ERRATA
Valuation of Life Insurance Liabilities
Fourth Edition
January 21, 2010

*****Note: All but the item on page 275 were corrected in the second printing.*****

Page 56

The formula for r_{CY}^2 should be $\begin{cases} Max(r_{CY}, 0.09) & \textit{if product classification is other annuities} \\ 0 & \textit{otherwise} \end{cases}$

Page 84

The formula for **fully continuous net premium** should be:

$$\overline{P}(\overline{A_x}) = \frac{\overline{A_x}}{\overline{a}_x}$$

In the table at the bottom of the page, the Deferred Premium columns have some incorrect entries. These columns should be as follows:

	If Mean	If Mid-Terminal
Curtate	Yes	No
Fully Continuous	N/A	No
Discounted Continuous	Yes	N/A
Semi-continuous	Yes	No

Page 100

The formula for the mid-year terminal reserve for an n-pay-life policy should be:

$$\left({}_mP_{[x]:\overline{n}|} - GP_{[x]}\right) \cdot \left[\frac{a_{\overline{[x]+t-1:m-t-1}|} - \ddot{a}_{\overline{[x]+t:m-t}|}}{2}\right] \approx \left({}_mP_{[x]:\overline{n}|} - GP_{[x]}\right) \cdot \left[\frac{\ddot{a}_{\overline{[x]+t:m-t}|}}{1+\frac{i}{2}}\right]$$

Page 118

The note at the bottom of the page should be:

> Note: the variable, $GPM(t)$, in the "Segments" worksheet will need to be changed to reflect the above gross premium pattern.

Page 134

Footnote 16 is missing. It should state:

> "Vanishing premium" is when the fund value has sufficient "excess funds" to pay the premium when due. The "excess funds" usually are due to interest being credited more favorably than the guaranteed rate or lower charges being deducted than the guaranteed rates.

Page 152

In the last formula on the page, the denominator should be $\ddot{a}_{[x]+[t]:\overline{m-t}|}$.

Page 160

The values in the second column of the table at the bottom of the page and the sentence directly below it should be:

Contract Year	Present Values @ 5%
1	9,691
2	9,886
3	10,083
4	10,283
5	10,485

The Commissioners Annuity Reserve Valuation reserve is $10,485, which is the maximum present value.

Page 175

Under paragraph (2), the third sentence should read:

In other words, the present value of the annuity elected at the time of annuitization is less than the fund value at the time of annuitization (i.e., $BI(t+1) \bullet a(t+1) < FV(t+1)$) because the present value of the annuity purchase rates are greater than the present value of the annuity (i.e., a'(t+1)>a(t+1); and

Page 275

The formula for **Authorized Control Level Risk-Based Capital** was changed by the NAIC after this book was published. It now should be:

$$0.50 \cdot \left[C_0 + C_{4a} + \sqrt{\left(C_{1o} + C_{3a}\right)^2 + \left(C_{1cs} + C_{3c}\right)^2 + C_2^2 + C_{3b}^2 + C_{4b}^2} \right]$$

where

C_0 = Asset Risk-Affiliated Amounts;
C_{4a} = Business Risk - Non Health Portion;
C_{1o} = Asset Risk-All Other;
C_{3a} = Interest Rate Risk;
C_{1cs} = Asset Risk- Unaffiliated Common Stock and Affiliated Non-Insurance Stock;
C_{3c} = Market Risk;
C_2 = Insurance Risk;
C_{3b} = Health Credit Risk; and
C_{4b} = Business Risk - Health Portion.

The same change has been made to the Chapter 16 workbook. Please see the link to the revised workbook just below the link to this page.

Workbooks

The date definitions in the Standard Valuation Law are rather unorthodox, and differ from the more standard date convention used in Excel. The author has developed alternative workbook formulas that take this into account. If you are using the first printing of the book and would like to use these versions, they are available in the free download section of the ACTEX website.