

# life\_insurance\_solutions

*Marcus Milazzo*

*11/21/2017*

x	Lives	Epected Deaths	Premium Collected	Payout for Deaths	PV Premiums at age 40	PV Payouts at age 40
40	93131.64	259.02	211874481	38853000	211874481	38853000
41	92872.62	276.92	211285210.5	41538000	203158856.3	39940384.62
42	92595.7	296.47	210655217.5	44470500	194762590.1	41115477.07
43	92299.23	317.76	209980748.3	47664000	186672120.6	42373122.44
44	91981.47	340.97	209257844.3	51145500	178874482.3	43719387.75
45	91640.5	366.25	208482137.5	54937500	171357120.1	45154620.43
46	91274.25	393.77	207648918.8	59065500	164107956.7	46680322.62
47	90880.48	423.7	206753092	63555000	157115357.5	48296576.62
48	90456.78	456.23	205789174.5	68434500	150368134.1	50004418.83
49	90000.55	491.55	204751251.3	73732500	143855513.2	51803476.48
50	89509	529.89	203632975	79483500	137567141.5	53696204.61
51	88979.11	571.43	202427475.3	85714500	131493027.9	55678504.76
52	88407.68	616.42	201127472	92463000	125623625.6	57752117
53	87791.26	665.06	199725116.5	99759000	119949729.3	59912670.26
54	87126.2	717.6	198212105	107640000	114462551.8	62159417.91
55	86408.6	774.27	196579565	116140500	109153654.4	64488696.98
56	85634.33	835.26	194818100.8	125289000	104014976.8	66892821.42
57	84799.07	900.82	192917884.3	135123000	99038880.42	69368533.1
58	83898.25	971.14	190868518.8	145671000	94218068.27	71907302.02
59	82927.11	1046.38	188659175.3	156957000	89545648.26	74498450.95
60	81880.73	1126.72	186278660.8	169008000	85015149.12	77133045
61	80754.01	1212.23	183715372.8	181834500	80620478.79	79795088.62
62	79541.78	1303	180957549.5	195450000	76356012.77	82471180.32
63	78238.78	1399	177993224.5	209850000	72216538.33	85141671.05
64	76839.78	1500.15	174810499.5	225022500	68197329.8	87786109.46
65	75339.63	1606.26	171397658.3	240939000	64294141.48	90380267.22
66	73733.37	1717.04	167743416.8	257556000	60503244.32	92897676.08
67	72016.33	1832.02	163837150.8	274803000	56821438.68	95306233.92
68	70184.31	1950.65	159669305.3	292597500	53246116.16	97574674.4
69	68233.66	2072.12	155231576.5	310818000	49775224.61	99664231.41
70	66161.54	2195.46	150517503.5	329319000	46407356.19	101535195.4
71	63966.08	2319.46	145522832	347919000	43141736.27	103144156.4
72	61646.62	2442.69	140246060.5	366403500	39978253.11	104446226.9
73	59203.93	2563.43	134688940.8	384514500	36917453.85	105393183.9
74	56640.5	2679.7	128857137.5	401955000	33960567.84	105936080.2
75	53960.8	2789.29	122760820	418393500	31109490.99	106027385.8

76	51171.51	2889.7	116415185.3	433455000	28366739.39	105619425.8
77	48281.81	2978.21	109841117.8	446731500	25735427.66	104667782.3
78	45303.6	3051.98	103065690	457797000	23219198.36	103134994.3
79	42251.62	3107.98	96122435.5	466197000	20822100.27	100987876.9
80	39143.64	3143.27	89051781	471490500	18548510.39	98206305.81
81	36000.37	3154.96	81900841.75	473244000	16402930.85	94780327.55
82	32845.41	3140.46	74723307.75	471069000	14389835.79	90716079.86
83	29704.95	3097.61	67578761.25	464641500	12513437.73	86036831.25
84	26607.34	3024.89	60531698.5	453733500	10777447.88	80785592.79
85	23582.45	2921.55	53650073.75	438232500	9184807.422	75024708.02
86	20660.9	2787.91	47003547.5	418186500	7737435.272	68839292.94
87	17872.99	2625.41	40661052.25	393811500	6435935.253	62333490.54
88	15247.58	2436.75	34688244.5	365512500	5279369.211	55629088.95
89	12810.83	2225.92	29144638.25	333888000	4265059.002	48861543.86
90	10584.91	1998.156	24080670.25	299723400	3388454.09	42174863.49
91	8586.754	1759.682	19534865.35	263952300	2643078.84	35712902.36
92	6827.072	1517.487	15531588.8	227623050	2020608.802	29613012.83
93	5309.585	1278.861	12079305.88	191829150	1511036.642	23996484.37
94	4030.724	1050.913	9169897.1	157636950	1102971.118	18960845.58
95	2979.811	840.045	6779070.025	126006750	784036.8201	14573375.29
96	2139.766	651.443	4867967.65	97716450	541353.1682	10866775.13
97	1488.323	488.6772	3385934.825	73301580	362058.0885	7838139.63
98	999.6458	353.4741	2274194.195	53021115	233826.5744	5451489.464
99	646.1717	245.6771	1470040.618	36851565	145332.3566	3643249.529
100	400.4946	163.4494	911125.215	24517410	86611.92832	2330634.827
101	237.0452	103.656	539277.83	15548400	49292.27575	1421189.557
102	133.3892	62.37457	303460.43	9356185.5	26670.73795	822302.8344
103	71.01463	35.43584	161558.2833	5315376	13653.024	449193.6573
104	35.57879	18.90227	80941.74725	2835340.5	6577.166861	230394.1811
105	16.67652	9.410455	37939.083	1411568.25	2964.283763	110289.6674
106	7.266065	4.343847	16530.29788	651577.05	1241.881867	48951.43024
107	2.922218	1.845778	6648.04595	276866.7	480.2421554	20000.32216
108	1.07644	0.7163166	2448.901	107447.49	170.0999384	7463.270841
109	0.3601234	0.2517149	819.280735	37757.235	54.71826661	2521.736888
110	0.1084085	0.07934139	246.6293375	11901.2085	15.83838827	764.2884787
111	0.02906711	0.022202482	66.12767525	3330.3723	4.083345847	205.6485707
112	0.006864628	0.005454072	15.6170287	818.1108	0.9272524274	48.57487552

113	0.001410556	0.001161733	3.2090149	174.25995	0.1832052711	9.948642301
114	0.000248823	2.12E-04	0.566072325	3.18E+01	0.03107454761	1.74E+00
115	3.71E-05	3.25E-05	8.44E-02	4.87E+00	4.46E-03	2.57E-01
116	4.61E-06	4.14E-06	1.05E-02	6.21E-01	5.32E-04	3.15E-02
117	4.68E-07	4.30E-07	1.06E-03	6.45E-02	5.20E-05	3.15E-03
118	3.82E-08	3.58E-08	8.69E-05	5.36E-03	4.08E-06	2.52E-04
119	2.44E-09	2.32E-09	5.55E-06	3.48E-04	2.50E-07	1.57E-05
120	1.20E-10	1.16E-10	2.73E-07	1.73E-05	1.18E-08	7.52E-07
121	4.39E-12	4.27E-12	9.99E-09	6.41E-07	4.17E-10	2.67E-08
122	1.17E-13	1.15E-13	2.66E-10	1.72E-08	1.07E-11	6.91E-10
123	2.20E-15	2.17E-15	5.01E-12	3.26E-10	1.93E-13	1.26E-11
124	2.82E-17	2.80E-17	6.42E-14	4.19E-12	2.38E-15	1.56E-13
125	2.38E-19	2.37E-19	5.41E-16	3.55E-14	1.93E-17	1.27E-15
126	1.26E-21	1.26E-21	2.87E-18	1.88E-16	9.83E-20	6.46E-18
127	4.04E-24	4.03E-24	9.19E-21	6.05E-19	3.03E-22	1.99E-20
128	7.45E-27	7.44E-27	1.69E-23	1.12E-21	5.37E-25	3.54E-23
129	7.47E-30	7.47E-30	1.70E-26	1.12E-24	5.18E-28	3.41E-26
130	3.85E-33	3.85E-33	8.76E-30	5.77E-28	2.57E-31	1.69E-29
131	9.54E-37	9.54E-37	2.17E-33	1.43E-31	6.12E-35	4.03E-33
132	1.06E-40	1.06E-40	2.41E-37	1.59E-35	6.53E-39	4.31E-37
133	4.92E-45	4.92E-45	1.12E-41	7.38E-40	2.92E-43	1.92E-41
134	8.70E-50	8.70E-50	1.98E-46	1.30E-44	4.96E-48	3.27E-46
135	5.35E-55	5.35E-55	1.22E-51	8.02E-50	2.93E-53	1.93E-51
136	1.03E-60	1.03E-60	2.34E-57	1.54E-55	5.43E-59	3.58E-57
137	5.61E-67	5.61E-67	1.28E-63	8.41E-62	2.84E-65	1.87E-63
138	7.58E-74	7.58E-74	1.72E-70	1.14E-68	3.69E-72	2.43E-70
139	2.23E-81	2.23E-81	5.07E-78	3.35E-76	1.04E-79	6.89E-78
				<b>Total</b>	4002373177	3972826363
				<b>Profit</b>		29546814.37