

Appendix D

Model Office

Various comparisons of reserve values required the use of a model office to aggregate results. The model office used for this purpose starts with a distribution of new sales and then rolls up sales for a number of years. Comparisons are made after a number of years of this growing block, typically 10 or 20 years.

For new sales, the distribution of new business was based on statistics obtained from LIMRA International's 1999 U.S. Buyers Study. The following factors were reflected:

Products: The model incorporates the industry's three major life insurance products:

- Whole Life – whole life was chosen to be representative of all permanent plans.
- Universal Life – a UL plan with a level premium that produces zero cash value at the policy's maturity was used as representative of UL. This is referred to level premium to zero UL.
- Term – 20-year level premium term was chosen to be representative of all term products in the industry. We assumed the product was not renewable after 20 years. Since all reserve calculations used ultimate tables, and deficiency reserves were not considered, Regulation XXX was not a factor.

Issue Ages: 25, 35, 45, 55, and 65 for Whole Life and Term; 35, 45, 55 and 65 for UL. (The reserve calculator used did not produce values for age 25. For comparison purposes, UL reserves for age 35 were used for age 25.)

Gender: Male and Female.

The distribution of business used is shown in the following table.

Table D-1
Model Office Business Distribution
Percentages of New Sales

	Age 25	Age 35	Age 45	Age 55	Age 65	All Ages
Male						
Whole Life	3.1%	3.0%	2.7%	1.4%	0.5%	10.7%
20 Year Term	8.1%	15.9%	13.8%	6.4%	1.6%	45.8%
Level Premium to Zero UL	2.5%	5.9%	5.8%	1.9%	0.8%	10.6%
All Male	13.7%	21.7%	19.0%	9.7%	2.9%	67.1%
Female						
Whole Life	2.7%	1.8%	1.7%	1.4%	0.6%	8.1%
20 Year Term	4.6%	7.0%	5.0%	1.7%	0.3%	18.6%
Level Premium to Zero UL	2.2%	1.8%	1.2%	0.7%	0.3%	6.2%
All Female	9.4%	10.6%	7.9%	3.8%	1.2%	32.9%
Male and Female Combined						
Whole Life	5.8%	4.8%	4.4%	2.8%	1.1%	18.9%
20 Year Term	12.7%	22.9%	18.8%	8.1%	1.9%	64.3%
Level Premium to Zero UL	4.7%	4.6%	3.8%	2.6%	1.1%	16.8%
All	23.2%	32.3%	27.0%	13.5%	4.1%	100.0%

The distribution of business based on these factors was used to produce a single year's issues. In addition to comparisons based on a single year of issue, we also rolled several years of issue together to represent the overall reserves of a growing block of business. In doing this, we assumed a new sales growth rate of 5 percent per year and an overall lapse rate of 4 percent. Values from this growing block were examined after a number of years of issues, usually after 10 years or after 20 years.