Montana State Retirement System
Sheriffs' Retirement System
100% Joint Life Annuity Factors with Popup
Member Mortality: PubS-2010 Healthy Retiree; Adjusted 105%Male/100%Female; Males Set Forward 1 year; MP-2021 - Projected to 2040
Contingent Mortality: PubS-2010 Contingent Survivor proj to 2021; Males Set Forward 1 year; MP-2021 - Proj to 2040
Male/Female Mix: 85% Male, 15% Female
Interest: 7.30% per year
Post-Retirement COLA: 1.50% per year
Service Retirement

Age of Member	Age of Contingent Annuitant																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	0.9915	0.9917	0.9919	0.9921	0.9923	0.9926	0.9928	0.9930	0.9932	0.9934	0.9935	0.9937	0.9939	0.9941	0.9942	0.9944	0.9946
2	0.9909	0.9911	0.9914	0.9916	0.9918	0.9920	0.9923	0.9925	0.9927	0.9929	0.9931	0.9933	0.9935	0.9937	0.9939	0.9941	0.9942
3	0.9902	0.9905	0.9907	0.9910	0.9912	0.9915	0.9917	0.9919	0.9922	0.9924	0.9926	0.9928	0.9930	0.9932	0.9934	0.9936	0.9938
4	0.9895	0.9898	0.9900	0.9903	0.9905	0.9908	0.9911	0.9913	0.9916	0.9918	0.9920	0.9923	0.9925	0.9927	0.9929	0.9931	0.9934
5	0.9887	0.9890	0.9893	0.9895	0.9898	0.9901	0.9904	0.9906	0.9909	0.9912	0.9914	0.9917	0.9919	0.9922	0.9924	0.9926	0.9928
6	0.9879	0.9882	0.9884	0.9887	0.9890	0.9893	0.9896	0.9899	0.9902	0.9905	0.9907	0.9910	0.9913	0.9915	0.9918	0.9920	0.9923
7	0.9870	0.9873	0.9876	0.9879	0.9882	0.9885	0.9888	0.9891	0.9894	0.9897	0.9900	0.9903	0.9906	0.9909	0.9911	0.9914	0.9917
8	0.9860	0.9863	0.9866	0.9869	0.9873	0.9876	0.9879	0.9882	0.9885	0.9889	0.9892	0.9895	0.9898	0.9901	0.9904	0.9907	0.9910
9	0.9849	0.9852	0.9856	0.9859	0.9862	0.9866	0.9869	0.9873	0.9876	0.9880	0.9883	0.9886	0.9890	0.9893	0.9896	0.9899	0.9902
10	0.9838	0.9841	0.9845	0.9848	0.9852	0.9855	0.9859	0.9863	0.9866	0.9870	0.9873	0.9877	0.9881	0.9884	0.9888	0.9891	0.9894
11	0.9826	0.9829	0.9833	0.9837	0.9840	0.9844	0.9848	0.9852	0.9856	0.9859	0.9863	0.9867	0.9871	0.9875	0.9878	0.9882	0.9885
12	0.9813	0.9817	0.9821	0.9824	0.9828	0.9832	0.9836	0.9840	0.9844	0.9848	0.9852	0.9856	0.9860	0.9864	0.9868	0.9872	0.9876
13	0.9800	0.9804	0.9807	0.9811	0.9815	0.9819	0.9824	0.9828	0.9832	0.9836	0.9840	0.9845	0.9849	0.9853	0.9857	0.9862	0.9866
14	0.9786	0.9790	0.9794	0.9798	0.9802	0.9806	0.9810	0.9815	0.9819	0.9824	0.9828	0.9833	0.9837	0.9842	0.9846	0.9850	0.9855
15	0.9771	0.9775	0.9779	0.9783	0.9787	0.9792	0.9796	0.9801	0.9805	0.9810	0.9815	0.9820	0.9824	0.9829	0.9834	0.9839	0.9843
16	0.9755	0.9760	0.9764	0.9768	0.9772	0.9777	0.9782	0.9786	0.9791	0.9796	0.9801	0.9806	0.9811	0.9816	0.9821	0.9826	0.9831
17	0.9740	0.9744	0.9748	0.9753	0.9757	0.9762	0.9767	0.9771	0.9776	0.9781	0.9787	0.9792	0.9797	0.9802	0.9808	0.9813	0.9818
18	0.9723	0.9727	0.9732	0.9736	0.9741	0.9746	0.9751	0.9756	0.9761	0.9766	0.9772	0.9777	0.9783	0.9788	0.9794	0.9799	0.9805
19	0.9706	0.9710	0.9715	0.9720	0.9724	0.9729	0.9734	0.9740	0.9745	0.9750	0.9756	0.9762	0.9767	0.9773	0.9779	0.9785	0.9791
20	0.9688	0.9692	0.9697	0.9702	0.9707	0.9712	0.9717	0.9722	0.9728	0.9733	0.9739	0.9745	0.9751	0.9757	0.9763	0.9769	0.9776
21	0.9668	0.9673	0.9678	0.9683	0.9688	0.9693	0.9698	0.9704	0.9710	0.9715	0.9721	0.9727	0.9734	0.9740	0.9746	0.9753	0.9759
22	0.9648	0.9653	0.9657	0.9663	0.9668	0.9673	0.9679	0.9684	0.9690	0.9696	0.9702	0.9708	0.9715	0.9721	0.9728	0.9735	0.9741
23	0.9626	0.9631	0.9636	0.9641	0.9646	0.9652	0.9657	0.9663	0.9669	0.9675	0.9682	0.9688	0.9695	0.9701	0.9708	0.9715	0.9722
24	0.9603	0.9608	0.9613	0.9618	0.9624	0.9629	0.9635	0.9641	0.9647	0.9653	0.9660	0.9666	0.9673	0.9680	0.9687	0.9695	0.9702
25	0.9578	0.9583	0.9589	0.9594	0.9599	0.9605	0.9611	0.9617	0.9623	0.9630	0.9637	0.9643	0.9650	0.9658	0.9665	0.9672	0.9680
26	0.9553	0.9558	0.9563	0.9568	0.9574	0.9580	0.9586	0.9592	0.9599	0.9605	0.9612	0.9619	0.9626	0.9634	0.9641	0.9649	0.9657
27	0.9526	0.9531	0.9536	0.9542	0.9547	0.9553	0.9559	0.9566	0.9572	0.9579	0.9586	0.9593	0.9601	0.9608	0.9616	0.9624	0.9632
28	0.9497	0.9502	0.9508	0.9513	0.9519	0.9525	0.9531	0.9538	0.9545	0.9551	0.9559	0.9566	0.9574	0.9581	0.9589	0.9598	0.9606
29	0.9467	0.9472	0.9478	0.9484	0.9489	0.9496	0.9502	0.9509	0.9515	0.9522	0.9530	0.9537	0.9545	0.9553	0.9561	0.9570	0.9578
30	0.9435	0.9441	0.9446	0.9452	0.9458	0.9464	0.9471	0.9478	0.9484	0.9492	0.9499	0.9507	0.9515	0.9523	0.9531	0.9540	0.9549
31	0.9402	0.9408	0.9413	0.9419	0.9425	0.9431	0.9438	0.9445	0.9452	0.9459	0.9467	0.9475	0.9483	0.9491	0.9500	0.9509	0.9518
32	0.9367	0.9372	0.9378	0.9384	0.9390	0.9397	0.9403	0.9410	0.9418	0.9425	0.9433	0.9441	0.9449	0.9457	0.9466	0.9475	0.9485
33	0.9330	0.9336	0.9341	0.9347	0.9354	0.9360	0.9367	0.9374	0.9381	0.9389	0.9397	0.9405	0.9413	0.9422	0.9431	0.9440	0.9450
34	0.9291	0.9297	0.9303	0.9309	0.9315	0.9322	0.9328	0.9336	0.9343	0.9351	0.9359	0.9367	0.9375	0.9384	0.9393	0.9403	0.9413
35	0.9250	0.9256	0.9262	0.9268	0.9274	0.9281	0.9288	0.9295	0.9303	0.9310	0.9318	0.9327	0.9335	0.9344	0.9354	0.9363	0.9373
36	0.9207	0.9212	0.9218	0.9225	0.9231	0.9238	0.9245	0.9252	0.9260	0.9268	0.9276	0.9284	0.9293	0.9302	0.9312	0.9322	0.9332
37	0.9161	0.9167	0.9173	0.9179	0.9186	0.9192	0.9200	0.9207	0.9215	0.9223	0.9231	0.9240	0.9249	0.9258	0.9267	0.9277	0.9288
38	0.9113	0.9119	0.9125	0.9131	0.9138	0.9145	0.9152	0.9159	0.9167	0.9175	0.9183	0.9192	0.9201	0.9211	0.9220	0.9231	0.9241
39	0.9062	0.9068	0.9074	0.9080	0.9087	0.9094	0.9101	0.9109	0.9117	0.9125	0.9133	0.9142	0.9151	0.9161	0.9171	0.9181	0.9192
40	0.9008	0.9014	0.9020	0.9027	0.9033	0.9040	0.9048	0.9055	0.9063	0.9071	0.9080	0.9089	0.9098	0.9108	0.9118	0.9128	0.9139
41	0.8951	0.8957	0.8963	0.8970	0.8977	0.8984	0.8991	0.8999	0.9007	0.9015	0.9024	0.9033	0.9042	0.9052	0.9062	0.9073	0.9084
42	0.8891	0.8897	0.8903	0.8910	0.8917	0.8924	0.8931	0.8939	0.8947	0.8955	0.8964	0.8973	0.8983	0.8993	0.9003	0.9014	0.9025
43	0.8828	0.8834	0.8840	0.8847	0.8853	0.8860	0.8868	0.8876	0.8884	0.8892	0.8901	0.8910	0.8920	0.8930	0.8940	0.8951	0.8962
44	0.8761	0.8767	0.8773	0.8780	0.8786	0.8794	0.8801	0.8809	0.8817	0.8826	0.8835	0.8844	0.8853	0.8863	0.8874	0.8885	0.8896
45	0.8693	0.8699	0.8705	0.8712	0.8719	0.8726	0.8734	0.8741	0.8750	0.8758	0.8767	0.8777	0.8786	0.8796	0.8807	0.8818	0.8829
46	0.8622	0.8628	0.8634	0.8641	0.8648	0.8655	0.8663	0.8671	0.8679	0.8688	0.8697	0.8706	0.8716	0.8726	0.8737	0.8748	0.8759
47	0.8548	0.8554	0.8560	0.8567	0.8574	0.8581	0.8588	0.8596	0.8605	0.8613	0.8622	0.8632	0.8642	0.8652	0.8662	0.8674	0.8685
48	0.8470	0.8476	0.8482	0.8488	0.8495	0.8503	0.8510	0.8518	0.8526	0.8535	0.8544	0.8554	0.8564	0.8574	0.8585	0.8596	0.8607
49	0.8388	0.8394	0.8400	0.8407	0.8413	0.8421	0.8428	0.8436	0.8445	0.8453	0.8462	0.8472	0.8482	0.8492	0.8503	0.8514	0.8526
50	0.8302	0.8308	0.8314	0.8321	0.8327	0.8335	0.8342	0.8350	0.8359	0.8367	0.8376	0.8386	0.8396	0.8406	0.8417	0.8428	0.8440
51	0.8212	0.8218	0.8224	0.8231	0.8238	0.8245	0.8252	0.8260	0.8269	0.8277	0.8286	0.8296	0.8306	0.8316	0.8327	0.8338	0.8350
52	0.8118	0.8124	0.8130	0.8137	0.8144	0.8151	0.8158	0.8166	0.8174	0.8183	0.8192	0.8202	0.8212	0.8222	0.8233	0.8244	0.8256
53	0.8020	0.8026	0.8032	0.8039	0.8045	0.8052	0.8060	0.8068	0.8076	0.8085	0.8094	0.8103	0.8113	0.8124	0.8135	0.8146	0.8158
54	0.7918	0.7924	0.7930	0.7936	0.7943	0.7950	0.7957	0.7965	0.7973	0.7982	0.7991	0.8001	0.8011	0.8021	0.8032	0.8043	0.8055
55	0.7811	0.7817	0.7823	0.7830	0.7836	0.7843	0.7851	0.7858	0.7867	0.7875	0.7884	0.7894	0.7904	0.7914	0.7925	0.7936	0.7948
56	0.7701	0.7706	0.7712	0.7719	0.7725	0.7732	0.7740	0.7747	0.7756	0.7764	0.7773	0.7782	0.7792	0.7802	0.7813	0.7825	0.7836
57	0.7586	0.7592	0.7597	0.7604	0.7610	0.7617	0.7624	0.7632	0.7640	0.7649	0.7657	0.7667	0.7677	0.7687	0.7698	0.7709	0.7721
58	0.7467	0.7473	0.7478	0.7485	0.7491	0.7498	0.7505	0.7513	0.7521	0.7529	0.7538	0.7547	0.7557	0.7567	0.7577	0.7589	0.7600
59	0.7344	0.7349	0.7355	0.7361	0.7368	0.7374	0.7381	0.7389	0.7397	0.7405	0.7414	0.7423	0.7432	0.7443	0.7453	0.7464	0.7476
60	0.7217	0.7222	0.7228	0.7234	0.7240	0.7247	0.7254	0.7261	0.7269	0.7277	0.7286	0.7295	0.7304	0.7314	0.7325	0.7336	0.7347
61	0.7085	0.7090	0.7096	0.7102	0.7108	0.7115	0.7122	0.7129	0.7136	0.7145	0.7153	0.7162	0.7171	0.7181	0.7192	0.7202	0.7214
62	0.6949	0.6954	0.6960	0.6966	0.6972	0.6978	0.6985	0.6992	0.7000	0.7008	0.7016	0.7025	0.7034	0.7044	0.7054	0.7065	0.7076
63	0.6809	0.6814	0.6820	0.6825	0.6831	0.6838	0.6844	0.6851	0.6859	0.6867	0.6875	0.6884	0.6893	0.6902	0.6912	0.6923	0.6934
64	0.6664	0.6669	0.6675	0.6680	0.6686	0.6692	0.6699	0.6706	0.6713	0.6721	0.6729	0.6738	0.6747	0.6756	0.6766	0.6776	0.6787
65	0.6515	0.6520	0.6525	0.6531	0.6537	0.6543	0.6549	0.6556	0.6563	0.6571	0.6579	0.6587	0.6596	0.6605	0.6615	0.6625	0.6636
66	0.6361	0.6366	0.6371	0.6377	0.6382	0.6388	0.6395	0.6401	0.6408	0.6416	0.6424	0.6432	0.6440	0.6450	0.6459	0.6469	0.6480
67	0.6203	0.6208	0.6213	0.6218	0.6224	0.6229	0.6236	0.6242	0.6249	0.6256	0.6264	0.6272	0.6280	0.6289	0.6299	0.6309	0.6319
68	0.6040	0.6045	0.6050	0.6055	0.6060	0.6066	0.6072	0.6078	0.6085	0.6092	0.6099	0.6107	0.6116	0.6124	0.6133	0.6143	0.6153
69	0.5873	0.5877	0.5882	0.5887	0.5892	0.5898	0.5904	0.5910	0.5916	0.5923	0.5931	0.5938	0.5946	0.5955	0.5964	0.5973	0.5983
70	0.5701	0.5705	0.5710	0.5715	0.5720	0.5725	0.5731	0.5737	0.5743	0.5750	0.5757	0.5765	0.5773	0.5781	0.5790	0.5799	0.5808
71	0.5525	0.5529	0.5534	0.5539	0.5544	0.5549	0.5554	0.5560	0.5567	0.5573	0.5580	0.5587	0.5595	0.5603	0.5611	0.5620	0.5630
72	0.5346	0.5350	0.5354	0.5359	0.5363	0.5369	0.5374	0.5380	0.5386	0.5392	0.5399	0.5406	0.5413	0.5421	0.5429	0.5438	0.5447
73	0.5163	0.5167	0.5171	0.5175	0.5180	0.5185	0.5190	0.5196	0.5201	0.5208	0.5214	0.5221	0.5228	0.5236	0.5244	0.5252	0.5261
74	0.4977	0.4981	0.4985	0.4989	0.4993	0.4998	0.5003	0.5009	0.5014	0.5020	0.5026	0.5033	0.5040	0.5047	0.5055	0.5063	0.5072
75	0.4788	0.4792	0.4796	0.4800	0.4804	0.4809	0.4814	0.4819	0.4824	0.4830	0.4836	0.4843	0.4849	0.4856	0.4864	0.4872	0.4880
76	0.4598	0.4601	0.4605	0.4609	0.4613	0.4618	0.4622	0.4627	0.4633	0.4638	0.4644	0.4650	0.4657	0.4663	0.4670	0.4678	0.4686
77	0.4406	0.4409	0.4413	0.4417	0.4421	0.4425	0.4429	0.4434	0.4439	0.4445	0.4450	0.4456	0.4462	0.4469	0.4476	0.4483	0.4490
78	0.4213	0.4216	0.4220	0.4223	0.4227	0.4231	0.4236	0.4240	0.4245	0.4250	0.4255	0.4261	0.4267	0.4273	0.4280	0.4287	0.4294
79	0.4020	0.4023	0.4026	0.4030	0.4033	0.4037	0.4041	0.4046	0.4050	0.4055	0.4060	0.4066	0.4071	0.4077	0.4084	0.4090	0.4097
80	0.3827	0.3830	0.3833	0.3837	0.3840	0.3844	0.3848	0.3852	0.3856	0.3861	0.3866	0.3871	0.3876	0.3882	0.3888	0.3894	0.3901
81	0.3636	0.3638	0.3641	0.3645	0.3648	0.3652	0.3655	0.3659	0.3663	0.3668	0.3672	0.3677	0.3682	0.3688	0.3694	0.3700	0.3706
82	0.3447	0.3449	0.3452	0.3455	0.3458	0.3462	0.3465	0.3469	0.3473	0.3477	0.3482	0.3486	0.3491	0.3496	0.3502	0.3508	0.3514
83	0.3261	0.3264	0.3266	0.3269	0.3272	0.3275	0.3279	0.3282	0.3286	0.3290	0.3294	0.3299	0.3303	0.3308	0.3313	0.3319	0.3324
84	0.3080	0.3082	0.3085	0.3087	0.3090	0.3093	0.3097	0.3100	0.3103	0.3107	0.3111	0.3115	0.3120	0.3124	0.3129	0.3134	0.3140
85	0.2904	0.2906	0.2909	0.2911	0.2914	0.2917	0.2920	0.2923	0.2926	0.2930	0.2933	0.2937	0.2942	0.2946	0.2951	0.2955	0.2960
86	0.2734	0.2736	0.2738	0.2741	0.2743	0.2746	0.2749	0.2752	0.2755	0.2758	0.2762	0.2766	0.2769	0.2774	0.2778	0.2783	0.2787
87	0.2571	0.2573	0.2575	0.2578	0.2580	0.2582	0.2585	0.2588	0.2591	0.2594	0.2597	0.2601	0.2605	0.2609	0.2613	0.2617	0.2621
88	0.2417	0.2419	0.2421	0.2423	0.2425	0.2427	0.2430	0.2433	0.2435	0.2438	0.2441	0.2445	0.2448	0.2452	0.2456	0.2460	0.2464
89	0.2272	0.2274	0.2276	0.2278	0.2280	0.2282	0.2284	0.2287	0.2290	0.2292	0.2295	0.2298	0.2302	0.2305	0.2309	0.2313	0.2317
90	0.2139	0.2140	0.2142	0.2144	0.2146	0.2148	0.2150	0.2153	0.2155	0.2158	0.2161	0.2164	0.2167	0.2170	0.2173	0.2177	0.2181
91	0.2017	0.2018	0.2020	0.2022	0.2024	0.2026	0.2028	0.2030	0.2032	0.2035	0.2037	0.2040	0.2043	0.2046	0.2049	0.2053	0.2056
92	0.1905	0.1906	0.1908	0.1910	0.1911	0.1913	0.1915	0.1917	0.1919	0.1922	0.1924	0.1927	0.1930	0.1933	0.1936	0.1939	0.1942
93	0.1801	0.1802	0.1804	0.1805	0.1807	0.1809	0.1811	0.1813	0.1815	0.1817	0.1819	0.1822	0.1824	0.1827	0.1830	0.1833	0.1836
94	0.1703	0.1705	0.1706	0.1707	0.1709	0.1711	0.1713	0.1714	0.1716	0.1718	0.1721	0.1723	0.1726	0.1728	0.1731	0.1734	0.1737
95	0.1610	0.1611	0.1612	0.1614	0.1615	0.1617	0.1618	0.1620	0.1622	0.1624	0.1626	0.1628	0.1631	0.1633	0.1636	0.1638	0.1641
96	0.1521	0.1522	0.1523	0.1525	0.1526	0.1528	0.1529	0.1531	0.1533	0.1535	0.1537	0.1539	0.1541	0.1543	0.1546	0.1548	0.1551
97	0.1436	0.1437	0.1438	0.1439	0.1441	0.1442	0.1444	0.1445	0.1447	0.1449	0.1451	0.1453	0.1455	0.1457	0.1459	0.1462	0.1464
98	0.1355	0.1356	0.1357	0.1358	0.1359	0.1361	0.1362	0.1364	0.1365	0.1367	0.1369	0.1371	0.1373	0.1375	0.1377	0.1379	0.1382
99	0.1278	0.1279	0.1280	0.1282	0.1283	0.1284	0.1285	0.1287	0.1288	0.1290	0.1292	0.1293	0.1295	0.1297	0.1299	0.1301	0.1304
100	0.1207	0.1208	0.1209	0.1210	0.1212	0.1213	0.1214	0.1215	0.1217	0.1218	0.1220	0.1222	0.1223	0.1225	0.1227	0.1229	0.1231

Montana State Retirement System
Sheriffs' Retirement System
100% Joint Life Annuity Factors with Popup
Member Mortality: PubS-2010 Healthy Retiree; Adjusted 105%Male/100%Female; Males Set Forward 1 year; MP-2021 - Projected to 2040
Contingent Mortality: PubS-2010 Contingent Survivor proj to 2021; Males Set Forward 1 year; MP-2021 - Proj to 2040
Male/Female Mix: 85% Male, 15% Female
Interest: 7.30% per year
Post-Retirement COLA: 1.50% per year
Service Retirement

Age of Member	Age of Contingent Annuitant																	
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
1	0.9947	0.9949	0.9950	0.9951	0.9953	0.9954	0.9955	0.9956	0.9958	0.9959	0.9960	0.9961	0.9962	0.9963	0.9964	0.9965	0.9966
2	0.9944	0.9945	0.9947	0.9949	0.9950	0.9951	0.9953	0.9954	0.9955	0.9956	0.9958	0.9959	0.9960	0.9961	0.9962	0.9963	0.9964
3	0.9940	0.9942	0.9943	0.9945	0.9947	0.9948	0.9950	0.9951	0.9952	0.9954	0.9955	0.9956	0.9957	0.9959	0.9960	0.9961	0.9962
4	0.9935	0.9937	0.9939	0.9941	0.9943	0.9944	0.9946	0.9948	0.9949	0.9950	0.9952	0.9953	0.9955	0.9956	0.9957	0.9958	0.9959
5	0.9931	0.9933	0.9935	0.9937	0.9938	0.9940	0.9942	0.9944	0.9945	0.9947	0.9948	0.9950	0.9951	0.9953	0.9954	0.9955	0.9957
6	0.9925	0.9927	0.9930	0.9932	0.9934	0.9936	0.9938	0.9940	0.9941	0.9943	0.9945	0.9946	0.9948	0.9949	0.9951	0.9952	0.9954
7	0.9919	0.9922	0.9924	0.9926	0.9929	0.9931	0.9933	0.9935	0.9937	0.9939	0.9940	0.9942	0.9944	0.9946	0.9947	0.9949	0.9950
8	0.9913	0.9915	0.9918	0.9920	0.9923	0.9925	0.9928	0.9930	0.9932	0.9934	0.9936	0.9938	0.9940	0.9941	0.9943	0.9945	0.9946
9	0.9905	0.9908	0.9911	0.9914	0.9917	0.9919	0.9922	0.9924	0.9926	0.9929	0.9931	0.9933	0.9935	0.9937	0.9939	0.9940	0.9942
10	0.9897	0.9901	0.9904	0.9907	0.9910	0.9912	0.9915	0.9918	0.9920	0.9923	0.9925	0.9927	0.9930	0.9932	0.9934	0.9936	0.9938
11	0.9889	0.9892	0.9896	0.9899	0.9902	0.9905	0.9908	0.9911	0.9914	0.9916	0.9919	0.9922	0.9924	0.9926	0.9929	0.9931	0.9933
12	0.9880	0.9883	0.9887	0.9891	0.9894	0.9897	0.9901	0.9904	0.9907	0.9910	0.9912	0.9915	0.9918	0.9920	0.9923	0.9925	0.9927
13	0.9870	0.9874	0.9878	0.9882	0.9885	0.9889	0.9892	0.9896	0.9899	0.9902	0.9905	0.9908	0.9911	0.9914	0.9917	0.9919	0.9922
14	0.9859	0.9863	0.9868	0.9872	0.9876	0.9880	0.9884	0.9887	0.9891	0.9894	0.9898	0.9901	0.9904	0.9907	0.9910	0.9913	0.9916
15	0.9848	0.9852	0.9857	0.9861	0.9866	0.9870	0.9874	0.9878	0.9882	0.9886	0.9890	0.9893	0.9897	0.9900	0.9903	0.9906	0.9909
16	0.9836	0.9841	0.9846	0.9850	0.9855	0.9860	0.9864	0.9869	0.9873	0.9877	0.9881	0.9885	0.9889	0.9892	0.9896	0.9899	0.9902
17	0.9823	0.9829	0.9834	0.9839	0.9844	0.9849	0.9854	0.9859	0.9863	0.9868	0.9872	0.9876	0.9880	0.9884	0.9888	0.9892	0.9895
18	0.9810	0.9816	0.9822	0.9827	0.9832	0.9838	0.9843	0.9848	0.9853	0.9858	0.9863	0.9867	0.9872	0.9876	0.9880	0.9884	0.9888
19	0.9797	0.9803	0.9808	0.9814	0.9820	0.9826	0.9831	0.9837	0.9842	0.9848	0.9853	0.9858	0.9863	0.9867	0.9872	0.9876	0.9880
20	0.9782	0.9788	0.9794	0.9800	0.9807	0.9813	0.9819	0.9825	0.9830	0.9836	0.9842	0.9847	0.9852	0.9857	0.9862	0.9867	0.9872
21	0.9766	0.9772	0.9779	0.9785	0.9792	0.9798	0.9805	0.9811	0.9817	0.9824	0.9830	0.9836	0.9841	0.9847	0.9852	0.9857	0.9862
22	0.9748	0.9755	0.9762	0.9769	0.9776	0.9783	0.9790	0.9797	0.9803	0.9810	0.9816	0.9823	0.9829	0.9835	0.9841	0.9847	0.9852
23	0.9730	0.9737	0.9744	0.9751	0.9759	0.9766	0.9773	0.9781	0.9788	0.9795	0.9802	0.9809	0.9815	0.9822	0.9828	0.9835	0.9841
24	0.9709	0.9717	0.9725	0.9732	0.9740	0.9748	0.9756	0.9763	0.9771	0.9779	0.9786	0.9793	0.9801	0.9808	0.9814	0.9821	0.9828
25	0.9688	0.9696	0.9704	0.9712	0.9720	0.9728	0.9736	0.9744	0.9753	0.9761	0.9769	0.9777	0.9784	0.9792	0.9799	0.9807	0.9814
26	0.9665	0.9673	0.9681	0.9690	0.9698	0.9707	0.9716	0.9724	0.9733	0.9741	0.9750	0.9758	0.9767	0.9775	0.9783	0.9791	0.9798
27	0.9641	0.9649	0.9658	0.9667	0.9675	0.9684	0.9693	0.9703	0.9712	0.9721	0.9730	0.9739	0.9748	0.9756	0.9765	0.9773	0.9782
28	0.9615	0.9623	0.9632	0.9642	0.9651	0.9660	0.9670	0.9679	0.9689	0.9698	0.9708	0.9718	0.9727	0.9736	0.9746	0.9755	0.9764
29	0.9587	0.9596	0.9606	0.9615	0.9625	0.9635	0.9644	0.9654	0.9664	0.9675	0.9685	0.9695	0.9705	0.9715	0.9725	0.9735	0.9744
30	0.9558	0.9567	0.9577	0.9587	0.9597	0.9607	0.9617	0.9628	0.9638	0.9649	0.9660	0.9670	0.9681	0.9692	0.9702	0.9712	0.9723
31	0.9527	0.9537	0.9547	0.9557	0.9567	0.9578	0.9588	0.9599	0.9610	0.9621	0.9633	0.9644	0.9655	0.9666	0.9678	0.9689	0.9700
32	0.9494	0.9504	0.9514	0.9525	0.9535	0.9546	0.9557	0.9569	0.9580	0.9592	0.9604	0.9615	0.9627	0.9639	0.9651	0.9663	0.9675
33	0.9460	0.9470	0.9480	0.9491	0.9502	0.9513	0.9525	0.9536	0.9548	0.9560	0.9572	0.9585	0.9597	0.9610	0.9622	0.9635	0.9647
34	0.9423	0.9433	0.9444	0.9455	0.9466	0.9478	0.9489	0.9502	0.9514	0.9526	0.9539	0.9552	0.9565	0.9578	0.9591	0.9605	0.9618
35	0.9384	0.9394	0.9405	0.9416	0.9428	0.9440	0.9452	0.9465	0.9477	0.9490	0.9504	0.9517	0.9531	0.9544	0.9558	0.9572	0.9586
36	0.9342	0.9353	0.9364	0.9376	0.9388	0.9400	0.9412	0.9425	0.9438	0.9452	0.9466	0.9480	0.9494	0.9508	0.9523	0.9537	0.9552
37	0.9298	0.9309	0.9321	0.9333	0.9345	0.9357	0.9370	0.9383	0.9397	0.9411	0.9425	0.9439	0.9454	0.9469	0.9484	0.9499	0.9515
38	0.9252	0.9263	0.9275	0.9287	0.9299	0.9312	0.9325	0.9339	0.9353	0.9367	0.9381	0.9396	0.9411	0.9427	0.9443	0.9459	0.9475
39	0.9203	0.9214	0.9226	0.9238	0.9251	0.9264	0.9277	0.9291	0.9305	0.9320	0.9335	0.9350	0.9366	0.9382	0.9398	0.9415	0.9432
40	0.9150	0.9162	0.9174	0.9186	0.9199	0.9213	0.9226	0.9240	0.9255	0.9270	0.9285	0.9301	0.9317	0.9334	0.9351	0.9368	0.9385
41	0.9095	0.9107	0.9119	0.9131	0.9145	0.9158	0.9172	0.9186	0.9201	0.9217	0.9232	0.9249	0.9265	0.9282	0.9300	0.9317	0.9335
42	0.9036	0.9048	0.9060	0.9073	0.9087	0.9100	0.9114	0.9129	0.9144	0.9160	0.9176	0.9193	0.9210	0.9227	0.9245	0.9263	0.9282
43	0.8974	0.8986	0.8998	0.9011	0.9025	0.9039	0.9053	0.9068	0.9084	0.9100	0.9116	0.9133	0.9150	0.9168	0.9187	0.9205	0.9225
44	0.8908	0.8920	0.8933	0.8946	0.8960	0.8974	0.8988	0.9003	0.9019	0.9035	0.9052	0.9069	0.9087	0.9105	0.9124	0.9144	0.9163
45	0.8841	0.8853	0.8866	0.8880	0.8893	0.8908	0.8923	0.8938	0.8954	0.8970	0.8987	0.9005	0.9023	0.9042	0.9061	0.9081	0.9101
46	0.8771	0.8783	0.8796	0.8810	0.8824	0.8838	0.8853	0.8869	0.8885	0.8902	0.8919	0.8937	0.8955	0.8974	0.8994	0.9014	0.9035
47	0.8697	0.8710	0.8723	0.8736	0.8751	0.8765	0.8780	0.8796	0.8812	0.8829	0.8847	0.8865	0.8884	0.8903	0.8923	0.8944	0.8965
48	0.8620	0.8632	0.8645	0.8659	0.8673	0.8688	0.8703	0.8719	0.8736	0.8753	0.8771	0.8789	0.8808	0.8828	0.8848	0.8869	0.8891
49	0.8538	0.8551	0.8564	0.8578	0.8592	0.8607	0.8623	0.8639	0.8655	0.8673	0.8691	0.8709	0.8729	0.8748	0.8769	0.8790	0.8812
50	0.8452	0.8465	0.8479	0.8492	0.8507	0.8522	0.8537	0.8554	0.8571	0.8588	0.8606	0.8625	0.8644	0.8665	0.8686	0.8707	0.8730
51	0.8363	0.8375	0.8389	0.8403	0.8417	0.8432	0.8448	0.8464	0.8481	0.8499	0.8517	0.8536	0.8556	0.8577	0.8598	0.8620	0.8642
52	0.8269	0.8281	0.8295	0.8309	0.8323	0.8339	0.8354	0.8371	0.8388	0.8406	0.8424	0.8443	0.8463	0.8484	0.8505	0.8527	0.8550
53	0.8170	0.8183	0.8197	0.8211	0.8225	0.8240	0.8256	0.8273	0.8290	0.8308	0.8326	0.8346	0.8366	0.8387	0.8408	0.8430	0.8454
54	0.8067	0.8080	0.8094	0.8108	0.8123	0.8138	0.8154	0.8170	0.8188	0.8206	0.8224	0.8244	0.8264	0.8285	0.8306	0.8329	0.8352
55	0.7960	0.7973	0.7987	0.8001	0.8015	0.8031	0.8047	0.8063	0.8081	0.8099	0.8117	0.8137	0.8157	0.8178	0.8200	0.8223	0.8246
56	0.7849	0.7862	0.7875	0.7889	0.7904	0.7919	0.7935	0.7952	0.7969	0.7987	0.8006	0.8026	0.8046	0.8067	0.8089	0.8112	0.8135
57	0.7733	0.7746	0.7759	0.7773	0.7788	0.7803	0.7819	0.7836	0.7853	0.7871	0.7890	0.7910	0.7930	0.7951	0.7973	0.7996	0.8020
58	0.7613	0.7625	0.7639	0.7653	0.7668	0.7683	0.7699	0.7715	0.7733	0.7751	0.7770	0.7789	0.7810	0.7831	0.7853	0.7876	0.7900
59	0.7488	0.7501	0.7514	0.7528	0.7543	0.7558	0.7574	0.7590	0.7608	0.7626	0.7645	0.7664	0.7685	0.7706	0.7728	0.7751	0.7775
60	0.7359	0.7372	0.7385	0.7399	0.7413	0.7429	0.7444	0.7461	0.7478	0.7496	0.7515	0.7535	0.7555	0.7576	0.7598	0.7621	0.7645
61	0.7226	0.7238	0.7252	0.7265	0.7280	0.7295	0.7311	0.7327	0.7344	0.7362	0.7381	0.7400	0.7421	0.7442	0.7464	0.7487	0.7511
62	0.7088	0.7101	0.7114	0.7127	0.7142	0.7157	0.7172	0.7189	0.7206	0.7223	0.7242	0.7261	0.7282	0.7303	0.7325	0.7348	0.7371
63	0.6946	0.6958	0.6971	0.6985	0.6999	0.7014	0.7029	0.7045	0.7062	0.7080	0.7098	0.7118	0.7138	0.7159	0.7181	0.7203	0.7227
64	0.6799	0.6811	0.6824	0.6837	0.6851	0.6866	0.6881	0.6897	0.6914	0.6932	0.6950	0.6969	0.6989	0.7010	0.7032	0.7054	0.7078
65	0.6647	0.6659	0.6672	0.6685	0.6699	0.6713	0.6728	0.6744	0.6761	0.6778	0.6797	0.6816	0.6835	0.6856	0.6878	0.6900	0.6923
66	0.6491	0.6503	0.6515	0.6528	0.6542	0.6556	0.6571	0.6587	0.6603	0.6620	0.6638	0.6657	0.6677	0.6697	0.6718	0.6741	0.6764
67	0.6330	0.6341	0.6353	0.6366	0.6380	0.6394	0.6408	0.6424	0.6440	0.6457	0.6475	0.6493	0.6513	0.6533	0.6554	0.6576	0.6599
68	0.6164	0.6175	0.6187	0.6200	0.6213	0.6227	0.6241	0.6256	0.6272	0.6289	0.6306	0.6325	0.6344	0.6364	0.6385	0.6406	0.6429
69	0.5994	0.6005	0.6016	0.6028	0.6041	0.6055	0.6069	0.6084	0.6100	0.6116	0.6133	0.6151	0.6170	0.6190	0.6210	0.6232	0.6254
70	0.5819	0.5829	0.5841	0.5853	0.5865	0.5878	0.5892	0.5907	0.5922	0.5938	0.5955	0.5973	0.5991	0.6011	0.6031	0.6052	0.6074
71	0.5640	0.5650	0.5661	0.5673	0.5685	0.5698	0.5711	0.5726	0.5741	0.5756	0.5773	0.5790	0.5808	0.5827	0.5847	0.5868	0.5890
72	0.5457	0.5467	0.5478	0.5489	0.5501	0.5513	0.5526	0.5540	0.5555	0.5570	0.5586	0.5603	0.5621	0.5640	0.5659	0.5679	0.5701
73	0.5270	0.5280	0.5290	0.5301	0.5313	0.5325	0.5338	0.5351	0.5366	0.5381	0.5396	0.5413	0.5430	0.5448	0.5467	0.5487	0.5508
74	0.5081	0.5090	0.5100	0.5111	0.5122	0.5134	0.5146	0.5159	0.5173	0.5188	0.5203	0.5219	0.5236	0.5253	0.5272	0.5291	0.5312
75	0.4889	0.4898	0.4907	0.4918	0.4929	0.4940	0.4952	0.4965	0.4978	0.4992	0.5007	0.5022	0.5039	0.5056	0.5074	0.5093	0.5112
76	0.4694	0.4703	0.4713	0.4722	0.4733	0.4744	0.4755	0.4768	0.4781	0.4794	0.4808	0.4823	0.4839	0.4856	0.4873	0.4892	0.4911
77	0.4499	0.4507	0.4516	0.4526	0.4536	0.4546	0.4557	0.4569	0.4581	0.4594	0.4608	0.4623	0.4638	0.4654	0.4671	0.4689	0.4707
78	0.4302	0.4310	0.4319	0.4328	0.4337	0.4347	0.4358	0.4369	0.4381	0.4394	0.4407	0.4421	0.4436	0.4451	0.4468	0.4485	0.4503
79	0.4105	0.4113	0.4121	0.4129	0.4139	0.4148	0.4159	0.4169	0.4181	0.4193	0.4206	0.4219	0.4233	0.4248	0.4264	0.4280	0.4297
80	0.3908	0.3916	0.3923	0.3932	0.3941	0.3950	0.3960	0.3970	0.3981	0.3992	0.4004	0.4017	0.4031	0.4045	0.4060	0.4076	0.4092
81	0.3713	0.3720	0.3727	0.3735	0.3744	0.3752	0.3762	0.3772	0.3782	0.3793	0.3804	0.3817	0.3830	0.3843	0.3858	0.3873	0.3889
82	0.3520	0.3527	0.3534	0.3541	0.3549	0.3558	0.3566	0.3576	0.3586	0.3596	0.3607	0.3619	0.3631	0.3644	0.3658	0.3672	0.3687
83	0.3331	0.3337	0.3344	0.3351	0.3358	0.3366	0.3375	0.3383	0.3393	0.3403	0.3413	0.3424	0.3436	0.3448	0.3461	0.3475	0.3489
84	0.3146	0.3152	0.3158	0.3165	0.3172	0.3179	0.3187	0.3196	0.3205	0.3214	0.3224	0.3234	0.3245	0.3257	0.3269	0.3282	0.3296
85	0.2966	0.2972	0.2978	0.2984	0.2991	0.2998	0.3005	0.3013	0.3022	0.3030	0.3040	0.3050	0.3060	0.3071	0.3083	0.3095	0.3108
86	0.2792	0.2798	0.2803	0.2809	0.2816	0.2823	0.2830	0.2837	0.2845	0.2853	0.2862	0.2871	0.2881	0.2892	0.2903	0.2915	0.2927
87	0.2626	0.2631	0.2637	0.2642	0.2648	0.2655	0.2661	0.2668	0.2676	0.2684	0.2692	0.2701	0.2710	0.2720	0.2730	0.2741	0.2753
88	0.2469	0.2473	0.2478	0.2484	0.2489	0.2495	0.2502	0.2508	0.2515	0.2523	0.2530	0.2539	0.2548	0.2557	0.2567	0.2577	0.2588
89	0.2321	0.2325	0.2330	0.2335	0.2340	0.2346	0.2352	0.2358	0.2365	0.2372	0.2379	0.2387	0.2395	0.2404	0.2413	0.2423	0.2433
90	0.2185	0.2189	0.2193	0.2198	0.2203	0.2208	0.2214	0.2220	0.2226	0.2233	0.2240	0.2247	0.2255	0.2263	0.2272	0.2281	0.2291
91	0.2060	0.2064	0.2068	0.2073	0.2078	0.2083	0.2088	0.2093	0.2099	0.2106	0.2112	0.2119	0.2126	0.2134	0.2142	0.2151	0.2160
92	0.1946	0.1950	0.1954	0.1958	0.1962	0.1967	0.1972	0.1977	0.1983	0.1989	0.1995	0.2001	0.2008	0.2016	0.2023	0.2032	0.2040
93	0.1840	0.1843	0.1847	0.1851	0.1855	0.1860	0.1864	0.1869	0.1875	0.1880	0.1886	0.1892	0.1899	0.1906	0.1913	0.1921	0.1929
94	0.1740	0.1743	0.1747	0.1751	0.1755	0.1759	0.1763	0.1768	0.1773	0.1778	0.1784	0.1790	0.1796	0.1803	0.1810	0.1817	0.1825
95	0.1644	0.1648	0.1651	0.1655	0.1658	0.1662	0.1666	0.1671	0.1676	0.1681	0.1686	0.1691	0.1697	0.1704	0.1710	0.1717	0.1725
96	0.1554	0.1557	0.1560	0.1563	0.1567	0.1571	0.1575	0.1579	0.1583	0.1588	0.1593	0.1598	0.1604	0.1610	0.1616	0.1623	0.1630
97	0.1467	0.1470	0.1473	0.1476	0.1479	0.1483	0.1487	0.1491	0.1495	0.1499	0.1504	0.1509	0.1514	0.1520	0.1526	0.1532	0.1539
98	0.1384	0.1387	0.1390	0.1393	0.1396	0.1399	0.1403	0.1407	0.1411	0.1415	0.1419	0.1424	0.1429	0.1434	0.1440	0.1446	0.1452
99	0.1306	0.1309	0.1311	0.1314	0.1317	0.1320	0.1324	0.1327	0.1331	0.1335	0.1339	0.1344	0.1348	0.1353	0.1359	0.1364	0.1370
100	0.1234	0.1236	0.1239	0.1241	0.1244	0.1247	0.1250	0.1254	0.1257	0.1261	0.1265	0.1269	0.1274	0.1278	0.1283	0.1288	0.1294

Montana State Retirement System
Sheriffs' Retirement System
100% Joint Life Annuity Factors with Popup
Member Mortality: PubS-2010 Healthy Retiree; Adjusted 105%Male/100%Female; Males Set Forward 1 year; MP-2021 - Projected to 2040
Contingent Mortality: PubS-2010 Contingent Survivor proj to 2021; Males Set Forward 1 year; MP-2021 - Proj to 2040
Male/Female Mix: 85% Male, 15% Female
Interest: 7.30% per year
Post-Retirement COLA: 1.50% per year
Service Retirement

Age of Member	Age of Contingent Annuitant																
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
1	0.9966	0.9967	0.9968	0.9969	0.9970	0.9971	0.9971	0.9972	0.9973	0.9974	0.9974	0.9975	0.9976	0.9976	0.9977	0.9978	0.9978
2	0.9965	0.9966	0.9967	0.9968	0.9968	0.9969	0.9970	0.9971	0.9972	0.9972	0.9973	0.9974	0.9975	0.9975	0.9976	0.9977	0.9977
3	0.9963	0.9964	0.9965	0.9966	0.9967	0.9968	0.9968	0.9969	0.9970	0.9971	0.9972	0.9973	0.9973	0.9974	0.9975	0.9976	0.9976
4	0.9960	0.9962	0.9963	0.9964	0.9965	0.9966	0.9966	0.9967	0.9968	0.9969	0.9970	0.9971	0.9972	0.9972	0.9973	0.9974	0.9975
5	0.9958	0.9959	0.9960	0.9961	0.9962	0.9963	0.9964	0.9965	0.9966	0.9967	0.9968	0.9969	0.9970	0.9971	0.9972	0.9972	0.9973
6	0.9955	0.9956	0.9957	0.9959	0.9960	0.9961	0.9962	0.9963	0.9964	0.9965	0.9966	0.9967	0.9968	0.9969	0.9970	0.9971	0.9971
7	0.9952	0.9953	0.9954	0.9956	0.9957	0.9958	0.9959	0.9960	0.9961	0.9963	0.9964	0.9965	0.9966	0.9967	0.9968	0.9969	0.9969
8	0.9948	0.9949	0.9951	0.9952	0.9954	0.9955	0.9956	0.9958	0.9959	0.9960	0.9961	0.9962	0.9963	0.9964	0.9965	0.9966	0.9967
9	0.9944	0.9946	0.9947	0.9949	0.9950	0.9952	0.9953	0.9954	0.9956	0.9957	0.9958	0.9959	0.9960	0.9962	0.9963	0.9964	0.9965
10	0.9940	0.9941	0.9943	0.9945	0.9946	0.9948	0.9949	0.9951	0.9952	0.9954	0.9955	0.9956	0.9957	0.9959	0.9960	0.9961	0.9962
11	0.9935	0.9937	0.9939	0.9940	0.9942	0.9944	0.9945	0.9947	0.9949	0.9950	0.9951	0.9953	0.9954	0.9955	0.9957	0.9958	0.9959
12	0.9930	0.9932	0.9934	0.9936	0.9938	0.9940	0.9941	0.9943	0.9945	0.9946	0.9948	0.9949	0.9951	0.9952	0.9954	0.9955	0.9956
13	0.9924	0.9926	0.9929	0.9931	0.9933	0.9935	0.9937	0.9939	0.9940	0.9942	0.9944	0.9945	0.9947	0.9949	0.9950	0.9952	0.9953
14	0.9918	0.9921	0.9923	0.9926	0.9928	0.9930	0.9932	0.9934	0.9936	0.9938	0.9940	0.9941	0.9943	0.9945	0.9946	0.9948	0.9950
15	0.9912	0.9915	0.9917	0.9920	0.9922	0.9925	0.9927	0.9929	0.9931	0.9933	0.9935	0.9937	0.9939	0.9941	0.9943	0.9944	0.9946
16	0.9905	0.9908	0.9911	0.9914	0.9917	0.9919	0.9922	0.9924	0.9927	0.9929	0.9931	0.9933	0.9935	0.9937	0.9939	0.9941	0.9942
17	0.9899	0.9902	0.9905	0.9908	0.9911	0.9914	0.9917	0.9919	0.9922	0.9924	0.9927	0.9929	0.9931	0.9933	0.9935	0.9937	0.9939
18	0.9892	0.9896	0.9899	0.9902	0.9906	0.9909	0.9912	0.9915	0.9917	0.9920	0.9922	0.9925	0.9927	0.9930	0.9932	0.9934	0.9936
19	0.9885	0.9888	0.9892	0.9896	0.9899	0.9903	0.9906	0.9909	0.9912	0.9915	0.9918	0.9921	0.9923	0.9926	0.9928	0.9930	0.9933
20	0.9876	0.9881	0.9885	0.9889	0.9893	0.9896	0.9900	0.9903	0.9907	0.9910	0.9913	0.9916	0.9919	0.9921	0.9924	0.9927	0.9929
21	0.9867	0.9872	0.9877	0.9881	0.9885	0.9889	0.9893	0.9897	0.9901	0.9904	0.9907	0.9911	0.9914	0.9917	0.9920	0.9922	0.9925
22	0.9857	0.9863	0.9868	0.9872	0.9877	0.9881	0.9886	0.9890	0.9894	0.9898	0.9901	0.9905	0.9908	0.9911	0.9915	0.9918	0.9920
23	0.9846	0.9852	0.9857	0.9863	0.9868	0.9873	0.9877	0.9882	0.9886	0.9890	0.9894	0.9898	0.9902	0.9905	0.9909	0.9912	0.9915
24	0.9834	0.9840	0.9846	0.9852	0.9857	0.9863	0.9868	0.9873	0.9878	0.9882	0.9887	0.9891	0.9895	0.9899	0.9902	0.9906	0.9910
25	0.9821	0.9827	0.9834	0.9840	0.9846	0.9852	0.9858	0.9863	0.9868	0.9873	0.9878	0.9883	0.9887	0.9891	0.9895	0.9899	0.9903
26	0.9806	0.9813	0.9820	0.9827	0.9834	0.9840	0.9846	0.9852	0.9858	0.9863	0.9869	0.9874	0.9879	0.9883	0.9888	0.9892	0.9896
27	0.9790	0.9798	0.9805	0.9813	0.9820	0.9827	0.9834	0.9840	0.9847	0.9853	0.9858	0.9864	0.9869	0.9874	0.9879	0.9884	0.9889
28	0.9772	0.9781	0.9789	0.9797	0.9805	0.9813	0.9820	0.9827	0.9834	0.9841	0.9847	0.9853	0.9859	0.9865	0.9870	0.9875	0.9880
29	0.9754	0.9763	0.9772	0.9781	0.9789	0.9797	0.9805	0.9813	0.9821	0.9828	0.9835	0.9842	0.9848	0.9854	0.9860	0.9866	0.9871
30	0.9733	0.9743	0.9753	0.9762	0.9771	0.9780	0.9789	0.9798	0.9806	0.9814	0.9821	0.9829	0.9836	0.9842	0.9849	0.9855	0.9861
31	0.9711	0.9721	0.9732	0.9742	0.9752	0.9762	0.9771	0.9781	0.9789	0.9798	0.9806	0.9814	0.9822	0.9830	0.9837	0.9844	0.9850
32	0.9686	0.9698	0.9709	0.9720	0.9731	0.9741	0.9752	0.9762	0.9771	0.9781	0.9790	0.9799	0.9807	0.9815	0.9823	0.9831	0.9838
33	0.9660	0.9672	0.9684	0.9696	0.9708	0.9719	0.9730	0.9741	0.9752	0.9762	0.9772	0.9781	0.9791	0.9800	0.9808	0.9817	0.9825
34	0.9631	0.9644	0.9657	0.9670	0.9682	0.9695	0.9707	0.9719	0.9730	0.9741	0.9752	0.9762	0.9773	0.9782	0.9792	0.9801	0.9810
35	0.9600	0.9614	0.9628	0.9641	0.9655	0.9668	0.9681	0.9694	0.9706	0.9718	0.9730	0.9741	0.9752	0.9763	0.9773	0.9783	0.9793
36	0.9566	0.9581	0.9596	0.9610	0.9625	0.9639	0.9653	0.9667	0.9680	0.9693	0.9706	0.9718	0.9730	0.9742	0.9753	0.9764	0.9775
37	0.9530	0.9546	0.9561	0.9577	0.9592	0.9607	0.9622	0.9637	0.9651	0.9665	0.9679	0.9693	0.9706	0.9718	0.9731	0.9743	0.9754
38	0.9491	0.9507	0.9524	0.9540	0.9556	0.9572	0.9588	0.9604	0.9620	0.9635	0.9650	0.9664	0.9678	0.9692	0.9706	0.9719	0.9731
39	0.9449	0.9466	0.9483	0.9500	0.9517	0.9534	0.9551	0.9568	0.9585	0.9601	0.9617	0.9633	0.9648	0.9663	0.9678	0.9692	0.9706
40	0.9403	0.9421	0.9439	0.9457	0.9475	0.9493	0.9511	0.9529	0.9547	0.9564	0.9582	0.9599	0.9615	0.9631	0.9647	0.9663	0.9678
41	0.9354	0.9372	0.9391	0.9410	0.9429	0.9448	0.9467	0.9486	0.9505	0.9524	0.9542	0.9561	0.9578	0.9596	0.9613	0.9630	0.9646
42	0.9301	0.9320	0.9340	0.9360	0.9380	0.9400	0.9420	0.9440	0.9460	0.9480	0.9500	0.9519	0.9538	0.9557	0.9576	0.9594	0.9612
43	0.9244	0.9264	0.9285	0.9305	0.9326	0.9347	0.9368	0.9389	0.9411	0.9432	0.9453	0.9473	0.9494	0.9514	0.9534	0.9554	0.9573
44	0.9184	0.9204	0.9225	0.9247	0.9268	0.9290	0.9312	0.9335	0.9357	0.9379	0.9401	0.9423	0.9445	0.9467	0.9488	0.9509	0.9530
45	0.9122	0.9143	0.9165	0.9187	0.9210	0.9232	0.9255	0.9279	0.9302	0.9325	0.9349	0.9372	0.9395	0.9419	0.9442	0.9464	0.9486
46	0.9056	0.9078	0.9101	0.9123	0.9147	0.9170	0.9194	0.9219	0.9243	0.9268	0.9292	0.9317	0.9342	0.9366	0.9391	0.9415	0.9439
47	0.8987	0.9009	0.9032	0.9056	0.9080	0.9104	0.9129	0.9154	0.9180	0.9205	0.9231	0.9257	0.9283	0.9309	0.9335	0.9361	0.9387
48	0.8913	0.8936	0.8960	0.8984	0.9008	0.9034	0.9059	0.9085	0.9112	0.9139	0.9166	0.9193	0.9220	0.9248	0.9275	0.9302	0.9330
49	0.8835	0.8859	0.8883	0.8907	0.8933	0.8958	0.8985	0.9012	0.9039	0.9067	0.9095	0.9124	0.9152	0.9181	0.9210	0.9239	0.9268
50	0.8753	0.8776	0.8801	0.8826	0.8852	0.8879	0.8906	0.8934	0.8962	0.8991	0.9020	0.9049	0.9079	0.9109	0.9140	0.9170	0.9201
51	0.8666	0.8690	0.8715	0.8740	0.8767	0.8794	0.8822	0.8850	0.8879	0.8909	0.8939	0.8970	0.9001	0.9033	0.9064	0.9097	0.9129
52	0.8574	0.8599	0.8624	0.8650	0.8677	0.8705	0.8733	0.8762	0.8792	0.8822	0.8854	0.8885	0.8918	0.8950	0.8984	0.9017	0.9051
53	0.8478	0.8502	0.8528	0.8555	0.8582	0.8610	0.8639	0.8669	0.8699	0.8731	0.8763	0.8795	0.8829	0.8863	0.8897	0.8932	0.8967
54	0.8377	0.8402	0.8428	0.8454	0.8482	0.8511	0.8540	0.8571	0.8602	0.8634	0.8666	0.8700	0.8734	0.8769	0.8805	0.8841	0.8878
55	0.8271	0.8296	0.8322	0.8349	0.8377	0.8406	0.8436	0.8467	0.8499	0.8531	0.8565	0.8599	0.8634	0.8670	0.8707	0.8745	0.8783
56	0.8160	0.8186	0.8212	0.8239	0.8268	0.8297	0.8327	0.8358	0.8390	0.8424	0.8458	0.8493	0.8529	0.8566	0.8604	0.8642	0.8682
57	0.8045	0.8070	0.8097	0.8124	0.8153	0.8182	0.8213	0.8245	0.8277	0.8311	0.8345	0.8381	0.8417	0.8455	0.8494	0.8534	0.8575
58	0.7924	0.7950	0.7977	0.8005	0.8033	0.8063	0.8094	0.8126	0.8159	0.8192	0.8227	0.8264	0.8301	0.8339	0.8379	0.8420	0.8462
59	0.7800	0.7825	0.7852	0.7880	0.7909	0.7939	0.7970	0.8002	0.8035	0.8069	0.8104	0.8141	0.8179	0.8218	0.8258	0.8300	0.8343
60	0.7670	0.7696	0.7723	0.7750	0.7779	0.7809	0.7840	0.7873	0.7906	0.7940	0.7976	0.8013	0.8051	0.8091	0.8132	0.8174	0.8218
61	0.7536	0.7561	0.7588	0.7616	0.7645	0.7675	0.7706	0.7738	0.7772	0.7806	0.7842	0.7879	0.7918	0.7958	0.8000	0.8042	0.8087
62	0.7396	0.7422	0.7449	0.7477	0.7506	0.7536	0.7567	0.7599	0.7632	0.7667	0.7703	0.7740	0.7779	0.7819	0.7861	0.7905	0.7950
63	0.7252	0.7277	0.7304	0.7332	0.7361	0.7391	0.7422	0.7454	0.7488	0.7522	0.7558	0.7596	0.7635	0.7675	0.7717	0.7761	0.7806
64	0.7102	0.7128	0.7155	0.7182	0.7211	0.7241	0.7272	0.7304	0.7337	0.7372	0.7408	0.7445	0.7484	0.7525	0.7567	0.7611	0.7657
65	0.6948	0.6973	0.7000	0.7027	0.7056	0.7085	0.7116	0.7148	0.7182	0.7216	0.7252	0.7289	0.7328	0.7369	0.7411	0.7455	0.7501
66	0.6788	0.6813	0.6839	0.6867	0.6895	0.6925	0.6955	0.6987	0.7020	0.7054	0.7090	0.7127	0.7166	0.7206	0.7248	0.7293	0.7339
67	0.6623	0.6648	0.6674	0.6701	0.6729	0.6758	0.6789	0.6820	0.6853	0.6887	0.6922	0.6959	0.6998	0.7038	0.7080	0.7124	0.7170
68	0.6453	0.6477	0.6503	0.6530	0.6558	0.6587	0.6617	0.6648	0.6680	0.6714	0.6749	0.6785	0.6823	0.6863	0.6905	0.6949	0.6995
69	0.6277	0.6302	0.6327	0.6353	0.6381	0.6410	0.6439	0.6470	0.6502	0.6535	0.6570	0.6606	0.6643	0.6683	0.6724	0.6768	0.6813
70	0.6097	0.6121	0.6146	0.6172	0.6199	0.6227	0.6257	0.6287	0.6318	0.6351	0.6385	0.6421	0.6458	0.6497	0.6538	0.6581	0.6626
71	0.5912	0.5936	0.5960	0.5986	0.6013	0.6040	0.6069	0.6099	0.6130	0.6162	0.6195	0.6230	0.6267	0.6305	0.6346	0.6388	0.6432
72	0.5723	0.5746	0.5770	0.5795	0.5821	0.5849	0.5877	0.5906	0.5937	0.5968	0.6001	0.6035	0.6071	0.6109	0.6148	0.6190	0.6234
73	0.5530	0.5552	0.5576	0.5600	0.5626	0.5653	0.5680	0.5709	0.5739	0.5770	0.5802	0.5835	0.5871	0.5908	0.5946	0.5987	0.6030
74	0.5333	0.5355	0.5378	0.5402	0.5427	0.5453	0.5480	0.5508	0.5537	0.5568	0.5599	0.5631	0.5666	0.5702	0.5740	0.5780	0.5822
75	0.5133	0.5155	0.5177	0.5201	0.5225	0.5250	0.5277	0.5304	0.5333	0.5362	0.5392	0.5424	0.5458	0.5493	0.5530	0.5569	0.5610
76	0.4931	0.4952	0.4974	0.4997	0.5020	0.5045	0.5071	0.5097	0.5125	0.5153	0.5183	0.5214	0.5247	0.5281	0.5317	0.5355	0.5395
77	0.4727	0.4747	0.4768	0.4790	0.4814	0.4838	0.4863	0.4888	0.4915	0.4943	0.4971	0.5001	0.5033	0.5066	0.5101	0.5138	0.5177
78	0.4521	0.4541	0.4562	0.4583	0.4605	0.4629	0.4653	0.4678	0.4704	0.4731	0.4758	0.4787	0.4818	0.4850	0.4884	0.4919	0.4957
79	0.4315	0.4334	0.4354	0.4375	0.4397	0.4419	0.4443	0.4467	0.4492	0.4517	0.4544	0.4572	0.4601	0.4633	0.4665	0.4700	0.4736
80	0.4110	0.4128	0.4147	0.4167	0.4188	0.4210	0.4232	0.4256	0.4280	0.4304	0.4330	0.4357	0.4385	0.4415	0.4447	0.4480	0.4515
81	0.3905	0.3923	0.3941	0.3960	0.3980	0.4001	0.4023	0.4045	0.4068	0.4092	0.4117	0.4143	0.4170	0.4198	0.4229	0.4260	0.4294
82	0.3703	0.3720	0.3738	0.3756	0.3775	0.3795	0.3816	0.3838	0.3860	0.3883	0.3906	0.3931	0.3957	0.3984	0.4013	0.4043	0.4076
83	0.3505	0.3521	0.3538	0.3555	0.3574	0.3593	0.3613	0.3633	0.3654	0.3676	0.3699	0.3722	0.3747	0.3773	0.3800	0.3830	0.3860
84	0.3311	0.3326	0.3342	0.3359	0.3376	0.3395	0.3414	0.3433	0.3453	0.3474	0.3496	0.3518	0.3541	0.3566	0.3593	0.3620	0.3650
85	0.3122	0.3137	0.3152	0.3168	0.3185	0.3202	0.3220	0.3239	0.3258	0.3278	0.3298	0.3319	0.3342	0.3365	0.3390	0.3417	0.3444
86	0.2940	0.2954	0.2968	0.2983	0.2999	0.3016	0.3033	0.3051	0.3069	0.3088	0.3107	0.3127	0.3148	0.3171	0.3194	0.3220	0.3246
87	0.2765	0.2778	0.2792	0.2806	0.2822	0.2837	0.2854	0.2871	0.2888	0.2906	0.2924	0.2943	0.2963	0.2984	0.3007	0.3030	0.3055
88	0.2600	0.2612	0.2625	0.2639	0.2653	0.2668	0.2683	0.2699	0.2716	0.2733	0.2750	0.2768	0.2787	0.2807	0.2828	0.2851	0.2874
89	0.2444	0.2456	0.2468	0.2481	0.2495	0.2509	0.2524	0.2539	0.2554	0.2570	0.2587	0.2604	0.2621	0.2640	0.2661	0.2682	0.2704
90	0.2301	0.2312	0.2324	0.2336	0.2349	0.2362	0.2376	0.2391	0.2406	0.2421	0.2436	0.2452	0.2469	0.2487	0.2506	0.2526	0.2547
91	0.2170	0.2181	0.2192	0.2203	0.2215	0.2228	0.2241	0.2255	0.2269	0.2284	0.2298	0.2313	0.2330	0.2347	0.2365	0.2384	0.2404
92	0.2050	0.2060	0.2070	0.2081	0.2093	0.2105	0.2118	0.2131	0.2144	0.2158	0.2172	0.2186	0.2201	0.2217	0.2234	0.2253	0.2272
93	0.1938	0.1947	0.1957	0.1968	0.1979	0.1990	0.2002	0.2015	0.2028	0.2041	0.2054	0.2068	0.2082	0.2097	0.2114	0.2131	0.2149
94	0.1833	0.1842	0.1851	0.1861	0.1872	0.1883	0.1894	0.1906	0.1919	0.1931	0.1943	0.1956	0.1970	0.1985	0.2000	0.2016	0.2034
95	0.1733	0.1741	0.1750	0.1759	0.1769	0.1780	0.1791	0.1802	0.1814	0.1826	0.1837	0.1850	0.1863	0.1876	0.1891	0.1906	0.1923
96	0.1637	0.1645	0.1654	0.1662	0.1672	0.1682	0.1692	0.1703	0.1714	0.1726	0.1737	0.1748	0.1761	0.1774	0.1788	0.1802	0.1818
97	0.1546	0.1553	0.1561	0.1570	0.1579	0.1588	0.1598	0.1608	0.1619	0.1630	0.1640	0.1651	0.1663	0.1675	0.1688	0.1702	0.1717
98	0.1459	0.1466	0.1473	0.1481	0.1490	0.1499	0.1508	0.1518	0.1528	0.1538	0.1548	0.1558	0.1569	0.1581	0.1594	0.1607	0.1621
99	0.1376	0.1383	0.1390	0.1398	0.1406	0.1414	0.1423	0.1432	0.1442	0.1452	0.1461	0.1471	0.1481	0.1492	0.1504	0.1517	0.1530
100	0.1300	0.1306	0.1313	0.1320	0.1328	0.1336	0.1344	0.1353	0.1362	0.1372	0.1381	0.1390	0.1400	0.1410	0.1421	0.1433	0.1446

Montana State Retirement System
Sheriffs' Retirement System
100% Joint Life Annuity Factors with Popup
Member Mortality: PubS-2010 Healthy Retiree; Adjusted 105%Male/100%Female; Males Set Forward 1 year; MP-2021 - Projected to 2040
Contingent Mortality: PubS-2010 Contingent Survivor proj to 2021; Males Set Forward 1 year; MP-2021 - Proj to 2040
Male/Female Mix: 85% Male, 15% Female
Interest: 7.30% per year
Post-Retirement COLA: 1.50% per year
Service Retirement

Age of Member	Age of Contingent Annuitant																	
	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68
1	0.9979	0.9980	0.9980	0.9981	0.9981	0.9982	0.9983	0.9983	0.9984	0.9984	0.9985	0.9986	0.9986	0.9987	0.9987	0.9988	0.9988
2	0.9978	0.9979	0.9979	0.9980	0.9981	0.9981	0.9982	0.9983	0.9983	0.9984	0.9985	0.9985	0.9986	0.9986	0.9987	0.9988	0.9988
3	0.9977	0.9978	0.9978	0.9979	0.9980	0.9980	0.9981	0.9982	0.9983	0.9983	0.9984	0.9984	0.9985	0.9986	0.9986	0.9987	0.9988
4	0.9976	0.9976	0.9977	0.9978	0.9979	0.9979	0.9980	0.9981	0.9981	0.9982	0.9983	0.9984	0.9984	0.9985	0.9986	0.9986	0.9987
5	0.9974	0.9975	0.9976	0.9976	0.9977	0.9978	0.9979	0.9980	0.9980	0.9981	0.9982	0.9982	0.9983	0.9984	0.9985	0.9985	0.9986
6	0.9972	0.9973	0.9974	0.9975	0.9976	0.9977	0.9977	0.9978	0.9979	0.9980	0.9980	0.9981	0.9982	0.9983	0.9983	0.9984	0.9985
7	0.9970	0.9971	0.9972	0.9973	0.9974	0.9975	0.9976	0.9977	0.9977	0.9978	0.9979	0.9980	0.9981	0.9981	0.9982	0.9983	0.9984
8	0.9968	0.9969	0.9970	0.9971	0.9972	0.9973	0.9974	0.9975	0.9976	0.9977	0.9977	0.9978	0.9979	0.9980	0.9981	0.9982	0.9982
9	0.9966	0.9967	0.9968	0.9969	0.9970	0.9971	0.9972	0.9973	0.9974	0.9975	0.9975	0.9976	0.9977	0.9978	0.9979	0.9980	0.9981
10	0.9963	0.9964	0.9965	0.9966	0.9968	0.9969	0.9970	0.9971	0.9972	0.9973	0.9973	0.9974	0.9975	0.9976	0.9977	0.9978	0.9979
11	0.9960	0.9962	0.9963	0.9964	0.9965	0.9966	0.9967	0.9968	0.9969	0.9970	0.9971	0.9972	0.9973	0.9974	0.9975	0.9976	0.9977
12	0.9957	0.9959	0.9960	0.9961	0.9962	0.9963	0.9965	0.9966	0.9967	0.9968	0.9969	0.9970	0.9971	0.9972	0.9973	0.9974	0.9975
13	0.9954	0.9956	0.9957	0.9958	0.9959	0.9961	0.9962	0.9963	0.9964	0.9965	0.9967	0.9968	0.9969	0.9970	0.9971	0.9972	0.9973
14	0.9951	0.9952	0.9954	0.9955	0.9957	0.9958	0.9959	0.9960	0.9962	0.9963	0.9964	0.9965	0.9966	0.9968	0.9969	0.9970	0.9971
15	0.9948	0.9949	0.9951	0.9952	0.9954	0.9955	0.9956	0.9958	0.9959	0.9960	0.9962	0.9963	0.9964	0.9965	0.9966	0.9968	0.9969
16	0.9944	0.9946	0.9947	0.9949	0.9951	0.9952	0.9954	0.9955	0.9956	0.9958	0.9959	0.9960	0.9962	0.9963	0.9964	0.9965	0.9967
17	0.9941	0.9943	0.9945	0.9946	0.9948	0.9949	0.9951	0.9953	0.9954	0.9956	0.9957	0.9958	0.9960	0.9961	0.9962	0.9964	0.9965
A 18	0.9938	0.9940	0.9942	0.9944	0.9945	0.9947	0.9949	0.9950	0.9952	0.9954	0.9955	0.9957	0.9958	0.9959	0.9961	0.9962	0.9964
g 19	0.9935	0.9937	0.9939	0.9941	0.9943	0.9945	0.9947	0.9948	0.9950	0.9952	0.9953	0.9955	0.9956	0.9958	0.9959	0.9961	0.9962
e 20	0.9931	0.9934	0.9936	0.9938	0.9940	0.9942	0.9944	0.9946	0.9948	0.9949	0.9951	0.9953	0.9955	0.9956	0.9958	0.9959	0.9961
21	0.9928	0.9930	0.9932	0.9935	0.9937	0.9939	0.9941	0.9943	0.9945	0.9947	0.9949	0.9951	0.9953	0.9954	0.9956	0.9958	0.9959
o 22	0.9923	0.9926	0.9929	0.9931	0.9933	0.9936	0.9938	0.9940	0.9942	0.9944	0.9946	0.9948	0.9950	0.9952	0.9954	0.9956	0.9957
f 23	0.9918	0.9921	0.9924	0.9927	0.9930	0.9932	0.9935	0.9937	0.9939	0.9941	0.9944	0.9946	0.9948	0.9950	0.9952	0.9954	0.9955
24	0.9913	0.9916	0.9919	0.9922	0.9925	0.9928	0.9931	0.9933	0.9936	0.9938	0.9940	0.9943	0.9945	0.9947	0.9949	0.9951	0.9953
M 25	0.9907	0.9910	0.9914	0.9917	0.9920	0.9923	0.9926	0.9929	0.9932	0.9934	0.9937	0.9939	0.9942	0.9944	0.9946	0.9948	0.9950
e 26	0.9900	0.9904	0.9908	0.9911	0.9915	0.9918	0.9921	0.9924	0.9927	0.9930	0.9933	0.9935	0.9938	0.9941	0.9943	0.9945	0.9947
m 27	0.9893	0.9897	0.9901	0.9905	0.9909	0.9913	0.9916	0.9919	0.9923	0.9926	0.9929	0.9932	0.9934	0.9937	0.9940	0.9942	0.9945
b 28	0.9885	0.9890	0.9894	0.9899	0.9903	0.9907	0.9910	0.9914	0.9918	0.9921	0.9924	0.9927	0.9930	0.9933	0.9936	0.9939	0.9941
e 29	0.9877	0.9882	0.9887	0.9891	0.9896	0.9900	0.9904	0.9908	0.9912	0.9916	0.9919	0.9923	0.9926	0.9929	0.9932	0.9935	0.9938
r 30	0.9867	0.9873	0.9878	0.9883	0.9888	0.9893	0.9897	0.9902	0.9906	0.9910	0.9914	0.9918	0.9921	0.9925	0.9928	0.9931	0.9934
31	0.9857	0.9863	0.9869	0.9874	0.9880	0.9885	0.9890	0.9895	0.9899	0.9904	0.9908	0.9912	0.9916	0.9920	0.9923	0.9927	0.9930
32	0.9845	0.9852	0.9858	0.9864	0.9870	0.9876	0.9882	0.9887	0.9892	0.9897	0.9902	0.9906	0.9910	0.9914	0.9918	0.9922	0.9926
33	0.9832	0.9840	0.9847	0.9854	0.9860	0.9866	0.9872	0.9878	0.9884	0.9889	0.9894	0.9899	0.9904	0.9908	0.9913	0.9917	0.9921
34	0.9818	0.9826	0.9834	0.9841	0.9849	0.9856	0.9862	0.9869	0.9875	0.9881	0.9886	0.9892	0.9897	0.9902	0.9906	0.9911	0.9915
35	0.9802	0.9811	0.9820	0.9828	0.9836	0.9844	0.9851	0.9858	0.9865	0.9871	0.9877	0.9883	0.9889	0.9894	0.9900	0.9905	0.9909
36	0.9785	0.9795	0.9804	0.9813	0.9822	0.9830	0.9838	0.9846	0.9853	0.9860	0.9867	0.9874	0.9880	0.9886	0.9892	0.9897	0.9903
37	0.9765	0.9776	0.9786	0.9796	0.9806	0.9815	0.9824	0.9832	0.9841	0.9848	0.9856	0.9863	0.9870	0.9876	0.9883	0.9889	0.9895
38	0.9744	0.9755	0.9767	0.9778	0.9788	0.9798	0.9808	0.9817	0.9826	0.9835	0.9843	0.9851	0.9859	0.9866	0.9873	0.9879	0.9886
39	0.9719	0.9732	0.9745	0.9757	0.9768	0.9779	0.9790	0.9800	0.9810	0.9820	0.9829	0.9837	0.9846	0.9854	0.9861	0.9869	0.9876
40	0.9692	0.9706	0.9720	0.9733	0.9746	0.9758	0.9770	0.9781	0.9792	0.9802	0.9812	0.9822	0.9831	0.9840	0.9848	0.9856	0.9864
41	0.9662	0.9678	0.9692	0.9707	0.9721	0.9734	0.9747	0.9759	0.9771	0.9783	0.9794	0.9804	0.9814	0.9824	0.9833	0.9842	0.9851
42	0.9629	0.9646	0.9662	0.9677	0.9693	0.9707	0.9721	0.9735	0.9748	0.9761	0.9773	0.9784	0.9796	0.9806	0.9817	0.9826	0.9836
43	0.9592	0.9610	0.9627	0.9645	0.9661	0.9677	0.9693	0.9708	0.9722	0.9736	0.9749	0.9762	0.9774	0.9786	0.9797	0.9808	0.9818
44	0.9550	0.9570	0.9589	0.9608	0.9626	0.9644	0.9661	0.9677	0.9693	0.9708	0.9723	0.9737	0.9750	0.9763	0.9776	0.9787	0.9799
45	0.9508	0.9530	0.9550	0.9571	0.9591	0.9610	0.9628	0.9646	0.9663	0.9680	0.9696	0.9712	0.9726	0.9741	0.9754	0.9767	0.9780
46	0.9462	0.9485	0.9508	0.9530	0.9551	0.9572	0.9592	0.9612	0.9631	0.9649	0.9667	0.9684	0.9700	0.9716	0.9731	0.9745	0.9759
47	0.9412	0.9437	0.9461	0.9485	0.9508	0.9531	0.9553	0.9574	0.9595	0.9615	0.9634	0.9653	0.9671	0.9688	0.9704	0.9720	0.9736
48	0.9357	0.9383	0.9409	0.9435	0.9460	0.9485	0.9509	0.9532	0.9555	0.9577	0.9598	0.9618	0.9638	0.9657	0.9675	0.9692	0.9709
49	0.9297	0.9325	0.9353	0.9381	0.9408	0.9435	0.9461	0.9486	0.9510	0.9534	0.9557	0.9580	0.9601	0.9622	0.9642	0.9661	0.9680
50	0.9232	0.9262	0.9292	0.9321	0.9351	0.9379	0.9407	0.9435	0.9462	0.9488	0.9513	0.9537	0.9561	0.9584	0.9606	0.9627	0.9647
51	0.9161	0.9193	0.9225	0.9257	0.9288	0.9319	0.9349	0.9379	0.9408	0.9436	0.9463	0.9490	0.9516	0.9541	0.9565	0.9588	0.9610
52	0.9085	0.9119	0.9153	0.9186	0.9220	0.9253	0.9285	0.9317	0.9349	0.9379	0.9409	0.9438	0.9466	0.9494	0.9520	0.9545	0.9570
53	0.9003	0.9039	0.9075	0.9110	0.9146	0.9181	0.9216	0.9250	0.9284	0.9317	0.9349	0.9381	0.9412	0.9441	0.9470	0.9498	0.9525
54	0.8915	0.8953	0.8991	0.9028	0.9066	0.9103	0.9141	0.9177	0.9214	0.9249	0.9284	0.9318	0.9352	0.9384	0.9415	0.9446	0.9475
55	0.8822	0.8861	0.8900	0.8940	0.8980	0.9020	0.9059	0.9098	0.9137	0.9175	0.9213	0.9250	0.9286	0.9321	0.9355	0.9388	0.9421
56	0.8722	0.8763	0.8804	0.8846	0.8887	0.8929	0.8971	0.9013	0.9054	0.9095	0.9136	0.9175	0.9214	0.9252	0.9289	0.9325	0.9360
57	0.8616	0.8659	0.8701	0.8745	0.8789	0.8833	0.8877	0.8921	0.8965	0.9008	0.9052	0.9094	0.9136	0.9177	0.9217	0.9257	0.9295
58	0.8504	0.8548	0.8593	0.8638	0.8683	0.8729	0.8776	0.8822	0.8869	0.8915	0.8961	0.9007	0.9052	0.9096	0.9139	0.9182	0.9223
59	0.8387	0.8432	0.8477	0.8524	0.8571	0.8619	0.8668	0.8717	0.8766	0.8815	0.8864	0.8912	0.8960	0.9008	0.9054	0.9100	0.9145
A 60	0.8263	0.8309	0.8356	0.8404	0.8453	0.8503	0.8553	0.8604	0.8656	0.8707	0.8759	0.8811	0.8862	0.8912	0.8962	0.9012	0.9060
g 61	0.8133	0.8180	0.8228	0.8277	0.8328	0.8379	0.8432	0.8485	0.8539	0.8593	0.8647	0.8702	0.8756	0.8810	0.8863	0.8916	0.8968
e 62	0.7996	0.8044	0.8093	0.8144	0.8196	0.8249	0.8303	0.8358	0.8414	0.8471	0.8527	0.8585	0.8642	0.8699	0.8756	0.8813	0.8868
63	0.7853	0.7902	0.7952	0.8004	0.8057	0.8111	0.8167	0.8224	0.8282	0.8340	0.8400	0.8460	0.8520	0.8580	0.8641	0.8701	0.8760
o 64	0.7704	0.7753	0.7804	0.7857	0.7911	0.7966	0.8023	0.8082	0.8141	0.8202	0.8264	0.8327	0.8390	0.8453	0.8517	0.8580	0.8643
f 65	0.7549	0.7598	0.7649	0.7702	0.7757	0.7814	0.7872	0.7932	0.7993	0.8056	0.8120	0.8185	0.8251	0.8317	0.8384	0.8451	0.8518
66	0.7386	0.7436	0.7488	0.7541	0.7597	0.7654	0.7713	0.7774	0.7837	0.7901	0.7967	0.8034	0.8102	0.8172	0.8241	0.8312	0.8382
M 67	0.7218	0.7267	0.7319	0.7373	0.7429	0.7487	0.7547	0.7609	0.7673	0.7738	0.7806	0.7875	0.7945	0.8017	0.8090	0.8163	0.8237
e 68	0.7042	0.7092	0.7144	0.7198	0.7254	0.7312	0.7373	0.7435	0.7500	0.7567	0.7636	0.7706	0.7779	0.7853	0.7928	0.8004	0.8081
m 69	0.6860	0.6910	0.6962	0.7015	0.7072	0.7130	0.7191	0.7254	0.7319	0.7387	0.7457	0.7529	0.7603	0.7679	0.7756	0.7835	0.7915
b 70	0.6673	0.6722	0.6773	0.6827	0.6883	0.6941	0.7002	0.7065	0.7131	0.7199	0.7270	0.7343	0.7418	0.7496	0.7575	0.7656	0.7739
e 71	0.6479	0.6527	0.6578	0.6631	0.6687	0.6745	0.6806	0.6869	0.6935	0.7003	0.7075	0.7148	0.7225	0.7304	0.7385	0.7468	0.7553
r 72	0.6279	0.6327	0.6378	0.6430	0.6485	0.6543	0.6603	0.6666	0.6732	0.6800	0.6872	0.6946	0.7023	0.7103	0.7185	0.7270	0.7357
73	0.6075	0.6122	0.6172	0.6223	0.6278	0.6335	0.6394	0.6457	0.6522	0.6591	0.6662	0.6736	0.6813	0.6894	0.6977	0.7063	0.7151
74	0.5866	0.5912	0.5961	0.6012	0.6065	0.6121	0.6180	0.6242	0.6307	0.6374	0.6445	0.6519	0.6597	0.6677	0.6761	0.6847	0.6937
75	0.5653	0.5698	0.5746	0.5796	0.5848	0.5903	0.5961	0.6022	0.6086	0.6153	0.6223	0.6296	0.6373	0.6454	0.6537	0.6624	0.6714
76	0.5437	0.5481	0.5527	0.5576	0.5627	0.5681	0.5738	0.5797	0.5860	0.5926	0.5995	0.6068	0.6144	0.6224	0.6307	0.6394	0.6484
77	0.5218	0.5261	0.5306	0.5353	0.5403	0.5456	0.5511	0.5569	0.5631	0.5695	0.5763	0.5835	0.5910	0.5989	0.6071	0.6158	0.6248
78	0.4997	0.5038	0.5082	0.5128	0.5176	0.5227	0.5281	0.5338	0.5398	0.5461	0.5528	0.5598	0.5672	0.5749	0.5831	0.5916	0.6005
79	0.4774	0.4814	0.4857	0.4901	0.4948	0.4998	0.5050	0.5105	0.5163	0.5225	0.5290	0.5358	0.5430	0.5506	0.5586	0.5670	0.5759
80	0.4551	0.4590	0.4631	0.4674	0.4719	0.4767	0.4818	0.4871	0.4927	0.4987	0.5050	0.5116	0.5187	0.5261	0.5339	0.5422	0.5508
81	0.4329	0.4367	0.4406	0.4447	0.4491	0.4537	0.4585	0.4637	0.4691	0.4749	0.4810	0.4874	0.4943	0.5015	0.5091	0.5171	0.5256
82	0.4109	0.4145	0.4183	0.4222	0.4264	0.4308	0.4355	0.4405	0.4457	0.4512	0.4571	0.4633	0.4699	0.4769	0.4843	0.4922	0.5004
83	0.3893	0.3927	0.3963	0.4001	0.4041	0.4083	0.4128	0.4175	0.4225	0.4279	0.4335	0.4395	0.4459	0.4526	0.4598	0.4673	0.4753
84	0.3680	0.3713	0.3747	0.3783	0.3822	0.3862	0.3905	0.3950	0.3998	0.4049	0.4103	0.4161	0.4222	0.4287	0.4356	0.4429	0.4506
85	0.3474	0.3505	0.3537	0.3572	0.3608	0.3647	0.3688	0.3731	0.3777	0.3825	0.3877	0.3932	0.3990	0.4053	0.4119	0.4189	0.4263
86	0.3274	0.3303	0.3334	0.3367	0.3402	0.3438	0.3477	0.3518	0.3562	0.3608	0.3657	0.3710	0.3766	0.3825	0.3888	0.3956	0.4027
87	0.3082	0.3110	0.3139	0.3170	0.3203	0.3238	0.3275	0.3314	0.3355	0.3399	0.3446	0.3496	0.3549	0.3606	0.3666	0.3730	0.3799
88	0.2899	0.2926	0.2954	0.2983	0.3014	0.3047	0.3082	0.3119	0.3158	0.3200	0.3245	0.3292	0.3343	0.3396	0.3454	0.3515	0.3581
89	0.2728	0.2753	0.2779	0.2807	0.2837	0.2868	0.2901	0.2936	0.2973	0.3013	0.3055	0.3100	0.3148	0.3199	0.3254	0.3313	0.3375
90	0.2570	0.2594	0.2619	0.2645	0.2673	0.2702	0.2734	0.2767	0.2802	0.2840	0.2880	0.2923	0.2969	0.3017	0.3069	0.3125	0.3185
91	0.2425	0.2448	0.2471	0.2496	0.2523	0.2551	0.2581	0.2612	0.2646	0.2682	0.2720	0.2760	0.2804	0.2850	0.2900	0.2953	0.3010
92	0.2292	0.2313	0.2336	0.2360	0.2385	0.2411	0.2440	0.2470	0.2502	0.2536	0.2572	0.2611	0.2652	0.2696	0.2744	0.2794	0.2849
93	0.2168	0.2189	0.2210	0.2233	0.2257	0.2282	0.2309	0.2337	0.2368	0.2400	0.2435	0.2471	0.2511	0.2553	0.2598	0.2647	0.2698
94	0.2052	0.2071	0.2092	0.2113	0.2136	0.2160	0.2186	0.2213	0.2242	0.2272	0.2305	0.2340	0.2378	0.2418	0.2461	0.2507	0.2557
95	0.1940	0.1959	0.1978	0.1998	0.2020	0.2043	0.2067	0.2093	0.2120	0.2150	0.2181	0.2214	0.2250	0.2288	0.2329	0.2373	0.2421
96	0.1834	0.1852	0.1870	0.1890	0.1910	0.1932	0.1955	0.1979	0.2005	0.2033	0.2063	0.2095	0.2129	0.2165	0.2204	0.2246	0.2291
97	0.1733	0.1749	0.1767	0.1785	0.1804	0.1825	0.1847	0.1870	0.1895	0.1921	0.1949	0.1980	0.2012	0.2046	0.2083	0.2123	0.2166
98	0.1636	0.1651	0.1668	0.1685	0.1704	0.1723	0.1744	0.1766	0.1789	0.1814	0.1841	0.1870	0.1900	0.1933	0.1968	0.2006	0.2047
99	0.1544	0.1559	0.1574	0.1591	0.1608	0.1627	0.1647	0.1667	0.1690	0.1713	0.1739	0.1766	0.1795	0.1826	0.1859	0.1895	0.1934
100	0.1459	0.1473	0.1488	0.1503	0.1520	0.1538	0.1556	0.1576	0.1597	0.1620	0.1644	0.1669	0.1697	0.1726	0.1758	0.1792	0.1829

Montana State Retirement System
Sheriffs' Retirement System
100% Joint Life Annuity Factors with Popup
Member Mortality: PubS-2010 Healthy Retiree; Adjusted 105%Male/100%Female; Males Set Forward 1 year; MP-2021 - Projected to 2040
Contingent Mortality: PubS-2010 Contingent Survivor proj to 2021; Males Set Forward 1 year; MP-2021 - Proj to 2040
Male/Female Mix: 85% Male, 15% Female
Interest: 7.30% per year
Post-Retirement COLA: 1.50% per year
Service Retirement

Age of Member	Age of Contingent Annuitant																	
	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
1	0.9989	0.9989	0.9990	0.9990	0.9991	0.9991	0.9992	0.9992	0.9992	0.9993	0.9993	0.9993	0.9994	0.9994	0.9994	0.9995	0.9995
2	0.9989	0.9989	0.9990	0.9990	0.9991	0.9991	0.9992	0.9992	0.9992	0.9993	0.9993	0.9994	0.9994	0.9994	0.9995	0.9995	0.9995
3	0.9988	0.9989	0.9989	0.9990	0.9990	0.9991	0.9991	0.9992	0.9992	0.9993	0.9993	0.9994	0.9994	0.9994	0.9995	0.9995	0.9995
4	0.9987	0.9988	0.9989	0.9989	0.9990	0.9990	0.9991	0.9991	0.9992	0.9992	0.9993	0.9993	0.9994	0.9994	0.9994	0.9995	0.9995
5	0.9987	0.9987	0.9988	0.9989	0.9989	0.9990	0.9990	0.9991	0.9991	0.9992	0.9992	0.9993	0.9993	0.9994	0.9994	0.9995	0.9995
6	0.9986	0.9986	0.9987	0.9988	0.9988	0.9989	0.9990	0.9990	0.9991	0.9991	0.9992	0.9992	0.9993	0.9993	0.9994	0.9994	0.9995
7	0.9985	0.9985	0.9986	0.9987	0.9987	0.9988	0.9989	0.9989	0.9990	0.9991	0.9991	0.9992	0.9992	0.9993	0.9993	0.9994	0.9994
8	0.9983	0.9984	0.9985	0.9986	0.9986	0.9987	0.9988	0.9988	0.9989	0.9990	0.9990	0.9991	0.9992	0.9992	0.9993	0.9993	0.9994
9	0.9982	0.9982	0.9983	0.9984	0.9985	0.9986	0.9986	0.9987	0.9988	0.9989	0.9989	0.9990	0.9991	0.9991	0.9992	0.9992	0.9993
10	0.9980	0.9981	0.9982	0.9983	0.9983	0.9984	0.9985	0.9986	0.9987	0.9987	0.9988	0.9989	0.9990	0.9990	0.9991	0.9992	0.9992
11	0.9978	0.9979	0.9980	0.9981	0.9982	0.9983	0.9984	0.9984	0.9985	0.9986	0.9987	0.9988	0.9988	0.9989	0.9990	0.9990	0.9991
12	0.9976	0.9977	0.9978	0.9979	0.9980	0.9981	0.9982	0.9983	0.9984	0.9985	0.9985	0.9986	0.9987	0.9988	0.9989	0.9989	0.9990
13	0.9974	0.9975	0.9976	0.9977	0.9978	0.9979	0.9980	0.9981	0.9982	0.9983	0.9984	0.9985	0.9986	0.9986	0.9987	0.9988	0.9989
14	0.9972	0.9973	0.9974	0.9975	0.9976	0.9977	0.9978	0.9979	0.9980	0.9981	0.9982	0.9983	0.9984	0.9985	0.9986	0.9987	0.9987
15	0.9970	0.9971	0.9972	0.9973	0.9974	0.9976	0.9977	0.9978	0.9979	0.9980	0.9981	0.9982	0.9983	0.9983	0.9984	0.9985	0.9986
16	0.9968	0.9969	0.9970	0.9971	0.9973	0.9974	0.9975	0.9976	0.9977	0.9978	0.9979	0.9980	0.9981	0.9982	0.9983	0.9984	0.9985
17	0.9966	0.9968	0.9969	0.9970	0.9971	0.9972	0.9974	0.9975	0.9976	0.9977	0.9978	0.9979	0.9980	0.9981	0.9982	0.9983	0.9984
18	0.9965	0.9966	0.9968	0.9969	0.9970	0.9971	0.9973	0.9974	0.9975	0.9976	0.9977	0.9978	0.9979	0.9980	0.9981	0.9982	0.9983
19	0.9964	0.9965	0.9966	0.9968	0.9969	0.9970	0.9972	0.9973	0.9974	0.9975	0.9976	0.9978	0.9979	0.9980	0.9981	0.9982	0.9983
20	0.9962	0.9964	0.9965	0.9967	0.9968	0.9969	0.9971	0.9972	0.9973	0.9974	0.9976	0.9977	0.9978	0.9979	0.9980	0.9981	0.9982
21	0.9961	0.9962	0.9964	0.9965	0.9967	0.9968	0.9970	0.9971	0.9972	0.9974	0.9975	0.9976	0.9977	0.9979	0.9980	0.9981	0.9982
22	0.9959	0.9961	0.9962	0.9964	0.9965	0.9967	0.9968	0.9970	0.9971	0.9973	0.9974	0.9975	0.9976	0.9978	0.9979	0.9980	0.9981
23	0.9957	0.9959	0.9961	0.9962	0.9964	0.9965	0.9967	0.9968	0.9970	0.9971	0.9973	0.9974	0.9975	0.9977	0.9978	0.9979	0.9980
24	0.9955	0.9957	0.9959	0.9960	0.9962	0.9964	0.9965	0.9967	0.9968	0.9970	0.9971	0.9973	0.9974	0.9976	0.9977	0.9978	0.9979
25	0.9952	0.9954	0.9956	0.9958	0.9960	0.9962	0.9963	0.9965	0.9967	0.9968	0.9970	0.9971	0.9973	0.9974	0.9976	0.9977	0.9978
26	0.9950	0.9952	0.9954	0.9956	0.9958	0.9960	0.9961	0.9963	0.9965	0.9967	0.9968	0.9970	0.9971	0.9973	0.9974	0.9976	0.9977
27	0.9947	0.9949	0.9951	0.9953	0.9956	0.9958	0.9959	0.9961	0.9963	0.9965	0.9967	0.9968	0.9970	0.9971	0.9973	0.9974	0.9976
28	0.9944	0.9946	0.9949	0.9951	0.9953	0.9955	0.9957	0.9959	0.9961	0.9963	0.9965	0.9967	0.9968	0.9970	0.9972	0.9973	0.9975
29	0.9941	0.9943	0.9946	0.9948	0.9951	0.9953	0.9955	0.9957	0.9959	0.9961	0.9963	0.9965	0.9967	0.9969	0.9970	0.9972	0.9974
30	0.9937	0.9940	0.9943	0.9946	0.9948	0.9951	0.9953	0.9955	0.9957	0.9960	0.9962	0.9964	0.9965	0.9967	0.9969	0.9971	0.9972
31	0.9933	0.9937	0.9940	0.9942	0.9945	0.9948	0.9950	0.9953	0.9955	0.9957	0.9960	0.9962	0.9964	0.9966	0.9968	0.9969	0.9971
32	0.9929	0.9933	0.9936	0.9939	0.9942	0.9945	0.9948	0.9950	0.9953	0.9955	0.9958	0.9960	0.9962	0.9964	0.9966	0.9968	0.9970
33	0.9925	0.9928	0.9932	0.9935	0.9939	0.9942	0.9945	0.9948	0.9950	0.9953	0.9955	0.9958	0.9960	0.9962	0.9965	0.9967	0.9968
34	0.9920	0.9924	0.9927	0.9931	0.9935	0.9938	0.9941	0.9944	0.9947	0.9950	0.9953	0.9956	0.9958	0.9961	0.9963	0.9965	0.9967
35	0.9914	0.9918	0.9923	0.9927	0.9930	0.9934	0.9938	0.9941	0.9944	0.9947	0.9950	0.9953	0.9956	0.9958	0.9961	0.9963	0.9965
36	0.9908	0.9912	0.9917	0.9921	0.9926	0.9930	0.9934	0.9937	0.9941	0.9944	0.9947	0.9950	0.9953	0.9956	0.9959	0.9961	0.9964
37	0.9900	0.9905	0.9911	0.9915	0.9920	0.9924	0.9929	0.9933	0.9937	0.9940	0.9944	0.9947	0.9950	0.9953	0.9956	0.9959	0.9962
38	0.9892	0.9898	0.9903	0.9909	0.9914	0.9919	0.9923	0.9928	0.9932	0.9936	0.9940	0.9943	0.9947	0.9950	0.9953	0.9956	0.9959
39	0.9882	0.9889	0.9895	0.9901	0.9906	0.9912	0.9917	0.9922	0.9926	0.9931	0.9935	0.9939	0.9943	0.9947	0.9950	0.9953	0.9956
40	0.9872	0.9879	0.9885	0.9892	0.9898	0.9904	0.9910	0.9915	0.9920	0.9925	0.9929	0.9934	0.9938	0.9942	0.9946	0.9949	0.9953
41	0.9859	0.9867	0.9874	0.9881	0.9888	0.9895	0.9901	0.9907	0.9912	0.9918	0.9923	0.9928	0.9932	0.9937	0.9941	0.9945	0.9948
42	0.9845	0.9853	0.9862	0.9869	0.9877	0.9884	0.9891	0.9897	0.9904	0.9909	0.9915	0.9920	0.9925	0.9930	0.9935	0.9939	0.9943
43	0.9828	0.9838	0.9847	0.9856	0.9864	0.9872	0.9879	0.9886	0.9893	0.9900	0.9906	0.9912	0.9917	0.9923	0.9928	0.9932	0.9937
44	0.9810	0.9820	0.9830	0.9840	0.9849	0.9857	0.9866	0.9874	0.9881	0.9888	0.9895	0.9901	0.9908	0.9913	0.9919	0.9924	0.9929
45	0.9792	0.9804	0.9815	0.9825	0.9835	0.9845	0.9854	0.9862	0.9871	0.9879	0.9886	0.9893	0.9900	0.9906	0.9912	0.9918	0.9923
46	0.9772	0.9785	0.9797	0.9809	0.9820	0.9830	0.9840	0.9850	0.9859	0.9868	0.9876	0.9884	0.9891	0.9898	0.9905	0.9911	0.9917
47	0.9750	0.9764	0.9778	0.9790	0.9803	0.9814	0.9825	0.9836	0.9846	0.9855	0.9865	0.9873	0.9881	0.9889	0.9896	0.9903	0.9910
48	0.9725	0.9741	0.9755	0.9770	0.9783	0.9796	0.9808	0.9820	0.9831	0.9842	0.9852	0.9861	0.9870	0.9879	0.9887	0.9894	0.9901
49	0.9698	0.9715	0.9731	0.9746	0.9761	0.9775	0.9789	0.9802	0.9814	0.9826	0.9837	0.9847	0.9857	0.9867	0.9876	0.9884	0.9892
50	0.9667	0.9685	0.9703	0.9720	0.9737	0.9752	0.9767	0.9781	0.9795	0.9808	0.9820	0.9832	0.9843	0.9853	0.9863	0.9872	0.9881
51	0.9632	0.9653	0.9672	0.9691	0.9709	0.9726	0.9743	0.9759	0.9774	0.9788	0.9801	0.9814	0.9826	0.9838	0.9849	0.9859	0.9869
52	0.9593	0.9616	0.9638	0.9659	0.9678	0.9698	0.9716	0.9733	0.9750	0.9765	0.9780	0.9794	0.9808	0.9821	0.9833	0.9844	0.9855
53	0.9551	0.9576	0.9600	0.9622	0.9644	0.9665	0.9685	0.9704	0.9723	0.9740	0.9757	0.9772	0.9787	0.9801	0.9815	0.9827	0.9839
54	0.9504	0.9531	0.9557	0.9582	0.9606	0.9629	0.9652	0.9673	0.9693	0.9712	0.9730	0.9748	0.9764	0.9780	0.9794	0.9808	0.9821
55	0.9452	0.9481	0.9510	0.9538	0.9564	0.9590	0.9614	0.9637	0.9660	0.9681	0.9701	0.9720	0.9738	0.9755	0.9772	0.9787	0.9801
56	0.9394	0.9427	0.9459	0.9489	0.9518	0.9546	0.9573	0.9599	0.9623	0.9646	0.9668	0.9690	0.9710	0.9729	0.9747	0.9764	0.9780
57	0.9332	0.9367	0.9402	0.9435	0.9467	0.9498	0.9527	0.9556	0.9583	0.9608	0.9633	0.9656	0.9678	0.9699	0.9719	0.9738	0.9755
58	0.9263	0.9302	0.9340	0.9376	0.9411	0.9445	0.9477	0.9508	0.9538	0.9566	0.9593	0.9619	0.9643	0.9667	0.9688	0.9709	0.9729
59	0.9189	0.9231	0.9272	0.9312	0.9350	0.9387	0.9423	0.9457	0.9489	0.9520	0.9550	0.9578	0.9605	0.9631	0.9655	0.9678	0.9699
60	0.9107	0.9153	0.9198	0.9241	0.9283	0.9324	0.9363	0.9400	0.9436	0.9470	0.9503	0.9534	0.9564	0.9592	0.9618	0.9644	0.9667
61	0.9019	0.9069	0.9117	0.9164	0.9210	0.9254	0.9297	0.9338	0.9377	0.9415	0.9451	0.9485	0.9518	0.9549	0.9578	0.9606	0.9632
62	0.8923	0.8977	0.9029	0.9080	0.9130	0.9178	0.9225	0.9270	0.9313	0.9354	0.9394	0.9431	0.9467	0.9501	0.9534	0.9565	0.9593
63	0.8819	0.8877	0.8933	0.8988	0.9042	0.9095	0.9145	0.9194	0.9242	0.9287	0.9330	0.9372	0.9412	0.9449	0.9485	0.9519	0.9551
64	0.8706	0.8768	0.8829	0.8888	0.8947	0.9003	0.9059	0.9112	0.9163	0.9213	0.9261	0.9306	0.9350	0.9391	0.9431	0.9468	0.9503
65	0.8584	0.8650	0.8715	0.8779	0.8842	0.8903	0.8963	0.9021	0.9078	0.9132	0.9184	0.9234	0.9282	0.9327	0.9371	0.9412	0.9451
66	0.8452	0.8523	0.8592	0.8660	0.8728	0.8794	0.8859	0.8922	0.8983	0.9042	0.9099	0.9154	0.9206	0.9256	0.9304	0.9349	0.9392
67	0.8311	0.8385	0.8459	0.8532	0.8604	0.8675	0.8744	0.8812	0.8879	0.8943	0.9005	0.9065	0.9122	0.9178	0.9230	0.9280	0.9327
68	0.8159	0.8237	0.8315	0.8392	0.8469	0.8545	0.8619	0.8693	0.8764	0.8834	0.8901	0.8967	0.9030	0.9090	0.9147	0.9202	0.9254
69	0.7996	0.8078	0.8160	0.8241	0.8323	0.8404	0.8483	0.8562	0.8639	0.8714	0.8787	0.8858	0.8927	0.8993	0.9056	0.9116	0.9173
70	0.7823	0.7908	0.7994	0.8079	0.8165	0.8251	0.8336	0.8420	0.8502	0.8583	0.8662	0.8739	0.8813	0.8885	0.8954	0.9020	0.9083
71	0.7639	0.7727	0.7817	0.7906	0.7996	0.8087	0.8176	0.8265	0.8354	0.8440	0.8525	0.8608	0.8688	0.8766	0.8841	0.8913	0.8982
72	0.7446	0.7536	0.7628	0.7722	0.7816	0.7910	0.8005	0.8099	0.8193	0.8285	0.8376	0.8465	0.8552	0.8636	0.8717	0.8796	0.8871
73	0.7242	0.7335	0.7430	0.7526	0.7624	0.7722	0.7821	0.7921	0.8019	0.8117	0.8214	0.8309	0.8402	0.8493	0.8581	0.8666	0.8748
74	0.7029	0.7124	0.7221	0.7320	0.7421	0.7523	0.7626	0.7730	0.7834	0.7937	0.8039	0.8141	0.8240	0.8338	0.8432	0.8524	0.8613
75	0.6807	0.6904	0.7003	0.7104	0.7207	0.7313	0.7419	0.7527	0.7636	0.7744	0.7852	0.7959	0.8065	0.8169	0.8271	0.8369	0.8465
76	0.6578	0.6675	0.6775	0.6878	0.6984	0.7092	0.7202	0.7313	0.7426	0.7539	0.7652	0.7765	0.7877	0.7987	0.8095	0.8201	0.8304
77	0.6341	0.6439	0.6540	0.6644	0.6751	0.6861	0.6973	0.7088	0.7204	0.7321	0.7440	0.7558	0.7675	0.7792	0.7907	0.8019	0.8129
78	0.6099	0.6196	0.6297	0.6402	0.6510	0.6621	0.6736	0.6853	0.6972	0.7093	0.7215	0.7338	0.7461	0.7583	0.7704	0.7824	0.7941
79	0.5851	0.5947	0.6048	0.6153	0.6261	0.6374	0.6489	0.6608	0.6730	0.6854	0.6979	0.7106	0.7234	0.7362	0.7489	0.7614	0.7738
80	0.5599	0.5695	0.5795	0.5899	0.6007	0.6119	0.6236	0.6356	0.6479	0.6605	0.6734	0.6864	0.6996	0.7128	0.7261	0.7392	0.7522
81	0.5345	0.5439	0.5538	0.5641	0.5748	0.5860	0.5976	0.6097	0.6221	0.6348	0.6479	0.6612	0.6748	0.6884	0.7021	0.7157	0.7293
82	0.5091	0.5183	0.5280	0.5381	0.5487	0.5598	0.5713	0.5833	0.5958	0.6086	0.6218	0.6353	0.6491	0.6631	0.6771	0.6912	0.7053
83	0.4838	0.4928	0.5022	0.5121	0.5225	0.5334	0.5449	0.5568	0.5692	0.5820	0.5953	0.6089	0.6228	0.6370	0.6514	0.6659	0.6804
84	0.4588	0.4675	0.4766	0.4863	0.4965	0.5072	0.5184	0.5302	0.5425	0.5552	0.5684	0.5821	0.5961	0.6105	0.6251	0.6398	0.6547
85	0.4343	0.4426	0.4515	0.4609	0.4708	0.4813	0.4923	0.5038	0.5159	0.5285	0.5416	0.5552	0.5692	0.5836	0.5984	0.6133	0.6284
86	0.4103	0.4184	0.4270	0.4360	0.4456	0.4558	0.4665	0.4778	0.4896	0.5020	0.5150	0.5284	0.5424	0.5568	0.5715	0.5866	0.6019
87	0.3872	0.3949	0.4032	0.4119	0.4212	0.4310	0.4414	0.4524	0.4640	0.4761	0.4888	0.5021	0.5159	0.5302	0.5449	0.5600	0.5753
88	0.3651	0.3725	0.3804	0.3888	0.3977	0.4072	0.4173	0.4279	0.4391	0.4510	0.4634	0.4765	0.4901	0.5042	0.5188	0.5338	0.5491
89	0.3442	0.3513	0.3589	0.3669	0.3755	0.3846	0.3943	0.4046	0.4155	0.4270	0.4392	0.4519	0.4652	0.4791	0.4936	0.5084	0.5237
90	0.3248	0.3316	0.3389	0.3466	0.3549	0.3636	0.3730	0.3829	0.3935	0.4047	0.4165	0.4289	0.4420	0.4556	0.4698	0.4845	0.4997
91	0.3071	0.3136	0.3205	0.3279	0.3359	0.3443	0.3533	0.3629	0.3731	0.3840	0.3954	0.4076	0.4203	0.4337	0.4477	0.4622	0.4772
92	0.2907	0.2969	0.3036	0.3107	0.3183	0.3264	0.3351	0.3443	0.3542	0.3647	0.3759	0.3877	0.4001	0.4132	0.4270	0.4412	0.4560
93	0.2754	0.2814	0.2877	0.2946	0.3019	0.3097	0.3180	0.3270	0.3365	0.3467	0.3575	0.3690	0.3811	0.3940	0.4074	0.4214	0.4360
94	0.2610	0.2667	0.2728	0.2793	0.2863	0.2939	0.3019	0.3105	0.3197	0.3296	0.3400	0.3512	0.3630	0.3755	0.3887	0.4025	0.4169
95	0.2471	0.2526	0.2584	0.2646	0.2714	0.2786	0.2863	0.2946	0.3034	0.3129	0.3231	0.3339	0.3454	0.3576	0.3704	0.3839	0.3980
96	0.2339	0.2391	0.2447	0.2507	0.2571	0.2640	0.2714	0.2793	0.2879	0.2970	0.3068	0.3173	0.3284	0.3402	0.3528	0.3659	0.3797
97	0.2212	0.2262	0.2315	0.2372	0.2433	0.2499	0.2570	0.2646	0.2728	0.2816	0.2910	0.3011	0.3119	0.3234	0.3355	0.3483	0.3618
98	0.2091	0.2138	0.2188	0.2243	0.2301	0.2364	0.2432	0.2505	0.2583	0.2667	0.2758	0.2855	0.2959	0.3070	0.3188	0.3312	0.3444
99	0.1975	0.2020	0.2068	0.2120	0.2176	0.2236	0.2301	0.2370	0.2445	0.2526	0.2613	0.2707	0.2807	0.2914	0.3027	0.3148	0.3276
100	0.1868	0.1911	0.1957	0.2006	0.2059	0.2116	0.2178	0.2245	0.2317	0.2394	0.2477	0.2567	0.2664	0.2767	0.2877	0.2993	0.3117

Montana State Retirement System
Sheriffs' Retirement System
100% Joint Life Annuity Factors with Popup
Member Mortality: PubS-2010 Healthy Retiree; Adjusted 105%Male/100%Female; Males Set Forward 1 year; MP-2021 - Projected to 2040
Contingent Mortality: PubS-2010 Contingent Survivor proj to 2021; Males Set Forward 1 year; MP-2021 - Proj to 2040
Male/Female Mix: 85% Male, 15% Female
Interest: 7.30% per year
Post-Retirement COLA: 1.50% per year
Service Retirement

Age of Member	Age of Contingent Annuitant 86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	0.9995	0.9995	0.9996	0.9996	0.9996	0.9996	0.9996	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9998
2	0.9995	0.9996	0.9996	0.9996	0.9996	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9998	0.9998	0.9998	0.9998
3	0.9996	0.9996	0.9996	0.9996	0.9996	0.9997	0.9997	0.9997	0.9997	0.9997	0.9998	0.9998	0.9998	0.9998	0.9998
4	0.9995	0.9996	0.9996	0.9996	0.9996	0.9997	0.9997	0.9997	0.9997	0.9997	0.9998	0.9998	0.9998	0.9998	0.9998
5	0.9995	0.9996	0.9996	0.9996	0.9996	0.9997	0.9997	0.9997	0.9997	0.9997	0.9998	0.9998	0.9998	0.9998	0.9998
6	0.9995	0.9995	0.9996	0.9996	0.9996	0.9997	0.9997	0.9997	0.9997	0.9997	0.9998	0.9998	0.9998	0.9998	0.9998
7	0.9995	0.9995	0.9995	0.9996	0.9996	0.9996	0.9997	0.9997	0.9997	0.9997	0.9997	0.9998	0.9998	0.9998	0.9998
8	0.9994	0.9995	0.9995	0.9995	0.9996	0.9996	0.9996	0.9997	0.9997	0.9997	0.9997	0.9998	0.9998	0.9998	0.9998
9	0.9994	0.9994	0.9994	0.9995	0.9995	0.9996	0.9996	0.9996	0.9997	0.9997	0.9997	0.9997	0.9997	0.9998	0.9998
10	0.9993	0.9993	0.9994	0.9994	0.9995	0.9995	0.9995	0.9996	0.9996	0.9996	0.9997	0.9997	0.9997	0.9997	0.9998
11	0.9992	0.9992	0.9993	0.9993	0.9994	0.9994	0.9995	0.9995	0.9996	0.9996	0.9996	0.9996	0.9997	0.9997	0.9997
12	0.9991	0.9991	0.9992	0.9992	0.9993	0.9994	0.9994	0.9994	0.9995	0.9995	0.9996	0.9996	0.9996	0.9997	0.9997
13	0.9989	0.9990	0.9991	0.9991	0.9992	0.9993	0.9993	0.9994	0.9994	0.9994	0.9995	0.9995	0.9996	0.9996	0.9996
14	0.9988	0.9989	0.9990	0.9990	0.9991	0.9991	0.9992	0.9993	0.9993	0.9994	0.9994	0.9994	0.9995	0.9995	0.9996
15	0.9987	0.9988	0.9988	0.9989	0.9990	0.9990	0.9991	0.9992	0.9992	0.9993	0.9993	0.9994	0.9994	0.9994	0.9995
16	0.9986	0.9986	0.9987	0.9988	0.9989	0.9989	0.9990	0.9991	0.9991	0.9992	0.9992	0.9993	0.9993	0.9994	0.9994
17	0.9985	0.9986	0.9986	0.9987	0.9988	0.9989	0.9989	0.9990	0.9990	0.9991	0.9992	0.9992	0.9993	0.9993	0.9993
Age of Member 18	0.9984	0.9985	0.9986	0.9987	0.9987	0.9988	0.9989	0.9989	0.9990	0.9991	0.9991	0.9992	0.9992	0.9993	0.9993
19	0.9984	0.9985	0.9985	0.9986	0.9987	0.9988	0.9989	0.9989	0.9990	0.9990	0.9991	0.9992	0.9992	0.9993	0.9993
20	0.9983	0.9984	0.9985	0.9986	0.9987	0.9988	0.9988	0.9989	0.9990	0.9990	0.9991	0.9991	0.9992	0.9992	0.9993
21	0.9983	0.9984	0.9985	0.9986	0.9986	0.9987	0.9988	0.9989	0.9989	0.9990	0.9991	0.9991	0.9992	0.9992	0.9993
Age of Member 22	0.9982	0.9983	0.9984	0.9985	0.9986	0.9987	0.9988	0.9988	0.9989	0.9990	0.9990	0.9991	0.9992	0.9992	0.9993
23	0.9981	0.9983	0.9984	0.9985	0.9985	0.9986	0.9987	0.9988	0.9989	0.9989	0.9990	0.9991	0.9991	0.9992	0.9992
24	0.9981	0.9982	0.9983	0.9984	0.9985	0.9986	0.9987	0.9987	0.9988	0.9989	0.9990	0.9990	0.9991	0.9991	0.9992
Age of Member 25	0.9979	0.9981	0.9982	0.9983	0.9984	0.9985	0.9986	0.9987	0.9987	0.9988	0.9989	0.9990	0.9990	0.9991	0.9991
26	0.9978	0.9980	0.9981	0.9982	0.9983	0.9984	0.9985	0.9986	0.9987	0.9988	0.9988	0.9989	0.9990	0.9990	0.9991
27	0.9977	0.9978	0.9980	0.9981	0.9982	0.9983	0.9984	0.9985	0.9986	0.9987	0.9988	0.9988	0.9989	0.9990	0.9990
28	0.9976	0.9977	0.9979	0.9980	0.9981	0.9982	0.9983	0.9984	0.9985	0.9986	0.9987	0.9988	0.9989	0.9989	0.9990
29	0.9975	0.9976	0.9978	0.9979	0.9980	0.9981	0.9983	0.9984	0.9985	0.9986	0.9986	0.9987	0.9988	0.9989	0.9989
Age of Member 30	0.9974	0.9975	0.9977	0.9978	0.9979	0.9981	0.9982	0.9983	0.9984	0.9985	0.9986	0.9987	0.9987	0.9988	0.9989
31	0.9973	0.9974	0.9976	0.9977	0.9978	0.9980	0.9981	0.9982	0.9983	0.9984	0.9985	0.9986	0.9987	0.9988	0.9988
32	0.9972	0.9973	0.9975	0.9976	0.9978	0.9979	0.9980	0.9981	0.9982	0.9984	0.9985	0.9985	0.9986	0.9987	0.9988
33	0.9970	0.9972	0.9974	0.9975	0.9977	0.9978	0.9979	0.9981	0.9982	0.9983	0.9984	0.9985	0.9986	0.9987	0.9987
34	0.9969	0.9971	0.9972	0.9974	0.9976	0.9977	0.9978	0.9980	0.9981	0.9982	0.9983	0.9984	0.9985	0.9986	0.9987
35	0.9967	0.9969	0.9971	0.9973	0.9975	0.9976	0.9978	0.9979	0.9980	0.9982	0.9983	0.9984	0.9985	0.9986	0.9987
36	0.9966	0.9968	0.9970	0.9972	0.9974	0.9975	0.9977	0.9978	0.9980	0.9981	0.9982	0.9983	0.9984	0.9985	0.9986
37	0.9964	0.9966	0.9968	0.9970	0.9972	0.9974	0.9976	0.9977	0.9979	0.9980	0.9981	0.9983	0.9984	0.9985	0.9986
38	0.9962	0.9964	0.9967	0.9969	0.9971	0.9973	0.9975	0.9976	0.9978	0.9979	0.9981	0.9982	0.9983	0.9984	0.9985
39	0.9959	0.9962	0.9964	0.9967	0.9969	0.9971	0.9973	0.9975	0.9977	0.9978	0.9980	0.9981	0.9982	0.9983	0.9985
40	0.9956	0.9959	0.9962	0.9964	0.9967	0.9969	0.9971	0.9973	0.9975	0.9977	0.9978	0.9980	0.9981	0.9983	0.9984
41	0.9952	0.9955	0.9958	0.9961	0.9964	0.9966	0.9969	0.9971	0.9973	0.9975	0.9977	0.9978	0.9980	0.9981	0.9982
42	0.9947	0.9950	0.9954	0.9957	0.9960	0.9963	0.9965	0.9968	0.9970	0.9972	0.9974	0.9976	0.9978	0.9979	0.9981
43	0.9941	0.9945	0.9948	0.9952	0.9955	0.9958	0.9961	0.9964	0.9966	0.9969	0.9971	0.9973	0.9975	0.9976	0.9978
44	0.9933	0.9938	0.9942	0.9946	0.9949	0.9952	0.9955	0.9958	0.9961	0.9964	0.9966	0.9968	0.9970	0.9972	0.9974
45	0.9928	0.9933	0.9937	0.9941	0.9945	0.9949	0.9952	0.9955	0.9958	0.9961	0.9964	0.9966	0.9968	0.9970	0.9972
46	0.9922	0.9927	0.9932	0.9937	0.9941	0.9945	0.9949	0.9952	0.9955	0.9958	0.9961	0.9964	0.9966	0.9968	0.9970
47	0.9916	0.9921	0.9927	0.9932	0.9936	0.9941	0.9945	0.9948	0.9952	0.9955	0.9958	0.9961	0.9963	0.9966	0.9968
48	0.9908	0.9914	0.9920	0.9926	0.9931	0.9935	0.9940	0.9944	0.9948	0.9951	0.9955	0.9958	0.9961	0.9963	0.9966
49	0.9899	0.9906	0.9913	0.9919	0.9924	0.9929	0.9934	0.9939	0.9943	0.9947	0.9951	0.9954	0.9957	0.9960	0.9963
50	0.9889	0.9897	0.9904	0.9911	0.9917	0.9923	0.9928	0.9933	0.9938	0.9942	0.9946	0.9950	0.9953	0.9956	0.9959
51	0.9878	0.9886	0.9894	0.9902	0.9908	0.9915	0.9921	0.9926	0.9931	0.9936	0.9941	0.9945	0.9949	0.9952	0.9955
52	0.9865	0.9874	0.9883	0.9891	0.9899	0.9906	0.9912	0.9919	0.9924	0.9930	0.9935	0.9939	0.9943	0.9947	0.9951
53	0.9850	0.9860	0.9870	0.9879	0.9888	0.9896	0.9903	0.9910	0.9916	0.9922	0.9928	0.9933	0.9937	0.9942	0.9946
54	0.9834	0.9845	0.9856	0.9866	0.9875	0.9884	0.9892	0.9900	0.9907	0.9913	0.9920	0.9925	0.9930	0.9935	0.9940
55	0.9815	0.9828	0.9840	0.9851	0.9861	0.9871	0.9880	0.9889	0.9896	0.9904	0.9910	0.9917	0.9922	0.9928	0.9933
56	0.9795	0.9809	0.9822	0.9834	0.9846	0.9857	0.9867	0.9876	0.9885	0.9893	0.9900	0.9907	0.9914	0.9920	0.9925
57	0.9772	0.9787	0.9802	0.9816	0.9828	0.9840	0.9851	0.9862	0.9872	0.9880	0.9889	0.9897	0.9904	0.9910	0.9916
58	0.9747	0.9764	0.9780	0.9795	0.9809	0.9823	0.9835	0.9846	0.9857	0.9867	0.9876	0.9885	0.9893	0.9900	0.9907
59	0.9720	0.9739	0.9756	0.9773	0.9789	0.9803	0.9817	0.9829	0.9841	0.9852	0.9862	0.9872	0.9881	0.9889	0.9896
Age of Member 60	0.9690	0.9711	0.9730	0.9749	0.9766	0.9782	0.9797	0.9811	0.9824	0.9836	0.9847	0.9858	0.9868	0.9877	0.9885
61	0.9657	0.9680	0.9702	0.9722	0.9741	0.9759	0.9775	0.9791	0.9805	0.9819	0.9831	0.9843	0.9853	0.9863	0.9872
62	0.9621	0.9646	0.9670	0.9693	0.9714	0.9733	0.9752	0.9769	0.9785	0.9799	0.9813	0.9826	0.9838	0.9849	0.9859
63	0.9581	0.9609	0.9635	0.9660	0.9683	0.9705	0.9725	0.9744	0.9762	0.9778	0.9793	0.9808	0.9821	0.9833	0.9844
Age of Member 64	0.9537	0.9568	0.9597	0.9624	0.9650	0.9674	0.9696	0.9717	0.9737	0.9755	0.9772	0.9787	0.9802	0.9815	0.9827
65	0.9488	0.9522	0.9554	0.9585	0.9613	0.9640	0.9664	0.9687	0.9709	0.9729	0.9748	0.9765	0.9781	0.9796	0.9809
66	0.9433	0.9471	0.9507	0.9540	0.9572	0.9601	0.9628	0.9654	0.9678	0.9700	0.9721	0.9740	0.9758	0.9774	0.9789
Age of Member 67	0.9372	0.9414	0.9454	0.9491	0.9525	0.9558	0.9588	0.9617	0.9643	0.9668	0.9691	0.9712	0.9731	0.9750	0.9766
68	0.9304	0.9350	0.9394	0.9435	0.9473	0.9509	0.9543	0.9575	0.9604	0.9631	0.9657	0.9680	0.9702	0.9722	0.9741
69	0.9227	0.9279	0.9327	0.9372	0.9415	0.9455	0.9492	0.9527	0.9560	0.9590	0.9618	0.9644	0.9669	0.9691	0.9712
70	0.9142	0.9199	0.9252	0.9302	0.9349	0.9394	0.9435	0.9474	0.9510	0.9543	0.9575	0.9604	0.9631	0.9656	0.9679
71	0.9048	0.9110	0.9168	0.9224	0.9276	0.9325	0.9371	0.9414	0.9454	0.9491	0.9526	0.9558	0.9588	0.9616	0.9642
Age of Member 72	0.8942	0.9011	0.9075	0.9136	0.9194	0.9248	0.9298	0.9346	0.9390	0.9432	0.9471	0.9507	0.9540	0.9571	0.9600
73	0.8826	0.8901	0.8972	0.9039	0.9102	0.9161	0.9218	0.9270	0.9320	0.9366	0.9409	0.9449	0.9486	0.9521	0.9552
74	0.8698	0.8779	0.8857	0.8930	0.9000	0.9065	0.9127	0.9186	0.9240	0.9291	0.9339	0.9384	0.9425	0.9463	0.9499
75	0.8557	0.8646	0.8730	0.8810	0.8887	0.8959	0.9027	0.9091	0.9151	0.9208	0.9261	0.9311	0.9357	0.9399	0.9439
76	0.8403	0.8499	0.8591	0.8678	0.8761	0.8840	0.8915	0.8986	0.9053	0.9115	0.9174	0.9229	0.9280	0.9327	0.9371
77	0.8236	0.8339	0.8438	0.8533	0.8624	0.8710	0.8792	0.8869	0.8942	0.9011	0.9076	0.9137	0.9194	0.9246	0.9295
78	0.8054	0.8165	0.8272	0.8374	0.8472	0.8566	0.8655	0.8740	0.8820	0.8896	0.8968	0.9035	0.9097	0.9156	0.9210
79	0.7859	0.7977	0.8091	0.8201	0.8307	0.8408	0.8505	0.8598	0.8685	0.8769	0.8847	0.8921	0.8990	0.9054	0.9114
80	0.7650	0.7775	0.7896	0.8014	0.8127	0.8237	0.8341	0.8441	0.8537	0.8628	0.8714	0.8795	0.8871	0.8942	0.9008
81	0.7427	0.7559	0.7687	0.7812	0.7933	0.8050	0.8163	0.8271	0.8374	0.8473	0.8566	0.8655	0.8738	0.8816	0.8889
82	0.7193	0.7331	0.7466	0.7598	0.7726	0.7851	0.7971	0.8087	0.8198	0.8305	0.8406	0.8502	0.8593	0.8679	0.8759
83	0.6948	0.7092	0.7233	0.7371	0.7507	0.7638	0.7766	0.7890	0.8009	0.8123	0.8233	0.8337	0.8436	0.8529	0.8616
84	0.6696	0.6844	0.6990	0.7134	0.7276	0.7414	0.7549	0.7680	0.7807	0.7929	0.8047	0.8159	0.8265	0.8366	0.8461
85	0.6436	0.6588	0.6739	0.6889	0.7036	0.7180	0.7322	0.7460	0.7594	0.7723	0.7848	0.7968	0.8083	0.8191	0.8294
86	0.6173	0.6328	0.6483	0.6636	0.6788	0.6938	0.7085	0.7229	0.7370	0.7507	0.7639	0.7766	0.7888	0.8005	0.8115
87	0.5909	0.6066	0.6223	0.6380	0.6536	0.6690	0.6842	0.6992	0.7138	0.7282	0.7421	0.7555	0.7684	0.7808	0.7926
88	0.5647	0.5806	0.5965	0.6124	0.6283	0.6440	0.6596	0.6751	0.6902	0.7051	0.7196	0.7337	0.7473	0.7603	0.7728
89	0.5393	0.5551	0.5711	0.5872	0.6033	0.6193	0.6353	0.6511	0.6667	0.6820	0.6970	0.7117	0.7259	0.7395	0.7526
90	0.5152	0.5310	0.5470	0.5632	0.5794	0.5956	0.6118	0.6279	0.6438	0.6596	0.6751	0.6902	0.7049	0.7191	0.7328
91	0.4926	0.5083	0.5243	0.5405	0.5568	0.5732	0.5896	0.6059	0.6221	0.6382	0.6541	0.6696	0.6848	0.6995	0.7137
92	0.4713	0.4870	0.5029	0.5191	0.5355	0.5519	0.5684	0.5850	0.6015	0.6178	0.6340	0.6500	0.6656	0.6807	0.6954
93	0.4511	0.4667	0.4825	0.4987	0.5150	0.5316	0.5482	0.5649	0.5816	0.5982	0.6147	0.6310	0.6469	0.6625	0.6776
94	0.4318	0.4471	0.4629	0.4790	0.4953	0.5118	0.5285	0.5453	0.5622	0.5790	0.5958	0.6124	0.6287	0.6446	0.6601
95	0.4127	0.4278	0.4434	0.4594	0.4756	0.4921	0.5088	0.5257	0.5426	0.5597	0.5766	0.5935	0.6101	0.6264	0.6423
96	0.3941	0.4091	0.4245	0.4403	0.4564	0.4728	0.4895	0.5064	0.5234	0.5405	0.5577	0.5747	0.5916	0.6082	0.6244
97	0.3759	0.3906	0.4057	0.4213	0.4373	0.4536	0.4701	0.4870	0.5040	0.5212	0.5385	0.5557	0.5728	0.5896	0.6062
98	0.3581	0.3725	0.3873	0.4027	0.4184	0.4345	0.4510	0.4677	0.4847	0.5019	0.5192	0.5366	0.5538	0.5709	0.5876
99	0.3410	0.3550	0.3695	0.3846	0.4001	0.4159	0.4322	0.4488	0.4657	0.4829	0.5002	0.5176	0.5349	0.5521	0.5691
100	0.3248	0.3384	0.3526	0.3673	0.3825	0.3982	0.4142	0.4307	0.4474	0.4645	0.4818	0.4992	0.5166	0.5339	0.5510

Montana State Retirement System
Sheriffs' Retirement System
100% Joint Life Annuity Factors with Popup
Member Mortality: PubS-2010 Disabled Retiree; Males Set Forward 1 year, MP-2021 - Projected to 2021
Contingent Mortality: PubS-2010 Contingent Survivor proj to 2021; Males Set Forward 1 year; MP-2021 - Proj to 2040
Male/Female Mix: 85% Male, 15% Female
Interest: 7.30% per year
Post-Retirement COLA: 1.50% per year
Disability Retirement

Age of Member	Age of Contingent Annuitant																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	0.9842	0.9844	0.9847	0.9850	0.9852	0.9855	0.9858	0.9860	0.9863	0.9865	0.9868	0.9871	0.9873	0.9876	0.9878	0.9880	0.9883
2	0.9831	0.9834	0.9837	0.9840	0.9842	0.9845	0.9848	0.9851	0.9853	0.9856	0.9859	0.9862	0.9864	0.9867	0.9870	0.9872	0.9875
3	0.9820	0.9823	0.9825	0.9828	0.9831	0.9834	0.9837	0.9840	0.9843	0.9846	0.9849	0.9852	0.9855	0.9857	0.9860	0.9863	0.9866
4	0.9807	0.9810	0.9813	0.9816	0.9819	0.9822	0.9826	0.9829	0.9832	0.9835	0.9838	0.9841	0.9844	0.9847	0.9850	0.9853	0.9856
5	0.9794	0.9797	0.9800	0.9803	0.9806	0.9810	0.9813	0.9816	0.9820	0.9823	0.9826	0.9829	0.9833	0.9836	0.9839	0.9842	0.9845
6	0.9780	0.9783	0.9786	0.9789	0.9793	0.9796	0.9800	0.9803	0.9806	0.9810	0.9813	0.9817	0.9820	0.9824	0.9827	0.9830	0.9834
7	0.9765	0.9768	0.9771	0.9775	0.9778	0.9781	0.9785	0.9789	0.9792	0.9796	0.9800	0.9803	0.9807	0.9810	0.9814	0.9818	0.9821
8	0.9749	0.9752	0.9755	0.9759	0.9762	0.9766	0.9770	0.9773	0.9777	0.9781	0.9785	0.9789	0.9793	0.9796	0.9800	0.9804	0.9808
9	0.9731	0.9735	0.9738	0.9742	0.9746	0.9749	0.9753	0.9757	0.9761	0.9765	0.9769	0.9773	0.9777	0.9781	0.9785	0.9789	0.9793
10	0.9713	0.9716	0.9720	0.9724	0.9728	0.9732	0.9736	0.9739	0.9744	0.9748	0.9752	0.9756	0.9761	0.9765	0.9769	0.9773	0.9778
11	0.9693	0.9697	0.9701	0.9705	0.9709	0.9713	0.9717	0.9721	0.9725	0.9729	0.9734	0.9738	0.9743	0.9747	0.9752	0.9756	0.9761
12	0.9673	0.9677	0.9680	0.9684	0.9689	0.9693	0.9697	0.9701	0.9706	0.9710	0.9715	0.9719	0.9724	0.9729	0.9733	0.9738	0.9743
13	0.9651	0.9655	0.9659	0.9663	0.9667	0.9672	0.9676	0.9680	0.9685	0.9690	0.9694	0.9699	0.9704	0.9709	0.9714	0.9719	0.9724
14	0.9628	0.9632	0.9636	0.9640	0.9645	0.9649	0.9654	0.9658	0.9663	0.9668	0.9673	0.9677	0.9683	0.9688	0.9693	0.9698	0.9704
15	0.9603	0.9608	0.9612	0.9616	0.9621	0.9625	0.9630	0.9635	0.9640	0.9645	0.9650	0.9655	0.9660	0.9665	0.9671	0.9676	0.9682
16	0.9578	0.9583	0.9587	0.9591	0.9596	0.9601	0.9606	0.9611	0.9616	0.9621	0.9626	0.9631	0.9637	0.9642	0.9648	0.9654	0.9659
17	0.9552	0.9557	0.9561	0.9566	0.9570	0.9575	0.9580	0.9585	0.9591	0.9596	0.9601	0.9607	0.9612	0.9618	0.9624	0.9630	0.9636
18	0.9531	0.9535	0.9540	0.9544	0.9549	0.9554	0.9559	0.9565	0.9570	0.9576	0.9581	0.9587	0.9593	0.9599	0.9605	0.9611	0.9617
19	0.9509	0.9514	0.9518	0.9523	0.9528	0.9533	0.9539	0.9544	0.9550	0.9555	0.9561	0.9567	0.9573	0.9579	0.9585	0.9592	0.9599
20	0.9487	0.9492	0.9496	0.9501	0.9506	0.9512	0.9517	0.9522	0.9528	0.9534	0.9540	0.9546	0.9552	0.9559	0.9565	0.9572	0.9579
21	0.9463	0.9468	0.9473	0.9478	0.9483	0.9489	0.9494	0.9500	0.9506	0.9512	0.9518	0.9524	0.9530	0.9537	0.9544	0.9551	0.9558
22	0.9438	0.9443	0.9448	0.9453	0.9459	0.9464	0.9470	0.9475	0.9481	0.9488	0.9494	0.9500	0.9507	0.9514	0.9521	0.9528	0.9536
23	0.9412	0.9417	0.9422	0.9427	0.9432	0.9438	0.9444	0.9450	0.9456	0.9462	0.9469	0.9475	0.9482	0.9489	0.9496	0.9504	0.9512
24	0.9384	0.9389	0.9394	0.9399	0.9405	0.9410	0.9416	0.9422	0.9429	0.9435	0.9442	0.9448	0.9456	0.9463	0.9470	0.9478	0.9486
25	0.9354	0.9359	0.9365	0.9370	0.9376	0.9381	0.9387	0.9394	0.9400	0.9406	0.9413	0.9420	0.9427	0.9435	0.9442	0.9450	0.9459
26	0.9324	0.9329	0.9334	0.9340	0.9345	0.9351	0.9357	0.9364	0.9370	0.9377	0.9384	0.9391	0.9398	0.9406	0.9414	0.9422	0.9430
27	0.9292	0.9297	0.9303	0.9308	0.9314	0.9320	0.9326	0.9333	0.9339	0.9346	0.9353	0.9360	0.9368	0.9376	0.9384	0.9392	0.9401
28	0.9259	0.9264	0.9270	0.9275	0.9281	0.9287	0.9294	0.9300	0.9307	0.9314	0.9321	0.9329	0.9336	0.9344	0.9352	0.9361	0.9370
29	0.9225	0.9230	0.9236	0.9241	0.9247	0.9254	0.9260	0.9267	0.9273	0.9281	0.9288	0.9296	0.9303	0.9312	0.9320	0.9329	0.9338
30	0.9189	0.9195	0.9200	0.9206	0.9212	0.9218	0.9225	0.9232	0.9239	0.9246	0.9253	0.9261	0.9269	0.9277	0.9286	0.9295	0.9304
31	0.9152	0.9158	0.9164	0.9169	0.9175	0.9182	0.9188	0.9195	0.9202	0.9210	0.9217	0.9225	0.9233	0.9242	0.9250	0.9260	0.9269
32	0.9114	0.9120	0.9125	0.9131	0.9137	0.9144	0.9150	0.9157	0.9165	0.9172	0.9180	0.9188	0.9196	0.9205	0.9214	0.9223	0.9233
33	0.9074	0.9079	0.9085	0.9091	0.9097	0.9104	0.9111	0.9118	0.9125	0.9133	0.9140	0.9149	0.9157	0.9166	0.9175	0.9184	0.9194
34	0.9032	0.9038	0.9043	0.9049	0.9056	0.9062	0.9069	0.9076	0.9084	0.9091	0.9099	0.9107	0.9116	0.9125	0.9134	0.9144	0.9154
35	0.8988	0.8994	0.9000	0.9006	0.9012	0.9019	0.9025	0.9033	0.9040	0.9048	0.9056	0.9064	0.9073	0.9082	0.9091	0.9101	0.9111
36	0.8942	0.8948	0.8954	0.8960	0.8966	0.8973	0.8980	0.8987	0.8994	0.9002	0.9010	0.9019	0.9028	0.9037	0.9046	0.9056	0.9067
37	0.8894	0.8899	0.8905	0.8911	0.8918	0.8925	0.8932	0.8939	0.8946	0.8954	0.8963	0.8971	0.8980	0.8989	0.8999	0.9009	0.9020
38	0.8843	0.8849	0.8854	0.8861	0.8867	0.8874	0.8881	0.8888	0.8896	0.8904	0.8912	0.8921	0.8930	0.8939	0.8949	0.8959	0.8970
39	0.8789	0.8795	0.8801	0.8807	0.8814	0.8821	0.8828	0.8835	0.8843	0.8851	0.8859	0.8868	0.8877	0.8887	0.8896	0.8907	0.8918
40	0.8733	0.8739	0.8745	0.8751	0.8758	0.8764	0.8771	0.8779	0.8787	0.8795	0.8803	0.8812	0.8821	0.8831	0.8841	0.8851	0.8862
41	0.8673	0.8679	0.8685	0.8692	0.8698	0.8705	0.8712	0.8720	0.8727	0.8736	0.8744	0.8753	0.8762	0.8772	0.8782	0.8793	0.8804
42	0.8611	0.8617	0.8623	0.8629	0.8636	0.8643	0.8650	0.8657	0.8665	0.8673	0.8682	0.8691	0.8700	0.8710	0.8720	0.8731	0.8742
43	0.8545	0.8551	0.8557	0.8563	0.8570	0.8577	0.8584	0.8591	0.8599	0.8608	0.8616	0.8625	0.8635	0.8644	0.8655	0.8665	0.8677
44	0.8475	0.8481	0.8487	0.8494	0.8500	0.8507	0.8515	0.8522	0.8530	0.8538	0.8547	0.8556	0.8565	0.8575	0.8586	0.8596	0.8608
45	0.8402	0.8408	0.8414	0.8421	0.8427	0.8434	0.8442	0.8449	0.8457	0.8466	0.8474	0.8483	0.8493	0.8503	0.8513	0.8524	0.8535
46	0.8326	0.8332	0.8338	0.8344	0.8351	0.8358	0.8365	0.8373	0.8381	0.8389	0.8398	0.8407	0.8416	0.8426	0.8436	0.8447	0.8459
47	0.8246	0.8251	0.8257	0.8264	0.8270	0.8277	0.8285	0.8292	0.8300	0.8309	0.8317	0.8327	0.8336	0.8346	0.8356	0.8367	0.8379
48	0.8162	0.8167	0.8173	0.8180	0.8186	0.8193	0.8201	0.8208	0.8216	0.8225	0.8233	0.8243	0.8252	0.8262	0.8272	0.8283	0.8295
49	0.8074	0.8080	0.8086	0.8092	0.8099	0.8106	0.8113	0.8120	0.8129	0.8137	0.8146	0.8155	0.8164	0.8174	0.8185	0.8196	0.8207
50	0.7983	0.7989	0.7995	0.8001	0.8007	0.8014	0.8021	0.8029	0.8037	0.8045	0.8054	0.8063	0.8073	0.8083	0.8093	0.8104	0.8116
51	0.7888	0.7894	0.7899	0.7905	0.7912	0.7919	0.7926	0.7933	0.7941	0.7950	0.7958	0.7968	0.7977	0.7987	0.7998	0.8009	0.8020
52	0.7789	0.7794	0.7800	0.7806	0.7812	0.7819	0.7826	0.7834	0.7841	0.7850	0.7858	0.7868	0.7877	0.7887	0.7898	0.7909	0.7920
53	0.7686	0.7691	0.7697	0.7703	0.7709	0.7715	0.7722	0.7730	0.7738	0.7746	0.7755	0.7764	0.7773	0.7783	0.7794	0.7805	0.7816
54	0.7579	0.7584	0.7590	0.7596	0.7602	0.7608	0.7615	0.7622	0.7630	0.7638	0.7647	0.7656	0.7665	0.7675	0.7685	0.7697	0.7708
55	0.7469	0.7474	0.7479	0.7485	0.7491	0.7497	0.7504	0.7511	0.7519	0.7527	0.7535	0.7544	0.7553	0.7563	0.7574	0.7585	0.7596
56	0.7355	0.7360	0.7365	0.7370	0.7376	0.7383	0.7389	0.7396	0.7404	0.7412	0.7420	0.7429	0.7438	0.7448	0.7458	0.7469	0.7480
57	0.7238	0.7242	0.7248	0.7253	0.7259	0.7265	0.7271	0.7278	0.7285	0.7293	0.7301	0.7310	0.7319	0.7329	0.7339	0.7350	0.7361
58	0.7117	0.7122	0.7127	0.7132	0.7138	0.7144	0.7150	0.7157	0.7164	0.7172	0.7180	0.7188	0.7197	0.7207	0.7217	0.7228	0.7239
59	0.6994	0.6999	0.7004	0.7009	0.7015	0.7020	0.7027	0.7033	0.7040	0.7047	0.7055	0.7064	0.7072	0.7082	0.7092	0.7102	0.7114
60	0.6869	0.6873	0.6878	0.6883	0.6888	0.6894	0.6900	0.6906	0.6913	0.6920	0.6928	0.6936	0.6945	0.6954	0.6964	0.6974	0.6985
61	0.6740	0.6744	0.6749	0.6754	0.6759	0.6764	0.6770	0.6777	0.6783	0.6790	0.6798	0.6806	0.6814	0.6823	0.6832	0.6843	0.6854
62	0.6608	0.6612	0.6617	0.6621	0.6626	0.6632	0.6638	0.6644	0.6650	0.6657	0.6664	0.6672	0.6680	0.6689	0.6698	0.6708	0.6719
63	0.6473	0.6477	0.6482	0.6486	0.6491	0.6496	0.6502	0.6508	0.6514	0.6521	0.6528	0.6535	0.6543	0.6552	0.6561	0.6571	0.6581
64	0.6335	0.6339	0.6343	0.6347	0.6352	0.6357	0.6362	0.6368	0.6374	0.6380	0.6387	0.6395	0.6402	0.6411	0.6419	0.6429	0.6440
65	0.6193	0.6197	0.6200	0.6204	0.6209	0.6214	0.6219	0.6224	0.6230	0.6236	0.6243	0.6250	0.6258	0.6266	0.6274	0.6284	0.6294
66	0.6047	0.6050	0.6054	0.6058	0.6062	0.6066	0.6071	0.6077	0.6082	0.6088	0.6095	0.6101	0.6109	0.6116	0.6125	0.6134	0.6144
67	0.5896	0.5900	0.5903	0.5907	0.5911	0.5915	0.5920	0.5925	0.5930	0.5936	0.5942	0.5948	0.5955	0.5963	0.5971	0.5980	0.5990
68	0.5741	0.5744	0.5748	0.5751	0.5755	0.5759	0.5763	0.5768	0.5773	0.5779	0.5784	0.5791	0.5797	0.5805	0.5812	0.5821	0.5831
69	0.5582	0.5585	0.5588	0.5591	0.5595	0.5599	0.5603	0.5607	0.5612	0.5617	0.5623	0.5629	0.5635	0.5642	0.5649	0.5658	0.5667
70	0.5417	0.5420	0.5424	0.5427	0.5430	0.5434	0.5438	0.5442	0.5446	0.5451	0.5456	0.5462	0.5468	0.5474	0.5481	0.5490	0.5499
71	0.5249	0.5252	0.5255	0.5258	0.5262	0.5265	0.5269	0.5273	0.5277	0.5281	0.5286	0.5291	0.5297	0.5303	0.5310	0.5318	0.5327
72	0.5077	0.5080	0.5083	0.5086	0.5089	0.5093	0.5096	0.5100	0.5104	0.5108	0.5112	0.5117	0.5122	0.5128	0.5134	0.5142	0.5151
73	0.4903	0.4905	0.4908	0.4911	0.4914	0.4917	0.4921	0.4924	0.4928	0.4931	0.4935	0.4940	0.4945	0.4950	0.4956	0.4963	0.4972
74	0.4726	0.4729	0.4731	0.4734	0.4737	0.4740	0.4743	0.4746	0.4750	0.4753	0.4757	0.4761	0.4765	0.4770	0.4775	0.4783	0.4791
75	0.4548	0.4551	0.4553	0.4556	0.4559	0.4562	0.4565	0.4568	0.4571	0.4574	0.4577	0.4581	0.4585	0.4589	0.4594	0.4601	0.4609
76	0.4370	0.4372	0.4375	0.4377	0.4380	0.4383	0.4386	0.4388	0.4391	0.4394	0.4398	0.4401	0.4404	0.4408	0.4412	0.4419	0.4427
77	0.4192	0.4195	0.4197	0.4199	0.4202	0.4204	0.4207	0.4210	0.4212	0.4215	0.4218	0.4221	0.4224	0.4228	0.4231	0.4238	0.4245
78	0.4015	0.4017	0.4020	0.4022	0.4024	0.4027	0.4029	0.4032	0.4034	0.4037	0.4039	0.4042	0.4045	0.4048	0.4051	0.4057	0.4064
79	0.3839	0.3841	0.3843	0.3845	0.3848	0.3850	0.3852	0.3854	0.3857	0.3859	0.3862	0.3864	0.3867	0.3869	0.3872	0.3878	0.3885
80	0.3663	0.3665	0.3668	0.3670	0.3672	0.3674	0.3676	0.3678	0.3681	0.3683	0.3685	0.3687	0.3689	0.3692	0.3694	0.3700	0.3706
81	0.3489	0.3491	0.3493	0.3496	0.3498	0.3500	0.3502	0.3504	0.3506	0.3508	0.3509	0.3511	0.3513	0.3515	0.3517	0.3523	0.3529
82	0.3316	0.3318	0.3321	0.3323	0.3325	0.3327	0.3329	0.3330	0.3332	0.3334	0.3336	0.3337	0.3339	0.3340	0.3342	0.3347	0.3353
83	0.3145	0.3147	0.3149	0.3152	0.3154	0.3156	0.3157	0.3159	0.3161	0.3162	0.3164	0.3165	0.3166	0.3167	0.3168	0.3174	0.3179
84	0.2977	0.2979	0.2981	0.2983	0.2985	0.2987	0.2989	0.2990	0.2992	0.2993	0.2994	0.2995	0.2996	0.2997	0.2998	0.3003	0.3008
85	0.2812	0.2814	0.2816	0.2818	0.2820	0.2822	0.2824	0.2825	0.2827	0.2828	0.2829	0.2830	0.2830	0.2831	0.2831	0.2835	0.2840
86	0.2652	0.2654	0.2656	0.2658	0.2660	0.2662	0.2663	0.2665	0.2666	0.2668	0.2668	0.2669	0.2669	0.2669	0.2669	0.2673	0.2678
87	0.2499	0.2500	0.2502	0.2504	0.2506	0.2508	0.2510	0.2512	0.2513	0.2514	0.2515	0.2515	0.2515	0.2515	0.2514	0.2518	0.2522
88	0.2354	0.2355	0.2357	0.2359	0.2361	0.2363	0.2365	0.2366	0.2368	0.2369	0.2370	0.2370	0.2369	0.2369	0.2367	0.2371	0.2375
89	0.2218	0.2220	0.2221	0.2223	0.2225	0.2227	0.2229	0.2230	0.2232	0.2233	0.2234	0.2234	0.2233	0.2232	0.2230	0.2234	0.2238
90	0.2093	0.2095	0.2097	0.2098	0.2100	0.2102	0.2104	0.2105	0.2107	0.2108	0.2109	0.2109	0.2109	0.2107	0.2105	0.2109	0.2112
91	0.1979	0.1981	0.1983	0.1984	0.1986	0.1988	0.1989	0.1991	0.1992	0.1994	0.1995	0.1995	0.1995	0.1993	0.1991	0.1994	0.1998
92	0.1875	0.1876	0.1878	0.1879	0.1881	0.1883	0.1884	0.1886	0.1887	0.1889	0.1890	0.1890	0.1890	0.1889	0.1886	0.1889	0.1892
93	0.1778	0.1779	0.1780	0.1782	0.1784	0.1785	0.1787	0.1788	0.1790	0.1791	0.1792	0.1793	0.1792	0.1791	0.1789	0.1792	0.1795
94	0.1686	0.1687	0.1688	0.1690	0.1691	0.1693	0.1695	0.1696	0.1698	0.1699	0.1700	0.1700	0.1700	0.1699	0.1697	0.1700	0.1703
95	0.1597	0.1598	0.1600	0.1601	0.1602	0.1604	0.1605	0.1607	0.1608	0.1610	0.1611	0.1611	0.1611	0.1610	0.1608	0.1611	0.1613
96	0.1512	0.1513	0.1514	0.1516	0.1517	0.1518	0.1520	0.1521	0.1523	0.1524	0.1525	0.1526	0.1526	0.1525	0.1523	0.1525	0.1528
97	0.1430	0.1431	0.1432	0.1434	0.1435	0.1436	0.1438	0.1439	0.1441	0.1442	0.1443	0.1444	0.1444	0.1443	0.1441	0.1443	0.1446
98	0.1352	0.1353	0.1354	0.1355	0.1356	0.1358	0.1359	0.1360	0.1362	0.1363	0.1364	0.1365	0.1365	0.1364	0.1362	0.1364	0.1367
99	0.1278	0.1279	0.1280	0.1281	0.1282	0.1284	0.1285	0.1286	0.1288	0.1289	0.1290	0.1291	0.1291	0.1290	0.1288	0.1290	0.1293
100	0.1210	0.1210	0.1211	0.1213	0.1214	0.1215	0.1216	0.1217	0.1219	0.1220	0.1221	0.1222	0.1222	0.1222	0.1220	0.1222	0.1224

Montana State Retirement System
Sheriffs' Retirement System
100% Joint Life Annuity Factors with Popup
Member Mortality: PubS-2010 Disabled Retiree; Males Set Forward 1 year, MP-2021 - Projected to 2021
Contingent Mortality: PubS-2010 Contingent Survivor proj to 2021; Males Set Forward 1 year; MP-2021 - Proj to 2040
Male/Female Mix: 85% Male, 15% Female
Interest: 7.30% per year
Post-Retirement COLA: 1.50% per year
Disability Retirement

Age	Age of Contingent Annuitant																	
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
1	0.9885	0.9888	0.9890	0.9892	0.9895	0.9897	0.9899	0.9902	0.9904	0.9906	0.9908	0.9910	0.9912	0.9913	0.9915	0.9916	0.9917
2	0.9877	0.9880	0.9882	0.9885	0.9887	0.9890	0.9892	0.9895	0.9897	0.9899	0.9902	0.9904	0.9906	0.9908	0.9910	0.9911	0.9912
3	0.9869	0.9871	0.9874	0.9877	0.9879	0.9882	0.9884	0.9887	0.9889	0.9892	0.9894	0.9897	0.9899	0.9902	0.9904	0.9905	0.9907
4	0.9859	0.9862	0.9865	0.9868	0.9870	0.9873	0.9876	0.9879	0.9881	0.9884	0.9886	0.9889	0.9892	0.9894	0.9897	0.9899	0.9900
5	0.9848	0.9852	0.9855	0.9858	0.9861	0.9864	0.9867	0.9869	0.9872	0.9875	0.9878	0.9881	0.9883	0.9886	0.9889	0.9891	0.9894
6	0.9837	0.9840	0.9844	0.9847	0.9850	0.9853	0.9856	0.9859	0.9862	0.9865	0.9868	0.9871	0.9874	0.9877	0.9880	0.9883	0.9885
7	0.9825	0.9828	0.9832	0.9835	0.9839	0.9842	0.9845	0.9849	0.9852	0.9855	0.9858	0.9861	0.9864	0.9868	0.9871	0.9873	0.9876
8	0.9812	0.9815	0.9819	0.9823	0.9826	0.9830	0.9834	0.9837	0.9841	0.9844	0.9847	0.9851	0.9854	0.9857	0.9860	0.9863	0.9867
9	0.9797	0.9801	0.9805	0.9809	0.9813	0.9817	0.9821	0.9824	0.9828	0.9832	0.9835	0.9839	0.9842	0.9846	0.9849	0.9853	0.9856
10	0.9782	0.9786	0.9790	0.9795	0.9799	0.9803	0.9807	0.9811	0.9815	0.9819	0.9823	0.9826	0.9830	0.9834	0.9837	0.9841	0.9844
11	0.9765	0.9770	0.9774	0.9779	0.9783	0.9788	0.9792	0.9796	0.9800	0.9805	0.9809	0.9813	0.9817	0.9821	0.9824	0.9828	0.9832
12	0.9748	0.9753	0.9757	0.9762	0.9767	0.9772	0.9776	0.9781	0.9785	0.9789	0.9794	0.9798	0.9802	0.9807	0.9811	0.9815	0.9819
13	0.9729	0.9734	0.9739	0.9744	0.9749	0.9754	0.9759	0.9764	0.9769	0.9773	0.9778	0.9782	0.9787	0.9791	0.9796	0.9800	0.9804
14	0.9709	0.9714	0.9720	0.9725	0.9730	0.9735	0.9741	0.9746	0.9751	0.9756	0.9761	0.9766	0.9771	0.9775	0.9780	0.9785	0.9789
15	0.9688	0.9693	0.9699	0.9705	0.9710	0.9716	0.9721	0.9727	0.9732	0.9737	0.9743	0.9748	0.9753	0.9758	0.9763	0.9768	0.9773
16	0.9665	0.9671	0.9677	0.9683	0.9689	0.9695	0.9701	0.9707	0.9712	0.9718	0.9724	0.9729	0.9735	0.9740	0.9745	0.9751	0.9756
17	0.9642	0.9648	0.9655	0.9661	0.9667	0.9673	0.9679	0.9686	0.9692	0.9698	0.9704	0.9710	0.9715	0.9721	0.9727	0.9732	0.9738
A 18	0.9624	0.9630	0.9637	0.9643	0.9650	0.9657	0.9663	0.9670	0.9676	0.9683	0.9689	0.9695	0.9701	0.9708	0.9714	0.9720	0.9725
g 19	0.9605	0.9612	0.9619	0.9626	0.9633	0.9640	0.9647	0.9654	0.9661	0.9667	0.9674	0.9681	0.9687	0.9694	0.9700	0.9707	0.9713
e 20	0.9586	0.9593	0.9600	0.9608	0.9615	0.9622	0.9630	0.9637	0.9644	0.9651	0.9658	0.9666	0.9673	0.9680	0.9686	0.9693	0.9700
21	0.9565	0.9573	0.9580	0.9588	0.9596	0.9603	0.9611	0.9619	0.9626	0.9634	0.9642	0.9649	0.9657	0.9664	0.9671	0.9679	0.9686
o 22	0.9543	0.9551	0.9559	0.9567	0.9575	0.9583	0.9591	0.9599	0.9607	0.9615	0.9623	0.9631	0.9639	0.9647	0.9655	0.9663	0.9670
f 23	0.9520	0.9528	0.9536	0.9544	0.9552	0.9561	0.9569	0.9578	0.9586	0.9595	0.9603	0.9612	0.9620	0.9629	0.9637	0.9645	0.9653
24	0.9494	0.9502	0.9511	0.9519	0.9528	0.9537	0.9546	0.9555	0.9564	0.9573	0.9582	0.9591	0.9600	0.9608	0.9617	0.9626	0.9634
M 25	0.9467	0.9476	0.9485	0.9493	0.9502	0.9512	0.9521	0.9530	0.9540	0.9549	0.9559	0.9568	0.9577	0.9587	0.9596	0.9605	0.9614
e 26	0.9439	0.9448	0.9457	0.9466	0.9476	0.9485	0.9495	0.9505	0.9514	0.9524	0.9534	0.9544	0.9554	0.9564	0.9574	0.9584	0.9593
m 27	0.9410	0.9419	0.9428	0.9438	0.9447	0.9457	0.9467	0.9478	0.9488	0.9498	0.9509	0.9519	0.9530	0.9540	0.9550	0.9561	0.9571
b 28	0.9379	0.9389	0.9398	0.9408	0.9418	0.9428	0.9439	0.9449	0.9460	0.9471	0.9482	0.9493	0.9504	0.9515	0.9526	0.9537	0.9548
e 29	0.9347	0.9357	0.9367	0.9377	0.9387	0.9398	0.9409	0.9420	0.9431	0.9442	0.9453	0.9465	0.9476	0.9488	0.9500	0.9511	0.9523
r 30	0.9314	0.9324	0.9334	0.9344	0.9355	0.9366	0.9377	0.9388	0.9400	0.9412	0.9424	0.9436	0.9448	0.9460	0.9472	0.9484	0.9496
31	0.9279	0.9289	0.9300	0.9310	0.9321	0.9332	0.9344	0.9356	0.9368	0.9380	0.9392	0.9405	0.9417	0.9430	0.9443	0.9456	0.9468
32	0.9243	0.9253	0.9264	0.9275	0.9286	0.9297	0.9309	0.9321	0.9334	0.9346	0.9359	0.9372	0.9385	0.9398	0.9412	0.9425	0.9439
33	0.9204	0.9215	0.9226	0.9237	0.9249	0.9260	0.9273	0.9285	0.9298	0.9311	0.9324	0.9337	0.9351	0.9365	0.9379	0.9393	0.9407
34	0.9164	0.9175	0.9186	0.9198	0.9209	0.9222	0.9234	0.9247	0.9260	0.9273	0.9287	0.9301	0.9315	0.9329	0.9344	0.9359	0.9374
35	0.9122	0.9133	0.9144	0.9156	0.9168	0.9180	0.9193	0.9206	0.9220	0.9234	0.9248	0.9262	0.9277	0.9292	0.9307	0.9322	0.9338
36	0.9078	0.9089	0.9100	0.9112	0.9124	0.9137	0.9150	0.9164	0.9177	0.9191	0.9206	0.9221	0.9236	0.9251	0.9267	0.9283	0.9299
37	0.9031	0.9042	0.9054	0.9066	0.9078	0.9091	0.9105	0.9118	0.9132	0.9147	0.9162	0.9177	0.9193	0.9209	0.9225	0.9241	0.9258
38	0.8981	0.8993	0.9004	0.9017	0.9030	0.9043	0.9056	0.9070	0.9085	0.9100	0.9115	0.9130	0.9147	0.9163	0.9180	0.9197	0.9214
39	0.8929	0.8940	0.8953	0.8965	0.8978	0.8991	0.9005	0.9019	0.9034	0.9049	0.9065	0.9081	0.9097	0.9114	0.9132	0.9149	0.9167
40	0.8874	0.8885	0.8898	0.8910	0.8923	0.8937	0.8951	0.8966	0.8981	0.8996	0.9012	0.9028	0.9045	0.9063	0.9080	0.9098	0.9117
41	0.8815	0.8827	0.8839	0.8852	0.8866	0.8879	0.8894	0.8908	0.8924	0.8939	0.8956	0.8972	0.8990	0.9007	0.9026	0.9044	0.9063
42	0.8753	0.8766	0.8778	0.8791	0.8804	0.8818	0.8833	0.8848	0.8863	0.8879	0.8896	0.8913	0.8931	0.8949	0.8967	0.8986	0.9006
43	0.8688	0.8700	0.8713	0.8726	0.8740	0.8754	0.8769	0.8784	0.8800	0.8816	0.8833	0.8850	0.8868	0.8886	0.8905	0.8925	0.8945
44	0.8620	0.8632	0.8645	0.8658	0.8672	0.8686	0.8701	0.8716	0.8732	0.8748	0.8766	0.8783	0.8801	0.8820	0.8840	0.8860	0.8880
45	0.8547	0.8559	0.8572	0.8586	0.8600	0.8614	0.8629	0.8645	0.8661	0.8677	0.8695	0.8713	0.8731	0.8750	0.8770	0.8790	0.8811
46	0.8471	0.8483	0.8496	0.8510	0.8524	0.8538	0.8553	0.8569	0.8585	0.8602	0.8620	0.8638	0.8657	0.8676	0.8696	0.8717	0.8738
47	0.8391	0.8403	0.8416	0.8430	0.8444	0.8459	0.8474	0.8490	0.8506	0.8523	0.8541	0.8559	0.8578	0.8598	0.8618	0.8639	0.8661
48	0.8307	0.8320	0.8333	0.8346	0.8361	0.8375	0.8391	0.8407	0.8423	0.8440	0.8458	0.8477	0.8496	0.8516	0.8537	0.8558	0.8580
49	0.8220	0.8232	0.8245	0.8259	0.8273	0.8288	0.8304	0.8320	0.8336	0.8354	0.8372	0.8390	0.8410	0.8430	0.8451	0.8472	0.8495
50	0.8128	0.8141	0.8154	0.8168	0.8182	0.8197	0.8212	0.8229	0.8245	0.8263	0.8281	0.8300	0.8319	0.8340	0.8361	0.8382	0.8405
51	0.8032	0.8045	0.8058	0.8072	0.8086	0.8101	0.8117	0.8133	0.8150	0.8168	0.8186	0.8205	0.8224	0.8245	0.8266	0.8288	0.8311
52	0.7932	0.7945	0.7958	0.7972	0.7987	0.8002	0.8017	0.8033	0.8050	0.8068	0.8086	0.8105	0.8125	0.8146	0.8167	0.8189	0.8212
53	0.7828	0.7841	0.7854	0.7868	0.7882	0.7897	0.7913	0.7929	0.7946	0.7964	0.7982	0.8002	0.8021	0.8042	0.8064	0.8086	0.8109
54	0.7720	0.7733	0.7746	0.7760	0.7774	0.7789	0.7805	0.7821	0.7838	0.7856	0.7874	0.7894	0.7914	0.7934	0.7956	0.7978	0.8001
55	0.7608	0.7621	0.7634	0.7648	0.7662	0.7677	0.7693	0.7709	0.7726	0.7744	0.7762	0.7781	0.7801	0.7822	0.7844	0.7866	0.7890
56	0.7492	0.7505	0.7518	0.7532	0.7546	0.7561	0.7577	0.7593	0.7610	0.7628	0.7646	0.7665	0.7685	0.7706	0.7728	0.7750	0.7774
57	0.7373	0.7386	0.7399	0.7412	0.7427	0.7442	0.7457	0.7473	0.7490	0.7508	0.7527	0.7546	0.7566	0.7587	0.7608	0.7631	0.7654
58	0.7251	0.7263	0.7276	0.7290	0.7304	0.7319	0.7334	0.7351	0.7367	0.7385	0.7404	0.7423	0.7443	0.7463	0.7485	0.7508	0.7531
59	0.7125	0.7138	0.7151	0.7164	0.7178	0.7193	0.7208	0.7224	0.7241	0.7259	0.7277	0.7296	0.7316	0.7337	0.7359	0.7381	0.7405
A 60	0.6997	0.7009	0.7022	0.7035	0.7049	0.7064	0.7079	0.7095	0.7112	0.7129	0.7148	0.7167	0.7187	0.7207	0.7229	0.7251	0.7275
g 61	0.6865	0.6877	0.6890	0.6903	0.6917	0.6932	0.6947	0.6963	0.6980	0.6997	0.7015	0.7034	0.7054	0.7074	0.7096	0.7118	0.7141
e 62	0.6731	0.6743	0.6755	0.6768	0.6782	0.6796	0.6811	0.6827	0.6844	0.6861	0.6879	0.6898	0.6918	0.6938	0.6959	0.6982	0.7005
63	0.6593	0.6604	0.6617	0.6630	0.6643	0.6658	0.6672	0.6688	0.6704	0.6722	0.6739	0.6758	0.6778	0.6798	0.6819	0.6841	0.6864
o 64	0.6451	0.6462	0.6475	0.6487	0.6501	0.6515	0.6530	0.6545	0.6561	0.6578	0.6596	0.6614	0.6634	0.6654	0.6675	0.6697	0.6720
f 65	0.6305	0.6316	0.6328	0.6341	0.6354	0.6368	0.6383	0.6398	0.6414	0.6431	0.6448	0.6467	0.6486	0.6506	0.6527	0.6548	0.6571
66	0.6155	0.6166	0.6178	0.6190	0.6203	0.6217	0.6231	0.6247	0.6262	0.6279	0.6296	0.6314	0.6333	0.6353	0.6373	0.6395	0.6417
M 67	0.6000	0.6011	0.6023	0.6035	0.6048	0.6061	0.6076	0.6090	0.6106	0.6122	0.6139	0.6157	0.6176	0.6195	0.6216	0.6237	0.6259
e 68	0.5841	0.5852	0.5863	0.5875	0.5888	0.5901	0.5915	0.5929	0.5945	0.5961	0.5977	0.5995	0.6013	0.6033	0.6053	0.6074	0.6096
m 69	0.5677	0.5688	0.5699	0.5711	0.5723	0.5736	0.5749	0.5764	0.5779	0.5794	0.5811	0.5828	0.5846	0.5865	0.5885	0.5905	0.5927
b 70	0.5509	0.5519	0.5530	0.5541	0.5553	0.5566	0.5579	0.5593	0.5608	0.5623	0.5639	0.5656	0.5674	0.5692	0.5712	0.5732	0.5753
e 71	0.5336	0.5346	0.5357	0.5368	0.5379	0.5392	0.5405	0.5418	0.5433	0.5448	0.5463	0.5480	0.5497	0.5515	0.5534	0.5554	0.5575
r 72	0.5160	0.5170	0.5180	0.5191	0.5202	0.5214	0.5226	0.5240	0.5253	0.5268	0.5283	0.5300	0.5317	0.5334	0.5353	0.5372	0.5393
73	0.4981	0.4990	0.5000	0.5010	0.5021	0.5033	0.5045	0.5058	0.5071	0.5086	0.5101	0.5116	0.5133	0.5150	0.5168	0.5187	0.5207
74	0.4799	0.4808	0.4818	0.4828	0.4839	0.4850	0.4862	0.4874	0.4887	0.4901	0.4915	0.4931	0.4947	0.4964	0.4981	0.5000	0.5019
75	0.4617	0.4626	0.4635	0.4645	0.4655	0.4666	0.4677	0.4689	0.4702	0.4715	0.4729	0.4744	0.4760	0.4776	0.4793	0.4811	0.4830
76	0.4435	0.4443	0.4452	0.4461	0.4471	0.4482	0.4493	0.4504	0.4516	0.4529	0.4543	0.4557	0.4572	0.4588	0.4605	0.4622	0.4640
77	0.4253	0.4261	0.4269	0.4278	0.4288	0.4298	0.4308	0.4320	0.4331	0.4344	0.4357	0.4371	0.4385	0.4400	0.4416	0.4433	0.4451
78	0.4072	0.4079	0.4088	0.4096	0.4105	0.4115	0.4125	0.4136	0.4147	0.4159	0.4172	0.4185	0.4199	0.4214	0.4229	0.4245	0.4263
79	0.3892	0.3899	0.3907	0.3915	0.3924	0.3933	0.3943	0.3953	0.3964	0.3975	0.3988	0.4000	0.4014	0.4028	0.4043	0.4059	0.4075
80	0.3713	0.3720	0.3727	0.3735	0.3744	0.3753	0.3762	0.3772	0.3782	0.3793	0.3805	0.3817	0.3830	0.3843	0.3858	0.3873	0.3889
81	0.3535	0.3542	0.3549	0.3557	0.3565	0.3573	0.3582	0.3591	0.3601	0.3612	0.3623	0.3634	0.3647	0.3660	0.3674	0.3688	0.3703
82	0.3359	0.3366	0.3372	0.3380	0.3387	0.3395	0.3404	0.3413	0.3422	0.3432	0.3443	0.3454	0.3465	0.3478	0.3491	0.3505	0.3519
83	0.3185	0.3191	0.3197	0.3204	0.3211	0.3219	0.3227	0.3236	0.3245	0.3254	0.3264	0.3275	0.3286	0.3298	0.3310	0.3323	0.3337
84	0.3013	0.3019	0.3025	0.3032	0.3038	0.3046	0.3053	0.3061	0.3070	0.3079	0.3088	0.3098	0.3109	0.3120	0.3132	0.3145	0.3158
85	0.2846	0.2851	0.2857	0.2863	0.2869	0.2876	0.2883	0.2891	0.2899	0.2908	0.2917	0.2926	0.2936	0.2947	0.2958	0.2970	0.2982
86	0.2683	0.2688	0.2693	0.2699	0.2705	0.2712	0.2718	0.2726	0.2733	0.2741	0.2750	0.2759	0.2768	0.2778	0.2789	0.2800	0.2812
87	0.2527	0.2532	0.2537	0.2542	0.2548	0.2554	0.2561	0.2567	0.2575	0.2582	0.2590	0.2599	0.2608	0.2617	0.2627	0.2638	0.2649
88	0.2380	0.2384	0.2389	0.2394	0.2400	0.2405	0.2411	0.2418	0.2425	0.2432	0.2439	0.2447	0.2456	0.2465	0.2474	0.2484	0.2495
89	0.2242	0.2247	0.2251	0.2256	0.2261	0.2266	0.2272	0.2278	0.2285	0.2291	0.2298	0.2306	0.2314	0.2322	0.2331	0.2341	0.2351
90	0.2116	0.2120	0.2125	0.2129	0.2134	0.2139	0.2144	0.2150	0.2156	0.2163	0.2169	0.2176	0.2184	0.2192	0.2200	0.2209	0.2219
91	0.2001	0.2005	0.2009	0.2014	0.2018	0.2023	0.2028	0.2033	0.2039	0.2045	0.2052	0.2058	0.2065	0.2073	0.2081	0.2090	0.2099
92	0.1896	0.1900	0.1903	0.1908	0.1912	0.1917	0.1921	0.1926	0.1932	0.1938	0.1944	0.1950	0.1957	0.1964	0.1972	0.1980	0.1988
93	0.1798	0.1802	0.1805	0.1809	0.1813	0.1818	0.1822	0.1827	0.1832	0.1838	0.1843	0.1850	0.1856	0.1863	0.1870	0.1878	0.1886
94	0.1706	0.1709	0.1713	0.1716	0.1720	0.1724	0.1729	0.1733	0.1738	0.1743	0.1749	0.1755	0.1761	0.1767	0.1774	0.1781	0.1789
95	0.1616	0.1620	0.1623	0.1626	0.1630	0.1634	0.1638	0.1643	0.1647	0.1652	0.1657	0.1663	0.1668	0.1675	0.1681	0.1688	0.1695
96	0.1531	0.1534	0.1537	0.1540	0.1544	0.1547	0.1551	0.1555	0.1560	0.1564	0.1569	0.1575	0.1580	0.1586	0.1592	0.1599	0.1605
97	0.1448	0.1451	0.1454	0.1457	0.1460	0.1464	0.1468	0.1472	0.1476	0.1480	0.1485	0.1490	0.1495	0.1500	0.1506	0.1512	0.1519
98	0.1369	0.1372	0.1375	0.1378	0.1381	0.1384	0.1388	0.1392	0.1396	0.1400	0.1404	0.1409	0.1414	0.1419	0.1424	0.1430	0.1436
99	0.1295	0.1298	0.1300	0.1303	0.1306	0.1309	0.1313	0.1316	0.1320	0.1324	0.1328	0.1332	0.1337	0.1342	0.1347	0.1353	0.1358
100	0.1226	0.1228	0.1231	0.1234	0.1236	0.1239	0.1243	0.1246	0.1249	0.1253	0.1257	0.1261	0.1266	0.1270	0.1275	0.1281	0.1286

Montana State Retirement System
Sheriffs' Retirement System
100% Joint Life Annuity Factors with Popup
Member Mortality: PubS-2010 Disabled Retiree; Males Set Forward 1 year, MP-2021 - Projected to 2021
Contingent Mortality: PubS-2010 Contingent Survivor proj to 2021; Males Set Forward 1 year; MP-2021 - Proj to 2040
Male/Female Mix: 85% Male, 15% Female
Interest: 7.30% per year
Post-Retirement COLA: 1.50% per year
Disability Retirement

Age of Member	Age of Contingent Annuitant																	
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
1	0.9918	0.9920	0.9920	0.9921	0.9922	0.9923	0.9924	0.9924	0.9925	0.9925	0.9928	0.9930	0.9931	0.9933	0.9935	0.9936	0.9938
2	0.9914	0.9915	0.9916	0.9917	0.9918	0.9919	0.9919	0.9920	0.9921	0.9921	0.9924	0.9926	0.9928	0.9930	0.9931	0.9933	0.9935
3	0.9908	0.9909	0.9911	0.9912	0.9913	0.9914	0.9915	0.9915	0.9916	0.9917	0.9920	0.9922	0.9924	0.9926	0.9927	0.9930	0.9932
4	0.9902	0.9903	0.9905	0.9906	0.9907	0.9908	0.9909	0.9910	0.9911	0.9912	0.9915	0.9917	0.9919	0.9921	0.9923	0.9925	0.9927
5	0.9895	0.9897	0.9898	0.9900	0.9901	0.9902	0.9903	0.9904	0.9905	0.9906	0.9909	0.9911	0.9914	0.9916	0.9918	0.9920	0.9923
6	0.9888	0.9889	0.9891	0.9893	0.9894	0.9896	0.9897	0.9898	0.9899	0.9900	0.9903	0.9906	0.9908	0.9910	0.9913	0.9915	0.9918
7	0.9879	0.9882	0.9883	0.9885	0.9887	0.9888	0.9890	0.9891	0.9892	0.9893	0.9897	0.9899	0.9902	0.9904	0.9907	0.9909	0.9912
8	0.9870	0.9873	0.9876	0.9877	0.9879	0.9881	0.9882	0.9884	0.9885	0.9886	0.9890	0.9892	0.9895	0.9898	0.9900	0.9903	0.9906
9	0.9859	0.9862	0.9865	0.9869	0.9870	0.9872	0.9874	0.9875	0.9877	0.9878	0.9882	0.9885	0.9887	0.9890	0.9893	0.9896	0.9899
10	0.9848	0.9851	0.9855	0.9858	0.9861	0.9863	0.9865	0.9867	0.9868	0.9870	0.9874	0.9877	0.9879	0.9882	0.9885	0.9888	0.9891
11	0.9836	0.9839	0.9843	0.9846	0.9850	0.9853	0.9855	0.9857	0.9859	0.9861	0.9865	0.9868	0.9871	0.9874	0.9877	0.9880	0.9883
12	0.9823	0.9826	0.9830	0.9834	0.9838	0.9841	0.9845	0.9847	0.9849	0.9851	0.9855	0.9858	0.9861	0.9865	0.9868	0.9871	0.9874
13	0.9809	0.9813	0.9817	0.9821	0.9825	0.9828	0.9832	0.9836	0.9838	0.9840	0.9844	0.9848	0.9851	0.9855	0.9858	0.9861	0.9865
14	0.9793	0.9798	0.9802	0.9806	0.9811	0.9815	0.9819	0.9823	0.9827	0.9828	0.9833	0.9837	0.9840	0.9844	0.9848	0.9851	0.9855
15	0.9777	0.9782	0.9787	0.9791	0.9796	0.9800	0.9804	0.9809	0.9813	0.9817	0.9821	0.9825	0.9829	0.9833	0.9837	0.9840	0.9844
16	0.9761	0.9766	0.9771	0.9775	0.9780	0.9785	0.9789	0.9794	0.9798	0.9803	0.9807	0.9811	0.9815	0.9819	0.9823	0.9827	0.9831
17	0.9743	0.9749	0.9754	0.9759	0.9764	0.9769	0.9774	0.9778	0.9783	0.9788	0.9792	0.9797	0.9801	0.9805	0.9810	0.9814	0.9818
18	0.9731	0.9737	0.9742	0.9748	0.9753	0.9758	0.9764	0.9769	0.9774	0.9779	0.9783	0.9788	0.9793	0.9797	0.9802	0.9806	0.9811
19	0.9719	0.9725	0.9731	0.9737	0.9743	0.9748	0.9754	0.9759	0.9765	0.9770	0.9775	0.9780	0.9785	0.9790	0.9794	0.9799	0.9804
20	0.9706	0.9713	0.9719	0.9725	0.9732	0.9738	0.9743	0.9749	0.9755	0.9760	0.9766	0.9771	0.9776	0.9782	0.9787	0.9792	0.9797
21	0.9693	0.9700	0.9706	0.9713	0.9719	0.9726	0.9732	0.9738	0.9744	0.9750	0.9756	0.9762	0.9767	0.9773	0.9778	0.9784	0.9789
22	0.9678	0.9685	0.9692	0.9699	0.9706	0.9713	0.9720	0.9726	0.9733	0.9739	0.9745	0.9751	0.9757	0.9763	0.9769	0.9775	0.9780
23	0.9661	0.9669	0.9677	0.9684	0.9692	0.9699	0.9706	0.9713	0.9720	0.9727	0.9733	0.9740	0.9746	0.9752	0.9759	0.9765	0.9770
24	0.9643	0.9651	0.9660	0.9668	0.9676	0.9683	0.9691	0.9699	0.9706	0.9713	0.9720	0.9727	0.9734	0.9741	0.9747	0.9754	0.9760
25	0.9624	0.9632	0.9641	0.9650	0.9658	0.9667	0.9675	0.9683	0.9691	0.9699	0.9706	0.9713	0.9721	0.9728	0.9735	0.9742	0.9748
26	0.9603	0.9613	0.9622	0.9631	0.9640	0.9649	0.9658	0.9667	0.9675	0.9683	0.9691	0.9699	0.9707	0.9715	0.9722	0.9729	0.9736
27	0.9581	0.9592	0.9602	0.9611	0.9621	0.9631	0.9640	0.9649	0.9658	0.9667	0.9676	0.9684	0.9692	0.9701	0.9708	0.9716	0.9724
28	0.9558	0.9569	0.9580	0.9590	0.9601	0.9611	0.9621	0.9631	0.9640	0.9650	0.9659	0.9668	0.9677	0.9686	0.9694	0.9703	0.9711
29	0.9534	0.9546	0.9557	0.9568	0.9579	0.9590	0.9601	0.9611	0.9622	0.9632	0.9642	0.9651	0.9661	0.9670	0.9679	0.9688	0.9697
30	0.9509	0.9521	0.9533	0.9545	0.9556	0.9568	0.9579	0.9591	0.9602	0.9612	0.9623	0.9633	0.9644	0.9654	0.9663	0.9673	0.9682
31	0.9481	0.9494	0.9507	0.9519	0.9532	0.9544	0.9556	0.9568	0.9580	0.9592	0.9603	0.9614	0.9625	0.9636	0.9646	0.9657	0.9667
32	0.9452	0.9466	0.9479	0.9493	0.9506	0.9519	0.9532	0.9545	0.9557	0.9570	0.9582	0.9594	0.9606	0.9617	0.9628	0.9639	0.9650
33	0.9421	0.9436	0.9450	0.9464	0.9478	0.9492	0.9506	0.9520	0.9533	0.9546	0.9559	0.9572	0.9584	0.9597	0.9609	0.9621	0.9632
34	0.9388	0.9403	0.9418	0.9433	0.9448	0.9463	0.9478	0.9492	0.9506	0.9521	0.9534	0.9548	0.9562	0.9575	0.9588	0.9601	0.9613
35	0.9353	0.9369	0.9385	0.9400	0.9416	0.9432	0.9447	0.9463	0.9478	0.9493	0.9508	0.9522	0.9537	0.9551	0.9565	0.9578	0.9592
36	0.9315	0.9332	0.9348	0.9365	0.9381	0.9398	0.9414	0.9431	0.9447	0.9463	0.9479	0.9494	0.9510	0.9525	0.9540	0.9554	0.9569
37	0.9275	0.9292	0.9309	0.9327	0.9344	0.9362	0.9379	0.9396	0.9413	0.9430	0.9447	0.9464	0.9480	0.9497	0.9512	0.9528	0.9544
38	0.9232	0.9250	0.9268	0.9286	0.9304	0.9322	0.9341	0.9359	0.9377	0.9395	0.9413	0.9431	0.9448	0.9466	0.9483	0.9499	0.9516
39	0.9185	0.9204	0.9223	0.9242	0.9261	0.9280	0.9299	0.9318	0.9338	0.9357	0.9376	0.9394	0.9413	0.9432	0.9450	0.9468	0.9485
40	0.9136	0.9155	0.9175	0.9194	0.9214	0.9234	0.9254	0.9275	0.9295	0.9315	0.9335	0.9355	0.9375	0.9394	0.9414	0.9433	0.9452
41	0.9083	0.9103	0.9123	0.9143	0.9164	0.9185	0.9206	0.9227	0.9248	0.9270	0.9291	0.9312	0.9333	0.9354	0.9374	0.9395	0.9415
42	0.9026	0.9047	0.9067	0.9089	0.9110	0.9132	0.9154	0.9176	0.9198	0.9220	0.9243	0.9265	0.9287	0.9309	0.9331	0.9353	0.9375
43	0.8966	0.8987	0.9008	0.9030	0.9052	0.9075	0.9098	0.9121	0.9144	0.9167	0.9191	0.9214	0.9238	0.9261	0.9284	0.9308	0.9331
44	0.8901	0.8923	0.8945	0.8967	0.8990	0.9014	0.9037	0.9061	0.9086	0.9110	0.9134	0.9159	0.9184	0.9209	0.9233	0.9258	0.9282
45	0.8833	0.8855	0.8877	0.8901	0.8924	0.8948	0.8973	0.8998	0.9023	0.9048	0.9074	0.9100	0.9126	0.9152	0.9178	0.9204	0.9230
46	0.8760	0.8783	0.8806	0.8830	0.8854	0.8879	0.8904	0.8930	0.8956	0.8982	0.9009	0.9036	0.9063	0.9090	0.9118	0.9145	0.9172
47	0.8683	0.8706	0.8730	0.8754	0.8779	0.8805	0.8831	0.8857	0.8884	0.8912	0.8939	0.8967	0.8995	0.9024	0.9053	0.9082	0.9111
48	0.8603	0.8626	0.8650	0.8675	0.8700	0.8726	0.8753	0.8780	0.8808	0.8836	0.8865	0.8894	0.8923	0.8953	0.8983	0.9014	0.9044
49	0.8518	0.8541	0.8566	0.8591	0.8617	0.8644	0.8671	0.8699	0.8727	0.8756	0.8786	0.8816	0.8847	0.8878	0.8909	0.8941	0.8972
50	0.8428	0.8452	0.8477	0.8503	0.8529	0.8557	0.8584	0.8613	0.8642	0.8672	0.8702	0.8733	0.8765	0.8797	0.8830	0.8863	0.8896
51	0.8334	0.8359	0.8384	0.8410	0.8437	0.8465	0.8493	0.8522	0.8552	0.8582	0.8614	0.8646	0.8678	0.8711	0.8745	0.8779	0.8814
52	0.8236	0.8261	0.8286	0.8312	0.8340	0.8368	0.8396	0.8426	0.8457	0.8488	0.8520	0.8552	0.8586	0.8620	0.8655	0.8691	0.8727
53	0.8133	0.8158	0.8184	0.8210	0.8238	0.8266	0.8295	0.8325	0.8356	0.8388	0.8421	0.8454	0.8488	0.8524	0.8560	0.8596	0.8634
54	0.8026	0.8051	0.8076	0.8103	0.8131	0.8160	0.8189	0.8220	0.8251	0.8284	0.8317	0.8351	0.8386	0.8422	0.8459	0.8497	0.8535
55	0.7914	0.7939	0.7965	0.7992	0.8020	0.8049	0.8079	0.8110	0.8141	0.8174	0.8208	0.8243	0.8278	0.8315	0.8353	0.8392	0.8431
56	0.7798	0.7823	0.7850	0.7877	0.7905	0.7934	0.7964	0.7995	0.8027	0.8060	0.8094	0.8130	0.8166	0.8203	0.8242	0.8282	0.8322
57	0.7679	0.7704	0.7730	0.7757	0.7786	0.7815	0.7845	0.7877	0.7909	0.7942	0.7977	0.8012	0.8049	0.8087	0.8126	0.8167	0.8208
58	0.7555	0.7581	0.7607	0.7634	0.7663	0.7692	0.7723	0.7754	0.7787	0.7820	0.7855	0.7891	0.7928	0.7967	0.8006	0.8048	0.8090
59	0.7429	0.7454	0.7481	0.7508	0.7536	0.7566	0.7596	0.7628	0.7660	0.7694	0.7729	0.7765	0.7803	0.7842	0.7882	0.7924	0.7967
60	0.7299	0.7324	0.7351	0.7378	0.7406	0.7436	0.7466	0.7498	0.7531	0.7564	0.7600	0.7636	0.7674	0.7713	0.7754	0.7796	0.7840
61	0.7166	0.7191	0.7217	0.7244	0.7273	0.7302	0.7333	0.7364	0.7397	0.7431	0.7466	0.7503	0.7541	0.7580	0.7621	0.7664	0.7708
62	0.7029	0.7054	0.7080	0.7107	0.7136	0.7165	0.7195	0.7227	0.7260	0.7294	0.7329	0.7365	0.7403	0.7443	0.7484	0.7527	0.7572
63	0.6888	0.6913	0.6939	0.6966	0.6995	0.7024	0.7054	0.7086	0.7118	0.7152	0.7187	0.7224	0.7262	0.7301	0.7343	0.7386	0.7431
64	0.6744	0.6769	0.6794	0.6821	0.6849	0.6878	0.6909	0.6940	0.6972	0.7006	0.7041	0.7077	0.7115	0.7155	0.7196	0.7240	0.7285
65	0.6595	0.6619	0.6645	0.6672	0.6699	0.6728	0.6758	0.6789	0.6822	0.6855	0.6890	0.6926	0.6964	0.7003	0.7045	0.7088	0.7133
66	0.6441	0.6465	0.6491	0.6517	0.6545	0.6573	0.6603	0.6634	0.6666	0.6699	0.6734	0.6769	0.6807	0.6846	0.6888	0.6931	0.6976
67	0.6282	0.6306	0.6332	0.6358	0.6385	0.6413	0.6443	0.6473	0.6505	0.6538	0.6572	0.6607	0.6645	0.6684	0.6725	0.6767	0.6812
68	0.6118	0.6142	0.6167	0.6193	0.6220	0.6248	0.6277	0.6307	0.6338	0.6371	0.6405	0.6440	0.6477	0.6515	0.6556	0.6598	0.6643
69	0.5949	0.5973	0.5997	0.6023	0.6049	0.6077	0.6106	0.6135	0.6166	0.6198	0.6232	0.6266	0.6303	0.6341	0.6381	0.6423	0.6467
70	0.5775	0.5799	0.5823	0.5848	0.5874	0.5901	0.5929	0.5958	0.5989	0.6020	0.6053	0.6087	0.6123	0.6161	0.6200	0.6242	0.6285
71	0.5597	0.5619	0.5643	0.5668	0.5693	0.5720	0.5748	0.5776	0.5806	0.5837	0.5869	0.5903	0.5938	0.5975	0.6014	0.6055	0.6097
72	0.5414	0.5436	0.5459	0.5483	0.5509	0.5535	0.5562	0.5590	0.5619	0.5650	0.5681	0.5714	0.5748	0.5785	0.5823	0.5863	0.5905
73	0.5228	0.5249	0.5272	0.5296	0.5320	0.5346	0.5372	0.5400	0.5429	0.5458	0.5489	0.5521	0.5555	0.5590	0.5627	0.5667	0.5708
74	0.5039	0.5061	0.5083	0.5106	0.5130	0.5155	0.5181	0.5207	0.5235	0.5264	0.5294	0.5325	0.5358	0.5393	0.5429	0.5468	0.5508
75	0.4850	0.4870	0.4892	0.4914	0.4938	0.4962	0.4987	0.5013	0.5040	0.5069	0.5098	0.5128	0.5160	0.5194	0.5229	0.5267	0.5306
76	0.4659	0.4679	0.4700	0.4722	0.4745	0.4769	0.4793	0.4819	0.4845	0.4872	0.4900	0.4930	0.4961	0.4994	0.5028	0.5065	0.5103
77	0.4470	0.4489	0.4509	0.4531	0.4553	0.4576	0.4599	0.4624	0.4650	0.4676	0.4703	0.4732	0.4762	0.4794	0.4827	0.4863	0.4900
78	0.4281	0.4299	0.4319	0.4339	0.4361	0.4383	0.4406	0.4430	0.4455	0.4480	0.4507	0.4534	0.4564	0.4594	0.4627	0.4661	0.4697
79	0.4092	0.4110	0.4129	0.4149	0.4170	0.4192	0.4214	0.4237	0.4261	0.4286	0.4311	0.4338	0.4366	0.4395	0.4427	0.4460	0.4494
80	0.3905	0.3923	0.3941	0.3960	0.3980	0.4001	0.4022	0.4045	0.4068	0.4092	0.4116	0.4142	0.4169	0.4197	0.4228	0.4259	0.4293
81	0.3719	0.3736	0.3754	0.3772	0.3791	0.3811	0.3832	0.3854	0.3876	0.3899	0.3922	0.3947	0.3973	0.4000	0.4029	0.4060	0.4092
82	0.3535	0.3551	0.3568	0.3585	0.3604	0.3623	0.3643	0.3664	0.3685	0.3707	0.3729	0.3753	0.3778	0.3804	0.3832	0.3861	0.3892
83	0.3352	0.3367	0.3383	0.3400	0.3418	0.3437	0.3456	0.3475	0.3496	0.3517	0.3538	0.3561	0.3585	0.3610	0.3636	0.3664	0.3694
84	0.3172	0.3186	0.3202	0.3218	0.3235	0.3253	0.3271	0.3290	0.3309	0.3329	0.3350	0.3371	0.3394	0.3418	0.3443	0.3470	0.3498
85	0.2996	0.3010	0.3024	0.3040	0.3056	0.3073	0.3090	0.3108	0.3127	0.3146	0.3165	0.3186	0.3207	0.3230	0.3254	0.3280	0.3306
86	0.2824	0.2838	0.2852	0.2866	0.2882	0.2898	0.2914	0.2932	0.2949	0.2967	0.2986	0.3005	0.3026	0.3047	0.3070	0.3094	0.3120
87	0.2661	0.2673	0.2687	0.2701	0.2715	0.2730	0.2746	0.2763	0.2779	0.2797	0.2814	0.2832	0.2852	0.2872	0.2894	0.2917	0.2941
88	0.2506	0.2518	0.2530	0.2544	0.2557	0.2572	0.2587	0.2603	0.2619	0.2635	0.2652	0.2669	0.2687	0.2707	0.2727	0.2749	0.2772
89	0.2361	0.2373	0.2385	0.2397	0.2410	0.2424	0.2438	0.2453	0.2468	0.2484	0.2500	0.2516	0.2533	0.2552	0.2571	0.2592	0.2613
90	0.2229	0.2240	0.2251	0.2263	0.2275	0.2288	0.2302	0.2316	0.2330	0.2345	0.2360	0.2376	0.2392	0.2409	0.2428	0.2447	0.2468
91	0.2108	0.2118	0.2129	0.2140	0.2152	0.2164	0.2177	0.2191	0.2205	0.2219	0.2233	0.2248	0.2263	0.2280	0.2297	0.2316	0.2335
92	0.1997	0.2007	0.2017	0.2028	0.2039	0.2051	0.2063	0.2076	0.2089	0.2103	0.2116	0.2130	0.2145	0.2161	0.2177	0.2195	0.2214
93	0.1894	0.1903	0.1913	0.1923	0.1934	0.1945	0.1957	0.1970	0.1982	0.1995	0.2008	0.2021	0.2035	0.2050	0.2066	0.2083	0.2101
94	0.1797	0.1806	0.1815	0.1825	0.1835	0.1846	0.1857	0.1869	0.1881	0.1893	0.1905	0.1918	0.1931	0.1946	0.1961	0.1977	0.1994
95	0.1703	0.1711	0.1720	0.1729	0.1739	0.1749	0.1760	0.1771	0.1783	0.1795	0.1806	0.1818	0.1831	0.1845	0.1859	0.1874	0.1890
96	0.1613	0.1621	0.1629	0.1638	0.1647	0.1657	0.1667	0.1678	0.1689	0.1700	0.1711	0.1722	0.1734	0.1747	0.1761	0.1776	0.1791
97	0.1526	0.1533	0.1541	0.1550	0.1558	0.1568	0.1578	0.1588	0.1598	0.1609	0.1619	0.1630	0.1642	0.1654	0.1667	0.1681	0.1695
98	0.1443	0.1450	0.1457	0.1465	0.1474	0.1483	0.1492	0.1502	0.1512	0.1522	0.1532	0.1542	0.1553	0.1564	0.1577	0.1590	0.1604
99	0.1365	0.1371	0.1378	0.1386	0.1394	0.1402	0.1411	0.1420	0.1430	0.1439	0.1449	0.1459	0.1469	0.1480	0.1492	0.1504	0.1517
100	0.1292	0.1298	0.1305	0.1312	0.1320	0.1328	0.1336	0.1345	0.1354	0.1363	0.1372	0.1381	0.1391	0.1401	0.1413	0.1424	0.1437

Montana State Retirement System
Sheriffs' Retirement System
100% Joint Life Annuity Factors with Popup
Member Mortality: PubS-2010 Disabled Retiree; Males Set Forward 1 year, MP-2021 - Projected to 2021
Contingent Mortality: PubS-2010 Contingent Survivor proj to 2021; Males Set Forward 1 year; MP-2021 - Proj to 2040
Male/Female Mix: 85% Male, 15% Female
Interest: 7.30% per year
Post-Retirement COLA: 1.50% per year
Disability Retirement

Age	Age of Contingent Annuitant																	
	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68
1	0.9940	0.9941	0.9942	0.9943	0.9944	0.9945	0.9946	0.9946	0.9947	0.9947	0.9946	0.9946	0.9946	0.9945	0.9944	0.9943	0.9942
2	0.9937	0.9938	0.9940	0.9941	0.9942	0.9943	0.9944	0.9945	0.9945	0.9946	0.9946	0.9946	0.9945	0.9945	0.9944	0.9943	0.9943
3	0.9933	0.9935	0.9937	0.9938	0.9940	0.9941	0.9942	0.9943	0.9944	0.9944	0.9944	0.9945	0.9945	0.9944	0.9944	0.9943	0.9943
4	0.9929	0.9931	0.9933	0.9935	0.9937	0.9938	0.9939	0.9940	0.9941	0.9942	0.9943	0.9943	0.9943	0.9943	0.9943	0.9943	0.9942
5	0.9925	0.9927	0.9929	0.9931	0.9933	0.9935	0.9936	0.9937	0.9939	0.9940	0.9941	0.9941	0.9942	0.9942	0.9942	0.9942	0.9942
6	0.9920	0.9922	0.9924	0.9927	0.9929	0.9931	0.9932	0.9934	0.9935	0.9937	0.9938	0.9939	0.9940	0.9940	0.9941	0.9941	0.9941
7	0.9914	0.9917	0.9919	0.9922	0.9924	0.9926	0.9928	0.9930	0.9932	0.9933	0.9935	0.9936	0.9937	0.9938	0.9939	0.9939	0.9940
8	0.9908	0.9911	0.9914	0.9916	0.9918	0.9921	0.9923	0.9925	0.9927	0.9929	0.9931	0.9932	0.9934	0.9935	0.9936	0.9937	0.9938
9	0.9902	0.9904	0.9907	0.9910	0.9912	0.9915	0.9917	0.9920	0.9922	0.9924	0.9926	0.9928	0.9930	0.9931	0.9933	0.9934	0.9935
10	0.9894	0.9897	0.9900	0.9903	0.9906	0.9909	0.9911	0.9914	0.9916	0.9919	0.9921	0.9923	0.9925	0.9927	0.9929	0.9931	0.9932
11	0.9886	0.9889	0.9892	0.9895	0.9898	0.9901	0.9904	0.9907	0.9910	0.9913	0.9915	0.9918	0.9920	0.9922	0.9925	0.9927	0.9929
12	0.9878	0.9881	0.9884	0.9887	0.9891	0.9894	0.9897	0.9900	0.9903	0.9906	0.9909	0.9911	0.9914	0.9917	0.9919	0.9922	0.9924
13	0.9868	0.9872	0.9875	0.9879	0.9882	0.9885	0.9889	0.9892	0.9895	0.9898	0.9901	0.9905	0.9908	0.9911	0.9914	0.9916	0.9919
14	0.9858	0.9862	0.9866	0.9869	0.9873	0.9876	0.9880	0.9883	0.9887	0.9890	0.9893	0.9897	0.9900	0.9904	0.9907	0.9910	0.9913
15	0.9848	0.9852	0.9855	0.9859	0.9863	0.9866	0.9870	0.9874	0.9877	0.9881	0.9885	0.9888	0.9892	0.9896	0.9899	0.9903	0.9907
16	0.9835	0.9839	0.9843	0.9847	0.9851	0.9855	0.9859	0.9862	0.9866	0.9870	0.9874	0.9878	0.9881	0.9885	0.9889	0.9893	0.9897
17	0.9822	0.9826	0.9831	0.9835	0.9839	0.9843	0.9847	0.9851	0.9855	0.9859	0.9863	0.9866	0.9870	0.9874	0.9878	0.9882	0.9886
A 18	0.9815	0.9819	0.9824	0.9828	0.9832	0.9836	0.9841	0.9845	0.9849	0.9853	0.9857	0.9861	0.9865	0.9869	0.9873	0.9877	0.9882
g 19	0.9808	0.9813	0.9818	0.9822	0.9826	0.9831	0.9835	0.9839	0.9844	0.9848	0.9852	0.9857	0.9861	0.9865	0.9869	0.9874	0.9878
e 20	0.9801	0.9806	0.9811	0.9816	0.9820	0.9825	0.9830	0.9834	0.9839	0.9843	0.9848	0.9852	0.9856	0.9861	0.9865	0.9869	0.9874
21	0.9794	0.9799	0.9804	0.9809	0.9814	0.9819	0.9824	0.9828	0.9833	0.9838	0.9842	0.9847	0.9851	0.9856	0.9861	0.9865	0.9870
o 22	0.9786	0.9791	0.9796	0.9802	0.9807	0.9812	0.9817	0.9822	0.9827	0.9832	0.9836	0.9841	0.9846	0.9851	0.9856	0.9860	0.9865
f 23	0.9776	0.9782	0.9788	0.9793	0.9799	0.9804	0.9809	0.9815	0.9820	0.9825	0.9830	0.9835	0.9840	0.9845	0.9850	0.9855	0.9860
24	0.9766	0.9772	0.9778	0.9784	0.9790	0.9795	0.9801	0.9807	0.9812	0.9817	0.9823	0.9828	0.9833	0.9838	0.9844	0.9849	0.9854
M 25	0.9755	0.9761	0.9768	0.9774	0.9780	0.9786	0.9792	0.9798	0.9804	0.9809	0.9815	0.9821	0.9826	0.9831	0.9837	0.9842	0.9847
e 26	0.9744	0.9750	0.9757	0.9764	0.9770	0.9777	0.9783	0.9789	0.9795	0.9801	0.9807	0.9813	0.9819	0.9824	0.9830	0.9835	0.9841
m 27	0.9731	0.9739	0.9746	0.9753	0.9760	0.9767	0.9774	0.9780	0.9787	0.9793	0.9799	0.9805	0.9811	0.9817	0.9823	0.9829	0.9835
b 28	0.9719	0.9727	0.9734	0.9742	0.9749	0.9757	0.9764	0.9771	0.9777	0.9784	0.9791	0.9797	0.9804	0.9810	0.9816	0.9822	0.9828
e 29	0.9706	0.9714	0.9722	0.9730	0.9738	0.9746	0.9754	0.9761	0.9768	0.9775	0.9782	0.9789	0.9796	0.9802	0.9809	0.9815	0.9822
r 30	0.9692	0.9701	0.9709	0.9718	0.9726	0.9735	0.9743	0.9751	0.9758	0.9766	0.9773	0.9781	0.9788	0.9795	0.9802	0.9808	0.9815
31	0.9677	0.9686	0.9696	0.9705	0.9714	0.9723	0.9732	0.9740	0.9748	0.9756	0.9764	0.9772	0.9780	0.9787	0.9794	0.9801	0.9808
32	0.9661	0.9671	0.9681	0.9691	0.9701	0.9710	0.9720	0.9729	0.9738	0.9746	0.9755	0.9763	0.9771	0.9779	0.9787	0.9794	0.9801
33	0.9644	0.9655	0.9666	0.9676	0.9687	0.9697	0.9707	0.9717	0.9726	0.9735	0.9744	0.9753	0.9762	0.9770	0.9778	0.9786	0.9794
34	0.9625	0.9637	0.9649	0.9660	0.9671	0.9682	0.9693	0.9703	0.9713	0.9723	0.9733	0.9743	0.9752	0.9761	0.9769	0.9778	0.9786
35	0.9605	0.9618	0.9630	0.9643	0.9655	0.9666	0.9678	0.9689	0.9700	0.9710	0.9721	0.9731	0.9741	0.9750	0.9760	0.9769	0.9778
36	0.9583	0.9597	0.9610	0.9623	0.9636	0.9649	0.9661	0.9673	0.9685	0.9696	0.9707	0.9718	0.9729	0.9739	0.9749	0.9759	0.9769
37	0.9559	0.9574	0.9588	0.9602	0.9616	0.9630	0.9643	0.9656	0.9668	0.9681	0.9693	0.9704	0.9716	0.9727	0.9738	0.9748	0.9758
38	0.9532	0.9548	0.9564	0.9579	0.9594	0.9608	0.9623	0.9637	0.9650	0.9663	0.9676	0.9689	0.9701	0.9713	0.9725	0.9736	0.9747
39	0.9503	0.9520	0.9537	0.9553	0.9569	0.9585	0.9600	0.9615	0.9630	0.9644	0.9658	0.9671	0.9685	0.9698	0.9710	0.9722	0.9734
40	0.9471	0.9489	0.9507	0.9525	0.9542	0.9559	0.9575	0.9591	0.9607	0.9623	0.9638	0.9652	0.9666	0.9680	0.9694	0.9707	0.9720
41	0.9435	0.9455	0.9474	0.9493	0.9512	0.9530	0.9548	0.9565	0.9582	0.9598	0.9615	0.9630	0.9646	0.9661	0.9675	0.9689	0.9703
42	0.9396	0.9417	0.9438	0.9458	0.9478	0.9498	0.9517	0.9535	0.9554	0.9572	0.9589	0.9606	0.9623	0.9639	0.9654	0.9670	0.9685
43	0.9353	0.9376	0.9398	0.9420	0.9441	0.9462	0.9483	0.9503	0.9522	0.9542	0.9561	0.9579	0.9597	0.9614	0.9631	0.9648	0.9664
44	0.9306	0.9330	0.9354	0.9377	0.9400	0.9423	0.9445	0.9467	0.9488	0.9508	0.9529	0.9549	0.9568	0.9587	0.9605	0.9623	0.9640
45	0.9255	0.9281	0.9306	0.9331	0.9355	0.9380	0.9403	0.9427	0.9449	0.9472	0.9494	0.9515	0.9536	0.9556	0.9576	0.9595	0.9614
46	0.9200	0.9227	0.9254	0.9280	0.9306	0.9332	0.9358	0.9383	0.9407	0.9431	0.9455	0.9478	0.9500	0.9522	0.9543	0.9564	0.9584
47	0.9139	0.9168	0.9197	0.9225	0.9253	0.9280	0.9308	0.9334	0.9361	0.9387	0.9412	0.9437	0.9461	0.9484	0.9507	0.9530	0.9552
48	0.9074	0.9105	0.9135	0.9165	0.9195	0.9224	0.9253	0.9282	0.9310	0.9338	0.9365	0.9391	0.9417	0.9443	0.9468	0.9492	0.9516
49	0.9004	0.9036	0.9068	0.9100	0.9132	0.9163	0.9194	0.9225	0.9255	0.9284	0.9314	0.9342	0.9370	0.9398	0.9424	0.9451	0.9476
50	0.8930	0.8963	0.8997	0.9030	0.9064	0.9097	0.9130	0.9163	0.9195	0.9227	0.9258	0.9289	0.9319	0.9348	0.9377	0.9405	0.9433
51	0.8849	0.8884	0.8920	0.8955	0.8990	0.9026	0.9061	0.9095	0.9130	0.9164	0.9197	0.9230	0.9262	0.9294	0.9325	0.9355	0.9385
52	0.8763	0.8800	0.8837	0.8874	0.8911	0.8948	0.8985	0.9022	0.9059	0.9095	0.9131	0.9166	0.9201	0.9235	0.9268	0.9301	0.9332
53	0.8671	0.8710	0.8748	0.8787	0.8826	0.8865	0.8905	0.8944	0.8982	0.9021	0.9059	0.9096	0.9133	0.9170	0.9206	0.9241	0.9275
54	0.8574	0.8614	0.8654	0.8695	0.8736	0.8777	0.8818	0.8859	0.8900	0.8941	0.8981	0.9021	0.9061	0.9100	0.9138	0.9176	0.9213
55	0.8472	0.8513	0.8554	0.8597	0.8639	0.8682	0.8726	0.8769	0.8812	0.8855	0.8898	0.8941	0.8983	0.9024	0.9065	0.9106	0.9145
56	0.8364	0.8406	0.8449	0.8493	0.8537	0.8582	0.8627	0.8673	0.8718	0.8764	0.8809	0.8854	0.8899	0.8943	0.8987	0.9030	0.9073
57	0.8251	0.8295	0.8339	0.8384	0.8430	0.8477	0.8524	0.8571	0.8619	0.8667	0.8715	0.8763	0.8810	0.8857	0.8904	0.8950	0.8995
58	0.8133	0.8178	0.8224	0.8270	0.8318	0.8366	0.8415	0.8464	0.8514	0.8565	0.8615	0.8665	0.8715	0.8765	0.8815	0.8864	0.8912
59	0.8011	0.8057	0.8104	0.8152	0.8200	0.8250	0.8301	0.8352	0.8404	0.8457	0.8509	0.8562	0.8615	0.8668	0.8720	0.8773	0.8824
A 60	0.7885	0.7931	0.7979	0.8028	0.8078	0.8129	0.8182	0.8235	0.8289	0.8343	0.8398	0.8454	0.8509	0.8565	0.8621	0.8676	0.8730
g 61	0.7754	0.7801	0.7849	0.7899	0.7951	0.8003	0.8057	0.8112	0.8168	0.8224	0.8282	0.8340	0.8398	0.8456	0.8515	0.8573	0.8631
e 62	0.7618	0.7666	0.7715	0.7766	0.7818	0.7872	0.7927	0.7983	0.8041	0.8100	0.8159	0.8219	0.8280	0.8341	0.8403	0.8464	0.8526
63	0.7477	0.7525	0.7575	0.7627	0.7680	0.7735	0.7791	0.7849	0.7908	0.7968	0.8030	0.8093	0.8156	0.8220	0.8284	0.8349	0.8413
o 64	0.7331	0.7380	0.7430	0.7482	0.7536	0.7592	0.7649	0.7708	0.7769	0.7831	0.7894	0.7959	0.8024	0.8091	0.8158	0.8226	0.8293
f 65	0.7180	0.7228	0.7279	0.7331	0.7386	0.7442	0.7500	0.7560	0.7622	0.7686	0.7751	0.7817	0.7885	0.7954	0.8024	0.8095	0.8166
66	0.7022	0.7071	0.7122	0.7175	0.7229	0.7286	0.7345	0.7406	0.7469	0.7533	0.7600	0.7668	0.7738	0.7809	0.7881	0.7955	0.8029
M 67	0.6859	0.6907	0.6958	0.7011	0.7066	0.7123	0.7182	0.7244	0.7307	0.7373	0.7441	0.7511	0.7582	0.7655	0.7730	0.7806	0.7883
e 68	0.6689	0.6737	0.6788	0.6841	0.6896	0.6953	0.7012	0.7074	0.7138	0.7205	0.7274	0.7345	0.7418	0.7492	0.7569	0.7647	0.7727
m 69	0.6513	0.6561	0.6611	0.6664	0.6718	0.6776	0.6835	0.6897	0.6962	0.7029	0.7098	0.7170	0.7244	0.7320	0.7399	0.7479	0.7561
b 70	0.6330	0.6378	0.6428	0.6480	0.6534	0.6591	0.6651	0.6713	0.6777	0.6844	0.6914	0.6987	0.7062	0.7139	0.7219	0.7301	0.7385
e 71	0.6142	0.6189	0.6238	0.6290	0.6344	0.6400	0.6459	0.6521	0.6585	0.6652	0.6722	0.6795	0.6871	0.6949	0.7030	0.7113	0.7199
r 72	0.5949	0.5995	0.6043	0.6094	0.6147	0.6203	0.6262	0.6323	0.6387	0.6454	0.6524	0.6596	0.6672	0.6751	0.6833	0.6917	0.7004
73	0.5751	0.5796	0.5844	0.5894	0.5946	0.6001	0.6059	0.6119	0.6183	0.6249	0.6319	0.6391	0.6467	0.6546	0.6628	0.6713	0.6801
74	0.5550	0.5594	0.5641	0.5690	0.5741	0.5795	0.5852	0.5912	0.5974	0.6040	0.6109	0.6181	0.6256	0.6335	0.6417	0.6502	0.6591
75	0.5347	0.5390	0.5436	0.5484	0.5534	0.5587	0.5643	0.5701	0.5763	0.5827	0.5895	0.5967	0.6041	0.6119	0.6201	0.6286	0.6375
76	0.5143	0.5185	0.5229	0.5276	0.5325	0.5377	0.5431	0.5489	0.5549	0.5613	0.5679	0.5750	0.5823	0.5901	0.5982	0.6067	0.6155
77	0.4939	0.4980	0.5023	0.5068	0.5116	0.5166	0.5219	0.5275	0.5334	0.5397	0.5462	0.5531	0.5604	0.5680	0.5760	0.5844	0.5932
78	0.4735	0.4774	0.4816	0.4860	0.4907	0.4956	0.5007	0.5062	0.5119	0.5180	0.5244	0.5312	0.5383	0.5458	0.5537	0.5620	0.5706
79	0.4531	0.4569	0.4610	0.4653	0.4698	0.4745	0.4795	0.4848	0.4904	0.4963	0.5025	0.5091	0.5161	0.5234	0.5312	0.5393	0.5479
80	0.4328	0.4365	0.4404	0.4445	0.4489	0.4535	0.4583	0.4634	0.4689	0.4746	0.4807	0.4871	0.4939	0.5010	0.5086	0.5166	0.5250
81	0.4126	0.4162	0.4199	0.4239	0.4281	0.4325	0.4372	0.4421	0.4473	0.4529	0.4588	0.4650	0.4716	0.4785	0.4859	0.4937	0.5019
82	0.3925	0.3959	0.3995	0.4033	0.4073	0.4116	0.4161	0.4209	0.4259	0.4312	0.4369	0.4429	0.4493	0.4560	0.4632	0.4708	0.4788
83	0.3725	0.3758	0.3792	0.3829	0.3868	0.3908	0.3951	0.3997	0.4045	0.4097	0.4151	0.4209	0.4271	0.4336	0.4405	0.4478	0.4556
84	0.3528	0.3559	0.3592	0.3627	0.3664	0.3703	0.3744	0.3788	0.3834	0.3883	0.3936	0.3991	0.4050	0.4113	0.4180	0.4250	0.4325
85	0.3335	0.3365	0.3396	0.3429	0.3464	0.3502	0.3541	0.3583	0.3627	0.3674	0.3724	0.3777	0.3833	0.3894	0.3958	0.4026	0.4098
86	0.3147	0.3175	0.3205	0.3237	0.3270	0.3305	0.3343	0.3382	0.3424	0.3469	0.3517	0.3568	0.3622	0.3679	0.3740	0.3806	0.3875
87	0.2967	0.2993	0.3022	0.3052	0.3084	0.3117	0.3153	0.3190	0.3231	0.3273	0.3318	0.3367	0.3418	0.3473	0.3532	0.3594	0.3660
88	0.2796	0.2821	0.2848	0.2877	0.2907	0.2939	0.2973	0.3008	0.3046	0.3087	0.3130	0.3176	0.3225	0.3277	0.3333	0.3393	0.3456
89	0.2636	0.2661	0.2686	0.2713	0.2742	0.2772	0.2804	0.2838	0.2874	0.2913	0.2954	0.2997	0.3044	0.3094	0.3147	0.3204	0.3264
90	0.2490	0.2513	0.2537	0.2563	0.2590	0.2619	0.2649	0.2681	0.2716	0.2752	0.2791	0.2833	0.2877	0.2925	0.2975	0.3030	0.3088
91	0.2356	0.2378	0.2401	0.2426	0.2451	0.2479	0.2508	0.2538	0.2571	0.2606	0.2643	0.2683	0.2725	0.2770	0.2819	0.2871	0.2926
92	0.2234	0.2254	0.2276	0.2300	0.2324	0.2350	0.2378	0.2407	0.2438	0.2472	0.2507	0.2545	0.2585	0.2628	0.2675	0.2724	0.2777
93	0.2120	0.2139	0.2160	0.2183	0.2206	0.2231	0.2257	0.2285	0.2315	0.2347	0.2380	0.2416	0.2455	0.2496	0.2541	0.2588	0.2639
94	0.2012	0.2031	0.2051	0.2072	0.2094	0.2118	0.2143	0.2170	0.2198	0.2228	0.2260	0.2295	0.2332	0.2371	0.2414	0.2459	0.2508
95	0.1907	0.1925	0.1944	0.1965	0.1986	0.2008	0.2032	0.2058	0.2085	0.2113	0.2144	0.2177	0.2212	0.2250	0.2290	0.2334	0.2380
96	0.1807	0.1824	0.1842	0.1862	0.1882	0.1903	0.1926	0.1950	0.1976	0.2003	0.2032	0.2064	0.2097	0.2133	0.2172	0.2213	0.2257
97	0.1711	0.1727	0.1744	0.1762	0.1782	0.1802	0.1824	0.1846	0.1871	0.1897	0.1925	0.1955	0.1986	0.2021	0.2057	0.2097	0.2139
98	0.1618	0.1634	0.1650	0.1667	0.1686	0.1705	0.1725	0.1747	0.1770	0.1795	0.1822	0.1850	0.1880	0.1913	0.1948	0.1985	0.2025
99	0.1531	0.1546	0.1561	0.1578	0.1595	0.1613	0.1633	0.1653	0.1675	0.1699	0.1724	0.1751	0.1780	0.1811	0.1844	0.1879	0.1918
100	0.1450	0.1464	0.1479	0.1494	0.1511	0.1528	0.1547	0.1566	0.1587	0.1610	0.1633	0.1659	0.1686	0.1716	0.1747	0.1781	0.1818

Montana State Retirement System
Sheriffs' Retirement System
100% Joint Life Annuity Factors with Popup
Member Mortality: PubS-2010 Disabled Retiree; Males Set Forward 1 year, MP-2021 - Projected to 2021
Contingent Mortality: PubS-2010 Contingent Survivor proj to 2021; Males Set Forward 1 year; MP-2021 - Proj to 2040
Male/Female Mix: 85% Male, 15% Female
Interest: 7.30% per year
Post-Retirement COLA: 1.50% per year
Disability Retirement

Age	Age of Contingent Annuitant																
	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
1	0.9941	0.9939	0.9937	0.9936	0.9934	0.9932	0.9930	0.9928	0.9926	0.9924	0.9922	0.9920	0.9918	0.9916	0.9914	0.9912	0.9911
2	0.9941	0.9940	0.9939	0.9937	0.9936	0.9934	0.9932	0.9930	0.9928	0.9926	0.9924	0.9922	0.9920	0.9918	0.9916	0.9914	0.9912
3	0.9942	0.9941	0.9940	0.9938	0.9937	0.9935	0.9934	0.9932	0.9930	0.9928	0.9926	0.9924	0.9922	0.9919	0.9917	0.9915	0.9914
4	0.9942	0.9941	0.9940	0.9939	0.9938	0.9936	0.9935	0.9933	0.9932	0.9930	0.9928	0.9926	0.9924	0.9921	0.9919	0.9917	0.9915
5	0.9942	0.9941	0.9941	0.9940	0.9939	0.9938	0.9936	0.9935	0.9933	0.9932	0.9930	0.9928	0.9926	0.9924	0.9922	0.9920	0.9918
6	0.9941	0.9941	0.9940	0.9940	0.9939	0.9939	0.9938	0.9936	0.9935	0.9934	0.9932	0.9930	0.9929	0.9927	0.9924	0.9922	0.9920
7	0.9940	0.9940	0.9940	0.9940	0.9940	0.9939	0.9939	0.9938	0.9937	0.9936	0.9934	0.9933	0.9931	0.9929	0.9927	0.9925	0.9923
8	0.9938	0.9939	0.9939	0.9940	0.9940	0.9940	0.9939	0.9939	0.9938	0.9937	0.9936	0.9935	0.9934	0.9932	0.9931	0.9929	0.9927
9	0.9936	0.9937	0.9938	0.9939	0.9939	0.9940	0.9940	0.9940	0.9940	0.9939	0.9938	0.9938	0.9937	0.9935	0.9934	0.9933	0.9931
10	0.9934	0.9935	0.9936	0.9937	0.9938	0.9939	0.9940	0.9940	0.9941	0.9941	0.9940	0.9940	0.9939	0.9939	0.9938	0.9937	0.9936
11	0.9930	0.9932	0.9934	0.9935	0.9937	0.9938	0.9939	0.9940	0.9941	0.9942	0.9942	0.9942	0.9942	0.9942	0.9941	0.9941	0.9940
12	0.9927	0.9929	0.9931	0.9933	0.9935	0.9937	0.9938	0.9940	0.9941	0.9942	0.9943	0.9944	0.9945	0.9945	0.9945	0.9945	0.9945
13	0.9922	0.9925	0.9927	0.9930	0.9932	0.9934	0.9937	0.9939	0.9941	0.9943	0.9944	0.9946	0.9947	0.9948	0.9949	0.9950	0.9951
14	0.9916	0.9920	0.9923	0.9926	0.9929	0.9932	0.9934	0.9937	0.9940	0.9942	0.9945	0.9947	0.9949	0.9951	0.9953	0.9955	0.9956
15	0.9910	0.9914	0.9918	0.9921	0.9925	0.9928	0.9931	0.9935	0.9938	0.9941	0.9945	0.9948	0.9951	0.9954	0.9957	0.9959	0.9962
16	0.9900	0.9904	0.9908	0.9912	0.9915	0.9919	0.9922	0.9926	0.9929	0.9933	0.9936	0.9940	0.9943	0.9946	0.9949	0.9952	0.9955
17	0.9890	0.9894	0.9898	0.9902	0.9905	0.9909	0.9913	0.9917	0.9920	0.9924	0.9927	0.9931	0.9934	0.9937	0.9941	0.9944	0.9947
18	0.9886	0.9890	0.9894	0.9898	0.9902	0.9905	0.9909	0.9913	0.9917	0.9921	0.9924	0.9928	0.9931	0.9935	0.9938	0.9941	0.9944
19	0.9882	0.9886	0.9890	0.9894	0.9898	0.9902	0.9906	0.9910	0.9914	0.9918	0.9922	0.9926	0.9929	0.9933	0.9936	0.9940	0.9943
20	0.9878	0.9882	0.9887	0.9891	0.9895	0.9899	0.9904	0.9908	0.9912	0.9916	0.9920	0.9924	0.9927	0.9931	0.9934	0.9938	0.9941
21	0.9874	0.9879	0.9883	0.9887	0.9892	0.9896	0.9901	0.9905	0.9909	0.9913	0.9917	0.9921	0.9925	0.9929	0.9933	0.9936	0.9940
22	0.9870	0.9874	0.9879	0.9883	0.9888	0.9892	0.9897	0.9901	0.9906	0.9910	0.9914	0.9918	0.9922	0.9926	0.9930	0.9934	0.9938
23	0.9864	0.9869	0.9874	0.9879	0.9883	0.9888	0.9893	0.9897	0.9902	0.9906	0.9911	0.9915	0.9919	0.9923	0.9927	0.9931	0.9935
24	0.9859	0.9864	0.9869	0.9874	0.9878	0.9883	0.9888	0.9893	0.9897	0.9902	0.9907	0.9911	0.9915	0.9920	0.9924	0.9928	0.9932
25	0.9853	0.9858	0.9863	0.9868	0.9873	0.9878	0.9883	0.9888	0.9893	0.9897	0.9902	0.9907	0.9911	0.9916	0.9920	0.9924	0.9928
26	0.9846	0.9852	0.9857	0.9862	0.9868	0.9873	0.9878	0.9883	0.9888	0.9893	0.9898	0.9903	0.9907	0.9912	0.9916	0.9921	0.9925
27	0.9840	0.9846	0.9851	0.9857	0.9862	0.9868	0.9873	0.9878	0.9883	0.9888	0.9893	0.9898	0.9903	0.9908	0.9913	0.9917	0.9921
28	0.9834	0.9840	0.9846	0.9851	0.9857	0.9862	0.9868	0.9873	0.9879	0.9884	0.9889	0.9894	0.9899	0.9904	0.9909	0.9914	0.9918
29	0.9828	0.9834	0.9840	0.9846	0.9852	0.9857	0.9863	0.9869	0.9874	0.9880	0.9885	0.9890	0.9895	0.9901	0.9905	0.9910	0.9915
30	0.9822	0.9828	0.9834	0.9840	0.9846	0.9852	0.9858	0.9864	0.9870	0.9876	0.9881	0.9886	0.9892	0.9897	0.9902	0.9907	0.9912
31	0.9815	0.9822	0.9829	0.9835	0.9841	0.9848	0.9854	0.9860	0.9866	0.9871	0.9877	0.9883	0.9888	0.9894	0.9899	0.9904	0.9909
32	0.9809	0.9816	0.9823	0.9829	0.9836	0.9843	0.9849	0.9855	0.9862	0.9868	0.9873	0.9879	0.9885	0.9890	0.9896	0.9901	0.9906
33	0.9802	0.9809	0.9817	0.9824	0.9831	0.9838	0.9844	0.9851	0.9857	0.9864	0.9870	0.9876	0.9882	0.9887	0.9893	0.9898	0.9903
34	0.9795	0.9802	0.9810	0.9818	0.9825	0.9832	0.9839	0.9846	0.9853	0.9860	0.9866	0.9872	0.9878	0.9884	0.9890	0.9895	0.9901
35	0.9787	0.9795	0.9803	0.9811	0.9819	0.9827	0.9834	0.9841	0.9848	0.9855	0.9862	0.9868	0.9875	0.9881	0.9887	0.9893	0.9898
36	0.9778	0.9787	0.9796	0.9804	0.9813	0.9821	0.9828	0.9836	0.9844	0.9851	0.9858	0.9865	0.9871	0.9878	0.9884	0.9890	0.9895
37	0.9768	0.9778	0.9787	0.9797	0.9805	0.9814	0.9822	0.9830	0.9838	0.9846	0.9853	0.9860	0.9867	0.9874	0.9880	0.9887	0.9893
38	0.9758	0.9768	0.9778	0.9788	0.9797	0.9806	0.9815	0.9824	0.9832	0.9840	0.9848	0.9856	0.9863	0.9870	0.9877	0.9883	0.9890
39	0.9746	0.9757	0.9768	0.9778	0.9788	0.9798	0.9807	0.9817	0.9826	0.9834	0.9842	0.9850	0.9858	0.9866	0.9873	0.9880	0.9886
40	0.9732	0.9744	0.9756	0.9767	0.9778	0.9788	0.9799	0.9808	0.9818	0.9827	0.9836	0.9844	0.9853	0.9861	0.9868	0.9875	0.9882
41	0.9716	0.9729	0.9742	0.9754	0.9766	0.9777	0.9788	0.9799	0.9809	0.9819	0.9828	0.9837	0.9846	0.9855	0.9863	0.9870	0.9878
42	0.9699	0.9713	0.9726	0.9740	0.9752	0.9765	0.9776	0.9788	0.9799	0.9809	0.9820	0.9829	0.9839	0.9848	0.9856	0.9864	0.9872
43	0.9679	0.9694	0.9709	0.9723	0.9737	0.9750	0.9763	0.9775	0.9787	0.9798	0.9809	0.9820	0.9830	0.9840	0.9849	0.9858	0.9866
44	0.9657	0.9673	0.9689	0.9704	0.9719	0.9733	0.9747	0.9761	0.9773	0.9786	0.9798	0.9809	0.9820	0.9830	0.9840	0.9850	0.9859
45	0.9632	0.9649	0.9667	0.9683	0.9699	0.9715	0.9730	0.9744	0.9758	0.9771	0.9784	0.9796	0.9808	0.9819	0.9830	0.9840	0.9850
46	0.9604	0.9623	0.9641	0.9659	0.9677	0.9694	0.9710	0.9725	0.9740	0.9755	0.9769	0.9782	0.9795	0.9807	0.9819	0.9830	0.9840
47	0.9573	0.9593	0.9613	0.9633	0.9652	0.9670	0.9687	0.9704	0.9721	0.9736	0.9751	0.9766	0.9780	0.9793	0.9806	0.9818	0.9829
48	0.9538	0.9561	0.9582	0.9603	0.9624	0.9643	0.9662	0.9681	0.9698	0.9716	0.9732	0.9748	0.9763	0.9777	0.9791	0.9804	0.9816
49	0.9501	0.9525	0.9548	0.9571	0.9593	0.9614	0.9635	0.9655	0.9674	0.9692	0.9710	0.9727	0.9744	0.9759	0.9774	0.9788	0.9802
50	0.9459	0.9485	0.9511	0.9535	0.9559	0.9582	0.9604	0.9626	0.9647	0.9667	0.9686	0.9705	0.9722	0.9739	0.9756	0.9771	0.9786
51	0.9414	0.9442	0.9469	0.9496	0.9521	0.9546	0.9570	0.9594	0.9616	0.9638	0.9659	0.9679	0.9698	0.9717	0.9734	0.9751	0.9767
52	0.9363	0.9394	0.9423	0.9452	0.9480	0.9507	0.9533	0.9558	0.9582	0.9606	0.9629	0.9651	0.9671	0.9691	0.9711	0.9729	0.9746
53	0.9309	0.9341	0.9373	0.9404	0.9434	0.9463	0.9491	0.9519	0.9545	0.9571	0.9595	0.9619	0.9641	0.9663	0.9684	0.9704	0.9723
54	0.9249	0.9284	0.9318	0.9352	0.9384	0.9415	0.9446	0.9475	0.9504	0.9532	0.9558	0.9584	0.9608	0.9632	0.9655	0.9676	0.9697
55	0.9184	0.9222	0.9259	0.9295	0.9330	0.9364	0.9397	0.9428	0.9459	0.9489	0.9518	0.9546	0.9572	0.9598	0.9622	0.9646	0.9668
56	0.9114	0.9155	0.9195	0.9233	0.9271	0.9308	0.9343	0.9378	0.9411	0.9443	0.9474	0.9504	0.9533	0.9561	0.9587	0.9612	0.9636
57	0.9039	0.9083	0.9126	0.9167	0.9208	0.9247	0.9286	0.9323	0.9359	0.9394	0.9427	0.9460	0.9491	0.9521	0.9549	0.9577	0.9603
58	0.8960	0.9006	0.9052	0.9097	0.9141	0.9183	0.9224	0.9264	0.9303	0.9341	0.9377	0.9412	0.9446	0.9478	0.9509	0.9539	0.9567
59	0.8875	0.8925	0.8974	0.9022	0.9069	0.9114	0.9159	0.9202	0.9244	0.9285	0.9324	0.9362	0.9398	0.9433	0.9466	0.9498	0.9529
60	0.8785	0.8838	0.8890	0.8942	0.8992	0.9041	0.9089	0.9136	0.9181	0.9225	0.9267	0.9308	0.9347	0.9385	0.9421	0.9455	0.9488
61	0.8689	0.8745	0.8801	0.8857	0.8911	0.8963	0.9015	0.9065	0.9114	0.9161	0.9207	0.9251	0.9293	0.9334	0.9373	0.9410	0.9446
62	0.8587	0.8647	0.8707	0.8765	0.8823	0.8880	0.8935	0.8989	0.9042	0.9093	0.9142	0.9189	0.9235	0.9279	0.9322	0.9362	0.9400
63	0.8478	0.8542	0.8605	0.8668	0.8730	0.8790	0.8850	0.8908	0.8964	0.9019	0.9072	0.9124	0.9173	0.9221	0.9266	0.9310	0.9352
64	0.8361	0.8429	0.8496	0.8563	0.8629	0.8693	0.8757	0.8819	0.8880	0.8939	0.8997	0.9052	0.9106	0.9157	0.9207	0.9254	0.9299
65	0.8237	0.8308	0.8379	0.8450	0.8520	0.8589	0.8657	0.8723	0.8789	0.8852	0.8914	0.8974	0.9032	0.9088	0.9141	0.9193	0.9242
66	0.8103	0.8178	0.8253	0.8328	0.8402	0.8475	0.8548	0.8619	0.8689	0.8757	0.8824	0.8888	0.8951	0.9011	0.9069	0.9125	0.9178
67	0.7960	0.8039	0.8117	0.8196	0.8274	0.8352	0.8429	0.8505	0.8579	0.8653	0.8724	0.8794	0.8861	0.8927	0.8989	0.9050	0.9107
68	0.7808	0.7889	0.7971	0.8053	0.8136	0.8218	0.8300	0.8380	0.8460	0.8538	0.8615	0.8690	0.8762	0.8833	0.8900	0.8966	0.9028
69	0.7644	0.7729	0.7814	0.7900	0.7987	0.8073	0.8159	0.8244	0.8329	0.8412	0.8494	0.8574	0.8652	0.8728	0.8802	0.8872	0.8940
70	0.7471	0.7558	0.7646	0.7736	0.7826	0.7916	0.8007	0.8097	0.8186	0.8275	0.8362	0.8448	0.8531	0.8613	0.8692	0.8768	0.8841
71	0.7287	0.7376	0.7468	0.7560	0.7654	0.7748	0.7843	0.7937	0.8032	0.8125	0.8218	0.8309	0.8398	0.8485	0.8570	0.8652	0.8732
72	0.7093	0.7185	0.7279	0.7374	0.7471	0.7569	0.7667	0.7766	0.7865	0.7964	0.8061	0.8158	0.8253	0.8346	0.8437	0.8525	0.8610
73	0.6891	0.6985	0.7080	0.7178	0.7278	0.7379	0.7481	0.7584	0.7687	0.7790	0.7893	0.7995	0.8096	0.8195	0.8292	0.8386	0.8477
74	0.6682	0.6777	0.6874	0.6973	0.7075	0.7179	0.7285	0.7391	0.7499	0.7607	0.7714	0.7822	0.7928	0.8032	0.8135	0.8236	0.8333
75	0.6467	0.6562	0.6660	0.6762	0.6865	0.6972	0.7080	0.7190	0.7301	0.7413	0.7525	0.7638	0.7749	0.7859	0.7968	0.8075	0.8179
76	0.6247	0.6343	0.6442	0.6544	0.6649	0.6757	0.6868	0.6981	0.7095	0.7211	0.7327	0.7444	0.7561	0.7677	0.7791	0.7904	0.8014
77	0.6024	0.6119	0.6218	0.6321	0.6428	0.6537	0.6649	0.6764	0.6882	0.7001	0.7121	0.7243	0.7364	0.7485	0.7605	0.7724	0.7840
78	0.5797	0.5893	0.5992	0.6095	0.6201	0.6312	0.6425	0.6542	0.6662	0.6784	0.6908	0.7033	0.7159	0.7285	0.7410	0.7534	0.7657
79	0.5569	0.5663	0.5761	0.5864	0.5971	0.6082	0.6196	0.6314	0.6436	0.6560	0.6687	0.6815	0.6945	0.7075	0.7206	0.7335	0.7463
80	0.5338	0.5431	0.5529	0.5630	0.5737	0.5847	0.5962	0.6081	0.6203	0.6329	0.6458	0.6589	0.6723	0.6857	0.6992	0.7126	0.7260
81	0.5106	0.5197	0.5293	0.5394	0.5499	0.5609	0.5723	0.5842	0.5965	0.6092	0.6223	0.6356	0.6492	0.6630	0.6768	0.6907	0.7046
82	0.4872	0.4962	0.5056	0.5155	0.5258	0.5367	0.5481	0.5599	0.5722	0.5849	0.5980	0.6115	0.6253	0.6393	0.6535	0.6678	0.6821
83	0.4638	0.4725	0.4817	0.4914	0.5016	0.5123	0.5235	0.5352	0.5474	0.5601	0.5732	0.5868	0.6007	0.6149	0.6293	0.6439	0.6586
84	0.4405	0.4489	0.4579	0.4673	0.4772	0.4877	0.4987	0.5102	0.5223	0.5349	0.5480	0.5615	0.5755	0.5898	0.6044	0.6192	0.6342
85	0.4175	0.4256	0.4343	0.4434	0.4531	0.4633	0.4740	0.4853	0.4972	0.5096	0.5226	0.5360	0.5500	0.5643	0.5790	0.5939	0.6091
86	0.3949	0.4027	0.4110	0.4199	0.4292	0.4392	0.4496	0.4607	0.4723	0.4845	0.4972	0.5105	0.5243	0.5386	0.5533	0.5683	0.5835
87	0.3731	0.3806	0.3887	0.3972	0.4062	0.4158	0.4259	0.4367	0.4480	0.4599	0.4724	0.4855	0.4991	0.5133	0.5278	0.5428	0.5581
88	0.3524	0.3596	0.3673	0.3755	0.3842	0.3934	0.4032	0.4136	0.4246	0.4362	0.4485	0.4613	0.4747	0.4886	0.5031	0.5179	0.5332
89	0.3329	0.3398	0.3472	0.3550	0.3634	0.3723	0.3818	0.3919	0.4025	0.4138	0.4257	0.4382	0.4514	0.4651	0.4793	0.4940	0.5092
90	0.3150	0.3216	0.3286	0.3362	0.3442	0.3528	0.3620	0.3717	0.3820	0.3930	0.4046	0.4168	0.4296	0.4431	0.4571	0.4716	0.4866
91	0.2985	0.3049	0.3117	0.3189	0.3266	0.3349	0.3437	0.3531	0.3631	0.3738	0.3850	0.3970	0.4095	0.4227	0.4365	0.4508	0.4657
92	0.2834	0.2895	0.2960	0.3030	0.3104	0.3184	0.3269	0.3360	0.3457	0.3560	0.3670	0.3786	0.3909	0.4038	0.4173	0.4314	0.4461
93	0.2693	0.2752	0.2814	0.2881	0.2953	0.3030	0.3112	0.3200	0.3293	0.3393	0.3500	0.3613	0.3733	0.3860	0.3992	0.4131	0.4276
94	0.2560	0.2616	0.2676	0.2740	0.2809	0.2883	0.2962	0.3047	0.3137	0.3234	0.3338	0.3448	0.3565	0.3688	0.3819	0.3955	0.4097
95	0.2430	0.2484	0.2541	0.2603	0.2669	0.2740	0.2816	0.2898	0.2985	0.3079	0.3179	0.3286	0.3400	0.3520	0.3647	0.3781	0.3921
96	0.2305	0.2356	0.2411	0.2470	0.2534	0.2602	0.2675	0.2753	0.2838	0.2928	0.3025	0.3128	0.3239	0.3356	0.3480	0.3610	0.3747
97	0.2184	0.2233	0.2286	0.2342	0.2403	0.2468	0.2538	0.2614	0.2695	0.2782	0.2875	0.2975	0.3082	0.3195	0.3316	0.3443	0.3577
98	0.2069	0.2115	0.2165	0.2219	0.2277	0.2339	0.2407	0.2479	0.2557	0.2640	0.2730	0.2826	0.2929	0.3039	0.3156	0.3280	0.3410
99	0.1959	0.2003	0.2051	0.2102	0.2158	0.2217	0.2282	0.2351	0.2425	0.2505	0.2592	0.2684	0.2784	0.2890	0.3003	0.3123	0.3250
100	0.1857	0.1899	0.1945	0.1994	0.2047	0.2104	0.2165	0.2231	0.2302	0.2379	0.2462	0.2552	0.2647	0.2750	0.2859	0.2976	0.3099

Age of Member

Montana State Retirement System
Sheriffs' Retirement System
100% Joint Life Annuity Factors with Popup
Member Mortality: PubS-2010 Disabled Retiree; Males Set Forward 1 year, MP-2021 - Projected to 2021
Contingent Mortality: PubS-2010 Contingent Survivor proj to 2021; Males Set Forward 1 year; MP-2021 - Proj to 2040
Male/Female Mix: 85% Male, 15% Female
Interest: 7.30% per year
Post-Retirement COLA: 1.50% per year
Disability Retirement

Age of Member	Age of Contingent Annuitant 86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	0.9909	0.9908	0.9907	0.9905	0.9904	0.9904	0.9904	0.9904	0.9905	0.9906	0.9908	0.9910	0.9913	0.9917	0.9920
2	0.9911	0.9909	0.9908	0.9906	0.9905	0.9904	0.9904	0.9904	0.9905	0.9906	0.9908	0.9911	0.9914	0.9917	0.9920
3	0.9912	0.9910	0.9909	0.9907	0.9905	0.9905	0.9904	0.9905	0.9906	0.9907	0.9909	0.9911	0.9914	0.9917	0.9921
4	0.9913	0.9912	0.9910	0.9908	0.9906	0.9905	0.9905	0.9905	0.9906	0.9907	0.9909	0.9911	0.9914	0.9917	0.9921
5	0.9915	0.9913	0.9911	0.9909	0.9907	0.9906	0.9906	0.9906	0.9906	0.9907	0.9909	0.9911	0.9914	0.9917	0.9921
6	0.9918	0.9916	0.9914	0.9911	0.9909	0.9908	0.9907	0.9907	0.9907	0.9908	0.9910	0.9912	0.9914	0.9917	0.9921
7	0.9921	0.9919	0.9916	0.9914	0.9912	0.9910	0.9909	0.9908	0.9909	0.9909	0.9910	0.9912	0.9915	0.9918	0.9921
8	0.9925	0.9923	0.9920	0.9917	0.9915	0.9913	0.9912	0.9911	0.9911	0.9911	0.9912	0.9914	0.9916	0.9919	0.9922
9	0.9929	0.9927	0.9925	0.9922	0.9919	0.9917	0.9915	0.9914	0.9914	0.9913	0.9914	0.9915	0.9917	0.9920	0.9923
10	0.9934	0.9932	0.9930	0.9927	0.9925	0.9922	0.9921	0.9919	0.9918	0.9918	0.9918	0.9919	0.9920	0.9922	0.9925
11	0.9939	0.9938	0.9936	0.9934	0.9931	0.9929	0.9927	0.9926	0.9925	0.9924	0.9924	0.9924	0.9925	0.9926	0.9928
12	0.9945	0.9945	0.9944	0.9942	0.9940	0.9938	0.9937	0.9935	0.9934	0.9933	0.9932	0.9932	0.9933	0.9934	0.9935
13	0.9951	0.9952	0.9952	0.9951	0.9950	0.9949	0.9948	0.9947	0.9946	0.9945	0.9945	0.9944	0.9944	0.9945	0.9946
14	0.9958	0.9959	0.9960	0.9961	0.9961	0.9961	0.9961	0.9961	0.9962	0.9961	0.9961	0.9962	0.9962	0.9962	0.9963
15	0.9965	0.9967	0.9969	0.9972	0.9974	0.9976	0.9978	0.9979	0.9981	0.9983	0.9984	0.9985	0.9987	0.9988	0.9989
16	0.9957	0.9960	0.9963	0.9965	0.9967	0.9969	0.9972	0.9974	0.9975	0.9977	0.9979	0.9980	0.9982	0.9983	0.9984
17	0.9950	0.9952	0.9955	0.9957	0.9960	0.9962	0.9964	0.9966	0.9968	0.9970	0.9972	0.9974	0.9975	0.9977	0.9978
18	0.9947	0.9950	0.9953	0.9955	0.9958	0.9960	0.9963	0.9965	0.9967	0.9969	0.9971	0.9972	0.9974	0.9975	0.9977
19	0.9946	0.9949	0.9952	0.9954	0.9957	0.9959	0.9962	0.9964	0.9966	0.9968	0.9970	0.9972	0.9973	0.9975	0.9976
20	0.9944	0.9948	0.9950	0.9953	0.9956	0.9959	0.9961	0.9963	0.9965	0.9967	0.9969	0.9971	0.9973	0.9975	0.9976
21	0.9943	0.9946	0.9949	0.9952	0.9955	0.9958	0.9960	0.9962	0.9965	0.9967	0.9969	0.9971	0.9973	0.9974	0.9976
22	0.9941	0.9944	0.9948	0.9951	0.9954	0.9956	0.9959	0.9961	0.9964	0.9966	0.9968	0.9970	0.9972	0.9974	0.9975
23	0.9939	0.9942	0.9945	0.9949	0.9952	0.9955	0.9957	0.9960	0.9962	0.9965	0.9967	0.9969	0.9971	0.9973	0.9974
24	0.9936	0.9939	0.9943	0.9946	0.9949	0.9952	0.9955	0.9958	0.9961	0.9963	0.9965	0.9968	0.9970	0.9971	0.9973
25	0.9932	0.9936	0.9940	0.9943	0.9947	0.9950	0.9953	0.9956	0.9958	0.9961	0.9963	0.9966	0.9968	0.9970	0.9972
26	0.9929	0.9933	0.9937	0.9940	0.9944	0.9947	0.9950	0.9953	0.9956	0.9959	0.9961	0.9964	0.9966	0.9968	0.9970
27	0.9926	0.9930	0.9934	0.9937	0.9941	0.9945	0.9948	0.9951	0.9954	0.9957	0.9959	0.9962	0.9964	0.9966	0.9968
28	0.9922	0.9927	0.9931	0.9935	0.9938	0.9942	0.9945	0.9949	0.9952	0.9955	0.9957	0.9960	0.9962	0.9965	0.9967
29	0.9919	0.9924	0.9928	0.9932	0.9936	0.9939	0.9943	0.9946	0.9950	0.9953	0.9955	0.9958	0.9961	0.9963	0.9965
30	0.9916	0.9921	0.9925	0.9929	0.9933	0.9937	0.9941	0.9944	0.9947	0.9951	0.9954	0.9956	0.9959	0.9961	0.9964
31	0.9914	0.9918	0.9923	0.9927	0.9931	0.9935	0.9939	0.9942	0.9946	0.9949	0.9952	0.9955	0.9957	0.9960	0.9962
32	0.9911	0.9916	0.9920	0.9925	0.9929	0.9933	0.9937	0.9940	0.9944	0.9947	0.9950	0.9953	0.9956	0.9959	0.9961
33	0.9909	0.9913	0.9918	0.9923	0.9927	0.9931	0.9935	0.9939	0.9942	0.9946	0.9949	0.9952	0.9955	0.9957	0.9960
34	0.9906	0.9911	0.9916	0.9920	0.9925	0.9929	0.9933	0.9937	0.9941	0.9944	0.9947	0.9951	0.9953	0.9956	0.9959
35	0.9904	0.9909	0.9914	0.9918	0.9923	0.9927	0.9931	0.9935	0.9939	0.9943	0.9946	0.9949	0.9952	0.9955	0.9958
36	0.9901	0.9906	0.9911	0.9916	0.9921	0.9925	0.9930	0.9934	0.9938	0.9941	0.9945	0.9948	0.9951	0.9954	0.9957
37	0.9898	0.9904	0.9909	0.9914	0.9919	0.9924	0.9928	0.9932	0.9936	0.9940	0.9943	0.9947	0.9950	0.9953	0.9956
38	0.9896	0.9901	0.9907	0.9912	0.9917	0.9922	0.9926	0.9931	0.9935	0.9939	0.9942	0.9946	0.9949	0.9952	0.9955
39	0.9892	0.9898	0.9904	0.9910	0.9915	0.9920	0.9924	0.9929	0.9933	0.9937	0.9941	0.9944	0.9948	0.9951	0.9954
40	0.9889	0.9895	0.9901	0.9907	0.9912	0.9917	0.9922	0.9927	0.9931	0.9935	0.9939	0.9943	0.9946	0.9950	0.9953
41	0.9885	0.9891	0.9898	0.9904	0.9909	0.9915	0.9920	0.9925	0.9929	0.9933	0.9938	0.9941	0.9945	0.9948	0.9951
42	0.9880	0.9887	0.9894	0.9900	0.9906	0.9912	0.9917	0.9922	0.9927	0.9931	0.9936	0.9939	0.9943	0.9947	0.9950
43	0.9874	0.9882	0.9889	0.9895	0.9902	0.9908	0.9913	0.9919	0.9924	0.9929	0.9933	0.9937	0.9941	0.9945	0.9948
44	0.9867	0.9875	0.9883	0.9890	0.9897	0.9903	0.9909	0.9915	0.9920	0.9925	0.9930	0.9934	0.9939	0.9942	0.9946
45	0.9859	0.9868	0.9876	0.9884	0.9891	0.9898	0.9904	0.9910	0.9916	0.9921	0.9926	0.9931	0.9936	0.9940	0.9943
46	0.9850	0.9859	0.9868	0.9877	0.9884	0.9892	0.9899	0.9905	0.9911	0.9917	0.9922	0.9927	0.9932	0.9936	0.9940
47	0.9840	0.9850	0.9859	0.9868	0.9877	0.9885	0.9892	0.9899	0.9906	0.9912	0.9917	0.9923	0.9928	0.9932	0.9937
48	0.9828	0.9839	0.9849	0.9859	0.9868	0.9877	0.9885	0.9892	0.9899	0.9906	0.9912	0.9918	0.9923	0.9928	0.9932
49	0.9814	0.9826	0.9838	0.9848	0.9858	0.9867	0.9876	0.9884	0.9892	0.9899	0.9906	0.9912	0.9918	0.9923	0.9928
50	0.9799	0.9812	0.9825	0.9836	0.9847	0.9857	0.9867	0.9876	0.9884	0.9892	0.9899	0.9906	0.9912	0.9918	0.9923
51	0.9782	0.9796	0.9810	0.9822	0.9834	0.9845	0.9856	0.9865	0.9874	0.9883	0.9891	0.9898	0.9905	0.9911	0.9917
52	0.9763	0.9778	0.9793	0.9806	0.9819	0.9831	0.9843	0.9853	0.9863	0.9873	0.9881	0.9889	0.9897	0.9904	0.9910
53	0.9741	0.9757	0.9773	0.9788	0.9803	0.9816	0.9828	0.9840	0.9851	0.9861	0.9870	0.9879	0.9887	0.9895	0.9902
54	0.9716	0.9734	0.9752	0.9768	0.9784	0.9798	0.9812	0.9824	0.9836	0.9847	0.9858	0.9867	0.9876	0.9885	0.9892
55	0.9689	0.9709	0.9728	0.9746	0.9762	0.9778	0.9793	0.9807	0.9820	0.9832	0.9844	0.9854	0.9864	0.9873	0.9881
56	0.9659	0.9681	0.9701	0.9721	0.9739	0.9756	0.9772	0.9788	0.9802	0.9815	0.9828	0.9839	0.9850	0.9860	0.9869
57	0.9627	0.9651	0.9673	0.9694	0.9714	0.9733	0.9750	0.9767	0.9782	0.9797	0.9810	0.9823	0.9835	0.9846	0.9856
58	0.9593	0.9619	0.9643	0.9666	0.9687	0.9707	0.9726	0.9744	0.9761	0.9777	0.9792	0.9806	0.9818	0.9830	0.9841
59	0.9558	0.9585	0.9611	0.9636	0.9659	0.9681	0.9701	0.9721	0.9739	0.9756	0.9772	0.9787	0.9801	0.9814	0.9826
60	0.9520	0.9549	0.9577	0.9604	0.9629	0.9653	0.9675	0.9696	0.9716	0.9734	0.9752	0.9768	0.9783	0.9797	0.9810
61	0.9480	0.9512	0.9542	0.9571	0.9598	0.9623	0.9647	0.9670	0.9691	0.9711	0.9730	0.9748	0.9764	0.9779	0.9793
62	0.9437	0.9472	0.9504	0.9536	0.9565	0.9592	0.9618	0.9643	0.9666	0.9687	0.9708	0.9727	0.9744	0.9761	0.9776
63	0.9391	0.9429	0.9465	0.9498	0.9530	0.9560	0.9588	0.9614	0.9639	0.9662	0.9684	0.9705	0.9724	0.9741	0.9758
64	0.9342	0.9383	0.9421	0.9458	0.9492	0.9524	0.9555	0.9583	0.9610	0.9635	0.9659	0.9681	0.9702	0.9721	0.9738
65	0.9288	0.9332	0.9374	0.9414	0.9451	0.9486	0.9519	0.9550	0.9579	0.9606	0.9632	0.9656	0.9678	0.9699	0.9718
66	0.9229	0.9277	0.9322	0.9365	0.9406	0.9444	0.9480	0.9513	0.9545	0.9575	0.9602	0.9628	0.9652	0.9675	0.9695
67	0.9162	0.9215	0.9264	0.9311	0.9355	0.9397	0.9436	0.9472	0.9507	0.9539	0.9569	0.9597	0.9624	0.9648	0.9670
68	0.9088	0.9145	0.9199	0.9250	0.9298	0.9343	0.9386	0.9426	0.9464	0.9499	0.9532	0.9563	0.9591	0.9618	0.9642
69	0.9005	0.9067	0.9125	0.9181	0.9233	0.9283	0.9330	0.9373	0.9415	0.9453	0.9489	0.9523	0.9554	0.9584	0.9610
70	0.8912	0.8979	0.9043	0.9103	0.9160	0.9214	0.9266	0.9314	0.9359	0.9401	0.9441	0.9478	0.9512	0.9544	0.9573
71	0.8808	0.8880	0.8950	0.9015	0.9078	0.9137	0.9193	0.9245	0.9295	0.9341	0.9385	0.9425	0.9463	0.9498	0.9531
72	0.8692	0.8771	0.8846	0.8917	0.8985	0.9050	0.9111	0.9168	0.9222	0.9273	0.9321	0.9366	0.9407	0.9446	0.9482
73	0.8565	0.8650	0.8731	0.8809	0.8882	0.8952	0.9019	0.9082	0.9141	0.9197	0.9249	0.9298	0.9344	0.9386	0.9426
74	0.8428	0.8519	0.8606	0.8690	0.8770	0.8845	0.8918	0.8986	0.9050	0.9111	0.9169	0.9222	0.9273	0.9319	0.9363
75	0.8279	0.8377	0.8471	0.8561	0.8647	0.8729	0.8807	0.8881	0.8952	0.9018	0.9081	0.9139	0.9194	0.9246	0.9293
76	0.8121	0.8225	0.8326	0.8422	0.8515	0.8604	0.8688	0.8768	0.8844	0.8917	0.8985	0.9049	0.9109	0.9165	0.9217
77	0.7954	0.8064	0.8172	0.8275	0.8374	0.8469	0.8560	0.8647	0.8729	0.8808	0.8882	0.8951	0.9017	0.9078	0.9135
78	0.7777	0.7894	0.8008	0.8118	0.8224	0.8326	0.8423	0.8517	0.8606	0.8690	0.8771	0.8846	0.8917	0.8984	0.9046
79	0.7590	0.7713	0.7834	0.7951	0.8064	0.8172	0.8277	0.8377	0.8473	0.8564	0.8651	0.8733	0.8810	0.8883	0.8950
80	0.7392	0.7522	0.7649	0.7773	0.7892	0.8008	0.8120	0.8227	0.8330	0.8428	0.8522	0.8611	0.8694	0.8773	0.8846
81	0.7184	0.7319	0.7453	0.7583	0.7709	0.7832	0.7951	0.8066	0.8176	0.8281	0.8382	0.8477	0.8568	0.8653	0.8733
82	0.6964	0.7105	0.7244	0.7381	0.7514	0.7644	0.7769	0.7891	0.8009	0.8121	0.8229	0.8332	0.8430	0.8522	0.8608
83	0.6733	0.6879	0.7024	0.7166	0.7305	0.7441	0.7574	0.7703	0.7828	0.7948	0.8063	0.8173	0.8278	0.8377	0.8471
84	0.6492	0.6642	0.6792	0.6939	0.7084	0.7226	0.7365	0.7501	0.7633	0.7760	0.7883	0.8000	0.8113	0.8219	0.8320
85	0.6244	0.6397	0.6550	0.6702	0.6852	0.7000	0.7145	0.7287	0.7425	0.7559	0.7689	0.7814	0.7934	0.8048	0.8156
86	0.5990	0.6146	0.6302	0.6457	0.6611	0.6763	0.6914	0.7061	0.7205	0.7346	0.7483	0.7615	0.7741	0.7862	0.7978
87	0.5737	0.5894	0.6052	0.6210	0.6367	0.6523	0.6678	0.6830	0.6979	0.7126	0.7269	0.7407	0.7540	0.7668	0.7790
88	0.5488	0.5645	0.5805	0.5964	0.6124	0.6283	0.6441	0.6597	0.6751	0.6902	0.7051	0.7195	0.7334	0.7468	0.7597
89	0.5247	0.5405	0.5564	0.5725	0.5886	0.6047	0.6208	0.6367	0.6525	0.6680	0.6833	0.6982	0.7127	0.7267	0.7401
90	0.5020	0.5178	0.5337	0.5498	0.5660	0.5823	0.5985	0.6147	0.6308	0.6467	0.6624	0.6777	0.6926	0.7071	0.7211
91	0.4809	0.4966	0.5125	0.5286	0.5449	0.5612	0.5776	0.5940	0.6103	0.6265	0.6425	0.6583	0.6736	0.6885	0.7030
92	0.4612	0.4768	0.4926	0.5087	0.5250	0.5414	0.5579	0.5745	0.5910	0.6075	0.6238	0.6398	0.6556	0.6709	0.6857
93	0.4426	0.4580	0.4737	0.4898	0.5061	0.5225	0.5391	0.5558	0.5725	0.5892	0.6058	0.6221	0.6382	0.6539	0.6691
94	0.4245	0.4398	0.4554	0.4714	0.4877	0.5041	0.5208	0.5376	0.5544	0.5713	0.5881	0.6047	0.6211	0.6372	0.6528
95	0.4066	0.4217	0.4372	0.4530	0.4692	0.4857	0.5023	0.5191	0.5361	0.5531	0.5701	0.5870	0.6036	0.6200	0.6360
96	0.3890	0.4038	0.4191	0.4348	0.4509	0.4673	0.4839	0.5007	0.5177	0.5348	0.5520	0.5691	0.5860	0.6026	0.6189
97	0.3717	0.3862	0.4013	0.4168	0.4327	0.4489	0.4654	0.4822	0.4992	0.5164	0.5336	0.5509	0.5680	0.5849	0.6014
98	0.3547	0.3689	0.3837	0.3990	0.4146	0.4307	0.4471	0.4638	0.4807	0.4979	0.5152	0.5325	0.5498	0.5668	0.5836
99	0.3383	0.3522	0.3667	0.3817	0.3971	0.4129	0.4292	0.4457	0.4626	0.4797	0.4970	0.5143	0.5317	0.5489	0.5658
100	0.3228	0.3364	0.3506	0.3652	0.3804	0.3960	0.4120	0.4283	0.4451	0.4621	0.4793	0.4967	0.5141	0.5314	0.5485