TRANSACTIONS OF SOCIETY OF ACTUARIES
1984 REPORTS

II. 1985–86 LONG-TERM ORDINARY LAPSE SURVEY IN CANADA*

PREFACE

This report was prepared in the Manpower and Market Research Unit and the Financial Management Unit 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 any experience study are encouraged. LIMRA and the Society intend to work together to expand this report and seek additional data contributors.

This study represents an effort to publish data of interest to Canadian members of the Society. Preliminary discussions are under way with the Committee on Life Insurance Expected Experience of the Canadian Institute of Actuaries to include its studies in future editions of these *Reports*.

INTRODUCTION

Annual Survey

This annual survey of long-term lapsation examines the experience of ordinary insurance in Canada between the 1985 and 1986 policy anniversaries. The study is designed to assist companies in monitoring marketing and product performance, product development, and corporate planning.

Lapse rates in this report are percentages of face amounts in force at the beginning of 1985 policy anniversaries that lapse on or before 1986 policy anniversaries.

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

- Ordinary term
- Ordinary permanent
- Interest-sensitive whole life
- Permanent-term (Term 100).

Lapse rates are measured for policy-years 1, 2, 3–5, 6–10, and 11 and over. These policy-years correspond to issue years 1985, 1984, 1983–1981, 1980–1976, and 1975 and earlier.

In-Depth Survey

The report also presents results of an in-depth study of lapse rates on ordinary permanent insurance on three bases:

- Face amount
- Number of policies
- Annualized premium.

For each of these measures, the in-depth section shows lapse rates for specific issue ages as well as for policy-year groupings. Issue ages analyzed include ages 20–29, 30–39, 40–49, 50–59, and all issue ages combined; policy-years analyzed include years 1, 2, 3, 4, 5, 6–9, 10, and 11 and over.

Medians are computed separately for each policy-year (that is, each duration is examined separately). Consequently, a table of median lapse rates for a given product most likely will not correspond solely to the experience of one company across all durations. Furthermore, if a given company's lapse experience varies significantly across duration, its first-year lapse rate may fall below the median first-year rate, but the second-year lapse rate may match or exceed the median second-year rate.

Average lapse rates in this report are the ratio of the sum of all companies' lapses to the sum of all companies' business in force. Thus, larger companies receive greater weight than smaller companies.

About the Sample

Nine Canadian companies contributed data to the annual survey. The table below shows the volume in force at the beginning of the 1985–86 anniversary year for companies in this sample.

FACE AMOUNT IN FORCE ON 1985 ANNIVERSARIES ($000,000)

Issue Year	Ordinary Term	Ordinary Permanent	Interest-Sensitive Whole Life	Permanent-Term (Term 100)
1985*	$ 3,901	$ 3,494	$ 6,629	$360
Before 1985	14,889	19,960	10,277	182
Total in force	$18,790	$23,454	$16,906	$542

*For issue year 1985, face amount in force on 1985 anniversaries corresponds to sales volume during that year.

A separate report on U.S experience is available (see Part I). In addition, a separate analysis based on in-depth data collected on ordinary permanent business over the three anniversaries ending in 1984, 1985, and 1986 will be published in 1988 by LIMRA.

Highlights

Following are highlights from this year's survey, based on median face amount lapse rates for the various plans.

- *Ordinary term* first-year lapse rate is 14.8 percent. Renewal lapse rates range from 11 percent to 17 percent.
- The first-year lapse rate for *ordinary permanent* is higher (14 percent) than any renewal lapse rate, as was the case in LIMRA's prior two surveys covering the 1983–84 and 1984–85 anniversary years. Lapse rates for renewal policy-years range between 7 percent and 14 percent for all three surveys.
- *Interest-sensitive whole life* shows lower first-year and second-year average lapse rates than those for *ordinary permanent life*. The average lapse rate for policy years 3–5 for interest-sensitive whole life (17.3 percent) is substantially higher than the lapse rate for ordinary permanent life (9.8 percent).
- On *ordinary permanent* business, average lapse rates for issue ages 20–29 are higher than those for other issue ages, regardless of the measure used.
- For all durations except the first, the average size face amount lapsing is slightly greater than the average size face amount on permanent plans remaining in force (see Table 11).
- As shown in Figure 1 and Tables 1 and 2, term insurance lapse rates are generally higher than permanent insurance lapse rates.

Figures 2 and 3 highlight trends in ordinary term and ordinary permanent insurance lapse rates as measured by face amount. Eight Canadian companies participated in both the 1984–85 and 1985–86 long-term ordinary lapse surveys.

Ordinary term lapse rates increased for each duration except for policy-year 2 during 1985–86. Figure 3 shows that ordinary permanent lapse rates, on the other hand, improved from 1984–85 to 1985–86 for every duration.

Figure 1 – Term and Permanent Median Lapse Rates as Measured by Face Amount

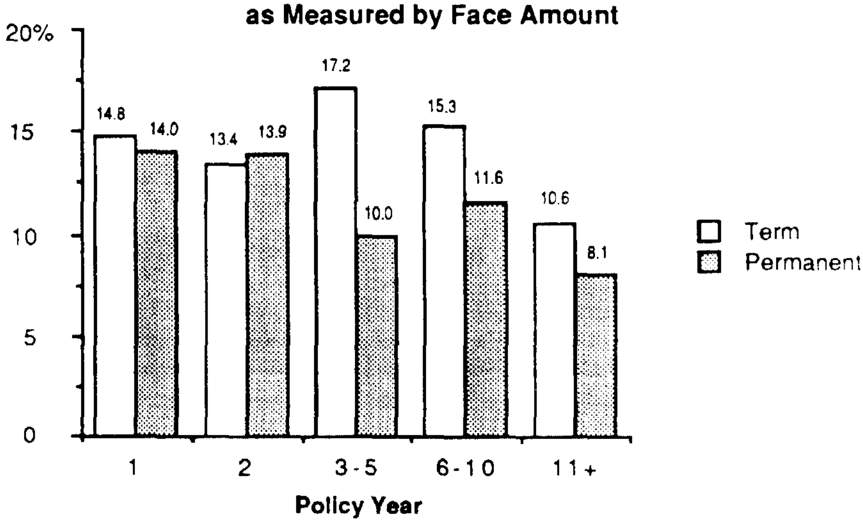


Figure 2 -- Ordinary Term Average Lapse Rates as Measured by Face Amount

(8 companies)

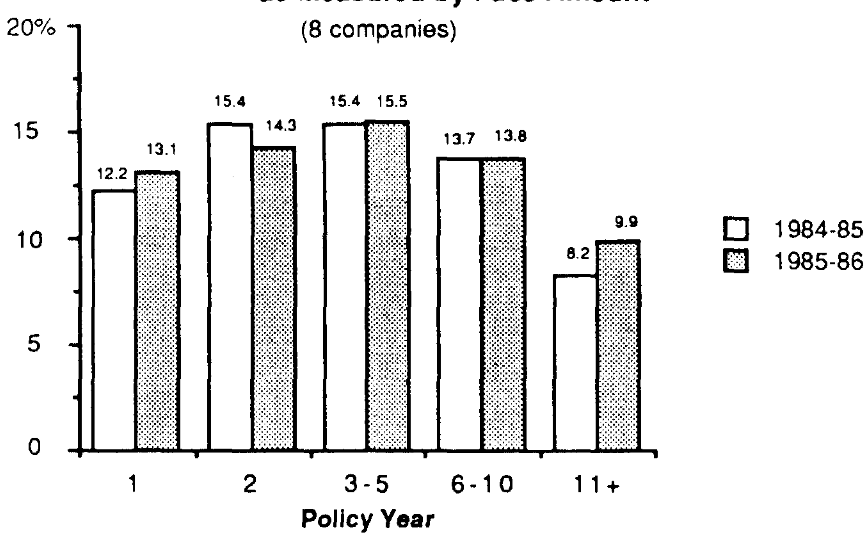
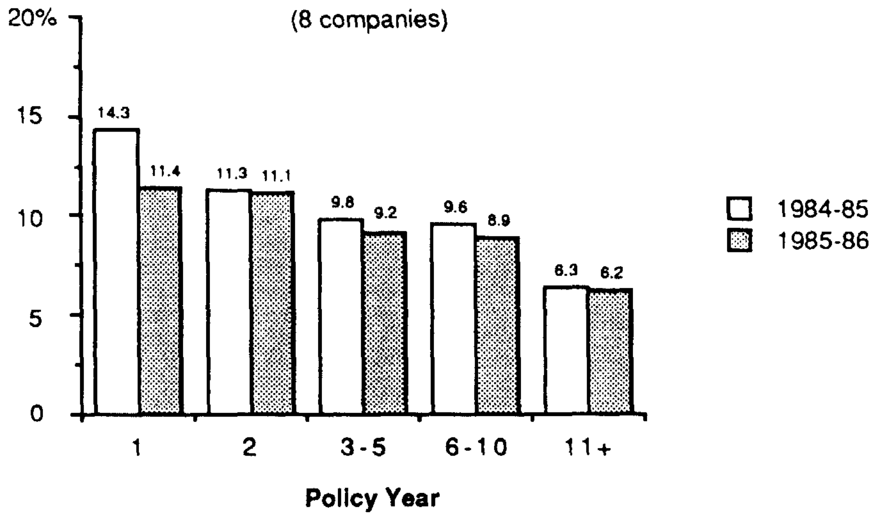


Figure 3 -- Ordinary Permanent Average Lapse Rates as Measured by Face Amount



ANNUAL SURVEY

Face Amount Lapse Rates

TABLE 1

ORDINARY TERM LAPSE RATES

Policy Year	Median	Average
1	14.8%	13.4%
2	13.4	14.6
3–5	17.2	16.0
6–10	15.3	14.9
11 and over	10.6	10.4

TABLE 2

ORDINARY PERMANENT LAPSE RATES

Policy Year	Median	Average
1	14.0%	11.8%
2	13.9	11.6
3–5	10.0	9.8
6–10	11.6	10.3
11 and over	8.1	6.9

TABLE 3

INTEREST-SENSITIVE WHOLE LIFE LAPSE RATES

Policy Year	Average
1	11.2%
2	10.5
3–5	17.3

TABLE 4

PERMANENT-TERM (TERM 100) LAPSE RATE

Policy Year	Average
1	10.2%

IN-DEPTH SURVEY

TABLE 5

ORDINARY PERMANENT AVERAGE FACE AMOUNT LAPSE RATES

Policy Year	All Issue Ages
1	12.1%
2	11.9
3	10.8
4	9.6
5	9.3
6–9	10.6
10	9.3
11 and over	7.0

TABLE 6

ORDINARY PERMANENT AVERAGE NUMBER OF POLICIES LAPSE RATES

Policy Year	All Issue Ages
1	13.0%
2	11.7
3	10.7
4	8.7
5	9.8
6–9	10.4
10	9.2
11 and over	6.3

TABLE 7

ORDINARY PERMANENT AVERAGE ANNUALIZED PREMIUM LAPSE RATES

Policy Year	All Issue Ages
1	11.1%
2	11.9
3	10.4
4	8.5
5	8.6
6–9	9.2
10	8.1
11 and over	6.0

TABLE 8

ORDINARY PERMANENT AVERAGE FACE AMOUNT LAPSE RATES

Policy Year	Issue Ages			
	20–29	30–39	40–49	50–59
1	15.4%	10.2%	7.4%	5.3%
2	14.4	11.0	11.4	5.8
3	13.3	11.1	8.2	9.1
4	12.0	10.1	7.1	4.7
5	11.4	9.4	6.4	7.8
6–9	12.5	10.3	8.8	7.2
10	11.4	8.3	5.9	—*
11 and over	7.9	6.0	5.6	5.5

*Insufficient exposure or number of cases.

TABLE 9

ORDINARY PERMANENT AVERAGE NUMBER OF POLICIES LAPSE RATES

Policy Year	Issue Ages			
	20–29	30–39	40–49	50–59
1	16.7%	11.7%	8.1%	6.6%
2	15.6	11.9	8.2	4.6
3	14.3	11.3	7.3	4.4
4	12.5	9.7	5.9	3.8
5	12.2	10.1	6.5	4.9
6–9	13.2	9.7	6.8	4.7
10	11.9	8.9	5.5	—*
11 and over	7.0	5.2	4.7	3.8

*Insufficient exposure or number of cases.

TABLE 10

ORDINARY PERMANENT AVERAGE ANNUALIZED PREMIUM LAPSE RATES

Policy Year	Issue Ages			
	20–29	30–39	40–49	50–59
1	16.0%	10.7%	8.1%	5.2%
2	14.9	12.0	12.4	5.5
3	13.3	11.2	8.0	8.7
4	11.0	9.5	6.6	4.1
5	11.2	9.5	6.5	6.5
6–9	11.0	9.4	7.9	6.6
10	10.4	7.3	—*	—*
11 and over	6.9	5.2	4.9	5.2

*Insufficient exposure or number of cases.

TABLE 11

ORDINARY PERMANENT AVERAGE FACE AMOUNTS PERSISTING AND LAPSING

Policy Year	Persisting	Lapsing
1	$27,011	$24,985
2	23,909	24,260
3–5	16,609	17,412
6–10	12,066	12,354
11 and over	5,734	6,375

TABLE 12

ORDINARY PERMANENT AVERAGE ANNUALIZED PREMIUM PERSISTING AND LAPSING*

Policy Year	Persisting	Lapsing
1	$405	$362
2	385	426
3–5	350	346
6–10	237	258
11 and over	122	128

*Two companies were unable to submit annualized premium data.

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 1985 is paid.

In-force business includes:

1. Policies issued in 1985.
2. Policies issued prior to 1985 where the premium due on the 1985 policy anniversary date is paid before the end of the grace period.

In-force business excludes:

1. Policies that lapsed prior to their 1985 anniversary and are on extended term or reduced paid-up status.
2. Limited-premium payment policies that are paid up.
3. Single-premium policies.

Examples of policies in force:

1. A policy issued in 1985 and the first premium is paid.
2. A policy issued in 1984 and the premium due in the 13th policy-month is paid.
3. A policy issued in 1983 and the premium due in the 25th policy-month is paid.

Lapses

A policy is considered a lapse if the first premium for the new policy-year starting in 1985 is paid but not all of the premium that comes due after the 1985 anniversary and before or *on* the 1986 anniversary date is paid.

Lapsed business includes:

1. Policies surrendered after their 1985 anniversary and before or *on* their 1986 anniversary.
2. Policies where a premium due after the 1985 anniversary and before or *on* the 1986 anniversary date is not paid by the end of the grace period.
3. Term policies with renewal provision that do not renew.
4. Policies that go on reduced-paid-up or extended-term status.

Lapsed business excludes:

1. Death claims.
2. Automatic premium loaned policies.
3. Expires and maturities.
4. Conversions.

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

Examples of Policies That Lapse:

1. A policy issued in 1985 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.
2. A policy issued in 1984 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.
3. A policy issued in 1983 and the policyowner has paid the 25th policy-month pemium. 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:

A policy issued in 1984 is not considered a lapse if the 13th policy-month premium and all premiums for policy-months 14 through 25 are paid.

PRODUCT DEFINITIONS

Ordinary Term Plans

Include:
- Level term
- Decreasing term.

Exclude:
- Term riders
- Permanent term insurance (also called term to 100).

Ordinary Permanent Plans

Include:
- Level-premium whole life: continuous pay and limited pay
- Variable life.

Exclude:
- Universal life
- Interest-sensitive whole life
- Endowments
- Policies that are combinations of whole life and term plans
- Permanent term insurance
- Modified whole life plans
- Individual life insurance policies used to fund a Registered Pension Plan.

Interest-Sensitive Whole Life (Sometimes Called Current-Assumption Whole Life)

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

Exclude: • Universal life.

Permanent-Term Plans (Term to 100)

Include: • Plans that provide coverage to age 100 and feature initial level death benefits and level premiums. Death benefits or premiums for these plans may be adjusted periodically (for example, every five years) to reflect changes in interest rates, mortality, and expenses. Typically the plans build no (or little) cash value, and their only nonforfeiture value is reduced paid-up insurance.

PARTICIPATING COMPANIES

Canada Life
COLONIA Life
Commercial Union Life of Canada
Industrial-Alliance
Metropolitan Life (Canada)
National Life of Canada
New York Life (Canada)
Standard Life (Canada)
Sun Life of Canada