

U.S. Individual Life Insurance Persistency

A Joint Study Sponsored by the Society of Actuaries and LIMRA

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Contents

Overview	3
Recommendations	4
Data Description	5
Data Quality Checks	8
Overall Results	9
Whole Life	12
Gender	14
Issue Age	14
Attained Age	16
Premium Payment Mode	16
Risk Class	18
Smoking Status	19
Underwriting Method	20
Term Life	21
Premium Guarantee Period	22
Gender	26
Issue Age	29
Attained Age	32
Premium Payment Mode	32
Risk Class	34
Smoking Status	35
Underwriting Method	38
Universal Life	41
Gender	43
Issue Age	44
Attained Age	45
Risk Class	45
Smoking Status	46
Underwriting Method	48
Death Benefit Option	49
Variable Universal Life	50
Gender	52
Issue Age	53
Attained Age	54
Risk Class	54
Smoking Status	56
Methodology	57
Contributing Companies	58

Overview

This report presents the results of individual life insurance lapse experience in the United States between observation years 2005 and 2007. This study was conducted jointly by LIMRA and the Society of Actuaries (SOA) and was based on data provided by 31 life insurance writers. We present the lapse experience for whole life, term life, universal life and variable universal life plans issued between 1910 and 2007. Results for most key policy and product factors are examined.

Note that many of the term policies that reach the end of the level premium guarantee period during the experience period were priced in the pre-Regulation XXX environment, where products were neither designed nor priced with the same post-guarantee period premium increases seen in today's term products. Therefore, shock lapse rates at the end of the level premium term period may be lower than future results.

Highlights

- The overall annual policy lapse rate was 4.2%, down from 4.3% in the 2004–2005 study. Lapse rates on a face amount basis remained the same at 5.2% annually. Decrease in lapse rates occurred mostly in the first four policy years.
- The whole life policy lapse rate was 3.0% annually, down from 3.4% in the 2004–2005 study. Lapse rate on a face amount basis was 3.7%, a down from 4.1% in the 2004–2005 study.
- The term life policy lapse rate was 6.4% annually, down from 6.6% in the 2004–2005 study. But first year lapse rates increased to 7.5% for all term plans, up from 7.3% in the 2004–2005 study. Shock lapse rates for level premium guarantee term plans continue to be high, with shock lapse rates of 37.6% on a policy basis for 10-year level premium term plans in the eleventh policy year.
- Universal life policy and face amount lapse rates were 4.6% annually, up from 4.2% in the 2004–2005 study. The largest portion of the increase in lapse rate occurred in later policy years.
- The variable universal life policy lapse rate was 4.8% annually, down from 5.2% in the 2004–2005 study. Lapse rate on a face amount basis were 5.0% annually, down from 5.3% in the 2004–2005 study.

LAPSE DEFINITION

For purposes of this report, “lapse” includes termination for nonpayment of premium, insufficient cash value or full surrender of a policy, transfer to reduced paid-up or extended term status, and in most cases, terminations for unknown reason. This is consistent with the definition of lapse applied to other LIMRA and Society of Actuaries experience studies, and allows for better comparison of results over time.

Recommendations

This report examines lapse experience on individual life products for various policy types and product factors. The study can be used for industry benchmarking as well as for background information for product development and planning processes.

The data contained in this report can help companies to identify factors that impact individual life insurance persistency, as well as to validate pricing assumptions. While the study participants represent a sizable portion of the life insurance industry, they do not represent the entire industry and differences in results by company may vary. These results should be used only as a guide or supplement to the experience of the individual carriers. Companies should carefully consider underlying differences such as distribution, product design, product development, and marketing strategy between their own organizations and the participants.

To aid the reader in interpreting the information contained in this report, a spreadsheet providing exposure and lapse information by policy factor and data cell is available on both the LIMRA and SOA websites (www.limra.com and www.soa.org).

Data Description

Data supporting the results of this study were collected jointly with the Society of Actuaries Individual Life Insurance Experience Committee data call. Both mortality and lapse studies of individual life insurance products are based on these industrywide data collection efforts.

For the 2005–2007 persistency experience study, 31 participants submitted data with just under \$11 trillion in face amount exposed. Of these participants, 28 provided whole life data, 29 provided term life data, 29 provided universal life data and 20 provided variable universal life data. Names of contributing companies are listed at the end of this report.

Table 1 below compares the results of the current study with LIMRA’s Annual Life Insurance Inforce Survey. The current study’s data exposure provides a very similar representation of the industry in terms of face amount and policy exposure distribution by product line.

	LIMRA’s Annual Life Insurance Inforce Survey		Current Persistency Study Exposure Base	
	Policies	Face Amount	Policies	Face Amount
Whole Life	52%	17%	53%	15%
Term	28%	56%	24%	58%
Universal Life	15%	16%	15%	15%
Variable Universal Life	5%	11%	8%	12%

Tables 2 and 3 below show the policy and face amount exposures by issue year for each product line included in this study. Note that not all participants submitted data for all affiliated companies, product lines, and observation years.

Table 2
Policy Exposure by Issue Year

Issue Year	Whole Life (28 cos.)	Term Life (29 cos.)	Universal Life (29 cos.)	Variable Universal Life* (20 cos.)	Total (31 cos.)
Pre 1989	29,942,142	1,227,859	3,817,019	927,466	35,914,486
1989 – 1993	5,853,802	1,619,592	2,938,888	1,260,806	11,673,088
1994 – 1999	4,501,490	5,477,698	2,780,234	2,162,268	14,921,690
2000	593,667	1,187,967	341,321	464,602	2,587,557
2001	671,266	1,467,122	415,887	426,716	2,980,991
2002	742,077	1,679,462	526,865	323,568	3,271,972
2003	710,144	1,795,473	565,260	267,197	3,338,074
2004	674,431	1,898,829	590,943	314,485	3,478,688
2005	458,075	1,763,532	575,871	285,281	3,082,759
2006	287,030	1,299,701	410,396	175,758	2,172,885
2007	37,380	345,826	70,611	38,113	491,930
Total	44,471,505	19,763,061	13,033,296	6,646,262	83,914,124

Table 3
Face Amount Exposure by Issue Year (000,000s)

Issue Year	Whole Life (28 cos.)	Term Life (29 cos.)	Universal Life (29 cos.)	Variable Universal Life* (20 cos.)	Total (31 cos.)
Pre 1989	476,527	85,527	269,168	83,012	914,235
1989 – 1993	395,879	219,760	255,600	160,328	1,031,567
1994 – 1999	334,433	1,346,708	312,111	407,047	2,400,298
2000	45,815	345,310	50,363	120,713	562,201
2001	55,127	479,745	63,172	111,398	709,442
2002	78,135	618,275	91,911	89,856	878,177
2003	85,118	734,756	121,239	75,747	1,016,860
2004	73,987	812,927	138,102	92,495	1,117,511
2005	55,623	785,836	160,764	89,986	1,092,210
2006	31,327	583,655	133,354	58,390	806,725
2007	3,441	182,429	32,505	11,951	230,326
Total	1,635,412	6,194,928	1,628,290	1,300,924	10,759,553

* Variable universal life includes variable life.

Data Characteristics

The following is a brief summary of the exposure data characteristics by product line.

Table 4 Exposure Data Characteristics for Permanent Products			
	Whole Life	Universal Life	Variable Universal Life*
Policy exposure in policy years 1 to 2	3%	10%	9%
Policy exposure in policy years 1 to 5	7%	22%	24%
Policy exposure in policy years 1 to 10	15%	38%	53%
Policy exposure in policy years 30 or later	42%	—	—
Average face amount exposed	\$37,000	\$125,000	\$198,000
Average face amount exposed for new issues	\$110,000	\$315,000	\$324,000
Average issue age	27	34	35
Average issue age of new issues	28	38	35
Average attained age	54	46	45
Male insureds represented in the policy exposure	55%	57%	59%
Non-smoker insureds represented in the policy exposure	75%	87%	86%
— Less than 1%			
* Variable universal life includes variable life.			

Table 5 Exposure Data Characteristics for Term Products						
	YRT	5 Year LPT	10 Year LPT	15 Year LPT	20 Year LPT	All Term†
Policy exposure base	22%	2%	16%	7%	26%	100%
Average face amount exposed	\$240,000	\$120,000	\$355,000	\$348,000	\$408,000	\$313,000
Average face amount exposed for new issues	\$446,000	\$114,000	\$548,000	\$488,000	\$534,000	\$460,000
Average issue age	34	34	42	45	39	38
Average issue age of new issues	32	32	44	46	39	39
Average attained age	45	47	49	51	44	45
Male insureds represented in the policy exposure	57%	54%	65%	65%	61%	59%
Non-smoker insureds represented in the policy exposure	89%	89%	88%	92%	93%	90%
YRT – Yearly Renewable Term						
LPT – Level Premium Term						
† Also includes other LPT not shown, decreasing term, and other term products not separable into these plans.						

Data Quality Checks

For quality control purposes, the following checks were performed.

Records by Experience Year – For each company, the total number of policy records and the associated face amount submitted for each study experience year were compared to the annual statement information to determine whether the contributing carrier had provided a full or partial inforce sample.

Records by Product Line – For each company, the total inforce policy records and associated face amounts for each product line were compared to LIMRA’s Annual Life Insurance Inforce Survey results. LIMRA’s Annual Life Insurance Inforce Survey collects policies, face amounts, and annual premium inforce for each year by product line.

New Issues – For each company, the number of newly issued policies and face amounts within each observation year were compared to LIMRA’s Annual Life Insurance Sales Survey. LIMRA’s Annual Life Insurance Sales Survey collects policies, face amounts, and annual premium sold for each calendar year by product line.

Lapse Rates by Company and by Product Line – For each company, lapse rates were calculated by plan and policy year, and provided to each company. Results were compared to prior studies when available. Differences were noted and discussed with individual company data contacts. The data contacts were also asked to review the results and report any discrepancies between the industry study and the results of their own experience study.

Overall Results

This report presents the results of the individual life insurance lapse experience study in the United States for observation years 2005–2007. This study was conducted jointly by LIMRA and SOA. Thirty-one individual life insurance companies participated. Lapse experience for whole life, term, universal life, and variable universal life plans issued between 1910 and 2007 are presented. This report highlights results for most key policy and product factors. An Excel spreadsheet containing the supporting source lapse rates for each figure is available on the LIMRA and SOA websites.

The overall policy lapse rate was 4.2%, a slight decline from 4.3% in the prior study (2004–2005 Persistency Study). The decrease in overall policy lapse rates was a result of declines in early policy years, as shown in Figure 1. Lower lapse rates in early policy years continue to be driven in part by the experience of level premium term products. While some of the variation between studies can be attributed to differences in the underlying data contributors, that impact appears to be relatively minor.

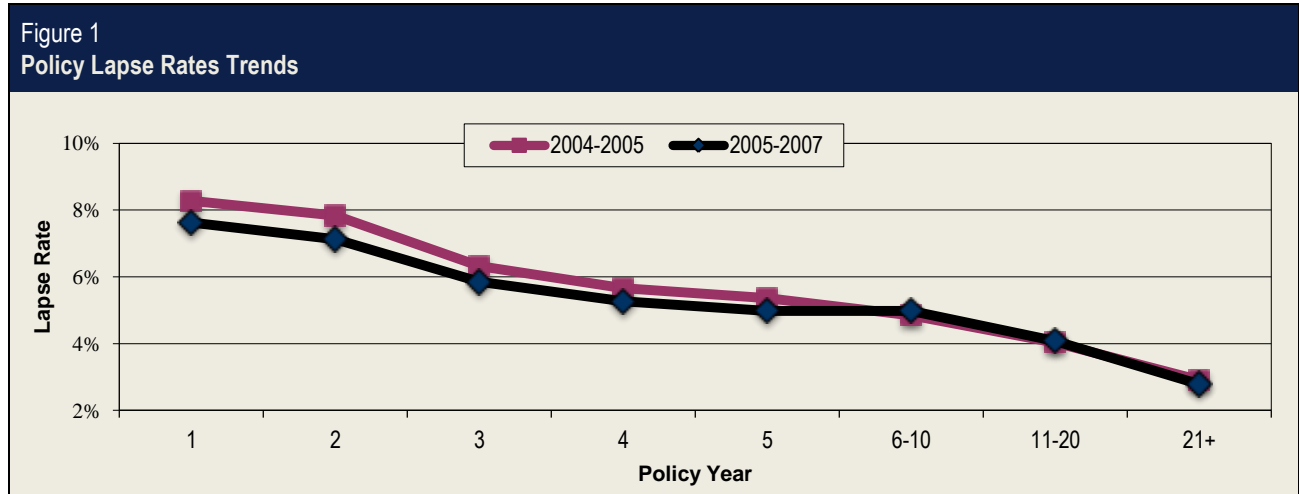
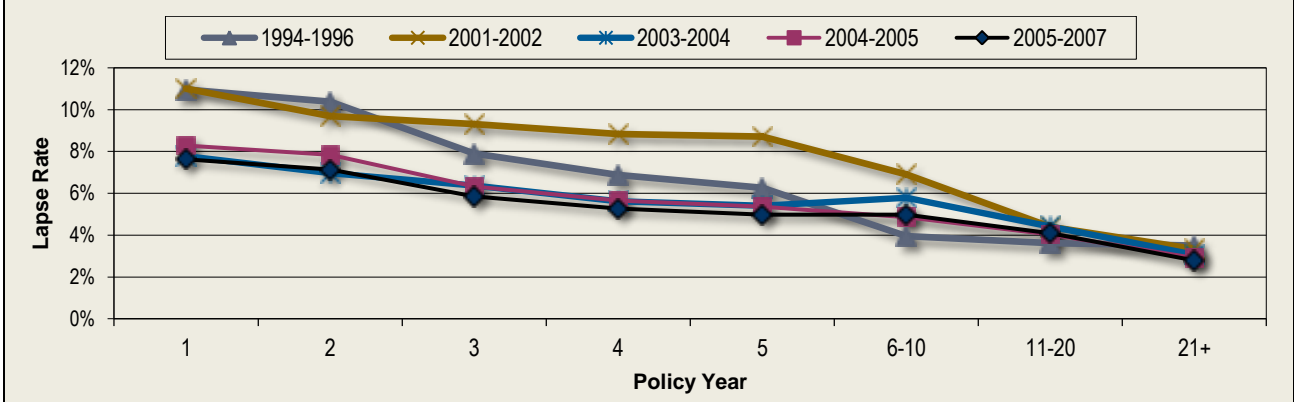


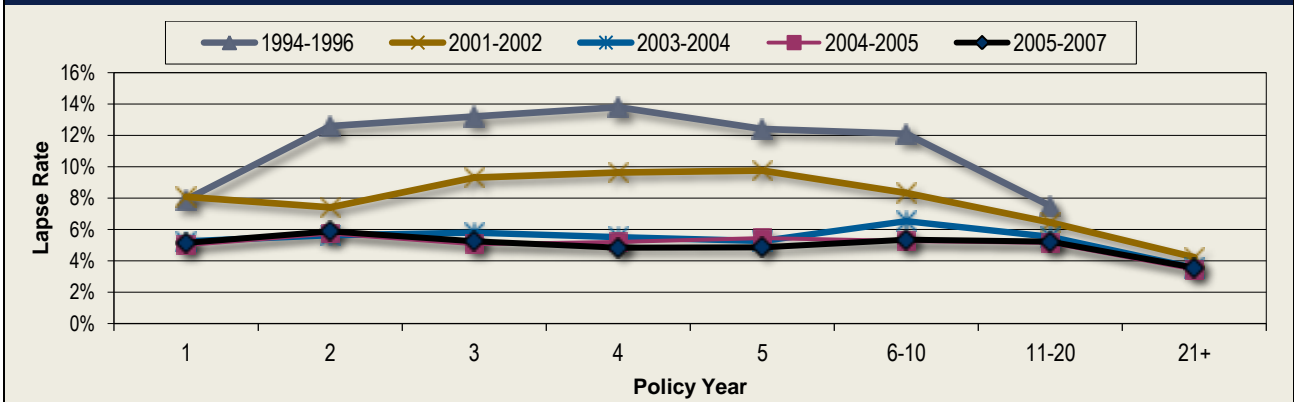
Figure 2 compares the trend in policy lapse rates in the current study to four prior studies. While overall lapse rates are the lowest in over ten years, lapse rates between policy years six and 20 are still higher than the experience in the 1990s. This was due in part to high lapse rates at the end of the level premium period on level premium term products. The higher lapse rates in these policy years is expected to continue, if not increase, as the longer level premium term policies (e.g. 20 year level premium term) reach the end of the level premium period.

Figure 2
Policy Lapse Rates Trends



On a face amount basis, overall lapse rates averaged 5.2% annually, same as the 2004–2005 Persistency Study. Lapse rates increased slightly in the first three durations, but noticeably decreased in policy years four and five, as shown in Figure 3. Much like policy lapse rates, lapse rates on a face amount basis have declined over the past decade. The impact of level premium term was more visible here due to the higher average face amount of term policies compared to permanent policies.

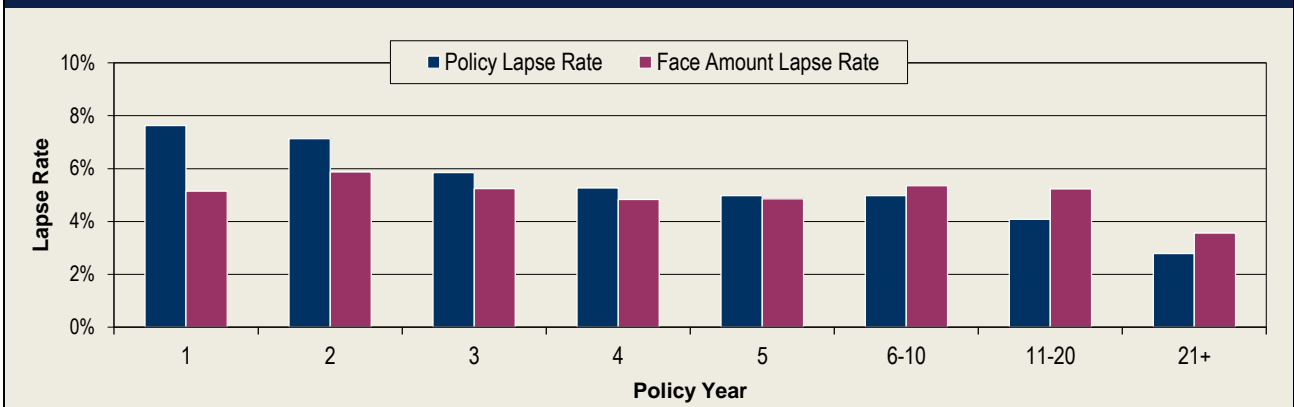
Figure 3
Face Amount Lapse Rate Trends



During early policy years, smaller policies have a greater tendency to lapse, causing policy lapse rates to be higher than face amount lapse rates in those years; see Figure 4. Lapses for these policies are more a function of socioeconomic factors, likely due to buyer’s remorse or additional price comparison shopping. In the case of buyers of smaller policies, lower discretionary income is a probable cause of higher lapse rates in early policy years, especially when hard financial strains hit.

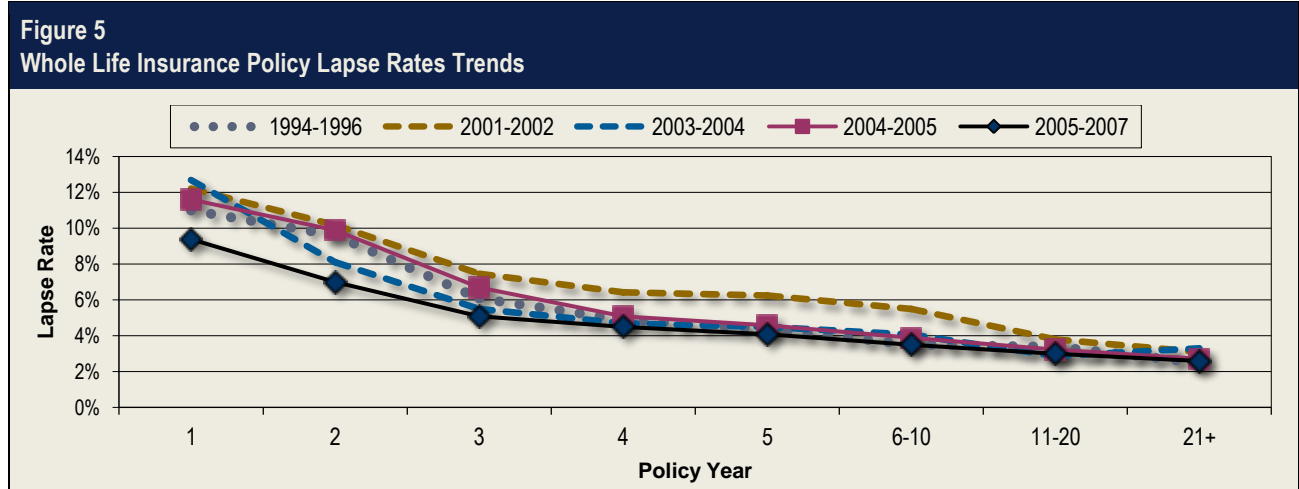
However, in later policy years, face amount lapse rates are higher as more weight is given to lapses of larger policies. This trend can be seen across all products. After the early years, buyers of smaller policies are more likely to hold on to their policies as the only form of life protection and possible savings.

Figure 4
Individual Life Insurance Lapse Rate

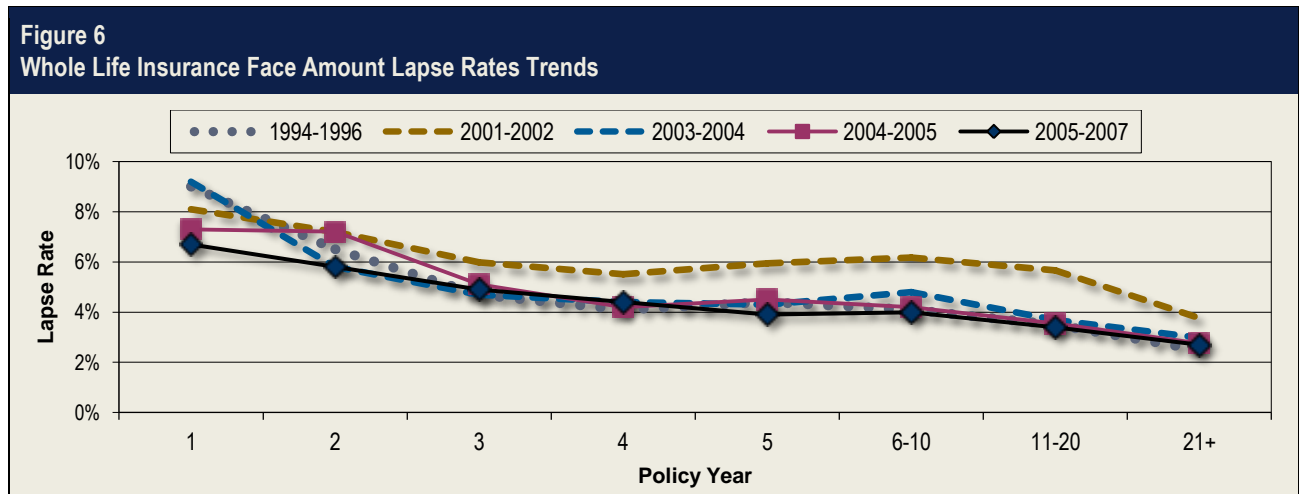


Whole Life

Whole life data shown in this section were based on data from 28 contributors. Lapse rates for whole life have declined over the past few studies. The overall policy lapse rate in the current study was 3.0% annually, down from 3.4% in the 2004–2005 Persistency Study. Lapse rates were lower in almost all durations compared to the prior study, with a considerable decrease in the first three durations; see Figure 5. One possibility for the increase in persistency could be due to the low interest rate environment, combined with a strong economy during the observation years 2005–2007. This setting allowed dividend paying whole life products to compete well and likely reduced turnovers during early policy years to other products, such as universal life.



The overall lapse rates on a face amount basis also declined in a similar fashion, from 4.1% annually in the 2004–2005 Persistency Study to 3.7% in the current study; see Figure 6. For the most part, annual lapse rates after the first few policy years begin to slowly converge toward 2.7%, on both a face amount and policy basis.



The average face amount exposed in the current study was under \$37,000, a small decrease from the \$39,000 average face amount exposed in the 2004–2005 Persistency Study. The average face amount for new issues continues to decline from \$119,000 to \$110,000 in the current study. This was due in part to a change in contributing whole life carriers.

Consistent with the overall individual life results, during the early policy years, smaller face amount whole life policies tend to lapse more frequently than larger policies; see Figure 7.

When grouped by policy size, smaller policies have considerably higher lapse rates in the first two policy years; see Figure 8. By policy year three, the difference between lapse rates for the various policy size groups is less significant.

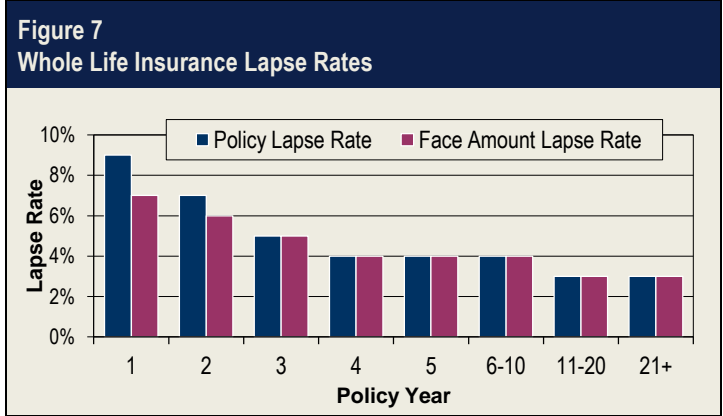


Figure 8
Whole Life Insurance Policy Lapse Rates by Policy Size – Policy Year 1 to 5

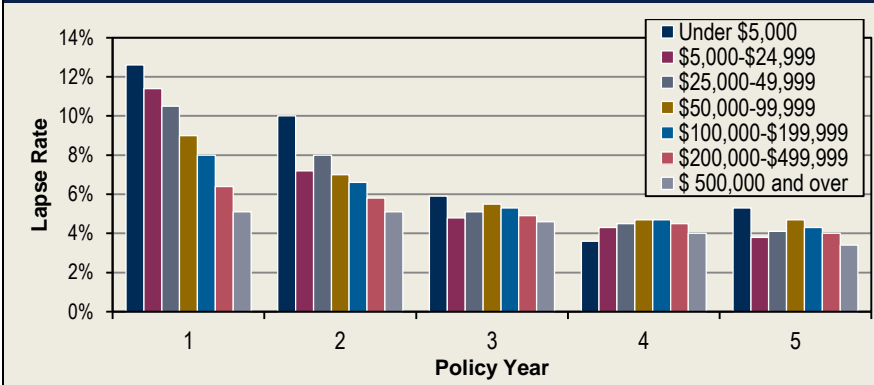
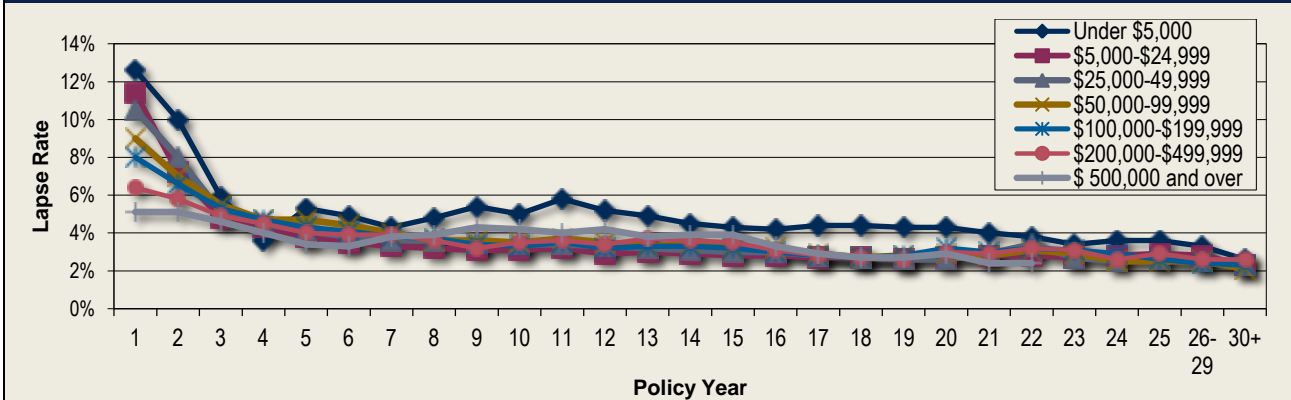


Table 6
Whole Life Exposure by Policy Size Group

Policy Size	Percent of Policy Exposure
Under \$5,000	22%
\$5,000-\$24,999	45%
\$25,000-49,999	14%
\$50,000-99,999	9%
\$100,000-\$199,999	7%
\$200,000-\$499,999	2%
\$500,000 and over	1%

After the first five policy years, most of the lapse rates settle between 2% and 5%. However, consistent with previous studies, the lapse rates for policies with face amounts less than \$5,000 remain significantly higher than other policy size groups. Table 6 shows the amount of exposure for each policy size group. The distribution of this table has stayed relatively stable over the past three studies, with policies under \$25,000 accounting for the majority of whole life exposure.

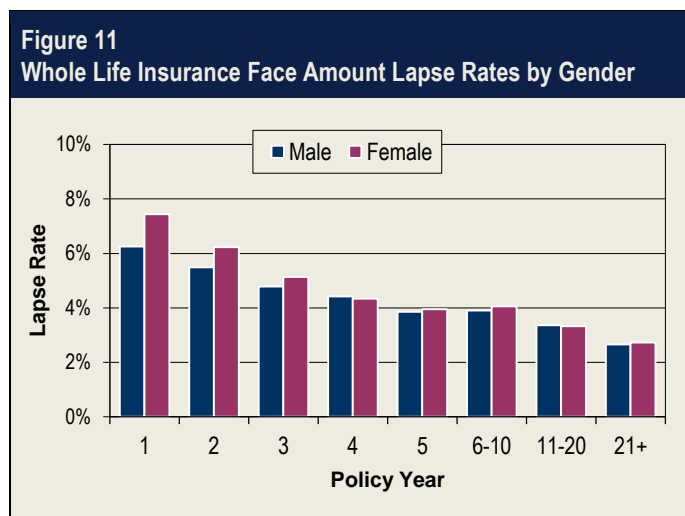
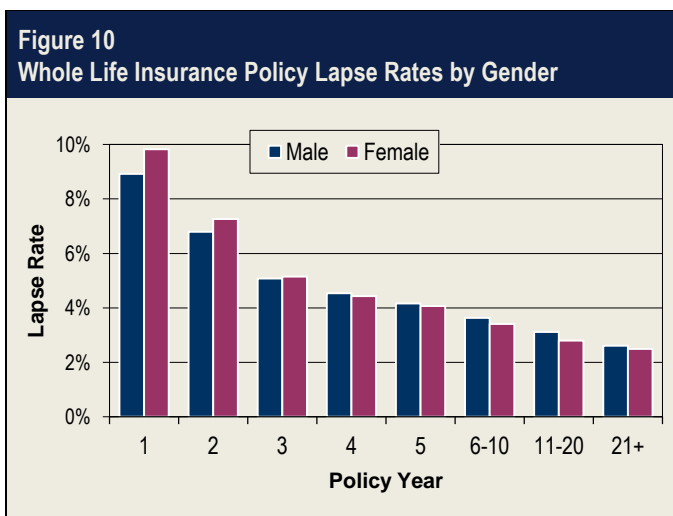
Figure 9
Whole Life Insurance Policy Lapse Rates by Policy Size



Gender

The whole life exposure base was comprised of 55% male and 45% female on a policy basis. Consistent with prior studies, the male exposure base was higher on a face amount basis, with 65% male and 35% female. This split has been slowly declining over the past four studies as a more even distribution of recent buyers offsets the male majority of the older policies. For new issues, the exposure base was 51% male on a policy basis.

The average face amount exposed for males was \$44,000, while the average for females was \$28,000. These averages have fluctuated slightly over past studies, mainly due to the change in contributing whole life carriers. Overall, the policy lapse rates for males and females are about the same, with lapse rates for females slightly higher in the first few years and modestly lower in later years; see Figure 10. A similar trend was visible for lapse rates on a face amount basis; see Figure 11.



Issue Age

Much like prior studies, the distribution of the current study’s exposure base was skewed towards the younger issue age cohorts; see Table 7. Policies issued to insureds under age 30 represent over half of total whole life exposure. As with prior studies, early policy-year lapse rates for permanent insurance products are generally higher for younger issue ages; see Figure 12.

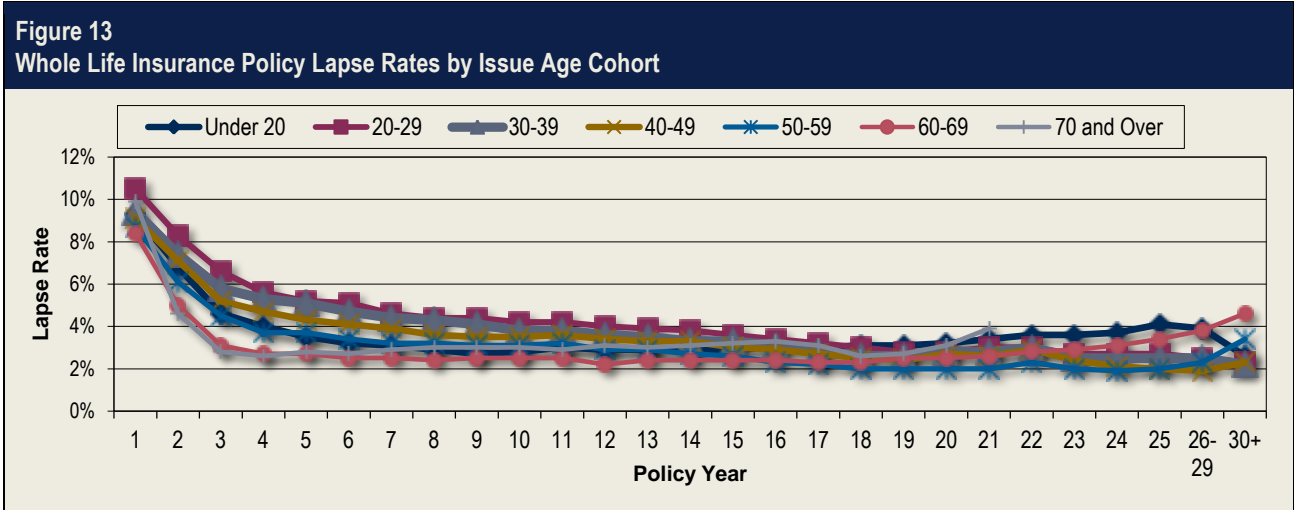
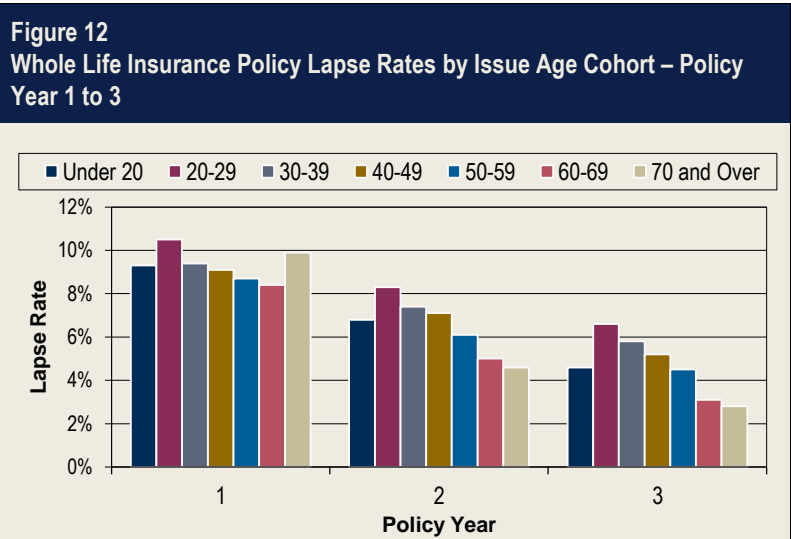
Historically, policies issued between the ages of 20 to 29 have had the highest policy lapse rates in the first few policy years. However, these lapse rates have steadily declined over the past three studies. First year lapse rates decreased from about 16% in the 2001–2002 Persistency Study to just over 10% in the current study.

For policies with issue ages under 20, one of two patterns emerge, depending on the mix of contributing whole life carriers. In the current study, as well in a few prior studies, the lapse pattern mimics those issued between the ages of 30 to 59. This occurs when the under issue age 20 cohort was more weighted with infant and young juvenile policies, where the parents or older relatives are paying policy premiums. If the cohort mix was more weighted with older juvenile policies, where the insured is more likely paying the premiums, the lapse pattern is closer to policies with issue ages of 20 to 29.

Regardless of issue age, after policy year six, lapse rates stabilize at between 2% and 5.5% for all issue age cohorts; see Figure 13. This has been the trend with past studies.

Table 7
Whole Life Policy Exposure by Issue Age Cohort

Issue Age	Average Face Amount Exposed	Percent of Policy Exposure
Under 20	\$18,000	34%
20-29	\$27,000	24%
30-39	\$56,000	19%
40-49	\$61,000	13%
50-59	\$58,000	7%
60-69	\$53,000	3%
70 and older	\$64,000	–
Total	\$37,000	100%



Attained Age

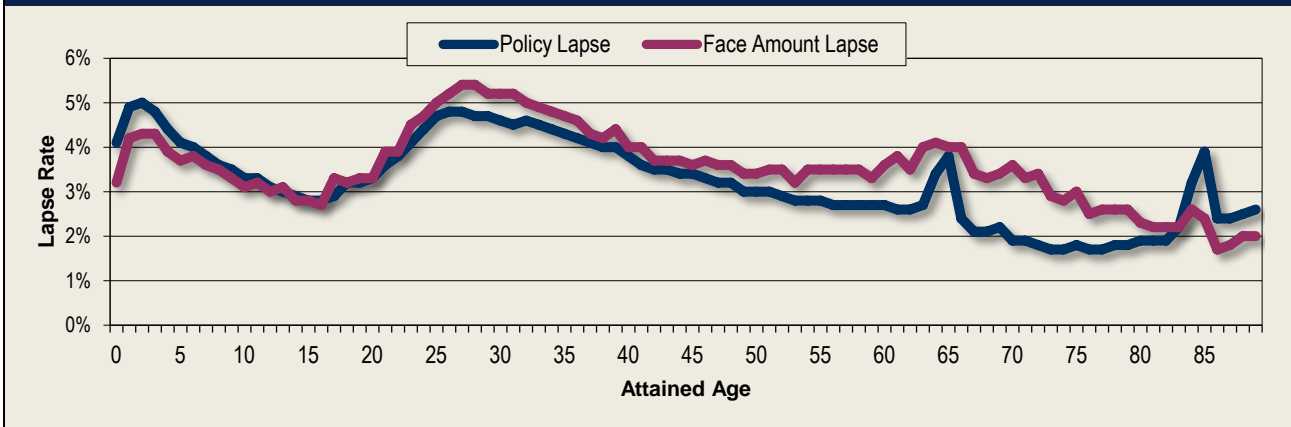
Unlike the distribution of issue age cohorts, the exposure base by attained age cohorts leans towards older ages. Over 60% of the current whole life exposure base has attained ages of 50 or older; see Table 8. This disparity was due to the significant portion of older policies. As stated in the Data Description section, 42% of the whole life exposure base was in policy year 30 or later.

Figure 14 shows lapse rates by attained age on a policy and face amount basis. Consistent with past studies, after attained age 25, lapse rates generally decrease as the insured ages. For ages between 50 and 80, higher face amount policies are more likely to lapse than smaller policies. However, there are variances in lapses around age 65, where we would expect to see the impact of retirement, and around age 85.

Table 8
Whole Life Policy Exposure by Attained Age Cohort

Age	Average Face Amount Exposed	Percent of Policy Exposure
Under 20	\$40,000	7%
20-29	\$36,000	7%
30-39	\$54,000	9%
40-49	\$58,000	15%
50-59	\$44,000	20%
60-69	\$30,000	17%
70 and older	\$16,000	25%
Total	\$37,000	100%

Figure 14
Whole Life Insurance Lapse Rates by Attained Age



Premium Payment Mode

For the twelve contributing whole life carriers that provided data by premium payment mode, the distribution of policy exposures and the average face amounts are shown in Table 9. For the past few studies, annual and monthly premium payment modes have made up the majority of the policy exposures.

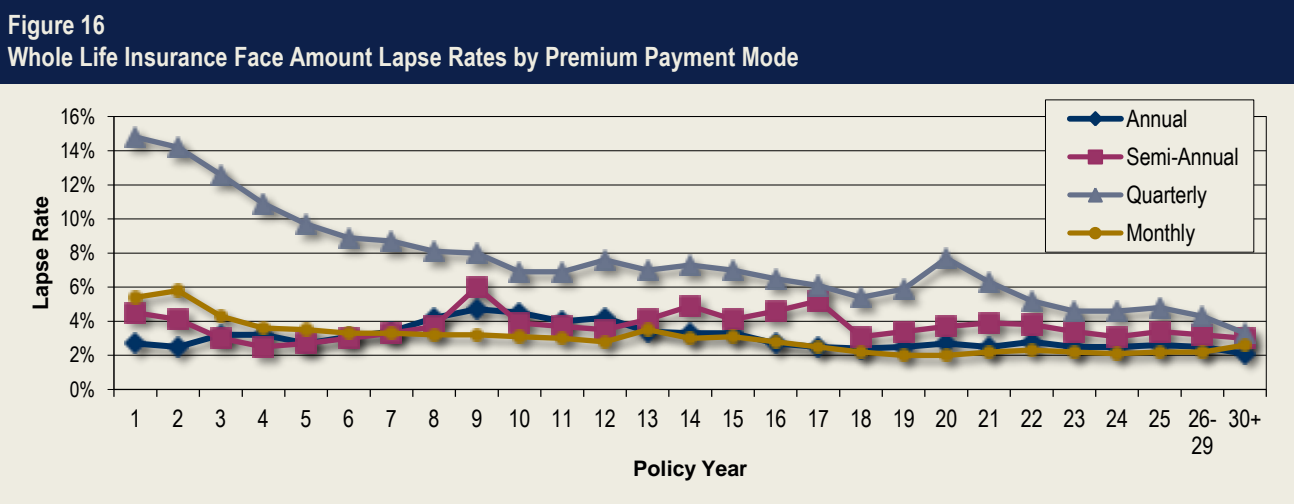
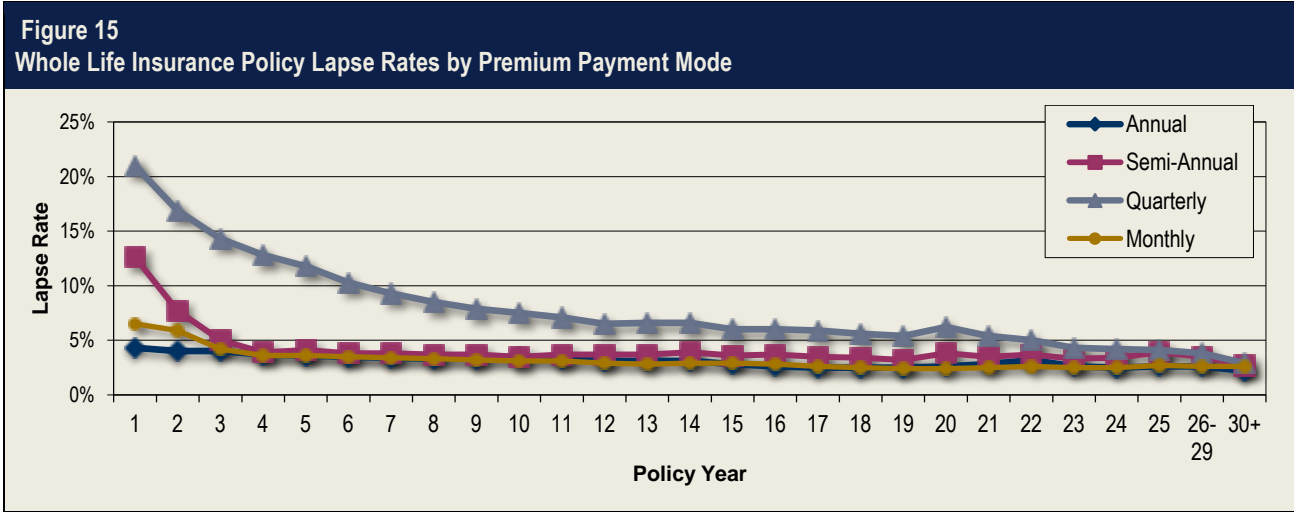
As with prior studies, lapse rates increase with the number of premium payments made each year; see Figures 15 and 16. The one exception is policies paid on a monthly basis. This category consistently includes significantly more policies paid through

Table 9
Whole Life Policy Exposure by Premium Payment Mode

Premium Mode	Average Face Amount Exposed	Percent of Policy Exposure
Annual	\$46,000	39%
Semi-Annual	\$26,000	6%
Quarterly	\$37,000	9%
Monthly	\$35,000	43%
Other	\$40,000	3%

electronic fund transfer methods and other automatic methods than other payment modes. The automatic nature of these transactions tends to lead to increased policy persistency for the monthly premium payment mode.

With the average face amount exposed at \$37,000 in the current whole life data, annual premium payment modes have comparatively larger policies. While the difference in policy size is a factor in the lower lapse rates of policies with annual premium payment modes, lapse rates for policies with annual premium payment modes are lower than the lapse rates of larger policies, for most policy years. Policy lapse rates by policy size are shown in Figure 9.



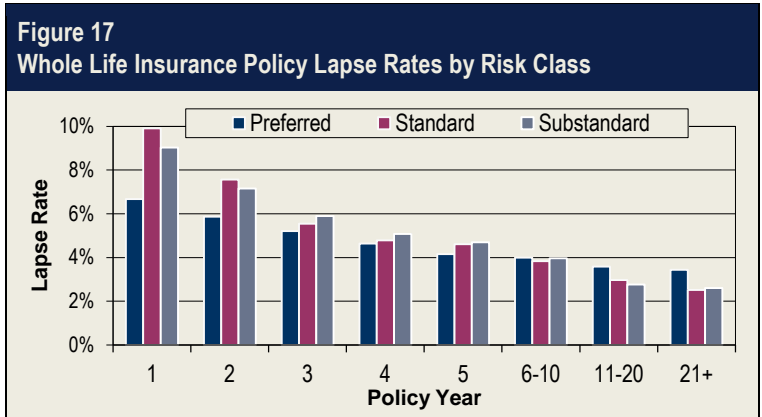
Risk Class

Table 10 gives the average face amounts and distribution of policy exposures for the 17 contributing whole life carriers that provided data by risk class. Regardless of the change in contributing whole life carriers from each study, the distribution of policy exposures by risk class stays more or less the same, with the vast majority of exposure in the standard risk class.

The preferred risk class continues to carry a significantly higher average face amount compared to the standard and substandard risk class policies. However, over the past 2 studies, the gap has narrowed. The average face amount of preferred risk class policies has declined considerably while averages for standard and substandard risk class policies have increased.

Table 10
Whole Life Policy Exposure by Risk Class

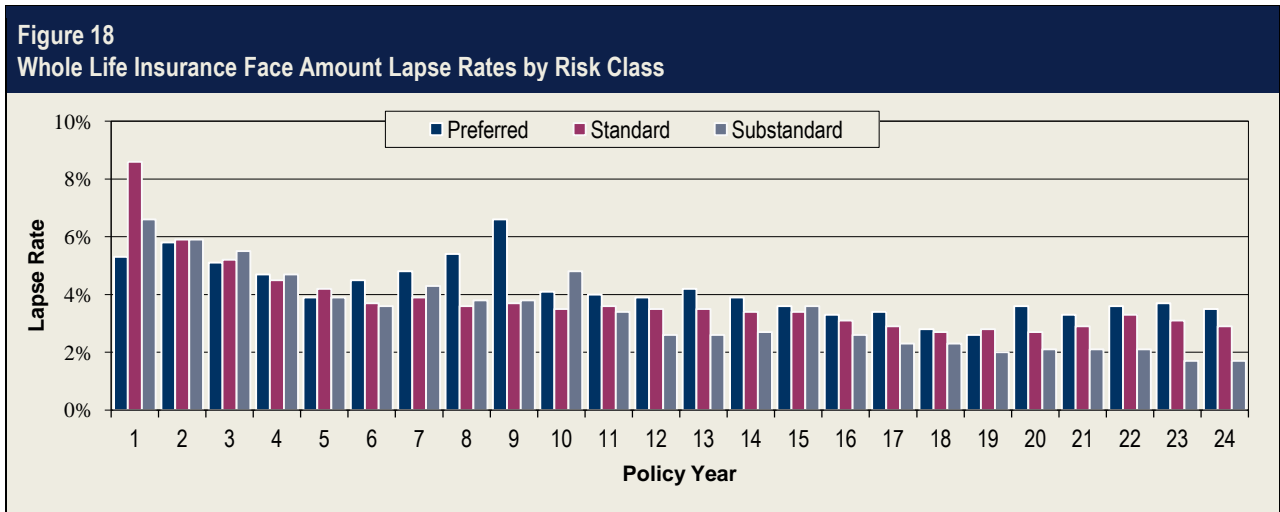
Risk Class	Average Face Amount Exposed	Percent of Policy Exposure
Preferred	\$158,000	5%
Standard	\$30,000	89%
Substandard	\$46,000	6%



In early policy years, lapse rates for preferred risk class policies tend to be much lower than those with standard and substandard risk; see Figure 17. This is partially due to the trend of the larger preferred risk policies having lower lapse rates in early policy years compared to the smaller standard and substandard risk policies. Because of the variations of standard risk classes among carriers, the higher lapse rates in early policy years can also be attributed to additional price comparison shop.

However, as the policies’ size attribute wears off, lapse rates for preferred risk classes become higher than those with standard and substandard risk. The turning point begins in policy year six. This is more noticeable with lapse rates on a face amount basis, due to the weight of the larger preferred risk class policies; see Figure 18.

However, as the policies’ size attribute wears off, lapse rates for preferred risk classes become higher than those with standard and substandard risk. The turning point begins in policy year six. This is more noticeable with lapse rates on a face amount basis, due to the weight of the larger preferred risk class policies; see Figure 18.



Smoking Status

The whole life policy exposure in the current study was 75% nonsmoker, a decline from the 81% nonsmoker exposure in the 2004–2005 Persistency Study. This percentage fluctuates with the change in contributing whole life carriers. As with prior studies, smokers exhibit much higher lapse rates than nonsmokers during the first few policy years; see Figures 19 and 20. They then settle into a matching lapse pattern in later years.

Figure 19
Whole Life Insurance Policy Lapse Rates by Smoking Status

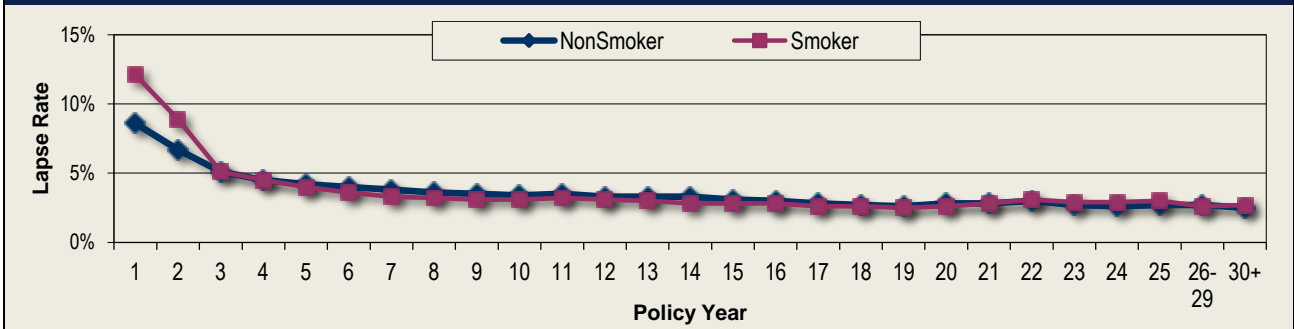
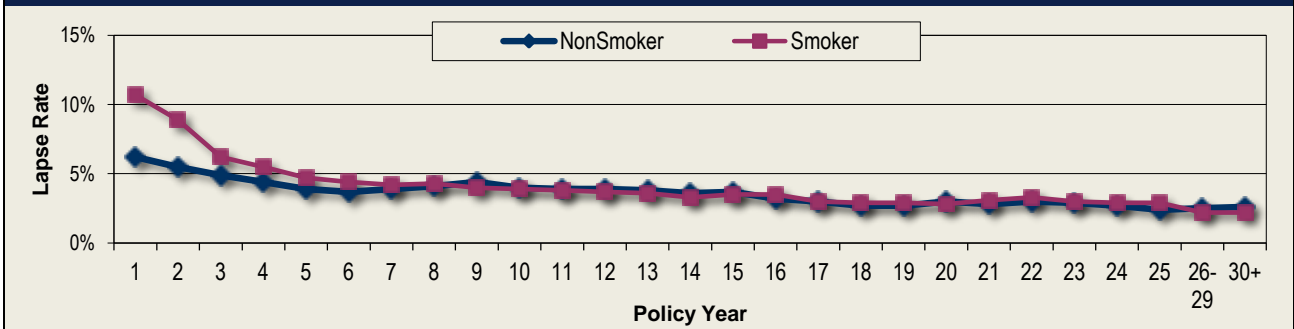


Figure 20
Whole Life Insurance Face Amount Lapse Rates by Smoking Status



Underwriting Method

The whole life policy exposure base in the current study consists of 13% medical, 11% paramedical, 64% non-medical, 5% simplified issue and 7% guaranteed issue. Consistent with past studies, whole life policies issued on a non-medical basis or on a simplified issue basis typically have higher premiums and experience higher lapse rates during early policy years, while policies issued with full medical or paramedical underwriting exhibit lower policy lapse rates; see Figures 21 and 22. However, the difference is significant only in the early policy years.

Figure 21
Whole Life Insurance Policy Lapse Rates by Underwriting Method

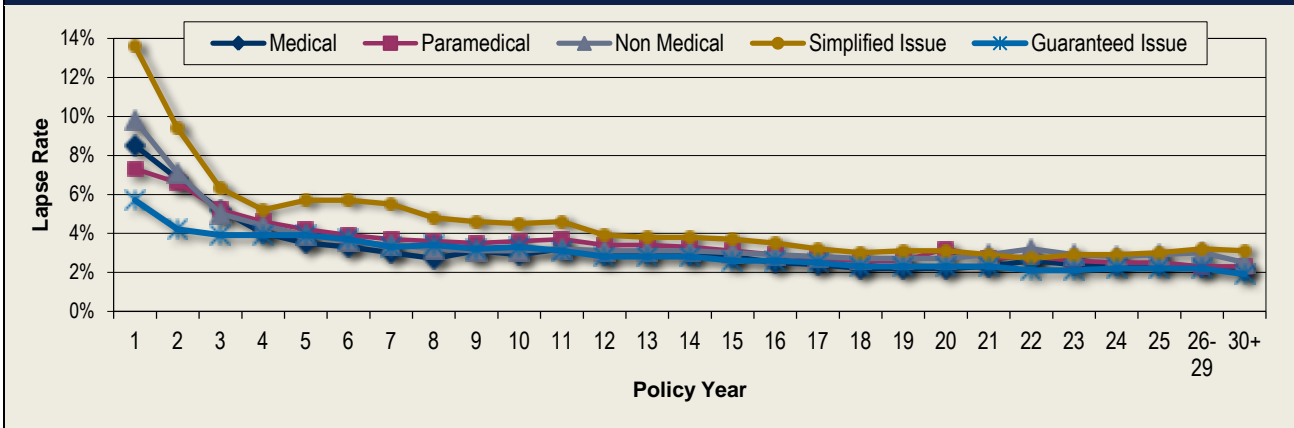
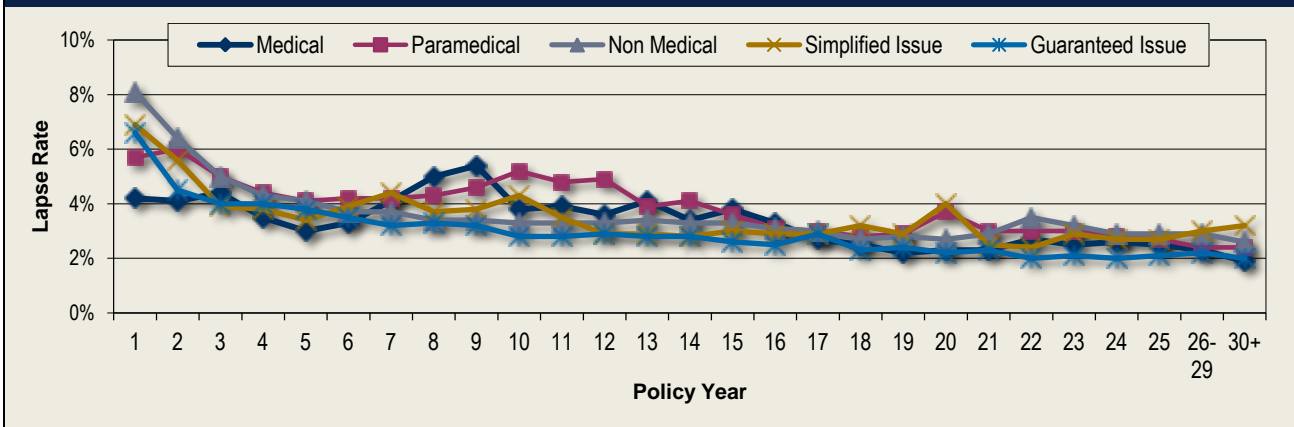


Figure 22
Whole Life Insurance Face Amount Lapse Rates by Underwriting Method



Term Life

Term life insurance data shown in this section was based on data from 29 contributors. Overall lapse rates for term life insurance have declined steadily over the past few studies. The overall annual policy lapse rate in the current study was 6.4% annually, down from 6.6% in the 2004–2005 Persistency Study. Lapse rates in the first ten policy years have decreased significantly due to the increase of level premium term business over the past decade; see Figure 23. However, for policy years 11 and later, lapse rates have increased due to the impact of shock lapse rates for these level premium term plans. Similar patterns emerge for lapses on a face amount basis; see Figure 24.

Figure 23
Term Insurance Policy Lapse Rates Trends

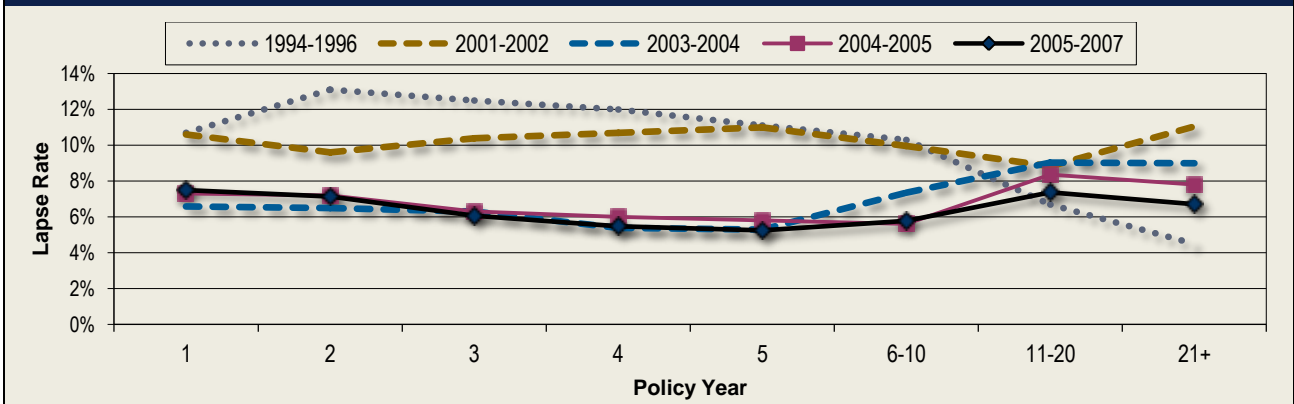
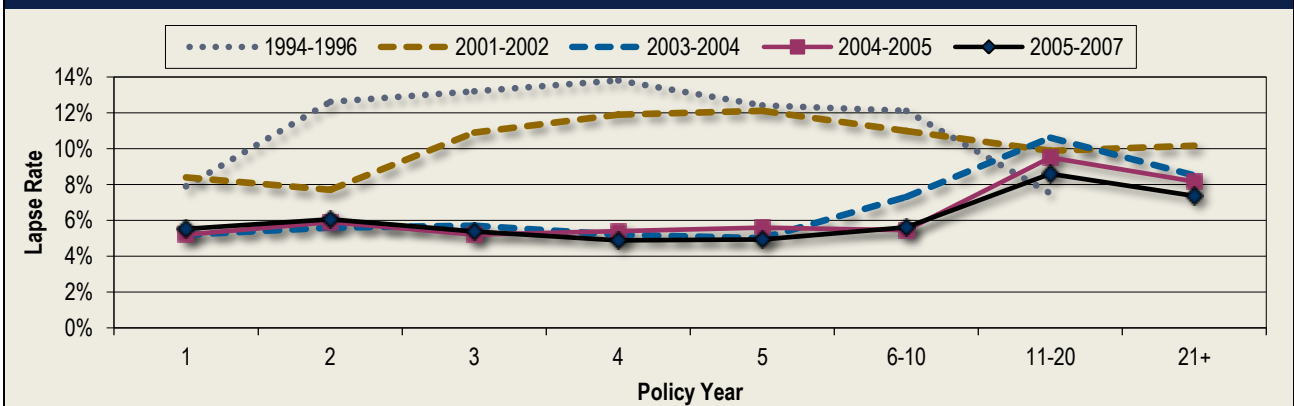


Figure 24
Term Insurance Face Amount Lapse Rates Trends



Premium Guarantee Period

Table 11 details the exposure distribution split by plan for the 23 term life insurance carriers that provided data. With the exception of five year level premium term plans, the average first year face amount has increased from the prior two studies.

While total lapse rates for term products have steadily decreased from the prior studies, first year lapse rates for longer duration level premium term plans have increased. Table 12

provides first year lapse rates by term plans in the current study. The most significant shift was seen on 10-year level premium term plans. First year policy lapse rates increased from 6.7% in the 2004–2005 Persistency Study to 8.8% in the current study. Policy lapse rates for 15- and 20-year level premium term plans and their respective face amount lapse rates also increased, but to a lesser extent. Correspondingly, the five-year persistency of these longer duration level premium term plans has decreased. Table 13 provides five-year persistency by term plans in the current study.

Plan	Average First Year Face Amount Exposed	Average Total Face Amount Exposed	Percent of Policy Exposure
YRT	\$446,000	\$240,000	22%
5 Year	\$114,000	\$120,000	2%
10 Year	\$548,000	\$355,000	16%
15 Year	\$488,000	\$348,000	7%
20 Year	\$534,000	\$408,000	26%

Plan	First Year Policy Lapse Rate	First Year Face Amount Lapse Rate
YRT	7.4%	4.7%
5 Year	14.6%	11.9%
10 Year	8.8%	6.7%
15 Year	6.4%	4.9%
20 Year	6.2%	4.8%

Plan	Policy Basis	Face Amount Basis
YRT	67%	72%
5 Year	58%	56%
10 Year	68%	70%
15 Year	77%	79%
20 Year	76%	79%

On the other hand, first year lapse rates for yearly renewable term (YRT) and five-year level premium term plans have decreased significantly over the prior study. First year policy lapse rates in the 2004–2005 Persistency Study were 10.3% for YRT and 21.9% for five-year level premium term plans.

As with past studies, term plans with the longest premium guarantee periods (15- and 20-year) have the lowest lapse rates in early policy years, while five-year level premium term plans have the higher lapse rates; see Figure 25. Lapse rates are relatively level by duration, with the exception of the years around the end of the level premium guarantee period where shock lapses occur, as depicted in Figure 26.

Figure 25
Term Insurance Policy Lapse Rates by Level Premium Period — Policy Years 1–8

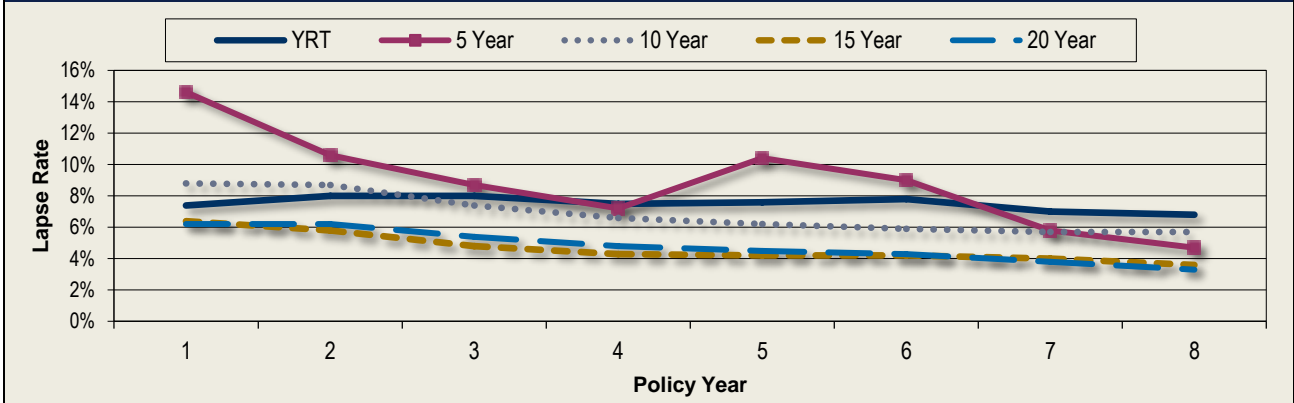
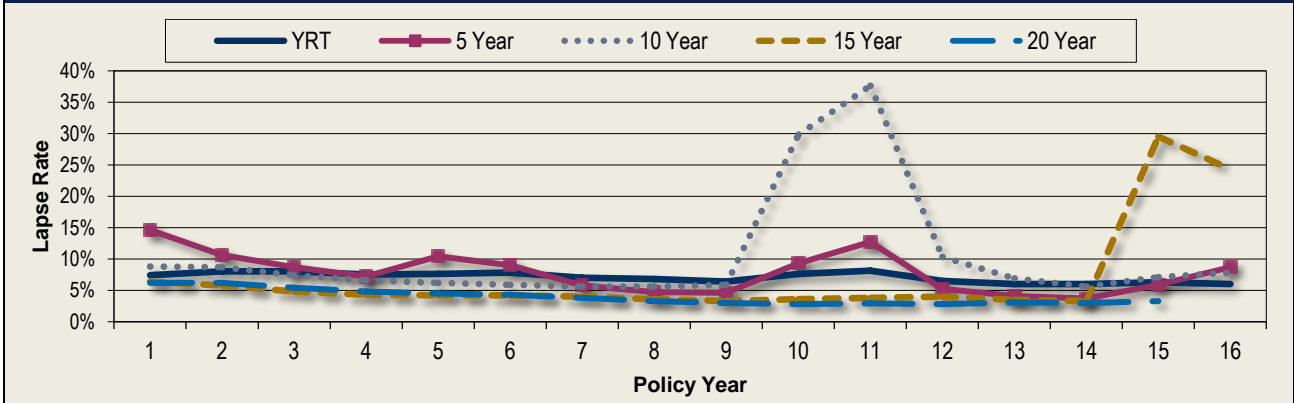
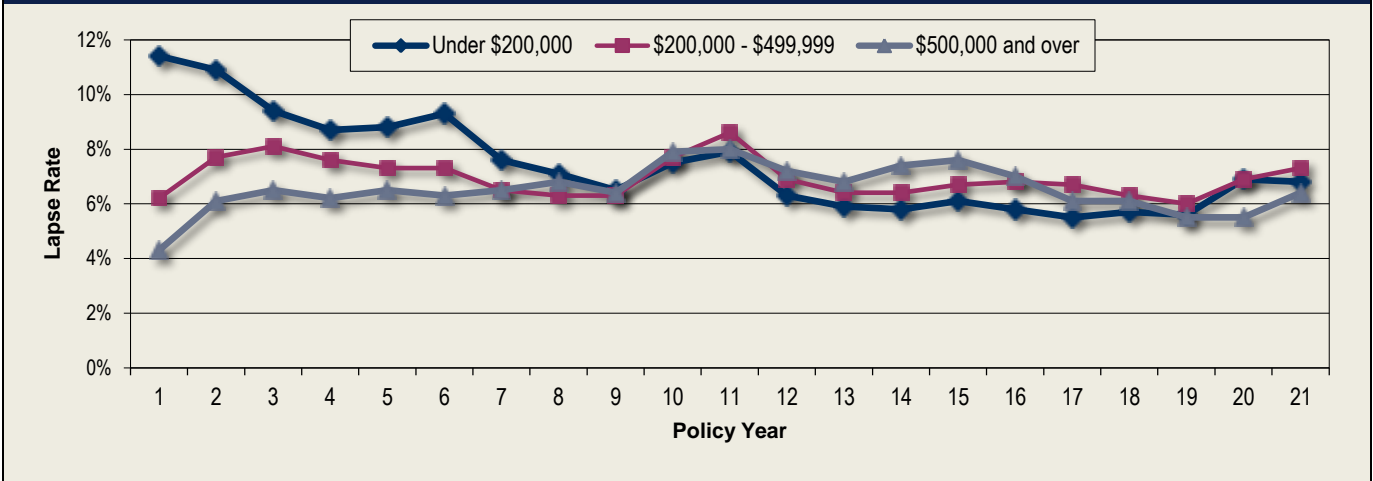


Figure 26
Term Insurance Policy Lapse Rates by Level Premium Period



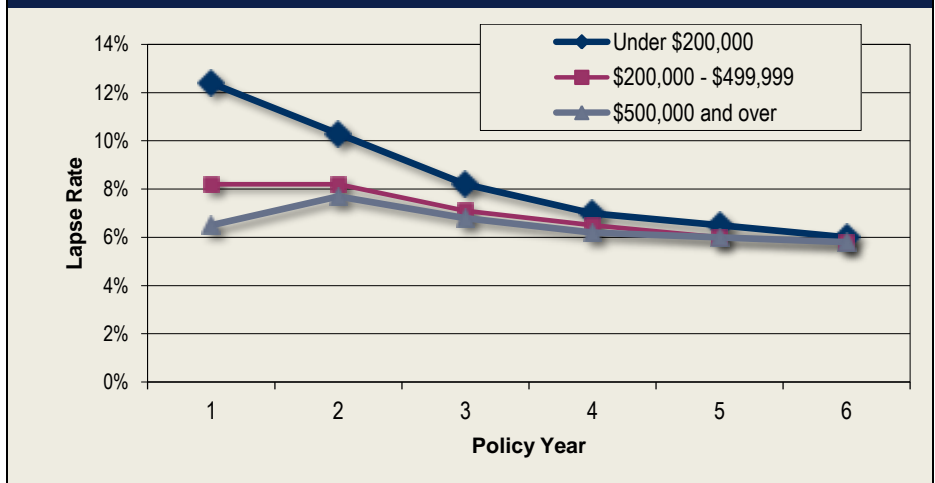
Looking at term life insurance by policy size, policies with face amounts under \$200,000 are more likely to lapse in the first few policy years than policies with higher face amounts. Experience by policy size for YRT plans are shown in Figure 27.

Figure 27
YRT Insurance Policy Lapse Rates by Policy Size



Similar to whole life trends, smaller sized policies have a high first year lapse rate. Early policy lapse rates are followed by lower and steadily declining lapse rates in later years. However, one peculiarity for term life insurance is that larger policies have elevated lapse rates after policy year one, a pattern typical in variable universal life experience, likely due to continued comparison shopping. This is

Figure 28
10-Year Level Premium Term Policy Lapse Rates by Policy Size

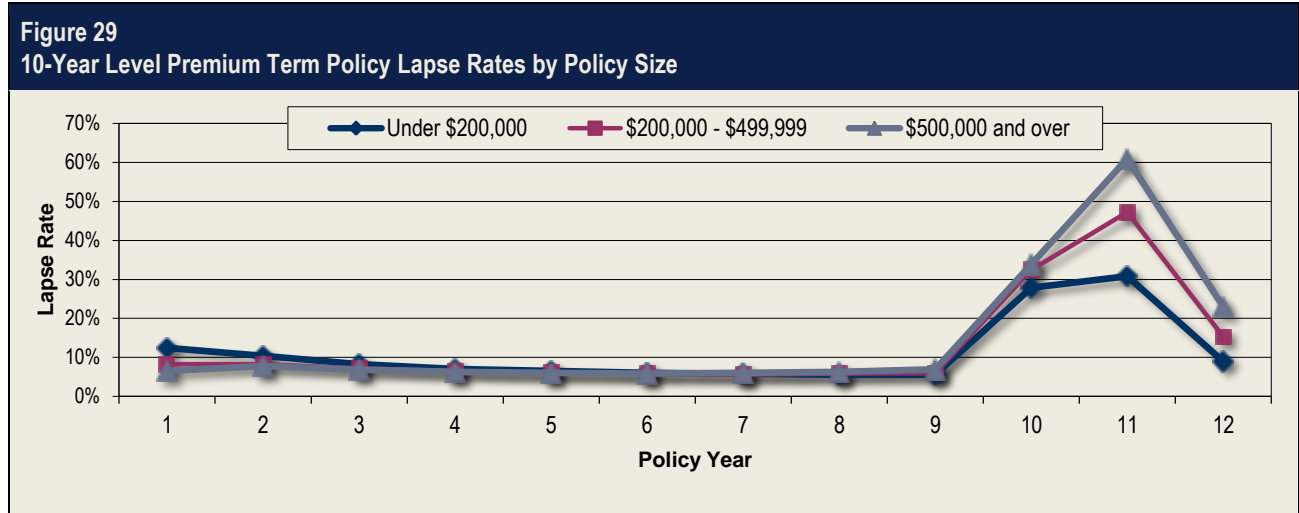


most conspicuous in the YRT plans, see Figure 27, and also visible in the 10-year level premium term plans; see Figure 28.

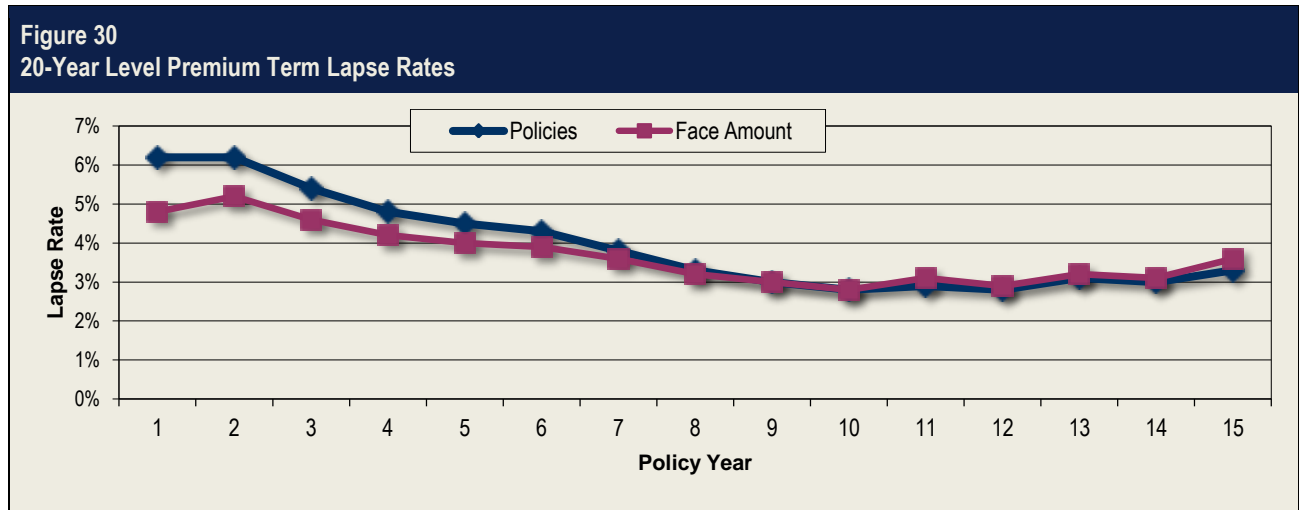
With the exception of the first three years, lapse rates for 10-year level premium term plans are relatively level by duration during the premium guarantee period; see Figure 29. Shock lapse rates average 37% on a policy bases and 48% on a face amount basis in policy year 11. Variations in shock lapse rates are very noticeable by policy size. Policies with larger face amounts exhibit higher shock lapse rates in policy years 10 to 12. This is most likely due to the greater differential in premium after the level premium guarantee period. It is also likely that

these wealthier policyholders have other options in permanent life insurance to consider at the end of the level premium guarantee period.

It is important to note that the level premium term plans included in this study were designed and priced with the post-guarantee period premium levels of 10 or more years ago. Future shock lapse rates are likely to be higher than the results shown.



For 20-year level premium term plans, because only a handful of carriers reported data beyond policy year 13, industry lapse results near the expiration of the level premium guarantee period are unknown; see Figure 30. General results show a similar pattern to 10-year level premium term plans. In early policy years, lapse rates on a policy basis are higher than lapse rates on a face amount basis. During the middle of the level premium guarantee period, lapse rates are nearly identical. However, in later policy years, lapse rates on a face amount basis increase at a faster rate when approaching the end of the level premium guarantee period. Shock lapse rates also tend to be substantially higher on a face amount basis than policy basis due to the more significant change in premium for larger policies, Figure 33 versus 34.



Gender

Overall term exposure by gender was skewed towards males. However, exposure trends vary by the type of term life insurance plan. Male exposure for term life insurance plans with longer level premium guarantee periods has increased over the past three studies on a policy and face amount basis. Plans with shorter level premium guarantee periods seem to be trending towards a more even split, with increasing exposure on both policy and face amount basis for females.

Policy and face amount lapse rates by gender are shown in Figures 31 to 36 for YRT, 10-year and 20-year level premium term plans. Overall trends show higher lapse rates for males over females; however, there are select policy years where the opposite is true. Lapse rates for plans with shorter level premium guarantees (YRT and five-year) show higher lapse rates for males across most policy years. Plans with longer level premium guarantees show slightly higher lapse rates for females in early policy years. This trend changes immediately before the shock lapse rate, with shock lapse rates notably higher for males than for females. This trend is difficult to see in Figures 33 and 34 due to the magnitude of the shock lapse, but can be seen when looking at the excel spreadsheet. While the shock lapse experience has yet to be seen for 20-year level premium term plans, experience so far continues to trend closely to 10-year level premium term plans.

Table 14
Term Distribution of Exposure by Gender

Plan	Policy Basis		Face Amount Basis	
	Males	Females	Males	Females
YRT	57%	43%	69%	31%
5 Year	54%	46%	64%	36%
10 Year	65%	35%	78%	22%
15 Year	65%	35%	76%	24%
20 Year	61%	39%	71%	29%

Figure 31
YRT Policy Lapse Rates by Gender

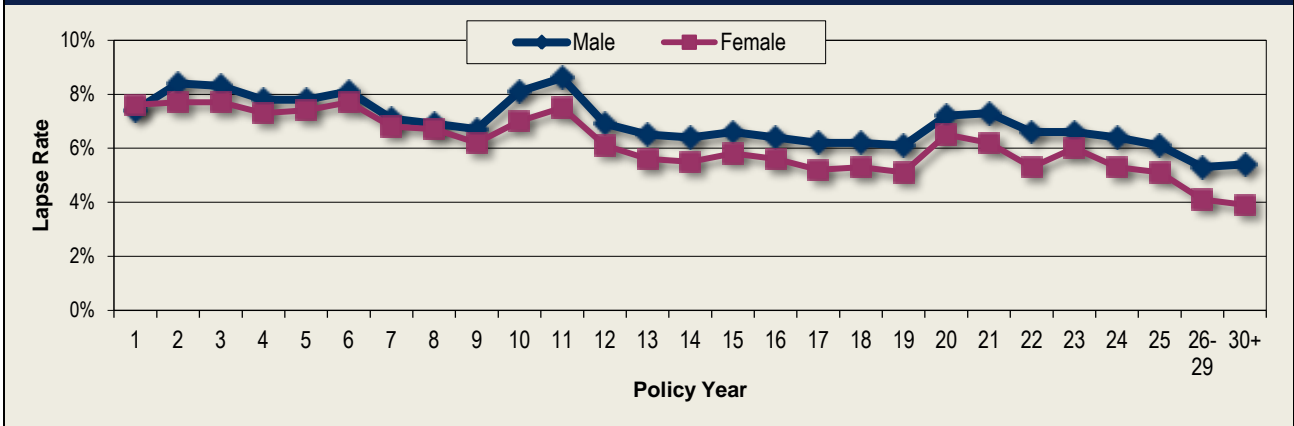


Figure 32
YRT Face Amount Lapse Rates by Gender

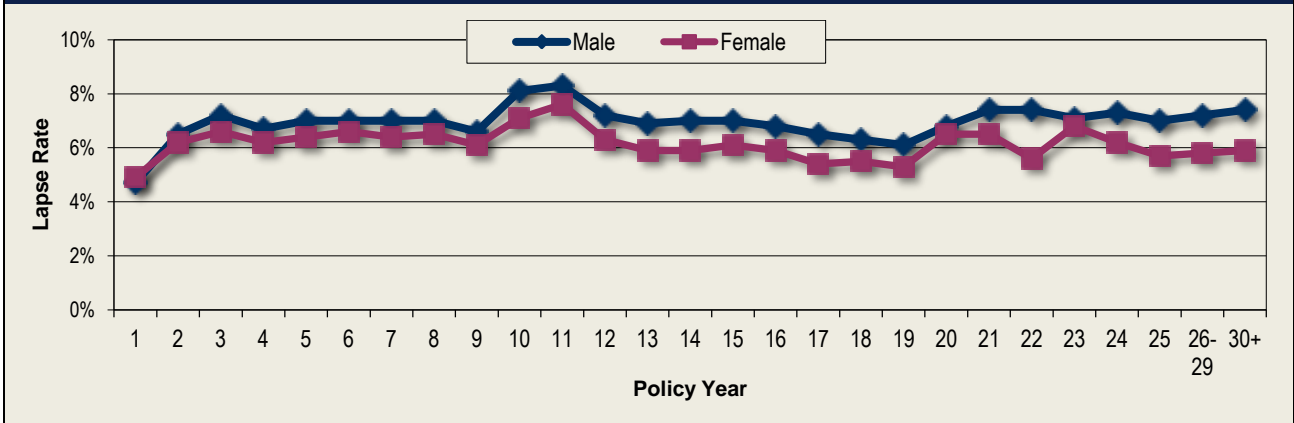


Figure 33
10-Year Level Premium Term Policy Lapse Rates by Gender

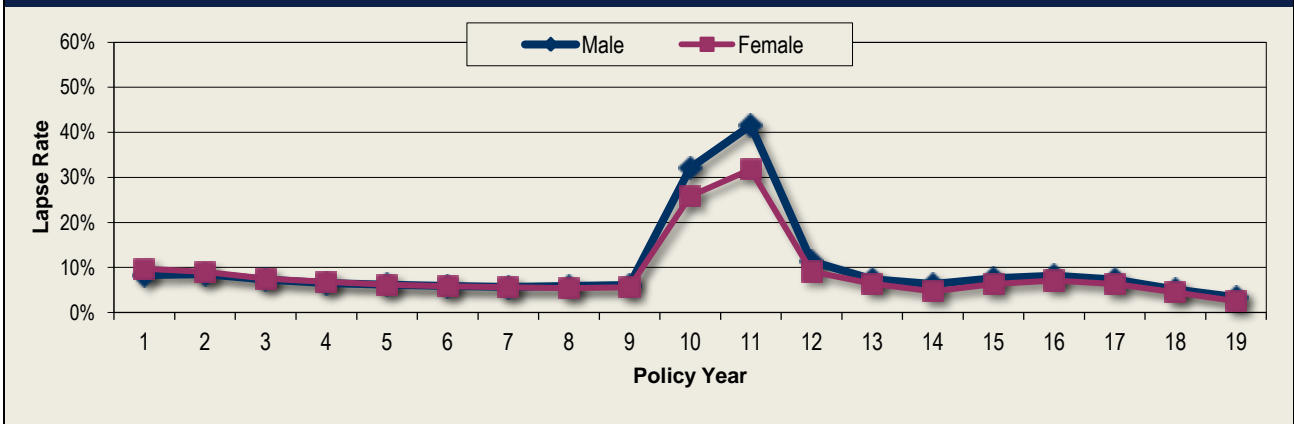


Figure 34
10-Year Level Premium Term Face Amount Lapse Rates by Gender

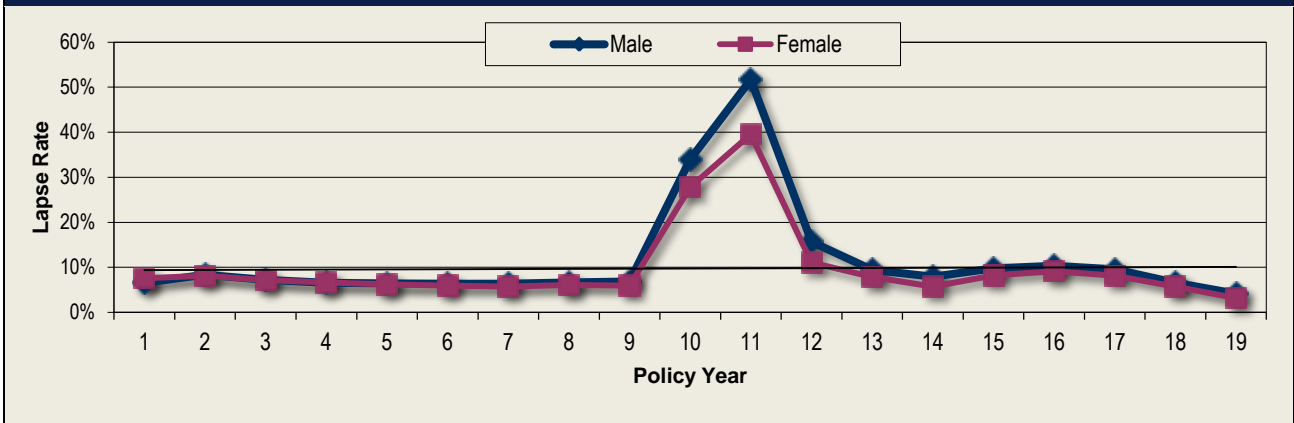


Figure 35
20-Year Level Premium Term Policy Lapse Rates by Gender

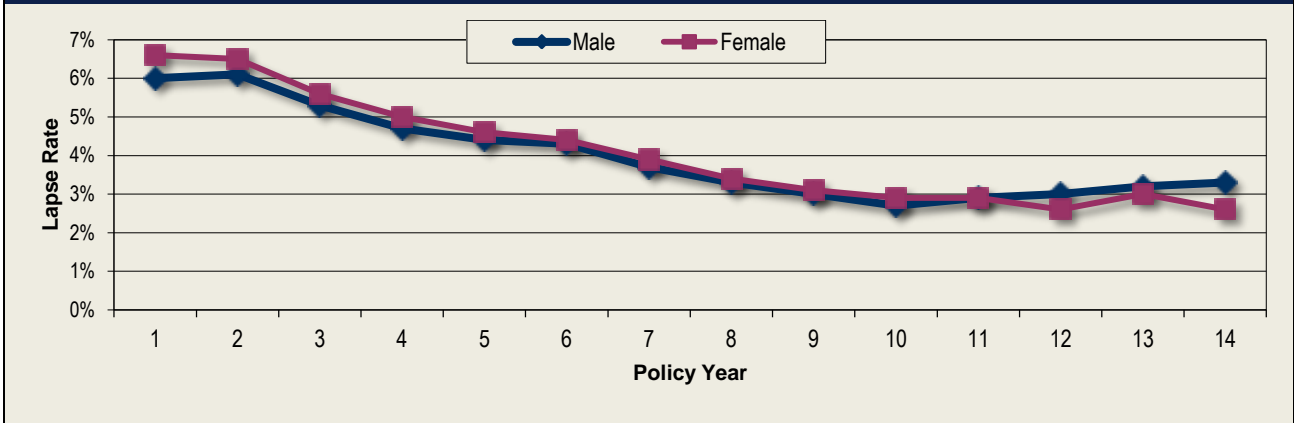
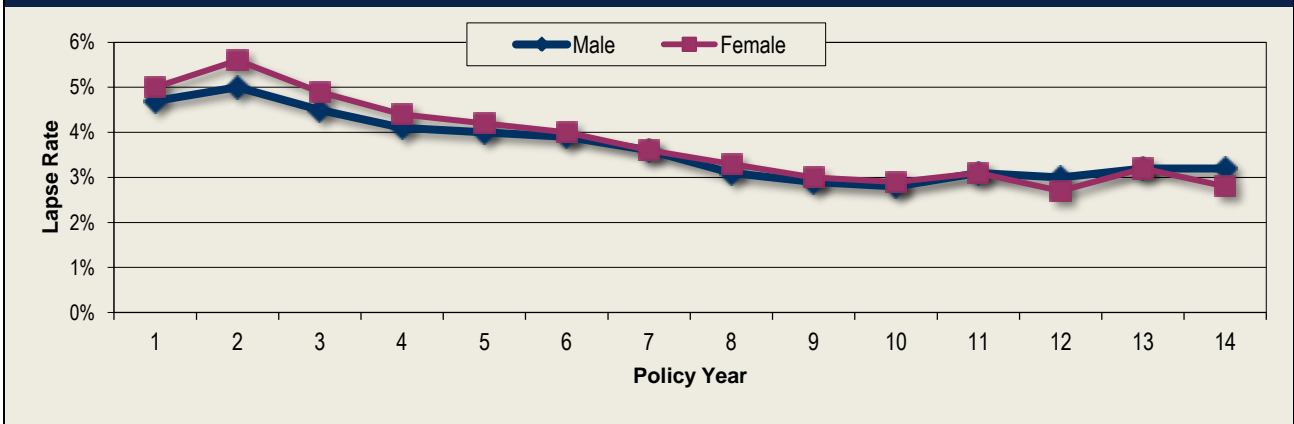


Figure 36
20-Year Level Premium Term Face Amount Lapse Rates by Gender



Issue Age

The distribution of policies by issue age cohorts has changed minimally across the different plans, with the majority of issues still in the 30s and 40s; see Table 15. However, the average face amount exposed for YRT plans has decreased for all issue ages from the prior studies. This was likely due to the increased popularity of longer duration level premium term plans, where average face amount has steadily increased from prior studies across all issue ages.

Issue Age	Average Face Amount Exposed			Percent of Policy Exposure		
	YRT	10 Year LPT	20 Year LPT	YRT	10 Year LPT	20 Year LPT
20-29	\$178,000	\$230,000	\$296,000	24%	13%	12%
30-39	\$278,000	\$337,000	\$449,000	52%	33%	42%
40-49	\$255,000	\$406,000	\$436,000	20%	32%	33%
50-59	\$181,000	\$407,000	\$333,000	4%	22%	13%

Policy and face amount lapse rates by issue age cohort are shown in Figures 37 to 42 for YRT, 10-year and 20-year level premium term plans. Overall trends for level premium guarantee plans continue to show higher lapse rates in early policy years for younger issue age cohorts, while issue ages in the 30s and 40s have very similar lapse patterns. The one exception is YRT plans, where older issue age cohorts have higher lapse rates through most policy years, likely due to the increasing cost of insurance at older ages.

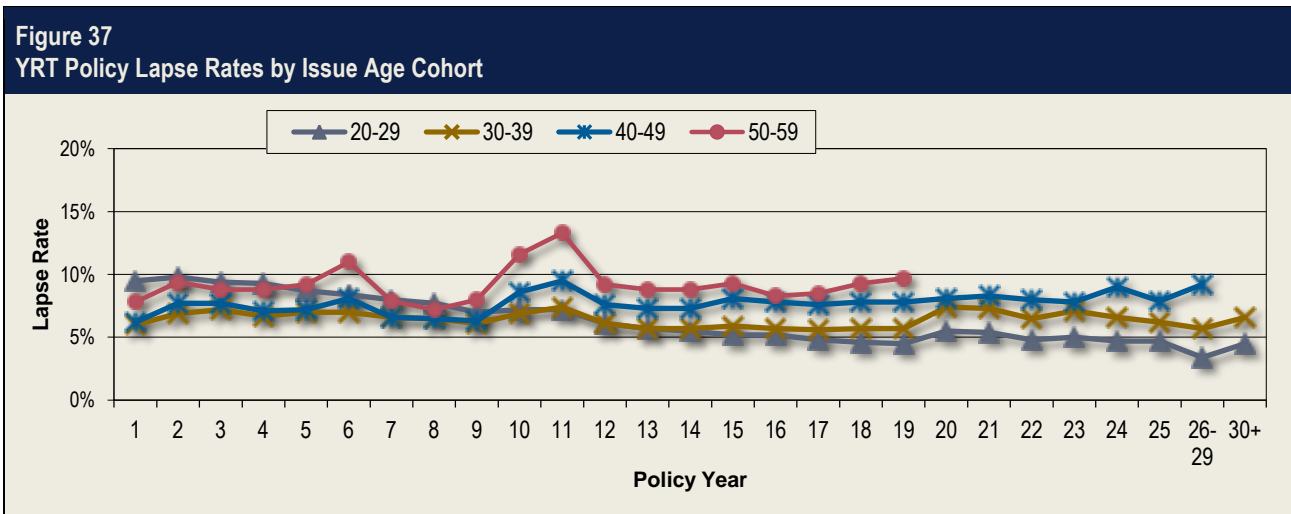


Figure 38
YRT Face Amount Lapse Rates by Issue Age Cohort

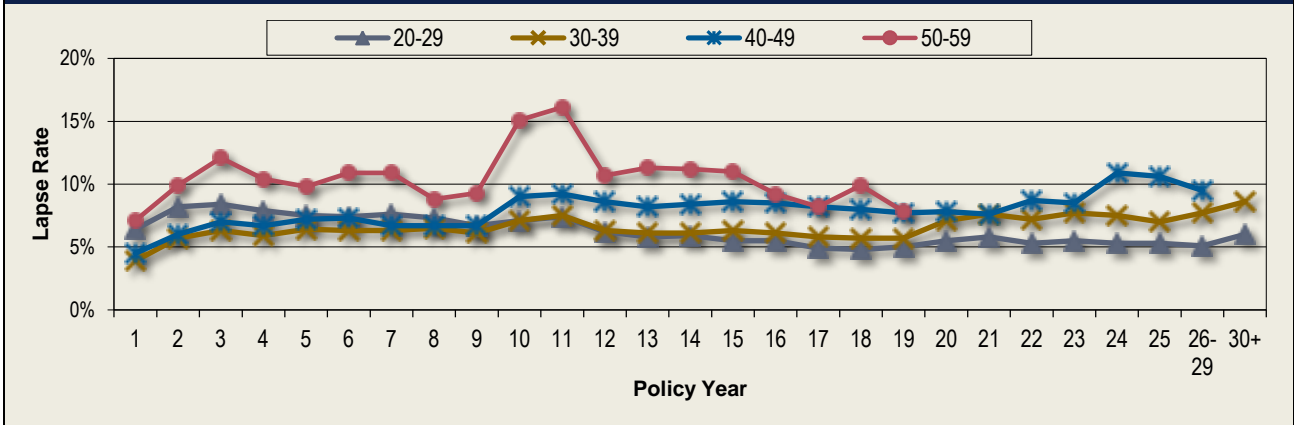


Figure 39
10-Year Level Premium Term Policy Lapse Rates by Issue Age Cohort

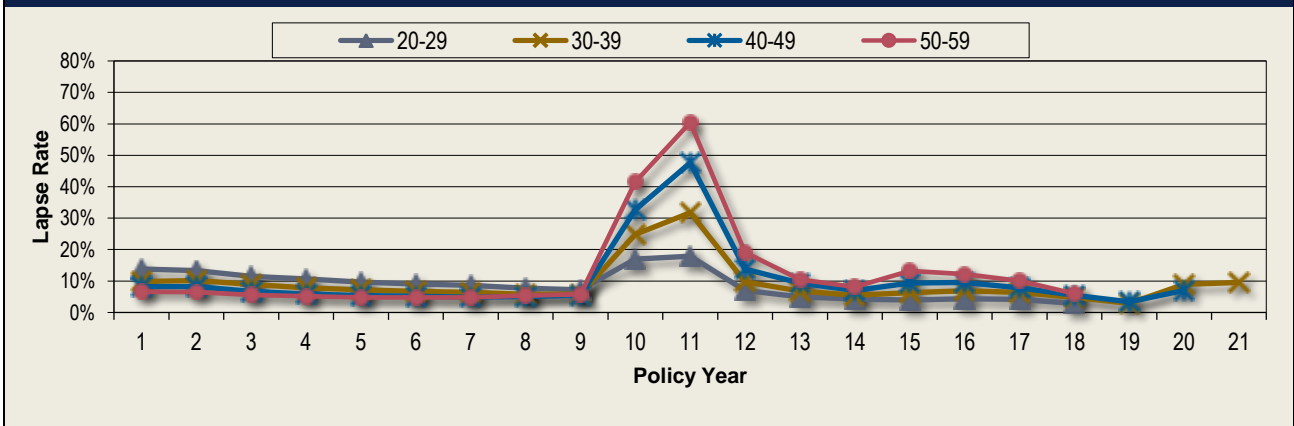


Figure 40
10-Year Level Premium Term Face Amount Lapse Rates by Issue Age Cohort

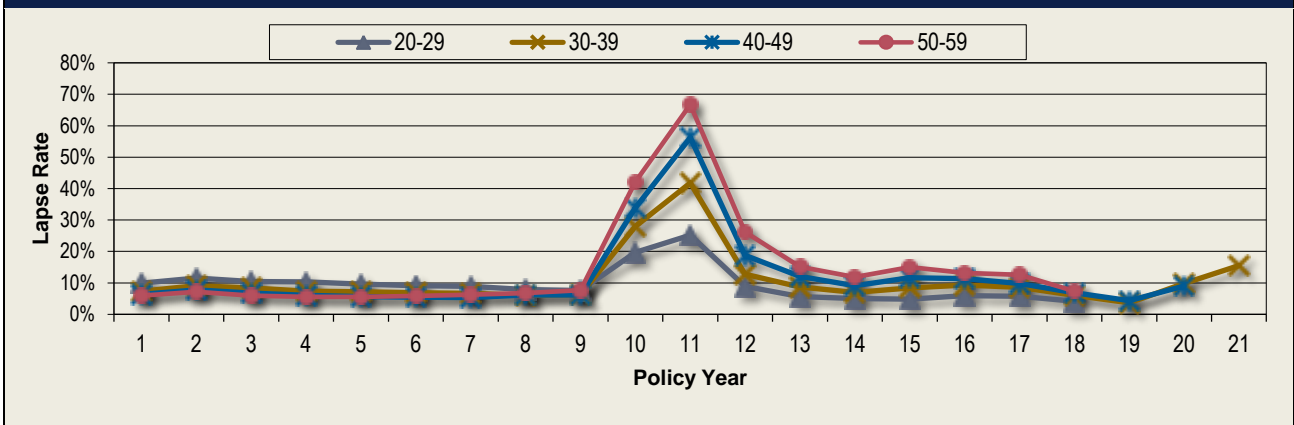


Figure 41
20-Year Level Premium Term Policy Lapse Rates by Issue Age Cohort

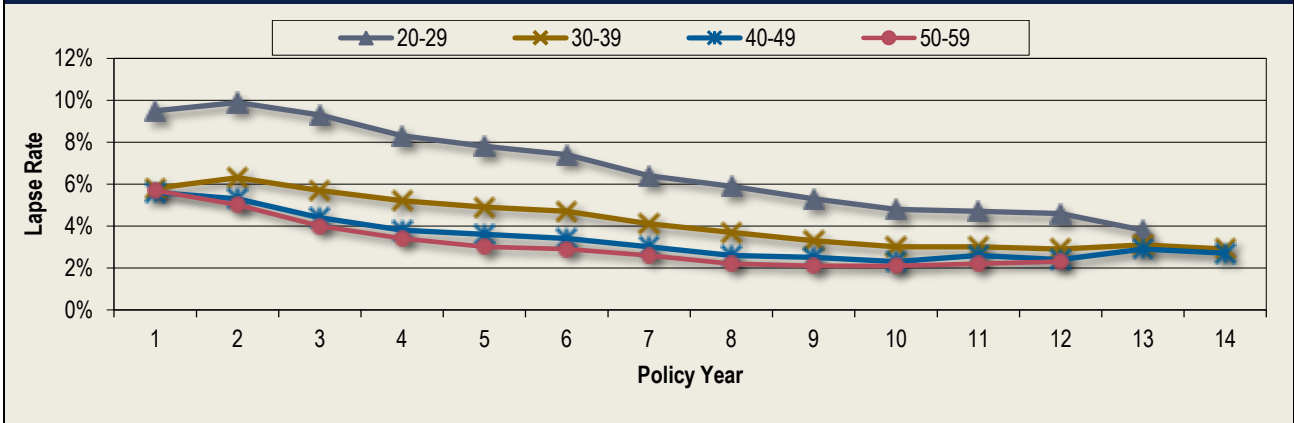
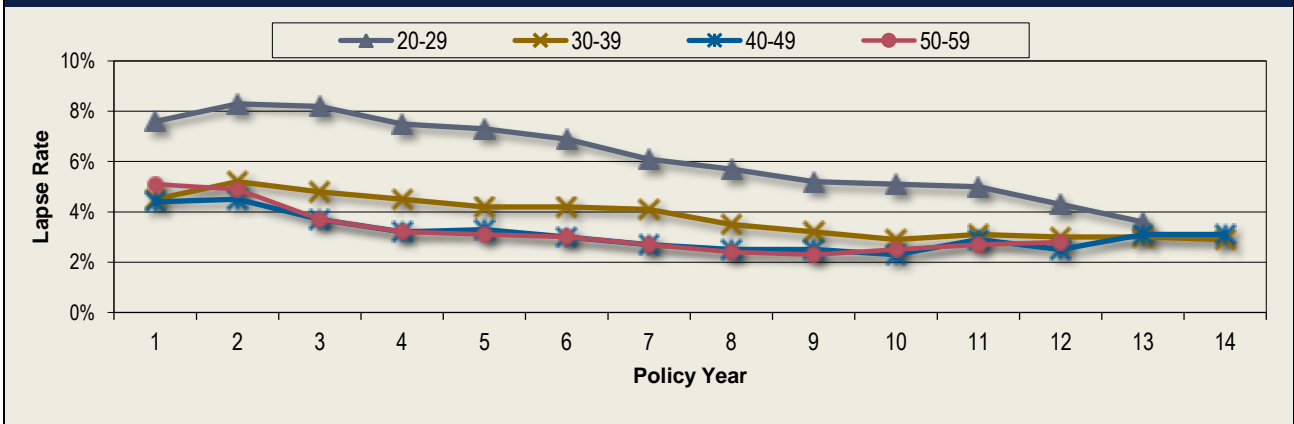
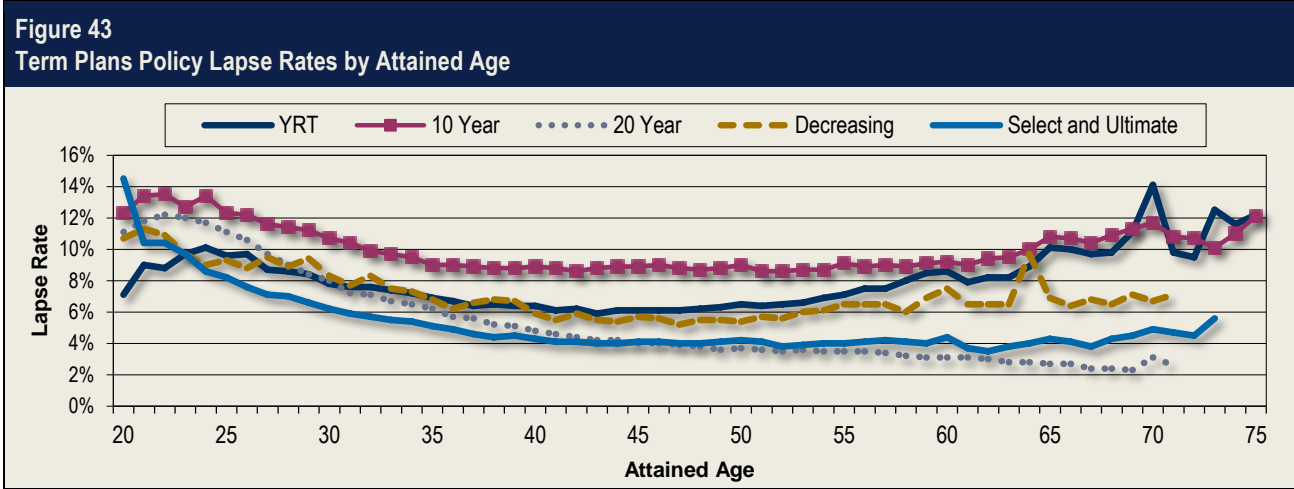


Figure 42
20-Year Level Premium Term Face Amount Lapse Rates by Issue Age Cohort



Attained Age

Figure 43 shows lapse rates at different attained ages by various term plans. In addition to YRT and level premium term experience, this study includes experience for decreasing and select and ultimate term. Select and Ultimate and 20-year level premium term plans exhibit lower rates of lapsation than other term products after attained age 35. Only YRT and decreasing term plans show a material increase in lapse rates around retirement ages, similar to whole life experience; see Figure 14.



Premium Payment Mode

The distribution of policies by premium payment mode has trended towards an increase of monthly premium payment mode, while there has been continued decline of semi-annual and annual premium payment modes. Table 16 provides exposure and average face amount exposure data by plan for each premium payment mode.

Table 16
Term Insurance Policy Exposure by Premium Payment Mode

Premium Payment Mode	Average Face Amount Exposed			Percent of Policy Exposure		
	YRT	10 Year LPT	20 Year LPT	YRT	10 Year LPT	20 Year LPT
Annual	\$354,000	\$782,000	\$686,000	17%	27%	24%
Semi Annual	\$296,000	\$498,000	\$513,000	4%	6%	5%
Quarterly	\$314,000	\$420,000	\$439,000	13%	19%	16%
Monthly	\$294,000	\$344,000	\$396,000	66%	48%	55%

Similar to permanent insurance experience, quarterly-pay policies exhibit the highest lapse rates while monthly-pay policies exhibit the lowest lapse rates; see Figure 44. This trend is also seen at the plan level; see Figures 45 to 47.

Figure 44
Term Plans Policy Lapse Rates by Premium Payment Mode

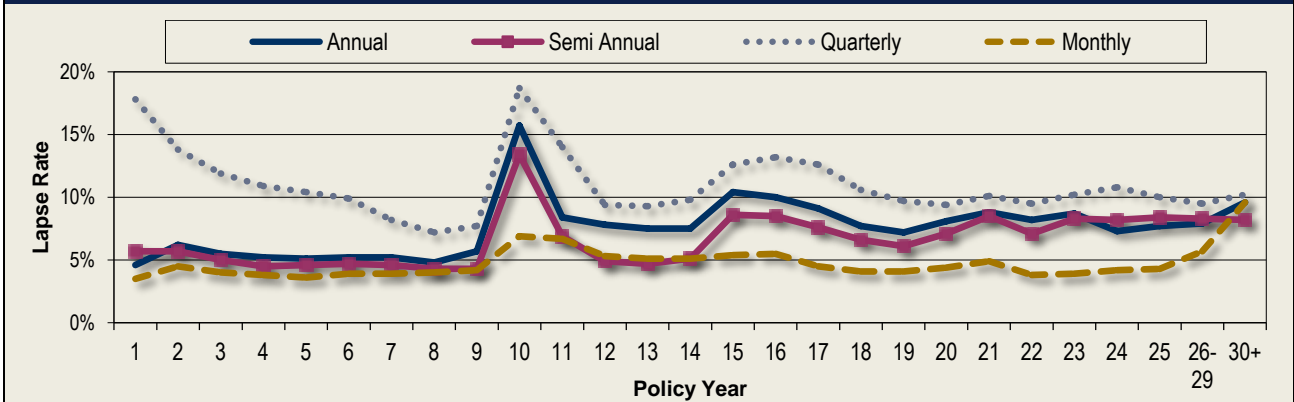


Figure 45
YRT Policy Lapse Rates by Premium Payment Mode

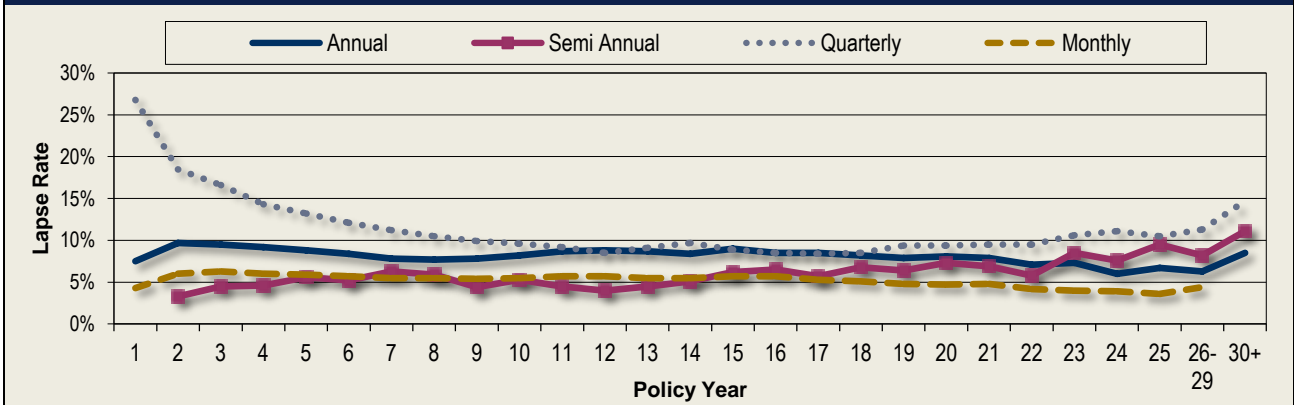


Figure 46
10-Year Level Premium Term Policy Lapse Rates by Premium Payment Mode

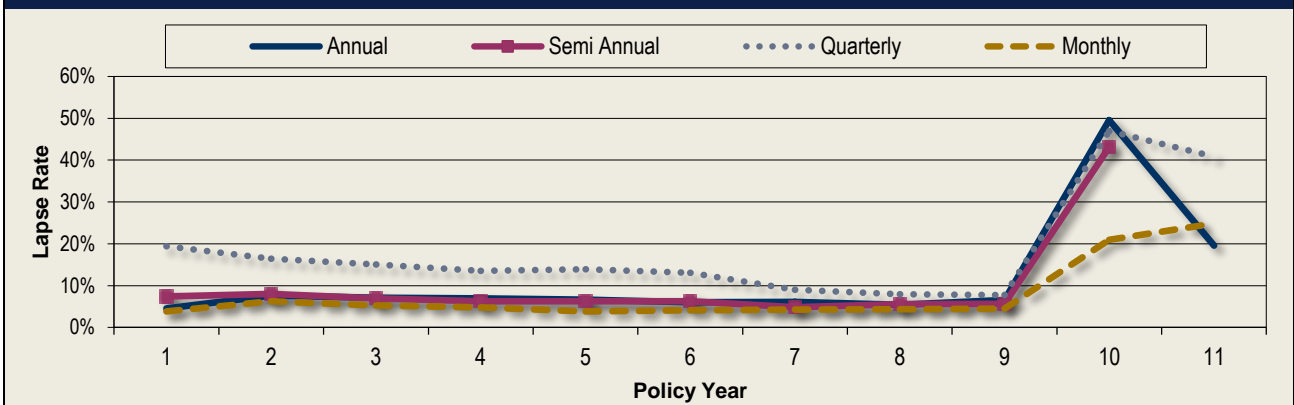
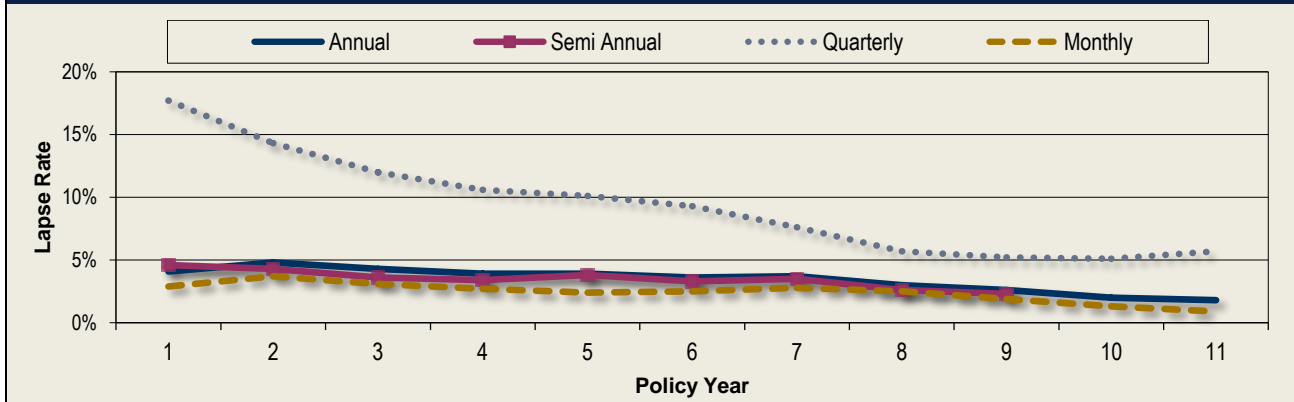


Figure 47
20-Year Level Premium Term Policy Lapse Rates by Premium Payment Mode



Risk Class

The distribution of policies by risk class has shifted back to levels seen in the 2003–2004 study, with a more even split between standard and preferred risk class policies. However, the average face amount exposed for preferred risk class policies has steadily increased over the past studies while the average face amount exposed for standard risk class policies have decreased.

Table 17
Term Insurance Policy Exposure by Risk Class

Risk Class	Average Face Amount Exposed	Percent of Policy Exposure
Preferred	\$428,000	45%
Standard	\$292,000	49%
Substandard	\$330,000	6%

Term policies classified as falling within standard and substandard risk classes at issue continue to have higher lapse rates during the early policy years; see Figures 48 and 49. This trend reverses with a spike in policy years 10, 11 and 15 due to the shock lapse rate from 10-year and 15-year level premium term.

While early policy year lapse rates of standard and substandard risk class policies have declined over the past studies, the shock lapse rates of preferred risk class policies have increased.

Figure 48
Term Insurance Policy Lapse Rates by Risk Class

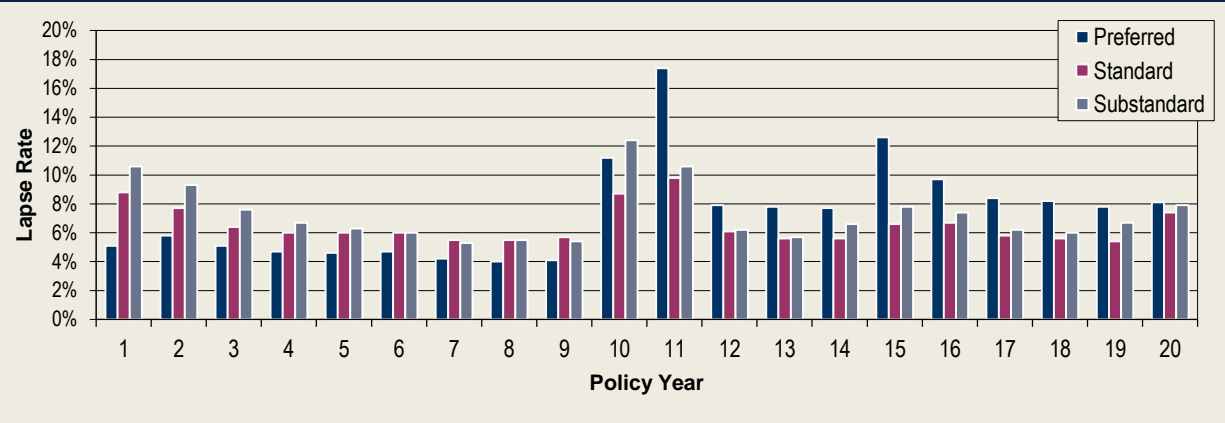
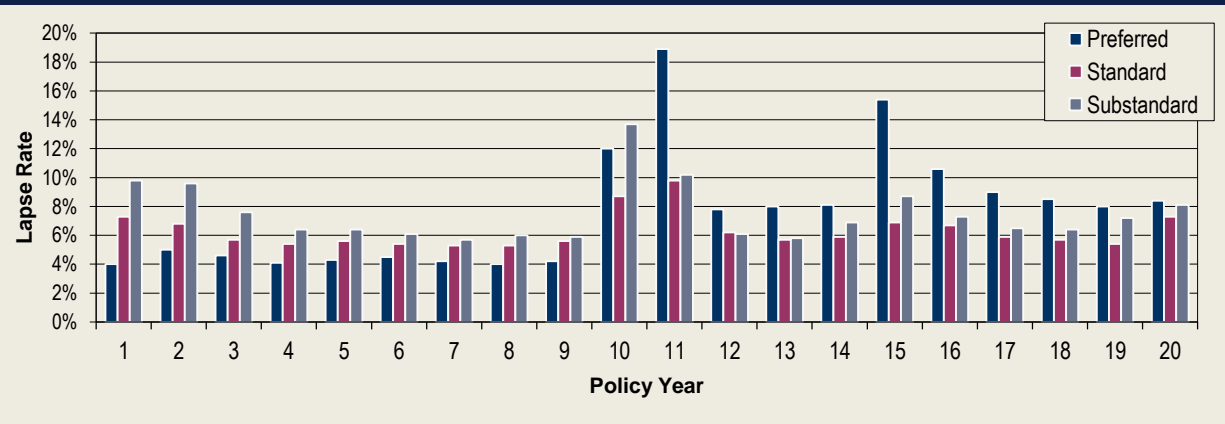


Figure 49
Term Insurance Face Amount Lapse Rates by Risk Class



Smoking Status

The distribution of policies by smoking status has remained much the same over the past studies. Average face amount exposed continues to increase for 20-year level premium term plans for both non-smoker and smoker statuses. Meanwhile, YRT and 10-year level premium term plans have seen a slight decrease; see Table 18.

Table 18
Term Insurance Policy Exposure by Smoking Status

	<u>Average Face Amount Exposed</u>			<u>Percent of Policy Exposure</u>		
	YRT	10 Year LPT	20 Year LPT	YRT	10 Year LPT	20 Year LPT
Non-smokers	\$257,000	\$377,000	\$421,000	89%	88%	93%
Smokers	\$130,000	\$231,000	\$237,000	11%	12%	7%

Smokers lapse more often than non-smokers in the early policy years; see Figure 50. Consistent with YRT, 10-year and 20-year level premium term plans also exhibit similar trends with smoker lapse rates dropping below

non-smoker rates shortly after the shock lapse; see Figures 51 to 54. Face amount lapse rates for YRT are nearly identical to policy lapse rate trends.

Figure 50
YRT Policy Lapse Rates by Smoking Status

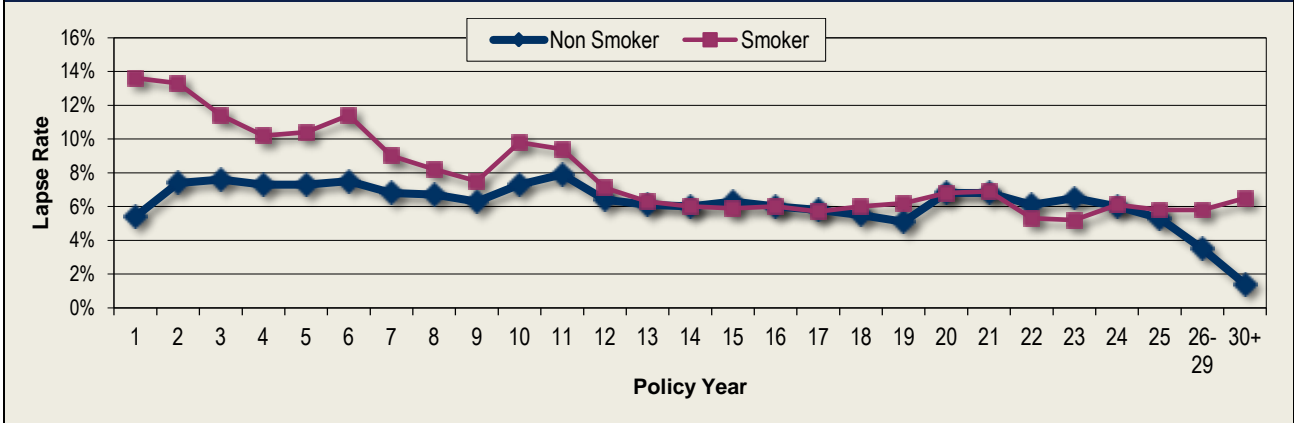


Figure 51
10-Year Level Premium Term Policy Lapse Rates by Smoking Status

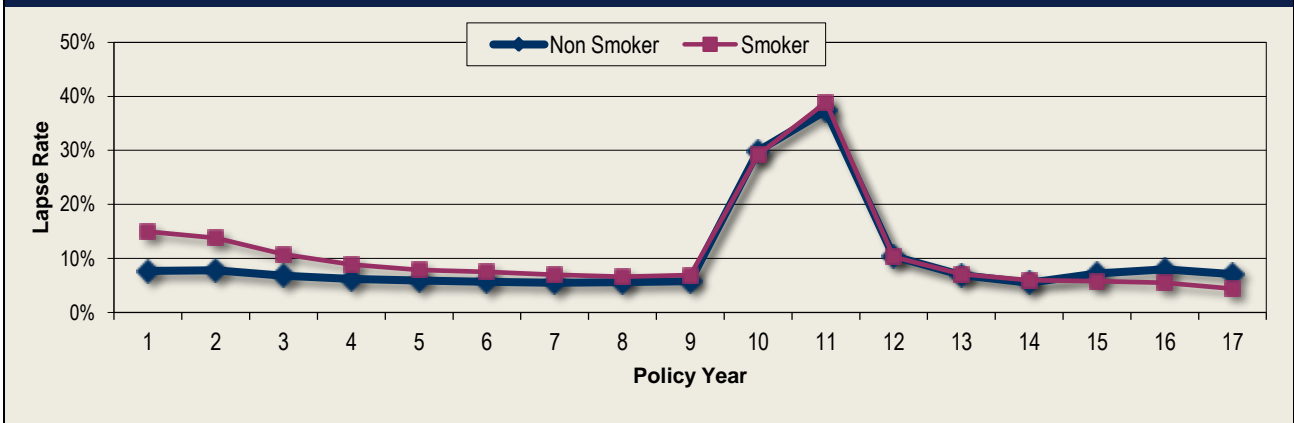


Figure 52
10-Year Level Premium Term Face Amount Lapse Rates by Smoking Status

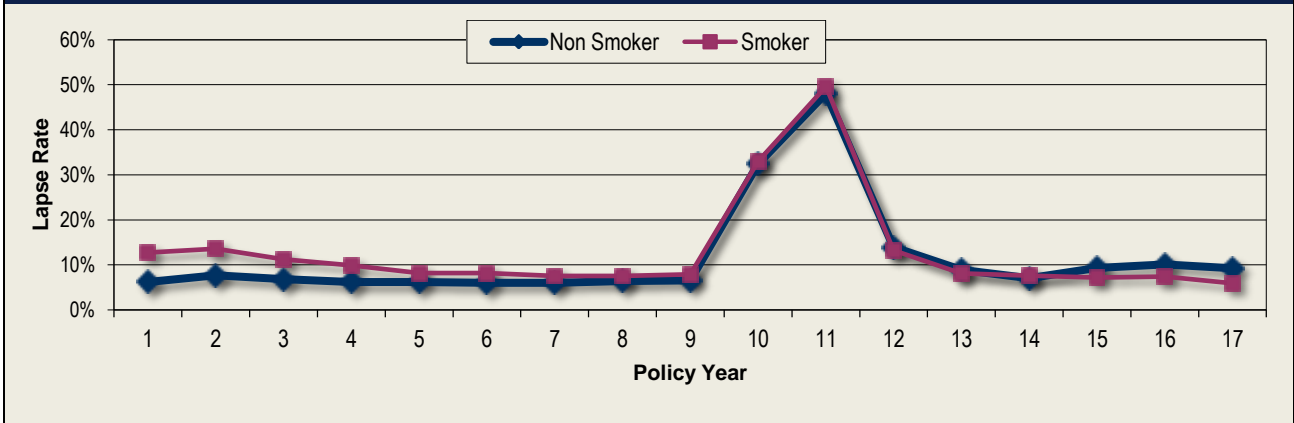


Figure 53
20-Year Level Premium Term Policy Lapse Rates by Smoking Status

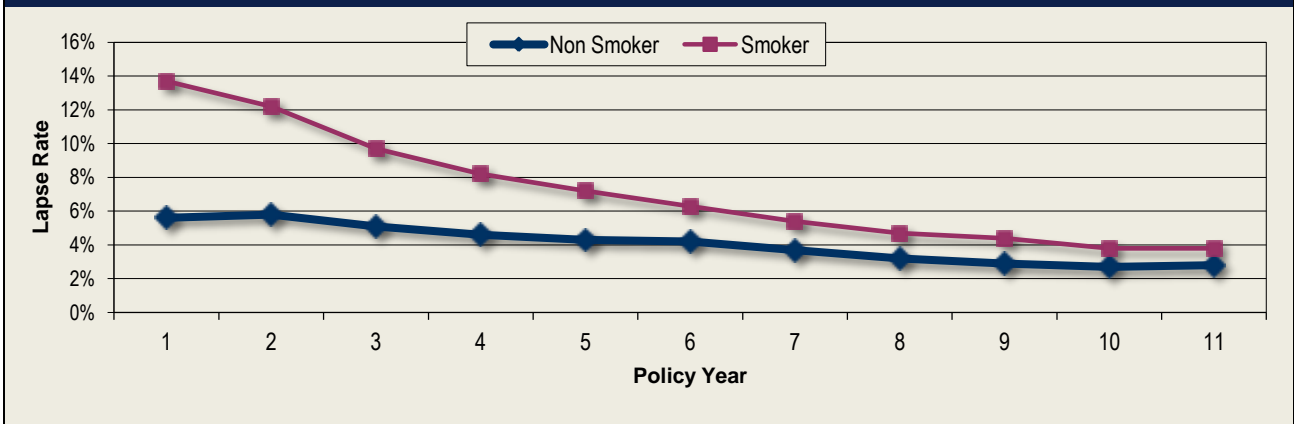
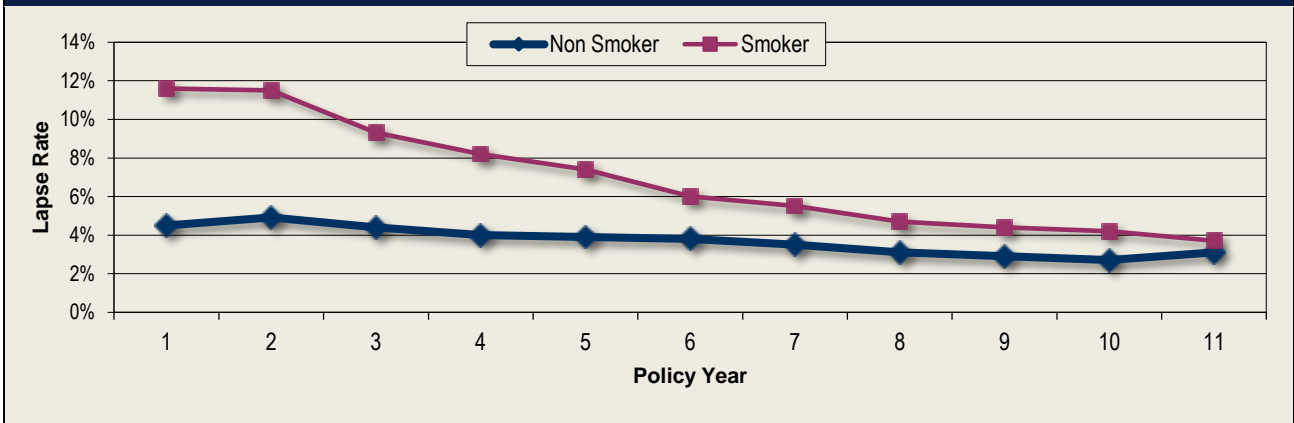


Figure 54
20-Year Level Premium Term Face Amount Lapse Rates by Smoking Status



Underwriting Method

The exposure of fully underwritten policies has increased over past studies for YRT plans, but has decreased for 10-year and 20-year level premium term plans. Table 19 breaks down exposure and average face amount exposed by term plans and underwriting method.

	<u>Average Face Amount Exposed</u>			<u>Percent of Policy Exposure</u>		
	YRT	10 Year LPT	20 Year LPT	YRT	10 Year LPT	20 Year LPT
Full Medical	\$255,000	\$516,000	\$492,000	34%	28%	30%
Paramedical	\$335,000	\$357,000	\$430,000	36%	52%	55%
Non Medical	\$102,000	\$132,000	\$178,000	30%	20%	15%

Lapse experience by underwriting method varies by term plan; see Figures 55 to 60. Fully underwritten policies exhibit higher rates of lapsation for most policy years on a policy basis for YRT plans, but not on a face amount basis. For level premium term plans, non-medically underwritten policies exhibit higher early policy year lapse rates, but have lapse rates that fall below those of fully medically underwritten policies shortly before the shock lapse.

Figure 55
YRT Policy Lapse Rates by Underwriting Method

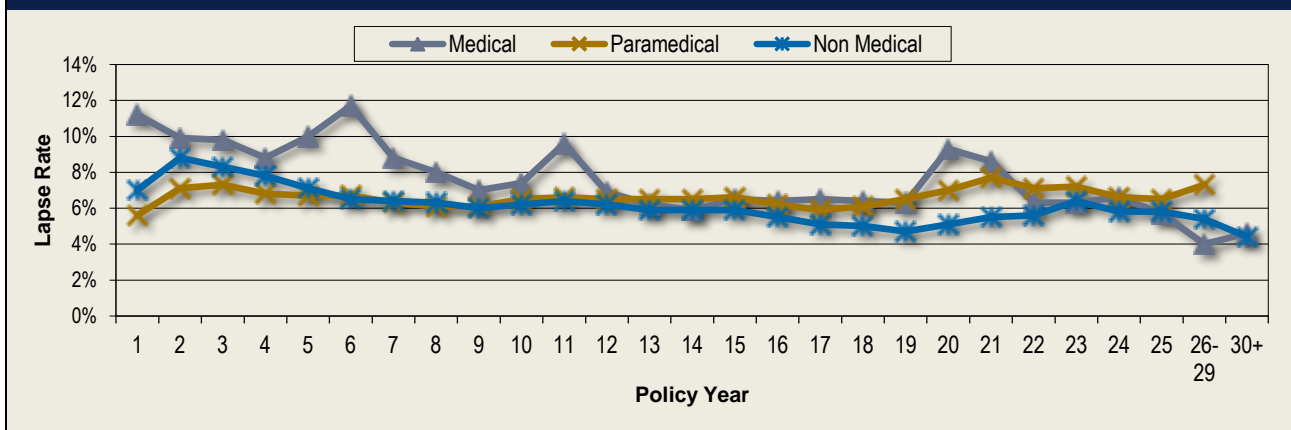


Figure 56
YRT Face Amount Lapse Rates by Underwriting Method

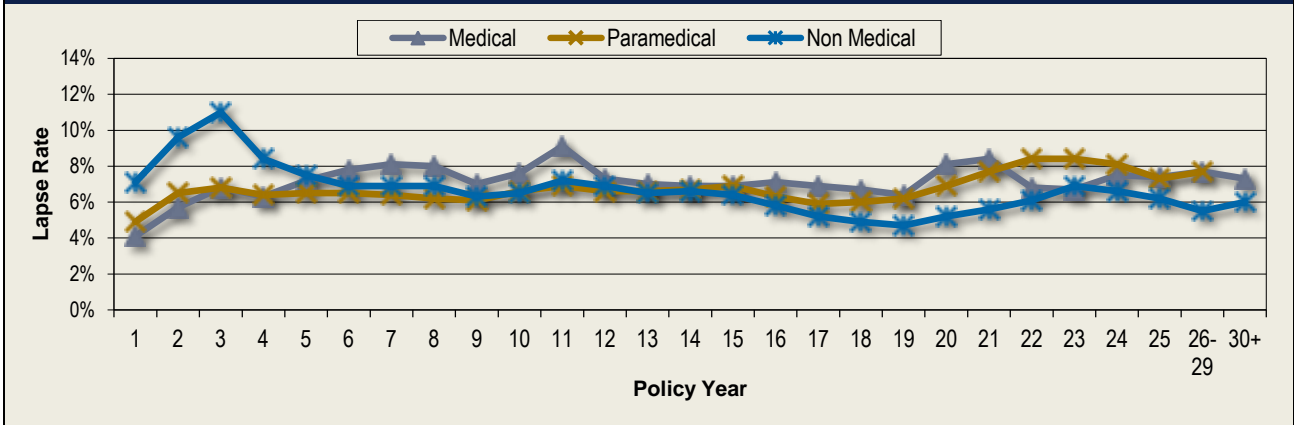


Figure 57
10-Year Level Premium Term Policy Lapse Rates by Underwriting Method

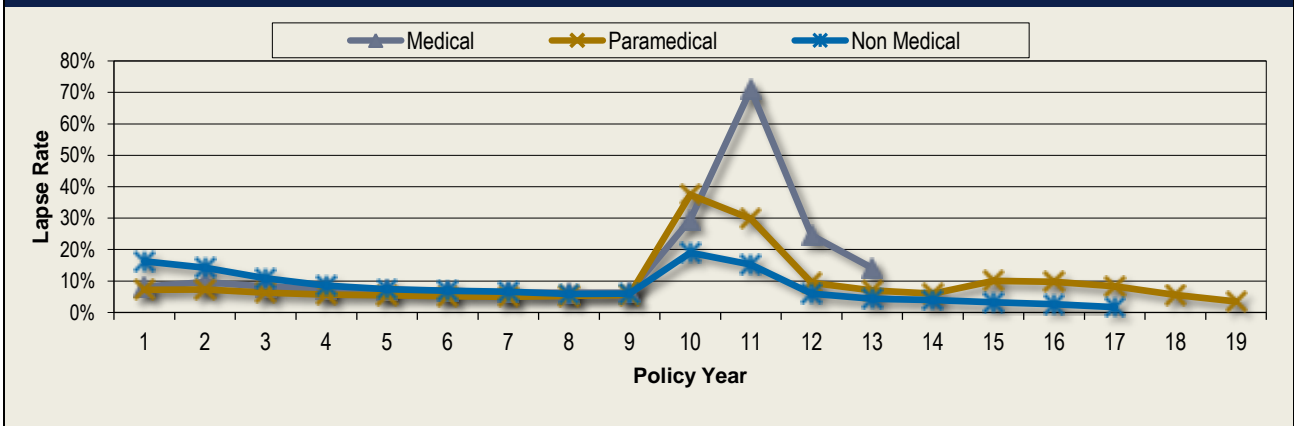


Figure 58
10-Year Level Premium Term Face Amount Lapse Rates by Underwriting Method

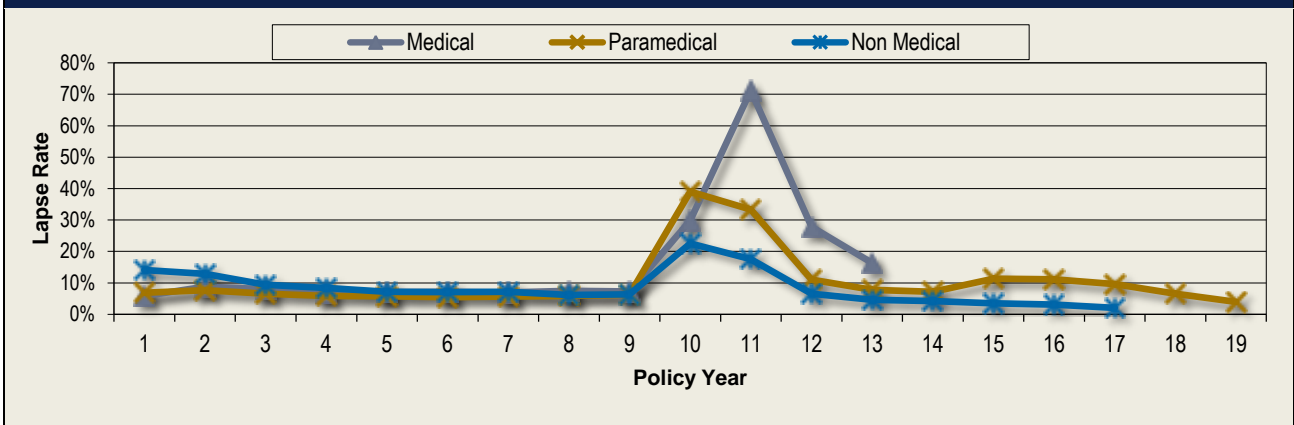


Figure 59
20-Year Level Premium Term Policy Lapse Rates by Underwriting Method

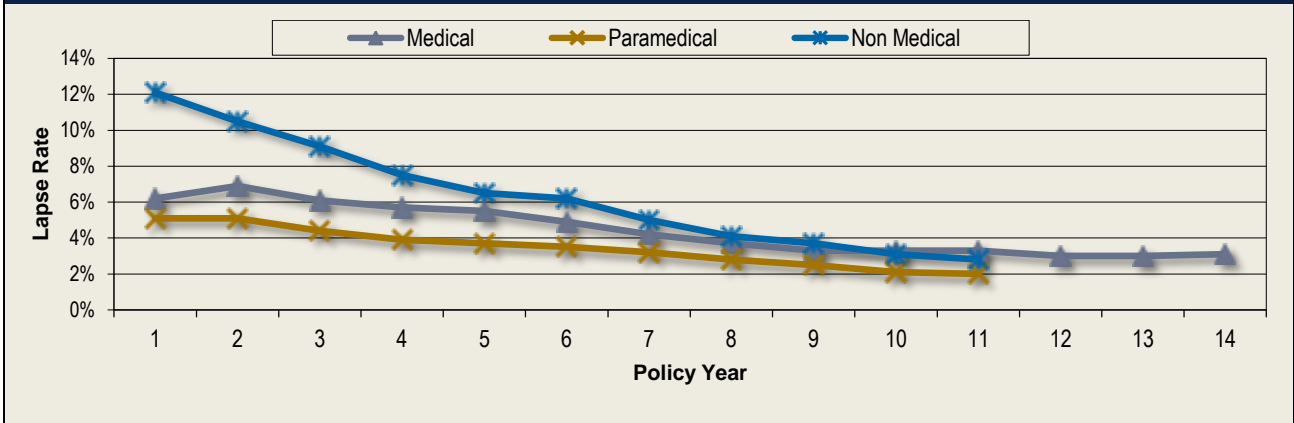
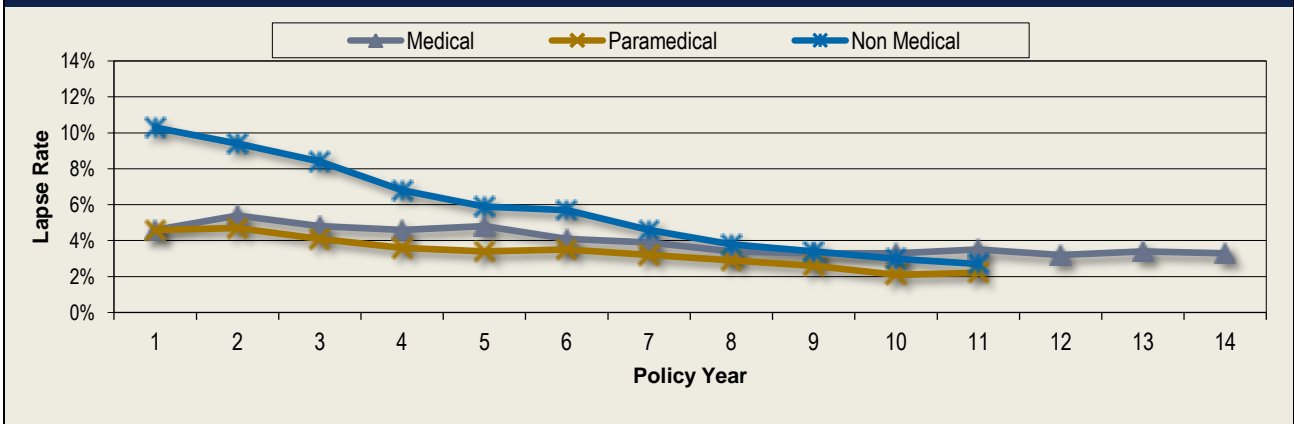


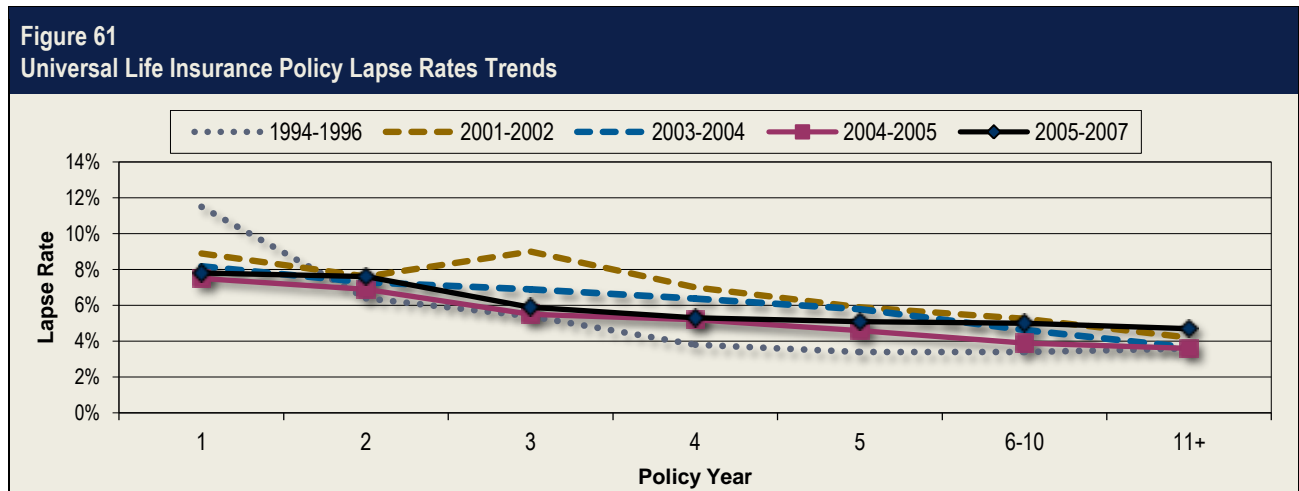
Figure 60
20-Year Level Premium Term Face Amount Lapse Rates by Underwriting Method



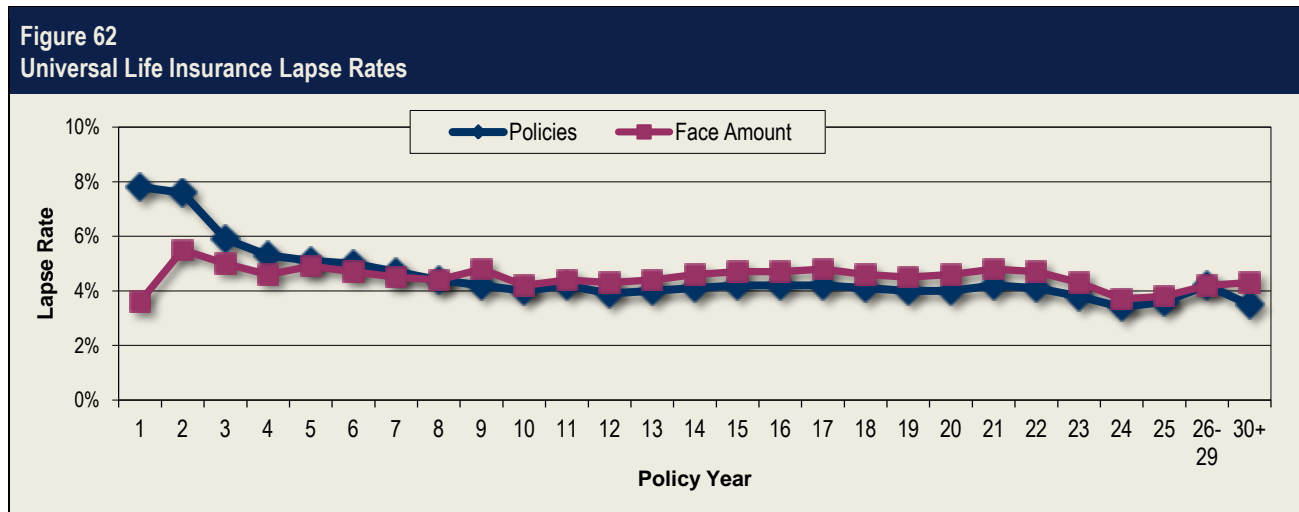
Universal Life

Universal life insurance data shown in this section is based on data from 29 contributors. While the underlying data consists mostly of traditional current assumption universal life products, a portion of the younger policies covered by this study were issued with no-lapse guarantees. The portion of policies with lifetime no-lapse guarantees continues to increase due to their popularity in the marketplace over the past several years.

Trends in universal life lapse rates are slightly higher than the prior study. The overall 2005–2007 experience period lapse rates increased to 4.6% on a policy and face amount basis from 4.2% in the 2004–2005 experience study. While lapse rates on a face amount basis in later years are slightly above policy lapse rates, see Figure 62, the difference is equalized by the higher policy lapse rates during the first four policy years. The current experience patterns exhibits similar trends to the prior study, but at slightly elevated rates for later policy years; see Figure 61.



As with the prior study, while overall lapse rates are equal on a policy and face amount basis, lapse rates are lower on a face amount basis than on a policy basis for the early policy years; see Figure 62. After policy year 8, lapse rates on policies with higher face amounts increase slightly.



The distribution of policies and average face amount exposed by policy size band has changed minimally over the past studies. Table 20 summarized the distribution of policies and average face amount exposed in the current study. Compared to the prior study, policies with face amounts between \$50,000 and \$299,999 increased slightly in exposure and average face amount, while smaller policies have declined.

Average face amount exposed for policies with higher face amounts, \$300,000 or more, have remained the same over the past two studies, even though the average face amount of new issues was above \$300,000 and has been increasing. Policies with face amounts over \$500,000 continues to exhibit large swings in average face amount exposed from study to study. This was mainly due to the mix of contributing carriers as well as the high-end market for larger face amount universal life policies.

For the current study, UL policies with face amount between \$50,000 and \$99,999 exhibit the highest lapse rates in early policy years. This was similar to the results of the 2003–2004 experience period, but different from term or whole life experience in this study where the lowest face amount groups have the highest lapse rate.

Somewhat consistent with prior studies, in early policy years, lapse rates for universal life policies are lower for larger policies than smaller sized policies. Lapse rates for universal life policies with face amounts \$50,000 and over tend to decrease as the size of the policy increases during the first four policy years, see Figure 63. Policies with the largest face amounts consistently exhibit lower lapse rates in early policy years and much higher lapse rates in later years. This trend was most visible in the current study for policies with face amounts of \$500,000 and greater; see Figure 64.

Policy Size	Average Face Amount Exposed	Percent of Policy Exposure
Under \$25,000	\$15,000	8%
\$25,000-49,999	\$30,000	16%
\$50,000-99,999	\$56,000	40%
\$100,000-\$299,999	\$136,000	31%
\$300,000-\$499,999	\$352,000	2%
\$ 500,000 and over	\$1,350,000	4%

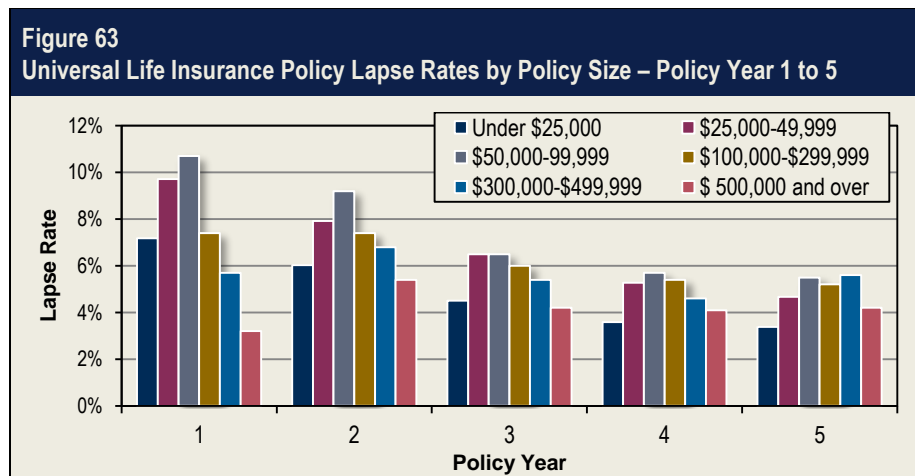
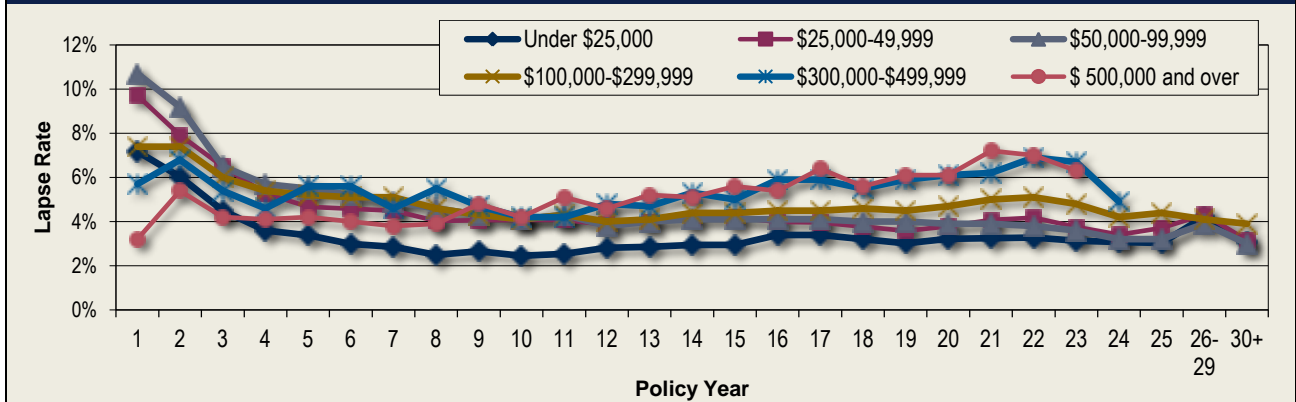


Figure 64
Universal Life Insurance Policy Lapse Rates by Policy Size



Gender

For the current study, the distribution of UL policies has remained close to prior studies at 57% male and 43% female. The average face amount for males was \$137,000, down from \$145,000 in prior studies. The average face amount for females was also down, \$111,000 from \$114,000. While average face amounts have converged compared to the prior study, the difference in overall lapse rates for males and females has widened. This was true for overall lapse rates on both a policy and face amount basis.

Similar to whole life and longer period level guarantee premium term experience, female universal life policyholders have higher rates of lapsation in early policy years; see Figure 65. However, the difference was short-lived. After policy year five, male universal life policyholders have higher rates of lapsation. The same trend was visible for face amount lapse rates, but the crossover occurs in policy year two rather than policy year six; see Figure 66.

Figure 65
Universal Life Policy Lapse Rates by Gender

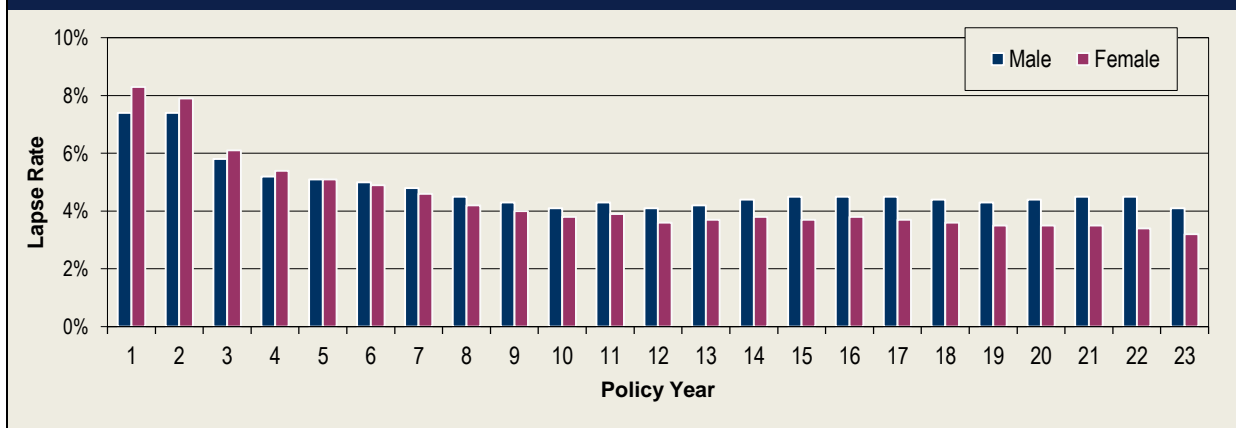
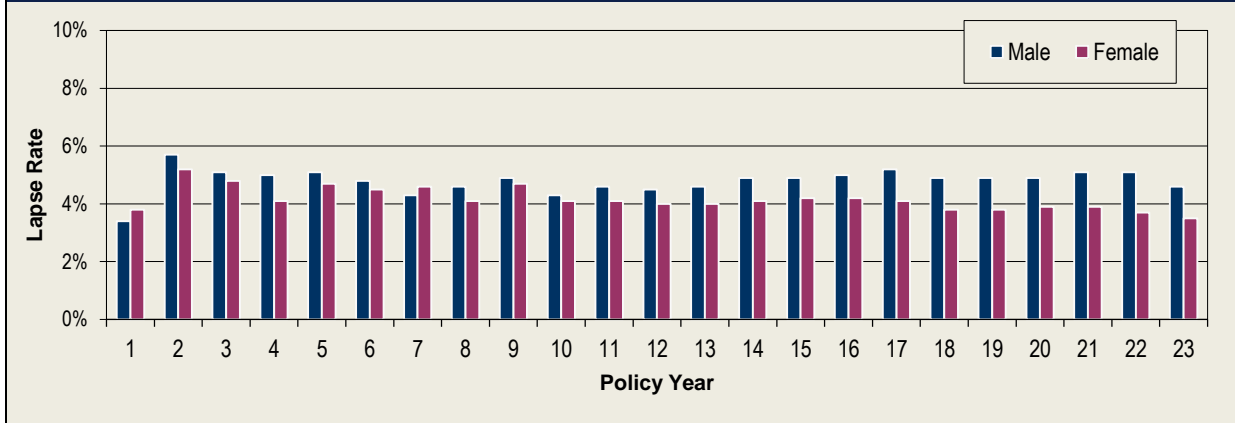


Figure 66
Universal Life Face Amount Lapse Rates by Gender



Issue Age

The distribution of UL policies by issue age cohorts and average face amount exposed for universal life is shown in Table 21.

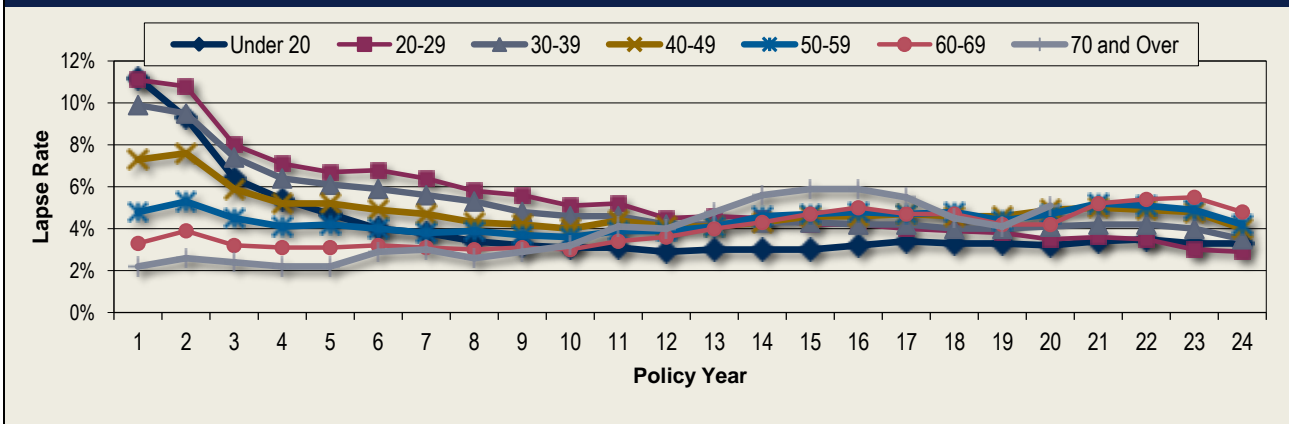
Much like the experience of whole life products, universal life insurance lapse rates generally decrease with increasing age at issue during the early policy years; see Figure 67. However, by policy year 10, the trend begins to change with lapse rates for older issue age policies increasing, possibly due to insufficient funding, need for cash value or exchange to a secondary death benefit guarantee product. Unreported deaths are also likely.

The exception to this continues to be when policyholders are under age 30 at issue. These policies exhibit high lapse rates for policy years one and two, but their lapse rates quickly decline. By year 11, policies with issue ages under 20 have the lowest lapse rates.

Table 21
Universal Life Policy Exposure by Issue Age Cohort

Issue Age	Average Face Amount Exposed	Percent of Policy Exposure
Under 20	45,000	20%
20-29	90,000	17%
30-39	121,000	25%
40-49	146,000	19%
50-59	175,000	11%
60-69	225,000	6%
70 and older	540,000	2%
Total	\$125,000	100%

Figure 67
Universal Life Insurance Policy Lapse Rates by Issue Age Cohort



Attained Age

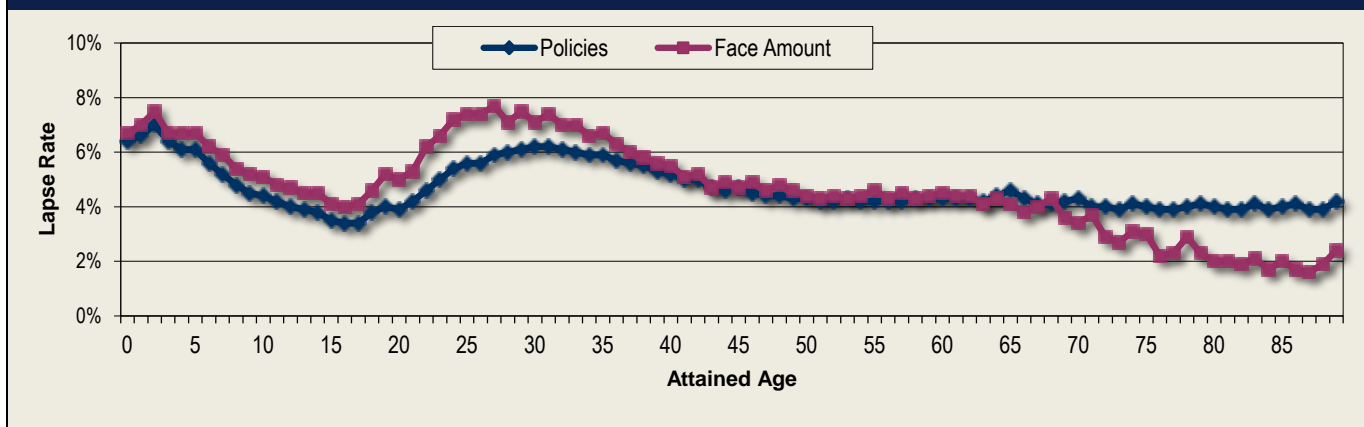
The distribution of policies by attained age cohort and average face amount exposed for universal life products are shown in Table 22. The average face amount exposed for younger attained ages has increased slightly from the prior study, while that in the middle to older attained ages have declined.

As with prior studies, lapse rates by attained age generally decrease significantly with increasing age after age 30. At older attained ages, policy lapse rates hover around 4%, but the trend for face amount lapse rates has not been as consistent from study to study. In the prior study, spikes in face amount lapse rates occurred for various attained ages. For the current study, face amount lapse rates hover around 2% after attained age 80.

Table 22
Universal Life Policy Exposure by Attained Age Cohort

Attained Age	Average Face Amount Exposed	Percent of Policy Exposure
Under 20	47,000	10%
20-29	62,000	10%
30-39	110,000	13%
40-49	131,000	21%
50-59	139,000	23%
60-69	150,000	14%
70 and older	201,000	9%
Total	\$125,000	100%

Figure 68
Universal Life Insurance Lapse Rates by Attained Age



Risk Class

For the current study and the prior study, most UL policies are in standard risk class; see Table 23. Average face amount exposed increased for standard risk class policies but decreased for the preferred and substandard risk class policies compared to the prior study. This change was due to the mix of contributing companies rather than a shift in trends.

Regardless of the distribution of policies by risk class, one trend remains the same from study to study. In the first two policy years, substandard universal life policies exhibit higher lapse rates than standard and preferred risk policies. This trend reverses for several years, but in later policy years lapse rates for substandard risk policies begin to increase and stay at a higher level compared to policies with standard risk; see Figures 69 and 70.

Table 23
Universal Life Policy Exposure by Risk Class

Risk Class	Average Face Amount Exposed	Percent of Policy Exposure
Preferred	332,000	19%
Standard	129,000	76%
Substandard	224,000	5%
Total	\$173,000	100%

Figure 69
Universal Life Policy Lapse Rates by Risk Class

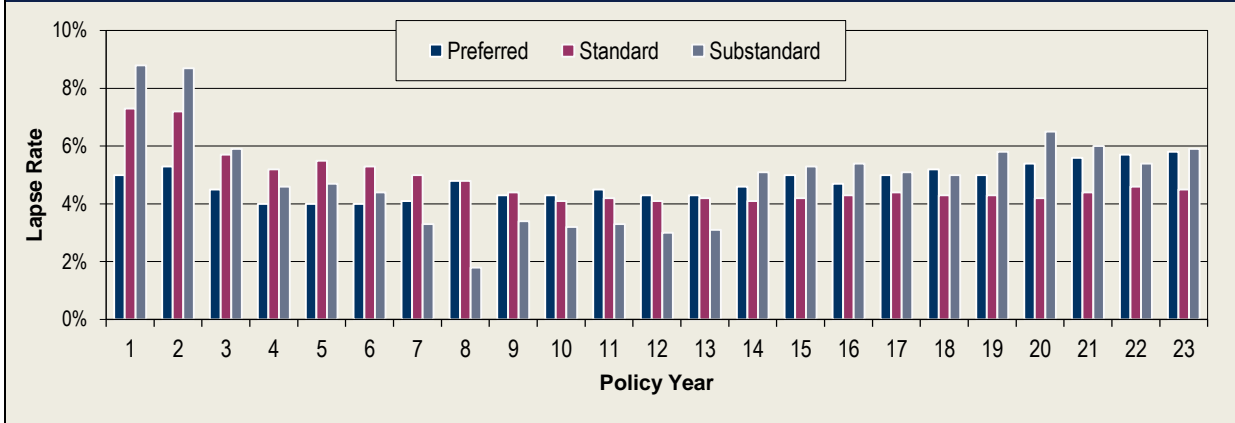
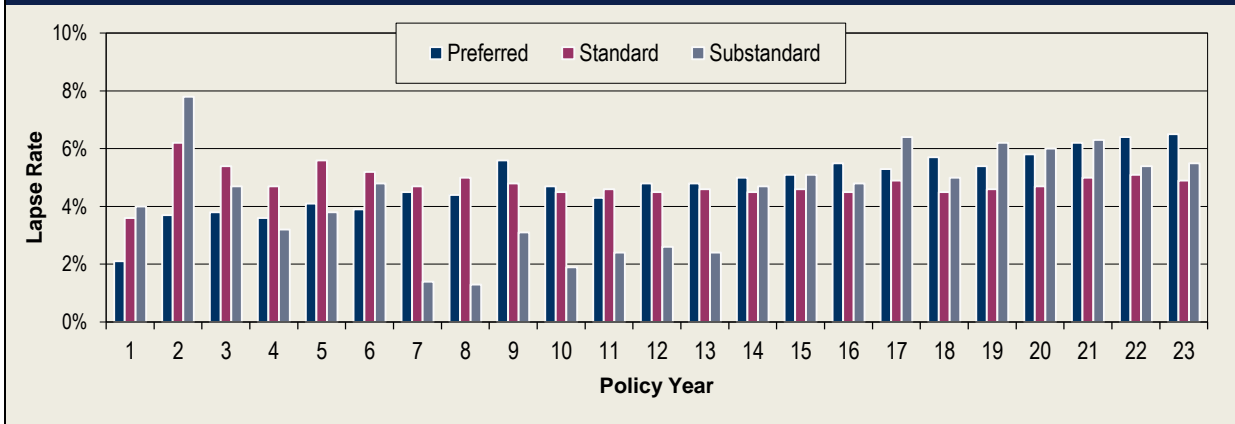


Figure 70
Universal Life Face Amount Lapse Rates by Risk Class



Smoking Status

The universal life policy exposure base was 87% non-smoker. Consistent with prior studies as well as other products, smokers exhibit higher rates of lapse than non-smokers at all durations, with greater difference seen in early and later durations; see Figures 71 and 72.

Figure 71
Universal Life Policy Lapse Rates by Smoking Status

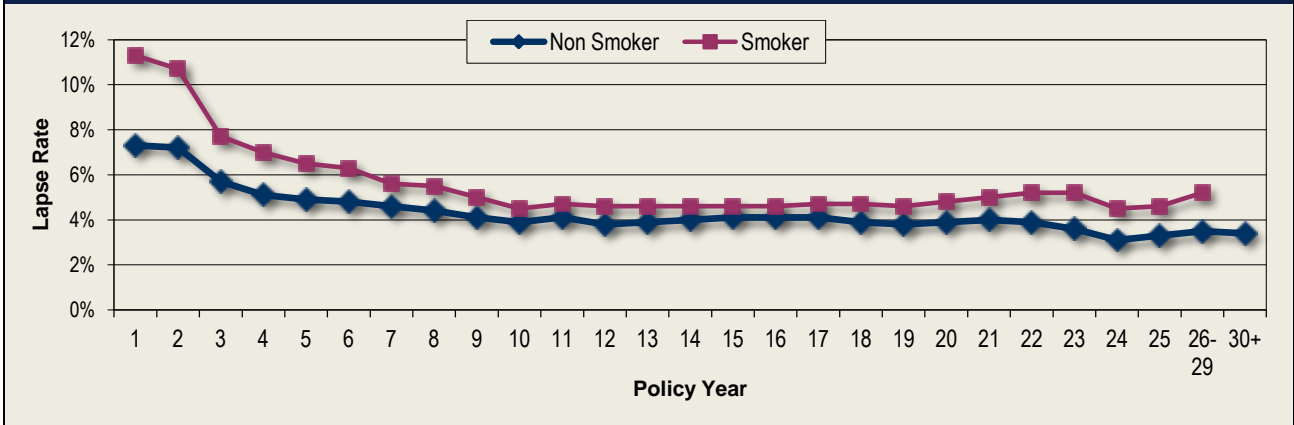
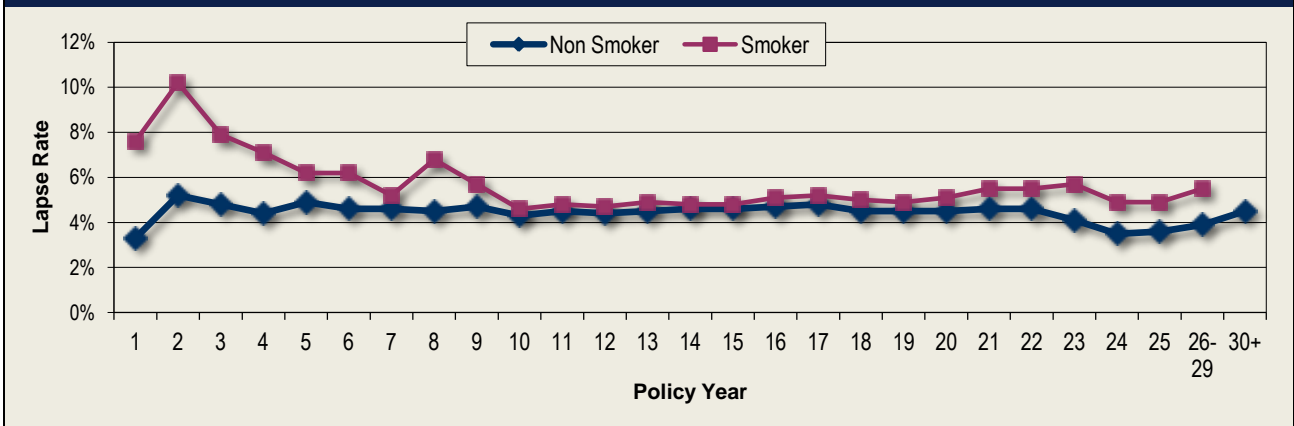


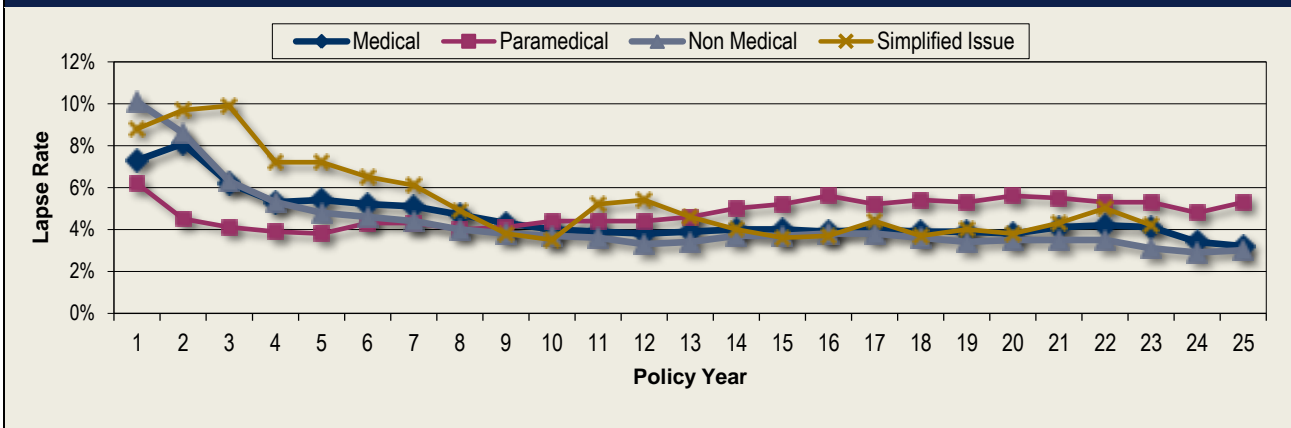
Figure 72
Universal Life Face Amount Lapse Rates by Smoking Status



Underwriting Method

The policy exposure underlying the universal life lapse results by underwriting method consists of 48% non-medical, 34% medical, 14% paramedical and 4% simplified issue. This was a significant shift from non-medical to medically underwritten policies due to the mix of contributing companies. In the early policy years, policies with full medical or paramedical underwriting exhibit lower rates of lapse; see Figure 73. However, after policy year six, lapse rates of policies with paramedical underwriting begin to increase, while lapse rates of policies with less significant underwriting continue to decrease.

Figure 73
Universal Life Policy Lapse Rates by Underwriting Method



Death Benefit Option

The policy exposure underlying the universal life lapse results by death benefit option consists of 71% level death benefit and 29% level net amount at risk. Consistent with prior studies, policies with level net amount at risk exhibit higher lapse rates in early policy years, compared to policies with level death benefit, possibly due to higher funding required to keep level net amount at risk policies in force. However, this trend reverses in policy year eight for policy lapse rates and year seven on a face amount basis; see Figures 74 and 75.

Figure 74
Universal Life Policy Lapse Rates by Death Benefit Option

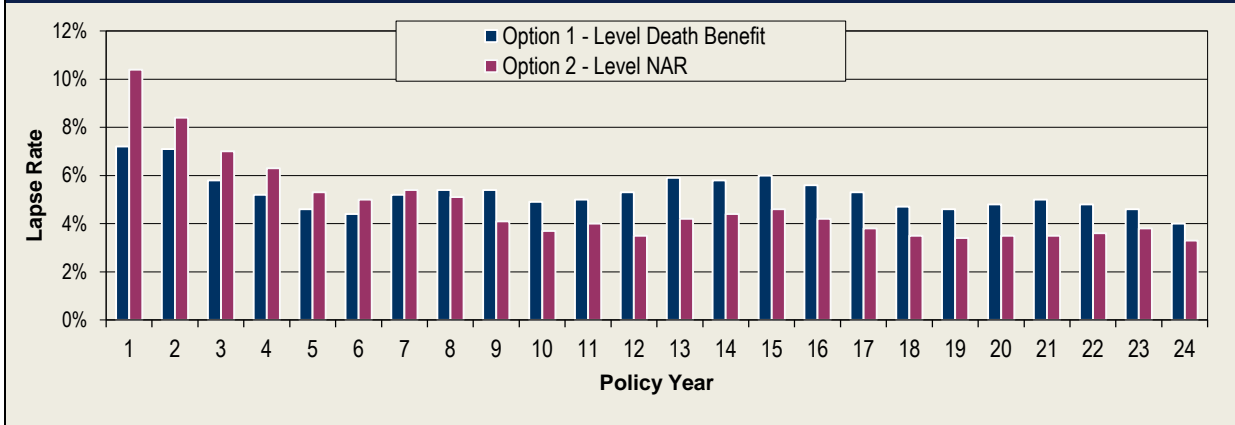
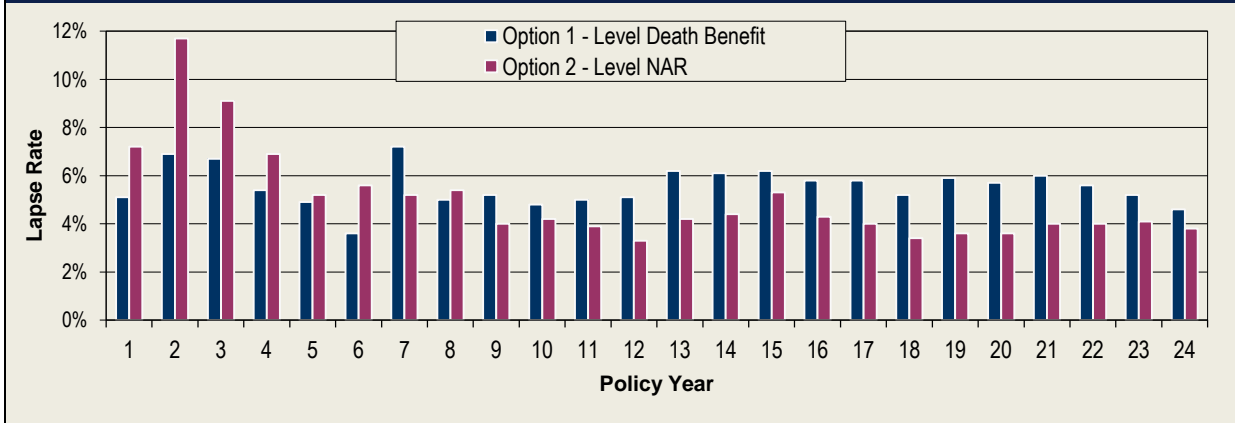
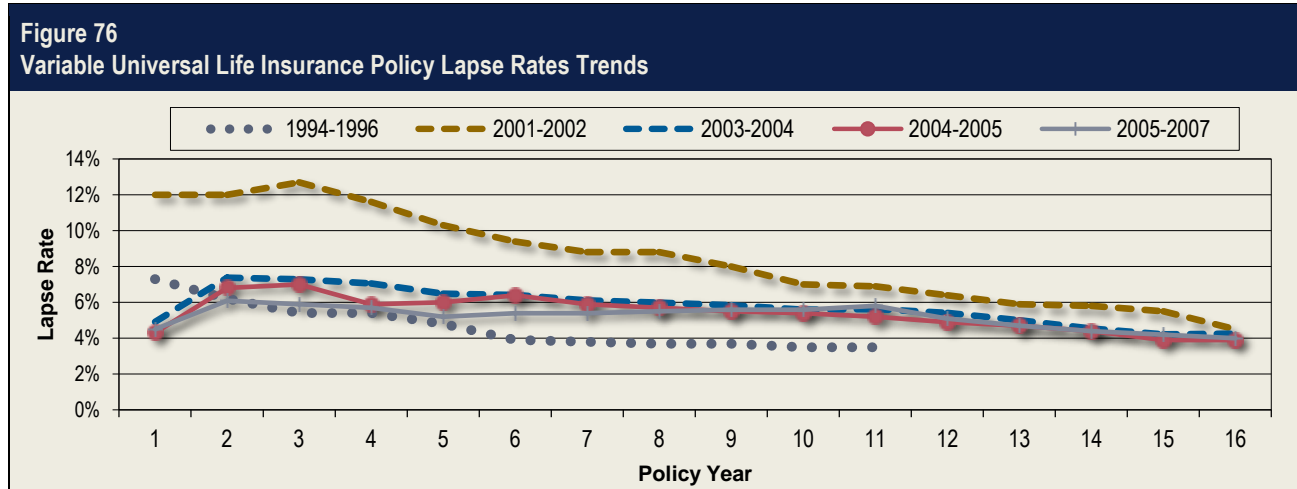


Figure 75
Universal Life Face Amount Lapse Rates by Death Benefit Option



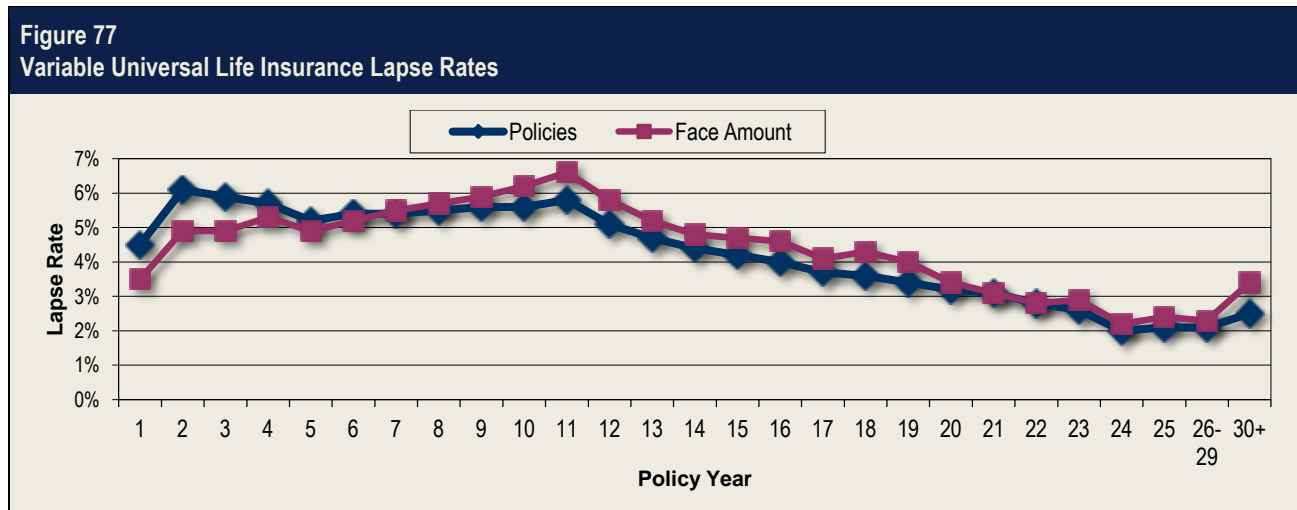
Variable Universal Life

Overall lapse rates for variable universal life plans declined from the prior study. The overall annual lapse rate on a policy basis was 4.8% in the current study, down from 5.2% in the prior study, mainly due to lower lapse rates in policy years 2 to 7; see Figure 76. On a face amount basis, the overall annual lapse rate was 5.0%, down from 5.3% in the prior study. While policy lapse rates by year for variable universal life plans have continued to decline from the 2001–2002 level, they are still not yet at the levels that were seen in the mid-1990s.



Lapse rates by policy year for variable universal life plans generally exhibit a different trend compared to other permanent products. Consistent with the past three studies, first year policy lapse rates continue to be lower than lapse rates in the second and third year. In the current study, the first year policy lapse rate was lower than lapse rates for policy years two through 13; see Figure 77.

Another difference in variable universal life compared to lapse trends of other permanent products is the elevated lapse rates in the first ten or more policy years. During this period, lapse trends for other permanent products typically begin to decline.



The distribution of variable universal life policies and average face amount exposed by policy size band is shown in Table 24. The distribution and average face amount exposed are very similar to those of universal life policies by policy size band.

Also as with universal life, variable universal life policies with face amounts between \$50,000 and \$99,999 exhibit the highest lapse rates in early policy years; see Figure 78.

With the exception of policies with face amounts under \$50,000, policy lapse rates for variable universal life policies tend to decline as the size of the policy increases.

Policies with large face amounts consistently exhibit lower lapse rates in early policy years and higher lapse rates in later years

when compared to policies with lower face amounts, which generally show a decline in lapse rates with increasing policy year; see Figure 79.

Distinct from the experience of other permanent products, variable universal life policies with face amounts under \$50,000 exhibit the lowest lapse rates until policy year 13, at which point lapse rates begin to increase. When comparing characteristics of policyholders of smaller face amount policies, variable universal life policyholders are likely in a higher income range than policyholders of other permanent products. The choice of a lower face amount policy is more likely due to the diversification of investments rather than an affordability issue.

Table 24
Variable Universal Life Exposure by Policy Size Group

Policy Size	Average Face Amount Exposed	Percent of Policy Exposure
Under \$50,000	\$26,000	7%
\$50,000-99,999	\$58,000	33%
\$100,000-\$299,999	\$151,000	45%
\$300,000-\$499,999	\$353,000	6%
\$ 500,000 and over	\$1,002,000	10%

Figure 78
Variable Universal Life Insurance Policy Lapse Rates by Policy Size – Policy Year 1 to 5

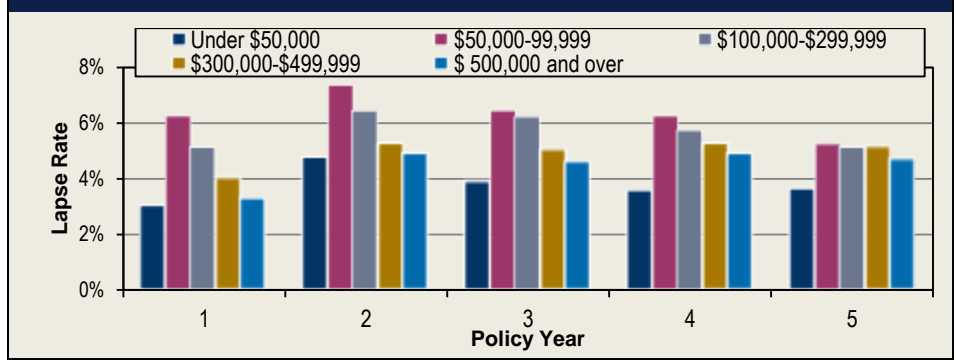
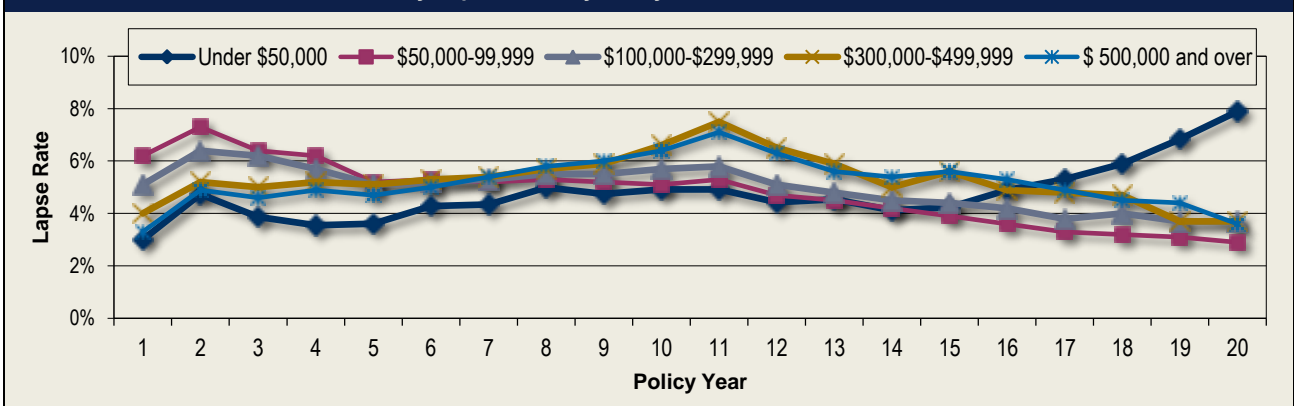


Figure 79
Variable Universal Life Insurance Policy Lapse Rates by Policy Size



Gender

The distribution of variable universal life data split by gender has stayed consistent over the past three studies. The current data consists of 59% male and 41% female exposure by policy count. On a face amount basis, the data was split 66% male and 34% female. The difference in average face amount between males and females has increased in the current study, with averages for males increasing \$10,000 and averages for females decreasing \$5,000. Average face amount for a male and female policies in the current study are \$222,000 and \$163,000, respectively.

Regardless of the difference in average policy size, lapse rates for male variable universal life policyholders are slightly higher than lapse rates for females at all durations after the first few policy years as with the prior study; see Figures 80 and 81.

Figure 80
Variable Universal Life Policy Lapse Rates by Gender

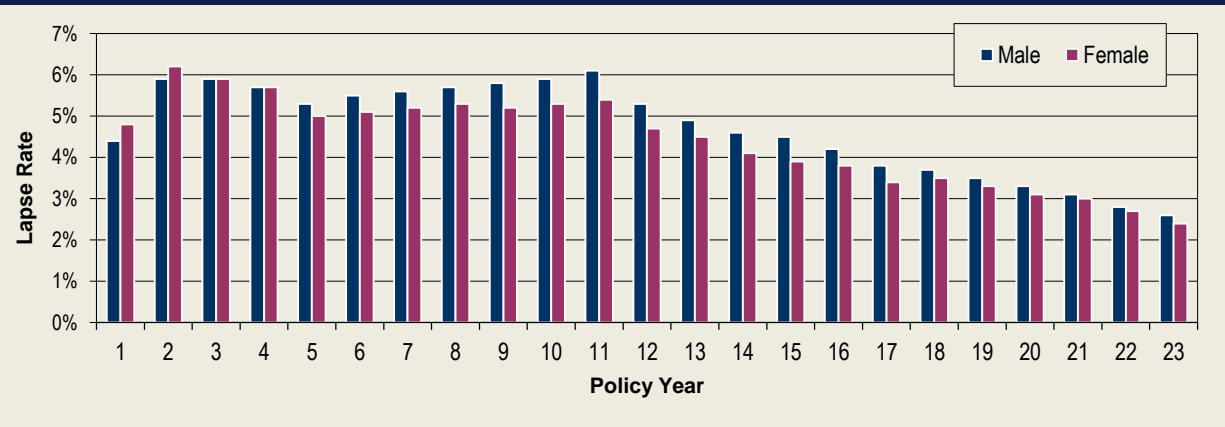
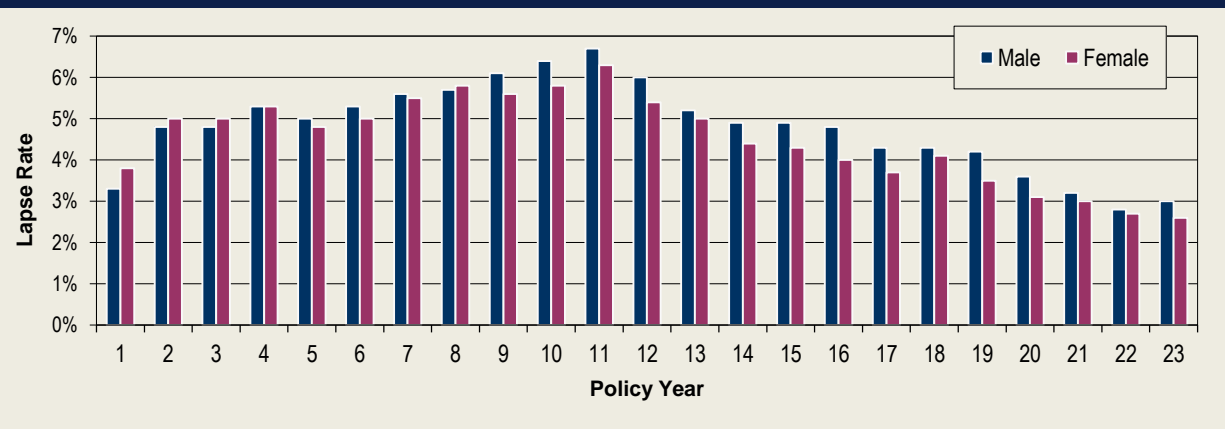


Figure 81
Variable Universal Life Face Amount Lapse Rates by Gender



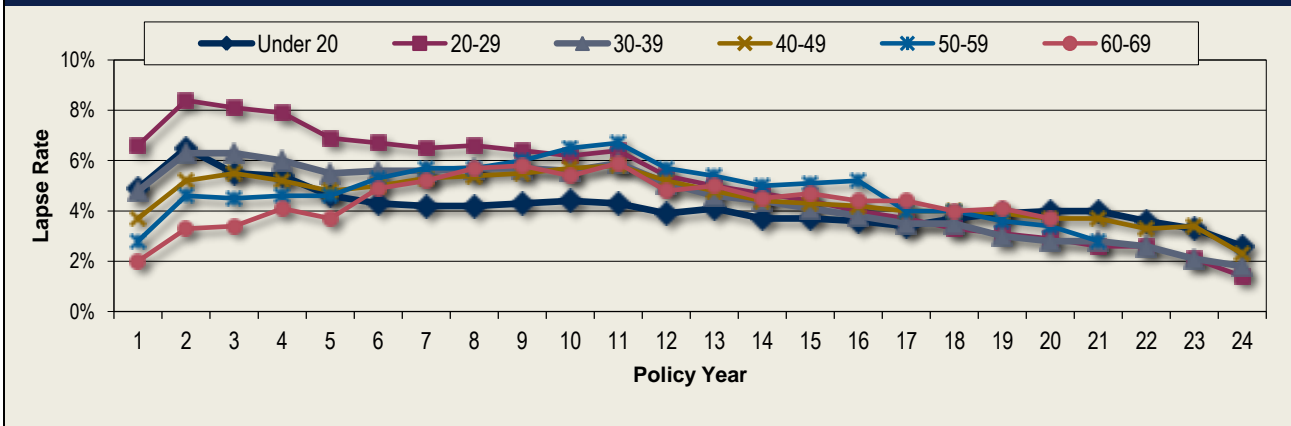
Issue Age

The distribution of variable universal life policies by issue age cohorts continues to center around the working ages well before retirement; see Table 25. The average face amount exposed for younger issue ages has increased over the past three studies, while the average the face amount exposed for older ages is trending down. This could be due to changes in the target markets, as well as the increased cost of offering death benefit guarantee riders at older issue ages for variable universal life products.

Similar to the experience of whole life and universal life products, lapse rates for variable universal life policies generally decrease with increasing age at issue during the early policy years with the exception of policies issued under 20; see Figure 82.

Issue Age	Average Face Amount Exposed	Percent of Policy Exposure
Under 20	94,000	14%
20-29	161,000	17%
30-39	219,000	31%
40-49	236,000	23%
50-59	238,000	10%
60-69	226,000	4%
70 and older	231,000	1%
Total	\$198,000	100%

Figure 82
Variable Universal Life Insurance Policy Lapse Rates by Issue Age Cohort



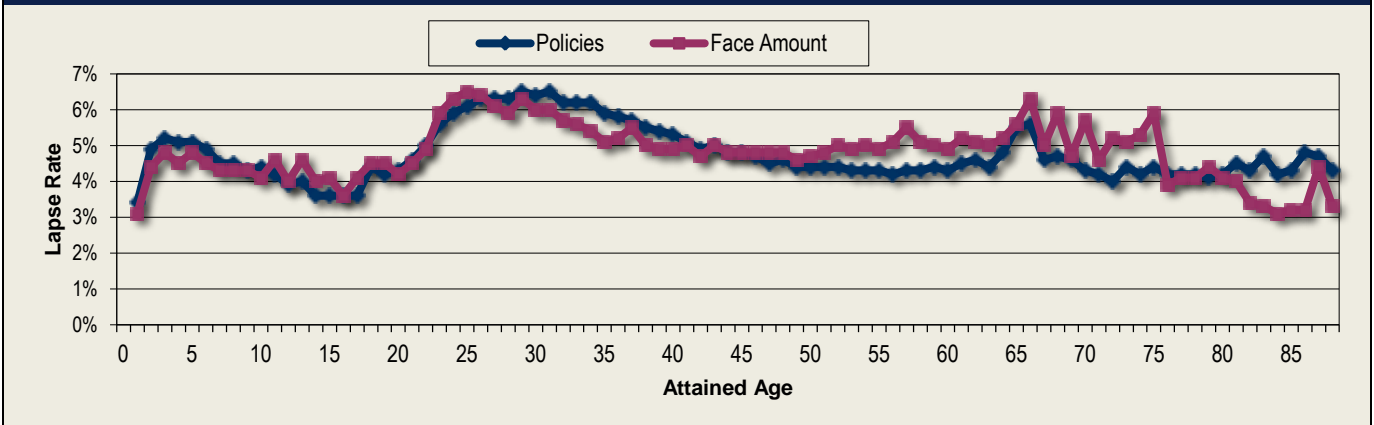
Attained Age

As variable universal life sales declined after the 2000–2001 market crash and concentrated toward a niche market, the distribution of policies by attained age cohorts have declined slightly in the younger ages over the past study; see Table 26. This was more likely due to the scarcity of affluent buyers in the younger age market as producers focus variable universal life products toward affluent clientele.

Similar to results of prior studies, lapse rates by attained age decrease significantly with increasing age after age 30. With variable universal life, there are spikes in lapse rates at attained ages 65–75, likely due to retirement. Some policyholders access their cash value in retirement through full surrender.

Attained Age	Average Face Amount Exposed	Percent of Policy Exposure
Under 20	96,000	9%
20-29	155,000	7%
30-39	234,000	16%
40-49	224,000	27%
50-59	202,000	25%
60-69	191,000	12%
70 and older	172,000	5%
Total	\$198,000	100%

Figure 83
Variable Universal Life Insurance Lapse Rates by Attained Age



Risk Class

The distribution of policies by risk class continues to be mostly standard risk class policies with increases in average face amount exposed for all risk classes; see Table 27.

Similar to trends seen in universal life, policies with a substandard risk classes exhibit higher lapse rates than standard and preferred risk policies in the first ten policy years; see Figures 84 and 85. In later policy years, lapse rates for preferred risk policies are even higher than those of substandard risks, as healthier policyholders are more likely to shop for other coverage once past the surrender charge period.

Risk Class	Average Face Amount Exposed	Percent of Policy Exposure
Preferred	316,000	23%
Standard	158,000	73%
Substandard	184,000	4%
Total	\$194,000	100%

Figure 84
Variable Universal Life Policy Lapse Rates by Risk Class

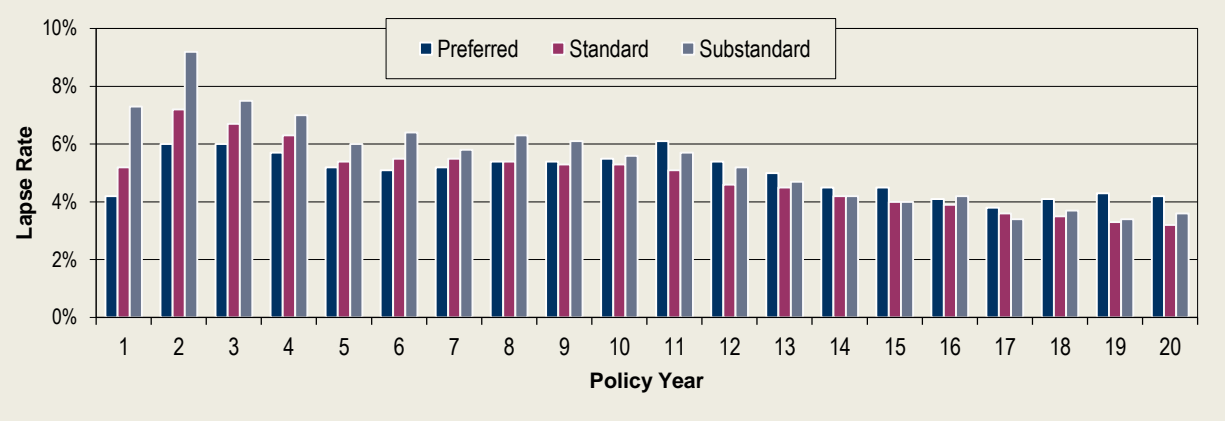
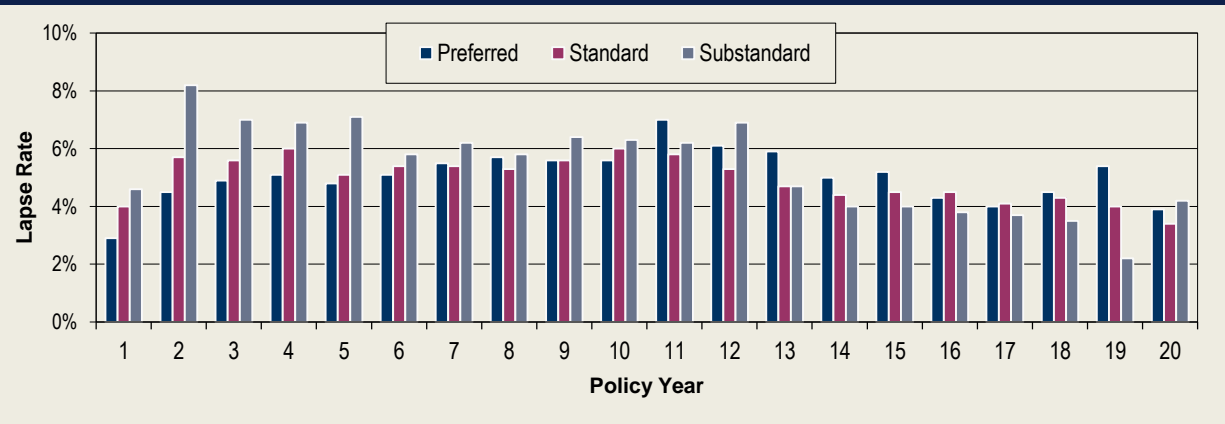


Figure 85
Variable Universal Life Face Amount Lapse Rates by Risk Class



Smoking Status

The variable universal life policy exposure by smoking status has stayed constant over the past studies. This is mainly because variable universal life is a much newer product compared to whole life and universal life and the smoking status of most policies are known. The policy exposure for non-smoker was 86% of the total. Consistent with prior studies as well as other products, smokers exhibit higher rates of lapse than non-smokers in early and most mid-durations; see Figures 86 and 87.

Figure 86
Variable Universal Life Policy Lapse Rates by Smoking Status

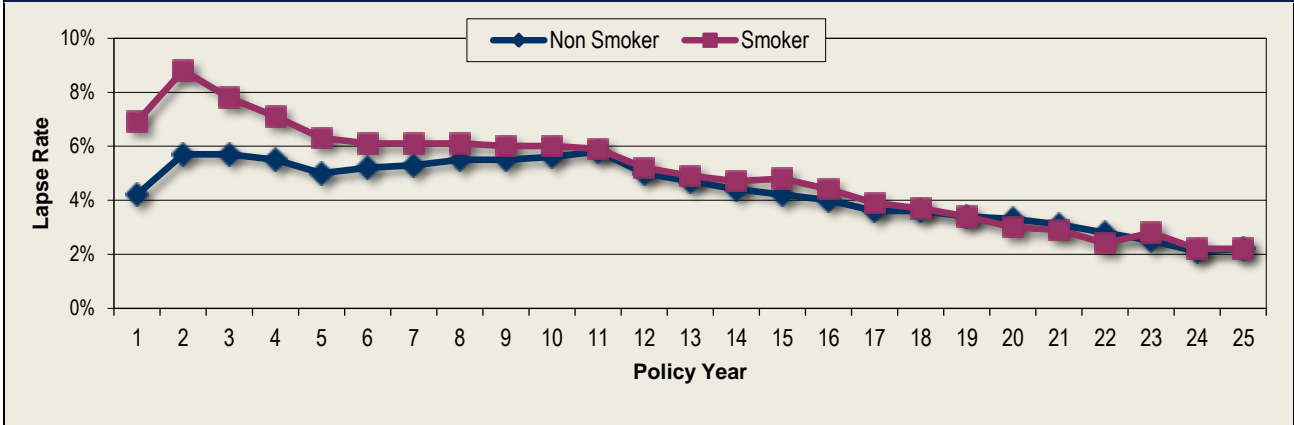
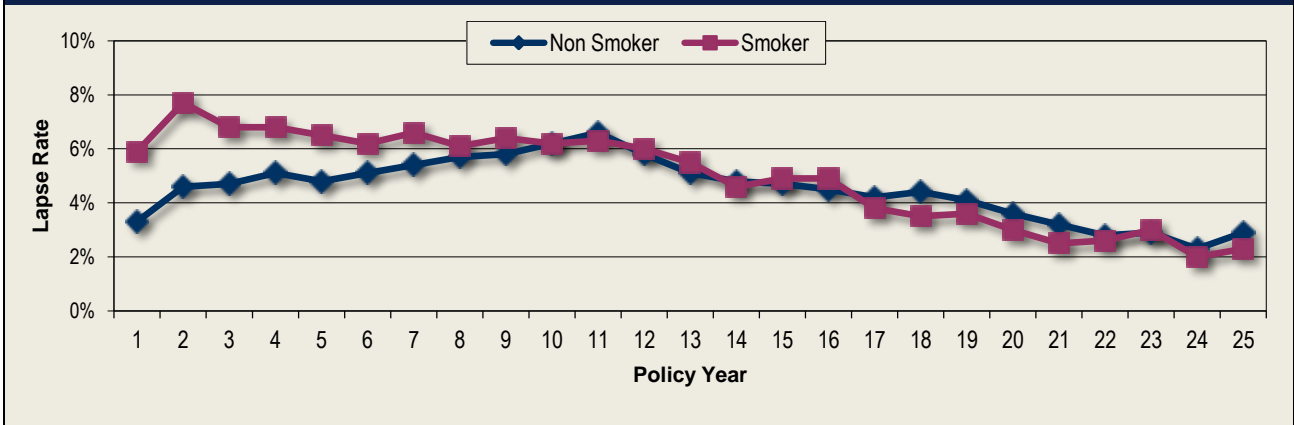


Figure 87
Variable Universal Life Face Amount Lapse Rates by Smoking Status



Methodology

For purposes of this report, lapse includes termination for nonpayment of premium, insufficient cash value or full surrender of a policy, transfer to reduced paid-up or extended term status, and in most cases, terminations for unknown reason. This is consistent with the definition of lapse applied to other LIMRA and Society of Actuaries experience studies, and allows for better comparison of results over time.

The observation years in the study were 2005 to 2007, with partial data for 2007. Participants were asked to provide information on their entire in-force block. The lapse rates shown are based on 100 percent of policies submitted, except in cases where a company's volume of business was so large or its experience was so different from that of other participants such that overall industry results would be unduly skewed.

It should be noted that not all participants in the study contributed data for their entire inforce block of subsidiaries, product lines, and experience years. In addition, several companies were not able to provide data for all policies and product factors requested. Therefore care should be taken in interpreting the results.

The data underlying this report was collected on a policy-level, seriatim basis as this allows for a more detailed analysis of the factors influencing lapse results than studies conducted on an aggregated data basis.

Lapse rates are calculated as follows:

$$\text{Annualized Policy Lapse Rate} = 100\% \times \frac{\text{Number of Policies Lapsed During the Year}}{\text{Number of Policies Exposed to Lapse During the Year}}$$

The number of policies exposed to lapse is based on the length of time the policy is exposed to the risk of lapsation during the year. Lapses contribute exposure for the full 12 months. Terminations due to death, expiry, maturity, or conversion are not included in the amounts lapsing and contribute to exposure for only the fraction of the policy year they were inforce.

Industry lapse rates are calculated as a weighted average of the experience of all contributing companies; companies with larger inforce blocks will affect the overall results more than companies with smaller inforce blocks. However, results for each policy factor analyzed are also examined at the company level to ensure that reported experience is not overly affected by one or more large participant blocks.

Lapse rates are not reported for any data cell for which there were fewer than three companies *or* less than 1,000 policies exposed.

Experience was reported exactly as calculated. No attempts were made to level or smooth results.

Contributing Companies

Allstate	Minnesota Life
American Family	Mutual of Omaha
American United	NACOLAH
AVIVA	Nationwide Financial
AXA	New York Life
Columbus Life	Northwestern Mutual
Farm Bureau Financial Services	Pacific Life
Farm Family Life	Protective Life
Fidelity Investments	Prudential Financial
Government Personnel Mutual Life	RiverSource
Hartford Life	State Farm
Horace Mann Life	Sun Life
ING	Thrivent Financial
Jackson National	USAA Life
John Hancock	Western & Southern Life
MetLife	



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