



Insurance Commissioner  
Legislative Rule  
Title 114, Series 45

**RECOGNIZING ANNUITY MORTALITY TABLES FOR USE IN DETERMINING  
RESERVE LIABILITIES FOR ANNUITIES**

**TITLE 114, SERIES 45**

**BRIEF SUMMARY OF RULE**

This rule is based on a National Association of Insurance Commissioners' model regulation, which was adopted during the Fall 2012 NAIC meeting. It is anticipated that most states will adopt these amendments. Currently, six states have adopted the model and nine states have introduced or intend to introduce in 2014. Changes will be effective for individual annuities and pure endowment contracts issued on or after August 1, 2015. This also applies to settlement options in life insurance contracts. The change prescribes the 2012 Individual Annuity Reserving Table ("2012 IAR Table") as the minimum standard of valuation and requires the use of a projection scale known as Scale G2. The 2012 IAR Table was developed by the Society of Actuaries Committee on Life Insurance Research. Since development of the currently used mortality table, the industry has experienced significant mortality improvement. This has caused concern amongst regulators that annuities in payout status are under-reserved. The 2012 IAR Table was formed to take into consideration the more recent industry experience as well as future improvement at each valuation date. This makes the table more dynamic with the intention to keep the table from becoming dated too quickly. As such, the 2012 IAR Table is a generational mortality table. This means that the table contains a set of mortality rates that decrease for a given age from one projection year to the next.

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**STATEMENT OF CIRCUMSTANCES**

The amendments to this existing rule are necessary to implement the 2012 Individual Annuity Reserve Table (2012 IAR) for use in valuing minimum reserves for individual annuities and pure endowment contracts issued after a specified date in the future. The joint American Academy of Actuaries/Society of Actuaries Payout Annuity Table Team developed the 2012 IAR mortality table, and the National Association of Insurance Commissioners adopted it in Model Regulation 821. Because people who purchase annuities are living longer, it is necessary to update the mortality table so that insurers will maintain reasonably conservative reserves. This annuity mortality table is a "generational" table containing factors that adjust the mortality rates annually based on expected mortality improvements. In other words, the table contains a set of mortality rates that decrease for a given age from one projection year to the next.

**FISCAL NOTE FOR PROPOSED RULES**

Rule Title: Recognizing Annuity Mortality Tables For Use In Determining Reserve Liabilities For Annuities (Title 114, Series 45)

Type of Rule:  X  Legislative   Interpretive   Procedural

Agency: WV Offices of the Insurance Commissioner

Address: Post Office Box 50540  
1124 Smith Street, Albert T. Summers Building  
Charleston, West Virginia 25305-0540

Phone Number: (304) 558-0401 Email: Andrew.Pauley@wvinsurance.gov

**Fiscal Note Summary**

Summarize in a clear and concise manner what impact this measure will have on costs and revenues of state government.

N/A

**Fiscal Note Detail**

Show over-all effect in Item 1 and 2 and, in Item 3, give an explanation of Breakdown by fiscal year, including long-range effect.

<b>FISCAL YEAR</b>			
<b>Effect of Proposal</b>	<b>Current Increase/Decrease (use "-")</b>	<b>Next Increase/Decrease (use "-")</b>	<b>Fiscal Year (Upon Full Implementation)</b>
<b>1. Estimated Total Cost</b>	N/A	N/A	N/A
Personal Services	N/A	N/A	N/A
Current Expenses	N/A	N/A	N/A
Repairs & Alterations	N/A	N/A	N/A
Assets	N/A	N/A	N/A
Equipment	N/A	N/A	N/A
Other	N/A	N/A	N/A
<b>2. Estimated Total Revenues</b>	N/A	N/A	N/A

Rule Title: "Recognizing Annuity Mortality Tables For Use In Determining Reserve Liabilities For Annuities" 114 CSR 45

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3. **Explanation of above estimates (including long-range effect):**  
Please include any increase or decrease in fees in your estimated total revenues.

None

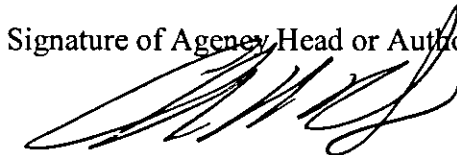
### MEMORANDUM

Please identify any areas of vagueness, technical defects, reasons the proposed rule **would not** have a fiscal impact, and/or any special issues **not** captured elsewhere on this form.

N/A

Date: 6/24/14

Signature of Agency Head or Authorized Representative



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**TITLE 114  
LEGISLATIVE RULE  
INSURANCE COMMISSIONER**

**SERIES 45  
RECOGNIZING ANNUITY MORTALITY TABLES  
FOR USE IN DETERMINING RESERVE LIABILITIES FOR ANNUITIES**

Section.

- 114-45-1. General.
- 114-45-2. Purpose.
- 114-45-3. Definitions.
- 114-45-4. Individual Annuity or Pure Endowment Contracts.
- 114-45-5. Application of the 2012 IAR Table.
- 114-45-56. Group Annuity or Pure Endowment Contracts.
- 114-45-67. Application of the 1994 GAR Table.
- Appendix I. 2012 IAM Period Table; Female, Age Nearest Birthday.
- Appendix II. 2012 IAM Period Table; Male, Age Nearest Birthday.
- Appendix III. Projection Scale G2; Female, Age Nearest Birthday.
- Appendix IV. Projection Scale G2; Male, Age Nearest Birthday.

TITLE 114  
LEGISLATIVE RULE  
INSURANCE COMMISSIONER

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SERIES 45  
RECOGNIZING ANNUITY MORTALITY TABLES  
FOR USE IN DETERMINING RESERVE LIABILITIES FOR ANNUITIES

**§114-45-1. General.**

1.1. Scope. -- This Legislative rule applies to all life insurance companies and fraternal benefit societies doing business in this State and to all life insurance companies and fraternal benefit societies which are authorized to reinsure life insurance, annuities or accident and health insurance business in this State. This rule is based upon the National Association of Insurance Commissioners' "Model Rule For Recognizing a New Annuity Mortality Table For Use In Determining Reserve Liabilities For Annuities (Model 821)," as amended in 2012.

1.2. Authority. -- W. Va. Code §§ 33-2-10, 33-7-9a and 33-7-9(e)(2),(3) and (5).

1.3. Filing Date. -- ~~May 7, 1999.~~

1.4. Effective Date. -- ~~May 7, 1999.~~

**§114-45-2. Purpose.**

The purpose of this rule is to recognize the following mortality tables for use in determining the minimum standard of valuation for annuity and pure endowment contracts: the 1983 table "a"; the 1983 Group Annuity Mortality (1983 GAM) Table; the Annuity 2000 Mortality Table; the 2012 Individual Annuity Reserving (2012 IAR) Table, and the 1994 Group Annuity Reserving (1994 GAR) Table.

**§114-45-3. Definitions.**

3.1. As used in this rule, "1983 Table 'a'" means that mortality table developed by the Society of Actuaries Committee To Recommend a New Mortality Basis for Individual Annuity Valuation and adopted as a recognized mortality table for annuities in June 1982 by the National Association of Insurance Commissioners.

3.2. As used in this rule, "1983 GAM Table" means that mortality table developed by the Society of Actuaries Committee on Annuities and adopted as a recognized mortality table for annuities in December 1983 by the National Association of Insurance Commissioners.

3.3. As used in this rule, "1994 GAR Table" means that mortality table developed by the Society of Actuaries Group Annuity Valuation Table Task Force and shown at on pages 866-867 of Volume XLVII of the Transactions of the Society of Actuaries 866-867 (1995).

**Title 114, Series 45**  
**Legislative Rule**  
**Insurance Commissioner**

3.4. As used in this rule, "Annuity 2000 Mortality Table" means that mortality table developed by the Society of Actuaries Committee on Life Insurance Research and shown at on page 240 of Volume XLVII of the Transactions of the Society of Actuaries 240 (1995).

3.5. As used in this rule, "Period table" means a table of mortality rates applicable to a given calendar year (the Period).

3.6. As used in this rule, "Generational mortality table" means a mortality table containing a set of mortality rates that decrease for a given age from one year to the next based on a combination of a Period table and a projection scale containing rates of mortality improvement.

3.7. As used in this rule "2012 IAR Table" means that Generation mortality table developed by the Society of Actuaries Committee on Life Insurance Research and containing rates,  $q_x^{2012+n}$ , derived from a combination of the 2012 IAM Period Table and Projection Scale G2, using the methodology stated in section 5.

3.8. As used in this rule, "2012 Individual Annuity Mortality Period Life (2012 IAM Period) Table" means the Period table containing loaded mortality rates for calendar year 2012. This table contains rates,  $q_x^{2012}$ , developed by the Society of Actuaries Committee on Life Insurance Research and is shown in Appendices I-II.

3.9. As used in this rule, "Projection Scale G2 (Scale G2)" is a table of annual rates,  $G2_x$ , of mortality improvement by age for projecting future mortality rates beyond calendar year 2012. This table was developed by the Society of Actuaries Committee on Life Insurance Research and is shown in Appendices III-IV.

**§114-45-4. Individual Annuity or Pure Endowment Contracts.**

4.1. Except as provided in subsections 4.2 and 4.3 of this section, the 1983 Table "a" is recognized and approved as an individual annuity mortality table for valuation and, at the option of the life insurance company or fraternal benefit society, may be used for purposes of determining the minimum standard of valuation for any individual annuity or pure endowment contract issued on or after April 6, 1977.

4.2. Except as provided in subsection 4.3 of this section, either the 1983 Table "a" or the Annuity 2000 Mortality Table shall be used for determining the minimum standard of valuation for any individual annuity or pure endowment contract issued on or after January 1, 1997.

4.3. Except as provided in subsection 4.4 of this section, the Annuity 2000 Mortality Table

**Title 114, Series 45**  
**Legislative Rule**  
**Insurance Commissioner**

shall be used for determining the minimum standard of valuation for any individual annuity or pure endowment contract issued on or after April 1, 1999.

4.4. Except as provided in subsection 4.5 of this section, the 2012 IAR Mortality Table shall be used for determining the minimum standard of valuation for any individual annuity or pure endowment contract issued on or after August 1, 2015.

4.45. The 1983 Table "a" without projection is to be used for determining the minimum standards of valuation for an individual annuity or pure endowment contract issued on or after April 1, 1999, solely when the contract is based on life contingencies and is issued to fund periodic benefits arising from:

4.5.a. Settlements of various forms of claims pertaining to court settlements or out of court settlements from tort actions;

4.5.b. Settlements involving similar actions such as worker's compensation claims;  
or

4.5.c. Settlements of long term disability claims where a temporary or life annuity has been used in lieu of continuing disability payments.

**§114-45-5. Application of the 2012 IAR Mortality Table.**

5.1. In using the 2012 IAR Mortality Table, the mortality rate for a person age x in year (2012 + n) is calculated as follows:

$$q_x^{2012+n} = q_x^{2012} (1 - G2_x)^n$$

5.2. The resulting  $q_x^{2012+n}$  shall be rounded to three decimal places per 1,000, e.g., 0.741 deaths per 1,000. Also, the rounding shall occur according to the formula above, starting at the 2012 period table rate.

5.3. For example, for a male age 30,  $q_x^{2012} = 0.741$ .

$$q_x^{2013} = 0.741 * (1 - 0.010) ^ 1 = 0.73359, \text{ which is rounded to } 0.734.$$

$$q_x^{2014} = 0.741 * (1 - 0.010) ^ 2 = 0.7262541, \text{ which is rounded to } 0.726.$$

5.4. A method leading to incorrect rounding would be to calculate  $q_x^{2014}$  as  $q_x^{2013} * (1 - 0.010)$ , or  $0.734 * 0.99 = 0.727$ .

**Title 114, Series 45  
Legislative Rule  
Insurance Commissioner**

5.5. It is incorrect to use the already rounded  $q_x^{2013}$  to calculate  $q_x^{2014}$ .

**§114-45-56. Group Annuity or Pure Endowment Contracts.**

56.1. Except as provided in subsections 56.2 and 56.3 of this section, the 1983 GAM Table, the 1983 Table "a," and the ~~1993~~ 1994 GAR Table are recognized and approved as group annuity mortality tables for valuation and, at the option of the life insurance company or fraternal benefit society, any one of these tables may be used for purposes of valuation for any annuity or pure endowment purchased on or after April 6, 1977 under a group annuity or pure endowment contract.

56.2. Except as provided in subsection 56.3 of this section, either the 1983 GAM Table or the 1994 GAR Table shall be used for determining the minimum standard of valuation for any annuity or pure endowment purchased on or after January 1, 1997 under a group annuity or pure endowment contract.

56.3. The 1994 GAR Table shall be used for determining the minimum standard of valuation for any annuity or pure endowment purchased on or after April 1, 1999 under a group annuity or pure endowment contract.

**§114-45-67. Application of the 1994 GAR Table.**

7.1. In using the 1994 GAR Table, the mortality rate for a person age  $x$  in year  $(1994 + n)$  is calculated as follows:

$$q_x^{1994+n} = q_x^{1994}(1 - AA_x)^n$$

where the  $q_x^{1994}$  and  $AA_x$ s are as specified in the 1994 GAR Table.

APPENDIX I

2012 IAM Period Table  
Female, Age Nearest Birthday

<u>AGE</u>	<u>1000 · q<sub>x</sub><sup>2012</sup></u>	<u>AGE</u>	<u>1000 · q<sub>x</sub><sup>2012</sup></u>	<u>AGE</u>	<u>1000 · q<sub>x</sub><sup>2012</sup></u>	<u>AGE</u>	<u>1000 · q<sub>x</sub><sup>2012</sup></u>
<u>0</u>	<u>1.621</u>	<u>30</u>	<u>0.300</u>	<u>60</u>	<u>3.460</u>	<u>90</u>	<u>88.377</u>
<u>1</u>	<u>0.405</u>	<u>31</u>	<u>0.321</u>	<u>61</u>	<u>3.916</u>	<u>91</u>	<u>97.491</u>
<u>2</u>	<u>0.259</u>	<u>32</u>	<u>0.338</u>	<u>62</u>	<u>4.409</u>	<u>92</u>	<u>107.269</u>
<u>3</u>	<u>0.179</u>	<u>33</u>	<u>0.351</u>	<u>63</u>	<u>4.933</u>	<u>93</u>	<u>118.201</u>
<u>4</u>	<u>0.137</u>	<u>34</u>	<u>0.365</u>	<u>64</u>	<u>5.507</u>	<u>94</u>	<u>130.969</u>
<u>5</u>	<u>0.125</u>	<u>35</u>	<u>0.381</u>	<u>65</u>	<u>6.146</u>	<u>95</u>	<u>146.449</u>
<u>6</u>	<u>0.117</u>	<u>36</u>	<u>0.402</u>	<u>66</u>	<u>6.551</u>	<u>96</u>	<u>163.908</u>
<u>7</u>	<u>0.110</u>	<u>37</u>	<u>0.429</u>	<u>67</u>	<u>7.039</u>	<u>97</u>	<u>179.695</u>
<u>8</u>	<u>0.095</u>	<u>38</u>	<u>0.463</u>	<u>68</u>	<u>7.628</u>	<u>98</u>	<u>196.151</u>
<u>9</u>	<u>0.088</u>	<u>39</u>	<u>0.504</u>	<u>69</u>	<u>8.311</u>	<u>99</u>	<u>213.150</u>
<u>10</u>	<u>0.085</u>	<u>40</u>	<u>0.552</u>	<u>70</u>	<u>9.074</u>	<u>100</u>	<u>230.722</u>
<u>11</u>	<u>0.086</u>	<u>41</u>	<u>0.600</u>	<u>71</u>	<u>9.910</u>	<u>101</u>	<u>251.505</u>
<u>12</u>	<u>0.094</u>	<u>42</u>	<u>0.650</u>	<u>72</u>	<u>10.827</u>	<u>102</u>	<u>273.007</u>
<u>13</u>	<u>0.108</u>	<u>43</u>	<u>0.697</u>	<u>73</u>	<u>11.839</u>	<u>103</u>	<u>295.086</u>
<u>14</u>	<u>0.131</u>	<u>44</u>	<u>0.740</u>	<u>74</u>	<u>12.974</u>	<u>104</u>	<u>317.591</u>
<u>15</u>	<u>0.156</u>	<u>45</u>	<u>0.780</u>	<u>75</u>	<u>14.282</u>	<u>105</u>	<u>340.362</u>
<u>16</u>	<u>0.179</u>	<u>46</u>	<u>0.825</u>	<u>76</u>	<u>15.799</u>	<u>106</u>	<u>362.371</u>
<u>17</u>	<u>0.198</u>	<u>47</u>	<u>0.885</u>	<u>77</u>	<u>17.550</u>	<u>107</u>	<u>384.113</u>
<u>18</u>	<u>0.211</u>	<u>48</u>	<u>0.964</u>	<u>78</u>	<u>19.582</u>	<u>108</u>	<u>400.000</u>
<u>19</u>	<u>0.221</u>	<u>49</u>	<u>1.051</u>	<u>79</u>	<u>21.970</u>	<u>109</u>	<u>400.000</u>
<u>20</u>	<u>0.228</u>	<u>50</u>	<u>1.308</u>	<u>80</u>	<u>24.821</u>	<u>110</u>	<u>400.000</u>
<u>21</u>	<u>0.234</u>	<u>51</u>	<u>1.308</u>	<u>81</u>	<u>28.351</u>	<u>111</u>	<u>400.000</u>
<u>22</u>	<u>0.240</u>	<u>52</u>	<u>1.460</u>	<u>82</u>	<u>32.509</u>	<u>112</u>	<u>400.000</u>
<u>23</u>	<u>0.245</u>	<u>53</u>	<u>1.613</u>	<u>83</u>	<u>37.329</u>	<u>113</u>	<u>400.000</u>
<u>24</u>	<u>0.247</u>	<u>54</u>	<u>1.774</u>	<u>84</u>	<u>42.830</u>	<u>114</u>	<u>400.000</u>
<u>25</u>	<u>0.250</u>	<u>55</u>	<u>1.950</u>	<u>85</u>	<u>48.997</u>	<u>115</u>	<u>400.000</u>
<u>26</u>	<u>0.256</u>	<u>56</u>	<u>2.154</u>	<u>86</u>	<u>55.774</u>	<u>116</u>	<u>400.000</u>
<u>27</u>	<u>0.261</u>	<u>57</u>	<u>2.399</u>	<u>87</u>	<u>63.140</u>	<u>117</u>	<u>400.000</u>
<u>28</u>	<u>0.270</u>	<u>58</u>	<u>2.700</u>	<u>88</u>	<u>71.066</u>	<u>118</u>	<u>400.000</u>
<u>29</u>	<u>0.281</u>	<u>59</u>	<u>3.054</u>	<u>89</u>	<u>79.502</u>	<u>119</u>	<u>400.000</u>
						<u>120</u>	<u>1000.000</u>

APPENDIX II

2012 IAM Period Table  
Male, Age Nearest Birthday

<u>AGE</u>	<u>1000 · q<sub>x</sub><sup>2012</sup></u>	<u>AGE</u>	<u>1000 · q<sub>x</sub><sup>2012</sup></u>	<u>AGE</u>	<u>1000 · q<sub>x</sub><sup>2012</sup></u>	<u>AGE</u>	<u>1000 · q<sub>x</sub><sup>2012</sup></u>
0	1.605	30	0.741	60	5.096	90	109.993
1	0.401	31	0.751	61	5.614	91	123.119
2	0.275	32	0.754	62	6.169	92	137.168
3	0.229	33	0.756	63	6.759	93	152.171
4	0.174	34	0.756	64	7.398	94	168.194
5	0.168	35	0.756	65	8.106	95	185.260
6	0.165	36	0.756	66	8.548	96	197.322
7	0.159	37	0.756	67	9.076	97	214.751
8	0.143	38	0.756	68	9.708	98	232.507
9	0.129	39	0.800	69	10.463	99	250.397
10	0.113	40	0.859	70	11.357	100	268.607
11	0.111	41	0.926	71	12.418	101	290.016
12	0.132	42	0.999	72	13.675	102	311.849
13	0.169	43	1.069	73	15.150	103	333.962
14	0.213	44	1.142	74	16.860	104	356.207
15	0.254	45	1.219	75	18.815	105	380.000
16	0.293	46	1.318	76	21.031	106	400.000
17	0.328	47	1.454	77	23.540	107	400.000
18	0.359	48	1.627	78	26.375	108	400.000
19	0.387	49	1.829	79	29.572	109	400.000
20	0.414	50	2.057	80	33.234	110	400.000
21	0.443	51	2.302	81	37.533	111	400.000
22	0.473	52	2.545	82	42.261	112	400.000
23	0.513	53	2.779	83	47.441	113	400.000
24	0.554	54	3.011	84	53.233	114	400.000
25	0.602	55	3.254	85	59.855	115	400.000
26	0.655	56	3.529	86	67.514	116	400.000
27	0.688	57	3.845	87	76.340	117	400.000
28	0.710	58	4.213	88	86.388	118	400.000
29	0.727	59	4.631	89	97.634	119	400.000
						120	1000.000

APPENDIX III

Projection Scale G2  
Female, Age Nearest Birthday

<u>AGE</u>	<u>G2<sub>x</sub></u>	<u>AGE</u>	<u>G2<sub>x</sub></u>	<u>AGE</u>	<u>G2<sub>x</sub></u>	<u>AGE</u>	<u>G2<sub>x</sub></u>
<u>0</u>	<u>0.010</u>	<u>30</u>	<u>0.010</u>	<u>60</u>	<u>0.013</u>	<u>90</u>	<u>0.006</u>
<u>1</u>	<u>0.010</u>	<u>31</u>	<u>0.010</u>	<u>61</u>	<u>0.013</u>	<u>91</u>	<u>0.006</u>
<u>2</u>	<u>0.010</u>	<u>32</u>	<u>0.010</u>	<u>62</u>	<u>0.013</u>	<u>92</u>	<u>0.005</u>
<u>3</u>	<u>0.010</u>	<u>33</u>	<u>0.010</u>	<u>63</u>	<u>0.013</u>	<u>93</u>	<u>0.005</u>
<u>4</u>	<u>0.010</u>	<u>34</u>	<u>0.010</u>	<u>64</u>	<u>0.013</u>	<u>94</u>	<u>0.004</u>
<u>5</u>	<u>0.010</u>	<u>35</u>	<u>0.010</u>	<u>65</u>	<u>0.013</u>	<u>95</u>	<u>0.004</u>
<u>6</u>	<u>0.010</u>	<u>36</u>	<u>0.010</u>	<u>66</u>	<u>0.013</u>	<u>96</u>	<u>0.004</u>
<u>7</u>	<u>0.010</u>	<u>37</u>	<u>0.010</u>	<u>67</u>	<u>0.013</u>	<u>97</u>	<u>0.003</u>
<u>8</u>	<u>0.010</u>	<u>38</u>	<u>0.010</u>	<u>68</u>	<u>0.013</u>	<u>98</u>	<u>0.003</u>
<u>9</u>	<u>0.010</u>	<u>39</u>	<u>0.010</u>	<u>69</u>	<u>0.013</u>	<u>99</u>	<u>0.002</u>
<u>10</u>	<u>0.010</u>	<u>40</u>	<u>0.010</u>	<u>70</u>	<u>0.013</u>	<u>100</u>	<u>0.002</u>
<u>11</u>	<u>0.010</u>	<u>41</u>	<u>0.010</u>	<u>71</u>	<u>0.013</u>	<u>101</u>	<u>0.002</u>
<u>12</u>	<u>0.010</u>	<u>42</u>	<u>0.010</u>	<u>72</u>	<u>0.013</u>	<u>102</u>	<u>0.001</u>
<u>13</u>	<u>0.010</u>	<u>43</u>	<u>0.010</u>	<u>73</u>	<u>0.013</u>	<u>103</u>	<u>0.001</u>
<u>14</u>	<u>0.010</u>	<u>44</u>	<u>0.010</u>	<u>74</u>	<u>0.013</u>	<u>104</u>	<u>0.000</u>
<u>15</u>	<u>0.010</u>	<u>45</u>	<u>0.010</u>	<u>75</u>	<u>0.013</u>	<u>105</u>	<u>0.000</u>
<u>16</u>	<u>0.010</u>	<u>46</u>	<u>0.010</u>	<u>76</u>	<u>0.013</u>	<u>106</u>	<u>0.000</u>
<u>17</u>	<u>0.010</u>	<u>47</u>	<u>0.010</u>	<u>77</u>	<u>0.013</u>	<u>107</u>	<u>0.000</u>
<u>18</u>	<u>0.010</u>	<u>48</u>	<u>0.010</u>	<u>78</u>	<u>0.013</u>	<u>108</u>	<u>0.000</u>
<u>19</u>	<u>0.010</u>	<u>49</u>	<u>0.010</u>	<u>79</u>	<u>0.013</u>	<u>109</u>	<u>0.000</u>
<u>20</u>	<u>0.010</u>	<u>50</u>	<u>0.010</u>	<u>80</u>	<u>0.013</u>	<u>110</u>	<u>0.000</u>
<u>21</u>	<u>0.010</u>	<u>51</u>	<u>0.010</u>	<u>81</u>	<u>0.012</u>	<u>111</u>	<u>0.000</u>
<u>22</u>	<u>0.010</u>	<u>52</u>	<u>0.011</u>	<u>82</u>	<u>0.012</u>	<u>112</u>	<u>0.000</u>
<u>23</u>	<u>0.010</u>	<u>53</u>	<u>0.011</u>	<u>83</u>	<u>0.011</u>	<u>113</u>	<u>0.000</u>
<u>24</u>	<u>0.010</u>	<u>54</u>	<u>0.011</u>	<u>84</u>	<u>0.010</u>	<u>114</u>	<u>0.000</u>
<u>25</u>	<u>0.010</u>	<u>55</u>	<u>0.012</u>	<u>85</u>	<u>0.010</u>	<u>115</u>	<u>0.000</u>
<u>26</u>	<u>0.010</u>	<u>56</u>	<u>0.012</u>	<u>86</u>	<u>0.009</u>	<u>116</u>	<u>0.000</u>
<u>27</u>	<u>0.010</u>	<u>57</u>	<u>0.012</u>	<u>87</u>	<u>0.008</u>	<u>117</u>	<u>0.000</u>
<u>28</u>	<u>0.010</u>	<u>58</u>	<u>0.012</u>	<u>88</u>	<u>0.007</u>	<u>118</u>	<u>0.000</u>
<u>29</u>	<u>0.010</u>	<u>59</u>	<u>0.013</u>	<u>89</u>	<u>0.007</u>	<u>119</u>	<u>0.000</u>
						<u>120</u>	<u>0.000</u>

APPENDIX IV

Projection Scale G2  
Male, Age Nearest Birthday

<u>AGE</u>	<u>G2<sub>x</sub></u>	<u>AGE</u>	<u>G2<sub>x</sub></u>	<u>AGE</u>	<u>G2<sub>x</sub></u>	<u>AGE</u>	<u>G2<sub>x</sub></u>
<u>0</u>	<u>0.010</u>	<u>30</u>	<u>0.010</u>	<u>60</u>	<u>0.015</u>	<u>90</u>	<u>0.007</u>
<u>1</u>	<u>0.010</u>	<u>31</u>	<u>0.010</u>	<u>61</u>	<u>0.015</u>	<u>91</u>	<u>0.007</u>
<u>2</u>	<u>0.010</u>	<u>32</u>	<u>0.010</u>	<u>62</u>	<u>0.015</u>	<u>92</u>	<u>0.006</u>
<u>3</u>	<u>0.010</u>	<u>33</u>	<u>0.010</u>	<u>63</u>	<u>0.015</u>	<u>93</u>	<u>0.005</u>
<u>4</u>	<u>0.010</u>	<u>34</u>	<u>0.010</u>	<u>64</u>	<u>0.015</u>	<u>94</u>	<u>0.005</u>
<u>5</u>	<u>0.010</u>	<u>35</u>	<u>0.010</u>	<u>65</u>	<u>0.015</u>	<u>95</u>	<u>0.004</u>
<u>6</u>	<u>0.010</u>	<u>36</u>	<u>0.010</u>	<u>66</u>	<u>0.015</u>	<u>96</u>	<u>0.004</u>
<u>7</u>	<u>0.010</u>	<u>37</u>	<u>0.010</u>	<u>67</u>	<u>0.015</u>	<u>97</u>	<u>0.003</u>
<u>8</u>	<u>0.010</u>	<u>38</u>	<u>0.010</u>	<u>68</u>	<u>0.015</u>	<u>98</u>	<u>0.003</u>
<u>9</u>	<u>0.010</u>	<u>39</u>	<u>0.010</u>	<u>69</u>	<u>0.015</u>	<u>99</u>	<u>0.002</u>
<u>10</u>	<u>0.010</u>	<u>40</u>	<u>0.010</u>	<u>70</u>	<u>0.015</u>	<u>100</u>	<u>0.002</u>
<u>11</u>	<u>0.010</u>	<u>41</u>	<u>0.010</u>	<u>71</u>	<u>0.015</u>	<u>101</u>	<u>0.002</u>
<u>12</u>	<u>0.010</u>	<u>42</u>	<u>0.010</u>	<u>72</u>	<u>0.015</u>	<u>102</u>	<u>0.001</u>
<u>13</u>	<u>0.010</u>	<u>43</u>	<u>0.010</u>	<u>73</u>	<u>0.015</u>	<u>103</u>	<u>0.001</u>
<u>14</u>	<u>0.010</u>	<u>44</u>	<u>0.010</u>	<u>74</u>	<u>0.015</u>	<u>104</u>	<u>0.000</u>
<u>15</u>	<u>0.010</u>	<u>45</u>	<u>0.010</u>	<u>75</u>	<u>0.015</u>	<u>105</u>	<u>0.000</u>
<u>16</u>	<u>0.010</u>	<u>46</u>	<u>0.010</u>	<u>76</u>	<u>0.015</u>	<u>106</u>	<u>0.000</u>
<u>17</u>	<u>0.010</u>	<u>47</u>	<u>0.010</u>	<u>77</u>	<u>0.015</u>	<u>107</u>	<u>0.000</u>
<u>18</u>	<u>0.010</u>	<u>48</u>	<u>0.010</u>	<u>78</u>	<u>0.015</u>	<u>108</u>	<u>0.000</u>
<u>19</u>	<u>0.010</u>	<u>49</u>	<u>0.010</u>	<u>79</u>	<u>0.015</u>	<u>109</u>	<u>0.000</u>
<u>20</u>	<u>0.010</u>	<u>50</u>	<u>0.010</u>	<u>80</u>	<u>0.015</u>	<u>110</u>	<u>0.000</u>
<u>21</u>	<u>0.010</u>	<u>51</u>	<u>0.011</u>	<u>81</u>	<u>0.014</u>	<u>111</u>	<u>0.000</u>
<u>22</u>	<u>0.010</u>	<u>52</u>	<u>0.011</u>	<u>82</u>	<u>0.013</u>	<u>112</u>	<u>0.000</u>
<u>23</u>	<u>0.010</u>	<u>53</u>	<u>0.012</u>	<u>83</u>	<u>0.013</u>	<u>113</u>	<u>0.000</u>
<u>24</u>	<u>0.010</u>	<u>54</u>	<u>0.012</u>	<u>84</u>	<u>0.012</u>	<u>114</u>	<u>0.000</u>
<u>25</u>	<u>0.010</u>	<u>55</u>	<u>0.013</u>	<u>85</u>	<u>0.011</u>	<u>115</u>	<u>0.000</u>
<u>26</u>	<u>0.010</u>	<u>56</u>	<u>0.013</u>	<u>86</u>	<u>0.010</u>	<u>116</u>	<u>0.000</u>
<u>27</u>	<u>0.010</u>	<u>57</u>	<u>0.014</u>	<u>87</u>	<u>0.009</u>	<u>117</u>	<u>0.000</u>
<u>28</u>	<u>0.010</u>	<u>58</u>	<u>0.014</u>	<u>88</u>	<u>0.009</u>	<u>118</u>	<u>0.000</u>
<u>29</u>	<u>0.010</u>	<u>59</u>	<u>0.015</u>	<u>89</u>	<u>0.008</u>	<u>119</u>	<u>0.000</u>
						<u>120</u>	<u>0.000</u>

## 114CSR45 – RECOGNIZING ANNUITY MORTALITY TABLES FOR USE IN DETERMINING RESERVE LIABILITIES FOR ANNUITIES

The proposed rule amendment is due to the NAIC's amendment to Model 821 ("NAIC Model Rule for Recognizing a New Annuity Mortality Table For Use in Determining Reserve Liabilities for Annuities") in 2012. Below please find the purpose of these rule amendments.

- The proposed amendment will adopt the 2012 Individual Annuity Reserve Table (2012 IAR) to be used for the minimum reserve valuation for individual annuities or pure endowment contracts, will add definitions, and will set forth when the table should be used.
- The joint American Academy of Actuaries/Society of Actuaries Payout Annuity Table Team developed the 2012 IAR mortality table and it was adopted by the NAIC in Model Regulation 821.
- This annuity mortality table is a "generational" table containing factors that adjust the mortality rates annually based on expected mortality improvements.
- Mortality rates are decreasing, necessitating an updated mortality table to reflect current reserving needs permitting annuity insurers to meet financial obligations of longer payout periods.
- The public benefit from enforcing the amended sections will be improved reserving practices by insurers issuing individual annuities and pure endowments.
- The amendments provide for an updated mortality table that increases minimum reserve liabilities recognizing the longer life expectancy of those who purchase these products.
- Such reasonably conservative reserve practices strengthen the solvency of companies that issue annuities and justify consumers' reliance on payment of benefits.