

## IDAPA 18 – IDAHO DEPARTMENT OF INSURANCE

### Company Activities

#### 18.07.02 – Reserve Liabilities and Minimum Valuations for Annuities and Pure Endowment Contracts

##### **Who does this rule apply to?**

*This rule applies to companies who sell annuities and pure endowment contracts.*

##### **What is the purpose of this rule?**

*The purpose of this rule recognizes mortality table for use in determining minimum standard valuations for annuity and pure endowment contracts.*

##### **What is the legal authority for the agency to promulgate this rule?**

*This rule implements the following statutes passed by the Idaho Legislature:*

Insurance -

The Department of Insurance:

- [Section 41-211, Idaho Code](#) – Rules

Assets and Liabilities:

- [Section 41-612, Idaho Code](#) – Standard Valuation Law — Life Insurance

##### **Who do I contact for more information on this rule?**

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## 18.07.02 – RESERVE LIABILITIES AND MINIMUM VALUATIONS FOR ANNUITIES AND PURE ENDOWMENT CONTRACTS

### 000. LEGAL AUTHORITY.

Title 41, Chapters 2 and 6, Sections 41-211 and 41-612, Idaho Code.

(7-1-21)T

### 001. TITLE AND SCOPE.

01. **Title.** IDAPA 18.07.02, “Reserve Liabilities and Minimum Valuations for Annuities and Pure Endowment Contracts.”

(7-1-21)T

02. **Scope.** To determine minimum standard valuation for annuity and pure endowment contracts.

(7-1-21)T

### 002. -- 009. (RESERVED)

### 010. DEFINITIONS.

01. **1983 Table ‘a’.** The mortality table developed by the Society of Actuaries Committee for Individual Annuity Valuation in 1981 and in June 1982 by the National Association of Insurance Commissioners.

(7-1-21)T

02. **1983 GAM Table.** The 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.

(7-1-21)T

03. **1994 GAR Table.** The mortality table developed by the Society of Actuaries Group Annuity Valuation Table Task Force and shown on pages 866-867 of Volume 47 of the Transactions of Society of Actuaries 1995.

(7-1-21)T

04. **2012 Individual Annuity Mortality Period Life (2012 IAM Period) Table.** 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.

(7-1-21)T

05. **2012 Individual Annuity Reserving (2012 IAR) Table.** The generational 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 014.

(7-1-21)T

06. **Annuity 2000 Mortality Table.** The mortality table developed by the Society of Actuaries Committee on Life Insurance Research.

(7-1-21)T

07. **Generational Mortality Table.** 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.

(7-1-21)T

08. **Period Table.** A table of mortality rates applicable to a given calendar year (the Period).

(7-1-21)T

09. **Projection Scale G2 (Scale G2).** 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.

(7-1-21)T

### 011. INDIVIDUAL ANNUITY OR PURE ENDOWMENT CONTRACTS.

01. **Individual Annuity Mortality Table.** Except as provided in Subsections 011.02 and 011.03, of this rule, the 1983 Table ‘a’ is recognized and approved as an individual annuity mortality table for valuation and, at the company’s option, may be used for purposes of determining the minimum standard of valuation for any individual annuity or pure endowment contract issued on or after July 1, 1982.

(7-1-21)T

02. **Minimum Standard for Valuation.** Except as provided in Subsection 011.03 of this rule, either the 1983 Table ‘a’ or the Annuity 2000 Mortality Table is used for determining the minimum standard of valuation

for any individual annuity or pure endowment contract issued on or after January 1, 1987. (7-1-21)T

**03. The Annuity 2000 Mortality Table.** Except as provided in Subsection 011.04 of this rule, the Annuity 2000 Mortality Table is used for determining the minimum standard of valuation for any individual annuity or pure endowment contract issued on or after March 29, 2012. (7-1-21)T

**04. The 2012 IAR Mortality Table.** Except as provided in Subsection 011.05 of this rule, the 2012 IAR Mortality Table is used for determining the minimum standard of valuation for any individual annuity or pure endowment contract issued on or after January 1, 2015. (7-1-21)T

**05. The 1983 Table ‘a.’** 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 March 29, 2012, solely when the contract is based on life contingencies and issued to fund periodic benefits arising from: (7-1-21)T

**a.** Settlements of various forms of claims pertaining to court settlements or out of court settlements from tort actions; (7-1-21)T

**b.** Settlements involving similar actions such as workers’ compensation claims; or (7-1-21)T

**c.** Settlements of long-term disability claims where a temporary or life annuity has been used in lieu of continuing disability payments. (7-1-21)T

## **012. GROUP ANNUITY OR PURE ENDOWMENT CONTRACTS.**

**01. Group Annuity Mortality Tables.** Except as provided in Subsections 012.02 and 012.03 of this rule, the 1983 GAM Table, the 1983 Table ‘a’ and the 1994 GAR Table are recognized and approved as group annuity mortality tables for valuation and, at the option of the company, any one (1) of these tables may be used for purposes of valuation for any annuity or pure endowment purchased on or after July 1, 1982, under a group annuity or pure endowment contract. (7-1-21)T

**02. Minimum Standard of Valuation.** Except as provided in Subsection 012.03 of this rule, either the 1983 GAM Table or the 1994 GAR Table is used for determining the minimum standard of valuation for any annuity or pure endowment purchased on or after January 1, 1987, under a group annuity or pure endowment contract. (7-1-21)T

**03. 1994 GAR Table.** The 1994 GAR Table will be used for determining the minimum standard of valuation for any annuity or pure endowment purchased on or after the effective date of Subsection 012.03 under a group annuity or pure endowment contract. (7-1-21)T

## **013. FORMULA.**

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 specific in the 1994 GAR table. (7-1-21)T

## **014. APPLICATION OF THE 2012 IAR MORTALITY TABLE.**

**01. Mortality Rate Formula.** In using the 2012 IAR Mortality Table, the mortality rate for a person age  $x$  in year  $(2012 + n)$  is calculated as follows: (7-1-21)T

**a.**  $q_x^{2012+n} = q_x^{2012} (1 - G2_x)^n$  (7-1-21)T

**b.** The resulting  $q_x^{2012+n}$  is to be rounded to three (3) decimal places per one thousand (1,000), e.g., 0.741 deaths per one thousand (1,000). The rounding is to occur according to the formula above, starting at the 2012

period table rate. (7-1-21)T

**02. Mortality Rate Formula Example.** For a male age 30,  $q_x^{2012}=0.741$ : (7-1-21)T

**a.**  $q_x^{2013}=0.741 * (1 - 0.010) ^ 1 = 0.73359$ , which is rounded to 0.734. (7-1-21)T

**b.**  $q_x^{2014}=0.741 * (1 - 0.010) ^ 2 = 0.7262541$ , which is rounded to 0.726. (7-1-21)T

**c.** A method leading to incorrect rounding would be to calculate  $q_x^{2014}$  as  $q_x^{2013} * (1 - 0.010)$ , or  $0.734 * 0.99 = 0.727$ . It is incorrect to use the already rounded  $q_x^{2013}$  to calculate  $q_x^{2014}$ . (7-1-21)T

**015. -- 999. (RESERVED)**

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