

1 Public Protection Cabinet

2 Department of Insurance

3 Division of Health, Life, Managed Care

4 (New Administrative Regulation)

5 806 KAR 6:072. Valuation of life insurance and annuity reserves.

6 RELATES TO: KRS 304.1-050, 304.2-290, 304.3-240, 304.6, 304.15-410

7 STATUTORY AUTHORITY: KRS 304.2-110, 304.6-140

8 NECESSITY, FUNCTION, AND CONFORMITY: KRS 304.2-110 authorizes the commissioner
9 to promulgate reasonable administrative regulations necessary for or as an aid to the effectuation
10 of the Kentucky Insurance Code as defined in KRS 304.1-010. KRS 304.6-140 authorizes the
11 commissioner to promulgate administrative regulations approving any mortality table "adopted
12 by the National Association of Insurance Commissioners after 1980" for use in determining the
13 minimum standard for valuation of policies. This administrative regulation establishes the
14 framework for valuation standards acceptable to the department and establishes the conditions
15 under which the department actuary will verify the valuation of a company's reserves without
16 cost to the insurer.

17 Section 1. Definitions.

- 1 (1)"1983 GAM Table" means that mortality table developed by the Society of Actuaries
2 Committee on Annuities and adopted as a recognized mortality table for annuities in December,
3 1983 by the National Association of Insurance Commissioners.
- 4 (2)"1983 Table 'a'" means that mortality table developed by the Society of Actuaries Committee
5 to Recommend a New Mortality Basis for Individual Annuity Valuation and adopted as a
6 recognized mortality table for annuities in June, 1982 by the National Association of Insurance
7 Commissioners.
- 8 (3)"1994 GAR Table" means that mortality table developed by the Society of Actuaries Group
9 Annuity Valuation Table Task Force.
- 10 (4)"2012 Individual Annuity Mortality Period (2012 IAM Period) Table" means the period table,
11 developed by the Society of Actuaries Committee on Life Insurance Research, containing loaded
12 mortality rates for calendar year 2012 and containing rates, qx2012.
- 13 (5)"2012 Individual Annuity Reserve Table (2012 IAR Table)" means the generational mortality
14 table developed by the Society of Actuaries Committee on Life Insurance Research and
15 containing rates, qx2012-n, derived from a combination of the 2012 Individual Annuity
16 Mortality Period (2012 IAM Period) Table and Projection Scale G2 (Scale G2), using the
17 methodology established in Section 4(3)(i) of this administrative regulation.
- 18 (6)"Actuarial guidelines" mean a series of interpretive guidelines approved by the National
19 Association of Insurance Commissioners for inclusion in its Handbook for Financial Examiners.
- 20 (7)"Annual statement" means the annual statement required by KRS 304.3-240.

1 (8)"Annuity 2000 Mortality Table" means that mortality table developed by the Society of
2 Actuaries Committee on Life Insurance Research. The Annuity 2000 Mortality Table is included
3 in the report on pages 211-249 of Volume XLVII of the Transactions of the Society of Actuaries
4 (1995).

5 (9)"Commissioner" is defined by KRS 304.1-050(1).

6 (10)"Department" is defined by KRS 304.1-050(2).

7 (11)"Department actuary" means the actuary employed by or contracted with the department for
8 the purpose of making or verifying a valuation.

9 (12)"Generational mortality table" means a mortality table containing a set of mortality rates that
10 decrease for a given age from one (1) year to the next based on a combination of a period table
11 and a projection scale containing rates of mortality improvement.

12 (13)"Life insurances policies, annuities, and pure endowment contracts":

13 (a) Means any contracts, together with all riders or endorsements and all additional benefits
14 related thereto, whether these additional benefits are provided by policy provision or
15 supplementary contract; and

16 (b) Does not mean a provision through which the insurer accepts deposits to provide future
17 insurance, annuity, or pure endowment benefits.

18 (14)"Period table" means a table of mortality rates applicable to a given calendar year.

19 (15)"Projection Scale AA (Scale AA)" means a table developed by the Society of Actuaries
20 Group Annuity Valuation Table Task Force of annual rates, AAx, of mortality improvement by
21 age for projecting future mortality rates beyond calendar year 1994.

1 (16) "Projection Scale G2 (Scale G2)" means a table developed by the Society of Actuaries
2 Committee on Life Insurance Research, of annual rates, G2x, of mortality improvement by age
3 for projecting future mortality rates beyond calendar year 2012.

4 (17) "Qualified actuary" means a member in good standing of the American Academy of
5 Actuaries who meets the requirements of Section 6 of this administrative regulation.

6 (18) "Reserve comparison" means a calculation:

7 (a) Setting out three (3) year tabulations of extracts from a company's valuation; and

8 (b) Which is completed by plan, with subtotals by mortality table, interest assumption, and
9 valuation method which correspond to the line entries in Exhibit 5 of the current annual
10 statement.

11 Section 2. Filing Requirements for Domestic Insurers.

12 (1) To facilitate the commissioner's evaluation of the valuation of reserves for life insurance
13 policies, annuities, and pure endowment contracts made by a domestic insurer's actuary or
14 consulting actuary, each insurer shall furnish the department actuary an affidavit, signed by the
15 qualified actuary responsible for the valuation and setting out insurance amounts and reserves on
16 all contracts by basis of valuation and a reserve comparison.

17 (2) Each domestic insurer shall maintain in corresponding order, with the necessary
18 documentation, lists, tabulations, and working papers for policy contract obligations to be valued
19 which shall be in readily accessible and auditable form at its home office.

20 Section 3. Valuation Principles.

1 (1) Extraterritoriality. The commissioner may question or reject any valuation made by the
2 insurance supervisory official of another state which does not comply with the minimum
3 standards as provided in KRS Chapter 304.6.

4 (2) Nature of liabilities. The liabilities covered by reserves for life insurance policies, annuities,
5 and pure endowment contracts shall be generated by recognition of obligations to provide future
6 sums of money, which are guaranteed in these contracts, and the standards of valuation set out in
7 KRS 304.6-140 through 304.6-180, are set out in prospective terms. If these methods are not
8 possible to apply directly, retrospective methods, using accumulations at appropriate rates of
9 interest shall be acceptable; however, a company using these methods shall be prepared to
10 demonstrate that these methods result in sufficient amounts to fund any obligations set out in its
11 contracts as guarantees of future performance. Obligations which arise from known past events
12 shall be valued retrospectively.

13 Section 4. Specific Requirements.

14 (1) Interest assumptions. The Moody's Corporate Bond Yield Averages referenced in KRS
15 304.6-145(4) are those for the period ending July 1 for each calendar year.

16 (2) The actuarial guidelines shall be used as published unless specifically prohibited by statute.

17 (3) Mortality tables.

18 (a) Except as provided in paragraph (b) of this subsection, the 1983 Table "a" shall be recognized
19 and approved as an individual annuity mortality table for valuation and, at the option of the
20 company, may be used for purposes of determining the minimum standard of valuation for any
21 individual annuity or pure endowment contract issued on or after July 1, 1976.

1 (b) Except as provided in paragraph (c) of this subsection, either the 1983 Table "a" or the
2 Annuity 2000 Mortality Table shall be used for determining the minimum standard of valuation
3 for any individual annuity or pure endowment contract issued on or after January 1, 1985.

4 (c) Except as provided in paragraph (d) of this subsection, the Annuity 2000 Mortality Table
5 shall be used for determining the minimum standard of valuation for any individual annuity or
6 pure endowment contract issued on or after January 1, 2005.

7 (d) Except as provided in paragraph (e) of this subsection, the 2012 Individual Annuity Reserve
8 Table (2012 IAR Table) shall be used for determining the minimum standard of valuation for
9 any individual annuity or pure endowment contract issued on or after January 1, 2015.

10 (e) The 1983 Table "a" without projection shall be used for determining the minimum standards
11 of valuation for an individual annuity or pure endowment contract issued on or after January 1,
12 2005, solely when the contract is based on life contingencies and is issued to fund periodic
13 benefits arising from:

- 14 1. Settlements of various forms of claims pertaining to court settlements or out of court
15 settlements from tort actions;
- 16 2. Settlements involving similar actions; or
- 17 3. Settlements of long-term disability claims where a temporary or life annuity has been used in
18 lieu of continuing disability payments.

19 (f) Except as provided in paragraph (g) of this subsection, the 1983 GAM Table and the 1983
20 Table "a" shall be recognized and approved as group annuity mortality tables for valuation and,
21 at the option of the company, any one of these tables may be used for purposes of valuation for

1 any annuity or pure endowment purchased on or after July 1, 1976, under a group annuity or
2 pure endowment contract.

3 (g) Except as provided in paragraph (h) of this subsection, the 1983 GAM Table shall be used for
4 determining the minimum standard of valuation for any annuity or pure endowment purchased
5 on or after January 1, 1985, under a group annuity or pure endowment contract. The
6 commissioner shall consider the approval of other tables of mortality which produce lower
7 reserves in any special case, if the request for approval is accompanied by an actuarial report,
8 signed by the qualified actuary, of the reasons for the request. If applicable, the report shall
9 include an estimate of the degree of protection against insolvency provided as margin in the
10 proposed table.

11 (h) The 1994 GAR Table shall be used for determining the minimum standard of valuation for
12 any annuity or pure endowment purchased on or after January 1, 2015, under a group annuity or
13 pure endowment contract. The commissioner shall consider the approval of other tables of
14 mortality which produce lower reserves in any special case, if the request for approval is
15 accompanied by an actuarial report, signed by the qualified actuary, of the reasons for the
16 request. If applicable, the report shall include an estimate of the degree of protection against
17 insolvency provided as margin in the proposed table.

18 (i) 1. In using the 2012 Individual Annuity Reserve Table (2012 IAR Table), the mortality rate
19 for a person age x in year $(2012 + n)$ shall be calculated as follows:

$$q_{x}^{2012+n} = q_{x}^{2012} (1 - G2) ^ n$$

22 2. The resulting q_{x}^{2012+n} shall be rounded to three (3) decimal places per 1,000.

1 3. The rounding shall occur according to the formula in subparagraph 1. of this paragraph,
2 starting at the 2012 period table rate.

3 4. An Example: Rounding Calculations for Mortality Table Construction for the 2012 IAR
4 Table, for use of this mortality table, is incorporated by reference in this administrative
5 regulation.

6 (j) In using the 1994 GAR Table, the mortality rate for a person age x in year (1994 + n) shall be
7 calculated as follows where the q_{x1994} and AA_x are as specified in the 1994 GAR Table:

$$q_{x1994+n} = q_{x1994} (1 - AA_x)^n$$

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10 (4) Changes of method (domestic insurers). The effects of changes in the methods of valuing life
11 contracts shall be reported in Exhibit 5A of the annual statement in the year in which the change
12 first takes place. Exhibit 5A shall show the old and the new method of valuation and the increase
13 or decrease in the actuarial reserve due to the change. If adopting a method that produces an
14 increase in the reserve, the company shall notify the department. However, if a change will
15 produce a reserve that will be less than the amount under the old method, the company shall have
16 the prior approval of the commissioner.

17 Section 5. Cost of Noncompliance.

18 (1) If the material is not available as outlined above, the additional burden of cost for additional
19 time required by the staff of the Department of Insurance, or its department actuary, shall be
20 borne by the life insurance company as provided for in KRS 304.2-290. A special examination

1 may be ordered by the commissioner, providing for a written report to him or her together with a
2 time and expense billing to the company so examined.

3 (2) If a detail audit of reserves reveals that an error was made in the filed annual statement and in
4 the certificate issued by the department, the commissioner may order the withdrawal of
5 certification and reissuance of certificates and copies, and require a refiled annual statement on a
6 significant error, or request the company to file a corrective action plan prior to the next filed
7 annual statement when the resultant error is not significant.

8 Section 6. Qualified Actuary Requirements.

9 (1) In order to be considered a qualified actuary, a person shall be familiar with the valuation
10 requirements applicable to life and health insurance companies.

11 (2) (a) The actuary shall not meet the requirements of a qualified actuary if that person has:

12 1. Violated any provision of, or any obligation imposed by, any law in the course of his or her
13 dealings as qualified actuary;

14 2. Been found guilty of fraudulent or dishonest practices;

15 3. Demonstrated incompetence, lack of cooperation, or untrustworthiness to act as a qualified
16 actuary;

17 4. Submitted an actuarial opinion or memorandum that was rejected because it did not comply
18 with the Kentucky Insurance Code, KRS Chapter 304, or standards established by the Actuarial
19 Standards Board during the past five (5) years; or

1 5. Resigned or been removed as an actuary within the past five (5) years as a result of an act or
2 omission indicated in any adverse report on examination or as a result of the failure to adhere to
3 generally acceptable actuarial standards; and

4 (b) Failed to notify the commissioner of any adverse action taken against the actuary pursuant to
5 paragraph (a)1. through 5. of this subsection by any insurance regulatory official of any other
6 state.

7 Section 7. Incorporation by Reference.

8 (1) The following material is incorporated by reference:

9 (a)"1983 Table 'a'", 1/2023;

10 (b)"1983 GAM Table", 1/2023;

11 (c)"1994 GAR Table", 1/2023;

12 (d)"2012 Individual Annuity Mortality Period (2012 IAM Period) Table", 1/2023;

13 (e)"2012 Individual Annuity Reserve Table (2012 IAR Table)", 1/2023;

14 (f)"Annuity 2000 Mortality Table", 1/2023;

15 (g)"Projection Scale AA (Scale AA)", 1/2023;

16 (h)"Projection Scale G2 (Scale G2)", 1/2023; and

17 (i)"Example: Rounding Calculations for Mortality Table Construction for 2012 IAR Table",
18 1/2023.

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20 the Kentucky Department of Insurance, The Mayo Underwood Building, 500 Mero Street,

- 1 Frankfort, Kentucky 40601, Monday through Friday 8 a.m. to 4:30 p.m. This material is also
- 2 available on the Web site at: <http://insurance.ky.gov/ppc/CHAPTER.aspx>.