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**Actuarial Memorandum
Policy Forms:
ICC10 TLC-3 as UniProduct 2 Series
Long Term Care Coverage**

1) Scope and Purpose

This rate filing is a request for a 23.12% increase in premium, effective upon approval by the Interstate Compact and corresponding issue state, on the base policy and all associated riders for all premium paying policies covered under the above captioned policy forms. The purpose of this memorandum is to demonstrate that the requirements of the Interstate Compact in regards to an inforce rate increase request have been met. This memorandum is not to be used for other purposes.

If the requested rate increase is approved and implemented as proposed, Transamerica Life Insurance Company (the "Company") does not expect to request additional rate increases based on current expectations of future experience. If actual future experience were to deteriorate further, additional rate action may become necessary even if the requested rate increase is approved and implemented as proposed.

Guided by the rate stability regulations, we have utilized the original pricing loss ratio with the actual mix of business of 69.73% for currently projected earned premiums, which is greater than the standard 58% loss ratio defined in the rate stability regulations, and 85% for any additional earned premiums as the recoverable loss ratios in calculating the requested increase of 23.12%. There is no previous rate increase for policies on this form.

The requested rate increase will take effect upon approval by the Department of Insurance subject to all notification requirements and premium rate guarantee periods. The requested premium rate increase is needed because experience has exceeded the margin for adverse experience considered in the original pricing under the rate stability regulations.

The requested rate increase of 23.12% is the same for all pricing cells as we did not observe any material differences in lifetime loss ratios in our analysis by key pricing cohorts and benefit characteristics. The same 23.12% rate increase being requested for the Compact states is being requested for each of the non-Compact states.

Benefit Reduction and Cost Sharing Option

The Company would also like to make available to all policyholders a Benefit Reduction and Cost Sharing option to help the customer offset the cost of the premium rate increase as outlined in Appendix A. The Company is filing a Benefit Reduction and Cost Sharing Endorsement that will be issued to the policyholder if they choose this option.

The Benefit Reduction and Cost Sharing option affects both:

- 1) The policy benefit limits available under the policy (by reducing all of the policy benefit limits available by the Cost Sharing Percentage), and
- 2) Amounts that the policyholder holder and the Company are responsible for with respect to each claim (by reducing the amounts that the Company will pay for claims by the Cost Sharing Percentage). If inflation protection coverage is included in the policy, all future benefit amount increases will be based on the new revised benefit amounts. The Benefit Reduction and Cost Sharing option also applies to all policy benefit provisions, including any benefit provision added by rider or endorsement. The Benefit Reduction and Cost Sharing option also applies to benefits for covered care or services received by another covered person who is covered under the policy.

Benefit Reduction and Cost Sharing percentages were determined to be actuarially equivalent to the requested rate increase. Policyholders selecting the Benefit Reduction and Cost Sharing option will be able to completely offset the requested rate increase. Additional details regarding the Benefit Reduction and Cost Sharing option are shown in Appendix A.

Policyholders who elect the Benefit Reduction and Cost Sharing option may still be subject to future rate increases if additional rate increases become justified due to further deterioration of experience not currently anticipated.

The Benefit Reduction and Cost Sharing Option percentage is a flat 15% which does not vary across demographics. Based on our analysis, there is no major differences in the Cost Sharing percentages for the different benefit inflation options (BIO) and daily benefit cohorts.

2) **Benefits ***

Base Benefits

A. Long Term Care Facility Benefit

Once the Elimination Period has been met, the actual charges incurred for each day the Insured Person is confined to a Facility, as defined in the Policy, will be paid. Payments will be subject to the Maximum Daily Benefit.

B. Home Care and Adult Day Care Benefit

Once the applicable Elimination Period has been met, the actual charges incurred for each day the Insured Person receives Home Care and Adult Day Care, up to the Maximum Daily Benefit, will be paid.

C. Cash Benefit

Once an Insured Person has met the benefit eligibility, the insurer will pay the Monthly Benefit each calendar month. This benefit will be paid in lieu of all other benefits for care or services provided under this policy.

D. Waiver of Premium

Premiums will be waived on a monthly basis once the Elimination Period has been met and while the Insured Person is receiving Long Term Care Facility benefits.

* This is not intended to be a comprehensive listing of all benefits available.

E. *Contingent Non-forfeiture Benefit – Shortened Benefit Period*

The Contingent Non-Forfeiture Benefit will only be in effect for policyholders with issue ages 79 or older under the currently requested rate increase. Please note that the Company has elected to use the original pricing loss ratio with actual mix of business instead of 58% in determining the justifiable rate increase to minimize the rate impact to policyholders. As of December 31, 2020, only 4 of the in-force policies would be eligible.

Reserves have not been incorporated into the rate increase as we have not modeled shock lapses. From our historical experience, there have been no discernable shock lapses after prior rate increases. Nationwide, only 2-3% of our policyholders have chosen to cease paying premiums and take the contingent non-forfeiture benefit after a rate increase.

F. *Rate Guarantee*

A 5 year rate guarantee was included at no extra charge. For any policies still within the rate guarantee period when the rate increase is approved, notices will be sent but not implemented until the first policy anniversary after the rate guarantee period. As of December 31, 2020, 13.8% of the in-force nationwide policies that would be impacted by the requested rate increase are still within the initial five-year rate guarantee period. For in-force policies issued within the Compact states, 2% are still within the initial five-year rate guarantee period.

For our projections, we have not included the rate guarantee as a restricting condition on the rate increase. We have calculated the justified rate increase in the filing assuming that rates will increase with the assumed effectiveness in the second half of 2023 without regard for the rate guarantee period. This results in a lower justified rate increase and is the benefit of the rate guarantee provided.

Inflation Options and Optional Benefits

A. *Additional Inflation optional benefits that were available:*

Simple Benefit Increase Option, Compound Benefit Increase Option, Step-Rated Compound Benefit Increase Option, Tailored Benefit Increase Option, Full Simple Benefit Increase Option, Full Compound Benefit Increase Option, Full Step-Rated Compound Benefit Increase Option, Full Tailored Benefit Increase Option, Deferred Benefit Increase Option, Guaranteed Purchase Option

B. *Additional Optional Benefits that were available:*

Monthly Benefit, Full Restoration of Benefits, Shared Care Benefit, Return of Premium Upon Death, Waiver of Premium for Home Care and Adult Day Care Benefit, Waiver of Premium for Cash Benefit, Joint Waiver of Premium Benefit, Non-Forfeiture Benefit, Accident Benefit, Return of Premium to Age 67

3) Renewability

These policy forms are guaranteed renewable for life, subject to the company's right to change premium rates.

4) **Applicability**

This filing only applies to inforce insureds for policy form ICC10 TLC-3 rates approved in 2012, and the historical and projected experience used in this filing is specific to business issued under the revised rate schedule approved in 2012. The projection only includes active policies that are premium paying as well as policies that are on claim. Policies under this rate schedule were issued from August 2012 until November 2016 for Maryland. The premium change will be applicable to the base rates. There will be no change to the original factors that are applied to the base rates.

5) **Model Change**

The policy form was originally modeled using the MoSes (for pricing) and PolySystems (for valuation) platforms and is currently being modeled in the GGY AXIS platform (for both pricing and valuation). This change was driven by the following reasons:

- Change from a claim cost model to a more sophisticated first principles model
- Claim site methodology changed from current-site model to first-site model

To illustrate original pricing assumptions within this premium rate increase filing, we have modeled the policy form within GGY AXIS using original pricing assumptions and compared the results to those used in original pricing from the MoSes platform.

6) **Morbidity**

The Company's morbidity assumptions are studied on a first principles basis and the claim costs are developed by our first principles models based on the daily benefit, benefit type, expected recovery, expected on-claim mortality, and expected utilization. The underlying claim costs assumptions used in this rate increase filing are based on internal data derived from company experience study and is consistent with the company's best estimate assumption used in cash flow testing, morbidity improvement assumptions of 0.75% per year beginning in 2020 for 15 years.

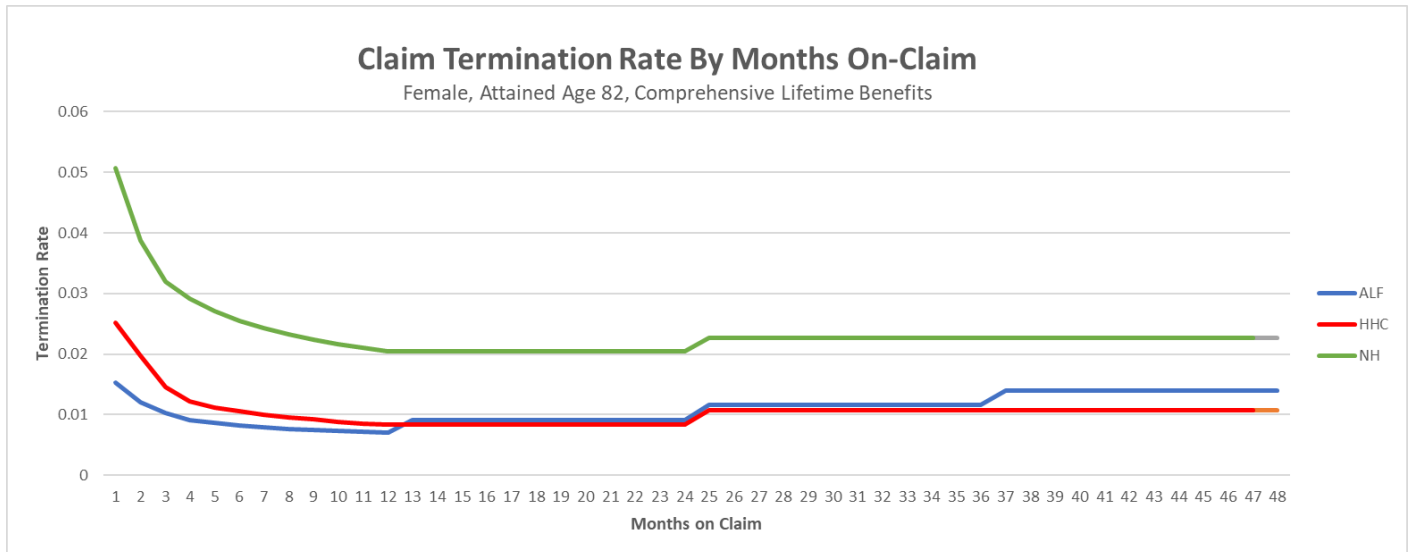
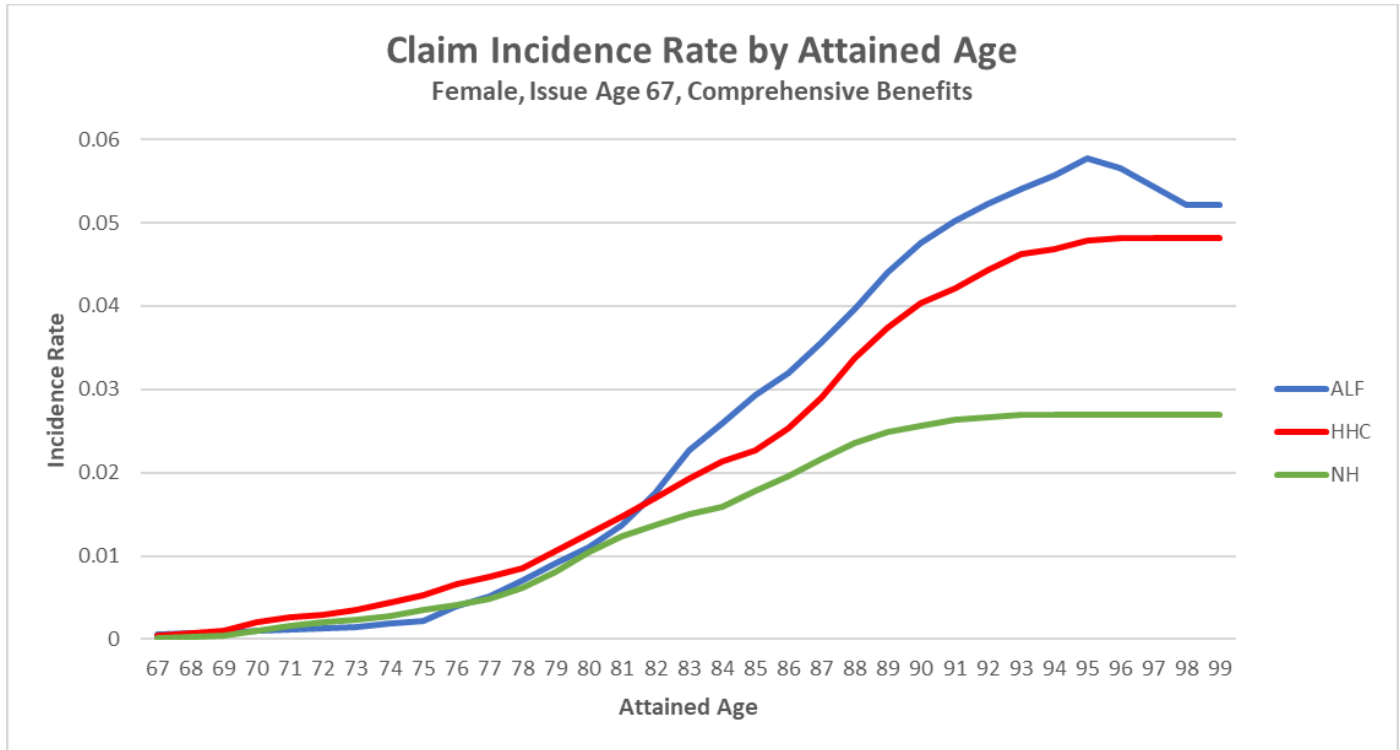
The morbidity improvement assumption is 0.75%, compounding annually for 15 years. Future trends in dementia detection and treatment, pharmaceutical developments, fall prevention programs, etc. are taken into account when setting the assumption. Additionally, industry standards are reviewed when setting all assumptions, and third party consultants review the assumptions annually. Including morbidity improvement in our best estimate projections has the effect of lowering our justified rate increase due to a reduction in incurred claims.

The morbidity improvement assumption is consistent with our best estimate assumptions as 2021.

At this time, Transamerica is not making any changes in assumptions explicitly due to COVID-19. During the year 3/31/2020 through 3/31/2021, Transamerica observed an increase in on-claim mortality, potentially due to COVID-19. No change in the off-claim mortality was observed. Transamerica also observed a decrease in new claims. Most of the decrease was from nursing home claims. Transamerica believes these impacts are one-time effects of COVID-19 and will not impact long term morbidity.

As shown in the enclosed Exhibit II, the projected lifetime Actual to Expected Incurred Claims is 116%. This indicates that the expected present value of lifetime incurred claims under the Company's best estimate assumptions as of 2021, which do not include a margin for adverse experience, are 16% higher than the expected present value of lifetime incurred claims projected using the original pricing assumptions.

Sample claim incidence rate and claim termination (on-claim mortality and recovery) curves by site of care (nursing home, assisted living facility, home health care) are below:



7) Off-Claim Mortality

The off-claim mortality assumption used in our rate filing projection is based on company experience studies and expressed in relation to sex-distinct 2012 IAM tables. Attained age adjustments to the tables vary by marital status and gender, with interpolation between the quinquennial ages. Selection factors are applied by marital status, gender and age band. We apply calendar year adjustments to reflect the experienced calendar year trend. Mortality improvement rates have also been included and vary by gender for 15 years with a calendar year application.

Off-claim mortality assumptions have been included in Attachment C.

As shown in the enclosed Exhibit II, the projected lifetime Actual to Expected Earned Premiums is 100.6%, indicating that the actual mortality rate and/or lapse rate has been lower than assumed in the original pricing.

8) Persistency

Voluntary lapse rates are based on Company experience and vary by duration, issue age, marital status, benefit inflation option (BIO), benefit period, and service group. We have not included shock lapses in our projections.

Persistency assumptions have been included in Attachment B.

9) Expenses

Expenses have not been explicitly projected.

10) Attribution of Requested Rate Increase

As our prior models were on a claims cost basis and our current modeling and assumptions are on a first-principles basis, we have provided an attribution below with persistency, mortality, and morbidity components grouped together.

Assumption Attribution	RINC %
Persistency	5.59%
Mortality	4.81%
Morbidity	12.72%
Total	23.12%

11) Marketing

These policy forms were marketed by agents to individuals 18 years and older. In addition, employers, associations, or affinity groups were accepted for group sponsored rates under this individual policy.

12) Policy Design

Policy design features have been taken into consideration. Benefit provisions, exclusions, elimination periods, benefit periods, number of units, benefit growth, etc. have been accounted for either in the development of claim costs or projection model formulas.

13) Underwriting

These policy forms were underwritten with the use of various underwriting tools in addition to the application, which may have included medical records, an attending physician’s statement, telephone interview and/or face-to-face assessment. The effect of underwriting has been incorporated into the projection and is consistent with the underwriting practice assumed in initial pricing.

14) Claims Adjudication Practice

No significant changes to the standard operating practices of the Claims Department have been necessary to date nor are any changes expected to be necessary in the future. The claim adjudication staff has maintained a consistently high degree of expertise, experience, and performance over the life of these policy forms and this is expected to continue in the future. Therefore, special adjustments due to claim adjudication practice have not been incorporated into the projection.

15) Premiums

Premiums vary based on original issue age, rate class, and benefit options selected.

16) Limited Pay

Only Lifetime Pay option was available.

17) Issue Age Range

Applicants age 18 years and older were eligible for all elimination periods and benefit periods.

18) Area Factors

Area factors are not used for these products.

19) Average Annual Premium

	Maryland	Nationwide
Before increase:	\$1,516	\$1,983
After increase:	\$1,867	\$2,441

A detailed breakdown of the average annual premium before and after the rate increase by state is shown in Attachment D.

20) Premium Modalization Rules

Modal factors which are applied to the annual premium are no greater than as follows:

Annual	1.000
Semi-annual	.520
Quarterly	.265
Monthly	.090

21) Claim Liability and Reserve

The present value of amounts not yet due (Exhibit 6) is calculated for all open claims using termination rates derived from company experience. The resulting reserve is adjusted by factors based on age at incurral, gender, and benefit period developed from company experience. The interest rate varies by year of incurral. The incurred but not reported and in course of settlement reserves are calculated based on the development of incurred claims by month of incurral, based on internal Company data. The claim reserves underlying the incurred claims in the projection are consistent with the reserves reported in Exhibits 6 and 8 of the Company's financial statement.

22) Active Life Reserve

Active life reserves have not been used in this rate filing to demonstrate compliance with the minimum loss ratio requirement. The inclusion of active life reserves would result in a larger justifiable rate increase based on loss ratios and actual-to-expected projections.

23) Trend Assumptions

As this is not medical insurance, we have not included any explicit medical cost trends in the projections.

24) Anticipated Loss Ratio

The original anticipated lifetime loss ratio for these policy forms given the current mix of business is 69.73%, which is greater than the standard 58% loss ratio defined in the rate stability regulations. The original anticipated lifetime loss ratio using the anticipated mix of business at the time of pricing was 71.89% discounting at the 3.5% statutory valuation interest rate. The currently anticipated lifetime loss ratio is 80.4% without the proposed rate increase and 71.4% with the proposed rate increase.

25) Distribution of Business

See Attachment A, which provides a distribution of the actual business sold nationwide through December 31, 2020.

26) Margin for Moderately Adverse Conditions

The margin [rate increase trigger] considered in the original pricing of these policy forms was the greater of a 10% increase in morbidity, 10% decrease in mortality, 10% decrease in lapses, or investment rates that are 50 basis points less than expected. Actual historical experience combined with revised assumptions for morbidity, mortality, and lapses have resulted in lifetime expected loss ratios significantly greater than those anticipated at the time of original pricing. The enclosed Exhibit II shows that the projected lifetime Actual to Expected Incurred Claims is 116%, much greater than the 110% level of morbidity included under adverse conditions.

We also performed sensitivity testing to confirm the adequacy of our morbidity/incidence margin [rate increase trigger] by either decreasing the mortality rate by 10% or decreasing the lapse rate by 10%. The chart below shows the resulting loss ratios without the proposed rate increase of 23.12%. We observe that our 10% incidence margin [rate increase trigger] produces a higher loss ratio and therefore is more conservative than the mortality and lapse scenarios. There are no significant deviations in margins between ages, genders, or plans.

Scenario	LLR w/o RINC	LR w/ 23.12% RINC
10% increase in incidence	85.51%	75.77%
10% decrease in mortality	82.34%	73.11%
10% decrease in lapse	81.70%	72.53%

Consistent with original pricing, the Company has included a 10% margin [rate increase trigger] on the rates after the 23.12% rate increase. That is, should the requested premium rate schedule increase be implemented, no further rate schedule increases are anticipated unless and until actual experience combined with future revised assumptions exceed the margin [rate increase trigger]. The moderately adverse conditions that would trigger a new rate schedule increase request would be the greater of a 10% increase in incidence or a combination of assumptions which exceeds this threshold.

The 10% incidence margin [rate increase trigger] is equivalent to:

- 25.3% decrease in mortality assumption, or
- 38% decrease in lapse assumption

27) Experience on the Form

Assumptions used in this filing are based on experience studies the company performed and finalized in 2020 and reflect the Company's best estimate assumptions as of 2021. The projections shown in Exhibits I, II, and III utilizing these assumptions do not include a margin for adverse experience.

The enclosed Exhibit I shows that more than 69.73% of historical and projected current premiums are paid out as claims and that more than 85% of the proposed rate increased premium portions are paid out as claims. The 69.73% represents the original pricing loss ratio under the current business for this policy form.

See Exhibit I for nationwide calendar year historical experience through December 31, 2020, as well as projected experience thereafter both with and without the proposed rate increase where all policyholders are assumed to pay the increase under the 'with proposed rate increase' scenario.

See Exhibit II for nationwide actual-to-expected experience by duration. Please note that the original pricing assumptions used to obtain the projections shown in Columns D and E do not include a margin for adverse experience.

See Exhibit III for Interstate-Compact-only calendar year historical experience through December 31, 2020, as well as projected experience thereafter both with and without the proposed rate increase where all policyholders are assumed to pay the increase under the 'with proposed rate increase' scenario.

Historical Incurred Claims reflect claim payment runoff through March 31, 2021 plus the claim reserve estimate as of March 31, 2021.

28) Interest Rate

The statutory discount rate used in the contract reserves for this block of business uses 3.5% as prescribed by the NAIC. The interest rate used to accumulate and discount values displayed in Exhibits I, II and III is 3.5%.

29) History of Rate Adjustments

No rate increase history has previously been applied to the premium rate schedule. Furthermore, no rates in non-compacting (or non-participating) states have been subject to past rate increases.

30) Number of Policyholders

As of December 31, 2020, the number of policies that will be affected by this increase is:

	Insureds	Annualized Premium
Maryland	321	\$486,686
Nationwide	18,709	\$37,097,333

A detailed breakdown of counts of insureds and annualized premiums is shown in Attachment D.

31) Proposed Effective Date

The increase will be implemented following approval after fulfillment of all statutory and contractual requirements.

32) Actuarial Certification

I certify that to the best of my knowledge and judgment, this premium rate filing complies with the IIPRC-LTC-I-RateI, and with Actuarial Standard of Practice Nos. 8 and 18 and that:

- No further premium rate schedule increases are anticipated if the requested premium rate schedule increase is implemented and the underlying assumptions, which reflect moderately adverse conditions [rate increase triggers], are realized,
- Policy design, underwriting and claims adjudication practices have been taken into consideration, and
- Per IIPRC-LTC-I-3-RATEI 4C(1)(c), the submitted rate schedule in the supplemental document 'IC - Uni-2B Filing Rates - RINC' contains the rates to which the information in this memo applies.
- The actuarial certification is not reliant on Company actions not otherwise stated in this memorandum.



Brad Rokosh, ASA, MAAA
Head of Financial Assets | Health Products

Attachment A

Distribution of Business Based on Actual Nationwide Business
Issued Through December 31, 2020

Premium Pay Type

	Original	Actual
Regular / Lifetime	100.0%	100.0%

Issue Age Groups

	Original	Actual
0-59	57.9%	68.14%
60-64	23.2%	20.48%
65-69	13.4%	8.95%
70-74	4.9%	2.20%
75+	0.6%	0.24%

Benefit Period

	Original	Actual
Less than 3	18.4%	17.0%
3	55.2%	54.2%
4	10.8%	13.9%
5	13.0%	13.0%
Greater than 5	2.6%	1.9%

Service Group

	Original	Actual
Individual	20.6%	19.1%
Association	36.2%	18.7%
Worksite	43.2%	62.1%

BIO

	Original	Actual
Compound Daily	0.0%	2.0%
Compound 3%	37.5%	31.0%
Compound 5%	12.0%	8.6%
Tailored	0.0%	6.7%
Simple	5.5%	1.0%
Step rated	8.1%	21.0%
No BIO	36.9%	29.7%

Elimination Period

	Original	Actual
0 day	1.0%	0.28%
20-30 day	3.0%	0.86%
60 day	3.0%	0.73%
90 - 100 day	90.0%	97.08%
> 100 days	3.0%	1.05%

Marital Status

	Original	Actual
Single	23.0%	24.9%
Married	77.0%	75.1%

Gender

	Original	Actual
Male	44.3%	39.9%
Female	55.7%	60.1%

Attachment B

Persistency/voluntary lapse rates:

The voluntary lapse rate is calculated by summing the base issue age and duration component (see Table 1 below), the limited benefit issue age and duration component (see Table 2 below), and attained age component (see Table 3 below), and then multiplying this sum by service group adjustments for the business sold to worksite or affinity groups (see Table 3 below). The service group adjustment grades to 100% between policy year 11 and 20.

TABLE 1

Married											
Issue Age BIO Flag	Ages 0-39		Ages 40-49		Ages 50-59		Ages 60-69		Ages 70-79		
	N	Y	N	Y	N	Y	N	Y	N	Y	
1	6.43%	5.29%	3.58%	2.95%	2.70%	2.22%	3.50%	2.88%	5.13%	4.22%	
2	4.95%	4.07%	2.69%	2.22%	2.03%	1.67%	2.89%	2.38%	3.62%	2.98%	
3	3.87%	3.18%	2.47%	2.03%	1.86%	1.53%	2.41%	1.98%	2.70%	2.22%	
4	3.03%	2.49%	2.27%	1.86%	1.70%	1.40%	2.00%	1.65%	2.09%	1.72%	
5	2.51%	2.06%	2.17%	1.79%	1.55%	1.28%	1.66%	1.36%	1.70%	1.40%	
6	2.22%	1.83%	2.08%	1.71%	1.41%	1.16%	1.37%	1.12%	1.43%	1.17%	
7	2.12%	1.75%	1.99%	1.64%	1.28%	1.05%	1.13%	0.93%	1.23%	1.01%	
8	1.99%	1.64%	1.71%	1.40%	1.16%	0.95%	0.93%	0.77%	1.07%	0.88%	
9	1.93%	1.59%	1.46%	1.20%	1.05%	0.86%	0.79%	0.65%	0.90%	0.74%	
10	1.74%	1.43%	1.22%	1.00%	0.88%	0.73%	0.67%	0.55%	0.85%	0.70%	
11	1.43%	1.18%	1.03%	0.85%	0.70%	0.57%	0.61%	0.50%	0.77%	0.63%	
12	1.31%	1.08%	0.85%	0.70%	0.62%	0.51%	0.55%	0.46%	0.71%	0.58%	
13	1.21%	0.99%	0.81%	0.67%	0.55%	0.45%	0.52%	0.43%	0.65%	0.53%	
14	1.20%	0.98%	0.72%	0.60%	0.48%	0.39%	0.51%	0.42%	0.59%	0.49%	
15	1.20%	0.98%	0.71%	0.59%	0.47%	0.38%	0.52%	0.43%	0.54%	0.45%	
16	1.17%	0.96%	0.65%	0.54%	0.46%	0.38%	0.54%	0.45%	0.52%	0.43%	
17	1.08%	0.89%	0.63%	0.52%	0.44%	0.36%	0.55%	0.45%	0.51%	0.42%	
18	0.99%	0.82%	0.63%	0.52%	0.42%	0.35%	0.55%	0.45%	0.52%	0.43%	
19	0.99%	0.82%	0.63%	0.52%	0.42%	0.35%	0.56%	0.46%	0.56%	0.46%	
20	1.02%	0.84%	0.72%	0.59%	0.49%	0.41%	0.59%	0.48%	0.70%	0.57%	
21	1.02%	0.84%	0.72%	0.59%	0.49%	0.41%	0.59%	0.48%	0.70%	0.57%	
22	1.02%	0.84%	0.72%	0.59%	0.49%	0.41%	0.59%	0.48%	0.70%	0.57%	
23	1.02%	0.84%	0.72%	0.59%	0.49%	0.41%	0.59%	0.48%	0.70%	0.57%	
24	1.02%	0.84%	0.72%	0.59%	0.49%	0.41%	0.59%	0.48%	0.70%	0.57%	
25+	1.02%	0.84%	0.72%	0.59%	0.49%	0.41%	0.59%	0.48%	0.70%	0.57%	

Single											
Issue Age BIO Flag	Ages 0-39		Ages 40-49		Ages 50-59		Ages 60-69		Ages 70-79		
	N	Y	N	Y	N	Y	N	Y	N	Y	
1	10.13%	8.77%	5.64%	4.88%	4.25%	3.68%	5.52%	4.78%	8.08%	6.99%	
2	7.80%	6.75%	4.24%	3.67%	3.19%	2.76%	4.55%	3.94%	5.71%	4.94%	
3	6.10%	5.28%	3.89%	3.37%	2.93%	2.54%	3.80%	3.29%	4.25%	3.68%	
4	4.77%	4.13%	3.57%	3.09%	2.68%	2.32%	3.16%	2.73%	3.30%	2.85%	
5	3.95%	3.42%	3.42%	2.96%	2.44%	2.12%	2.61%	2.26%	2.67%	2.31%	
6	3.51%	3.03%	3.28%	2.84%	2.22%	1.92%	2.15%	1.86%	2.25%	1.95%	
7	3.34%	2.89%	3.14%	2.71%	2.02%	1.74%	1.77%	1.54%	1.94%	1.68%	
8	3.14%	2.72%	2.69%	2.33%	1.82%	1.58%	1.47%	1.27%	1.68%	1.45%	
9	3.04%	2.63%	2.29%	1.99%	1.65%	1.43%	1.24%	1.07%	1.42%	1.23%	
10	2.74%	2.37%	1.92%	1.66%	1.39%	1.20%	1.06%	0.92%	1.34%	1.16%	
11	2.26%	1.96%	1.63%	1.41%	1.10%	0.95%	0.95%	0.83%	1.21%	1.05%	
12	2.06%	1.79%	1.34%	1.16%	0.98%	0.85%	0.87%	0.75%	1.12%	0.97%	
13	1.90%	1.65%	1.28%	1.11%	0.87%	0.75%	0.83%	0.72%	1.02%	0.88%	
14	1.88%	1.63%	1.14%	0.99%	0.75%	0.65%	0.81%	0.70%	0.93%	0.80%	
15	1.88%	1.63%	1.12%	0.97%	0.73%	0.63%	0.82%	0.71%	0.85%	0.74%	
16	1.84%	1.59%	1.03%	0.89%	0.73%	0.63%	0.86%	0.74%	0.82%	0.71%	
17	1.70%	1.47%	0.99%	0.85%	0.69%	0.60%	0.86%	0.74%	0.80%	0.69%	
18	1.57%	1.35%	0.99%	0.85%	0.67%	0.58%	0.87%	0.75%	0.82%	0.71%	
19	1.57%	1.35%	0.99%	0.85%	0.67%	0.58%	0.88%	0.76%	0.88%	0.76%	
20	1.61%	1.40%	1.13%	0.98%	0.78%	0.67%	0.92%	0.80%	1.10%	0.95%	
21	1.61%	1.40%	1.13%	0.98%	0.78%	0.67%	0.92%	0.80%	1.10%	0.95%	
22	1.61%	1.40%	1.13%	0.98%	0.78%	0.67%	0.92%	0.80%	1.10%	0.95%	
23	1.61%	1.40%	1.13%	0.98%	0.78%	0.67%	0.92%	0.80%	1.10%	0.95%	
24	1.61%	1.40%	1.13%	0.98%	0.78%	0.67%	0.92%	0.80%	1.10%	0.95%	
25+	1.61%	1.40%	1.13%	0.98%	0.78%	0.67%	0.92%	0.80%	1.10%	0.95%	

TABLE 2

2 Year Married										
Issue Ages BIO Flag	Ages 0-39		Ages 40-49		Ages 50-59		Ages 60-69		Ages 70-79	
	N	Y	N	Y	N	Y	N	Y	N	Y
1	2.06%	-0.49%	2.23%	-0.27%	2.06%	-0.15%	1.69%	-0.67%	-1.18%	-2.38%
2	3.50%	0.70%	2.93%	0.37%	1.83%	0.01%	1.38%	-0.56%	-0.50%	-1.53%
3	3.86%	1.18%	2.57%	0.29%	1.61%	-0.02%	0.79%	-0.62%	-0.46%	-1.18%
4	3.97%	1.46%	2.23%	0.20%	1.40%	-0.05%	0.35%	-0.64%	-0.54%	-1.00%
5	3.77%	1.48%	1.82%	0.05%	1.20%	-0.08%	0.04%	-0.64%	-0.65%	-0.91%
6	3.18%	1.23%	1.45%	-0.09%	1.00%	-0.11%	-0.18%	-0.62%	-0.74%	-0.86%
7	2.63%	0.94%	1.13%	-0.21%	0.81%	-0.14%	-0.32%	-0.58%	-0.79%	-0.81%
8	2.14%	0.69%	1.03%	-0.15%	0.64%	-0.17%	-0.39%	-0.54%	-0.78%	-0.74%
9	1.63%	0.42%	0.95%	-0.09%	0.48%	-0.20%	-0.42%	-0.49%	-0.70%	-0.65%
10	1.30%	0.29%	0.89%	-0.03%	0.41%	-0.17%	-0.43%	-0.45%	-0.68%	-0.62%
11	1.15%	0.28%	0.82%	0.00%	0.37%	-0.11%	-0.42%	-0.42%	-0.60%	-0.56%
12	0.89%	0.17%	0.80%	0.06%	0.20%	-0.15%	-0.40%	-0.39%	-0.54%	-0.51%
13	0.70%	0.08%	0.66%	0.01%	0.04%	-0.20%	-0.38%	-0.37%	-0.48%	-0.46%
14	0.51%	-0.02%	0.62%	0.02%	-0.08%	-0.22%	-0.36%	-0.36%	-0.42%	-0.41%
15	0.42%	-0.07%	0.54%	-0.01%	-0.17%	-0.25%	-0.36%	-0.36%	-0.38%	-0.37%
16	0.46%	-0.04%	0.56%	0.02%	-0.23%	-0.28%	-0.38%	-0.38%	-0.35%	-0.35%
17	0.69%	0.11%	0.58%	0.04%	-0.24%	-0.27%	-0.38%	-0.38%	-0.34%	-0.34%
18	0.72%	0.15%	0.62%	0.06%	-0.23%	-0.26%	-0.39%	-0.38%	-0.36%	-0.35%
19	0.66%	0.12%	0.63%	0.06%	-0.23%	-0.26%	-0.41%	-0.40%	-0.39%	-0.38%
20+	0.60%	0.08%	0.54%	-0.01%	-0.10%	-0.23%	-0.45%	-0.42%	-0.33%	-0.40%

2 Year Single

Issue Ages BIO Flag	Ages 0-39		Ages 40-49		Ages 50-59		Ages 60-69		Ages 70-79	
	N	Y	N	Y	N	Y	N	Y	N	Y
1	-1.78%	-2.68%	2.56%	-0.02%	2.58%	0.16%	2.76%	-0.22%	-1.55%	-3.08%
2	0.52%	-0.68%	3.69%	1.04%	2.34%	0.35%	2.26%	-0.19%	-0.55%	-1.85%
3	1.50%	0.27%	3.22%	0.85%	2.05%	0.27%	1.32%	-0.48%	-0.56%	-1.46%
4	2.11%	0.89%	2.77%	0.68%	1.77%	0.19%	0.61%	-0.66%	-0.73%	-1.31%
5	2.22%	1.08%	2.21%	0.38%	1.51%	0.11%	0.09%	-0.77%	-0.94%	-1.27%
6	1.81%	0.85%	1.71%	0.12%	1.24%	0.02%	-0.26%	-0.82%	-1.11%	-1.27%
7	1.33%	0.52%	1.26%	-0.10%	0.98%	-0.06%	-0.48%	-0.82%	-1.21%	-1.24%
8	0.92%	0.25%	1.17%	-0.03%	0.76%	-0.13%	-0.61%	-0.80%	-1.21%	-1.17%
9	0.46%	-0.08%	1.09%	0.03%	0.54%	-0.19%	-0.66%	-0.75%	-1.09%	-1.03%
10	0.25%	-0.19%	1.06%	0.11%	0.46%	-0.16%	-0.67%	-0.70%	-1.06%	-0.99%
11	0.28%	-0.10%	0.99%	0.15%	0.44%	-0.09%	-0.66%	-0.67%	-0.94%	-0.88%
12	0.10%	-0.21%	0.98%	0.22%	0.20%	-0.18%	-0.63%	-0.62%	-0.84%	-0.80%
13	-0.03%	-0.28%	0.80%	0.13%	-0.02%	-0.28%	-0.60%	-0.59%	-0.75%	-0.72%
14	-0.20%	-0.40%	0.75%	0.14%	-0.19%	-0.33%	-0.57%	-0.57%	-0.65%	-0.64%
15	-0.30%	-0.47%	0.65%	0.08%	-0.31%	-0.40%	-0.56%	-0.57%	-0.58%	-0.57%
16	-0.24%	-0.42%	0.68%	0.13%	-0.39%	-0.44%	-0.59%	-0.59%	-0.55%	-0.55%
17	0.04%	-0.20%	0.71%	0.16%	-0.41%	-0.44%	-0.59%	-0.60%	-0.53%	-0.53%
18	0.12%	-0.12%	0.77%	0.19%	-0.39%	-0.42%	-0.60%	-0.61%	-0.55%	-0.55%
19	0.06%	-0.17%	0.78%	0.19%	-0.39%	-0.42%	-0.64%	-0.63%	-0.60%	-0.60%
20+	-0.02%	-0.23%	0.65%	0.08%	-0.21%	-0.35%	-0.70%	-0.68%	-0.48%	-0.58%

4 Year Married

Issue Ages BIO Flag	Ages 0-39		Ages 40-49		Ages 50-59		Ages 60-69		Ages 70-79	
	N	Y	N	Y	N	Y	N	Y	N	Y
1	1.75%	0.64%	0.19%	-0.45%	-0.54%	-0.28%	-0.47%	-0.45%	-2.32%	-2.18%
2	1.99%	0.96%	0.69%	0.03%	-0.43%	-0.23%	-0.50%	-0.46%	-1.65%	-1.55%
3	1.99%	1.07%	0.56%	-0.03%	-0.43%	-0.25%	-0.92%	-0.78%	-1.26%	-1.18%
4	1.90%	1.08%	0.44%	-0.08%	-0.43%	-0.25%	-0.93%	-0.79%	-0.98%	-0.91%
5	1.62%	0.93%	0.23%	-0.20%	-0.41%	-0.25%	-0.69%	-0.59%	-0.77%	-0.72%
6	1.23%	0.67%	0.05%	-0.30%	-0.39%	-0.25%	-0.51%	-0.44%	-0.59%	-0.57%
7	0.79%	0.36%	-0.09%	-0.38%	-0.37%	-0.23%	-0.40%	-0.34%	-0.45%	-0.44%
8	0.49%	0.16%	-0.02%	-0.29%	-0.34%	-0.22%	-0.25%	-0.22%	-0.32%	-0.33%
9	0.24%	-0.02%	0.06%	-0.20%	-0.31%	-0.20%	-0.14%	-0.12%	-0.19%	-0.22%
10	0.24%	0.00%	0.15%	-0.10%	-0.22%	-0.13%	-0.07%	-0.07%	-0.18%	-0.21%
11	0.38%	0.14%	0.15%	-0.06%	-0.14%	-0.07%	-0.07%	-0.07%	-0.18%	-0.21%
12	0.38%	0.15%	0.20%	-0.01%	-0.16%	-0.09%	-0.09%	-0.09%	-0.18%	-0.20%
13	0.36%	0.14%	0.09%	-0.07%	-0.17%	-0.11%	-0.12%	-0.11%	-0.17%	-0.19%
14	0.26%	0.07%	0.03%	-0.10%	-0.17%	-0.11%	-0.16%	-0.14%	-0.16%	-0.18%
15	0.16%	0.00%	-0.10%	-0.18%	-0.20%	-0.15%	-0.21%	-0.18%	-0.18%	-0.18%
16	0.09%	-0.05%	-0.04%	-0.13%	-0.25%	-0.19%	-0.28%	-0.23%	-0.16%	-0.17%
17	0.09%	-0.04%	0.13%	-0.02%	-0.25%	-0.19%	-0.32%	-0.27%	-0.09%	-0.12%
18	0.18%	0.03%	0.27%	0.08%	-0.26%	-0.20%	-0.28%	-0.24%	-0.05%	-0.09%
19	0.18%	0.03%	0.42%	0.18%	-0.23%	-0.18%	-0.25%	-0.21%	0.03%	-0.03%
20+	0.15%	0.01%	0.47%	0.20%	-0.25%	-0.19%	-0.23%	-0.20%	0.01%	-0.06%

4 Year Single

Issue Ages BIO Flag	Ages 0-39		Ages 40-49		Ages 50-59		Ages 60-69		Ages 70-79	
	N	Y	N	Y	N	Y	N	Y	N	Y
1	-2.28%	1.18%	-2.02%	-0.70%	-2.18%	-0.43%	-2.61%	-0.69%	-5.38%	-3.58%
2	-1.13%	1.69%	-0.99%	0.09%	-1.66%	-0.35%	-2.26%	-0.72%	-3.81%	-2.54%
3	-0.47%	1.85%	-0.98%	-0.01%	-1.56%	-0.38%	-2.37%	-1.28%	-2.87%	-1.93%
4	-0.05%	1.86%	-0.97%	-0.09%	-1.46%	-0.40%	-2.13%	-1.29%	-2.23%	-1.50%
5	0.01%	1.59%	-1.12%	-0.30%	-1.35%	-0.40%	-1.69%	-0.96%	-1.78%	-1.18%
6	-0.19%	1.16%	-1.23%	-0.47%	-1.25%	-0.39%	-1.33%	-0.71%	-1.45%	-0.93%
7	-0.55%	0.64%	-1.31%	-0.61%	-1.14%	-0.37%	-1.08%	-0.56%	-1.19%	-0.72%
8	-0.76%	0.30%	-1.07%	-0.45%	-1.04%	-0.35%	-0.81%	-0.35%	-0.96%	-0.54%
9	-0.96%	0.00%	-0.84%	-0.31%	-0.95%	-0.32%	-0.61%	-0.20%	-0.73%	-0.36%
10	-0.84%	0.04%	-0.61%	-0.15%	-0.76%	-0.21%	-0.48%	-0.10%	-0.70%	-0.34%
11	-0.52%	0.25%	-0.49%	-0.09%	-0.56%	-0.10%	-0.44%	-0.11%	-0.65%	-0.33%
12	-0.44%	0.27%	-0.33%	0.00%	-0.53%	-0.15%	-0.43%	-0.13%	-0.61%	-0.32%
13	-0.40%	0.26%	-0.41%	-0.11%	-0.50%	-0.17%	-0.44%	-0.18%	-0.57%	-0.31%
14	-0.48%	0.14%	-0.42%	-0.15%	-0.45%	-0.18%	-0.47%	-0.22%	-0.52%	-0.29%
15	-0.58%	0.02%	-0.54%	-0.30%	-0.48%	-0.24%	-0.52%	-0.29%	-0.51%	-0.30%
16	-0.63%	-0.06%	-0.44%	-0.21%	-0.52%	-0.31%	-0.60%	-0.38%	-0.47%	-0.27%
17	-0.58%	-0.05%	-0.26%	-0.02%	-0.50%	-0.31%	-0.65%	-0.44%	-0.40%	-0.19%
18	-0.44%	0.07%	-0.12%	0.14%	-0.51%	-0.33%	-0.61%	-0.39%	-0.37%	-0.13%
19	-0.44%	0.07%	0.01%	0.30%	-0.49%	-0.29%	-0.58%	-0.34%	-0.31%	-0.04%
20+	-0.49%	0.03%	0.01%	0.34%	-0.54%	-0.31%	-0.58%	-0.32%	-0.42%	-0.10%

TABLE 3

Attained Age Lapse Rates				Service Group Lapse Adjustments				
Attained Age	2 Year Benefit Period	4 Year Benefit Period	Lifetime Benefit Period	Attained Age	Worksite Service Groups	Association Service Groups	Not in a Service Group	2yrBP Comp3 Worksite
0-29	0.00%	0.00%	0.00%	0-29	263%	174%	100%	538%
30	0.00%	0.00%	0.00%	30	255%	173%	100%	538%
31	0.00%	0.00%	0.00%	31	242%	172%	100%	538%
32	0.00%	0.00%	0.00%	32	230%	171%	100%	538%
33	0.00%	0.00%	0.00%	33	218%	168%	100%	538%
34	0.00%	0.00%	0.00%	34	203%	165%	100%	538%
35	0.00%	0.00%	0.00%	35	203%	162%	100%	538%
36	0.00%	0.00%	0.00%	36	203%	159%	100%	538%
37	0.00%	0.00%	0.00%	37	203%	155%	100%	538%
38	0.00%	0.00%	0.00%	38	203%	151%	100%	538%
39	0.00%	0.00%	0.00%	39	203%	147%	100%	538%
40	0.00%	0.00%	0.00%	40	203%	143%	100%	538%
41	0.00%	0.00%	0.00%	41	203%	139%	100%	484%
42	0.00%	0.00%	0.00%	42	203%	135%	100%	436%
43	0.00%	0.00%	0.00%	43	203%	131%	100%	392%
44	0.00%	0.00%	0.00%	44	203%	128%	100%	353%
45	0.00%	0.00%	0.00%	45	203%	124%	100%	371%
46	0.00%	0.00%	0.00%	46	203%	120%	100%	371%
47	0.00%	0.00%	0.00%	47	203%	116%	100%	371%
48	0.00%	0.00%	0.00%	48	203%	112%	100%	371%
49	0.00%	0.00%	0.00%	49	203%	108%	100%	371%
50	0.00%	0.00%	0.00%	50	203%	105%	100%	368%
51	0.00%	0.00%	0.00%	51	203%	100%	100%	365%
52	0.08%	0.00%	0.00%	52	203%	97%	100%	359%
53	0.08%	0.00%	0.00%	53	203%	94%	100%	359%
54	0.08%	0.00%	0.00%	54	203%	93%	100%	359%
55	0.08%	0.10%	0.00%	55	203%	92%	100%	365%
56	0.08%	0.10%	0.00%	56	203%	91%	100%	359%
57	0.08%	0.10%	0.00%	57	196%	90%	100%	359%
58	0.08%	0.10%	0.00%	58	189%	89%	100%	359%
59	0.08%	0.10%	0.00%	59	181%	88%	100%	359%
60	0.11%	0.19%	0.00%	60	174%	86%	100%	359%
61	0.12%	0.20%	0.00%	61	168%	84%	100%	359%
62	0.14%	0.20%	0.00%	62	163%	82%	100%	359%
63	0.15%	0.20%	0.00%	63	158%	80%	100%	359%
64	0.24%	0.20%	0.00%	64	153%	78%	100%	359%
65	0.48%	0.20%	0.00%	65	148%	76%	100%	359%
66	0.51%	0.20%	0.00%	66	143%	75%	100%	359%
67	0.54%	0.20%	0.00%	67	138%	75%	100%	354%
68	0.57%	0.20%	0.00%	68	133%	75%	100%	344%
69	0.60%	0.20%	0.00%	69	128%	75%	100%	334%
70	0.60%	0.20%	0.00%	70	123%	75%	100%	319%
71	0.60%	0.20%	0.00%	71	118%	76%	100%	301%
72	0.60%	0.20%	0.00%	72	113%	78%	100%	283%
73	0.60%	0.20%	0.00%	73	108%	80%	100%	267%
74	0.60%	0.20%	0.00%	74	103%	82%	100%	251%
75	0.70%	0.20%	0.03%	75	98%	83%	100%	236%
76	0.72%	0.20%	0.03%	76	93%	84%	100%	221%
77	0.76%	0.20%	0.03%	77	88%	85%	100%	206%
78	0.80%	0.20%	0.03%	78	83%	86%	100%	193%
79	0.86%	0.32%	0.03%	79	78%	87%	100%	180%
80	0.94%	0.37%	0.03%	80	78%	88%	100%	168%
81	0.99%	0.45%	0.11%	81	78%	89%	100%	156%
82	1.03%	0.54%	0.16%	82	78%	90%	100%	145%
83	1.12%	0.65%	0.21%	83	78%	91%	100%	134%
84	1.22%	0.73%	0.32%	84	78%	92%	100%	124%
85	1.40%	0.96%	0.39%	85	78%	92%	100%	118%
86	1.59%	1.06%	0.61%	86	78%	91%	100%	116%
87	1.80%	1.17%	0.70%	87	78%	90%	100%	116%
88	2.03%	1.27%	0.77%	88	78%	89%	100%	116%
89	2.31%	1.37%	0.85%	89	78%	88%	100%	116%
90	2.82%	1.88%	1.07%	90	78%	87%	100%	116%
91	3.07%	2.08%	1.47%	91	78%	86%	100%	116%
92	3.27%	2.32%	1.86%	92	78%	85%	100%	116%
93	3.52%	2.57%	2.25%	93	78%	85%	100%	116%
94	3.78%	2.86%	2.35%	94	78%	85%	100%	116%
95	4.02%	4.02%	2.45%	95	78%	85%	100%	116%
96	4.42%	4.12%	2.55%	96	78%	85%	100%	116%
97	4.73%	4.22%	2.65%	97	78%	85%	100%	116%
98	5.04%	4.32%	2.75%	98	78%	85%	100%	116%
99	5.30%	4.42%	2.80%	99	78%	85%	100%	116%
100	5.51%	4.52%	2.81%	100	78%	85%	100%	116%
101	5.72%	4.55%	2.82%	101	78%	85%	100%	116%
102	5.91%	4.55%	2.82%	102	78%	85%	100%	116%
103	6.08%	4.55%	2.82%	103	78%	85%	100%	116%
104	6.27%	4.55%	2.82%	104	78%	85%	100%	116%
105	6.46%	4.55%	2.82%	105	78%	85%	100%	116%
106	6.65%	4.55%	2.82%	106	78%	85%	100%	116%
107	6.84%	4.55%	2.82%	107	78%	85%	100%	116%
108	7.03%	4.55%	2.82%	108	78%	85%	100%	116%
109	7.22%	4.55%	2.82%	109	78%	85%	100%	116%
110	7.22%	4.55%	2.82%	110	78%	85%	100%	116%
111	7.22%	4.55%	2.82%	111	78%	85%	100%	116%
112	7.22%	4.55%	2.82%	112	78%	85%	100%	116%
113	7.22%	4.55%	2.82%	113	78%	85%	100%	116%
114	7.22%	4.55%	2.82%	114	78%	85%	100%	116%
115	7.22%	4.55%	2.82%	115	78%	85%	100%	116%
116	7.22%	4.55%	2.82%	116	78%	85%	100%	116%
117	7.22%	4.55%	2.82%	117	78%	85%	100%	116%
118	7.22%	4.55%	2.82%	118	78%	85%	100%	116%
119	7.22%	4.55%	2.82%	119	78%	85%	100%	116%

Attachment C

Off-claim mortality

TABLE 1 – Death rate adjustments to 2012 IAM

2000+				
	Married		Single	
Age Band	Female	Male	Female	Male
37	57.1%	31.4%	80.0%	50.3%
42	57.1%	31.4%	80.0%	50.3%
47	57.1%	31.4%	80.0%	50.3%
52	57.1%	31.4%	80.0%	50.3%
57	57.1%	31.4%	80.0%	50.3%
62	40.8%	34.7%	62.0%	50.3%
67	45.0%	37.8%	52.8%	45.4%
72	43.4%	43.6%	61.2%	49.3%
77	43.4%	40.3%	58.1%	62.2%
82	49.9%	49.5%	53.0%	48.0%
87	45.5%	46.4%	48.2%	58.2%
92	45.5%	47.0%	57.4%	55.7%
97	45.5%	47.0%	57.4%	55.7%
102	45.5%	47.0%	57.4%	55.7%
107	45.5%	47.0%	57.4%	55.7%

TABLE 2 – Annual trend and corresponding experience year adjustments

Year	Females	Females	Males	Males
	Married	Single	Married	Single
2012	1.268	1.278	1.668	1.754
2013	1.250	1.264	1.644	1.734
2014	1.233	1.250	1.622	1.715
2015	1.216	1.237	1.599	1.696
2016	1.199	1.223	1.577	1.678
2017	1.182	1.210	1.555	1.659
2018	1.166	1.196	1.533	1.641
2019+	1.150	1.183	1.512	1.623

TABLE 3 – Selection Factors

	Single 2000+ Females				Married 2000+ Females		
	00-59	60-69	70-79		00-59	60-69	70-79
1	0.344	0.318	0.205		0.198	0.252	0.393
2	0.336	0.373	0.299		0.313	0.315	0.500
3	0.367	0.449	0.345		0.427	0.378	0.607
4	0.399	0.525	0.428		0.542	0.454	0.713
5	0.477	0.623	0.485		0.656	0.530	0.794
6	0.650	0.686	0.550		0.774	0.594	0.833
7	0.870	0.747	0.600		0.837	0.720	0.833
8	0.970	0.814	0.729		0.868	0.876	0.833
9	0.970	0.898	0.780		0.900	0.890	0.833
10	0.970	0.900	0.814		0.915	0.900	0.833
11	0.971	0.900	0.812		0.937	0.910	0.833
12	0.973	0.900	0.815		0.960	0.920	0.845
13	0.990	0.900	0.844		0.990	0.930	0.860
14	1.000	0.917	0.846		1.000	0.940	0.890
15	1.000	0.941	0.880		1.000	0.950	0.920
16	1.000	0.960	0.956		1.000	0.960	0.960
17	1.000	1.000	1.000		1.000	1.000	1.000
18	1.000	1.000	1.000		1.000	1.000	1.000
19	1.000	1.000	1.000		1.000	1.000	1.000
20	1.000	1.000	1.000		1.000	1.000	1.000

	Single 2000+ Males				Married 2000+ Males		
	00-59	60-69	70-79		00-59	60-69	70-79
1	0.318	0.256	0.227		0.290	0.360	0.207
2	0.430	0.367	0.397		0.422	0.506	0.328
3	0.546	0.477	0.440		0.556	0.649	0.451
4	0.679	0.578	0.500		0.719	0.768	0.552
5	0.824	0.657	0.585		0.881	0.847	0.631
6	0.990	0.720	0.687		0.915	0.900	0.700
7	0.995	0.860	0.750		0.940	0.950	0.787
8	0.995	0.910	0.781		0.940	0.970	0.850
9	0.995	0.921	0.781		0.940	0.970	0.850
10	0.995	0.930	0.781		0.940	0.970	0.850
11	0.995	0.930	0.781		0.944	0.970	0.850
12	0.995	0.930	0.824		0.947	0.970	0.850
13	0.995	0.941	0.880		0.970	0.970	0.860
14	1.000	0.941	0.880		1.000	0.970	0.880
15	1.000	0.941	0.880		1.000	0.970	0.900
16	1.000	0.941	0.956		1.000	0.970	0.956
17	1.000	1.000	1.000		1.000	1.000	1.000
18	1.000	1.000	1.000		1.000	1.000	1.000
19	1.000	1.000	1.000		1.000	1.000	1.000
20	1.000	1.000	1.000		1.000	1.000	1.000

Attachment D

State	Count	Annual Premium	Avg Prem before rate increase	Avg Prem after rate increase
AK	15	20,333	\$ 1,356	\$ 1,669
AL	110	176,473	\$ 1,604	\$ 1,975
CO	498	798,447	\$ 1,603	\$ 1,974
GA	751	1,217,972	\$ 1,622	\$ 1,997
IA	303	500,058	\$ 1,650	\$ 2,032
ID	38	70,899	\$ 1,866	\$ 2,297
IL	559	949,229	\$ 1,698	\$ 2,091
KS	144	227,128	\$ 1,577	\$ 1,942
KY	188	243,159	\$ 1,293	\$ 1,592
LA	194	241,180	\$ 1,243	\$ 1,531
MA	765	1,367,504	\$ 1,788	\$ 2,201
MD	321	486,686	\$ 1,516	\$ 1,867
ME	39	92,682	\$ 2,376	\$ 2,926
MI	158	284,585	\$ 1,801	\$ 2,218
MN	861	1,273,545	\$ 1,479	\$ 1,821
MO	216	353,445	\$ 1,636	\$ 2,015
MS	58	103,345	\$ 1,782	\$ 2,194
NC	242	461,843	\$ 1,908	\$ 2,350
NE	92	155,957	\$ 1,695	\$ 2,087
NH	85	193,146	\$ 2,272	\$ 2,798
NM	40	59,359	\$ 1,484	\$ 1,827
OH	379	714,730	\$ 1,886	\$ 2,322
OK	78	160,333	\$ 2,056	\$ 2,531
OR	313	407,699	\$ 1,303	\$ 1,604
PA	351	697,937	\$ 1,988	\$ 2,448
RI	26	59,626	\$ 2,293	\$ 2,824
SC	133	263,731	\$ 1,983	\$ 2,441
TN	109	202,338	\$ 1,856	\$ 2,285
TX	723	1,164,099	\$ 1,610	\$ 1,982
UT	47	72,554	\$ 1,544	\$ 1,901
VA	525	905,135	\$ 1,724	\$ 2,123
VT	16	31,189	\$ 1,949	\$ 2,400
WA	372	580,856	\$ 1,561	\$ 1,922
WI	442	702,409	\$ 1,589	\$ 1,957
WV	10	22,681	\$ 2,268	\$ 2,792
WY	29	73,622	\$ 2,539	\$ 3,126
IC States	9,230	15,335,912	\$ 1,662	\$ 2,046

State	Count	Annual Premium	Avg Prem before rate increase	Avg Prem after rate increase
AR	29	56,015	\$ 1,932	\$ 2,378
AZ	925	1,786,337	\$ 1,931	\$ 2,378
CA	2,973	5,559,804	\$ 1,870	\$ 2,302
CT	1,827	5,136,885	\$ 2,812	\$ 3,462
DE	80	132,143	\$ 1,652	\$ 2,034
FL	832	1,885,256	\$ 2,266	\$ 2,790
IN	1,082	3,098,157	\$ 2,863	\$ 3,525
MT	165	387,675	\$ 2,350	\$ 2,893
ND	275	659,045	\$ 2,397	\$ 2,951
NJ	1,053	2,541,871	\$ 2,414	\$ 2,972
NV	134	213,230	\$ 1,591	\$ 1,959
SD	104	305,002	\$ 2,933	\$ 3,611
Non-IC States	9,479	21,761,421	\$ 2,296	\$ 2,827

Appendix A

Benefit Reduction and Cost Sharing Option

The Benefit Reduction and Cost Sharing Endorsement (the "Endorsement") consists of two components:

1. Reduction to all policy benefit amounts, including but not limited to the Maximum Daily Benefit, Maximum Monthly Benefit and the policy Maximum Amount

All policy benefit amounts (including, but not limited to, all Maximum Daily/Monthly Benefit amounts and the policy Maximum Amount) in effect immediately prior to the Endorsement effective date will be reduced by an amount equal to the Cost Sharing Percentage which is 15% for all policyholders.

For example:

If the policy Maximum Amount is \$100,000 and the Cost Sharing Percentage is 15%, the policy Maximum Amount will be reduced to \$85,000. The Company will not be responsible for any costs that exceed the reduced policy Maximum Amount.

If the Maximum Daily Benefit amount is \$100, and the Cost Sharing Percentage is 15%, the Maximum Daily Benefit amount will be reduced to \$85. The Company will not be responsible for any daily costs that exceed the reduced Maximum Daily Benefit.

The dollar amount and percentages used in these examples may be different from the actual dollar amounts and percentages that apply to the policy.

2. Application of Cost Sharing to Claim Payments

As long as all policy provisions and conditions are satisfied, for any benefit for which a claim is made under the policy, the Company will pay its Cost Sharing Percentage of such benefit, but the Company will pay no more than the applicable Maximum Daily/Monthly Benefit amounts as shown on the Endorsement. The policyholder holder will be responsible for paying the remaining portion of the applicable long term care expenses associated with such claim. Note that only amounts paid by the Company will be deducted from the revised policy Maximum Amount.

For example: If the revised Maximum Daily Benefit for a covered Long Term Care Facility is \$85 and the Company's Cost Sharing Percentage is 85%, the Company will pay 85% of the Long Term Care Facility charges, but no more than \$85. Using the same formula:

- If the Long Term Care Facility charges are \$85, the Company will pay \$72.25 and the policyholder holder will be responsible for \$12.75.
- If the Long Term Care Facility charges are \$100, the Company will pay \$85 and the policyholder holder will be responsible for \$15.
- If the Long Term Care Facility charges are \$200, the Company will pay \$85 and the policyholder holder will be responsible for \$115.

Exhibit I
Transamerica Life Insurance Company
Policy Forms: ICC10 TLC-3 UniProduct Series
Nationwide Experience for Transamerica Life Insurance Company
All Policyholders Pay the Requested Increase

Year	Earned Premium		Incurred Claims	Loss Ratios Excluding Change in ALR			
	Actual Past & Projected Future w/o Proposed Rate Increase	Actual Past & Projected Future w/ Proposed Rate Increase	Actual Past & Projected Future	Actual w/o Rate Increase	Actual w/ Rate Increase	PV Actual Cumulative w/o Rate Increase	PV Actual Cumulative w/ Rate Increase
2012	29,985	29,985	0	0.0%	0.0%	0.0%	0.0%
2013	5,968,706	5,968,706	6,166	0.1%	0.1%	0.1%	0.1%
2014	14,982,419	14,982,419	275,817	1.8%	1.8%	1.3%	1.3%
2015	25,535,171	25,535,171	91,499	0.4%	0.4%	0.8%	0.8%
2016	33,784,586	33,784,586	679,722	2.0%	2.0%	1.3%	1.3%
2017	36,221,696	36,221,696	1,071,895	3.0%	3.0%	1.8%	1.8%
2018	36,630,938	36,630,938	1,769,316	4.8%	4.8%	2.5%	2.5%
2019	36,673,801	36,673,801	1,502,543	4.1%	4.1%	2.8%	2.8%
2020	36,171,634	36,171,634	1,852,740	5.1%	5.1%	3.1%	3.1%
2021	36,085,823	36,085,823	3,567,777	9.9%	9.9%	3.9%	3.9%
2022	35,538,023	35,538,023	4,345,672	12.2%	12.2%	4.8%	4.8%
2023	35,043,248	39,066,738	5,325,406	15.2%	13.6%	5.8%	5.7%
2024	34,583,892	42,509,425	6,443,252	18.6%	15.2%	6.8%	6.6%
2025	34,144,278	41,951,336	7,721,857	22.6%	18.4%	7.9%	7.6%
2026	33,707,783	41,396,073	9,209,621	27.3%	22.2%	9.1%	8.7%
2027	33,266,834	40,833,369	10,937,658	32.9%	26.8%	10.5%	9.8%
2028	32,809,691	40,248,498	12,965,336	39.5%	32.2%	12.0%	11.2%
2029	32,323,603	39,625,521	15,305,461	47.4%	38.6%	13.6%	12.6%
2030	31,796,550	38,949,540	17,995,333	56.6%	46.2%	15.4%	14.2%
2031	31,217,646	38,207,424	20,948,394	67.1%	54.8%	17.4%	16.0%
2032	30,578,345	37,389,179	24,072,437	78.7%	64.4%	19.6%	17.9%
2033	29,872,403	36,487,805	27,341,577	91.5%	74.9%	21.9%	19.9%
2034	29,097,355	35,501,139	30,620,990	105.2%	86.3%	24.4%	22.1%
2035	28,251,462	34,427,611	34,146,968	120.9%	99.2%	27.0%	24.4%
2036	27,338,071	33,271,620	37,542,252	137.3%	112.8%	29.7%	26.7%
2037	26,361,543	32,039,534	40,726,808	154.5%	127.1%	32.4%	29.2%
2038	25,323,829	30,734,434	43,860,129	173.2%	142.7%	35.3%	31.7%
2039	24,228,321	29,360,746	46,885,018	193.5%	159.7%	38.2%	34.3%
2040	23,081,714	27,927,148	49,677,664	215.2%	177.9%	41.2%	36.9%
2041	21,889,339	26,440,678	52,002,492	237.6%	196.7%	44.1%	39.5%
2042	20,657,114	24,909,652	53,691,377	259.9%	215.5%	47.0%	42.0%
2043	19,396,756	23,349,297	54,880,352	282.9%	235.0%	49.9%	44.5%
2044	18,117,437	21,771,080	55,605,324	306.9%	255.4%	52.7%	47.0%
2045	16,830,728	20,189,160	55,875,672	332.0%	276.8%	55.4%	49.4%
2046	15,547,998	18,617,120	55,573,578	357.4%	298.5%	57.9%	51.6%
2047	14,279,857	17,067,969	54,568,054	382.1%	319.7%	60.4%	53.8%
2048	13,039,630	15,557,900	52,981,324	406.3%	340.5%	62.7%	55.8%
2049	11,836,437	14,097,605	50,929,181	430.3%	361.3%	64.8%	57.6%
2050	10,678,572	12,696,722	48,573,046	454.9%	382.6%	66.7%	59.3%
2051	9,575,354	11,365,822	45,944,291	479.8%	404.2%	68.5%	60.9%
2052	8,533,982	10,113,060	43,029,986	504.2%	425.5%	70.1%	62.3%
2053	7,559,174	8,943,583	39,869,847	527.4%	445.8%	71.5%	63.6%
2054	6,655,868	7,862,748	36,590,501	549.7%	465.4%	72.8%	64.7%
2055	5,825,284	6,871,482	33,331,302	572.2%	485.1%	73.9%	65.7%
2056	5,068,441	5,970,441	30,150,428	594.9%	505.0%	74.9%	66.6%
2057	4,384,878	5,158,526	27,097,823	618.0%	525.3%	75.7%	67.3%
2058	3,772,598	4,432,819	24,175,033	640.8%	545.4%	76.5%	68.0%
2059	3,228,238	3,788,842	21,427,305	663.7%	565.5%	77.1%	68.5%
2060	2,748,617	3,222,493	18,895,431	687.5%	586.4%	77.7%	69.0%
2061	2,329,014	2,727,841	16,588,221	712.2%	608.1%	78.1%	69.4%
2062	1,964,439	2,298,709	14,520,675	739.2%	631.7%	78.5%	69.8%
2063	1,649,679	1,928,699	12,655,911	767.2%	656.2%	78.8%	70.0%
2064	1,379,566	1,611,540	10,985,281	796.3%	681.7%	79.1%	70.3%
2065	1,149,090	1,341,203	9,497,666	826.5%	708.1%	79.4%	70.5%
2066	953,449	1,111,941	8,181,014	858.0%	735.7%	79.5%	70.7%
2067	788,085	918,325	7,030,951	892.2%	765.6%	79.7%	70.8%
2068	649,135	755,777	6,020,155	927.4%	796.6%	79.8%	70.9%
2069	532,836	619,834	5,131,808	963.1%	827.9%	80.0%	71.0%
2070+	2,206,034	2,553,284	24,923,623	1129.8%	976.1%	80.4%	71.4%

AV Past	248,675,561	248,675,561	7,727,201	3.1%	3.1%
PV Future	536,952,083	635,678,989	624,031,280	116.2%	98.2%
PV Lifetime	785,627,644	884,354,550	631,758,481	80.4%	71.4%

Post Rate-Stability Calculations
A = 173,408,576 Present value of initial earned premium times 69.73%
B = - Present value of prior premium rate increases times 85%
C = 374,432,035 Present value of future projected initial earned premium times 69.73%
D = 83,917,870 Present value of future projected earned premium from rate increases times 85%
A+B+C+D = 631,758,481
631,758,481 Present value of incurred claims + present value of future projected incurred claims
Present value of incurred claims + present value of future projected incurred claims is not less than A+B+C+D

Exhibit II
Transamerica Life Insurance Company
Policy Forms: ICC10 TLC-3 UniProduct Series
Nationwide Experience for Transamerica Life Insurance Company
Actual To Expected Lifetime Experience
Actual Nationwide Experience Through 12/31/2020 and Projected Thereafter

Duration	Actual			Expected			Actual to Expected		
	A	B	C	D	E	F	G=A/D	H=B/E	I=C/F
	Earned Premium @ Original Rate Level	Incurred Claims Excluding ALR Increase	Cumulative Loss Ratio Excluding ALR Increase	Earned Premium @ Original Rate Level	Incurred Claims Excluding ALR Increase	Cumulative Loss Ratio Excluding ALR Increase	Actual to Expected Earned Premium	Actual to Expected Incurred Claims Excluding ALR Increase	Cumulative Loss Ratio Excluding ALR Increase
1	39,722,496	149,729	0.4%	42,450,052	517,149	1.2%	93.6%	29.0%	30.9%
2	40,779,358	264,839	0.5%	40,435,398	694,168	1.5%	100.9%	38.2%	35.2%
3	38,991,238	1,112,156	1.2%	38,981,852	906,475	1.7%	100.0%	122.7%	72.4%
4	37,518,337	1,361,123	1.8%	37,910,621	1,158,746	2.0%	99.0%	117.5%	88.4%
5	36,626,628	2,041,174	2.5%	37,070,745	1,469,489	2.4%	98.8%	138.9%	103.8%
6	35,600,683	2,282,475	3.0%	36,383,095	1,881,239	2.8%	97.8%	121.3%	109.1%
7	35,119,494	2,827,438	3.6%	35,789,574	2,367,878	3.2%	98.1%	119.4%	112.2%
8	34,459,943	3,801,917	4.4%	35,253,987	2,939,749	3.7%	97.7%	129.3%	116.7%
9	34,935,351	5,020,842	5.3%	34,758,459	3,705,451	4.4%	100.5%	135.5%	121.0%
10	34,637,806	6,253,306	6.3%	34,284,626	4,789,153	5.1%	101.0%	130.6%	123.3%
11	34,219,512	7,456,450	7.4%	33,815,859	5,933,646	6.0%	101.2%	125.7%	123.9%
12	33,810,246	8,825,512	8.6%	33,341,500	7,147,815	6.9%	101.4%	123.5%	123.9%
13	33,394,753	10,603,956	9.9%	32,852,365	8,635,501	8.0%	101.7%	122.8%	123.8%
14	32,960,945	12,678,958	11.4%	32,341,170	10,318,552	9.2%	101.9%	122.9%	123.6%
15	32,494,445	14,863,583	13.0%	31,799,754	12,367,649	10.5%	102.2%	120.2%	123.0%
16	31,985,130	17,611,292	14.8%	31,221,533	14,758,924	12.1%	102.4%	119.3%	122.4%
17	31,418,536	20,766,740	16.8%	30,602,995	17,239,916	13.7%	102.7%	120.5%	122.0%
18	30,785,017	24,326,465	19.0%	29,938,389	19,823,866	15.5%	102.8%	122.7%	122.1%
19	30,082,260	27,710,922	21.3%	29,220,228	22,525,761	17.5%	103.0%	123.0%	122.1%
20	29,301,996	30,858,266	23.8%	28,444,442	25,162,128	19.5%	103.0%	122.6%	122.1%
21	28,441,570	34,823,457	26.5%	27,608,969	28,426,306	21.7%	103.0%	122.5%	122.1%
22	27,511,507	38,194,707	29.2%	26,713,160	31,886,187	24.0%	103.0%	119.8%	121.7%
23	26,513,354	41,337,520	32.1%	25,756,507	34,945,488	26.5%	102.9%	118.3%	121.3%
24	25,452,110	44,374,322	35.0%	24,740,295	37,824,711	29.0%	102.9%	117.3%	120.8%
25	24,331,956	47,221,922	37.9%	23,667,502	40,128,494	31.5%	102.8%	117.7%	120.4%
26	23,158,676	50,570,090	40.9%	22,541,952	43,069,782	34.1%	102.7%	117.4%	120.0%
27	21,937,484	53,075,173	43.9%	21,364,974	45,874,322	36.7%	102.7%	115.7%	119.6%
28	20,675,372	54,710,463	46.9%	20,143,262	47,922,024	39.4%	102.6%	114.2%	119.1%
29	19,382,986	55,629,443	49.8%	18,887,311	49,277,383	42.0%	102.6%	112.9%	118.6%
30	18,073,032	56,093,010	52.6%	17,608,349	49,430,969	44.5%	102.6%	113.5%	118.2%
31	16,757,809	56,675,130	55.4%	16,319,680	49,907,536	47.0%	102.7%	113.6%	117.9%
32	15,447,801	56,481,217	58.0%	15,031,777	49,925,572	49.3%	102.8%	113.1%	117.5%
33	14,154,716	55,344,214	60.4%	13,756,980	49,305,068	51.6%	102.9%	112.2%	117.2%
34	12,890,827	53,539,735	62.8%	12,509,291	48,082,902	53.7%	103.1%	111.3%	116.9%
35	11,668,548	51,185,733	64.9%	11,300,572	45,730,028	55.6%	103.3%	111.9%	116.7%
36	10,497,184	48,865,728	66.8%	10,141,804	43,679,779	57.4%	103.5%	111.9%	116.5%
37	9,383,649	46,174,440	68.6%	9,041,134	41,215,058	59.0%	103.8%	112.0%	116.3%
38	8,334,005	43,112,881	70.2%	8,005,813	38,668,676	60.5%	104.1%	111.5%	116.1%
39	7,355,415	39,827,728	71.7%	7,041,850	35,871,594	61.8%	104.5%	111.0%	116.0%
40	6,451,618	36,331,861	72.9%	6,153,477	32,572,306	62.9%	104.8%	111.5%	115.9%
41	5,624,588	32,994,373	74.0%	5,343,179	29,672,525	64.0%	105.3%	111.2%	115.8%
42	4,874,471	29,749,169	75.0%	4,610,687	26,727,863	64.8%	105.7%	111.3%	115.7%
43	4,199,640	26,635,370	75.8%	3,954,596	23,994,283	65.6%	106.2%	111.0%	115.6%
44	3,597,793	23,703,551	76.6%	3,372,299	21,439,821	66.3%	106.7%	110.6%	115.5%
45	3,066,061	20,887,744	77.2%	2,859,944	18,870,998	66.8%	107.2%	110.7%	115.5%
46	2,600,163	18,353,107	77.7%	2,412,800	16,695,035	67.3%	107.8%	109.9%	115.4%
47	2,194,720	16,074,064	78.2%	2,025,078	14,643,687	67.8%	108.4%	109.8%	115.4%
48	1,844,136	14,045,653	78.5%	1,691,316	12,826,270	68.1%	109.0%	109.5%	115.3%
49	1,543,099	12,228,919	78.9%	1,405,963	11,185,776	68.4%	109.8%	109.3%	115.3%
50	1,286,105	10,571,843	79.1%	1,163,631	9,578,273	68.7%	110.5%	110.4%	115.3%
51	1,067,971	9,123,601	79.4%	959,040	8,219,775	68.9%	111.4%	111.0%	115.2%
52	883,622	7,857,890	79.5%	787,237	6,978,088	69.0%	112.2%	112.6%	115.2%
53	728,489	6,750,242	79.7%	643,853	5,914,552	69.2%	113.1%	114.1%	115.2%
54	598,554	5,777,959	79.8%	524,836	4,997,941	69.3%	114.0%	115.6%	115.2%
55	490,170	4,904,590	79.9%	426,520	4,171,059	69.4%	114.9%	117.6%	115.2%
56	400,165	4,153,177	80.0%	345,617	3,499,544	69.4%	115.8%	118.7%	115.2%
57	325,627	3,506,775	80.1%	279,276	2,919,233	69.5%	116.6%	120.1%	115.2%
58	264,027	2,953,419	80.2%	225,029	2,433,599	69.6%	117.3%	121.4%	115.2%
59	213,342	2,475,308	80.2%	180,806	2,024,016	69.6%	118.0%	122.3%	115.2%
60+	810,444	10,484,296	80.4%	672,199	8,105,055	69.7%	120.6%	129.4%	115.3%
PV Lifetime	639,759,822	514,204,430	80.4%	635,832,796	443,384,382	69.7%	100.6%	116.0%	115.3%

Exhibit III - Interstate Compact States Only
Transamerica Life Insurance Company
Policy Froms: ICC10 TLC-3 UniProduct Series
Experience for Transamerica Life Insurance Company IC States Only
All Policyholders Pay the Requested Increase

Year	Earned Premium		Incurred Claims	Loss Ratios Excluding Change in ALR			
	Actual Past & Projected Future w/o Proposed Rate Increase	Actual Past & Projected Future w/ Proposed Rate Increase	Actual Past & Projected Future	Actual w/o Rate Increase	Actual w/ Rate Increase	PV Actual Cumulative w/o Rate Increase	PV Actual Cumulative w/ Rate Increase
2012	27,841	27,841	0	0.0%	0.0%	0.0%	0.0%
2013	4,463,521	4,463,521	6,166	0.1%	0.1%	0.1%	0.1%
2014	9,231,751	9,231,751	272,714	3.0%	3.0%	2.0%	2.0%
2015	13,858,722	13,858,722	72,262	0.5%	0.5%	1.3%	1.3%
2016	16,630,379	16,630,379	450,982	2.7%	2.7%	1.8%	1.8%
2017	16,496,732	16,496,732	772,352	4.7%	4.7%	2.5%	2.5%
2018	15,683,326	15,683,326	847,669	5.4%	5.4%	3.1%	3.1%
2019	15,454,394	15,454,394	746,282	4.8%	4.8%	3.4%	3.4%
2020	14,954,350	14,954,350	778,376	5.2%	5.2%	3.6%	3.6%
2021	14,901,514	14,901,514	1,844,099	12.4%	12.4%	4.5%	4.5%
2022	14,678,256	14,678,256	2,240,647	15.3%	15.3%	5.5%	5.5%
2023	14,475,787	16,135,696	2,728,728	18.9%	16.9%	6.6%	6.6%
2024	14,284,148	17,551,621	3,281,261	23.0%	18.7%	7.8%	7.6%
2025	14,093,206	17,308,530	3,922,492	27.8%	22.7%	9.1%	8.8%
2026	13,899,951	17,062,036	4,660,846	33.5%	27.3%	10.5%	10.0%
2027	13,700,515	16,807,218	5,509,527	40.2%	32.8%	12.1%	11.4%
2028	13,489,210	16,536,987	6,507,649	48.2%	39.4%	13.8%	12.9%
2029	13,260,474	16,244,428	7,657,547	57.7%	47.1%	15.7%	14.6%
2030	13,010,858	15,924,920	8,960,105	68.9%	56.3%	17.8%	16.5%
2031	12,735,958	15,573,413	10,354,917	81.3%	66.5%	20.0%	18.5%
2032	12,432,626	15,186,445	11,780,177	94.8%	77.6%	22.5%	20.6%
2033	12,099,149	14,762,319	13,267,741	109.7%	89.9%	25.1%	22.9%
2034	11,736,012	14,301,942	14,714,184	125.4%	102.9%	27.8%	25.3%
2035	11,343,759	13,806,255	16,223,900	143.0%	117.5%	30.6%	27.9%
2036	10,924,517	13,278,016	17,646,459	161.5%	132.9%	33.6%	30.5%
2037	10,480,947	12,720,895	18,953,931	180.8%	149.0%	36.6%	33.1%
2038	10,014,454	12,136,800	20,276,500	202.5%	167.1%	39.6%	35.8%
2039	9,526,779	11,527,758	21,528,140	226.0%	186.8%	42.8%	38.6%
2040	9,021,694	10,898,599	22,616,782	250.7%	207.5%	45.9%	41.4%
2041	8,501,569	10,252,554	23,450,359	275.8%	228.7%	49.0%	44.1%
2042	7,969,500	9,593,879	23,974,834	300.8%	249.9%	52.0%	46.8%
2043	7,431,397	8,930,152	24,303,946	327.0%	272.2%	55.0%	49.4%
2044	6,890,934	8,265,811	24,431,045	354.5%	295.6%	57.9%	52.0%
2045	6,353,791	7,607,743	24,330,075	382.9%	319.8%	60.6%	54.4%
2046	5,824,842	6,961,821	23,963,997	411.4%	344.2%	63.2%	56.7%
2047	5,308,130	6,332,934	23,291,961	438.8%	367.8%	65.7%	58.9%
2048	4,809,863	5,728,514	22,405,701	465.8%	391.1%	67.9%	60.9%
2049	4,332,868	5,151,678	21,358,842	492.9%	414.6%	70.0%	62.7%
2050	3,879,096	4,604,561	20,199,451	520.7%	438.7%	71.9%	64.4%
2051	3,452,301	4,091,422	18,951,681	549.0%	463.2%	73.6%	66.0%
2052	3,054,791	3,614,793	17,602,348	576.2%	487.0%	75.2%	67.3%
2053	2,687,406	3,175,448	16,184,845	602.2%	509.7%	76.6%	68.5%
2054	2,351,429	2,774,686	14,764,601	627.9%	532.1%	77.8%	69.6%
2055	2,046,288	2,411,596	13,387,807	654.2%	555.1%	78.9%	70.6%
2056	1,771,470	2,085,349	12,072,740	681.5%	578.9%	79.8%	71.4%
2057	1,526,118	1,794,707	10,823,674	709.2%	603.1%	80.6%	72.1%
2058	1,308,739	1,537,683	9,646,568	737.1%	627.3%	81.3%	72.7%
2059	1,117,511	1,311,941	8,566,709	766.6%	653.0%	81.9%	73.3%
2060	950,629	1,115,227	7,586,546	798.1%	680.3%	82.4%	73.7%
2061	805,688	944,573	6,698,638	831.4%	709.2%	82.8%	74.1%
2062	680,651	797,502	5,910,236	868.3%	741.1%	83.2%	74.5%
2063	573,265	671,293	5,198,172	906.8%	774.4%	83.5%	74.8%
2064	481,298	563,271	4,558,971	947.2%	809.4%	83.8%	75.0%
2065	403,012	471,365	3,987,432	989.4%	845.9%	84.1%	75.2%
2066	336,570	393,391	3,474,045	1032.2%	883.1%	84.2%	75.4%
2067	280,338	327,426	3,020,062	1077.3%	922.4%	84.4%	75.5%
2068	232,990	271,914	2,612,786	1121.4%	960.9%	84.6%	75.6%
2069	193,206	225,290	2,247,878	1163.5%	997.8%	84.7%	75.8%
2070+	849,135	983,234	11,309,567	1331.9%	1150.2%	85.2%	76.2%
AV Past	118,647,483	118,647,483	4,261,560	3.6%	3.6%		
PV Future	215,966,491	255,359,858	280,701,582	130.0%	109.9%		
PV Lifetime	334,613,973	374,007,340	284,963,142	85.2%	76.2%		