473.2214	2 274.5191
81	476.560	1 634.126	5 933.413	395.3799	1 801.2977
82	388.838	1 245.2875	4 299.287	325.9874	1 405.9178
83	312.868	932.4198	3 053.9994	264.9721	1 079.9303
84	247.914	684.5059	2 121.5796	212.0516	814.9583
85	193.163	491.3424	1 437.0737	166.8363	602.9067
86	147.641	343.7014	945.7313	128.7432	436.0703
87	110.3786	233.3228	602.0298	97.1593	307.3272
88	80.4242	152.8987	368.7070	71.4502	210.1678
89	56.8171	96.0816	215.8083	50.9363	138.7176
90	38.6584	57.4232	119.7267	34.9630	87.7813
91	25.1380	32.2852	62.3035	22.9294	52.8183
92	15.4457	16.8305	30.0184	14 2040	29.8889
93	8.8328	8.0066	13.1789	8 1851	15.6849
94	4.6098	3.3968	5.1723	4.3019	7.4998
95	2.1440	1.2528	1.7755	2.0133	3.1979
96	.8570	.3958	.5226	.8089	1.1845
97	.2895	.1063	.1268	.2743	.3757
98	.0857	.0206	.0206	.0816	.1014
99	.0206	.0000	.0000	.0198	.0198

52 COMMUTATION TABLES—ACTUARIES' 3½ PER CENT.

TABLE III.
COMMUTATION TABLES. ACTUARIES' TABLE,
THREE AND ONE-HALF PER CENT.

Age.	D	N	S	M	R
10	70891.881	1506695.178	27483798.21	17543.524	561018.40
11	68031.548	1438663.630	25977103.03	17080.501	543474.87
12	65284.922	1373378.708	24538439.40	16634.459	526394.37
13	62647.540	1310731.168	23165060.69	16204.779	509759.91
14	60114.491	1250616.677	21854329.52	15790.248	493555.13
15	57681.122	1192935.555	20603712.84	15389.734	477764.89
16	55343.582	1137591.973	19410777.28	15002.764	462375.15
17	53097.620	1084494.353	18273185.31	14628.324	447372.39
18	50939.731	1033554.622	17188630.96	14266.007	432744.06
19	48856.026	984688.596	16155136.34	13914.901	418478.06
20	46873.313	937815.283	15170447.74	13574.664	404563.16
21	44958.939	892857.244	14232032.46	13244.476	390988.49
22	43117.289	849739.955	13339775.21	12924.046	377744.02
23	41348.262	808391.693	12490035.26	12613.992	364819.97
24	39647.821	768743.872	11681643.57	12310.022	352206.88
25	38013.408	730730.464	10912899.69	12017.238	339895.98
26	36442.563	694287.901	10182169.23	11731.869	327878.74
27	34932.512	659355.389	9487881.33	11454.176	316146.87
28	33481.008	625874.381	8828525.940	11183.964	304692.69
29	32085.513	593788.868	8202651.559	10920.678	293508.73
30	30743.976	563044.892	7608862.691	10664.158	282588.05
31	29454.070	533590.822	7045817.799	10413.992	271923.89
32	28213.917	505376.905	6512226.977	10169.781	261509.99
33	27021.387	478355.518	6006850.072	9931.3450	251340.21
34	25874.763	452480.755	5528494.554	9698.4880	241408.86
35	24772.389	427708.366	5076013.799	9471.1955	231710.38
36	23712.374	403995.992	4648305.433	9248.8038	222239.27
37	22693.202	381102.790	4243309.441	9031.4993	212990.47
38	21713.407	359589.383	3863006.651	8819.1082	203958.97
39	20771.315	338818.068	3503417.263	8611.2853	195139.86
40	19865.580	318952.488	3164599.200	8407.9645	186528.57
41	18994.913	299957.575	2845946.712	8209.0789	178120.61
42	18157.820	281799.755	2545689.137	8014.3254	169911.53
43	17352.658	264447.097	2263380.382	7823.1962	161897.20
44	16577.227	247809.870	2009442.285	7634.5685	154074.01
45	15829.291	232040.579	1771572.415	7447.2157	146439.44
46	15107.229	216933.350	1549531.836	7260.4454	139092.22
47	14408.955	202524.395	1332598.486	7073.0428	131731.78
48	13733.534	188790.861	1120074.001	6884.8807	124958.74
49	13079.993	175710.958	911283.230	6695.6688	117773.86
50	12447.253	163263.795	7135572.272	6505.3351	111078.19
51	11834.648	151429.057	52308.597	6313.6529	104572.85
52	11241.219	140187.838	1420870.510	6120.4296	98259.108
53	10666.156	129521.682	1230691.672	5925.5042	92138.769
54	10108.704	119412.978	1151169.990	5728.7445	86213.264

COMMUTATION TABLES—ACTUARIES' 3½ PER CENT. 53

TABLE III.—Cont.
COMMUTATION TABLES. ACTUARIES' TABLE,
THREE AND ONE-HALF PER CENT.

Age.	D	N	S	M	R
55	9568.466	109844.512	1031757.012	5530.3468	80484.520
56	9044.613	100799.899	921912.500	5330.0243	74954.173
57	8536.663	92263.236	821112.601	5127.9699	69624.109
58	8044.429	84218.807	728849.365	4924.4150	64496.139
59	7577.316	76651.491	644630.558	4719.3355	59571.724
60	7104.894	69546.597	567979.067	4512.8134	54852.388
61	6656.385	62890.212	498432.470	4304.5676	50339.575
62	6221.555	56668.657	435542.258	4094.8323	46035.007
63	5800.049	50868.608	378873.601	3883.7174	41940.175
64	5391.860	45476.748	328004.993	3671.6667	38056.458
65	4996.846	40479.902	282528.245	3458.9849	34384.791
66	4615.050	35864.852	242048.343	3246.1637	30925.806
67	4246.677	31618.175	206183.491	3033.8549	27679.642
68	3891.866	27726.309	174565.316	2822.6526	24645.788
69	3551.075	24175.234	146839.007	2613.4700	21823.135
70	3224.832	20950.402	122663.773	2407.3118	19209.665
71	2913.463	18036.939	101713.371	2204.9952	16802.353
72	2617.449	15419.490	83676.432	2007.5021	14597.358
73	2337.229	13022.261	68256.042	1815.7987	12589.854
74	2073.285	11008.976	55174.681	1630.8898	10774.055
75	1825.959	9183.017	44165.705	1453.6734	9143.1653
76	1595.621	7587.396	34982.688	1285.0811	7689.4919
77	1382.596	6204.800	27395.292	1126.0173	6404.4068
78	1186.937	5017.863	21190.492	977.1121	5278.3895
79	1008.672	4009.191	16172.629	838.9866	4301.2774
80	847.806	3161.385	12163.438	712.2303	3462.2908
81	704.125	2457.260	9002.0527	597.2182	2750.0605
82	577.2904	1879.9697	6544.7926	494.1945	2152.8423
83	466.7443	1413.2254	4664.8229	403.1702	1658.6478
84	371.6310	1041.5944	3251.5975	323.8407	1255.4776
85	290.9572	750.6372	2210.0031	255.7341	931.6369
86	223.4621	527.1751	1459.3659	198.0782	675.9028
87	167.8707	359.3044	932.1908	150.0435	477.8246
88	122.9051	236.39934	572.8864	110.7546	327.7810
89	87.24784	149.15150	336.48707	79.25367	217.0264
90	59.65039	89.50111	187.33557	54.60661	137.7727
91	38.97561	50.52550	97.83446	35.94900	83.16612
92	24.06371	26.46179	47.30896	22.35512	47.21712
93	13.82760	12.63419	20.84717	12.93277	24.86200
94	7.25145	5.38274	8.21298	6.82421	11.92923
95	3.38888	1.99386	2.83024	3.20686	5.10502
96	1.36122	0.63264	0.83638	1.29379	1.89816
97	0.46209	0.17055	0.20374	0.44070	0.60437
98	0.13737	0.03318	0.03318	0.13161	0.16367
99	0.03318	0.00000	0.00000	0.03206	0.03206

54 COMMUTATION TABLES—ACTUARIES' 3 PER CENT.

TABLE IV.
COMMUTATION TABLES. ACTUARIES' TABLE,
THREE PER CENT.

Age.	D	N	S	M	R
10	74409.391	1737895.587	31875249.57	21623.808	743735.36
11	71753.769	1666141.818	33137353.98	21135.452	722111.55
12	69191.125	1596950.693	31471212.16	20662.722	700976.10
13	66718.250	1530232.413	29874261.47	20205.122	680313.37
14	64331.391	1465901.052	28344029.03	19761.512	660108.25
15	62026.071	1403874.081	26878127.98	19330.823	640346.74
16	59802.215	1344071.856	25474253.90	18912.678	621015.92
17	57653.833	1286418.033	24130182.03	18506.107	602103.24
18	55579.278	1230838.755	22843764.00	18110.700	583597.13
19	53575.521	1177263.234	21612925.25	17725.847	565486.34
20	51640.230	1125623.004	20435662.02	17351.009	547760.50
21	49770.613	1075852.391	19310030.02	16985.475	530409.49
22	47964.530	1027887.861	18234186.63	16629.022	513224.01
23	46219.915	98 667.946	17206208.77	16281.432	496794.99
24	44534.270	937133.676	16224630.82	15941.998	480513.56
25	42905.695	894227.981	15287497.14	15610.539	464571.56
26	41332.357	852895.624	14393269.16	15286.880	448961.02
27	39812.019	813083.605	13540373.54	14970.398	433674.14
28	38342.995	774740.610	12727289.93	14660.947	418703.74
29	36923.226	737817.384	11952549.32	14357.964	404042.80
30	35551.161	702266.223	11214731.94	14061.333	389684.83
31	34224.900	668041.323	10512165.72	13770.543	375623.50
32	32943.018	635098.305	9844424.394	13485.503	361852.96
33	31703.760	603304.545	9209326.089	13205.750	348367.45
34	30505.816	572888.729	8605931.544	12931.216	335161.70
35	29347.917	543540.812	8033042.815	12661.835	322230.49
36	28228.483	515312.329	7489502.003	12397.196	309568.65
37	27146.317	488165.982	6974189.674	12137.249	297171.46
38	26100.374	462065.608	6486023.662	11881.946	285034.21
39	25089.146	436976.462	6023958.064	11630.922	273152.26
40	24111.615	412864.847	5586981.622	11384.144	261521.34
41	23166.768	389698.0 9	5174116.775	11141.577	250137.19
42	22253.327	367444.752	4784418.696	10902.897	238995.62
43	21369.797	346074.955	4416973.944	10667.521	228092.72
44	20513.953	325561.002	4070898.989	10434.099	217425.20
45	19683.489	305877.513	3745337.987	10201.128	206991.10
46	18876.809	287020.704	3439400.474	9967.7548	196789.97
47	18091.700	268909.004	3152459.770	9732.4545	186822.22
48	17327.356	251581.648	2883550.766	9495.0537	177089.76
49	16582.791	234998.857	2631969.118	9255.1695	167594.71
50	15857.320	219141.537	2396970.261	9012.6917	158339.54
51	15150.075	203991.462	2177828.724	8767.3105	149326.85
52	14460.256	189531.206	1973837.262	8518.7557	140559.54
53	13787.122	175744.084	1784306.055	8266.7941	132040.78
54	13129.988	162614.096	1608561.972	8011.2270	123773.99

COMMUTATION TABLES—ACTUARIES' 3 PER CENT. 55

TABLE IV. *Cont.*
COMMUTATION TABLES. ACTUARIES' TABLE,
THREE PER CENT.

Age.	D	N	S	M	R
55	12488.615	150125.481	1445947.876	7752.2815	115762.76
56	11862.195	138263.286	1295822.395	7489.6069	108010.48
57	11250.356	127012.930	1157559.109	7223.2693	100520.87
58	10653.112	116359.8179	1030546.179	6953.7048	93297.603
59	10069.9246	106289.8933	914186.361	6680.8029	86343.898
60	9500.4702	96789.4231	807896.468	6404.6472	79663.095
61	8943.9451	87845.4780	711107.045	6124.8348	73258.448
62	8400.2602	79445.2178	623261.567	5841.6530	67133.613
63	7860.1640	71576.0538	543816.349	5555.2249	61291.960
64	7350.8705	64225.1833	472240.295	5266.1305	55736.735
65	6845.4050	57379.7783	408015.112	4974.7681	50470.605
66	6353.0557	51026.7226	350635.334	4681.7995	45495.837
67	5874.3331	45152.3895	299608.611	4388.1174	40814.037
68	5409.6665	39742.7230	254456.222	4094.5478	36425.920
69	4959.9295	34782.7935	214713.499	3802.3711	32331.372
70	4526.1183	30256.6752	179930.706	3513.0269	28528.998
71	4108.9560	26147.7192	149674.031	3227.6930	25015.971
72	3709.3972	22438.3220	123526.312	2947.8127	21788.278
73	3328.3564	19109.9656	101087.990	2674.8128	18840.465
74	2966.8145	16143.1511	81978.024	2410.2132	16165.652
75	2625.5795	13517.5716	65834.873	2155.3993	13755.439
76	2305.5134	11212.0582	52317.391	1911.7973	11600.049
77	2007.4997	9204.6185	41105.2426	1680.8446	9688.2516
78	1731.6945	7472.9540	31900.5941	1463.5977	8007.4070
79	1478.7588	5994.1952	24427.0401	1261.0997	6543.8093
80	1248.9556	4745.23959	18433.4449	1074.3672	5282.7096
81	1042.3246	3702.91499	13688.2053	904.1135	4208.3424
82	858.71807	2844.19692	9985.2903	750.8660	3304.2288
83	697.65114	2146.54578	7141.0934	614.8103	2553.3628
84	558.18032	1588.36546	4994.5476	495.6595	1938.5525
85	439.13164	1149.23382	3406.1821	392.8685	1442.8930
86	338.90088	810.33204	2256.9483	305.42803	1050.0245
87	255.82730	554.50564	1446.6154	232.22536	744.5995
88	188.21086	366.29478	892.1098	172.06020	512.3711
89	134.25576	232.03902	525.8150	123.58696	340.3109
90	92.23475	139.80427	293.7760	85.47631	216.7239
91	60.55882	79.24545	153.9717	56.48683	131.2476
92	37.57077	41.67468	74.72624	35.26264	74.76080
93	21.69390	19.98078	33.05156	20.48007	39.49816
94	11.43190	8.54888	13.07078	10.84993	19.01809
95	5.36850	3.18038	4.52190	5.11950	8.16816
96	2.16684	1.01354	1.34152	2.07420	3.04866
97	0.73915	0.27439	0.32798	0.79962	0.97446
98	0.22080	0.05359	0.05359	0.21281	0.26484
99	0.05359	0.00000	0.00000	0.05203	0.05203

ACTUARIES' TABLE.

TABLE V.
ACTUARIES' TABLE. VALUATION COLUMNS.

Age.	THREE PER CENT.		THREE AND ONE-HALF PER CENT.		FOUR PER CENT.	
	U _x .	C _x .	U _x .	C _x .	U _x .	C _x .
10	1.03701	.006563	1.04204	.006531	1.04708	.006500
11	1.03704	.006588	1.04207	.006556	1.04710	.006525
12	1.03706	.006613	1.04210	.006582	1.04713	.006550
13	1.03710	.006664	1.04214	.006617	1.04717	.006585
14	1.03715	.006695	1.04219	.006663	1.04722	.006630
15	1.03720	.006741	1.04224	.006709	1.04727	.006677
16	1.03726	.006799	1.04230	.006766	1.04733	.006733
17	1.03732	.006857	1.04236	.006824	1.04740	.006791
18	1.03740	.006926	1.04244	.006892	1.04747	.006860
19	1.03748	.006996	1.04251	.006963	1.04755	.006929
20	1.03756	.007078	1.04260	.007044	1.04764	.007010
21	1.03765	.007162	1.04269	.007127	1.04773	.007093
22	1.03775	.007247	1.04278	.007212	1.04782	.007177
23	1.03785	.007344	1.04289	.007308	1.04793	.007273
24	1.03796	.007443	1.04300	.007407	1.04803	.007371
25	1.03807	.007544	1.04310	.007507	1.04814	.007471
26	1.03819	.007657	1.04323	.007620	1.04827	.007583
27	1.03831	.007773	1.04335	.007735	1.04839	.007698
28	1.03845	.007902	1.04349	.007864	1.04854	.007826
29	1.03859	.008034	1.04364	.007995	1.04868	.007956
30	1.03875	.008179	1.04379	.008140	1.04884	.008101
31	1.03891	.008329	1.04396	.008288	1.04900	.008248
32	1.03909	.008492	1.04413	.008451	1.04918	.008410
33	1.03927	.008659	1.04431	.008617	1.04936	.008576
34	1.03945	.008831	1.04450	.008788	1.04955	.008746
35	1.03966	.009017	1.04470	.008974	1.04975	.008931
36	1.03986	.009209	1.04491	.009164	1.04996	.009122
37	1.04007	.009405	1.04512	.009359	1.05017	.009314
38	1.04031	.009618	1.04536	.009571	1.05040	.009525
39	1.04054	.009836	1.04559	.009788	1.05064	.009741
40	1.04078	.010066	1.04584	.010011	1.05089	.009963
41	1.04105	.010303	1.04610	.010253	1.05116	.010204
42	1.04134	.010577	1.04640	.010526	1.05145	.010476
43	1.04172	.010923	1.04678	.010870	1.05183	.010818
44	1.04219	.011357	1.04725	.011302	1.05231	.011247
45	1.04273	.011856	1.04779	.011799	1.05286	.011742
46	1.04339	.012465	1.04846	.012405	1.05353	.012345
47	1.04411	.013122	1.04918	.013059	1.05425	.012996
48	1.04490	.013844	1.04997	.013777	1.05504	.013711
49	1.04575	.014622	1.05083	.014552	1.05590	.014482
50	1.04668	.015474	1.05176	.015400	1.05684	.015326
51	1.04770	.016406	1.05279	.016327	1.05788	.016248
52	1.04882	.017425	1.05391	.017340	1.05901	.017257
53	1.05005	.018537	1.05515	.018447	1.06024	.018359
54	1.05136	.019722	1.05646	.019626	1.06156	.019532

ACTUARIES' TABLE.

TABLE V.—Cont.
ACTUARIES' TABLE. VALUATION COLUMNS.

Age.	THREE PER CENT.		THREE AND ONE-HALF PER CENT.		FOUR PER CENT.	
	U _x .	C _x .	U _x .	C _x .	U _x .	C _x .
55	1.05281	.021033	1.05792	.020932	1.06303	.020831
56	1.05438	.022453	1.05950	.022344	1.06462	.022237
57	1.05606	.023960	1.06119	.023845	1.06632	.023730
58	1.05791	.025617	1.06305	.025493	1.06819	.025371
59	1.05994	.027423	1.06508	.027291	1.07023	.027160
60	1.06222	.029453	1.06738	.029310	1.07254	.029169
61	1.06472	.031661	1.06989	.031509	1.07506	.031357
62	1.06749	.034098	1.07267	.033933	1.07786	.033770
63	1.07051	.036738	1.07570	.036560	1.08090	.036384
64	1.07384	.039636	1.07905	.039445	1.08427	.039255
65	1.07750	.042798	1.08273	.042591	1.08796	.042386
66	1.08149	.046227	1.08674	.046004	1.09199	.045782
67	1.08589	.049975	1.09117	.049733	1.09644	.049494
68	1.09067	.054010	1.09597	.053749	1.10126	.053490
69	1.09585	.058337	1.10117	.058055	1.10648	.057776
70	1.10153	.063042	1.10687	.062737	1.11222	.062436
71	1.10772	.068115	1.11309	.067786	1.11847	.067460
72	1.11448	.073597	1.11989	.073241	1.12530	.072889
73	1.12186	.079498	1.12731	.079114	1.13275	.078734
74	1.12997	.085891	1.13545	.085476	1.14093	.085065
75	1.13883	.092777	1.14435	.092329	1.14988	.091885
76	1.14850	.100174	1.15408	.099690	1.15965	.099211
77	1.15922	.108222	1.16484	.107770	1.17047	.107182
78	1.17105	.116930	1.17673	.116371	1.18242	.115812
79	1.18400	.126276	1.18974	.125666	1.19549	.125062
80	1.19824	.136317	1.20406	.135658	1.20987	.135006
81	1.21381	.147025	1.21971	.146315	1.22560	.145611
82	1.23087	.158441	1.23684	.157671	1.24282	.156917
83	1.24987	.170788	1.25593	.169961	1.26200	.166146
84	1.26990	.184153	1.27727	.183256	1.28344	.182383
85	1.29125	.199121	1.30204	.198159	1.30833	.197207
86	1.31407	.216000	1.33116	.214956	1.33759	.213923
87	1.33926	.235179	1.36585	.234042	1.37246	.232917
88	1.40188	.257548	1.40869	.256303	1.41549	.255071
89	1.46643	.283866	1.46265	.282495	1.46972	.281137
90	1.52306	.314301	1.53045	.312782	1.53785	.311279
91	1.61186	.350473	1.61968	.348780	1.62751	.347103
92	1.73186	.393459	1.74027	.391558	1.74867	.389676
93	1.89766	.443910	1.90687	.441795	1.91609	.439641
94	2.12944	.501266	2.13981	.498841	2.15011	.496446
95	2.47757	.567252	2.48959	.564511	2.50162	.561798
96	2.93153	.629756	2.94579	.626714	2.95999	.623701
97	3.34760	.672144	3.36383	.668897	3.37999	.665680
98	4.12017	.728155	4.14014	.724638	4.15999	.721154
99		.970874		.966183		.961538

INTRODUCTION to H^M AND H^F TABLES.

THE Healthy Male and Healthy Female Tables, sometimes known as the Institute of Actuaries' Tables, which must not be confused with the Actuaries' Tables, and often referred to as the Twenty Offices' Tables, because the mortality statistics of twenty British offices were employed in making it, was published in 1869. It was the work of a number of English and Scotch actuaries, under the joint control of the Institute of Actuaries of London and of the Faculty of Actuaries of Scotland. The famous Woolhouse had charge, and his method of graduation, the most perfect adaptation of the system of graduating by differences, was adopted; indeed, it was invented for the work. Very full tables, commutation and derived, were published by the Institute of Actuaries in connection with this table.

Just as it thus reached perfection, the old system of graduating was ready to be discarded. What had formerly seemed nearly a chimera, viz., the idea of discovering a law of mortality and applying that law in graduation, was realized. Makeham's formula became recognized as offering great advantages over all that preceded it. The consequence was that from the same data another set of mortality and commutation tables were evolved by applying Makeham's formula instead of Woolhouse's. These tables were published in the Text-Book of the Institute of Actuaries, which appeared in 1887. They are reproduced here by special permission of the Institute.

In the following pages the results of both systems of graduation for male lives are presented. We also present a mortality table known as H^{M5} which illustrates the mortality, the first five years of insurance being eliminated.

TABLE I.
 INSTITUTE OF ACTUARIES' MORTALITY TABLES.
 MALE LIVES, H^M WOOLHOUSE'S FORMULA.

Age.	No. Living.	Decrement.	Probability of Surviving.	Probability of Dying.
10	100 000	490	.995 100 0	.004 900 0
11	99 510	397	.996 010 5	.003 989 5
12	99 113	329	.996 680 6	.003 319 4
13	98 784	288	.997 084 5	.002 915 5
14	98 496	272	.997 238 5	.002 761 5
15	98 224	282	.997 129 0	.002 871 0
16	97 942	318	.996 753 2	.003 246 8
17	97 624	379	.996 117 8	.003 882 2
18	97 245	466	.995 208 0	.004 792 0
19	96 779	556	.994 255 0	.005 745 0
20	96 223	609	.993 671 0	.006 329 0
21	95 614	643	.993 275 0	.006 725 0
22	94 971	650	.993 155 8	.006 844 2
23	94 321	638	.993 235 9	.006 764 1
24	93 683	622	.993 360 6	.006 639 4
25	93 061	617	.993 369 9	.006 630 1
26	92 444	618	.993 314 9	.006 685 1
27	91 826	634	.993 095 6	.006 904 4
28	91 192	654	.992 828 3	.007 171 7
29	90 538	673	.992 566 7	.007 433 3
30	89 865	694	.992 277 3	.007 722 7
31	89 171	706	.992 082 6	.007 917 4
32	88 465	717	.991 895 1	.008 104 9
33	87 748	727	.991 714 9	.008 285 1
34	87 021	740	.991 496 3	.008 503 7
35	86 281	757	.991 226 3	.008 773 7
36	85 524	779	.990 891 4	.009 108 6
37	84 745	802	.990 536 3	.009 463 7
38	83 943	821	.990 219 6	.009 780 4
39	83 122	838	.989 918 4	.010 081 6
40	82 284	848	.989 694 2	.010 305 8
41	81 436	854	.989 513 2	.010 486 8
42	80 582	865	.989 265 6	.010 734 4
43	79 717	887	.988 873 1	.011 126 9
44	78 830	911	.988 443 5	.011 556 5
45	77 919	950	.987 807 9	.012 192 1
46	76 969	996	.987 059 7	.012 940 3
47	75 973	1041	.986 207 8	.013 702 2
48	74 938	1082	.985 560 2	.014 439 8
49	73 850	1124	.984 780 0	.015 220 0
50	72 726	1160	.984 049 7	.015 950 3
51	71 566	1193	.983 330 1	.016 669 9
52	70 373	1235	.982 450 7	.017 549 3
53	69 138	1286	.981 399 5	.018 600 5
54	67 852	1339	.980 265 9	.019 734 1

H^M (WOOLHOUSE) TABLE.

TABLE I.—*Cont.*
 INSTITUTE OF ACTUARIES' MORTALITY TABLES.
 MALE LIVES, H^M WOOLHOUSE'S FORMULA.

Age.	No. Living.	Decrement.	Probability of Surviving.	Probability of Dying.
55	66 513	1399	.978 966 5	.021 033 5
56	65 114	1462	.977 547 1	.022 452 9
57	63 652	1527	.976 010 2	.023 989 8
58	62 125	1592	.974 374 2	.025 625 8
59	60 533	1667	.972 461 3	.027 538 7
60	58 866	1747	.970 322 4	.029 677 6
61	57 119	1830	.967 961 6	.032 038 4
62	55 289	1915	.965 363 8	.034 636 2
63	53 374	2001	.962 509 8	.037 490 2
64	51 373	2076	.959 589 7	.040 410 3
65	49 297	2141	.956 569 4	.043 430 6
66	47 156	2196	.953 431 2	.046 568 8
67	44 960	2243	.950 111 2	.049 888 8
68	42 717	2274	.946 765 9	.053 234 1
69	40 443	2319	.942 660 0	.057 340 0
70	38 124	2371	.937 808 2	.062 191 8
71	35 753	2433	.931 949 8	.068 050 2
72	33 320	2497	.925 060 0	.074 940 0
73	30 823	2554	.917 139 8	.082 860 2
74	28 269	2578	.908 804 7	.091 195 3
75	25 691	2577	.901 638 7	.098 361 3
76	23 164	2464	.893 628 1	.106 371 9
77	20 700	2374	.885 314 0	.114 686 0
78	18 326	2258	.876 787 1	.123 212 9
79	16 068	2138	.866 940 5	.133 059 5
80	13 930	2015	.855 348 1	.144 651 9
81	11 915	1883	.841 963 9	.158 036 1
82	10 032	1719	.828 648 3	.171 351 7
83	8 313	1545	.814 146 5	.185 853 5
84	6 768	1346	.801 122 9	.198 877 1
85	5 422	1138	.790 114 3	.209 885 7
86	4 284	941	.780 345 5	.219 654 5
87	3 343	773	.768 770 6	.231 229 4
88	2 570	615	.760 700 4	.239 299 6
89	1 955	495	.746 803 1	.253 196 9
90	1 460	408	.720 547 9	.279 452 1
91	1 052	329	.687 262 3	.312 737 7
92	723	254	.648 686 0	.351 314 0
93	469	195	.584 221 7	.415 778 3
94	274	139	.492 700 8	.507 299 2
95	135	86	.362 962 9	.637 037 1
96	49	40	.183 673 5	.816 326 5
97	9	9	.000 000 0	1.000 000 0
98	0			

H^M (WOOLHOUSE) TABLE.

TABLE II.
 COMMUTATION COLUMNS. H^M TABLES,
 WOOLHOUSE'S FORMULA. FOUR AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
10	64 392.8	1 188 642	20 229 255	10 434 33	327 960.1
11	61 317.9	1 127 324	19 040 613	10 132.39	317 525.8
12	58 443.4	1 068 881	17 013 289	9 898.29	307 393.4
13	55 741.0	1 013 140	16 344 408	9 712 65	297 495.1
14	53 185.2	959 654.7	15 831 208	9 557 14	287 782.5
15	50 754.3	909 200.3	14 871 313	9 416 59	278 225.4
16	48 429.3	860 771.0	13 962 113	9 277 15	268 808.8
17	46 193.4	814 577.6	13 101 342	9 126 68	259 531.6
18	44 032.6	770 545.1	12 281 764	8 955 07	250 404.9
19	41 934.5	728 610.6	11 516 219	8 753.15	241 449.9
20	39 898.2	688 712.4	10 787 609	8 522 61	232 696.7
21	37 938.4	650 773.9	10 098 896	8 260 96	224 174.1
22	36 060.6	614 713.3	9 448 122	8 036 81	215 893.2
23	34 271.5	580 441.8	8 833 409	7 800 64	207 859.3
24	32 573.9	547 867.9	8 252 967	7 578 80	200 055.7
25	30 964.2	516 903.7	7 705 099	7 371.84	192 476.9
26	29 434.4	487 469.3	7 183 196	7 175 39	185 105.1
27	27 978.6	459 490.7	6 700 726	6 987 69	177 929.7
28	26 588.9	432 901.8	6 241 236	6 802.23	170 942.6
29	25 261.5	407 640.3	5 808 334	6 619 76	164 140.4
30	23 994.0	383 616.3	5 400 694	6 440 07	157 520.6
31	22 783.4	360 862.9	5 017 047	6 262.75	151 080.5
32	21 629.7	339 233.2	4 656 185	6 090.13	144 817.8
33	20 530.5	318 702.7	4 316 951	5 922.38	138 727.6
34	19 483.7	299 219.1	3 998 249	5 759.60	132 805.3
35	18 486.1	280 733.0	3 699 030	5 601.05	127 045.7
36	17 534.8	263 198.2	3 418 297	5 445.85	121 444.6
37	16 625.9	246 571.3	3 155 008	5 293.01	115 998.8
38	15 760.3	230 810.9	2 908 527	5 142 43	110 705.8
39	14 934.2	215 876.8	2 677 716	4 994.93	105 563.3
40	14 147.0	201 729.8	2 461 839	4 850 85	100 568.4
41	13 398.3	188 331.5	2 260 110	4 711.33	95 717.54
42	12 686.9	175 644.7	2 071 778	4 576 88	91 006.21
43	12 010.2	163 634.5	1 896 133	4 446.56	86 420.33
44	11 365.1	152 269.3	1 732 499	4 318.68	81 982.77
45	10 750.1	141 519.3	1 580 230	4 192 99	77 664.09
46	10 161.7	131 357.6	1 438 710	4 067 57	73 471.10
47	9 598.29	121 759.3	1 307 353	3 941 74	69 403.53
48	9 059.11	112 700.2	1 185 594	3 815.88	65 461.79
49	8 543.82	104 156.4	1 072 893	3 690.70	61 645.91
50	8 051.47	96 104.90	968 737.0	3 566 27	57 955.20
51	7 581.86	88 523.03	872 632.1	3 443.37	54 388.94
52	7 134.43	81 388.61	784 109.1	3 322.43	50 945.56
53	6 707.39	74 681.22	702 720.4	3 202.61	47 623.14
54	6 299.17	68 382.05	628 039.2	3 083.23	44 420.52

TABLE II. —Cont.

COMMUTATION COLUMNS. H^M TABLES.
WOOLHOUSE'S FORMULA. FOUR AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
55	5 908.95	62 473.10	559 657.2	2 964.27	41 337.29
56	5 535.57	56 937.53	497 184.1	2 845.34	38 373.02
57	5 178.26	51 759.28	440 246.5	2 726.40	35 527.69
58	4 836.39	46 922.89	388 487.3	2 607.52	32 801.29
59	4 509.53	42 413.36	341 564.4	2 488.92	30 193.76
60	4 196.50	38 216.86	299 151.0	2 370.09	27 704.84
61	3 896.61	34 320.25	260 934.2	2 250.91	25 334.75
62	3 609.35	30 710.90	226 613.9	2 131.44	23 083.85
63	3 334.29	27 376.61	195 903.0	2 011.81	20 952.40
64	3 071.09	24 305.52	168 526.4	1 892.19	18 940.59
65	2 820.08	21 485.44	144 220.9	1 773.43	17 048.40
66	2 581.44	18 904.00	122 735.4	1 656.23	15 274.97
67	2 355.24	16 548.77	103 831.4	1 541.19	13 618.74
68	2 141.38	14 407.39	87 282.66	1 428.75	12 077.55
69	1 940.08	12 467.31	72 875.28	1 319.66	10 648.80
70	1 750.08	10 717.23	60 407.97	1 213.21	9 329.138
71	1 570.57	9 146.663	49 690.74	1 109.06	8 115.927
72	1 400.66	7 746.005	40 544.08	1 006.78	7 006.870
73	1 239.90	6 506.108	32 798.07	906.337	6 000.088
74	1 088.19	5 417.918	26 291.96	808.023	5 093.751
75	946.366	4 471.552	20 874.04	713.059	4 285.728
76	816.536	3 655.016	16 402.49	623.981	3 572.669
77	698.258	2 956.758	12 747.48	540.865	2 948.688
78	591.558	2 365.200	9 790.717	464.233	2 407.823
79	496.335	1 868.865	7 425.517	394.484	1 943.590
80	411.764	1 457.102	5 556.652	331.286	1 549.106
81	337.035	1 120.067	4 099.550	274.289	1 217.820
82	271.551	848.516	2 979.482	223.319	943.531
83	215.331	633.186	2 130.966	178.792	720.213
84	167.761	465.424	1 497.781	140.495	541.421
85	128.610	336.814	1 032.357	108.568	400.926
86	97.240 8	239.573	695.543	82.736 8	292.358
87	72.613 8	166.960	455.967	62.297 2	209.622
88	53.419 4	113.540	289.010	46.229 8	147.324
89	38.886 3	74.654	175.470	33.997 0	101.095
90	27.789 9	46.864	100.816	24.575 1	67.097
91	19.161 7	27.702	53.952	17.143 6	42.522
92	12.602 0	15.100	26.250	11.409 1	25.379
93	7.822 7	7.278	11.150	7.172 4	13.970
94	4.373 4	2.904	3.872	4.060 0	6.797
95	2.062 0	.842	.968	1.936 9	2.737
96	.716 2	.126	.126	.679 9	.800
97	.125 9	.000	.000	.120 5	.121

H^M (WOOLHOUSE) TABLE.

TABLE III.
COMMUTATION COLUMNS. H^M TABLES,
WOOLHOUSE'S FORMULA. FOUR PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
10	67 556.4	I 356 297	24 434 671	12 792.8	429 295.1
11	64 639.8	I 291 658	23 078 374	12 474.5	416 502.2
12	61 905.7	I 229 752	21 786 716	12 226.6	404 027.7
13	59 327.1	I 170 425	20 556 964	12 029.0	391 801.2
14	56 879.0	I 113 546	19 386 540	11 862.6	379 772.2
15	54 540.3	I 059 005	18 272 994	11 711.6	367 909.6
16	52 292.0	I 006 713	17 213 988	11 561.1	356 198.0
17	50 117.6	956 595.8	16 207 275	11 397.8	344 636.9
18	48 002.9	908 593.0	15 250 679	11 210.7	333 239.1
19	45 935.4	862 657.6	14 342 086	10 989.5	322 028.4
20	43 914.9	818 742.6	13 479 429	10 735.8	311 038.8
21	41 958.6	776 784.0	12 660 686	10 468.5	300 303.1
22	40 073.5	736 710.5	11 883 902	10 197.2	289 834.5
23	38 268.5	698 442.0	11 147 192	9 933.49	279 637.3
24	36 547.8	661 894.2	10 448 750	9 684.60	269 703.8
25	34 908.7	626 985.5	9 786 855	9 451.27	260 010.2
26	33 343.6	593 641.9	9 159 870	9 228.73	250 567.9
27	31 846.8	561 795.1	8 566 228	9,014.40	241 339.2
28	30 410.5	531 384.7	8 004 433	8 802.97	232 324.8
29	29 031.1	502 353.5	7 473 048	8 593.27	223 521.8
30	27 707.1	474 646.5	6 970 695	8 385.77	214 928.6
31	26 435.7	448 210.8	6 496 048	8 180.02	206 542.8
32	25 217.7	422 993.2	6 047 838	7 978.77	198 362.8
33	24 051.2	398 941.9	5 624 844	7 782.25	190 384.0
34	22 934.6	376 007.4	5 225 902	7 590.64	182 601.8
35	21 864.9	354 142.4	4 849 895	7 403.12	175 011.1
36	20 839.5	333 302.9	4 495 753	7 218.66	167 608.0
37	19 855.5	313 447.4	4 162 450	7 036.14	160 389.3
38	18 911.1	294 536.3	3 849 002	6 855.46	153 353.2
39	18 005.9	276 530.4	3 554 466	6 677.62	146 497.7
40	17 138.9	259 391.5	3 277 936	6 503.07	139 820.1
41	16 309.8	243 081.7	3 018 544	6 333.24	133 317.0
42	15 518.1	227 563.6	2 775 463	6 168.78	126 983.8
43	14 761.1	212 802.5	2 547 899	6 008.61	120 815.0
44	14 035.4	198 767.2	2 335 096	5 850.68	114 806.4
45	13 339.6	185 427.5	2 136 329	5 694.72	108 955.7
46	12 670.2	172 757.4	1 950 902	5 538.34	103 261.0
47	12 025.2	160 732.2	1 778 144	5 380.69	97 722.69
48	11 404.3	149 327.9	1 617 412	5 222.25	92 342.01
49	10 807.3	138 520.6	1 468 084	5 063.91	87 119.76
50	10 233.5	128 287.2	1 329 564	4 905.75	82 055.85
51	9 682.92	118 604.2	1 201 276	4 748.80	77 150.10
52	9 155.30	109 448.9	1 082 672	4 593.59	72 401.30
53	8 648.68	100 800.3	973 223.3	4 439.11	67 807.70
54	8 161.36	92 638.91	872 423.0	4 284.42	63 368.60

TABLE III.—Cont.
COMMUTATION COLUMNS. H^M TABLES,
WOOLHOUSE'S FORMULA. FOUR PER CENT.

Age.	D ₁	N ₁	S ₁	M ₁	R ₁
55	7 692.59	84 946.32	779 784.1	4 129.56	59 084.17
56	7 241.15	77 705.17	694 837.8	3 973.98	54 954.61
57	6 806.31	70 898.86	617 132.6	3 817.65	50 930.63
58	6 387.53	64 511.33	546 233.8	3 660.65	47 162.98
59	5 984.40	58 526.87	481 722.4	3 503.26	43 502.34
60	5 595.83	52 931.04	423 195.6	3 344.79	39 999.08
61	5 220.92	47 710.12	370 264.5	3 185.11	36 654.29
62	4 859.28	42 850.85	322 554.4	3 024.27	33 469.18
63	4 510.55	38 340.30	279 703.6	2 862.44	30 444.91
64	4 174.47	34 165.83	241 363.3	2 699.84	27 582.47
65	3 851.71	30 314.12	207 197.4	2 537.64	24 882.62
66	3 542.72	26 771.40	176 883.3	2 376.79	22 344.99
67	3 247.83	23 523.58	150 111.9	2 218.10	19 968.20
68	2 967.11	20 556.47	126 588.3	2 062.36	17 750.04
69	2 701.11	17 855.35	106 031.9	1 910.48	15 687.68
70	2 448.30	15 407.05	88 176.53	1 761.56	13 777.20
71	2 207.73	13 199.32	72 769.47	1 615.15	12 015.65
72	1 978.36	11 220.97	59 570.15	1 470.69	10 400.50
73	1 759.71	9 461.238	48 349.18	1 328.13	8 929.809
74	1 551.83	7 909.431	38 887.94	1 187.93	7 601.675
75	1 356.07	6 553.366	30 978.49	1 051.86	6 413.712
76	1 175.66	5 377.711	24 425.13	923.602	5 361.886
77	1 010.19	4 367.521	19 047.42	803.355	4 438.284
78	859.938	3 507.583	14 679.90	691.957	3 634.928
79	724.983	2 782.600	11 172.31	590.076	2 942.972
80	604.344	2 178.256	8 389.713	497.321	2 352.895
81	497.043	1 681.213	6 211.457	413.264	1 855.575
82	402.396	1 278.817	4 530.244	337.734	1 442.311
83	320.620	958.197 3	3 251.427	271.435	1 104.577
84	250.992	707.205 3	2 293.230	214.138	833.143
85	193.342	513.863 5	1 586.024	166.142	619.004
86	146.887	365.976 9	1 072.151	127.123	452.825
87	110.214	256.763 1	705.184	96.09 3	325.740
88	81.470 3	175.292 8	448.421	71.594 8	229.641
89	59.590 8	115.702 0	273.128	52.848 8	158.046
90	42.791 0	72.911 0	157.426	38.340 9	105.197
91	29.647 1	43.263 9	84.515	26.842 8	66.856
92	19.591 7	23.672 2	41.251	17.927 7	40.013
93	12.220 0	11.452 2	17.579	11.309 6	22.085
94	6.864 6	4.587 6	6.124	6.424 2	10.776
95	3.252 1	1.335 5	1.536	3.075 7	4.352
96	1.135 0	.200 5	.201	1.083 6	1.276
97	.200 5	.000 0	.000	.192 7	.193

TABLE IV.
COMMUTATION COLUMNS, H^M TABLES,
WOOLHOUSE'S FORMULA. THREE AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
10	70 891.9	I 556 354	29 720 786	15 864.2	567 167.5
11	68 159.0	I 488 195	28 164 432	15 528.6	551 303.3
12	65 491.3	I 422 604	26 676 237	15 265.9	535 774.6
13	63 162.9	I 359 441	25 253 633	15 055.5	520 508.7
14	60 849.0	I 298 592	23 894 192	14 877.6	505 453.2
15	58 629.0	I 239 963	22 595 600	14 715.3	490 575.6
16	56 483.7	I 183 479	21 355 638	14 552.6	475 860.3
17	54 396.5	I 129 083	20 172 159	14 375.4	461 307.7
18	52 352.9	I 076 730	19 043 076	14 171.4	446 932.3
19	50 340.2	I 026 389	17 966 346	13 929.0	432 760.9
20	48 358.4	978 031.1	16 939 957	13 649.6	418 831.9
21	46 427.4	931 623.7	15 961 926	13 353.9	405 182.3
22	44 555.7	887 018.0	15 030 322	13 052.2	391 828.5
23	42 754.4	844 233.7	14 143 274	12 757.6	378 776.3
24	41 029.1	803 264.5	13 298 981	12 478.1	366 018.7
25	39 378.5	763 886.0	12 495 716	12 214.9	353 540.5
26	37 794.6	725 091.5	11 731 830	11 962.7	341 325.6
27	36 272.4	689 819.1	11 005 739	11 718.6	329 362.9
28	34 803.8	655 015.2	10 315 919	11 476.6	317 644.3
29	33 385.7	621 629.5	9 660 904	11 235.4	306 167.7
30	32 017.0	589 612.6	9 039 275	10 995.7	294 932.3
31	30 695.4	558 917.2	8 449 662	10 756.8	283 936.6
32	29 422.6	529 494.6	7 890 745	10 522.0	273 179.8
33	28 197.2	501 297.5	7 361 250	10 291.6	262 657.8
34	27 017.9	474 279.5	6 859 953	10 065.9	252 366.3
35	25 882.3	448 307.2	6 385 673	9 843.87	242 300.4
36	24 787.7	423 609.6	5 937 276	9 624.46	232 456.6
37	23 731.3	399 878.3	5 513 667	9 406.32	222 832.1
38	22 711.8	377 166.5	5 113 788	9 189.33	213 425.8
39	21 729.1	355 437.4	4 736 622	8 974.71	204 230.4
40	20 782.7	334 654.7	4 381 185	8 763.05	195 261.7
41	19 872.9	314 781.7	4 046 530	8 556.11	186 498.7
42	18 999.6	295 782.2	3 731 748	8 354.76	177 942.6
43	18 160.0	277 622.2	3 435 966	8 157.71	169 587.8
44	17 350.7	260 271.5	3 158 344	7 962.48	161 430.1
45	16 570.2	243 701.3	2 898 072	7 768.74	153 467.6
46	15 814.7	227 885.7	2 654 371	7 573.55	145 698.9
47	15 082.1	212 804.5	2 426 484	7 375.82	138 125.3
48	14 372.4	198 432.1	2 213 683	7 176.15	130 749.5
49	13 685.9	184 740.2	2 015 248	6 975.64	123 575.3
50	13 021.8	171 724.4	1 830 501	6 774.38	116 597.7
51	12 380.8	159 343.5	1 658 777	6 573.70	109 823.3
52	11 762.7	147 580.8	1 499 434	6 374.29	103 249.6
53	11 165.5	136 415.3	1 351 853	6 174.85	96 875.33
54	10 587.3	125 828.1	1 215 437	5 974.19	90 700.49

TABLE IV.—Cont.
COMMUTATION COLUMNS. HM TABLES,
WOOLHOUSE'S FORMULA. THREE AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
55	10 027.4	115 800.7	1 089 639	5 772.32	84 726.30
56	9 434.51	106 316.2	973 808.7	5 563.54	78 953.98
57	8 958.02	97 358.14	867 492.6	5 392.79	73 385.44
58	8 447.46	88 910.08	770 134.4	5 155.16	68 022.65
59	7 952.65	80 958.04	681 223.7	4 946.00	62 867.49
60	7 472.11	73 485.93	600 265.7	4 734.40	57 921.49
61	7 005.18	66 480.75	526 779.8	4 520.15	53 187.08
62	6 551.45	59 929.30	450 209.0	4 303.30	48 666.94
63	6 110.66	53 818.65	400 369.7	4 084.06	44 363.63
64	5 682.67	48 135.97	316 551.1	3 862.72	40 279.57
65	5 268.63	42 867.34	298 415.1	3 640.84	36 416.85
66	4 869.38	37 997.95	255 547.8	3 419.76	32 776.01
67	4 485.63	33 512.34	217 549.8	3 200.67	29 356.25
68	4 117.72	29 394.61	184 037.5	2 984.45	26 155.58
69	3 766.69	25 627.93	154 642.9	2 772.66	23 171.13
70	3 430.63	22 107.30	129 014.9	2 563.09	20 308.46
71	3 108.48	19 088.82	106 817.6	2 357.84	17 834.48
72	2 798.98	16 280.84	87 728.81	2 153.46	15 476.63
73	2 501.67	13 788.18	71 438.97	1 950.80	13 323.17
74	2 216.79	11 571.39	57 650.80	1 750.52	11 372.37
75	1 946.50	9 624.883	46 079.41	1 555.20	9 621.842
76	1 695.69	7 929.191	36 454.53	1 370.21	8 066.643
77	1 464.08	6 465.116	28 525.34	1 195.94	6 696.430
78	1 252.34	5 212.781	22 060.22	1 033.71	5 500.491
79	1 060.90	4 151.831	16 847.44	884.622	4 466.784
80	888.634	3 263.247	12 695.56	748.233	3 582.162
81	734.388	2 528.859	9 432.314	624.037	2 833.929
82	597.419	1 931.410	6 903.455	511.902	2 201.892
83	478.300	1 453.131	4 972.015	412.695	1 697.990
84	376.245	1 076.886	3 518.884	327.106	1 284.995
85	291.226	785.660 0	2 441.958	254.809	957.889 5
86	222.321	593.339 5	1 656.338	195.752	703.080 2
87	167.620	395.719 4	1 092.998	148.570	507.327 9
88	124.504	271.215 7	697.279	111.122	353.758 0
89	91.507 3	179.708 4	426.063	82.335 7	247.636 1
90	64.027 0	113 681 4	246 355	59.949 9	165.300 3
91	45.956 8	67.714 6	132.673	42.122 5	105.350 5
92	32.522 9	37.191 7	64.959	28.233 1	63.228 00
93	19.130 2	18.061 5	27.767	17.872 5	34.094 95
94	10.798 4	7.263 1	9.706	10.187 6	17.122 41
95	5.140 5	2.122 6	2.443	4.894 8	6.934 83
96	1.802 7	.319 9	.320	1.730 9	2.040 00
97	.319 9	.000 0	.000	.309 1	.309 09

TABLE V.
COMMUTATION COLUMNS. H^m TABLES.
WOOLHOUSE'S FORMULA. THREE PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
10	74 409.4	1 796 867	36 413 646	19 906.2	756 181.7
11	71 888.1	1 724 979	34 616 779	19 552.2	736 275.5
12	69 515.9	1 655 403	32 831 800	19 273.8	716 723.3
13	67 267.1	1 588 196	31 236 337	19 049.7	697 449.6
14	65 117.5	1 523 079	29 648 141	18 859.3	678 399.8
15	63 046.2	1 460 032	28 125 062	18 684.7	659 540.5
16	61 034.2	1 398 998	26 665 030	18 509.0	640 855.8
17	59 064.1	1 339 934	25 266 032	18 316.6	622 346.7
18	57 121.2	1 282 813	23 926 098	18 094.0	604 030.1
19	55 191.7	1 227 621	22 643 285	17 828.2	585 936.1
20	53 276.3	1 174 345	21 415 664	17 520.4	568 107.9
21	51 397.2	1 122 947	20 241 319	17 193.0	550 587.5
22	49 564.7	1 073 383	19 118 371	16 857.4	533 394.5
23	47 791.7	1 025 591	18 044 988	16 528.1	516 537.0
24	46 085.8	979 505.3	17 019 397	16 214.2	500 008.9
25	44 446.5	935 058.8	16 039 892	15 917.2	483 794.7
26	42 805.8	892 193.0	15 104 833	15 631.1	467 877.5
27	41 339.1	850 854.0	14 212 640	15 352.9	452 246.5
28	39 857.9	810 596.1	12 361 786	15 075.8	436 893.6
29	38 419.5	772 576.6	12 550 790	14 798.2	421 817.9
30	37 023.2	735 553.4	11 778 214	14 521.0	407 019.6
31	35 667.3	699 886.1	11 042 600	14 243.4	392 498.7
32	34 344.2	665 531.9	10 342 774	13 969.2	378 255.3
33	33 083.3	632 448.6	9 677 242	13 698.9	364 286.1
34	31 853.6	600 595.0	9 044 794	13 432.8	350 587.2
35	30 662.8	569 932.2	8 444 199	13 169.8	337 154.5
36	29 508.6	540 423.6	7 874 266	12 908.6	323 984.7
37	28 389.1	512 035.5	7 333 843	12 647.6	311 076.1
38	27 301.5	484 735.0	6 821 807	12 386.8	298 428.4
39	26 246.1	458 489.0	6 337 072	12 127.6	286 041.6
40	25 224.7	433 264.2	5 878 583	11 870.7	273 914.1
41	24 237.6	409 026.6	5 445 319	11 618.3	262 043.4
42	23 281.9	385 741.7	5 036 292	11 371.5	250 425.1
43	22 364.0	363 377.6	4 650 551	11 128.8	239 053.6
44	21 471.1	341 906.6	4 287 173	10 887.3	227 924.7
45	20 604.8	321 301.8	3 945 267	10 646.3	217 037.5
46	19 760.8	301 541.0	3 623 965	10 402.4	206 391.1
47	18 936.9	282 604.1	3 322 424	10 154.2	195 988.7
48	18 133.5	264 470.7	3 037 820	9 902.27	185 834.5
49	17 351.1	247 119.6	2 775 349	9 648.05	175 932.2
50	16 589.3	230 530.3	2 528 229	9 391.66	166 284.2
51	15 849.2	214 681.0	2 297 699	9 134.76	156 892.5
52	15 131.1	199 549.9	2 083 018	8 878.25	147 757.8
53	14 433.6	185 117.3	1 883 468	8 620.44	138 879.5
54	13 751.6	171 365.8	1 698 351	8 359.81	130 259.1

TABLE V.—Cont.
 COMMUTATION COLUMNS. H^M TABLES.
 WOOLHOUSE'S FORMULA. THREE PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
55	13 087.6	138 278 2	1 526 985	8 096 34	121 899.2
56	12 439.1	145 839.1	1 368 707	7 829.08	113 802.9
57	11 805.7	134 033.4	1 222 868	7 557.92	105 973.8
58	11 186.8	122 840.6	1 088 834	7 282.95	98 415.91
59	10 582.7	112 263.9	965 987.7	7 004.63	91 132.95
60	9 991.51	102 272.4	853 723.8	6 721.69	84 128.32
61	9 412.61	92 859.77	751 451.4	6 433.80	77 406.64
62	8 845 67	84 014.10	658 591 0	6 141.02	70 972.84
63	8 290 57	75 723.52	574 577.5	5 843.56	64 831.82
64	7 747.34	67 976.19	498 854.0	5 541.80	58 988.26
65	7 217.74	60 758.45	430 877.8	5 237.85	53 446.26
66	6 703 17	54 055.28	370 119.4	4 933 50	48 208.62
67	6 204.86	47 850 42	316 064.1	4 630.44	43 275.11
68	5 723 60	42 126.82	268 213 7	4 329.90	38 644.67
69	5 261.08	36 865.74	226 086.9	4 034.08	34 314.77
70	4 814.96	32 050.78	189 221.1	3 741.20	30 280 69
71	4 383 99	27 666 79	157 170.3	3 450.47	26 539.49
72	3 966 66	23 700.13	129 503.5	3 160.83	23 089 01
73	3 562.52	20 137.61	105 803.4	2 872 23	19 928.18
74	3 172.17	16 965.44	85 665.80	2 585.63	17 055 96
75	2 798.91	14 166.53	68 700.36	2 304 77	14 470.32
76	2 450.10	11 716.43	54 533.83	2 037 49	12 165 55
77	2 125.71	9 590.717	42 817.40	1 784.46	10 128.06
78	1 827.11	7 763.609	33 226.68	1 547.77	8 343.609
79	1 555.32	6 208 285	25 463.07	1 329.20	6 795.842
80	1 300.10	4 899 184	19 254.79	1 128.28	5 466.642
81	1 087.12	3 812 061	14 355.61	944 429	4 338.395
82	888 659	2 923.402	10 543.54	777.628	3 393.937
83	714.938	2 208.464	7 620.14	629.790	2 610 309
84	565.111	1 643.354	5 411.58	500.787	1 986.518
85	439.537	1 203.817	3 768.32	391.672	1 485.732
86	337.170	866.647	2 564.51	302.107	1 094.060
87	255.445	611.202	1 697.86	230.203	791 953
88	190.659	420.543	1 086.66	172.857	561 750
89	140.810	279.733	666.11	128.561	388.893
90	102.095	177.638	386.38	93.947 0	260.331
91	71.421 4	106 217	208.74	66 247 5	166 384
92	47 655 6	58 561	102.53	44 561 9	100 137
93	30.013 1	28.548	43.97	28.307 4	55.575
94	17.023 6	11.525	15.42	16.192 1	27.268
95	8.143 2	3.381	3.89	7.807 6	11.076
96	2.869 6	.512	.51	2.771 1	3.268
97	.511 7	.000	.00	.496 8	.497

TABLE I.
 INSTITUTE OF ACTUARIES' TABLES—H^M KING & HARDY'S GRADUATIONS BY MAKEHAM'S FORMULA.

Age.	No. Living.	No. Dying.	Probabilities of Surviving.	$= (1 - p_x)$	μ_x
0	127 283	14 358	.88720	.11280	.15920
1	112 925	3 962	.96492	.03508	.07901
2	108 963	2 375	.97821	.02179	.02366
3	106 588	1 646	.98456	.01544	.01787
4	104 942	1 325	.98737	.01263	.01379
5	103 617	1 061	.98976	.01024	.01142
6	102 556	852	.99170	.00830	.00925
7	101 704	683	.99328	.00672	.00748
8	101 021	557	.99449	.00551	.00607
9	100 464	464	.99538	.00462	.00502
10	100 000	408	.99591	.00409	.00428
11	99 592	369	.99630	.00370	.00388
12	99 223	346	.99653	.00347	.00359
13	98 877	337	.99658	.00342	.00342
14	98 540	337	.99658	.00342	.00340
15	98 203	360	.99635	.00365	.00353
16	97 843	384	.99607	.00393	.00378
17	97 459	425	.99563	.00437	.00414
18	97 034	465	.99522	.00478	.00458
19	96 569	508	.99474	.00526	.00504
20	96 061	548	.99428	.00572	.00550
21	95 513	582	.99392	.00608	.00592
22	94 931	609	.99357	.00643	.00629
23	94 322	631	.99332	.00668	.00650
24	93 691	647	.99309	.00691	.00682
25	93 044	658	.99293	.00707	.00701
26	92 386	664	.99280	.00720	.00716
27	91 722	673	.99268	.00732	.00729
28	91 049	678	.99254	.00746	.00742
29	90 371	686	.99241	.00759	.00755
30	89 685	691	.99229	.00771	.00768
31	88 994	700	.99213	.00787	.00782
32	88 294	709	.99197	.00803	.00798
33	87 585	719	.99179	.00821	.00815
34	86 866	729	.99161	.00839	.00833
35	86 137	742	.99138	.00862	.00854
36	85 395	756	.99115	.00885	.00876
37	84 639	770	.99090	.00910	.00901
38	83 869	786	.99063	.00937	.00928
39	83 083	806	.99031	.00969	.00957
40	82 277	823	.98999	.01001	.00990
41	81 454	846	.98962	.01038	.01025
42	80 608	871	.98919	.01081	.01064
43	79 737	895	.98878	.01122	.01106
44	78 842	924	.98828	.01172	.01153
45	77 918	954	.98776	.01224	.01204
46	76 964	986	.98719	.01281	.01260
47	75 978	1 021	.98655	.01345	.01321
48	74 957	1 061	.98585	.01415	.01388
49	73 896	1 101	.98510	.01490	.01462
50	72 795	1 144	.98428	.01572	.01542
51	71 651	1 193	.98335	.01665	.01631

TABLE I.—Cont.
INSTITUTE OF ACTUARIES' TABLES—H^M KING & HARDY'S GRADUATIONS BY MAKEHAM'S FORMULA.

Age.	No. Living.	No. Dying.	Probabilities of Surviving.	$= \frac{q_x}{(1-p_x)}$	μ_x
52	70 458	1 243	.98236	.01764	.01727
53	69 215	1 296	.98127	.01873	.01833
54	67 919	1 353	.98008	.01992	.01950
55	66 566	1 414	.97877	.02123	.02077
56	65 152	1 475	.97735	.02265	.02216
57	63 677	1 541	.97580	.02420	.02369
58	62 136	1 612	.97407	.02593	.02536
59	60 524	1 682	.97221	.02779	.02719
60	58 842	1 755	.97017	.02983	.02920
61	57 087	1 830	.96794	.03206	.03140
62	55 257	1 906	.96549	.03451	.03381
63	53 351	1 983	.96283	.03717	.03645
64	51 368	2 059	.95993	.04007	.03934
65	49 309	2 133	.95673	.04327	.04251
66	47 176	2 204	.95328	.04672	.04599
67	44 972	2 273	.94947	.05053	.04970
68	42 609	2 344	.94534	.05466	.05396
69	40 365	2 388	.94083	.05917	.05853
70	37 977	2 434	.93590	.06410	.06353
71	35 543	2 468	.93057	.06943	.06901
72	33 075	2 496	.92472	.07528	.07502
73	30 585	2 496	.91840	.08160	.08160
74	28 089	2 487	.91144	.08856	.08851
75	25 602	2 459	.90396	.09604	.09671
76	23 143	2 412	.89578	.10422	.10536
77	20 731	2 343	.88697	.11303	.11485
78	18 388	2 255	.87738	.12262	.12523
79	16 133	2 146	.86696	.13304	.13662
80	13 987	2 018	.85574	.14426	.14909
81	11 969	1 873	.84351	.15649	.16275
82	10 096	1 712	.83042	.16958	.17772
83	8 384	1 540	.81632	.18368	.19412
84	6 844	1 361	.80114	.19886	.21209
85	5 483	1 180	.78478	.21522	.23177
86	4 303	1 002	.76715	.23285	.25343
87	3 301	830	.74855	.25145	.27697
88	2 471	671	.72845	.27155	.30286
89	1 800	527	.70723	.29277	.33123
90	1 273	402	.68421	.31579	.36230
91	871	296	.66016	.33984	.39635
92	575	209	.63652	.36348	.43506
93	366	144	.60655	.39345	.47453
94	222	93	.58109	.41891	.51930
95	129	58	.55039	.44961	.56836
96	71	34	.52112	.47888	.62211
97	37	18	.51351	.48649	.68100
98	19	10	.47369	.52631	.74552
99	9	5	.44445	.55555	.81021
100	4	3	.25000	.75000	.89366
101	1	1	.00000	1.00000	.97851
102	0	..	.....	.....	.....

TABLE II.
 COMMUTATION COLUMNS—H^M TABLE, MAKEHAM'S FORMULA,
 FOUR AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
0	127 280	2 016 855	36 266 604	13 739.	34 951.	490 091.
1	108 060	1 908 795	34 249 749	3 628.1	21 211.8	455 139.7
2	99 781	1 809 014	32 340 954	2 581.2	17 583.7	433 927.9
3	93 493	1 715 611	30 531 940	1 380.3	15 502.5	416 344.2
4	87 999	1 627 612	28 8.6 329	1 063.3	14 122.2	400 841.7
5	83 148	1 544 464	27 188 717	814.74	13 058.90	386 719.54
6	78 752	1 465 712	25 644 253	626.08	12 244.16	373 660.64
7	74 736	1 390 976	24 178 541	480.28	11 618.08	361 416.48
8	71 036	1 319 040	22 787 565	374.81	11 137.80	349 798.40
9	67 602	1 252 338	21 467 625	298.79	10 762.99	338 600.60
10	64 393	1 187 945	20 215 287	251.41	10 464.20	327 897.61
11	61 368	1 126 577	19 027 342	217.59	10 212.79	317 433.41
12	58 577	1 068 070	17 900 765	195.24	9 995.20	307 220.62
13	55 704	1 012 270	16 832 695	181.97	9 799.96	297 225.42
14	53 208	959 068	15 820 419	174.14	9 617.99	287 425.46
15	50 743	908 325	14 861 351	178.01	9 443.85	277 807.47
16	48 380	859 945	13 953 026	181.70	9 285.84	268 363.62
17	46 115	813 8.0	13 093 081	192.44	9 084.14	259 097.78
18	43 937	769 893	12 279 251	201.48	8 891.70	250 013.64
19	41 844	728 049	11 509 358	210.63	8 690.22	241 121.94
20	39 831	688 218	10 781 309	217.44	8 479.59	232 431.72
21	37 868	650 320	10 093 091	220.98	8 262.15	223 952.13
22	36 045	614 275	9 442 771	221.28	8 041.17	215 689.08
23	34 272	580 023	8 828 496	219.40	7 819.89	207 648.81
24	32 577	547 420	8 248 493	215.27	7 600.49	199 828.92
25	30 959	516 467	7 701 067	209.51	7 385.22	192 228.43
26	29 416	487 051	7 184 600	202.32	7 175.71	184 843.21
27	27 947	459 104	6 697 549	196.23	6 973.39	177 607.50
28	26 547	432 557	6 238 445	189.17	6 777.16	170 694.11
29	25 215	407 342	5 805 888	183.16	6 587.99	163 916.95
30	23 946	383 396	5 398 546	176.56	6 404.83	157 328.96
31	22 738	360 058	5 015 150	171.15	6 228.27	150 924.13
32	21 588	339 070	4 654 492	165.89	6 057.12	144 695.86
33	20 492	318 578	4 315 422	160.98	5 891.23	138 638.74
34	19 449	299 129	3 990 844	156.19	5 730.25	132 747.51
35	18 455	280 674	3 697 715	152.13	5 574.06	127 017.26
36	17 508	263 166	3 417 041	148.33	5 421.93	121 443.20
37	16 606	246 560	3 153 8.5	144.57	5 273.60	116 021.27
38	15 746	230 814	2 907 315	141.21	5 129.03	110 747.67
39	14 927	215 887	2 676 501	138.58	4 987.82	105 618.64
40	14 146	201 741	2 460 614	135.40	4 849.24	100 630.82
41	13 401	188 340	2 258 8.3	133.20	4 713.84	95 781.58
42	12 691	175 619	2 0.0 533	131.23	4 580.64	91 067.74
43	12 013	163 636	1 894 884	129.03	4 449.41	86 487.10
44	11 367	152 269	1 731 248	127.48	4 320.38	82 037.69
45	10 750	141 519	1 578 979	125 95	4 192.90	77 717.31
46	10 161	131 357.7	1 4.7 459.6	124.57	4 066.95	73 524.41
47	9 598.9	121 758.8	1 3.6 101.9	123.44	3 912.38	69 457.46
48	9 062.1	112 696.7	1 1.4 343.1	122.75	3 818.94	65 515.08
49	8 549.1	104 147.6	1 0.71 646.4	121.89	3 696.19	61 696.14

TABLE II.—Cont.
COMMUTATION COLUMNS—H^M TABLE. MAKEHAM'S FORMULA,
FOUR AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
50	8 059.2	96 088.4	967 498.8	121.20	3 574.30	57 999.95
51	7 590.8	88 497.6	871 410.4	120.95	3 453.10	54 425.65
52	7 143.0	81 354.6	782 912.8	120.59	3 332.15	50 972.55
53	6 714.9	74 639.7	701 558.2	120.32	3 211.56	47 640.40
54	6 305.4	68 334.3	626 918.5	120.20	3 091.24	44 428.84
55	5 913.6	62 420.7	558 584.2	120.21	2 971.04	41 337.60
56	5 538.9	56 881.8	496 163.5	119.99	2 850.83	38 356.56
57	5 180.2	51 701.6	439 281.7	119.07	2 730.84	35 515.73
58	4 837.3	46 864.3	387 580.1	120.09	2 610.87	32 784.89
59	4 508.9	42 355.4	340 715.8	119.91	2 490.78	30 174.02
60	4 194.8	38 160.6	298 360.4	119.73	2 370.87	27 683.24
61	3 894.5	34 266.1	260 199.8	119.46	2 251.14	25 312.37
62	3 607.3	30 658.8	225 933.7	119.07	2 131.68	23 061.23
63	3 332.8	27 326.0	195 274.9	118.54	2 012.61	20 929.55
64	3 070.8	24 255.2	167 048.9	117.79	1 894.07	18 916.94
65	2 820.8	21 434.4	143 693.7	116.76	1 776.28	17 022.87
66	2 582.5	18 851.9	122 259.3	115.46	1 659.52	15 246.59
67	2 355.9	16 496.0	103 407.4	113.94	1 544.06	13 587.07
68	2 140.5	14 355.5	86 911.4	111.96	1 430.12	12 043.01
69	1 936.4	12 419.1	72 555.9	109.62	1 318.16	10 612.89
70	1 743.3	10 675.8	60 136.8	106.92	1 208.54	9 294.73
71	1 561.3	9 114.5	49 461.0	103.75	1 101.62	8 086.19
72	1 390.4	7 724.1	40 346.5	100.16	997.87	6 984.57
73	1 230.3	6 493.8	32 622.4	96.079	897.707	5 986.699
74	1 081.3	5 412.49	26 128.57	91.614	801.628	5 088.992
75	943.08	4 469.41	20 716.08	86.680	710.014	4 287.364
76	815.79	3 653.62	16 246.67	81.364	623.334	3 577.350
77	693.31	2 954.31	12 593.05	75.031	541.970	2 954.016
78	593.55	2 360.76	9 638.74	69.656	466.339	2 412.046
79	498.34	1 862.42	7 277.98	63.435	396.683	1 945.707
80	413.45	1 448.97	5 415.16	57.082	333.248	1 519.024
81	338.56	1 110.41	3 966.59	50.699	276.166	1 215.776
82	273.28	837.13	2 856.18	44.346	225.467	939.610
83	217.17	619.96	2 019.05	38.172	181.121	714.143
84	169.64	450.32	1 399.09	32.283	142.949	533.022
85	130.06	320.260	948.768	26.784	110.665	390.073
86	97.672	222.588	628.508	21.765	83.882	279.407
87	71.702	150.885	405.020	17.252	62.117	195.525
88	51.362	99.524	255.034	13.347	44.865	133.408
89	35.803	63.721	155.510	10.031	31.518	88.543
90	24.230	39.491	91.789	7.3223	21.4866	57.0253
91	15.865	23.625	52.298	5.1593	14.1643	35.5387
92	10.022	13.604	28.672	3.4861	9.0050	21.3744
93	6.105	7.499	15.068	2.2984	5.5189	12.3694
94	3.543	3.956	7.569	1.4205	3.2205	6.8505
95	1.970	1.985	3.613	.8478	1.8000	3.6300
96	1.038	.948	1.627	.4755	.9522	1.8300
97	.518	.430	.679	.2409	.4767	.8778
98	.254	.176	.249	.1281	.2358	.4011
99	.115	.061	.073	.0613	.1077	.1653
100	.049	.012	.012	.0312	.0464	.0576
101	.012	....	....	.0112	.0112	.0112

TABLE III.
COMMUTATION COLUMNS—H^M TABLE, MAKEHAM'S FORMULA.
FOUR PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
0	127 280	2 204 737	42 280 578	13 806.	37 500.	616 157.
1	108 580	2 096 17	40 075 841	3 663.0	23 784.0	578 567.3
2	100 740	1 995 417	37 979 084	2 111.3	20 121.0	554 783.3
3	94 757	1 900 690	35 984 267	1 407.0	18 009.7	534 662.3
4	89 706	1 810 954	34 083 607	1 086.1	16 602.7	516 652.6
5	85 165	1 725 789	32 272 653	838.53	15 513.57	500 040.89
6	81 051	1 644 738	30 546 864	647.46	14 075.04	484 536.32
7	77 288	1 567 450	28 902 126	499.06	14 027.58	469 861.28
8	73 814	1 493 636	27 334 676	391.35	13 528.52	455 853.70
9	70 585	1 423 051	25 841 040	313.47	13 137.17	442 305.18
10	67 557	1 355 494	24 417 989	265.03	12 823.70	429 168.01
11	64 692	1 290 802	23 062 495	230.48	12 558.67	416 344.31
12	61 974	1 228 828	21 771 603	207.80	12 328.10	403 785.64
13	59 384	1 169 444	20 542 865	194.61	12 120.39	391 457.45
14	56 904	1 112 540	19 373 421	187.12	11 925.78	379 337.06
15	54 528	1 058 012	18 260 881	192.21	11 738 66	367 411.28
16	52 240	1 005 772	17 202 860	197.13	11 546.45	355 672.62
17	50 032	955 740	16 197 097	209.79	11 349.32	344 126.17
18	47 868	907 842	15 241 357	220.71	11 130.53	332 776.85
19	45 836	862 006	14 333 515	231.84	10 918 82	321 637.22
20	43 841	818 165	13 471 509	240.48	10 686.08	310 718.50
21	41 914	776 251	12 653 344	245.58	10 446 50	300 031.52
22	40 057	736 194	11 877 093	247.09	10 200 92	289 585.02
23	38 268	697 926	11 140 899	246.17	9 953.83	279 384.10
24	36 551	661 375	10 442 973	242.70	9 707 66	269 430.27
25	34 903	626 472	9 781 598	237.33	9 464 96	259 722.61
26	33 323	593 149	9 155 126	230.29	9 227 63	250 257.65
27	31 810	561 339	8 561 977	224.43	8 997.34	241 030.02
28	30 363	530 976	8 000 638	217.40	8 772.91	232 032.68
29	28 977	501 999	7 469 662	211.50	8 555.51	223 259.77
30	27 652	474 347	6 967 663	204.86	8 344.01	214 704.26
31	26 383	447 904	6 493 316	199.54	8 139.15	206 360 25
32	25 169	422 795	6 045 352	194.33	7 939 61	198 221.10
33	24 007	398 788	5 622 557	189.50	7 745 28	190 281.49
34	22 894	375 804	5 223 769	184.74	7 555 78	182 536.21
35	21 828	354 066	4 847 875	180.80	7 371.04	174 930.43
36	20 808	333 258	4 493 809	177.13	7 190.24	167 609.39
37	19 831	313 427	4 160 551	173.47	7 013.11	160 410 15
38	18 894	294 533	3 847 124	170.26	6 839 64	153 406 04
39	17 997	276 536	3 552 591	167.88	6 669 38	146 566.40
40	17 138	259 398	3 276 055	164.83	6 501.50	139 897 02
41	16 313	243 085	3 016 657	162.02	6 336 67	133 395.72
42	15 523	227 502	2 773 577	161.28	6 173.75	127 058.85
43	14 765	212 707	2 546 010	159.35	6 012 47	120 885.10
44	14 038	198 759	2 333 213	158.19	5 853.12	114 872.63
45	13 340	185 419	2 134 451	157.04	5 694.93	109 019.51
46	12 670	172 749	1 949 037	156.07	5 537 89	103 324.58
47	12 026	160 723	1 776 286	155.39	5 381.82	97 786.69
48	11 408	149 315	1 615 563	155.27	5 226.43	92 404.87
49	10 814	138 501	1 466 248	154.92	5 071.16	87 178.44

TABLE III.—Cont.
COMMUTATION COLUMNS—H^M TABLE, MAKEHAM'S FORMULA,
FOUR PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
50	10 243.	128 258.0	1 327 747.3	154.79	4 916.24	82 107.28
51	9 094.4	118 563.6	1 199 489.3	155.21	4 761.45	77 191.04
52	9 156.4	109 397.2	1 080 625.7	155.49	4 606.24	72 429.59
53	8 658.2	100 739.0	971 528.5	155.89	4 450.75	67 823.35
54	8 169.4	92 569.6	870 789.5	156.48	4 294.86	63 372.60
55	7 698.7	84 870.9	778 219.9	157.25	4 138.38	59 077.74
56	7 245.4	77 625.5	693 349.0	157.72	3 981.13	54 939.36
57	6 808.9	70 816.6	615 723.5	158.44	3 823.41	50 958.23
58	6 388.7	64 427.9	544 906.9	159.37	3 664.97	47 134.82
59	5 983.6	58 444.3	480 479.0	159.89	3 505.60	43 469.85
60	5 593.6	52 850.7	422 034.7	160.42	3 345.71	39 964.25
61	5 218.1	47 632.6	369 184.0	160.83	3 185.29	36 618.54
62	4 856.5	42 776.1	321 551.4	161.07	3 024.46	33 433.25
63	4 508.6	38 267.5	278 775.3	161.14	2 863.39	30 408.79
64	4 174.1	34 093.4	240 507.8	160.88	2 702.25	27 545.40
65	3 852.7	30 240.7	205 414.4	160.25	2 541.37	24 843.15
66	3 544.2	26 696.5	176 173.7	159.21	2 381.12	22 301.78
67	3 248.7	23 447.8	149 477.2	157.88	2 221.91	19 920.66
68	2 965.9	20 481.9	126 029.4	155.88	2 064.03	17 698.75
69	2 695.9	17 786.0	105 547.5	153.36	1 908.15	15 634.72
70	2 438.9	15 347.1	87 761.5	150.30	1 754.79	13 720.57
71	2 194.7	13 152.4	72 414.4	146.54	1 604.49	11 971.78
72	1 963.8	11 188.6	59 262.0	142.16	1 457.95	10 367.29
73	1 746.1	9 442.5	48 073.4	137.02	1 315.70	8 909.34
74	1 541.9	7 900.6	38 630.9	131.27	1 178.77	7 593.55
75	1 351.4	6 549.2	30 730.3	124.80	1 047.50	6 414.78
76	1 174.6	5 374.6	24 181.1	117.71	922.70	5 367.28
77	1 011.7	4 362.91	18 806.47	109.94	804.99	4 444.58
78	862.84	3 500.07	14 443.56	101.75	695.05	3 639.59
79	727.93	2 772.14	10 943.49	93.102	593.299	2 944.536
80	606.81	2 165.33	8 171.35	81.182	500.197	2 351.237
81	499.30	1 666.03	6 006.02	75.120	416.015	1 851.040
82	404.97	1 261.06	4 339.99	66.028	340.886	1 435.025
83	323.36	937.70	3 078.93	57.111	274.858	1 094.139
84	253.81	683.89	2 141.23	48.532	217.747	819.281
85	195.52	488.37	1 457.34	40.459	169.215	601.534
86	147.54	340.83	968.97	33.035	128.756	432.319
87	108.83	232.001	628.136	26.312	95.721	303.563
88	78.332	153.669	306.135	20.453	69.409	207.842
89	54.866	98.803	242.466	15.446	48.956	138.433
90	37.310	61.493	143.663	11.329	33.510	89.477
91	24.547	36.946	82.170	8.0208	22.1811	55.9668
92	15.581	21.305	45.224	5.4457	14.1603	33.7857
93	9.536	11.829	23.859	3.6077	8.7146	19.6254
94	5.562	6.267	12.030	2.2403	5.1064	10.9108
95	3.108	3.159	5.763	1.3435	2.8666	5.8039
96	1.645	1.514	2.604	.7573	1.5231	2.9373
97	.824	.600	1.090	.3855	.7658	1.4142
98	.407	.283	.400	.2059	.3803	.6484
99	.185	.098	.117	.0990	.1744	.2681
100	.079	.019	.019	.0571	.0754	.0937
101	.019	....	....	.0183	.0183	.0183

TABLE IV.
COMMUTATION COLUMNS—H^M TABLE, MAKEHAM'S FORMULA.
THREE AND ONE-HALF PER CENT.

Age	D _x	N _x	S _x	C _x	M _x	R _x
0	127 280	2 425 772	49 703 849	13 872.	40 948.	785 908
1	109 110	2 310 652	47 278 077	3 698.5	27 075.5	744 959.6
2	101 720	2 214 942	44 901 415	2 142.1	23 377.0	717 884.1
3	96 137	2 118 805	42 746 473	1 434.4	21 234.9	694 507.1
4	91 451	2 027 354	40 627 668	1 115.6	19 800.5	673 272.2
5	87 243	1 940 111	38 600 314	853.14	18 084.94	653 471.65
6	83 433	1 856 631	36 600 203	660.67	17 821.80	634 786.75
7	79 939	1 776 742	34 803 522	518.68	17 152.13	616 964.95
8	76 717	1 700 025	33 026 780	408.70	16 633.45	599 812.82
9	73 714	1 626 311	31 326 755	328.94	16 224.75	583 179.37
10	70 892	1 555 419	29 700 444	279.46	15 895.81	566 954.62
11	68 215	1 487 204	28 145 025	244.20	15 616.35	551 058.81
12	65 664	1 421 540	26 657 821	221.24	15 372.15	535 442.46
13	63 224	1 358 316	25 236 281	208.19	15 150.91	520 070.31
14	60 877	1 297 439	23 877 965	201.15	14 942.72	504 919.40
15	58 615	1 238 824	22 580 526	207.61	14 741.57	489 976.68
16	56 426	1 182 398	21 341 702	213.96	14 533.96	475 235.11
17	54 334	1 128 091	20 159 304	228.80	14 320.00	460 701.15
18	52 248	1 075 856	19 031 210	241.87	14 091.20	446 381.15
19	50 231	1 025 625	17 955 354	255.30	13 849.33	432 289.95
20	48 277	977 318	16 929 729	266.09	13 594.03	418 440.62
21	46 378	930 970	15 954 381	273.04	13 327.94	404 846.59
22	44 537	886 433	15 021 411	276.05	13 054.90	391 518.65
23	42 754	843 679	14 134 978	276.35	12 778.85	378 463.75
24	41 033	802 646	13 291 299	273.77	12 502.50	365 684.90
25	39 371	763 275	12 488 653	260.02	12 228.73	353 182.40
26	37 771	725 504	11 725 373	262.20	11 959.71	340 953.67
27	36 231	689 273	10 999 874	256.86	11 697.42	328 993.96
28	34 750	654 523	10 310 631	250.01	11 440.56	317 296.54
29	33 344	621 199	9 656 078	244.41	11 190.55	305 855.98
30	31 953	589 246	9 034 879	237.85	10 946.14	294 665.43
31	30 634	558 612	8 445 633	232.81	10 708.28	283 719.29
32	29 366	529 246	7 887 021	227.83	10 475.47	273 011.01
33	28 145	501 101	7 357 775	223.23	10 247.64	262 535.54
34	26 970	474 131	6 856 674	218.63	10 024.41	252 287.90
35	25 839	448 292	6 382 543	215.06	9 805.72	242 263.49
36	24 750	423 542	5 934 251	211.70	9 590.66	232 457.77
37	23 702	399 840	5 510 709	208.33	9 378.96	222 867.11
38	22 692	377 143	5 110 869	205.47	9 170.63	213 488.15
39	21 719	355 420	4 733 721	203.58	8 965.16	204 317.52
40	20 781	334 648	4 378 292	201.84	8 761.58	195 352.36
41	19 877	314 771	4 043 644	199.47	8 560.74	186 590.78
42	19 006	295 765	3 728 873	197.42	8 361.27	178 030.04
43	18 165	277 600	3 433 108	195.99	8 162.85	169 658.77
44	17 353	260 247	3 155 503	194.49	7 965.86	161 505.92
45	16 570	243 677	2 895 261	196.02	7 769.37	153 540.66
46	15 814	227 863	2 651 584	195.74	7 573.35	145 770.69
47	15 083	212 780	2 423 721	195.83	7 377.61	138 197.34
48	14 377	198 403	2 210 941	196.03	7 181.78	130 819.73
49	13 694	184 700	2 012 538	197.14	6 985.15	123 637.95

TABLE IV.—Cont.

COMMUTATION COLUMNS—H_M TABLE, MAKEHAM'S FORMULA.
THREE AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
50	13 034.	171 675.	1 827 829.	197.91	6 788.01	116 652.80
51	12 395.	159 280.	1 656 154.	199.41	6 590.10	109 864.79
52	11 777.	147 503.	1 496 874.	200.74	6 390.69	103 274.69
53	11 178.	136 325.	1 349 371.	202.22	6 189.95	96 884.00
54	10 598.	125 727.	1 213 046.	203.98	5 987.73	90 694.05
55	10 035.	115 691.8	1 087 319.3	205.96	5 783.75	84 706.32
56	9 490.1	106 201.7	971 627.5	207.58	5 577.79	78 922.57
57	8 961.5	97 240.2	865 425.8	209.54	5 370.21	73 344.78
58	8 448.9	88 791.3	768 185.6	211.78	5 160.67	67 974.57
59	7 951.5	80 839.8	679 394.3	213.51	4 948.89	62 813.90
60	7 469.1	73 370.7	598 554.5	215.24	4 735.38	57 865.01
61	7 001.3	66 369.4	525 183.8	216.85	4 520.14	53 129.63
62	6 547.7	59 821.7	458 814.4	218.21	4 303.29	48 609.49
63	6 108.0	53 713.7	398 992.7	219.35	4 085.08	44 306.20
64	5 682.1	48 031.6	345 279.0	220.06	3 865.73	40 221.12
65	5 270.0	42 761.6	297 247.4	220.26	3 645.67	36 355.39
66	4 871.5	37 890.1	254 485.8	219.89	3 425.41	32 709.72
67	4 486.8	33 403.3	216 595.7	219.11	3 205.52	29 284.31
68	4 116.0	29 287.3	183 192.4	217.38	2 986.41	26 078.79
69	3 759.5	25 527.8	153 905.1	214.89	2 769.03	23 092.38
70	3 417.4	22 110.4	128 377.3	211.62	2 554.14	20 323.35
71	3 090.2	19 020.2	106 266.9	207.32	2 342.52	17 769.21
72	2 778.4	16 241.8	87 246.7	202.09	2 135.20	15 426.69
73	2 482.3	13 759.5	71 004.9	195.73	1 933.11	13 291.49
74	2 202.7	11 556.8	57 245.4	188.43	1 737.38	11 358.38
75	1 939.7	9 617.1	45 688.6	180.01	1 548.95	9 621.00
76	1 694.1	7 923.0	36 071.5	170.60	1 368.94	8 072.05
77	1 466.3	6 453.7	28 148.5	160.11	1 198.34	6 703.11
78	1 256.6	5 200.1	21 691.8	148.89	1 038.23	5 504.77
79	1 065.2	4 134.89	16 491.72	136.90	889.34	4 466.54
80	892.26	3 242.63	12 356.83	124.38	752.44	3 577.20
81	737.72	2 504.91	9 114.20	111.54	628.06	2 824.76
82	601.23	1 903.68	6 609.29	98 503	516.521	2 196.695
83	482.39	1 421.29	4 705.61	85.611	418.018	1 680.174
84	380.47	1 040.82	3 284.32	73.102	332.407	1 262.156
85	294.50	746.32	2 243.50	61.236	259.305	929.749
86	223.31	523.01	1 497.18	50.241	198.069	670.444
87	165.52	357.49	974.17	40.210	147.828	472.375
88	119.71	237.784	616.680	31.407	107.618	324.547
89	84.252	153.532	378.896	23.813	76.211	215.929
90	57.571	95.961	225.364	17.565	52.378	140.718
91	38.058	57.903	129.403	12.495	34.813	88.340
92	24.275	33.628	71.500	8.5251	22.3170	53.5272
93	14.929	18.699	37.872	5.6751	13.7910	31.2102
94	8.749	9.950	19.173	3.5412	8.1168	17.4183
95	4.912	5.038	9.223	2.1338	4.5756	9.3015
96	2.612	2.426	4.185	1.2036	2.4418	4.7259
97	1.315	1.111	1.759	.6183	1.2332	2.2841
98	.653	.458	.648	.3317	.6149	1.0509
99	.299	.199	.190	.1603	.2832	.4360
100	.128	.031	.031	.0930	.1229	.1528
101	.031	....	....	.0299	.0299	.0299

TABLE V.
COMMUTATION COLUMNS—H^M TABLE, MAKEHAM'S FORMULA.
THREE PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
0	127 283	2 688 021	58 493 170	13 940.	45284.	1 016 517.
1	109 636	2 578 385	56 255 149	3 734.6	31 344.2	971 233.2
2	102 708	2 475 077	53 676 764	2 173.5	27 009.6	939 889.0
3	97 544	2 378 133	51 201 087	1 462.4	25 436.1	912 279.4
4	93 240	2 284 893	48 822 954	1 143.0	23 973.7	886 843.3
5	89 380	2 195 513	42 538 061	888.59	22 830.68	862 809.57
6	85 889	2 109 624	44 342 548	692.76	21 942.09	840 038.89
7	82 695	2 026 929	42 232 924	539.16	21 249.33	818 096.80
8	79 746	1 947 183	40 205 995	426.89	20 710.17	796 847.47
9	76 996	1 870 187	38 258 812	345.26	20 283.28	776 137.30
10	74 410	1 795 777	36 388 625	294.75	19 938.02	755 854.02
11	71 947	1 723 830	34 592 848	258.81	19 643.27	735 916.00
12	69 592	1 654 238	32 869 018	235.61	19 384.46	716 272.73
13	67 332	1 586 905	31 214 780	222.80	19 148.85	696 888.27
14	65 146	1 521 760	29 627 874	216.31	18 926.05	677 739.42
15	63 032	1 458 728	28 106 114	224.34	18 709.74	658 813.37
16	60 972	1 397 756	26 647 386	232.33	18 485.40	640 103.63
17	58 964	1 338 792	25 249 630	249.64	18 253.07	621 618.23
18	56 997	1 281 795	23 910 838	265.18	18 003.43	603 365.16
19	55 072	1 226 723	22 629 043	281.27	17 738.25	585 301.73
20	53 188	1 173 535	21 402 320	294.58	17 456.98	567 623.48
21	51 343	1 122 192	20 228 785	303.74	17 162.40	550 166.50
22	49 544	1 072 648	19 106 593	308.57	16 858.06	533 004.10
23	47 791	1 024 857	18 033 945	310.41	16 550.09	516 145.44
24	46 090	978 767	17 009 088	309.01	16 239.68	499 595.35
25	44 439	934 328	16 030 321	305.11	15 930.57	483 355.67
26	42 839	891 480	19 095 993	298.92	15 625.56	467 425.00
27	41 291	850 108	14 204 504	294.16	15 326.64	451 799.44
28	39 796	810 402	13 354 306	287.71	15 032.48	436 472.80
29	38 349	772 053	12 543 904	282.62	14 744.77	421 440.32
30	36 949	735 104	11 771 851	276.39	14 462.15	406 695.55
31	35 597	699 507	11 036 747	271.84	14 185.76	392 233.40
32	34 288	665 219	10 337 240	267.31	13 913.92	378 047.64
33	33 022	632 197	9 672 021	263.18	13 646.01	364 133.72
34	31 797	600 405	9 039 824	259.08	13 383.43	350 487.11
35	30 612	569 788	8 439 424	256.01	13 124.35	337 103.68
36	29 464	540 321	7 869 636	253.24	12 868.34	323 979.33
37	28 352	511 972	7 329 312	250.43	12 615.10	311 110.99
38	27 277	484 635	6 817 340	248.18	12 364.67	298 495.89
39	26 231	458 401	6 332 615	247.09	12 116.49	286 131.22
40	25 223	433 238	5 874 181	244.95	11 869.40	274 014.73
41	24 243	408 995	5 440 945	244.46	11 624.45	262 145.33
42	23 293	385 712	5 031 951	244.35	11 379.99	250 520.88
43	22 370	363 332	4 646 249	243.77	11 135.64	239 140.89
44	21 474	341 858	4 282 917	244.34	10 891.87	228 005.25
45	20 604	321 254	3 941 059	244.93	10 647.53	217 113.78
46	19 760	301 494	3 619 805	245.77	10 402.65	205 495.85
47	18 938	282 556	3 318 311	247.08	10 156.83	196 063.25
48	18 139	264 417	3 035 715	249.29	9 909.75	185 906.42
49	17 362	247 055	2 771 338	251.15	9 660.46	175 996.67

TABLE V.—Cont.
COMMUTATION COLUMNS—H^M TABLE, MAKEHAM'S FORMULA,
THREE PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
50	16 605.	230 450.	2 524 283.	253.36	9 409.31	166 336 21
51	15 868.	214 582.	2 293 833.	256.51	9 155.95	156 026 90
52	15 149.	199 433.	2 079 251.	259.48	8 809.44	147 770.95
53	14 449.	184 084.	1 879 818.	262.66	8 639.96	138 871 51
54	13 765.	171 219.	1 694 834.	266.23	8 377.30	130 231.55
55	13 098.	158 121.	1 523 615.	270.13	8 111.07	121 854.25
56	12 447.	145 674.	1 365 494.	273.57	7 840.94	113 743 18
57	11 810.	133 864.	1 219 820.	277.49	7 567.37	105 902.24
58	11 189.	122 675.	1 085 956.	281.82	7 289.88	98 334 87
59	10 581.	112 093.8	963 280.6	285.50	7 008.06	91 044.99
60	9 937.6	102 106.2	851 186.8	289.21	6 722.56	84 036 93
61	9 407.4	92 698.8	749 080.6	292.78	6 433.35	77 314.37
62	8 840.6	83 858.2	656 381.8	296.05	6 140.57	70 881.02
63	8 286.9	75 571.3	572 523.6	299.05	5 844.52	64 749.45
64	7 746.6	67 824.7	495 952.3	301.47	5 545.47	58 895.93
65	7 210.5	60 605.2	427 127.6	303.20	5 244.00	53 350.46
66	6 705.9	53 890.3	368 522.4	304.17	4 940.80	48 106.46
67	6 201.5	47 692.8	314 623.1	304.56	4 636.63	43 165.66
68	5 721.2	41 971.6	266 930.3	303.62	4 332.07	38 529.03
69	5 251.0	36 720.6	224 958.7	301.59	4 028.45	34 196.96
70	4 790.3	31 924.3	188 233.1	298.46	3 726.86	30 168.51
71	4 358.2	27 566.1	156 313.8	293.81	3 428.40	26 441.65
72	3 937.5	23 628.6	128 747.7	287.79	3 131.59	23 013.25
73	3 535.0	20 093.6	105 119.1	280.09	2 846.30	19 878.66
74	3 152.0	16 941.6	85 025.5	270.95	2 566.71	17 031.86
75	2 789.2	14 152.4	68 083.9	260.09	2 295.76	14 465.15
76	2 447.9	11 704.5	53 931.5	247.69	2 035.67	12 169.39
77	2 128.9	9 575.6	42 227.0	233.60	1 787.98	10 133.72
78	1 833.3	7 742.3	32 651.4	218.28	1 554.38	8 345.74
79	1 591.6	6 180.7	24 909.1	201.67	1 336.10	6 791.36
80	1 314.4	4 866.3	18 728.4	184.12	1 134.43	5 455.26
81	1 012.0	3 774.27	13 862.06	165.92	950.31	4 320.83
82	804.33	2 879.94	10 087.79	147.23	784.39	3 370.52
83	721.04	2 158.90	7 207.85	128.58	637.16	2 586.13
84	571.45	1 587.45	5 048.95	110.33	508.58	1 948.97
85	444.49	1 142.96	3 461.50	92.871	398.246	1 440.392
86	338.66	804.30	2 318.54	76.565	305.375	1 042.146
87	252.24	552.06	1 514.24	61.574	228.810	736.771
88	183.31	368.75	962.18	48.329	167.236	507.951
89	129.65	239.100	593.425	36.852	118.907	340.725
90	89.018	150.082	354.325	27.292	82.055	221.818
91	59 133.	90.949	204.243	19 511	54.763	139 793
92	37.901	53.048	113.294	13.375	35.252	85.000
93	23.422	29.626	63.246	8.9466	21.8765	49.7476
94	13.793	15.833	30.620	5.6007	12.9299	27.8711
95	7.781	8.052	14.787	3.3967	7.3202	14.9412
96	4.158	3.894	6.735	1.9332	3.9235	7.6210
97	2.104	1.790	2.841	.9936	1.9903	3.6975
98	1.049	.741	1.051	.5359	.9967	1.7972
99	.482	.259	.310	.2602	.4608	.7105
100	.208	.051	.051	.1515	.2006	.2477
101	.051	....	....	.0491	.0491	.0491

TABLE I.
H^M (KING & HARDY) JOINT LIFE ANNUITIES—EQUAL AGES,
FOUR AND ONE-HALF PER CENT.

Age.	Two Lives 2 _{xx}	Three Lives 3 _{xxx}	Four Lives 4 _{xxxx}	Age.	Two Lives 2 _{xx}	Three Lives 3 _{xxx}	Four Lives 4 _{xxxx}
0	11 952	9.165	7.106	51	9.053	7.512	6.453
1	14 863	12 714	10 986	52	8.784	7.256	6.211
2	15 680	13 788	12 243	53	8.512	6.998	5.970
3	16 132	14.394	12.973	54	8.237	6.740	5.729
4	16.390	14.761	13.427	55	7.962	6.482	5.488
5	16.569	15.024	13.763	56	7.685	6.224	5.249
6	16.674	15.193	13.988	57	7.407	5.967	5.012
7	16.717	15.278	14.113	58	7.129	5.711	4.776
8	16.707	15.292	14.151	59	6.852	5.457	4.544
9	16.653	15.248	14.119	60	6.575	5.206	4.316
10	16.504	15.157	14.029	61	6.300	4.957	4.091
11	16.452	15.035	13.903	62	6.027	4.712	3.870
12	16.321	14.887	13.746	63	5.756	4.471	3.654
13	16.174	14.720	13.566	64	5.489	4.235	3.442
14	16.018	14.542	13.372	65	5.225	4.003	3.237
15	15.854	14.353	13.167	66	4.965	3.777	3.037
16	15.689	14.165	12.952	67	4.709	3.556	2.843
17	15.525	13.978	12.761	68	4.459	3.341	2.656
18	15.366	13.800	12.570	69	4.214	3.133	2.475
19	15.212	13.630	12.390	70	3.975	2.932	2.301
20	15.065	13.470	12.224	71	3.742	2.737	2.134
21	14.925	13.320	12.070	72	3.516	2.549	1.974
22	14.788	13.177	11.925	73	3.296	2.369	1.822
23	14.653	13.039	11.787	74	3.084	2.196	1.676
24	14.520	12.902	11.652	75	2.879	2.031	1.538
25	14.385	12.766	11.518	76	2.682	1.873	1.406
26	14.247	12.628	11.383	77	2.493	1.723	1.283
27	14.105	12.485	11.244	78	2.312	1.580	1.165
28	13.958	12.338	11.101	79	2.138	1.445	1.055
29	13.806	12.186	10.953	80	1.973	1.317	.952
30	13.649	12.029	10.800	81	1.815	1.197	.855
31	13.486	11.875	10.640	82	1.666	1.084	.765
32	13.317	11.706	10.476	83	1.525	.978	.682
33	13.142	11.522	10.3.7	84	1.391	.879	.604
34	12.961	11.341	10.132	85	1.265	.786	.532
35	12.776	11.155	9.950	86	1.146	.700	.466
36	12.583	10.974	9.765	87	1.036	.621	.406
37	12.385	10.797	9.573	88	.932	.547	.350
38	12.181	10.574	9.377	89	.835	.480	.300
39	11.972	10.357	9.175	90	.744	.417	.255
40	11.756	10.143	8.969	91	.661	.361	.214
41	11.536	9.925	8.757	92	.585	.311	.180
42	11.309	9.7.1	8.541	93	.510	.261	.145
43	11.077	9.473	8.322	94	.449	.222	.119
44	10.840	9.240	8.098	95	.389	.184	.094
45	10.5-8	9.003	7.871	96	.342	.155	.076
46	10.351	8.763	7.649	97	.317	.144	.070
47	10.099	8.519	7.407	98	.258	.110	.050
48	9.844	8.271	7.171	99	.200	.085	.037
49	9.574	8.021	6.933	100	.160	.075	.034
50	9.320	7.768	6.694				

H_M (KING & HARDY) JOINT LIFE TABLE.

TABLE II.
H_M (KING & HARDY) JOINT LIFE ANNUITIES—EQUAL AGES.
FOUR PER CENT.

Age.	Two Lives $a_{\overline{2}|}$	Three Lives $a_{\overline{3}|}$	Four Lives $a_{\overline{4}|}$	Age.	Two Lives $a_{\overline{2}|}$	Three Lives $a_{\overline{3}|}$	Four Lives $a_{\overline{4}|}$
0	12.938	9.850	7.594	51	9.407	7.764	6.644
1	16.095	13.669	11.747	52	9.117	7.492	6.389
2	16.978	14.824	13.093	53	8.826	7.219	6.135
3	17.453	15.470	13.871	54	8.533	6.945	5.882
4	17.725	15.859	14.353	55	8.238	6.673	5.620
5	17.908	16.134	14.705	56	7.944	6.401	5.380
6	18.012	16.305	14.936	57	7.649	6.131	5.132
7	18.047	16.380	15.060	58	7.354	5.862	4.887
8	18.024	16.391	15.091	59	7.061	5.597	4.646
9	17.953	16.332	15.045	60	6.769	5.334	4.408
10	17.844	16.222	14.940	61	6.479	5.075	4.175
11	17.711	16.079	14.794	62	6.193	4.820	3.946
12	17.557	15.910	14.616	63	5.909	4.569	3.723
13	17.386	15.720	14.414	64	5.620	4.324	3.505
14	17.207	15.518	14.197	65	5.353	4.084	3.293
15	17.018	15.305	13.969	66	5.082	3.850	3.088
16	16.829	15.093	13.742	67	4.816	3.622	2.888
17	16.641	14.884	13.519	68	4.556	3.401	2.696
18	16.458	14.683	13.308	69	4.302	3.186	2.511
19	16.281	14.492	13.108	70	4.054	2.979	2.333
20	16.112	14.312	12.923	71	3.814	2.779	2.163
21	15.950	14.142	12.751	72	3.580	2.587	1.999
22	15.791	13.979	12.589	73	3.354	2.402	1.844
23	15.637	13.823	12.435	74	3.136	2.226	1.695
24	15.481	13.668	12.283	75	2.925	2.057	1.555
25	15.325	13.513	12.134	76	2.723	1.896	1.421
26	15.166	13.356	11.982	77	2.530	1.743	1.295
27	15.002	13.194	11.827	78	2.344	1.598	1.177
28	14.833	13.028	11.666	79	2.166	1.460	1.065
29	14.659	12.857	11.502	80	1.998	1.331	.960
30	14.479	12.681	11.332	81	1.837	1.208	.862
31	14.293	12.497	11.156	82	1.685	1.094	.771
32	14.102	12.309	10.975	83	1.541	.987	.687
33	13.905	12.114	10.788	84	1.406	.886	.608
34	13.701	11.914	10.595	85	1.278	.793	.536
35	13.491	11.708	10.397	86	1.157	.706	.469
36	13.276	11.497	10.194	87	1.045	.626	.408
37	13.054	11.280	9.985	88	.940	.551	.353
38	12.827	11.057	9.772	89	.842	.483	.302
39	12.594	10.829	9.552	90	.750	.420	.256
40	12.355	10.596	9.329	91	.666	.363	.216
41	12.111	10.358	9.101	92	.590	.313	.181
42	11.860	10.115	8.868	93	.514	.263	.146
43	11.606	9.868	8.633	94	.452	.221	.120
44	11.346	9.616	8.393	95	.392	.185	.095
45	11.082	9.360	8.150	96	.345	.156	.076
46	10.812	9.101	7.904	97	.319	.145	.070
47	10.538	8.839	7.655	98	.299	.111	.050
48	10.260	8.573	7.404	99	.281	.085	.038
49	9.979	8.305	7.152	100	.260	.015	.004
50	9.695	8.036	6.899				

TABLE III.
H^M (KING & HARDY) JOINT LIFE ANNUITIES—EQUAL AGES,
THREE AND ONE-HALF PER CENT.

Age.	Two Lives a _{xx}	Three Lives a _{xxx}	Four Lives a _{xxxx}	Age.	Two Lives a _{xx}	Three Lives a _{xxx}	Four Lives a _{xxxx}
0	14.079	10.633	8.146	51	9.785	8.030	6.845
1	17.513	14.760	12.608	52	9.474	7.740	6.577
2	18.467	16.004	14.053	53	9.161	7.451	6.309
3	18.974	16.696	14.885	54	8.847	7.161	6.043
4	19.260	17.107	15.396	55	8.532	6.873	5.779
5	19.447	17.393	15.765	56	8.218	6.587	5.517
6	19.546	17.567	16.003	57	7.904	6.303	5.258
7	19.570	17.642	16.124	58	7.592	6.021	5.002
8	19.530	17.633	16.145	59	7.282	5.742	4.751
9	19.439	17.555	16.084	60	6.973	5.468	4.504
10	19.307	17.424	15.958	61	6.668	5.197	4.262
11	19.146	17.257	15.789	62	6.366	4.921	4.025
12	18.964	17.060	15.586	63	6.068	4.671	3.794
13	18.765	16.843	15.358	64	5.775	4.416	3.570
14	18.555	16.612	15.115	65	5.486	4.167	3.351
15	18.337	16.372	14.860	66	5.204	3.925	3.140
16	18.118	16.132	14.608	67	4.927	3.660	2.935
17	17.901	15.895	14.359	68	4.656	3.402	2.738
18	17.660	15.669	14.121	69	4.393	3.241	2.548
19	17.486	15.452	13.901	70	4.136	3.028	2.366
20	17.289	15.248	13.694	71	3.887	2.823	2.191
21	17.101	15.055	13.502	72	3.646	2.626	2.025
22	16.917	14.870	13.320	73	3.413	2.437	1.866
23	16.736	14.691	13.146	74	3.189	2.256	1.715
24	16.555	14.514	12.976	75	2.973	2.083	1.572
25	16.374	14.337	12.808	76	2.765	1.919	1.436
26	16.189	14.159	12.637	77	2.567	1.764	1.308
27	16.000	13.976	12.464	78	2.377	1.616	1.188
28	15.805	13.787	12.284	79	2.195	1.476	1.075
29	15.605	13.593	12.100	80	2.023	1.344	.969
30	15.399	13.394	11.912	81	1.859	1.220	.869
31	15.187	13.189	11.716	82	1.705	1.104	.777
32	14.978	12.978	11.515	83	1.558	.995	.692
33	14.744	12.761	11.309	84	1.420	.894	.613
34	14.513	12.538	11.097	85	1.290	.799	.540
35	14.277	12.309	10.879	86	1.168	.711	.472
36	14.035	12.075	10.656	87	1.055	.630	.411
37	13.787	11.836	10.428	88	.948	.555	.355
38	13.532	11.590	10.195	89	.849	.486	.304
39	13.272	11.339	9.958	90	.756	.423	.258
40	13.007	11.084	9.715	91	.671	.366	.217
41	12.736	10.824	9.468	92	.594	.315	.182
42	12.459	10.559	9.217	93	.517	.264	.147
43	12.179	10.291	8.964	94	.455	.225	.121
44	11.893	10.018	8.700	95	.394	.186	.095
45	11.603	9.742	8.446	96	.347	.157	.076
46	11.308	9.462	8.183	97	.321	.145	.071
47	11.010	9.180	7.918	98	.261	.112	.050
48	10.709	8.895	7.651	99	.202	.086	.038
49	10.404	8.608	7.383	100	.060	.015	.004
50	10.096	8.320	7.114				

TABLE IV.
H^M (KING & HARDY) JOINT LIFE ANNUITIES—EQUAL AGES,
THREE PER CENT.

Age.	Two Lives a _{xx}	Three Lives a _{xxx}	Four Lives a _{xxxx}	Age.	Two Lives a _{xx}	Three Lives a _{xxx}	Four Lives a _{xxxx}
0	15.406	11.534	8.774	51	10.190	8.312	7.057
1	19.161	16.013	13.587	52	9.854	8.004	6.774
2	20.197	17.358	15.143	53	9.517	7.696	6.491
3	20.740	18.100	16.035	54	9.180	7.389	6.211
4	21.038	18.534	16.577	55	8.844	7.085	5.934
5	21.227	18.833	16.965	56	8.509	6.783	5.660
6	21.318	19.006	17.208	57	8.175	6.483	5.389
7	21.327	19.072	17.325	58	7.843	6.187	5.122
8	21.265	19.046	17.333	59	7.514	5.895	4.861
9	21.147	18.916	17.253	60	7.188	5.607	4.604
10	20.984	18.787	17.103	61	6.866	5.325	4.353
11	20.791	18.589	16.906	62	6.548	5.048	4.107
12	20.575	18.361	16.674	63	6.235	4.777	3.869
13	20.339	18.110	16.414	64	5.928	4.512	3.636
14	20.094	17.846	16.141	65	5.626	4.254	3.411
15	19.839	17.572	15.854	66	5.331	4.004	3.193
16	19.583	17.300	15.571	67	5.042	3.760	2.983
17	19.332	17.030	15.293	68	4.761	3.525	2.780
18	19.087	16.773	15.029	69	4.487	3.297	2.586
19	18.848	16.526	14.780	70	4.221	3.078	2.399
20	18.619	16.293	14.548	71	3.964	2.868	2.221
21	18.398	16.073	14.331	72	3.715	2.665	2.051
22	18.183	15.861	14.126	73	3.475	2.472	1.889
23	17.972	15.656	13.930	74	3.243	2.287	1.735
24	17.761	15.453	13.738	75	3.021	2.111	1.589
25	17.549	15.251	13.548	76	2.808	1.943	1.451
26	17.334	15.046	13.356	77	2.605	1.784	1.322
27	17.114	14.837	13.160	78	2.410	1.634	1.199
28	16.888	14.623	12.959	79	2.225	1.492	1.084
29	16.657	14.404	12.754	80	2.049	1.358	.977
30	16.420	14.179	12.543	81	1.882	1.232	.877
31	16.176	13.947	12.325	82	1.724	1.114	.784
32	15.927	13.710	12.102	83	1.576	1.004	.697
33	15.671	13.467	11.874	84	1.435	.901	.617
34	15.410	13.218	11.640	85	1.303	.806	.543
35	15.142	12.961	11.400	86	1.179	.717	.475
36	14.869	12.701	11.156	87	1.064	.635	.414
37	14.589	12.439	10.906	88	.956	.559	.357
38	14.304	12.167	10.652	89	.856	.490	.306
39	14.013	11.892	10.392	90	.762	.425	.259
40	13.718	11.612	10.130	91	.676	.368	.218
41	13.417	11.327	9.862	92	.598	.317	.183
42	13.110	11.037	9.590	93	.521	.266	.147
43	12.800	10.746	9.317	94	.458	.225	.121
44	12.485	10.449	9.040	95	.397	.187	.096
45	12.167	10.150	8.761	96	.349	.157	.077
46	11.844	9.847	8.479	97	.303	.126	.071
47	11.518	9.543	8.196	98	.262	.112	.051
48	11.189	9.237	7.912	99	.223	.087	.038
49	10.858	8.930	7.627	100	.061	.015	.004
50	10.525	8.621	7.342				

FORCE OF MORTALITY.

Age	μ_x	Age.	μ_x	Age.	μ_x	Age.	μ_x
0	.15920	26	.00716	52	.01727	78	.12523
1	.07901	27	.00720	53	.01833	79	.13062
2	.02366	28	.00742	54	.01950	80	.14909
3	.01787	29	.00755	55	.02077	81	.16275
4	.01379	30	.00768	56	.02216	82	.17772
5	.01142	31	.00782	57	.02369	83	.19412
6	.00925	32	.00798	58	.02536	84	.21209
7	.00748	33	.00815	59	.02719	85	.23177
8	.00607	34	.00833	60	.02920	86	.25343
9	.00502	35	.00854	61	.03140	87	.27697
10	.00428	36	.00876	62	.03381	88	.30286
11	.00388	37	.00901	63	.03645	89	.33123
12	.00359	38	.00928	64	.03934	90	.36230
13	.00342	39	.00957	65	.04251	91	.39635
14	.00340	40	.00990	66	.04599	92	.43366
15	.00353	41	.01025	67	.04979	93	.47453
16	.00378	42	.01064	68	.05396	94	.51930
17	.00414	43	.01106	69	.05853	95	.56836
18	.00458	44	.01153	70	.06353	96	.62211
19	.00504	45	.01204	71	.06901	97	.68100
20	.00550	46	.01260	72	.07502	98	.74552
21	.00592	47	.01321	73	.08160	99	.81621
22	.00629	48	.01388	74	.08881	100	.89366
23	.00659	49	.01462	75	.09671	101	.97851
24	.00682	50	.01542	76	.10536	102	.....
25	.00701	51	.01631	77	.11485		

TABLE I.
H^M (5) MORTALITY TABLE (WOOLHOUSE).

Age	l_x	d_x	μ_x	$(1 - \mu_x)$	Age	l_x	d_x	μ_x	$(1 - \mu_x)$
10	10 000	40	.996 000	.004 000	54	6 309	134	.979 059	.020 941
11	9 960	34	.996 586	.003 414	55	6 265	139	.977 813	.022 187
12	9 926	30	.996 978	.003 022	56	6 126	144	.976 494	.023 506
13	9 896	29	.997 069	.002 931	57	5 982	150	.974 925	.025 075
14	9 867	30	.996 960	.003 040	58	5 832	155	.973 423	.026 577
15	9 837	32	.996 747	.003 253	59	5 677	161	.971 640	.028 360
16	9 805	37	.996 225	.003 774	60	5 516	169	.969 362	.030 638
17	9 768	43	.995 598	.004 402	61	5 347	176	.967 084	.032 916
18	9 725	53	.994 550	.005 450	62	5 171	184	.964 417	.035 583
19	9 672	65	.993 280	.006 720	63	4 987	192	.961 500	.038 500
20	9 607	80	.991 673	.008 327	64	4 795	200	.958 200	.041 710
21	9 527	92	.990 343	.009 657	65	4 595	205	.955 386	.044 614
22	9 435	97	.989 719	.010 281	66	4 390	210	.952 104	.047 896
23	9 338	100	.989 291	.010 709	67	4 180	213	.949 043	.050 957
24	9 238	100	.989 175	.010 825	68	3 967	216	.945 551	.054 449
25	9 138	96	.989 494	.010 506	69	3 751	218	.941 882	.058 118
26	9 042	91	.989 936	.010 064	70	3 533	222	.937 164	.062 836
27	8 951	89	.990 057	.009 943	71	3 311	227	.931 441	.068 559
28	8 862	86	.990 296	.009 704	72	3 084	233	.924 449	.075 551
29	8 776	83	.990 542	.009 458	73	2 851	238	.916 520	.083 480
30	8 693	80	.990 797	.009 203	74	2 613	241	.907 769	.092 231
31	8 613	79	.990 828	.009 172	75	2 372	236	.900 506	.099 494
32	8 534	79	.990 713	.009 287	76	2 136	231	.891 854	.108 146
33	8 455	78	.990 775	.009 225	77	1 905	220	.884 514	.115 486
34	8 377	79	.990 569	.009 431	78	1 685	210	.875 371	.124 629
35	8 298	83	.989 698	.010 302	79	1 475	197	.865 085	.134 915
36	8 215	85	.989 653	.010 347	80	1 270	186	.854 232	.145 768
37	8 130	87	.989 299	.010 701	81	1 090	173	.841 284	.158 716
38	8 043	89	.988 935	.011 065	82	917	158	.827 699	.172 301
39	7 954	89	.988 811	.011 189	83	759	141	.814 230	.185 770
40	7 865	89	.988 684	.011 316	84	618	123	.800 070	.199 930
41	7 776	88	.988 633	.011 317	85	495	104	.789 899	.210 101
42	7 688	89	.988 424	.011 576	86	391	86	.780 051	.219 949
43	7 599	90	.988 156	.011 844	87	305	71	.767 213	.232 787
44	7 509	92	.987 748	.012 252	88	234	57	.756 410	.243 590
45	7 417	96	.987 057	.012 943	89	177	46	.740 112	.259 888
46	7 321	100	.986 341	.013 659	90	131	37	.717 557	.282 443
47	7 221	104	.985 598	.014 402	91	94	30	.680 851	.319 149
48	7 117	109	.984 635	.015 315	92	64	23	.640 625	.359 375
49	7 008	114	.983 733	.016 267	93	41	18	.590 974	.439 026
50	6 894	118	.982 884	.017 116	94	23	12	.478 262	.521 738
51	6 776	122	.981 995	.018 005	95	11	7	.363 637	.636 363
52	6 654	125	.981 214	.018 786	96	4	4	.000 000	1.000 000
53	6 529	130	.980 089	.019 911					

TABLE II.
H_M (6) COMMUTATION COLUMNS,
FOUR PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
10	6 755.64	132 786.0	2 348 401	1 388 66	43 851.53
11	6 469.83	126 316.1	2 215 615	1 362.67	42 462.87
12	6 199.75	120 116.4	2 089 298	1 341.44	41 100.20
13	5 943.28	114 173.1	1 969 182	1 323 42	39 758.76
14	5 697.95	108 475.2	1 855 009	1 306.67	38 435.34
15	5 462.14	103 013.0	1 746 534	1 290.02	37 128.67
16	5 234.97	97 778.06	1 643 521	1 272.93	35 838.65
17	5 014.63	92 763.43	1 545 743	1 253.94	34 565.72
18	4 801.53	87 962 90	1 452 979	1 232.71	33 311.79
19	4 592.74	83 372.16	1 365 016	1 207.55	32 079.08
20	4 384.51	78 987 65	1 281 644	1 177.89	30 871.53
21	4 180.77	74 806.88	1 202 657	1 142.78	29 693.64
22	3 981.15	70 825.73	1 127 850	1 103.96	28 550.86
23	3 788.67	67 037.06	1 057 024	1 064.61	27 446.89
24	3 603.94	63 433.11	989 980.9	1 025.59	26 382.29
25	3 427.82	60 005 29	926 553 8	988 082	25 356.69
26	3 261.35	56 743.94	866 548.5	953.456	24 368.61
27	3 104.36	53 639.59	809 804 5	921.896	23 415.16
28	2 955 28	50 684 31	756 164.9	892.216	22 493.26
29	2 814.04	47 870.27	705 480.6	864.640	21 601.04
30	2 680.21	45 190.06	657 610.4	839.050	20 736.40
31	2 553.41	42 636.65	612 420.3	815.333	19 897.35
32	2 432 68	40 203 96	569 783.7	792.813	19 082.02
33	2 317.47	37 886.50	529 579.7	771.160	18 289.21
34	2 207.78	35 678.72	491 693.2	750.603	17 518.05
35	2 102.84	33 575.88	456 014.5	730 583	16 767.44
36	2 001.74	31 574.14	422 438.6	710.359	16 036.86
37	1 904 83	29 669 31	390 864.4	690 443	15 326.50
38	1 811.97	27 857.34	361 195 1	670.844	14 636.06
39	1 723.00	26 134.34	333 337.8	651.564	13 965.22
40	1 638.19	24 496.14	307 203 5	633.027	13 313.65
41	1 557 36	22 938.78	282 707.3	615.202	12 680 62
42	1 482.52	21 458.27	259 768.5	598 255	12 065.42
43	1 417.09	20 051.17	238 310.3	581.775	11 467.17
44	1 336.95	18 714.22	218 259.1	565.751	10 885.39
45	1 269.78	17 444.44	199 544.9	550.001	10 319.64
46	1 205.14	16 239.31	182 100.4	534 198	9 769.040
47	1 142 96	15 046.35	165 861.1	518.370	9 235.442
48	1 083.17	14 013.18	150 764 8	502.541	8 717.073
49	1 025 56	12 987.62	136 751.6	486.590	8 214.531
50	970.073	12 017.55	123 764.0	470.549	7 727 941
51	916 797	11 100.75	111 746 4	454 584	7 257 392
52	865.664	10 235.09	100 645 7	438.712	6 802.809
53	816.732	9 418 353	90 410.61	423.075	6 364 007
54	769 683	8 648.671	80 592 26	407.438	5 941.022

TABLE II.—Cont.
H^M (5) COMMUTATION TABLES,
FOUR PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
55	724.582	7 924.089	72 343.59	391.941	5 533.583
56	681.256	7 242.833	64 410.50	376.483	5 141.643
57	639.656	6 603.178	57 176.67	361.085	4 765.160
58	599.631	6 003.547	50 573.49	345.662	4 404.075
59	561.244	5 442.303	44 509.94	330.339	4 058.413
60	524.353	4 917.950	39 127.64	315.034	3 728.074
61	488.738	4 429.211	34 209.69	299.587	3 413.040
62	454.472	3 974.739	29 780.48	284.118	3 113.454
63	421.443	3 553.296	25 805.74	268.569	2 829.336
64	389.632	3 163.663	22 252.44	252.967	2 560.767
65	359.020	2 804.644	19 088.78	237.340	2 307.800
66	329.810	2 474.833	16 284.13	221.939	2 070.460
67	301.955	2 172.878	13 800.30	206.769	1 848.520
68	275.547	1 897.332	11 636.42	191.974	1 641.751
69	250.523	1 646.809	9 739.092	177.548	1 449.777
70	226.887	1 419.922	8 092.283	163.548	1 272.228
71	204.452	1 215.470	6 672.361	149.840	1 108.680
72	183.111	1 032.359	5 456.892	136.362	958.840
73	162.766	869.592 8	4 424.533	123.060	822.478
74	143.441	726.152 1	3 554.940	109.995	699.418
75	125.203	600.949 2	2 828.788	97.273 9	589.424
76	108.410	492.539 6	2 227.839	85.296 1	492.150
77	92.966 8	399.572 8	1 735.299	74.023 0	406.853
78	79.067 8	320.505 0	1 335.726	63.609 6	332.831
79	66.551 6	253.953 5	1 015.221	54.224 4	269.131
80	55.358 4	198.595 1	761.268	45.591 0	214.906
81	45.470 1	153.125 0	562.673	37.831 8	169.316
82	36.782 0	116.342 9	409.548	30.802 6	131.484
83	29.273 5	87.069 4	293.205	24.798 8	100.591
84	22.918 6	64.150 9	206.135	19.569 8	75.792 3
85	17.651 1	46.499 8	141.984	15.183 7	56.222 6
86	13.406 3	33.093 4	95.485	11.617 9	41.038 8
87	10.055 4	23.038 0	62.391	8.782 6	29.420 9
88	7.417 92	15.620 1	39.353	6.531 8	20.638 4
89	5.395 18	10.224 9	23.733	4.794 4	14.106 5
90	3.839 47	6.385 5	13.508	3.446 2	9.312 1
91	2.649 07	3.736 4	7.123	2.403 5	5.865 9
92	1.734 25	2.002 1	3.386	1.590 5	3.462 4
93	1.068 28	.933 9	1.384	.991 3	1.871 9
94	.576 23	.357 6	.450	.540 3	.880 6
95	.264 99	.092 7	.093	.251 2	.340 3
96	.092 65	.000 c	.000	.089 1	.089 1

H^M (5) TABLE.

TABLE III.
H^M (5) COMMUTATION COLUMNS,
THREE AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
10	7 089.19	152 122.0	2 851 473.6	I 705.23	57 400.61
11	6 822.06	145 300.0	2 699 351.6	I 677.84	55 045.38
12	6 568.86	138 731.1	2 554 051.6	I 655.34	54 017.54
13	6 327.54	132 403.6	2 415 320.5	I 636.15	52 362.21
14	6 095.05	126 307.9	2 282 917.0	I 618.24	50 726.06
15	5 871.61	120 436.3	2 156 609.1	I 600.33	49 107.82
16	5 654.60	114 781.7	2 036 172.8	I 581.88	47 507.49
17	5 442.77	109 338.9	I 921 301.1	I 561.26	45 925.61
18	5 235.56	104 103.4	I 812 052.1	I 538.11	44 364.35
19	5 030.95	99 072.42	I 707 948.8	I 510.54	42 826.24
20	4 828.15	94 244.27	I 608 876.4	I 477.88	41 315.70
21	4 626.03	89 618.24	I 514 632.1	I 439.03	39 837.82
22	4 426.44	85 191.80	I 425 013.9	I 395.87	38 398.79
23	4 232.78	80 959.02	I 339 822.1	I 351.00	37 002.93
24	4 045.85	76 913.17	I 258 863.0	I 308.10	35 651.03
25	3 865.72	73 046.45	I 181 949.9	I 265.79	34 342.92
26	3 696.71	69 349.74	I 108 903.4	I 226.54	33 077.13
27	3 535.76	65 813.99	I 039 553.7	I 190.59	31 850.59
28	3 382.22	62 431.77	973 739.7	I 156.63	30 660.00
29	3 236.13	59 195.63	911 307.9	I 124.91	29 503.37
30	3 097.13	56 098.51	852 112.3	I 095.34	28 378.46
31	2 964.86	53 133.65	796 013.8	I 067.81	27 283.11
32	2 838.32	50 295.33	742 880.1	I 041.53	26 215.31
33	2 716.95	47 578.38	692 584.8	I 010.14	25 173.78
34	2 600.86	44 977.52	645 006.4	991 927	24 157.63
35	2 489.21	42 488.31	600 028.9	968.229	23 165.71
36	2 380.98	40 107.33	557 540.6	944.173	22 197.48
37	2 276.66	37 830.68	517 433.3	920.370	21 253.31
38	2 176.13	35 654.55	479 602.6	896.831	20 332.93
39	2 079.28	33 575.27	443 948.0	873.566	19 436.10
40	I 086.48	31 588.79	410 372.8	851.087	18 562.54
41	I 897.59	29 691.20	378 734.0	823 398	17 711.45
42	I 812.67	27 878.53	349 092.8	808 619	16 882.08
43	I 731.10	26 147.44	321 214.2	788 345	16 073.46
44	I 652.75	24 494.69	295 066.8	768.535	15 285.12
45	I 577.29	22 917.39	270 572.1	748.971	14 516.58
46	I 504.23	21 413.16	247 654.7	729.246	13 767.61
47	I 433.51	19 979.65	226 241.5	709.304	13 038.37
48	I 365.09	18 614.57	206 261.9	689.446	12 328.97
49	I 298.72	17 315.84	187 647.3	669.246	11 639.53
50	I 234.39	16 081.45	170 331.5	648.834	10 970.28
51	I 172.24	14 909.21	154 250.0	628.420	10 321.45
52	I 112.20	13 797.01	139 340.8	608.028	9 693.026
53	I 054.41	12 742.60	125 543.8	587.841	9 084.998
54	998.466	11 744.13	112 801.2	567.557	8 497.157

TABLE III.—Cont.
H^M (5) COMMUTATION COLUMNS,
THREE AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
55	941.500	10 799.634	101 057.09	547.355	7 929.600
56	892.313	9 907.321	90 257.45	527.108	7 382.245
57	841.873	9 065.448	80 350.13	506.843	6 855.137
58	793.007	8 272.441	71 284.68	486.446	6 348.294
59	745.827	7 526.614	63 012.24	466.083	5 861.848
60	700.170	6 826.444	55 485.63	445.646	5 395.765
61	655.766	6 170.678	48 659.19	424.920	4 950.118
62	612.735	5 557.943	42 488.51	404.065	4 525.198
63	570.949	4 986.994	36 930.57	382.999	4 121.133
64	530.403	4 456.590	31 943.57	361.701	3 738.134
65	491.092	3 965.499	27 486.98	340.386	3 376.373
66	453.316	3 512.182	23 521.48	319.217	3 035.987
67	417.035	3 095.147	20 009.30	298.266	2 710.770
68	382.400	2 712.716	16 914.15	277.734	2 418.504
69	349.352	2 363.395	14 201.41	257.616	2 140.770
70	317.921	2 045.474	11 838.01	237.999	1 883.154
71	287.869	1 757.605	9 792.539	218.698	1 645.154
72	259.065	1 498.540	8 034.934	199.629	1 426.456
73	231.324	1 267.146	6 536.395	180.719	1 226.827
74	204.905	1 062.240	5 269.249	162.055	1 046.108
75	179.717	882.523 8	4 207.008	143.796	884.053 3
76	156.363	726.160 5	3 321.485	126.519	740.257 8
77	134.737	591.423 2	2 598.324	110.181	613.738 3
78	115.147	476.276 2	2 006.901	95.147 2	503.557 1
79	97.387 8	378.888 4	1 530.625	81.281 8	408.409 9
80	81.399 7	297.488 7	1 151.736	68.587 0	327.128 1
81	67.182 8	230.305 9	854.248	57.122 8	258.541 1
82	54.6 8 6	175.007 4	623.942	46.820 4	201.418 3
83	43.671 0	132.026 4	448.244	37.729 5	154.597 9
84	34.355 7	97.670 7	316.218	29.891 1	116.808 4
85	26.587 4	71.083 3	218.547	23.284 5	86.977 3
86	20.291 2	50.792 2	147.464	17.887 4	63.692 8
87	15.292 9	35.490 3	96.672	13.575 3	45.805 5
88	11.336 1	24.163 1	61.173	10.135 7	32.230 2
89	8.284 8	15.878 3	37.009	7.467 7	22.094 5
90	5.924 3	9.954 0	21.131	5.387 4	14.626 8
91	4.107 3	5.846 7	11.177 3	3.770 7	9.239 4
92	2.701 9	3.144 8	5.330	2.504 2	5.468 7
93	1.672 4	1.472 4	2.186	1.566 0	2.964 6
94	.906 4	.566 0	.713	.856 6	1.398 5
95	.418 9	.147 2	.147	.399 7	.541 9
96	.147 2	.000 0	.000	.142 2	.142 2

H^m (5) TABLE.

TABLE IV.
H^m (5) COMMUTATION COLUMNS,
THREE PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
10	7 440.94	175 322.2	3 487 413.4	2 117.74	75 864.78
11	7 195.32	168 125.9	3 312 091.2	2 088.84	73 747.04
12	6 961.90	161 165.0	3 143 964.3	2 065.00	71 658.19
13	6 738.69	154 420.3	2 982 799.4	2 044.57	69 503.19
14	6 523.25	147 903.0	2 828 373.1	2 025.40	67 548.62
15	6 314.00	141 589.0	2 680 470.1	2 006.14	65 523.23
16	6 110.15	135 478.9	2 538 881.0	1 986.20	63 517.09
17	5 909.80	129 562.1	2 413 402.2	1 963.81	61 530.89
18	5 712.41	123 856.7	2 273 833.1	1 938.56	59 567.07
19	5 515.81	118 340.9	2 149 976.4	1 908.33	57 628.52
20	5 319.16	113 021.7	2 031 635.6	1 872.34	55 720.19
21	5 121.23	107 900.5	1 918 613.9	1 829.34	53 847.85
22	4 924.06	102 976.4	1 810 713.4	1 781.32	52 018.51
23	4 731.49	98 244.92	1 707 737.0	1 732.17	50 237.18
24	4 544.48	93 700.44	1 609 492.1	1 682.98	48 505.01
25	4 364.36	89 336.08	1 515 791.6	1 635.22	46 822.03
26	4 192.73	85 143.35	1 426 455.5	1 590.71	45 186.81
27	4 029.64	81 113.71	1 341 312.2	1 549.74	43 596.10
28	3 873.37	77 240.33	1 260 198.5	1 510.84	42 046.36
29	3 724.06	73 516.27	1 182 958.2	1 474.35	40 535.52
30	3 581.40	69 934.87	1 109 441.9	1 440.15	39 061.18
31	3 445.09	66 489.78	1 039 507.0	1 4 8.15	37 621.03
32	3 314.07	63 175.71	973 017.2	1 377.47	36 212.88
33	3 187.76	59 987.95	909 841.5	1 347.99	34 835.40
34	3 066.36	56 921.60	849 853.6	1 319.14	33 487.72
35	2 948.97	53 972.63	792 932.0	1 291.06	32 168.58
36	2 834.44	51 138.18	738 959.3	1 262.42	30 8 7.52
37	2 723.41	48 414.77	687 821.2	1 233.95	29 615.10
38	2 615.79	45 738.98	639 406.4	1 205.65	28 381.15
39	2 511.50	43 287.47	593 007.4	1 177.55	27 175.49
40	2 411.07	40 876.41	550 319.9	1 150.27	25 997.94
41	2 314.36	38 502.05	509 443.5	1 123.78	24 817.67
42	2 221.52	36 340.53	470 881.5	1 098.35	23 723.89
43	2 131.85	34 208.69	434 541.0	1 073.38	22 625.54
44	2 045.24	32 163.45	400 332.3	1 048.87	21 552.15
45	1 961.34	30 202.10	368 168.8	1 024.54	20 503.28
46	1 879.57	28 322.54	337 966.7	099 805	19 478.74
47	1 799.90	26 522.64	309 644.2	974.69	18 478.85
48	1 722.31	24 800.33	283 121.5	940.861	17 533.88
49	1 646.53	23 153.80	258 321.2	924.192	16 554.08
50	1 572.57	21 581.23	235 167.4	898.188	15 629.88
51	1 500.63	20 080.60	213 580.2	872 055	14 731.70
52	1 430.70	18 649.90	193 505.6	845 823	13 850.64
53	1 362.93	17 280.97	174 855.7	819 730	13 013.82
54	1 296.89	15 990.08	157 508.7	793 383	12 194.09

TABLE IV.—Cont.
H^m (5) COMMUTATION COLUMNS,
THREE PER CENT.

Age.	D _t	N _t	S _t	M _t	R _t
55	I 232.75	14 757.34	141 578.6	767 016	11 400.71
56	I 170.29	13 587.05	126 821.3	740.462	10 633.69
57	I 109.49	12 477.56	113 234.2	713.754	9 893.228
58	I 050.17	11 427.39	100 756.7	686.743	9 179.474
59	992.482	10 434.91	89 329.28	659.645	8 492.731
60	936.248	9 498.661	78 894.37	632.318	7 833.085
61	881.129	8 617.532	69 395.71	604.469	7 200.767
62	827.307	7 790.225	60 778.18	576.311	6 596.298
63	774.630	7 015.596	52 987.95	547.730	6 019.987
64	723.113	6 292.483	45 972.35	518.775	5 472.257
65	672.769	5 619.714	39 679.87	489.493	4 953.482
66	624.033	4 995.680	34 060.16	460.352	4 463.989
67	576.876	4 418.805	29 064.48	431.370	4 003.637
68	531.534	3 887.271	24 645.67	402.831	3 572.267
69	487.954	3 399.317	20 758.40	374.732	3 169.436
70	446.299	2 953.109	17 359.08	347.199	2 794.704
71	405.991	2 547.118	14 495.98	319.978	2 447.504
72	367.142	2 179.976	11 858.86	292.954	2 127.526
73	329.519	1 850.457	9 678.882	266.024	1 834.572
74	293.214	1 557.243	7 828.425	239.317	1 568.548
75	258.418	I 298.825	6 271.181	213.061	I 329.231
76	225.929	I 072.896	4 972.356	188.099	I 115.169
77	195.627	877.269 2	3 899.460	164.378	928.070
78	167.995	709.274 2	3 022.191	142.443	762.693
79	142.775	566.499 5	2 312.917	122.116	621.249
80	119.915	466.584 7	I 746.417	103.415	499.133
81	99.451 5	347.133 2	I 299.833	86.444 2	395.718
82	81.230 I	265.903 I	952.699	71.119 4	309.274
83	65.275 8	200.627 3	686.796	57.531 0	238.155
84	51.601 4	149.025 9	486.169	45.757 9	180.624
85	40.127 4	108.898 5	337.143	35.786 9	134.866
86	30.773 4	78.125 I	228.245	27.601 6	99.079
87	23.305 7	54.819 4	150.120	21.030 2	71.477
88	17.359 6	37.459 8	95.300	15.762 9	50.447
89	12.748 5	24.711 3	57.840	11.657 5	34.684
90	9.160 5	15.550 7	33.129	8.440 8	23.027
91	6.381 8	9.169 0	17.578	5.928 8	14.586
92	4.218 5	4.950 5	8.409	3.951 4	8.657
93	2.623 8	2.326 8	3.459	2.479 6	4.706
94	1.429 0	.897 8	1.132	1.361 2	2.226
95	.663 5	.234 3	.234	.637 4	.865
96	.234 3	.000 0	.000	.227 4	.227

H^F (WOOLHOUSE) TABLE.

TABLE I.
 INSTITUTE OF ACTUARIES' TABLES.
 FEMALE LIVES, H^F. WOOLHOUSE'S FORMULA.

Age.	No. Living.	Decrement.	Probability of Surviving.	Probability of Dying.
10	100 000	314	.996 860 0	.003 140 0
11	99 686	420	.995 786 8	.004 213 2
12	99 266	510	.994 862 3	.005 137 7
13	98 756	581	.994 116 8	.005 883 2
14	98 175	632	.993 562 5	.006 437 5
15	97 543	667	.993 162 0	.006 838 0
16	96 876	683	.992 949 8	.007 050 2
17	96 193	680	.992 930 9	.007 069 1
18	95 513	659	.993 100 4	.006 869 6
19	94 854	635	.993 305 5	.006 694 5
20	94 219	618	.993 122 4	.006 877 6
21	93 571	682	.992 711 4	.007 288 6
22	92 889	736	.992 076 6	.007 923 4
23	92 153	813	.991 177 7	.008 822 3
24	91 340	899	.990 157 7	.009 842 3
25	90 441	978	.989 186 3	.010 813 7
26	89 403	1018	.988 621 0	.011 379 0
27	88 445	1045	.988 184 7	.011 815 3
28	87 400	1050	.987 986 3	.012 013 7
29	86 350	1032	.988 048 6	.011 951 4
30	85 318	1011	.988 150 2	.011 849 8
31	84 307	987	.988 242 8	.011 707 2
32	83 320	964	.988 430 2	.011 569 8
33	82 356	960	.988 343 3	.011 656 7
34	81 396	954	.988 279 5	.011 720 5
35	80 442	946	.988 240 0	.011 760 0
36	79 496	946	.988 100 0	.011 900 0
37	78 550	946	.987 956 7	.012 043 3
38	77 604	946	.987 809 9	.012 190 1
39	76 658	946	.987 659 5	.012 340 5
40	75 712	950	.987 452 5	.012 547 5
41	74 772	953	.987 252 9	.012 717 1
42	73 809	955	.987 061 2	.012 938 8
43	72 854	958	.986 850 4	.013 149 6
44	71 896	962	.986 619 6	.013 380 4
45	70 934	966	.986 381 7	.013 618 3
46	69 968	963	.986 236 6	.013 763 4
47	69 005	958	.986 116 9	.013 883 1
48	68 047	953	.985 995 0	.014 005 0
49	67 094	950	.985 840 8	.014 159 2
50	66 144	956	.985 546 7	.014 453 3
51	65 188	975	.985 043 3	.014 956 7
52	64 213	1003	.984 380 1	.0 5 619 9
53	63 210	1037	.983 594 4	.016 405 6
54	62 173	1081	.982 613 0	.017 387 0

TABLE I.—Cont.
 INSTITUTE OF ACTUARIES' TABLES.
 FEMALE LIVES, H^F. WOOLHOUSE'S FORMULA.

Age.	No. Living.	Decrement.	Probability of Surviving.	Probability of Dying.
55	61 092	1116	.981 732 5	.018 267 5
56	59 976	1144	.980 925 7	.019 074 3
57	58 832	1170	.980 112 9	.019 887 1
58	57 662	1196	.979 258 4	.020 741 6
59	56 466	1231	.978 199 3	.021 800 7
60	55 235	1308	.976 310 4	.023 680 6
61	53 927	1395	.974 131 7	.025 868 3
62	52 532	1495	.971 541 2	.028 458 8
63	51 037	1601	.968 630 6	.031 369 4
64	49 456	1706	.965 490 7	.034 509 3
65	47 730	1784	.962 623 1	.037 376 9
66	45 946	1846	.959 822 4	.040 177 6
67	44 100	1914	.956 598 6	.043 401 4
68	42 186	1982	.953 017 6	.046 982 4
69	40 204	2050	.949 010 0	.050 990 0
70	38 154	2123	.944 357 1	.055 642 9
71	36 031	2232	.938 053 3	.061 946 7
72	33 799	2338	.930 826 4	.069 173 6
73	31 461	2425	.922 920 4	.077 079 6
74	29 036	2490	.914 244 4	.085 755 6
75	26 546	2518	.905 145 8	.094 854 2
76	24 028	2500	.895 954 7	.104 045 3
77	21 528	2363	.890 236 0	.109 764 0
78	19 165	2205	.884 946 5	.115 053 5
79	16 960	2024	.880 660.4	.119 339 6
80	14 936	1819	.878 213 7	.121 786 3
81	13 117	1621	.876 419 9	.123 580 1
82	11 406	1514	.868 302 0	.131 698 0
83	9 082	1450	.854 738 5	.145 261 5
84	8 532	1389	.837 201 1	.162 798 9
85	7 143	1326	.814 363 8	.185 636 2
86	5 817	1234	.787 863 2	.212 136 8
87	4 583	1086	.763 037 3	.236 962 7
88	3 497	993	.741 778 6	.258 221 4
89	2 594	797	.727 448 0	.272 552 0
90	1 887	519	.724 960 3	.275 039 7
91	1 368	398	.730 991 2	.269 005 8
92	1 000	232	.768 000 0	.232 000 0
93	768	138	.820 312 5	.179 687 5
94	630	117	.814 285 7	.186 714 3
95	513	107	.791 423 0	.208 577 0
96	406	104	.743 842 4	.256 157 6
97	302	102	.662 251 6	.337 748 4
98	200	100	.500 000 0	.500 000 0
99	100	100	.000 000 0	1 000 000 0

TABLE XII.
COMMUTATION COLUMNS, H^F.
FOUR AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
10	64 392.8	I 148 675	19 196 516	12 155 4	334 185.9
11	61 426.4	I 087 248	18 047 842	11 961.9	322 030.4
12	58 533.6	I 028 715	16 900 594	11 714.3	310 068.5
13	55 725.2	972 989.5	15 931 879	11 426.5	298 354.2
14	53 011.8	919 977.7	14 958 889	11 112.8	286 927.8
15	50 402 5	869 575.2	14 038 912	10 786.2	275 815.0
16	47 902.2	821 673.0	13 169 336	10 456.4	265 028.8
17	45 516.3	776 156.7	12 347 663	10 133 2	254 572.4
18	43 248.3	732 908 4	11 571 507	9 825.30	244 439.2
19	41 100.4	691 808.0	10 838 598	9 539.76	234 613.9
20	39 067.2	652 740.8	10 146 760	9 276.46	225 074.1
21	37 127.8	615 613 0	9 494 050	9 019 34	215 797.7
22	35 270.0	580 342 9	8 878 437	8 760.39	206 778 3
23	33 483.8	546 859.1	8 298 094	8 492 96	198 017 9
24	31 759.2	515 099.9	7 751 234	8 210.28	189 525.0
25	30 092.5	485 007.4	7 236 135	7 911.15	181 314.7
26	28 485.2	456 522 2	6 751 127	7 599.76	173 403 5
27	26 918.4	429 573.8	6 294 605	7 289 58	165 803 8
28	25 483.3	404 090 5	5 865 031	6 984.89	158 514.2
29	24 092.9	379 997.5	5 460 941	6 691.92	151 529.3
30	22 779.9	357 217.6	5 080 943	6 416 38	144 837.4
31	21 540.6	335 677.0	4 723 726	6 158 07	138 421 0
32	20 371.7	315 305.2	4 388 049	5 910.74	132 263.0
33	19 268.9	296 036.3	4 072 743	5 681.20	126 346.2
34	18 224.2	277 812.1	3 770 707	5 476 26	120 655.0
35	17 235.1	260 577.0	3 498 895	5 271.86	115 178 8
36	16 298.9	244 278.1	3 238 318	5 077.90	109 906.9
37	15 411.5	228 866 7	2 994 040	4 892 30	104 829.0
38	14 579.2	214 266.5	2 765 173	4 714.68	99 936.71
39	13 772.8	200 523 7	2 550 877	4 544 72	95 222.03
40	13 017.1	187 506.6	2 350 353	4 382 08	90 677.31
41	12 303.2	175 206.4	2 162 846	4 225 78	86 295.24
42	11 629 5	163 585.9	I 087 640	4 075 74	82 069.46
43	10 976.2	152 609.7	1 824 054	3 931 86	77 993.72
44	10 365.4	142 244 2	I 671 445	3 793 74	74 061.87
45	9 786 37	132 457.8	I 529 200	3 651.02	70 258.13
46	9 237.41	123 220 4	I 310 743	3 533.48	66 607 12
47	8 717.96	114 502 5	I 273 512	3 411.82	63 073.03
48	8 226.73	106 275 8	I 159 020	3 295.00	59 661.82
49	7 762.21	98 513.54	I 052 744	3 185.74	56 305.82
50	7 322.78	91 190.76	954 230.3	3 080.57	53 180 07
51	6 906.16	84 284.60	863 039 5	2 979.29	50 094.51
52	6 509 92	77 774.07	778 754 9	2 880 44	47 120.22
53	6 132.29	71 612.39	700 980.3	2 783.14	44 230.77
54	5 771.94	65 870.44	629 337.9	2 686.87	41 450.64

TABLE XII.—Cont.
COMMUTATION COLUMNS, H^F.
FOUR AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
55	5 427.36	60 443.09	563 467.4	2 590.83	38 769.77
56	5 098.77	55 344.32	503 024.4	2 495.96	36 178.94
57	4 786.14	50 558.18	447 630.0	2 402.89	33 682.98
58	4 488.95	45 069.23	397 121.9	2 311.80	31 280.10
59	4 206.55	41 862.08	351 052.6	2 222.71	28 968.29
60	3 937.65	37 925.03	309 189.9	2 134.95	26 745.59
61	3 678.85	34 246.18	271 261.9	2 045.72	24 610.64
62	3 429.37	30 816.81	237 018.7	1 954.65	22 564.92
63	3 188.30	27 628.52	2 6 201.9	1 861.26	20 610.27
64	2 955.29	24 673.22	178 573.4	1 765.55	18 749.01
65	2 730.44	21 942.78	153 900.2	1 667.96	16 983.46
66	2 515.20	19 427.58	131 957.4	1 570.30	15 315.50
67	2 310.19	17 117.40	112 529.8	1 473.59	13 745.21
68	2 114.76	15 002.64	95 412.42	1 377.64	12 271.62
69	1 928.61	13 074.02	80 409.78	1 282.57	10 893.97
70	1 751.46	11 322.57	67 335.76	1 188.46	9 611.403
71	1 582.78	9 739.789	56 013.19	1 095.20	8 422.941
72	1 420.79	8 318.596	46 273.40	1 001.38	7 327.739
73	1 265.56	7 053.434	37 954.41	907.327	6 326.362
74	1 117.72	5 935.719	30 900.97	813.979	5 419.035
75	977.861	4 957.858	24 965.25	722.256	4 605.056
76	845.992	4 110.866	20 007.39	633.496	3 882.800
77	726.188	3 384.677	15 896.53	549 166	3 249.303
78	618.640	2 766.037	12 511.85	472 889	2 700.138
79	523.889	2 242.148	9 745.815	404.777	2 227.249
80	441.500	1 800.648	7 503.667	344.949	1 822.472
81	371.035	1 429.613	5 703.019	293.495	1 477.524
82	311.180	1 118.433	4 273.406	249.617	1 184.028
83	258.563	859.871	3 154.973	210.400	934.411
84	211.466	648.384	2 295.102	174.458	724.011
85	169.432	478.952	1 646.718	141.511	549.552
86	132 0.8	349.915	1 167.766	111.413	408.041
87	99 548 0	247 367	820.851	81.609 1	296.628
88	72.087 9	174.679	573.485	62.035 8	212.019
89	51.596 5	123.082	398 8.6	44.074 4	149.983
90	35.917 5	87.165	275.724	30.617 3	105.909
91	24.917 5	62.247	188.559	21 164 0	75.291
92	17.430 2	44.817	126 312	14 719 7	54.127
93	12.809 9	32.007	81.405	10 880 0	39.378
94	10.055 6	21.952	49.488	8.677 3	28.498
95	7.835 6	14.116	27.536	6.890 3	19.820
96	5.934 2	8.182	13.420	5.326 3	12 930
97	4.224 0	3.958	5.239	3.871 7	7.604
98	2.676 9	1.281	1.281	2.506 5	3.732
99	1.180 8	000	.000	1.225 7	1.226

TABLE III.
COMMUTATION COLUMNS, H^F.
FOUR PER CENT.

Age.	D _x	N.	S _x	M _x	R _x
10	67 556.4	I 308 776	23 182 517	14 620.6	431 760.9
11	64 754.1	I 214 021	21 873 741	14 416.6	417 140.3
12	62 001.2	I 182 020	20 629 720	14 154.3	402 723.7
13	59 310.3	I 122 710	19 447 700	13 848.0	388 569.4
14	56 693.6	I 066 016	18 324 990	13 512.5	374 721.5
15	54 162.2	I 011 854	17 258 973	13 161.5	361 209.0
16	51 722.9	960 131.2	16 247 119	12 805.4	348 047.5
17	49 382.9	910 718.3	15 286 988	12 454.8	335 242.0
18	47 147.9	863 607.4	14 376 240	12 119.1	322 787.2
19	45 021.7	818 578.7	13 512 639	11 806.3	310 668.1
20	43 000.3	775 578.4	12 694 061	11 516.5	298 861.8
21	41 062.1	734 516.3	11 918 482	11 232.2	287 345.3
22	39 195.0	695 321.3	11 183 966	10 944.4	276 113.1
23	37 388.9	657 932.4	10 488 645	10 642.8	265 168.7
24	35 633.7	622 298.7	9 830 712	10 328.6	254 522.9
25	33 925.9	588 372.7	9 208 414	9 991.38	244 194.3
26	32 268.4	556 104.4	8 620 041	9 638.62	234 202.9
27	30 674.2	525 430.2	8 063 937	9 285.56	224 564.3
28	29 145.9	496 284.2	7 538 507	8 937.08	215 278.7
29	27 688.3	468 596.0	7 042 222	8 600.40	206 341.7
30	26 305.1	442 290.9	6 573 626	8 282.21	197 741.3
31	24 993.7	417 297.2	6 131 335	7 982.49	189 450.1
32	23 751.0	393 546.2	5 714 038	7 701.14	181 476.6
33	22 573.3	370 972.0	5 320 492	7 436.91	173 775.4
34	21 452.1	349 520.8	4 949 519	7 183.90	166 338.5
35	20 385.3	329 135.5	4 599 998	6 942.14	159 154.6
36	19 370.7	309 764.8	4 270 863	6 711.63	152 212.5
37	18 404.0	291 360.8	3 961 098	6 489.99	145 500.9
38	17 483.1	273 877.8	3 669 737	6 276.87	139 010.9
39	16 605.7	257 272.1	3 395 860	6 071.94	132 734.0
40	15 770.0	241 502.1	3 138 588	5 874.90	126 662.1
41	14 973.2	226 528.9	2 897 085	5 684.64	120 787.2
42	14 213.8	212 315.1	2 670 557	5 501.11	115 102.5
43	13 490.3	198 824.9	2 458 241	5 324.28	109 601.4
44	12 800.8	186 024.1	2 259 417	5 153.71	104 277.1
45	12 143.8	173 880.3	2 073 392	4 989.02	99 123.41
46	11 517.7	162 302.6	1 899 512	4 830.00	94 134.40
47	10 922.3	151 440.3	1 737 150	4 677.57	89 304.40
48	10 356.4	141 083.9	1 585 709	4 531.77	84 626.82
49	9 818.61	131 265.3	1 444 625	4 392.31	80 095.05
50	9 307.30	121 958.0	1 313 360	4 258.63	75 702.74
51	8 819.98	113 138.0	1 191 402	4 129.28	71 444.11
52	8 353.90	104 784.1	1 078 264	4 002.44	67 314.83
53	7 907.13	96 876.96	973 480.2	3 879.97	63 312.39
54	7 478.28	89 398.69	876 603.2	3 752.24	59 435.42

TABLE III.—Cont.
COMMUTATION COLUMNS. H^F.
FOUR PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
55	7 065.63	82 333.06	787 204.5	3 627.22	55 683.18
56	6 669.77	75 663.30	704 871.5	3 503.11	52 055.96
57	6 290.91	69 372.39	629 208.2	3 380.78	48 552.85
58	5 928.65	63 443.74	559 835.8	3 260.48	45 172.07
59	5 582.39	57 861.35	496 392.0	3 142.24	41 911.59
60	5 250.66	52 610.69	438 530.7	3 025.22	38 769.35
61	4 929.16	47 681.53	385 920.0	2 905.67	35 744.12
62	4 616.97	43 064.56	338 238.5	2 783.06	32 838.45
63	4 313.05	38 751.51	295 171.9	2 656.72	30 055.39
64	4 017.07	34 734.44	256 422.4	2 526.63	27 398.67
65	3 729.27	31 005.16	221 688.0	2 393.33	24 872.04
66	2 451.81	27 553.35	190 682.8	2 259.31	22 478.70
67	3 185.70	24 367.65	163 129.5	2 125.96	20 219.40
68	2 930.23	21 437.42	138 761.8	1 993.01	18 093.44
69	2 685.15	18 752.27	117 324.4	1 860.64	16 100.43
70	2 450.23	16 302.05	98 572.11	1 728.99	14 239.80
71	2 224.89	14 077.15	82 270.07	1 597.89	12 510.81
72	2 006.80	12 070.36	68 192.92	1 465.37	10 912.92
73	1 796.13	10 274.22	56 122.56	1 331.89	9 447.551
74	1 593.93	8 680.290	45 848.34	1 198.77	8 115.662
75	1 401.20	7 279.095	37 168.05	1 067.34	6 916.893
76	1 219.51	6 059.589	29 888.96	939.541	5 849.555
77	1 050.60	5 008.991	23 829.37	817.537	4 910.014
78	899.308	4 109.684	18 820.38	706.654	4 092.477
79	765.230	3 344.454	14 710.69	607.165	3 385.823
80	647.988	2 696.465	11 366.24	519.355	2 778.658
81	547.185	2 119.281	8 669.773	443.475	2 259.302
82	461.119	1 688.162	6 520.493	378.454	1 815.828
83	384.991	1 303.171	4 832.331	320.062	1 437.373
84	316.410	986.761	3 529.161	266.288	1 117.312
85	254.711	732.050	2 542.400	216.758	851.024
86	199.449	532.601	1 810.350	171.293	634.265
87	151.095	381.506	1 277.749	130.610	462.972
88	110.857	270.650	896.243	96.183 4	332.362
89	76.068 4	191.581	625.593	68.658 8	236.179
90	55.305 9	136.275	434.012	47.937 4	167.520
91	38.552 5	97.723	297.737	33.311 1	119.583
92	27.097 7	70.625	200.014	23.339 1	86.271
93	20.010 6	50.615	129.389	17.204 3	62.932
94	15.783 6	34.831	78.774	13.836 9	45.638
95	12.358 1	22.473	43.943	11.018 4	31.801
96	9.404 3	13.069	21.470	8.539 9	20.783
97	6.726 3	6.342	8.402	6.223 6	12.243
98	4.283 1	2.059	2.059	4.039 2	6.019
99	2.059 2	.000	.000	1.980 0	1.980

H^F (WOOLHOUSE) TABLE.

TABLE IV.
COMMUTATION COLUMNS, H^F.
THREE AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
10	70 891.9	I 499 667	28 199 634	17 781.2	563 837.1
11	68 279.5	I 431 387	26 609 967	17 566.1	546 055.9
12	65 692.6	I 365 695	25 268 580	17 288.2	528 484.8
13	63 145.0	I 302 550	23 902 885	16 952.1	511 201.6
14	60 650.7	I 241 899	22 600 335	16 603.1	494 239.6
15	58 222.5	I 183 677	21 358 436	16 225 9	477 636 4
16	55 869.0	I 127 808	20 174 759	15 841.3	461 410.5
17	53 599.1	I 074 208	19 046 952	15 460.7	445 569.2
18	51 420.5	I 022 788	17 972 743	15 094 6	430 108.6
19	49 338.9	973 449.1	16 949 955	14 751.8	415 014.0
20	47 351.3	926 097.9	15 976 506	14 432.7	400 262.2
21	45 435.4	880 072.5	15 050 408	14 118.0	385 829.5
22	43 578.9	837 083.6	14 169 746	13 798.1	371 711.4
23	41 771.6	795 312.0	13 322 662	13 464 5	357 913.4
24	40 003.0	755 309.0	12 537 350	13 108.4	344 448.9
25	38 269.8	717 039.1	11 782 041	12 728.0	331 340 5
26	36 575 9	680 463 3	11 065 002	12 328.1	318 612.5
27	34 936.9	645 526.4	10 384 539	11 926.0	306 284 4
28	33 356.6	612 169.8	9 739 012	11 527.2	294 358 4
29	31 841.4	580 328.4	9 126 843	11 140.0	282 831.2
30	30 397.0	549 931.5	8 546 514	10 772.3	271 691.2
31	29 021.0	520 910.4	7 996 583	10 424.3	260 918.9
32	27 711.4	493 199.1	7 475 672	10 096.0	250 494.5
33	26 464.5	466 734.6	6 982 473	9 786.27	240 398.5
34	25 271.5	441 463.1	6 515 739	9 488.21	230 612.2
35	24 130 7	417 332.3	6 074 276	9 202 03	221 124.0
36	23 010.5	394 291 8	5 656 943	8 927.85	211 922.0
37	21 976.5	372 295 3	5 262 651	8 662.94	202 994 1
38	20 996.7	351 298.6	4 890 356	8 406 99	194 331.2
39	20 039.4	331 259.2	4 539 058	8 159.70	185 924.2
40	19 122.8	312 136.5	4 207 798	7 920 76	177 764.5
41	18 244.3	293 892.2	3 895 662	7 688.93	169 843.7
42	17 402.6	276 489.6	3 611 770	7 461.24	162 151.8
43	16 596.6	259 893.0	3 325 280	7 246.68	154 690.6
44	15 824.5	244 068.5	3 065 387	7 035.82	147 443.9
45	15 084.8	228 983.8	2 821 319	6 831.24	140 408 1
46	14 376.2	214 607.6	2 592 335	6 632.76	133 576.8
47	13 698.9	200 908.7	2 377 727	6 441.59	126 944.1
48	13 051.9	187 856.9	2 176 818	6 257.84	120 502.5
49	12 433.9	175 423.0	1 988 962	6 081.23	114 244.6
50	11 843 3	163 579.7	1 813 539	5 911.13	108 163.4
51	11 277.4	152 302.3	1 649 959	5 745 74	102 252.3
52	10 733 1	141 509.2	1 497 657	5 582 77	96 506 54
53	10 208.2	131 361.0	1 355 087	5 420 79	90 922 76
54	9 701.14	121 659.9	1 224 726	5 258 98	85 522 97

TABLE IV.—Cont.
COMMUTATION COLUMNS, H^F.
THREE AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
55	9 210 12	112 449 8	I 103 067.	5 096.01	80 243.99
56	8 736.11	103 713.7	990 616.8	4 933.46	75 147.98
57	8 279.68	95 433.97	886 903.1	4 772 46	70 214.52
58	7 840.60	87 593.37	791 469.1	4 613.37	65 442.07
59	7 418.33	80 175.04	703 875.8	4 456.24	60 828.70
60	7 011 22	73 163.82	623 700.7	4 299.98	56 372.46
61	6 613.71	66 50.11	550 536 9	4 139.57	52 072.48
62	6 224.75	60 325 36	483 986.8	3 974.27	47 932.91
63	5 843.10	54 482 26	423 661 4	3 803.11	43 938.65
64	5 468.41	49 013.85	369 179.2	3 626.01	40 155.54
65	5 101.16	43 912 70	320 165.3	3 443.68	36 529.53
66	4 744 44	39 168.26	276 252.6	3 259.47	33 085.84
67	4 399 82	34 768.44	237 084.4	3 075.29	29 826.38
68	4 066.54	30 701.90	202 315.9	2 890.79	26 751.09
69	3 744.43	26 957.48	171 614.0	2 706.20	23 860.30
70	3 433.33	23 524.15	144 656.5	2 521.72	21 154.10
71	3 132.65	20 391.50	121 132.4	2 337.14	18 632.38
72	2 839.22	17 552.28	100 740.9	2 149 65	16 295.23
73	2 553.45	14 998.83	83 188.62	I 959.89	14 145.58
74	2 276.94	12 721.92	68 189.79	I 769 73	12 185.69
75	2 011 28	10 710.62	55 467.89	I 581.07	10 415.96
76	I 758.94	8 951.676	44 757.28	I 396 75	8 834.888
77	I 522 64	7 429.037	35 805 60	I 219.92	7 438.143
78	I 309 67	6 119.368	28 376 36	I 058.45	6 218.219
79	I 119.79	4 999.574	22 257.19	912.859	5 159.774
80	952.810	4 046 764	17 257 62	783.742	4 246.915
81	808.474	3 238.290	13 210 86	671.627	3 463.172
82	674.602	2 553.688	9 972 568	575.094	2 791.545
83	574 339	I 979 348	7 418.880	487 933	2 216 451
84	474.309	I 505.039	5 439.532	407.375	I 728.468
85	383.664	I 121.375	3 934.493	312 769	I 321.094
86	301 876	810.499	2 813.117	263.955	988.325
87	229.794	589 705	I 993.618	202.082	724.369
88	169.412	420 292	I 403.914	149.471	522.288
89	121.417	298 876	983.621	107.204	372 877
90	85.337 6	213 538	684 746	75.230 7	265.613
91	59 774 3	153.764	471 203	52.553 2	190.382
92	42.217 0	111.547	317.444	37.017 3	137.629
93	31.326 3	80.222	205 898	27.554 2	100 812
94	24.828 3	55.392	125 607	22.115 6	73.258
95	19.533 7	35.858	70 285	17.660 5	51.142
96	14.936 6	20 922	34.427	13.724 0	33.482
97	10.734 8	10.187	13.505	10 027 3	19 758
98	6 868 7	3 318	3.318	6.524 2	9.730
99	3.318 2	.000	.000	3 206 0	3.206

H^F (WOOLHOUSE) TABLE.

TABLE V.
COMMUTATION COLUMNS, H^F.
THREE PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
10	74 409.4	1 729 035.	34 562 827.	21 881.9	744 232.8
11	72 015.3	1 657 020.	32 833 792.	21 655.0	722 350.9
12	69 623.2	1 587 307.	31 176 772.	21 360.5	700 669.9
13	67 248.0	1 520 149.	29 589 375.	21 013.2	679 335.4
14	64 905.2	1 455 244.	28 069 226.	20 629.1	658 322.3
15	62 609.1	1 392 634.	26 613 982.	20 223.4	637 693.2
16	60 360.9	1 332 265.	25 221 318.	19 807.7	617 469.8
17	58 198.4	1 274 066.	23 889 083.	19 394.5	597 662.1
18	56 103.8	1 217 962.	22 615 017.	18 995.1	578 267.5
19	54 093.9	1 163 868.	21 397 055.	18 619.3	559 272.4
20	52 166.8	1 111 702.	20 233 186.	18 267.7	540 653.2
21	50 239.0	1 061 403.	19 121 484.	17 919.4	522 385.5
22	48 418.1	1 012 925.	18 060 082.	17 563.4	504 466.1
23	46 693.2	966 231.4	17 047 157.	17 190.5	486 902.7
24	44 933.2	921 248.2	16 080 926.	16 790.6	469 712.2
25	43 195.1	878 103.1	15 159 628.	16 361.2	452 921.6
26	41 483.5	836 614.6	14 281 544.	15 907.7	436 560.4
27	39 817.0	796 802.6	13 444 905.	15 449.4	420 652.7
28	38 200.5	758 602.1	12 648 102.	14 992.7	405 203.3
29	36 642.3	721 959.5	11 889 500.	14 547.1	390 210.7
30	35 149.9	686 809.9	11 167 540.	14 121.9	375 663.6
31	33 721.7	6 3 038.2	10 480 731.	13 717.5	361 541.6
32	32 356.3	620 731.9	9 827 642.	13 334.3	347 824.1
33	31 030.4	589 681.6	9 206 910.	12 970.8	334 489.8
34	29 794.6	559 887.0	8 617 229.	12 619.4	321 519.0
35	28 587.8	531 299.2	8 057 342.	12 280.4	308 899.6
36	27 428.7	503 870.5	7 526 043.	11 954.0	296 619.3
37	26 312.9	477 557.6	7 022 172.	11 637.1	284 065.3
38	25 238.9	452 318.7	6 544 615.	11 329.4	273 028.2
39	24 205.0	428 113.7	6 092 296.	11 030.7	261 698.8
40	23 210.0	404 903.7	5 664 182.	10 740.7	250 668.1
41	22 251.3	382 652.4	5 259 279.	10 458.0	239 927.4
42	21 327.8	361 324.6	4 876 626.	10 182.6	229 460.5
43	20 438.7	340 886.0	4 515 302.	9 914.65	219 286.9
44	19 582.4	321 303.5	4 174 416.	9 653.72	209 372.3
45	18 757.7	302 545.8	3 853 112.	9 390.33	199 718.5
46	17 963.3	284 582.5	3 550 566.	9 151.33	190 319.2
47	17 200.1	267 382.4	3 265 984.	8 911.29	181 167.9
48	16 467.3	250 915.1	2 998 601.	8 679.45	172 256.6
49	15 763.8	235 151.3	2 747 686.	8 455.55	163 577.1
50	15 087.9	220 063.4	2 512 535.	8 238.85	155 121.6
51	14 436.7	205 626.7	2 292 472.	8 027.13	146 882.7
52	13 805.6	191 820.1	2 086 845.	7 817.49	138 855.6
53	13 195.1	178 644.9	1 895 025.	7 608.11	131 038.1
54	12 600.6	166 024.3	1 715 400.	7 397.94	123 430.0

H^F (WOOLHOUSE) TABLE.

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TABLE V.—Cont.
COMMUTATION COLUMNS. H^F.
THREE PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
55	12 020.9	154 003.4	I 550 376.	7 185.24	116 032.1
56	11 457.6	142 545.9	I 396 372.	6 972.04	108 846.8
57	10 911.7	131 634.2	I 253 826.	6 759.86	101 874.8
58	10 383.2	121 251.0	I 122 192.	6 549.18	95 114.93
59	9 871.67	111 379.3	I 000 941.	6 340.09	88 565.75
60	9 375.21	102 004.1	889 561.8	6 131.15	82 225.66
61	8 886.60	93 117.50	787 557.7	5 915.60	76 094.51
62	8 404.58	84 712.92	694 440.2	5 692.22	70 178.91
63	7 927.57	76 785.35	609 727.3	5 460.20	64 486.49
64	7 455.23	69 330.12	532 942.0	5 218.76	59 026.29
65	6 983.31	62 341.82	463 611.8	4 968.98	53 807.53
66	6 531.17	55 810.65	401 270.0	4 715.39	48 838.55
67	6 086.18	49 724.47	345 459.4	4 460.62	44 123.16
68	5 652.45	44 072.02	295 734.9	4 204.17	39 662.54
69	5 229.99	38 842.03	251 662.9	3 946.34	35 458.37
70	4 818.75	34 023.28	212 820.9	3 687.43	31 512.04
71	4 418.08	29 605.20	178 797.0	3 427.11	27 824.61
72	4 023.08	25 531.52	149 192.4	3 161.39	24 397.50
73	3 635.26	21 945.26	123 610.9	2 891.17	21 236.11
74	3 258.23	18 687.03	101 665.6	2 619.05	18 344.94
75	2 892.06	15 791.97	82 978.57	2 347.78	15 725.89
76	2 541.49	13 253.48	67 183.61	2 081.44	13 378.11
77	2 210.74	11 042.74	53 930.13	1 824.71	11 296.67
78	1 910.76	9 131.980	42 837.40	1 589.12	9 471.955
79	1 641.67	7 490 313	33 755.42	1 375.69	7 882.832
80	I 403 64	6 085 671	26 265.10	I 185.48	6 507.145
81	I 196 79	4 8 9.877	20 178 43	I 019.51	5 321 608
82	I 018 34	3 871 533	15 288.55	875.920	4 302.156
83	858.476	3 013.058	11 417.02	745.713	3 446.236
84	712 400	2 300.658	8 403.964	624.641	2 680.523
85	579.951	I 721.607	6 103.397	512.041	2 055.882
86	457.823	I 263.784	4 381 700	407.679	I 543.841
87	350 196	913.588	3 117.516	313.387	I 136.161
88	259.410	654.158	2 204 329	232.820	822.774
89	186.835	467.323	I 550.171	167.781	589.954
90	131.054	335 370	I 082.848	118.342	422 173
91	92 875 0	242.405	747.478	83 106 9	393 803
92	65 913 6	176.581	504.984	58.850 7	220 723
93	49 147 3	127.434	323.403	44.04 1	161.873
94	39 141 9	88.292	200.969	35.430 2	117.869
95	30 944 3	57.347	112 677	28.372 7	82 438
96	23.776 7	33 571	55.330	22 106 4	54.056
97	17 171 0	16.400	21.759	16 193 2	31.9 9
98	11 040 3	5.359	5.359	10.502 7	15.766
99	5.359 4	.000	.000	5.203 3	5.203

SPRAGUE'S SELECT LIFE TABLES.
INTRODUCTION.

THESE tables were deduced by Dr. Thomas Bond Sprague from the experience embraced in the investigation of the mortality experience of the 20 British offices, on which the H^m Table is based.

It accepts the H^{m(5)} Table as an ultimate table, correctly representing the experience of the companies after five policy years have elapsed; the data really embraced the experience after five calendar years, including the year of admission, had elapsed—an average of about $4\frac{1}{2}$ policy years.

In like manner the select data embraced calendar years; and the author of the table, by an adroit process, graduated this into policy years.

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SPRAGUE'S SELECT LIFE TABLES.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 l_x	1 $l_{[x-1]} + 1$	2 $l_{[x-2]} + 2$	3 $l_{[x-3]} + 3$	4 $l_{[x-4]} + 4$	5 or More. l_x
15	983452	.....	.....	.....	.....	983700
16	9 0428	980500	.....	.....	.....	980500
17	976700	976800	976800	.....	.....	976800
18	971650	972500	972500	972500	.....	972500
19	965015	967084	967200	967200	967200	967200
20	956418	960100	950700	960700	960700	960700
21	945306	951636	952700	952700	952700	952700
22	934548	940704	943500	943500	943500	943500
23	924270	930110	932948	933800	933800	933800
24	914390	919975	922694	923598	923800	923800
25	904880	910218	912860	913698	913800	913800
26	895828	900808	903360	904200	904200	904200
27	887214	891834	894168	895010	895100	895100
28	878918	883276	885368	886094	886200	886200
29	870746	875114	876946	877530	877600	877600
30	862820	866862	868784	869300	869300	869300
31	854970	858936	860700	861290	861300	861300
32	846500	851076	852814	853316	853400	853400
33	838598	842586	844670	845500	845500	845500
34	829492	834154	836478	837700	837700	837700
35	820028	825510	828026	829222	829800	829800
36	812338	819006	819352	820756	821338	821500
37	803767	808273	810710	812050	812768	813000
38	795196	799556	802037	803368	803900	804300
39	786608	791034	793562	794934	795194	795400
40	777995	782390	784677	785900	786388	786500
41	769147	773717	775902	777134	777600	777600
42	760067	764802	767206	768325	768778	768800
43	750725	755650	758198	759458	759878	759900
44	740943	746230	748942	750324	750867	750900
45	730602	736363	739403	740925	741538	741700
46	720100	726015	729492	731220	731895	732100
47	709400	715320	718905	721033	721938	722100
48	698688	704692	708042	710325	711423	711700
49	686620	693058	696823	699220	700413	700800
50	674023	681445	685377	687728	688992	689400
51	662801	669500	673524	675970	677166	677600
52	650511	657386	661401	663773	665048	665400
53	637720	644817	648922	651267	652457	652900
54	624883	631821	636009	638341	639514	639900
55	611313	618563	622660	624979	626110	626500
56	597374	604956	609016	611114	612234	612600
57	582899	590706	594900	596601	597800	598200
58	567710	575807	580353	582258	582958	583200
59	551749	560566	565140	566957	567588	567700

SPRAGUE'S SELECT LIFE TABLES—Cont.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $l_{[x]}$	1 $l_{[x-1]} +_1$	2 $l_{[x-2]} +_2$	3 $l_{[x-3]} +_3$	4 $l_{[x-4]} +_4$	5 or More l_x
60	534963	544326	549181	551043	551490	551600
61	517324	527259	532422	534338	534700	534700
62	499149	509341	514823	516773	517100	517100
63	480989	490886	496364	498308	498700	498700
64	462493	472441	477358	478943	479500	479500
65	442251	453668	458346	458993	459500	459500
66	421668	433185	439000	439000	439000	439000
67	400726	412381	418000	418000	418000	418000
68	379511	391245	396700	396700	396700	396700
69	357779	369864	375100	375100	375100	375100
70	335398	348013	353300	353300	353300	353300
71	312219	325571	331100	331100	331100	331100
72	288309	302404	308400	308400	308400	308400
73	263944	278589	285100	285100	285100	285100
74	239674	254313	261300	261300	261300	261300
75	215772	230402	237200	237200	237200	237200
76	.....	20838	213600	213600	213600	213600

SPRAGUE'S SELECT LIFE TABLES.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $d[x]$	1 $d[x-1]+_1$	2 $d[x-2]+_2$	3 $d[x-3]+_3$	4 $d[x-4]+_4$	5 or More. d_x
15	2952	....	....	....	....	3200
16	3628	3700	....	....	....	3700
17	4200	4300	4300	....	....	4300
18	4566	5300	5300	5300	....	5300
19	4825	6384	6500	6500	6500	6500
20	4782	7490	8000	8000	8000	8000
21	4602	8136	9200	9200	9200	9200
22	4438	7756	9700	9700	9700	9700
23	4295	7416	9350	10000	10000	10000
24	4172	7115	8996	9798	10000	10000
25	4072	6858	8660	9498	9600	9600
26	3994	6640	8350	9100	9100	9100
27	3938	6466	8074	8810	8900	8900
28	3904	6330	7838	8494	8600	8600
29	3884	6230	7646	8230	8300	8300
30	3884	6162	7494	8000	8000	8000
31	3894	6122	7384	7890	7900	7900
32	3914	6106	7314	7816	7900	7900
33	3944	6108	7270	7800	7800	7800
34	3982	6128	7256	7900	7900	7900
35	4022	6158	7270	7884	8300	8300
36	4065	6196	7302	7988	8338	8500
37	4111	6243	7342	8060	8468	8700
38	4162	6294	7396	8174	8560	8900
39	4218	6357	7462	8246	8694	8900
40	4278	6428	7543	8300	8788	8900
41	4345	6511	7637	8356	8800	8800
42	4417	6602	7748	8447	8878	8900
43	4495	6708	7874	8591	8978	9000
44	4580	6827	8017	8786	9167	9200
45	4677	6961	8183	9030	9438	9600
46	4780	7109	8369	9312	9795	10000
47	4898	7278	8581	9610	10208	10400
48	5030	7469	8822	9912	10623	10900
49	5175	7681	9095	10228	11013	11400
50	5333	7921	9407	10562	11392	11800
51	5505	8189	9751	10922	11766	12200
52	5694	8484	10131	11316	12148	12500
53	5899	8808	10561	11753	12557	13000
54	6120	9161	11030	12251	13014	13400
55	6357	9547	11546	12745	13510	13900
56	6608	9966	12115	13305	14034	14400
57	6874	10413	12732	13943	14609	15000
58	7144	10887	13396	14670	15258	15500
59	7423	11385	14097	15467	15988	16100

SPRAGUE'S SELECT LIFE TABLES—*Cont.*
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $d[x]$	1 $d[x-1]+_1$	2 $d[x-2]+_2$	3 $d[x-3]+_3$	4 $d[x-4]+_4$	5 or More. d_x
60	7704	11904	14843	16343	16790	16900
61	7983	12436	15649	17238	17600	17600
62	8263	12977	16515	18073	18400	18400
63	8548	13528	17421	18808	19200	19200
64	8825	14095	18375	19443	20000	20000
65	9066	14668	19346	19983	20500	20500
66	9287	15185	20000	21000	21000	21000
67	9481	15681	21300	21300	21300	21300
68	9647	16145	21600	21600	21600	21600
69	9766	16564	21800	21800	21800	21800
70	9827	16913	22200	22200	22200	22200
71	9815	17171	22700	22700	22700	22700
72	9720	17304	23300	23300	23300	23300
73	9531	17289	23800	23800	23800	23800
74	9272	17113	24100	24100	24100	24100
75	8934	16802	23600	23600	23600	23600
76	.....	16338	23100	23100	23100	23100

SPRAGUE'S SELECT LIFE TABLES.

SPRAGUE'S SELECT LIFE TABLES.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 p[x]	1 p[x-1] + 1	2 p[x-2] + 2	3 p[x-3] + 3	4 p[x-4] + 4	5 or More. p _x
16	.997000	.....	.....	.....	.....	.996747
18	.996300	.996226	.....	.....	.....	.996226
17	.995700	.995593	.995398	.....	.....	.995598
18	.995300	.994500	.994500	.994500	.....	.994550
19	.995000	.993400	.992800	.993280	.993280	.993280
20	.995000	.992200	.991603	.991673	.991673	.991673
21	.995131	.991400	.990343	.990343	.990343	.990343
22	.995250	.991754	.990719	.990719	.990719	.990719
23	.995353	.992008	.990980	.990991	.990991	.990991
24	.995437	.992266	.990231	.990389	.990389	.990389
25	.995500	.992467	.990515	.990604	.990604	.990604
26	.995541	.992629	.990758	.990836	.990836	.990836
27	.995561	.992751	.990971	.991058	.991058	.991058
28	.995560	.992834	.991147	.991215	.991215	.991215
29	.995539	.992880	.991281	.991363	.991363	.991363
30	.995500	.992892	.991372	.991497	.991497	.991497
31	.995446	.992872	.991419	.991540	.991540	.991540
32	.995376	.992826	.991425	.991541	.991541	.991541
33	.995292	.992752	.991397	.991575	.991575	.991575
34	.995199	.992654	.991326	.991569	.991569	.991569
35	.995100	.992510	.991219	.991491	.991491	.991491
36	.994995	.992415	.991089	.991267	.991267	.991267
37	.994884	.992277	.990943	.991036	.991036	.991036
38	.994765	.992128	.990778	.990823	.990823	.990823
39	.994638	.991964	.990594	.990624	.990624	.990624
40	.994500	.991784	.990383	.990440	.990440	.990440
41	.994351	.991585	.990159	.990248	.990248	.990248
42	.994189	.991365	.990002	.990005	.990005	.990005
43	.994012	.991122	.990015	.990037	.990037	.990037
44	.993817	.990851	.990294	.990292	.990292	.990292
45	.993600	.990548	.990943	.990814	.990814	.990814
46	.993359	.990208	.990526	.990666	.990666	.990666
47	.993092	.990826	.990064	.990662	.990662	.990662
48	.992795	.990396	.990754	.990645	.990645	.990645
49	.992466	.990115	.990694	.990537	.990537	.990537
50	.992100	.990375	.990276	.990442	.990442	.990442
51	.991695	.990771	.990523	.990343	.990343	.990343
52	.991246	.990996	.990677	.990252	.990252	.990252
53	.990750	.990341	.990372	.990153	.990153	.990153
54	.990203	.990500	.990267	.990039	.990039	.990039
55	.989600	.990565	.990145	.990110	.990110	.990110
56	.989038	.990526	.990108	.990227	.990227	.990227
57	.988411	.990274	.990600	.990637	.990637	.990637
58	.987716	.990109	.990618	.990480	.990480	.990480
59	.986547	.990689	.990536	.990720	.990720	.990720

SPRAGUE'S SELECT LIFE TABLES—Cont.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $p[x]$	1 $p[x-1]+_1$	2 $p[x-2]+_2$	3 $p[x-3]+_3$	4 $p[x-4]+_4$	5 or More. p_x
60	.985600	.978131	.972072	.970342	.969553	.969362
61	.984567	.976413	.970607	.967739	.967084	.967084
62	.983446	.974522	.967922	.965025	.964417	.964417
63	.982230	.972443	.964901	.962258	.961500	.961500
64	.980917	.970164	.961508	.959404	.958290	.958290
65	.979500	.967670	.957794	.956463	.955386	.955386
66	.977975	.964945	.952164	.952164	.952164	.952164
67	.976338	.961973	.949043	.949043	.949043	.949043
68	.974582	.958736	.945551	.945551	.945551	.945551
69	.972705	.955218	.941882	.941882	.941882	.941882
70	.970700	.951399	.937164	.937164	.937164	.937164
71	.968553	.947260	.931441	.931441	.931441	.931441
72	.966290	.942780	.924449	.924449	.924449	.924449
73	.963874	.937933	.916520	.916520	.916520	.916520
74	.961313	.932711	.907769	.907769	.907769	.907769
75	.958600	.92776	.900506	.900506	.900506	.900506
76	.....	.921009	.891854	.891854	.891854	.891854

SPRAGUE'S SELECT LIFE TABLES.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $q[x]$	1 $q[x-1]+1$	2 $q[x-2]+2$	3 $q[x-3]+3$	4 $q[x-4]+4$	5 or More. q_x
15	.003000	.....	.....	.....	.....	.003253
16	.003700	.003774	.....	.....	.....	.003774
17	.004300	.004402	.004402	.....	.....	.004402
18	.004700	.005450	.005450	.005450	.....	.005450
19	.005000	.006600	.006720	.006720	.006720	.006720
20	.005000	.007800	.008327	.008327	.008327	.008327
21	.004869	.008550	.009657	.009657	.009657	.009657
22	.004750	.008246	.010281	.010281	.010281	.010281
23	.004647	.007972	.010020	.010709	.010709	.010709
24	.004563	.007734	.009749	.010611	.010825	.010825
25	.004500	.007533	.009485	.010396	.010506	.010506
26	.004459	.007371	.009242	.010064	.010064	.010064
27	.004439	.007249	.009029	.009842	.009943	.009943
28	.004440	.007166	.008853	.009585	.009704	.009704
29	.004461	.007120	.008719	.009377	.009458	.009458
30	.004500	.007108	.008628	.009203	.009203	.009203
31	.004554	.007128	.008581	.009160	.009172	.009172
32	.004624	.007174	.008575	.009159	.009257	.009257
33	.004708	.007248	.008603	.009225	.009225	.009225
34	.004801	.007346	.008674	.009431	.009431	.009431
35	.004900	.007460	.008781	.009507	.010002	.010002
36	.005005	.007585	.008911	.009733	.010150	.010347
37	.005116	.007723	.009057	.009904	.010421	.010701
38	.005235	.007872	.009222	.010177	.010645	.011065
39	.005362	.008036	.009406	.010376	.010933	.011189
40	.005500	.008216	.009612	.010560	.011176	.011316
41	.005649	.008415	.009841	.010752	.011517	.011317
42	.005811	.008635	.010098	.010994	.011551	.011576
43	.005988	.008878	.010385	.011313	.011816	.011844
44	.006183	.009149	.010706	.011708	.012211	.012252
45	.006400	.009452	.011067	.012186	.012730	.012943
46	.006641	.009792	.011474	.012734	.013385	.013059
47	.006908	.010174	.011936	.013328	.014140	.014402
48	.007205	.010634	.012459	.013955	.014932	.015315
49	.007534	.011085	.013053	.014628	.015724	.016207
50	.007900	.011625	.013724	.015358	.016535	.017116
51	.008305	.012229	.014477	.016157	.017374	.018005
52	.008754	.012904	.015323	.017048	.018264	.018786
53	.009250	.013659	.016274	.018017	.019246	.019911
54	.009797	.014500	.017343	.019161	.020351	.020941
55	.010400	.015435	.018545	.020390	.021579	.022187
56	.011062	.016474	.019892	.021773	.022926	.023506
57	.011789	.017620	.021400	.023303	.024436	.025075
58	.012584	.018901	.023082	.025104	.026172	.026577
59	.013453	.020311	.024944	.027280	.028108	.028360

SPRAGUE'S SELECT LIFE TABLES.

SPRAGUE'S SELECT LIFE TABLES—Cont.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $q[x]$	1 $q[x-1]+_1$	2 $q[x-2]+_2$	3 $q[x-3]+_3$	4 $q[x-4]+_4$	5 or More. q_x
60	.014400	.021869	.027028	.029658	.030447	.030638
61	.015433	.023587	.029393	.032261	.032916	.032916
62	.016554	.025478	.032078	.034975	.035583	.035583
63	.017770	.027557	.035099	.037742	.038500	.038500
64	.019083	.029836	.038492	.040596	.041710	.041710
65	.020500	.032330	.042206	.043537	.044614	.044614
66	.022025	.035055	.047836	.047836	.047836	.047836
67	.023662	.038027	.050957	.050957	.050957	.050957
68	.025418	.041264	.054449	.054449	.054449	.054449
69	.027295	.044782	.058118	.058118	.058118	.058118
70	.029300	.048601	.062836	.062836	.062836	.062836
71	.031437	.052740	.068559	.068559	.068559	.068559
72	.033710	.057220	.075551	.075551	.075551	.075551
73	.036126	.062062	.083480	.083480	.083480	.083480
74	.038687	.067289	.092231	.092231	.092231	.092231
75	.041400	.072924	.099494	.099494	.099494	.099494
76	.....	.078991	.108146	.108146	.108146	.108146

SPRAGUE'S SELECT LIFE TABLES, FOUR PER CENT.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 D _[x]	1 D _{[x-1]+1}	2 D _{[x-2]+2}	3 D _{[x-3]+3}	4 D _{[x-4]+4}	5 or more. D ₁
15	546075	.....	.....	.....	.....	546214
16	523458	523497	.....	.....	.....	523497
17	501411	501463	501463	.....	.....	501463
18	479633	480053	480053	480053	.....	480053
19	458037	459018	459074	459074	459074	459074
20	436496	438218	438451	438451	438451	438451
21	414832	417609	418077	418077	418077	418077
22	394336	396935	398115	398115	398115	398115
23	375000	377369	378521	378867	378867	378867
24	356722	358902	359903	360316	360394	360394
25	339435	341437	342428	342743	342782	342782
26	323115	324911	325832	326135	326135	326135
27	307700	309302	310111	310404	310436	310436
28	293008	294552	295250	295492	295528	295528
29	279204	280574	281194	281381	281404	281404
30	266022	267269	267862	268021	268021	268021
31	253464	254639	255162	255338	255341	255341
32	241301	242605	243101	243244	243268	243268
33	229717	230947	231601	231747	231747	231747
34	218613	219842	220455	220778	220778	220778
35	208035	209196	209834	210137	210284	210284
36	197943	199054	199650	199962	200134	200174
37	188320	189375	189947	190260	190429	190483
38	179145	180150	180685	180987	181120	181197
39	170395	171354	171858	172134	172255	172300
40	162047	162963	163410	163694	163796	163819
41	154043	154958	155408	155643	155736	155736
42	146369	147281	147744	147960	148048	148052
43	139010	139922	140394	140627	140715	140709
44	131922	132863	133346	133593	133689	133695
45	125093	126064	126584	126845	126950	126978
46	118538	119512	120069	120369	120480	120514
47	112252	113222	113790	114127	114266	114296
48	106245	107189	107760	108108	108275	108317
49	100480	101423	101974	102325	102499	102556
50	94969.8	95887.8	96440.8	96771.8	96949.8	97007.3
51	89849.2	90595.6	91128.0	91459.0	91620.8	91674.7
52	84629.2	85523.4	86045.8	86354.8	86520.4	86595.1
53	79774.0	80661.8	81172.8	81468.8	81617.8	81673.2
54	75137.7	75990.2	76500.2	76780.7	76921.7	76968.3
55	70701.5	71540.0	72013.8	72282.2	72413.0	72458.2
56	66432.1	67275.3	67726.9	67960.1	68085.0	68125.6
57	62329.3	63170.4	63622.3	63826.7	63923.6	63965.6
58	58370.3	59225.6	59670.3	59866.1	59938.1	59963.1
59	54547.3	55419.0	55871.4	56051.0	56113.4	56124.4

SPRAGUE'S SELECT LIFE TABLES, FOUR PER CENT.—*Cont.*
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 D _[1]	1 D _{[1-1]+1}	2 D _{[1-2]+2}	3 D _{[1-3]+3}	4 D _{[1-4]+4}	5 or More. D ₅
60	50853.5	51743.8	52205.4	52382.4	52425.0	52435.3
61	47285.4	48193.6	48665.6	48840.7	48873.8	48873.8
62	43869.3	44765.1	45247.0	45418.5	45447.2	45447.2
63	40647.5	41483.7	41946.8	42111.1	42144.3	42144.3
64	37581.2	38389.5	38789.0	38917.8	38963.2	38963.2
65	34554.3	35446.3	35811.7	35861.5	35902.0	35902.0
66	31678.9	32544.2	32681.0	32681.0	32681.0	32681.0
67	28947.7	29789.6	30195.5	30195.5	30195.5	30195.5
68	26300.6	27175.7	27554.7	27554.7	27554.7	27554.7
69	23895.4	24702.5	25052.3	25052.3	25052.3	25052.3
70	21539.0	22349.2	22688.7	22688.7	22688.7	22688.7
71	19270.3	20103.8	20445.2	20445.2	20445.2	20445.2
72	17118.2	17955.0	18311.1	18311.1	18311.1	18311.1
73	15063.1	15904.9	16276.6	16276.6	16276.6	16276.6
74	13156.9	13960.5	14344.1	14344.1	14344.1	14344.1
75	11389.2	12161.4	12520.3	12520.3	12520.3	12520.3
76	.....	10497.8	10841.0	10841.0	10841.0	10841.0

SPRAGUE'S SELECT LIFE TABLES, FOUR PER CENT.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	$N_{[x]}^0$	$N_{[x-1]+1}^1$	$N_{[x-2]+2}^2$	$N_{[x-3]+3}^3$	$N_{[x-4]+4}^4$	5 or More. N_x
15	10847378	.....	.....	.....	.....	10847517
16	10301264	10301303	.....	.....	.....	10301303
17	9777754	9777806	9777806	.....	.....	9777806
18	9275867	9276343	9276343	9276343	.....	9276343
19	8795020	8796234	8796290	8796290	8796290	8796290
20	8334793	8335983	8337216	8337216	8337216	8337216
21	7893915	7898297	7898765	7898765	7898765	7898765
22	7474940	7470083	7480688	7480688	7480688	7480688
23	7076859	7080604	7082148	7082573	7082573	7082573
24	6698354	6701859	6703235	6703627	6703706	6703706
25	6338380	6341632	6342057	6343272	6343311	6343311
26	5996075	5998945	6000195	6000529	6000529	6000529
27	5670473	5672900	5674034	5674363	5674394	5674394
28	5360537	5362773	5363658	5363923	5363959	5363959
29	5065275	5067439	5068221	5068408	5068431	5068431
30	4784158	4786071	4786865	4787027	4787027	4787027
31	4516320	4518136	4518802	4519003	4519006	4519006
32	4260388	4262856	4263497	4263640	4263665	4263665
33	4016745	4019087	4020251	4020396	4020396	4020396
34	3784573	3787028	3788140	3788650	3788650	3788650
35	3563712	3565960	3567186	3567685	3567872	3567872
36	3353544	3355677	3356764	3357352	3357548	3357548
37	3153636	3155604	3156623	3157114	3157360	3157414
38	2963457	2965316	2966229	2966676	2966854	2966931
39	2782543	2784312	2785166	2785544	2785689	2785734
40	2610487	2612153	2612958	2613308	2613410	2613434
41	2446705	2448440	2449190	2449518	2449614	2449614
42	2290893	2292662	2293482	2293782	2293875	2293878
43	2142727	2144524	2145381	2145738	2145822	2145827
44	2001775	2003717	2004602	2004987	2005111	2005117
45	1867764	1869853	1870854	1871256	1871394	1871422
46	1740550	1742671	1743789	1744270	1744411	1744444
47	1619833	1622012	1623159	1623720	1623901	1623931
48	1505597	1507631	1508790	1509369	1509593	1509635
49	1397304	1399352	1400422	1401030	1401261	1401318
50	1291869	1293824	1294929	1295468	1295705	1295762
51	1197988	1199899	1200930	1201488	1201666	1201755
52	1106442	1108299	1109303	1109868	1110029	1110075
53	1019986	1021813	1022775	1023258	1023453	1023509
54	938524.1	940211.5	941150.7	941602.6	941788.8	941835.3
55	861838.9	863386.4	864215.3	864650.5	864821.9	864867.1
56	789543.8	791107.4	791846.4	792201.5	792368.3	792408.3
57	721603.7	723111.7	723832.1	724119.5	724241.4	724283.3
58	657730.5	659274.4	659941.3	660209.8	660292.8	660317.8
59	597849.1	599386.2	600048.8	600271.0	600343.7	600354.7

SPRAGUE'S SELECT LIFE TABLES, FOUR PER CENT.—*Cont.*
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	$N_{[x]}^0$	$N_{[x-1]+1}^1$	$N_{[x-2]+2}^2$	$N_{[x-3]+3}^3$	$N_{[x-4]+4}^4$	5 or More. N_x
60	541734.8	543301.8	543967.2	544177.4	544220.0	544230.3
61	489281.4	490881.3	491558.0	491761.8	491795.0	491795.0
62	440467.9	441996.0	442687.7	442892.4	442921.1	442921.1
63	395313.1	396598.6	397230.9	397440.7	397473.9	397473.9
64	353491.9	354665.6	355114.9	355284.1	355329.6	355329.6
65	314581.8	315910.7	316276.1	316325.9	316366.3	316366.3
66	278756.3	280027.5	280464.4	280464.4	280464.4	280464.4
67	245856.6	247077.4	247483.3	247483.3	247483.3	247483.3
68	215744.0	216908.9	217287.8	217287.8	217287.8	217287.8
69	188236.8	189383.4	189733.2	189733.2	189733.2	189733.2
70	163189.8	164341.4	164680.9	164680.9	164680.9	164680.9
71	140470.2	141650.8	141992.2	141992.2	141992.2	141992.2
72	119982.4	121190.9	121547.0	121547.0	121547.0	121547.0
73	101638.8	102864.2	103235.9	103235.9	103235.9	103235.9
74	85413.22	86575.71	86959.28	86959.28	86959.28	86959.28
75	71140.96	72250.32	72615.21	72615.21	72615.21	72615.21
76	.....	59751.76	60094.92	60094.92	60094.92	60094.92

FOUR PER CENT.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 C _[1]	1 C _{[1-1] + 1}	2 C _{[1-2] + 2}	3 C _{[1-3] + 3}	4 C _{[1-4] + 4}	5 or More. C ₁
15	1575.7	.....	.....	.....	.....	1708.5
16	1862.9	1809.5	.....	.....	.....	1899.5
17	2073.6	2122.6	2122.6	.....	.....	2122.6
18	2167.4	2515.6	2515.6	2515.6	.....	2515.6
19	2202.1	2913.8	2966.5	2966.5	2966.5	2966.5
20	2098.2	3286.9	3510.7	3510.7	3510.7	3510.7
21	1941.8	3432.6	3882.0	3882.0	3882.0	3882.0
22	1800.6	3146.8	3935.5	3935.5	3935.5	3935.5
23	1675.6	2843.1	3647.6	3601.2	3601.2	3601.2
24	1565.0	2068.9	3374.5	3075.4	3751.2	3751.2
25	1468.7	2473.6	3123.5	3425.8	3462.6	3462.6
26	1385.2	2302.8	2895.9	3156.0	3156.0	3156.0
27	1313.2	2156.3	2692.4	2937.9	2967.9	2967.9
28	1251.8	2029.7	2513.3	2723.6	2757.6	2757.6
29	1197.3	1920.8	2357.4	2537.5	2559.0	2559.0
30	1151.4	1826.4	2221.6	2371.7	2371.7	2371.7
31	1110.0	1745.1	2104.9	2249.1	2252.0	2252.0
32	1072.8	1673.6	2004.7	2142.3	2105.3	2105.3
33	1039.5	1609.7	1916.0	2055.7	2055.7	2055.7
34	1009.1	1553.0	1838.7	2002.0	2002.0	2002.0
35	980.0	1500.4	1771.5	1921.0	2022.5	2022.5
36	952.4	1451.7	1710.8	1871.6	1953.5	1901.5
37	926.2	1406.5	1654.1	1822.5	1907.8	1900.0
38	901.6	1363.4	1602.2	1770.7	1854.2	1927.9
39	878.5	1324.1	1554.3	1717.6	1810.9	1853.8
40	856.8	1287.4	1510.7	1662.3	1760.1	1782.5
41	836.7	1253.9	1470.7	1609.1	1694.7	1694.7
42	817.93	1222.8	1434.7	1564.1	1643.9	1648.0
43	800.31	1194.39	1401.9	1529.6	1598.5	1602.4
44	784.07	1168.76	1372.56	1504.1	1569.4	1575.0
45	769.87	1145.86	1347.02	1486.53	1553.6	1580.3
46	756.63	1125.19	1324.64	1473.91	1550.45	1582.8
47	745.47	1107.68	1305.94	1462.56	1553.59	1582.83
48	737.11	1093.04	1291.04	1451.49	1554.55	1595.12
49	728.15	1080.84	1279.81	1439.23	1549.02	1604.12
50	721.57	1071.66	1272.80	1429.07	1541.36	1566.55
51	716.10	1065.37	1268.50	1420.95	1530.75	1587.18
52	712.30	1061.29	1267.71	1415.47	1519.67	1563.66
53	709.50	1059.47	1270.30	1413.69	1510.30	1563.66
54	707.82	1059.47	1275.71	1414.59	1505.16	1549.78
55	706.93	1061.71	1283.94	1417.37	1502.41	1545.78
56	706.62	1065.64	1295.48	1422.63	1500.69	1539.79
57	706.59	1070.67	1309.04	1433.60	1501.68	1542.26
58	706.25	1076.36	1324.41	1450.28	1508.48	1532.37
59	705.65	1082.22	1340.12	1470.35	1519.79	1530.47

SPRAGUE'S SELECT LIFE TABLES.

FOUR PER CENT.—*Cont.*
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 C _[x]	1 C _{[x-1] + 1}	2 C _{[x-2] + 2}	3 C _{[x-3] + 3}	4 C _{[x-4] + 4}	5 or More. C _x
60	704.20	1088.11	1356.66	1493.87	1534.73	1544.73
61	701.61	1093.02	1375.41	1514.97	1546.84	1546.84
62	698.29	1096.65	1395.70	1527.36	1554.95	1554.95
63	694.59	1099.26	1415.58	1528.35	1560.15	1560.15
64	689.52	1101.28	1435.69	1519.12	1562.65	1562.65
65	681.11	1101.97	1453.42	1501.28	1540.12	1540.12
66	670.86	1096.94	1517.00	1517.00	1517.00	1517.00
67	658.56	1089.18	1479.49	1479.49	1479.49	1479.49
68	644.29	1078.31	1442.62	1442.62	1442.62	1442.62
69	627.17	1063.70	1399.98	1399.98	1399.98	1399.98
70	606.80	1044.37	1370.84	1370.84	1370.84	1370.84
71	582.76	1019.51	1347.80	1347.80	1347.80	1347.80
72	554.93	987.60	1330.22	1330.22	1330.22	1330.22
73	523.20	949.10	1306.50	1306.50	1306.50	1306.50
74	489.41	903.28	1272.09	1272.09	1272.09	1272.09
75	453.43	852.76	1197.78	1197.78	1197.78	1197.78
76	.....	797.32	1127.31	1127.31	1127.31	1127.31

FOUR PER CENT.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $M_{[x]}$	1 $M_{[x-1]+1}$	2 $M_{[x-2]+2}$	3 $M_{[x-3]+3}$	4 $M_{[x-4]+4}$	5 or More. M_x
15	128869	.....	.....	.....	.....	129002
16	127257	127293	.....	.....	.....	127293
17	125345	125394	125394	.....	.....	125394
18	122870	123271	123271	123271	.....	123271
19	119767	120703	120755	120755	120755	120755
20	115927	117565	117789	117789	117789	117789
21	111220	113829	114278	114278	114278	114278
22	106840	109278	110396	110396	110396	110396
23	102814	105039	106131	106461	106461	106461
24	99094.0	101138	102146	102484	102559	102559
25	95651.5	97520.0	98469.1	98771.4	98808.2	98808.2
26	92497.3	94182.8	95055.4	95345.6	95345.6	95345.6
27	89005.3	91112.1	91880.0	92159.5	92189.6	92189.6
28	85924.6	88292.1	88955.8	89187.6	89221.6	89221.6
29	84386.9	85672.8	86262.4	86442.5	86464.0	86464.0
30	82017.2	83189.6	83752.0	83605.0	83995.0	83995.0
31	79759.9	80805.8	81363.2	81530.4	81533.3	81533.3
32	77440.0	78649.9	79120.7	79258.3	79281.3	79281.3
33	75227.8	76367.2	76976.3	77116.0	77116.0	77116.0
34	73053.4	74188.3	74757.5	75060.3	75060.3	75060.3
35	70970.1	72044.3	72635.3	72918.8	73058.3	73058.3
36	68959.0	69990.1	70543.9	70863.8	70997.8	71035.9
37	67026.4	68006.6	68538.4	68833.1	68992.2	69044.3
38	65166.9	66100.2	66600.1	66884.3	67010.6	67084.4
39	63374.3	64265.3	64736.8	64997.9	65113.6	65156.4
40	61644.5	62495.8	62941.2	63182.5	63280.3	63302.7
41	59938.9	60787.7	61208.4	61430.5	61520.2	61520.2
42	58258.9	59102.2	59533.8	59737.7	59821.4	59825.5
43	56597.7	57440.9	57879.4	58099.1	58173.6	58177.5
44	54930.7	55797.4	56240.5	56477.5	56569.5	56575.1
45	53256.0	54146.6	54628.6	54874.0	54973.4	55000.1
46	51594.3	52480.1	53000.8	53281.6	53387.5	53419.8
47	49949.3	50837.7	51361.0	51676.1	51807.7	51837.0
48	48337.9	49203.9	49730.0	50055.0	50213.6	50254.1
49	46737.9	47601.8	48110.8	48439.0	48604.5	48659.0
50	45167.6	46009.7	46520.9	46831.0	46999.8	47054.9
51	43613.1	44446.0	44938.1	45248.1	45402.0	45458.4
52	42074.0	42896.9	43380.7	43696.6	43827.2	43871.2
53	40543.7	41361.7	41835.6	42113.0	42254.1	42307.5
54	39041.0	39834.2	40302.3	40565.3	40699.3	40743.8
55	37555.1	38333.2	38774.8	39026.6	39150.7	39194.1
56	36065.5	36848.2	37271.5	37490.8	37609.2	37648.3
57	34575.6	35358.9	35782.5	35976.0	36068.2	36108.5
58	33071.9	33869.1	34288.2	34473.5	34542.4	34566.2
59	31553.4	32365.7	32792.7	32993.8	33023.2	33033.9

FOUR PER CENT.—Cont.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 M_x	1 $M_{[x-1]} +_1$	2 $M_{[x-2]} +_2$	3 $M_{[x-3]} +_3$	4 $M_{[x-4]} +_4$	5 or More. M_x
60	30018.0	30847.8	31283.4	31452.6	31493.4	31503.4
61	28467.0	29313.8	29759.7	29926.8	29958.7	29958.7
62	26928.4	27765.4	28220.8	28384.3	28411.8	28411.8
63	25443.2	26230.1	26668.7	26825.1	26856.9	26856.9
64	23985.4	24748.6	25130.9	25253.1	25296.7	25296.7
65	22455.0	23205.9	23647.3	23695.2	23734.0	23734.0
66	20957.4	21773.8	22193.9	22193.9	22193.9	22193.9
67	19491.7	20286.6	20676.9	20676.9	20676.9	20676.9
68	18062.8	18833.1	19197.4	19197.4	19197.4	19197.4
69	16655.5	17418.5	17754.8	17754.8	17754.8	17754.8
70	15262.5	16028.4	16354.8	16354.8	16354.8	16354.8
71	13876.7	14655.7	14984.0	14984.0	14984.0	14984.0
72	12503.5	13293.9	13636.2	13636.2	13636.2	13636.2
73	11153.9	11948.6	12306.0	12306.0	12306.0	12306.0
74	9871.78	10630.7	10999.5	10999.5	10999.5	10999.5
75	8653.05	9382.37	9727.39	9727.39	9727.39	9727.39
76	.....	8199.62	8529.61	8529.61	8529.61	8529.61

FOUR PER CENT.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 R[1]	1 R[x-1]+1	2 R[x-2]+2	3 R[x-3]+3	4 R[x-4]+4	5 or More. R _x
15	3712734	.....	.....	.....	.....	3712867
16	3583829	3583865	.....	.....	.....	3583865
17	3456524	3456572	3456572	.....	.....	3456572
18	3330726	3331179	3331179	3331179	.....	3331179
19	3200906	3207856	3207908	3207908	3207908	3207908
20	3084842	3086929	3087153	3087153	3087153	3087153
21	2964782	2968915	2969304	2969304	2969304	2969304
22	2840957	2853502	2855086	2855086	2855086	2855086
23	2739282	2742817	2744284	2744089	2744089	2744089
24	2633164	2636408	2637778	2638153	2638229	2638229
25	2531006	2534070	2535330	2535632	2535669	2535669
26	2432618	2435354	2439541	2436801	2436801	2436801
27	2337800	2341150	2341172	2341486	2341516	2341516
28	2240082	2248105	2249038	2249292	2249292	2249292
29	2157119	2159157	2159902	2160083	2160104	2160104
30	2070925	2072732	2073484	2073640	2073640	2073640
31	1987191	1988908	1989543	1989732	1989735	1989735
32	1905131	1907431	1908142	1908179	1908202	1908202
33	1825513	1827591	1828781	1828121	1828021	1828021
34	1748007	1750286	1751324	1751805	1751805	1751805
35	1672862	1674954	1676007	1676567	1676744	1676744
36	1600008	1601891	1602210	1603402	1603648	1603648
37	1529108	1530917	1531901	1532306	1532508	1532508
38	1460342	1462082	1462640	1463303	1463533	1463533
39	1393529	1395175	1395901	1396340	1396479	1396522
40	1328509	1330155	1330310	1331245	1331342	1331365
41	1265335	1266954	1267659	1267969	1268092	1268092
42	1203752	1205397	1206166	1206450	1206532	1206532
43	1143820	1145493	1146204	1146933	1146713	1146717
44	1085421	1087223	1088052	1088415	1088534	1088539
45	1028557	1030490	1031425	1031806	1031937	1031964
46	973340.0	975300.7	976343.6	977966.6	979031.7	979061.0
47	919777.9	921715.7	922814.6	923342.8	923515.0	923544.2
48	867945.6	869828.6	870908.0	871453.6	871906.7	871907.3
49	817711.6	819607.7	820624.7	821178.0	821398.6	821452.1
50	769164.9	770973.7	772005.9	772513.9	772739.0	772791.1
51	722225.9	723997.3	724964.0	725485.0	725682.9	725734.2
52	678040.8	679612.8	679551.3	680025.9	680236.9	680280.9
53	633119.2	634815.8	635715.9	636170.6	636356.3	636401.7
54	591005.4	592575.5	593454.1	593880.3	594057.0	594102.2
55	550489.9	551964.4	552741.3	553151.8	553315.0	553358.3
56	511473.8	512934.8	513631.2	513966.5	514125.2	514164.2
57	473944.0	475408.3	476086.6	476959.7	477475.7	477519.0
58	437443.2	439418.4	440049.4	440304.1	440383.7	440407.5
59	403473.8	404921.3	405549.3	405761.2	405830.6	405841.3

SPRAGUE'S SELECT LIFE TABLES.

FOUR PER CENT—Cont.

YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 R _[1]	1 R _{[1-1]+1}	2 R _{[1-2]+2}	3 R _{[1-3]+3}	4 R _{[1-4]+4}	5 or More. R ₁
60	370454.4	371925.4	372555.6	372756.6	372797.4	372807.4
61	338934.2	340436.4	341077.6	341272.2	341304.0	341304.0
62	309030.6	310497.2	311122.6	311317.9	311345.4	311345.4
63	280885.1	282102.2	282701.8	282901.8	282933.6	282933.6
64	254327.3	255441.9	255872.1	256033.1	256076.7	256076.7
65	229080.8	230341.9	230693.3	230741.2	230780.0	230780.0
66	205419.1	206625.8	207046.0	207046.0	207046.0	207046.0
67	183302.5	184461.7	184852.0	184852.0	184852.0	184852.0
68	162704.1	163810.8	164175.1	164175.1	164175.1	164175.1
69	143551.9	144641.3	144977.7	144977.7	144977.7	144977.7
70	125802.2	126896.4	127422.8	127422.8	127422.8	127422.8
71	109418.4	110539.7	110868.0	110868.0	110868.0	110868.0
72	94393.9	95541.7	95884.0	95884.0	95884.0	95884.0
73	80727.0	81890.4	82247.8	82247.8	82247.8	82247.8
74	68469.2	69573.1	69941.8	69941.8	69941.8	69941.8
75	57538.0	58597.4	58942.4	58942.4	58942.4	58942.4
76	.....	48884.9	49215.0	49215.0	49215.0	49215.0

SPRAGUE'S SELECT LIFE TABLES, THREE AND ONE-HALF PER CENT.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $D[x]$	1 $D[x-1] + 1$	2 $D[x-2] + 2$	3 $D[x-3] + 3$	4 $D[x-4] + 4$	5 or More. D_x
15	587013	.....	.....	.....	.....	587161
16	565419	565460	.....	.....	.....	565460
17	544220	544277	544277	.....	.....	544277
18	523098	523556	523556	523556	.....	523556
19	501958	503033	503095	503095	503095	503095
20	480662	482559	482815	482815	482815	482815
21	459013	462086	462603	462603	462603	462603
22	438442	441332	442644	442644	442644	442644
23	418956	421603	422892	423278	423278	423278
24	400462	402908	404099	404496	404585	404585
25	382896	385155	386273	386628	386672	386672
26	366247	368283	369327	369671	369671	369671
27	350459	352284	353207	353539	353576	353576
28	335441	337105	337904	338182	338222	338222
29	321084	322658	323372	323587	323613	323613
30	307403	308843	309528	309713	309713	309713
31	293306	295671	296279	296481	296486	296486
32	281536	283058	283637	283804	283832	283832
33	269316	270758	271521	271695	271695	271695
34	257536	258984	259706	260086	260086	260086
35	246258	247633	248388	248747	248921	248921
36	235442	236705	237474	237882	238051	238098
37	225079	226342	227024	227399	227601	227666
38	215149	216356	216999	217361	217521	217613
39	205629	206785	207394	207727	207823	207928
40	196500	197610	198187	198496	198620	198648
41	187695	188811	189359	189645	189759	189759
42	179208	180324	180891	181155	181262	181267
43	171019	172141	172722	173009	173105	173110
44	163083	164247	164843	165148	165268	165275
45	155388	156594	157240	157564	157695	157729
46	147957	149173	149868	150242	150381	150423
47	140788	142005	142717	143139	143313	143351
48	133897	135068	135807	136245	136455	136509
49	127244	128137	129135	129580	129801	129872
50	120847	122015	122719	123140	123366	123439
51	114678	115838	116518	116941	117149	117224
52	108732	109880	110552	110948	111161	111220
53	102989	104135	104795	105177	105369	105441
54	97471.8	98505.5	99239.4	99603.2	99786.3	99846.6
55	92160.2	93253.0	93870.8	94220.6	94391.0	94450.0
56	87013.2	88117.6	88709.0	89014.6	89178.2	89231.3
57	82033.6	83140.8	83735.4	84004.4	84132.0	84187.3
58	77104.2	78225.3	78913.4	79172.4	79267.7	79300.7
59	72486.8	73645.3	74246.3	74485.0	74568.0	74582.7

SPRAGUE'S SELECT LIFE TABLES, THREE AND ONE-HALF PER
CEN I.—*Cont.*
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $D[x]$	1 $D[x-1] +_1$	2 $D[x-2] +_2$	3 $D[x-3] +_3$	4 $D[x-4] +_4$	5 or More. D_x
60	67904.7	69093.5	69709.8	69946.2	70003.0	70017.0
61	63445.4	64663.7	65297.1	65532.1	65576.6	65576.6
62	59146.1	60354.0	61003.6	61234.7	61273.5	61273.5
63	55067.0	56200.0	56827.4	57049.9	57094.9	57094.9
64	51158.9	52259.4	52803.1	52978.6	53040.3	53040.3
65	47265.7	48485.8	48985.7	49053.9	49109.2	49109.2
66	43541.9	44731.1	45331.6	45331.6	45331.6	45331.6
67	39980.1	41142.9	41703.5	41703.5	41703.5	41703.5
68	36583.0	37714.1	38240.0	38240.0	38240.0	38240.0
69	33321.9	34447.5	34935.2	34935.2	34935.2	34935.2
70	30181.1	31316.4	31792.1	31792.1	31792.1	31792.1
71	27145.3	28306.1	28786.9	28786.9	28786.9	28786.9
72	24218.8	25402.8	25906.5	25906.5	25906.5	25906.5
73	21414.2	22611.0	23139.4	23139.4	23139.4	23139.4
74	18794.7	19942.6	20490.5	20490.5	20490.5	20490.5
75	16348.1	17456.6	17971.7	17971.7	17971.7	17971.7
76	.....	15141.3	15636.3	15636.3	15636.3	15636.3

SPRAGUE'S SELECT LIFE TABLES, THREE AND ONE-HALF PER CENT.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	$N_{(x)}^0$	$N_{(x-1)+}^1$	$N_{(x-2)+}^2$	$N_{(x-3)+}^3$	$N_{(x-4)+}^4$	5 or More. N_x
15	12630643	.....	.....	.....	.....	12630791
16	12043589	12043630	.....	.....	.....	12043630
17	11478113	11478170	11478170	.....	.....	11478170
18	10933373	10933803	10933893	10933893	.....	10933893
19	10408944	10410275	10410337	10410337	10410337	10410337
20	9904572	9906986	9907242	9907242	9907242	9907242
21	9419050	9423910	942427	942427	942427	942427
22	8955417	8960037	8961824	8961824	8961824	8961824
23	8512782	8516975	8518705	8519180	8519180	8519180
24	8089882	8093826	8095372	8095813	8095902	8095902
25	7685745	7689420	7690918	7691273	7691317	7691317
26	7299585	7302849	7304265	7304645	7304645	7304645
27	6930499	6933338	6934566	6934938	6934974	6934974
28	6577473	6580040	6581054	6581359	6581359	6581359
29	6239543	6242032	6242935	6243150	6243177	6243177
30	5916244	5918459	5919374	5919563	5919563	5919563
31	5600726	5600841	5600916	5600816	5600851	5600851
32	5309531	5312420	5313170	5313337	5313365	5313365
33	5025239	5027995	5029362	5029533	5029533	5029533
34	4753018	4755923	4757237	4757838	4757838	4757838
35	4492808	4495482	4496939	4497531	4497752	4497752
36	4244009	4246550	4247849	4248551	4248784	4248831
37	4006204	4008567	4009785	4010375	4010669	4010733
38	3778881	3781125	3782225	3782761	3782976	3783063
39	3561602	3563732	3564769	3565226	3565400	3565455
40	3353948	3356973	3356947	3357375	3357499	3357527
41	3155323	3157418	3158393	3158760	3158879	3158879
42	2965453	2967628	2968637	2969004	2969115	2969120
43	2784026	2786245	2787304	2787746	2787849	2787853
44	2610596	2613007	2614104	2614582	2614737	2614744
45	2444908	2447513	2448760	2449261	2449434	2449469
46	2280800	2280520	2290919	2291520	2291697	2291739
47	2136221	2138393	2140347	2141051	2141278	2141316
48	1902856	1905433	1906898	1907630	1907912	1907965
49	1856354	1858959	1860345	1861091	1861385	1861457
50	1726613	1729110	1730522	1731210	1731511	1731584
51	1603311	1605766	1607095	1607803	1608070	1608145
52	1486237	1488633	1489928	1490577	1490862	1490921
53	1375139.2	1377505	1378753	1379376	1379629	1379701
54	1269950	1272148	1273370	1273958	1274199	1274260
55	1170415	1172478	1173562	1174131	1174354	1174413
56	1076200	1078255	1079225	1079601	1079910	1079963
57	987195.8	989186.6	991137.2	992516.2	993676.8	994732.1
58	903149.2	905162.2	906045.8	906401.8	906511.8	906544.8
59	823906.4	825955.0	826836.9	827132.4	827229.4	827244.1

SPRAGUE'S SELECT LIFE TABLES, THREE AND ONE-HALF PER CENT.—*Cont.*
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	$N_{[x]}^0$	$N_{[x-1]+1}^1$	$N_{[x-2]+2}^2$	$N_{[x-3]+3}^3$	$N_{[x-4]+4}^4$	5 or More. N_x
60	749321.3	751419.6	752300.7	752590.6	752647.4	752661.4
61	671294.4	681416.6	682326.1	682599.9	682644.4	682644.4
62	613753.0	615819.0	616752.9	617029.0	617067.8	617067.8
63	552892.0	554606.9	555465.0	555749.3	555794.3	555794.3
64	496194.6	497795.0	498406.9	498637.6	498699.4	498699.4
65	443215.0	445035.7	445535.6	445603.8	445659.0	445659.0
66	394199.5	395949.3	396549.0	396549.9	396549.9	396549.9
67	348968.8	350627.6	351213.2	351218.2	351218.2	351218.2
68	307370.0	308988.7	309514.7	309514.7	309514.7	309514.7
69	269185.7	270787.0	271274.6	271274.6	271274.6	271274.6
70	234247.7	235863.8	236339.5	236339.5	236339.5	236339.5
71	202402.1	204066.6	204547.4	204547.4	204547.4	204547.4
72	173544.4	175256.8	175760.5	175760.5	175760.5	175760.5
73	147580.8	149325.6	149854.0	149854.0	149854.0	149854.0
74	124503.7	126166.6	126714.6	126714.6	126714.6	126714.6
75	104105.5	105769.0	106224.0	106224.0	106224.0	106224.0
76	.....	87757.35	88252.38	88252.38	88252.38	88252.38

SPRAGUE'S SELECT LIFE TABLES, THREE AND ONE-HALF PER CENT.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $C_{[x]}$	1 $C_{[x-1]+1}$	2 $C_{[x-2]+2}$	3 $C_{[x-3]+3}$	4 $C_{[x-4]+4}$	5 or More. C_x
15	1702.7	.....	.....	.....	.....	1845.5
16	2021.6	2061.7	.....	.....	.....	2061.7
17	2261.3	2315.0	2315.0	.....	.....	2315.0
18	2375.3	2756.8	2756.8	2756.8	.....	2756.8
19	2424.8	3208.7	3266.7	3266.7	3266.7	3266.7
20	2322.1	3636.8	3884.6	3884.6	3884.6	3884.6
21	2159.1	3817.1	4316.2	4316.2	4316.2	4316.2
22	2011.9	3515.8	4396.9	4396.9	4396.9	4396.9
23	1881.2	3248.2	4095.1	4379.6	4379.6	4379.6
24	1765.8	3011.0	3807.0	4146.2	4231.5	4231.5
25	1664.7	2804.5	3540.9	3883.6	3924.8	3924.8
26	1577.2	2622.8	3299.1	3594.6	3594.6	3594.6
27	1502.5	2467.0	3081.4	3363.2	3396.7	3396.7
28	1439.8	2333.5	2889.4	3132.0	3171.2	3171.2
29	1383.4	2220.0	2723.3	2931.3	2957.1	2957.1
30	1336.6	2120.5	2580.1	2753.8	2753.8	2753.8
31	1295.1	2035.5	2455.1	2624.5	2627.5	2627.5
32	1257.7	1964.1	2349.6	2510.9	2538.6	2538.6
33	1224.5	1896.4	2257.1	2421.7	2421.7	2421.7
34	1194.5	1838.2	2176.6	2369.8	2369.8	2369.8
35	1165.7	1784.8	2107.0	2285.1	2405.6	2405.6
36	1138.3	1735.1	2044.8	2236.8	2334.9	2380.3
37	1112.3	1689.1	1986.5	2188.9	2291.0	2353.9
38	1088.0	1645.4	1933.4	2136.8	2237.7	2326.6
39	1065.3	1605.7	1884.7	2082.7	2195.9	2247.9
40	1044.0	1568.6	1840.8	2025.5	2144.6	2171.9
41	1024.5	1535.2	1800.6	1970.2	2074.9	2074.9
42	1006.2	1504.4	1765.0	1924.2	2022.5	2027.5
43	989.4	1476.5	1733.1	1890.9	1976.0	1,80.9
44	974.0	1451.8	1704.9	1868.4	1949.5	1956.5
45	961.0	1430.3	1681.4	1855.4	1939.2	1972.5
46	948.9	1411.3	1661.4	1848.6	1944.5	1,85.2
47	939.5	1390.0	1645.9	1843.3	1958.0	1,94.8
48	932.1	1384.2	1634.9	1836.9	1968.6	2020.0
49	926.6	1375.3	1628.5	1831.4	1971.9	2041.2
50	922.6	1370.3	1627.4	1827.2	1970.8	2041.4
51	920.1	1368.8	1629.9	1825.5	1966.7	2039.2
52	919.6	1370.1	1636.6	1827.5	1961.8	2018.7
53	920.4	1374.4	1647.8	1833.9	1959.4	2028.5
54	922.7	1381.1	1662.9	1843.9	1922.0	2020.2
55	925.9	1390.7	1681.8	1856.5	1967.8	2024.7
56	930.0	1402.5	1705.0	1872.4	1975.1	2022.6
57	934.4	1415.9	1731.2	1890.0	1986.4	20.0.6
58	938.6	1430.3	1759.9	1927.3	2004.6	2036.3
59	942.2	1445.2	1789.4	1963.3	2029.4	2043.6

SPRAGUE'S SELECT LIFE TABLES, THREE AND ONE-HALF PER CENT.—*Cont.*
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 C[x]	1 C[x-1]+1	2 C[x-2]+2	3 C[x-3]+3	4 C[x-4]+4	5 or More. C _x
60	944.8	1459.9	1820.4	2004.3	2059.2	2072.6
61	946.0	1473.6	1854.3	2012.6	2085.5	2085.5
62	946.0	1485.7	1890.8	2069.1	2106.6	2106.6
63	945.5	1496.4	1927.1	2080.5	2123.8	2123.8
64	943.2	1506.4	1963.8	2078.0	2137.5	2137.5
65	936.2	1514.6	1997.6	2063.4	2116.9	2116.9
66	926.6	1515.0	2095.2	2095.2	2095.2	2095.2
67	913.9	1511.6	2053.2	2053.2	2053.2	2053.2
68	898.5	1503.7	2011.7	2011.7	2011.7	2011.7
69	878.8	1490.5	1961.7	1961.7	1961.7	1961.7
70	854.4	1470.5	1930.1	1930.1	1930.1	1930.1
71	824.5	1442.4	1906.9	1906.9	1906.9	1906.9
72	788.9	1404.5	1891.1	1891.1	1891.1	1891.1
73	747.4	1355.7	1866.3	1866.3	1866.3	1866.3
74	702.5	1296.6	1826.0	1826.0	1826.0	1826.0
75	654.0	1230.0	1727.6	1727.6	1727.6	1727.6
76	.....	1155.6	1633.8	1633.8	1633.8	1633.8

SPRAGUE'S SELECT LIFE TABLES, THREE AND ONE-HALF PER CENT.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $M_{[x]}$	1 $M_{[x-1]+1}$	2 $M_{[x-2]+2}$	3 $M_{[x-3]+3}$	4 $M_{[x-4]+4}$	5 or More. M_x
15	159891	.....	.....	.....	.....	160033
16	158148	158188	.....	.....	.....	158188
17	156072	156126	156126	.....	.....	156126
18	153372	153811	153811	153811	.....	153811
19	149965	150997	151054	151054	151054	151054
20	145726	147540	147788	147788	147788	147788
21	140495	143404	143903	143903	143903	143903
22	135605	138336	139587	139587	139587	139587
23	131087	133593	134820	135190	135190	135190
24	126896	129206	130345	130725	130810	130810
25	122992	125130	126195	126538	126579	126579
26	119398	121327	122325	122654	122654	122654
27	116004	117821	118704	119026	119059	119059
28	113018	114591	115354	115623	115663	115663
29	110084	111578	112257	112465	112491	112491
30	107337	108701	109358	109534	109534	109534
31	104707	106000	106580	106778	106781	106781
32	101988	103412	103994	104125	104153	104153
33	99380.6	100730	101450	101614	101614	101614
34	96807.3	98156.1	98833.6	99192.7	99192.7	99192.7
35	94328.7	95612.8	96317.9	96657.0	96822.9	96822.9
36	91924.9	93163.0	93828.0	94210.9	94371.9	94417.3
37	89604.7	90786.6	91427.9	91783.2	91974.1	92037.0
38	87361.7	88492.4	89097.5	89441.4	89594.3	89783.1
39	85188.2	86273.7	86847.0	87164.1	87304.6	87356.6
40	83081.7	84122.9	84668.0	84962.3	85081.4	85108.7
41	80994.2	82037.7	82554.3	82827.2	82936.8	82936.8
42	78926.9	79969.7	80502.5	80753.7	80857.0	80891.9
43	76873.8	77920.7	78465.3	78737.5	78829.5	78834.5
44	74822.2	75884.4	76444.2	76732.2	76846.6	76853.5
45	72710.4	73828.2	74432.6	74739.3	74863.8	74897.1
46	70624.0	71749.4	72397.9	72751.2	72883.9	72924.6
47	68548.9	69675.1	70338.1	70736.5	70902.6	70939.4
48	66506.2	67609.4	68279.1	68692.2	68893.2	68944.6
49	64469.4	65574.1	66225.2	66644.2	66855.3	67024.6
50	62459.4	63542.8	64198.8	64596.7	64812.8	64883.4
51	60460.5	61536.8	62172.5	62571.4	62769.5	62842.0
52	58472.8	59540.4	60168.0	60542.6	60745.9	60802.8
53	56486.7	57553.2	58170.3	58531.4	58715.1	58784.1
54	54527.3	55560.3	56178.8	56522.5	56697.5	56755.7
55	52580.9	53604.6	54185.2	54515.9	54678.6	54735.5
56	50620.3	51655.0	52213.9	52503.4	52659.4	52710.8
57	48650.4	49690.3	50252.5	50508.9	50631.0	50684.3
58	46653.3	47716.0	48274.4	48521.3	48612.9	48644.6
59	44625.4	45714.7	46285.7	46514.5	46594.0	46608.3

SPRAGUE'S SELECT LIFE TABLES.

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SPRAGUE'S SELECT LIFE TABLES, THREE AND ONE-HALF PER CENT.—*Cont.*
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $M_{[x]}$	1 $M_{[x-1]+1}$	2 $M_{[x-2]+2}$	3 $M_{[x-3]+3}$	4 $M_{[x-4]+4}$	5 or More M_x
60	42565.8	43683.2	44269.5	44496.3	44551.2	41564.6
61	40475.4	41621.0	42223.3	42419.1	42492.0	42492.0
62	38391.3	39529.4	40147.4	40369.0	40406.5	40406.5
63	36371.2	37445.3	38043.7	38256.6	38299.9	38299.9
64	34379.5	35425.7	35948.9	36116.6	36176.1	36176.1
65	32277.8	33436.3	33919.3	33985.1	34038.6	34038.6
66	30211.6	31341.6	31921.7	31921.7	31921.7	31921.7
67	28179.2	29285.0	29826.6	29826.6	29826.6	29826.6
68	26188.9	27265.3	27773.4	27773.4	27773.4	27773.4
69	24219.1	25290.4	25761.6	25761.6	25761.6	25761.6
70	22259.7	23340.3	23799.9	23799.9	23799.9	23799.9
71	20300.9	21405.3	21869.8	21869.8	21869.8	21869.8
72	18350.1	19476.4	19962.9	19962.9	19962.9	19962.9
73	16423.6	17561.2	18071.9	18071.9	18071.9	18071.9
74	14584.4	15676.2	16205.5	16205.5	16205.5	16205.5
75	12827.7	13881.9	14379.6	14379.6	14379.6	14379.6
76	.....	12173.7	12651.9	12651.9	12651.9	12651.9

SPRAGUE'S SELECT LIFE TABLES, THREE AND ONE-HALF PER CENT.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 R _[x]	1 R _{[x-1]+1}	2 R _{[x-2]+2}	3 R _{[x-3]+3}	4 R _{[x-4]+4}	5 or More. R _x
16	4910640	.....	.....	.....	.....	4910782
16	4750709	4750749	.....	.....	.....	4750749
17	4592507	4592561	4592561	.....	.....	4592501
18	4135939	4436435	4436435	4436435	.....	4436435
19	4281287	4282567	4282624	4282624	4282624	4282624
20	4129009	4131422	4131570	4131570	4131570	4131570
21	3976668	3983283	3983782	3983782	3983782	3983782
22	3833794	3838173	3839879	3839879	3839879	3839879
23	3694201	3698189	3699837	3700293	3700293	3700293
24	3559377	3563114	3564596	3565017	3565103	3565103
25	3428983	3432481	3433908	3434251	3434292	3434292
26	3302881	3305901	3307351	3307713	3307713	3307713
27	3180788	3183486	3184664	3185226	3185059	3185059
28	3062263	3064994	3065665	3065960	3066000	3066000
29	2946868	2949245	2950103	2950311	2950337	2950337
30	2834679	2836784	2837667	2837846	2837846	2837846
31	2723332	2727342	2728083	2728309	2728311	2728311
32	2617912	2620625	2621342	2621503	2621531	2621531
33	2513333	2515924	2517213	2517373	2517378	2517378
34	2411233	2413952	2415194	2415763	2415763	2415763
35	2311920	2314428	2315706	2316365	2316571	2316571
36	2215200	2217591	2218816	2219478	2219703	2219748
37	2121051	2123275	2124428	2124988	2125267	2125331
38	2029334	2031447	2032488	2033200	2033293	2033293
39	1939961	1941972	1942954	1943391	1943559	1943610
40	1852864	1854772	1855678	1856107	1856226	1856254
41	1767786	1769782	1770650	1771030	1771145	1771145
42	1684722	1686742	1687745	1688095	1688203	1688208
43	1603742	1605825	1606842	1607242	1607342	1607346
44	1524611	1526898	1527924	1528357	1528505	1528512
45	1447373	1449809	1450983	1451460	1451625	1451658
46	1372180	1374663	1375981	1376551	1376721	1376761
47	1299052	1301556	1302914	1303583	1303800	1303837
48	1228066	1230503	1231881	1232576	1232846	1232897
49	1159158	1161590	1162894	1163602	1163883	1163953
50	1092353	1094689	1095616	1096669	1096558	1097028
51	1027507	1029894	1031146	1031817	1032072	1032145
52	964843.8	967136.3	968356.9	968973.4	969245.7	969302.6
53	904202.0	906421.0	907595.9	908188.9	908430.8	908499.8
54	845652.4	847715.3	848867.8	849425.6	849657.5	849715.7
55	789180.2	791125.1	792149.0	792689.0	792903.1	792960.0
56	734662.5	736599.3	737520.5	737963.8	738173.1	738224.5
57	682160.2	684042.2	684944.3	685306.6	685460.4	685513.7
58	631636.4	633509.8	634351.9	634691.8	634797.7	634829.4
59	583014.2	584953.1	585793.8	586077.5	586170.5	586184.8

SPRAGUE'S SELECT LIFE TABLES, THREE AND ONE-HALF PER CENT.—*Cont.*
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $R_{[x]}$	1 $R_{[x-1]}+1$	2 $R_{[x-2]}+2$	3 $R_{[x-3]}+3$	4 $R_{[x-4]}+4$	5 or More. R_x
60	536404.2	538388.8	539238.4	539508.1	539563.0	539576.5
61	491802.4	493838.4	494705.6	494968.9	495011.8	495011.8
62	440369.3	451327.0	452217.4	452482.3	452519.8	452519.8
63	400314.9	410978.0	411797.6	412070.0	412113.3	412113.3
64	371414.5	372943.7	373532.7	373753.9	373813.4	373813.4
65	335206.4	337035.0	337518.0	337583.8	337637.3	337637.3
66	301347.0	303018.6	303598.7	303598.7	303598.7	303598.7
67	266521.5	271135.4	271677.0	271677.0	271677.0	271677.0
68	239794.7	241312.3	241850.4	241850.4	241850.4	241850.4
69	212074.8	213605.8	214077.0	214077.0	214077.0	214077.0
70	186310.6	187855.7	188315.4	188315.4	188315.4	188315.4
71	162460.0	164050.9	164515.4	164515.4	164515.4	164515.4
72	140522.1	142159.1	142645.6	142645.6	142645.6	142645.6
73	120505.1	122172.0	122682.7	122682.7	122682.7	122682.7
74	102492.1	104081.5	104610.8	104610.8	104610.8	104610.8
75	86375.23	87907.68	88405.33	88405.33	88405.33	88405.33
76	.....	73547.53	74025.78	74025.78	74025.78	74025.78

SPRAGUE'S SELECT LIFE TABLES, THREE PER CENT.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $D[1]$	1 $D[1-1] + 1$	2 $D[1-2] + 2$	3 $D[1-3] + 3$	4 $D[1-4] + 4$	5 or More. D_1
15	631239	.....	.....	.....	.....	631400
16	610970	611015	.....	.....	.....	611015
17	590919	590980	590980	.....	.....	590980
18	570741	571241	571241	571241	.....	571241
19	550335	551514	551581	551581	551581	551581
20	529545	531634	531916	531916	531916	531916
21	508149	511551	512123	512123	512123	512123
22	487733	490947	492406	492406	492406	492406
23	468319	471278	472717	473149	473149	473149
24	449817	452566	453904	454349	454448	454448
25	432174	434723	435986	436387	436436	436436
26	415390	417692	418882	419273	419273	419273
27	399413	401493	402544	402923	402964	402964
28	384153	386058	386973	387291	387337	387337
29	379496	371308	372128	372376	372406	372406
30	355469	357135	357927	358140	358140	358140
31	341976	343593	344268	344504	344509	344509
32	327226	323504	323178	323374	323407	323407
33	315985	317676	318575	318776	318776	318776
34	303930	305337	306183	306636	306636	306636
35	291743	293371	294267	294601	294807	294807
36	280223	281859	282702	283187	283388	283444
37	269248	270757	271574	270023	272264	272341
38	258618	260069	260841	261276	261468	261579
39	248373	249772	250506	250908	251085	251150
40	238499	239846	240548	240923	241073	241107
41	228919	230279	230947	231297	231436	231436
42	219628	220966	221601	222014	222146	222152
43	210610	211992	212707	213061	213179	213185
44	201811	203251	203990	204367	204515	204524
45	193223	194722	195526	195929	196092	196134
46	184876	186394	187264	187730	187904	187957
47	176771	178300	179193	179724	179942	179990
48	168936	170437	171345	171808	172164	172231
49	161321	162834	163719	164282	164562	164653
50	153954	155442	156339	156875	157164	157257
51	146805	148289	149161	149702	149967	150063
52	139868	141346	142210	142720	142994	143170
53	133124	134606	135458	135952	136201	136293
54	126604	128051	128900	129372	129610	129689
55	120286	121711	122519	122975	123198	123275
56	114120	115508	116344	116745	116959	117029
57	108111	109570	110354	110708	110877	110949
58	102227	103725	104504	104847	104973	105017
59	96459.3	98000.8	98800.8	99118.3	99228.6	99248.2

SPRAGUE'S SELECT LIFE TABLES, THREE PER CENT.—Cont. —
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $D[x]$	1 $D[x-1]+1$	2 $D[x-2]+2$	3 $D[x-3]+3$	4 $D[x-4]+4$	5 or More. D_x
60	90800.4	92300.0	93214.2	93530.2	93606.3	93624.8
61	85249.4	86886.4	87737.4	88053.2	88112.9	88112.9
62	79858.5	81489.2	82366.2	82678.4	82730.7	82730.7
63	74711.8	76249.0	77100.2	77402.0	77463.0	77463.0
64	69746.4	71246.7	71988.2	72227.2	72311.3	72311.3
65	64751.4	66423.0	67107.8	67201.2	67276.9	67276.9
66	59939.6	61576.6	62403.3	62403.3	62403.3	62403.3
67	55303.6	56912.1	57687.6	57687.6	57687.6	57687.6
68	50850.1	52422.4	53153.4	53153.4	53153.4	53153.4
69	46542.1	48114.2	48795.4	48795.4	48795.4	48795.4
70	42359.8	43953.1	44620.9	44620.9	44620.9	44620.9
71	38283.9	39921.1	40599.1	40599.1	40599.1	40599.1
72	34322.4	36000.3	36714.2	36714.2	36714.2	36714.2
73	30495.1	32199.4	32951.9	32951.9	32951.9	32951.9
74	26894.6	28537.3	29321.4	29321.4	29321.4	29321.4
75	23507.3	25101.2	25841.8	25841.8	25841.8	25841.8
76	.....	21877.7	22592.9	22592.9	22592.9	22592.9

SPRAGUE'S SELECT LIFE TABLES, THREE PER CENT.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	$N_{[x]}^0$	$N_{[x-1]+}^1$	$N_{[x-2]+}^2$	$N_{[x-3]+}^3$	$N_{[x-4]+}^4$	5 or More. N_x
15	14790142	.....	.....	.....	.....	14790303
16	14158858	14158903	.....	.....	.....	14158003
17	13547827	13547888	13547888	.....	.....	13547888
18	12956341	12956908	12956908	12956908	.....	12956908
19	12384139	12385600	12385667	12385667	12385667	12385667
20	11831143	11833804	11834086	11834086	11834086	11834086
21	11296206	11301598	11302170	11302170	11302170	11302170
22	10782010	10788057	10790047	10790047	10790047	10790047
23	10290479	10295177	10297110	10297641	10297641	10297641
24	9817716	9822160	9823899	9824393	9824492	9824492
25	9363741	9367899	9369594	9369995	9370044	9370044
26	8927859	8931567	8933176	8933608	8933608	8933608
27	8509226	8512469	8513868	8514294	8514335	8514335
28	8106870	8109813	8110976	8111324	8111371	8111371
29	7719844	7722717	7723755	7724003	7724033	7724033
30	7347781	7350348	7351409	7351627	7351627	7351627
31	6989840	6992312	6993213	6993482	6993487	6993487
32	6644487	6647874	6648749	6648945	6648978	6648978
33	6312517	6315761	6317370	6317571	6317571	6317571
34	5993922	5996532	5998085	5998795	5998795	5998795
35	5686284	5689462	5691195	5691897	5692160	5692160
36	5391593	5394541	5396091	5396928	5397206	5397263
37	5108387	5111220	5112682	5113389	5113741	5113818
38	4836434	4839139	4840463	4841108	4841366	4841477
39	4575228	4577816	4579070	4579622	4579832	4579898
40	4324390	4326855	4328044	4328564	4328714	4328747
41	4083291	4085891	4087009	4087496	4087641	4087641
42	3851697	3854372	3855612	3856062	3856109	3856205
43	3629323	3632069	3633376	3633921	3634048	3634553
44	3415718	3418713	3420077	3420669	3420860	3420869
45	3210650	3213907	3215462	3216087	3216302	3216345
46	3014090	3017427	3019185	3019936	3020158	3020210
47	2825829	2829214	2831033	2831921	2832206	2832254
48	2645795	2649058	2650914	2651840	2652197	2652264
49	2473542	2476859	2478621	2479569	2479942	2480033
50	2309023	2312221	2314025	2314902	2315287	2315380
51	2151913	2155069	2156774	2157686	2158027	2158123
52	2002013	2005108	2006780	2007618	2007984	2008060
53	1859972	1862145	1863762	1864570	1864898	1864900
54	1723081	1725948	1727539	1728304	1728618	1728697
55	1593775	1596477	1597807	1598639	1598932	1599008
56	1470785	1473489	1474764	1475378	1475664	1475734
57	1354033	1356655	1357941	1358420	1358633	1358705
58	1243248	1245922	1247095	1247567	1247712	1247756
59	1138288	1141021	1142197	1142591	1142720	1142739

SPRAGUE'S SELECT LIFE TABLES, THREE PER CENT—*Cont.*
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	$N_{[x]}^0$	$N_{[x-1]+1}^1$	$N_{[x-2]+2}^2$	$N_{[x-3]+3}^3$	$N_{[x-4]+4}^4$	5 or More. N_x
60	1039015	1041828	1043021	1043396	1043472	1043491
61	945314.3	948214.2	949438.3	949806.4	949866.1	949866.1
62	857268.3	860064.0	861327.8	861700.0	861753.2	861753.2
63	775037.7	777409.8	778575.7	778961.6	779022.5	779022.5
64	698140.8	700325.9	701160.8	701475.5	701559.6	701559.6
65	625896.0	628391.4	629079.2	629172.6	629248.3	629248.3
66	558732.2	561144.6	561971.4	561971.4	561971.4	561971.4
67	496453.1	498792.6	499568.0	499568.0	499568.0	499568.0
68	438806.0	441149.5	441880.5	441880.5	441880.5	441880.5
69	385806.1	388045.9	388727.1	388727.1	388727.1	388727.1
70	336992.7	339264.0	339931.7	339931.7	339931.7	339931.7
71	292281.8	294632.9	295310.9	295310.9	295310.9	295310.9
72	251567.5	253997.9	254711.8	254711.8	254711.8	254711.8
73	214756.7	217245.1	217997.6	217997.6	217997.6	217997.6
74	181878.3	184261.6	185045.7	185045.7	185045.7	185045.7
75	152674.6	154983.7	155724.3	155724.3	155724.3	155724.3
76	.....	129167.3	129882.5	129882.5	129882.5	129882.5

SPRAGUE'S SELECT LIFE TABLES, THREE PER CENT.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $C[x]$	1 $C[x-1]+1$	2 $C[x-2]+2$	3 $C[x-3]+3$	4 $C[x-4]+4$	5 or More. C_x
15	1839.9	.....	.....	.....	.....	1994.1
16	2194.3	2238.6	.....	.....	.....	2238.6
17	2407.4	2525.8	2525.8	.....	.....	2525.8
18	2603.7	3022.5	3022.5	3022.5	.....	3022.5
19	2671.8	3534.3	3598.9	3598.9	3598.9	3598.9
20	2570.6	4026.7	4300.4	4300.4	4300.4	4300.4
21	2401.5	4246.2	4801.4	4801.4	4801.4	4801.4
22	2248.8	3929.5	4614.9	4914.9	4914.9	4914.9
23	2113.0	3948.4	4599.1	4919.3	4919.3	4919.3
24	1992.4	3398.4	4299.8	4679.1	4776.1	4776.1
25	1888.4	3179.7	4015.9	4404.5	4451.5	4451.5
26	1798.3	2989.7	3758.7	4096.7	4096.7	4096.7
27	1721.1	2826.2	3529.5	3850.3	3850.3	3850.3
28	1656.4	2686.2	3326.1	3604.9	3619.4	3619.4
29	1600.1	2566.2	3150.2	3399.8	3419.5	3419.5
30	1553.5	2464.6	2997.0	3199.9	3199.9	3199.9
31	1512.4	2377.3	2867.3	3063.5	3067.9	3067.9
32	1476.0	2302.5	2757.4	2946.7	2978.5	2978.5
33	1443.6	2230.2	2661.6	2855.2	2855.2	2855.2
34	1414.9	2177.6	2579.1	2807.5	2807.5	2807.5
35	1387.8	2124.4	2508.2	2720.7	2863.8	2863.8
36	1361.8	2075.6	2445.7	2675.6	2703.6	2847.4
37	1337.1	2030.5	2387.9	2630.7	2753.8	2829.5
38	1314.0	1987.5	2335.5	2581.1	2702.5	2810.2
39	1293.1	1948.5	2287.7	2528.0	2665.3	2728.4
40	1272.9	1913.3	2244.7	2470.5	2615.7	2648.9
41	1255.5	1880.9	2206.9	2414.2	2542.8	2542.8
42	12 9 2	1852.7	2173.1	2369.9	2490.3	2496.8
43	1224.3	1827.1	2144.7	2339.3	2445.5	2451.3
44	1211.1	1805.3	2120.0	2323.4	2423.5	2432.8
45	1200.8	1787.1	2100.8	2318.3	2423.1	2464.7
46	1191.5	1772.0	2086.0	2321.0	2441.5	2492.6
47	1185.3	1761.3	2076.6	2325.6	2470.3	2516.8
48	1181.8	1754.8	2072.8	2328.9	2495.9	2591.0
49	1180.5	1752.1	2074.6	2333.1	2512.2	2600.4
50	1181.1	1754.2	2083.3	2339.0	2522.9	2613.3
51	1183.6	1760.7	2096.6	2348.4	2529.8	2623.2
52	1188.6	1771.0	2115.5	2362.2	2535.9	2609.4
53	1195.6	1785.2	2140.4	2382.0	2544.9	2634.7
54	1204.2	1802.6	2170.4	2406.7	2560.7	2636.7
55	1214.4	1823.8	2205.7	2434.8	2580.9	2655.4
56	1225.6	1848.4	2247.0	2467.7	26 3 0	2670.8
57	1237.4	1875.1	2292.6	2510.7	2630.6	2701.0
58	1249.0	1903.3	2341.9	2564.6	2667.5	2709.8
59	1259.9	1932.4	2392.7	2625.2	2713.7	2732.7

SPRAGUE'S SELECT LIFE TABLES, THREE PER CENT.—Cont.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $C[x]$	1 $C[x-1]+_1$	2 $C[x-2]+_2$	3 $C[x-3]+_3$	4 $C[x-4]+_4$	5 or More. C_x
60	1269.5	1961.7	2446.0	2693.1	2766.8	2784.9
61	1277.2	1989.6	2503.7	2757.9	2815.8	2815.8
62	1283.5	2015.7	2565.2	2807.3	2858.1	2858.1
63	1289.1	2040.1	2627.2	2836.3	2895.5	2895.5
64	1292.1	2063.7	2690.4	2846.8	2928.3	2928.3
65	1288.7	2085.1	2750.0	2840.6	2914.1	2914.1
66	1281.7	2095.6	2808.2	2808.2	2898.2	2898.2
67	1270.4	2101.1	2854.0	2854.0	2854.0	2854.0
68	1254.9	2100.3	2809.9	2809.9	2809.9	2809.9
69	1233.4	2092.0	2753.3	2753.3	2753.3	2753.3
70	1205.0	2073.9	2722.1	2722.1	2722.1	2722.1
71	1168.5	2044.2	2702.4	2702.4	2702.4	2702.4
72	1123.4	2000.0	2693.0	2693.0	2693.0	2693.0
73	1069.5	1940.1	2670.7	2670.7	2670.7	2670.7
74	1010.1	1864.4	2625.6	2625.6	2625.6	2625.6
75	945.0	1777.1	2496.2	2496.2	2496.2	2496.2
76	.....	1677.8	2372.2	2372.2	2372.2	2372.2

SPRAGUE'S SELECT LIFE TABLES, THREE PER CENT.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 M _[x]	1 M _{[x-1]+1}	2 M _{[x-2]+2}	3 M _{[x-3]+3}	4 M _{[x-4]+4}	5 or More. M _x
15	200460	.....	.....	.....	.....	200614
16	198575	198620	.....	.....	.....	198620
17	196323	196381	196381	.....	.....	196381
18	193372	193856	193856	193856	.....	193856
19	189633	190768	190833	190833	190833	190833
20	184049	186761	187234	187234	187234	187234
21	179131	182378	182934	182934	182934	182934
22	173670	176700	178132	178132	178132	178132
23	167508	171421	172800	173217	173217	173217
24	163805	166485	167773	168201	168298	168298
25	159448	161873	163087	163476	163522	163522
26	155356	157500	158693	159071	159071	159071
27	151572	153558	154570	154934	154974	154974
28	148030	149851	150732	151040	151084	151084
29	144648	146374	147165	147406	147435	147435
30	141457	143048	143808	144015	144015	144015
31	138391	139993	140583	140811	140815	140815
32	135201	136879	137526	137716	137747	137747
33	132125	133725	134576	134769	134769	134769
34	129074	130681	131489	131914	131914	131914
35	126125	127659	128503	128910	129106	129106
36	123250	124737	125535	125965	126189	126242
37	120460	121888	122661	123089	123319	123395
38	117750	119123	119857	120273	120458	120565
39	115116	116430	117136	117522	117692	117755
40	112544	113823	114487	114848	114994	115027
41	109989	111271	111910	112242	112378	112378
42	107443	108733	109390	109703	109828	109835
43	104902	106204	106881	107217	107333	107338
44	102325	103678	104377	104736	104878	104887
45	99799.3	101114	101872	102257	102413	102454
46	97287.1	98508.5	99326.7	99771.4	99938.4	99980.5
47	94765.8	95895.6	96736.5	97240.7	97450.4	97496.9
48	91874.5	93280.5	94134.3	94659.9	94915.1	94980.1
49	89276.7	90692.7	91525.7	92061.5	92331.0	92419.2
50	86701.6	88096.2	88940.6	89451.1	89728.4	89818.8
51	84128.8	85520.5	86342.0	86857.3	87112.1	87205.5
52	81557.4	82915.2	83759.8	84245.4	84508.9	84582.3
53	78976.5	80308.8	81174.2	81644.3	81883.2	81973.0
54	76417.7	77780.9	78583.6	79033.8	79262.3	79338.3
55	73865.5	75213.5	75978.3	76413.2	76627.1	76701.6
56	71281.5	72651.1	73389.7	73772.6	73978.4	74046.2
57	68673.4	70055.9	70802.7	71142.7	71304.9	71375.4
58	66016.4	67436.0	68180.8	68510.1	68632.0	68674.3
59	63395.6	64767.4	65532.7	65838.9	65945.5	65964.5

SPRAGUE'S SELECT LIFE TABLES, THREE PER CENT.—Cont.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 $M_{[x]}$	1 $M_{[x-1]}+1$	2 $M_{[x-2]}+2$	3 $M_{[x-3]}+3$	4 $M_{[x-4]}+4$	5 or More. M_x
60	60538.1	62045.7	62835.0	63140.0	63213.7	63231.8
61	57716.2	59268.6	60084.0	60389.0	60446.9	60446.9
62	54889.8	56439.0	57279.0	57580.3	57631.1	57631.1
63	52138.0	53606.3	54423.3	54713.8	54773.0	54773.0
64	49412.4	50848.9	51566.2	51796.1	51877.5	51877.5
65	46521.3	48120.3	48785.2	48875.8	48949.3	48949.3
66	43655.9	45232.6	46035.2	46035.2	46035.2	46035.2
67	40843.9	42384.2	43137.0	43137.0	43137.0	43137.0
68	38066.8	39573.5	40283.1	40283.1	40283.1	40283.1
69	35305.1	36811.9	37473.2	37473.2	37473.2	37473.2
70	32544.6	34071.7	34719.9	34719.9	34719.9	34719.9
71	29770.9	31339.6	31997.8	31997.8	31997.8	31997.8
72	26995.2	28602.4	29295.4	29295.4	29295.4	29295.4
73	24240.0	25871.8	26602.4	26602.4	26602.4	26602.4
74	21597.1	23170.5	23131.7	23931.7	23931.7	23931.7
75	19060.6	20587.0	21306.1	21306.1	21306.1	21306.1
76	.....	18115.6	18809.9	18809.9	18809.9	18809.9

SPRAGUE'S SELECT LIFE TABLES, THREE PER CENT.
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 R _[x]	1 R _[x-1] + ₁	2 R _[x-2] + ₂	3 R _[x-3] + ₃	4 R _[x-4] + ₄	5 or More. R _[x-5] + ₅
16	6552169	.....	.....	.....	.....	6552323
16	6351664	6351709	.....	.....	.....	6351709
17	6153030	6153089	6153089	.....	.....	6153089
18	5956159	5956707	5956707	5956707	.....	5956707
19	5761379	5762787	5762852	5762852	5762852	5762852
20	5569178	5571746	5572019	5572019	5572019	5572019
21	5379065	5384229	5384785	5384785	5384785	5384785
22	5195021	5199934	5201851	5201851	5201851	5201851
23	5016851	5021351	5023204	5023718	5023718	5023718
24	4844001	4848253	4849930	4850404	4850501	4850501
25	4676170	4680136	4681768	4682157	4682203	4682203
26	4513170	4516722	4518263	4518681	4518681	4518681
27	4354706	4357814	4359162	4359570	4359610	4359610
28	4200311	4203134	4204256	4204592	4204636	4204636
29	4049535	4052281	4053283	4053524	4053552	4053552
30	3902426	3904887	3905907	3906118	3906118	3906118
31	3758618	3760969	3761839	3762099	3762103	3762103
32	3617024	3620227	3621066	3621256	3621288	3621288
33	3478738	3481823	3483348	3483540	3483540	3483540
34	3343364	3346613	3348098	3348772	3348772	3348772
35	3211282	3214290	3215932	3216609	3216858	3216858
36	3082278	3085157	3086631	3087429	3087699	3087752
37	2956334	2959028	2960420	2961066	2961434	2961510
38	2833297	2835874	2837140	2837759	2838007	2838115
39	2713100	2715547	2716751	2717283	2717486	2717549
40	2595628	2597984	2599111	2599615	2599761	2599794
41	2480626	2483084	2484161	2484624	2484767	2484767
42	2368104	2370637	2371813	2372251	2372382	2372389
43	2258062	2260661	2261904	2262423	2262548	2262554
44	2150330	2153160	2154457	2155023	2155206	2155215
45	2044933	2048005	2049482	2050080	2050287	2050328
46	1942077	1945224	1946891	1947610	1947823	1947874
47	1841799	1844990	1846715	1847564	1847838	1847885
48	1744256	1747333	1749094	1749979	1750323	1750388
49	1649253	1652382	1654053	1654960	1655319	1655408
50	1556960	1559976	1561689	1562527	1562898	1562988
51	1467278	1470258	1471880	1472748	1473076	1473170
52	1380224	1383149	1384737	1385538	1385891	1385964
53	1295761	1298667	1300204	1300978	1301292	1301382
54	1214069	1216784	1218298	1219030	1219333	1219409
55	1135083	1137651	1139003	1139714	1139996	1140071
56	1058648	1061218	1062438	1063025	1063301	1063369
57	984858.8	987366.0	988561.8	989047.8	989252.3	989322.8
58	913637.6	916185.4	917310.1	917764.1	917905.1	917947.4
59	845014.3	847621.2	848749.4	849129.3	849254.0	849273.1

SPRAGUE'S SELECT LIFE TABLES, THREE PER CENT—*Cont.*
YEARS ELAPSED SINCE DATE OF INSURANCE.

Age.	0 R[x]	1 R[x-1]+1	2 R[x-2]+2	3 R[x-3]+3	4 R[x-4]+4	5 or More. R _x
60	779025.2	781708.7	782853.8	783216.7	783290.4	783308.5
61	715722.8	718487.1	719663.0	720018.8	720076.7	720076.7
62	655337.0	658006.6	659218.5	659579.0	659629.8	659629.8
63	598171.0	606447.2	601567.6	601939.5	601998.7	601998.7
64	543931.6	546033.0	546840.9	547144.3	547225.7	547225.7
65	492117.6	494519.2	495184.1	495274.7	495348.2	495348.2
66	443276.8	445596.3	446398.9	446398.9	446398.9	446398.9
67	397361.0	399610.9	400363.7	400363.7	400363.7	400363.7
68	354349.1	356517.1	357226.7	357226.7	357226.7	357226.7
69	314127.2	316282.3	316943.6	316943.6	316943.6	316943.6
70	276636.8	278822.1	279470.4	279470.4	279470.4	279470.4
71	241830.5	244092.2	244750.4	244750.4	244750.4	244750.4
72	209721.8	212050.6	212752.6	212752.6	212752.6	212752.6
73	180333.6	182726.6	183457.2	183457.2	183457.2	183457.2
74	153801.0	156093.6	156854.8	156854.8	156854.8	156854.8
75	129983.2	132203.9	132923.1	132923.1	132923.1	132923.1
76	.....	110922.6	111616.9	111616.9	111616.9	111616.9

INTRODUCTION TO CRAIG'S MODIFIED ACTUARIES' TABLE FOR IMPAIRED LIVES.

No experience table for impaired or sub-standard lives being available, James M. Craig, actuary of the Metropolitan Life Insurance Company, has modified the Actuaries' Table so as to answer in his judgment for impaired life purposes. The modification consists in doubling the rate of mortality to age sixty, after which it gradually declines toward the Actuaries' Table ratios.

Mr. Craig developed the table, with commutation columns at four per cent, on this basis and published it in the papers of the Actuarial Society of America, reporting the proceedings of the Society at its meeting on October 23 and 24, 1890.

TABLE NO. I.
CRAIG'S MODIFIED ACTUARIES' TABLE FOR IMPAIRED LIVES.

AGE.	Number Living.	Number Dying.	Deaths Per 1000.	AGE.	Number Living.	Number Dying.	Deaths Per 1000
10	100,000	1352	13.520	55	40,071	1736	43.328
11	98,648	1339	13.572	56	38,335	1773	46.252
12	97,309	1320	13.624	57	36,562	1825	49.358
13	95,983	1315	13.696	58	34,757	1834	52.772
14	94,668	1306	13.792	59	32,923	1800	56.492
15	93,362	1297	13.888	60	31,063	1847	59.458
16	92,065	1289	14.006	61	29,216	1820	62.615
17	90,776	1282	14.124	62	27,387	1808	66.027
18	89,494	1277	14.268	63	25,579	1781	69.626
19	88,217	1271	14.412	64	23,798	1749	73.487
20	86,946	1268	14.582	65	22,049	1711	77.584
21	85,678	1264	14.754	66	20,338	1665	81.895
22	84,414	1260	14.928	67	18,673	1614	86.476
23	83,154	1258	15.128	68	17,059	1566	91.233
24	81,899	1256	15.332	69	15,503	1490	96.139
25	80,640	1253	15.540	70	14,013	1419	101.295
26	79,387	1252	15.774	71	12,594	1343	106.640
27	78,135	1251	16.012	72	11,251	1262	112.191
28	76,884	1252	16.278	73	9,989	1177	117.912
29	75,632	1252	16.550	74	8,812	1091	123.855
30	74,380	1253	16.850	75	7,721	1003	129.962
31	73,127	1255	17.156	76	6,718	914	136.198
32	71,872	1257	17.494	77	5,804	828	142.680
33	70,615	1260	17.833	78	4,976	743	149.350
34	69,355	1262	18.190	79	4,233	661	156.078
35	68,093	1266	18.576	80	3,572	581	162.871
36	66,827	1268	18.970	81	2,991	507	169.608
37	65,559	1270	19.374	82	2,484	437	176.250
38	64,289	1274	19.812	83	2,047	374	182.950
39	63,015	1277	20.262	84	1,673	317	189.678
40	61,738	1279	20.724	85	1,356	278	205.095
41	60,459	1283	21.224	86	1,078	240	222.480
42	59,176	1289	21.783	87	838	202	242.234
43	57,887	1303	22.502	88	636	168	265.274
44	56,584	1324	23.394	89	468	136	292.382
45	55,260	1350	24.424	90	332	107	322.892
46	53,910	1384	25.678	91	225	81	360.000
47	52,526	1420	27.032	92	144	58	402.778
48	51,105	1458	28.520	93	86	39	453.488
49	49,648	1495	30.122	94	47	24	510.638
50	48,153	1535	31.876	95	23	13	565.217
51	46,618	1575	33.766	96	10	6	630.000
52	45,043	1617	35.804	97	4	3	750.000
53	43,426	1658	38.186	98	1	1	1000.000
54	41,768	1697	40.626				

TABLE II.
COMMUTATION COLUMNS, CRAIG'S MODIFIED ACTUARIES'
TABLES, FOUR PER CENT.

Age.	D _x .	N _x .	C _x .	M _x .
10	67,556.40	1,137,420.01	878 2322	21,211.1591
11	64,079.77	1,073,340.24	836 3354	20,332.9269
12	60,778.91	1,012,561.33	796 3611	19,496.5915
13	57,644.89	954,916.44	759 3796	18,700.2304
14	54,668.40	900,248.04	725 1761	17,940.8508
15	51,840.65	848,407.39	692 4787	17,215 6747
16	49 154.24	799 253.15	661 7378	16,523.1960
17	46,601.95	752,651.20	632 8311	15,861.4582
18	44,176.74	708,474.46	606 1178	15,228 6271
19	41,871.49	666,602.97	580.0679	14,622.5093
20	39,681.02	626,921.95	556 4415	14,042.4414
21	37,598.42	589,323.53	533 3511	13,485 9099
22	35 618.91	553,704.62	511 2148	12,952.6488
23	33,737.74	519,966.88	490 7722	12,441 4340
24	31,949.35	488,017.53	471 1470	11,950.6618
25	30,249 43	457,768.10	451 0433	11,470 5148
26	28,634 02	429,134 08	434 2149	11,027 5715
27	27,098.55	402,035 53	417 1707	10,593 3566
28	25,639.05	376,390 48	401 4551	10,176 1769
29	24,251 48	352,145.00	386.0154	9,774 7218
30	22 932.77	329,212.23	371 4644	9 388 7064
31	21,679 23	307,531.00	357 7478	9,017 2420
32	20,487 69	287,045.31	344 5362	8,659 4912
33	19 315 15	267,690.16	332 0755	8,314 9580
34	18,278.65	249,411.51	319 8097	7,982 8825
35	17,255 79	232,155 72	308 4850	7,663 0728
36	16,283 67	215,872 05	297 0886	7,354 5878
37	15,360 28	200,511 77	286 1120	7,057 4992
38	14,481 35	186 028 42	275 9752	6,771 3872
39	13,650 37	172,378.05	265 9851	6,495 4120
40	12,859 35	159,518 70	256 1556	6 229 4269
41	12,108 61	147,410.09	247 0737	5,973 2713
42	11,395 82	136,014 27	238 6816	5,726 1976
43	10,718.82	125,205 45	231 9939	5,487 5160
44	10,074 55	115,220 90	226 6662	5,255 5221
45	9 160 401	105 760 50	222 2289	5 028 8559
46	8 874 741	96 886 154	219 0637	4 806 6270
47	8 313 973	88 572 181	216 1169	4 587 5633
48	7 778 078	80 794 103	213 3652	4 371 4464
49	7 265 538	73 528 565	210 3659	4 158 0812
50	6 775 753	66 752 812	207 6870	3 947 7153
51	6 07 462	60 445 350	2 4 9028	3 740 0283
52	5 859 959	54 585 391	202 2 54	3 535 1255
53	5 132 289	49 153 102	19 1 4276	3 332 8501
54	5 023 939	44 149 163	196 2082	3 133 4225

CRAIG'S IMPAIRED LIFE TABLE.

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TABLE II.—Cont.
COMMUTATION COLUMNS, CRAIG'S MODIFIED ACTUARIES' TABLES, FOUR PER CENT.

Age.	D _x .	N _x .	C _x .	M _x .
55	4 634 452	39,494 711	193,0554	2,937,1543
56	4,263,120	35,231,591	189,5869	2,744,0989
57	3,909,575	31,322,016	185,5847	2,554,5120
58	3,573,610	27,748,406	181,3147	2,368,9273
59	3,254,867	24,493,539	176,8116	2,187,6126
60	2,952,849	21,540,690	168,8232	2,010,8010
61	2,670,459	18,870,231	160,7490	1,841,9778
62	2,407,016	16,463,215	152,7905	1,681,2288
63	2,161,630	14,301,585	144,7205	1,528,4383
64	1,933,778	12,367,807	136,6546	1,383,7178
65	1,722,755	10,645,052	128,5440	1,247,0632
66	1,527,953	9,117,0987	120,2763	1,118,5192
67	1,348,900	7,768,1987	112,1084	998,2429
68	1,184,918	6,583,2807	103,9221	886,1345
69	1,035,414	5,547,8667	95,6863	782,2124
70	899,9008	4,647,9659	87,6218	686,5261
71	777,0659	3,870,3000	79,7393	598,9043
72	668,0169	3,222,2831	72,0488	519,1650
73	570,2820	2,632,0011	64,6114	447,1162
74	483,7347	2,148,2664	57,5873	382,5048
75	407,5453	1,740,7211	50,9063	324,9175
76	340,9954	1,399,7557	44,6041	274,0112
77	283,2410	1,116,5147	38,8531	229,4071
78	233,4938	883,0209	33,5242	190,5540
79	190,9930	692,0279	28,6768	157,0298
80	154,9676	537,0603	24,2370	128,3530
81	124,7726	412,2877	20,3363	104,1160
82	99,6357	312,6520	16,8547	83,7797
83	78,9507	233,7013	13,8098	66,9250
84	62,0432	171,6581	11,3039	53,9552
85	48,3536	123,3045	9,53179	41,75126
86	36,9614	86,34306	7,91256	32,21947
87	27,6280	58,71566	6,40370	24,30691
88	20,1618	38,55326	5,12081	17,90331
89	14,2651	24,28816	3,98602	12,78250
90	9,73959	14,55757	3,01547	8,79648
91	6,34095	8,210624	2,19494	5,78101
92	3,90211	4,314514	1,51125	3,58607
93	2,24082	2,073694	.977067	2,07482
94	1,17749	.890204	.578160	1,09775
95	.554070	.342134	.301119	.519591
96	.231630	.110504	.133632	.218472
97	.089088	.021416	.064248	.084840
98	.021416	.000000	.020592	.020592

NORTHAMPTON TABLE OF MORTALITY.

THE most commonly employed of the mortality tables embracing unselected lives has been the Northampton, adapted from mortality statistics of the English town of that name by Dr. Price. It is now used only for computations involving impaired lives or in computing the values of annuity interests, dowers, etc., in the courts. For the latter purpose it is the standard in New York at five per cent interest and in many other States at six per cent or higher. Therefore we depart from our custom and give annuity tables at from three per cent to eight per cent interest, as well as commutation tables at three per cent and four per cent. Joint-life annuities at several rates of interest are also given. These will be found useful to attorneys in computing values of life remainders, etc.

We also give annuity commutation tables at five per cent, computed especially for this work by Mr. G. L. Plumley, assistant actuary of the Home Life Insurance Company of New York, and kindly contributed by him.

The commutation table at four per cent is furnished by the kindness of Samuel C. Beckley, superintendent of Actuarial Department, New York Life Insurance Company, having been computed under his supervision for the use of the office. The three per cent commutation tables and annuity tables are from "David Jones."

TABLE I.
NORTHAMPTON TABLE OF MORTALITY.

Age.	Living.	Decrements.	Proportion Which Die.	Proportion Which Survive.	Age.	Living.	Decrements.	Proportion Which Die.	Proportion Which Survive.
0	11,650	3,000	.257511	.742489	49	2,936	70	.026908	.973092
1	8,650	1,307	.158035	.841965	50	2,857	81	.028351	.971649
2	7,283	502	.068928	.931072	51	2,776	82	.029539	.970461
3	6,781	335	.049403	.950597	52	2,694	82	.030438	.969562
4	6,446	197	.030562	.969438	53	2,612	82	.031394	.968606
5	6,249	134	.029445	.970555	54	2,530	82	.032111	.967589
6	6,065	140	.023084	.976916	55	2,448	82	.033497	.966503
7	5,925	110	.018565	.981435	56	2,366	82	.034658	.965342
8	5,815	80	.013757	.986243	57	2,284	82	.035902	.964098
9	5,735	60	.010462	.989538	58	2,202	82	.037239	.962761
10	5,675	52	.009163	.990837	59	2,120	82	.038679	.961321
11	5,623	50	.008892	.991108	60	2,038	82	.040235	.959765
12	5,573	50	.008972	.991028	61	1,956	82	.041922	.958078
13	5,523	50	.009053	.990947	62	1,874	81	.043223	.956777
14	5,473	50	.009136	.990864	63	1,793	81	.045176	.954824
15	5,423	50	.009220	.990780	64	1,712	80	.046729	.953271
16	5,373	53	.009864	.990136	65	1,632	80	.049020	.950980
17	5,320	58	.010902	.989098	66	1,552	80	.051546	.948454
18	5,262	63	.011972	.988028	67	1,472	80	.054348	.945652
19	5,199	67	.012887	.987113	68	1,392	80	.057471	.942529
20	5,132	72	.014030	.985970	69	1,312	80	.060975	.939025
21	5,060	75	.014822	.985178	70	1,232	80	.064935	.935065
22	4,985	75	.015045	.984955	71	1,152	80	.069444	.930556
23	4,910	75	.015275	.984725	72	1,072	80	.074027	.925373
24	4,835	75	.015512	.984488	73	992	80	.080645	.919355
25	4,760	75	.015756	.984244	74	912	80	.087719	.912281
26	4,685	75	.016009	.983991	75	832	80	.096154	.903846
27	4,610	75	.016269	.983731	76	752	77	.102393	.897607
28	4,535	75	.016538	.983462	77	675	73	.108148	.891852
29	4,460	75	.016816	.983184	78	602	68	.112957	.887043
30	4,385	75	.017104	.982896	79	534	65	.121723	.878277
31	4,310	75	.017401	.982599	80	469	63	.134328	.865672
32	4,235	75	.017710	.982290	81	406	60	.147783	.852217
33	4,160	75	.018029	.981971	82	346	57	.164740	.835260
34	4,085	75	.018360	.981640	83	289	55	.190311	.809589
35	4,010	75	.018701	.981296	84	234	48	.205128	.794872
36	3,935	75	.019060	.980940	85	186	41	.224430	.779570
37	3,860	75	.019430	.980570	86	145	34	.234183	.765517
38	3,785	75	.019815	.980185	87	111	28	.252252	.747748
39	3,710	75	.020216	.979784	88	83	21	.253012	.746988
40	3,635	76	.020908	.979092	89	62	16	.258065	.741935
41	3,559	77	.021635	.978305	90	46	12	.263809	.739131
42	3,482	78	.022401	.977509	91	34	10	.294118	.705882
43	3,404	78	.022914	.977086	92	24	8	.333333	.666667
44	3,326	78	.023452	.976548	93	16	7	.437500	.562500
45	3,248	78	.024015	.975985	94	9	5	.555556	.444444
46	3,170	78	.024606	.975394	95	4	3	.750000	.250000
47	3,092	78	.025227	.974773	96	1	1		
48	3,014	78	.025879	.974121					

NORTHAMPTON TABLE.

TABLE II.
NORTHAMPTON, FOUR PER CENT.

Age.	D _x	N _x	S _x
0	11650.	120320.4448446	2010147 3392293
1	8317.3076800	112.03 1371046	1889826 8943847
2	6733.5428774	105209.5942872	1777823.7572201
3	6028.2843172	99241.3099700	1672554.1629329
4	5510.0078087	93731.2421613	1573312.8529629
5	5136.2225104	88595.0196509	1479581.6108016
6	4793.2576345	83801.7620164	1390985.5911507
7	4502.5130253	79299.2489011	1307184.8291343
8	4248.9635712	75050.2854199	1227885.5701432
9	4029.3349539	71020 9504600	1152835.2947233
10	3833 8266658	67187.1238002	1081814.3442573
11	3652.5935694	63534.5302308	1014627 2204571
12	3480.8743597	60053.0508711	951092.6902263
13	3316.9703991	56730.6301720	891039.0343552
14	3160.5211128	53576 1590592	834302 3591832
15	3011.1993835	50564 9590757	780726.2001240
16	2868.6806511	47636.2710249	730161 2404483
17	2731 1456900	44905.1253346	682464.0694237
18	2597.4711074	42307.6541072	637490.8440891
19	2407.6659416	39899 9882256	595132.1899219
20	2342.1778274	37557.8103382	555232.2016063
21	2220.4980160	35337 3123822	517674.3912981
22	2103.4476192	32233.8047630	482337 0789159
23	1992.1162803	31241 7484827	450103.2141529
24	1885 2373075	29355 5111752	418861 4650702
25	1785 5559680	27509.9532072	389505 9544050
26	1689 820426	25880.1201646	361936 0012878
27	1598 8243877	24231 3017769	336055.8751232
28	1512 3293205	22768.9814504	311774.5733463
29	1430.1052886	21338.8701018	289005.5918959
30	1351.9773680	19996.8987938	267666.7157341
31	1277.7437206	18709 1550732	247669 8169493
32	1207.2203759	17501.9346473	228900.6618671
33	1140 2317472	16361.7024501	211458.7271698
34	1076 6102877	15284.0929924	195097.0242197
35	1016 1960347	14298 8900277	179811.9315573
36	958.8304132	13310.0902145	165543.0349296
37	904.3858410	12405 9743735	152232 9747151
38	852.7053526	11552 9992209	139827.3003416
39	803 6624631	10749 3065578	128274.3313207
40	757.1306604	9992.1758974	117525.0247629
41	712.7891529	9279.3807445	107532.8488655
42	670.5459.03	8608.8408382	98253.4621210
43	630 3125528	7978.5282854	89644 6212828
44	592.1821601	7389 3461253	81666 0929974
45	556.0524357	6830.2936896	74279.7468721
46	521.8250362	6308.4077534	67449.4531825
47	484 4090755	5819 0580779	61140 9854291
48	458.7150066	5360.3430713	55321.9273512
49	429.6575283	4939.6855430	49911.5042499

TABLE II.—Cont.
COMMUTATION TABLE, NORTHAMPTON, FOUR PER CENT.

Age.	C _x	M _x	R _x
0	2884.6153800	6574.2136525	49543.2222343
1	1263.8683391	3689.5082725	42969.008518
2	446.2761727	2425.7299334	39279.4103993
3	286.3594037	1979.4537607	36853.6803759
4	161.9196407	1693.0943570	34874.2206152
5	145.4178735	1531.1747163	33181.1322582
6	106.3884934	1385.7568428	31649.9575419
7	80.3759231	1279.3683494	30264.2006991
8	56.2069392	1198.9924263	29981.8323497
9	40.5338502	1142.7854871	27785.8399234
10	33.7782084	1102.2516369	26643.0544363
11	31.2298526	1068.4734285	25549.8027994
12	30.0287045	1037.2437559	24472.3293709
13	28.8737540	1007.2148714	23435.0857950
14	27.7632250	978.3411174	22427.8709236
15	26.6954090	950.5778924	21449.5298662
16	27.2087823	923.824834	20498.9519138
17	28.6304310	896.6737011	19575.0694304
18	29.0024725	868.0132701	18678.3957293
19	30.5779257	838.1407976	17810.3524592
20	31.5960192	807.5628719	16972.2116616
21	31.646543	775.9668527	16164.6487897
22	30.4294718	744.301984	15388.6819370
23	29.2591103	713.8097236	14644.3617336
24	28.1337600	684.6316133	13930.4710150
25	27.0516923	656.4978533	13245.8394017
26	26.0112428	629.4161610	12589.3415484
27	25.0108103	603.4349182	11959.8953874
28	24.0488558	578.4241079	11356.4004992
29	23.1239003	554.3752521	10778.0363613
30	22.2345195	531.2513518	10223.6611092
31	21.3793455	509.0168323	9692.4097574
32	20.5570628	487.6374868	9183.3929251
33	19.7664068	467.0804240	8695.7554383
34	19.0061003	447.3140172	8228.6750143
35	18.2751540	428.3078569	7781.3009971
36	17.5722638	410.0427029	7353.0531402
37	16.8964073	392.4604391	6943.0204373
38	16.2465458	375.5640318	6550.5599982
39	15.6216781	359.3174860	6174.9959664
40	15.2211227	343.6958079	5815.6784804
41	14.8282696	328.4746852	5471.9826725
42	14.4431196	313.6464156	5143.5079873
43	13.8876153	299.2032060	4829.8615717
44	13.3534700	285.3156807	4530.6582757
45	12.8398811	271.9622047	4249.3425950
46	12.3460397	259.1223236	3973.3803403
47	11.8711912	246.7762839	3714.2580097
48	11.4146074	234.9050927	3467.4817828
49	11.1162970	223.4904853	3232.576901

TABLE II.—*Cont.*
NORTHAMPTON, FOUR PER CENT.

Age.	D_x	N_x	S_x
50	402.0159553	4528.6695877	45030.8 87369
51	375.5944378	4153.0751499	40502.2291492
52	350.48-5637	3802.5945862	36349.1539993
53	326 7429 100	3475 8516702	32516.5594131
54	304.3127769	3171 5388033	29070.7077429
55	283 1246885	2888 4120048	25899.1688496
56	263.1162825	2625.2979223	23010 7546448
57	244.2281657	2381.0697566	20385.4567225
58	226.4037607	2154.6659959	18004.3869659
59	209.5891784	1945.0768175	15849.7209700
60	193.7330952	1751.3437223	13904 6441525
61	178.7866739	1572.5570484	12153.3004302
62	164 7033863	1407.8536621	10580.7433818
63	151.5234716	1256 3301905	9172.8897197
64	139 1137474	1117.2164431	7916.5595292
65	127 5125990	989.7038441	6799.3430861
66	116.5980662	873.1057779	5809 6392420
67	106.3 44685	766 7713094	4936.5334641
68	96.08 9024	670.0834070	4169.7621547
69	87.6260922	582.4573148	3499.6787477
70	79.1183008	503.3390140	2917.2214329
71	71.1353318	432.2036822	2 13.8824189
72	63 6494104	368.5542718	1981.6787367
73	56.6340835	311 9201883	1613.1244649
74	50.0042491	261.8559392	1301.2042766
75	43.9160134	217.9399458	1039.3483374
76	38.1666546	179.7732712	821.4084116
77	32.9409923	146.8322789	641.6351404
78	28.2485430	118.5837359	494.8028615
79	24.0939198	94.4896161	376.2191256
80	20 3472508	74.1425653	281.7293095
81	16.9365742	57.2059911	207 5867442
82	13 8784925	43 3274986	150 3807531
83	11.1462994	32.1811992	107.0532545
84	8.6779134	23.5032858	74 8720553
85	6.6225275	16.8707583	51.3687695
86	4.9716527	11.8991056	34.4980112
87	3 6595057	8.2395999	22 5989056
88	2 6311415	5.6084584	14.3593057
89	1.8898376	3.7180208	8.7508473
90	1.3482094	2.3704114	5.0322265
91	0.9581754	1.4122360	2.6618151
92	0.6503453	.7618907	1.2495791
93	0.4168880	.3450027	.4876884
94	0.2254803	.1195224	.1426857
95	0.0963591	.0231633	.0231633
96	0.0231633	.0000000	.0000000

TABLE II.—Cont.
COMMUTATION TABLE, NORTHAMPTON, FOUR PER CENT.

Age.	C _t	M _t	R _t
50	10.4503478	212.3741283	3009.082048
51	10.6079310	201.4148405	2796.7120165
52	10.2576260	190.7469095	2595.2971760
53	9.8931019	180.4892835	2404.5502665
54	9.4837518	170.6261816	2224.0609830
55	9.1189920	161.1424298	2053.4348014
56	8.7682616	152.0234378	1892.2923716
57	8.4310211	143.2551762	1740.2689338
58	8.1067512	134.8241551	1597.0137576
59	7.7949528	126.7174039	1462.1896025
60	7.4951469	118.9224511	1335.4721986
61	7.2008718	111.4273042	1216.5497475
62	6.8451764	104.2204324	1105.1224433
63	6.5819004	97.3752560	1000.9020109
64	6.2506176	90.7933556	903.5267549
65	6.0102096	84.5427380	812.7433993
66	5.7790472	78.5325284	728.1006613
67	5.5567700	72.7534812	649.6581329
68	5.3430544	67.1967052	576.9046517
69	5.1375520	61.8530508	509.7079465
70	4.9399536	56.7160988	447.8512957
71	4.7499560	51.7761452	391.1381969
72	4.5672648	47.0261892	339.3620517
73	4.3916008	42.4589244	292.3358625
74	4.2226936	38.0673236	249.8769381
75	4.0602824	33.8446300	211.8096145
76	3.7577132	29.7843476	177.9640845
77	3.4254878	26.0266344	148.1806369
78	3.0681396	22.6011466	122.1540025
79	2.8199816	19.5330070	99.5528559
80	2.6280891	16.7130254	80.0198489
81	2.4066751	14.0849303	63.3068235
82	2.1984051	11.6782612	49.2218872
83	2.0396805	9.4798561	37.5436260
84	1.7116200	7.4401756	28.0637699
85	1.4057777	5.7285556	20.6235943
86	1.1209297	4.3227779	14.8950387
87	.8876140	3.2018482	10.5722608
88	.6401063	2.3122342	7.3704126
89	.4689424	1.6741279	5.0561784
90	.3381796	1.2051855	3.3820505
91	.2709772	.8670059	2.1768650
92	.2084440	.5960287	1.3098391
93	.1753736	.3875847	.7138304
94	.1204470	.2122111	.3262457
95	.0604898	.0917622	.1140346
96	.0222724	.0222724	.0222724

TABLE III.
COMMUTATION COLUMNS, NORTHAMPTON TABLE,
THREE PER CENT.

Age.	D.	N.	S.	M.	R.
0	11650.000	142947.351	2719587.3	7147.166	70883.26
1	8398.058	134549.293	2576639.9	4234.544	63736.09
2	6864.926	127684.367	2442090.7	2946.015	59501.55
3	6205.576	121478.791	2314406.3	2486.614	56555.53
4	5727.188	115751.604	2192927.5	2188.971	54063.92
5	5390.442	110361.161	2077175.9	2019.037	51879.95
6	5079.312	105281.819	1966814.7	1864.940	49860.91
7	4817.567	100464.252	1861532.9	1751.107	47995.97
8	4590.415	95873.837	1761068.7	1664.272	46244.87
9	4395.400	91478.437	1665194.8	1602.958	44580.59
10	4222.733	87255.705	1573716.4	1558.313	42977.64
11	4062.175	83193.530	1486160.7	1520.747	41419.32
12	3908.790	79284.740	1403267.2	1485.678	39898.58
13	3760.894	75523.846	1323982.4	1451.630	38412.90
14	3618.298	71905.548	1248458.6	1418.574	36991.27
15	3480.817	68424.731	1176553.0	1386.481	35542.69
16	3348.276	65076.455	1108128.3	1355.323	34156.21
17	3218.688	61857.767	1043051.8	1323.257	32800.89
18	3090.870	58766.897	981194.1	1289.188	31477.63
19	2964.917	55801.980	922427.2	1253.260	30188.44
20	2841.461	52960.516	866625.2	1216.164	28935.18
21	2719.979	50240.516	813664.7	1177.460	27719.02
22	2601.631	47638.882	763424.2	1138.318	26541.56
23	2487.856	45151.026	715785.3	1100.317	25403.24
24	2378.500	42772.526	670631.3	1063.422	24302.93
25	2273.402	40499.124	627801.7	1027.601	23239.50
26	2172.410	38326.714	587362.6	992.8241	22211.90
27	2075.372	36251.343	549035.9	959.0599	21219.03
28	1982.143	34269.199	512784.5	926.2791	20260.02
29	1892.585	32376.615	478515.3	894.4531	19333.74
30	1806.562	30570.053	446138.7	863.5541	18439.29
31	1723.915	28846.103	415568.7	833.5551	17575.73
32	1644.607	27201.501	386722.6	804.4208	16742.18
33	1568.422	25633.072	359521.1	776.1528	15937.75
34	1495.293	24137.779	333888.0	748.6994	15161.59
35	1425.087	22712.691	309750.2	722.0456	14412.90
36	1357.703	21354.988	287037.5	696.1682	13690.85
37	1293.034	20061.954	265682.5	671.0445	12994.68
38	1230.981	18830.973	245620.6	646.6525	12321.64
39	1171.446	17659.528	226789.6	622.9710	11676.98
40	1114.334	16545.194	209130.1	599.9792	11054.01
41	1059.258	15485.936	192584.9	577.3595	10454.03
42	1006.156	14470.780	177099.0	555.1096	9876.67
43	954.968	13524.811	162619.2	533.2273	9321.57
44	905.008	12618.903	149004.4	511.9823	8778.34
45	858.807	11760.007	136475.5	491.3561	8276.36
46	813.855	10946.152	124715.5	471.3397	7785.00
47	770.708	10175.444	113769.3	451.8885	7313.67

TABLE III.—*Cont.*
COMMUTATION COLUMNS, NORTHAMPTON TABLE,
THREE PER CENT.

Age.	D.	N.	S.	M.	R.
48	729.384	9446.059	103593.9	433.0126	6861.780
49	689.814	8756.245	94147.80	414.6865	6428.768
50	651.702	8104.543	85391.56	396.6660	6014.081
51	614.782	7489.762	77287.01	378.7275	5617.415
52	579.244	6910.517	69797.25	361.0965	5238.688
53	545.256	6365.262	62886.73	343.9790	4877.591
54	512.756	5852.506	56521.47	327.3600	4533.612
55	481.686	5370.820	50668.97	311.2251	4206.252
56	451.991	4918.829	45298.15	295.5601	3895.027
57	423.618	4495.211	40379.32	280.3512	3599.467
58	396.514	4098.697	35884.11	265.5855	3319.116
59	370.629	3728.068	31785.41	251.2198	3053.530
60	345.916	3382.152	28057.34	237.3317	2802.281
61	322.328	3059.824	24675.19	223.8190	2564.949
62	299.821	2760.004	21615.37	210.6998	2341.130
63	278.506	2481.497	18855.36	198.1180	2130.430
64	258.179	2223.217	16373.87	185.9027	1932.312
65	238.946	1984.371	14150.55	174.1896	1746.409
66	220.615	1763.756	12166.18	162.8177	1572.220
67	203.149	1560.608	10402.42	151.7770	1409.402
68	186.512	1374.095	8841.81	141.0579	1257.625
69	170.673	1203.422	7467.72	130.6510	1116.567
70	155.598	1047.824	6264.30	120.5472	985.916
71	141.257	906.5667	5216.47	110.7377	865.369
72	127.619	778.9479	4309.91	101.2139	754.631
73	114.655	664.2927	3530.96	91.9675	653.417
74	102.339	561.9540	2866.67	82.9904	561.450
75	90.6425	471.3115	2304.71	74.2748	478.460
76	79.5405	391.7710	1833.40	65.8130	404.185
77	69.3167	322.4543	1441.63	57.9058	338.372
78	60.0196	262.4347	1119.18	50.6277	280.466
79	51.6893	210.7454	856.74	44.0455	229.838
80	44.0751	166.6703	646.00	37.9370	185.793
81	37.0434	129.6269	479.33	32.1889	147.856
82	30.6495	98.9774	349.70	26.8740	115.667
83	24.8547	74.1227	250.72	21.9718	88.793
84	19.5384	54.5813	176.60	17.3795	66.821
85	15.0781	39.5062	122.01	13.4883	49.442
86	11.4121	28.0941	82.51	10.2614	35.953
87	8.4817	19.6124	54.41	7.66344	25.692
88	6.1574	13.4550	34.80	5.58622	18.029
89	4.4655	8.9895	21.35	4.07368	12.442
90	3.2166	5.7729	12.36	2.95484	8.369
91	2.3083	3.4846	6.584	2.14015	5.414
92	1.5819	1.8827	3.100	1.48101	3.274
93	1.0238	.8589	1.217	.969059	1.793
94	.5591	.2998	.3583	.534150	.8236
95	.2413	.0585	.0585	.232548	.2894
96	.0585	.0000	.0000	.056858	.0569

TABLE II.
NORTHAMPTON TABLE, COMMUTATION COLUMNS,
FIVE PER CENT.
(Annuities only.)

Age.	D _t	N _x	Age.	D _t	N _x
1	8238.0952	95264.0796	49	268 8316	2807 6873
2	6605 8957	88658 1839	50	249.1411	2558 5462
3	5857 6828	82800.5011	51	230.5501	2327.9962
4	5303.1401	77497.3610	52	213 0856	2114.9106
5	4896 2560	72601.1060	53	196.7616	1918.1190
6	4525 7964	68075 3 96	54	181 5091	1736.1399
7	4210.7809	63864.5227	55	167 2030	1569.3769
8	3935.8200	59928.7018	56	153 9622	1415 4147
9	3696 8322	56231.8696	57	141 5488	1273.8660
10	3483 9577	52747.9119	58	129 9685	1143 8975
11	3287.6516	49460 2603	59	119 1701	1024.7275
12	3103.2549	46357.0054	60	109.1054	915.6221
13	2928.9018	43428.0406	61	99 7290	815 8930
14	2764 2369	40663.8037	62	90 9983	724.1948
15	2608 5557	38055.2480	63	82.9191	641.9757
16	2461 4332	35593.8148	64	75 4630	566.5727
17	2321 0084	33272.7164	65	68.4567	498 1100
18	2186 4637	31086.2467	66	62 0009	436.1152
19	2057.4209	29028.8258	67	56 0047	380.1104
20	1934.1968	27094.6290	68	50.4391	329.6714
21	1816.2483	25278.3807	69	45 2764	284.3949
22	1704.1216	23574 2591	70	40.4911	243 9038
23	1598 5551	21975 7040	71	36 0589	207 8449
24	1499 1783	20476 5257	72	31 9569	175 8880
25	1405 6412	19070 8845	73	28 1639	147 7241
26	1317 6128	17753 2717	74	24 6596	123 0644
27	1231 7808	16518 4909	75	21 4252	101 6392
28	1156 8497	15361 6412	76	18 4430	83 1962
29	1083 5406	14278.1006	77	15 7662	67 4300
30	1014 5901	13263 5105	78	13 3916	54 03843
31	949 7493	12313 7611	79	11 3132	42 72520
32	888 7842	11424 9779	80	9 46300	33 26220
33	831 4998	10593 5081	81	7 80177	25 46044
34	777 5994	9815 9088	82	6 33218	19 12825
35	726 9740	9088 9348	83	5 03716	14 09109
36	679 4069	8409 5279	84	3 88432	10 20677
37	634 7215	7774 8063	85	2 94051	7 26626
38	592 7513	7182 0550	86	2 18317	5 08309
39	553 3390	6628 7161	87	1 50167	3 491415
40	516 3361	6112 3800	88	1 13350	2 357919
41	481 4672	5630 9128	89	.806388	1 551531
42	448 6196	5182 2932	90	.569798	.981733
43	417 6853	4764 6075	91	.401100	.580633
44	388 6808	4375 9267	92	.266647	.310986
45	361 4011	4014 4356	93	.171204	.1397818
46	335 0094	3778 4262	94	.0917157	.0480652
47	312 1350	3596 2912	95	.0386219	.0092433
48	289 7723	3076 5189	96	.0092433	.0000000

TABLE V.

NORTHAMPTON TABLE OF MORTALITY.

Value of Annuities, first payment due in one year, computed at different rates of interest.

Age.	Three Per Cent.	Four Per Cent.	Five Per Cent.	Six Per Cent.	Seven Per Cent.	Age.	Three Per Cent.	Four Per Cent.	Five Per Cent.	Six Per Cent.	Seven Per Cent.
1	16.02	13.47	11.56	10.11	8.96	49	12.69	11.48	10.44	9.56	8.80
2	18.60	15.03	13.42	11.72	10.39	50	12.44	11.26	10.27	9.42	8.68
3	19.58	16.46	14.14	12.35	10.94	51	12.18	11.06	10.10	9.27	8.56
4	20.21	17.01	14.61	12.77	11.32	52	11.93	10.85	9.93	9.13	8.44
5	20.47	17.25	14.83	12.96	11.49	53	11.07	10.64	9.75	8.98	8.31
6	20.73	17.48	15.04	13.16	11.67	54	11.41	10.42	9.57	8.83	8.18
7	20.85	17.61	15.17	13.28	11.78	55	11.15	10.20	9.38	8.67	8.05
8	20.89	17.66	15.23	13.34	11.84	56	10.88	9.98	9.19	8.51	7.91
9	20.81	17.63	15.21	13.34	11.85	57	10.61	9.75	9.00	8.34	7.77
10	20.66	17.52	15.14	13.29	11.81	58	10.34	9.52	8.80	8.17	7.62
11	20.48	17.39	15.04	13.21	11.75	59	10.06	9.28	8.60	8.00	7.47
12	20.28	17.25	14.94	13.13	11.69	60	9.78	9.04	8.39	7.82	7.31
13	20.08	17.11	14.83	13.04	11.62	61	9.49	8.80	8.18	7.64	7.15
14	19.87	16.95	14.71	12.95	11.55	62	9.21	8.55	7.97	7.45	6.99
15	19.66	16.79	14.59	12.86	11.47	63	8.91	8.29	7.74	7.25	6.82
16	19.44	16.63	14.46	12.76	11.38	64	8.61	8.03	7.51	7.05	6.64
17	19.22	16.46	14.33	12.66	11.30	65	8.30	7.76	7.28	6.84	6.45
18	19.01	16.31	14.22	12.56	11.23	66	7.99	7.49	7.03	6.63	6.26
19	18.82	16.17	14.11	12.48	11.16	67	7.68	7.21	6.79	6.41	6.06
20	18.64	16.04	14.01	12.40	11.09	68	7.37	6.93	6.54	6.18	5.86
21	18.47	15.91	13.92	12.33	11.04	69	7.05	6.65	6.28	5.95	5.65
22	18.31	15.80	13.83	12.27	10.99	70	6.73	6.36	6.02	5.72	5.43
23	18.15	15.68	13.75	12.20	10.94	71	6.42	6.08	5.76	5.48	5.22
24	17.98	15.56	13.66	12.13	10.89	72	6.10	5.79	5.50	5.24	5.00
25	17.81	15.44	13.57	12.06	10.84	73	5.79	5.51	5.25	5.00	4.78
26	17.64	15.32	13.47	11.99	10.78	74	5.49	5.23	4.99	4.77	4.57
27	17.47	15.19	13.38	11.92	10.72	75	5.20	4.96	4.74	4.54	4.35
28	17.29	15.06	13.28	11.84	10.66	76	4.93	4.71	4.51	4.33	4.15
29	17.11	14.92	13.18	11.76	10.60	77	4.65	4.46	4.28	4.11	3.95
30	16.92	14.78	13.07	11.68	10.54	78	4.37	4.20	4.04	3.88	3.74
31	16.73	14.64	12.97	11.60	10.47	79	4.08	3.92	3.78	3.64	3.51
32	16.54	14.50	12.85	11.51	10.40	80	3.78	3.64	3.52	3.39	3.28
33	16.34	14.35	12.74	11.42	10.33	81	3.50	3.38	3.26	3.16	3.06
34	16.14	14.20	12.62	11.33	10.26	82	3.23	3.12	3.02	2.93	2.84
35	15.94	14.04	12.50	11.24	10.18	83	2.98	2.89	2.80	2.71	2.63
36	15.73	13.88	12.38	11.14	10.10	84	2.79	2.71	2.63	2.55	2.48
37	15.52	13.72	12.25	11.04	10.02	85	2.62	2.54	2.47	2.40	2.34
38	15.30	13.55	12.12	10.93	9.94	86	2.46	2.39	2.33	2.27	2.21
39	15.08	13.38	11.98	10.82	9.85	87	2.31	2.25	2.19	2.14	2.09
40	14.85	13.20	11.84	10.71	9.75	88	2.10	2.13	2.08	2.03	1.98
41	14.62	13.02	11.70	10.59	9.66	89	2.01	1.97	1.92	1.88	1.84
42	14.39	12.84	11.55	10.47	9.56	90	1.79	1.76	1.72	1.69	1.66
43	14.16	12.66	11.41	10.36	9.47	91	1.50	1.47	1.45	1.42	1.40
44	13.93	12.47	11.26	10.24	9.37	92	1.19	1.17	1.15	1.14	1.12
45	13.69	12.28	11.11	10.11	9.26	93	.84	.83	.82	.81	.80
46	13.45	12.09	10.95	9.98	9.15	94	.54	.53	.52	.51	.51
47	13.20	11.89	10.78	9.85	9.04	95	.24	.24	.24	.24	.23
48	12.95	11.69	10.62	9.71	8.93						

NORTHAMPTON TABLE.

TABLE VI.
JOINT LIFE ANNUITIES—TWO LIVES.

AGES.		Four Per Cent.	Five Per Cent.	Six Per Cent.	AGES.		Four Per Cent.	Five Per Cent.	Six Per Cent.
Older.	Younger.				Older.	Younger.			
1	1	8.252	7.287	6.515	17	7	13.599	12.083	10.849
						12	13.480	12.009	10.805
2	2	11.107	9.793	8.741		17	13.019	11.630	10.489
3	3	12.325	10.862	9.689	18	3	12.531	11.134	9.998
						8	13.569	12.070	10.847
4	4	13.185	11.621	10.365		13	13.303	11.864	10.685
						18	12.841	11.483	10.365
5	5	13.591	11.984	10.691					
					19	4	12.876	11.447	10.284
6	1	10.741	9.479	8.467		9	13.482	12.006	10.799
	6	14.005	12.358	11.031		14	13.130	11.723	10.568
						19	12.679	11.351	10.255
7	2	12.581	11.100	9.911					
	7	14.224	12.596	11.251	20	5	12.993	11.561	10.391
						10	13.355	11.906	10.719
8	3	13.319	11.755	10.498		15	12.961	11.585	10.453
	8	14.399	12.731	11.332		20	12.535	11.232	10.150
9	4	13.775	12.165	10.869	21	1	10.053	8.961	8.070
	9	14.396	12.744	11.404		6	13.121	11.685	10.510
						11	13.217	11.797	10.631
10	5	13.933	12.315	11.010		16	12.799	11.452	10.342
	10	14.277	12.665	11.345		21	12.409	11.131	10.074
11	1	10.782	9.544	8.547	22	2	11.605	10.344	9.313
	9	14.068	12.447	11.136		7	13.178	11.748	10.576
	11	14.133	12.546	11.249		12	13.078	11.686	10.541
						17	12.646	11.327	10.239
12	2	12.438	11.010	9.857		22	12.293	11.042	10.002
	7	14.111	12.498	11.192					
	12	13.966	12.411	11.139	23	3	12.161	10.843	9.764
						8	13.178	11.761	10.597
13	3	13.019	11.528	10.324		13	12.934	11.570	10.440
	8	14.087	12.492	11.197		18	12.500	11.209	10.140
	13	13.789	12.268	11.023		23	12.179	10.951	9.928
14	4	13.374	11.850	10.617	24	4	12.511	11.163	10.057
	9	13.942	12.421	11.144		9	13.112	11.715	10.566
	14	13.004	12.118	10.899		14	12.784	11.450	10.348
						19	12.361	11.096	10.048
15	5	13.479	11.954	10.716		24	12.062	10.858	9.853
	10	13.841	12.302	11.048					
	15	13.411	11.960	10.767	25	5	12.633	11.281	10.170
						10	12.998	11.627	10.497
16	1	10.406	9.243	8.301		15	12.630	11.324	10.244
	6	13.578	12.052	10.812		20	12.229	10.980	9.950
	11	13.664	12.158	10.920		25	11.944	10.764	9.776
	16	13.212	11.793	10.626					
					26	1	9.770	8.742	7.807
17	2	11.981	10.642	9.555		6	12.754	11.400	10.285

NORTHAMPTON TABLE.

TABLE VI.—Cont.
JOINT LIFE ANNUITIES—TWO LIVES.

AGES.		Four Per Cent.	Five Per Cent.	Six Per Cent.	AGES.		Four Per Cent.	Five Per Cent.	Six Per Cent.
Older.	Younger.				Older.	Younger.			
26	11	12.861	11.519	10.410	33	13	12.125	10.932	9.934
	16	12.470	11.193	10.135		18	11.750	10.613	9.660
	21	12.105	10.890	9.879		23	11.485	10.393	9.474
	26	11.822	10.667	9.697		28	11.225	10.181	9.299
27	2	11.264	10.080	9.104	34	33	10.902	9.919	9.082
	7	12.798	11.452	10.341		4	11.651	10.488	9.518
	12	12.715	11.402	10.314		9	12.234	11.024	10.012
	17	12.311	11.063	10.027		14	11.959	10.796	9.822
	22	11.987	10.796	9.803		19	11.595	10.486	9.554
	27	11.699	10.567	9.616		24	11.352	10.285	9.386
28	3	11.790	10.555	9.537	35	29	11.088	10.069	9.207
	8	12.786	11.455	10.354		34	10.759	9.801	8.984
	13	12.564	11.280	10.215		5	11.732	10.572	9.602
	18	12.158	10.939	9.924		10	12.008	10.916	9.925
	23	11.866	10.699	9.724		15	11.787	10.655	9.703
29	28	11.573	10.466	9.533	20	11.445	10.363	9.451	
	4	12.116	10.855	9.813	25	11.217	10.175	9.295	
	9	12.710	11.401	10.315	30	10.948	9.954	9.112	
	14	12.408	11.153	10.110	35	10.612	9.680	8.883	
	19	12.013	10.820	9.826	36	1	9.047	8.173	7.442
	24	11.743	10.600	9.643		6	11.812	10.656	9.687
	29	11.445	10.362	9.448		11	11.941	10.788	9.820
30	16	11.609	10.507	9.579	16	11.609	10.507	9.579	
	5	12.220	10.959	9.913	21	11.302	10.246	9.354	
	10	12.586	11.304	10.239	26	11.078	10.062	9.201	
	15	12.246	11.021	10.001	31	10.805	9.837	9.014	
	20	11.873	10.707	9.732	36	10.462	9.555	8.778	
	25	11.618	10.499	9.561	37	2	10.392	9.390	8.551
	30	11.313	10.255	9.360		7	11.819	10.676	9.715
31	1	9.438	8.483	7.691		12	11.773	10.651	9.707
	6	12.322	11.062	10.015		17	11.430	10.358	9.454
	11	12.441	11.188	10.144		22	11.163	10.132	9.260
	16	12.078	10.883	9.886		27	10.936	9.946	9.105
	21	11.742	10.600	9.644	32	10.659	9.716	8.913	
	26	11.489	10.396	9.476	37	10.307	9.427	8.670	
32	31	11.179	10.146	9.270	38	3	10.838	9.800	8.928
	2	10.865	9.767	8.855		8	11.772	10.648	9.701
	7	12.350	11.100	10.060		13	11.600	10.509	9.588
	12	12.286	11.062	10.042		18	11.257	10.214	9.333
	17	11.911	10.746	9.771		23	11.020	10.015	9.163
	22	11.615	10.498	9.561		28	10.791	9.826	9.005
	27	11.359	10.289	9.389		33	10.568	9.591	8.808
32	11.042	10.034	9.178	38	10.149	9.294	8.558		
33	3	11.355	10.213	9.263	39	4	11.097	10.043	9.157
	8	12.323	11.090	10.061		9	11.665	10.565	9.637

TABLE VI.—Cont.
JOINT LIFE ANNUITIES—TWO LIVES.

AGES.		Four Per Cent.	Five Per Cent.	Six Per Cent.	AGES.		Four Per Cent.	Five Per Cent.	Six Per Cent.
Older.	Younger.				Older.	Younger.			
39	14	11.420	10.360	9.464	44	29	10.117	9.267	8.536
	19	11.089	10.074	9.215		34	9.869	9.058	8.358
	24	10.874	9.895	9.063		39	9.550	8.787	8.127
	29	10.642	9.703	8.902		44	9.160	8.457	7.843
	34	10.354	9.463	8.701		45	5	10.500	9.571	8.778
39	9.986	9.158	8.442	10	10.851		9.900	9.088	
40	5	11.150	10.102	9.219	15		10.607	9.690	8.905
	10	11.513	10.442	9.537	20		10.330	9.448	8.692
	15	11.234	10.205	9.333	25		10.160	9.304	8.569
	20	10.924	9.937	9.100	30	9.959	9.135	8.424	
	25	10.725	9.771	8.960	35	9.706	8.921	8.242	
	30	10.490	9.576	8.795	40	9.381	8.643	8.003	
	35	10.196	9.331	8.589	45	8.990	8.312	7.718	
	40	9.820	9.016	8.322	46	1	8.071	7.379	6.787
41	1	8.585	7.800	7.135		6	10.528	9.609	8.823
	6	11.203	10.163	9.283		11	10.697	9.774	8.962
	11	11.342	10.302	9.420		16	10.408	9.522	8.762
	16	11.044	10.046	9.198		21	10.165	9.310	8.574
	21	10.768	9.809	8.992		26	10.000	9.170	8.455
	26	10.574	9.647	8.855		31	9.797	8.998	8.309
	31	10.336	9.448	8.688		36	9.540	8.781	8.122
	36	10.037	9.198	8.476	41	9.210	8.407	7.878	
41	9.654	8.876	8.202	46	8.815	8.162	7.589		
42	2	9.839	8.942	8.182	47	2	9.221	8.435	7.760
	7	11.193	10.105	9.296		7	10.491	9.589	8.815
	12	11.165	10.156	9.298		12	10.481	9.592	8.827
	17	10.856	9.889	9.065		17	10.208	9.353	8.617
	22	10.619	9.685	8.889		22	10.001	9.173	8.458
	27	10.423	9.522	8.751		27	9.836	9.012	8.338
	32	10.182	9.320	8.580		32	9.631	8.818	8.189
	37	9.877	9.062	8.362		37	9.370	8.636	7.998
	42	9.491	8.737	8.083		42	9.037	8.350	7.751
	47	8.637	8.008	7.455		47	8.637	8.008	7.455
43	3	10.242	9.315	8.528	48	3	9.566	8.759	8.063
	8	11.130	10.124	9.270		8	10.404	9.524	8.767
	13	10.985	10.007	9.173		13	10.284	9.425	8.686
	18	10.677	9.739	8.938		18	10.011	9.186	8.473
	23	10.470	9.562	8.785		23	9.833	9.031	8.338
	28	10.272	9.396	8.645		28	9.667	8.890	8.217
	33	10.027	9.190	8.471		33	9.461	8.714	8.066
	38	9.716	8.927	8.246		38	9.195	8.487	7.870
	43	9.326	8.599	7.965		43	8.862	8.200	7.621
	48	8.453	7.849	7.316		48	8.453	7.849	7.316
44	4	10.468	9.531	8.733	49	4	9.744	8.932	8.230
	9	11.012	10.031	9.197		9	10.263	9.409	8.673
	14	10.799	9.852	9.042		14	10.080	9.252	8.538
	19	10.502	9.592	8.814					
	24	10.317	9.435	8.670					

TABLE VI.—Cont.
JOINT LIFE ANNUITIES—TWO LIVES.

AGES.		Four Per Cent.	Five Per Cent.	Six Per Cent.	AGES.		Four Per Cent.	Five Per Cent.	Six Per Cent.	
Older.	Younger.				Older	Younger.				
49	19	9.818	9.021	8.332	53	43	8.308	7.724	7.208	
	24	9.661	8.886	8.214		48	7.965	7.424	6.945	
	29	9.495	8.744	8.092		53	7.544	7.056	6.620	
	34	9.286	8.565	7.938		54	4	8.957	8.269	7.668
	39	9.015	8.333	7.737			9	9.442	8.718	8.085
	44	8.683	8.046	7.488			14	9.290	8.586	7.970
49	8.266	7.686	7.173	19	9.063		8.383	7.788		
50	5	9.742	8.941	8.248	24		8.934	8.270	7.688	
	10	10.085	9.260	8.548	29		8.799	8.153	7.586	
	15	9.872	9.076	8.386	34	8.629	8.005	7.457		
	20	9.630	8.861	8.195	39	8.406	7.810	7.286		
	25	9.488	8.739	8.089	44	8.130	7.569	7.073		
	30	9.321	8.596	7.966	49	7.780	7.262	6.802		
	35	9.110	8.415	7.809	54	7.362	6.897	6.480		
	40	8.834	8.177	7.602	55	5	8.931	8.256	7.665	
	45	8.593	7.891	7.353		10	9.256	8.560	7.951	
	50	8.081	7.522	7.030		15	9.077	8.403	7.812	
	51	1	7.479	6.885		6.370	20	8.869	8.216	7.643
		6	9.745	8.956		8.271	25	8.751	8.116	7.555
11		9.804	9.100	8.411		30	8.619	7.999	7.453	
16		9.665	8.899	8.234		35	8.448	7.849	7.322	
21		9.454	8.712	8.067		40	8.221	7.651	7.146	
26		9.318	8.595	7.966		45	7.948	7.411	6.935	
31		9.151	8.451	7.841		50	7.593	7.098	6.658	
36		8.937	8.267	7.681		55	7.179	6.735	6.336	
41		8.638	8.025	7.470		56	1	6.843	6.346	5.911
46		8.326	7.737	7.219	6		8.902	8.241	7.662	
51		7.900	7.366	6.893	11		9.052	8.386	7.801	
52		2	8.520	7.848	7.264		16	8.858	8.214	7.648
	7	9.090	8.919	8.248	21		8.679	8.053	7.502	
	12	9.698	8.934	8.270	26		8.570	7.958	7.419	
	17	9.401	8.724	8.083	31		8.436	7.841	7.316	
	22	9.284	8.568	7.944	36		8.264	7.690	7.183	
	27	9.148	8.451	7.842	41		8.035	7.489	7.005	
	32	8.980	8.306	7.716	46		7.763	7.249	6.793	
	37	8.763	8.119	7.553	51		7.409	6.936	6.515	
	42	8.483	7.875	7.340	56		6.993	6.571	6.190	
	47	8.147	7.582	7.084	57	2	7.756	7.199	6.709	
	52	7.724	7.213	6.758		7	8.817	8.176	7.612	
	53	3	8.815	8.128		7.529	12	8.839	8.203	7.643
8		9.591	8.841	8.188		17	8.639	8.024	7.481	
13		9.497	8.763	8.123		22	8.451	7.891	7.362	
18		9.260	8.552	7.934		27	8.383	7.797	7.279	
23		9.111	8.421	7.818		32	8.250	7.680	7.175	
28		8.975	8.304	7.716		37	8.076	7.527	7.041	
33		8.806	8.157	7.588		42	7.848	7.326	6.862	
38		8.586	7.960	7.421		47	7.574	7.084	6.648	

TABLE VI.—Cont.
JOINT LIFE ANNUITIES—TWO LIVES.

AGES.		Four Per Cent.	Five Per Cent.	Six Per Cent.	AGES.		Four Per Cent.	Five Per Cent.	Six Per Cent.	
Older.	Younger.				Older.	Younger.				
57	52	7.225	6.774	6.371	61	46	7.076	6.648	6.263	
	57	6.805	6.404	6.041		51	6.705	6.395	6.035	
58	3	7.986	7.421	6.922	62	56	6.465	6.100	5.770	
	8	8.691	8.073	7.527		61	6.030	5.712	5.420	
	13	8.622	8.015	7.479		3	6.804	6.452	6.059	
	18	8.422	7.835	7.316		7	7.828	7.319	6.865	
	23	8.259	7.725	7.218		12	7.863	7.357	6.905	
	28	8.193	7.632	7.135		17	7.700	7.208	6.770	
	33	8.060	7.515	7.031		22	7.580	7.100	6.670	
	38	7.884	7.360	6.894		27	7.499	7.027	6.605	
	43	7.660	7.162	6.718		32	7.397	6.937	6.524	
	48	7.382	6.915	6.498		37	7.265	6.819	6.418	
59	53	7.039	6.609	6.225	63	42	7.088	6.660	6.276	
	58	6.614	6.234	5.850		47	6.875	6.469	6.104	
	4	8.075	7.514	7.017		52	6.600	6.222	5.880	
	9	8.519	7.927	7.403		57	6.270	5.925	5.613	
	14	8.399	7.821	7.310		62	5.831	5.533	5.259	
	19	8.207	7.648	7.153		64	3	7.048	6.605	6.209
	24	8.104	7.556	7.070			8	7.669	7.184	6.750
	29	7.999	7.464	6.988			13	7.625	7.147	6.719
	34	7.866	7.346	6.884			18	7.462	6.998	6.583
	39	7.689	7.189	6.744			23	7.365	6.910	6.503
44	7.469	6.994	6.570	28	7.286		6.839	6.439		
49	7.186	6.742	6.344	33	7.186		6.750	6.359		
54	6.850	6.442	6.076	38	7.053		6.631	6.252		
59	6.421	6.062	5.735	43	6.881		6.477	6.112		
60	5	8.011	7.466	6.982	65		48	6.667	6.283	5.937
	10	8.314	7.750	7.250		53	6.399	6.042	5.719	
	15	8.170	7.622	7.135		58	6.070	5.744	5.450	
	20	7.995	7.463	6.990		63	5.626	5.347	5.089	
	25	7.906	7.383	6.919		4	7.076	6.641	6.251	
	30	7.802	7.292	6.837		9	7.470	7.010	6.598	
	35	7.669	7.174	6.732		14	7.381	6.931	6.527	
	40	7.490	7.015	6.590		19	7.226	6.789	6.396	
	45	7.274	6.822	6.418		24	7.147	6.717	6.331	
	50	6.983	6.568	6.189		29	7.069	6.648	6.268	
61	55	6.659	6.272	5.924	66	34	6.971	6.559	6.189	
	60	6.226	5.888	5.579		39	6.838	6.440	6.081	
	1	6.123	5.725	5.372		44	6.671	6.289	5.944	
	6	7.944	7.415	6.945		49	6.454	6.093	5.767	
	11	8.092	7.557	7.081		54	6.196	5.860	5.555	
	16	7.935	7.416	6.953		59	5.867	5.561	5.284	
	21	7.787	7.281	6.830		64	5.417	5.158	4.917	
	26	7.704	7.207	6.764		67	5	6.063	6.546	6.171
	31	7.601	7.116	6.682			10	7.236	6.803	6.414
	36	7.469	6.998	6.577			15	7.127	6.705	6.325
41	7.290	6.838	6.434	20	6.986		6.576	6.205		

TABLE VI.—Cont.
JOINT LIFE ANNUITIES—TWO LIVES.

AGRS.		Four Per Cent.	Five Per Cent.	Six Per Cent.	AGRS.		Four Per Cent.	Five Per Cent.	Six Per Cent.	
Older.	Younger.				Older.	Younger.				
65	25	6.920	6.515	6.151	68	58	5.341	5.084	4.849	
	30	6.844	6.447	6.089		63	5.617	4.786	4.576	
	35	6.747	6.360	6.010		68	4.537	4.348	4.171	
	40	6.614	6.240	5.901		69	4	5.924	5.611	5.332
	45	6.453	6.094	5.769			9	6.262	5.929	5.626
	50	6.236	5.897	5.590			14	6.202	5.876	5.578
	55	5.986	5.671	5.384			19	6.084	5.766	5.476
	60	5.658	5.372	5.112			24	6.207	5.713	5.427
	65	5.201	4.960	4.736			29	5.973	5.664	5.383
	66	1	5.295	4.996			4.728	34	5.906	5.603	5.326
6		6.846	6.447	6.087	39		5.813	5.518	5.249	
11		6.987	6.581	6.215	44		5.696	5.411	5.150	
16		6.866	6.472	6.115	49		5.541	5.268	5.019	
21		6.749	6.364	6.015	54	5.357	5.100	4.864		
26		6.689	6.309	5.966	59	5.121	4.883	4.665		
31		6.615	6.243	5.905	64	4.798	4.585	4.390		
36		6.520	6.156	5.827	69	4.312	4.140	3.977		
41		6.388	6.037	5.718	70	5	5.768	5.472	5.209	
46		6.230	5.894	5.588		10	6.008	5.700	5.418	
51	6.019	5.701	5.412	15		5.933	5.631	5.355		
56	5.774	5.479	5.209	20		5.826	5.532	5.262		
61	5.447	5.180	4.938	25		5.780	5.489	5.223		
66	4.982	4.759	4.551	30		5.729	5.442	5.180		
67	2	5.896	5.569	5.276		35	5.663	5.382	5.125	
	7	6.684	6.306	5.963		40	5.571	5.298	5.047	
	12	6.730	6.351	6.009		45	5.460	5.195	4.953	
	17	6.604	6.236	5.903		50	5.306	5.054	4.822	
	22	6.512	6.151	5.824	55	5.132	4.893	4.674		
	27	6.454	6.098	5.776	60	4.900	4.680	4.478		
	32	6.382	6.033	5.717	65	4.573	4.378	4.199		
	37	6.288	5.948	5.639	70	4.087	3.930	3.781		
	42	6.159	5.831	5.532	71	1	4.380	4.169	3.976	
	47	6.004	5.690	5.403		6	5.610	5.331	5.084	
52	5.801	5.504	5.233	11		5.744	5.460	5.199		
57	5.559	5.283	5.031	16		5.660	5.382	5.127		
62	5.285	4.986	4.760	21		5.572	5.300	5.050		
67	4.760	4.555	4.363	26		5.532	5.263	5.016		
68	3	5.965	5.641	5.352		31	5.483	5.218	4.974	
	8	6.490	6.134	5.811		36	5.419	5.159	4.920	
	13	6.468	6.116	5.796		41	5.329	5.076	4.844	
	18	6.343	6.001	5.689		46	5.222	4.978	4.753	
	23	6.271	5.934	5.628	51	5.074	4.841	4.626		
	28	6.215	5.883	5.581	56	4.905	4.685	4.482		
	33	6.146	5.820	5.524	61	4.679	4.476	4.289		
	38	6.052	5.735	5.446	66	4.349	4.169	4.005		
	43	5.929	5.622	5.343	71	3.862	3.719	3.584		
	48	5.774	5.481	5.213	72	2	4.814	4.588	4.380	
53	5.580	5.303	5.050							

TABLE VI.—Cont.
JOINT LIFE ANNUITIES—TWO LIVES.

AGES.		Four Per Cent.	Five Per Cent.	Six Per Cent.	AGES.		Four Per Cent.	Five Per Cent.	Six Per Cent.
Older.	Younger.				Older.	Younger.			
73	7	5.418	5.157	4.929	75	25	4.589	4.396	4.216
	12	5.478	5.216	4.976		30	4.557	4.365	4.188
	17	5.389	5.133	4.899		35	4.516	4.327	4.152
	22	5.321	5.070	4.840		40	4.457	4.272	4.101
	27	5.283	5.035	4.807		45	4.386	4.206	4.040
	32	5.236	4.992	4.767		50	4.285	4.112	3.951
	37	5.174	4.934	4.714		55	4.171	4.006	3.852
	42	5.087	4.854	4.640		60	4.021	3.866	3.721
	47	4.983	4.758	4.551		65	3.806	3.665	3.533
	52	4.845	4.630	4.430		70	3.471	3.347	3.236
	57	4.679	4.477	4.289		75	3.015	2.917	2.827
	62	4.458	4.272	4.099		76	6	4.403	4.221	4.053
67	4.124	3.960	3.811	11	4.487		4.301	4.148	
72	3.639	3.510	3.387	16	4.452		4.270	4.101	
73	3	4.811	4.591	4.389	21		4.391	4.212	4.046
	8	5.204	4.963	4.752	26		4.365	4.188	4.024
	13	5.212	4.972	4.751	31		4.335	4.160	3.997
	18	5.123	4.889	4.673	36		4.295	4.123	3.962
	23	5.072	4.841	4.628	41		4.238	4.069	3.912
	28	5.036	4.808	4.597	46		4.171	4.006	3.853
	33	4.991	4.766	4.559	51		4.074	3.916	3.768
	38	4.930	4.710	4.507	56		3.966	3.815	3.674
	43	4.848	4.634	4.436	61		3.821	3.679	3.546
	48	4.746	4.539	4.348	66	3.606	3.477	3.357	
	53	4.614	4.417	4.234	71	3.270	3.159	3.059	
	58	4.455	4.269	4.096	76	2.833	2.750	2.668	
63	4.236	4.066	3.908	77	7	4.222	4.055	3.899	
68	3.901	3.752	3.616		12	4.368	4.195	3.943	
73	3.421	3.304	3.193		17	4.210	4.045	3.802	
74	4	4.726	4.516		4.323	22	4.164	4.001	3.850
	9	4.969	4.747		4.556	27	4.140	3.979	3.829
	14	4.950	4.731		4.528	32	4.111	3.952	3.804
	19	4.866	4.651		4.453	37	4.073	3.916	3.770
	24	4.827	4.615		4.419	42	4.019	3.865	3.722
	29	4.792	4.583		4.390	47	3.954	3.805	3.666
	34	4.749	4.543		4.353	52	3.864	3.720	3.586
	39	4.690	4.488		4.301	57	3.761	3.623	3.494
	44	4.613	4.417		4.235	62	3.621	3.492	3.371
	49	4.511	4.342	4.146	67	3.405	3.289	3.180	
	54	4.389	4.208	4.040	72	3.070	2.971	2.882	
	59	4.234	4.064	3.906	77	2.656	2.583	2.511	
64	4.019	3.864	3.719	78	8	4.016	3.864	3.722	
69	3.633	3.547	3.423		13	4.022	3.871	3.729	
74	3.211	3.105	3.005		18	3.964	3.815	3.677	
75	5	4.557	4.352		4.181	23	3.930	3.783	3.646
	10	4.725	4.522		4.350	28	3.908	3.762	3.626
	15	4.695	4.495		4.310	33	3.881	3.737	3.602
	20	4.619	4.424		4.242	38	3.844	3.702	3.570

TABLE VI.—*Cont.*
JOINT LIFE ANNUITIES—TWO LIVES.

AGES.			Four Per Cent.	Five Per Cent.	Six Per Cent.	AGES.				
Older.	Younger.	Older.				Younger.	Four Per Cent.	Five Per Cent.	Six Per Cent.	
78	48	3.794	3.655	3.525	81	61	2.870	2.782	2.699	
	48	3.731	3.596	3.469		66	2.746	2.664	2.587	
	53	3.648	3.518	3.390		71	2.542	2.470	2.402	
	58	3.549	3.424	3.308		76	2.258	2.195	2.147	
	63	3.414	3.297	3.188		81	1.869	1.827	1.786	
	68	3.199	3.095	2.995						
	73	2.869	2.780	2.701		82	12	3.020	2.924	2.833
	78	2.470	2.410	2.346			17	2.987	2.893	2.804
				22	2.958		2.865	2.777		
79	9	3.775	3.638	3.510	27		2.945	2.853	2.765	
	14	3.759	3.624	3.497	32		2.929	2.838	2.751	
	19	3.704	3.571	3.447	37		2.909	2.818	2.733	
	24	3.679	3.548	3.424	42		2.878	2.789	2.705	
	29	3.659	3.528	3.406	47		2.843	2.756	2.673	
	34	3.633	3.505	3.384	52	2.792	2.707	2.627		
	39	3.598	3.471	3.352	57	2.733	2.651	2.574		
	44	3.552	3.428	3.312	62	2.656	2.578	2.504		
	49	3.490	3.369	3.256	67	2.533	2.461	2.393		
	54	3.416	3.299	3.180	72	2.334	2.271	2.211		
	59	3.222	3.210	3.105	77	2.077	2.013	1.975		
	64	3.192	3.088	2.990	82	1.681	1.642	1.606		
	69	2.979	2.887	2.799						
	74	2.659	2.580	2.511	83	13	2.794	2.709	2.628	
	79	2.271	2.217	2.161		18	2.700	2.677	2.598	
						23	2.740	2.657	2.579	
80	10	3.517	3.397	3.281		28	2.728	2.646	2.568	
	15	3.492	3.372	3.259		33	2.713	2.632	2.555	
	20	3.443	3.325	3.214		38	2.694	2.613	2.537	
	25	3.425	3.308	3.198		43	2.666	2.587	2.511	
	30	3.406	3.290	3.181		48	2.632	2.554	2.481	
	35	3.383	3.268	3.160	53	2.585	2.510	2.438		
	40	3.349	3.236	3.130	58	2.530	2.457	2.388		
	45	3.308	3.197	3.093	63	2.457	2.387	2.321		
	50	3.247	3.140	3.039	68	2.336	2.272	2.211		
	55	3.180	3.076	2.978	73	2.141	2.085	2.032		
	60	3.092	2.992	2.899	78	1.899	1.838	1.810		
	65	2.965	2.873	2.786	83	1.510	1.472	1.441		
	70	2.757	2.675	2.598						
	75	2.418	2.381	2.323	84	14	2.622	2.545	2.472	
	80	2.068	2.018	1.969		19	2.589	2.513	2.442	
						24	2.574	2.499	2.429	
81	11	3.264	3.156	3.054		29	2.563	2.489	2.418	
	16	3.235	3.128	3.028		34	2.549	2.470	2.406	
	21	3.195	3.091	2.992		39	2.531	2.457	2.388	
	26	3.181	3.077	2.979		44	2.505	2.433	2.365	
	31	3.164	3.060	2.963		49	2.470	2.400	2.334	
	36	3.142	3.040	2.944	54	2.428	2.360	2.295		
	41	3.109	3.009	2.914	59	2.376	2.310	2.247		
	46	3.072	2.973	2.881	64	2.305	2.242	2.182		
	51	3.015	2.920	2.829	69	2.183	2.126	2.071		
	56	2.953	2.861	2.774	74	1.991	1.941	1.894		

TABLE VI.—Cont.
JOINT LIFE ANNUITIES—TWO LIVES.

AGES.			Four Per Cent.	Five Per Cent.	Six Per Cent.	AGES.				
Older.	Younger.	Older.				Younger.	Four Per Cent.	Five Per Cent.	Six Per Cent.	
84	79		1.751	1.750	1.672	88	18	2.061	2.012	1.965
	84		1.387	1.357	1.330		22	2.048	1.999	1.953
85	15		2.462	2.393	2.327	26	2.041	1.992	1.946	
	20		2.431	2.364	2.299	30	2.033	1.985	1.939	
	25		2.421	2.354	2.290	34	2.022	1.974	1.929	
	30		2.411	2.344	2.280	38	2.006	1.959	1.914	
	35		2.398	2.331	2.268	42	1.987	1.941	1.895	
	40		2.379	2.313	2.251	46	1.960	1.914	1.870	
	45		2.356	2.291	2.230	50	1.928	1.883	1.841	
	50		2.322	2.258	2.198	54	1.886	1.843	1.802	
	55		2.284	2.222	2.164	58	1.817	1.777	1.737	
	60		2.234	2.174	2.118	62	1.697	1.660	1.625	
	65		2.163	2.107	2.053	66	1.546	1.514	1.483	
	70		2.042	1.991	1.941	70	1.259	1.235	1.212	
75		1.856	1.811	1.769	74	1.030	1.063	1.044		
80		1.608	1.573	1.539	89	19	1.904	1.862	1.822	
85		1.339	1.256	1.232		24	1.895	1.854	1.814	
86	16		2.315	2.253		2.194	28	1.889	1.848	1.808
	21		2.290	2.229		2.171	32	1.882	1.841	1.802
	26		2.282	2.221		2.163	36	1.872	1.832	1.792
	31		2.272	2.212		2.154	40	1.859	1.818	1.779
	36		2.260	2.200		2.143	44	1.840	1.800	1.761
	41		2.241	2.182		2.126	48	1.817	1.778	1.740
	46		2.221	2.162		2.107	52	1.788	1.750	1.713
	51		2.188	2.131		2.077	56	1.751	1.714	1.678
	56		2.153	2.097		2.044	60	1.685	1.650	1.616
	61		2.105	2.051		2.000	64	1.570	1.538	1.508
	66		2.035	1.984	1.936	68	1.427	1.400	1.373	
	71		1.914	1.867	1.823	72	1.164	1.145	1.124	
76		1.739	1.699	1.661	76	1.015	1.001	.984		
81		1.478	1.447	1.417	90	20	1.704	1.670	1.638	
86		1.195	1.171	1.149		25	1.699	1.665	1.633	
87	17		2.177	2.121		2.069	30	1.694	1.660	1.628
	22		2.158	2.104		2.051	35	1.688	1.654	1.622
	27		2.151	2.096		2.044	40	1.679	1.646	1.614
	32		2.142	2.088		2.036	45	1.668	1.635	1.604
	37		2.130	2.077		2.026	50	1.651	1.619	1.590
	42		2.113	2.060		2.009	55	1.633	1.601	1.570
	47		2.093	2.041		1.991	60	1.608	1.577	1.547
	52		2.063	2.012		1.963	65	1.575	1.544	1.515
	57		2.030	1.980		1.932	70	1.515	1.486	1.459
	62		1.985	1.937		1.891	75	1.413	1.387	1.361
	67		1.915	1.870	1.826	80	1.278	1.255	1.234	
	72		1.794	1.753	1.713	85	1.054	1.038	1.021	
77		1.633	1.597	1.562	90	.992	.993	.995		
82		1.356	1.329	1.303	91	21	1.432	1.407	1.382	
87		1.124	1.098	1.078		26	1.429	1.404	1.379	
						31	1.425	1.400	1.376	

TABLE VI.—Cont.
JOINT LIFE ANNUITIES—TWO LIVES.

AGS.		Four Per Cent.	Five Per Cent.	Six Per Cent.	AGS.		Four Per Cent.	Five Per Cent.	Six Per Cent.	
Older.	Younger.				Older.	Younger.				
91	86	1.420	1.395	1.371	93	68	.760	.750	.740	
	41	1.413	1.388	1.364		73	.733	.723	.714	
	46	1.405	1.380	1.356		78	.697	.688	.679	
	51	1.391	1.367	1.343		83	.614	.606	.599	
	56	1.377	1.353	1.330		88	.554	.547	.541	
	61	1.358	1.334	1.311		93	.365	.361	.357	
	66	1.330	1.307	1.285		94	84	.520	.514	.508
	71	1.280	1.259	1.238			89	.519	.513	.507
	76	1.200	1.180	1.160			94	.518	.512	.506
	81	1.078	1.061	1.044			99	.517	.511	.505
	86	.902	.892	.879			04	.515	.509	.503
	91	.756	.748	.737			09	.512	.507	.501
92	22	1.142	1.124	1.107	14		.509	.503	.498	
	27	1.140	1.122	1.105	19		.505	.499	.494	
	32	1.137	1.119	1.102	24		.500	.494	.489	
	37	1.134	1.116	1.099	29		.491	.485	.480	
	42	1.128	1.111	1.094	34		.474	.469	.464	
	47	1.122	1.105	1.089	39		.453	.448	.443	
	52	1.113	1.095	1.079	44	.403	.398	.394		
	57	1.102	1.085	1.069	49	.373	.369	.365		
	62	1.088	1.071	1.055	54	.201	.199	.197		
	67	1.067	1.050	1.035	95	25	.236	.234	.232	
	72	1.028	1.012	.997		30	.236	.234	.231	
	77	.970	.955	.942		35	.235	.233	.231	
82	.864	.852	.840	40		.235	.233	.231		
87	.738	.734	.725	45		.234	.232	.230		
92	.583	.576	.569	50		.233	.231	.229		
93	23	.809	.798	.788		55	.232	.230	.228	
	28	.808	.797	.786		60	.230	.228	.226	
	33	.806	.795	.785		65	.228	.226	.224	
	38	.804	.793	.783		70	.224	.222	.220	
	43	.800	.790	.779		75	.217	.215	.213	
	48	.797	.786	.776		80	.208	.206	.204	
	53	.790	.780	.770	85	.187	.185	.183		
	58	.784	.773	.763	90	.177	.175	.174		
	63	.774	.764	.754	95	.060	.059	.058		

INTRODUCTION TO CARLISLE TABLES.

THE Carlisle Table was constructed by the philosopher and scientist, Milne, from the parish records of two parishes of Carlisle, Scotland, covering a period of but eight years, viz., from 1780 to 1787, inclusive. This table was published by him in 1816 in a volume which was very largely given over to discussions of the virtues of Swedish government tables. By a strange chance the incident became the important thing; the Carlisle Tables have been widely adopted and employed, while the Swedish Tables have slumbered.

The Carlisle Table slowly displaced the Northampton in the favor of the British companies. Neither the Seventeen Offices' or Actuaries' Table nor even Dr. Farr's English Life Tables were able to displace the Carlisle, which was not discarded by most British companies until after the H^M and H^F Tables appeared, and has not been discarded by all even at this date.

The Commutation Tables given herein are taken from "David Jones," with the exception of the M and R columns of the four per cent tables where "David Jones" was found to be wrong, and therefore figures from "David Chisholm's Tables" were substituted.

TABLE I.
CARLISLE TABLE OF MORTALITY.

Age.	Living.	Decrements.	Proportion Which Die.	Proportion Which Survive.	Age.	Living.	Decrements.	Proportion Which Die.	Proportion Which Survive.
0	10000	1539	.153900	.846100	53	4211	68	.016148	.983852
1	8461	632	.080605	.919395	54	4143	70	.016806	.983194
2	7779	505	.064918	.935082	55	4073	73	.017923	.982077
3	7274	276	.037943	.962057	56	4000	76	.019000	.981000
4	6998	201	.028723	.971277	57	3924	82	.020897	.979103
5	6797	121	.017802	.982198	58	3842	93	.024206	.975794
6	6676	82	.012283	.987717	59	3749	106	.028274	.971726
7	6594	58	.008796	.991204	60	3643	122	.033489	.966511
8	6536	43	.006579	.993421	61	3521	126	.035785	.964215
9	6493	33	.005082	.994918	62	3395	127	.037408	.962592
10	6460	29	.004489	.995511	63	3268	125	.038250	.961750
11	6431	31	.004820	.995180	64	3143	125	.039771	.960229
12	6400	32	.005000	.995000	65	3018	124	.041087	.958913
13	6368	33	.005182	.994818	66	2894	123	.042502	.957498
14	6335	35	.005525	.994475	67	2771	123	.043388	.955612
15	6300	39	.006191	.993809	68	2648	123	.045050	.953550
16	6261	42	.006708	.993292	69	2525	124	.049109	.950891
17	6219	43	.006914	.993086	70	2401	124	.051045	.948355
18	6176	43	.006962	.993038	71	2277	134	.058849	.941151
19	6133	43	.007011	.992989	72	2143	146	.068129	.931871
20	6090	43	.007061	.992939	73	1997	156	.078117	.921883
21	6047	42	.006946	.993054	74	1841	166	.090168	.909832
22	6005	42	.006994	.993006	75	1675	160	.095522	.904478
23	5963	42	.007043	.992957	76	1515	156	.102970	.897030
24	5921	42	.007093	.992907	77	1359	146	.107432	.892568
25	5879	43	.007314	.992686	78	1213	132	.108821	.891179
26	5836	43	.007368	.992632	79	1081	128	.118409	.881591
27	5793	45	.007768	.992232	80	953	116	.121721	.878279
28	5748	50	.008699	.991301	81	837	112	.133811	.866189
29	5698	56	.009828	.990172	82	725	102	.140600	.859310
30	5642	57	.010103	.989897	83	623	94	.150883	.849117
31	5585	57	.010206	.989794	84	529	84	.158790	.841210
32	5528	56	.010130	.989870	85	445	78	.175281	.824719
33	5472	55	.010051	.989949	86	367	71	.193461	.806539
34	5417	55	.010153	.989847	87	296	64	.216216	.783784
35	5362	55	.010257	.989743	88	232	51	.219828	.760172
36	5307	56	.010552	.989448	89	181	39	.215470	.745330
37	5251	57	.010855	.989145	90	142	37	.260563	.739437
38	5194	58	.011167	.988833	91	105	30	.285714	.714286
39	5136	61	.011877	.988123	92	75	21	.280000	.720000
40	5075	66	.013005	.986995	93	54	14	.259259	.740741
41	5009	69	.013775	.986225	94	40	10	.250000	.750000
42	4940	71	.014373	.985627	95	30	7	.233333	.766667
43	4869	71	.014582	.985418	96	23	5	.217391	.782609
44	4798	71	.014708	.985202	97	18	4	.222222	.777778
45	4727	70	.014809	.985191	98	14	3	.214286	.785714
46	4657	69	.014816	.985184	99	11	2	.181818	.818182
47	4588	67	.014603	.985397	100	9	2	.222222	.777778
48	4521	63	.013935	.986065	101	7	2	.285714	.714286
49	4458	61	.013683	.986317	102	5	2	.400000	.600000
50	4397	59	.013418	.986582	103	3	2	.666666	.333334
51	4338	62	.014292	.985708					
52	4276	65	.015201	.984799					

TABLE II.
COMMUTATION COLUMNS, CARLISLE TABLE,
FOUR PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
0	10000 0000	142816.4335	2661123.5878	4122.4446	44587.9711
1	8135.5769	134680.8566	2518307.1543	2642.6369	40465.5259
2	7192.1228	127488.7339	2383626.2977	2012.0895	37822.8887
3	6466.5595	121022.1744	2256137.5638	1563.1464	35810.7989
4	5981.9197	115040.2547	2135115.3894	1327.2204	34247.6523
5	5586.6386	109453.6161	2020075.1347	1162.0131	32920.4316
6	5276.1398	104177.4763	1910621.5186	1066.3850	31758.41825
7	5010.8980	99166.5782	1806444.0423	1004.0718	30692.03297
8	4775.7912	94390.7871	1707277.4641	961.6917	29687.96095
9	4561.8957	89828.8914	1612886.6770	931.4805	28726.26896
10	4364.1445	85464.7469	1523057.7856	909.1869	27794.78820
11	4177.4550	81287.2919	1437593.0387	890.3490	26885.60106
12	3997.4211	77289.8708	1350305.7468	870.9865	25995.25177
13	3824.4558	73465.4150	1279015.8760	851.7682	25124.26499
14	3658.3046	69807.1103	1205550.4610	832.7115	24272.49658
15	3498.1664	66308.9440	1135743.3597	813.2772	23439.78484
16	3342.7991	62966.1449	1069434.4067	792.4548	22626.50735
17	3192.6682	59773.4766	1006468.2618	770.8931	21831.05228
18	3048.6473	56724.8294	946694.7852	749.6671	21063.15888
19	2910.9820	53813.8474	889969.9558	729.2575	20313.49149
20	2779.3965	51034.4509	836156.1084	709.6329	19584.23373
21	2653.6208	48380.8241	785121.6575	690.7630	18874.60061
22	2533.8421	45846.9820	736740.8334	673.0409	18183.83734
23	2419.3461	43427.6359	690893.8314	656.0004	17510.79619
24	2309.9992	41117.7267	647466.2155	639.6153	16854.79554
25	2205.3117	38912.4150	606348.4888	623.8604	16215.17999
26	2104.9823	36807.4327	567436.0738	608.3507	15591.31935
27	2009.1084	34791.3243	530628.6411	593.4376	14982.96835
28	1916.8285	32881.4958	495830.3168	578.4311	14389.53046
29	1827.0717	31054.4240	462948.8210	562.3986	13811.09906
30	1739.5339	29314.8901	431894.3970	545.1327	13248.70023
31	1655.7306	27679.1596	402579.5099	528.2345	12703.56724
32	1575.8003	26083.3593	374920.3473	511.9862	12175.33249
33	1499.8433	24583.5160	348836.9880	496.6369	11663.34601
34	1427.6617	23155.8543	324253.4720	482.1415	11166.70886
35	1358.8137	21797.6106	301097.6177	468.2037	10684.56705
36	1293.1199	20503.8907	279300.5771	454.8019	10216.36399
37	1230.2928	19273.5979	258796.6864	441.6813	9761.56091
38	1170.1325	18103.4654	239523.0885	428.8400	9319.87935
39	1112.5635	16990.9019	221410.6231	416.2760	8891.03906
40	1057.0699	15933.8350	204428.7212	403.5704	8474.76277
41	1003.1921	14930.6430	188491.8862	390.3520	8071.19211
42	951.3202	13979.3238	173591.2332	377.0644	7680.83979
43	901.5840	13077.7388	159584.9204	363.9174	7303.77514
44	854.2061	12223.4724	146907.1816	351.2761	6930.85743
45	809.2519	11414.2176	134283.7022	339.1211	6588.58101
46	766.0067	10647.6103	122869.4016	327.5981	6249.45067
47	726.2074	9921.4104	112221.88.8	316.6769	5921.80130
48	688.0725	9233.3379	102300.4704	306.4795	5605.18443
49	652.3787	8590.4492	93467.1325	297.2600	5288.704615
49	618.7134	7962.2358	84486.1833	288.6706	5001.44289
51	586.9310	7375.3019	7623.9475	280.0038	4712.767431
52	556.2936	6819.0083	69148.6456	272.6278	4432.07339

TABLE II.—Cont.
COMMUTATION COLUMNS, CARLISLE TABLE,
FOUR PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
53	526.7666	6292.2417	62329.6373	264.4968	4159.445184
54	498.3272	5793.9145	56037.3956	256.3176	3894.948105
55	471.0649	5322.8496	50243.4811	248.2218	3638.630184
56	444.8289	4878.0207	44920.6315	240.1036	3390.408149
57	419.5934	4458.4273	40042.6108	231.9770	3150.304242
58	395.0242	4063.4031	35584.1835	223.5459	2918.327019
59	370.6367	3692.7664	31520.7804	214.3517	2694.780818
60	346.3050	3346.1614	27828.0140	204.2753	2482.428859
61	321.8343	3024.6271	24481.5526	193.1240	2276.153302
62	298.3821	2726.2451	21456.9255	182.0500	2083.029060
63	276.1733	2450.0718	18730.6804	171.3174	1900.978792
64	255.3940	2194.6778	16280.6086	161.1602	1729.601083
65	235.8046	1958.8732	14085.9308	151.3936	1568.500628
66	217.4193	1741.4510	12127.0576	142.0778	1417.106762
67	200.1717	1541.2822	10385.6036	133.1925	1275.028720
68	183.9293	1357.3530	8844.3214	124.6489	1141.835964
69	168.6402	1188.7128	7486.9684	116.4340	1017.186752
70	154.1908	1034.5220	6298.256	108.4708	900.752486
71	140.6034	893.9186	5263.7336	100.8139	792.281425
72	127.2395	766.6792	4369.8150	92.8577	691.467293
73	114.0103	652.6688	3603.1358	84.5224	598.609336
74	101.0617	551.6071	2950.4670	75.9588	514.086639
75	88.4126	463.1945	2398.8599	67.1967	438.127564
76	76.8916	386.3028	1935.6654	59.0762	370.930579
77	66.3212	319.9817	1549.3626	51.4631	311.854158
78	56.9194	263.0623	1229.3809	44.6121	260.390767
79	48.7744	214.2878	966.3186	38.6563	215.778351
80	41.34527	172.9426	752.0308	33.1031	177.121735
81	34.91604	138.02654	579.08815	28.26413	144.018314
82	29.08066	108.94588	441.06161	23.77167	115.753914
83	24.02818	84.91770	332.11573	19.83768	91.981974
84	19.61802	65.29968	247.19803	16.35168	72.144021
85	15.86814	49.43154	181.89835	13.35635	55.792058
86	12.58342	36.84812	132.46681	10.68194	42.435450
87	9.75868	27.08943	95.61869	8.34118	31.753238
88	7.35452	19.73492	68.52926	6.31235	23.411791
89	5.51711	14.21781	48.79434	4.75780	17.099176
90	4.16186	10.05595	34.57653	3.61475	12.341105
91	2.95907	7.09688	24.52058	2.57203	8.726081
92	2.022329	5.064547	17.423696	1.75910	6.153777
93	1.401997	3.657550	12.350149	1.21104	4.394405
94	1.002135	2.655416	8.701599	.861190	3.182198
95	.722693	1.932722	6.046183	.620292	2.320738
96	.532755	1.399967	4.113461	.458149	1.700177
97	.400902	.999065	2.713494	.346787	1.241757
98	.299820	.693245	1.714429	.261124	.894700
99	.226512	.472733	1.015184	.199618	.633395
100	.178200	.294532	.542451	.160018	.433387
101	.133270	.161263	.247919	.121941	.273660
102	.091511	.069731	.086656	.085329	.151727
103	.052806	.016925	.016925	.050124	.066799
104	.016925	.000000	.000000	.016274	.016274

TABLE III.
COMMUTATION COLUMNS, CARLISLE TABLE.
THREE AND ONE-HALF PER CENT.

Age.	D_x	N_x	S_x	M_x	R_x
0	10000.0000	156719.2811	3126762.5941	4362.1499	55413.1307
1	8174.8792	148544.4019	2970043.3130	2875.1934	51050.9803
2	7261.7797	141282.6222	2821498.9111	2238.5391	48175.7874
3	6560.7312	134721.8910	2680216.2889	1783.0580	45937.2484
4	6098.3527	128623.5383	2545494.3979	1542.5400	44154.1903
5	5722.8916	122900.0466	2416870.8596	1373.3034	42611.6504
6	5430.9303	117469.7164	2293970.2130	1274.8698	41238.3470
7	5182.8244	112286.8920	2176500.4966	1210.4185	39963.4772
8	4963.5140	107323.3780	2064213.6046	1166.3726	38753.0587
9	4764.1152	102559.2629	1956890.2266	1134.8222	37580.6861
10	4579.6155	97979.6173	1854330.9637	1111.4279	36451.8639
11	4404.8859	93574.7615	1754351.3164	1091.5645	35340.4360
12	4235.4131	89339.3484	1660776.5549	1071.0492	34248.8715
13	4071.7256	85267.6227	1571437.2065	1050.5883	33177.8223
14	3913.6476	81353.9751	1486169.5838	1030.2015	32127.2341
15	3760.4109	77593.5642	1404815.6087	1009.3103	31097.0326
16	3610.7557	73982.8085	1327222.0445	986.8188	30087.7223
17	3465.2503	70517.5582	1253239.2360	963.4162	29100.9036
18	3324.9184	67192.6398	1182721.6778	940.2667	28137.4874
19	3190.1149	64002.5249	1115529.0380	917.9000	27197.2207
20	3060.6262	60941.8987	1051526.5131	896.2866	26279.3208
21	2936.2472	58005.6515	9900581.6144	875.4101	25383.0311
22	2817.2495	55188.4020	932578.0629	855.7058	24507.6210
23	2702.9422	52485.4597	877390.5609	836.6678	23651.9153
24	2593.1442	49892.3156	824905.1012	818.2736	22815.2475
25	2487.6811	47404.6344	775012.7856	800.5014	21996.9740
26	2385.9766	45018.6578	727608.1512	782.9214	21136.4726
27	2288.3959	42730.3519	68289.4934	765.9358	20413.5512
28	2193.7491	40536.6028	639859.1415	748.7614	19647.6154
29	2101.1270	38435.4758	599322.5387	730.3340	18898.8540
30	2010.1228	36425.3530	560887.0629	710.3724	18168.5309
31	1922.5265	34502.8265	524461.7099	690.7513	17458.1576
32	1838.5559	32664.2706	489958.8834	671.7937	16767.4063
33	1758.3873	30905.8833	457294.6128	653.7985	16095.6127
34	1681.8488	29224.0315	426388.7295	636.7223	15441.8142
35	1608.4759	27615.5586	397104.6950	620.2236	14805.0919
36	1538.1422	26077.4164	369549.1364	604.2828	14184.8684
37	1470.4460	24606.9704	343471.7200	588.6010	13580.5856
38	1405.2087	23201.6717	318804.7496	573.1790	12991.6845
39	1342.6146	21859.0571	295663.0779	558.0170	12418.8057
40	1281.8053	20577.2518	273804.0208	542.6101	11860.7887
41	1222.3531	19354.8987	253226.7690	526.5040	11318.1786
42	1164.7188	18190.1499	233871.8703	510.2353	10791.6745
43	1109.1869	17080.9630	215681.7204	494.0611	10281.4393
44	1056.0509	16024.9121	198600.7575	478.4338	9787.3782
45	1005.2402	15019.6719	182575.8453	463.3350	9308.9444
46	956.8639	14062.8080	167556.1731	448.9522	8845.6004
47	910.8083	13151.9998	153493.3654	435.2544	8390.6572
48	867.1570	12284.8428	140341.3656	422.4033	7961.4028
49	826.1576	11458.6832	128056.5528	410.7282	7538.9995
50	787.2977	10671.3875	116597.8376	399.8659	7128.2713
51	750.4672	9920.9203	105926.4501	389.5990	6728.4654
52	714.7259	9206.1945	96005.5298	379.2358	6338.8664

TABLE III.—*Cont.*
COMMUTATION COLUMNS, CARLISLE TABLE,
THREE AND ONE-HALF PER CENT.

Age	D_x	N_x	S_x	M_x	R_x
53	680.0592	8526.1353	86799.3353	368.7386	5959.6305
54	646.4516	7879.6836	78273.2000	358.1282	5590.8020
55	614.0379	7265.6457	70393.5164	347.5752	5232.7637
56	582.6402	6683.056	63127.8707	336.9440	4885.1886
57	552.2415	6130.7640	56444.8651	326.2462	4548.2466
58	522.4167	5608.3473	50314.1012	315.0962	4222.0004
59	492.5324	5115.8149	44705.7538	302.8781	3906.9022
60	462.4217	4653.3932	39589.9389	289.4231	3604.0261
61	431.8219	4221.5713	34936.3457	274.4608	3314.6030
62	402.2889	3819.2824	30714.9744	259.5305	3040.1422
63	374.1450	3445.1373	26895.6920	244.9906	2780.6117
64	347.6658	3097.4715	23450.5547	231.1636	2535.6212
65	322.5496	2774.9219	20353.0832	217.8042	2304.4576
66	298.8377	2476.0842	17578.1613	204.9998	2086.6534
67	276.4635	2199.6237	15102.0771	192.7282	1881.6536
68	255.2550	1944.3687	12902.4534	180.8715	1686.9254
69	235.1675	1709.2013	10938.0847	169.4159	1508.0539
70	216.0567	1493.1446	9218.8834	158.2576	1338.6380
71	197.9695	1295.1751	7755.7388	147.4766	1180.3804
72	180.0184	1115.1567	6460.5637	136.2202	1032.9038
73	162.0812	953.0756	5345.4070	124.3705	896.6835
74	144.3670	808.7086	4392.3314	112.1374	772.3130
75	126.9079	681.8007	3583.6228	99.56024	660.1756
76	110.9037	570.8970	2901.8221	87.84764	560.6154
77	96.1197	474.7773	2330.9251	76.81403	472.7677
78	82.8922	397.8851	1856.14780	66.83690	395.9537
79	71.3737	320.51141	1464.26271	58.12152	329.1168
80	60.79459	259.71682	1143.75130	49.95604	270.9953
81	51.589005	208.127819	884.034478	42.80631	221.0392
82	43.174700	164.953119	675.906659	36.13656	178.2329
83	35.845863	129.107256	510.953540	30.26774	142.0964
84	29.408051	99.699205	381.816284	25.04211	111.8286
85	23.901782	75.797423	282.147079	20.53031	86.78652
86	19.045660	56.751762	206.349656	16.42216	66.25621
87	14.841618	41.910145	149.597893	12.92218	49.77375
88	11.239247	30.670898	107.687748	9.821995	36.85128
89	8.472029	22.198869	77.016850	7.434849	27.02928
90	6.421801	15.777068	54.817981	5.671114	19.59443
91	4.587937	11.1891305	39.0409134	4.054413	13.02332
92	3.167278	8.0228525	27.8517829	2.787902	9.868906
93	2.2026281	5.8202244	19.8289304	1.931324	7.081005
94	1.5764024	4.2438220	14.0087060	1.379583	5.149681
95	1.1423205	3.1015015	9.7648840	.9988096	3.770098
96	.8161633	2.2553382	6.6633825	.7412817	2.771288
97	.6398212	1.6155170	4.4080443	.5635536	2.030006
98	.4808101	1.1347069	2.7925273	.4261792	1.466453
99	.3650243	.7697026	1.678204	.3266326	1.040274
100	.2885410	.4811616	.8881178	.2625124	.713641
101	.2168317	.2643300	.4069562	.2005605	.451129
102	.1496423	.1146877	.1426262	.1407036	.250568
103	.0867491	.0279385	.0279385	.0827808	.109865
104	.0279285	.0000000	.0000000	.0269938	.026994

TABLE IV.
COMMUTATION COLUMNS, CARLISLE TABLE,
THREE PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
0	10000.000	173198.234	37c2049.698	4664.129	70035.663
1	8214.563	164983.671	3528851.464	3169.954	65371.534
2	7332.454	157651.218	3363867.793	2527.104	62201.580
3	6656.740	150994.477	3206216.575	2064.957	59674.476
4	6217.632	144776.845	3055222.098	1819.735	57609.519
5	5863.152	138913.693	2910445.253	1640.351	55789.784
6	5591.045	133322.648	2771537.560	1545.015	54113.434
7	5361.525	127961.123	2638208.912	1478.341	52598.419
8	5159.579	122801.544	2510247.790	1432.556	51120.078
9	4976.344	117825.200	2387446.246	1399.600	49687.522
10	4806.847	113018.353	2269621.046	1375.045	48287.922
11	4645.891	108372.462	2156602.693	1354.095	46912.877
12	4488.831	103883.631	2048230.230	1332.352	45558.783
13	4336.298	99547.333	1944346.599	1310.561	44226.431
14	4188.181	95359.152	1844799.266	1288.744	42915.870
15	4043.730	91315.421	1749440.115	1266.279	41627.126
16	3901.648	87413.773	1658124.694	1241.976	40360.847
17	3762.597	83651.176	1570710.920	1216.565	39118.871
18	3627.749	80023.427	1487059.745	1191.307	37902.306
19	3497.564	76525.862	1407036.318	1166.785	36710.999
20	3371.885	73153.977	1330510.456	1142.977	35544.214
21	3250.560	69909.417	1257356.478	1119.862	34401.238
22	3133.964	66769.452	1187453.062	1097.943	33281.376
23	3021.403	63748.049	1120683.609	1076.662	32183.434
24	2912.740	60835.310	1056935.560	1056.000	31106.773
25	2807.813	58027.467	996100.251	1035.741	30050.773
26	2706.122	55321.344	938072.784	1016.002	29014.832
27	2607.945	52713.399	882751.440	996.6439	27998.830
28	2512.317	50201.082	830038.041	976.9755	27002.186
29	2417.926	47783.156	779836.959	955.7581	26025.211
30	2324.429	45458.727	732053.803	932.6869	25069.453
31	2233.928	43224.799	686595.076	909.8876	24136.766
32	2146.727	41078.072	643370.278	887.7524	23226.879
33	2063.088	39014.984	602292.206	866.6389	22339.127
34	1982.865	37032.119	563277.222	846.5065	21472.488
35	1905.566	35126.553	526245.103	826.9604	20625.982
36	1831.087	33295.466	491118.550	807.9836	19799.022
37	1758.995	31536.470	457823.085	789.2245	18991.039
38	1689.225	29847.246	426286.614	770.6367	18201.815
39	1621.710	28225.536	396439.368	752.3729	17431.129
40	1555.776	26669.760	368213.833	733.6730	16678.756
41	1490.819	25178.941	341544.073	714.0295	15945.083
42	1427.459	23751.482	316395.132	694.0913	15231.054
43	1365.964	22385.519	292613.650	674.1728	14536.963
44	1306.840	21078.579	270228.131	654.8344	13862.790
45	1250.001	19828.678	249149.452	636.0593	13207.956
46	1195.622	18633.056	229320.774	618.0877	12571.897
47	1143.599	17489.457	210687.718	600.8888	11953.810
48	1094.077	16395.380	193198.262	584.6749	11352.921
49	1047.408	15347.972	176802.882	569.8731	10768.246
50	1002.987	14344.985	161454.911	555.9585	10198.373
51	960.7073	13384.277	147109.926	542.8922	9642.415
52	919.3947	12464.883	133725.648	529.5614	9090.522
53	879.0475	11585.835	121260.766	515.9226	8569.9610

CARLISLE TABLE.

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TABLE IV.—Cont.
COMMUTATION COLUMNS, CARLISLE TABLE,
THREE PER CENT.

Age	D _x	N _x	S _x	M _x	R _x
64	839.6626	10746.173	109674.930	502.2111	8053.9683
65	801.4327	9944.7400	98928.7577	488.4374	7551.7573
66	764.1444	9180.5956	88984.0177	474.4917	7063.3199
67	727.7919	8452.8038	79803.4221	460.3959	6588.8282
68	691.8283	7760.9755	71350.6183	445.6301	6128.4323
69	655.4193	7105.5562	63589.6429	429.3714	5682.8022
70	618.3376	6487.2186	56484.0867	411.3797	5253.4308
71	580.2235	5906.9951	49996.8681	391.2754	4842.0511
72	543.1651	5363.8300	44089.8730	371.1167	4450.7757
73	507.6178	4856.2121	38726.0431	351.3898	4079.6590
74	473.9822	4382.2300	33869.8310	332.5391	3728.2692
75	441.8752	3940.3548	29487.6010	314.2374	3395.7301
76	411.3786	3528.9762	25547.2462	296.6110	3081.4927
77	382.4216	3146.5546	22018.2700	279.6359	2784.8817
78	354.8025	2791.7521	18871.7155	263.1553	2505.2458
79	328.4679	2463.2822	16079.9634	247.1547	2242.9095
80	303.2400	2160.0442	13616.6792	231.4938	1994.9358
81	279.2030	1880.8412	11456.6350	216.2891	1763.4420
82	255.1185	1625.7227	9575.7937	200.3367	1547.1529
83	230.8132	1394.9095	7950.0710	183.4621	1346.8161
84	206.5852	1188.3243	6555.1615	165.9567	1163.3541
85	182.4832	1005.8411	5366.8372	147.8718	997.3973
86	160.2447	845.5965	4360.9960	130.0483	840.5255
87	139.5575	706.0390	3515.3966	114.9285	718.5772
88	120.9365	585.1025	2809.3606	100.3722	603.6487
89	104.6369	480.4656	2224.2581	87.5951	503.2765
90	89.56018	390.9054	1743.7925	75.5660	415.6814
91	76.36780	314.5376	1352.8871	64.9822	340.1153
92	64.22226	250.3153	1038.3495	55.0610	275.1331
93	53.57947	196.7359	788.0419	46.2887	220.0722
94	44.17014	152.5657	591.29831	38.4400	173.7831
95	36.07413	116.4916	438.73257	31.6305	135.3435
96	28.88449	87.60711	322.24097	25.4915	103.7130
97	22.61795	64.98917	234.63386	20.0663	78.22142
98	17.21124	47.77792	169.64470	15.3184	58.15517
99	13.03664	34.74128	121.86677	11.6450	42.83681
100	9.929746	24.81154	87.12549	8.91786	31.19177
101	7.128560	17.68298	62.31395	6.40589	22.27390
102	4.943523	12.73946	44.63097	4.42849	15.86801
103	3.455667	9.28379	31.89152	3.08461	11.43952
104	2.485197	6.79859	22.60773	2.21480	8.35491
105	1.809510	4.98898	15.80914	1.61159	6.14011
106	1.346959	3.62202	10.82016	1.20165	4.22852
107	1.023438	2.61858	7.17813	.917360	3.32689
108	.772823	1.84576	4.55955	.696554	2.40951
109	.589532	1.25623	2.71379	.535772	1.71296
110	.468296	.787934	1.45756	.431706	1.17718
111	.353621	.434312	.669626	.306672	.745480
112	.245230	.189083	.235313	.232580	.414809
113	.142852	.046231	.040231	.137345	.182229
114	.046231	.000000	.000000	.044884	.044884

INTRODUCTION TO FARR'S ENGLISH LIFE
TABLES No. 3.

THE English Life Tables No. 3, Male and Female, are from the population experience of Great Britain, and were graduated by Dr. William Farr and published in the 60's.

This table (males), with five per cent interest, was made the first standard for valuations in the State of New York in 1865, but was abandoned after one year for the American Experience Table and four and one-half per cent.

TABLE I.
FARR'S ENGLISH LIFE TABLE, No. 3. MALES.

Age	Living.	Dying.	Proba- bility of Living.	Proba- bility of Dying.	Age.	Living.	Dying.	Proba- bility of Living.	Proba- bility of Dying.
0	511745	83719	.83540	.16359	55	209539	5144	.97545	.02455
1	428026	27521	.93570	.06428	56	204395	5281	.97416	.02584
2	400505	14215	.96451	.03549	57	199114	5428	.97274	.02726
3	386290	9213	.97615	.02385	58	193686	5584	.97117	.02883
4	377077	6719	.98218	.01782	59	188102	5752	.96942	.03058
5	370358	5033	.98641	.01359	60	182350	5929	.96748	.03252
6	365325	3953	.98918	.01082	61	176421	6118	.96532	.03468
7	361372	3310	.99084	.00916	62	170303	6314	.96293	.03707
8	358062	2734	.99236	.00764	63	163989	6515	.96027	.03973
9	355328	2207	.99354	.00646	64	157474	6720	.95733	.04267
10	353031	1983	.99438	.00562	65	150754	6921	.95409	.04591
11	351048	1776	.99494	.00506	66	143833	7115	.95053	.04947
12	349272	1666	.99523	.00477	67	136718	7297	.94663	.05337
13	347606	1637	.99529	.00471	68	129421	7458	.94237	.05763
14	345969	1679	.99515	.00485	69	121963	7593	.93774	.06226
15	344290	1781	.99483	.00517	70	114370	7695	.93272	.06728
16	342509	1928	.99437	.00563	71	106675	7756	.92729	.07271
17	340581	2112	.99380	.00620	72	98919	7770	.92144	.07856
18	338469	2320	.99314	.00686	73	91149	7733	.91516	.08484
19	336149	2541	.99244	.00756	74	83416	7639	.90843	.09157
20	333608	2764	.99172	.00828	75	75777	7483	.90124	.10015
21	330844	2801	.99153	.00847	76	68204	7168	.89359	.10641
22	328043	2836	.99136	.00864	77	61026	6990	.88545	.11455
23	325207	2868	.99118	.00882	78	54036	6655	.87684	.12316
24	322339	2807	.99101	.00899	79	47381	6266	.86775	.13225
25	319442	2926	.99084	.00916	80	41115	5832	.85816	.14184
26	316516	2954	.99067	.00933	81	35283	5361	.84807	.15193
27	313562	2981	.99049	.00951	82	29922	4862	.83750	.16250
28	310581	3009	.99031	.00969	83	25060	4349	.82644	.17356
29	307572	3038	.99012	.00988	84	20711	3834	.81488	.18512
30	304534	3068	.98993	.01007	85	16877	3328	.80285	.19715
31	301466	3100	.98972	.01028	86	13549	2840	.79035	.20965
32	298366	3134	.98950	.01050	87	10709	2384	.77737	.22263
33	295232	3171	.98926	.01074	88	8325	1965	.76395	.23605
34	292061	3211	.98901	.01099	89	6360	1590	.75009	.24991
35	288850	3254	.98873	.01127	90	4770	1260	.73580	.26420
36	285596	3300	.98844	.01156	91	3510	979	.72110	.27890
37	282296	3352	.98813	.01187	92	2531	744	.70601	.29399
38	278944	3406	.98779	.01221	93	1787	553	.69056	.30944
39	275538	3465	.98742	.01258	94	1234	401	.67476	.32524
40	272073	3529	.98703	.01297	95	833	285	.65863	.34137
41	268544	3596	.98661	.01339	96	548	196	.64221	.35779
42	264948	3668	.98615	.01385	97	352	132	.62552	.37448
43	261280	3746	.98567	.01433	98	220	86	.60859	.39141
44	257534	3826	.98514	.01486	99	134	55	.59144	.40856
45	253708	3912	.98458	.01542	100	79	33	.57412	.42588
46	249796	4001	.98398	.01602	101	46	21	.55664	.44336
47	245795	4095	.98334	.01666	102	25	11	.53905	.46095
48	241700	4192	.98266	.01734	103	14	7	.52137	.47863
49	237508	4292	.98193	.01807	104	7	3	.50364	.49636
50	233216	4395	.98110	.01884	105	4	2	.48589	.51411
51	228821	4626	.97978	.02022	106	2	1	.46816	.53184
52	224195	4718	.97878	.02112	107	1	1	.45048	.54952
53	219437	4885	.97774	.02226	108			.43288	.56712
54	214552	5013	.97664	.02336					

TABLE II.
FARR'S ENGLISH LIFE TABLE, No. 3. COMMUTATION COLUMNS,
FIVE PER CENT. MALES.

Age.	D_x	N_x	S_x	M_x	R_x
0	511745	6497341	106080554	177979.04	1623582.49
1	407644	6080697	99589213	93246.67	1445703.45
2	363270	5726427	9499516	73284.31	1347356.78
3	333692	5392735	87773089	61004.86	1274072.47
4	310222	5082513	82380354	53425.30	1213067.61
5	290185	4792328	77297841	48160.79	1159642.31
6	272611	4519717	72505513	44405.09	1111482.52
7	256820	4262897	67985796	41595.77	1067070.43
8	242351	4020546	63722899	39355.43	1025480.66
9	229048	3791498	59702353	37523.07	986125.23
10	210730	3574768	55910855	36182.91	948532.16
11	202521	3399517	52336087	35023.49	912349.25
12	194488	3175029	48966570	34034.55	877325.76
13	184343	2990686	45791541	33151.03	843291.21
14	174738	2815948	42800855	32324.23	810140.18
15	165009	2650339	39984907	31516.60	777815.95
16	156908	2493431	37334568	30700.70	746290.35
17	148594	2344837	34841137	29859.52	715598.65
18	140641	2204196	32496300	29081.94	685739.13
19	133025	2071171	30292104	28063.84	657757.19
20	125733	1945438	28220933	27106.16	628693.35
21	118754	1826684	26275495	26114.04	601587.19
22	112141	1714543	24448811	25156.52	575473.15
23	105878	1608665	22734268	24233.20	550316.63
24	99947	1508718	21125603	23343.93	526083.43
25	94332	1414386	19616885	22488.44	502739.50
26	89017	1325369	18202499	21665.53	480251.06
27	83987	1241382	16877130	20874.31	458585.53
28	79227	1162155	15635748	20113.88	437711.22
29	74723	1087432	14473593	19382.85	417597.34
30	70462	1016970	13386161	18679.93	398214.49
31	66431	950539	12369191	18003.87	379534.56
32	62617	887922	11418052	17353.28	361530.69
33	59009	828913	10530730	16726.88	344177.41
34	55595	773318	9701817	16123.26	327459.53
35	52366	722952	8928499	15541.14	311327.27
36	49310	671642	8207547	14979.31	295786.13
37	46419	623223	7535905	14430.67	280806.82
38	43634	581539	6910682	13911.73	266370.15
39	41096	540443	6329143	13403.73	252458.42
40	38947	501796	5788700	12911.54	239054.69
41	36329	465457	5286904	12434.13	226143.15
42	34136	431331	4821437	11970.82	213709.02
43	32060	399271	4390106	11520.71	201738.20
44	30036	369175	3990835	11082.98	190217.46
45	28237	340938	3621660	10657.16	179134.48
46	26478	314460	3280722	10242.50	168477.32
47	24813	289647	2966262	9838.60	158234.82
48	23238	266109	2676615	9444.90	148396.22
49	21747	244662	2410206	9061.06	138951.32
50	20337	224325	2165544	8686.78	129690.26
51	19004	205321	1941219	8321.77	121203.48
52	17733	187588	1735898	7955.87	112881.71
53	16530	171058	1548310	7597.45	104925.84
54	15393	155665	1377252	7246.99	97328.39

TABLE II.—Cont.

FARR'S ENGLISH LIFE TABLE, No. 3, COMMUTATION COLUMNS, FIVE PER CENT. MALES.

Age.	D _x	N _x	S _x	M _x	R _x
55	14317	141348	1221587	6904 47	90081.40
56	13301	128047	1080239	6569.74	83176.93
57	12340	115707	952102	6242.45	76607.19
58	11432	104275	836485	5922.07	70364.74
59	10574	93701.3	732210.1	5608.18	64442.67
60	9762.2	83939.1	6385 8.8	5300.24	58834.49
61	8995.0	74944.1	554569.7	4997.94	53534.25
62	8269.6	66674.5	479625.6	4700 86	48536.31
63	7583.9	59090.6	412951.1	4408 86	43835.15
64	6935.7	52154.9	353860 5	4121.91	39426 59
65	6323.6	45831.3	301705 6	3840.03	35304.68
66	5746 0	40085.3	255874.3	3563.54	31464.65
67	5201.6	34883.7	215789.0	3292 84	27901.11
68	4689.6	30194.1	180905.3	3028.43	24608.27
69	4208.9	25985.2	150711 2	2771.00	21579.84
70	3758.9	22226.3	124726.0	2521.51	18808.78
71	3339.1	18887.2	102499.7	2280 65	16287.27
72	2948.8	15938.4	83612.5	2049.44	14006 62
73	2587.8	13350 6	67674.1	1828.84	11957 18
74	2255.5	11095 1	54323.5	1619.75	10128.34
75	1951.4	9143.7	43228.4	1423.03	8508.59
76	1674.9	7468.8	34084.7	1239.51	7085.56
77	1425.4	6043.4	26615.9	1069.75	5846 05
78	1202.0	4841.4	20572.5	914.26	4776 30
79	1003.8	3837 62	15731.14	773.27	3862 04
80	829.57	3008.05	11893.52	646 84	3038.77
81	678.00	2330.05	8885 47	534.77	2441.93
82	547.61	1782.44	6555.42	436.66	1907.16
83	436.79	1345 65	4772.98	351.92	1470 50
84	343.79	1001.86	3427.33	279.73	1118 58
85	266.81	735.05	2425.47	219.12	838.85
86	204.01	531 04	1690 42	169.01	619 73
87	153 56	377.48	1159.38	128.29	450.72
88	113.69	263 793	781.900	95.73	322.43
89	82 715	181.078	518.107	70.17	226.70
90	59 089	121 989	337.029	50.47	156.53
91	41.407	80.582	215.040	35 61	106.06
92	28.437	52 145	134.458	24.61	70.45
93	19.121	33 024	82.313	16.65	45.84
94	12.575	20.4485	49.2892	11.01	29.19
95	8.0812	12.3673	28.8407	7.12	18.18
96	5.0691	7.2982	16.4734	4.49	11.06
97	3.1004	4.1978	9.1752	2 76	6.57
98	1.8470	2.3508	4 9774	1.65	3.81
99	1.0706	1.2802	2.6266	.96	2.16
100	.6030	.6772	1 3464	.54	1.20
101	.3297	.3475	.6692	.30	.66
102	.1748	.1727	.3217	.16	.36
103	.0897	.0830	.1490	.09	.20
104	.0446	.0384	.0660	.05	.11
105	.0214	.0170	.0276	.03	.06
106	.0099	.0071	.0106	.02	.03
107	.0044	.0027	.0035	.01	.01
108	.0019	.0008	.0008		
109	.0008				

TABLE III.
COMMUTATION COLUMNS, FARR'S ENGLISH LIFE TABLE NO. 3.
MALES, FOUR PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
0	511745	7673088	141954511	196943.65	2410246.79
1	411563	7201525	134281423	116444.61	2213303.14
2	370289	6891236	127019898	90999.90	2099858.53
3	343410	6547826	120128662	78362.82	20058.8, 6.63
4	322327	6225499	113580836	70487.51	1927495.81
5	304407	5921092	107355337	64964.98	1857003.90
6	288721	5632371	101434245	60987.33	1792043.32
7	274613	5357758	95801874	57983.38	1731055.99
8	261632	5096126	90444116	55504.79	1673072.61
9	249649	4846477	85347900	53043.92	1617507.82
10	238495	4607682	80501513	52092.15	1563893.90
11	228034	4379948	75893531	50804.03	1511771.75
12	218154	4161794	71513583	49694.75	1463997.72
13	208763	3953031	67351780	48691.19	1411272.97
14	199789	3753242	63308758	47748.86	1362578.78
15	191172	3562070	59645516	46816.57	1314829.92
16	182809	3379201	56083446	45865.68	1268013.35
17	174845	3204356	52704215	44875.90	1222147.67
18	1670, 8	3037278	49499809	43833.36	1177271.77
19	159550	2877728	46462611	42732.19	1133438.41
20	152254	2725474	43584883	41572.51	1090706.22
21	145186	2580288	40859409	40359.57	1049133.71
22	138419	2441869	38279121	39177.67	1008774.14
23	131915	2309924	35837252	38027.03	969596.47
24	125751	2184173	33527328	36908.16	931599.44
25	119828	2064345	31343155	35821.45	894661.28
26	114164	1950181	29278810	34766.07	858839.83
27	108749	1841432	27328629	33741.57	824073.76
28	103572	1737860	25487197	32747.47	790332.19
29	98623	1639237	23749337	31782.63	757584.72
30	93894	1545343	22110100	30845.96	725802.09
31	89373	1455970	20564757	29936.42	694956.13
32	85052	1370918	19108787	29052.74	665019.71
33	80921	1289997	17737869	28193.73	635966.97
34	76973	1213024	16447872	27358.01	607773.24
35	73199	1139825	15234848	26544.29	580415.23
36	69591	1070234	14095023	25751.39	553870.94
37	66141	1004093	13024789	24978.21	528119.55
38	62842	941251	12020696	24223.05	503141.34
39	59687	881564	11079445	23485.24	478918.29
40	56670	824894	10197881	22763.52	455433.05
41	53784	771110	9372987	22056.74	432669.53
42	51022	720088	8601877	21364.24	410612.79
43	48381	671707	7881789	20685.04	389218.55
44	45853	625854	7210082	20018.08	368563.51
45	43434	582420	6584228	19363.07	348545.43
46	41120	541300	6021802	18719.10	329182.36
47	38905	502395	5463508	18085.81	310493.26
48	36785	465610	4958113	17462.57	292377.45
49	34757	430853	4492503	16849.11	274914.88
50	32816	398037	4061650	16245.17	258065.77
51	30960	367077	3663613	15650.52	241820.60
52	29167	337010	3296536	15048.69	226170.08
53	27450	310460	2958626	14453.50	211121.39
54	25807	284653	2648106	13865.95	196667.89

TABLE III.—Cont.
 COMMUTATION COLUMNS, FARR'S ENGLISH LIFE TABLE No. 3.
 MALES, FOUR PER CENT.

Age.	D _x	N _x	S _x	M _x	R _x
55	24134	260419	2363513	13286.14	182801.97
56	22730	237689	2103094	12714.09	169515.83
57	21291	216398	1865405	12149.39	156801.74
58	19914	196484	1649007	11591.30	144652.35
59	18596	177888	1452523	11039.25	133061.95
60	17334	160554	1274635	10492.46	122021.80
61	16126	144428	1114681	9950.52	111529.34
62	14968	130460	969653	9412.82	101578.82
63	13858	115602	840193	8870.23	92166.00
64	12796	102806	724591	8349.83	83286.77
65	11779	91027	621785	7824.78	74936.94
66	10806	80220.7	530757.5	7304.82	67112.16
67	9876.2	70344.5	450536.8	6790.85	59807.34
68	8989.5	61355.0	380192.3	6284.00	53016.49
69	8145.7	53209.3	318837.3	5785.89	46732.49
70	7344.8	45864.5	265628.0	5298.27	40946.60
71	6587.1	39277.4	219763.5	4823.11	35648.33
72	5873.3	33404.1	180486.1	4362.00	30825.22
73	5203.7	28200.4	147082.0	3919.00	26626.62
74	4579.1	23621.3	118881.6	3494.50	22543.62
75	3999.8	19621.5	95260.3	3091.29	19049.12
76	3466.1	16155.4	75638.8	2711.50	15957.83
77	2978.2	13177.2	59483.4	2356.81	13246.33
78	2535.6	10641.6	46306.2	2028.81	10889.52
79	2137.8	8503.8	35664.6	1728.54	8860.71
80	1783.7	6720.1	27160.8	1456.69	7132.17
81	1471.9	5248.2	20440.7	1213.40	5675.48
82	1200.2	4047.99	15192.54	998.36	4462.08
83	966.53	3081.46	11144.55	810.84	3463.72
84	768.05	2313.41	8063.09	649.56	2652.88
85	601.80	1711.61	5746.68	512.84	2003.32
86	464.57	1247.04	4038.07	398.73	1490.48
87	353.05	893.99	2791.03	305.10	1091.75
88	263.90	630.09	1897.04	229.53	786.65
89	193.85	436.24	1266.95	169.63	557.12
90	139.81	296.429	830.713	123.03	387.49
91	98.917	197.512	534.284	87.52	264.46
92	68.585	128.927	336.772	60.99	176.94
93	46.560	82.367	207.845	41.60	115.95
94	30.916	51.451	125.478	27.75	74.35
95	20.058	31.393	74.027	18.09	46.60
96	12.703	18.6904	42.6343	11.49	28.51
97	7.8442	10.8462	23.9439	7.12	17.02
98	4.7180	6.1282	13.0977	4.29	9.90
99	2.7609	3.3673	6.9695	2.52	5.61
100	1.5701	1.7972	3.0022	1.43	3.09
101	.8668	.9394	1.8050	.80	1.66
102	.4639	.4665	.8747	.42	.86
103	.2405	.2260	.4081	.23	.46
104	.1205	.1055	.1821	.11	.21
105	.0584	.0471	.0766	.06	.10
106	.0273	.0198	.0295	.03	.04
107	.0123	.0075	.0097	.01	.01
108	.0053	.0022	.0022	.00	.00
109	.0022		.0000	.00	.00

TABLE IV.
FARR'S ENGLISH LIFE TABLE NO. 3. COMMUTATION COLUMNS,
THREE PER CENT. MALES.

Age.	D _x	N _x	S _x	M _x	R _x
0	511745	9288491	106217813	226301.22	3799711.50
1	415559	8872932	186929322	145020.64	3573410.28
2	377514	8495418	178056390	119079.46	3428389.64
3	353510	8141008	169560072	106070.72	3339310.18
4	335028	7806880	161419064	97885.09	3202339.46
5	319474	7487406	153612184	92089.22	3105354.37
6	305953	7181453	146124778	87874.16	3013265.15
7	293828	6887625	138943325	84660.01	2925399.99
8	282657	6604968	132055700	82047.07	2840730.98
9	272329	6332639	125450732	79951.69	2758683.91
10	262658	6069951	119118093	78242.51	2678732.22
11	253605	5816346	113048142	76809.95	2600489.71
12	244972	5571374	107231796	75564.30	2523679.76
13	236703	5334671	101660422	74429.84	2448115.46
14	228726	5108915	96325751	73347.59	2373685.62
15	220987	4884958	91219806	72269.90	2300338.03
16	213441	4671517	86334848	71160.04	2228098.13
17	206057	4465460	81663331	69993.57	2156908.09
18	198815	4266645	77197871	68752.99	2086614.52
19	191701	4074944	72931226	67429.93	2018161.53
20	184711	3890233	68856282	66023.04	1950731.60
21	177845	3712388	64966019	64537.25	1884708.56
22	171203	3541185	61253661	63075.43	1820171.31
23	164780	3376405	57712476	61638.45	1757095.88
24	158570	3217835	54336071	60227.58	1695457.43
25	152567	3065268	51118236	58843.96	1635229.85
26	146767	2918501	48052968	57487.19	15769385.89
27	141162	2777339	45134467	56157.33	1518898.70
28	135748	2641591	42357128	54854.40	1462741.37
29	130517	2511074	39715537	53577.54	1407886.97
30	125464	2385610	37204403	52325.92	1354399.43
31	120583	2265027	34818853	51098.76	1301933.51
32	115867	2149160	32553826	49894.92	1250884.75
33	111310	2037850	30404666	48713.32	1200989.83
34	106907	1930943	28366816	47552.59	1152276.51
35	102653	1828240	26435873	46411.45	1104723.92
36	98540	1729750	24607583	45288.71	1058312.47
37	94564	1635186	22877833	44183.27	1013023.76
38	90720	1544496	21242647	43093.11	968840.49
39	87002	1457464	19698181	42017.65	925747.38
40	83406	1374158	18240717	40955.43	883720.73
41	79926	1294132	16866659	39905.10	842774.30
42	76559	1217573	15572521	38866.00	802869.20
43	73300	1144273	14374954	37836.97	764003.20
44	70145	1074128	13211081	36816.67	726166.23
45	67090	1007038	12136553	35804.93	689349.56
46	64132	942906	11129515	34800.58	653544.63
47	61267	881639	10186609	33803.30	618741.05
48	58491	823148	9304970	32812.31	584940.75
49	55803	767345	8481822	31827.40	552128.44
50	53198	714117	7714477	30848.36	520301.04
51	50676	663471	7000330	29875.03	489452.68
52	48205	615266	6330859	28880.38	459577.65
53	45808	569458	5721593	27887.15	430697.27
54	43483	525975	5152135	26897.11	402810.12

TABLE IV.—*Cont.*
 FARR'S ENGLISH LIFE TABLE NO. 3. COMMUTATION COLUMNS,
 THREE PER CENT. MALES.

Age.	D _x	N _x	S _x	M _x	R _x
55	41230	484745	4626160	25910.72	375913.01
56	39047	445698	4141415	24928.03	350002.29
57	36930	408768	3605717	23948.55	325074.26
58	34877	373891	3286949	22971.13	301125.71
59	32885	341006	2913058	21994.91	278154.58
60	30951	310055	2572052	21018.61	256159.67
61	29072	280983	2261997	20041.57	235141.06
62	27247	253736	1981014	19062.75	215099.49
63	25472	228264	1727278	18082.00	196036.74
64	23748	204516	1499014	17099.50	177954.74
65	22072	182444	1294498	16115.60	160845.24
66	20446	161998	1112054	15131.79	144739.64
67	18868	143130	950056	14149.86	129607.85
68	17341	125789	806926	13172.14	115457.99
69	15866	109923	681137	12201.96	102285.85
70	14445	95478	571214	11242.98	90083.89
71	13080	82398	475736	10299.43	78840.91
72	11776	70622	393338	9376.10	68541.48
73	10535	60086.9	322716.4	8478.04	59165.38
74	93.0 4	50726.5	262229.5	7610.29	50687.34
75	8255 5	42471 0	211903.0	6778.06	43077 05
76	7223.5	35247.5	169432.0	5986.57	36298.99
77	6266 0	28980.6	134184.5	5240.21	30312.42
78	5387.4	23593.2	105203.9	4543.30	25072.21
79	4586.3	19006.9	81610.7	3899.12	20528.91
80	3863 8	15143.1	62603 8	3310.26	16629 79
81	3219.2	11923.9	47460 7	2778.15	13319.53
82	2650.6	9273.3	35536.8	2303.26	10541.38
83	2155.2	7118.1	26263.5	1885.12	8238.12
84	1729.3	5388.8	19145.4	1521.99	6353.00
85	1368.1	4020.7	13756.6	1211.18	4831.01
86	1066.4	2954.30	9735.92	949.25	3619.83
87	818 28	2136 02	6781.62	732.24	2670.58
88	617 58	1518.44	4645.60	555.38	1938.34
89	458.06	1060.38	3127.16	413.85	1382 96
90	333.58	726.80	2066.78	302.66	969.11
91	238.30	488 50	1339.98	217.12	666.45
92	165.83	321.67	851.48	152.59	449.33
93	114.35	207.323	529.811	104.98	296.74
94	76.668	130.655	322.488	70.62	191.76
95	50.225	80.430	191.833	46.43	121.14
96	32.117	48.313	111.403	29.74	74.71
97	20.025	28.288	63.090	18.60	41.97
98	12.161	16.1271	34.8024	11.31	26.37
99	7.1856	8.9415	18.6753	6.70	15.06
100	4.1261	4.8154	9.7338	3.84	8.36
101	2.2999	2.5155	4.9184	2.17	4.52
102	1.2429	1.2726	2.4029	1.14	2.35
103	.6505	.6221	1.1303	.62	1.21
104	.3293	.2928	.5082	.30	.59
105	.1610	.1318	.2154	.17	.29
106	.0759	.0559	.0836	.08	.12
107	.0345	.0214	.0277	.04	.04
108	.0151	.0063	.0063		
109	.0063	.0000	.0000		

TABLE I.—*Cont.*
FARR'S ENGLISH LIFE TABLE, No. 3. FEMALES.

Age.	Living.	Dying.	Proba- bility of Living.	Proba- bility of Dying.	Age.	Living.	Dying.	Proba- bility of Living.	Proba- bility of Dying.
0	488255	65774	.86529	.13471	55	211576	4439	.97902	.02098
1	422481	26159	.93808	.06192	56	207137	4628	.97766	.02234
2	395322	14023	.96462	.03538	57	202509	4817	.97621	.02379
3	382299	9213	.97582	.02418	58	197692	5009	.97466	.02534
4	373056	6596	.98232	.01768	59	192683	5206	.97298	.02702
5	366460	4866	.98672	.01328	60	187477	5409	.97115	.02885
6	361594	3815	.98945	.01055	61	182068	5619	.96914	.03086
7	357779	3249	.99092	.00908	62	176449	5835	.96693	.03337
8	354530	2724	.99232	.00768	63	170614	6057	.96450	.03550
9	351806	2328	.99338	.00662	64	164557	6282	.96182	.03818
10	349478	2045	.99415	.00585	65	158275	6509	.95888	.04112
11	347433	1861	.99464	.00536	66	151766	6731	.95565	.04435
12	345572	1765	.99489	.00511	67	145035	6947	.95210	.04790
13	343807	1745	.99493	.00507	68	138088	7149	.94823	.05177
14	342062	1789	.99477	.00523	69	130939	7332	.94401	.05599
15	340273	1888	.99445	.00555	70	123607	7489	.93941	.06059
16	338385	2029	.99400	.00600	71	116118	7613	.93444	.06556
17	335356	2205	.99345	.00655	72	108505	7698	.92905	.07095
18	334151	2400	.99282	.00718	73	100807	7736	.92325	.07675
19	331751	2609	.99214	.00786	74	93071	7724	.91702	.08298
20	329142	2819	.99144	.00856	75	85347	7653	.91033	.08967
21	326323	2867	.99121	.00879	76	77694	7521	.90319	.09681
22	323456	2912	.99100	.00900	77	70173	7329	.89557	.10443
23	320544	2952	.99079	.00921	78	62844	7071	.88747	.11253
24	317592	2989	.99059	.00941	79	55773	6755	.87889	.12111
25	314603	3024	.99039	.00961	80	49018	6382	.86981	.13019
26	311579	3055	.99020	.00980	81	42636	5959	.86023	.13977
27	308524	3084	.99000	.01000	82	36677	5496	.85015	.14985
28	305440	3112	.98981	.01019	83	31181	5003	.83956	.16044
29	302328	3138	.98962	.01038	84	26178	4490	.82847	.17153
30	299190	3163	.98943	.01057	85	21688	3972	.81688	.18312
31	296027	3187	.98924	.01076	86	17716	3458	.80480	.19520
32	292841	3209	.98904	.01096	87	14258	2962	.79223	.20777
33	289631	3223	.98884	.01116	88	11296	2494	.77919	.22081
34	286398	3235	.98863	.01137	89	8802	2063	.76567	.23433
35	283143	3279	.98842	.01158	90	6739	1673	.75170	.24830
36	279864	3321	.98820	.01180	91	5066	1331	.73729	.26271
37	276563	3326	.98797	.01203	92	3735	1037	.72246	.27754
38	273237	3350	.98774	.01226	93	2698	700	.70722	.29278
39	269887	3376	.98749	.01251	94	1908	588	.69160	.30840
40	266511	3402	.98723	.01277	95	1320	428	.67593	.32437
41	263100	3431	.98696	.01304	96	892	304	.65931	.34099
42	259678	3459	.98668	.01332	97	588	210	.64269	.35731
43	256219	3490	.98638	.01362	98	378	142	.62579	.37421
44	252729	3522	.98606	.01394	99	236	92	.60864	.39136
45	249207	3555	.98573	.01427	100	144	59	.59126	.40874
46	245652	3591	.98538	.01462	101	85	36	.57370	.42630
47	242061	3627	.98502	.01498	102	49	22	.55598	.44402
48	238434	3665	.98463	.01537	103	27	12	.53814	.46186
49	234769	3705	.98422	.01578	104	15	7	.52021	.47979
50	231064	3746	.98379	.01621	105	8	4	.50222	.49778
51	227318	3788	.98334	.01666	106	4	2	.48422	.51578
52	223530	3842	.98286	.01714	107	2	1	.46624	.53376
53	219698	3876	.98236	.01764	108	1	1	.44831	.55199
54	215822	4246	.98033	.01967					

TABLE II.

FARR'S ENGLISH LIFE TABLE No. 3. COMMUTATION COLUMNS,
FOUR PER CENT. FEMALES.

Age.	D _x	N _x	S _x	M _x	R _x
0	488255	7593795	141207163	177406.81	2340157.77
1	406231	7187504	133613368	114162.57	2162750.96
2	366422	6821142	126425804	89977.11	2048588.39
3	339862	6481280	119604662	77510.72	1958611.28
4	318890	6162390	113123382	69609.77	1881100.56
5	301203	5861187	106960992	64188.34	1811490.79
6	285773	5575414	101099805	60342.67	1747302.45
7	271882	5303532	95524391	57443.58	1686959.78
8	259052	5044480	90220859	55099.57	1629516.20
9	247174	4797306	85176379	53155.72	1574446.63
10	236094	4561212	80379073	51583.01	1521290.91
11	225686	4335526	75817861	50254.62	1469707.90
12	215843	4119683	71482335	49092.25	1419453.28
13	206481	3913202	67362652	48032.24	1370361.03
14	197532	3715670	63449450	47024.55	1322228.79
15	188942	3526728	59733780	46031.18	1275304.24
16	180667	3346061	56207052	45023.16	1229273.06
17	172676	3173185	52809991	43981.53	1184249.90
18	164947	3008438	49687606	42893.08	1140268.37
19	157463	2850975	4667168	41753.94	1097375.29
20	150216	2700759	43828193	40563.23	1055621.35
21	143202	2557557	41127434	39326.16	1015958.12
22	136484	2421073	38569877	38116.41	975731.96
23	130053	2291020	36148804	36934.93	937615.55
24	123899	2167121	33857784	35783.29	901680.62
25	118013	2049108	31690663	34662.07	864897.33
26	112383	1936725	29641555	33571.35	830235.26
27	107001	1829724	27704830	32511.83	796663.91
28	101857	1727867	25875106	31483.39	764152.08
29	96942	1630925	24147239	30485.52	732668.69
30	92246	1538679	22516314	29518.02	702183.17
31	87760	1450919	20977635	28580.32	672665.15
32	83477	1367442	19526716	27671.84	644084.83
33	79386	1288056	18159274	26792.27	616412.99
34	75481	1212575	16871218	25940.21	589620.72
35	71753	1140822	15658643	25115.34	563680.51
36	68194	1072628	14517821	24316.35	538565.17
37	64798	1007830	13445193	23542.94	514248.82
38	61556	946274	12437363	22793.64	490705.88
39	58463	887811	11491089	22067.96	467912.24
40	55511	832300	10603278	21364.78	445844.28
41	52695	779605	9770978	20683.43	424479.50
42	50008	729597	8991373	20022.71	403796.07
43	47444	682153	8261776	19382.21	383773.36
44	44998	637155	7576623	18760.83	364391.15
45	42664	594491	6942468	18157.87	345930.32
46	40438	554053	6347977	17572.67	327472.45
47	38314	515739	5793924	17004.28	309899.78
48	36288	479451	5278185	16452.27	292895.50
49	34356	445995	4798734	15915.93	276443.23
50	32514	412581	4353639	15394.59	260527.30
51	30756	381825	3941058	14887.75	245132.71
52	29081	352744	3559233	14394.94	230244.96
53	27483	325261	3202489	13915.58	215850.02
54	25957	299302	28312.8	13449.37	201934.44

TABLE II.—Cont.

FARR'S ENGLISH LIFE TABLE No. 3. COMMUTATION COLUMNS, FOUR PER CENT. FEMALES.

Age.	D _x	N _x	S _x	M _x	R _x
55	24470	274832	2581926	12958 30	188485.07
56	23035	251797	2307094	12464.65	175526.77
57	21654	230143	2055297	11969.78	163662.12
58	20320	209817	1825154	11474.51	151092.34
59	19049	190768	1615337	10979.31	139617.83
60	17822	172946	1424569	10484.43	128638.52
61	16642	156304	1251623	9990.02	118154.09
62	15508	140796	1095319	9496.17	108164.07
63	14418	126378	954523	9003.06	98667.90
64	13372	113006	828145	8510.88	89664.84
65	12366	100640	715139	8020.05	81153.96
66	11402	89238	614499	7531.04	73133.91
67	10477	78761.2	525261.2	7044.81	65602.87
68	9591.5	69169.7	446500.0	6562.27	58558.06
69	8745.2	60424.5	377330.3	6084.80	51995.79
70	7938.0	52486.5	316905.8	5613.94	45910.99
71	7170.2	45316.3	264419.3	5151.50	40297.05
72	6442.4	38873.9	219103.0	4699.48	35145.55
73	5755.2	33118.7	180229.1	4259.99	30446.07
74	5109.1	28009.6	147110.4	3835.32	26186.08
75	4504.9	23504.7	119100.8	3427.62	22350.76
76	3943.3	19561.4	95596.1	3039.20	18923.14
77	3424.5	16136.9	76034.7	2672.16	15883.94
78	2948.9	13188.0	59897.8	2328.25	13211.78
79	2516.5	10671.5	46709.8	2009.21	10883.53
80	2126.6	8544.9	36038.3	1716.15	8874.32
81	1778.6	6766.3	27493.4	1440.92	7158.17
82	1471.2	5295.1	20727.1	1210.90	5708.25
83	1202.6	4092.49	15432.04	998.93	4497.35
84	970.82	3121.67	11339.55	813.39	3498.42
85	773.36	2348.31	8217.88	653.28	2685.03
86	607.45	1740.86	5869.57	517.09	2031.75
87	470.07	1270.79	4128.71	403.08	1514.66
88	358.08	912.71	2857.92	309.18	1111.58
89	268.28	644.43	1945.21	233.16	802.40
90	197.52	446.91	1300.78	172.70	569.24
91	142.76	304.15	853.87	125.55	396.54
92	101.21	202.938	549.718	89.48	270.99
93	70.307	122.631	346.780	62.46	181.51
94	47.810	84.821	214.149	42.67	119.05
95	31.794	53.027	129.328	28.51	76.38
96	20.655	32.372	76.301	18.60	47.87
97	13.094	19.2778	43.9293	11.83	29.27
98	8.0918	11.1860	24.6515	7.33	17.44
99	4.8690	6.3170	13.4655	4.41	10.11
100	2.8495	3.4675	7.1485	2.59	5.70
101	1.6200	1.8475	3.6810	1.47	3.11
102	.8936	.9539	1.8335	.81	1.64
103	.4777	.4762	.8796	.42	.83
104	.2472	.2290	.4034	.22	.41
105	.1236	.1054	.1744	.11	.19
106	.0597	.0457	.0690	.05	.08
107	.0278	.0179	.0233	.02	.03
108	.0125	.0054	.0054	.01	.01
109	.0054	.0000	.0000	.00	.00

TABLE III.

FARR'S ENGLISH LIFE TABLES No. 3. COMMUTATION COLUMNS,
THREE PER CENT. FEMALES.

Age.	D _x	N _x	S _x	A _x	R _x
0	488255	9203701	195913869	205065.03	3703432.41
1	410175	8793526	186710158	142106.77	3497407.38
2	373571	8419955	177916642	117449.40	3355360.61
3	349858	8070097	169496687	104616.37	3237911.21
4	331456	7738641	161426590	96404.08	3133294.84
5	316112	7422529	153687949	90714.31	3036890.76
6	302830	7119699	146265420	86639.11	2946176.45
7	290907	6828792	139145721	83537.17	2859537.34
8	279870	6548922	132316929	80972.38	2776000.17
9	269630	6279292	125768007	78884.66	2695027.79
10	260044	6019248	119488715	77152.41	2616143.13
11	250993	5768255	113469407	75675.06	2538990.72
12	242377	5525878	107701212	74369.79	2463315.66
13	234116	5291762	102175334	73167.91	2388945.87
14	226143	5065619	96384572	72014.26	2315777.96
15	218408	4847211	91817953	70865.97	2243763.70
16	210870	4636341	86970742	69680.43	2172897.73
17	203501	4432840	82334401	68461.85	2103208.30
18	196279	4236561	7791561	67166.64	2034746.45
19	189193	4047368	73665000	65797.95	1967579.81
20	182238	3865130	69617634	64353.41	1901781.86
21	175415	3689715	65752502	62838.06	1837428.45
22	168809	3520906	62062787	61341.79	1774599.39
23	162417	3358489	58541881	59866.30	1713248.60
24	156234	3202255	55183392	58414.11	1653382.30
25	150256	3051999	51981137	56986.55	1594968.19
26	144478	2907521	48929138	55584.34	1537981.64
27	138894	2768627	46021617	54209.01	1482397.30
28	133501	2635126	43252990	52861.07	1428188.29
29	128292	2506834	40617864	51540.50	1375272.22
30	123262	2383572	38110030	50247.69	1323786.72
31	118407	2265165	35727458	48982.53	1273539.03
32	113721	2151444	33402293	47744.90	1224556.50
33	109198	2042246	31310849	46535.02	1176811.60
34	104835	1937411	29268003	45351.60	1130276.58
35	100624	1836787	27331192	44194.83	1084924.98
36	96562	1740225	25494405	43063.47	1040730.15
37	92644	1647581	23754180	41957.69	997666.68
38	88864	1558717	22106599	40875.99	955708.99
39	85218	1473490	20547882	39818.22	914833.00
40	81701	1391798	19074383	38783.28	875014.78
41	78309	1313489	17682585	37770.75	836231.50
42	75036	1238453	16369096	36779.33	798460.75
43	71880	1166573	15130643	35808.93	761681.42
44	68836	1097737	13961070	34858.35	725872.49
45	65900	1031837	12866333	33927.00	691014.14
46	63068	968769	11834499	33014.30	657087.14
47	60336	908433	10865727	32119.21	624072.84
48	57701	850732	9957294	31241.48	591953.03
49	55159	795573	9106562	30380.39	560712.15
50	52707	742866	8310989	29535.25	530331.76
51	50343	692523	7568123	28705.65	500796.51
52	48062	644161	6875600	27891.18	472090.86
53	45862	598599	6231139	27091.25	444190.68
54	43741	554858	5632540	26305.70	417108.43

TABLE III.—Cont.
 FARR'S ENGLISH LIFE TABLES No. 3. COMMUTATION COLUMNS,
 THREE PER CENT. FEMALES.

Age.	D _x	N _x	S _x	M _x	R _x
55	41631	513227	5077682	25470.23	390802.73
56	39571	473656	4564455	24622.22	365332.50
57	37560	436066	4090799	23763.86	340710.28
58	35598	400498	3654703	22866.46	316946.42
59	33686	366812	3254205	22020.76	294049.96
60	31821	334991	2887393	21137.13	272029.20
61	30003	304988	2552402	20245.78	250892.07
62	28230	276758	2247414	19346.80	230646.29
63	26501	250257	1970656	18440.45	211299.49
64	24816	225441	1720399	17527.02	192859.04
65	23174	202267	1494958	16607.25	175332.02
66	21573	180604	1292691	15682.00	158724.77
67	20016	160678	1111997	14753.06	143042.77
68	18502	142176	951319	13822.24	128289.71
69	17033	125143	809143	12892.25	114467.47
70	15611	109532	684000	11966.24	101575.22
71	14238	95294	574468	11047.95	89608.98
72	12917	82377	479174	10141.64	78561.03
73	11651	70726	396797	9211.91	68419.39
74	10444	60281.5	326070.7	8383.83	59167.48
75	9298.2	50983.3	265789.2	7542.34	50783.65
76	8217.9	42705.4	214805.9	6732.87	43241.31
77	7206.1	35559.3	172040.5	5960.53	36508.44
78	6265.6	29293.7	136481.2	5229.83	30547.91
79	5398.6	23895.1	107187.5	4545.38	25318.08
80	4606.6	19288.5	83292.4	3910.56	20772.70
81	3890.1	15398.4	64003.9	3328.27	16862.14
82	3248.9	12149.5	48605.5	2800.41	13533.87
83	2681.6	9467.9	36456.0	2327.74	10733.46
84	2185.8	7282.1	26988.1	1910.00	8405.72
85	1758.1	5524.0	19706.0	1546.02	6495.72
86	1394.4	4129.6	14182.0	1233.41	4949.70
87	1089.5	3040.10	10052.37	969.18	3716.29
88	838.00	2202.10	7012.27	749.44	2747.11
89	633.94	1568.16	4810.17	569.81	1997.67
90	471.25	1096.91	3242.01	425.55	1427.86
91	343.92	752.99	2145.10	311.97	1002.31
92	246.18	506.81	1392.11	224.24	690.34
93	172.68	334.13	885.30	157.88	466.10
94	118.56	215.574	551.173	108.80	308.22
95	79.611	135.963	335.599	73.33	199.42
96	52.221	83.742	199.636	48.26	126.69
97	33.427	50.315	115.894	30.98	77.83
98	20.858	29.457	65.579	19.39	46.85
99	12.672	16.7848	36.1217	11.78	27.46
100	7.4882	9.2966	19.3369	6.99	15.68
101	4.2985	4.9981	10.0403	4.01	8.69
102	2.3942	2.6039	5.0422	2.24	4.68
103	1.2924	1.3115	2.4383	1.19	2.44
104	.6752	.6363	1.1268	.64	1.25
105	.3410	.2953	.4905	.33	.61
106	.1663	.1290	.1952	.16	.28
107	.0782	.0502	.0662	.08	.12
108	.0354	.0154	.0154	.04	.04
109	.0154		.0000		

INTRODUCTION TO TWENTY-THREE GERMAN OFFICES' TABLE.

THE Twenty-three German Offices' Table is, as its name implies, a graduation from the experience of twenty-three German companies. It is standard now throughout the German Empire.

The commutation tables have not been before published. They are furnished by the kindness of Messrs. Weeks and Frankland of the New York Life Insurance Company's actuarial force, and were computed for the use of that office.

TWENTY-THREE GERMAN OFFICES' TABLE. 199

TABLE I.
TWENTY-THREE GERMAN COMPANIES' MORTALITY TABLE.

Age.	l_x	d_x	Age.	l_x	d_x
17	102787	909	59	57792	1900
18	101878	936	60	55892	1976
19	100942	942	61	53916	2038
20	100000	919	62	51878	2097
21	99081	908	63	49781	2149
22	98173	887	64	47632	2197
23	97286	861	65	45435	2246
24	96425	835	66	43189	2302
25	95590	816	67	40887	2355
26	94774	804	68	38532	2399
27	93970	797	69	36133	2432
28	93173	795	70	33701	2452
29	92378	800	71	31249	2455
30	91578	808	72	28794	2436
31	90770	818	73	26358	2406
32	89952	831	74	23952	2360
33	89121	841	75	21592	2299
34	88280	856	76	19203	2210
35	87424	873	77	17083	2103
36	86551	889	78	14980	1982
37	85662	906	79	12998	1848
38	84756	928	80	1110	1730
39	83828	950	81	9420	1599
40	82878	975	82	7821	1443
41	81903	1006	83	6378	1264
42	80897	1035	84	5114	1080
43	79862	1063	85	4034	896
44	78799	1092	86	3138	715
45	77707	1117	87	2423	587
46	76590	1140	88	1836	487
47	75450	1169	89	1349	394
48	74281	1204	90	955	309
49	73077	1246	91	646	233
50	71831	1303	92	413	167
51	70528	1362	93	246	113
52	69166	1425	94	133	69
53	67741	1490	95	64	37
54	66251	1556	96	27	18
55	64695	1621	97	9	6
56	63074	1691	98	3	2
57	61383	1759	99	1	1
58	59624	1832			

200 TWENTY-THREE GERMAN OFFICES' TABLE.

TABLE II.
TWENTY-THREE GERMAN COMPANIES' COMMUTATION TABLES,
FOUR PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
17	52768	966826	15945462	448.71	13553.09	367092.66
18	50290	916536	14978043	444.27	13104.38	353539.57
19	47911	868625	14062114	429.92	12600.11	340435.19
20	45639	822986	13193189	403.29	12230.19	327775.08
21	43480	779506	12370503	383.14	11826.90	315544.89
22	41425	738081	11590997	359.88	11443.76	303717.99
23	39472	698609	10852916	335.90	11083.88	292274.23
24	37618	660091	10154307	313.22	10747.98	281190.35
25	35857	625134	9493316	294.32	10434.76	270442.37
26	34184	590950	8868182	278.84	10140.44	260007.61
27	32590	558360	8277232	265.78	9861.60	249867.17
28	31071	527289	7718872	254.92	9595.82	240005.57
29	29621	497668	7191583	246.66	9310.90	230109.75
30	28235	469433	6693915	239.54	9094.24	221068.85
31	26910	442523	6224482	233.18	8854.70	211974.01
32	25642	416881	5781959	227.77	8621.52	203119.91
33	24428	392453	5365078	221.65	8393.75	194498.39
34	23266	369187	4972625	216.92	8172.10	186104.64
35	22155	347032	4603438	212.72	7955.18	177932.54
36	21090	325942	4256406	208.29	7742.46	169977.36
37	20070	305872	3930464	204.11	7534.17	162234.90
38	19094	286778	3624592	201.02	7330.06	15700.73
39	18159	268619	3337814	197.88	7129.04	147370.67
40	17263	251356	3069195	195.27	6931.16	140241.63
41	16403	234953	2817839	193.73	6735.89	133310.47
42	15579	219374	2582886	191.65	6542.16	126574.58
43	14788	204586	2363512	189.26	6350.51	120032.42
44	14030	190556	2158926	186.95	6161.25	113681.91
45	13303	177253	1968370	183.87	5974.30	107520.66
46	12608	164645	1791117	180.44	5790.43	101546.36
47	11942	152703	1626472	177.92	5609.99	95755.93
48	11305	141398	1473769	176.20	5432.07	90145.91
49	10694	130704	1332371	175.33	5255.87	84713.87
50	10108	120505.6	1201607.0	176.30	5080.54	79458.00
51	9542.5	111053.1	1081071.4	177.19	4904.24	74377.46
52	8998.3	102054.8	970018.3	178.26	4727.05	69473.22
53	8474.0	93580.8	867963.5	179.22	4548.79	64746.17
54	7968.8	85612.0	774382.7	179.96	4369.57	60197.38
55	7482.4	78129.6	688770.7	180.27	4189.61	55827.81
56	7014.3	71115.3	610641.1	180.82	4009.34	51638.20
57	6563.7	64551.6	539525.8	180.86	3828.52	47628.86
58	6130.4	58421.2	474974.2	181.12	3647.66	43800.34
59	5713.5	52707.7	416553.0	180.62	3466.54	40152.68
60	5313.1	47391.6	363845.3	180.62	3285.92	36686.14
61	4928.2	42466.4	316450.7	179.12	3105.30	33400.22

TWENTY-THREE GERMAN OFFICES' TABLE. 201

TABLE II.—*Cont.*
 TWENTY-THREE GERMAN COMPANIES' COMMUTATION TABLES,
 FOUR PER CENT.

Age.	D ₁	N ₁	S ₁	C ₁	M ₁	R ₁
62	4559.5	37906.9	273784.3	177.22	2926.18	30294.92
63	4206.9	33700.0	236777.4	174.62	2748.96	27368.74
64	3870.5	29829.5	202377.4	171.66	2574.34	24019.78
65	3550.0	26279.5	172547.9	168.74	2402.68	22045.44
66	3244.7	23031.8	146268.4	166.29	2233.94	19642.76
67	2953.6	20081.2	123233.6	163.58	2067.65	17408.82
68	2676.4	17404.8	103152.4	160.23	1904.07	15341.17
69	2413.3	14991.5	85747.6	156.18	1743.84	13437.10
70	2164.3	12827.2	70756.1	151.41	1587.66	11693.26
71	1929.6	10897.6	57928.9	145.77	1436.25	10105.60
72	1709.6	9188.0	47931.3	139.07	1290.48	8669.35
73	1504.8	7683.2	37843.3	132.08	1151.41	7378.87
74	1314.9	6368.3	30160.1	124.57	1019.33	6227.46
75	1139.7	5228.55	23791.78	116.68	894.76	5208.13
76	979.19	4249.36	18563.23	107.85	778.08	4313.37
77	833.68	3415.68	14313.87	98.68	670.23	3535.29
78	702.93	2712.75	10898.19	89.43	571.55	2865.06
79	586.47	2126.28	8185.44	80.17	482.12	2293.51
80	483.74	1642.54	6059.16	72.17	401.95	1811.39
81	392.96	1249.58	4416.62	64.14	329.78	1409.44
82	313.71	935.87	3167.04	55.65	265.64	1079.66
83	245.09	689.88	2231.17	46.88	209.99	814.02
84	189.65	500.23	1541.29	38.51	163.11	604.03
85	143.85	356.38	1041.06	30.72	124.60	440.92
86	107.59	248.786	684.675	23.57	93.88	316.32
87	79.883	168.903	435.889	18.61	70.31	222.44
88	58.203	110.700	266.9.6	14.84	51.70	152.13
89	41.120	69.580	156.286	11.55	36.86	100.43
90	27.990	41.590	86.706	8.708	25.313	63.566
91	18.205	23.385	45.116	6.314	16.605	38.253
92	11.191	12.194	21.731	4.351	10.291	21.648
93	6.410	5.784	9.537	2.831	5.940	11.357
94	3.332	2.452	3.753	1.662	3.109	5.417
95	1.542	0.910	1.301	0.8570	1.4474	2.3081
96	0.625	0.285	0.391	0.4009	0.5904	0.8607
97	0.200	0.085	0.106	0.1285	0.1895	0.2703
98	0.064	0.021	0.021	0.0412	0.0610	0.0808
99	0.021	0.000	0.000	0.0198	0.0198	0.0198

202 TWENTY-THREE GERMAN OFFICES' TABLE.

TABLE III.
TWENTY-THREE GERMAN COMPANIES' COMMUTATION TABLES,
THREE AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
17	57273	1138562	19777475	489.37	16834.60	486597.22
18	54847	1083716	18638912	486.87	16345.23	469762.62
19	52506	1031210	17555196	473.42	15858.36	453417.39
20	50257	980952	16523985	446.24	15384.94	437559.03
21	48111	932842	15543033	425.99	14938.70	422174.09
22	46058	886784	14610191	402.07	14512.71	407235.39
23	44098	842686	13723407	377.08	14110.64	392722.68
24	42230	800456	12880721	353.33	13733.56	378612.04
25	40449	760007	12080265	333.61	13380.23	364878.48
26	38747	721260	11320253	317.59	13046.62	351498.25
27	37119	684141	10599998	304.18	12729.03	338451.63
28	35560	648581	9914857	293.16	12424.85	325722.66
29	34064	614517	9266276	285.02	12131.60	313297.75
30	32627	581890	8651759	278.14	11846.67	301166.66
31	31246	550644	8069869	272.06	11508.53	289319.39
32	29917	520727	7519225	267.04	11296.47	277750.86
33	28638	492089	6998498	261.11	11029.43	266454.39
34	27409	464680	6506409	256.78	10768.32	255424.96
35	26225	438455	6041729	253.02	10511.54	244656.64
36	25086	413369	5603274	248.95	10258.52	234145.10
37	23988	389381	5189905	245.13	10009.57	223886.58
38	22932	366449	4800524	242.59	9764.44	213877.01
39	21914	344535	4434075	239.94	9521.85	204112.57
40	20933	323602	4089540	237.93	9281.91	194500.72
41	19987	303615	3765938	237.19	9043.98	185308.81
42	19074	284541	3462323	235.78	8806.79	176264.83
43	18193	266348	3177782	233.97	8571.01	167458.04
44	17344	249004	2911434	232.23	8337.04	158887.03
45	16525	232479	2662430	229.51	8104.81	150549.99
46	15737	216742	2429951	226.31	7875.30	142445.18
47	14978	201764	2213209	224.22	7648.99	134569.88
48	14248	187516	2011445	223.13	7424.77	126920.89
49	13543	173973	1823929	223.10	7201.64	119496.12
50	12862	161111	1649956	225.42	6978.54	112294.48
51	12201	148910	1488845	227.66	6753.12	105315.94
52	11561	137340	1339935	230.13	6525.46	98562.82
53	10940	126408.9	1202586	232.49	6295.33	92037.36
54	10337.6	116071.3	1076177	234.58	6062.84	85724.03
55	9753.4	106417.9	960105.9	236.12	5828.26	79679.19
56	9187.4	97130.5	853788.0	237.98	5592.14	73850.93
57	8638.8	88491.7	756657.5	239.18	5354.16	68258.79
58	8107.4	80384.3	668165.8	240.68	5114.98	62904.65
59	7592.6	72791.7	587781.5	241.18	4874.30	57789.65
60	7094.7	65607.0	514989.8	242.34	4633.12	52915.35
61	6612.4	59084.6	449292.8	241.49	4390.78	48282.23

TABLE III.—Cont.
 TWENTY-THREE GERMAN COMPANIES' COMMUTATION TABLES
 THREE AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
62	6147.3	52937.3	390208.2	240.08	4149.29	43891.45
63	5699.3	47238.0	337270.9	237.72	3909.21	34742.16
64	5268.9	41969.1	290022.9	234.81	3671.49	35832.95
65	4855.9	37113.2	248063.8	231.93	3436.68	32161.46
66	4459.8	32653.4	210950.6	229.67	3204.75	28724.78
67	4079.3	28574.1	178297.2	227.01	2975.08	25520.03
68	3714.3	24859.8	149723.1	223.43	2748.07	22544.95
69	3365.3	21494.5	124863.3	218.85	2524.64	19796.88
70	3032.6	18461.9	103368.8	213.19	2305.79	17272.24
71	2716.9	15745.0	84906.9	206.23	2092.60	14966.45
72	2418.8	13326.2	69161.9	197.71	1886.37	12873.85
73	2139.3	11186.9	55835.7	188.67	1688.66	10987.48
74	1878.3	9308.6	44648.8	178.81	1499.99	9298.82
75	1636.0	7722.6	35340.2	168.30	1321.18	7798.83
76	1412.3	6260.3	27607.6	156.31	1152.88	6477.65
77	1208.3	5052.02	21407.3	143.71	996.57	5324.77
78	1023.73	4028.29	16355.3	130.86	852.86	4328.20
79	858.21	3170.08	12327.0	117.89	722.00	3475.34
80	711.30	2458.78	9156.9	106.63	604.11	2753.34
81	580.61	1878.17	6698.16	95.22	497.48	2149.23
82	465.76	1412.41	4819.99	83.03	402.26	1651.75
83	366.98	1045.43	3407.58	70.27	319.23	1249.49
84	284.30	761.13	2362.148	58.01	248.96	930.26
85	216.68	544.45	1601.018	46.50	190.95	681.30
86	162.85	381.60	1056.568	35.85	144.45	490.35
87	121.49	260.11	674.068	28.44	108.60	345.90
88	88.95	171.16	414.858	22.80	80.16	237.30
89	63.14	108.02	243.698	17.81	57.36	157.14
90	43.19	64.83	135.678	13.50	39.535	99.78
91	28.23	36.60	70.848	9.837	26.035	60.239
92	17.44	19.16	34.248	6.812	16.198	34.204
93	10.03	9.128	15.088	4.453	9.386	18.006
94	5.242	3.886	5.960	2.627	4.933	8.620
95	2.437	1.440	2.074	1.361	2.306	3.687
96	0.993	0.456	0.625	0.640	0.945	1.381
97	0.320	0.136	0.169	0.206	0.305	0.436
98	0.103	0.033	0.033	0.0664	0.0985	0.1306
99	0.033	0.000	0.000	0.0321	0.0321	0.0321

204 TWENTY-THREE GERMAN OFFICES' TABLE.

TABLE IV.
TWENTY-THREE GERMAN OFFICES—COMMUTATION TABLES,
THREE PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
17	62188	1347790	21679861	553.94	21120.77	650080.37
18	59843	1287947	2332071	533.79	20586.83	628959.60
19	57500	1230381	2244124	521.56	20053.04	608372.77
20	55368	1175013	20813743	494.01	19531.48	588119.73
21	53261	1121752	19038730	473.88	19037.47	568788.25
22	51236	1070516	18516978	449.44	18563.59	549750.78
23	49404	1021222	17446462	423.56	18114.15	531187.19
24	47435	973787	16425240	398.83	17690.59	513073.04
25	45654	928133	15451453	378.38	17291.79	495382.45
26	43946	884187	14523320	361.95	16913.41	478090.66
27	42304	841883	13639133	348.35	16551.46	461177.25
28	40724	801159	12797250	337.36	16203.11	444625.79
29	39200	761959	11996091	329.59	15865.75	428422.68
30	37729	724230	11234132	323.19	15536.16	412556.93
31	36307	687923	10509902	317.66	15212.97	397020.77
32	34932	652991	9821979	313.31	14895.31	381807.80
33	33601	619390	9168988	307.84	14584.00	366912.09
34	32415	587075	8549598	304.21	14274.16	352330.49
35	31019	556006	7962523	301.21	13969.95	338056.33
36	29863	526143	7406517	297.80	13668.74	324086.38
37	28695	497448	6880374	294.66	13370.94	310117.64
38	27565	469883	6382926	291.02	13076.28	297046.70
39	26469	443414	5913043	291.23	12783.26	283970.42
40	25407	418007	5466629	290.19	12492.03	271187.16
41	24377	393630	5051622	290.69	12201.84	258695.13
42	23376	370254	4657992	290.36	11911.15	246493.29
43	22405	347819	4287738	289.53	11620.79	234582.14
44	21463	326386	3939889	288.77	11331.26	222961.35
45	20549	305837	3613503	288.78	11042.49	211690.99
46	19664	286173	3307666	284.16	10755.71	200587.60
47	18807	267366	3021493	282.90	10471.55	189831.89
48	17976	249390	2754147	282.88	10188.05	179300.34
49	17170	232220	2504737	281.22	9905.77	169171.69
50	16385	215835	2272517	288.57	9621.55	159265.92
51	15619	200216	2056682	292.85	9332.98	149644.37
52	14872	185344	1856466	297.47	9040.13	140311.39
53	14141	171203	1671122	301.98	8742.66	131271.26
54	13427	157776	1499919	306.17	8440.68	122528.60
55	12730	145046	1342143	309.67	8134.51	114087.92
56	12049	132997	1197097	313.63	7824.84	105953.41
57	11385	121612	1064100	316.74	7511.21	98128.57
58	10737	110875	942487.7	320.28	7194.47	90617.36
59	10104	100770.6	831612.7	322.49	6874.19	83422.89
60	9486.8	91283.8	730842.1	325.62	6551.70	76548.70
61	8884.8	82339.0	639358.3	326.06	6226.08	69997.00

TABLE IV.—Cont.
 TWENTY-THREE GERMAN OFFICES—COMMUTATION TABLES,
 THREE PER CENT.

Age.	D ₁	N ₁	S ₁	C ₁	M ₁	R ₁
63	8300.0	74099.0	557159.3	325.73	5900.02	63770.92
63	7732.5	66366.5	483060.3	324.08	5574.29	57870.90
64	7183.2	59183.3	416693.8	321.67	5250.21	52296.61
65	6652.3	52531.0	357510.5	319.27	4928.54	47046.40
66	6139.3	46391.7	304979.5	317.70	4609.27	42117.86
67	5642.8	40748.9	258587.8	315.55	4291.57	37508.59
68	5162.9	35586.0	217838.9	312.08	3976.02	33217.02
69	4700.4	30885.6	182252.9	307.16	3663.94	29241.00
70	4256.4	26629.2	151367.3	300.66	3356.78	25577.06
71	3831.7	22797.5	124738.1	292.26	3056.12	22220.28
72	3427.9	19369.6	101940.6	281.55	2763.86	19164.16
73	3046.5	16323.1	82571.0	269.99	2482.31	16400.30
74	2687.8	13635.3	66247.9	257.11	2212.32	13617.99
75	2352.4	11282.9	52612.6	243.17	1955.21	11705.67
76	2040.7	9242.2	41329.7	226.95	1712.04	9750.46
77	1754.3	7487.9	32087.5	209.67	1485.09	8038.42
78	1493.5	5994.4	24599.6	191.85	1275.42	6553.33
79	1258.2	4736.2	18605.2	173.67	1083.57	5277.91
80	1047.8	3688.39	13869.05	157.85	909.90	4194.34
81	859.48	2828.91	10180.66	141.64	752.05	3284.44
82	692.81	2136.10	7351.75	124.10	610.41	2532.39
83	548.53	1587.57	5215.65	105.54	486.31	1921.98
84	427.01	1160.56	3628.08	87.55	380.77	1435.67
85	327.02	833.54	2467.52	70.52	293.22	1054.90
86	246.98	586.56	1633.98	54.63	222.70	761.68
87	185.15	401.41	1047.42	43.55	168.07	538.98
88	136.21	265.203	646.006	35.08	124.52	370.91
89	97.136	168.040	380.803	27.55	89.44	246.39
90	66.781	101.259	212.763	20.98	61.89	156.95
91	43.858	57.401	111.504	15.36	40.91	95.06
92	27.222	30.179	54.103	10.69	25.55	54.15
93	15.743	14.4359	23.9243	7.021	14.863	28.600
94	8.2633	6.1726	9.4884	4.162	7.842	13.737
95	3.8605	2.3121	3.3158	2.167	3.080	5.895
96	1.5812	0.73092	1.00371	1.023	1.513	2.215
97	0.51172	0.21920	0.27279	0.3312	0.4904	0.7016
98	0.16561	0.05359	0.05359	0.1072	0.1592	0.2112
99	0.05359	0.00000	0.00000	0.0520	0.0520	0.0520

THE FRENCH ACTUARIES' (A. F. AND R. F.) TABLES.

THE French Actuaries' Tables are drawn from the combined experience of four French companies and were computed and adjusted by a committee of French actuaries. The tables were at first prepared according to Woolhouse's formula, but this work was discarded and a new graduation made by Makeham's formula. The tables were published in complete form in "Tables de Mortalite," in 1895.

In making the tables, the sexes were not separated; but tables were separately computed on the lives of insured and annuitants. The former is called A. F. (Assurances Français or French Insurance) and the latter R. F. (Rentiers Français or French Annuitants.).

Commutation columns are given at three per cent, three and one-half per cent and four per cent on both the A. F. and the R. F. tables.

TABLE I.

FRENCH ACTUARIES' MORTALITY TABLE, ASSURANCE (A F).

	l_x	d_x	q_x	μ_x	$\frac{d_x}{l_x}$	l_x	d_x	q_x	μ_x
0	1000000	36015	.03602	.04181	58	607659	11270	.01855	.01813
1	963985	26497	.02749	.03186	58	596389	11795	.01978	.01933
2	937488	19549	.02085	.02415	54	584594	12348	.02112	.02064
3	917939	14453	.01575	.01821	65	572246	12924	.02259	.02207
4	903486	10721	.01187	.01370	56	559322	13525	.02420	.02364
5	892795	8011	.00897	.01032	57	545797	14148	.02592	.02534
6	884754	6078	.00687	.00783	58	531649	14788	.02782	.02721
7	878976	4744	.00540	.00605	59	516861	15444	.02988	.02924
8	873932	3876	.00443	.00485	60	501417	16110	.03213	.03146
9	870356	3372	.00388	.00410	61	485307	16782	.03458	.03389
10	866684	3155	.00364	.00372	62	468525	17450	.03725	.03653
11	863529	3158	.00366	.00362	63	451075	18111	.04015	.03942
12	860371	3328	.00387	.00374	64	432964	18750	.04331	.04258
13	857043	3617	.00422	.00403	65	414214	19393	.04674	.04602
14	853426	3980	.00466	.00444	66	394851	19933	.05048	.04978
15	849446	4377	.00515	.00491	67	374918	20450	.05455	.05388
16	845069	4771	.00565	.00542	68	354468	20991	.05896	.05836
17	840298	5125	.00610	.00590	69	333567	21268	.06376	.06325
18	835173	5411	.00648	.00632	70	312299	21540	.06897	.06859
19	829762	5693	.00675	.00665	71	290759	21697	.07462	.07442
20	824159	5688	.00690	.00687	72	269062	21729	.08076	.08078
21	818471	5662	.00692	.00695	73	247333	21619	.08741	.08773
22	812809	5538	.00681	.00690	74	225714	21355	.09461	.09531
23	807271	5345	.00652	.00670	75	204359	20929	.10241	.10359
24	801926	5140	.00641	.00663	76	183430	20334	.11085	.11263
25	796783	5006	.00628	.00625	77	163096	19566	.11997	.12250
26	791780	5067	.00640	.00636	78	143530	18634	.12982	.13327
27	786713	5135	.00653	.00648	79	124846	17542	.14045	.14502
28	781578	5210	.00667	.00662	80	107354	16307	.15190	.15786
29	776368	5293	.00682	.00676	81	91047	14953	.16424	.17187
30	771075	5385	.00698	.00692	82	76094	13506	.17749	.18717
31	765690	5487	.00717	.00710	83	62588	12000	.19172	.20387
32	760203	5597	.00736	.00729	84	50588	10470	.20698	.22210
33	754606	5719	.00758	.00750	85	40118	8959	.22330	.24200
34	748887	5851	.00781	.00772	86	31159	7501	.24074	.26373
35	743036	5997	.00807	.00797	87	23658	6135	.25933	.28745
36	737039	6155	.00835	.00824	88	17523	4891	.27911	.31334
37	730884	6328	.00866	.00854	89	12632	3791	.30010	.34161
38	724556	6514	.00899	.00886	90	8841	2849	.32231	.37247
39	718042	6718	.00936	.00921	91	5992	2072	.34575	.40615
40	711324	6938	.00975	.00959	92	3920	1452	.37043	.44293
41	704386	7176	.01019	.01001	93	2468	978	.39630	.48308
42	697210	7433	.01066	.01047	94	1490	631	.42333	.52091
43	689777	7710	.01118	.01097	95	859	388	.45146	.57476
44	682067	8009	.01174	.01152	96	471	226	.48060	.62999
45	674058	8329	.01236	.01211	97	245	125	.51065	.68401
46	665729	8773	.01303	.01276	98	120	65	.54148	.74626
47	657056	9241	.01376	.01347	99	55	32	.57292	.81422
48	648015	9434	.01456	.01425	100	23	14	.60478	.88841
49	638581	9854	.01543	.01509	101	9	6	.63686	.96940
50	628727	10298	.01638	.01602	102	3	2	.66891	1.05782
51	618429	10770	.01742	.01703	103	1	1	.70068	1.15434

210 FRENCH ACTUARIES' TABLE—ASSURANCES.

TABLE II.
COMMUTATION TABLES, FRENCH ACTUARIES' ASSURANCE
(A. F.). FOUR PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
0	1000000.0	18979926.0	362935557	35315.6	236128	5356451
1	926908.7	18053017.3	343955931	24983.1	200812	5120324
2	866760.2	17186257.1	325902613	17723.2	175829	4919512
3	816044.4	16370212.7	308716356	12599.2	158106	4743683
4	772303.5	15597909.2	292346143	8986.4	145506	4585578
5	733787.9	14864121.3	276748234	6456.6	136520	4440072
6	699234.0	14164887.3	261884113	4710.3	130063	4393552
7	667721.4	13497165.9	247719226	3535.0	125353	4173489
8	638573.6	12858592.3	234222060	2777.2	121818	4048136
9	611289.7	12247302.2	221363467	2323.1	119041	3926319
10	585500.7	11661801.9	209116165	2090.0	116718	3807278
11	560931.9	11100870.0	197454363	2011.5	114628	3690561
12	537385.1	10563484.9	186353493	2038.3	112616	3575933
13	514717.8	10048767.1	1757900.8	2130.1	110578	3463317
14	492832.2	9555934.9	165741241	2253.7	108448	3352739
15	471667.2	9084267.7	156185306	2383.2	106194	3244291
16	451189.3	8633078.4	147101038	2497.8	103811	3138097
17	431386.5	8201691.9	138467960	2580.0	101313	3034286
18	412265.0	7789426.9	130266268	2619.2	98732.9	2932973
19	393840.2	7395586.7	122176841	2607.8	96113.7	2834240
20	376135.3	7019451.4	115081255	2545.5	93595.9	2738126
21	359172.6	6660278.8	108061803	2436.4	90960.4	2644620
22	342969.2	6317309.6	101401524	2291.4	88524.0	2553660
23	327531.1	5989778.5	95084215	2126.5	86232.6	2465136
24	312848.5	5676930.0	89094430	1966.3	84106.1	2378903
25	298887.8	5378042.2	83417506	1811.3	82139.8	2294797
26	285586.6	5092455.6	78039464	1792.16	80298.53	2212657
27	272815.1	4816101.5	72947.08	1746.22	78506.37	2132359
28	260638.7	4558971.8	68127398	1703.75	76760.15	2053853
29	248943.5	4310028.3	63568426	1664.44	75056.40	1977992
30	237736.7	4072291.6	59258398	1628.09	73391.96	1902036
31	226996.5	3845295.1	55186106	1594.89	71763.87	1828644
32	216701.9	3628593.2	51340811	1564.55	70168.98	1756880
33	206833.1	3421700.1	47712218	1537.05	68604.43	1686711
34	197370.8	3224389.3	44290458	1512.26	67067.38	1618107
35	188296.7	3036092.6	41066069	1490.23	65555.12	1551039
36	179593.3	2856499.3	3829976	1470.66	64064.89	1485484
37	171243.7	2685255.6	35173477	1453.75	62594.23	1421419
38	163231.9	2522023.7	32488221	1439.13	61140.48	1358825
39	155542.7	2366481.0	29966177	1426.94	59701.35	1297685
40	148160.9	2218320.1	27599716	1417.05	58274.41	1237983
41	141072.9	2077247.2	25381396	1409.29	56857.36	1179709
42	134265.1	1942982.1	23304149	1403.58	55448.07	1122052
43	127724.8	1815257.3	21361167	1399.96	54044.93	1067403
44	121439.5	1693817.8	19545910	1398.22	52644.53	1013359
45	115397.7	1578420.1	17852092	1398.28	51246.31	960714.4
46	109588.2	1468831.9	16273672	1399.98	49848.03	909168.1
47	104000.5	1364831.36	14804840	1403.27	48448.05	859620.1
48	98624.45	1266206.91	13440008	1407.96	47044.78	811172.0
49	93450.57	1172756.34	12173802	1413.93	45630.82	764127.2

FRENCH ACTUARIES' TABLE—ASSURANCES. 211

TABLE II.—Cont.
COMMUTATION TABLES, FRENCH ACTUARIES' ASSURANCE
(A. F.). FOUR PER CENT.

Age.	D ₁	N ₁	S ₁	C ₁	M ₁	R ₁
50	88469.88	1084286.46	11001045	1420.98	44222.89	718490.4
51	83673.81	1000612.65	9916758.7	1428.96	42801.91	674267.5
52	79054.36	921558.29	8916146.1	1437.69	41372.95	631465.6
53	74604.07	846954.22	7994587.8	1446.86	39935.26	590092.7
54	70315.90	776638.32	7147633.6	1456.31	38488.40	550157.4
55	66183.44	710454.88	6370995.2	1465.74	37032.09	511669.0
56	62200.64	648254.24	5660540.4	1474.91	35566.35	474636.9
57	58362.05	589892.19	5012286.1	1483.41	34091.44	439070.6
58	54662.76	535229.43	4422393.9	1490.96	32608.03	404979.1
59	51098.34	484131.09	3887164.5	1497.22	31117.07	372371.1
60	47664.90	436466.19	3403033.4	1501.73	29619.85	341254.0
61	44359.08	392107.11	2956567.2	1504.11	28118.12	311634.2
62	41178.06	350929.05	2574460.1	1503.04	26614.01	283516.1
63	38119.56	312809.49	2223531.1	1500.75	25110.07	256902.1
64	35181.82	277627.67	1910721.6	1494.07	23609.32	231792.0
65	32363.63	245264.04	1633093.9	1483.45	22115.25	208182.7
66	29604.23	215599.81	1387829.9	1468.45	20631.80	186067.4
67	27083.37	188516.44	1172230.1	1448.63	19163.35	165435.6
68	24621.22	163895.22	983713.6	1423.55	17714.72	146272.3
69	22278.35	141616.87	819818.4	1392.91	16291.17	128557.5
70	20055.64	121561.23	678201.5	1356.395	14898.26	112266.4
71	17954.23	103607.00	556640.3	1313.823	13541.87	97368.11
72	15975.38	87631.62	453033.3	1265.103	12228.04	83262.25
73	14120.41	73511.21	365401.7	1210.276	10962.94	71598.21
74	12390.55	61120.66	291890.5	1149.537	9752.663	60635.27
75	10786.79	50333.870	230769.8	1083.259	8603.126	50882.61
76	9309.700	41024.170	180435.9	1011.949	7519.867	42279.48
77	7959.343	33064.827	139411.762	936.357	6507.918	34759.61
78	6735.048	26320.779	106346.935	857.385	5571.561	28251.69
79	5635.279	20694.500	80017.156	776.116	4714.176	22680.13
80	4657.498	16037.002	59322.656	693.756	3938.060	17965.96
81	3798.082	12238.920	43285.654	611.670	3244.304	14027.90
82	3052.218	9186.702	31046.734	531.226	2632.634	10783.59
83	2413.917	6772.785	21860.032	453.819	2101.408	8150.959
84	1876.722	4896.713	15087.247	380.766	1647.589	6049.551
85	1430.546	3466.167	10190.534	313.244	1266.823	4401.962
86	1008.365	2397.8021	6724.3672	252.210	953.579	3135.139
87	779.9668	1617.8353	4326.5651	198.342	701.369	2181.560
88	555.4772	1062.3581	2708.7298	152.031	503.027	1480.191
89	385.0372	677.3209	1646.3717	113.305	350.996	977.164
90	259.1249	418.1960	969.0508	81.895	237.691	626.168
91	168.8525	249.3435	550.8548	57.248	155.796	388.477
92	106.2221	143.12136	301.51127	38.585	98.548	232.681
93	64.30267	78.81869	158.38991	24.988	59.963	134.133
94	37.32667	41.49202	79.57122	15.494	34.975	74.170
95	20.69731	20.79471	38.07920	9.163	19.481	39.195
96	10.91669	9.878020	17.284485	5.145	10.318	19.714
97	5.452030	4.425990	7.406465	2.730	5.173	9.396
98	2.565322	1.860668	2.980475	1.363	2.443	4.223
99	1.131017	0.729651	1.119807	0.636	1.080	1.780

TABLE III.
COMMUTATION TABLES, FRENCH ACTUARIES' ASSURANCE
(A F), THREE AND ONE-HALF PER CENT.

Age.	D _t	N _t	S _t	C _t	M _t	R _t
0	1,000,000.0	20876419.6	426306796	35400.8	264733.4	6837104
1	931386.6	19945033.0	405430376	25164.4	229332.6	6572371
2	875155.0	19069878.0	385485338	17938.0	204168.2	6343038
3	827928.4	18241949.6	366415460	12813.5	186230.2	6138870
4	787335.7	17454613.9	348173511	9183.4	173416.7	5952640
5	751684.4	16702920.5	330718867	6330.0	164233.3	5779224
6	719748.0	15983181.5	314015067	4860.1	157003.3	5614990
7	690631.4	15292550.0	298032786	3665.2	152743.1	5457387
8	663674.0	14628876.1	282740236	2893.3	149078.0	5304644
9	638387.0	13990189.1	268111360	2432.0	146184.7	5155566
10	614408.6	13376080.5	254120871	2198.5	143752.7	5009382
11	591470.5	12784610.0	240744790	2126.2	141554.1	4865629
12	569379.2	12215230.8	227960180	2164.9	139427.9	4724075
13	547996.9	11667233.9	215744949	2273.3	137263.0	4581647
14	527231.1	11140002.8	204077715	2416.9	134989.7	4447384
15	507026.4	10632976.4	192937713	2568.0	132572.8	4312395
16	487356.3	10145620.1	182304736	2704.6	130004.8	4179822
17	468217.3	9677402.8	172159116	2807.0	127300.3	4049817
18	449624.7	9227778.1	162481713	2863.4	124493.3	3922517
19	431605.4	8796172.7	153253935	2864.7	121620.9	3798023
20	414194.2	8381978.5	144457763	2809.9	118765.1	3676393
21	397425.8	7984552.7	136075784	2702.4	115955.3	3557628
22	381329.8	7603222.9	128091231	2553.9	113252.9	3441673
23	365924.4	7237298.5	120488008	2381.5	110699.0	3328420
24	351209.2	6886089.3	113250710	2212.7	108317.5	3217721
25	337157.7	6548931.6	106364621	2082.1	106104.8	3109404
26	323709.6	6225222.0	99815689	2036.30	104022.7	3003299
27	310761.4	5914460.6	93590467	1993.08	101986.4	2899276
28	298292.7	5616167.9	87676006	1954.59	99992.74	2797290
29	286284.3	5329883.6	82059839	1918.73	98038.15	2697297
30	274717.2	5055166.4	76729955	1885.88	96119.42	2599259
31	263573.6	4791592.8	71674789	1856.35	94233.54	2503139
32	252835.8	4538757.0	66883196	1829.83	92337.19	2408906
33	242487.2	4290269.8	62344439	1806.36	90547.36	2316529
34	232511.6	4063758.2	58048169	1785.81	88741.00	2225981
35	222893.5	3840864.7	53984411	1768.29	86955.19	2137240
36	213617.9	3627246.8	50143546	1753.51	85186.90	2050285
37	204670.5	3422576.3	46516299	1741.72	83433.39	1965008
38	196037.3	3226539.0	43093723	1732.52	81691.67	1881665
39	187705.0	3038834.0	39867184	1726.15	79959.15	1799973
40	179600.8	2859173.2	36828350	1722.47	78233.00	1720014
41	171892.3	2687280.9	33969177	1721.31	76510.53	1641781
42	164387.5	2522893.4	31281896	1722.62	74789.22	1565271
43	157135.3	2365758.1	28759002	1726.48	73066.60	1490481
44	150124.5	2215633.6	26393244	1732.66	71340.12	1417415
45	143344.7	2072288.9	24177611	1741.11	69607.46	1346075
46	136785.9	1935503.0	22105322	1751.64	67866.35	1276467
47	130438.5	1805064.5	20169819	1764.24	66114.71	1208601
48	124293.4	1680771.1	18364754	1778.69	64350.47	1142486
49	118341.9	1562429.2	16683983	1794.87	62571.78	1078136

TABLE III—Cont.
COMMUTATION TABLES, FRENCH ACTUARIES' ASSURANCE
(A F), THREE AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
50	112575.8	1449853.4	15121554.0	1812.53	60776.91	1015564
51	106987.2	1342866.2	13671700.6	1831.51	53964.38	954786.9
52	101569.0	1241297.16	12328834.5	1851.60	57132.87	895822.6
53	96314.35	1144982.80	11087537.3	1872.42	55281.27	83869.7
54	91216.85	1053765.95	9942554.5	1893.75	53408.85	783408.4
55	86470.80	967495.15	8888788.6	1915.21	51515.10	729999.6
56	81470.87	886024.28	7921293.4	1936.51	49599.89	678484.5
57	76812.36	809211.92	7035269.1	1957.08	47663.38	628884.6
58	72291.13	736920.79	6226057.2	1976.55	45706.30	581221.2
59	67903.67	669017.12	5489136.4	1994.42	43729.75	535514.9
60	63647.03	605370.09	4820119.3	2010.10	41735.33	491785.1
61	59518.90	545851.19	4214749.2	2023.02	39725.23	450049.8
62	55517.67	490333.52	3668898.0	2032.56	37702.21	410324.6
63	51642.38	438691.14	3178564.5	2038.05	35669.65	372622.4
64	47892.74	390798.40	2739873.4	2038.78	33631.60	33692.7
65	44269.19	346529.21	2349075.0	2034.07	31592.82	303221.1
66	40772.79	305756.42	2002545.8	2023.23	29538.75	271728.3
67	37405.29	268351.13	1696789.3	2005.55	27635.52	242169.6
68	34169.05	234182.08	1428438.2	1980.36	25529.97	214634.0
69	31067.01	203115.07	1194236.1	1947.09	23549.61	189104.1
70	28102.56	175012.51	991141.1	1905.209	21602.52	165554.5
71	25279.52	149732.99	816128.6	1854.326	19697.32	143951.9
72	22601.97	127131.02	666395.6	1794.188	17842.99	124254.6
73	20074.08	107056.94	539264.5	1724.724	16048.80	106411.6
74	17699.95	89356.99	432207.6	1646.082	14324.08	90362.82
75	15483.40	73873.59	342850.6	1558.669	12678.00	76038.74
76	13427.74	60445.85	268977.0	1463.056	11119.33	63360.75
77	11535.53	48910.320	208531.179	1360.344	9656.230	52241.42
78	9808.304	39102.016	159620.859	1251.631	8296.826	42859.19
79	8246.349	30855.667	120518.843	1138.467	7044.255	34289.31
80	6848.444	24007.223	89663.176	1022.571	5905.788	27245.05
81	5611.728	18395.495	65655.953	905.935	4883.217	21339.26
82	4531.486	13864.009	47260.458	790.591	3977.282	16456.05
83	3601.145	10262.864	33395.449	678.654	3186.631	12478.77
84	2812.295	7450.569	23133.585	572.159	2508.037	9202.074
85	2154.794	5205.775	15683.016	472.972	1935.878	6784.037
86	1617.026	3678.749	10387.241	382.654	1462.900	4848.159
87	1186.223	2492.5255	6708.4928	302.370	1080.252	3385.253
88	848.8859	1643.6396	4215.9673	232.896	777.873	2305.001
89	591.2605	1052.3791	2572.3277	174.411	544.977	1527.128
90	399.8326	652.5465	1519.9486	126.670	370.556	982.152
91	261.8001	390.7464	867.4021	88.975	243.896	611.586
92	165.4892	225.25719	476.65578	60.259	154.921	367.690
93	100.66467	124.59252	251.39853	39.212	94.662	212.759
94	58.71653	65.87599	126.80607	24.432	55.450	118.107
95	32.71509	33.16090	60.93008	14.518	31.018	62.657
96	17.33876	15.822135	27.769184	8.191	16.499	31.639
97	8.701182	7.120953	11.047049	4.368	8.308	15.140
98	4.113912	3.007041	4.826096	2.191	3.941	6.832
99	1.822533	1.184508	1.819055	1.027	1.750	2.891

TABLE IV.
COMMUTATION TABLES, FRENCH ACTUARIES' ASSURANCE
(A F), THREE PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
0	1000000	23124696.2	505068944.1	35486.6	301766.4	8841014
1	935907.9	22188788.3	481944247.9	25347.8	266279.8	8539247
2	883072.4	21305115.9	459755450.6	18156.5	240932.0	8272968
3	840044.1	20465071.8	438450343.7	13032.5	222775.5	8032036
4	802735.5	19662336.3	417085271.9	9385.7	209743.0	7809260
5	770107.0	18892229.3	398322935.6	6809.0	200357.3	7599517
6	74067.8	18151261.5	379430706.3	5015.6	195548.3	7359160
7	71444.0	17436817.5	361279444.8	3800.7	188532.7	7205611
8	689800.0	16746927.5	343842627.3	3014.9	184732.0	7017079
9	666825.5	16080102.0	327095699.8	2546.4	181717.1	6832347
10	644894.4	15435207.6	311015597.8	2319.8	179170.7	6650630
11	623831.7	14811375.9	295580390.2	2241.4	176857.5	6471459
12	603447.1	14207928.8	280769014.3	2299.9	174609.6	6294001
13	583604.6	13624324.2	266561085.5	2426.9	172309.7	6119092
14	564215.2	13000109.0	25293761.3	2592.6	169882.8	5947682
15	545227.2	12514881.8	239876652.3	2768.2	167290.2	5777799
16	526619.3	11938262.5	227361770.5	2929.5	164522.0	5610509
17	508304.3	11479868.2	215373508.0	3055.2	161592.5	5445987
18	490576.2	10980292.0	203893639.8	3131.8	158537.3	5284395
19	473201.7	10510090.3	192601347.8	3148.4	155495.5	5128357
20	456516.9	10050773.4	182388257.5	3103.1	152257.1	4970452
21	43968.6	9610804.8	172328484.1	2999.0	149154.0	4818195
22	424109.0	9195605.8	162708679.3	2847.8	146155.0	4669041
23	409037.5	8786568.3	153513073.5	2668.5	143302.2	4522886
24	394494.5	8392073.8	144726565.2	2491.4	140038.7	4379579
25	380549.6	8011524.2	136334431.4	2355.7	138147.3	4238940
26	367144.4	7644379.8	128322907.2	2315.1	135791.6	4100793
27	354169.8	7290210.0	120678527.4	2277.7	133476.5	3965001
28	341609.8	6948600.2	113388317.4	2243.9	131198.8	3831524
29	329449.1	6619151.1	106439717.2	2213.4	128955.0	3700326
30	317672.6	6301478.5	99820566.1	2186.0	126741.6	3571371
31	306296.1	5995212.4	93519087.6	2162.3	124555.5	3444629
32	295215.1	5690997.3	87523875.2	2141.7	122393.3	3320074
33	284506.4	5415499.9	81823877.9	2124.5	120251.6	3197680
34	274126.4	5141364.5	76408387.0	2110.5	118127.0	3077429
35	264062.6	4877301.9	71267022.5	2100.0	116016.5	2959302
36	254302.4	4622999.5	66389720.6	2092.5	113916.5	2843285
37	244333.7	4378105.8	61766721.1	2088.5	111824.0	2729369
38	235644.7	4142521.1	57388555.3	2087.6	109735.5	2617545
39	22724.2	3915706.9	53246034.2	2090.0	107647.9	2507809
40	218061.3	3697735.6	49330237.3	2095.7	105557.8	2400161
41	209645.0	3488090.6	45632501.7	2104.5	103462.2	2291603
42	201405.3	3286625.3	42144411.1	2116.3	101357.7	2191141
43	193512.1	3093113.2	38857785.8	2131.3	99241.4	2089784
44	185775.8	2907337.4	35764672.6	2149.3	97110.1	1990542
45	178247.1	2729099.3	32857335.2	2170.3	94960.8	1893432
46	170917.0	2558173.3	30128214.9	2194.0	92790.5	1798471
47	163777.0	2394399.3	27570071.6	2220.5	90596.6	1705681
48	156818.9	2237577.4	25175675.3	2249.6	88376.0	1615084
49	150034.8	2087542.6	22938097.9	2281.1	86126.4	1526708

TABLE IV.—Cont.
COMMUTATION TABLES, FRENCH ACTUARIES' ASSURANCE
(A F), THREE PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
50	143417.3	1944125.3	20850555.3	2314.67	83845.4	1440582.
51	136959.3	1807166.0	18906430.0	2350.28	81530.7	1356736.
52	130654.4	1676511.6	17099264.0	2387.58	79180.4	1275206.
53	124496.4	1552015.2	15422752.4	2426.15	76792.8	1196605.
54	118479.7	1433535.5	13870737.2	2465.70	74366.7	1119233.
55	112599.4	1320936.1	12437201.7	2505.76	71901.0	1044866.0
56	106850.7	1214085.4	11116265.6	2545.92	69395.2	972064.9
57	101230.1	1112855.28	9902180.2	2585.46	66849.3	903569.7
58	95734.07	1017121.21	8789324.93	2623.85	64263.8	836720.4
59	90360.35	926760.86	7772203.72	2660.43	61639.9	772456.6
60	85107.12	841653.74	6845442.86	2694.36	58979.5	710816.6
61	79973.44	761680.30	6003789.12	2724.84	56285.2	651837.1
62	74959.26	686721.04	5242108.82	2750.97	53560.3	595551.9
63	70065.37	616655.67	4555387.78	2771.80	50809.4	541091.6
64	65293.50	551362.17	3938732.11	2786.25	48037.6	491182.2
65	60646.39	490715.78	3387369.94	2793.30	45251.3	443144.6
66	56127.66	434588.12	2896654.16	2791.91	42458.0	397893.3
67	51741.95	382846.17	2462066.04	2780.95	39666.1	355435.3
68	47494.77	335351.40	2079219.87	2759.35	36885.2	315769.2
69	43392.56	291958.84	1743868.47	2726.16	34125.8	278884.0
70	39442.55	252516.29	1451909.63	2680.46	31399.7	244758.2
71	35652.60	216863.69	1199393.34	2621.55	28719.2	213358.6
72	32031.09	184832.60	982529.65	2548.84	26097.6	184639.4
73	28586.70	156245.90	797697.05	2462.05	23548.8	158541.7
74	25328.16	130917.74	641451.15	2361.20	21086.7	134992.9
75	22263.89	108653.85	510533.41	2246.663	18725.5	113906.2
76	19401.74	89252.11	401879.56	2119.11	16478.9	95180.42
77	16748.60	72503.51	312627.45	1979.880	14359.7	78701.59
78	14309.95	58193.56	240123.94	1830.498	12379.9	64342.00
79	12089.52	46104.04	181930.38	1673.079	10549.4	51962.08
80	10088.87	36015.169	135826.34	1510.056	8876.28	41412.75
81	8307.113	27708.056	99811.169	1344.310	7366.23	32536.49
82	6740.582	20967.474	72103.113	1178.848	6021.92	25170.27
83	6382.701	15584.773	51135.639	1016.849	4843.07	19148.38
84	4223.998	11360.775	35550.866	861.416	3826.22	14395.31
85	3252.160	8108.615	24190.091	715.566	2964.77	10479.09
86	2452.371	5656.244	16081.476	581.734	2249.21	7514.32
87	1807.751	3848.493	10425.232	461.927	1667.47	5265.11
88	1299.944	2548.5485	6576.7388	357.509	1205.55	3597.64
89	909.8240	1638.7245	4028.1903	269.031	848.036	2392.09
90	618.2440	1020.4805	2389.4658	196.337	579.006	1544.05
91	406.7752	613.7053	1368.9853	138.581	382.669	955.048
92	258.3793	355.3260	755.2800	94.310	244.101	582.379
93	157.9313	197.39470	399.95404	61.668	149.779	338.291
94	92.56666	104.82804	202.55934	38.611	88.111	188.512
95	51.82573	53.00231	97.73130	23.055	49.500	100.401
96	27.60050	25.40171	44.72890	13.070	26.445	50.901
97	13.01816	11.483553	19.327278	7.003	13.375	24.456
98	6.61239	4.871114	7.843725	3.530	6.372	11.080
99	2.943644	1.927470	2.972611	1.663	2.842	4.703

FRENCH ACTUARIES' TABLE—ANNUITANTS. 217

TABLE I.
FRENCH ACTUARIES' MORTALITY TABLE ANNUITIES (R. F.).

Age.	l_x	d_x	q_x	l_{x+1}	Age.	l_x	d_x	q_x	l_{x+1}
0	100000	36015	.03602	.04181	53	622913	9419	.01512	.01478
1	963985	26497	.02749	.03186	54	613494	9860	.01607	.01570
2	937488	19550	.02085	.02415	55	603634	10332	.01712	.01672
3	917939	14453	.01575	.01821	56	593302	10837	.01826	.01783
4	903486	10721	.01187	.01370	57	582495	11373	.01953	.01906
5	892765	8011	.00897	.01032	58	571092	11943	.02091	.02040
6	884754	6078	.00687	.00783	59	559149	12545	.02244	.02189
7	878676	4744	.00540	.00605	60	546604	13177	.02411	.02352
8	873932	3876	.00443	.00485	61	533427	13839	.02594	.02531
9	870056	3372	.00388	.00410	62	519588	14548	.02796	.02729
10	866684	3155	.00364	.00372	63	505060	15240	.03017	.02946
11	863529	3158	.00366	.00362	64	489820	15969	.03260	.03185
12	860371	3328	.00387	.00374	65	473851	16712	.03527	.03448
13	857043	3617	.00422	.00403	66	457139	17459	.03819	.03737
14	853426	3980	.00466	.00444	67	439680	18202	.04140	.04056
15	849446	4377	.00515	.00491	68	421478	18929	.04491	.04406
16	845069	4771	.00565	.00542	69	402549	19630	.04876	.04791
17	840298	5125	.00610	.00590	70	382919	20289	.05298	.05215
18	835173	5411	.00648	.00632	71	362630	20889	.05760	.05681
19	829762	5633	.00675	.00665	72	341741	21413	.06266	.06193
20	824159	5688	.00690	.00687	73	320328	21244	.06819	.06758
21	818471	5662	.00692	.00695	74	298484	22159	.07424	.07378
22	812809	5538	.00681	.00690	75	276325	22341	.08085	.08061
23	807271	5345	.00662	.00671	76	253984	22366	.08860	.08812
24	801926	5140	.00641	.00665	77	231618	22220	.09593	.09638
25	796786	4969	.00624	.00622	78	209398	21886	.10452	.10547
26	791817	4900	.00630	.00629	79	187512	21350	.11386	.11547
27	786827	5016	.00638	.00636	80	166162	20609	.12403	.12647
28	781811	5047	.00640	.00643	81	145553	19662	.13508	.13857
29	776764	5083	.00654	.00652	82	125891	18517	.14708	.15189
30	771081	5125	.00664	.00661	83	107374	17189	.16009	.16653
31	766556	5173	.00675	.00672	84	90185	15708	.17417	.18265
32	761383	5227	.00687	.00683	85	74477	14105	.18939	.20037
33	756156	5290	.00699	.00695	86	60372	12425	.20581	.21987
34	750866	5358	.00714	.00709	87	47947	10715	.22348	.24132
35	745508	5438	.00729	.00724	88	37232	9028	.24248	.26492
36	740070	5525	.00747	.00740	89	28204	7413	.26283	.29089
37	734545	5623	.00766	.00759	90	20791	5917	.28460	.31945
38	728922	5722	.00786	.00779	91	14874	4578	.30780	.35087
39	723190	5822	.00809	.00801	92	10296	3123	.33246	.38544
40	717338	5980	.00834	.00825	93	6873	2465	.35857	.42347
41	711352	6133	.00862	.00851	94	4408	1702	.38612	.46530
42	705219	6294	.00893	.00881	95	2706	1123	.41506	.51133
43	698925	6473	.00926	.00913	96	1583	705	.44532	.56196
44	692452	6668	.00963	.00948	97	878	419	.47681	.61766
45	685784	6882	.01003	.00987	98	459	234	.50939	.67893
46	678902	7115	.01048	.01030	99	225	122	.54289	.74635
47	671787	7370	.01097	.01078	100	103	59	.57711	.82051
48	664417	7647	.01151	.01129	101	44	27	.61181	.90209
49	656770	7947	.01210	.01187	102	17	11	.64670	.99184
50	648823	8275	.01275	.01249	103	6	4	.68147	.09058
51	640548	8627	.01347	.01319	104	2	1	.71578	.10020
52	631921	9008	.01427	.01395	105	1	1	.74927	.31870

218 FRENCH ACTUARIES' TABLE—ANNUITANTS.

TABLE II.
COMMUTATION TABLES, FRENCH ACTUARIES' ANNUITY
(R. F.), FOUR PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
0	1000000	19139904.6	373016522	35315.6	229853	5117919
1	926908.7	18212995.9	353876617	24983.1	194537	4888066
2	866766.2	17346235.7	33-663622	17723.2	169554	4693529
3	816044.4	16530191.3	318317386	12599.2	151831	4523975
4	772303.5	15757887.8	301787195	8986.4	139232	4372144
5	733787.9	15024099.9	286029307	6456.6	130245	4232912
6	699234.0	14324865.9	271005208	4710.3	123789	4102667
7	667721.4	13657144.5	256680342	3535.0	119078	3978878
8	638573.6	13018570.9	243023198	2777.2	115543	3859800
9	611289.7	12407281.2	230004627	2323.1	112766	3744257
10	585500.7	11821780.5	217597346	2090.0	110443	3631491
11	560931.9	11260848.6	205775565	2011.5	108353	3521048
12	537385.1	10723463.5	194514717	2038.3	106341	3412695
13	514717.8	10208745.7	183791253	2130.1	104303	3300354
14	492852.2	9715913.5	173582508	2253.7	102173.0	3202051
16	471667.2	9244246.3	163866594	2383.2	99919.0	3099878
18	451183.3	8793057.0	154622348	2497.8	97535.8	2999959
17	431386.5	8361670.5	145829291	2580.0	95938.0	2902423
18	412265.0	7940405.5	137467620	2610.2	92458.0	2807385
19	393840.2	7555565.3	129518215	2607.8	89838.8	2714927
20	376135.3	7179430.0	121962649	2545.5	87231.0	2620888
21	359172.6	6820257.4	114783219	2436.4	84685.5	2537857
22	342909.2	6477288.2	107962962	2291.4	82249.1	2453172
23	327531.1	6149757.1	101485674	2126.5	79957.7	2379023
24	312848.5	5836908.6	95335917	1966.3	77831.2	2299695
25	298887.8	5538020.8	89499008	1827.65	75864.93	2213134
26	285600.0	5252420.8	83960087	1764.96	74037.28	2137209
27	272884.7	4979536.1	78708567	1705.92	72272.32	2063231
28	260716.3	4718819.8	73729037	1650.48	70566.40	1999959
29	249079.3	4469749.5	69010211	1598.19	68915.92	1929393
30	237923.5	4231826.0	64540461	1549.42	67317.73	1851477
31	227253.3	4004572.7	60308635	1503.75	65768.31	1784159
32	217038.3	3787534.4	56304062	1461.12	64204.56	1718301
33	207257.9	3580276.5	52516528	1421.64	62803.44	1654126
34	197892.4	3382384.1	48936251.5	1384.93	61381.80	1591323
35	188923.1	3193461.0	45553867.4	1351.19	59996.87	1529941
36	180331.9	3013129.1	42360406.4	1320.20	58645.68	1469944
37	172101.5	2841027.6	39347277.3	1291.87	57325.48	1411298
38	164215.5	2676812.1	36506249.7	1266.20	56033.61	1353973
39	156657.8	2520154.3	33829437.6	1243.11	54767.41	1297939
40	149413.6	2370740.7	31309283.3	1222.53	53524.30	1243172
41	142468.1	2228272.6	28938542.6	1204.42	52301.77	1189748
42	135807.6	2092465.0	26710270.0	1188.69	51097.35	1137446
43	129418.6	1963046.4	24617805.0	1175.29	49908.66	1083348
44	123288.5	1839757.9	22654758.6	1164.14	48733.37	1036340
45	117405.1	1722352.8	20815000.7	1155.28	47569.23	987606.4
46	111756.7	1610596.1	19092647.9	1148.49	46413.95	940037.1
47	106332.2	1504263.9	17482051.8	1143.86	45265.46	893623.2
48	101120.8	1403143.11	15977787.9	1141.22	44121.60	848357.7
49	96112.48	1307930.63	14574644.8	1140.51	42980.38	804236.1

TABLE II.—*Cont.*
 COMMUTATION TABLES, FRENCH ACTUARIES' ANNUITY
 (R. F.), FOUR PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
50	91297.51	1215733.12	13267614.2	1141.67	41839.87	761255.8
51	80666.56	1129066.56	12051881.1	1144.63	40698.20	719415.9
52	82210.85	1046855.71	10922814.5	1149.21	39553.57	677717.7
53	77922.00	958933.71	9875958.8	1155.36	38404.36	639164.1
54	73792.07	895141.64	8907025.1	1162.93	37249.00	600759.8
55	69813.58	825328.06	8011883.4	1171.77	36686.07	563510.8
56	65979.45	759348.61	7186555.4	1181.71	34914.30	527424.7
57	62283.01	697065.60	6427206.8	1192.56	33732.59	492510.4
58	58718.12	638347.48	5730141.2	1204.10	32540.03	458777.8
59	55279.01	583068.47	5091793.7	1216.13	31335.93	420237.8
60	51960.41	531108.06	4508725.2	1228.31	30119.80	394501.8
61	48757.47	482350.59	3977617.2	1240.41	28891.49	364782.0
62	45665.85	436684.73	3495266.6	1252.04	27651.08	335890.5
63	42681.76	394002.97	3058581.8	1262.86	26399.04	308239.5
64	39801.83	354201.14	2664578.9	1272.46	25136.18	281840.4
65	37023.25	517177.89	2310377.7	1280.40	23863.72	256704.2
66	34343.76	282834.13	1993199.8	1286.18	22583.32	232840.5
67	31761.65	251072.48	1710365.7	1289.33	21297.14	210257.2
68	29275.76	221796.72	1459293.2	1289.33	20007.81	188060.1
69	26885.48	194911.24	1237496.5	1285.60	18718.48	168052.3
70	24590.80	170320.44	1042535.3	1277.610	17432.88	150233.8
71	22392.21	147928.23	872264.8	1264.844	16155.27	132800.9
72	20290.70	127637.53	724536.6	1246.745	14890.42	116645.6
73	18287.76	109349.77	596099.1	1222.866	13643.68	101755.2
74	16385.27	92964.50	487349.3	1192.827	12420.81	88111.52
75	14585.42	78379.08	394384.8	1156.307	11227.98	75690.71
76	12890.60	65488.48	316005.7	1113.143	10071.68	64462.73
77	11303.29	54185.191	250517.24	1063.323	8958.533	54391.05
78	9825.882	44359.309	196332.05	1007.021	7895.210	45432.51
79	8460.500	35898.809	151972.74	944.628	6888.189	37537.30
80	7208.820	28689.989	116073.93	876.764	5943.561	30649.12
81	6071.825	22618.164	87383.95	804.287	5066.797	24705.55
82	5049.631	17568.533	64765.78	728.208	4262.510	19638.76
83	4141.268	13427.265	47197.25	650.104	3534.212	15376.25
84	3344.512	10082.753	33769.98	571.207	2884.108	11842.04
85	2655.766	7426.987	23687.23	493.210	2312.901	8957.927
86	2069.956	5356.991	16260.24	417.746	1819.691	6645.026
87	1580.749	3776.242	10903.25	346.410	1401.945	4825.335
88	1180.269	2595.9727	7127.010	280.633	1055.535	3423.390
89	859.6944	1786.2783	4531.0376	221.568	774.902	2367.855
90	609.3636	1126.9147	2794.7593	170.057	553.334	1592.953
91	410.1732	707.7415	1667.8446	126.517	383.277	1039.619
92	278.9919	428.7496	960.1031	90.952	256.760	656.342
93	179.0761	249.6735	531.3535	64.067	165.808	399.582
94	110.4472	139.22032	281.6800	41.816	102.841	233.774
95	65.19406	74.03226	142.45372	26.535	61.025	130.933
96	36.66811	37.36415	68.42146	16.011	34.490	69.908
97	19.55673	17.807419	31.05731	9.144	18.479	35.418
98	9.838400	7.969019	13.24082	4.914	9.335	16.939
99	4.641161	3.327858	5.280873	2.472	4.421	7.604

TABLE III.
COMMUTATION TABLES, FRENCH ACTUARIES' ANNUITY (R F),
THREE AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
0	1000000.0	21093571.6	440158875	35400.8	257262.5	6573996
1	931386.6	20162185.0	419065304	25164.4	221861.7	6316733
2	875155.0	19287030.0	398903119	17938.0	196697.3	6094872
3	827928.4	18459101.6	379016089	12813.5	178759.3	5898174
4	787335.7	17671765.9	361156987	9183.4	165945.8	5719415
5	751684.4	16920081.5	343485221	6630.0	156762.4	5553499
6	719748.0	16200333.5	326565140	4860.1	150132.4	5396757
7	690631.4	15509702.1	310364806	3665.2	145272.3	5246574
8	663674.0	14846328.1	294855104	2893.3	141607.1	5101302
9	638387.0	14207641.1	280009070	2432.0	138713.8	4959695
10	614408.6	13593232.5	265801435	2198.5	136281.8	4820981
11	591470.5	13001762.0	252208202	2126.2	134083.3	4684699
12	569379.2	12432382.8	239206440	2164.9	131957.1	4550616
13	547996.9	11884385.9	226774058	2273.3	129792.2	4418659
14	527231.1	11357154.8	214889672	2416.9	127518.9	4288867
15	507026.4	10850128.4	203532517	2568.0	125102.0	4161348
16	487356.3	10362772.1	192082389	2704.5	122324.0	4036246
17	468217.3	9894554.8	182319016	2807.0	119820.5	3913712
18	449624.7	9444930.1	172425062	2863.4	117022.5	3793882
19	431605.4	9013324.7	162980132	2864.7	114159.1	3676860
20	414194.2	8599130.5	153966807	2800.9	111294.4	3562701
21	397425.8	8201704.7	145367676	2702.4	108484.5	3451406
22	381329.8	7820374.9	137165972	2553.9	105782.1	3342922
23	365924.4	7454450.5	129345597	2381.5	103228.2	3237140
24	351209.2	7103241.3	121891146	2212.7	100846.7	3133912
25	337157.7	6766083.6	114787905	2066.64	98634.05	3033065
26	323724.8	6442358.8	108021821	2005.40	96567.41	2934431
27	310806.4	6131552.4	101579463	1947.68	94562.01	2837863
28	298381.5	5833170.9	95447910	1893.48	92614.33	2743301
29	286430.2	5546740.7	89614739	1842.35	90720.85	2650687
30	274933.2	5271807.5	84067099	1794.76	88878.50	2559966
31	263871.8	5007935.7	78706191	1750.28	87083.74	2471088
32	253228.1	4754707.6	73788255	1708.87	85333.46	2384004
33	242985.2	4511722.4	69033548	1670.73	83624.59	2298671
34	233126.0	4278596.4	64521825	1635.44	81953.86	2215046
35	223635.0	4054361.4	60243229	1603.31	80318.42	2133092
36	214406.5	3842464.9	56188268	1574.10	78715.11	2052774
37	205605.8	3634769.1	52347803	1547.77	77141.01	1974959
38	197218.5	3437550.6	48713034	1524.34	75593.24	1896618
39	189050.9	3248499.7	45275483	1503.78	74068.90	1821324
40	181179.7	3067320.0	42026083	1486.02	72565.12	1747255
41	173592.2	2893727.8	38959663	1471.08	71079.10	1674600
42	166276.0	2727151.8	36065935	1458.88	69608.02	1603611
43	159219.2	2568232.6	33338484	1449.40	68149.14	1534003
44	152410.2	2415822.4	30770251	1442.60	66699.74	1465854
45	145838.3	2269984.1	28354429	1438.53	65257.14	1399154
46	139492.5	2130491.6	26084445	1436.98	63818.61	1333897
47	133362.9	1997128.7	23953953	1438.11	62381.63	1270079
48	127439.5	1869689.2	21956824	1441.72	60943.52	1207697
49	121712.8	1747976.4	20087135	1447.78	59501.80	1146753

FRENCH ACTUARIES' TABLE—ANNUITANTS. 221

TABLE III.—Cont.
COMMUTATION TABLES, FRENCH ACTUARIES' ANNUITY (R F),
THREE AND ONE-HALF PER CENT.

Age.	D ₁	N ₁	S ₁	C ₁	M ₁	R ₁
50	116173.9	1631802.5	18339159	1456.25	58054.02	1087252
51	110813.9	1520988.6	16707356.1	1467.08	56597.77	1029198
52	10.624.5	1415364.10	15186367.5	1480.07	55130.69	972599.9
53	100597.82	1314766.28	13771003.4	1495.18	53650.62	917469.2
54	95726.29	1210930.09	12456237.1	1512.24	52155.44	863818.6
55	91002.73	1128.37.26	11237197.1	1531.09	50643.20	811663.1
56	86420.34	1041616.92	10109159.8	1551.55	49112.11	761019.9
57	81972.88	959644.04	9067542.9	1573.36	47560.56	711907.8
58	77654.32	881989.72	8107898.9	1596.26	45987.20	664347.2
59	73459.31	808530.41	7225909.1	1619.99	44390.94	618360.0
60	69382.81	739147.60	6417378.7	1644.13	42770.05	573969.1
61	65420.47	673727.13	5678231.1	1668.34	41126.82	531198.2
62	61563.30	612158.83	5004504.0	1692.12	39458.48	490071.3
63	57823.03	554335.80	4392345.2	1714.99	37766.36	450612.9
64	54181.93	500153.87	3838009.4	1736.37	36051.37	412846.5
65	50642.94	449510.93	3337855.5	1755.64	34315.00	376795.1
66	47204.68	402306.25	2888344.6	1772.09	32559.36	342480.1
67	43806.55	358439.70	2486038.3	1785.01	30787.27	309920.8
68	40628.56	317811.14	2127508.6	1793.63	29002.26	279133.5
69	37491.62	280310.52	1809787.5	1797.09	27208.63	250131.2
70	34457.36	245862.16	1429468.0	1794.546	25411.54	222922.6
71	31528.20	214333.96	1283605.8	1785.197	23616.99	197511.1
72	28707.30	185626.66	1069271.8	1768.153	21831.79	173894.1
73	25998.54	156628.12	883645.2	1742.666	20063.61	152062.3
74	23406.42	130221.70	724017.1	1708.071	18320.98	131998.6
75	20935.08	115285.72	587795.4	1663.775	16612.90	113677.7
76	18592.60	96693.12	472509.6	1609.404	14949.13	97064.76
77	16381.93	80311.19	375816.5	1544.802	13339.73	82115.63
78	14309.51	66001.68	295505.3	1470.073	11794.92	68775.91
79	12384.62	53621.063	229503.65	1385.652	10324.85	56980.98
80	10599.940	43021.123	175882.59	1292.318	8939.108	46655.13
81	8971.220	34049.903	132861.47	1191.218	7646.880	37716.94
82	7495.955	26552.048	98811.56	1083.882	6455.662	30070.06
83	6178.051	20374.897	72258.61	972.183	5371.780	23614.39
84	5013.532	15361.365	51883.72	858.325	4399.597	18242.01
85	4000.314	11361.051	35522.35	744.704	3541.272	13843.62
86	3133.044	8228.007	25161.30	633.807	2796.568	10301.74
87	2404.103	5823.904	16933.29	528.114	2162.761	7505.176
88	1803.699	4020.205	11100.39	429.902	1634.647	5342.415
89	1320.141	2700.0638	7080.1851	341.060	1204.745	3707.768
90	940.2449	1759.8089	4389.1213	263.034	863.685	2503.023
91	649.9136	1109.8953	2629.3124	196.633	600.651	1639.338
92	434.6570	675.2383	1519.4171	142.042	404.018	1038.087
93	280.3404	394.8979	844.1788	98.812	261.976	634.669
94	173.7384	221.1595	449.2810	65.937	163.164	372.693
95	103.0486	118.11087	228.12146	42.043	97.227	209.529
96	58.23921	59.87166	110.01059	25.491	55.184	112.302
97	31.2161	28.66005	50.13893	14.629	29.603	57.118
98	15.77747	12.882581	21.478881	7.899	15.064	27.425
99	7.478814	5.403767	8.596300	3.992	7.165	12.361

222 FRENCH ACTUARIES' TABLE—ANNUITANTS.

TABLE IV.
COMMUTATION TABLES, FRENCH ACTUARIES' ANNUITY (R. F.),
THREE PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
0	1000000.0	23420995.6	524197257.1	35486.6	293008.1	8657535
1	935907.9	22485087.7	500776261.5	25347.8	257521.5	8274527
2	883672.4	21601415.3	478291173.8	18156.5	232173.7	8017046
3	810044.1	20761371.2	456689758.5	13332.5	214017.2	7784832
4	802735.5	19958035.7	435928387.3	9385.7	200984.7	7570815
5	770107.0	19188528.7	415969751.6	6809.0	191599.0	7369830
6	740967.8	18447560.9	396781222.9	5015.6	184790.0	7178231
7	714444.0	17733116.9	378333662.0	3800.7	179774.4	6993441
8	689890.0	17043226.9	360500545.1	3014.9	175973.7	6813367
9	666825.5	16376401.4	343557318.2	2545.4	172958.8	6637603
10	644804.4	15731507.0	327180916.8	2319.8	170412.4	6464734
11	623831.7	15107675.3	311449499.8	2241.8	168092.6	6294311
12	603447.1	14504228.2	296341734.5	2299.9	165851.1	6120220
13	583604.6	1392623.6	281837506.3	2426.9	163551.2	5903378
14	564215.2	13356408.4	267916882.7	2592.6	161124.3	5796826
15	545227.2	12811181.2	254560474.3	2768.2	158531.7	5635702
16	526619.3	12284561.9	241749293.1	2929.5	155763.5	5477170
17	508394.3	11776167.6	229454731.2	3055.2	152834.0	5321407
18	490576.2	11282591.4	217688563.6	3131.8	149777.8	5168573
19	473201.7	10812389.7	206402972.2	3148.4	146647.0	5018794
20	456316.9	10356072.8	195590582.5	3103.1	143498.6	4872147
21	439968.6	9916104.2	185234509.7	2999.0	140395.5	4728648
22	424109.0	9491905.2	175318405.5	2847.8	137396.5	4588253
23	409037.5	9082867.7	165826500.3	2668.5	134518.7	4450856
24	394494.5	8688373.2	156745632.6	2491.4	131880.2	4316308
25	380549.6	8307823.6	148055259.4	2338.27	129388.8	4184428
26	367161.6	7940662.0	139747435.8	2279.99	127050.5	4055039
27	354221.1	7586440.9	131806773.8	2225.11	124770.5	3927988
28	341711.4	7244729.5	124220332.9	2173.70	122545.4	3803218
29	329616.9	6915112.6	116975603.4	2125.27	120371.7	3680672
30	317922.3	6597190.3	110060490.8	2080.42	118246.4	3560301
31	306512.6	6290577.7	103463300.5	2038.70	116166.0	3442054
32	295673.4	5994904.3	97172722.8	2003.14	114127.3	3325888
33	285090.7	5709813.6	91177818.5	1964.99	112127.2	3211761
34	274851.0	5434962.6	85468004.9	1932.82	110162.2	3099634
35	264941.1	5170021.5	80033042.3	1904.05	108229.4	2994472
36	255348.2	4914673.3	74863020.8	1878.44	106325.3	2881242
37	246060.1	4668613.2	69948347.5	1855.98	104446.9	2774917
38	237064.5	4431548.7	65279734.3	1836.76	102590.9	2670470
39	228349.9	4203198.8	60848185.6	1820.78	100754.1	2567879
40	219904.8	3983294.0	56644986.8	1808.01	98933.36	2467125
41	211718.4	3771575.6	52661692.8	1798.52	97125.35	2368192
42	203779.5	3567796.1	48890117.2	1792.26	95326.83	2271066
43	196078.5	3371717.6	45322321.1	1789.26	93534.57	2175739
44	188604.4	3183113.2	41950603.5	1789.51	91745.31	2082205
45	181347.8	3001765.4	38767490.3	1793.12	89955.80	1990460
46	174299.0	2827460.4	35765721.9	1799.89	88162.68	1900504
47	167418.9	2660017.5	32938238.5	1810.04	86362.79	1812341
48	160788.3	2499229.2	30278241.0	1823.40	84552.75	1725978
49	154308.4	2344920.8	27779011.8	1839.95	82729.35	1641425

FRENCH ACTUARIES' TABLE—ANNUITANTS. 223

TABLE IV.—Cont.
COMMUTATION TABLES, FRENCH ACTUARIES' ANNUITY (R. F.),
THREE PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
50	148001.1	2196919.7	25434091.0	1859.70	80889.40	1558696
51	141857.9	2055061.8	23237171.3	1882.63	79029.70	1477807
52	135871.2	1919190.6	21182109.5	1908.51	77147.07	1398777
53	130033.2	1789157.4	19262918.9	1937.36	75238.56	1321630
54	124336.9	1664820.5	17473761.5	1968.98	73301.20	1246391
55	118775.4	1546045.1	15808041.0	2003.20	71332.22	1173090
56	113342.1	1432703.0	14262895.9	2039.82	69329.02	1101758
57	108031.0	1324672.0	12830192.9	2078.52	67289.20	1032429
58	102836.5	1221835.53	11505520.85	2119.01	65210.68	965139.8
59	97753.30	1124082.23	10283685.32	2160.96	63091.67	89929.1
60	92770.87	1031305.36	9159603.09	2203.80	60936.71	83637.4
61	87903.16	943402.20	8128229.73	2247.12	58726.91	775906.7
62	83128.74	860273.46	7184895.53	2290.20	56479.79	717179.8
63	78450.89	781822.57	6324622.07	2332.43	54189.59	662700.0
64	73867.72	707954.85	5542799.50	2372.97	51857.16	606510.4
65	69378.08	638576.77	4834844.65	2410.96	49484.19	554653.3
66	64981.79	573594.98	4196267.88	2445.36	47073.23	505169.1
67	60679.65	512915.33	3622672.90	2475.15	44627.87	458095.8
68	56473.43	456441.90	3109757.57	2499.17	42152.72	413468.0
69	52366.09	404075.81	2653315.67	2516.14	39653.55	371315.2
70	48361.64	355714.17	2249239.86	2524.776	37137.41	331661.7
71	44465.32	312248.85	1893525.69	2523.817	34612.64	294524.3
72	40683.44	270565.41	1582276.84	2511.857	32088.82	259911.6
73	37023.49	233541.92	1311711.43	2487.667	29576.96	227822.8
74	33493.97	200047.95	1078169.51	2450.115	27089.29	198245.9
75	30104.26	169943.69	878121.56	2398.162	24639.18	171156.6
76	26864.46	143079.23	708177.87	2331.053	22211.02	146517.4
77	23785.15	119294.08	565098.64	2248.344	19909.96	124276.4
78	20877.03	98417.05	445804.56	2149.969	17661.62	104366.4
79	18150.54	80266.51	347387.51	2036.341	15511.65	86704.79
80	15615.42	64651.09	267121.00	1908.398	13475.31	71193.14
81	13280.21	51370.88	202469.91	1767.639	11566.91	57577.83
82	11151.71	40219.169	151099.034	1616.172	9799.273	46150.92
83	9234.453	30984.710	110879.865	1456.655	8183.101	36351.65
84	7530.205	23454.511	79895.149	1292.300	6726.446	28168.55
85	6037.542	17416.999	56440.638	1126.675	5434.146	21442.10
86	4751.554	12665.415	39023.669	963.552	4307.471	16007.96
87	3623.745	9001.670	26358.254	806.769	3343.919	11700.48
88	2762.101	6239.569	17356.584	659.925	2537.150	8356.565
89	2031.416	4208.153	11117.015	526.088	1877.225	5819.415
90	1453.876	2754.277	6908.862	407.702	1351.137	3942.190
91	1009.812	1744.4651	4154.5855	306.261	943.435	2591.053
92	678.6325	1065.8326	2410.1204	222.307	637.174	1647.618
93	439.8217	626.0109	1344.2878	155.400	414.867	1010.444
94	273.8987	352.1122	718.2769	104.200	259.467	595.577
95	163.2448	188.86739	366.16469	66.764	155.267	336.110
96	92.70774	96.15965	177.29730	40.676	88.503	180.843
97	49.92520	46.23445	81.13765	23.457	47.827	92.340
98	25.35971	20.87474	34.90320	12.728	24.370	44.513
99	12.07932	8.79542	14.02846	6.464	11.642	20.142

**INTRODUCTION TO AMERICAN TROPICAL
EXPERIENCE TABLE.**

THIS table was graduated by Makeham's formula from the experience of the New York Life Insurance Company on lives in the tropics. It is the work of Messrs. Jones and Robertson of the New York Life's then actuarial force.

This table, with four per cent interest, has already been adopted as its standard by at least one South American company.

TABLE I.
AMERICAN TROPICAL EXPERIENCE TABLES.

Age.	Living.	Dying.	Per Cent Surviving.	Per Cent Dying.	$\frac{d}{l}$	Living.	Dying.	Per Cent Surviving.	Per Cent Dying.
20	100 000	1 174	.98826	0.01174	69	47 927	1 948	.95935	0.04065
21	98 826	1 168	.98818	.01182	80	45 977	1 999	.95652	.04348
22	97 658	1 163	.98809	.01191	61	43 978	2 048	.95343	.04657
23	96 495	1 158	.98800	.01200	62	41 930	2 093	.95008	.04992
24	95 337	1 155	.98789	.01211	63	39 837	2 136	.94668	.05352
25	94 182	1 151	.98778	.01222	64	37 701	2 173	.94326	.05754
26	93 031	1 149	.98765	.01235	65	35 528	2 203	.93979	.06201
27	91 882	1 148	.98751	.01249	66	33 325	2 227	.93617	.06683
28	90 734	1 148	.98735	.01265	67	31 098	2 249	.93247	.07203
29	89 586	1 147	.98720	.01280	68	28 858	2 243	.92877	.07773
30	88 439	1 150	.98700	.01300	69	26 615	2 234	.92506	.08394
31	87 289	1 151	.98681	.01319	70	24 381	2 211	.92135	.09063
32	86 138	1 156	.98658	.01342	71	22 170	2 174	.91764	.09806
33	84 982	1 161	.98634	.01366	72	19 996	2 120	.91393	.10602
34	83 821	1 167	.98608	.01392	73	17 876	2 050	.91022	.11468
35	82 654	1 175	.98578	.01422	74	15 826	1 965	.90651	.12416
36	81 479	1 184	.98547	.01453	75	13 861	1 862	.90280	.13433
37	80 295	1 195	.98512	.01488	76	11 999	1 744	.89909	.14535
38	79 100	1 207	.98474	.01526	77	10 255	1 614	.89538	.15739
39	77 893	1 222	.98431	.01569	78	8 641	1 472	.89167	.17035
40	76 671	1 237	.98387	.01613	79	7 169	1 320	.88796	.18413
41	75 434	1 256	.98335	.01665	80	5 849	1 166	.88425	.19935
42	74 178	1 276	.98280	.01720	81	4 683	1 009	.88054	.21546
43	72 902	1 298	.98220	.01780	82	3 674	855	.87683	.23272
44	71 604	1 322	.98154	.01846	83	2 819	708	.87312	.25115
45	70 282	1 349	.98080	.01920	84	2 111	573	.86941	.27144
46	68 933	1 377	.98002	.01998	85	1 538	449	.86570	.29194
47	67 556	1 409	.97914	.02086	86	1 089	343	.86200	.31497
48	66 147	1 443	.97818	.02182	87	746	253	.85829	.33914
49	64 704	1 479	.97714	.02286	88	493	179	.85458	.36308
50	63 225	1 518	.97599	.02401	89	314	123	.85087	.39172
51	61 727	1 559	.97474	.02526	90	191	80	.84716	.41885
52	60 148	1 602	.97337	.02663	91	111	49	.84345	.44144
53	58 545	1 647	.97187	.02813	92	62	30	.83974	.46387
54	56 899	1 694	.97023	.02977	93	32	18	.83603	.48250
55	55 205	1 744	.96841	.03159	94	14	9	.83232	.50286
56	53 461	1 794	.96644	.03356	95	5	4	.82861	.52000
57	51 667	1 845	.96429	.03571	96	1	1	.82490	.53900
58	49 822	1 897	.96192	.03808	97	0	0	.82119	.55900

Constant.	Number.	Napierian Logarithm.	Common Logarithm.
c	1.0964780	+ 0.0921034	+ 0.0400000
g	0.9086194	- 0.0013816	- 0.0006000
s	0.9890916	- 0.0109684	- 0.0047635
k	125,620.	+ 11.7410196	+ 5.0990600

$$\log I_x = \log k + x \log s + c^x \log g.$$

$$\mu_x = - \frac{1}{M} \left\{ \log s + (\log c \log g) c^x \right\}$$

228 AMERICAN TROPICAL EXPERIENCE TABLE.

TABLE I.
COMMUTATION COLUMNS—AMERICAN TROPICAL EXPERIENCE
TABLES, FOUR PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
20	45 639	769 547	11 648 619	515.19	14 285.36	335 809.33
21	43 368	726 179	10 879 072	492.84	13 770 17	321 523.97
22	41 207	684 972	10 152 893	471.86	13 277.33	307 753.80
23	39 151	645 821	9 467 921	451.76	12 805.47	294 476.47
24	37 193	608 628	8 822 100	433.26	12 353.71	281 671.00
25	35 329	573 299	8 213 472	415.15	11 920.45	269 317.29
26	33 555	539 744	7 640 173	398.49	11 505.30	257 396.84
27	31 866	507 878	7 100 429	382.83	11 106.81	245 891.54
28	30 258	477 620	6 592 551	368.11	10 723.98	234 784.73
29	28 726	448 894	6 114 931	353.64	10 355.87	224 060.75
30	27 267	421 627	5 666 037	340.93	10 002.23	213 704.88
31	25 878	395 749	5 244 410	329.10	9 661.30	203 702.65
32	24 554	371 195	4 848 661	316.85	9 333.20	194 041.35
33	23 293	347 902	4 477 466	305.98	9 016.35	184 708.15
34	22 091	325 811	4 129 564	295.74	8 710.37	175 691.80
35	20 946	304 865	3 803 753	286.31	8 414.63	166 981.43
36	19 854	285 011	3 498 888	277.41	8 128.32	158 566.80
37	18 813	266 198	3 213 877	269.22	7 850.91	150 438.48
38	17 820	248 378	2 947 679	261.46	7 581.69	142 587.57
39	16 873	231 505	2 699 301	254.53	7 320.23	135 005.88
40	15 970	215 535	2 467 796	247.74	7 065.70	127 685.65
41	15 108	200 427	2 252 261	241.87	6 817.96	120 619.95
42	14 285	186 142	2 051 834	236.27	6 576.09	113 801.99
43	13 499	172 6 3	1 865 692	231.10	6 339.82	107 225.90
44	12 749	159 894	1 693 049	226.32	6 108.72	100 886.08
45	12 032	147 862	1 533 155	222.06	5 882.40	94 777.36
46	11 347	136 515	1 385 293	217.96	5 660.34	88 894.96
47	10 693	125 822	1 248 778	214.44	5 442.38	83 234.62
48	10 067	115 755 0	1 122 955.7	211.17	5 227.94	77 792.24
49	9 468 9	106 280.1	1 007 200.7	208.11	5 016.77	72 561.30
50	8 896 6	97 389.5	900 914.6	205.39	4 808.66	67 547.53
51	8 349.0	89 040.5	803 525 1	202.82	4 603.27	62 738.87
52	7 825 1	81 215.4	714 484.6	200.40	4 400.45	58 135.60
53	7 323 7	73 891.7	633 269.2	198.10	4 200.05	53 735.15
54	6 843.9	67 047.8	559 377.5	195.92	4 001.95	49 535.10
55	6 384 8	60 663 0	492 329.7	193.95	3 806.03	45 533.15
56	5 945 2	54 717 8	431 669 7	191.83	3 612 08	41 727.12
57	5 524 8	49 193.0	376 948 9	189.70	3 420 25	38 115 04
58	5 122.6	44 070.4	327 755.9	187.54	3 230.55	34 694.79
59	4 738.0	39 332.4	283 685.5	185.18	3 043 01	31 464.24
60	4 370.6	34 961 8	244 353.1	182.72	2 857.83	28 421.23
61	4 019.8	30 942.0	209 391.3	180.00	2 675.11	25 563 40
62	3 685.2	27 256.8	178 449 3	176.88	2 495.11	22 888.29
63	3 366 6	23 890.2	151 192 5	173.57	2 318 23	20 393.18
64	3 063.5	20 826.7	127 302.3	169.78	2 144 66	18 074.95

TABLE I.—Cont.
COMMUTATION COLUMNS—AMERICAN TROPICAL EXPERIENCE TABLES, FOUR PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
65	2 775.9	18 050.8	106 475.6	165.51	1 974.88	15 930.29
66	2 593.6	15 547.2	88 424.8	160.87	1 809.37	13 955.41
67	2 246.5	13 300.7	72 877.6	155.59	1 648.50	12 146.04
68	2 004.5	11 296.2	59 576.9	149.81	1 492.91	10 497.54
69	1 777.6	9 518.6	48 280.7	143.47	1 343.10	9 004.63
70	1 565.7	7 952.9	38 762.1	136.53	1 199.63	7 661.53
71	1 369.0	6 583.9	30 809.2	129.08	1 063.10	6 461.90
72	1 187.3	5 396.6	24 225.3	121.03	934.02	5 398.80
73	1 020.6	4 375.97	18 828.74	112.53	812.99	4 464.78
74	868.77	3 507.20	14 452.77	103.72	700.46	3 651.79
76	731.63	2 775.57	10 945.57	94.503	596.740	2 951.332
78	608.99	2 166.58	8 170.00	85.110	502.237	2 354.592
77	500.46	1 666.12	6 003.42	75.736	417.127	1 852.355
78	405.47	1 260.65	4 337.30	66.416	341.391	1 435.228
79	323.46	937.19	3 076.65	57.267	274.975	1 093.837
80	253.75	683.44	2 139.46	48.641	217.708	818.862
81	195.35	488.09	1 456.02	40.472	169.067	601.154
82	147.37	340.72	967.93	32.976	128.595	432.087
83	108.72	231.997	627.206	26.256	95.619	303.492
84	78.287	153.710	395.209	20.432	69.363	207.873
85	54.843	98.867	241.499	15.395	48.931	138.510
86	37.339	61.528	142.632	11.308	33.536	89.579
87	24.595	36.933	81.104	8.0202	22.2281	56.0433
88	15.628	21.305	44.171	5.4561	14.2079	33.8152
89	9.571	11.734	22.866	3.6050	8.7518	19.6073
90	5.598	6.136	11.132	2.2545	5.1468	10.8555
91	3.128	3.008	4.996	1.3278	2.8923	5.7087
92	1.680	1.328	1.088	0.7817	1.5645	2.8164
93	0.834	0.494	0.660	.4510	0.7828	1.2519
94	.351	.143	.166	.2168	.3318	0.4691
95	.120	.023	.023	.0927	.1150	.1373
96	.023	.000	.000	.0223	.0223	.0223

Constant.	Number.	Logarithm.
i	.04	1.6020600
$(1+i)$	1.04	0.0170333
$(1+i)^{1/2}$	1.0198039	0.0085167
v	.9615385	1.9829667
$v^{1/2}$	.9805807	1.9914833
d	.0384615	1.5850267
δ	.0392207	1.5935156
$i^{(2)}$	.0396078	1.5977807

230 AMERICAN TROPICAL EXPERIENCE TABLE.

TABLE II.
COMMUTATION COLUMNS—AMERICAN TROPICAL EXPERIENCE
TABLES, THREE AND ONE-HALF PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
20	50 257	913 139	14 491 634	570.06	17 678.03	440 761.19
21	47 987	865 152	13 578 495	547.97	17 107.97	423 083.16
22	45 816	819 336	12 713 343	527.17	16 560.00	405 975.19
23	43 740	775 596	11 894 007	507.15	16 032.83	389 415.19
24	41 754	733 842	11 118 411	488.73	15 525.68	373 382.36
25	39 853	693 989	10 384 569	470.57	15 036 95	357 856.68
26	38 035	655 954	9 690 580	453.87	14 566.38	342 819.73
27	36 295	619 659	9 034 626	438.14	14 112.51	328 253.35
28	34 629	585 030	8 414 967	423.32	13 674.37	314 140.84
29	33 035	551 995	7 829 937	408.65	13 251.05	300 466.47
30	31 509	520 486	7 277 942	395.86	12 842.40	287 215.42
31	30 048	490 438	6 757 456	382.81	12 446.54	274 373.02
32	28 649	461 789	6 267 018	371.47	12 063.73	261 926.48
33	27 308	434 481	5 805 229	360.46	11 692.26	249 862.75
34	26 024	408 457	5 370 748	350.07	11 331.80	238 170.49
35	24 794	383 663	4 962 291	340 55	10 981.73	226 838.69
36	23 615	360 048	4 578 628	331 56	10 641.18	215 856.96
37	22 485	337 563	4 218 580	323.32	10 309.62	205 215.78
38	21 401	316 162	3 881 017	315 53	9 986.30	194 906.16
39	20 362	295 800	3 564 855	308.64	9 670.77	184 919.86
40	19 365	276 435	3 269 055	301.87	9 362.13	175 249.09
41	18 408	258 027	2 992 620	296.14	9 060.26	165 886.96
42	17 490	240 537	2 734 593	290 68	8 764.12	156 826.70
43	16 608	223 929	2 494 056	285.69	8 473.44	148 062.58
44	15 760	208 169	2 270 127	281.14	8 187.75	139 589.14
45	14 946	193 223	2 061 958	277.18	7 906.61	131 401.39
46	14 164	179 059	1 868 735	273.36	7 629.43	123 494.78
47	13 411	165 648	1 689 676	270.26	7 356.07	115 865.35
48	12 687	152 961	1 524 028	267.42	7 085.81	108 509.28
49	11 991	140 970	1 371 067	264.82	6 818.39	101 423.47
50	11 321	129 649	1 230 097	262.61	6 553.57	94 605.08
51	10 675	118 974	1 100 448	260.58	6 290.96	88 051.51
52	10 054	108 919.8	981 473.6	258.72	6 030.38	81 760.55
53	9 454.9	99 464.9	872 553.8	256.99	5 771.66	75 730.17
54	8 878.2	90 586.7	773 088.9	255.38	5 514.67	69 958.51
55	8 322.6	82 264.1	682 502.2	254.03	5 259.29	64 443.84
56	7 787.1	74 477.0	600 238.1	252.48	5 005.26	59 184.55
57	7 271.3	67 205.7	525 761.1	250.87	4 752.78	54 179.29
58	6 774 6	60 431.1	458 555.4	249.22	4 501.91	49 426.51
59	6 296.2	54 134 9	398 124.3	247.27	4 252.69	44 924.60
60	5 836.1	48 298.8	343 989.4	245.16	4 005.42	40 671.91
61	5 393 5	42 905.3	295 690 6	242.68	3 760.26	36 666.49
62	4 968 5	37 936.8	252 785.3	239.62	3 517.58	32 906.23
63	4 560.8	33 375 0	214 848.5	236.28	3 277.96	29 388.65
64	4 170.3	29 205.7	181 472.5	232 24	3 041.68	26 110.69

TABLE II.—Cont.

COMMUTATION COLUMNS—AMERICAN TROPICAL EXPERIENCE TABLES, THREE AND ONE-HALF PER CENT.

Age.	D _t	N _t	S _t	C _t	M _t	R _t
65	3 797.1	25 408.6	152 266.8	227.48	2 809.44	23 069.01
66	3 441.2	21 967.4	126 858.2	222.19	2 581.96	20 259.57
67	3 102.6	18 864.8	104 890.8	215.93	2 359.77	17 677.61
68	2 781.8	16 083.0	86 026.0	208.90	2 143.84	15 317.84
69	2 478.8	13 604.2	69 943.0	201.03	1 934.94	13 174.00
70	2 194.0	11 410.2	56 338.8	192.23	1 733.91	11 239.06
71	1 927.5	9 482.7	44 928.6	182.62	1 541.68	9 505.15
72	1 679.7	7 803.0	35 445.9	172.06	1 359.06	7 963.47
73	1 450.9	6 352.1	27 642.9	160.76	1 187.00	6 604.41
74	1 241.0	5 111.1	21 290.8	148.88	1 026.24	5 417.41
75	1 050.2	4 060.93	16 179.67	136.31	877.36	4 391.17
76	878.37	3 182.56	12 118.74	123.35	741.05	3 513.81
77	725.32	2 457.24	8 936.18	110.30	617.70	2 772.76
78	590.30	1 866.74	6 478.94	97.190	507.402	2 155.057
79	473.34	1 393.40	4 612.20	84.207	410.212	1 647.655
80	373.12	1 020.28	3 218.80	71.867	326.005	1 237.441
81	288.64	731.64	2 198.52	60.087	254.138	911.438
82	218.79	512.85	1 466.88	49.195	194.051	657.300
83	162.20	350.65	954.03	39.359	144.856	463.249
84	117.35	233.297	603.382	30.777	105.497	318.393
85	82.609	150.688	370.085	23.301	74.720	212.896
86	56.514	94.174	219.397	17.198	51.419	138.176
87	37.405	56.769	125.223	12.257	34.221	86.757
88	23.883	32.886	68.454	8.3784	21.9636	52.5355
89	14.697	18.189	35.568	5.5625	13.5852	30.5719
90	8.638	9.551	17.379	3.4956	8.0227	16.9867
91	4.850	4.701	7.828	2.0686	4.5271	8.9640
92	2.617	2.084	3.127	1.2237	2.4585	4.4369
93	1.305	.779	1.043	.7094	1.2348	1.9784
94	.552	.227	.264	.3427	.5254	.7436
95	.190	.037	.037	.1472	.1827	.2182
96	.037	.000	.000	.0355	.0355	.0355

Constant.	Number.	Logarithm.
i	.035	¥ 5440680
$(1+i)$	1.035	0.0149403
$(1+i)^{\frac{1}{2}}$	1.0173495	0.0074702
v	.9661836	¥ .9850597
$v^{\frac{1}{2}}$	.9829465	¥ .9925298
d	.0338164	¥ .5291277
δ	.0344014	¥ .5365764
$i^{(2)}$	.0346990	¥ .5403170

TABLE III.
COMMUTATION COLUMNS—AMERICAN TROPICAL EXPERIENCE TABLE, THREE PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
20	55 368	1 088 402	18 124 163	631.08	22 053.87	582 569.81
21	53 124	1 035 278	17 035 761	609.57	21 422.79	560 515.94
22	50 067	984 311	16 000 483	589.28	20 813.22	539 093.15
23	48 893	935 418	15 016 172	569.66	20 223.94	518 279.93
24	46 899	888 519	14 080 754	551.63	19 654.28	498 055.99
25	44 982	843 537	13 192 235	533.71	19 102.65	478 401.71
26	43 138	800 399	12 348 698	517.27	18 568.94	459 299.06
27	41 364	759 035	11 548 299	501.76	18 051.67	440 730.12
28	39 658	719 377	10 789 264	487.15	17 549.91	422 678.45
29	38 015	681 362	10 069 887	472.55	17 062.76	405 128.54
30	36 436	644 926	9 388 525	459.99	16 590.21	388 065.78
31	34 914	610 012	8 743 599	446.98	16 130.22	371 475.57
32	33 451	576 561	8 133 587	435.84	15 683.24	355 315.35
33	32 040	544 521	7 557 026	424.98	15 247.40	339 662.11
34	30 682	513 839	7 012 505	414.73	14 822.42	324 414.71
35	29 374	484 465	6 498 666	405.41	14 407.69	309 592.29
36	28 113	456 352	6 014 201	396.62	14 002.28	295 184.60
37	26 897	429 455	5 557 849	388.65	13 605.66	281 182.32
38	25 725	403 730	5 128 394	381.11	13 217.01	267 576.66
39	24 595	379 135	4 724 664	374.61	12 835.90	254 359.65
40	23 504	355 631	4 345 529	368.17	12 461.29	241 523.75
41	22 451	333 180	3 989 898	362.93	12 093.12	229 062.46
42	21 434	311 746	3 656 718	357.97	11 730.19	216 969.34
43	20 452	291 294	3 344 972	353.54	11 372.22	205 239.15
44	19 503	271 791	3 053 678	349.59	11 018.68	193 866.93
45	18 585	253 206	2 781 887	346.34	10 669.09	182 848.25
46	17 698	235 508	2 528 681	343.23	10 322.75	172 179.16
47	16 839	218 699	2 293 173	340.98	9 979.52	161 856.41
48	16 008	202 661	2 074 504	339.03	9 638.54	151 876.89
49	15 202	187 459	1 871 843	337.37	9 299.51	142 238.35
50	14 422	173 037	1 684 384	336.18	8 962.14	132 938.84
51	13 666	159 371	1 511 347	335.21	8 625.96	123 976.70
52	12 933	146 438	1 351 976	334.42	8 290.75	115 350.74
53	12 221	134 217	1 205 538	333.80	7 956.33	107 059.99
54	11 532	122 685	1 071 321	333.32	7 622.53	99 103.66
55	10 863	111 822	948 636	333.17	7 289.21	91 481.13
56	10 213	101 609.1	836 813.8	332.74	6 956.04	84 191.92
57	9 582.8	92 026.3	735 201.7	332.23	6 623.30	77 235.88
58	8 971.4	83 054.9	643 178.4	331.64	6 291.07	70 612.58
59	8 378.5	74 676.4	560 123.5	330.64	5 959.43	64 321.51
60	7 803.8	66 872.6	485 447.1	329.41	5 628.79	58 362.08
61	7 247.1	59 625.5	418 574.5	327.65	5 299.38	52 733.29
62	6 708.4	52 917.1	358 919.0	325.11	4 971.72	47 433.91
63	6 187.9	46 729.2	306 031.9	322.12	4 646.61	42 462.19
64	5 685.5	41 043.7	259 302.7	318.16	4 324.49	37 815.58

TABLE III.—Cont.
COMMUTATION COLUMNS—AMERICAN TROPICAL EXPERIENCE
TABLE, THREE PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
65	5 201.8	35 841.9	218 259.0	313.15	4 006.33	33 491.09
66	4 737.1	31 104.8	182 417.1	307.34	3 693.18	29 484.76
67	4 291.8	26 813.0	151 312.3	300.14	3 385.84	25 791.58
68	3 866.7	22 940.3	124 499.3	291.78	3 085.70	22 405.74
69	3 462.2	19 484.1	101 553.0	282.15	2 793.92	19 320.04
70	3 079.3	16 404.8	82 068.9	271.11	2 511.77	16 526.12
71	2 718.5	13 686.3	65 664.1	258.81	2 240.66	14 014.35
72	2 380.5	11 305.8	51 977.8	245.03	1 981.85	11 773.69
73	2 066.1	9 239.7	40 672.0	230.04	1 736.82	9 791.84
74	1 775.9	7 463.8	31 432.3	214.08	1 506.78	8 055.02
75	1 510.1	5 953.7	23 968.5	196.95	1 292.70	6 548.24
76	1 269.2	4 684.5	18 014.8	179.00	1 095.75	5 255.54
77	1 053.1	3 631.38	13 330.32	160.92	916.66	4 159.79
78	861.51	2 769.87	9 698.94	142.48	755.74	3 213.13
79	693.93	2 075.94	6 929.07	124.05	613.26	2 487.39
80	549.67	1 526.27	4 853.13	106.39	489.21	1 874.13
81	427.28	1 098.99	3 326.86	89.380	324.822	1 384.916
82	325.45	773.54	2 227.87	73.532	293.442	1 002.094
83	242.44	531.10	1 454.33	59.116	219.910	708.652
84	176.26	354.84	923.23	46.451	160.794	488.742
85	124.68	230.160	568 389	35.338	114.343	327.948
86	85.709	144.451	338.229	26.209	79.005	213.605
87	57.003	87.448	193.778	18.769	52.796	134.600
88	36.574	50.874	106.330	12.893	34.027	81.804
89	22.616	28.258	55 456	8.6011	21.1344	47.7765
90	13.356	14.902	27.198	5.4313	12 5333	26.6421
91	7.536	7.366	12.296	3.2298	7.1020	14 1088
92	4.087	3.279	4.930	1.9198	3.8721	7.0068
93	2.048	1.231	1.651	1.1183	1.9524	3.1346
94	.870	.301	.420	.5429	.8341	1.1822
95	.302	.059	.059	.2343	.2912	.3481
96	.059	.003	.000	.0569	.0569	.0569

Constant.	Number.	Logarithm.
i	.03	1.4771213
$(1+i)$	1.03	0.0128372
$(1+i)^{1/2}$	1.0148891	0.0064186
v	.9708738	1.9871628
$v^{1/2}$	.9853293	1.9935814
d	.0291262	1.4642838
δ	.0295588	1.4706867
(δ)	.0297783	1.4738999

TABLE IV.

AMERICAN TROPICAL EXPERIENCE—JOINT LIFE (TWO LIVES)
COMMUTATION COLUMNS, FOUR PER CENT.

Age.	D_{xx}	N_{xx}	M_{xx}	R_{xx}
20	4 563 900 000	62 578 8	I 981 500 000	34 095 900 000
21	4 285 9	58 292 9	I 879 0	32 114 4
22	4 024 2	54 268 7	I 782 2	30 235 4
23	3 777 8	50 490 9	I 690 6	28 453 2
24	3 545 9	46 945 000 000	I 603 9	26 762 6
25	3 327 400 000	43 617 6	I 521 800 000	25 158 700 000
26	3 121 7	40 495 9	I 444 1	23 636 9
27	2 927 9	37 568 0	I 370 4	22 192 8
28	2 745 4	34 822 6	I 300 5	20 822 4
29	2 573 4	32 249 200 000	I 234 1	19 521 9
30	2 411 500 000	29 837 7	I 171 100 000	18 287 800 000
31	2 258 8	27 578 9	I 111 20	17 116 70
32	2 115 1	25 463 8	I 054 30	16 005 50
33	I 979 5	23 484 3	I 000 10	14 951 20
34	I 851 7	21 632 600 000	948 46	13 951 08
35	I 731 300 000	19 901 3	899 230 000	13 002 620 000
36	I 617 7	18 283 6	852 24	12 103 39
37	I 510 6	16 773 0	807 36	11 251 15
38	I 409 6	15 363 4	764 45	10 443 79
39	I 314 3	14 049 100 000	723 40	9 679 34
40	I 224 400 000	12 824 70	684 050 000	8 955 940 000
41	I 139 60	11 685 10	646 38	8 271 88
42	I 059 60	10 625 51	610 19	7 625 50
43	984 11	9 641 40	575 44	7 015 31
44	912 87	8 728 530 000	542 04	6 439 87
45	845 640 000	7 882 89	509 930 000	5 897 830 000
46	782 21	7 100 68	479 02	5 387 90
47	722 37	6 378 31	449 27	4 908 88
48	665 92	5 712 39	420 60	4 459 61
49	612 67	5 099 720 000	392 97	4 039 01
50	562 480 000	4 537 24	366 340 000	3 646 040 000
51	515 19	4 022 05	340 68	3 279 70
52	470 66	3 551 39	315 97	2 939 02
53	428 77	3 122 62	292 18	2 623 05
54	389 41	2 733 210 000	269 31	2 330 87
55	352 470 000	2 380 74	247 350 000	2 061 560 000
56	317 84	2 062 90	226 27	1 814 21
57	285 45	I 777 45	206 11	I 587 94
58	255 22	I 522 23	186 85	I 381 83
59	227 07	I 295 160 000	168 52	I 194 98
60	200 950 000	I 094 21	151 130 000	I 026 460 000
61	176 78	917 43	134 700	875 330
62	154 52	762 91	119 230	740 630
63	134 11	628 80	104 770	621 400
64	115 50	513 297 000	91 313	516 633

TABLE IV.—Cont.
AMERICAN TROPICAL EXPERIENCE—JOINT LIFE (TWO LIVES),
COMMUTATION COLUMNS, FOUR PER CENT.

Age.	D _{xx}	N _{xx}	M _{xx}	R _{xx}
65	98 622 000	414 675	78 880 000	425 320 000
66	84 433	331 242	67 484	346 440
67	69 860	261 382	57 120	278 956
68	57 845	203 537	47 792	221 836
69	47 310	156 227 000	39 482	174 044
70	38 174 000	118 053	32 165 000	134 562 000
71	30 350 0	87 703	25 810	102 397
72	23 740	63 963	20 367	76 587
73	18 243	45 720	15 783	56 220
74	13 749	31 971 000	11 991	40 437
75	10 141 000	21 830 0	8 911 500	28 446 300
76	7 307 3	14 522 7	6 467 7	19 534 8
77	5 132 2	9 390 5	4 573 6	13 067 1
78	3 503 7	5 886 8	3 142 5	8 493 5
79	2 318 9	3 567 900	2 092 5	5 351 0
80	1 484 200	2 083 65	1 347 000	1 258 500
81	914 85	1 168 80	834 71	1 911 46
82	541 43	627 37	496 48	1 076 75
83	306 49	320 88	282 36	580 27
84	165 26	155 622	152 92	297 91
85	84 349	71 273	78 363	144 985
86	40 662	30 611	37 921	66 622
87	18 348	12 262.9	17 170	28 701
88	7 704.8	4 558.1	7 233 1	11 530.9
89	3 005.3	1 552.8	2 830.0	4 297.8
90	1 069.2	483.61	1 009.5	1 467.8
91	347.23	136.38	328.63	458.29
92	104.16	32.216	98.918	129.658
93	26.681	5.535	25.442	30.740
94	4.310	.625	4.6975	5.2980
95	.602	.023	.5782	.6005
96	.023	.000	.0223	.0223

Constant.	Number.	Logarithm.
<i>i</i>	.04	1.6020600
(1 + <i>i</i>)	1.04	0.0170333
(1 + <i>i</i>) ^{1/2}	1.0198039	0.0085167
<i>v</i>	.9615385	1.9829667
<i>v</i> ^{1/2}	.9805807	1.9914833
<i>d</i>	.0384615	1.5850267
<i>δ</i>	.0392207	1.5935156
<i>j</i> (2)	.0396078	1.5977807

TABLE V.
AMERICAN TROPICAL EXPERIENCE—FORCE OF MORTALITY (μ_x)

Age.	μ_x	Age.	μ_x	Age.	μ_x
20	0.01177	46	.01977	72	.10750
21	.01185	47	.02062	73	.11681
22	.01193	48	.02155	74	.12702
23	.01203	49	.02257	75	.13822
24	.01213	50	.02369	76	.15049
25	.01224	51	.02492	77	.16396
26	.01236	52	.02627	78	.17872
27	.01250	53	.02774	79	.19490
28	.01265	54	.02936	80	.21265
29	.01281	55	.03114	81	.23210
30	.01299	56	.03308	82	.25344
31	.01318	57	.03522	83	.27683
32	.01339	58	.03755	84	.30248
33	.01363	59	.04012	85	.33061
34	.01388	60	.04293	86	.36144
35	.01416	61	.04602	87	.39526
36	.01447	62	.04940	88	.43233
37	.01481	63	.05310	89	.47298
38	.01518	64	.05717	90	.51756
39	.01559	65	.06163	91	.56643
40	.01603	66	.06651	92	.62002
41	.01652	67	.07187	93	.67878
42	.01706	68	.07775	94	.74321
43	.01765	69	.08419	95	.81386
44	.01829	70	.09126	96	.89132
45	.01900	71	.09900	97	.00000

**NATIONAL FRATERNAL CONGRESS TABLE.
INTRODUCTION.**

THIS table was deduced from the mortality experience of the Massachusetts fraternal societies, the Royal Arcanum and the Pilgrim Fathers, with reference also to the published tables of the Canada Life Insurance Company and the Australian Mutual Provident Society.

The table was graduated by George Dyre Eldridge, actuary.

The commutation columns are here reproduced by the special permission of Abb Landis, consulting actuary; they are from his book, "Life Insurance Premiums," which also contains valuable tables of net premiums and terminal reserves.

This table has been approved by the National Fraternal Congress as a minimum standard for net rates of premium.

MORTALITY TABLE.

Age	Living l_x	Dying d_x	PROBABILITIES		Age	Living l_x	Dying d_x	PROBABILITIES	
			Surviving P_x	Dying Q_x				Surviving P_x	Dying Q_x
20	100000	500	.9950000	.0050000	60	69801	1588	.9772496	.0227504
21	99500	501	.9949648	.0050352	61	68213	1681	.9753566	.0246434
22	98999	502	.9949292	.0050708	62	66532	1778	.9732760	.0267240
23	98497	503	.9948932	.0051068	63	64754	1880	.9709670	.0290330
24	97994	505	.9948465	.0051535	64	62874	1985	.9684289	.0315711
25	97489	507	.9947994	.0052006	65	60889	2094	.9656696	.0343994
26	96982	510	.9947413	.0052587	66	58795	2206	.9624798	.0375202
27	96472	513	.9946824	.0053176	67	56589	2318	.9590380	.0409620
28	95959	517	.9946123	.0053877	68	54271	2430	.9552247	.044775E
29	95442	522	.9945307	.0054693	69	51841	2539	.9510233	.0489767
30	94920	527	.9944480	.0055520	70	49302	2645	.9463511	.0536489
31	94393	533	.9943534	.0056466	71	46507	2744	.9411878	.0588122
32	93860	540	.9942468	.0057532	72	43913	2832	.9355088	.0644912
33	93320	548	.9941277	.0058723	73	41081	2909	.9291887	.0708113
34	92772	557	.9939960	.0060040	74	38172	2969	.9222205	.0777795
35	92215	567	.9938513	.0061487	75	35203	3009	.9145243	.0854757
36	91648	578	.9936933	.0063067	76	32194	3026	.9060073	.0939927
37	91070	591	.9935105	.0064895	77	29168	3016	.8965990	.1034010
38	90479	606	.9933023	.0066977	78	26152	2977	.8861655	.1138345
39	89873	622	.9930791	.0069209	79	23175	2905	.8746494	.1253506
40	89251	640	.9928292	.0071708	80	20270	2799	.8619142	.1380858
41	88611	660	.9925517	.0074483	81	17471	2659	.8478049	.1521951
42	87951	683	.9922313	.0077657	82	14812	2485	.8322306	.1677694
43	87268	708	.9918871	.0081129	83	12327	2280	.8150401	.1849599
44	86560	734	.9915203	.0084797	84	10047	2050	.7959590	.2040410
45	85826	761	.9911332	.0088668	85	7997	1800	.7749156	.2250844
46	85065	790	.9907130	.0092870	86	6197	1539	.7516540	.2493400
47	84275	822	.9902462	.0097538	87	4658	1277	.7258480	.2741520
48	83453	857	.9897307	.0102693	88	3381	1023	.6974268	.3025732
49	82596	894	.9891762	.0108238	89	2358	788	.6658185	.3341815
50	81702	935	.9885560	.0114440	90	1570	579	.6312102	.3687898
51	80767	981	.9878540	.0121460	91	991	404	.5923310	.4076690
52	79786	1029	.9871030	.0128970	92	587	264	.5502555	.4497445
53	78757	1083	.9862488	.0137512	93	323	161	.5015180	.4984520
54	77674	1140	.9852323	.0146767	94	162	89	.4506173	.5493827
55	76534	1202	.9842946	.0157054	95	73	44	.3972603	.6027397
56	75332	1270	.9831413	.0168587	96	29	19	.3448276	.6551724
57	74062	1342	.9818800	.0181200	97	10	7	.3000000	.7000000
58	72720	1418	.9805006	.0194994	98	3	3	.0000000	1.0000000
59	71302	1501	.9789487	.0210513					

COMMUTATION COLUMNS,
FOUR PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
20	45638.7	889569.8	15263684	219.4168	9669.139	312174.1
21	43663.9	845905.8	14374114	211.3996	9449.722	302505.0
22	41773.2	804132.6	13528208	203.6746	9238.323	293055.3
23	39962.8	764169.8	12724076	196.2311	9034.648	283817.0
24	38230.0	725940.3	11959906	189.4340	8838.417	274782.3
25	36569.8	689370.5	11233966	182.8694	8648.983	265943.9
26	34980.4	654390.1	10544595	176.8765	8466.113	257294.9
27	33458.1	620932.0	9840205	171.0739	8289.237	248828.8
28	32000.2	588931.9	9269273	165.7768	8118.163	240539.5
29	30603.6	558328.3	8680341	160.9423	7952.386	232421.4
30	29265.6	529062.7	8122013	156.2346	7791.444	224469.0
31	27983.8	501078.9	7592950	151.9359	7635.209	216677.5
32	26755.5	474323.3	7091871	148.0109	7483.273	209042.3
33	25578.5	448744.9	6617548	144.4265	7335.263	201559.1
34	24450.3	424294.6	6168803	141.1524	7190.836	194223.8
35	23368.7	400925.9	5744509	138.1602	7049.684	187033.0
36	22331.8	378594.2	5343583	135.4236	6911.523	179983.3
37	21337.4	357256.8	4960488	133.1437	6776.100	173071.8
38	20383.6	336873.2	4607732	131.2721	6642.956	166295.7
39	19468.3	317404.8	4270859	129.5558	6511.684	159652.7
40	18590.0	298814.8	3953454	128.1779	6382.128	153141.0
41	17746.8	281068.0	3654039	127.0945	6253.950	146758.9
42	16937.2	264130.8	3373571	126.4649	6126.851	140504.9
43	16159.3	247971.6	3109440	126.0508	6000.381	134378.1
44	15411.7	232559.9	2861469	125.6596	5874.324	128377.7
45	14693.3	217866.6	2628909	125.2711	5748.665	122503.4
46	14002.9	203863.7	2411042	125.0432	5623.393	116754.7
47	13339.3	190524.5	2207178	125.1041	5498.350	111131.3
48	12701.1	177823.3	2016654	125.4143	5373.246	105633.0
49	12087.2	165736.2	1838831	125.7971	5247.832	100259.7
50	11496.5	154239.6	1673094	126.5061	5122.035	95011.00
51	10927.8	143311.8	1518855	127.6219	4995.529	89889.86
52	10379.9	132931.9	1375543	128.7207	4876.504	84804.33
53	9851.950	123080.0	1242611	130.2651	4739.183	80026.43
54	9342.763	113737.2	1119531	131.8472	4608.813	75287.25
55	8851.579	104885.6	1005704	133.6711	4477.071	70678.32
56	8377.493	96508.17	900908.2	135.8011	4343.400	66201.26
57	7919.451	88588.72	804400.0	137.9809	4207.509	61857.86
58	7476.876	81111.85	715811.3	140.1875	4069.617	57650.26
59	7049.117	74062.73	634699.5	142.6857	3929.430	53580.64
60	6635.311	67427.42	560636.7	145.1499	3786.745	49651.21
61	6234.957	61192.46	493200.3	147.7400	3641.595	45864.47
62	5847.410	55345.05	432016.9	150.2558	3493.854	42222.87
63	5472.254	49872.80	376671.8	152.7651	3343.598	38729.02
64	5109.017	44763.78	326799.0	155.0935	3190.833	35385.42

COMMUTATION COLUMNS.
FOUR PER CENT.—Cont.

Age.	D ₁	N ₁	S ₁	C ₁	M ₁	R ₁
65	4757.423	40006.36	282035.2	157.3172	3035.739	32194.59
66	4417.128	35589.23	242028.9	159.3572	2878.422	29158.85
67	4087.881	31501.35	206439.6	161.0076	2719.065	26280.43
68	3769.648	27731.70	174938.3	162.2953	2558.057	23561.36
69	3462.366	24269.33	147206.6	163.0531	2395.762	21003.30
70	3165.145	21103.19	122937.3	163.3272	2232.709	18607.54
71	2881.043	18222.15	101834.1	162.6235	2059.382	16374.83
72	2607.310	15614.84	83611.93	161.6812	1906.458	14305.45
73	2345.348	13269.49	67997.69	159.6896	1744.777	12368.99
74	2095.452	11174.04	54727.60	156.7147	1585.087	10654.22
75	1858.143	9315.893	43553.56	152.7174	1428.373	9069.129
76	1633.959	7681.934	34237.67	147.6732	1275.655	7640.756
77	1423.441	6258.493	26555.74	141.5243	1127.982	6365.101
78	1227.169	5031.324	20297.24	134.3213	986.4579	5237.119
79	1045.649	3985.675	15265.92	126.0315	852.1366	4250.661
80	879.4003	3106.275	11280.24	116.7622	726.1051	3398.524
81	728.8150	2377.460	8173.969	106.6558	609.3429	2672.419
82	594.1278	1783.352	5796.509	95.84274	502.6871	2063.076
83	475.4340	1307.898	4013.177	84.55404	406.8443	1560.389
84	372.5940	935.3040	2705.279	73.10045	322.2903	1153.545
85	285.1631	650.1409	1769.975	61.71707	249.1898	831.2547
86	212.4782	437.6627	1119.835	50.73856	187.4728	582.0619
87	153.5674	284.0954	682.1718	40.48154	130.7342	394.5922
88	107.1794	176.9160	368.0764	31.18232	96.25265	257.8580
89	71.87479	105.0412	221.1605	23.09541	65.07033	161.6053
90	46.01497	59.02610	116.1193	16.31716	41.97492	96.5350
91	27.92800	31.06810	57.0931	10.94748	25.65776	54.5601
92	15.90636	15.19183	25.9949	6.878053	14.71028	28.9023
93	8.415927	6.77500	10.8031	4.033592	7.83163	14.1920
94	4.058646	2.71726	4.0272	2.143990	3.79803	6.3604
95	1.758554	0.95870	1.3099	1.019183	1.65404	2.5624
96	0.671734	0.28697	.3512	0.423175	0.63486	.9083
97	0.222724	0.06425	.0642	0.149910	0.21160	.2735
98	0.064247	.....	.....	0.061776	0.06178	.0618

COMMUTATION COLUMNS,
THREE AND ONE-HALF PER CENT.

Age.	D _x	I _x	S _x	C _x	M _x	R _x
20	50256.6	1066360	19278800	242.786	12496.5	426927
21	48314.3	1018050	18212400	235.044	12253.7	414430
22	46445.4	971606	17194300	227.550	12018.7	402176
23	44647.3	926959	16222700	220.293	11791.2	390157
24	42917.2	884042	15295700	213.689	11570.9	378366
25	41252.2	842790	14411700	207.281	11357.2	366795
26	39649.9	803140	13568900	201.456	11149.9	355438
27	38107.6	765032	12765800	195.788	10948.4	344288
28	36623.1	728409	12000800	190.643	10752.6	333340
29	35194.0	693215	11272400	185.978	10562.0	322587
30	33818.0	659397	10579200	181.410	10376.0	312025
31	32492.9	626004	9919750	177.270	10194.6	301649
32	31216.9	595687	9292850	173.525	10017.3	291454
33	29987.7	565609	8697100	170.141	9843.74	281437
34	28803.5	536895	8131460	167.087	9673.60	271593
35	27662.4	509233	7594560	164.335	9506.51	261919
36	26562.6	482670	7085330	161.858	9342.18	252412
37	25502.5	457168	6602060	159.902	9180.32	243070
38	24480.2	432688	6145490	158.416	9020.42	233800
39	23493.9	409194	5712800	157.100	8862.00	224870
40	22542.3	386652	5303610	156.180	8704.90	216008
41	21623.9	365028	4916900	155.614	8548.72	207303
42	20737.0	344291	4551930	155.591	8393.11	198754
43	19880.2	324411	4207640	155.833	8237.52	190361
44	19052.1	305359	3883230	156.092	8081.69	182123
45	18251.7	287107	3577870	156.361	7925.60	174041
46	17478.1	269629	3290760	156.831	7769.24	166115
47	16730.3	252899	3021130	157.605	7612.41	158346
48	15006.8	236892	2768230	158.820	7454.74	150734
49	15306.7	221585	2531340	160.074	7295.92	143279
50	14629.1	206956	2309760	161.754	7135.85	135983
51	13972.6	192983	2102800	163.972	6974.10	128847
52	13336.1	179647	1909820	166.179	6810.13	121873
53	12718.9	166928	1730170	168.985	6643.95	115063
54	12119.8	154808	1563240	171.864	6474.90	108419
55	11538.1	143270	1408430	175.083	6303.10	101944
56	10972.9	132297	1265160	178.733	6128.02	95641.2
57	10423.1	121874	1132860	182.479	5949.29	89513.2
58	9888.16	111983	1010990	186.292	5766.81	83563.9
59	9367.46	102619	899004	190.529	5580.52	77797.1
60	8860.14	93758.5	796385	194.755	5389.99	72216.6
61	8365.79	85392.7	702626	199.190	5195.23	66826.6
62	7883.69	77509.0	617233	203.559	4996.04	61631.4
63	7413.54	70095.5	539724	207.958	4792.48	56635.4
64	6955.89	63139.6	469629	212.148	4584.52	51842.9

COMMUTATION COLUMNS,
THREE AND ONE-HALF PER CENT.—Cont.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
65	6507.54	56632.1	406489	216.229	4372.37	47258.4
66	6071.25	50500.9	349857	220.091	4156.14	42886.0
67	5645.86	44915.0	299206	223.444	3936.05	38729.9
68	5231.48	39683.5	254381	226.319	3712.61	34793.8
69	4828.26	34855.2	214097	228.475	3486.29	31081.2
70	4436.52	30418.7	179842	229.965	3257.82	27594.9
71	4056.51	26362.2	149423	230.504	3027.85	24337.1
72	3658.83	22073.4	123061	229.851	2797.35	21309.3
73	3334.23	19339.2	100388	228.117	2567.50	18511.9
74	2993.37	16345.8	81048.4	224.949	2339.38	15944.4
75	2667.70	13678.6	64702.6	220.270	2114.43	13605.0
76	2356.72	11321.9	51024.0	214.024	1864.16	11490.6
77	2063.00	9258.89	39702.1	206.103	1680.14	9596.43
78	1787.14	7471.75	30443.2	196.558	1474.04	7916.29
79	1530.15	5941.00	22971.4	185.318	1277.48	6442.25
80	1293.08	4648.52	17029.8	172.518	1092.16	5164.77
81	1070.84	3571.68	12381.3	158.347	919.640	4072.61
82	882.076	2689.60	8809.60	142.981	761.293	3152.97
83	709.266	1980.33	6120.00	126.749	618.312	2391.68
84	558.532	1421.80	4139.67	110.109	491.563	1773.37
85	429.535	992.266	2717.87	93.4121	381.454	1281.81
86	321.597	670.669	1725.60	77.1665	288.042	900.356
87	233.555	437.114	1054.93	61.8643	210.875	612.314
88	163.793	273.321	617.811	47.8834	149.011	421.439
89	110.371	162.950	344.490	35.6365	101.128	252.428
90	71.0020	91.9475	181.540	25.2992	65.4913	151.300
91	43.3015	48.0400	89.592	17.0557	40.1921	85.808
92	24.7815	23.8645	40.946	10.7634	23.1364	45.616
93	13.1750	10.6895	17.082	6.34501	12.3680	22.480
94	6.38444	4.3050	6.392	3.38888	6.0230	10.112
95	2.77965	1.5254	2.087	1.61875	2.6341	4.089
96	1.06690	0.4585	0.562	0.67537	1.0153	1.455
97	0.35546	0.1030	0.103	0.24041	0.3400	0.440
98	0.10303	.....	.....	0.09955	0.0995	0.100

COMMUTATION COLUMNS,
THREE PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
20	55367.6	1285330	24500600	268.774	16318.2	588033
21	53486.2	1231840	23215300	261.467	16019.4	571715
22	51666.9	1180170	21983500	254.359	15788.0	555666
23	49907.6	1130270	20803300	247.442	15533.6	539878
24	48209.7	1082060	19673000	241.190	15286.2	524344
25	46561.3	1035500	18590900	235.092	15045.0	509958
26	44970.0	990527	17555400	229.596	14809.9	494013
27	43430.6	947997	16594900	224.220	14580.3	479203
28	41941.4	905155	15617800	219.387	14356.1	464623
29	40500.4	864655	14712700	215.057	14136.7	450267
30	39105.8	825549	13848000	210.793	13921.6	436130
31	37756.0	787793	13022500	206.983	13710.8	422208
32	36449.3	751344	12234700	203.594	13503.9	408497
33	35184.2	716160	11483400	200.593	13300.3	394993
34	33958.7	682201	10767200	197.948	13099.7	381693
35	32771.7	649429	10085000	195.633	12901.7	368593
36	31621.5	617808	9435580	193.620	12706.1	355691
37	30506.9	587301	8817770	192.208	12512.5	342985
38	29426.2	557875	8230470	191.347	12320.3	330473
39	28377.7	529497	7672600	190.678	12128.9	318153
40	27360.5	502136	7143100	190.482	11938.2	306024
41	26373.2	475763	6640960	190.713	11747.7	294086
42	25414.3	450349	6165200	191.211	11557.0	282338
43	24482.4	425807	5714850	192.839	11365.4	270781
44	23576.5	402290	5288980	194.097	11172.6	259416
45	22695.7	379594	4886690	195.376	10978.5	248243
46	21839.2	357755	4507100	196.914	10783.1	237264
47	21006.2	336749	4149340	198.923	10586.2	226481
48	20195.5	316553	3812590	201.353	10387.3	215895
49	19406.0	297147	3496040	203.926	10185.9	205508
50	18636.8	278511	3198890	207.068	9981.99	195322
51	17886.9	260624	2920380	210.927	9774.93	185340
52	17155.0	243469	2659760	214.804	9564.00	175565
53	16440.6	227028	2416290	219.491	9349.20	166001
54	15742.2	211286	2189260	224.314	9129.70	156652
55	15059.4	196227	1977970	229.625	8905.39	147522
56	14391.1	181835	1781740	235.549	8675.77	138617
57	13736.4	168009	1599910	241.654	8440.22	129941
58	13094.7	155004	1431810	247.902	8198.56	121501
59	12465.4	142539	1276810	254.770	7950.66	113302
60	11847.5	130691	1134270	261.685	7695.89	105351
61	11240.8	119451	1003580	268.943	7434.20	97555.0
62	10644.4	108806	884133	276.177	7165.26	90220.8
63	10058.2	98748.0	775327	283.515	6889.08	83055.5
64	9481.74	89266.2	676579	290.630	66.5.57	76166.4

COMMUTATION COLUMNS,
THREE PER CENT.—*Cont.*

Age.	D _x	N _x	S _x	C _x	M _x	R _x
65	8914.96	80351.3	587313	297.659	6314.94	60560.8
66	8357.63	71993.6	506962	304.447	6017.28	63245.9
67	7809.77	64183.9	434968	310.586	5712.83	57228.6
68	7.71.72	56912.1	370784	316.110	5402.25	51515.8
69	6743.21	50168.9	313872	320.670	5086.14	46113.6
70	6226.71	43942.2	263703	324.327	4765.47	41027.5
71	5721.03	38221.2	219761	326.666	4441.14	36262.0
72	5227.28	32993.9	181540	327.323	4114.47	31820.9
73	4748.14	28245.8	148546	326.430	3787.15	27706.4
74	4283.42	23962.4	120300	323.458	3460.72	23919.2
75	3835.20	20127.2	96337.3	318.268	3137.26	20458.5
76	3405.22	16721.9	76210.1	310.744	2819.00	17321.2
77	2995.29	13726.6	59488.2	300.666	2508.25	14502.2
78	2607.36	11119.3	45761.6	288.163	2207.56	11994.0
79	2243.26	8876.02	34642.3	273.003	1919.39	9786.42
80	1904.92	6971.10	25766.3	255.381	1646.39	7867.03
81	1594.05	5377.05	18795.2	235.540	1391.01	6220.64
82	1312.08	4064.97	13418.2	213.715	1155.47	4829.63
83	1060.15	3004.82	9353.22	190.374	941.754	3674.16
84	838.900	2165.92	6348.40	166.184	751.380	2732.41
85	648.280	1517.64	4182.48	141.668	585.166	1681.03
86	487.729	1029.91	2664.84	117.198	443.528	1395.83
87	355.926	673.989	1634.93	94.7360	325.930	952.301
88	250.824	423.165	960.939	73.6822	231.194	626.371
89	169.836	253.329	537.774	55.1031	157.511	395.177
90	109.787	143.542	284.445	39.3000	102.408	237.666
91	67.2800	76.2623	140.903	26.6291	63.0992	135.258
92	38.6913	37.5710	64.6402	16.8944	36.4701	72.1584
93	20.6700	16.9010	27.0662	10.0023	19.5757	35.6883
94	10.0651	6.8359	10.1682	5.36851	9.5728	16.1126
95	4.49339	2.4325	3.3323	2.57680	4.2043	6.5398
96	1.69834	0.7342	0.8498	1.08030	1.6275	2.3355
97	0.56858	0.1656	0.1656	0.38641	0.5472	0.7080
98	0.16561	.....	.....	0.16078	0.1608	0.1608

DESPARCIEUX TABLE OF MORTALITY.

(Former French Standard for Insurances.)

THE Desparcieux Table of Mortality takes its name from its author, who published it in 1746 in a volume entitled, "Essai sur les probabilités de la vie humaine" (An Essay on the Probabilities of Human Life). Two tables were in fact published, one drawn from the experience of the "ton-tine funds" of 1689, 1696 and 1734, and one from the mortu-ary registers of fourteen monasteries covering 8700 male lives and twenty-six convents covering 1519 female lives. The latter table, somewhat adapted, became the French standard for life insurances, and is known as the Despar-cieux Table practically to the exclusion of the other.

The tables here published are taken from "Theorie Mathematique des Livs Assurances," by Dennoy. The columns headed D_x and N_x are not by our formula. The values are progressed to the end of the table at compound interest instead of discounted to the age at compound dis-count. But they may be used precisely as D_x and N_x . The French symbols are:

T_x equivalent to D_x .

S_x equivalent to N_{x+1} .

TABLE I.
DESPARCIEUX TABLE OF MORTALITY.

Age.	Number Living.	Number Dying.	Probability of Dying.	Probability of Living.	Age.	Number Living.	Number Dying.	Probability of Dying.	Probability of Living.
0	1,359	267	.19647	.80353	48	509	9	.01502	.98498
1	1,092	49	.04487	.95513	49	590	9	.01525	.98475
2	1,043	43	.04123	.95877	50	581	10	.01721	.98279
3	1,000	30	.03000	.97000	51	571	11	.01926	.98074
4	970	22	.02268	.97732	52	560	11	.01964	.98036
5	948	18	.01899	.98101	53	549	11	.02004	.97996
6	930	15	.01613	.98387	54	538	12	.02231	.97769
7	915	13	.01421	.98579	55	526	12	.02281	.97719
8	902	12	.01330	.98670	56	514	12	.02335	.97665
9	890	10	.01124	.98876	57	502	12	.02590	.97410
10	880	8	.00900	.99091	58	489	13	.02659	.97341
11	872	6	.00688	.99312	59	476	13	.02731	.97269
12	866	6	.00693	.99307	60	463	13	.02808	.97192
13	860	6	.00690	.99301	61	450	13	.02889	.97111
14	854	6	.00702	.99298	62	437	13	.03204	.96795
15	848	6	.00708	.99292	63	423	14	.03310	.96690
16	842	7	.00831	.99169	64	409	14	.03423	.96577
17	835	7	.00838	.99162	65	395	15	.03797	.96203
18	828	7	.00845	.99155	66	380	16	.04211	.95789
19	821	7	.00853	.99147	67	364	17	.04670	.95330
20	814	8	.00983	.99017	68	347	18	.05187	.94813
21	806	8	.00993	.99007	69	329	19	.05775	.94225
22	798	8	.01002	.98998	70	310	19	.06129	.93871
23	790	8	.01013	.98987	71	291	20	.06873	.93127
24	782	8	.01023	.98977	72	271	20	.07380	.92620
25	774	8	.01034	.98966	73	251	20	.07968	.92032
26	766	8	.01044	.98956	74	231	20	.08658	.91342
27	758	8	.01055	.98945	75	211	19	.09005	.90995
28	750	8	.01067	.98933	76	192	19	.09896	.90104
29	742	8	.01078	.98922	77	173	19	.10983	.89017
30	734	8	.01090	.98910	78	154	18	.11688	.88312
31	726	8	.01102	.98908	79	136	18	.13255	.86745
32	718	8	.01114	.98896	80	118	17	.14407	.85593
33	710	8	.01127	.98873	81	101	16	.15841	.84159
34	702	8	.01140	.98860	82	85	14	.16471	.83529
35	694	8	.01153	.98847	83	71	12	.16901	.83099
36	686	8	.01166	.98834	84	59	11	.18064	.81336
37	678	7	.01032	.98968	85	48	10	.20833	.79167
38	671	7	.01043	.98957	86	38	9	.23684	.76316
39	664	7	.01054	.98946	87	29	7	.24138	.75862
40	657	7	.01065	.98935	88	22	6	.27273	.72727
41	650	7	.01077	.98923	89	16	5	.31250	.68750
42	643	7	.01089	.98911	90	11	4	.36364	.63636
43	636	7	.01101	.98899	91	7	3	.42857	.57142
44	629	7	.01113	.98887	92	4	2	.50000	.50000
45	622	7	.01125	.98875	93	2	1	.50000	.50000
46	615	8	.01301	.98699	94	1	1	1.00000	.00000
47	607	8	.01318	.98682					

TABLE II.
DESPARCIEUX TABLE OF MORTALITY—COMMUTATION TABLES,
FOUR PER CENT.*

Age.	D _x	N _x	Age.	D _x	N _x
0	54244.23	763202.83	48	3638.82	47583.04
1	41910.53	721292.30	49	3446.29	44136.75
2	38490.34	682801.96	50	3263.20	40873.55
3	35484.11	647317.85	51	3083.68	37789.87
4	33095.75	614222.10	52	2907.96	34881.91
5	31101.09	583121.01	53	2741.19	32140.72
6	29337.07	553783.94	54	2582.95	29557.77
7	27753.75	526030.19	55	2428.21	27129.56
8	26307.14	499723.05	56	2281.56	24848.00
9	24958.81	474764.24	57	2142.57	22705.43
10	23729.21	451035.03	58	2006.82	20698.61
11	22609.12	428425.91	59	1878.34	18820.27
12	21589.95	406835.96	60	1756.77	17063.50
13	20615.74	386220.22	61	1641.77	15421.73
14	19684.52	366535.70	62	1533.03	13888.70
15	18794.46	347721.24	63	1426.84	12461.86
16	17943.73	329797.51	64	1326.55	11135.31
17	17110.15	312687.37	65	1231.87	9903.44
18	16314.13	296373.24	66	1139.51	8763.93
19	15554.05	280819.19	67	1049.54	7714.39
20	14828.31	265960.88	68	962.05	6752.34
21	14117.86	251873.02	69	877.06	5875.28
22	13440.13	238432.89	70	794.63	5080.65
23	12793.64	225639.25	71	717.23	4363.42
24	12177.01	213462.24	72	642.25	3721.17
25	11588.87	201873.37	73	571.97	3149.20
26	11027.97	190845.40	74	506.15	2643.05
27	10493.08	180352.32	75	444.54	2198.51
28	9983.01	170369.31	76	388.96	1809.55
29	9496.66	160872.65	77	336.99	1472.56
30	9032.95	151839.70	78	288.44	1184.12
31	8590.87	143248.83	79	244.93	939.19
32	8169.41	135079.42	80	204.34	734.85
33	7767.60	127311.72	81	168.17	566.68
34	7384.78	119926.94	82	136.09	430.59
35	7019.83	112907.11	83	109.30	321.29
36	6672.03	106235.08	84	87.34	233.95
37	6340.59	99894.19	85	68.32	165.63
38	6033.78	93860.71	86	52.01	113.62
39	5741.19	88119.52	87	38.16	75.46
40	5462.18	82657.34	88	27.84	47.62
41	5196.13	77461.21	89	19.47	28.15
42	5942.47	72518.74	90	12.87	15.28
43	4700.65	67818.09	91	7.87	7.41
44	4470.10	63347.99	92	4.33	3.08
45	4250.34	59097.65	93	2.08	1.00
46	4040.88	55056.77	94	1.00	0.00
47	3834.91	51221.86	95	0.00	0.00

(* See Introduction.)

DUVILLARD TABLE OF MORTALITY.

(Former French Standard for Annuities.)

THE Duvillard Table of Mortality takes its name from its author, who published it in 1806 in a work entitled "Analyse de l'influence de la petite vesole sur la Mortalite'" (Analysis of the influence of smallpox upon the mortality). This table was constructed to show the normal mortality by way of contrast. It was drawn from population statistics embracing 101,542 deaths in a population of 2,920,672.

The columns headed D_x and N_x are not by our formula. The values are progressed to the end of the table at compound interest instead of discounted to the age at entry at compound discount. But they may be used precisely as D_x and N_x .

The French symbols are:

T_x equivalent to D_x .

S_x equivalent to N_{x+1} .

TABLE I.
DUVILLARD TABLE OF MORTALITY.

Age.	Number Living.	Number Dying.	Probability of Dying.	Probability of Living.
0	1,000,000	232,475	.23248	.76752
1	767,525	95,691	.12467	.87533
2	671,834	47,166	.07020	.92980
3	624,668	25,955	.04155	.95845
4	598,713	15,562	.02599	.97401
5	583,151	10,126	.01736	.98264
6	573,025	7,187	.01254	.98746
7	565,838	5,593	.00988	.99012
8	560,245	4,759	.00849	.99151
9	555,486	4,364	.00786	.99214
10	551,122	4,234	.00768	.99232
11	546,888	4,258	.00779	.99221
12	542,630	4,375	.00806	.99194
13	538,255	4,544	.00844	.99156
14	533,711	4,742	.00889	.99111
15	528,969	4,949	.00936	.99064
16	524,020	5,157	.00984	.99016
17	518,863	5,361	.01033	.98967
18	513,502	5,553	.01081	.98919
19	507,949	5,733	.01129	.98871
20	502,216	5,889	.01175	.98825
21	496,317	6,050	.01219	.98781
22	490,267	6,184	.01262	.98738
23	484,083	6,306	.01303	.98697
24	477,777	6,411	.01342	.98658
25	471,366	6,503	.01380	.98620
26	464,863	6,581	.01416	.98584
27	458,282	6,647	.01450	.98550
28	451,635	6,703	.01484	.98516
29	444,932	6,749	.01517	.98483
30	438,183	6,785	.01548	.98452
31	431,398	6,815	.01580	.98420
32	424,583	6,839	.01611	.98389
33	417,744	6,858	.01642	.98358
34	410,886	6,874	.01673	.98327
35	404,012	6,889	.01705	.98295
36	397,123	6,904	.01739	.98261
37	390,219	6,919	.01773	.98227
38	383,300	6,937	.01810	.98190
39	376,363	6,959	.01849	.98151
40	369,404	6,985	.01891	.98109
41	362,419	7,019	.01937	.98063
42	355,400	7,058	.01985	.98015
43	348,342	7,107	.02040	.97960
44	341,235	7,163	.02099	.97901
45	334,072	7,229	.02164	.97836
46	326,843	7,304	.02235	.97765
47	319,539	7,391	.02313	.97687
48	312,148	7,486	.02398	.97602
49	304,662	7,592	.02492	.97508
50	297,070	7,709	.02595	.97405
51	289,361	7,834	.02707	.97293
52	281,527	7,967	.02830	.97170
53	273,560	8,110	.02965	.97035
54	265,450	8,257	.03111	.96889

TABLE I.—*Cont.*
DUVILLARD TABLE OF MORTALITY.

Age.	Number Living.	Number Dying.	Probability of Dying.	Probability of Living.
56	257,193	8,411	.03270	.96730
56	248,782	8,568	.03444	.96556
57	240,214	8,726	.03633	.96367
58	231,488	8,883	.03837	.96163
59	222,605	9,038	.04060	.95940
60	213,567	9,187	.04302	.95698
61	204,380	9,326	.04563	.95437
62	195,054	9,454	.04847	.95153
63	185,600	9,565	.05154	.94846
64	176,035	9,658	.05487	.94513
65	166,377	9,726	.05846	.94154
66	156,651	9,769	.06236	.93764
67	146,882	9,780	.06658	.93342
68	137,102	9,755	.07115	.92885
69	127,347	9,691	.07610	.92390
70	117,656	9,586	.08148	.91852
71	108,070	9,433	.08729	.91271
72	98,637	9,233	.09361	.90639
73	89,404	8,981	.10045	.89955
74	80,433	8,678	.10791	.89209
75	71,745	8,321	.11598	.88402
76	63,424	7,913	.12476	.87524
77	55,511	7,454	.13428	.86572
78	48,057	6,950	.14462	.85538
79	41,107	6,402	.15574	.84426
80	34,705	5,919	.16767	.83233
81	28,886	5,206	.18023	.81977
82	23,680	4,574	.19316	.80684
83	19,106	3,931	.20593	.79407
84	15,175	3,289	.21674	.78226
85	11,886	2,662	.22383	.77617
86	9,224	2,059	.22322	.77678
87	7,165	1,495	.20865	.79135
88	5,570	984	.17355	.82645
89	4,686	856	.18267	.81733
90	3,830	737	.19243	.80757
91	3,093	627	.20272	.79728
92	2,466	528	.21411	.78589
93	1,938	438	.22652	.77348
94	1,499	359	.23949	.76050
95	1,140	290	.25351	.74649
96	850	229	.27145	.72855
97	621	179	.28710	.71200
98	442	135	.30545	.69455
99	307	100	.32573	.67427
100	207	72	.34783	.65217
101	135	51	.37778	.62222
102	84	33	.39286	.60714
103	51	22	.43137	.56863
104	29	13	.44828	.55172
105	16	8	.50000	.50000
106	8	4	.50000	.50000
107	4	2	.50000	.50000
108	1	1	1.00000	.00000
109				

TABLE II.
DUVILLARD TABLE OF MORTALITY—COMMUTATION TABLES—
FOUR PER CENT.*

Age.	D _x	N _x	Age.	D _x	N _x
0	71,884.311	835,173.161	56	1,988,776	18,772,299
1	53,050,964	782,122,197	57	1,846,426	16,925,873
2	44,650,806	737,471,391	58	1,710,916	15,214,957
3	39,919,330	697,552,061	59	1,581,983	13,632,974
4	36,789,119	660,762,942	60	1,459,378	12,173,596
5	34,454,706	626,308,236	61	1,342,885	10,830,711
6	32,554,239	593,753,997	62	1,232,316	9,598,395
7	30,909,560	562,844,437	63	1,127,487	8,470,908
8	29,426,953	533,417,484	64	1,028,252	7,442,656
9	28,054,793	505,362,691	65	934,459	6,508,197
10	26,763,840	478,598,851	66	845,993	5,662,204
11	25,536,753	453,062,098	67	762,727	4,899,477
12	24,363,393	428,698,705	68	684,559	4,214,919
13	23,237,459	405,461,246	69	611,396	3,603,523
14	22,155,082	383,306,164	70	543,143	3,060,380
15	21,113,694	362,192,470	71	479,703	2,580,677
16	20,111,685	342,080,785	72	420,992	2,159,686
17	19,147,850	322,932,935	73	366,908	1,792,778
18	18,221,159	304,711,776	74	317,357	1,475,421
19	17,330,880	287,380,896	75	272,223	1,203,198
20	16,476,231	270,904,665	76	231,395	971,803
21	15,656,442	255,248,223	77	194,736	777,067
22	14,870,764	240,377,459	78	162,101	614,966
23	14,118,448	226,259,011	79	133,326	481,640
24	13,398,592	212,860,419	80	108,233	373,407
25	12,710,389	200,150,030	81	86,621	286,786
26	12,052,917	188,097,113	82	68,278	218,508
27	11,425,276	176,671,837	83	52,971	165,537
28	10,826,500	165,845,337	84	40,454	125,083
29	10,255,596	155,589,741	85	30,467	94,616
30	9,711,571	145,878,170	86	22,735	71,881
31	9,193,452	136,684,718	87	16,980	54,901
32	8,700,212	127,984,506	88	12,921	41,980
33	8,230,840	119,753,666	89	10,268	31,712
34	7,784,341	111,969,325	90	8,060	23,643
35	7,359,723	104,609,602	91	6,266	17,377
36	6,955,989	97,653,613	92	4,804	12,573
37	6,572,170	91,081,443	93	3,630	8,943
38	6,207,361	84,874,082	94	2,700	6,243
39	5,860,582	79,013,500	95	1,974	4,269
40	5,530,980	73,482,520	96	1,417	2,852
41	5,217,687	68,264,833	97	993	1,859
42	4,919,843	63,344,990	98	680	1,179
43	4,636,670	58,708,320	99	454	725
44	4,367,377	54,340,943	100	295	430
45	4,111,250	50,229,693	101	185	245
46	3,867,582	46,362,111	102	110	135
47	3,635,724	42,726,387	103	65	70
48	3,415,028	39,311,359	104	35	35
49	3,204,931	36,106,428	105	19	16
50	3,004,870	33,101,558	106	9	7
51	2,814,321	30,287,237	107	4	3
52	2,632,816	27,654,421	108	2	1
53	2,459,912	25,194,509	109	1	0
54	2,295,178	22,899,331	110	0	0
55	2,138,256	20,761,075			

* See Introduction.

SCANDINAVIAN COMPANIES' TABLES.

INTRODUCTION.

THESE tables were published in 1904 by the Scandinavian Life Insurance Companies' Congress. They were constructed by a committee from the experience of the companies on male and female lives, separately. The graduation was by the principle of moments, Makeham's first law being assumed. Only lives which were accepted as first-class were considered.

The number of lives was 181,533, and the number of deaths 12,437.

256 SCANDINAVIAN EXPERIENCE MORTALITY TABLE.

SCANDINAVIAN COMPANIES' EXPERIENCE MORTALITY TABLE
(1904) MALES.

Age.	Number Living.	Number Dying.	Proba- bility of Living.	Proba- bility of Dying.	Age	Number Living.	Number Dying.	Proba- bility of Living.	Proba- bility of Dying.
20	100,000	428	.99572	.00428	61	66,925	2,001	.97010	.02990
21	99,572	425	.99573	.00427	62	64,924	2,104	.96760	.03240
22	99,147	422	.99575	.00425	63	62,820	2,207	.96187	.03513
23	98,725	420	.99575	.00425	64	60,613	2,309	.96190	.03810
24	98,305	418	.99575	.00425	65	58,304	2,410	.95867	.04133
25	97,887	417	.99574	.00426	66	55,804	2,506	.95516	.04484
26	97,470	417	.99572	.00428	67	53,388	2,598	.95134	.04806
27	97,053	419	.99568	.00432	68	50,797	2,682	.94719	.05281
28	96,634	423	.99593	.00437	69	48,108	2,758	.94268	.05732
29	96,211	427	.99556	.00444	70	45,350	2,822	.93778	.06222
30	95,784	434	.99547	.00453	71	42,528	2,871	.93248	.06752
31	95,350	442	.99530	.00464	72	39,657	2,906	.92673	.07327
32	94,908	453	.99523	.00477	73	36,751	2,922	.92050	.07950
33	94,455	465	.99508	.00492	74	33,829	2,917	.91377	.08623
34	93,990	479	.99490	.00510	75	30,912	2,891	.90649	.09351
35	93,511	495	.99471	.00529	76	28,021	2,840	.89863	.10137
36	93,016	514	.99448	.00552	77	25,181	2,766	.89015	.10985
37	92,502	535	.99422	.00578	78	22,415	2,667	.88103	.11807
38	91,967	558	.99393	.00607	79	19,743	2,543	.87121	.12789
39	91,409	584	.99361	.00639	80	17,205	2,397	.86066	.13934
40	90,825	612	.99326	.00674	81	14,808	2,231	.84934	.15066
41	90,213	643	.99287	.00713	82	12,577	2,047	.83722	.16278
42	89,570	678	.99244	.00756	83	10,530	1,851	.82425	.17575
43	88,802	715	.99196	.00804	84	8,679	1,646	.81040	.18990
44	88,177	755	.99144	.00856	85	7,033	1,437	.79565	.20435
45	87,422	798	.99087	.00913	86	5,596	1,231	.78005	.22005
46	86,624	845	.99025	.00975	87	4,365	1,013	.76328	.23722
47	85,779	895	.98957	.01043	88	3,332	848	.74562	.25438
48	84,884	948	.98883	.01117	89	2,484	678	.72695	.27395
49	83,936	1,006	.98802	.01198	90	1,806	529	.70727	.29273
50	82,930	1,067	.98713	.01287	91	1,277	400	.68657	.31343
51	81,863	1,133	.98616	.01384	92	877	294	.66436	.33514
52	80,730	1,202	.98511	.01489	93	583	209	.64215	.35785
53	79,528	1,276	.98396	.01604	94	374	143	.61818	.38152
54	78,252	1,354	.98270	.01730	95	231	94	.59388	.40612
55	76,898	1,436	.98133	.01867	96	137	50	.56840	.43160
56	75,462	1,521	.97984	.02016	97	78	36	.54212	.45788
57	73,941	1,611	.97821	.02179	98	42	20	.51512	.48488
58	72,330	1,704	.97644	.02356	99	22	11	.48749	.51251
59	70,626	1,801	.97450	.02550	100	11	6	.45936	.54064
60	68,825	1,903	.97240	.02760					

SCANDINAVIAN EXPERIENCE MORTALITY TABLE. 257

SCANDINAVIAN COMPANIES' EXPERIENCE MORTALITY TABLE.
(1904) FEMALES.

Age.	Number Living.	Number Dying.	Probability of Living.	Probability of Dying.	Age	Number Living.	Number Dying.	Probability of Living.	Probability of Dying.
20	100,000	471	.99529	.00471	61	70,483	1,470	.97914	.02086
21	99,529	471	.99527	.00473	62	69,013	1,578	.97714	.02286
22	99,058	473	.99523	.00477	63	67,435	1,692	.97491	.02509
23	98,585	476	.99517	.00483	64	65,743	1,813	.97242	.02758
24	98,109	481	.99510	.00490	65	63,930	1,940	.96966	.03034
25	97,628	487	.99501	.00499	66	61,990	2,069	.96662	.03338
26	97,141	495	.99490	.00510	67	59,921	2,200	.96328	.03672
27	96,646	504	.99478	.00522	68	57,721	2,330	.95963	.04037
28	96,142	514	.99465	.00535	69	55,391	2,457	.95505	.04435
29	95,628	526	.99450	.00550	70	52,934	2,576	.95133	.04867
30	95,102	538	.99434	.00566	71	50,358	2,686	.94667	.05333
31	94,564	550	.99418	.00582	72	47,672	2,782	.94104	.05836
32	94,014	564	.99400	.00600	73	44,890	2,862	.93624	.06376
33	93,450	578	.99382	.00618	74	42,028	2,923	.93045	.06955
34	92,872	592	.99363	.00637	75	39,105	2,961	.92428	.07572
35	92,280	605	.99344	.00656	76	36,144	2,975	.91770	.08230
36	91,675	618	.99326	.00674	77	33,169	2,992	.91071	.08929
37	91,057	631	.99307	.00693	78	30,207	2,921	.90330	.09679
38	90,426	644	.99288	.00712	79	27,266	2,852	.89546	.10454
39	89,782	656	.99269	.00731	80	24,434	2,757	.88718	.11282
40	89,126	668	.99251	.00749	81	21,677	2,635	.87845	.12155
41	88,458	679	.99232	.00768	82	19,042	2,489	.86927	.13073
42	87,779	690	.99214	.00786	83	16,553	2,324	.85962	.14038
43	87,089	701	.99195	.00805	84	14,229	2,141	.84950	.15050
44	86,388	713	.99175	.00825	85	12,088	1,948	.83888	.16112
45	85,675	725	.99154	.00846	86	10,140	1,747	.82776	.17224
46	84,950	738	.99131	.00869	87	8,393	1,543	.81613	.18387
47	84,212	753	.99106	.00894	88	6,850	1,343	.80396	.19604
48	83,459	770	.99078	.00922	89	5,507	1,150	.79124	.20876
49	82,689	790	.99045	.00955	90	4,357	967	.77796	.22204
50	81,899	812	.99008	.00992	91	3,390	800	.76410	.23590
51	81,087	839	.98965	.01035	92	2,500	648	.74963	.25037
52	80,248	871	.98914	.01086	93	1,942	516	.73454	.26546
53	79,377	908	.98856	.01144	94	1,426	401	.71882	.28118
54	78,469	952	.98787	.01213	95	1,025	305	.70243	.29757
55	77,517	1,002	.98708	.01292	96	720	227	.68537	.31463
56	76,515	1,059	.98616	.01384	97	493	167	.66762	.33233
57	75,450	1,124	.98510	.01490	98	329	115	.64917	.35083
58	74,332	1,198	.98388	.01612	99	214	79	.63001	.36999
59	73,134	1,280	.98250	.01750	100	135	53	.61013	.38987
60	71,854	1,371	.98032	.01908					

**COMPANY TABLES.
INTRODUCTION.**

THESE tables are a selection only, and are all recent. The Gotha, the Catholic Benevolent Legion and the Ladies of the Maccabees, all select tables, appeared in 1904.

The Gotha was constructed from data arranged by policy years and represents the actual mortality by years of insurance as well as of age. The same may be said of the Canada Life.

The other two were constructed from data arranged by calendar years, and represent the experience in the calendar year of entry, the calendar year following entry, etc. They are, on this account, singularly adapted to the uses for which they are intended, viz.: to furnish annuity and net single premium values as nearly accurate as possible, for valuations at the end of a calendar year.

TABLE I.
AUSTRALIAN MUT. PROVIDENT SOCIETY'S EXPERIENCE TABLE.

Age.	Living.	Dying.	Prob-ability of Dying.	Prob-ability of Living.	Age.	Living.	Dying.	Prob-ability of Dying.	Prob-ability of Living.
0	100,000	2,842	.028420	.971580	50	72,262	831	.011500	.988500
1	97,158	2,249	.023148	.976852	51	71,431	863	.012082	.987918
2	94,909	1,732	.018240	.981751	52	70,568	885	.012541	.987459
3	93,177	1,201	.013855	.986145	53	69,683	905	.012987	.987013
4	91,886	929	.010110	.989800	54	68,778	934	.013580	.986420
5	90,957	641	.007047	.992953	55	67,844	969	.014281	.985719
6	90,316	432	.004783	.995217	56	66,875	1,013	.015158	.984852
7	89,884	299	.003327	.996673	57	65,862	1,064	.016155	.983845
8	89,585	243	.002713	.997287	58	64,798	1,125	.017362	.982638
9	89,342	205	.002295	.997705	59	63,673	1,186	.018626	.981374
10	89,137	190	.002132	.997858	60	62,487	1,246	.019940	.980060
11	88,947	163	.001709	.998201	61	61,241	1,315	.021473	.978527
12	88,787	181	.002039	.997061	62	59,926	1,397	.023312	.976888
13	88,606	202	.002290	.997720	63	58,529	1,526	.026073	.973927
14	88,404	232	.002624	.997376	64	57,003	1,674	.029367	.970633
15	88,172	260	.002949	.997051	65	55,329	1,848	.033400	.966600
16	87,912	291	.003310	.996690	66	53,481	1,991	.037228	.962772
17	87,621	296	.003378	.996622	67	51,490	2,169	.041225	.957875
18	87,325	374	.003481	.996519	68	49,321	2,203	.044697	.952333
19	87,021	304	.003493	.996507	69	47,118	2,229	.047307	.945293
20	86,717	322	.003483	.996517	70	44,889	2,247	.050057	.940043
21	86,415	294	.003402	.996598	71	42,642	2,276	.053375	.940625
22	86,121	296	.003437	.996563	72	40,366	2,141	.053010	.940900
23	85,825	297	.003491	.996539	73	38,225	2,210	.057816	.942184
24	85,528	297	.003473	.996527	74	36,015	2,274	.063140	.936800
25	85,231	302	.003543	.996457	75	33,741	2,238	.069329	.933671
26	84,929	312	.003674	.996326	76	31,593	2,273	.072152	.927848
27	84,617	325	.003841	.996159	77	29,230	2,553	.087342	.912058
28	84,292	332	.003939	.996061	78	26,677	2,672	.100161	.892839
29	83,960	351	.004181	.995819	79	24,005	2,744	.114310	.885990
30	83,609	369	.004413	.995587	80	21,261	2,898	.136306	.863694
31	83,240	392	.004709	.995201	81	18,363	2,995	.158199	.841801
32	82,848	407	.004913	.995087	82	15,458	2,692	.172209	.827791
33	82,441	433	.005252	.994748	83	12,796	2,396	.187240	.812754
34	82,008	459	.005487	.994513	84	10,400	2,111	.202481	.797919
35	81,558	493	.005977	.9941323	85	8,289	1,759	.212299	.787791
36	81,095	473	.005833	.994197	86	6,530	1,435	.219755	.770245
37	80,622	491	.006060	.993910	87	5,095	1,182	.231692	.758008
38	80,131	503	.006277	.993723	88	3,913	965	.246614	.753386
39	79,628	527	.006918	.993382	89	2,948	775	.262890	.737110
40	79,101	555	.007016	.992984	90	2,173	615	.283019	.716981
41	78,546	587	.007473	.992527	91	1,558	487	.312580	.687420
42	77,959	617	.007914	.992086	92	1,071	378	.352941	.642959
43	77,342	648	.008378	.991622	93	693	282	.406426	.593074
44	76,694	675	.008801	.991199	94	411	199	.484185	.515815
45	76,019	699	.009195	.990805	95	212	120	.608401	.391599
46	75,320	722	.009580	.990414	96	83	72	.867470	.132530
47	74,598	751	.010067	.989933	97	11	11	1.000000	.000000
48	73,847	779	.010549	.989451	98	0	.....	.....	.....
49	73,068	806	.011031	.988969					

TABLE I.

CANADA LIFE ASSURANCE COMPANY'S EXPERIENCE TABLE.

Age.	Number Living.	Number Dying.	Prob-ability of Living.	Prob-ability of Dying.	Age.	Number Living.	Number Dying.	Prob-ability of Living.	Prob-ability of Dying.
20	100,000	463	.995373	.004627	68	65,650	1,880	.971374	.028626
21	99,537	464	.995335	.004665	64	63,770	1,983	.968901	.031099
22	99,073	466	.995294	.004706	65	61,787	2,089	.966181	.033819
23	98,607	469	.995248	.004752	66	59,698	2,198	.963189	.036811
24	98,138	471	.995197	.004803	67	57,500	2,306	.959901	.040099
25	97,667	475	.995142	.004858	68	55,194	2,412	.956287	.043713
26	97,192	478	.995080	.004920	69	52,782	2,517	.952318	.047782
27	96,714	482	.995013	.004987	70	50,265	2,616	.947959	.052041
28	96,232	487	.994938	.005062	71	47,649	2,707	.943175	.056825
29	95,745	493	.994856	.005144	72	44,942	2,790	.937926	.062074
30	95,252	499	.994765	.005235	73	42,152	2,859	.932172	.067828
31	94,753	505	.994665	.005335	74	39,293	2,913	.925866	.074134
32	94,248	513	.994555	.005445	75	36,380	2,968	.918959	.081041
33	93,735	522	.994433	.005567	76	33,432	2,992	.911402	.088508
34	93,213	532	.994298	.005702	77	30,470	2,952	.903140	.096860
35	92,681	542	.994150	.005850	78	27,518	2,913	.894115	.105885
36	92,139	554	.993987	.006013	79	24,605	2,848	.884265	.115734
37	91,585	567	.993807	.006193	80	21,757	2,752	.873529	.126471
38	91,018	582	.993609	.006391	81	19,035	2,625	.861839	.138161
39	90,436	597	.993390	.006610	82	16,380	2,472	.849127	.150873
40	89,839	616	.993148	.006852	83	13,908	2,290	.835324	.164676
41	89,223	635	.992882	.007118	84	11,618	2,087	.821392	.179638
42	88,588	657	.992600	.007410	85	9,531	1,867	.807170	.195830
43	87,931	680	.992265	.007735	86	7,674	1,634	.789982	.213318
44	87,251	706	.991909	.008091	87	6,030	1,400	.767835	.232165
45	86,545	734	.991516	.008484	88	4,630	1,169	.741573	.252427
46	85,811	765	.991082	.008918	89	3,461	949	.722845	.274155
47	85,046	799	.990604	.009396	90	2,512	747	.702913	.297387
48	84,247	836	.990078	.009922	91	1,795	560	.677852	.322148
49	83,411	876	.989497	.010503	92	1,196	412	.651554	.348446
50	82,535	920	.988857	.011143	93	780	294	.623731	.376269
51	81,615	967	.988151	.011840	94	486	197	.594421	.405579
52	80,648	1,018	.987374	.012626	95	289	126	.563990	.436310
53	79,630	1,074	.986518	.013482	96	193	76	.531635	.468265
54	78,556	1,133	.985574	.014426	97	87	44	.498392	.501608
55	77,423	1,198	.984534	.015466	98	43	23	.464134	.535866
56	76,225	1,266	.983388	.016612	99	20	12	.429075	.570025
57	74,959	1,340	.982126	.017874	100	8	5	.393471	.606529
58	73,619	1,418	.980736	.019264	101	3	2	.357020	.642380
59	72,201	1,501	.979208	.020792	102	1	1	.000000	1.000000
60	70,700	1,590	.977520	.022480					
61	69,110	1,682	.975664	.024336					
62	67,428	1,778	.973622	.026378					

SELECT.

Age x	$l[x]$	$l[x-1] + 1$	$l[x-2] + 2$	$l[x-3] + 3$	$l[x-4] + 4$	$l_x (s)$	Age x	$l_x (s)$
20	103679	.....	.....	.....	.....	.....	62	67704
21	103031	103433	.....	.....	.....	.....	63	65880
22	102385	102786	103041	.....	.....	.....	64	63957
23	101741	102139	102392	102533	.....	.....	65	61935
24	101101	101494	101745	101883	101946	.....	66	59811
25	100463	100853	101099	101236	101296	101314	67	57583
26	99828	100212	100456	100590	100650	100666	68	55251
27	99193	99574	99814	99947	100005	100021	69	52817
28	98560	98934	99173	99304	99361	99377	70	50285
29	97928	98297	98532	98662	98718	98733	71	47658
30	97298	97661	97891	98018	98074	98089	72	44945
31	96665	97024	97251	97375	97430	97445	73	42152
32	96033	96386	96609	96732	96785	96800	74	39293
33	95395	95747	95966	96086	96139	96153	75	36380
34	94753	95102	95322	95440	95491	95505	76	33432
35	94105	94453	94672	94791	94840	94855	77	30470
36	93448	93796	94017	94137	94187	94200	78	27518
37	92779	93130	93354	93475	93527	93540	79	24605
38	92097	92452	92681	92806	92857	92871	80	21757
39	91401	91761	91996	92124	92178	92192	81	19005
40	90690	91056	91297	91431	91487	91502	82	16380
41	89962	90335	90584	90722	90781	90797	83	13908
42	89212	89596	89854	89998	90060	90076	84	11618
43	88436	88835	89105	89256	89320	89337	85	9531
44	87633	88048	88335	88493	88561	88579	86	7664
45	86802	87234	87537	87707	87779	87798	87	6030
46	85910	86391	86711	86893	86972	86991	88	4630
47	85043	85489	85855	86051	86134	86156	89	3461
48	84106	84608	84943	85175	85266	85289	90	2512
49	83125	83659	84044	84246	84363	84388	91	1765
50	82094	82667	83080	83318	83411	83450	92	1196
51	.....	81626	82071	82328	82440	82470	93	780
52	.....	.....	81013	81291	81413	81445	94	486
53	.....	.....	.....	80204	80336	80371	95	289
54	.....	.....	.....	.....	79205	79242	96	163
55	.....	.....	.....	.....	.....	78055	97	87
56	.....	.....	.....	.....	.....	76805	98	43
57	.....	.....	.....	.....	.....	75487	99	20
58	.....	.....	.....	.....	.....	74096	100	8
59	.....	.....	.....	.....	.....	72626	101	3
60	.....	.....	.....	.....	.....	71074	102	1
61	.....	.....	.....	.....	.....	69435		

SELECT.

Age- x	$d[x]$	$d[x-1] + 1$	$d[x-2] + 2$	$d[x-3] + 3$	$d[x-4] + 4$	$d_x (s)$	Age	d_x
20	246	.....	.....	.....	.....	.....	55	1,250
21	245	392	.....	.....	.....	.....	56	1,318
22	246	394	508	.....	.....	.....	57	1,391
23	247	394	509	587	.....	.....	58	1,479
24	248	395	509	587	632	.....	59	1,552
25	251	397	509	586	630	648	60	1,639
26	254	398	509	585	629	645	61	1,731
27	259	401	510	586	628	644	62	1,824
28	263	402	511	586	628	644	63	1,923
29	267	406	514	588	629	644	64	2,022
30	274	410	516	588	629	644	65	2,124
31	279	415	519	590	630	645	66	2,228
32	286	420	523	593	632	647	67	2,332
33	293	425	526	595	634	648	68	2,434
34	300	430	531	600	636	650	69	2,532
35	309	436	535	604	640	655	70	2,627
36	318	442	542	610	647	660	71	2,713
37	327	449	548	618	656	669	72	2,793
38	336	456	557	628	665	679	73	2,859
39	345	464	565	637	676	690	74	2,913
40	355	472	575	650	690	705	75	2,948
41	366	481	586	662	705	721	76	2,962
42	377	491	598	678	723	739	77	2,952
43	388	500	612	695	741	758	78	2,913
44	399	511	628	714	763	781	79	2,848
45	411	523	644	735	788	807	80	2,752
46	421	536	660	759	816	835	81	2,625
47	435	546	680	785	845	867	82	2,472
48	447	564	697	812	878	901	83	2,290
49	458	579	726	835	913	938	84	2,087
50	468	596	752	878	941	980	85	1,867
51	.....	613	780	915	995	1,025	86	1,634
52	.....	.....	809	955	1,042	1,074	87	1,400
53	.....	.....	.....	999	1,094	1,129	88	1,169
54	.....	.....	.....	.....	1,150	1,187	89	949
							90	747
							91	569
							92	416
							93	294
							94	197
							95	126
							96	76
							97	44
							98	23
							99	12
							100	5
							101	2
							102	1

[x] Means age at entry. s_x Means attained age.

SELECT.

Age x	$p[x]$	$p[x-1]+_1$	$p[x-2]+_2$	$p[x-3]+_3$	$p[x-4]+_4$	$P_x (s)$	Age.	P_x
20	.99763	.....	.....	.....	.....	.....	55	.98398
21	.99762	.99621	.....	.....	.....	.....	56	.98284
22	.99760	.99617	.99507	.....	.....	.....	57	.98157
23	.99757	.99614	.99503	.99427	.....	.....	58	.98017
24	.99754	.99611	.99500	.99424	.99380	.....	59	.97863
25	.99750	.99607	.99497	.99421	.99378	.99361	60	.97693
26	.99745	.99603	.99493	.99418	.99375	.99359	61	.97508
27	.99739	.99598	.99489	.99414	.99372	.99356	62	.97305
28	.99733	.99593	.99484	.99410	.99368	.99352	63	.97082
29	.99727	.99587	.99479	.99405	.99363	.99348	64	.96838
30	.99719	.99580	.99473	.99400	.99358	.99343	65	.96570
31	.99711	.99572	.99466	.99394	.99353	.99338	66	.96275
32	.99702	.99564	.99459	.99387	.99347	.99332	67	.95951
33	.99693	.99556	.99452	.99380	.99341	.99326	68	.95595
34	.99683	.99548	.99443	.99372	.99334	.99319	69	.95205
35	.99672	.99539	.99434	.99363	.99325	.99310	70	.94777
36	.99660	.99529	.99423	.99352	.99313	.99299	71	.94306
37	.99648	.99518	.99412	.99339	.99299	.99285	72	.93787
38	.99635	.99507	.99399	.99324	.99284	.99269	73	.93216
39	.99622	.99495	.99385	.99308	.99266	.99251	74	.92587
40	.99608	.99482	.99370	.99290	.99246	.99230	75	.91896
41	.99593	.99468	.99353	.99270	.99223	.99206	76	.91140
42	.99577	.99453	.99334	.99247	.99198	.99180	77	.90314
43	.99561	.99437	.99313	.99222	.99170	.99151	78	.89411
44	.99544	.99420	.99290	.99193	.99138	.99118	79	.88427
45	.99527	.99401	.99265	.99161	.99102	.99081	80	.87353
46	.99508	.99380	.99238	.99126	.99062	.99040	81	.86184
47	.99489	.99357	.99207	.99088	.99019	.98994	82	.84913
48	.99469	.99333	.99173	.99046	.98971	.98944	83	.83532
49	.99449	.99307	.99136	.98999	.98918	.98888	84	.82036
50	.99427	.99279	.99095	.98947	.98859	.98826	85	.80417
51	.....	.99250	.99050	.98889	.98793	.98757	86	.78668
52	.....	.....	.99001	.98825	.98720	.98681	87	.76783
53	.....	.....	.....	.98754	.98639	.98596	88	.74757
54	.....	.....	.....	.....	.98549	.98502	89	.72584
							90	.70261
							91	.67785
							92	.65155
							93	.62373
							94	.59442
							95	.56369
							96	.53163
							97	.49839
							98	.46413
							99	.42907
							100	.39347
							101	.35762
							102	.....

[x] Means age at entry. x Means attained age.

SELECT.

Age x	q[x]	q[x-1] + ₁	q[x-2] + ₂	q[x-3] + ₃	q[x-4] + ₄	q _x (s)	Age x	q _x (s)
20	.00237	.....	.....	.....	.....	.....	68	.02695
21	.00238	.00379	.....	.....	.....	.....	69	.02918
22	.00240	.00383	.00493	.....	.....	.....	70	.03162
23	.00243	.00386	.00497	.00573	.....	.....	71	.03430
24	.00246	.00389	.00500	.00576	.00620	.....	72	.03725
25	.00250	.00393	.00503	.00579	.00622	.00639	73	.04049
26	.00255	.00397	.00507	.00582	.00625	.00641	74	.04405
27	.00261	.00402	.00511	.00586	.00628	.00644	75	.04795
28	.00267	.00407	.00516	.00590	.00632	.00648	76	.05223
29	.00273	.00413	.00521	.00595	.00637	.00652	77	.05694
30	.00281	.00420	.00527	.00600	.00642	.00657	78	.06213
31	.00289	.00428	.00534	.00606	.00647	.00662	79	.06784
32	.00298	.00436	.00541	.00613	.00653	.00668	80	.07413
33	.00307	.00444	.00548	.00620	.00659	.00674	81	.08104
34	.00317	.00452	.00557	.00628	.00666	.00681	82	.08860
35	.00328	.00461	.00566	.00637	.00675	.00690	83	.09686
36	.00340	.00471	.00577	.00648	.00687	.00701	84	.10589
37	.00352	.00482	.00588	.00661	.00701	.00715	85	.11573
38	.00365	.00493	.00601	.00676	.00716	.00731	86	.12647
39	.00378	.00505	.00615	.00692	.00734	.00749	87	.13816
40	.00392	.00518	.00630	.00710	.00754	.00770	88	.15087
41	.00407	.00532	.00647	.00730	.00777	.00794	89	.16468
42	.00423	.00547	.00666	.00753	.00802	.00820	90	.17964
43	.00439	.00563	.00687	.00778	.00830	.00849	91	.19583
44	.00456	.00580	.00710	.00807	.00862	.00882	92	.21332
45	.00473	.00599	.00735	.00839	.00898	.00919	93	.23217
46	.00492	.00620	.00762	.00874	.00938	.00960	94	.25243
47	.00511	.00643	.00793	.00912	.00981	.01006	95	.27416
48	.00531	.00667	.00827	.00954	.01029	.01054	96	.29739
49	.00551	.00693	.00864	.01001	.01082	.01112	97	.32215
50	.00573	.00721	.00905	.01053	.01141	.01174	98	.34845
51	.....	.00750	.00950	.01111	.01207	.01243	99	.37627
52	.....	.....	.00999	.01175	.01280	.01319	100	.40558
53	.....	.....	.....	.01246	.01361	.01404	101	.43631
54	.....	.....	.....	.....	.01451	.01498	102	.46837
55	.....	.....	.....	.....	.....	.01602	103	.50161
56	.....	.....	.....	.....	.....	.01716	104	.53587
57	.....	.....	.....	.....	.....	.01843	105	.57093
58	.....	.....	.....	.....	.....	.01983	106	.60653
59	.....	.....	.....	.....	.....	.02137	107	.64238
60	.....	.....	.....	.....	.....	.02307	108	1.00000
61	.....	.....	.....	.....	.....	.02492		

(1852-1895)-SELECT.

Age x	l_x	$l_{x-1} + 1$	$l_{x-2} + 2$	$l_{x-3} + 3$	$l_{x-4} + 4$	$l_{x-5} + 5$	$l_{x-6} + 6$	l_x	Age x	l_x
15	105707	.....	.....	.....	.....	.....	.....	.....	74	28966
16	105068	105207	.....	.....	.....	.....	.....	.....	75	28740
17	104409	104567	104632	.....	.....	.....	.....	.....	76	28505
18	103761	103929	104000	104064	.....	.....	.....	.....	77	28260
19	103120	103297	103374	103411	103427	.....	.....	.....	78	18049
20	102492	102678	102758	102787	102814	102821	.....	.....	79	15562
21	101875	102073	102157	102197	102230	102254	.....	.....	80	13233
22	101273	101479	101571	101613	101632	101638	101641	.....	81	11091
23	100681	100899	100996	101047	101088	101107	101107	.....	82	9158
24	100097	100328	100438	100495	100519	100527	100530	100531	83	7445
25	99519	99763	99887	99951	99989	99996	99999	100000	84	5952
26	98950	99200	99339	99414	99452	99471	99475	99479	85	4670
27	98390	98644	98791	98876	98924	98949	98950	98952	86	3588
28	97831	98092	98242	98334	98390	98421	98437	98440	87	2699
29	97270	97536	97693	97790	97848	97886	97906	97911	88	1960
30	96707	96976	97139	97240	97300	97340	97363	97369	89	1383
31	96135	96410	96578	96693	96745	96785	96809	96817	90	941
32	95552	95834	96007	96116	96161	96223	96247	96255	91	614
33	94962	95242	95423	95539	95607	95650	95676	95684	92	384
34	94363	94642	94821	94946	95021	95067	95095	95104	93	229
35	93766	94040	94219	94333	94417	94470	94501	94511	94	129
36	93163	93437	93553	93606	93700	93752	93800	93801	95	67
37	92552	92826	92949	93032	93136	93206	93250	93266	96	33
38	91928	92195	92313	92388	92489	92528	92580	92599	97	14
39	91281	91543	91656	91716	91781	91815	91872	91896	98	6
40	90610	90866	90988	91062	91139	91165	91225	91251	99	2
41	89922	89966	89906	90074	90193	90279	90340	90398	100	1
42	89446	89485	89479	89251	89372	89457	89518	89546		
43	87558	87698	88221	88394	88515	88601	88661	88689		
44	86622	87059	87325	87504	87625	87712	87773	87790		
45	85630	86102	86387	86578	86703	86791	86853	86870		
46	84578	85099	85400	85606	85744	85837	85899	85927		
47	83456	84015	84354	84566	84739	84840	84908	84937		
48	82261	82872	83245	83502	83676	83793	83869	83903		
49	80987	81654	82064	82351	82546	82684	82775	82814		
50	79629	80356	80806	81125	81346	81504	81614	81660		
51	78181	78974	79467	79830	80070	80251	80372	80435		
52	76641	77503	78043	78432	78714	78920	79066	79132		
53	75002	75939	76529	76957	77272	77506	77672	77747		
54	73262	74277	74921	75391	75741	76005	76193	76277		
55	71419	72512	73214	73730	74117	74414	74624	74719		
56	69477	70646	71405	71969	72398	72728	72962	73070		
57	67487	68679	69495	70108	70580	70945	71203	71325		
58	65297	66615	67486	68148	68663	69064	69347	69480		
59	62951	64450	65362	66091	66649	67083	67390	67535		
60	60493	62179	63180	63941	64541	65007	65336	65490		
61	58223	59799	60777	61469	62044	62540	63019	63352		
62	55643	57308	58469	59359	60056	60586	60958	61126		
63	52962	54710	55955	56919	57676	58247	58644	58818		
64	50192	52014	53339	54379	55200	55819	56249	56431		
65	47348	49233	50629	51742	52628	53302	53769	53955		
66	44443	46382	47840	49017	50065	50984	51702	51418		
67	41484	43473	44985	46219	47220	48000	48549	48769		
68	.....	40515	42070	43362	44407	45232	45817	46081		
69	.....	.....	39132	40462	41515	42405	43017	43462		
70	.....	.....	.....	37527	38647	39557	40169	40467		
71	.....	.....	.....	.....	35726	36543	37290	37595		
72	.....	.....	.....	.....	.....	33738	34390	34708		
73	.....	.....	.....	.....	.....	.....	31511	31826		

[1] means age at entry. a means attained age.

(1858-1895)—SELECT.

Age x	$d_{[x]}$	$d_{[x-1]+}$	$d_{[x-2]+}$	$d_{[x-3]+}$	$d_{[x-4]+}$	$d_{[x-5]+}$	$d_{[x-6]+}$	d_x	Age x	d_x
13	800	...	...	...	...	...	...	...	74	2885
14	491	575	...	...	...	...	...	...	75	2775
15	480	567	...	...	...	...	...	...	76	2705
16	464	555	...	...	...	...	...	...	77	2611
17	442	539	...	...	...	...	...	...	78	2487
18	419	521	...	...	...	...	...	...	79	2329
19	396	502	...	...	...	...	...	...	80	2142
20	374	481	...	...	...	...	...	...	81	1935
21	353	461	...	...	...	...	...	...	82	1718
22	334	441	...	...	...	...	...	...	83	1498
23	319	424	...	...	...	...	...	...	84	1282
24	306	409	...	...	...	...	...	...	85	1082
25	295	402	...	...	...	...	...	...	86	899
26	285	390	...	...	...	...	...	...	87	729
27	274	387	...	...	...	...	...	...	88	577
28	265	386	...	...	...	...	...	...	89	442
29	256	386	...	...	...	...	...	...	90	327
30	249	408	...	...	...	...	...	...	91	230
31	243	411	...	...	...	...	...	...	92	156
32	238	421	...	...	...	...	...	...	93	105
33	234	435	...	...	...	...	...	...	94	61
34	231	448	...	...	...	...	...	...	95	34
35	229	465	...	...	...	...	...	...	96	19
36	228	486	...	...	...	...	...	...	97	8
37	228	509	...	...	...	...	...	...	98	4
38	228	534	...	...	...	...	...	...	99	1
39	228	560	...	...	...	...	...	...	100	1
40	228	587	...	...	...	...	...	...
41	228	614	...	...	...	...	...	...
42	228	643	...	...	...	...	...	...
43	228	672	...	...	...	...	...	...
44	228	702	...	...	...	...	...	...
45	228	735	...	...	...	...	...	...
46	228	770	...	...	...	...	...	...
47	228	808	...	...	...	...	...	...
48	228	848	...	...	...	...	...	...
49	228	890	...	...	...	...	...	...
50	228	931	...	...	...	...	...	...
51	228	974	...	...	...	...	...	...
52	228	1018	...	...	...	...	...	...
53	228	1063	...	...	...	...	...	...
54	228	1107	...	...	...	...	...	...
55	228	1151	...	...	...	...	...	...
56	228	1193	...	...	...	...	...	...
57	228	1238	...	...	...	...	...	...
58	228	1282	...	...	...	...	...	...
59	228	1327	...	...	...	...	...	...
60	228	1372	...	...	...	...	...	...
61	228	1417	...	...	...	...	...	...
62	228	1462	...	...	...	...	...	...
63	228	1507	...	...	...	...	...	...
64	228	1552	...	...	...	...	...	...
65	228	1597	...	...	...	...	...	...
66	228	1642	...	...	...	...	...	...
67	228	1687	...	...	...	...	...	...
68	228	1732	...	...	...	...	...	...
69	228	1777	...	...	...	...	...	...
70	228	1822	...	...	...	...	...	...
71	228	1867	...	...	...	...	...	...
72	228	1912	...	...	...	...	...	...
73	228	1957	...	...	...	...	...	...

[₁] means age at entry. x means attained age.

(1852-1895)—SELECT.

Age.	$p(-)$	$p(-) +$	$p(-) +$	$p(-) +$	$p(-) +$	$p(-) +$	$p(-) +$	P_x	Age x	P_x
15	.00527								74	.90246
16	.00532	.00453							75	.89386
17	.00540	.00458	.00420						76	.88423
18	.00553	.00466	.00434	.00416					77	.87361
19	.00572	.00478	.00442	.00422	.00414				78	.86232
20	.00592	.00492	.00454	.00433	.00423	.00420			79	.85031
21	.00612	.00508	.00468	.00447	.00436	.00433	.00431		80	.83762
22	.00631	.00526	.00484	.00462	.00451	.00448	.00446	.00444	81	.82574
23	.00649	.00543	.00500	.00477	.00466	.00462	.00460	.00458	82	.81297
24	.00666	.00560	.00515	.00491	.00479	.00475	.00473	.00472	83	.79946
25	.00680	.00575	.00527	.00501	.00489	.00483	.00481	.00479	84	.78467
26	.00691	.00587	.00534	.00507	.00493	.00488	.00481	.00480	85	.76921
27	.00697	.00593	.00538	.00508	.00492	.00484	.00475	.00473	86	.75356
28	.00699	.00594	.00539	.00505	.00488	.00478	.00468	.00462	87	.73747
29	.00698	.00593	.00536	.00499	.00481	.00468	.00452	.00447	88	.72056
30	.00694	.00589	.00530	.00491	.00471	.00455	.00439	.00433	89	.69933
31	.00687	.00582	.00522	.00481	.00460	.00444	.00427	.00419	90	.68026
32	.00676	.00571	.00512	.00470	.00448	.00432	.00415	.00407	91	.66434
33	.00663	.00558	.00500	.00458	.00435	.00420	.00402	.00394	92	.65034
34	.00648	.00542	.00485	.00443	.00420	.00405	.00386	.00377	93	.63646
35	.00631	.00523	.00466	.00425	.00401	.00385	.00365	.00354	94	.62468
36	.00612	.00501	.00443	.00402	.00377	.00359	.00337	.00324	95	.61490
37	.00591	.00476	.00416	.00374	.00348	.00328	.00302	.00285	96	.60726
38	.00568	.00447	.00385	.00342	.00314	.00291	.00261	.00240	97	.59958
39	.00543	.00415	.00350	.00305	.00274	.00249	.00216	.00191	98	.59325
40	.00517	.00381	.00312	.00264	.00230	.00204	.00169	.00140	99	.58743
41	.00489	.00345	.00272	.00220	.00184	.00157	.00121	.00090	100	.58215
42	.00460	.00308	.00231	.00175	.00138	.00110	.00074	.00043		
43	.00430	.00269	.00188	.00130	.00093	.00065	.00028	.00007		
44	.00400	.00228	.00144	.00084	.00049	.00020	.00002	.00000		
45	.00368	.00184	.00098	.00037	.00001	.00000	.00000	.00000		
46	.00335	.00136	.00047	.00005	.00000	.00000	.00000	.00000		
47	.00300	.00083	.00000	.00000	.00000	.00000	.00000	.00000		
48	.00262	.00025	.00000	.00000	.00000	.00000	.00000	.00000		
49	.00221	.00002	.00000	.00000	.00000	.00000	.00000	.00000		
50	.00178	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
51	.00133	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
52	.00085	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
53	.00033	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
54	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
55	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
56	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
57	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
58	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
59	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
60	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
61	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
62	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
63	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
64	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
65	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
66	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
67	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
68	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
69	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
70	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
71	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
72	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		
73	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000		

(1882-1895)—SELECT.

Age x	$q(x)$	$q(x-1) +_1$	$q(x-2) +_2$	$q(x-3) +_3$	$q(x-4) +_4$	$q(x-5) +_5$	$q(x-6) +_6$	q_x	Age x	q_x
15	.00473	.....	.....	.....	.....	.....	.....	.....	74	.09754
16	.00468	.00547	.....	.....	.....	.....	.....	.....	75	.10814
17	.00460	.00542	.00571	.....	.....	.....	.....	.....	76	.11577
18	.00447	.00534	.00566	.00584	.....	.....	.....	.....	77	.12639
19	.00428	.00522	.00558	.00578	.00586	.....	.....	.....	78	.13778
20	.00408	.00508	.00546	.00567	.00577	.00580	.....	.....	79	.14969
21	.00388	.00492	.00532	.00553	.00564	.00567	.00569	.....	80	.16188
22	.00369	.00474	.00516	.00538	.00549	.00552	.00554	.00556	81	.17426
23	.00351	.00457	.00500	.00523	.00534	.00538	.00540	.00541	82	.18703
24	.00334	.00440	.00485	.00509	.00521	.00525	.00527	.00528	83	.20054
25	.00320	.00425	.00473	.00499	.00511	.00517	.00520	.00521	84	.21588
26	.00309	.00413	.00466	.00493	.00507	.00514	.00519	.00520	85	.23179
27	.00303	.00407	.00463	.00492	.00508	.00516	.00522	.00527	86	.24944
28	.00301	.00406	.00461	.00495	.00512	.00524	.00535	.00538	87	.27133
29	.00302	.00407	.00464	.00501	.00519	.00534	.00548	.00558	88	.29444
30	.00306	.00411	.00470	.00509	.00529	.00545	.00561	.00567	89	.31967
31	.00313	.00418	.00478	.00519	.00540	.00556	.00573	.00581	90	.34674
32	.00324	.00429	.00488	.00530	.00552	.00568	.00585	.00593	91	.37566
33	.00337	.00442	.00500	.00542	.00565	.00580	.00598	.00606	92	.40644
34	.00352	.00458	.00515	.00557	.00580	.00595	.00614	.00623	93	.43954
35	.00369	.00477	.00534	.00575	.00599	.00615	.00635	.00646	94	.47534
36	.00388	.00499	.00557	.00598	.00623	.00641	.00663	.00676	95	.51440
37	.00409	.00524	.00584	.00626	.00652	.00672	.00698	.00715	96	.55744
38	.00432	.00553	.00615	.00658	.00686	.00709	.00739	.00760	97	.60492
39	.00457	.00585	.00650	.00695	.00726	.00751	.00784	.00809	98	.65675
40	.00483	.00619	.00688	.00736	.00770	.00796	.00831	.00860	99	.71252
41	.00511	.00655	.00728	.00780	.00816	.00843	.00879	.00910	100	.77055
42	.00540	.00692	.00769	.00825	.00862	.00890	.00926	.00957		
43	.00570	.00731	.00812	.00870	.00907	.00935	.00972	.01003		
44	.00600	.00772	.00856	.00916	.00951	.00980	.01018	.01048		
45	.00632	.00816	.00902	.00963	.00999	.01028	.01066	.01096		
46	.00665	.00864	.00953	.01015	.01054	.01082	.01120	.01152		
47	.00700	.00917	.01010	.01076	.01116	.01144	.01184	.01218		
48	.00738	.00975	.01074	.01145	.01185	.01215	.01259	.01293		
49	.00779	.01038	.01144	.01220	.01262	.01294	.01347	.01383		
50	.00822	.01106	.01220	.01300	.01346	.01381	.01445	.01500		
51	.00867	.01179	.01302	.01386	.01437	.01477	.01551	.01620		
52	.00915	.01257	.01391	.01479	.01535	.01581	.01668	.01750		
53	.00967	.01341	.01487	.01580	.01640	.01694	.01798	.01891		
54	.01023	.01431	.01590	.01689	.01753	.01817	.01934	.02042		
55	.01083	.01527	.01700	.01806	.01875	.01951	.02082	.02208		
56	.01148	.01629	.01816	.01930	.02007	.02096	.02243	.02388		
57	.01219	.01737	.01939	.02061	.02149	.02253	.02420	.02587		
58	.01297	.01851	.02068	.02199	.02301	.02423	.02613	.02800		
59	.01382	.01970	.02203	.02345	.02463	.02605	.02820	.03028		
60	.01473	.02094	.02345	.02499	.02636	.02796	.03037	.03265		
61	.01571	.02224	.02494	.02662	.02819	.02995	.03266	.03513		
62	.01676	.02361	.02651	.02835	.03013	.03205	.03510	.03776		
63	.01789	.02507	.02817	.03020	.03219	.03430	.03774	.04058		
64	.01909	.02663	.02994	.03219	.03439	.03674	.04060	.04370		
65	.02039	.02831	.03184	.03434	.03676	.03940	.04371	.04719		
66	.02181	.03012	.03388	.03667	.03952	.04231	.04711	.05113		
67	.02334	.03206	.03608	.03919	.04209	.04549	.05083	.05551		
68	.....	.03414	.03845	.04191	.04509	.04896	.05489	.06031		
69	.....	.....	.04141	.04484	.04834	.05273	.05930	.06448		
70	.....	.....	.....	.04799	.05186	.05682	.06408	.07096		
71	.....	.....	.....	.....	.05567	.06124	.06924	.07679		
72	.....	.....	.....	.....	.....	.06601	.07480	.08304		
73	.....	.....	.....	.....	.....	.....	.08078	.08989		

[.] means age at entry. + means attained age.

SELECT.

$\frac{1}{2}x$	$1(x + \frac{1}{2})$	$2(x + \frac{1}{2}) + \frac{1}{2}$	$3(x + \frac{1}{2}) + \frac{1}{2}$	$4(x + \frac{1}{2}) + \frac{1}{2}$	$5(x + \frac{1}{2}) + \frac{1}{2}$	$1x + \frac{1}{2}$	Age $x + \frac{1}{2}$	Age x	$1x$
18	98844	98796	98410	97845	97152	96452	28	61	54067
19	98125	98075	97688	97127	96432	95728	24	62	52208
20	97396	97346	96957	96394	95700	94990	26	63	50286
21	96643	96592	96206	95647	94953	94241	28	64	48300
22	95880	95825	95442	94883	94191	93476	27	65	46252
23	95102	95045	94665	94107	93416	92696	28	66	44143
24	94310	94252	93875	93317	92625	91903	29	67	41978
25	93508	93446	93072	92515	91821	91096	30	68	39761
26	92694	92630	92259	91700	91004	90276	31	69	37499
27	91840	91774	91407	90849	90149	89415	32	70	35198
28	90987	90918	90554	89997	89296	88556	33	71	32869
29	90118	90045	89685	89129	88426	87680	34	72	30520
30	89234	89160	88803	88245	87539	86786	35	73	28166
31	88351	88273	87920	87349	86638	85876	36	74	25819
32	87468	87388	87034	86451	85729	84947	37	75	23494
33	86551	86469	86115	85520	84789	84004	38	76	21208
34	85639	85554	85198	84584	83840	83042	39	77	18976
35	84707	84619	84264	83632	82871	82058	40	78	16818
36	83761	83670	83311	82661	81884	81049	41	79	14750
37	82798	82705	82340	81664	80870	80013	42	80	12789
38	81807	81711	81339	80631	79822	78944	43	81	10951
39	80776	80675	80295	79572	78744	77847	44	82	9250
40	79733	79631	79241	78487	77639	76722	45	83	7698
41	78676	78567	78159	77378	76512	75572	46	84	6303
42	77609	77496	77069	76252	75360	74396	47	85	5070
43	76530	76413	75963	75112	74189	73195	48	86	3999
44	75443	75322	74839	73955	72994	71965	49	87	3089
45	74333	74204	73685	72765	71768	70705	50	88	2331
46	73213	73079	72515	71558	70521	69414	51	89	1715
47	72083	71942	71330	70332	69248	68093	52	90	1228
48	70946	70798	70125	69080	67947	66738	53	91	852
49	69789	69632	68894	67798	66612	65346	54	92	573
50	68600	68442	67633	66483	65239	63915	55	93	371
51	67383	67209	66328	65121	63819	62428	56	94	231
52	66106	65914	64959	63693	62330	60865	57	95	138
53	64799	64595	63555	62229	60802	59258	58	96	79
54	63442	63222	62097	60700	59219	57590	59	97	43
55	62033	61796	60579	59125	57570	55861	60	98	22
								99	10
								100	5
								101	2

SELECT.

Age [x]	$\frac{1}{2}d[x+\frac{1}{2}]$	$d[x+\frac{1}{2}]$	$d[x+\frac{1}{2}]+\frac{1}{2}$	$d[x+\frac{1}{2}]+\frac{1}{2}$	$d[x+\frac{1}{2}]+\frac{1}{2}$	$d[x+\frac{1}{2}]+\frac{1}{2}$	$d_x + s_x$	Age x+s	Age x	d_x
18	48	386	565	693	700	724	28	61	1859	
19	50	387	561	695	704	738	24	62	1922	
20	50	389	563	694	710	749	26	63	1986	
21	51	386	559	694	712	765	26	64	2048	
22	55	383	559	692	715	780	27	65	2109	
23	57	380	558	691	720	793	28	66	2165	
24	58	377	558	692	722	807	29	67	2216	
25	62	374	557	694	725	820	30	68	2262	
26	64	371	559	696	728	861	31	69	2301	
27	66	377	558	700	734	859	32	70	2329	
28	69	364	557	701	740	876	33	71	2349	
29	73	360	556	703	746	894	34	72	2354	
30	74	357	558	706	753	910	35	73	2347	
31	78	353	571	711	762	929	36	74	2325	
32	80	354	583	722	782	943	37	75	2286	
33	82	354	595	731	785	962	38	76	2232	
34	85	356	614	744	798	984	39	77	2158	
35	88	355	632	761	813	1009	40	78	2068	
36	91	359	650	777	835	1036	41	79	1961	
37	93	365	676	794	857	1069	42	80	1838	
38	96	372	708	809	878	1097	43	81	1701	
39	101	380	723	828	897	1125	44	82	1552	
40	102	390	754	848	917	1150	45	83	1395	
41	109	408	781	866	940	1176	46	84	1233	
42	113	427	817	892	964	1201	47	85	1071	
43	117	450	851	923	994	1230	48	86	910	
44	121	483	884	961	1029	1260	49	87	758	
45	129	519	920	997	1063	1291	50	88	616	
46	134	564	957	1037	1107	1321	51	89	487	
47	141	612	998	1084	1155	1355	52	90	376	
48	148	673	1045	1133	1209	1392	53	91	279	
49	157	738	1096	1186	1266	1431	54	92	202	
50	167	809	1150	1244	1324	1487	55	93	140	
51	179	881	1207	1302	1391	1563	56	94	93	
52	192	955	1266	1363	1465	1607	57	95	59	
53	204	1040	1326	1427	1544	1668	58	96	36	
54	220	1125	1391	1487	1629	1729	59	97	21	
55	237	1217	1454	1549	1715	1794	60	98	12	
								99	5	
								100	3	
								101	2	

CATHOLIC BENEVOLENT LEGION.

SELECT.

Age [x]	$\frac{1}{2}p[x+\frac{1}{2}]$	$\frac{1}{2}p[x+\frac{1}{2}] + \frac{1}{2}$	$\frac{1}{2}p[x+\frac{1}{2}] + \frac{3}{4}$	$\frac{1}{2}p[x+\frac{1}{2}] + \frac{1}{2}$	$\frac{1}{2}p[x+\frac{1}{2}] + \frac{5}{8}$	$\frac{1}{2}p[x+\frac{1}{2}] + \frac{3}{4}$	$p_x + \frac{1}{2}$	Age x + 1	Age x	p_x
18	.99951	.99610	.99425	.99290	.99280	.99250	.99250	23	61	.96563
19	.99950	.99605	.99425	.99285	.99270	.99230	.99230	24	62	.96319
20	.99949	.99600	.99420	.99280	.99260	.99210	.99210	25	63	.96051
21	.99946	.99600	.99420	.99275	.99250	.99188	.99188	26	64	.95759
22	.99943	.99600	.99415	.99270	.99240	.99166	.99166	27	65	.95440
23	.99940	.99600	.99410	.99265	.99230	.99144	.99144	28	66	.95096
24	.99937	.99600	.99405	.99260	.99220	.99122	.99122	29	67	.94720
25	.99934	.99600	.99400	.99250	.99210	.99100	.99100	30	68	.94310
26	.99931	.99600	.99395	.99240	.99200	.99070	.99070	31	69	.93864
27	.99928	.99600	.99390	.99230	.99187	.99040	.99040	32	70	.93381
28	.99924	.99600	.99385	.99220	.99173	.99010	.99010	33	71	.92856
29	.99920	.99600	.99380	.99210	.99157	.98980	.98980	34	72	.92287
30	.99916	.99600	.99370	.99200	.99140	.98950	.98950	35	73	.91666
31	.99913	.99600	.99350	.99185	.99120	.98920	.98920	36	74	.90966
32	.99909	.99595	.99330	.99166	.99098	.98890	.98890	37	75	.90267
33	.99905	.99590	.99310	.99144	.99074	.98855	.98855	38	76	.89470
34	.99901	.99585	.99280	.99119	.99048	.98815	.98815	39	77	.88626
35	.99897	.99580	.99250	.99090	.99020	.98770	.98770	40	78	.87702
36	.99892	.99570	.99220	.99060	.99000	.98720	.98720	41	79	.86706
37	.99887	.99560	.99180	.99029	.98940	.98665	.98665	42	80	.85631
38	.99882	.99545	.99140	.98996	.98900	.98610	.98610	43	81	.84470
39	.99876	.99530	.99100	.98961	.98860	.98555	.98555	44	82	.83220
40	.99870	.99510	.99050	.98927	.98820	.98500	.98500	45	83	.81877
41	.99863	.99480	.99000	.98883	.98770	.98445	.98445	46	84	.80434
42	.99855	.99450	.98940	.98830	.98720	.98385	.98385	47	85	.78886
43	.99847	.99410	.98880	.98770	.98660	.98320	.98320	48	86	.77232
44	.99838	.99360	.98820	.98700	.98590	.98250	.98250	49	87	.75464
45	.99828	.99300	.98750	.98630	.98520	.98175	.98175	50	88	.73578
46	.99817	.99230	.98680	.98550	.98430	.98085	.98085	51	89	.71571
47	.99804	.99150	.98600	.98460	.98330	.98010	.98010	52	90	.69438
48	.99790	.99050	.98510	.98360	.98220	.97915	.97915	53	91	.67189
49	.99774	.98940	.98410	.98250	.98100	.97810	.97810	54	92	.64813
50	.99759	.98820	.98300	.98130	.97970	.97675	.97675	55	93	.62312
51	.99735	.98700	.98180	.98000	.97820	.97519	.97519	56	94	.59690
52	.99711	.98550	.98050	.97860	.97650	.97300	.97300	57	95	.56952
53	.99684	.98300	.97910	.97710	.97460	.97185	.97185	58	96	.54105
54	.99653	.98220	.97700	.97550	.97250	.96905	.96905	59	97	.51158
55	.99618	.98030	.97600	.97300	.97020	.96790	.96790	60	98	.48100
									99	.45000
									100	.41840
									101	.00000

CATHOLIC BENEVOLENT LEGION.

SELECT.

Age [x]	$\frac{1}{2}q[x+\frac{1}{2}]$	$q[x+\frac{1}{2}]+\frac{1}{2}$	$q[x+\frac{1}{2}]+\frac{3}{4}$	$q[x+\frac{1}{2}]+\frac{1}{2}$	$q[x+\frac{1}{2}]+\frac{3}{4}$	$q_{x+\frac{1}{2}}$	Age x + $\frac{1}{2}$	Age x	q_x
18	.00049	.00390	.00575	.00710	.00720	.00750	23	61	.03437
19	.00050	.00395	.00575	.00715	.00730	.00770	24	62	.03651
20	.00051	.00400	.00580	.00720	.00740	.00790	25	63	.03949
21	.00054	.00400	.00580	.00725	.00750	.00812	26	64	.04241
22	.00057	.00400	.00585	.00730	.00760	.00834	27	65	.04560
23	.00060	.00400	.00590	.00735	.00770	.00856	28	66	.04904
24	.00063	.00400	.00595	.00740	.00780	.00878	29	67	.05280
25	.00066	.00400	.00600	.00750	.00790	.00900	30	68	.05690
26	.00069	.00400	.00605	.00760	.00801	.00930	31	69	.06136
27	.00072	.00400	.00610	.00770	.00813	.00960	32	70	.06619
28	.00076	.00400	.00615	.00780	.00827	.00990	33	71	.07144
29	.00080	.00400	.00620	.00790	.00843	.01020	34	72	.07713
30	.00084	.00400	.00630	.00800	.00860	.01050	35	73	.08334
31	.00087	.00400	.00650	.00815	.00880	.01080	36	74	.09004
32	.00091	.00405	.00670	.00834	.00902	.01110	37	75	.09733
33	.00095	.00410	.00690	.00856	.00926	.01145	38	76	.10521
34	.00099	.00415	.00720	.00881	.00952	.01185	39	77	.11374
35	.00103	.00420	.00750	.00910	.00980	.01230	40	78	.12298
36	.00108	.00430	.00780	.00940	.01020	.01280	41	79	.13294
37	.00113	.00440	.00820	.00971	.01060	.01335	42	80	.14369
38	.00118	.00455	.00860	.01004	.01100	.01390	43	81	.15530
39	.00124	.00470	.00900	.01039	.01140	.01445	44	82	.16780
40	.00130	.00490	.00950	.01080	.01180	.01550	45	83	.18123
41	.00137	.00520	.01000	.01120	.01230	.01555	46	84	.19566
42	.00145	.00550	.01060	.01170	.01280	.01615	47	85	.21114
43	.00153	.00590	.01120	.01230	.01340	.01680	48	86	.22768
44	.00162	.00640	.01180	.01300	.01410	.01750	49	87	.24536
45	.00172	.00700	.01250	.01370	.01480	.01825	50	88	.26422
46	.00183	.00770	.01320	.01450	.01570	.01905	51	89	.28429
47	.00190	.00850	.01400	.01540	.01670	.01990	52	90	.30562
48	.00210	.00950	.01490	.01640	.01780	.02085	53	91	.32811
49	.00226	.01060	.01590	.01750	.01900	.02190	54	92	.35187
50	.00244	.01180	.01700	.01870	.02030	.02325	55	93	.37688
51	.00265	.01310	.01820	.02000	.02180	.02481	56	94	.40310
52	.00289	.01450	.01950	.02140	.02350	.02640	57	95	.43048
53	.00316	.01610	.02090	.02290	.02540	.02815	58	96	.45895
54	.00347	.01780	.02240	.02450	.02750	.03005	59	97	.48842
55	.00382	.01970	.02400	.02620	.02980	.03210	60	98	.51891
								99	.54991
								100	.58160
								101	1.00000

A. O. U. W., ULTIMATE TABLE.

A. O. U. W.,(5) MORTALITY TABLE.

Age	Living l_x	Dying d_x	PROBABILITIES		Age	Living l_x	Dying d_x	PROBABILITIES	
			Surviving p_x	Dying q_x				Surviving p_x	Dying q_x
10	100000	522	.994780	.005220	50	72948	1065	.985401	.014599
11	99478	528	.994692	.005308	51	71883	1107	.984600	.015400
12	98950	533	.994612	.005388	52	70770	1148	.983780	.016220
13	98417	539	.994523	.005477	53	69628	1189	.982924	.017076
14	97878	545	.994434	.005568	54	68439	1229	.982042	.017958
15	97333	550	.994349	.005651	55	67210	1267	.981149	.018851
16	96783	556	.994255	.005745	56	65943	1311	.980119	.019881
17	96227	562	.994160	.005840	57	64632	1359	.978819	.021181
18	95665	567	.994073	.005927	58	63263	1405	.977627	.023173
19	95098	573	.993975	.006025	59	61797	1594	.974206	.025794
20	94525	579	.993875	.006125	60	60203	1750	.970932	.029068
21	93946	585	.993773	.006227	61	58453	1932	.969948	.033052
22	93361	590	.993680	.006320	62	56521	2114	.962598	.037402
23	92771	597	.993565	.006435	63	54407	2291	.957892	.042108
24	92174	603	.993458	.006542	64	52116	2450	.952990	.047010
25	91571	609	.993349	.006651	65	49666	2595	.947751	.052249
26	90962	615	.993239	.006761	66	47071	2713	.942364	.057636
27	90347	622	.993115	.006885	67	44358	2811	.936829	.063371
28	89725	628	.993012	.006988	68	41547	2835	.930563	.069437
29	89097	635	.992873	.007127	69	38662	2939	.923983	.076017
30	88462	643	.992731	.007269	70	35723	2952	.917364	.082636
31	87819	651	.992587	.007413	71	32771	2933	.910512	.089488
32	87168	661	.992447	.007583	72	29838	2881	.903345	.096655
33	86507	670	.992255	.007745	73	26954	2822	.896045	.103955
34	85837	681	.992065	.007935	74	24152	2698	.888291	.111709
35	85156	692	.991874	.008126	75	21451	2582	.879150	.120850
36	84464	704	.991665	.008335	76	18872	2433	.871079	.128321
37	83760	716	.991452	.008548	77	16439	2281	.861123	.138877
38	83044	729	.991221	.008779	78	14156	2138	.848969	.151031
39	82315	743	.990974	.009026	79	12018	1996	.833916	.166084
40	81572	758	.990708	.009292	80	10022	1854	.815007	.184993
41	80814	774	.990422	.009578	81	8168	1702	.791626	.206374
42	80040	790	.990130	.009870	82	6466	1534	.762759	.237241
43	79250	806	.989830	.010170	83	4932	1341	.727697	.272333
44	78444	825	.989483	.010517	84	3589	1128	.685707	.314293
45	77619	852	.989023	.010977	85	2461	896	.635921	.364079
46	76767	886	.988459	.011541	86	1565	601	.577936	.422364
47	75881	933	.987705	.012295	87	904	443	.509956	.490044
48	74948	978	.986951	.013049	88	461	262	.431670	.568330
49	73970	1022	.986184	.013816	89	199	130	.346734	.653266
					90	69	52	.246377	.753623
					91	17	14	.176471	.823529
					92	3	3	.000000	1.000000

POPULATION TABLES.

INTRODUCTION.

Of these tables, the Swedish is one of the earliest reliable population tables. The New Zealand table is given because of the evidence which it furnishes of the superior conditions, favorable to longevity, in that country.

The Belgian table appeared in 1904. It was graduated by M. Omer Le Preux, President of the Permanent Committee of the International Congress of Actuaries, according to Makeham's first law, and has been adopted for the use of the State Insurance Bureau of the Belgian government.

TABLE I.
MILNE'S SWEDISH POPULATION TABLE—MALES.

Age.	Living.	Dying.	Age.	Living.	Dying.
0	10,210	2,169	50	3,067	86
1	8,041	554	51	3,881	89
2	7,487	317	52	3,792	90
3	7,170	228	53	3,702	92
4	6,942	169	54	3,610	93
5	6,773	154	55	3,517	94
6	6,619	114	56	3,423	97
7	6,505	83	57	3,326	99
8	6,422	61	58	3,227	100
9	6,361	51	59	3,127	101
10	6,310	47	60	3,026	108
11	6,263	44	61	2,918	116
12	6,219	42	62	2,802	124
13	6,177	40	63	2,678	126
14	6,137	39	64	2,552	127
15	6,098	39	65	2,425	132
16	6,059	39	66	2,293	138
17	6,020	40	67	2,155	141
18	5,980	42	68	2,014	141
19	5,938	44	69	1,873	139
20	5,894	48	70	1,734	136
21	5,846	50	71	1,598	133
22	5,796	52	72	1,465	131
23	5,744	54	73	1,334	127
24	5,690	55	74	1,207	124
25	5,635	56	75	1,083	119
26	5,579	57	76	964	113
27	5,522	58	77	851	106
28	5,464	59	78	745	99
29	5,405	60	79	646	96
30	5,345	61	80	550	86
31	5,284	61	81	464	76
32	5,223	61	82	388	66
33	5,162	61	83	322	58
34	5,101	61	84	264	53
35	5,040	61	85	211	45
36	4,979	61	86	166	37
37	4,918	61	87	129	29
38	4,857	61	88	100	21
39	4,796	64	89	79	19
40	4,732	71	90	60	14
41	4,661	73	91	46	12
42	4,588	73	92	34	9
43	4,515	73	93	25	8
44	4,442	74	94	17	6
45	4,368	78	95	11	4
46	4,290	80	96	7	3
47	4,210	80	97	4	2
48	4,130	80	98	2	1
49	4,050	83	99	1	1

TABLE II.
MILNE'S SWEDISH POPULATION TABLE—FEMALES.

Age.	Living.	Dying.	Age.	Living.	Dying.
0	9,790	1,861	50	4,206	73
1	7,929	534	51	4,133	75
2	7,395	297	52	4,058	76
3	7,098	219	53	3,982	78
4	6,879	159	54	3,904	79
5	6,720	141	55	3,825	81
6	6,579	105	56	3,744	86
7	6,474	73	57	3,658	89
8	6,401	56	58	3,569	92
9	6,345	49	59	3,477	95
10	6,296	45	60	3,382	105
11	6,251	41	61	3,277	113
12	6,210	39	62	3,164	119
13	6,171	37	63	3,045	125
14	6,134	36	64	2,920	129
15	6,098	36	65	2,791	131
16	6,062	36	66	2,657	138
17	6,026	37	67	2,519	144
18	5,989	38	68	2,375	148
19	5,951	39	69	2,227	151
20	5,912	40	70	2,076	151
21	5,872	41	71	1,925	154
22	5,831	43	72	1,771	156
23	5,788	44	73	1,615	152
24	5,744	45	74	1,463	148
25	6,699	48	75	1,315	140
26	5,651	49	76	1,175	133
27	5,602	50	77	1,042	125
28	5,552	51	78	917	115
29	5,501	53	79	802	105
30	5,448	56	80	697	95
31	5,392	57	81	602	92
32	5,335	58	82	510	88
33	5,277	57	83	422	79
34	5,220	56	84	343	69
35	5,164	56	85	274	59
36	5,108	56	86	215	44
37	5,052	56	87	171	31
38	4,996	57	88	137	28
39	4,939	61	89	109	24
40	4,878	67	90	85	19
41	4,811	68	91	66	16
42	4,743	68	92	50	13
43	4,675	67	93	37	10
44	4,608	67	94	27	8
45	4,541	67	95	19	7
46	4,474	66	96	12	6
47	4,408	66	97	6	3
48	4,342	67	98	3	2
49	4,275	69	99	1	1

TABLE I.
POPULATION TABLE—NEW ZEALAND, MALES.

Ages.	No. Living.	No. Dying.	Prob-ability of Living.	Prob-ability of Dying.	Ages.	No. Living.	No. Dying.	Prob-ability of Living.	Prob-ability of Dying.
0	100,000	9,492	.90508	.09492	51	65,377	939	.98562	.01438
1	90,508	1,620	.98209	.01791	52	64,438	907	.98501	.01499
2	88,888	685	.99229	.00771	53	63,471	1,002	.98419	.01581
3	88,203	450	.99490	.00510	54	62,469	1,053	.98315	.01685
4	87,753	372	.99577	.00423	55	61,416	1,120	.98177	.01823
5	87,381	349	.99600	.00400	56	60,296	1,198	.98012	.01988
6	87,032	326	.99625	.00375	57	59,098	1,281	.97834	.02166
7	86,706	293	.99662	.00338	58	57,817	1,356	.97654	.02346
8	86,413	260	.99699	.00301	59	56,461	1,421	.97483	.02517
9	86,153	221	.99742	.00258	60	55,040	1,477	.97315	.02685
10	85,932	193	.99777	.00223	61	53,563	1,527	.97149	.02851
11	85,739	171	.99800	.00200	62	52,036	1,584	.96957	.03043
12	85,568	183	.99786	.00214	63	50,452	1,654	.96721	.03279
13	85,385	194	.99772	.00228	64	48,798	1,738	.96438	.03562
14	85,191	216	.99717	.00253	65	47,060	1,823	.96126	.03874
15	84,975	246	.99710	.00290	66	45,237	1,899	.95803	.04197
16	84,729	283	.99744	.00356	67	43,338	1,942	.95519	.04481
17	84,446	323	.99616	.00384	68	41,396	1,953	.95282	.04718
18	84,123	363	.99570	.00430	69	39,443	1,976	.94990	.05010
19	83,760	397	.99524	.00475	70	37,467	2,000	.94661	.05339
20	83,363	423	.99492	.00508	71	35,467	2,033	.94269	.05731
21	82,940	438	.99472	.00528	72	33,434	2,081	.93776	.06224
22	82,502	445	.99463	.00537	73	31,353	2,137	.93184	.06816
23	82,057	444	.99458	.00542	74	29,216	2,189	.92508	.07492
24	81,613	438	.99463	.00537	75	27,027	2,227	.91750	.08241
25	81,175	433	.99467	.00533	76	24,800	2,240	.90968	.09032
26	80,742	429	.99470	.00530	77	22,560	2,223	.90147	.09853
27	80,313	432	.99460	.00540	78	20,337	2,175	.89304	.10666
28	79,881	437	.99453	.00547	79	18,102	2,102	.88428	.11572
29	79,444	448	.99437	.00563	80	16,060	2,006	.87508	.12492
30	78,996	461	.99415	.00585	81	14,054	1,893	.86531	.13469
31	78,535	476	.99394	.00606	82	12,161	1,766	.85477	.14523
32	78,059	491	.99371	.00629	83	10,395	1,626	.84359	.15641
33	77,568	503	.99353	.00647	84	8,769	1,473	.83201	.16799
34	77,065	517	.99328	.00672	85	7,296	1,315	.81977	.18023
35	76,548	530	.99309	.00691	86	5,981	1,156	.80673	.19327
36	76,018	543	.99284	.00716	87	4,825	997	.79336	.20644
37	75,475	559	.99259	.00741	88	3,828	845	.77926	.22074
38	74,916	577	.99232	.00768	89	2,983	703	.76433	.23567
39	74,339	597	.99195	.00805	90	2,280	572	.74913	.25087
40	73,742	618	.99193	.00837	91	1,708	453	.73477	.26523
41	73,124	641	.99124	.00876	92	1,255	355	.71713	.28287
42	72,483	666	.99081	.00919	93	900	269	.70112	.29888
43	71,817	692	.99035	.00965	94	631	200	.68395	.31665
44	71,125	721	.98987	.01013	95	431	149	.65429	.34571
45	70,404	754	.98928	.01072	96	282	112	.62284	.39716
46	69,650	787	.98871	.01129	97	170	83	.51176	.48824
47	68,863	824	.98803	.01197	98	87	53	.39080	.60920
48	68,039	857	.98739	.01261	99	34	28	.17647	.82353
49	67,182	889	.98678	.01322	100	6	6	....	1.00000
50	66,293	916	.98619	.01381					

TABLE II.
POPULATION TABLE—NEW ZEALAND, FEMALES.

Age.	No. Living.	No. Dying.	Prob-ability of Living.	Prob-ability of Dying.	Age.	No. Living.	No. Dying.	Prob-ability of Living.	Prob-ability of Dying.
0	100,000	8,027	.91973	.08027	53	66,543	828	.98755	.01245
1	91,973	1,498	.93372	.01628	54	65,715	868	.98680	.01320
2	90,475	635	.99298	.00702	55	64,847	911	.98596	.01404
3	89,840	425	.99527	.00473	56	63,936	955	.98505	.01495
4	89,415	321	.99641	.00359	57	62,981	1,004	.98406	.01594
5	89,094	295	.99669	.00331	58	61,977	1,057	.98295	.01705
6	88,799	271	.99694	.00306	59	60,920	1,116	.98168	.01832
7	88,528	248	.99719	.00281	60	59,804	1,178	.98030	.01970
8	88,280	226	.99745	.00255	61	58,626	1,255	.97859	.02141
9	88,054	205	.99768	.00232	62	57,371	1,343	.97661	.02339
10	87,849	186	.99788	.00212	63	56,028	1,439	.97432	.02568
11	87,663	180	.99793	.00207	64	54,589	1,535	.97187	.02813
12	87,483	189	.99784	.00216	65	53,054	1,623	.96942	.03058
13	87,294	203	.99762	.00232	66	51,431	1,697	.96699	.03301
14	87,091	225	.99722	.00258	67	49,734	1,763	.96456	.03544
15	86,866	250	.99713	.00287	68	47,971	1,815	.96217	.03783
16	86,616	275	.99683	.00317	69	46,156	1,871	.95947	.04053
17	86,341	302	.99651	.00349	70	44,285	1,938	.95622	.04378
18	86,039	328	.99619	.00381	71	42,347	2,014	.95245	.04755
19	85,711	352	.99589	.00411	72	40,333	2,098	.94798	.05202
20	85,359	374	.99561	.00439	73	38,235	2,183	.94291	.05709
21	84,985	394	.99536	.00464	74	36,052	2,307	.93691	.06399
22	84,591	413	.99513	.00487	75	33,745	2,420	.92822	.07172
23	84,178	431	.99488	.00512	76	31,325	2,503	.92009	.07991
24	83,747	447	.99467	.00533	77	28,822	2,552	.91147	.08853
25	83,300	462	.99444	.00556	78	26,270	2,565	.90236	.09764
26	82,838	476	.99426	.00574	79	23,705	2,530	.89326	.10674
27	82,362	488	.99408	.00592	80	21,175	2,462	.88373	.11627
28	81,874	500	.99389	.00611	81	18,713	2,355	.87416	.12584
29	81,374	513	.99369	.00631	82	16,358	2,225	.86397	.13603
30	80,861	526	.99348	.00652	83	14,143	2,075	.85320	.14680
31	80,335	540	.99330	.00670	84	12,058	1,908	.84176	.15824
32	79,795	553	.99307	.00693	85	10,150	1,729	.82964	.17036
33	79,242	564	.99286	.00714	86	8,421	1,541	.81701	.18299
34	78,678	576	.99268	.00732	87	6,880	1,350	.80379	.19621
35	78,102	586	.99250	.00750	88	5,530	1,163	.78998	.21032
36	77,516	593	.99236	.00764	89	4,397	981	.77537	.22463
37	76,923	599	.99220	.00780	90	3,386	812	.76019	.23981
38	76,324	602	.99211	.00789	91	2,574	658	.74437	.25563
39	75,722	604	.99202	.00798	92	1,916	521	.72806	.27194
40	75,118	605	.99195	.00805	93	1,395	402	.71184	.28816
41	74,513	606	.99188	.00812	94	993	304	.69386	.30614
42	73,907	608	.99177	.00823	95	689	225	.67344	.32656
43	73,299	612	.99165	.00835	96	464	162	.65086	.34914
44	72,687	617	.99149	.00856	97	302	112	.62913	.37087
45	72,070	624	.99136	.00864	98	190	75	.60527	.39473
46	71,446	634	.98113	.00887	99	115	49	.57391	.42009
47	70,812	648	.99083	.00917	100	66	30	.54546	.45454
48	70,164	667	.99051	.00949	101	36	18	.50000	.50000
49	63,497	691	.99006	.00994	102	18	11	.38889	.61111
50	68,086	721	.98951	.01019	103	7	7	....	1.00000
51	68,085	753	.98894	.01106					
52	67,332	789	.98828	.01172					

280 BELGIAN POPULATION MORTALITY TABLE.

MORTALITY TABLE.
(1880-1900)—MALES.

Age.	Number Living.	Number Dying.	Proba- bility of Living.	Proba- bility of Dying.	Age	Number Living.	Number Dying.	Proba- bility of Living.	Proba- bility of Dying.
0	100,000	17,383	.82617	.17383	51	53,977	926	.98284	.01716
1	82,617	3,609	.95632	.04368	52	53,051	968	.98175	.01825
2	79,008	1,584	.97995	.02005	53	52,083	1,012	.98057	.01943
3	77,424	974	.98742	.01258	54	51,071	1,058	.97928	.02072
4	76,450	695	.99091	.00909	55	50,013	1,107	.97787	.02213
5	75,755	511	.99325	.00675	56	48,900	1,158	.97632	.02368
6	75,244	367	.99512	.00488	57	47,748	1,210	.97466	.02534
7	74,877	300	.99599	.00402	58	46,538	1,266	.97280	.02720
8	74,577	236	.99684	.00316	59	45,272	1,321	.97082	.02918
9	74,341	207	.99722	.00278	60	43,951	1,377	.96867	.03133
10	74,134	189	.99745	.00255	61	42,574	1,436	.96627	.03373
11	73,945	166	.99776	.00224	62	41,138	1,493	.96371	.03629
12	73,779	167	.99774	.00226	63	39,645	1,550	.96090	.03910
13	73,612	171	.99768	.00232	64	38,095	1,606	.95781	.04216
14	73,441	183	.99751	.00249	65	36,489	1,660	.95451	.04549
15	73,258	215	.99707	.00293	66	34,829	1,710	.95090	.04910
16	73,043	246	.99663	.00237	67	33,119	1,757	.94695	.05305
17	72,797	290	.99602	.00398	68	31,362	1,797	.94270	.05730
18	72,597	335	.99538	.00462	69	29,595	1,832	.93803	.06197
19	72,172	401	.99444	.00556	70	27,733	1,858	.93300	.06700
20	71,771	431	.99399	.00601	71	25,875	1,876	.92750	.07250
21	71,340	434	.99392	.00608	72	23,999	1,883	.92154	.07846
22	70,906	436	.99385	.00615	73	22,116	1,877	.91513	.08487
23	70,470	440	.99376	.00624	74	20,239	1,860	.90810	.09190
24	70,030	444	.99366	.00634	75	18,379	1,828	.90054	.09946
25	69,586	448	.99356	.00644	76	16,551	1,782	.89233	.10767
26	69,138	453	.99345	.00655	77	14,769	1,721	.88347	.11653
27	68,685	458	.99333	.00667	78	13,048	1,646	.87385	.12615
28	68,227	465	.99318	.00682	79	11,402	1,556	.86353	.13647
29	67,762	471	.99305	.00695	80	9,846	1,453	.85243	.14757
30	67,291	479	.99288	.00712	81	8,393	1,340	.84034	.15966
31	66,812	486	.99273	.00727	82	7,053	1,217	.82745	.17255
32	66,326	496	.99252	.00748	83	5,830	1,088	.81357	.18643
33	65,830	506	.99231	.00769	84	4,748	956	.79865	.20135
34	65,324	517	.99209	.00791	85	3,792	814	.78270	.21730
35	64,807	528	.99185	.00815	86	2,968	696	.76550	.23450
36	64,279	542	.99157	.00843	87	2,272	574	.74736	.25264
37	63,737	556	.99128	.00872	88	1,698	462	.72792	.27208
38	63,181	571	.99096	.00904	89	1,236	361	.70793	.29207
39	62,610	588	.99061	.00939	90	875	275	.68571	.31429
40	62,022	606	.99023	.00977	91	600	203	.66167	.33833
41	61,416	626	.98981	.01019	92	397	143	.63980	.36020
42	60,790	647	.98936	.01064	93	254	99	.61024	.38976
43	60,143	670	.98886	.01114	94	155	64	.58710	.41290
44	59,473	695	.98831	.01169	95	91	40	.56044	.43956
45	58,778	721	.98773	.01227	96	51	24	.52941	.47059
46	58,057	751	.98706	.01294	97	27	14	.48148	.51852
47	57,306	781	.98637	.01363	98	13	7	.46154	.53846
48	56,525	813	.98562	.01438	99	6	3	.5	.5
49	55,712	849	.98476	.01524	100	3	2	.33333	.66667
50	54,863	886	.98385	.01615	101	1	....	....	....

BELGIAN POPULATION MORTALITY TABLES. 281

MORTALITY TABLES.
(1880-1900)—FEMALES.

Age.	Number Living.	Number Dying.	Proba- bility of Liv.ng.	Proba- bility of Dying.	Age	Number Living.	Number Dying.	Proba- bility of Living.	Proba- bility of Dying.
0	100,000	14,607	.85303	.14607	58	57,164	780	.98636	.01364
1	85,393	3,516	.95883	.04117	59	56,384	815	.98555	.01445
2	81,877	1,544	.98114	.01886	60	55,569	853	.98465	.01535
3	80,333	979	.98781	.01219	61	54,716	894	.98366	.01634
4	79,354	724	.99088	.00912	62	53,822	939	.98255	.01745
5	78,630	539	.99315	.00685	63	52,883	986	.98136	.01864
6	78,091	388	.99593	.00497	64	51,897	1,037	.98002	.01998
7	77,703	303	.99610	.00390	65	50,860	1,091	.97855	.02145
8	77,400	259	.99665	.00335	66	49,769	1,148	.97693	.02307
9	77,141	231	.99701	.00299	67	48,621	1,210	.97511	.02489
10	76,910	208	.99730	.00270	68	47,411	1,273	.97315	.02685
11	76,702	189	.99754	.00246	69	46,138	1,340	.97096	.02904
12	76,513	196	.99744	.00256	70	44,798	1,409	.96855	.03145
13	76,317	216	.99717	.00283	71	43,389	1,480	.96589	.03411
14	76,101	232	.99695	.00305	72	41,909	1,552	.96297	.03703
15	75,869	278	.99634	.00366	73	40,357	1,625	.95973	.04027
16	75,591	317	.99581	.00419	74	38,732	1,697	.95619	.04381
17	75,274	330	.99562	.00438	75	37,035	1,768	.95226	.04774
18	74,944	352	.99530	.00470	76	35,267	1,836	.94794	.05206
19	74,592	391	.99476	.00524	77	33,431	1,898	.94323	.05677
20	74,301	462	.99377	.00623	78	31,533	1,956	.93797	.06203
21	73,739	462	.99373	.00627	79	29,577	2,004	.93224	.06776
22	73,277	462	.99370	.00630	80	27,573	2,042	.92594	.07406
23	72,815	461	.99367	.00633	81	25,531	2,067	.91904	.08096
24	72,354	462	.99361	.00639	82	23,464	2,078	.91144	.08856
25	71,892	463	.99356	.00644	83	21,386	2,072	.90311	.09689
26	71,429	464	.99350	.00650	84	19,314	2,046	.89407	.10593
27	70,965	464	.99346	.00654	85	17,268	2,002	.88406	.11594
28	70,501	467	.99338	.00662	86	15,266	1,936	.87318	.12682
29	70,034	468	.99332	.00668	87	13,330	1,849	.86129	.13871
30	69,566	471	.99323	.00677	88	11,481	1,741	.84836	.15164
31	69,095	474	.99314	.00686	89	9,740	1,614	.83429	.16571
32	68,621	478	.99303	.00697	90	8,126	1,471	.81898	.18102
33	68,143	482	.99293	.00707	91	6,655	1,315	.80240	.19760
34	67,661	486	.99282	.00718	92	5,340	1,151	.78446	.21554
35	67,175	492	.99268	.00732	93	4,189	984	.76510	.23490
36	66,683	499	.99252	.00748	94	3,205	820	.74415	.25585
37	66,184	505	.99237	.00763	95	2,385	664	.72159	.27841
38	65,679	514	.99217	.00783	96	1,721	520	.69785	.30215
39	65,165	522	.99199	.00801	97	1,201	394	.67194	.32806
40	64,643	533	.99175	.00825	98	807	286	.64560	.35440
41	64,110	544	.99151	.00849	99	521	200	.61612	.38388
42	63,566	557	.99124	.00876	100	321	133	.58567	.41433
43	63,009	570	.99095	.00905	101	188	84	.55319	.44681
44	62,439	586	.99061	.00939	102	104	50	.51923	.48077
45	61,853	603	.99025	.00975		54	28	.48148	.51852
46	61,250	622	.98984	.01016		26	14	.46154	.53816
47	60,628	643	.98939	.01061		12	7	.41667	.58333
48	59,985	666	.98890	.01110		5	3	.4	.6
49	59,319	690	.98837	.01163		2	1	.5	.5
50	58,629	718	.98775	.01225		1	.....	.....	.....
51	57,911	747	.98710	.01290					

BRITISH GOVERNMENT SICKNESS TABLES.

INTRODUCTION.

THESE tables were constructed from the experience of all the friendly societies of Great Britain, 1876-1880, as reported to the Registrar of Friendly Societies. The labor of collecting and analyzing this experience, of graduating the tables and computing the monetary values, was entrusted to the late William Sutton, F. I. A., actuary of the registry. The tables were published by the British government in 1896.

The portion of the experience from which these tables were deduced, embraces over 1,600,000 persons exposed to sickness, with 3,147,044 weeks of sickness, and 23,048 deaths.

This table, with interest at $3\frac{1}{2}$ per cent, has been adopted as the standard of valuation of health policies, covering all diseases and renewable beyond one year at the insured's option, under the laws of New York.

BRITISH GOVERNMENT SICKNESS TABLES, FOUR PER CENT.
 MALES, 1876-1880.
 CORRESPONDING MORTALITY VALUES.

Age.	D ₁	N ₁	Age.	D ₂	N ₂
5	82192	1613800.	53	7947.1	88412.
6	77897	1535900.	54	7484.1	80926.
7	74034	1461900.	55	7037.0	73891.
8	70477	1391400.	56	6604.7	67285.
9	67197	1324200.	57	6187.4	61098.
10	64145	1260100.	58	5785.4	55312.
11	61282	1198800.	59	5398.5	49914.
12	58581	1140200.	60	5026.6	44887.
13	56016	1084200.	61	4668.9	40218.
14	53562	1030600.	62	4324.3	35894.
15	51215	979400.	63	3992.6	31902.
16	48953	930440.	64	3673.6	28228.
17	46768	883690.	65	3367.9	24860.
18	44656	839020.	66	3076.8	21783.
19	42625	796400.	67	2801.6	18982.
20	40685	755720.	68	2542.3	16439.
21	38845	716870.	69	2297.3	14142.
22	37107	679770.	70	2064.1	12078.
23	35460	644300.	71	1841.2	10237.
24	33898	610350.	72	1627.5	8609.1
25	32409	577990.	73	1424.0	7185.2
26	30984	547020.	74	1232.7	5952.5
27	29617	517390.	75	1056.6	4895.9
28	28302	489090.	76	897.97	3998.0
29	27037	462050.	77	758.00	3240.0
30	25821	436230.	78	636.56	2603.4
31	24652	411290.	79	532.02	2071.4
32	23528	388050.	80	441.88	1629.5
33	22448	365600.	81	363.94	1265.6
34	21408	344200.	82	296.32	969.26
35	20408	323790.	83	237.71	731.54
36	19446	304340.	84	187.56	543.98
37	18522	285820.	85	145.60	398.38
38	17635	268180.	86	111.43	286.95
39	16786	251400.	87	84.196	202.75
40	15973	235430.	88	62.878	139.87
41	15195	220230.	89	46.301	93.573
42	14450	205780.	90	33.430	60.144
43	13735	192050.	91	23.433	36.710
44	13.49	179000.	92	15.742	20.973
45	12390	166610.	93	9.9674	11.000
46	11755	154850.	94	5.8248	5.1555
47	11144	143710.	95	3.0615	2.1140
48	10556	133150.	96	1.3981	.71590
49	9990.6	123160.	97	.52862	.18730
50	9447.8	113710.	98	.15385	.033400
51	8927.3	104790.	99	.030449	.0030496
52	8427.5	96358.	100	.0030496	.....

BRITISH GOVERNMENT SICKNESS TABLES, FOUR PER CENT.

Males, 1876-1880.

Age.	DURATION—ONE YEAR.								
	Weeks, 0-4.	Weeks, 4-8.	Weeks, 8-13.	Weeks, 13-17.	Weeks, 17-21.	Weeks, 21-26.	Weeks, 26-30.	Weeks, 30-34.	Weeks, 34-39.
6	9.92	3.12	1.62	.75	.55	.51	.32	.27	.28
6	10.16	3.09	1.71	.79	.58	.53	.33	.29	.30
7	10.37	3.05	1.78	.84	.61	.56	.35	.30	.32
8	10.51	3.11	1.83	.87	.64	.59	.37	.31	.33
9	10.62	3.16	1.87	.91	.67	.62	.38	.32	.35
10	10.72	3.22	1.93	.94	.69	.64	.40	.33	.36
11	10.80	3.28	1.99	.97	.71	.66	.41	.35	.38
12	10.89	3.33	2.04	.99	.73	.68	.43	.36	.40
13	10.96	3.38	2.09	1.02	.75	.70	.44	.38	.41
14	10.97	3.43	2.15	1.06	.78	.73	.46	.39	.42
15	11.02	3.48	2.20	1.09	.80	.76	.48	.40	.44
16	11.07	3.53	2.24	1.12	.82	.78	.49	.42	.45
17	11.15	3.58	2.27	1.14	.84	.80	.50	.43	.46
18	11.18	3.61	2.31	1.16	.87	.82	.51	.44	.48
19	11.17	3.67	2.36	1.19	.89	.84	.53	.45	.49
20	11.16	3.71	2.40	1.22	.91	.87	.55	.47	.50
21	11.16	3.75	2.44	1.25	.94	.89	.56	.48	.52
22	11.16	3.81	2.49	1.28	.96	.91	.58	.49	.53
23	11.16	3.85	2.53	1.31	.98	.94	.59	.51	.55
24	11.18	3.90	2.58	1.34	1.00	.96	.61	.52	.57
25	11.21	3.96	2.63	1.37	1.03	.99	.63	.53	.58
26	11.25	4.02	2.68	1.40	1.06	1.02	.64	.55	.60
27	11.28	4.08	2.73	1.43	1.08	1.04	.66	.57	.62
28	11.33	4.14	2.79	1.46	1.11	1.07	.68	.59	.64
29	11.37	4.21	2.85	1.49	1.13	1.09	.70	.61	.66
30	11.43	4.27	2.90	1.53	1.16	1.12	.72	.62	.68
31	11.48	4.34	2.96	1.56	1.19	1.15	.74	.64	.70
32	11.53	4.41	3.01	1.60	1.21	1.18	.76	.66	.72
33	11.56	4.47	3.08	1.64	1.25	1.21	.78	.68	.74
34	11.59	4.53	3.13	1.68	1.28	1.25	.81	.70	.77
35	11.62	4.60	3.20	1.72	1.31	1.28	.83	.72	.80
36	11.66	4.67	3.26	1.75	1.35	1.31	.86	.74	.82
37	11.70	4.74	3.32	1.79	1.38	1.35	.88	.77	.84
38	11.73	4.80	3.39	1.83	1.41	1.38	.90	.79	.87
39	11.76	4.87	3.45	1.87	1.44	1.42	.93	.81	.89
40	11.78	4.93	3.51	1.91	1.47	1.46	.95	.84	.93
41	11.80	4.99	3.58	1.96	1.51	1.50	.98	.86	.95
42	11.81	5.05	3.64	2.00	1.55	1.53	1.01	.89	.98
43	11.81	5.11	3.70	2.04	1.59	1.58	1.04	.92	1.01
44	11.80	5.16	3.76	2.08	1.62	1.62	1.07	.95	1.05
45	11.78	5.22	3.83	2.12	1.66	1.66	1.10	.97	1.08
46	11.76	5.27	3.89	2.17	1.70	1.70	1.13	1.00	1.12
47	11.71	5.32	3.96	2.21	1.74	1.75	1.16	1.03	1.15
48	11.67	5.36	4.02	2.26	1.78	1.79	1.19	1.06	1.19
49	11.61	5.42	4.07	2.31	1.82	1.83	1.22	1.09	1.22
50	11.53	5.45	4.14	2.34	1.86	1.88	1.26	1.13	1.26
51	11.43	5.49	4.21	2.39	1.90	1.93	1.30	1.16	1.30
52	11.35	5.52	4.26	2.44	1.95	1.93	1.33	1.19	1.31

BRITISH GOVERNMENT SICKNESS TABLES, FOUR PER CENT.
MALES, 1876-1880.

Age.	DURATION—ONE YEAR.				DURATION—TWO YEARS.			Three Years and Upwards.	All Durations.
	Weeks, 39-43.	Weeks, 43-47.	Weeks, 47-52.	Total.	First 6 Mos.	Second 6 Mos.	Total.		
5	.20	.17	.20	17.91	.92	.64	1.56	4.54	24.01
6	.21	.18	.21	18.38	.97	.67	1.64	4.79	24.81
7	.22	.19	.22	18.81	1.02	.70	1.72	5.05	25.58
8	.23	.20	.23	19.22	1.07	.74	1.81	5.30	26.33
9	.24	.21	.25	19.60	1.12	.78	1.90	5.56	27.06
10	.25	.22	.26	19.96	1.18	.82	2.00	5.82	27.78
11	.26	.23	.27	20.31	1.24	.85	2.09	6.09	28.49
12	.27	.24	.28	20.64	1.29	.89	2.18	6.38	29.20
13	.28	.25	.29	20.95	1.34	.93	2.27	6.67	29.89
14	.30	.26	.31	21.26	1.38	.93	2.36	6.98	30.60
15	.30	.28	.31	21.56	1.43	1.01	2.44	7.29	31.29
16	.31	.28	.33	21.84	1.47	1.05	2.52	7.63	31.99
17	.32	.28	.33	22.10	1.52	1.09	2.61	7.97	32.68
18	.33	.29	.34	22.34	1.57	1.13	2.70	8.33	33.37
19	.34	.30	.35	22.58	1.62	1.16	2.78	8.72	34.08
20	.35	.31	.37	22.82	1.67	1.20	2.87	9.11	34.80
21	.36	.32	.38	23.05	1.72	1.25	2.97	9.52	35.54
22	.37	.33	.39	23.30	1.78	1.29	3.07	9.93	36.30
23	.39	.35	.40	23.56	1.83	1.33	3.16	10.37	37.09
24	.40	.36	.42	23.84	1.89	1.38	3.27	10.80	37.91
25	.41	.37	.43	24.14	1.95	1.43	3.38	11.26	38.78
26	.42	.38	.44	24.46	2.02	1.47	3.49	11.74	39.69
27	.44	.40	.46	24.79	2.09	1.52	3.61	12.25	40.65
28	.45	.41	.47	25.14	2.16	1.58	3.74	12.77	41.65
29	.47	.42	.49	25.49	2.24	1.63	3.87	13.32	42.68
30	.48	.43	.51	25.85	2.32	1.69	4.01	13.88	43.74
31	.50	.44	.52	26.22	2.40	1.75	4.15	14.45	44.83
32	.51	.46	.54	26.59	2.48	1.81	4.29	15.07	45.95
33	.53	.48	.56	26.98	2.57	1.87	4.44	15.70	47.12
34	.55	.50	.58	27.37	2.65	1.94	4.59	16.35	48.31
35	.56	.52	.60	27.76	2.74	2.03	4.74	17.04	49.54
36	.58	.53	.62	28.15	2.84	2.07	4.91	17.75	50.81
37	.60	.55	.64	28.56	2.94	2.14	5.08	18.48	52.12
38	.62	.57	.67	28.96	3.04	2.21	5.25	19.25	53.46
39	.64	.58	.70	29.36	3.14	2.29	5.43	20.05	54.84
40	.66	.61	.72	29.77	3.26	2.37	5.63	20.87	56.27
41	.68	.63	.74	30.18	3.37	2.46	5.83	21.73	57.74
42	.71	.65	.77	30.59	3.49	2.55	6.04	22.63	59.26
43	.73	.67	.79	30.99	3.62	2.64	6.26	23.57	60.82
44	.76	.70	.82	31.39	3.74	2.74	6.48	24.56	62.43
45	.78	.72	.85	31.77	3.87	2.84	6.71	25.60	64.08
46	.80	.74	.88	32.16	4.01	2.94	6.95	26.67	65.78
47	.83	.77	.91	32.54	4.14	3.05	7.19	27.80	67.53
48	.86	.79	.94	32.91	4.29	3.15	7.44	28.98	69.33
49	.89	.82	.97	33.27	4.44	3.26	7.70	30.22	71.19
50	.92	.85	1.01	33.63	4.59	3.38	7.97	31.52	73.12
51	.95	.83	1.04	33.98	4.75	3.50	8.25	32.89	75.12
52	.97	.91	1.08	34.32	4.91	3.63	8.54	34.35	77.21

NET SINGLE PREMIUMS.

BRITISH GOVERNMENT SICKNESS TABLES, FOUR PER CENT.
MALFS, 1876-1880.

Age.	DURATION—ONE YEAR.									
	Weeks, 0-4.	Weeks, 4-8.	Weeks, 8-12.	Weeks, 12-16.	Weeks, 16-20.	Weeks, 20-24.	Weeks, 24-28.	Weeks, 28-32.	Weeks, 32-36.	Weeks, 36-40.
53	11.26	5.55	4.33	2.48	1.98	2.03	1.36	1.23	1.38	1.38
54	11.16	5.57	4.38	2.52	2.03	2.07	1.40	1.26	1.42	1.42
55	11.06	5.60	4.43	2.56	2.07	2.12	1.44	1.29	1.46	1.46
56	10.94	5.62	4.48	2.61	2.11	2.17	1.47	1.33	1.51	1.51
57	10.85	5.63	4.53	2.64	2.15	2.22	1.51	1.37	1.56	1.56
58	10.73	5.63	4.57	2.69	2.19	2.27	1.56	1.41	1.60	1.60
59	10.59	5.63	4.61	2.73	2.23	2.32	1.59	1.45	1.65	1.65
60	10.42	5.62	4.64	2.76	2.27	2.37	1.63	1.49	1.70	1.70
61	10.23	5.61	4.67	2.79	2.30	2.41	1.67	1.52	1.74	1.74
62	10.04	5.58	4.68	2.82	2.33	2.44	1.69	1.55	1.78	1.78
63	9.86	5.53	4.69	2.83	2.35	2.47	1.72	1.57	1.81	1.81
64	9.58	5.46	4.65	2.84	2.36	2.49	1.74	1.60	1.85	1.85
65	9.31	5.39	4.63	2.84	2.37	2.51	1.76	1.62	1.87	1.87
66	9.02	5.29	4.58	2.82	2.37	2.52	1.76	1.63	1.89	1.89
67	8.74	5.19	4.52	2.78	2.35	2.50	1.76	1.63	1.89	1.89
68	8.41	5.05	4.44	2.75	2.32	2.47	1.74	1.62	1.88	1.88
69	8.03	4.90	4.34	2.70	2.28	2.43	1.72	1.61	1.86	1.86
70	7.61	4.72	4.21	2.63	2.24	2.39	1.70	1.59	1.84	1.84
71	7.24	4.54	4.07	2.55	2.18	2.33	1.66	1.55	1.80	1.80
72	6.76	4.30	3.91	2.47	2.12	2.28	1.63	1.53	1.78	1.78
73	6.38	4.11	3.76	2.37	2.06	2.21	1.58	1.49	1.72	1.72
74	5.95	3.90	3.62	2.29	1.98	2.15	1.53	1.43	1.67	1.67
75	5.62	3.71	3.44	2.17	1.88	2.04	1.47	1.38	1.61	1.61
76	5.25	3.53	3.28	2.07	1.80	1.95	1.41	1.33	1.54	1.54
77	4.90	3.28	3.06	1.97	1.68	1.84	1.34	1.28	1.47	1.47
78	4.46	3.03	2.82	1.77	1.56	1.74	1.26	1.25	1.40	1.40
79	4.11	2.81	2.61	1.61	1.42	1.58	1.16	1.11	1.27	1.27
80	3.67	2.52	2.36	1.42	1.26	1.42	1.05	1.01	1.17	1.17
81	3.39	2.30	2.12	1.24	1.07	1.22	.90	.87	1.02	1.02
82	3.22	2.12	1.95	1.06	.88	1.02	.75	.71	.82	.82
83	2.94	1.95	1.80	.89	.70	.78	.56	.56	.67	.67
84	2.80	1.92	1.69	.71	.52	.53	.37	.37	.44	.44
85	1.98	1.30	1.11	.59	.46	.54	.36	.36	.44	.44
86	1.23	.80	.74	.43	.36	.40	.31	.31	.39	.39
87	.62	.49	.45	.25	.24	.22	.18	.18	.20	.20
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NET SINGLE PREMIUMS. FOUR PER CENT.
MALES, 1876-1880.

Age.	DURATION—ONE YEAR.				DURATION—TWO YEARS.			Three Years and Upwards.	All Durations.
	Weeks, 29-43.	Weeks, 43-47.	Weeks, 47-52.	Total.	First 6 Mo.	Second 6 Mos.	Total.		
53	1.00	.93	1.11	34.64	5.08	3.76	8.84	35.90	79.38
54	1.03	.96	1.15	34.95	5.26	3.89	9.15	37.54	81.64
55	1.06	.99	1.19	35.27	5.43	4.03	9.46	39.28	84.01
56	1.10	1.03	1.23	35.60	5.61	4.18	9.79	41.11	86.50
57	1.13	1.06	1.27	35.92	5.81	4.32	10.13	43.03	89.08
58	1.17	1.09	1.31	36.22	6.02	4.47	10.49	45.04	91.75
59	1.21	1.13	1.35	36.49	6.23	4.63	10.86	47.16	94.51
60	1.25	1.17	1.40	36.72	6.44	4.79	11.23	49.39	97.34
61	1.28	1.20	1.45	36.87	6.66	4.96	11.62	51.74	100.23
62	1.31	1.23	1.48	36.93	6.89	5.14	12.03	54.23	103.19
63	1.34	1.25	1.51	36.93	7.11	5.31	12.42	56.87	106.22
64	1.37	1.29	1.56	36.79	7.32	5.49	12.81	59.68	109.28
65	1.38	1.30	1.58	36.56	7.52	5.66	13.18	62.59	112.33
66	1.40	1.32	1.60	36.20	7.71	5.79	13.50	65.58	115.28
67	1.40	1.33	1.61	35.70	7.87	5.88	13.75	68.59	118.04
68	1.40	1.33	1.61	35.02	7.97	5.96	13.93	71.54	120.49
69	1.39	1.32	1.60	34.18	8.01	6.02	14.03	74.39	122.60
70	1.37	1.30	1.59	33.19	8.03	6.02	14.05	77.18	124.42
71	1.34	1.27	1.55	32.08	7.99	6.01	14.00	79.95	126.03
72	1.32	1.26	1.54	30.90	7.93	5.97	13.90	82.80	127.60
73	1.28	1.22	1.48	29.66	7.88	5.92	13.80	85.80	129.26
74	1.24	1.19	1.45	28.40	7.80	5.89	13.69	89.03	131.12
75	1.21	1.16	1.42	27.11	7.78	5.82	13.60	92.51	133.22
76	1.16	1.11	1.35	25.78	7.75	5.78	13.53	96.20	135.51
77	1.11	1.07	1.31	24.31	7.68	5.76	13.44	100.02	137.77
78	1.06	1.02	1.25	22.62	7.61	5.63	13.24	103.78	139.64
79	.95	.93	1.13	20.69	7.39	5.49	12.88	107.39	140.96
80	.87	.84	1.03	18.02	7.05	5.37	12.42	110.88	141.92
81	.76	.73	.90	16.52	6.62	5.10	11.72	114.22	142.46
82	.59	.58	.73	14.43	6.19	4.74	10.93	117.41	142.77
83	.47	.46	.59	12.38	5.62	4.45	10.07	120.56	143.01
84	.30	.29	.38	10.32	5.01	4.15	9.16	123.72	143.20
85	.32	.32	.40	8.18	4.24	3.98	8.22	126.70	143.10
86	.27	.26	.34	5.84	3.80	3.45	7.25	129.11	142.20
87	.12	.11	.13	3.19	3.10	3.11	6.21	130.59	139.99
88	....	....	....	....	2.56	2.56	5.12	130.69	135.81
89	....	....	....	....	....	....	....	129.06	129.06
90	....	....	....	....	....	....	....	119.08	119.08
91	....	....	....	....	....	....	....	106.98	106.98
92	....	....	....	....	....	....	....	94.77	94.77
93	....	....	....	....	....	....	....	82.90	82.90
94	....	....	....	....	....	....	....	71.71	71.71
95	....	....	....	....	....	....	....	61.41	61.41
96	....	....	....	....	....	....	....	52.13	52.13
97	....	....	....	....	....	....	....	43.93	43.93
98	....	....	....	....	....	....	....	36.82	36.82
99	....	....	....	....	....	....	....	30.70	30.70
100	....	....	....	....	....	....	....	25.49	25.49

BRITISH GOVERNMENT SICKNESS TABLES, THREE AND ONE-HALF PER CENT. MALES, 1876-80.
CORRESPONDING MORTALITY VALUES.

Age.	D _x	N _x	Age.	D _x	N _x
5	84198	1811700.	53	10260	119440.
6	80189	1731500.	54	9708.7	109730.
7	76574	1655000.	55	9172.8	100550.
8	73249	1581700.	56	8650.9	91903.
9	70176	1511500.	57	8143.5	83759.
10	67312	1444200.	58	7651.0	76108.
11	64619	1379600.	59	7174.0	68933.
12	62070	1317500.	60	6712.0	62221.
13	59638	1257900.	61	6264.4	55958.
14	57305	1200600.	62	5830.3	50127.
15	55054	1145500.	63	5409.0	44718.
16	52876	1092700.	64	5000.8	39718.
17	50761	1041900.	65	4607.2	35111.
18	48702	9931801.	66	4229.0	30882.
19	46711	946480.	67	3869.4	27012.
20	44801	901670.	68	3528.3	23484.
21	42982	858700.	69	3203.5	20221.
22	41256	817450.	70	2892.3	17388.
23	39817	777820.	71	2592.4	14796.
24	38055	739780.	72	2302.6	12493.
25	36559	703220.	73	2024.4	10469.
26	35120	668100.	74	1761.0	8707.8
27	33733	634350.	75	1516.7	7191.2
28	32391	601960.	76	1295.2	5895.9
29	31093	570870.	77	1098.6	4797.3
30	29838	541030.	78	927.02	3870.3
31	28625	512410.	79	778.52	3091.8
32	27452	484960.	80	649.74	2442.0
33	26317	458640.	81	537.72	1904.3
34	25220	433420.	82	439.93	1454.4
35	24157	409260.	83	354.62	1109.8
36	23130	386130.	84	281.15	828.63
37	22137	364000.	85	219.31	609.31
38	21180	342820.	86	168.68	440.65
39	20257	322560.	87	128.05	312.60
40	19369	303190.	88	96.090	216.51
41	18515	284670.	89	71.100	145.41
42	17692	266980.	90	51.583	93.827
43	16898	250080.	91	36.331	57.498
44	16131	233950.	92	24.526	32.971
45	15390	218560.	93	15.249	17.367
46	14672	203890.	94	9.1026	8.2043
47	13977	189470.	95	4.8393	3.3649
48	13303	176610.	96	2.2205	1.1444
49	12651	163960.	97	.84365	.30070
50	12022	151940.	98	.24673	.054000
51	11415	140520.	99	.049066	.0049379
52	10828	129700.	100	.0049379	.....

NET SINGLE PREMIUMS.

BRITISH GOVERNMENT SICKNESS TABLES, THREE AND ONE-HALF PER CENT. MALES, 1876-1880.

Age.	DURATIONS—ONE YEAR.								
	Weeks, 0-4.	Weeks, 4-8.	Weeks, 8-13.	Weeks, 13-17.	Weeks, 17-21.	Weeks, 21-26.	Weeks, 26-30.	Weeks, 30-34.	Weeks, 34-39.
5	11.09	3.54	1.90	.90	.65	.62	.39	.32	.35
6	11.33	3.51	2.00	.94	.68	.65	.41	.34	.37
7	11.55	3.48	2.07	.99	.72	.68	.43	.36	.38
8	11.68	3.54	2.12	1.03	.75	.71	.45	.38	.40
9	11.79	3.60	2.17	1.07	.79	.74	.46	.39	.42
10	11.89	3.66	2.23	1.10	.81	.76	.48	.41	.43
11	11.98	3.72	2.29	1.13	.83	.78	.49	.43	.45
12	12.05	3.77	2.35	1.16	.85	.81	.51	.44	.47
13	12.11	3.82	2.40	1.19	.88	.83	.53	.45	.49
14	12.11	3.88	2.47	1.23	.90	.86	.55	.47	.51
15	12.17	3.93	2.51	1.26	.93	.89	.56	.48	.52
16	12.21	3.98	2.55	1.29	.95	.91	.58	.49	.54
17	12.28	4.02	2.59	1.31	.98	.93	.59	.50	.54
18	12.31	4.07	2.63	1.34	1.00	.95	.60	.51	.56
19	12.29	4.12	2.68	1.37	1.02	.98	.62	.53	.57
20	12.27	4.16	2.72	1.40	1.05	1.01	.64	.55	.59
21	12.27	4.21	2.77	1.43	1.07	1.03	.65	.56	.61
22	12.26	4.26	2.82	1.46	1.10	1.05	.67	.57	.62
23	12.25	4.31	2.86	1.49	1.12	1.08	.69	.59	.64
24	12.26	4.36	2.91	1.52	1.14	1.11	.70	.60	.66
25	12.29	4.41	2.96	1.55	1.17	1.13	.72	.62	.68
26	12.28	4.47	3.01	1.58	1.20	1.16	.74	.64	.70
27	12.32	4.53	3.06	1.61	1.22	1.19	.76	.65	.72
28	12.35	4.59	3.12	1.65	1.25	1.22	.78	.67	.74
29	12.39	4.65	3.18	1.68	1.28	1.24	.80	.69	.76
30	12.43	4.71	3.23	1.71	1.30	1.27	.82	.71	.78
31	12.47	4.78	3.28	1.75	1.33	1.30	.84	.73	.80
32	12.50	4.84	3.34	1.75	1.35	1.33	.86	.75	.82
33	12.52	4.90	3.40	1.83	1.39	1.36	.88	.77	.85
34	12.54	4.97	3.46	1.86	1.43	1.39	.91	.79	.87
35	12.55	5.03	3.53	1.90	1.46	1.43	.93	.82	.89
36	12.57	5.10	3.59	1.94	1.49	1.46	.95	.84	.91
37	12.59	5.16	3.65	1.98	1.52	1.49	.98	.86	.94
38	12.61	5.22	3.71	2.02	1.56	1.53	1.00	.88	.97
39	12.62	5.28	3.77	2.06	1.59	1.57	1.03	.90	1.00
40	12.62	5.33	3.83	2.10	1.62	1.61	1.05	.93	1.03
41	12.62	5.39	3.89	2.14	1.66	1.65	1.08	.95	1.06
42	12.61	5.44	3.95	2.18	1.70	1.68	1.11	.98	1.09
43	12.59	5.50	4.01	2.22	1.73	1.72	1.14	1.00	1.12
44	12.56	5.55	4.07	2.26	1.77	1.77	1.17	1.03	1.15
45	12.53	5.59	4.13	2.30	1.80	1.81	1.20	1.06	1.18
46	12.48	5.63	4.19	2.34	1.84	1.85	1.23	1.09	1.22
47	12.46	5.68	4.24	2.38	1.88	1.89	1.26	1.12	1.25
48	12.34	5.72	4.30	2.43	1.92	1.93	1.29	1.15	1.29
49	12.26	5.76	4.36	2.47	1.96	1.97	1.32	1.18	1.32
50	12.15	5.79	4.42	2.51	1.99	2.02	1.36	1.21	1.36
51	12.03	5.81	4.47	2.55	2.04	2.07	1.39	1.24	1.40
52	11.93	5.84	4.53	2.59	2.07	2.11	1.42	1.23	1.44

NET SINGLE PREMIUMS.

BRITISH GOVERNMENT SICKNESS TABLES, THREE AND ONE-HALF PER CENT. MALES, 1876-1880.

Age.	DURATIONS—ONE YEAR.				DURATIONS—TWO YEARS.			Three Years and Upwards.	All Durations.
	Weeks, 39-43.	Weeks, 43-47.	Weeks, 47-52.	Total.	First 6 Mos.	Second 6 Mos.	Total.		
5	.24	.22	.25	20.47	1.16	.81	1.97	6.05	28.49
6	.25	.23	.27	20.98	1.22	.85	2.07	6.35	29.40
7	.27	.24	.28	21.45	1.27	.89	2.16	6.65	30.26
8	.28	.25	.29	21.88	1.33	.93	2.26	6.95	31.09
9	.29	.26	.30	22.28	1.39	.97	2.36	7.26	31.90
10	.30	.27	.32	22.66	1.45	1.01	2.46	7.57	32.69
11	.32	.28	.33	23.03	1.51	1.05	2.56	7.88	33.47
12	.33	.29	.34	23.37	1.57	1.10	2.67	8.20	34.24
13	.34	.30	.35	23.69	1.62	1.14	2.76	8.54	34.99
14	.35	.31	.37	24.01	1.67	1.18	2.85	8.89	35.75
15	.36	.32	.38	24.31	1.72	1.23	2.95	9.25	36.51
16	.37	.33	.39	24.59	1.77	1.27	3.04	9.63	37.26
17	.38	.34	.40	24.86	1.82	1.31	3.13	10.02	38.01
18	.39	.35	.41	25.12	1.87	1.35	3.22	10.43	38.77
19	.40	.36	.42	25.36	1.93	1.39	3.32	10.86	39.54
20	.41	.37	.43	25.60	1.99	1.44	3.43	11.30	40.33
21	.43	.38	.45	25.86	2.04	1.48	3.52	11.75	41.13
22	.44	.39	.46	26.10	2.10	1.53	3.63	12.21	41.94
23	.45	.40	.48	26.36	2.16	1.57	3.73	12.68	42.77
24	.47	.42	.49	26.64	2.22	1.62	3.84	13.18	43.66
25	.48	.43	.50	26.94	2.29	1.68	3.97	13.67	44.58
26	.49	.45	.52	27.24	2.36	1.73	4.09	14.20	45.53
27	.51	.46	.54	27.57	2.44	1.78	4.22	14.74	46.53
28	.52	.47	.55	27.91	2.52	1.84	4.36	15.30	47.57
29	.53	.48	.57	28.25	2.60	1.90	4.50	15.90	48.65
30	.55	.50	.59	28.60	2.68	1.96	4.64	16.50	49.74
31	.57	.51	.61	28.97	2.76	2.02	4.78	17.12	50.87
32	.58	.53	.62	29.32	2.85	2.08	4.93	17.77	52.02
33	.60	.55	.64	29.69	2.94	2.15	5.09	18.44	53.22
34	.62	.56	.66	30.06	3.03	2.21	5.24	19.14	54.44
35	.64	.58	.68	30.44	3.12	2.28	5.40	19.86	55.70
36	.66	.60	.71	30.82	3.22	2.35	5.57	20.61	57.00
37	.68	.62	.73	31.20	3.32	2.42	5.74	21.39	58.33
38	.69	.64	.75	31.58	3.43	2.50	5.93	22.19	59.70
39	.71	.66	.77	31.96	3.53	2.58	6.11	23.03	61.10
40	.74	.68	.80	32.34	3.65	2.66	6.31	23.88	62.53
41	.76	.70	.82	32.72	3.76	2.75	6.51	24.78	64.01
42	.78	.72	.85	33.09	3.89	2.84	6.73	25.71	65.53
43	.81	.74	.88	33.46	4.01	2.93	6.94	26.69	67.09
44	.83	.76	.90	33.82	4.14	3.03	7.17	27.71	68.70
45	.85	.79	.93	34.17	4.27	3.13	7.40	28.77	70.34
46	.88	.81	.96	34.52	4.40	3.23	7.63	29.87	72.02
47	.91	.84	1.00	34.85	4.54	3.34	7.88	31.02	73.75
48	.93	.86	1.02	35.18	4.68	3.45	8.13	32.22	75.53
49	.96	.89	1.05	35.50	4.83	3.56	8.39	33.48	77.37
50	.99	.92	1.09	35.81	4.98	3.68	8.66	34.80	79.27
51	1.02	.95	1.13	36.10	5.14	3.80	8.94	36.19	81.23
52	1.04	.97	1.16	36.38	5.30	3.92	9.22	37.67	83.27

NET SINGLE PREMIUMS.

BRITISH GOVERNMENT SICKNESS TABLES, THREE AND ONE-HALF PER CENT. MALES, 1876-1880.

Age.	DURATION—ONE YEAR.								
	Weeks, 0-4.	Weeks, 4-8.	Weeks, 8-13.	Weeks, 13-17.	Weeks, 17-21.	Weeks, 21-26.	Weeks, 26-30.	Weeks, 30-34.	Weeks, 34-39.
53	11.82	6.86	4.58	2.63	2.11	2.15	1.45	1.31	1.48
54	11.69	5.87	4.62	2.67	2.15	2.20	1.49	1.34	1.52
55	11.57	5.89	4.67	2.71	2.18	2.24	1.52	1.38	1.56
56	11.43	5.89	4.71	2.75	2.22	2.29	1.56	1.42	1.60
57	11.31	5.89	4.75	2.78	2.26	2.34	1.60	1.45	1.65
58	11.17	5.88	4.78	2.81	2.30	2.39	1.63	1.49	1.69
59	11.00	5.87	4.81	2.85	2.34	2.44	1.67	1.52	1.74
60	10.81	5.85	4.84	2.88	2.38	2.48	1.70	1.56	1.78
61	10.60	5.82	4.86	2.91	2.41	2.51	1.74	1.59	1.82
62	10.39	5.79	4.86	2.93	2.42	2.53	1.76	1.62	1.86
63	10.18	5.73	4.85	2.94	2.44	2.55	1.78	1.64	1.88
64	9.88	5.65	4.81	2.93	2.45	2.58	1.80	1.67	1.92
65	9.59	5.56	4.78	2.93	2.45	2.59	1.82	1.68	1.94
66	9.27	5.45	4.72	2.91	2.44	2.60	1.82	1.69	1.94
67	8.98	5.33	4.65	2.87	2.42	2.57	1.81	1.68	1.95
68	8.63	5.19	4.56	2.82	2.39	2.54	1.79	1.67	1.93
69	8.23	5.03	4.45	2.77	2.35	2.50	1.76	1.65	1.91
70	7.78	4.84	4.31	2.70	2.30	2.45	1.74	1.63	1.89
71	7.39	4.65	4.16	2.61	2.23	2.38	1.70	1.59	1.84
72	6.90	4.39	4.01	2.52	2.17	2.33	1.66	1.56	1.82
73	6.50	4.20	3.83	2.42	2.10	2.26	1.62	1.51	1.76
74	6.06	3.98	3.69	2.33	2.02	2.19	1.56	1.46	1.70
75	5.72	3.78	3.50	2.21	1.92	2.08	1.50	1.41	1.64
76	5.34	3.59	3.33	2.10	1.83	1.98	1.44	1.36	1.56
77	4.98	3.34	3.11	1.96	1.71	1.87	1.37	1.30	1.50
78	4.53	3.09	2.86	1.80	1.60	1.77	1.28	1.24	1.42
79	4.17	2.85	2.64	1.63	1.44	1.61	1.17	1.13	1.29
80	3.71	2.56	2.39	1.45	1.28	1.44	1.06	1.02	1.18
81	3.43	2.33	2.14	1.25	1.08	1.24	.91	.88	1.03
82	3.25	2.14	1.97	1.07	.90	1.03	.75	.73	.83
83	2.96	1.98	1.82	.90	.71	.79	.57	.56	.67
84	2.81	1.94	1.70	.71	.52	.54	.38	.38	.44
85	1.99	1.30	1.12	.60	.47	.54	.36	.36	.44
86	1.23	.80	.74	.43	.36	.42	.31	.32	.39
87	.62	.49	.46	.25	.23	.23	.17	.17	.20
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NET SINGLE PREMIUMS.

BRITISH GOVERNMENT SICKNESS TABLES, THREE AND ONE-HALF PER CENT. MALES, 1876-1880.

AGE.	DURATION—ONE YEAR.				DURATION—TWO YEARS.			Three Years and Upwards.	All Durations.
	Weeks, 39-43.	Weeks, 44-47.	Weeks, 47-52.	Total.	First 6 Mos.	Second 6 Mos.	Total.		
53	1.07	1.00	1.19	36.65	5.47	4.04	9.51	39.22	85.38
54	1.10	1.03	1.23	36.91	5.64	4.17	9.81	40.87	87.59
55	1.13	1.06	1.26	37.17	5.80	4.32	10.12	42.61	89.90
56	1.17	1.09	1.30	37.43	5.98	4.46	10.44	44.44	92.31
57	1.20	1.12	1.34	37.69	6.17	4.60	10.77	46.36	94.82
58	1.24	1.16	1.38	37.92	6.38	4.75	11.13	48.37	97.42
59	1.27	1.19	1.43	38.13	6.58	4.89	11.47	50.48	100.08
60	1.31	1.23	1.47	38.29	6.79	5.05	11.84	52.69	102.82
61	1.34	1.26	1.51	38.37	7.00	5.22	12.22	55.02	105.61
62	1.37	1.29	1.55	38.37	7.22	5.39	12.61	57.49	108.47
63	1.39	1.31	1.58	38.27	7.43	5.55	12.98	60.12	111.37
64	1.42	1.34	1.62	38.07	7.63	5.72	13.35	62.89	114.31
65	1.43	1.36	1.63	37.76	7.82	5.88	13.70	65.78	117.24
66	1.45	1.37	1.66	37.32	7.99	6.01	14.00	68.74	120.06
67	1.44	1.37	1.66	36.73	8.15	6.09	14.24	71.70	122.67
68	1.44	1.36	1.66	35.98	8.24	6.16	14.40	74.59	124.97
69	1.42	1.35	1.65	35.07	8.26	6.20	14.46	77.39	126.92
70	1.40	1.34	1.63	34.01	8.26	6.20	14.46	80.11	128.58
71	1.37	1.31	1.59	32.82	8.21	6.18	14.39	82.82	130.03
72	1.35	1.29	1.57	31.57	8.14	6.14	14.28	85.61	131.46
73	1.31	1.25	1.51	30.27	8.07	6.07	14.14	88.57	132.98
74	1.27	1.21	1.48	28.95	7.98	6.03	14.01	91.76	134.72
75	1.23	1.17	1.44	27.60	7.95	5.95	13.90	95.21	136.71
76	1.18	1.13	1.38	26.22	7.91	5.90	13.81	98.87	138.90
77	1.13	1.09	1.33	24.69	7.83	5.87	13.70	102.65	141.04
78	1.07	1.03	1.26	22.95	7.74	5.74	13.48	106.36	142.79
79	.97	.94	1.15	20.99	7.51	5.58	13.09	109.90	143.98
80	.88	.85	1.04	18.86	7.16	5.46	12.62	113.31	144.79
81	.77	.74	.91	16.71	6.72	5.18	11.90	116.56	145.17
82	.60	.59	.72	14.58	6.28	4.80	11.08	119.66	145.32
83	.47	.47	.59	12.49	5.69	4.50	10.19	122.72	145.40
84	.30	.30	.39	10.41	5.06	4.19	9.25	125.77	145.43
85	.32	.32	.41	8.23	4.28	4.02	8.30	128.64	145.17
86	.27	.26	.34	5.87	3.83	3.47	7.30	130.93	144.10
87	.12	.10	.14	3.18	3.13	3.13	6.26	132.26	141.70
88	.....	.....	.....	.....	.....	.....	5.16	132.17	137.33
89	.....	.....	.....	.....	.....	.....	.....	130.35	130.35
90	.....	.....	.....	.....	.....	.....	.....	120.15	120.15
91	.....	.....	.....	.....	.....	.....	.....	107.87	107.87
92	.....	.....	.....	.....	.....	.....	.....	95.49	95.49
93	.....	.....	.....	.....	.....	.....	.....	83.44	83.44
94	.....	.....	.....	.....	.....	.....	.....	72.12	72.12
95	.....	.....	.....	.....	.....	.....	.....	61.72	61.72
96	.....	.....	.....	.....	.....	.....	.....	52.36	52.36
97	.....	.....	.....	.....	.....	.....	.....	44.10	44.10
98	.....	.....	.....	.....	.....	.....	.....	36.94	36.94
99	.....	.....	.....	.....	.....	.....	.....	30.79	30.79
100	.....	.....	.....	.....	.....	.....	.....	25.50	25.50

BRITISH GOVERNMENT SICKNESS TABLES. 297

BRITISH GOVERNMENT SICKNESS TABLES, THREE PER CENT.
 MALES, 1876-1880.
 CORRESPONDING MORTALITY VALUES.

Age.	D _x	N _x	Age.	D _x	N _x
5	86260	2047000.	53	13261	161770.
6	82547	1964400.	54	12610	149160.
7	79214	1885200.	55	11972	137190.
8	76141	1809100.	56	11346	125840.
9	73303	1735800.	57	10732	115110.
10	70651	1665100.	58	10132	104980.
11	68154	1597000.	59	9546.4	95431.
12	65782	1531200.	60	8975.1	86457.
13	63513	1467700.	61	8417.2	78039.
14	61324	1406400.	62	7871.9	70168.
16	59202	1347200.	63	7338.5	62829.
16	57136	1290000.	64	6817.7	56011.
17	55118	1234900.	65	6311.2	49700.
18	53139	1181800.	66	5821.6	43879.
19	51213	1130500.	67	5352.4	38526.
20	49358	1081200.	68	4904.2	33622.
21	47584	1033600.	69	4474.5	29147.
22	45894	987710.	70	4059.4	25088.
23	44284	943430.	71	3656.1	21432.
24	42745	900680.	72	3263.2	18169.
25	41264	859430.	73	2882.8	15286.
26	39833	819600.	74	2519.9	12766.
27	38445	781140.	75	2180.9	10585.
28	37095	744030.	76	1871.4	8713.6
29	35781	708260.	77	1595.0	7118.7
30	34503	673770.	78	1352.5	5766.2
31	33261	640500.	79	1141.4	4624.8
32	32053	608440.	80	957.17	3667.7
33	30877	577560.	81	795.99	2871.7
34	29733	547840.	82	654.40	2217.3
35	28619	519220.	83	530.05	1687.2
36	27535	491680.	84	422.28	1264.9
37	26481	465200.	85	330.99	933.94
38	25459	439740.	86	255.78	678.16
39	24469	415280.	87	195.14	483.03
40	23509	391770.	88	147.15	335.87
41	22581	369190.	89	109.41	226.46
42	21682	347500.	90	79.761	146.70
43	20810	326690.	91	56.449	90.251
44	19962	306730.	92	38.292	51.959
45	19137	287590.	93	24.480	27.479
46	18333	269260.	94	14.445	13.034
47	17549	251710.	95	7.6660	5.3681
48	16784	234930.	96	3.5348	1.8333
49	16040	218890.	97	1.3495	.48380
50	15316	203570.	98	.39658	.087201
51	14612	188950.	99	.079246	.0080140
52	13928	175030.	100	.0080140	.....

NET SINGLE PREMIUMS.

BRITISH GOVERNMENT SICKNESS TABLES, THREE PER CENT.
MALES, 1876-1880.

Age.	DURATIONS—ONE YEAR.								
	Weeks, 0-4.	Weeks, 4-8.	Weeks, 8-13.	Weeks, 13-17.	Weeks, 17-21.	Weeks, 21-26.	Weeks, 26-30.	Weeks, 30-34.	Weeks, 34-39.
5	12.49	4.05	2.25	1.08	.80	.75	.48	.41	.44
6	12.74	4.03	2.36	1.13	.84	.79	.50	.42	.46
7	12.97	4.01	2.44	1.18	.87	.82	.52	.44	.48
8	13.10	4.07	2.49	1.22	.91	.86	.54	.46	.49
9	13.21	4.13	2.55	1.26	.94	.89	.56	.48	.51
10	13.30	4.20	2.60	1.30	.97	.91	.58	.49	.53
11	13.37	4.26	2.67	1.33	.99	.94	.59	.51	.55
12	13.44	4.31	2.72	1.36	1.01	.98	.61	.53	.57
13	13.50	4.36	2.78	1.39	1.04	.99	.63	.54	.59
14	13.48	4.42	2.85	1.43	1.07	1.02	.65	.56	.61
15	13.53	4.47	2.90	1.47	1.09	1.04	.66	.57	.62
16	13.59	4.51	2.94	1.49	1.12	1.07	.67	.58	.64
17	13.61	4.56	2.98	1.52	1.14	1.09	.69	.60	.65
18	13.63	4.60	3.02	1.55	1.16	1.12	.71	.61	.66
19	13.61	4.65	3.06	1.58	1.19	1.15	.73	.63	.68
20	13.57	4.70	3.11	1.61	1.22	1.17	.75	.65	.70
21	13.56	4.75	3.17	1.64	1.24	1.20	.76	.66	.71
22	13.54	4.80	3.21	1.67	1.27	1.22	.78	.67	.73
23	13.51	4.84	3.25	1.70	1.30	1.25	.80	.69	.75
24	13.51	4.89	3.30	1.74	1.32	1.28	.82	.70	.77
25	13.51	4.94	3.35	1.77	1.34	1.30	.84	.72	.79
26	13.51	4.99	3.40	1.80	1.37	1.33	.86	.74	.81
27	13.52	5.05	3.45	1.83	1.40	1.36	.88	.76	.83
28	13.54	5.11	3.51	1.86	1.42	1.39	.89	.78	.85
29	13.55	5.17	3.56	1.90	1.45	1.41	.91	.80	.87
30	13.58	5.23	3.62	1.93	1.48	1.44	.93	.81	.89
31	13.60	5.29	3.67	1.96	1.50	1.47	.96	.83	.91
32	13.61	5.35	3.73	2.00	1.53	1.50	.98	.85	.93
33	13.61	5.40	3.78	2.04	1.56	1.53	1.00	.88	.96
34	13.61	5.46	3.84	2.08	1.60	1.57	1.02	.90	.99
35	13.60	5.52	3.90	2.11	1.63	1.61	1.05	.92	1.01
36	13.61	5.58	3.96	2.15	1.66	1.64	1.07	.94	1.03
37	13.60	5.64	4.01	2.19	1.69	1.67	1.09	.97	1.06
38	13.60	5.69	4.07	2.23	1.72	1.70	1.12	.99	1.09
39	13.59	5.75	4.13	2.27	1.75	1.74	1.14	1.01	1.11
40	13.56	5.79	4.19	2.30	1.79	1.78	1.17	1.04	1.14
41	13.54	5.84	4.24	2.34	1.83	1.81	1.20	1.06	1.17
42	13.51	5.89	4.29	2.38	1.86	1.85	1.23	1.08	1.20
43	13.46	5.93	4.35	2.42	1.89	1.90	1.26	1.11	1.23
44	13.41	5.97	4.41	2.46	1.93	1.93	1.28	1.14	1.26
45	13.34	6.01	4.46	2.49	1.97	1.97	1.31	1.16	1.30
46	13.27	6.04	4.51	2.53	2.00	2.01	1.34	1.19	1.33
47	13.17	6.07	4.57	2.57	2.03	2.05	1.37	1.22	1.37
48	13.08	6.10	4.62	2.61	2.07	2.09	1.40	1.25	1.40
49	12.97	6.13	4.67	2.65	2.10	2.13	1.43	1.28	1.43
50	12.84	6.15	4.72	2.68	2.14	2.17	1.46	1.31	1.47
51	12.69	6.17	4.77	2.72	2.18	2.22	1.49	1.34	1.51
52	12.56	6.18	4.81	2.76	2.21	2.26	1.52	1.37	1.55

NET SINGLE PREMIUMS.

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BRITISH GOVERNMENT SICKNESS TABLES, THREE PER CENT.
MALES, 1876-1880.

Age.	DURATION—ONE YEAR.				DURATION—TWO YEARS.			Three Years and Upwards.	All Durations.
	Weeks, 89-48.	Weeks, 48-47.	Weeks, 47-52.	Total.	First 6 Mos.	Second 6 Mos.	Total.		
5	.31	.27	.33	23.66	1.47	1.04	2.51	8.11	34.28
6	.32	.28	.34	24.21	1.54	1.08	2.62	8.48	35.31
7	.33	.30	.35	24.71	1.60	1.13	2.73	8.83	36.27
8	.35	.31	.37	25.17	1.66	1.17	2.83	9.19	37.19
9	.36	.32	.38	25.59	1.73	1.22	2.95	9.54	38.08
10	.37	.33	.40	25.98	1.79	1.26	3.05	9.90	38.93
11	.39	.34	.41	26.35	1.86	1.31	3.17	10.26	39.78
12	.40	.35	.42	26.70	1.93	1.36	3.29	10.63	40.62
13	.41	.36	.43	27.02	1.98	1.41	3.39	11.01	41.42
14	.43	.38	.44	27.34	2.04	1.45	3.49	11.41	42.24
15	.44	.39	.46	27.64	2.09	1.50	3.59	11.82	43.05
16	.45	.40	.47	27.93	2.15	1.55	3.70	12.23	43.86
17	.46	.41	.48	28.19	2.21	1.59	3.80	12.68	44.67
18	.47	.42	.50	28.45	2.27	1.63	3.90	13.13	45.48
19	.48	.43	.51	28.70	2.32	1.68	4.00	13.61	46.31
20	.49	.45	.52	28.94	2.38	1.73	4.11	14.11	47.16
21	.50	.46	.53	29.18	2.45	1.78	4.23	14.60	48.01
22	.52	.47	.55	29.43	2.51	1.82	4.33	15.11	48.87
23	.54	.48	.57	29.68	2.57	1.88	4.45	15.63	49.76
24	.55	.49	.58	29.95	2.64	1.93	4.57	16.15	50.67
25	.56	.51	.60	30.23	2.71	1.98	4.69	16.70	51.62
26	.57	.52	.62	30.52	2.79	2.04	4.83	17.26	52.61
27	.59	.54	.63	30.84	2.86	2.09	4.95	17.85	53.64
28	.60	.55	.65	31.15	2.94	2.15	5.09	18.46	54.70
29	.62	.57	.67	31.48	3.03	2.22	5.25	19.07	55.80
30	.63	.58	.69	31.81	3.11	2.28	5.39	19.72	56.92
31	.65	.60	.70	32.14	3.20	2.34	5.54	20.38	58.06
32	.67	.61	.72	32.48	3.29	2.40	5.69	21.07	59.24
33	.69	.63	.74	32.82	3.38	2.47	5.85	21.78	60.45
34	.70	.64	.76	33.17	3.47	2.54	6.01	22.51	61.69
35	.72	.66	.78	33.51	3.57	2.61	6.18	23.26	62.95
36	.74	.68	.80	33.86	3.67	2.69	6.36	24.05	64.27
37	.76	.70	.83	34.21	3.77	2.76	6.53	24.86	65.60
38	.78	.72	.85	34.56	3.87	2.84	6.71	25.69	66.96
39	.80	.74	.87	34.90	3.99	2.92	6.91	25.55	68.36
40	.83	.76	.90	35.25	4.10	3.00	7.10	27.44	69.79
41	.85	.78	.92	35.58	4.22	3.09	7.31	28.36	71.25
42	.87	.80	.94	35.91	4.34	3.18	7.52	29.32	72.75
43	.89	.82	.97	36.23	4.47	3.27	7.74	30.32	74.29
44	.91	.85	1.00	36.55	4.59	3.37	7.96	31.36	75.87
45	.94	.87	1.03	36.85	4.72	3.47	8.19	32.43	77.47
46	.97	.89	1.06	37.14	4.85	3.57	8.42	33.55	79.11
47	.99	.92	1.09	37.42	4.99	3.67	8.66	34.71	80.79
48	1.01	.94	1.12	37.69	5.13	3.78	8.91	35.93	82.53
49	1.04	.97	1.15	37.95	5.27	3.89	9.16	37.20	84.31
50	1.07	.99	1.19	38.19	5.42	4.00	9.42	38.53	86.14
51	1.10	1.02	1.22	38.43	5.57	4.12	9.69	39.92	88.04
52	1.12	1.05	1.25	38.64	5.73	4.24	9.97	41.40	90.01

BRITISH GOVERNMENT SICKNESS TABLES, THREE PER CENT.
MALES, 1876-1880.

Age.	DURATIONS—ONE YEAR.								
	Weeks, 0-4.	Weeks, 4-8.	Weeks, 8-13.	Weeks, 13-17.	Weeks, 17-21.	Weeks, 21-26.	Weeks, 26-30.	Weeks, 30-34.	Weeks, 34-39.
53	12.42	6.19	4.85	2.80	2.25	2.30	1.55	1.40	1.58
54	12.27	6.19	4.89	2.83	2.28	2.34	1.59	1.42	1.62
55	12.13	6.20	4.93	2.86	2.31	2.37	1.62	1.46	1.66
56	11.95	6.19	4.96	2.90	2.35	2.42	1.66	1.50	1.70
57	11.81	6.18	4.99	2.93	2.38	2.46	1.69	1.53	1.74
58	11.64	6.16	5.02	2.96	2.41	2.51	1.72	1.57	1.78
59	11.45	6.13	5.03	2.99	2.45	2.56	1.76	1.60	1.82
60	11.23	6.10	5.05	3.01	2.48	2.59	1.79	1.63	1.87
61	10.99	6.06	5.06	3.03	2.51	2.62	1.82	1.67	1.90
62	10.75	6.01	5.05	3.05	2.52	2.65	1.84	1.69	1.94
63	10.52	5.93	5.03	3.05	2.53	2.67	1.86	1.70	1.96
64	10.20	5.84	4.99	3.04	2.54	2.68	1.87	1.73	2.00
65	9.88	5.74	4.94	3.03	2.54	2.68	1.88	1.74	2.01
66	9.54	5.62	4.87	3.00	2.52	2.68	1.88	1.74	2.02
67	9.22	5.60	4.79	2.95	2.49	2.66	1.87	1.73	2.01
68	8.85	5.33	4.69	2.90	2.46	2.62	1.85	1.72	1.99
69	8.43	5.16	4.57	2.84	2.41	2.57	1.82	1.70	1.96
70	7.97	4.96	4.42	2.76	2.36	2.51	1.79	1.67	1.93
71	7.56	4.75	4.26	2.67	2.28	2.44	1.74	1.63	1.89
72	7.05	4.49	4.08	2.58	2.22	2.38	1.70	1.60	1.86
73	6.64	4.29	3.91	2.47	2.14	2.30	1.65	1.55	1.80
74	6.17	4.06	3.76	2.38	2.06	2.23	1.59	1.49	1.73
75	5.83	3.85	3.56	2.24	1.95	2.12	1.53	1.44	1.67
76	5.43	3.66	3.39	2.13	1.86	2.01	1.46	1.38	1.59
77	5.06	3.40	3.16	1.99	1.73	1.90	1.39	1.32	1.52
78	4.60	3.13	2.91	1.83	1.62	1.79	1.30	1.25	1.44
79	4.23	2.89	2.69	1.65	1.46	1.62	1.19	1.14	1.31
80	3.77	2.59	2.43	1.46	1.29	1.46	1.07	1.03	1.19
81	3.48	2.36	2.17	1.27	1.09	1.24	.91	.89	1.04
82	3.28	2.17	2.00	1.08	.90	1.04	.76	.73	.84
83	2.99	2.00	1.84	.91	.71	.79	.57	.57	.68
84	2.83	1.95	1.71	.71	.52	.54	.38	.38	.45
85	2.00	1.31	1.12	.60	.47	.54	.36	.36	.45
86	1.24	.81	.75	.44	.36	.41	.32	.32	.38
87	.62	.49	.47	.25	.24	.23	.17	.17	.20
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NET SINGLE PREMIUMS.

BRITISH GOVERNMENT SICKNESS TABLES, THREE PER CENT.
MALES, 1876-1880.

Age.	DURATIONS—ONE YEAR.				DURATIONS—TWO YEARS.			Three Years and Upwards.	All Durations.
	Weeks, 39-43.	Weeks, 43-47.	Weeks, 47-52.	Total.	First 6 Mos.	Second 6 Mos.	Total.		
53	1.15	1.07	1.28	38.84	5.89	4.36	10.25	42.95	92.04
54	1.18	1.10	1.32	39.04	6.05	4.49	10.54	44.59	94.17
55	1.21	1.13	1.35	39.23	6.21	4.62	10.83	46.32	96.38
56	1.24	1.16	1.38	39.41	6.39	4.76	11.15	48.14	98.70
57	1.27	1.19	1.42	39.59	6.57	4.90	11.47	50.05	101.11
58	1.31	1.22	1.46	39.76	6.77	5.03	11.80	52.04	103.60
59	1.34	1.25	1.50	39.88	6.96	5.18	12.14	54.13	106.15
60	1.37	1.29	1.55	39.96	7.16	5.33	12.49	56.31	108.76
61	1.40	1.31	1.59	39.96	7.37	5.49	12.86	58.61	111.43
62	1.43	1.34	1.61	39.88	7.57	5.65	13.22	61.05	114.15
63	1.44	1.36	1.65	39.70	7.78	5.81	13.59	63.64	116.93
64	1.46	1.39	1.68	39.42	7.97	5.97	13.94	66.36	119.72
65	1.48	1.40	1.70	39.02	8.14	6.12	14.26	69.22	122.50
66	1.50	1.41	1.71	38.49	8.30	6.23	14.53	72.12	125.14
67	1.49	1.41	1.71	37.13	8.44	6.31	14.75	75.05	127.61
68	1.48	1.40	1.71	37.00	8.51	6.37	14.88	77.85	129.73
69	1.46	1.39	1.69	36.00	8.52	6.41	14.93	80.57	131.50
70	1.44	1.37	1.67	34.85	8.50	6.39	14.89	83.24	132.98
71	1.41	1.34	1.63	33.60	8.44	6.35	14.79	85.87	134.26
72	1.38	1.32	1.61	32.27	8.35	6.30	14.65	88.59	135.51
73	1.34	1.27	1.55	30.91	8.27	6.22	14.49	91.49	136.89
74	1.30	1.24	1.51	29.52	8.17	6.17	14.34	94.64	138.50
75	1.25	1.20	1.47	28.11	8.14	6.08	14.22	98.05	140.38
76	1.20	1.16	1.40	26.67	8.08	6.03	14.11	101.66	142.44
77	1.15	1.11	1.36	25.09	7.98	5.98	13.96	105.41	144.46
78	1.09	1.05	1.28	23.29	7.88	5.84	13.72	109.07	146.08
79	.98	.95	1.16	21.27	7.64	5.68	13.32	112.53	147.12
80	.89	.86	1.06	19.10	7.26	5.54	12.80	115.85	147.75
81	.78	.75	.92	16.90	6.81	5.25	12.06	119.02	147.98
82	.61	.59	.73	14.73	6.34	4.86	11.20	122.02	147.95
83	.48	.47	.60	12.61	5.74	4.55	10.29	124.96	147.86
84	.30	.30	.41	10.48	5.11	4.24	9.35	127.90	147.73
85	.33	.32	.42	8.28	4.32	4.06	8.38	130.65	147.31
86	.27	.26	.34	5.90	3.86	3.50	7.36	132.80	146.06
87	.11	.10	.14	3.19	3.14	3.15	6.29	134.00	143.48
88	....	....	....	....	2.58	2.58	5.16	133.73	138.89
89	....	....	....	....	....	....	....	131.69	131.69
90	....	....	....	....	....	....	....	121.26	121.26
91	....	....	....	....	....	....	....	108.75	108.75
92	....	....	....	....	....	....	....	96.18	96.18
93	....	....	....	....	....	....	....	83.98	83.98
94	....	....	....	....	....	....	....	72.55	72.55
95	....	....	....	....	....	....	....	62.04	62.04
96	....	....	....	....	....	....	....	52.59	52.59
97	....	....	....	....	....	....	....	44.26	44.26
98	....	....	....	....	....	....	....	37.06	37.06
99	....	....	....	....	....	....	....	30.88	30.88
100	....	....	....	....	....	....	....	25.62	25.62

CONVERSION TABLES.

INTRODUCTION.

THESE tables will enable the actuary to pass from annuities to single or annual premiums or vice versa. The method of using the same is fully described in the text of this book.

These tables were originally published in the Institute of Actuaries' Text-Book, Part II., and are reproduced here by special permission of the Institute.

For greater convenience and facility in finding such values, the actuary is referred to Orchard's Conversion Tables.

CONVERSION TABLE.

TABLE I.
SINGLE PREMIUM CONVERSION TABLE.
For finding by inspection the Value of A from that of *a*.

Value of <i>a</i>	VALUE OF A AT VARIOUS RATES OF INTEREST.					
	<i>i</i> = .03	<i>i</i> = .035	<i>i</i> = .04	<i>i</i> = .045	<i>i</i> = .05	<i>i</i> = .06
0	.97087	.96618	.96154	.95694	.95238	.94340
1	.94175	.93237	.92308	.91388	.90476	.88679
2	.91262	.89855	.88462	.87081	.85714	.83019
3	.88350	.86473	.84615	.82775	.80952	.77358
4	.85437	.83092	.80769	.78469	.76190	.71638
5	.82524	.79710	.76923	.74163	.71429	.66038
6	.79612	.76329	.73077	.69856	.66667	.60377
7	.76699	.72947	.69231	.65550	.61905	.54717
8	.73786	.69565	.65385	.61244	.57143	.49056
9	.70874	.66184	.61538	.56938	.52381	.43396
10	.67961	.62802	.57692	.52632	.47619	.37736
11	.65049	.59420	.53846	.48325	.42857	.32075
12	.62136	.56039	.50000	.44019	.37995	.26415
13	.59223	.52657	.46154	.39713	.33333	.20755
14	.56311	.49275	.42308	.35407	.28571	.15094
15	.53398	.45894	.38462	.31100	.23810	.09434
16	.50485	.42512	.34615	.26794	.19043	.03774
17	.47573	.39130	.30769	.22488	.14286	.00000
18	.44660	.35749	.26923	.18182	.09524	.....
19	.41748	.32367	.23077	.13876	.04762	.....
20	.38835	.28986	.19231	.09569	.00000	.....
21	.35922	.25604	.15355	.05203	.....	.....
22	.33010	.22222	.11538	.00957	.....	.....
23	.30097	.18841	.07692	.00000	.....	.....
24	.27184	.15459	.03846	.....	.....	.....
25	.24272	.12077	.00000	.....	.....	.....
26	.21359	.08696	.....	.....	.....	.....
27	.18447	.05314	.....	.....	.....	.....
28	.15534	.01932	.....	.....	.....	.....
29	.12621	.00000	.....	.....	.....	.....
30	.09709	.....	.....	.....	.....	.....

TABLE II.
SINGLE PREMIUM CONVERSION TABLE.
Table of Differences.

Difference of <i>a</i>	DIFFERENCE OF A (SUBTRACTIVE).					
	<i>i</i> = .03	<i>i</i> = .035	<i>i</i> = .04	<i>i</i> = .045	<i>i</i> = .05	<i>i</i> = .06
.1	.00291	.00338	.00385	.00431	.00476	.00566
.2	.00583	.00676	.00769	.00861	.00952	.01132
.3	.00874	.01015	.01154	.01292	.01429	.01698
.4	.01165	.01353	.01538	.01722	.01905	.02264
.5	.01456	.01691	.01923	.02153	.02381	.02830
.6	.01748	.02029	.02308	.02584	.02857	.03396
.7	.02039	.02367	.02692	.03014	.03333	.03962
.8	.02330	.02705	.03077	.03445	.03810	.04528
.9	.02621	.03044	.03462	.03876	.04286	.05094
.01	.00029	.00034	.00038	.00043	.00048	.00057
.02	.00058	.00068	.00077	.00086	.00095	.00113
.03	.00087	.00101	.00115	.00129	.00143	.00170
.04	.00117	.00135	.00154	.00172	.00190	.00226
.05	.00146	.00169	.00192	.00215	.00238	.00283
.06	.00175	.00203	.00231	.00258	.00286	.00340
.07	.00204	.00237	.00269	.00301	.00333	.00396
.08	.00233	.00271	.00308	.00344	.00381	.00453
.09	.00262	.00304	.00346	.00388	.00429	.00509
.001	.00003	.00003	.00004	.00004	.00005	.00006
.002	.00006	.00007	.00008	.00009	.00010	.00011
.003	.00009	.00010	.00012	.00013	.00014	.00017
.004	.00012	.00014	.00015	.00017	.00019	.00023
.005	.00015	.00017	.00019	.00022	.00024	.00028
.006	.00017	.00020	.00023	.00026	.00029	.00034
.007	.00020	.00024	.00027	.00030	.00033	.00040
.008	.00023	.00027	.00031	.00034	.00038	.00045
.009	.00026	.00030	.00035	.00039	.00043	.00051

CONVERSION TABLE.

TABLE III.
ANNUAL PREMIUM CONVERSION TABLE.
For finding by inspection the Value of P from that of a .

Value of a	VALUE OF P AT VARIOUS RATES OF INTEREST.					
	$i = .03$	$i = .035$	$i = .04$	$i = .045$	$i = .05$	$i = .06$
0	.97087	.96618	.96154	.95694	.95238	.94340
1	.47087	.46618	.46154	.45694	.45238	.44340
2	.30421	.29952	.29487	.29027	.28571	.27673
3	.22087	.21618	.21154	.20694	.20238	.19340
4	.17087	.16618	.16154	.15694	.15238	.14340
5	.13754	.13285	.12821	.12361	.11905	.11006
6	.11373	.10904	.10440	.09980	.09524	.08625
7	.09587	.09118	.08654	.08194	.07738	.06840
8	.08199	.07730	.07265	.06805	.06349	.05451
9	.07087	.06618	.06154	.05694	.05238	.04340
10	.06178	.05709	.05245	.04785	.04329	.03431
11	.05421	.04952	.04487	.04027	.03571	.02673
12	.04780	.04311	.03846	.03386	.02930	.02032
13	.04230	.03761	.03297	.02837	.02381	.01483
14	.03754	.03285	.02821	.02361	.01905	.01006
15	.03337	.02868	.02404	.01944	.01488	.00590
16	.02970	.02501	.02036	.01576	.01121	.00222
17	.02643	.02174	.01709	.01249	.00794	.00000
18	.02351	.01882	.01417	.00957	.00501	....
19	.02087	.01618	.01154	.00694	.00238	....
20	.01849	.01380	.00916	.00456	.00000	....
21	.01633	.01164	.00699	.00239	....	....
22	.01435	.00966	.00502	.00042	....	....
23	.01254	.00785	.00321	.00000	....	....
24	.01087	.00618	.00154	....	....	....
25	.00934	.00465	.00000	....	....	....
26	.00791	.00322	....	....	....	....
27	.00659	.00190	....	....	....	....
28	.00536	.00067	....	....	....	....
29	.00421	.00000	....	....	....	....
30	.00313	....	....	....	....	....

CONVERSION TABLE.

TABLE IV.
ANNUAL PREMIUM CONVERSION TABLE.
Table of Differences.

Value of <i>a</i>	DIFFERENCE OF P (SUBTRACTIVE).								
	$\Delta a = .1$	$\Delta a = .2$	$\Delta a = .3$	$\Delta a = .4$	$\Delta a = .5$	$\Delta a = .6$	$\Delta a = .7$	$\Delta a = .8$	$\Delta a = .9$
0	.09091	.16667	.22077	.28571	.33333	.37500	.41176	.44444	.47368
1	.02381	.04545	.06522	.08333	.10000	.11538	.12903	.14286	.15517
2	.01075	.02083	.03030	.03921	.04762	.05555	.06306	.07017	.07692
3	.00610	.01190	.01744	.02273	.02778	.03261	.03723	.04167	.04592
4	.00392	.00769	.01132	.01481	.01818	.02143	.02456	.02759	.03051
5	.00274	.00538	.00794	.01042	.01282	.01515	.01742	.01961	.02174
6	.00201	.00397	.00587	.00772	.00953	.01128	.01299	.01465	.01628
7	.00154	.00305	.00452	.00595	.00735	.00872	.01006	.01136	.01264
8	.00122	.00241	.00358	.00473	.00585	.00694	.00802	.00907	.01010
9	.00099	.00196	.00291	.00385	.00476	.00566	.00654	.00741	.00826
10	.00082	.00162	.00241	.00319	.00395	.00470	.00544	.00616	.00688
11	.00068	.00136	.00203	.00268	.00333	.00396	.00459	.00520	.00581
12	.00058	.00116	.00173	.00229	.00285	.00339	.00393	.00446	.00498
13	.00051	.00101	.00150	.00199	.00246	.00294	.00340	.00386	.00432
14	.00044	.00088	.00131	.00173	.00215	.00257	.00298	.00338	.00378
15	.00039	.00077	.00115	.00152	.00189	.00226	.00262	.00298	.00333
16	.00034	.00068	.00102	.00135	.00168	.00200	.00232	.00264	.00295
17	.00031	.00061	.00091	.00121	.00151	.00180	.00208	.00237	.00265
18	.00027	.00055	.00082	.00108	.00135	.00161	.00187	.00212	.00236
19	.00025	.00049	.00074	.00098	.00122	.00146	.00169	.00192	.00215
20	.00023	.00045	.00067	.00089	.00111	.00132	.00154	.00175	.00196
21	.00021	.00041	.00062	.00082	.00102	.00121	.00141	.00160	.00179
22	.00019	.00038	.00056	.00074	.00093	.00111	.00129	.00146	.00164
23	.00018	.00035	.00052	.00069	.00085	.00102	.00118	.00135	.00151
24	.00016	.00032	.00047	.00063	.00078	.00094	.00109	.00124	.00139
25	.00015	.00029	.00044	.00058	.00072	.00087	.00101	.00115	.00128
26	.00014	.00027	.00041	.00054	.00068	.00081	.00094	.00107	.00120
27	.00012	.00025	.00037	.00050	.00062	.00074	.00087	.00099	.00111
28	.00012	.00023	.00035	.00047	.00058	.00070	.00081	.00092	.00103
29	.00011	.00022	.00033	.00043	.00054	.00065	.00076	.00086	.00097
30	.00010	.00021	.00031	.00041	.00051	.00061	.00071	.00081	.00091

FARR'S HEALTHY MALE LIFE TABLE.

INTRODUCTION.

The Healthy Male Life Table, which bears the name of Dr. William Farr, the late Registrar-General of Great Britain, also the author of Census Tables, known as Farr's No. 1, Farr's No. 2 and Farr's No. 3, represents the mortality in the 63 districts of England in which the mortality rate did not exceed 17 per 1000 in the census returns. It was first published in the *Journal of the Institute of Actuaries*, Vol. IX., in 1860.

The commutation tables at 4 per cent. interest were computed by Mr. D. J. McG. McKenzie, of the Government Life Insurance Department of New Zealand, and published in *Transactions of the Actuarial Society of America*, Vol. III.

The modified values of q_x by this table were prepared by the Committee on Specialized Mortality Investigation of the Actuarial Society of America as a standard by which to measure the variation in the ultimate mortality, i. e., after the fifth year of insurance.

FARR'S HEALTHY MALES MORTALITY TABLE. 311

MORTALITY TABLE.

Age	Living l_x	Dying d_x	PROBABILITY OF		Age	Living l_x	Dying d_x	PROBABILITY OF	
			Living p_x	Dying q_x				Living p_x	Dying q_x
0	51125	5767	.88720	.11280	53	28095	420	.98505	.01495
1	45358	1591	.96192	.03508	54	27675	435	.98428	.01572
2	43767	953	.97823	.02177	55	27240	451	.98344	.01656
3	42814	661	.98456	.01544	56	26789	467	.98257	.01743
4	42153	532	.98738	.01262	57	26322	483	.98165	.01835
5	41621	427	.98974	.01026	58	25839	501	.98061	.01939
6	41194	341	.99172	.00828	59	25338	522	.97861	.02130
7	40853	275	.99327	.00673	60	24796	587	.97633	.02367
8	40578	223	.99450	.00550	61	24209	631	.97394	.02606
9	40355	186	.99539	.00461	62	23578	672	.97150	.02850
10	40169	161	.99599	.00401	63	22906	712	.96892	.03108
11	40008	146	.99635	.00365	64	22194	752	.96612	.03388
12	39862	142	.99644	.00356	65	21442	789	.96320	.03680
13	39720	144	.99638	.00362	66	20653	826	.96001	.03999
14	39576	154	.99611	.00389	67	19827	861	.95657	.04343
15	39422	168	.99574	.00426	68	18966	895	.95281	.04719
16	39254	186	.99526	.00474	69	18071	926	.94876	.05124
17	39068	205	.99475	.00525	70	17145	954	.94436	.05564
18	38863	227	.99416	.00584	71	16191	978	.93960	.06040
19	38636	248	.99358	.00642	72	15213	999	.93433	.06567
20	38388	267	.99305	.00695	73	14214	1013	.92873	.07127
21	38121	272	.99286	.00714	74	13201	1022	.92258	.07742
22	37849	277	.99268	.00732	75	12179	1023	.91600	.08400
23	37572	281	.99252	.00748	76	11156	1016	.90893	.09107
24	37291	284	.99238	.00762	77	10140	1000	.90138	.09862
25	37007	287	.99225	.00775	78	9140	977	.89311	.10689
26	36720	288	.99216	.00784	79	8163	943	.88448	.11552
27	36432	289	.99207	.00793	80	7220	902	.87507	.12493
28	36143	290	.99198	.00802	81	6318	851	.86530	.13470
29	35853	291	.99188	.00812	82	5467	794	.85477	.14523
30	35562	292	.99179	.00821	83	4673	731	.84357	.15643
31	35270	292	.99172	.00828	84	3942	662	.83206	.16794
32	34978	292	.99165	.00835	85	3280	591	.81982	.18018
33	34686	293	.99155	.00845	86	2689	520	.80662	.19338
34	34393	293	.99148	.00852	87	2169	448	.79345	.20655
35	34100	295	.99135	.00865	88	1721	380	.77920	.22080
36	33805	296	.99124	.00876	89	1341	316	.76435	.23565
37	33509	298	.99111	.00889	90	1025	257	.74927	.25073
38	33211	300	.99097	.00903	91	768	204	.73438	.26562
39	32911	302	.99082	.00918	92	564	159	.71809	.28191
40	32609	306	.99062	.00938	93	405	122	.69876	.30124
41	32303	310	.99040	.00960	94	283	89	.68551	.31449
42	31991	315	.99015	.00985	95	194	65	.66495	.33505
43	31678	320	.98990	.01010	96	129	45	.65116	.34884
44	31358	326	.98961	.01039	97	84	31	.63995	.36005
45	31032	334	.98924	.01076	98	53	21	.63077	.36623
46	30698	341	.98889	.01111	99	32	13	.59375	.40625
47	30357	350	.98847	.01153	100	19	8	.57895	.42105
48	30007	360	.98800	.01200	101	11	5	.54545	.45455
49	29647	370	.98752	.01248	102	6	3	.50000	.50000
50	29277	381	.98699	.01301	103	3	1	.66667	.33333
51	28896	394	.98636	.01364	104	2	1	.50000	.50000
52	28502	407	.98572	.01428	105	1	1	.00000	1.00000

312 FARR'S HEALTHY MALES MORTALITY TABLE.

COMMUTATION COLUMNS.

FOUR PER CENT.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
0	51125.0	936731.	18044931.	5545.19	15096.9	242695.
1	43613.4	885606.	17108200.	1470.97	9551.69	227598.
2	40465.0	841992.	16222594.	847.21	8080.72	218046.
3	38061.5	801527.	15380602.	565.02	7233.51	209966.
4	36032.5	763466.	14579075.	437.27	6668.48	202732.
5	34209.5	727433.	13815609.	337.46	6231.22	196064.
6	32556.2	693224.	13088176.	259.13	5893.75	189832.
7	31044.9	660668.	12394952.	200.94	5634.62	183939.
8	29649.9	629623.	11734285.	156.68	5433.68	178304.
9	28352.9	599973.	11104662.	125.66	5277.01	172870.
10	27136.7	571620.	10504690.	104.58	5151.35	167593.
11	25988.4	544483.	9933070.	91.191	5046.77	162442.
12	24897.7	518495.	9388587.	85.281	4955.58	157395.
13	23854.8	493597.	8870092.	83.156	4870.30	152440.
14	22854.2	469742.	8376495.	85.511	4787.14	147569.
15	21889.6	446888.	7906753.	89.696	4701.63	142782.
16	20958.0	424998.	7459865.	95.487	4611.93	138081.
17	20056.5	404040.	7034866.	101.19	4516.45	133469.
18	19183.9	383984.	6630826.	107.74	4415.25	128952.
19	18338.2	364800.	6246842.	113.18	4307.51	124537.
20	17519.8	346462.	5882042.	117.17	4194.32	120229.
21	16728.8	328942.	5535580.	114.77	4077.16	116035.
22	15970.6	312213.	5206638.	112.39	3962.38	111958.
23	15243.9	296243.	4894425.	109.62	3850.00	107996.
24	14548.0	280999.	4598183.	106.53	3740.37	104146.
25	13882.0	266451.	4317184.	103.52	3633.84	100405.
26	13244.5	252569.	4050733.	99.883	3530.32	96771.3
27	12635.2	239324.	3798164.	96.375	3430.44	93241.0
28	12052.9	226689.	3558840.	92.989	3334.06	89810.6
29	11496.3	214636.	3332151.	89.721	3241.07	86476.5
30	10964.4	203140.	3117515.	86.566	3151.35	83235.4
31	10456.1	192175.	2914375.	83.237	3064.79	80084.1
32	9970.75	181719.	2722200.	80.035	2981.55	77019.3
33	9507.23	171749.	2540481.	77.221	2901.52	74037.8
34	9064.34	162241.	2368732.	74.251	2824.29	71136.2
35	8641.46	153177.	220491.	71.882	2750.04	68311.9
36	8237.22	144536.	2053314.	69.352	2678.16	65561.9
37	7851.04	136298.	1908778.	67.135	2608.81	62883.7
38	7481.95	128447.	1772480.	64.986	2541.67	60274.9
39	7129.20	120995.	1644033.	62.903	2476.69	57733.3
40	6792.09	113836.	1523067.	61.285	2413.79	55256.0
41	6469.59	107044.	1409231.	59.698	2352.50	52842.8
42	6161.06	100574.	1302187.	58.328	2292.80	50490.3
43	5865.76	94413.4	1201613.	56.975	2234.47	48197.5
44	5583.18	88547.6	1107199.	55.811	2177.50	45993.0
45	5312.64	82964.5	1018652.	54.981	2121.69	43785.5
46	5053.31	77651.8	935687.1	53.974	2066.71	41663.8
47	4804.99	72598.5	858035.3	53.268	2012.73	39597.1
48	4566.91	67793.5	785436.8	52.683	1959.47	37584.4
49	4338.57	63226.6	717643.3	52.064	1906.78	35624.9
50	4119.65	58888.0	654416.7	51.550	1854.72	33718.1
51	3909.66	54768.4	595528.6	51.258	1803.17	31863.4
52	3708.01	50958.7	540760.3	50.913	1751.91	30060.2

FARR'S HEALTHY MALES MORTALITY TABLE. 313

COMMUTATION COLUMNS.
FOUR PER CENT.—Continued.

Age.	D _x	N _x	S _x	C _x	M _x	R _x
53	3514.49	47150.7	489901.5	50.518	1701.00	28308.3
54	3328.80	43636.2	442750.8	50.310	1650.48	26607.3
55	3150.45	40307.4	399114.6	50.155	1600.17	24956.9
56	2979.13	37157.0	358807.2	49.936	1550.02	23356.7
57	2814.61	34177.8	321650.2	49.661	1500.08	21806.7
58	2656.70	31363.2	287472.4	49.530	1450.42	20306.6
59	2504.98	28706.5	256109.2	51.523	1400.89	18856.2
60	2357.12	26201.6	227402.6	53.654	1349.37	17455.3
61	2212.81	23844.4	201201.1	55.458	1295.71	16105.9
62	2072.24	21631.6	177356.6	56.790	1240.25	14810.2
63	1935.75	19559.4	155725.0	57.856	1183.46	13570.0
64	1803.44	17623.6	136165.6	58.756	1125.61	12386.5
65	1675.32	15820.2	118542.0	59.276	1066.85	11260.9
66	1551.61	14144.9	102721.8	59.669	1007.58	10194.0
67	1432.26	12593.3	88576.95	59.805	947.908	9186.45
68	1317.37	11161.0	75983.69	59.775	888.103	8238.54
69	1206.93	9843.63	64822.69	59.467	828.328	7350.44
70	1101.04	8636.70	54979.06	58.909	768.861	6622.11
71	999.786	7535.66	46342.36	58.068	709.952	5753.25
72	903.264	6535.87	38806.70	57.034	651.884	5043.30
73	811.488	5632.61	32270.83	55.609	594.850	4391.41
74	724.670	4821.12	26638.23	53.945	539.242	3796.56
75	642.853	4096.45	21817.11	51.921	485.297	3257.32
76	566.206	3453.59	17726.76	49.582	433.376	2772.03
77	494.847	2887.39	14267.17	46.924	383.794	2338.65
78	428.890	2392.54	11379.78	44.082	336.869	1954.86
79	368.312	1963.65	8987.239	40.912	292.787	1617.99
80	313.235	1595.34	7023.588	37.628	251.876	1325.20
81	263.560	1282.10	5428.249	34.135	214.248	1073.32
82	219.288	1018.54	4146.145	30.623	180.113	859.076
83	180.231	799.256	3127.601	27.109	149.490	688.063
84	146.189	619.025	2328.345	23.606	122.381	520.473
85	116.961	472.836	1709.320	20.264	98.7747	407.092
86	92.1984	355.875	1236.484	17.144	78.5109	308.317
87	71.5088	263.676	880.6088	14.202	61.3673	220.806
88	54.5566	192.168	616.9324	11.583	47.1655	168.439
89	40.8754	137.611	424.7648	9.2616	35.5826	121.274
90	30.0417	96.7356	287.1538	7.2427	26.5210	85.6911
91	21.6435	66.6939	190.4182	5.5279	19.0783	59.3701
92	15.2831	45.0504	123.7243	4.1428	13.5504	40.2917
93	10.5525	29.7673	78.67386	3.0565	9.4076	26.7413
94	7.0901	19.2148	48.90656	2.1440	6.3511	17.3338
95	4.6734	12.1247	29.69172	1.5056	4.2071	10.9827
96	2.9881	7.4513	17.56698	1.0023	2.7015	6.7756
97	1.8709	4.4633	10.11566	.6639	1.6992	4.0742
98	1.1350	2.5924	5.65240	.4324	1.0353	2.3750
99	.6589	1.4573	3.06002	.2574	.6029	1.3396
100	.3762	.79839	1.60268	.1523	.3455	.7367
101	.2094	.42219	.80429	.0915	.1932	.3913
102	.1098	.21277	.38210	.0528	.1017	.1981
103	.0528	.10293	.16933	.0199	.0488	.0964
104	.0339	.05012	.06640	.0163	.0319	.0476
105	.0163	.01627	.01627	.0156	.0156	.0156

314 FARR'S HEALTHY MALES MORTALITY TABLE.

MORTALITY TABLE.

AGE.	FARR'S TABLE.	MODIFIED TABLE.	AGE.	FARR'S TABLE.	MODIFIED TABLE.
	Probability of Dying. q_x	Probability of Dying. q_x		Probability of Dying. q_x	Probability of Dying. q_x
15	.00426	.00692	60	.02367	.02434
16	.00474	.00696	61	.02606	.02615
17	.00525	.00702	62	.02850	.02850
18	.00584	.00706	63	.03108	.03108
19	.00642	.00711	64	.03388	.03388
20	.00695	.00717	65	.03680	.03680
21	.00714	.00725	66	.03999	.03999
22	.00732	.00732	67	.04343	.04343
23	.00748	.00748	68	.04719	.04719
24	.00762	.00762	69	.05124	.05124
25	.00775	.00775	70	.05564	.05564
26	.00784	.00784	71	.06040	.06040
27	.00793	.00793	72	.06567	.06567
28	.00802	.00802	73	.07127	.07127
29	.00812	.00812	74	.07742	.07742
30	.00821	.00821	75	.08400	.08400
31	.00828	.00828	76	.09107	.09107
32	.00835	.00835	77	.09862	.09862
33	.00845	.00845	78	.10689	.10689
34	.00852	.00852	79	.11552	.11552
35	.00865	.00865	80	.12493	.12493
36	.00876	.00876	81	.13470	.13470
37	.00889	.00889	82	.14523	.14523
38	.00903	.00903	83	.15643	.15643
39	.00918	.00918	84	.16794	.16794
40	.00938	.00938	85	.18018	.18018
41	.00960	.00960	86	.19338	.19338
42	.00985	.00985	87	.20655	.20655
43	.01010	.01010	88	.22080	.22080
44	.01039	.01039	89	.23565	.23565
45	.01076	.01076	90	.25073	.25073
46	.01111	.01111	91	.26562	.26562
47	.01153	.01153	92	.28191	.28191
48	.01200	.01200	93	.30124	.30124
49	.01248	.01248	94	.31449	.31449
50	.01301	.01301	95	.33505	.33505
51	.01364	.01364	96	.34884	.34884
52	.01428	.01443	97	.36905	.36905
53	.01495	.01533	98	.39623	.39623
54	.01572	.01630	99	.40625	.40625
55	.01656	.01736	100	.42105	.42105
56	.01743	.01852	101	.45455	.45455
57	.01835	.01979	102	.50000	.50000
58	.01939	.02118	103	.33333	.33333
59	.02139	.02268	104	.50000	.50000
			105	1.000000	1.00000

McCLINTOCK'S ANNUITANTS' MORTALITY TABLES.

INTRODUCTION.

This mortality table was prepared by Emory McClintock, Actuary of the Mutual Life Insurance Company of New York, and published in the Transactions of the Actuarial Society, Vol. V.

Both tables are graduated by Makeham's first law and with the common value, $\log. c = .04$. In consequence, equal age formulæ may be applied for all combinations.

The commutation columns were computed by Wendell M. Strong, of the actuarial force of the Mutual Life Insurance Company, and were published in the Transactions of the Actuarial Society of America, Vol. VII.

These tables have been adopted by the Insurance Department of New York as its standard, and the Department has published a very complete set of one life, joint life and survivorship annuity values at $3\frac{1}{2}$ per cent. interest.

MALE MORTALITY TABLE.

Age	Living l_x	Dying d_x	PROBABILITIES OF		Force of Mortality μ_x
			Living p_x	Dying q_x	
10	1000000	7542	.99245	.00755	.00757
11	992458	7510	.99243	.00757	.00758
12	984948	7472	.99241	.00759	.00761
13	977476	7439	.99239	.00761	.00763
14	970037	7406	.99236	.00764	.00765
15	962631	7378	.99234	.00766	.00768
16	955253	7351	.99230	.00770	.00771
17	947902	7326	.99227	.00773	.00774
18	940576	7306	.99223	.00777	.00778
19	933270	7286	.99219	.00781	.00782
20	925984	7272	.99215	.00785	.00786
21	918712	7260	.99210	.00790	.00791
22	911452	7252	.99204	.00796	.00796
23	904200	7247	.99198	.00802	.00802
24	896953	7248	.99192	.00808	.00808
25	889705	7253	.99185	.00815	.00815
26	882452	7262	.99177	.00823	.00823
27	875190	7278	.99168	.00832	.00831
28	867912	7299	.99159	.00841	.00840
29	860613	7326	.99149	.00851	.00850
30	853287	7360	.99137	.00863	.00861
31	845927	7401	.99125	.00875	.00873
32	838526	7451	.99111	.00889	.00886
33	831075	7508	.99097	.00903	.00900
34	823567	7575	.99080	.00920	.00916
35	815992	7651	.99063	.00937	.00933
36	808341	7738	.99043	.00957	.00952
37	800603	7835	.99022	.00978	.00973
38	792768	7946	.98998	.01002	.00993
39	784822	8069	.98972	.01028	.01020
40	776753	8206	.98944	.01056	.01047
41	768547	8358	.98912	.01088	.01077
42	760189	8526	.98878	.01122	.01110
43	751663	8710	.98842	.01158	.01146
44	742953	8913	.98801	.01199	.01186
45	734040	9135	.98755	.01245	.01229
46	724905	9378	.98706	.01294	.01277
47	715527	9641	.98653	.01347	.01329
48	705886	9927	.98594	.01406	.01386
49	695959	10238	.98529	.01471	.01448
50	685721	10572	.98458	.01542	.01517
51	675149	10934	.98381	.01619	.01592
52	664215	11320	.98296	.01704	.01675
53	652895	11736	.98202	.01798	.01765
54	641159	12179	.98100	.01900	.01861
55	628980	12649	.97989	.02011	.01973
56	616331	13150	.97866	.02134	.02092
57	603181	13677	.97733	.02267	.02223
58	589504	14231	.97589	.02414	.02367
59	575273	14812	.97425	.02575	.02524

McCLINTOCK'S ANNUITANT TABLES.

MALE MORTALITY TABLE.—Cont.

Age.	Living l_x	Dying d_x	PROBABILITIES OF		Force of Mortality μ_x
			Living p_x	Dying q_x	
60	560461	15415	.97250	.02750	.02696
61	545046	16040	.97057	.02943	.02885
62	529006	16681	.96847	.03153	.03092
63	512325	17335	.96616	.03384	.03320
64	494990	17995	.96365	.03635	.03569
65	476995	18654	.96089	.03911	.03842
66	458341	19305	.95788	.04212	.04142
67	439036	19936	.95459	.04541	.04470
68	419100	20537	.95100	.04900	.04830
69	398563	21095	.94707	.05293	.05225
70	377468	21597	.94278	.05722	.05658
71	355871	22026	.93811	.06189	.06133
72	333845	22365	.93301	.06699	.06653
73	311480	22600	.92745	.07255	.07224
74	288880	22710	.92138	.07862	.07850
75	266170	22682	.91479	.08521	.08536
76	243488	22498	.90760	.09240	.09289
77	220990	22145	.89979	.10021	.10114
78	198845	21613	.89131	.10869	.11019
79	177232	20898	.88209	.11791	.12011
80	156334	19995	.87210	.12790	.13008
81	136339	18914	.86127	.13873	.14291
82	117425	17666	.84955	.15045	.15598
83	99759	16271	.83689	.16311	.17032
84	83488	14759	.82322	.17678	.18604
85	68729	13162	.80849	.19151	.20328
86	55567	11523	.79264	.20736	.22218
87	44044	9882	.77562	.22438	.24291
88	34162	8289	.75737	.24263	.26563
89	25873	6782	.73786	.26214	.29055
90	19091	5402	.71704	.28296	.31787
91	13689	4177	.69490	.30510	.34783
92	9512	3125	.67139	.32861	.38067
93	6387	2258	.64653	.35347	.41669
94	4129	1568	.62034	.37966	.45618
95	2561	1043	.59283	.40717	.49948
96	1518	661	.56407	.43593	.54696
97	857	400	.53413	.46587	.59901
98	457	227	.50313	.49687	.65609
99	230	122	.47120	.52880	.71868
100	108	60	.43852	.56148	.....
101	48	29	.40528	.59472	.....
102	19	12	.37172	.62828	.....
103	7	5	.33812	.66188	.....
104	2	1	.50000	.50000	.....
105	1	1	.00000	1.00000	.....
106	0	..	.....	.....	.....

FEMALE MORTALITY TABLE.

Age.	Living. l_x	Dying. d_x	PROBABILITIES OF		Force of Mortality. μ_x
			Living. p_x	Dying. q_x	
10	1000000	3603	.99639	.00361	.00360
11	996397	3605	.99638	.00362	.00361
12	992792	3608	.99637	.00363	.00363
13	989184	3613	.99635	.00365	.00365
14	985571	3619	.99632	.00368	.00366
15	981952	3627	.99630	.00370	.00369
16	978325	3637	.99628	.00372	.00371
17	974688	3649	.99625	.00375	.00373
18	971039	3663	.99623	.00377	.00376
19	967376	3680	.99620	.00380	.00379
20	963696	3697	.99616	.00384	.00382
21	959999	3720	.99612	.00388	.00386
22	956279	3744	.99608	.00392	.00390
23	952535	3775	.99604	.00396	.00394
24	948760	3805	.99599	.00401	.00399
25	944955	3842	.99593	.00407	.00404
26	941113	3882	.99588	.00413	.00410
27	937231	3927	.99582	.00418	.00416
28	933304	3978	.99574	.00426	.00423
29	929326	4033	.99566	.00434	.00431
30	925293	4096	.99557	.00443	.00439
31	921197	4164	.99547	.00453	.00448
32	917033	4241	.99538	.00462	.00458
33	912792	4324	.99527	.00473	.00469
34	908468	4417	.99513	.00487	.00481
35	904051	4518	.99499	.00501	.00494
36	899533	4630	.99486	.00514	.00508
37	894903	4754	.99470	.00530	.00524
38	890149	4887	.99451	.00549	.00541
39	885262	5036	.99431	.00569	.00560
40	880226	5196	.99410	.00590	.00581
41	875030	5373	.99386	.00614	.00603
42	869657	5565	.99360	.00640	.00628
43	864092	5776	.99332	.00668	.00655
44	858316	6004	.99300	.00700	.00685
45	852312	6254	.99266	.00734	.00718
46	846058	6524	.99229	.00771	.00754
47	839534	6819	.99188	.00812	.00794
48	832715	7138	.99143	.00857	.00837
49	825577	7483	.99094	.00906	.00885
50	818094	7858	.99040	.00960	.00937
51	810236	8262	.98981	.01019	.00994
52	801974	8697	.98915	.01085	.01056
53	793277	9168	.98844	.01156	.01125
54	784109	9672	.98767	.01233	.01200
55	774437	10214	.98680	.01320	.01283
56	764223	10793	.98587	.01413	.01373
57	753430	11413	.98485	.01515	.01472
58	742017	12071	.98373	.01627	.01581
59	729946	12772	.98250	.01750	.01700

FEMALE MORTALITY TABLE—Continued.

Age.	Living. l_x	Dying. d_x	PROBABILITIES OF		Force of Mortality. μ_x
			Living. p_x	Dying. q_x	
60	717174	13512	.98116	.01884	.01831
61	703662	14204	.97969	.02031	.01975
62	689368	15116	.97807	.02193	.02132
63	674252	15973	.97632	.02368	.02304
64	658279	16866	.97438	.02562	.02493
65	641413	17790	.97227	.02773	.02700
66	623623	18737	.96995	.03005	.02928
67	604886	19704	.96743	.03257	.03177
68	585182	20680	.96466	.03534	.03450
69	564502	21655	.96163	.03837	.03750
70	542847	22618	.95834	.04166	.04078
71	520229	23552	.95473	.04527	.04438
72	496677	24444	.95078	.04922	.04833
73	472233	25272	.94648	.05352	.05266
74	446961	26019	.94178	.05822	.05741
75	420942	26660	.93667	.06333	.06261
76	394282	27173	.93109	.06891	.06832
77	367109	27534	.92500	.07500	.07458
78	339575	27719	.91837	.08163	.08144
79	311856	27705	.91116	.08884	.08897
80	284151	27471	.90332	.09668	.09722
81	256680	27003	.89480	.10520	.10627
82	229677	26286	.88554	.11446	.11619
83	203391	25318	.87552	.12448	.12706
84	178073	24102	.86465	.13535	.13899
85	153971	22651	.85288	.14712	.15206
86	131320	20989	.84018	.15982	.16640
87	110331	19148	.82645	.17355	.18212
88	91183	17173	.81166	.18834	.19936
89	74010	15117	.79575	.20425	.21826
90	58893	13035	.77866	.22134	.23899
91	45858	10990	.76034	.23966	.26171
92	34868	9039	.74076	.25924	.28663
93	25829	7236	.71986	.28014	.31395
94	18593	5622	.69762	.30238	.34391
95	12971	4228	.67403	.32597	.37675
96	8743	3068	.64907	.35093	.41277
97	5675	2141	.62277	.37723	.45226
98	3534	1431	.59515	.40485	.49556
99	2103	912	.56628	.43372	.54304
100	1191	552	.53623	.46377	.....
101	639	316	.50510	.49490	.....
102	323	170	.47305	.52695	.....
103	153	86	.44024	.55976	.....
104	67	40	.40686	.59314	.....
105	27	17	.37318	.62682	.....
106	10	7	.33944	.66056	.....
107	3	2	.30594	.69406	.....
108	1	1	.00000	1.00000	.....
109	0	..	.....	.....	.....

McCLINTOCK'S ANNUITANT TABLES.

MALES—COMMUTATION COLUMNS—ONE LIFE.
THREE AND ONE-HALF PER CENT.

Age.	D _x	N _x	Age.	D _x	N _x
10	708919	15697253	60	71141.8	803405.39
11	679778	14988334	61	66845.4	732263.59
12	651822	14308556	62	62684.3	665418.19
13	625002	13656734	63	58654.8	602733.89
14	599272	13031732	64	54753.8	544079.09
15	574585	12432400	65	50979.0	489325.29
16	550900	11855785	66	47328.8	438346.29
17	528175	11306975	67	43802.3	391017.49
18	506369	10778800	68	40399.3	347215.19
19	485446	10272431	69	37120.4	306815.89
20	465368	9786981.9	70	33966.8	269605.49
21	446100	9321616.9	71	30940.5	235728.69
22	427608	8875516.9	72	28044.0	204788.19
23	409861	8447908.9	73	25280.4	176744.19
24	392827	8038047.9	74	22653.3	151463.79
25	376476	7645220.9	75	20166.6	128810.49
26	360780	7268744.9	76	17824.2	108643.89
27	345711	6907964.9	77	15630.2	90819.687
28	331242	6562253.9	78	13588.4	75189.487
29	317349	6231011.9	79	11701.8	61601.087
30	304008	5913662.9	80	9973.03	49899.287
31	291194	5609654.9	81	8403.35	39926.257
32	278885	5318460.9	82	6992.83	31522.967
33	267060	5039575.9	83	5739.90	24530.077
34	255698	4772515.9	84	4641.23	18790.177
35	244779	4516817.9	85	3691.55	14148.947
36	234284	4272038.9	86	2883.66	10457.397
37	224194	4037754.9	87	2208.41	7573.7366
38	214493	3813560.9	88	1654.96	5365.3266
39	205162	3599067.9	89	1211.04	3710.3666
40	196186	3393905.9	90	863.360	2499.3266
41	187549	3197719.9	91	598.133	1635.9666
42	179237	3010170.9	92	401.584	1037.8336
43	171233	2830933.9	93	260.502	636.24957
44	163526	2659700.9	94	162.728	375.74757
45	156100	2496174.9	95	97.5322	213.01957
46	148945	2340074.9	96	55.8645	115.48737
47	142046	2191129.9	97	30.4456	59.622870
48	135394	2049083.9	98	15.7120	29.177270
49	128975	1913689.9	99	7.63782	13.465270
50	122781	1784714.9	100	3.47724	5.8274501
51	116800	1651933.9	101	1.47327	2.3502101
52	111023	1545133.9	102	.576894	.87694011
53	105440	1434110.9	103	.207194	.30004611
54	100043	1328670.9	104	.0676863	.09285211
55	94823.9	1228627.9	105	.0199296	.02516581
56	89774.7	1133804.0	106	.005236214	.00523621
57	84888.3	1044029.3			
58	80158.0	959140.99			
59	75577.6	878982.99			

FEMALES—COMMUTATION COLUMNS—ONE LIFE.
THREE AND ONE-HALF PER CENT.

Age.	D _x	N _x	Age.	D _x	N _x
10	708919	1711229.8	60	91034.0	1157938.6
11	682478	1610337.9	61	86298.4	1066904.6
12	657013	1572090.1	62	81686.3	980006.18
13	632488	15063888	63	77193.5	898919.88
14	608868	14431400	64	72816.1	821726.38
15	586118	13822532	65	68551.2	748910.28
16	564206	13236414	66	64396.1	680359.08
17	543100	12672208	67	60349.0	615962.98
18	522770	12129108	68	56408.8	555613.98
19	503186	11606338	69	52575.3	499205.18
20	484321	11109152	70	48848.7	446629.88
21	466147	10618831	71	45230.4	397781.18
22	448639	10152684	72	41722.4	352550.78
23	431770	9704044.7	73	38327.5	310828.38
24	415516	9272274.7	74	35049.6	272500.88
25	399855	8856758.7	75	31893.1	237451.28
26	384762	8456903.7	76	28862.9	205558.18
27	370218	8072141.7	77	25965.0	176695.28
28	356199	7701923.7	78	23205.3	150730.28
29	342687	7345724.7	79	20590.5	127524.98
30	329662	7003037.7	80	18126.8	106934.48
31	317104	6673375.7	81	15820.6	88807.675
32	304996	6356271.7	82	13677.6	72987.075
33	293319	6051275.7	83	11702.6	59309.475
34	282058	5757950.7	84	9899.39	47606.875
35	271194	5475898.7	85	8270.06	37707.485
36	260714	5204704.7	86	6814.91	29437.425
37	250601	4943990.7	87	5532.08	22622.515
38	240841	4693386.7	88	4417.39	17090.435
39	231418	4452548.7	89	3464.17	12673.045
40	222321	4221130.7	90	2663.40	9208.8749
41	213535	3998809.7	91	2003.75	6545.4749
42	205047	3785274.7	92	1472.02	4541.7249
43	196845	3580227.7	93	1053.53	3069.7049
44	188917	3383382.7	94	732.747	2016.1749
45	181252	3194465.7	95	493.892	1283.4279
46	173838	3013213.7	96	321.638	789.53585
47	166664	2839375.7	97	201.706	467.89785
48	159720	2672711.7	98	121.368	266.19185
49	152996	2512991.7	99	69.7897	144.82385
50	146482	2359995.7	100	38.1839	75.034145
51	140170	2213513.7	101	19.7827	36.850245
52	134049	2073343.7	102	9.65440	17.067545
53	128111	1939294.7	103	4.41257	7.41314.0
54	122348	1811183.7	104	1.87688	3.0005750
55	116753	1688835.7	105	.737823	1.1230950
56	111317	1572082.7	106	.266031	.38587197
57	106033	1460765.7	107	.0872482	.11984057
58	100896	1354732.7	108	.0257902	.03259277
59	95893.1	1253836.7	109	.00802573	.006802573

MALES—JOINT LIFE COMMUTATION COLUMNS—EQUAL AGES.
THREE AND ONE-HALF PER CENT.

Age.	D ₁₁	N ₁₁	Age.	D ₁₁	N ₁₁
10	7089200	134223400	55	596420	59116.2
11	6746500	127134200	56	553310	5315179
12	6420100	120387700	57	512030	4761870
13	6109200	113967600	58	472530	4249840
14	5813100	107858400	59	434780	3777305
15	5531100	102045200	60	398720	3342528
16	5262500	96514090	61	364330	2943806
17	5006600	91251600	62	331600	2579468
18	4762800	86245030	63	300500	2247864
19	4530500	81482240	64	271030	1947361
20	4309200	76951710	65	243170	1676335
21	4098400	72642490	66	216930	1433168
22	3897400	68544110	67	192310	1216241
23	3706000	6466570	68	169310	1023933
24	3523500	60940700	69	147950	854619.3
25	3349500	57417230	70	128210	706671.0
26	3183700	54067700	71	110110	578457.2
27	3025600	50884000	72	93624	468348.9
28	2874900	4788370	73	78743	374725.3
29	2731200	44983480	74	65441	295981.9
30	2594100	42252330	75	53677	230540.9
31	2463300	39658270	76	43400	176863.6
32	2338500	37194990	77	34541	133463.9
33	2219500	34856470	78	27020	98222.59
34	2105900	32637000	79	20739	71902.80
35	1997400	30531160	80	15591	51163.48
36	1893800	28533790	81	11457	35572.19
37	1794900	26649980	82	8211.3	24115.12
38	1700400	24845070	83	5726.1	15903.77
39	1610200	23144640	84	3874.8	10177.69
40	1523900	21534180	85	2537.2	6302.845
41	1441400	20010600	86	1602.4	3765.683
42	1362500	18569190	87	972.68	2163.332
43	1287100	17206660	88	565.36	1190.652
44	1214900	15919560	89	313.33	625.2907
45	1145800	14704640	90	164.82	311.9579
46	1079700	13558800	91	81.879	147.1357
47	1016400	12479100	92	38.200	65.23760
48	955720	11462720	93	16.637	27.05753
49	897610	10506990	94	6.7192	10.42053
50	841940	9609380	95	2.4082	3.701338
51	788570	8767447	96	.81820	1.203126
52	737430	7978876	97	.26077	.3548349
53	688410	7241448	98	.071881	.09400176
54	641430	6553037	99	.017580	.02218056

FEMALES—JOINT LIFE COMMUTATION COLUMNS—EQUAL AGES
THREE AND ONE-HALF PER CENT.

Age.	D _{xx}	N _{xx}	Age.	D _{xx}	N _{xx}
10	7089200	155005400	55	974170	10393300
11	6800200	147916300	56	850710	9489123
12	6522700	141116100	57	798890	8638415
13	6256500	134593300	58	748670	7839528
14	6000800	128336800	59	700000	7090862
15	5755400	122336000	60	652870	6390858
16	5519800	116580600	61	607250	5737985
17	5293600	111060800	62	563120	5130737
18	5076300	105767300	63	520480	4567618
19	4867700	100691000	64	479340	4047139
20	4667400	95823300	65	439690	3567806
21	4475000	91155920	66	401590	3128110
22	4290200	86680910	67	365040	2726521
23	4112700	82390670	68	330100	2361479
24	3942200	78277920	69	296790	2031385
25	3778400	74335660	70	265170	1734596
26	3621000	70557220	71	235300	1469423
27	3469800	66936170	72	207220	1234121
28	3324500	63466380	73	181000	1026896
29	3184700	60141960	74	156660	845900 2
30	3050400	56957270	75	134250	689242.1
31	2921100	53906940	76	113800	554900.8
32	2796900	50935780	77	95320	441189.5
33	2677400	48188870	78	78800	345869.8
34	2562400	45511480	79	64213	267070.3
35	2451700	42949070	80	51507	202857.7
36	2345200	40497340	81	40608	151350.1
37	2242600	38152130	82	31414	110741.8
38	2143800	35909490	83	23802	79327.47
39	2048700	33765650	84	17628	55545.39
40	1956900	31716990	85	12734	37807.25
41	1868500	29760070	86	8949.3	25163.77
42	1783200	27891570	87	6103.7	16214.45
43	1700900	26108370	88	4027.9	10110.83
44	1621500	24407410	89	2563.8	6082.901
45	1544800	22785940	90	1568.6	3519.063
46	1470800	21241100	91	918.88	1950.407
47	1399200	19770340	92	513.26	1031.617
48	1330000	18371130	93	272.11	518.3557
49	1263100	17041120	94	136.24	246.2431
50	1198400	15778020	95	64.062	110.0043
51	1135700	14579650	96	28.120	45.94283
52	1075000	13443950	97	11.446	17.82330
53	1016300	12368910	98	4.2890	6.377385
54	959340	11352640	99	1.4678	2.086323

MALE AND FEMALE—JOINT LIFE COMMUTATION COLUMNS—
EQUAL AGES.
THREE AND ONE-HALF PER CENT.

Age	D _{xx}	N _{xx}	Age	D _{xx}	N _{xx}
10	7089200	143859400	55	734350	7809844
11	6773300	130770000	56	680080	7075493
12	6471300	120996300	57	639570	6389414
13	6182400	123525700	58	594790	5749840
14	5906200	117343300	59	551670	5155955
15	5642100	111437000	60	510210	4603379
16	5386600	105794900	61	470370	4093169
17	5148000	100405300	62	432130	3622803
18	4917000	95257240	63	395490	3190678
19	4696100	90340200	64	360430	2795196
20	4484800	85644110	65	326990	2434764
21	4282500	81159380	66	295150	2107778
22	4089100	76876820	67	264950	1812625
23	3904100	72787700	68	236410	1547671
24	3727000	68883630	69	209550	1311261
25	3557500	65156650	70	184390	1101716
26	3395300	61599120	71	160960	917328.0
27	3240100	58203780	72	139200	756366.3
28	3091500	54903670	73	119380	617078.2
29	2949200	51872170	74	101250	497095.6
30	2812900	48922960	75	84890	396444.1
31	2682400	46110000	76	70277	311554.5
32	2557500	43427530	77	57380	241276.8
33	2437700	40870070	78	46142	183896.8
34	2323000	38432370	79	36493	137754.2
35	2212900	36109440	80	28339	101261.3
36	2107500	33896510	81	2170	72928.85
37	2006300	31789050	82	16061	51353.14
38	1909300	29782730	83	11675	35292.20
39	1816200	27873430	84	8264.8	23617.76
40	1726900	26057200	85	5683.0	15352.99
41	1641100	24330320	86	3786.8	9669.073
42	1558700	22689210	87	2436.6	5882.259
43	1479600	21130460	88	1509.0	3445.689
44	1403600	19650850	89	896.29	1936.639
45	1330500	18247280	90	508.46	1040.350
46	1260200	16916820	91	274.29	531.8809
47	1192500	15656660	92	140.02	257.5948
48	1127400	14464140	93	67.284	117.5711
49	1064800	13336700	94	30.256	50.28709
50	1004500	12271910	95	12.651	20.03126
51	946360	11267440	96	4.8838	7.380604
52	890370	10321090	97	1.7277	2.496596
53	836430	9430719	98	.55525	.7084128
54	784450	8594290	99	.10064	.2136925

JOINT LIVES—ANNUITIES FOR JOINT LIVES.

Number of years to be added to the younger of Two Joint Lives to obtain the Equivalent Equal Ages.

Difference of Ages.	ADDITION TO YOUNGER AGE.			Difference of Ages.	ADDITION TO YOUNGER AGE.		
	Two Males or Two Females.	Male the Older.	Female the Older.		Two Males or Two Females.	Male the Older.	Female the Older.
1	.512	.580	.443	31	24.082	25.335	22.665
2	1.046	1.182	.908	32	25.030	26.295	23.597
3	1.603	1.806	1.397	33	25.982	27.258	24.535
4	2.183	2.451	1.908	34	26.938	28.225	25.478
5	2.785	3.117	2.443	35	27.898	29.194	26.426
6	3.409	3.804	3.000	36	28.861	30.166	27.379
7	4.055	4.509	3.580	37	29.828	31.140	28.335
8	4.721	5.234	4.182	38	30.797	32.117	29.295
9	5.407	5.976	4.806	39	31.769	33.095	30.258
10	6.113	6.736	5.451	40	32.744	34.076	31.225
11	6.837	7.512	6.117	41	33.720	35.058	32.194
12	7.580	8.304	6.804	42	34.699	36.042	33.166
13	8.339	9.111	7.509	43	35.679	37.027	34.140
14	9.116	9.931	8.234	44	36.661	38.013	35.117
15	9.907	10.765	8.976	45	37.645	39.001	36.095
16	10.714	11.611	9.736	46	38.630	39.989	37.076
17	11.534	12.468	10.512	47	39.616	40.979	38.058
18	12.368	13.337	11.304	48	40.604	41.970	39.042
19	13.214	14.215	12.111	49	41.593	42.961	40.027
20	14.072	15.104	12.931	50	42.582	43.953	41.013
21	14.940	16.001	13.765	51	43.573	44.946	42.001
22	15.819	16.906	14.611	52	44.564	45.939	42.989
23	16.707	17.819	15.468	53	45.556	46.933	43.979
24	17.604	18.738	16.337	54	46.549	47.928	44.970
25	18.509	19.665	17.215	55	47.543	48.923	45.961
26	19.422	20.597	18.104	56	48.537	49.918	46.953
27	20.342	21.535	19.001	57	49.531	50.914	47.946
28	21.268	22.478	19.906	58	50.526	51.910	48.939
29	22.201	23.426	20.819	59	51.522	52.907	49.933
30	23.139	24.379	21.738	60	52.517	53.904	50.928

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