REPORT OF THE LIFE INSURANCE MARKETING AND RESEARCH ASSOCIATION, INC.

I. 1986–87 LONG-TERM ORDINARY LAPSE SURVEY IN THE UNITED STATES*

PREFACE

This report was prepared in the Financial Research Department of the Life Insurance Marketing and Research Association, Inc. LIMRA has given the Society of Actuaries permission to reproduce this study as part of the Society's expansion of its experience studies. Discussions of this report as well as of any experience study are encouraged. LIMRA and the Society intend to work together to expand this report and seek additional data contributors. A report on lapse rates on whole life insurance policies in the U.S. for 1983–84, 1984–85, and 1985–86 appears as Part II. The Canadian versions of these studies appear as Parts III and IV.

INTRODUCTION

This annual long-term lapse study examines the lapsation of ordinary insurance in the U.S. between 1986 and 1987 policy anniversaries. It is designed to assist companies with developing new products and in monitoring marketing and product performance.

Lapse rates in this report are percentages of face amounts in force at the beginning of 1986 policy anniversaries that lapse on or before 1987 policy anniversaries. (See the Appendix for the definitions used in this study.)

Face amount lapse rates are measured for seven types of ordinary insurance plans:

- Traditional whole life
- Yearly renewable term (YRT)
- Level term (excluding YRT)
- Individual pension trust
- Interest-sensitive whole life
- Graded-premium whole life—Type I (traditional type premium)
- Graded-premium whole life—Type II (YRT type premium).

Lapse rates are measured for policy years, 1, 2, 3–5, 6–10, and 11 and over. These policy years correspond to issue years 1986, 1985, 1984–1982, 1981–1977, and 1976 and earlier.

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The report touches on each of the seven products, highlighting certain details. As in the past, whole life lapse rates are the lowest, while graded-premium Type 2 lapse rates are the highest. The report examines trends in whole life and term lapse rates for a constant group of companies that participated in both this year's and last year's studies. Variations of lapse rates by company for whole life and yearly renewable term are also shown. At the end of the report, quartiles and averages are given for the products. The Appendix supplies definitions of in-force business, lapses, and products.

As a quick overview, Table A summarizes the products by showing the individual median lapse rates by policy year.

TABLE A

SUMMARY OF MEDIAN LAPSE RATES BY PRODUCT

Policy Year	Traditional Whole Life	Level Term		Individual Pension Trust	Interest-Sensitive Whole Life	Graded-Premium Type I	Graded-Premium Type II
		YRT	Other				
1.......	17.7%	16.8%	17.2%	12.3%	21.9%	—	—
2.......	11.1	16.6	21.8	14.2	11.8	—	25.8%
3–5.....	11.7	15.6	17.8	20.2	14.2	16.5%	17.8
6–10....	11.7	14.2	13.6	17.6	—	14.5	—
11+.....	8.4	11.1	10.0	12.2	—	10.1	—

— Insufficient data.

About the Sample

Twenty-four companies participated in this year's study. Table B shows the total face amount in force at the beginning of the 1986–1987 policy year.

TABLE B

FACE AMOUNT IN FORCE ON 1986 ANNIVERSARIES (BILLIONS)

Issue Year	Traditional Whole Life	Level Term		Individual Pension Trust	Interest-Sensitive Whole Life	Graded-Premium Type I	Graded-Premium Type II
		YRT	Other				
1986*	$ 34.4	$ 54.9	$ 3.5	$ 1.8	$ 9.6	—	—
Before 1986	235.7	129.3	11.0	10.2	33.6	$2.6	$19.5
Total In Force	$270.1	$184.2	$14.5	$12.0	$43.2	$2.7	$20.0

*For issue year 1986, face amount in force on 1986 anniversaries corresponds to face amount sold during that year.
—Less than $1 billion in force.

Highlights

Figure 1 shows median lapse rates for *traditional whole life*. The highest median lapse rate for all companies, 17.7 percent, is in policy year 1; the lowest median lapse rate, 8.4 percent, is in policy years 11 and over. Large writers of whole life insurance ($10 billion or more) have lower lapse rates than those of small writers. For large writers, the first-year lapse rate is 11.8 percent, decreasing to 7.1 percent by policy years 11 and over. For small writers, the first-year lapse rate is 18.4 percent, which decreases to 9.7 percent by policy years 11 and over.

Figure 1 – Median Lapse Rates for Traditional Whole Life

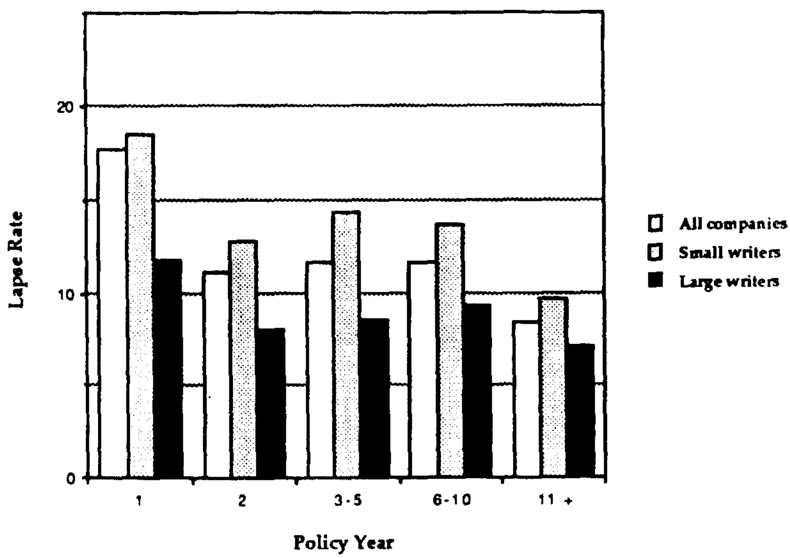


Figure 2 shows median lapse rates for *yearly renewable term* insurance. The median lapse rate for all companies gradually decreases from 16.8 percent in policy year 1 to 11.1 percent in policy years 11 and over. Companies that write a large amount of yearly renewable term insurance ($5 billion or more) exhibit slightly lower lapse rates than those of small writers. For large writers, the first-year lapse rate is 15.3 percent and the lapse rate for policy years 11 and over is 10.5 percent. For small writers, the first-year lapse rate is 17.1 percent, decreasing to 11.8 percent by policy years 11 and over.

Figure 2 – Median Lapse Rates for Yearly Renewable Term

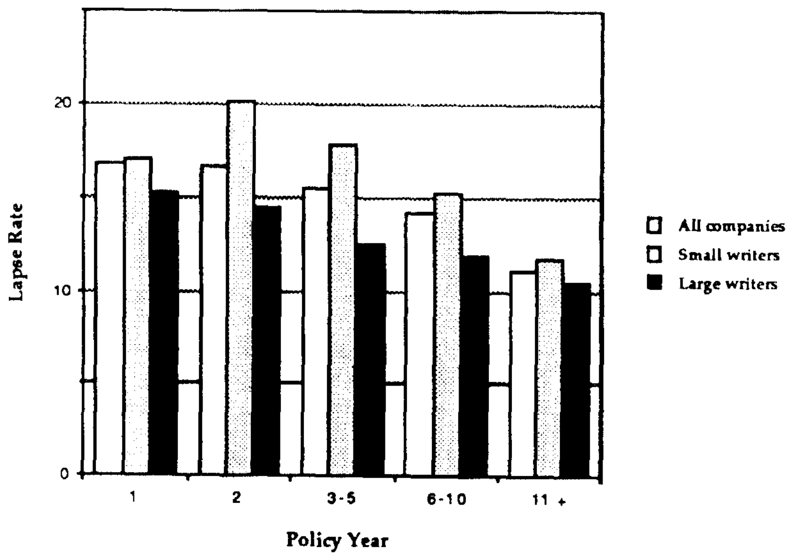


Figure 3 shows median lapse rates for *level term (excluding YRT)*. This includes products such as five-year renewable term and ten-year renewable term. The highest lapse rate, 21.8 percent, is in policy year 2, while the lowest lapse rate, 10.0 percent, is in policy years 11 and over.

Figure 3 -- Median Lapse Rates for Level Term (excluding YRT)

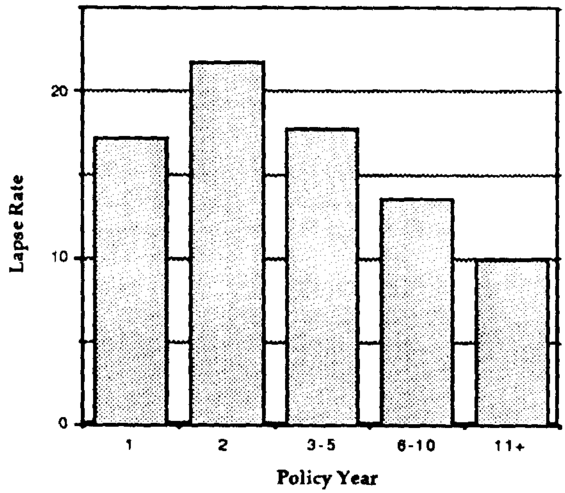


Figure 4 shows median *individual pension trust* lapse rates. These rates are relatively low in the first two durations. They peak in policy years 3–5 at 20.2 percent; thereafter, lapse rates decline, ending at 12.2 percent in policy years 11 and over.

Figure 4 – Median Lapse Rates for Individual Pension Trust

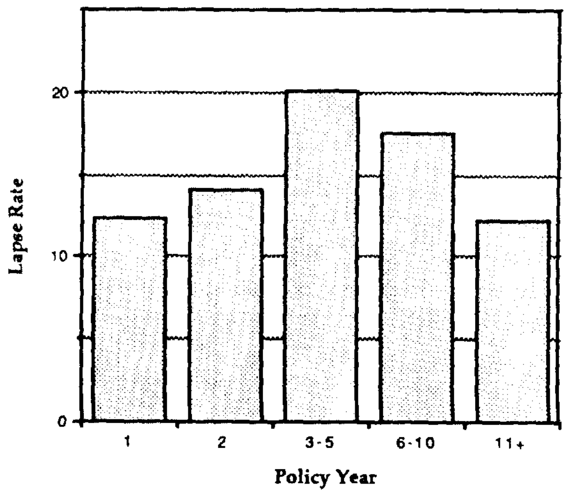


Figure 5 shows median lapse rates for *interest-sensitive whole life*. Lapse rates range from 21.9 percent in policy year 1 to 11.8 percent in policy year 2. The lapse rate for policy years 3–5 is 14.2 percent.

Figure 5 -- Median Lapse Rates for Interest-Sensitive Whole Life

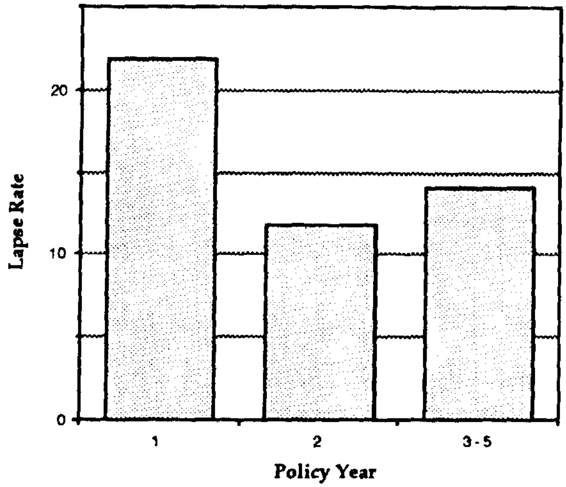


Figure 6 shows selected median lapse rates for *graded-premium whole life—Type 1*. Because of insufficient data for the first two policy years, data are shown only for policy years 3–5, policy years 6–10, and policy years 11 and over. Lapse rates decrease beginning with 16.5 percent in policy years 3–5 and ending with 10.1 percent in policy years 11 and over.

Figure 6 – Median Lapse Rates for Graded-Premium Whole Life - Type 1

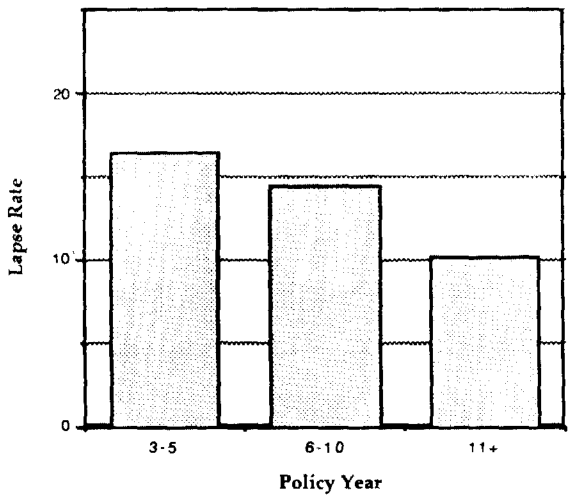
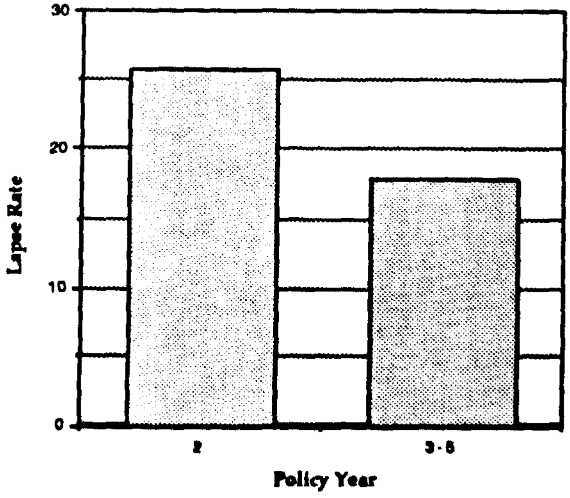


Figure 7 shows median lapse rates for *graded-premium whole life—Type 2*. The Tax Reform Act of 1984 appears to have had a significant impact on sales of this product. As a result, there are sufficient data only for policy years 2–5. The lapse rate for policy year 2, 25.8 percent, is the highest lapse rate among all durations and products.

Figure 7 – Median Lapse Rates for Graded-Premium Whole Life - Type 2



Trends in Whole Life Lapse Rates

Figure 8 shows 1986 and 1987 lapse rates for a constant group of companies. The average lapse rates for these companies have decreased in all durations.

Figure 8 -- Whole Life Lapse Rates for Constant Group

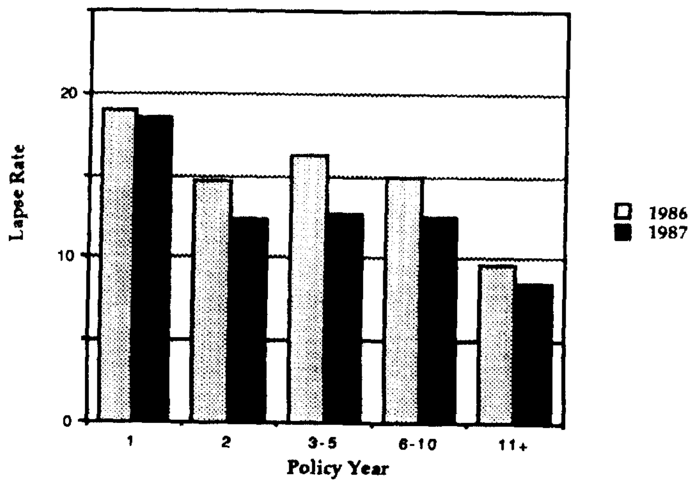


Table C summarizes the number of companies with a decrease in lapse rates and the number of companies with an increase in lapse rates.

TABLE C

INCREASES AND DECREASES IN WHOLE LIFE LAPSE RATES

	Number of Companies	Average Lapse Rate 1986	Average Lapse Rate 1987
Policy Year 1			
Increase	7	17.0%	20.0%
Decrease	10	20.2	17.5
All	17	18.9	18.5
Policy Year 2			
Increase	4	9.4	10.2
Decrease	13	16.3	12.9
All	17	14.7	12.3
Policy Years 3–5			
Increase	1	5.1	5.2
Decrease	16	17.0	13.2
All	17	16.3	12.7
Policy Years 6–10			
Increase	2	6.6	7.0
Decrease	15	16.2	13.1
All	17	15.0	12.4
Policy Years 11 +			
Increase	3	6.2	7.2
Decrease	14	10.3	8.8
All	17	9.6	8.5

Trends in Term Lapse Rates

Figure 9 shows 1986 and 1987 term lapse rates including both yearly renewable term and other level term. Term lapse rates have decreased in policy year 1 and in policy years 3–10.

Figure 9 – Term Lapse Rates for Constant Group

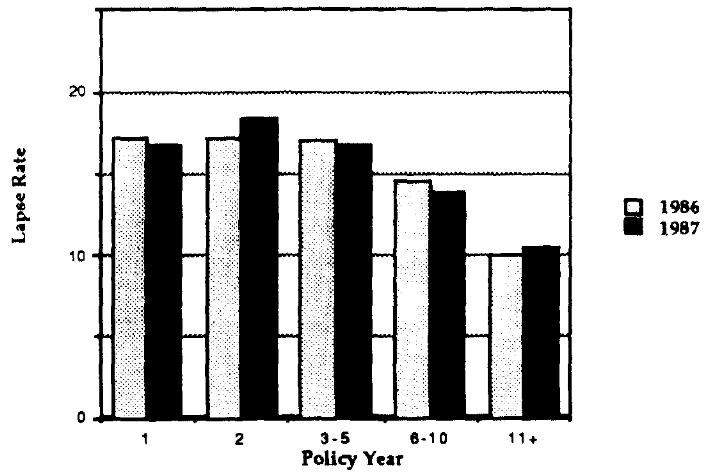


Table D summarizes the number of companies with a decrease in lapse rates and the number of companies with an increase in lapse rates.

TABLE D

INCREASES AND DECREASES IN TERM LAPSE RATES

	Number of Companies	Average Lapse Rate	
		1986	1987
Policy Year 1			
Increase	6	13.1%	17.7%
Decrease	11	19.5	16.3
All	17	17.2	16.8
Policy Year 2			
Increase	7	15.6	20.3
Decrease	10	18.3	17.1
All	17	17.2	18.4
Policy Years 3–5			
Increase	5	16.8	20.4
Decrease	12	17.2	15.3
All	17	17.1	16.8
Policy Years 6–10			
Increase	7	12.6	14.1
Decrease	10	16.0	13.7
All	17	14.6	13.9
Policy Years 11+			
Increase	8	9.4	11.7
Decrease	8	10.6	9.2
All	16	10.0	10.4

Variations among Companies' Lapse Rates

Table E shows the variations of lapse rates by companies for whole life insurance. For policy year 1, 57 percent of the companies have lapse rates greater than 15 percent. For policy years 3–5, 67 percent of the companies' lapse rates are less than 15 percent. All companies' lapse rates are less than 15 percent in policy years 11 and over. In fact, 68 percent have lapse rates lower than 10 percent.

TABLE E

VARIATIONS OF WHOLE LIFE LAPSE RATES

Lapse Rates	Policy Year 1	3–5	11+
20% and over	9	1	0
15–19.99%	4	7	0
10–14.99%	4	6	7
Under 10.00%	6	10	15
Number of Companies	23	24	22

Table F shows the variations of lapse rates for yearly renewable term insurance. For policy year 1, 59 percent of the companies have lapse rates that are greater than 15 percent. For policy years 3–5, 55 percent of the companies have lapse rates that are greater than 15 percent. Policy years 11 and over have the best lapse rates; 75 percent of the companies have rates lower than 15 percent.

TABLE F

VARIATIONS OF YEARLY RENEWABLE TERM LAPSE RATES

Lapse Rates	Policy Year 1	3–5	11+
20% and over	6	4	1
15–19.99%	7	8	3
10–14.99%	5	7	5
Under 10.00%	4	3	7
Number of Companies	22	22	16

FACE AMOUNT LAPSE RATES

TABLE 1

TRADITIONAL WHOLE LIFE
(24 COMPANIES)

Policy Year	First Quartile	Median	Third Quartile	Average*
1.........	9.8%	17.7%	24.7%	18.3%
2.........	6.4	11.1	15.7	11.5
3–5.......	7.6	11.7	16.1	12.2
6–10......	9.3	11.7	15.3	12.2
11+.......	6.9	8.4	10.2	8.6

*All companies receive equal weight; company size does not affect the results.

TABLE 2

YEARLY RENEWABLE TERM
(23 COMPANIES)

Policy Year	First Quartile	Median	Third Quartile	Average*
1.........	11.4%	16.8%	20.5%	16.7%
2.........	12.9	16.6	22.8	18.5
3–5.......	10.8	15.6	19.8	15.9
6–10......	11.9	14.2	15.9	14.6
11+.......	9.0	11.1	15.0	13.0

*All companies receive equal weight; company size does not affect the results.

TABLE 3

OTHER LEVEL TERM
(22 COMPANIES)

Policy Year	First Quartile	Median	Third Quartile	Average*
1.........	11.3%	17.2%	27.1%	20.4%
2.........	14.8	21.8	26.1	22.0
3–5.......	14.4	17.8	23.0	19.2
6–10......	10.2	13.6	15.8	13.4
11+.......	6.8	10.0	14.1	10.7

*All companies receive equal weight; company size does not affect the results.

TABLE 4

INDIVIDUAL PENSION TRUST
(14 COMPANIES)

Policy Year	First Quartile	Median	Third Quartile	Average*
1.........	8.4%	12.3%	25.3%	14.7%
2.........	9.4	14.2	25.3	19.7
3–5.......	8.6	20.2	24.2	19.0
6–10......	10.1	17.6	25.0	18.1
11+	8.7	12.2	19.2	14.9

*All companies receive equal weight; company size does not affect the results.

TABLE 5

INTEREST-SENSITIVE WHOLE LIFE
(7 COMPANIES)

Policy Year	Median	Average*
1.............	21.9%	21.8%
2.............	11.8	13.0
3–5...........	14.2	11.5

*All companies receive equal weight; company size does not affect the results.

TABLE 6

GRADED-PREMIUM WHOLE LIFE—TYPE I
(8 COMPANIES)

Policy Year	Median	Average*
3–5..........	16.5%	19.4%
6–10.........	14.5	15.3
11+	10.1	9.7

*All companies receive equal weight; company size does not affect the results.

TABLE 7

GRADED-PREMIUM WHOLE LIFE—TYPE II
(6 COMPANIES)

Policy Year	Median	Average*
2.............	25.8%	27.5%
3–5...........	17.8	21.5

*All companies receive equal weight; company size does not affect the results.

APPENDIX

DEFINITIONS OF IN-FORCE POLICIES AND LAPSES

In Force

A policy is considered in force if the first premium for the new policy year starting in 1986 is paid.

In-force business includes:

- Policies issued in 1986.
- Policies issued before 1986 where the premium due on the 1986 policy anniversary date is paid before the end of the grace period.

In-force business excludes:

- Policies that lapse before their 1986 anniversaries and are on extended term or reduced paid-up status.
- Limited premium payment policies that are paid up.
- Single premium policies.

Examples of policies in force are:

- A policy issued in 1986 and the first premium is paid.
- A policy issued in 1985 and the premium due in the 13th policy month is paid.
- A policy issued in 1984 and the premium due in the 25th policy month is paid.

Lapse

A policy is considered a lapse if the first premium for the new policy year starting in 1986 is paid, but not all of the premium that comes due after the 1986 anniversary and before or on the 1987 anniversary dates is paid.

Lapsed business includes:

- Policies surrendered after their 1986 anniversaries and before or on their 1987 anniversaries.
- Policies where a premium due after the 1986 anniversary and before or on the 1987 anniversary date is not paid by the end of the grace period.
- Term policies with renewal provisions that do not renew.
- Policies that go on extended term or reduced paid-up status.

Lapsed business excludes:

- Death claims.
- Automatic premium loaned policies.
- Expires and maturities.
- Conversions.

- Policies that lapse during this policy year but are reinstated before the end of the policy year.
- Policies not taken.

Examples of policies that lapse are:

- A policy issued in 1986 and the policyowner has paid the first premium. If any premium for policy-months 2 through 13 is not paid by the end of the grace period, the policy is a lapse.
- A policy issued in 1985 and the policyowner has paid the 13th policy-month premium. If any premium for policy-months 14 through 25 is not paid by the end of the grace period, the policy is a lapse.
- A policy issued in 1984 and the policyowner has paid the 25th policy-month premium. If any premium for policy-months 26 through 37 is not paid by the end of the grace period, the policy is a lapse.

Example of a policy that does not lapse is:

- A policy issued in 1985 is not considered a lapse if the 13th policy-month premium and all premiums for policy-months 14 through 25 are paid.

PRODUCT DEFINITIONS

Traditional Whole Life

Includes:
- Level-premium whole life: continuous-pay and limited pay.

Excludes:
- Universal life
- Variable life with flexible premiums
- Variable life with fixed premiums
- Interest-sensitive whole life
- Endowments
- Policies that are combinations of whole life and term plans
- Individual pension trust plans.

Yearly Renewable Term

Excludes:
- Graded-premium whole life—Types I and II
- Term riders.

Level Term (Other Than YRT)

Excludes:
- Nonlevel term
- Term riders.

Individual Pension Trust

Includes: • All policies sold on a pension trust basis.

Interest-Sensitive Whole Life

Includes: • Whole life plans that credit cash values with current interest rates. Premiums may be level, may vanish, or may be adjusted periodically.

Excludes: • Universal life
• Individual pension trust.

Graded-Premium Whole Life—Type I

Includes: • Traditional graded-premium whole life: The premium may increase annually for 5 to 10 years and then level off at a premium comparable to a whole life continuous-pay plan.

Excludes: • Graded-premium whole life—Type II.

Graded-Premium Whole Life—Type II

Includes: • Nontraditional graded-premium whole life: The initial premium is competitive with yearly renewable term policies. The premium increases annually for 10 to 20 years and then becomes level. Usually, the policy has no cash value for the first 10 years. Some of the products developed before 1984 were designed to take advantage of Section 818 C of the tax code. With the Tax Reform Act of 1984, the advantages were substantially reduced.

PARTICIPATING COMPANIES

Aetna Life & Casualty
American United Life
Baltimore Life
Canada Life (U.S.)
Connecticut Mutual Life
Equitable Life of the United States
Great-West Life
Guardian Life of America
Horace Mann Life
Jefferson-Pilot Life

John Hancock Mutual Life
Kansas City Life
Lutheran Brotherhood
Manufacturers Life (U.S.)
Massachusetts Mutual Life
Metropolitan Life (New York)
Monumental Life
Mutual Life of New York
Northwestern Mutual Life
Principal Mutual Life
Security-Connecticut Life
Sun Life of Canada (U.S.)
The Travelers
United of Omaha Life