



SOCIETY OF ACTUARIES

475 N. MARTINGALE RD., SUITE 800, SCHAUMBURG, IL 60173-2226 847-706-3500
847-706-3599 FAX

RESEARCH DEPARTMENT

February 27, 1998

To: Life Insurance Companies that have indicated they could contribute to a Mortality Study of Individual Variable Annuities in the Deferred Period

Enclosed, for your convenience, is the set of instructions for the Society of Actuaries MGDB Mortality Study. These instructions cover both variable and fixed annuities. We are asking that you contribute your data so that it is received **by May 31, 1998** at the Center for Medico Actuarial Statistics of the Medical Information Bureau.

The purpose of the study is to validate for the National Association of Insurance Commissioners (NAIC) the 1994 Variable Annuity MGDB Mortality Table intended for use in valuing reserves for Minimum Guaranteed Death Benefits. The valuation method is described in Actuarial Guideline MMM (now Guideline 34), approved by the NAIC's Life & Health Actuarial (Technical) Task Force and adopted by the NAIC in 1997. The method was developed by the Academy of Actuaries Work Group on Reserving for Minimum Guaranteed Death Benefits in Variable Annuities.

If your company has not previously contributed to a Society of Actuaries experience study, please call John Avery at MIB, for a confidential Company Code.

The Society of Actuaries Task Force on Mortality Guarantees in Variable Products is most anxious to accumulate sufficient data to provide a credible test of the 1994 Table. Your contribution is very important to the success of this study. If you have any problems with part or all of your contribution, please contact John Avery, Director of CMAS at MIB, at 781-329-4500. Questions may also be directed to Bob Johansen, chair of the Task Force, through March 25th at 561-625-9045 (from March 31 at 914-968-3890) or Jack Luff, SoA Experience Studies Actuary, at 847-706-3571.

Thank you very much for your company's contribution to this study.

Sincerely,

Robert J. Johansen, FSA
Chair, Task Force on Mortality Guarantees in Variable Products

cc letter only: John Avery, Korrel Crawford, Karen Haywood, Jack Luff

*Investigation of Mortality under Individual Annuities
In the United States during the Deferred Period*

Variable Annuities; Fixed Annuities

General

The mortality study is by number of contracts, by attained age, sex and contract year for the period from contract anniversaries in 1991 to anniversaries in 1995. It covers individual Variable and Fixed annuities issued in the United States. Companies unable to contribute for the 1991-95 period but able to contribute for another period should contact the Compiler (See page 2 of these instructions).

A separate file must be prepared for each contract year (the contract year being studied will be coded in Columns 4 through 5). Multiple files may be written to the same magnetic tape or cartridge. Data may be contributed on a seriatim basis or summarized within each Experience Control Number, age, duration cell.

The investigation will be made on a select basis for the first 10 contract years and on an ultimate basis for years 11 and over. For contract years 1 through 10, the issue age is to be taken as the age nearest birthday on the issue date of the contract. For contract years 11 and over, the attained age is to be taken as the age nearest birthday on the contract anniversary beginning the experience year.

If your records are maintained on an age *last* birthday basis, please call it to the attention of the Compiler; provision has been made to identify such cases. For contracts issued on an age last birthday basis, use age last birthday on the issue date (contract years 1 through 10) or on the anniversary date (contract years 11 and over).

Expected deaths will be calculated by the Compiler on the 1994 Variable Annuity MGDB Mortality Table. For your own purposes, you may wish to record expected deaths in Columns 47-53. A copy of the 1994 Table, on both an age nearest birthday basis and an age last birthday basis, is enclosed. The Table can also be downloaded from *Actuaries Online*.

Categories of contracts to be studied are listed in the Appendix together with their Control Numbers. While the Task Force wishes to study the experience on pension trust business, non-pension trust qualified business and other non-pension trust business separately, we are prepared to handle contributions from companies that cannot make these distinctions -- the Appendix indicates how such contributions should be coded. Similarly, the Task Force would like to be able to distinguish the experience on contracts with substantial MGDB benefits from those that return only the cash value or account value. If this distinction cannot be made, the Appendix indicates how such contributions are to be coded.

Detailed Instructions

1. Only business written in the United States should be included.
2. Only single life annuities are to be included. Contracts issued on a joint and survivor basis as well as contracts on survivors of joint and survivor contracts should be excluded.
3. Contracts that pay a death benefit on the death of either the annuitant or the owner may present a problem. If the annuitant and the owner are two different persons, then the risk of a death claim is doubled and the experience mortality would be overstated. If a company cannot exclude owner deaths on such contracts or identify and exclude contracts where the annuitant and owner are not the same person, then such contracts should be excluded as a class UNLESS the company is confident that the number of contracts with a different annuitant and owner is so small as not to have a material effect. Any questions on interpreting or complying with this direction should be addressed to the Compiler.
4. Contracts issued at all issue ages and attained ages should be included in the study.

Problems in complying with the specifications for magnetic media should be directed to the Compiler who will consult with you to arrive at a workable solution.

The letter of transmittal should be accompanied by totals of exposures and actual deaths for each Experience Control Number included in your company's contribution. For each Experience Control Number, check totals should be provided for all ages combined for (a) each contract year duration for years 1 through 10 separately, (b) for durations 11 and over combined and (c) all durations combined. Please also provide the name and telephone and FAX numbers of a main and secondary contact who can answer any questions that may arise in connection with your company's contribution.

The work of the Compiler and the Task Force will be greatly simplified if each company will carefully review its contribution, making sure that all fields are properly coded, that the data are internally consistent and, if you calculate expected deaths, that the results are reasonable, having regard for the number of actual deaths in the various experience control number segments.

Your contribution and questions should be directed to the Compiler:

John Avery
Center for Medico-Actuarial Statistics
MIB, Inc.
160 University Avenue
WESTWOOD MA 02090
(617) 329-4500

Transmission of Data

Contributions should be transmitted on magnetic tape or cartridge.

The format standards are as follows:

- A. 9 track tape or tape cartridge
- B. 1600, 6250 or 32000 BPI
- C. EBCDIC code set
- D. IBM Standard label and tape organization
 - 1. Volume Label (VOL. 1)
 - 2. Header Label (HDR1)
 - 3. Header Label (HDR2 - optional)
 - 4. Tape Mark (TM)
 - 5. Data
 - 6. Tape Mark (TM)
 - 7. Trailer Label (EOF1)
 - 8. Trailer Label (EOF2 - optional)
 - 9. Tape Mark (TM)
 - 10. Tape Mark (TM)
- E. The Data Set Identifier (bytes 5-21 of the IIDRI Label) should be coded as "SOCDAxxx.VARBLANN" (where "xxx" is your company code) for the Variable Annuity study and SOCDAxxx.FIXEDANN" for the Fixed Annuity study.
- F. Record Length (LRECL) - 80 character (byte) card image.
- G. Record Blocking Factor = 200 (200 records per physical block).
- H. Block Length (BLKSIZE) - 16000 bytes.

Appendix

<u>Categories of Contracts to be Studied</u>	<u>Experience Control Number</u>	
	Male	Female
I. Substantial Minimum Guaranteed Death Benefit (MGDB) (e.g. Ratchet, Reset, Roll Up)		
A. Other than pension trust cases		
1. Qualified business	010	011
2. Non-qualified business	012	013
3. Qualified status unknown*	014	015
B. Pension trust cases	020	021
C. Pension trust status unknown*	030	031
II. Minimal MGDB (e.g. Account Value)		
A. Other than pension trust cases		
1. Qualified business	040	041
2. Non-qualified business	042	043
3. Qualified status unknown*	044	045
B. Pension trust cases	050	051
C. Pension trust status unknown*	060	061
III. MGDB status unknown*		
A. Other than pension trust cases		
1. Qualified business	070	071
2. Non-qualified business	072	073
3. Qualified status unknown*	074	075
B. Pension trust cases	080	081
C. Pension trust status unknown*	090	091

* For use *only* where a company's records do not permit a distinction to be made.

Transmittal Summary Description

<u>Columns</u>	<u>Item</u>	<u>Description</u>
1-3	Confidential Company Code	Assigned by the Compiler
4-5	Contract Year	The last two digits of the calendar year in which the contract year ends (e.g. for 1992-1993 code "93").
6-7		Leave Blank.
8-9	Duration	The actual contract year duration (01 to 10) for durations 1 through 10; for durations 11 and over, enter 11.
10-13		Leave blank.
14-19	Exposure - Contracts	Number of contracts exposed.
20-31		Leave blank.
32-36	Actual Deaths - Contracts	Number of contracts terminated by death.
37-46		Leave blank.
47-53	Expected Deaths - Contracts	Optional - See "General" section.
54-70		Leave Blank.
71-75	Age	For durations 1 through 10, enter issue age in Cols 71-72 and attained age (= issue age + duration - 1) in Cols 73-75. Fill all columns numerically. For durations 11 and over, leave Cols 71-72 blank and enter attained age in Cols 73-75.
76	Update indicator	1. Original submission 2. Updated submission
77	Basis of Issue/Attained Age	Enter "N" for nearest birthday; "L" for last birthday basis
78-80	Experience Control Number	Enter the appropriate Experience Control Number from the Appendix.