

**Chapter 491-02 WAC  
ACTUARIAL TABLES**

Last Update: 10/29/16

WAC

491-02-095 Actuarial tables, schedules, and factors.

**WAC 491-02-095 Actuarial tables, schedules, and factors.** This chapter contains the tables, schedules, and factors adopted by the board for volunteer firefighters and reserve officers pursuant to the authority granted by RCW 41.24.185 for calculating optional retirement allowances of members of retirement systems administered by the board. These tables, schedules, and factors were adopted by the board upon the recommendation of and in light of the findings of the state actuary in his regular actuarial investigation into the mortality, service, compensation, and other experience of the members and beneficiaries of such retirement systems. The tables, schedules, and factors contained in this chapter shall govern the retirement allowances only of members retiring during the period from January 1, 2017, until such time as these tables, schedules, and factors are amended by the board following the next actuarial investigation conducted by the state actuary. The retirement allowances of members retiring before January 1, 2017, shall continue to be governed by the tables, schedules, and factors in effect at the time of each member's retirement. Any new tables, schedules, and factors adopted by the board in the future shall govern retirement allowances only of members retiring after the adoption of such new tables, schedules, and factors.

**Board for Volunteer Firefighters and  
Reserve Officers  
Table #1  
Joint/Survivor Pension  
Option 2 (Joint and 100% Survivor Pension  
with Pop-up)  
(WAC 415-02-380)**

Member Younger		Member Older	
Age Difference	Option 2 100%	Age Difference	Option 2 100%
-20	0.941	0	0.850
-19	0.938	1	0.844
-18	0.934	2	0.839
-17	0.930	3	0.834
-16	0.926	4	0.829
-15	0.922	5	0.825
-14	0.918	6	0.820
-13	0.913	7	0.815
-12	0.909	8	0.811
-11	0.904	9	0.806
-10	0.900	10	0.802
-9	0.895	11	0.798
-8	0.890	12	0.794
-7	0.885	13	0.790
-6	0.880	14	0.786
-5	0.875	15	0.783

Member Younger		Member Older	
Age Difference	Option 2 100%	Age Difference	Option 2 100%
-4	0.870	16	0.779
-3	0.865	17	0.776
-2	0.860	18	0.773
-1	0.855	19	0.770
		20	0.767
		21	0.764
		22	0.762
		23	0.759
		24	0.757
		25	0.755
		26	0.753
		27	0.751
		28	0.749
		29	0.747
		30	0.746
		31	0.744
		32	0.743
		33	0.742
		34	0.740
		35	0.739
		36	0.738
		37	0.737
		38	0.736
		39	0.735
		40	0.734

**Table #2  
Survivor Pension  
Early Retirement Factors  
(WAC 415-02-320)**

Years Early	Month 0	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11
0	1.0000	.9926	.9852	.9778	.9704	.9630	.9557	.9483	.9409	.9335	.9261	.9187
1	.9113	.9047	.8981	.8915	.8849	.8783	.8717	.8651	.8585	.8519	.8453	.8387
2	.8321	.8262	.8203	.8144	.8085	.8026	.7967	.7908	.7849	.7789	.7730	.7671
3	.7612	.7559	.7506	.7453	.7400	.7347	.7294	.7241	.7188	.7135	.7082	.7028
4	.6975	.6928	.6880	.6832	.6784	.6736	.6689	.6641	.6593	.6545	.6497	.6450
5	.6402	.6359	.6316	.6272	.6229	.6186	.6143	.6100	.6057	.6014	.5970	.5927
6	.5884	.5845	.5806	.5767	.5728	.5689	.5650	.5611	.5572	.5533	.5493	.5454
7	.5415	.5380	.5345	.5309	.5274	.5238	.5203	.5167	.5132	.5096	.5061	.5026
8	.4990	.4958	.4926	.4894	.4861	.4829	.4797	.4765	.4733	.4700	.4668	.4636
9	.4604	.4574	.4545	.4516	.4486	.4457	.4428	.4398	.4369	.4340	.4310	.4281
10	.4252	.4225	.4198	.4171	.4145	.4118	.4091	.4064	.4037	.4011	.3984	.3957
11	.3930	.3906	.3881	.3857	.3832	.3808	.3783	.3759	.3735	.3710	.3686	.3661
12	.3637	.3614	.3592	.3569	.3547	.3525	.3502	.3480	.3457	.3435	.3413	.3390
13	.3368	.3347	.3327	.3306	.3286	.3265	.3244	.3224	.3203	.3183	.3162	.3142
14	.3121	.3102	.3083	.3065	.3046	.3027	.3008	.2989	.2970	.2951	.2932	.2914
15	.2895	.2877	.2860	.2843	.2825	.2808	.2791	.2773	.2756	.2738	.2721	.2704
16	.2686	.2670	.2654	.2639	.2623	.2607	.2591	.2575	.2559	.2543	.2527	.2511

Years Early	Month 0	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11
17	.2495	.2480	.2465	.2451	.2436	.2421	.2406	.2392	.2377	.2362	.2347	.2333
18	.2318	.2304	.2291	.2277	.2264	.2250	.2236	.2223	.2209	.2196	.2182	.2169
19	.2155	.2142	.2130	.2117	.2105	.2092	.2080	.2067	.2055	.2042	.2029	.2017
20	.2004	.1993	.1981	.1969	.1958	.1946	.1935	.1923	.1911	.1900	.1888	.1877
21	.1865	.1854	.1844	.1833	.1822	.1811	.1801	.1790	.1779	.1768	.1758	.1747
22	.1736	.1726	.1716	.1706	.1696	.1686	.1677	.1667	.1657	.1647	.1637	.1627
23	.1617	.1608	.1598	.1589	.1580	.1571	.1562	.1552	.1543	.1534	.1525	.1516
24	.1506	.1498	.1489	.1481	.1472	.1464	.1455	.1446	.1438	.1429	.1421	.1412
25	.1404	.1396	.1388	.1380	.1372	.1364	.1356	.1348	.1340	.1332	.1324	.1317
26	.1309	.1301	.1294	.1287	.1279	.1272	.1264	.1257	.1250	.1242	.1235	.1228
27	.1220	.1213	.1207	.1200	.1193	.1186	.1179	.1172	.1166	.1159	.1152	.1145
28	.1138	.1132	.1125	.1119	.1113	.1106	.1100	.1094	.1087	.1081	.1075	.1068
29	.1062	.1057	.1052	.1046	.1041	.1036	.1031	.1026	.1021	.1015	.1010	.1005
30+	.1000	.1000	.1000	.1000	.1000	.1000	.1000	.1000	.1000	.1000	.1000	.1000

**Table #3  
Lump-Sum Settlements**

Age	Factor	Age	Factor
20	14.4584	66	10.4052
21	14.4415	67	10.1797
22	14.4235	68	9.9469
23	14.4043	69	9.7055
24	14.3837	70	9.4569
25	14.3616	71	9.2012
26	14.3379	72	8.9402
27	14.3124	73	8.6725
28	14.2850	74	8.3989
29	14.2556	75	8.1204
30	14.2241	76	7.8378
31	14.1905	77	7.5519
32	14.1547	78	7.2629
33	14.1169	79	6.9712
34	14.0771	80	6.6771
35	14.0351	81	6.3812
36	13.9909	82	6.0844
37	13.9441	83	5.7894
38	13.8947	84	5.4967
39	13.8423	85	5.2068
40	13.7866	86	4.9196
41	13.7273	87	4.6359
42	13.6642	88	4.3627
43	13.5971	89	4.1017
44	13.5257	90	3.8552
45	13.4499	91	3.6261
46	13.3694	92	3.4160
47	13.2840	93	3.2225
48	13.1934	94	3.0459
49	13.0971	95	2.8863
50	12.9948	96	2.7439

<b>Age</b>	<b>Factor</b>	<b>Age</b>	<b>Factor</b>
51	12.8861	97	2.6189
52	12.7706	98	2.5100
53	12.6497	99	2.4068
54	12.5217	100	2.3177
55	12.3863	101	2.2325
56	12.2433	102	2.1606
57	12.0937	103	2.0940
58	11.9376	104	2.0445
59	11.7734	105	2.0036
60	11.6011	106	1.9836
61	11.4206	107	1.9718
61	11.2323	108	1.9636
62	11.0364	109	1.9558
64	10.8332	110	1.9481
65	10.6232		

[Statutory Authority: RCW 41.24.290(2). WSR 16-22-052, § 491-02-095, filed 10/29/16, effective 1/1/17; WSR 09-24-026, § 491-02-095, filed 11/23/09, effective 12/24/09; WSR 03-22-024, § 491-02-095, filed 10/27/03, effective 1/1/04; WSR 99-21-052, § 491-02-095, filed 10/18/99, effective 1/1/00; WSR 90-24-033, § 491-02-095, filed 11/30/90, effective 12/31/90.]