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November 6, 2018

ALL ASSOCIATION MEMBERS

Circular Letter 18-1742

RE: *Minnesota Statistical Plan Manual* —Revisions to Annuity Tables

The Minnesota Department of Commerce has approved the above filing to become effective 12:01 a.m., January 1, 2019.

The purpose of this filing is to expand and update the Annuity Tables found in Part 8 of the ***Minnesota Statistical Plan Manual***. The Annuity Tables were expanded to accommodate the maximum age that Permanent Total benefits will be paid for claims with accident dates on or after October 1, 2018. Due to the passage of House File 3873, the maximum age has increased from 67 to 72 (or 5 years after the date of injury whichever is later). Also, to keep applicable Annuity Tables in line with evolving life expectancy trends, MWCIA replaced the current mortality data with the latest available 2014 United States Life Tables.

The attached Exhibit 1 through 3 illustrate all necessary changes to the ***Minnesota Statistical Plan Manual***.

Please direct any questions you may concerning this item to MWCIA's Actuarial Department at (952) 897-1737, option 3, or email at actuarial@mwcia.org.

A NOTICE TO MEMBERSHIP:

MWCIA would like to remind our membership who have filed a Limited Power of Attorney with the Minnesota Department of Commerce that no materials referenced in this Circular Letter are required to be independently filed with the Department.

Exhibit 1

Minnesota Statistical Plan Manual**Part 4—Reporting Instructions—Losses
5. Incurred Losses****Effective January 1, 2019**

Current Phraseology	Proposed Phraseology
<p>5. Incurred Losses</p> <p>A. Incurred Indemnity Amount. Report the amount of incurred indemnity costs as of the loss valuation date. These losses consist of all paid and outstanding benefits, including compensation paid to the deceased prior to death, burial expenses, payments to the state, employers' liability losses and related expenses. Allocated loss adjustment expenses for other than employers' liability coverage must be excluded from reported incurred indemnity losses.</p> <p>If a deductible program applies, losses are to be reported on a gross basis prior to the application of the deductible.</p> <p>1. Death and Permanent Disability Claims. The outstanding costs shall be the carrier's individual claim estimates of future payments, with the following exceptions:</p> <ol style="list-style-type: none"> a. The portion of the reserve for death claims where there is no surviving spouse, but a parent, brother or sister receives lifetime benefits must be calculated using Tables A, B, C or D in Part 8. b. The disabled life portion of the reserve for a permanent total claim where benefits are payable for life must be calculated using Tables A or B in Part 8. c. The disabled life portion of the reserve for a permanent total claim where benefits are payable until age 67 must be calculated using Tables C or D in Part 8. 	<p>5. Incurred Losses</p> <p>A. Incurred Indemnity Amount. Report the amount of incurred indemnity costs as of the loss valuation date. These losses consist of all paid and outstanding benefits, including compensation paid to the deceased prior to death, burial expenses, payments to the state, employers' liability losses and related expenses. Allocated loss adjustment expenses for other than employers' liability coverage must be excluded from reported incurred indemnity losses.</p> <p>If a deductible program applies, losses are to be reported on a gross basis prior to the application of the deductible.</p> <p>1. Death and Permanent Disability Claims. The outstanding costs shall be the carrier's individual claim estimates of future payments, with the following exceptions:</p> <ol style="list-style-type: none"> a. The portion of the reserve for death claims where there is no surviving spouse, but a parent, brother or sister receives lifetime benefits must be calculated using Tables A, B, C or D in Part 8. b. The disabled life portion of the reserve for a permanent total claim where benefits are payable for life must be calculated using Tables A or B in Part 8. c. <u>Tables C or D in Part 8 must be used to calculate the disabled life portion of the reserve for a permanent total claim where benefits are payable until age 67, and Table E in Part 8 must be used for permanent total benefits payable until age 72.</u>

Exhibit 2

Minnesota Statistical Plan Manual

Part 4—Reporting Instructions—Losses

7. Injury Code (Injury Type)

Effective January 1, 2019

Current Phraseology	Proposed Phraseology
<p>B. Permanent Total Disability. Enter as permanent total each case which has been determined to constitute permanent total disability or which is defined as such under the law, or which in the judgment of the carrier, will result in permanent total disability. In general, permanent total disability includes cases involving the loss, or loss of use of both hands, both arms, both feet, both legs, or both eyes. If a lump sum settlement is made, or in the judgment of the carrier, will be received to settle future benefits, the injury code should be changed from a permanent total to a permanent partial. In establishing reserves on permanent total cases Annuity Tables A, B, C, orD shall be used, as found in Part 8.</p>	<p>B. Permanent Total Disability. Enter as permanent total each case which has been determined to constitute permanent total disability or which is defined as such under the law, or which in the judgment of the carrier, will result in permanent total disability. In general, permanent total disability includes cases involving the loss, or loss of use of both hands, both arms, both feet, both legs, or both eyes. If a lump sum settlement is made, or in the judgment of the carrier, will be received to settle future benefits, the injury code should be changed from a permanent total to a permanent partial. In establishing reserves on permanent total cases Annuity Tables A, B, C, D <u>or</u> E shall be used, as found in Part 8.</p>

Exhibit 3

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Current Phraseology	Proposed Phraseology
<p>1. Table Accidents Prior to October 1, 1992</p> <p>Table A-1 Permanent Total Benefits—Male Lives Table A-2 Permanent Total Benefits—Female Lives Table A-3 Fatal Dependency Benefits—Total Population</p> <p>2. Accidents Between October 1, 1992 and September 30, 1995</p> <p>Table B-1 Permanent Total Benefits—Male Lives Table B-2 Permanent Total Benefits—Female Lives Table B-3 Fatal Dependency Benefits—Total Population</p> <p>3. Accidents Between October 1, 1995 and September 30, 2013</p> <p>Table C-1 Permanent Total Benefits—Male Lives Table C-2 Permanent Total Benefits—Female Lives Table C-3 Fatal Dependency Benefits—Total Population</p> <p>4. Accidents on or After October 1, 2013</p> <p>Table D-1 Permanent Total Benefits—Male Lives Table D-2 Permanent Total Benefits—Female Lives Table D-3 Fatal Dependency Benefits—Total Population</p>	<p>1. Table Accidents Prior to October 1, 1992</p> <p>Table A-1 Permanent Total Benefits—Male Lives Table A-2 Permanent Total Benefits—Female Lives Table A-3 Fatal Dependency Benefits—Total Population</p> <p>2. Accidents Between October 1, 1992 and September 30, 1995</p> <p>Table B-1 Permanent Total Benefits—Male Lives Table B-2 Permanent Total Benefits—Female Lives Table B-3 Fatal Dependency Benefits—Total Population</p> <p>3. Accidents Between October 1, 1995 and September 30, 2013</p> <p>Table C-1 Permanent Total Benefits—Male Lives Table C-2 Permanent Total Benefits—Female Lives Table C-3 Fatal Dependency Benefits—Total Population</p> <p>4. Accidents <u>Between October 1, 2013 and September 30, 2018</u></p> <p>Table D-1 Permanent Total Benefits—Male Lives Table D-2 Permanent Total Benefits—Female Lives</p> <p>5. <u>Accidents on or After October 1, 2013</u></p> <p>Table D-3 Fatal Dependency Benefits—Total Population</p> <p>6. <u>Accidents on or After October 1, 2018</u></p> <p><u>Table E-1 Permanent Total Benefits—Male Lives</u> <u>Table E-2 Permanent Total Benefits—Female Lives</u></p>

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table C-1—Male
Annuity Table +
Permanent Total Benefits *
Accidents From October 1, 1995 through September 30, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
11	11	34.289	12	34.474	13	34.669	14	34.873
12	12	33.854	13	34.027	14	34.208	15	34.404
13	13	33.415	14	33.575	15	33.745	16	33.926
14	14	32.973	15	33.122	16	33.280	17	33.448
15	15	32.528	16	32.665	17	32.842	18	32.968
16	16	32.084	17	32.206	18	32.340	19	32.483
17	17	31.634	18	31.744	19	31.866	20	31.996
18	18	31.178	19	31.279	20	31.388	21	31.505
19	19	30.721	20	30.840	21	30.906	22	31.009
20	20	30.262	21	30.338	22	30.424	23	30.509
21	21	29.799	22	29.862	23	29.930	24	30.002
22	22	29.332	23	29.384	24	29.433	25	29.486
23	23	28.864	24	28.893	25	28.927	26	28.964
24	24	28.383	25	28.397	26	28.412	27	28.427
25	25	27.896	26	27.893	27	27.889	28	27.884
26	26	27.402	27	27.380	28	27.357	29	27.333
27	27	26.899	28	26.858	29	26.816	30	26.774
28	28	26.387	29	26.328	30	26.268	31	26.207
29	29	25.868	30	25.794	31	25.712	32	25.631
30	30	25.344	31	25.246	32	25.148	33	25.048
31	31	24.807	32	24.693	33	24.576	34	24.456
32	32	24.264	33	24.132	34	23.995	35	23.856
33	33	23.714	34	23.563	35	23.407	36	23.247
34	34	23.157	35	22.986	36	22.814	37	22.634
35	35	22.594	36	22.404	37	22.206	38	22.007

+ Based on 2009 U.S. Life Tables for male population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table C-1—Male
Annuity Table +
Permanent Total Benefits *
Accidents From October 1, 1995 through September 30, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
11	11	<u>34.325</u>	12	<u>34.512</u>	13	<u>34.708</u>	14	<u>34.912</u>
12	12	<u>33.891</u>	13	<u>34.065</u>	14	<u>34.247</u>	15	<u>34.439</u>
13	13	<u>33.453</u>	14	<u>33.613</u>	15	<u>33.783</u>	16	<u>33.961</u>
14	14	<u>33.010</u>	15	<u>33.158</u>	16	<u>33.315</u>	17	<u>33.480</u>
15	15	<u>32.564</u>	16	<u>32.699</u>	17	<u>32.843</u>	18	<u>32.996</u>
16	16	<u>32.114</u>	17	<u>32.237</u>	18	<u>32.368</u>	19	<u>32.508</u>
17	17	<u>31.661</u>	18	<u>31.771</u>	19	<u>31.890</u>	20	<u>32.018</u>
18	18	<u>31.204</u>	19	<u>31.303</u>	20	<u>31.410</u>	21	<u>31.525</u>
19	19	<u>30.745</u>	20	<u>30.832</u>	21	<u>30.926</u>	22	<u>31.027</u>
20	20	<u>30.283</u>	21	<u>30.357</u>	22	<u>30.438</u>	23	<u>30.525</u>
21	21	<u>29.818</u>	22	<u>29.879</u>	23	<u>29.946</u>	24	<u>30.016</u>
22	22	<u>29.349</u>	23	<u>29.396</u>	24	<u>29.447</u>	25	<u>29.500</u>
23	23	<u>28.876</u>	24	<u>28.908</u>	25	<u>28.941</u>	26	<u>28.976</u>
24	24	<u>28.396</u>	25	<u>28.411</u>	26	<u>28.428</u>	27	<u>28.445</u>
25	25	<u>27.910</u>	26	<u>27.908</u>	27	<u>27.906</u>	28	<u>27.905</u>
26	26	<u>27.417</u>	27	<u>27.397</u>	28	<u>27.377</u>	29	<u>27.358</u>
27	27	<u>26.915</u>	28	<u>26.878</u>	29	<u>26.841</u>	30	<u>26.803</u>
28	28	<u>26.407</u>	29	<u>26.352</u>	30	<u>26.296</u>	31	<u>26.240</u>
29	29	<u>25.891</u>	30	<u>25.819</u>	31	<u>25.744</u>	32	<u>25.668</u>
30	30	<u>25.368</u>	31	<u>25.277</u>	32	<u>25.184</u>	33	<u>25.089</u>
31	31	<u>24.838</u>	32	<u>24.728</u>	33	<u>24.616</u>	34	<u>24.501</u>
32	32	<u>24.299</u>	33	<u>24.171</u>	34	<u>24.040</u>	35	<u>23.904</u>
33	33	<u>23.753</u>	34	<u>23.606</u>	35	<u>23.455</u>	36	<u>23.299</u>
34	34	<u>23.199</u>	35	<u>23.033</u>	36	<u>22.862</u>	37	<u>22.686</u>
35	35	<u>22.637</u>	36	<u>22.451</u>	37	<u>22.260</u>	38	<u>22.064</u>

+ Based on 2014 U.S. Life Tables for male population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table C-1—Male
Annuity Table +
Permanent Total Benefits *
Accidents From October 1, 1995 through September 30, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
36	36	22.018	37	21.809	38	21.594	39	21.375
37	37	21.437	38	21.209	39	20.975	40	20.735
38	38	20.849	39	20.604	40	20.348	41	20.088
39	39	20.253	40	19.987	41	19.713	42	19.433
40	40	19.650	41	19.365	42	19.072	43	18.772
41	41	19.041	42	18.736	43	18.423	44	18.104
42	42	18.424	43	18.100	44	17.768	45	17.429
43	43	17.800	44	17.457	45	17.106	46	16.747
44	44	17.171	45	16.809	46	16.437	47	16.057
45	45	16.535	46	16.153	47	15.761	48	15.359
46	46	15.892	47	15.490	48	15.077	49	14.655
47	47	15.242	48	14.820	49	14.387	50	13.944
48	48	14.584	49	14.143	50	13.690	51	13.225
49	49	13.921	50	13.459	51	12.985	52	12.499
50	50	13.250	51	12.768	52	12.273	53	11.764
51	51	12.573	52	12.070	53	11.553	54	11.020
52	52	11.889	53	11.364	54	10.823	55	10.264
53	53	11.196	54	10.648	55	10.082	56	9.498
54	54	10.495	55	9.922	56	9.334	57	8.719
55	55	9.783	56	9.185	57	8.568	58	7.928
56	56	9.060	57	8.437	58	7.792	59	7.123
57	57	8.327	58	7.676	59	7.002	60	6.302
58	58	7.581	59	6.902	60	6.197	61	5.465
59	59	6.822	60	6.113	61	5.377	62	4.609
60	60	6.048	61	5.309	62	4.538	63	3.734

+ Based on 2009 U.S. Life Tables for male population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table C-1—Male
Annuity Table +
Permanent Total Benefits *
Accidents From October 1, 1995 through September 30, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
36	36	<u>22.067</u>	37	<u>21.861</u>	38	<u>21.650</u>	39	<u>21.433</u>
37	37	<u>21.488</u>	38	<u>21.264</u>	39	<u>21.032</u>	40	<u>20.794</u>
38	38	<u>20.902</u>	39	<u>20.658</u>	40	<u>20.406</u>	41	<u>20.147</u>
39	39	<u>20.308</u>	40	<u>20.043</u>	41	<u>19.771</u>	42	<u>19.491</u>
40	40	<u>19.706</u>	41	<u>19.421</u>	42	<u>19.128</u>	43	<u>18.827</u>
41	41	<u>19.096</u>	42	<u>18.791</u>	43	<u>18.477</u>	44	<u>18.155</u>
42	42	<u>18.478</u>	43	<u>18.153</u>	44	<u>17.819</u>	45	<u>17.476</u>
43	43	<u>17.852</u>	44	<u>17.507</u>	45	<u>17.153</u>	46	<u>16.789</u>
44	44	<u>17.219</u>	45	<u>16.854</u>	46	<u>16.479</u>	47	<u>16.095</u>
45	45	<u>16.579</u>	46	<u>16.194</u>	47	<u>15.798</u>	48	<u>15.393</u>
46	46	<u>15.932</u>	47	<u>15.526</u>	48	<u>15.111</u>	49	<u>14.685</u>
47	47	<u>15.277</u>	48	<u>14.852</u>	49	<u>14.416</u>	50	<u>13.970</u>
48	48	<u>14.616</u>	49	<u>14.171</u>	50	<u>13.715</u>	51	<u>13.247</u>
49	49	<u>13.949</u>	50	<u>13.484</u>	51	<u>13.006</u>	52	<u>12.516</u>
50	50	<u>13.275</u>	51	<u>12.789</u>	52	<u>12.289</u>	53	<u>11.776</u>
51	51	<u>12.594</u>	52	<u>12.086</u>	53	<u>11.564</u>	54	<u>11.027</u>
52	52	<u>11.905</u>	53	<u>11.375</u>	54	<u>10.830</u>	55	<u>10.269</u>
53	53	<u>11.207</u>	54	<u>10.655</u>	55	<u>10.086</u>	56	<u>9.500</u>
54	54	<u>10.501</u>	55	<u>9.926</u>	56	<u>9.333</u>	57	<u>8.721</u>
55	55	<u>9.787</u>	56	<u>9.188</u>	57	<u>8.569</u>	58	<u>7.929</u>
56	56	<u>9.063</u>	57	<u>8.438</u>	58	<u>7.792</u>	59	<u>7.123</u>
57	57	<u>8.328</u>	58	<u>7.677</u>	59	<u>7.003</u>	60	<u>6.303</u>
58	58	<u>7.582</u>	59	<u>6.903</u>	60	<u>6.198</u>	61	<u>5.466</u>
59	59	<u>6.823</u>	60	<u>6.114</u>	61	<u>5.378</u>	62	<u>4.611</u>
60	60	<u>6.049</u>	61	<u>5.310</u>	62	<u>4.540</u>	63	<u>3.737</u>

+ Based on 2014 U.S. Life Tables for male population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

**Table C-1—Male
Annuity Table +
Permanent Total Benefits *
Accidents From October 1, 1995 through September 30, 2013**

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
61	61	5.259	62	4.486	63	3.680	64	2.838
62	62	4.453	63	3.646	64	2.802	65	1.919
63	63	3.629	64	2.784	65	1.901	66	0.974
64	64	2.784	65	1.901	66	0.974		
65	65	1.901						
66	66	0.974						

+ Based on ~~2009~~ U.S. Life Tables for male population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

**Table C-1—Male
Annuity Table +
Permanent Total Benefits *
Accidents From October 1, 1995 through September 30, 2013**

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
61	61	<u>5.260</u>	62	<u>4.488</u>	63	<u>3.683</u>	64	<u>2.841</u>
62	62	<u>4.455</u>	63	<u>3.648</u>	64	<u>2.804</u>	65	<u>1.921</u>
63	63	<u>3.631</u>	64	<u>2.787</u>	65	<u>1.902</u>	66	<u>0.975</u>
64	64	<u>2.787</u>	65	<u>1.902</u>	66	<u>0.975</u>		
65	65	<u>1.902</u>						
66	66	<u>0.975</u>						

+ Based on 2014 U.S. Life Tables for male population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table C-2—Female
Annuity Table +
Permanent Total Benefits *
Accidents From October 1, 1995 through September 30, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
11	11	34.956	12	35.166	13	35.384	14	35.610
12	12	34.532	13	34.728	14	34.934	15	35.143
13	13	34.103	14	34.284	15	34.474	16	34.674
14	14	33.668	15	33.836	16	34.011	17	34.194
15	15	33.228	16	33.382	17	33.543	18	33.710
16	16	32.783	17	32.923	18	33.069	19	33.224
17	17	32.333	18	32.458	19	32.589	20	32.725
18	18	31.878	19	31.988	20	32.102	21	32.222
19	19	31.416	20	31.511	21	31.609	22	31.712
20	20	30.949	21	31.027	22	31.109	23	31.195
21	21	30.475	22	30.537	23	30.603	24	30.672
22	22	29.994	23	30.041	24	30.090	25	30.141
23	23	29.508	24	29.538	25	29.569	26	29.602
24	24	29.014	25	29.027	26	29.044	27	29.057
25	25	28.514	26	28.510	27	28.506	28	28.503
26	26	28.007	27	27.985	28	27.963	29	27.942
27	27	27.492	28	27.453	29	27.413	30	27.373
28	28	26.971	29	26.913	30	26.855	31	26.796
29	29	26.442	30	26.366	31	26.289	32	26.211
30	30	25.905	31	25.812	32	25.716	33	25.618
31	31	25.362	32	25.250	33	25.135	34	25.018
32	32	24.811	33	24.680	34	24.546	35	24.409
33	33	24.252	34	24.103	35	23.950	36	23.792
34	34	23.686	35	23.518	36	23.345	37	23.167
35	35	23.113	36	22.925	37	22.732	38	22.535

+ Based on 2009 U.S. Life Tables for female population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table C-2—Female
Annuity Table +
Permanent Total Benefits *
Accidents From October 1, 1995 through September 30, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
11	11	<u>34.976</u>	12	<u>35.186</u>	13	<u>35.404</u>	14	<u>35.630</u>
12	12	<u>34.552</u>	13	<u>34.748</u>	14	<u>34.951</u>	15	<u>35.163</u>
13	13	<u>34.122</u>	14	<u>34.304</u>	15	<u>34.492</u>	16	<u>34.689</u>
14	14	<u>33.687</u>	15	<u>33.854</u>	16	<u>34.028</u>	17	<u>34.210</u>
15	15	<u>33.246</u>	16	<u>33.399</u>	17	<u>33.558</u>	18	<u>33.725</u>
16	16	<u>32.800</u>	17	<u>32.938</u>	18	<u>33.083</u>	19	<u>33.233</u>
17	17	<u>32.348</u>	18	<u>32.472</u>	19	<u>32.601</u>	20	<u>32.736</u>
18	18	<u>31.891</u>	19	<u>32.000</u>	20	<u>32.113</u>	21	<u>32.232</u>
19	19	<u>31.428</u>	20	<u>31.522</u>	21	<u>31.620</u>	22	<u>31.722</u>
20	20	<u>30.959</u>	21	<u>31.038</u>	22	<u>31.120</u>	23	<u>31.205</u>
21	21	<u>30.485</u>	22	<u>30.547</u>	23	<u>30.613</u>	24	<u>30.682</u>
22	22	<u>30.004</u>	23	<u>30.050</u>	24	<u>30.099</u>	25	<u>30.151</u>
23	23	<u>29.517</u>	24	<u>29.547</u>	25	<u>29.579</u>	26	<u>29.612</u>
24	24	<u>29.023</u>	25	<u>29.037</u>	26	<u>29.051</u>	27	<u>29.067</u>
25	25	<u>28.523</u>	26	<u>28.519</u>	27	<u>28.516</u>	28	<u>28.514</u>
26	26	<u>28.016</u>	27	<u>27.995</u>	28	<u>27.974</u>	29	<u>27.953</u>
27	27	<u>27.502</u>	28	<u>27.463</u>	29	<u>27.424</u>	30	<u>27.385</u>
28	28	<u>26.981</u>	29	<u>26.924</u>	30	<u>26.867</u>	31	<u>26.808</u>
29	29	<u>26.452</u>	30	<u>26.378</u>	31	<u>26.302</u>	32	<u>26.224</u>
30	30	<u>25.917</u>	31	<u>25.824</u>	32	<u>25.729</u>	33	<u>25.632</u>
31	31	<u>25.374</u>	32	<u>25.263</u>	33	<u>25.149</u>	34	<u>25.033</u>
32	32	<u>24.823</u>	33	<u>24.694</u>	34	<u>24.561</u>	35	<u>24.425</u>
33	33	<u>24.266</u>	34	<u>24.117</u>	35	<u>23.965</u>	36	<u>23.809</u>
34	34	<u>23.700</u>	35	<u>23.533</u>	36	<u>23.361</u>	37	<u>23.185</u>
35	35	<u>23.127</u>	36	<u>22.941</u>	37	<u>22.750</u>	38	<u>22.554</u>

+ Based on 2014 U.S. Life Tables for female population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table C-2—Female
Annuity Table +
Permanent Total Benefits *
Accidents From October 1, 1995 through September 30, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
36	36	22.531	37	22.325	38	22.112	39	21.894
37	37	21.943	38	21.716	39	21.484	40	21.245
38	38	21.346	39	21.101	40	20.848	41	20.589
39	39	20.743	40	20.477	41	20.204	42	19.924
40	40	20.134	41	19.846	42	19.553	43	19.252
41	41	19.513	42	19.207	43	18.894	44	18.572
42	42	18.886	43	18.561	44	18.227	45	17.885
43	43	18.253	44	17.908	45	17.553	46	17.189
44	44	17.612	45	17.247	46	16.871	47	16.485
45	45	16.964	46	16.578	47	16.181	48	15.772
46	46	16.309	47	15.901	48	15.482	49	15.050
47	47	15.645	48	15.216	49	14.774	50	14.319
48	48	14.973	49	14.522	50	14.057	51	13.579
49	49	14.293	50	13.819	51	13.332	52	12.829
50	50	13.604	51	13.108	52	12.596	53	12.069
51	51	12.907	52	12.387	53	11.851	54	11.297
52	52	12.200	53	11.657	54	11.095	55	10.514
53	53	11.484	54	10.915	55	10.327	56	9.719
54	54	10.757	55	10.163	56	9.548	57	8.911
55	55	10.019	56	9.398	57	8.756	58	8.090
56	56	9.269	57	8.622	58	7.951	59	7.257
57	57	8.508	58	7.833	59	7.133	60	6.409
58	58	7.734	59	7.031	60	6.303	61	5.547
59	59	6.949	60	6.217	61	5.458	62	4.670
60	60	6.150	61	5.388	62	4.597	63	3.776

+ Based on 2009 U.S. Life Tables for female population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table C-2—Female
Annuity Table +
Permanent Total Benefits *
Accidents From October 1, 1995 through September 30, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
36	36	<u>22.547</u>	37	<u>22.342</u>	38	<u>22.131</u>	39	<u>21.914</u>
37	37	<u>21.960</u>	38	<u>21.735</u>	39	<u>21.504</u>	40	<u>21.266</u>
38	38	<u>21.364</u>	39	<u>21.120</u>	40	<u>20.869</u>	41	<u>20.610</u>
39	39	<u>20.762</u>	40	<u>20.497</u>	41	<u>20.225</u>	42	<u>19.946</u>
40	40	<u>20.151</u>	41	<u>19.867</u>	42	<u>19.574</u>	43	<u>19.273</u>
41	41	<u>19.533</u>	42	<u>19.228</u>	43	<u>18.914</u>	44	<u>18.591</u>
42	42	<u>18.907</u>	43	<u>18.581</u>	44	<u>18.246</u>	45	<u>17.901</u>
43	43	<u>18.272</u>	44	<u>17.926</u>	45	<u>17.569</u>	46	<u>17.203</u>
44	44	<u>17.630</u>	45	<u>17.263</u>	46	<u>16.884</u>	47	<u>16.495</u>
45	45	<u>16.980</u>	46	<u>16.591</u>	47	<u>16.191</u>	48	<u>15.779</u>
46	46	<u>16.322</u>	47	<u>15.911</u>	48	<u>15.489</u>	49	<u>15.055</u>
47	47	<u>15.655</u>	48	<u>15.223</u>	49	<u>14.779</u>	50	<u>14.323</u>
48	48	<u>14.980</u>	49	<u>14.527</u>	50	<u>14.061</u>	51	<u>13.581</u>
49	49	<u>14.298</u>	50	<u>13.823</u>	51	<u>13.334</u>	52	<u>12.830</u>
50	50	<u>13.608</u>	51	<u>13.110</u>	52	<u>12.598</u>	53	<u>12.069</u>
51	51	<u>12.909</u>	52	<u>12.388</u>	53	<u>11.851</u>	54	<u>11.297</u>
52	52	<u>12.201</u>	53	<u>11.657</u>	54	<u>11.095</u>	55	<u>10.515</u>
53	53	<u>11.484</u>	54	<u>10.915</u>	55	<u>10.328</u>	56	<u>9.721</u>
54	54	<u>10.757</u>	55	<u>10.163</u>	56	<u>9.549</u>	57	<u>8.915</u>
55	55	<u>10.019</u>	56	<u>9.400</u>	57	<u>8.759</u>	58	<u>8.096</u>
56	56	<u>9.271</u>	57	<u>8.625</u>	58	<u>7.956</u>	59	<u>7.263</u>
57	57	<u>8.511</u>	58	<u>7.838</u>	59	<u>7.140</u>	60	<u>6.416</u>
58	58	<u>7.740</u>	59	<u>7.038</u>	60	<u>6.309</u>	61	<u>5.554</u>
59	59	<u>6.955</u>	60	<u>6.223</u>	61	<u>5.464</u>	62	<u>4.675</u>
60	60	<u>6.157</u>	61	<u>5.394</u>	62	<u>4.603</u>	63	<u>3.780</u>

+ Based on 2014 U.S. Life Tables for female population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

**Table C-2—Female
Annuity Table +
Permanent Total Benefits *
Accidents From October 1, 1995 through September 30, 2013**

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
61	61	5.338	62	4.545	63	3.721	64	2.863
62	62	4.511	63	3.685	64	2.826	65	1.934
63	63	3.668	64	2.808	65	1.912	66	0.977
64	64	2.808	65	1.912	66	0.977		
65	65	1.912						
66	66	0.977						

+ Based on 2009 U.S. Life Tables for female population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table C-2—Female
Annuity Table +
Permanent Total Benefits *
Accidents From October 1, 1995 through September 30, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
61	61	<u>5.344</u>	62	<u>4.550</u>	63	<u>3.725</u>	64	<u>2.866</u>
62	62	<u>4.516</u>	63	<u>3.689</u>	64	<u>2.829</u>	65	<u>1.932</u>
63	63	<u>3.672</u>	64	<u>2.811</u>	65	<u>1.914</u>	66	<u>0.978</u>
64	64	<u>2.811</u>	65	<u>1.914</u>	66	<u>0.978</u>		
65	65	<u>1.914</u>						
66	66	<u>0.978</u>						

+ Based on 2014 U.S. Life Tables for female population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table C-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents From October 1, 1995 through September 30, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
0	0	43.000	1	43.770	2	44.303	3	44.849
1	1	42.968	2	43.472	3	43.989	4	44.520
2	2	42.676	3	43.164	4	43.667	5	44.185
3	3	42.373	4	42.848	5	43.338	6	43.844
4	4	42.064	5	42.526	6	43.003	7	43.497
5	5	41.748	6	42.198	7	42.663	8	43.145
6	6	41.426	7	41.865	8	42.318	9	42.786
7	7	41.100	8	41.526	9	41.967	10	42.422
8	8	40.768	9	41.182	10	41.610	11	42.052
9	9	40.430	10	40.832	11	41.247	12	41.677
10	10	40.087	11	40.476	12	40.879	13	41.298
11	11	39.739	12	40.116	13	40.508	14	40.916
12	12	39.385	13	39.751	14	40.133	15	40.532
13	13	39.028	14	39.384	15	39.756	16	40.146
14	14	38.668	15	39.015	16	39.378	17	39.757
15	15	38.306	16	38.643	17	38.997	18	39.365
16	16	37.942	17	38.270	18	38.613	19	38.971
17	17	37.575	18	37.894	19	38.226	20	38.574
18	18	37.206	19	37.515	20	37.837	21	38.174
19	19	36.835	20	37.133	21	37.444	22	37.770
20	20	36.461	21	36.748	22	37.049	23	37.362
21	21	36.083	22	36.360	23	36.649	24	36.949
22	22	35.703	23	35.968	24	36.244	25	36.530
23	23	35.319	24	35.571	25	35.833	26	36.104
24	24	34.929	25	35.168	26	35.415	27	35.674

+ Based on 2009 U.S. Life Tables for total population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table C-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents From October 1, 1995 through September 30, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
0	0	<u>43.141</u>	1	<u>43.893</u>	2	<u>44.428</u>	3	<u>44.977</u>
1	1	<u>43.088</u>	2	<u>43.595</u>	3	<u>44.115</u>	4	<u>44.650</u>
2	2	<u>42.796</u>	3	<u>43.288</u>	4	<u>43.793</u>	5	<u>44.316</u>
3	3	<u>42.495</u>	4	<u>42.973</u>	5	<u>43.466</u>	6	<u>43.977</u>
4	4	<u>42.186</u>	5	<u>42.652</u>	6	<u>43.134</u>	7	<u>43.631</u>
5	5	<u>41.871</u>	6	<u>42.326</u>	7	<u>42.795</u>	8	<u>43.281</u>
6	6	<u>41.552</u>	7	<u>41.994</u>	8	<u>42.451</u>	9	<u>42.924</u>
7	7	<u>41.226</u>	8	<u>41.657</u>	9	<u>42.102</u>	10	<u>42.562</u>
8	8	<u>40.896</u>	9	<u>41.314</u>	10	<u>41.747</u>	11	<u>42.194</u>
9	9	<u>40.560</u>	10	<u>40.966</u>	11	<u>41.386</u>	12	<u>41.821</u>
10	10	<u>40.219</u>	11	<u>40.613</u>	12	<u>41.021</u>	13	<u>41.444</u>
11	11	<u>39.872</u>	12	<u>40.254</u>	13	<u>40.651</u>	14	<u>41.063</u>
12	12	<u>39.521</u>	13	<u>39.891</u>	14	<u>40.277</u>	15	<u>40.679</u>
13	13	<u>39.165</u>	14	<u>39.525</u>	15	<u>39.901</u>	16	<u>40.292</u>
14	14	<u>38.806</u>	15	<u>39.156</u>	16	<u>39.521</u>	17	<u>39.902</u>
15	15	<u>38.444</u>	16	<u>38.784</u>	17	<u>39.139</u>	18	<u>39.509</u>
16	16	<u>38.079</u>	17	<u>38.409</u>	18	<u>38.753</u>	19	<u>39.114</u>
17	17	<u>37.712</u>	18	<u>38.031</u>	19	<u>38.366</u>	20	<u>38.716</u>
18	18	<u>37.342</u>	19	<u>37.652</u>	20	<u>37.976</u>	21	<u>38.315</u>
19	19	<u>36.969</u>	20	<u>37.269</u>	21	<u>37.583</u>	22	<u>37.912</u>
20	20	<u>36.594</u>	21	<u>36.884</u>	22	<u>37.188</u>	23	<u>37.505</u>
21	21	<u>36.217</u>	22	<u>36.497</u>	23	<u>36.789</u>	24	<u>37.093</u>
22	22	<u>35.837</u>	23	<u>36.105</u>	24	<u>36.385</u>	25	<u>36.675</u>
23	23	<u>35.453</u>	24	<u>35.709</u>	25	<u>35.975</u>	26	<u>36.252</u>
24	24	<u>35.065</u>	25	<u>35.308</u>	26	<u>35.560</u>	27	<u>35.822</u>

- + Based on 2014 U.S. Life Tables for total population
3.5% annual interest rate
2.0% annual escalation beginning on fourth anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table C-3—Total Population

**Annuity Table +
Lifetime Fatal Dependency Benefits ***
Accidents From October 1, 1995 through September 30, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
25	25	34.534	26	34.758	27	34.991	28	35.232
26	26	34.133	27	34.343	28	34.560	29	34.786
27	27	33.725	28	33.920	29	34.124	30	34.335
28	28	33.311	29	33.492	30	33.681	31	33.877
29	29	32.894	30	33.058	31	33.232	32	33.414
30	30	32.466	31	32.619	32	32.778	33	32.944
31	31	32.035	32	32.173	33	32.318	34	32.469
32	32	31.598	33	31.722	34	31.852	35	31.988
33	33	31.156	34	31.265	35	31.380	36	31.501
34	34	30.708	35	30.803	36	30.903	37	31.009
35	35	30.254	36	30.335	37	30.420	38	30.512
36	36	29.796	37	29.862	38	29.933	39	30.010
37	37	29.332	38	29.384	39	29.440	40	29.503
38	38	28.863	39	28.901	40	28.944	41	28.992
39	39	28.390	40	28.414	41	28.442	42	28.477
40	40	27.912	41	27.923	42	27.937	43	27.958
41	41	27.434	42	27.427	43	27.429	44	27.437
42	42	26.945	43	26.929	44	26.918	45	26.913
43	43	26.457	44	26.428	45	26.405	46	26.387
44	44	25.966	45	25.925	46	25.889	47	25.857
45	45	25.472	46	25.419	47	25.370	48	25.325
46	46	24.976	47	24.910	48	24.848	49	24.792
47	47	24.477	48	24.399	49	24.325	50	24.257
48	48	23.976	49	23.886	50	23.800	51	23.721
49	49	23.473	50	23.371	51	23.275	52	23.185

+ Based on 2009 U.S. Life Tables for total population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table C-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents From October 1, 1995 through September 30, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
25	25	<u>34.671</u>	26	<u>34.901</u>	27	<u>35.139</u>	28	<u>35.388</u>
26	26	<u>34.272</u>	27	<u>34.488</u>	28	<u>34.713</u>	29	<u>34.947</u>
27	27	<u>33.868</u>	28	<u>34.070</u>	29	<u>34.281</u>	30	<u>34.500</u>
28	28	<u>33.458</u>	29	<u>33.647</u>	30	<u>33.843</u>	31	<u>34.048</u>
29	29	<u>33.043</u>	30	<u>33.217</u>	31	<u>33.400</u>	32	<u>33.590</u>
30	30	<u>32.622</u>	31	<u>32.783</u>	32	<u>32.951</u>	33	<u>33.126</u>
31	31	<u>32.196</u>	32	<u>32.342</u>	33	<u>32.496</u>	34	<u>32.656</u>
32	32	<u>31.764</u>	33	<u>31.896</u>	34	<u>32.035</u>	35	<u>32.180</u>
33	33	<u>31.327</u>	34	<u>31.444</u>	35	<u>31.568</u>	36	<u>31.698</u>
34	34	<u>30.884</u>	35	<u>30.987</u>	36	<u>31.096</u>	37	<u>31.211</u>
35	35	<u>30.435</u>	36	<u>30.524</u>	37	<u>30.618</u>	38	<u>30.718</u>
36	36	<u>29.981</u>	37	<u>30.056</u>	38	<u>30.135</u>	39	<u>30.220</u>
37	37	<u>29.522</u>	38	<u>29.582</u>	39	<u>29.647</u>	40	<u>29.717</u>
38	38	<u>29.058</u>	39	<u>29.103</u>	40	<u>29.153</u>	41	<u>29.208</u>
39	39	<u>28.588</u>	40	<u>28.619</u>	41	<u>28.654</u>	42	<u>28.694</u>
40	40	<u>28.114</u>	41	<u>28.130</u>	42	<u>28.151</u>	43	<u>28.176</u>
41	41	<u>27.635</u>	42	<u>27.637</u>	43	<u>27.643</u>	44	<u>27.654</u>
42	42	<u>27.151</u>	43	<u>27.139</u>	44	<u>27.131</u>	45	<u>27.128</u>
43	43	<u>26.662</u>	44	<u>26.637</u>	45	<u>26.615</u>	46	<u>26.598</u>
44	44	<u>26.170</u>	45	<u>26.131</u>	46	<u>26.096</u>	47	<u>26.066</u>
45	45	<u>25.675</u>	46	<u>25.622</u>	47	<u>25.574</u>	48	<u>25.531</u>
46	46	<u>25.175</u>	47	<u>25.110</u>	48	<u>25.050</u>	49	<u>24.996</u>
47	47	<u>24.674</u>	48	<u>24.597</u>	49	<u>24.525</u>	50	<u>24.459</u>
48	48	<u>24.170</u>	49	<u>24.082</u>	50	<u>23.999</u>	51	<u>23.922</u>
49	49	<u>23.665</u>	50	<u>23.566</u>	51	<u>23.472</u>	52	<u>23.383</u>

+ Based on 2014 U.S. Life Tables for total population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table C-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents From October 1, 1995 through September 30, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
50	50	22.969	51	22.857	52	22.749	53	22.647
51	51	22.464	52	22.341	53	22.222	54	22.106
52	52	21.958	53	21.824	54	21.692	55	21.564
53	53	21.451	54	21.305	55	21.160	56	21.019
54	54	20.942	55	20.783	56	20.626	57	20.471
55	55	20.431	56	20.259	57	20.089	58	19.922
56	56	19.917	57	19.733	58	19.551	59	19.372
57	57	19.401	58	19.205	59	19.011	60	18.821
58	58	18.884	59	18.676	60	18.471	61	18.269
59	59	18.365	60	18.146	61	17.930	62	17.716
60	60	17.846	61	17.616	62	17.388	63	17.163
61	61	17.325	62	17.085	63	16.846	64	16.611
62	62	16.805	63	16.553	64	16.304	65	16.059
63	63	16.283	64	16.022	65	15.763	66	15.510
64	64	15.762	65	15.491	66	15.225	67	14.964
65	65	15.242	66	14.963	67	14.689	68	14.421
66	66	14.725	67	14.439	68	14.158	69	13.882
67	67	14.210	68	13.917	69	13.629	70	13.344
68	68	13.699	69	13.399	70	13.101	71	12.809
69	69	13.190	70	12.882	71	12.576	72	12.277
70	70	12.683	71	12.367	72	12.056	73	11.750
71	71	12.178	72	11.856	73	11.539	74	11.230
72	72	11.677	73	11.350	74	11.029	75	10.718
73	73	11.181	74	10.850	75	10.527	76	10.211
74	74	10.690	75	10.357	76	10.030	77	9.711

+ Based on 2009 U.S. Life Tables for total population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table C-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents From October 1, 1995 through September 30, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
50	50	<u>23.160</u>	51	<u>23.050</u>	52	<u>22.944</u>	53	<u>22.843</u>
51	51	<u>22.653</u>	52	<u>22.532</u>	53	<u>22.414</u>	54	<u>22.302</u>
52	52	<u>22.145</u>	53	<u>22.013</u>	54	<u>21.884</u>	55	<u>21.761</u>
53	53	<u>21.636</u>	54	<u>21.493</u>	55	<u>21.353</u>	56	<u>21.219</u>
54	54	<u>21.127</u>	55	<u>20.972</u>	56	<u>20.823</u>	57	<u>20.677</u>
55	55	<u>20.617</u>	56	<u>20.452</u>	57	<u>20.291</u>	58	<u>20.135</u>
56	56	<u>20.106</u>	57	<u>19.931</u>	58	<u>19.759</u>	59	<u>19.590</u>
57	57	<u>19.595</u>	58	<u>19.409</u>	59	<u>19.225</u>	60	<u>19.045</u>
58	58	<u>19.084</u>	59	<u>18.886</u>	60	<u>18.690</u>	61	<u>18.497</u>
59	59	<u>18.571</u>	60	<u>18.361</u>	61	<u>18.154</u>	62	<u>17.949</u>
60	60	<u>18.057</u>	61	<u>17.836</u>	62	<u>17.617</u>	63	<u>17.400</u>
61	61	<u>17.541</u>	62	<u>17.309</u>	63	<u>17.078</u>	64	<u>16.849</u>
62	62	<u>17.024</u>	63	<u>16.781</u>	64	<u>16.538</u>	65	<u>16.297</u>
63	63	<u>16.507</u>	64	<u>16.251</u>	65	<u>15.996</u>	66	<u>15.742</u>
64	64	<u>15.987</u>	65	<u>15.720</u>	66	<u>15.453</u>	67	<u>15.186</u>
65	65	<u>15.467</u>	66	<u>15.187</u>	67	<u>14.908</u>	68	<u>14.630</u>
66	66	<u>14.944</u>	67	<u>14.653</u>	68	<u>14.362</u>	69	<u>14.075</u>
67	67	<u>14.420</u>	68	<u>14.118</u>	69	<u>13.818</u>	70	<u>13.523</u>
68	68	<u>13.896</u>	69	<u>13.584</u>	70	<u>13.277</u>	71	<u>12.976</u>
69	69	<u>13.372</u>	70	<u>13.054</u>	71	<u>12.741</u>	72	<u>12.435</u>
70	70	<u>12.852</u>	71	<u>12.528</u>	72	<u>12.211</u>	73	<u>11.900</u>
71	71	<u>12.337</u>	72	<u>12.008</u>	73	<u>11.686</u>	74	<u>11.371</u>
72	72	<u>11.827</u>	73	<u>11.494</u>	74	<u>11.167</u>	75	<u>10.847</u>
73	73	<u>11.322</u>	74	<u>10.985</u>	75	<u>10.654</u>	76	<u>10.328</u>
74	74	<u>10.823</u>	75	<u>10.481</u>	76	<u>10.145</u>	77	<u>9.816</u>

+ Based on 2014 U.S. Life Tables for total population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table C-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents From October 1, 1995 through September 30, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
75	75	10.207	76	9.870	77	9.540	78	9.220
76	76	9.729	77	9.389	78	9.058	79	8.740
77	77	9.258	78	8.917	79	8.587	80	8.270
78	78	8.794	79	8.455	80	8.127	81	7.811
79	79	8.341	80	8.003	81	7.676	82	7.361
80	80	7.898	81	7.562	82	7.236	83	6.925
81	81	7.465	82	7.129	83	6.808	84	6.504
82	82	7.040	83	6.710	84	6.395	85	6.097
83	83	6.629	84	6.305	85	5.996	86	5.713
84	84	6.234	85	5.913	86	5.619	87	5.347
85	85	5.846	86	5.543	87	5.261	88	5.001
86	86	5.483	87	5.192	88	4.921	89	4.674
87	87	5.137	88	4.858	89	4.600	90	4.365
88	88	4.809	89	4.543	90	4.298	91	4.076
89	89	4.499	90	4.246	91	4.014	92	3.805
90	90	4.207	91	3.967	92	3.748	93	3.551
91	91	3.933	92	3.706	93	3.499	94	3.316
92	92	3.676	93	3.462	94	3.268	95	3.097
93	93	3.435	94	3.234	95	3.053	96	2.893
94	94	3.211	95	3.023	96	2.854	97	2.705
95	95	3.003	96	2.827	97	2.668	98	2.530
96	96	2.809	97	2.645	98	2.497	99	2.366
97	97	2.630	98	2.476	99	2.336	100	2.212
98	98	2.463	99	2.318	100	2.185	101	2.067
99	99	2.307	100	2.168	101	2.042	102	1.932

+ Based on 2009 U.S. Life Tables for total population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table C-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents From October 1, 1995 through September 30, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
75	75	<u>10.329</u>	76	<u>9.983</u>	77	<u>9.643</u>	78	<u>9.313</u>
76	76	<u>9.840</u>	77	<u>9.490</u>	78	<u>9.150</u>	79	<u>8.821</u>
77	77	<u>9.357</u>	78	<u>9.007</u>	79	<u>8.667</u>	80	<u>8.341</u>
78	78	<u>8.882</u>	79	<u>8.533</u>	80	<u>8.196</u>	81	<u>7.875</u>
79	79	<u>8.418</u>	80	<u>8.072</u>	81	<u>7.739</u>	82	<u>7.421</u>
80	80	<u>7.965</u>	81	<u>7.623</u>	82	<u>7.294</u>	83	<u>6.979</u>
81	81	<u>7.525</u>	82	<u>7.186</u>	83	<u>6.860</u>	84	<u>6.552</u>
82	82	<u>7.096</u>	83	<u>6.761</u>	84	<u>6.442</u>	85	<u>6.141</u>
83	83	<u>6.679</u>	84	<u>6.351</u>	85	<u>6.039</u>	86	<u>5.746</u>
84	84	<u>6.276</u>	85	<u>5.956</u>	86	<u>5.652</u>	87	<u>5.370</u>
85	85	<u>5.888</u>	86	<u>5.575</u>	87	<u>5.283</u>	88	<u>5.015</u>
86	86	<u>5.514</u>	87	<u>5.214</u>	88	<u>4.934</u>	89	<u>4.679</u>
87	87	<u>5.159</u>	88	<u>4.871</u>	89	<u>4.605</u>	90	<u>4.363</u>
88	88	<u>4.822</u>	89	<u>4.548</u>	90	<u>4.295</u>	91	<u>4.066</u>
89	89	<u>4.504</u>	90	<u>4.243</u>	91	<u>4.004</u>	92	<u>3.789</u>
90	90	<u>4.205</u>	91	<u>3.958</u>	92	<u>3.732</u>	93	<u>3.530</u>
91	91	<u>3.924</u>	92	<u>3.691</u>	93	<u>3.478</u>	94	<u>3.290</u>
92	92	<u>3.661</u>	93	<u>3.441</u>	94	<u>3.243</u>	95	<u>3.067</u>
93	93	<u>3.415</u>	94	<u>3.210</u>	95	<u>3.024</u>	96	<u>2.860</u>
94	94	<u>3.187</u>	95	<u>2.994</u>	96	<u>2.821</u>	97	<u>2.669</u>
95	95	<u>2.975</u>	96	<u>2.795</u>	97	<u>2.634</u>	98	<u>2.492</u>
96	96	<u>2.778</u>	97	<u>2.611</u>	98	<u>2.460</u>	99	<u>2.327</u>
97	97	<u>2.596</u>	98	<u>2.439</u>	99	<u>2.297</u>	100	<u>2.171</u>
98	98	<u>2.427</u>	99	<u>2.280</u>	100	<u>2.144</u>	101	<u>2.025</u>
99	99	<u>2.269</u>	100	<u>2.129</u>	101	<u>2.002</u>	102	<u>1.889</u>

+ Based on 2014 U.S. Life Tables for total population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

**Table C-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents From October 1, 1995 through September 30, 2013**

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
100	100	2.159	101	2.028	102	1.910	103	1.805
101	101	2.020	102	1.898	103	1.785	104	1.682
102	102	1.894	103	1.774	104	1.664	105	1.565
103	103	1.769	104	1.655	105	1.550	106	1.450
104	104	1.651	105	1.542	106	1.436	107	1.310
105	105	1.539	106	1.430	107	1.299	108	1.144
106	106	1.428	107	1.295	108	1.136	109	0.928
107	107	1.294	108	1.134	109	0.924	110	0.472
108	108	1.134	109	0.924	110	0.472		
109	109	0.924						
110	110	0.472						

+ Based on 2009 U.S. Life Tables for total population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

**Table C-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents From October 1, 1995 through September 30, 2013**

Age at Accident	Initial		1st Anniversary of Accident		2nd Anniversary of Accident		3rd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 4 Years	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
100	100	<u>2.120</u>	101	<u>1.988</u>	102	<u>1.868</u>	103	<u>1.761</u>
101	101	<u>1.981</u>	102	<u>1.856</u>	103	<u>1.742</u>	104	<u>1.641</u>
102	102	<u>1.850</u>	103	<u>1.732</u>	104	<u>1.624</u>	105	<u>1.530</u>
103	103	<u>1.727</u>	104	<u>1.616</u>	105	<u>1.514</u>	106	<u>1.419</u>
104	104	<u>1.612</u>	105	<u>1.507</u>	106	<u>1.406</u>	107	<u>1.304</u>
105	105	<u>1.504</u>	106	<u>1.400</u>	107	<u>1.293</u>	108	<u>1.154</u>
106	106	<u>1.398</u>	107	<u>1.289</u>	108	<u>1.146</u>	109	<u>0.901</u>
107	107	<u>1.288</u>	108	<u>1.144</u>	109	<u>0.897</u>	110	<u>0.482</u>
108	108	<u>1.144</u>	109	<u>0.897</u>	110	<u>0.482</u>		
109	109	<u>0.897</u>						
110	110	<u>0.482</u>						

+ Based on 2014 U.S. Life Tables for total population

3.5% annual interest rate

2.0% annual escalation beginning on fourth anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table D-1—Male
Annuity Table +
Permanent Total Benefits
Accidents ~~On or After~~ October 1, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
11	11	43.360	12	43.864	13	44.388
12	12	42.643	13	43.124	14	43.626
13	13	41.924	14	42.384	15	42.866
14	14	41.206	15	41.646	16	42.107
15	15	40.489	16	40.909	17	41.349
16	16	39.774	17	40.174	18	40.593
17	17	39.060	18	39.439	19	39.837
18	18	38.346	19	38.705	20	39.081
19	19	37.634	20	37.972	21	38.327
20	20	36.922	21	37.239	22	37.572
21	21	36.211	22	36.506	23	36.816
22	22	35.499	23	35.772	24	36.056
23	23	34.787	24	35.035	25	35.292
24	24	34.074	25	34.292	26	34.521
25	25	33.350	26	33.545	27	33.746
26	26	32.624	27	32.792	28	32.965
27	27	31.893	28	32.034	29	32.180
28	28	31.157	29	31.272	30	31.391
29	29	30.417	30	30.506	31	30.598
30	30	29.673	31	29.736	32	29.802
31	31	28.926	32	28.962	33	29.001
32	32	28.175	33	28.185	34	28.197
33	33	27.420	34	27.404	35	27.389
34	34	26.662	35	26.620	36	26.578
35	35	25.901	36	25.832	37	25.764

+ Based on 2009 U.S. Life Tables for male population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

**Table D-1—Male
Annuity Table +
Permanent Total Benefits
Accidents From October 1, 2013 through September 30, 2018**

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
11	11	<u>43.413</u>	12	<u>43.920</u>	13	<u>44.446</u>
12	12	<u>42.697</u>	13	<u>43.180</u>	14	<u>43.683</u>
13	13	<u>41.979</u>	14	<u>42.440</u>	15	<u>42.921</u>
14	14	<u>41.260</u>	15	<u>41.699</u>	16	<u>42.158</u>
15	15	<u>40.541</u>	16	<u>40.959</u>	17	<u>41.396</u>
16	16	<u>39.822</u>	17	<u>40.219</u>	18	<u>40.634</u>
17	17	<u>39.104</u>	18	<u>39.479</u>	19	<u>39.874</u>
18	18	<u>38.386</u>	19	<u>38.741</u>	20	<u>39.115</u>
19	19	<u>37.669</u>	20	<u>38.005</u>	21	<u>38.358</u>
20	20	<u>36.954</u>	21	<u>37.269</u>	22	<u>37.600</u>
21	21	<u>36.240</u>	22	<u>36.534</u>	23	<u>36.842</u>
22	22	<u>35.526</u>	23	<u>35.797</u>	24	<u>36.081</u>
23	23	<u>34.811</u>	24	<u>35.058</u>	25	<u>35.316</u>
24	24	<u>34.093</u>	25	<u>34.316</u>	26	<u>34.547</u>
25	25	<u>33.372</u>	26	<u>33.569</u>	27	<u>33.773</u>
26	26	<u>32.647</u>	27	<u>32.818</u>	28	<u>32.996</u>
27	27	<u>31.919</u>	28	<u>32.064</u>	29	<u>32.215</u>
28	28	<u>31.186</u>	29	<u>31.306</u>	30	<u>31.431</u>
29	29	<u>30.450</u>	30	<u>30.544</u>	31	<u>30.642</u>
30	30	<u>29.710</u>	31	<u>29.779</u>	32	<u>29.850</u>
31	31	<u>28.967</u>	32	<u>29.009</u>	33	<u>29.054</u>
32	32	<u>28.221</u>	33	<u>28.236</u>	34	<u>28.254</u>
33	33	<u>27.470</u>	34	<u>27.460</u>	35	<u>27.450</u>
34	34	<u>26.716</u>	35	<u>26.679</u>	36	<u>26.642</u>
35	35	<u>25.958</u>	36	<u>25.894</u>	37	<u>25.830</u>

+ Based on 2014 U.S. Life Tables for male population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table D-1—Male
Annuity Table +
Permanent Total Benefits
Accidents ~~On or After~~ October 1, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
36	36	25.136	37	25.042	38	24.947
37	37	24.369	38	24.249	39	24.127
38	38	23.599	39	23.453	40	23.305
39	39	22.826	40	22.655	41	22.481
40	40	22.051	41	21.855	42	21.655
41	41	21.275	42	21.053	43	20.828
42	42	20.496	43	20.250	44	20.000
43	43	19.717	44	19.446	45	19.171
44	44	18.936	45	18.641	46	18.341
45	45	18.155	46	17.835	47	17.509
46	46	17.372	47	17.027	48	16.675
47	47	16.587	48	16.218	49	15.841
48	48	15.802	49	15.408	50	15.006
49	49	15.015	50	14.597	51	14.170
50	50	14.228	51	13.786	52	13.333
51	51	13.440	52	12.973	53	12.493
52	52	12.651	53	12.158	54	11.650
53	53	11.859	54	11.339	55	10.803
54	54	11.065	55	10.517	56	9.954
55	55	10.266	56	9.690	57	9.094
56	56	9.463	57	8.858	58	8.234
57	57	8.656	58	8.020	59	7.364
58	58	7.842	59	7.175	60	6.483
59	59	7.022	60	6.323	61	5.596
60	60	6.194	61	5.464	62	4.698

+ Based on 2009 U.S. Life Tables for male population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table D-1—Male
Annuity Table +
Permanent Total Benefits
Accidents **From** October 1, 2013 **through** September 30, 2018

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
36	36	<u>25.196</u>	37	<u>25.106</u>	38	<u>25.015</u>
37	37	<u>24.431</u>	38	<u>24.315</u>	39	<u>24.196</u>
38	38	<u>23.663</u>	39	<u>23.520</u>	40	<u>23.375</u>
39	39	<u>22.891</u>	40	<u>22.722</u>	41	<u>22.550</u>
40	40	<u>22.117</u>	41	<u>21.921</u>	42	<u>21.722</u>
41	41	<u>21.339</u>	42	<u>21.118</u>	43	<u>20.891</u>
42	42	<u>20.559</u>	43	<u>20.312</u>	44	<u>20.059</u>
43	43	<u>19.776</u>	44	<u>19.503</u>	45	<u>19.225</u>
44	44	<u>18.991</u>	45	<u>18.693</u>	46	<u>18.389</u>
45	45	<u>18.205</u>	46	<u>17.882</u>	47	<u>17.551</u>
46	46	<u>17.417</u>	47	<u>17.069</u>	48	<u>16.713</u>
47	47	<u>16.628</u>	48	<u>16.255</u>	49	<u>15.874</u>
48	48	<u>15.837</u>	49	<u>15.440</u>	50	<u>15.034</u>
49	49	<u>15.046</u>	50	<u>14.625</u>	51	<u>14.193</u>
50	50	<u>14.255</u>	51	<u>13.809</u>	52	<u>13.351</u>
51	51	<u>13.462</u>	52	<u>12.990</u>	53	<u>12.505</u>
52	52	<u>12.668</u>	53	<u>12.170</u>	54	<u>11.658</u>
53	53	<u>11.871</u>	54	<u>11.347</u>	55	<u>10.807</u>
54	54	<u>11.072</u>	55	<u>10.521</u>	56	<u>9.954</u>
55	55	<u>10.271</u>	56	<u>9.692</u>	57	<u>9.096</u>
56	56	<u>9.466</u>	57	<u>8.859</u>	58	<u>8.232</u>
57	57	<u>8.657</u>	58	<u>8.021</u>	59	<u>7.362</u>
58	58	<u>7.843</u>	59	<u>7.176</u>	60	<u>6.484</u>
59	59	<u>7.023</u>	60	<u>6.323</u>	61	<u>5.597</u>
60	60	<u>6.195</u>	61	<u>5.462</u>	62	<u>4.700</u>

+ Based on 2014 U.S. Life Tables for male population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

**Table D-1—Male
Annuity Table +
Permanent Total Benefits
Accidents ~~On or After~~ October 1, 2013**

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
61	61	5.358	62	4.589	63	3.788
62	62	4.511	63	3.706	64	2.866
63	63	3.654	64	2.811	65	1.928
64	64	2.784	65	1.901	66	0.974
65	65	1.901	66	0.974		
66	66	0.974				

+ Based on ~~2009~~ U.S. Life Tables for male population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

**Table D-1—Male
Annuity Table +
Permanent Total Benefits
Accidents From October 1, 2013 through September 30, 2018**

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
61	61	<u>5.359</u>	62	<u>4.591</u>	63	<u>3.791</u>
62	62	<u>4.513</u>	63	<u>3.709</u>	64	<u>2.868</u>
63	63	<u>3.656</u>	64	<u>2.813</u>	65	<u>1.930</u>
64	64	<u>2.787</u>	65	<u>1.902</u>	66	<u>0.975</u>
65	65	<u>1.902</u>	66	<u>0.975</u>		
66	66	<u>0.975</u>				

+ Based on 2014 U.S. Life Tables for male population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table D-2—Female
Annuity Table +
Permanent Total Benefits *
Accidents ~~On or After~~ October 1, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
11	11	44.350	12	44.889	13	45.448
12	12	43.638	13	44.153	14	44.688
13	13	42.923	14	43.415	15	43.926
14	14	42.207	15	42.675	16	43.162
15	15	41.488	16	41.933	17	42.396
16	16	40.768	17	41.190	18	41.628
17	17	40.046	18	40.444	19	40.857
18	18	39.322	19	39.696	20	40.083
19	19	38.596	20	38.944	21	39.306
20	20	37.866	21	38.190	22	38.526
21	21	37.134	22	37.432	23	37.743
22	22	36.398	23	36.672	24	36.956
23	23	35.660	24	35.908	25	36.166
24	24	34.919	25	35.142	26	35.373
25	25	34.174	26	34.374	27	34.576
26	26	33.427	27	33.598	28	33.776
27	27	32.675	28	32.821	29	32.972
28	28	31.921	29	32.040	30	32.165
29	29	31.163	30	31.257	31	31.354
30	30	30.402	31	30.469	32	30.540
31	31	29.638	32	29.679	33	29.723
32	32	28.871	33	28.886	34	28.903
33	33	28.101	34	28.089	35	28.079
34	34	27.328	35	27.290	36	27.253
35	35	26.551	36	26.487	37	26.423

+ Based on 2009 U.S. Life Tables for female population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table D-2—Female
Annuity Table +
Permanent Total Benefits *
Accidents **From** October 1, 2013 **through** September 30, 2018

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
11	11	<u>44.378</u>	12	<u>44.918</u>	13	<u>45.478</u>
12	12	<u>43.666</u>	13	<u>44.182</u>	14	<u>44.717</u>
13	13	<u>42.951</u>	14	<u>43.443</u>	15	<u>43.953</u>
14	14	<u>42.234</u>	15	<u>42.701</u>	16	<u>43.187</u>
15	15	<u>41.514</u>	16	<u>41.958</u>	17	<u>42.419</u>
16	16	<u>40.792</u>	17	<u>41.212</u>	18	<u>41.648</u>
17	17	<u>40.068</u>	18	<u>40.464</u>	19	<u>40.875</u>
18	18	<u>39.341</u>	19	<u>39.713</u>	20	<u>40.100</u>
19	19	<u>38.613</u>	20	<u>38.960</u>	21	<u>39.322</u>
20	20	<u>37.882</u>	21	<u>38.205</u>	22	<u>38.541</u>
21	21	<u>37.149</u>	22	<u>37.447</u>	23	<u>37.757</u>
22	22	<u>36.413</u>	23	<u>36.686</u>	24	<u>36.970</u>
23	23	<u>35.674</u>	24	<u>35.922</u>	25	<u>36.180</u>
24	24	<u>34.932</u>	25	<u>35.155</u>	26	<u>35.387</u>
25	25	<u>34.188</u>	26	<u>34.385</u>	27	<u>34.591</u>
26	26	<u>33.440</u>	27	<u>33.612</u>	28	<u>33.791</u>
27	27	<u>32.689</u>	28	<u>32.835</u>	29	<u>32.987</u>
28	28	<u>31.935</u>	29	<u>32.055</u>	30	<u>32.181</u>
29	29	<u>31.178</u>	30	<u>31.272</u>	31	<u>31.371</u>
30	30	<u>30.418</u>	31	<u>30.486</u>	32	<u>30.558</u>
31	31	<u>29.654</u>	32	<u>29.696</u>	33	<u>29.741</u>
32	32	<u>28.888</u>	33	<u>28.904</u>	34	<u>28.922</u>
33	33	<u>28.118</u>	34	<u>28.108</u>	35	<u>28.099</u>
34	34	<u>27.345</u>	35	<u>27.309</u>	36	<u>27.273</u>
35	35	<u>26.570</u>	36	<u>26.508</u>	37	<u>26.445</u>

+ Based on 2014 U.S. Life Tables for female population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table D-2—Female
Annuity Table +
Permanent Total Benefits *
Accidents ~~On or After~~ October 1, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
36	36	25.772	37	25.682	38	25.594
37	37	24.990	38	24.874	39	24.756
38	38	24.206	39	24.063	40	23.918
39	39	23.419	40	23.250	41	23.078
40	40	22.629	41	22.435	42	22.236
41	41	21.838	42	21.617	43	21.392
42	42	21.044	43	20.798	44	20.546
43	43	20.248	44	19.976	45	19.699
44	44	19.451	45	19.153	46	18.849
45	45	18.652	46	18.328	47	17.996
46	46	17.851	47	17.501	48	17.142
47	47	17.047	48	16.671	49	16.284
48	48	16.241	49	15.838	50	15.424
49	49	15.433	50	15.003	51	14.561
50	50	14.622	51	14.165	52	13.695
51	51	13.809	52	13.325	53	12.825
52	52	12.993	53	12.480	54	11.951
53	53	12.173	54	11.632	55	11.072
54	54	11.349	55	10.778	56	10.188
55	55	10.520	56	9.919	57	9.298
56	56	9.687	57	9.056	58	8.402
57	57	8.848	58	8.186	59	7.502
58	58	8.004	59	7.312	60	6.595
59	59	7.155	60	6.434	61	5.684
60	60	6.300	61	5.544	62	4.760

+ Based on 2009 U.S. Life Tables for female population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table D-2—Female
Annuity Table +
Permanent Total Benefits *
Accidents **From** October 1, 2013 **through** September 30, 2018

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
36	36	<u>25.792</u>	37	<u>25.703</u>	38	<u>25.614</u>
37	37	<u>25.011</u>	38	<u>24.896</u>	39	<u>24.780</u>
38	38	<u>24.227</u>	39	<u>24.087</u>	40	<u>23.943</u>
39	39	<u>23.441</u>	40	<u>23.274</u>	41	<u>23.103</u>
40	40	<u>22.653</u>	41	<u>22.459</u>	42	<u>22.261</u>
41	41	<u>21.861</u>	42	<u>21.641</u>	43	<u>21.416</u>
42	42	<u>21.067</u>	43	<u>20.821</u>	44	<u>20.568</u>
43	43	<u>20.270</u>	44	<u>19.997</u>	45	<u>19.717</u>
44	44	<u>19.471</u>	45	<u>19.172</u>	46	<u>18.864</u>
45	45	<u>18.669</u>	46	<u>18.343</u>	47	<u>18.008</u>
46	46	<u>17.865</u>	47	<u>17.512</u>	48	<u>17.150</u>
47	47	<u>17.058</u>	48	<u>16.679</u>	49	<u>16.290</u>
48	48	<u>16.250</u>	49	<u>15.844</u>	50	<u>15.428</u>
49	49	<u>15.439</u>	50	<u>15.008</u>	51	<u>14.564</u>
50	50	<u>14.627</u>	51	<u>14.168</u>	52	<u>13.697</u>
51	51	<u>13.812</u>	52	<u>13.326</u>	53	<u>12.826</u>
52	52	<u>12.994</u>	53	<u>12.481</u>	54	<u>11.951</u>
53	53	<u>12.173</u>	54	<u>11.632</u>	55	<u>11.073</u>
54	54	<u>11.349</u>	55	<u>10.779</u>	56	<u>10.190</u>
55	55	<u>10.521</u>	56	<u>9.921</u>	57	<u>9.302</u>
56	56	<u>9.688</u>	57	<u>9.059</u>	58	<u>8.408</u>
57	57	<u>8.851</u>	58	<u>8.192</u>	59	<u>7.509</u>
58	58	<u>8.009</u>	59	<u>7.318</u>	60	<u>6.602</u>
59	59	<u>7.161</u>	60	<u>6.438</u>	61	<u>5.688</u>
60	60	<u>6.307</u>	61	<u>5.551</u>	62	<u>4.766</u>

+ Based on 2014 U.S. Life Tables for female population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

**Table D-2—Female
Annuity Table +
Permanent Total Benefits *
Accidents ~~On or After~~ October 1, 2013**

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
61	61	5.439	62	4.650	63	3.830
62	62	4.570	63	3.747	64	2.894
63	63	3.694	64	2.835	65	1.940
64	64	2.808	65	1.912	66	0.977
65	65	1.912	66	0.977		
66	66	0.977				

+ Based on 2009 U.S. Life Tables for female population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

**Table D-2—Female
Annuity Table +
Permanent Total Benefits ***
Accidents From October 1, 2013 through September 30, 2018

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
61	61	<u>5.445</u>	62	<u>4.655</u>	63	<u>3.834</u>
62	62	<u>4.576</u>	63	<u>3.751</u>	64	<u>2.894</u>
63	63	<u>3.698</u>	64	<u>2.838</u>	65	<u>1.942</u>
64	64	<u>2.811</u>	65	<u>1.914</u>	66	<u>0.978</u>
65	65	<u>1.914</u>	66	<u>0.978</u>		
66	66	<u>0.978</u>				

+ Based on 2014 U.S. Life Tables for female population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

Benefits terminate at age 67 (note: statute allows benefits to continue beyond age 67 if presumption of retirement is successfully rebutted)

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table D-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents On or After October 1, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
0	0	60.276	1	61.765	2	62.935
1	1	60.022	2	61.131	3	62.270
2	2	59.407	3	60.485	4	61.598
3	3	58.780	4	59.832	5	60.919
4	4	58.146	5	59.173	6	60.236
5	5	57.506	6	58.510	7	59.549
6	6	56.862	7	57.843	8	58.858
7	7	56.215	8	57.172	9	58.162
8	8	55.563	9	56.497	10	57.462
9	9	54.907	10	55.817	11	56.758
10	10	54.248	11	55.134	12	56.051
11	11	53.584	12	54.447	13	55.343
12	12	52.918	13	53.760	14	54.634
13	13	52.250	14	53.072	15	53.927
14	14	51.582	15	52.385	16	53.221
15	15	50.916	16	51.699	17	52.516
16	16	50.250	17	51.015	18	51.811
17	17	49.585	18	50.331	19	51.107
18	18	48.921	19	49.647	20	50.402
19	19	48.257	20	48.963	21	49.698
20	20	47.593	21	48.279	22	48.993
21	21	46.929	22	47.595	23	48.287
22	22	46.265	23	46.910	24	47.579
23	23	45.599	24	46.222	25	46.866
24	24	44.932	25	45.530	26	46.149

+ Based on 2009 U.S. Life Tables for total population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table D-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents On or After October 1, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
0	0	<u>60.550</u>	1	<u>62.016</u>	2	<u>63.193</u>
1	1	<u>60.266</u>	2	<u>61.381</u>	3	<u>62.528</u>
2	2	<u>59.650</u>	3	<u>60.735</u>	4	<u>61.855</u>
3	3	<u>59.022</u>	4	<u>60.082</u>	5	<u>61.177</u>
4	4	<u>58.388</u>	5	<u>59.424</u>	6	<u>60.495</u>
5	5	<u>57.750</u>	6	<u>58.762</u>	7	<u>59.809</u>
6	6	<u>57.107</u>	7	<u>58.095</u>	8	<u>59.118</u>
7	7	<u>56.460</u>	8	<u>57.425</u>	9	<u>58.423</u>
8	8	<u>55.809</u>	9	<u>56.750</u>	10	<u>57.725</u>
9	9	<u>55.154</u>	10	<u>56.072</u>	11	<u>57.022</u>
10	10	<u>54.495</u>	11	<u>55.390</u>	12	<u>56.317</u>
11	11	<u>53.833</u>	12	<u>54.705</u>	13	<u>55.609</u>
12	12	<u>53.168</u>	13	<u>54.018</u>	14	<u>54.901</u>
13	13	<u>52.501</u>	14	<u>53.330</u>	15	<u>54.192</u>
14	14	<u>51.833</u>	15	<u>52.642</u>	16	<u>53.483</u>
15	15	<u>51.165</u>	16	<u>51.954</u>	17	<u>52.775</u>
16	16	<u>50.497</u>	17	<u>51.266</u>	18	<u>52.066</u>
17	17	<u>49.829</u>	18	<u>50.579</u>	19	<u>51.359</u>
18	18	<u>49.162</u>	19	<u>49.892</u>	20	<u>50.653</u>
19	19	<u>48.495</u>	20	<u>49.206</u>	21	<u>49.947</u>
20	20	<u>47.829</u>	21	<u>48.521</u>	22	<u>49.241</u>
21	21	<u>47.164</u>	22	<u>47.835</u>	23	<u>48.534</u>
22	22	<u>46.498</u>	23	<u>47.149</u>	24	<u>47.826</u>
23	23	<u>45.832</u>	24	<u>46.461</u>	25	<u>47.114</u>
24	24	<u>45.164</u>	25	<u>45.770</u>	26	<u>46.399</u>

+ Based on 2014 U.S. Life Tables for total population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table D-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents On or After October 1, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
25	25	44.260	26	44.834	27	45.429
26	26	43.584	27	44.134	28	44.704
27	27	42.905	28	43.431	29	43.976
28	28	42.222	29	42.724	30	43.245
29	29	41.536	30	42.014	31	42.511
30	30	40.846	31	41.301	32	41.774
31	31	40.155	32	40.586	33	41.035
32	32	39.460	33	39.868	34	40.293
33	33	38.763	34	39.148	35	39.548
34	34	38.064	35	38.425	36	38.802
35	35	37.362	36	37.700	37	38.054
36	36	36.659	37	36.974	38	37.305
37	37	35.954	38	36.247	39	36.554
38	38	35.247	39	35.518	40	35.804
39	39	34.540	40	34.790	41	35.053
40	40	33.832	41	34.061	42	34.303
41	41	33.125	42	33.332	43	33.554
42	42	32.418	43	32.605	44	32.806
43	43	31.711	44	31.879	45	32.061
44	44	31.007	45	31.156	46	31.318
45	45	30.305	46	30.435	47	30.577
46	46	29.604	47	29.715	48	29.837
47	47	28.905	48	28.997	49	29.101
48	48	28.209	49	28.282	50	28.369
49	49	27.515	50	27.571	51	27.641

+ Based on 2009 U.S. Life Tables for female population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

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Part 8 — Annuity Tables

Effective January 1, 2019

Table D-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents On or After October 1, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
25	25	<u>44.493</u>	26	<u>45.076</u>	27	<u>45.681</u>
26	26	<u>43.820</u>	27	<u>44.379</u>	28	<u>44.961</u>
27	27	<u>43.143</u>	28	<u>43.680</u>	29	<u>44.237</u>
28	28	<u>42.464</u>	29	<u>42.977</u>	30	<u>43.511</u>
29	29	<u>41.782</u>	30	<u>42.272</u>	31	<u>42.781</u>
30	30	<u>41.097</u>	31	<u>41.564</u>	32	<u>42.049</u>
31	31	<u>40.410</u>	32	<u>40.853</u>	33	<u>41.315</u>
32	32	<u>39.720</u>	33	<u>40.140</u>	34	<u>40.577</u>
33	33	<u>39.027</u>	34	<u>39.424</u>	35	<u>39.837</u>
34	34	<u>38.332</u>	35	<u>38.706</u>	36	<u>39.095</u>
35	35	<u>37.635</u>	36	<u>37.985</u>	37	<u>38.351</u>
36	36	<u>36.935</u>	37	<u>37.263</u>	38	<u>37.606</u>
37	37	<u>36.234</u>	38	<u>36.539</u>	39	<u>36.858</u>
38	38	<u>35.531</u>	39	<u>35.813</u>	40	<u>36.109</u>
39	39	<u>34.826</u>	40	<u>35.086</u>	41	<u>35.359</u>
40	40	<u>34.121</u>	41	<u>34.358</u>	42	<u>34.609</u>
41	41	<u>33.414</u>	42	<u>33.629</u>	43	<u>33.858</u>
42	42	<u>32.706</u>	43	<u>32.900</u>	44	<u>33.107</u>
43	43	<u>31.998</u>	44	<u>32.171</u>	45	<u>32.357</u>
44	44	<u>31.290</u>	45	<u>31.443</u>	46	<u>31.608</u>
45	45	<u>30.583</u>	46	<u>30.716</u>	47	<u>30.860</u>
46	46	<u>29.877</u>	47	<u>29.990</u>	48	<u>30.116</u>
47	47	<u>29.173</u>	48	<u>29.267</u>	49	<u>29.376</u>
48	48	<u>28.471</u>	49	<u>28.549</u>	50	<u>28.640</u>
49	49	<u>27.773</u>	50	<u>27.834</u>	51	<u>27.908</u>

+ Based on 2014 U.S. Life Tables for total population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table D-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents On or After October 1, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
50	50	26.824	51	26.865	52	26.917
51	51	26.138	52	26.162	53	26.197
52	52	25.456	53	25.462	54	25.479
53	53	24.777	54	24.765	55	24.763
54	54	24.100	55	24.071	56	24.050
55	55	23.425	56	23.378	57	23.339
56	56	22.753	57	22.688	58	22.632
57	57	22.083	58	22.001	59	21.928
58	58	21.416	59	21.318	60	21.228
59	59	20.752	60	20.638	61	20.532
60	60	20.093	61	19.962	62	19.841
61	61	19.437	62	19.291	63	19.154
62	62	18.785	63	18.624	64	18.472
63	63	18.138	64	17.963	65	17.797
64	64	17.495	65	17.307	66	17.129
65	65	16.858	66	16.658	67	16.469
66	66	16.228	67	16.018	68	15.818
67	67	15.607	68	15.386	69	15.175
68	68	14.993	69	14.762	70	14.539
69	69	14.387	70	14.143	71	13.909
70	70	13.787	71	13.532	72	13.288
71	71	13.193	72	12.930	73	12.677
72	72	12.608	73	12.336	74	12.077
73	73	12.032	74	11.754	75	11.490
74	74	11.466	75	11.183	76	10.913

+ Based on 2009 U.S. Life Tables for total population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

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Part 8 — Annuity Tables

Effective January 1, 2019

Table D-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents On or After October 1, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
50	50	<u>27.079</u>	51	<u>27.123</u>	52	<u>27.179</u>
51	51	<u>26.389</u>	52	<u>26.416</u>	53	<u>26.454</u>
52	52	<u>25.703</u>	53	<u>25.712</u>	54	<u>25.734</u>
53	53	<u>25.019</u>	54	<u>25.013</u>	55	<u>25.018</u>
54	54	<u>24.340</u>	55	<u>24.318</u>	56	<u>24.307</u>
55	55	<u>23.665</u>	56	<u>23.627</u>	57	<u>23.600</u>
56	56	<u>22.995</u>	57	<u>22.941</u>	58	<u>22.897</u>
57	57	<u>22.329</u>	58	<u>22.259</u>	59	<u>22.198</u>
58	58	<u>21.667</u>	59	<u>21.580</u>	60	<u>21.503</u>
59	59	<u>21.008</u>	60	<u>20.905</u>	61	<u>20.810</u>
60	60	<u>20.352</u>	61	<u>20.232</u>	62	<u>20.121</u>
61	61	<u>19.699</u>	62	<u>19.564</u>	63	<u>19.436</u>
62	62	<u>19.050</u>	63	<u>18.899</u>	64	<u>18.755</u>
63	63	<u>18.404</u>	64	<u>18.237</u>	65	<u>18.076</u>
64	64	<u>17.761</u>	65	<u>17.578</u>	66	<u>17.400</u>
65	65	<u>17.121</u>	66	<u>16.922</u>	67	<u>16.727</u>
66	66	<u>16.484</u>	67	<u>16.269</u>	68	<u>16.059</u>
67	67	<u>15.850</u>	68	<u>15.620</u>	69	<u>15.397</u>
68	68	<u>15.220</u>	69	<u>14.977</u>	70	<u>14.743</u>
69	69	<u>14.596</u>	70	<u>14.342</u>	71	<u>14.099</u>
70	70	<u>13.979</u>	71	<u>13.717</u>	72	<u>13.467</u>
71	71	<u>13.373</u>	72	<u>13.103</u>	73	<u>12.846</u>
72	72	<u>12.776</u>	73	<u>12.500</u>	74	<u>12.235</u>
73	73	<u>12.191</u>	74	<u>11.907</u>	75	<u>11.634</u>
74	74	<u>11.614</u>	75	<u>11.323</u>	76	<u>11.042</u>

+ Based on 2014 U.S. Life Tables for total population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

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Part 8 — Annuity Tables

Effective January 1, 2019

Table D-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents On or After October 1, 2013

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
75	75	10.912	76	10.623	77	10.347
76	76	10.368	77	10.074	78	9.794
77	77	9.834	78	9.537	79	9.256
78	78	9.313	79	9.015	80	8.734
79	79	8.806	80	8.507	81	8.225
80	80	8.313	81	8.014	82	7.734
81	81	7.834	82	7.534	83	7.254
82	82	7.367	83	7.070	84	6.795
83	83	6.917	84	6.624	85	6.354
84	84	6.483	85	6.196	86	5.939
85	85	6.067	86	5.793	87	5.546
86	86	5.675	87	5.412	88	5.175
87	87	5.304	88	5.051	89	4.826
88	88	4.954	89	4.712	90	4.499
89	89	4.624	90	4.394	91	4.192
90	90	4.315	91	4.096	92	3.906
91	91	4.025	92	3.818	93	3.640
92	92	3.754	93	3.560	94	3.392
93	93	3.502	94	3.319	95	3.163
94	94	3.268	95	3.097	96	2.954
95	95	3.051	96	2.890	97	2.755
96	96	2.850	97	2.700	98	2.573
97	97	2.664	98	2.523	99	2.404
98	98	2.491	99	2.358	100	2.244
99	99	2.330	100	2.203	101	2.095

+ Based on 2009 U.S. Life Tables for total population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

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Part 8 — Annuity Tables

Effective January 1, 2019

**Table D-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents On or After October 1, 2013**

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
75	75	<u>11.048</u>	76	<u>10.749</u>	77	<u>10.462</u>
76	76	<u>10.490</u>	77	<u>10.186</u>	78	<u>9.896</u>
77	77	<u>9.943</u>	78	<u>9.636</u>	79	<u>9.344</u>
78	78	<u>9.409</u>	79	<u>9.100</u>	80	<u>8.811</u>
79	79	<u>8.889</u>	80	<u>8.582</u>	81	<u>8.294</u>
80	80	<u>8.386</u>	81	<u>8.081</u>	82	<u>7.794</u>
81	81	<u>7.898</u>	82	<u>7.595</u>	83	<u>7.310</u>
82	82	<u>7.427</u>	83	<u>7.125</u>	84	<u>6.845</u>
83	83	<u>6.970</u>	84	<u>6.673</u>	85	<u>6.400</u>
84	84	<u>6.531</u>	85	<u>6.241</u>	86	<u>5.973</u>
85	85	<u>6.111</u>	86	<u>5.827</u>	87	<u>5.570</u>
86	86	<u>5.708</u>	87	<u>5.435</u>	88	<u>5.189</u>
87	87	<u>5.327</u>	88	<u>5.065</u>	89	<u>4.831</u>
88	88	<u>4.967</u>	89	<u>4.717</u>	90	<u>4.495</u>
89	89	<u>4.629</u>	90	<u>4.391</u>	91	<u>4.181</u>
90	90	<u>4.311</u>	91	<u>4.086</u>	92	<u>3.889</u>
91	91	<u>4.015</u>	92	<u>3.802</u>	93	<u>3.617</u>
92	92	<u>3.738</u>	93	<u>3.538</u>	94	<u>3.365</u>
93	93	<u>3.481</u>	94	<u>3.293</u>	95	<u>3.132</u>
94	94	<u>3.242</u>	95	<u>3.066</u>	96	<u>2.917</u>
95	95	<u>3.021</u>	96	<u>2.857</u>	97	<u>2.718</u>
96	96	<u>2.817</u>	97	<u>2.664</u>	98	<u>2.534</u>
97	97	<u>2.629</u>	98	<u>2.485</u>	99	<u>2.363</u>
98	98	<u>2.454</u>	99	<u>2.318</u>	100	<u>2.202</u>
99	99	<u>2.291</u>	100	<u>2.162</u>	101	<u>2.052</u>

+ Based on 2014 U.S. Life Tables for total population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

**Table D-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents On or After October 1, 2013**

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
100	100	2.178	101	2.057	102	1.956
101	101	2.036	102	1.922	103	1.825
102	102	1.904	103	1.795	104	1.699
103	103	1.779	104	1.672	105	1.579
104	104	1.658	105	1.556	106	1.461
105	105	1.545	106	1.440	107	1.349
106	106	1.431	107	1.302	108	1.149
107	107	1.296	108	1.137	109	0.930
108	108	1.134	109	0.924	110	0.472
109	109	0.924	110	0.472		
110	110	0.472				

+ Based on 2009 U.S. Life Tables for total population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

**Table D-3—Total Population
Annuity Table +
Lifetime Fatal Dependency Benefits *
Accidents On or After October 1, 2013**

Age at Accident	Initial		1st Anniversary of Accident		2nd and Subsequent Accident Anniversaries	
	Current Age	Escalation Deferred 3 Years	Current Age	Escalation Deferred 2 Years	Current Age	Escalation Deferred 1 Year
100	100	<u>2.138</u>	101	<u>2.016</u>	102	<u>1.912</u>
101	101	<u>1.996</u>	102	<u>1.879</u>	103	<u>1.780</u>
102	102	<u>1.862</u>	103	<u>1.751</u>	104	<u>1.658</u>
103	103	<u>1.737</u>	104	<u>1.632</u>	105	<u>1.543</u>
104	104	<u>1.619</u>	105	<u>1.520</u>	106	<u>1.430</u>
105	105	<u>1.510</u>	106	<u>1.410</u>	107	<u>1.312</u>
106	106	<u>1.402</u>	107	<u>1.296</u>	108	<u>1.159</u>
107	107	<u>1.290</u>	108	<u>1.147</u>	109	<u>0.903</u>
108	108	<u>1.144</u>	109	<u>0.897</u>	110	<u>0.482</u>
109	109	<u>0.897</u>	110	<u>0.482</u>		
110	110	<u>0.482</u>				

+ Based on 2014 U.S. Life Tables for total population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

* This table is to be used for Lifetime Fatal Dependency Benefits only in cases where there is no surviving spouse or children, but there is a dependent parent or sibling eligible for lifetime benefits.

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

**Table E-1—Male
Annuity Table +
Permanent Total Benefits*
Accidents On or After October 1, 2018**

<u>Age at Accident</u>	<u>Initial</u>		<u>1st Anniversary of Accident</u>		<u>2nd and Subsequent Accident Anniversaries</u>	
	<u>Current Age</u>	<u>Escalation Deferred 3 Years</u>	<u>Current Age</u>	<u>Escalation Deferred 2 Years</u>	<u>Current Age</u>	<u>Escalation Deferred 1 Year</u>
11	11	46.035	12	46.633	13	47.255
12	12	45.331	13	45.907	14	46.506
13	13	44.626	14	45.180	15	45.758
14	14	43.920	15	44.454	16	45.010
15	15	43.215	16	43.728	17	44.263
16	16	42.510	17	43.003	18	43.517
17	17	41.806	18	42.278	19	42.773
18	18	41.103	19	41.556	20	42.031
19	19	40.402	20	40.836	21	41.291
20	20	39.702	21	40.117	22	40.551
21	21	39.004	22	39.398	23	39.810
22	22	38.307	23	38.680	24	39.068
23	23	37.609	24	37.958	25	38.321
24	24	36.909	25	37.234	26	37.571
25	25	36.205	26	36.505	27	36.817
26	26	35.498	27	35.773	28	36.058
27	27	34.787	28	35.037	29	35.297
28	28	34.073	29	34.297	30	34.532
29	29	33.355	30	33.554	31	33.763
30	30	32.633	31	32.808	32	32.991
31	31	31.909	32	32.059	33	32.215
32	32	31.181	33	31.305	34	31.435
33	33	30.450	34	30.548	35	30.652
34	34	29.715	35	29.788	36	29.865
35	35	28.976	36	29.023	37	29.074

+ Based on 2014 U.S. Life Tables for male population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

* Benefits terminate at the later of age 72 or five years from when Permanent Total benefit payments begin

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

**Table E-1—Male
Annuity Table +
Permanent Total Benefits*
Accidents On or After October 1, 2018**

<u>Age at Accident</u>	<u>Initial</u>		<u>1st Anniversary of Accident</u>		<u>2nd and Subsequent Accident Anniversaries</u>	
	<u>Current Age</u>	<u>Escalation Deferred 3 Years</u>	<u>Current Age</u>	<u>Escalation Deferred 2 Years</u>	<u>Current Age</u>	<u>Escalation Deferred 1 Year</u>
36	36	28.234	37	28.256	38	28.281
37	37	27.489	38	27.486	39	27.485
38	38	26.742	39	26.713	40	26.686
39	39	25.991	40	25.937	41	25.884
40	40	25.238	41	25.159	42	25.080
41	41	24.482	42	24.378	43	24.274
42	42	23.724	43	23.596	44	23.467
43	43	22.965	44	22.812	45	22.659
44	44	22.204	45	22.028	46	21.851
45	45	21.442	46	21.243	47	21.042
46	46	20.680	47	20.457	48	20.233
47	47	19.918	48	19.673	49	19.426
48	48	19.156	49	18.889	50	18.620
49	49	18.395	50	18.106	51	17.815
50	50	17.635	51	17.325	52	17.010
51	51	16.876	52	16.543	53	16.204
52	52	16.117	53	15.761	54	15.399
53	53	15.358	54	14.979	55	14.594
54	54	14.599	55	14.198	56	13.789
55	55	13.840	56	13.416	57	12.982
56	56	13.081	57	12.633	58	12.174
57	57	12.320	58	11.848	59	11.362
58	58	11.558	59	11.060	60	10.546
59	59	10.793	60	10.268	61	9.726
60	60	10.024	61	9.471	62	8.900

+ Based on 2014 U.S. Life Tables for male population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

* Benefits terminate at the later of age 72 or five years from when Permanent Total benefit payments begin

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

**Table E-1—Male
Annuity Table +
Permanent Total Benefits*
Accidents On or After October 1, 2018**

<u>Age at Accident</u>	<u>Initial</u>		<u>1st Anniversary of Accident</u>		<u>2nd and Subsequent Accident Anniversaries</u>	
	<u>Current Age</u>	<u>Escalation Deferred 3 Years</u>	<u>Current Age</u>	<u>Escalation Deferred 2 Years</u>	<u>Current Age</u>	<u>Escalation Deferred 1 Year</u>
61	61	9.251	62	8.670	63	8.068
62	62	8.473	63	7.861	64	7.227
63	63	7.688	64	7.045	65	6.375
64	64	6.895	65	6.218	66	5.512
65	65	6.092	66	5.380	67	4.636
66	66	5.279	67	4.530	68	3.746
67	67	4.453	68	3.665	69	2.840
68	68	3.614	69	2.786	70	1.916
69	69	2.760	70	1.888	71	0.971
70	70	1.888		0.971		
71	71	0.971				

+ Based on 2014 U.S. Life Tables for male population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

* Benefits terminate at the later of age 72 or five years from when Permanent Total benefit payments begin

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

Table E-2—Female
Annuity Table +
Permanent Total Benefits *
Accidents On or After October 1, 2018

<u>Age at Accident</u>	<u>Initial</u>		<u>1st Anniversary of Accident</u>		<u>2nd and Subsequent Accident Anniversaries</u>	
	<u>Current Age</u>	<u>Escalation Deferred 3 Years</u>	<u>Current Age</u>	<u>Escalation Deferred 2 Years</u>	<u>Current Age</u>	<u>Escalation Deferred 1 Year</u>
<u>11</u>	<u>11</u>	<u>47.317</u>	<u>12</u>	<u>47.960</u>	<u>13</u>	<u>48.626</u>
<u>12</u>	<u>12</u>	<u>46.619</u>	<u>13</u>	<u>47.238</u>	<u>14</u>	<u>47.880</u>
<u>13</u>	<u>13</u>	<u>45.919</u>	<u>14</u>	<u>46.514</u>	<u>15</u>	<u>47.133</u>
<u>14</u>	<u>14</u>	<u>45.216</u>	<u>15</u>	<u>45.788</u>	<u>16</u>	<u>46.383</u>
<u>15</u>	<u>15</u>	<u>44.511</u>	<u>16</u>	<u>45.060</u>	<u>17</u>	<u>45.631</u>
<u>16</u>	<u>16</u>	<u>43.804</u>	<u>17</u>	<u>44.330</u>	<u>18</u>	<u>44.877</u>
<u>17</u>	<u>17</u>	<u>43.095</u>	<u>18</u>	<u>43.598</u>	<u>19</u>	<u>44.120</u>
<u>18</u>	<u>18</u>	<u>42.385</u>	<u>19</u>	<u>42.864</u>	<u>20</u>	<u>43.362</u>
<u>19</u>	<u>19</u>	<u>41.672</u>	<u>20</u>	<u>42.127</u>	<u>21</u>	<u>42.601</u>
<u>20</u>	<u>20</u>	<u>40.957</u>	<u>21</u>	<u>41.389</u>	<u>22</u>	<u>41.837</u>
<u>21</u>	<u>21</u>	<u>40.239</u>	<u>22</u>	<u>40.647</u>	<u>23</u>	<u>41.071</u>
<u>22</u>	<u>22</u>	<u>39.520</u>	<u>23</u>	<u>39.903</u>	<u>24</u>	<u>40.302</u>
<u>23</u>	<u>23</u>	<u>38.797</u>	<u>24</u>	<u>39.157</u>	<u>25</u>	<u>39.530</u>
<u>24</u>	<u>24</u>	<u>38.072</u>	<u>25</u>	<u>38.407</u>	<u>26</u>	<u>38.754</u>
<u>25</u>	<u>25</u>	<u>37.345</u>	<u>26</u>	<u>37.654</u>	<u>27</u>	<u>37.976</u>
<u>26</u>	<u>26</u>	<u>36.614</u>	<u>27</u>	<u>36.899</u>	<u>28</u>	<u>37.195</u>
<u>27</u>	<u>27</u>	<u>35.880</u>	<u>28</u>	<u>36.140</u>	<u>29</u>	<u>36.410</u>
<u>28</u>	<u>28</u>	<u>35.144</u>	<u>29</u>	<u>35.378</u>	<u>30</u>	<u>35.622</u>
<u>29</u>	<u>29</u>	<u>34.404</u>	<u>30</u>	<u>34.613</u>	<u>31</u>	<u>34.831</u>
<u>30</u>	<u>30</u>	<u>33.661</u>	<u>31</u>	<u>33.846</u>	<u>32</u>	<u>34.038</u>
<u>31</u>	<u>31</u>	<u>32.916</u>	<u>32</u>	<u>33.075</u>	<u>33</u>	<u>33.241</u>
<u>32</u>	<u>32</u>	<u>32.168</u>	<u>33</u>	<u>32.301</u>	<u>34</u>	<u>32.441</u>
<u>33</u>	<u>33</u>	<u>31.417</u>	<u>34</u>	<u>31.525</u>	<u>35</u>	<u>31.638</u>
<u>34</u>	<u>34</u>	<u>30.663</u>	<u>35</u>	<u>30.745</u>	<u>36</u>	<u>30.833</u>
<u>35</u>	<u>35</u>	<u>29.906</u>	<u>36</u>	<u>29.964</u>	<u>37</u>	<u>30.025</u>

+ Based on 2014 U.S. Life Tables for female population3.5% annual interest rate3.0% annual escalation beginning on third anniversary of accident* Benefits terminate at the later of age 72 or five years from when Permanent Total benefit payments begin

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

**Table E-2—Female
Annuity Table +
Permanent Total Benefits *
Accidents On or After October 1, 2018**

<u>Age at Accident</u>	<u>Initial</u>		<u>1st Anniversary of Accident</u>		<u>2nd and Subsequent Accident Anniversaries</u>	
	<u>Current Age</u>	<u>Escalation Deferred 3 Years</u>	<u>Current Age</u>	<u>Escalation Deferred 2 Years</u>	<u>Current Age</u>	<u>Escalation Deferred 1 Year</u>
<u>36</u>	<u>36</u>	<u>29.147</u>	<u>37</u>	<u>29.180</u>	<u>38</u>	<u>29.216</u>
<u>37</u>	<u>37</u>	<u>28.386</u>	<u>38</u>	<u>28.393</u>	<u>39</u>	<u>28.403</u>
<u>38</u>	<u>38</u>	<u>27.623</u>	<u>39</u>	<u>27.605</u>	<u>40</u>	<u>27.589</u>
<u>39</u>	<u>39</u>	<u>26.857</u>	<u>40</u>	<u>26.814</u>	<u>41</u>	<u>26.772</u>
<u>40</u>	<u>40</u>	<u>26.089</u>	<u>41</u>	<u>26.021</u>	<u>42</u>	<u>25.952</u>
<u>41</u>	<u>41</u>	<u>25.319</u>	<u>42</u>	<u>25.225</u>	<u>43</u>	<u>25.131</u>
<u>42</u>	<u>42</u>	<u>24.547</u>	<u>43</u>	<u>24.428</u>	<u>44</u>	<u>24.308</u>
<u>43</u>	<u>43</u>	<u>23.772</u>	<u>44</u>	<u>23.628</u>	<u>45</u>	<u>23.482</u>
<u>44</u>	<u>44</u>	<u>22.996</u>	<u>45</u>	<u>22.827</u>	<u>46</u>	<u>22.655</u>
<u>45</u>	<u>45</u>	<u>22.218</u>	<u>46</u>	<u>22.024</u>	<u>47</u>	<u>21.826</u>
<u>46</u>	<u>46</u>	<u>21.438</u>	<u>47</u>	<u>21.219</u>	<u>48</u>	<u>20.995</u>
<u>47</u>	<u>47</u>	<u>20.657</u>	<u>48</u>	<u>20.412</u>	<u>49</u>	<u>20.164</u>
<u>48</u>	<u>48</u>	<u>19.874</u>	<u>49</u>	<u>19.606</u>	<u>50</u>	<u>19.333</u>
<u>49</u>	<u>49</u>	<u>19.091</u>	<u>50</u>	<u>18.798</u>	<u>51</u>	<u>18.500</u>
<u>50</u>	<u>50</u>	<u>18.307</u>	<u>51</u>	<u>17.990</u>	<u>52</u>	<u>17.665</u>
<u>51</u>	<u>51</u>	<u>17.522</u>	<u>52</u>	<u>17.179</u>	<u>53</u>	<u>16.829</u>
<u>52</u>	<u>52</u>	<u>16.735</u>	<u>53</u>	<u>16.367</u>	<u>54</u>	<u>15.990</u>
<u>53</u>	<u>53</u>	<u>15.947</u>	<u>54</u>	<u>15.553</u>	<u>55</u>	<u>15.149</u>
<u>54</u>	<u>54</u>	<u>15.156</u>	<u>55</u>	<u>14.737</u>	<u>56</u>	<u>14.306</u>
<u>55</u>	<u>55</u>	<u>14.364</u>	<u>56</u>	<u>13.918</u>	<u>57</u>	<u>13.459</u>
<u>56</u>	<u>56</u>	<u>13.568</u>	<u>57</u>	<u>13.096</u>	<u>58</u>	<u>12.609</u>
<u>57</u>	<u>57</u>	<u>12.770</u>	<u>58</u>	<u>12.271</u>	<u>59</u>	<u>11.755</u>
<u>58</u>	<u>58</u>	<u>11.969</u>	<u>59</u>	<u>11.441</u>	<u>60</u>	<u>10.896</u>
<u>59</u>	<u>59</u>	<u>11.164</u>	<u>60</u>	<u>10.607</u>	<u>61</u>	<u>10.032</u>
<u>60</u>	<u>60</u>	<u>10.354</u>	<u>61</u>	<u>9.768</u>	<u>62</u>	<u>9.162</u>

+ Based on 2014 U.S. Life Tables for female population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

* Benefits terminate at the later of age 72 or five years from when Permanent Total benefit payments begin

Exhibit 3 Continued

Minnesota Statistical Plan Manual

Part 8 — Annuity Tables

Effective January 1, 2019

**Table E-2—Female
Annuity Table +
Permanent Total Benefits *
Accidents On or After October 1, 2018**

<u>Age at Accident</u>	<u>Initial</u>		<u>1st Anniversary of Accident</u>		<u>2nd and Subsequent Accident Anniversaries</u>	
	<u>Current Age</u>	<u>Escalation Deferred 3 Years</u>	<u>Current Age</u>	<u>Escalation Deferred 2 Years</u>	<u>Current Age</u>	<u>Escalation Deferred 1 Year</u>
<u>61</u>	<u>61</u>	<u>9.540</u>	<u>62</u>	<u>8.924</u>	<u>63</u>	<u>8.287</u>
<u>62</u>	<u>62</u>	<u>8.720</u>	<u>63</u>	<u>8.074</u>	<u>64</u>	<u>7.405</u>
<u>63</u>	<u>63</u>	<u>7.895</u>	<u>64</u>	<u>7.218</u>	<u>65</u>	<u>6.517</u>
<u>64</u>	<u>64</u>	<u>7.064</u>	<u>65</u>	<u>6.355</u>	<u>66</u>	<u>5.620</u>
<u>65</u>	<u>65</u>	<u>6.226</u>	<u>66</u>	<u>5.485</u>	<u>67</u>	<u>4.714</u>
<u>66</u>	<u>66</u>	<u>5.381</u>	<u>67</u>	<u>4.606</u>	<u>68</u>	<u>3.799</u>
<u>67</u>	<u>67</u>	<u>4.527</u>	<u>68</u>	<u>3.716</u>	<u>69</u>	<u>2.871</u>
<u>68</u>	<u>68</u>	<u>3.664</u>	<u>69</u>	<u>2.816</u>	<u>70</u>	<u>1.931</u>
<u>69</u>	<u>69</u>	<u>2.790</u>	<u>70</u>	<u>1.903</u>	<u>71</u>	<u>0.975</u>
<u>70</u>	<u>70</u>	<u>1.903</u>				
<u>71</u>	<u>71</u>	<u>0.975</u>				

+ Based on 2014 U.S. Life Tables for female population

3.5% annual interest rate

3.0% annual escalation beginning on third anniversary of accident

* Benefits terminate at the later of age 72 or five years from when Permanent Total benefit payments begin