## Lincoln Benefit Life Company

## Company NAIC No. 65595

Home Office: 2940 South 84 ${ }^{\text {th }}$ Street, Lincoln, NE 68506-4142 Administrative Office: Post Office Box 4243, Woodland Hills, CA 91365-4243

Actuarial Memorandum

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## Nursing Care Only Policy: <br> Comprehensive Long Term Care Policy: <br> Home and Community Based Care Policy:

Form LB-6301-P-MD(Q)\&(NQ)
Form LB-6302-P-MD(Q)\&(NQ)
Form LB-6303-P-MD(Q)\&(NQ)

Lincoln Benefit Life Company is requesting a rate increase on the above listed long-term care policy forms. These policy forms were issued in Maryland from 1999 to 2004 under the product name "Senior Linc". Midway through this issue period, certain contracts (referred to as "enhanced") were issued with additional benefits and different rates for the benefit increase riders. Both pre-enhanced and enhanced policies are included in the scope of this filing. These policy forms are no longer being marketed.

## 1. Purpose of Filing

This is a rate increase filing for existing Long-Term Care (LTC) policy forms. This actuarial memorandum has been prepared for the purpose of demonstrating that the requested rate increase meets the minimum requirements of the 2014 National Association of Insurance Commissioners (NAIC) Long-Term Care Insurance Model Regulation and the applicable regulatory requirements of this jurisdiction. It may not be suitable for other purposes.

## 2. Scope of Filing

This filing applies to the Company's LTC policy forms as specified above. These forms provide daily benefit for qualified long-term care services in various settings, as summarized in Exhibit A, when the insured meets policy benefit qualification requirements.

All forms included in this filing are individual LTC policies that are guaranteed renewable for life, subject to the Company's right to change premium rates.

These policy forms were issue age rated and fully underwritten. The issue ages were from 40 to 84 on an age nearest birthday basis, except for endorsed groups where the issue age range was 18 to 84 in some jurisdictions. Strict underwriting criteria were administered with frequent utilization of medical records and paramedical functional assessments, personal history interviews and MIB searches.

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These policy forms were marketed by individual agents of Lincoln Benefit Life Company.
The proposed rate increase is applicable to all inforce policies as these forms are no longer being marketed. Paid-up policies will not receive a rate increase. Single-pay and 10-pay policies are not included in the scope of this filing.

The number of policyholders and annual inforce premium as of December 2018 are displayed in Exhibit B, which also shows the average annual premium before and after the proposed rate increase.

## 3. Reason for the Increase

A rate increase is necessary at this time due to significantly higher anticipated future and lifetime loss ratios. The higher loss ratios are a result of a combination of lower lapse, lower death, and longer claim continuance.

The Company has been evaluating this LTCi block and updating assumptions based on the actual experience as well as the LTCi industry experience. For the policy forms specified above, projected experience is now worse than what original pricing assumptions were projecting. The combined effect of updating the lapse, mortality and morbidity assumptions to better reflect the actual experience, as well as industry data, resulted in the need for a rate increase.

The current premium levels are inadequate. Therefore, the Company is requesting a rate increase to help alleviate the adverse performance on this block of business. Implementing a necessary rate increase earlier reduces the amount of the rate increase.

## 4. Requested Rate Increase

The Company is requesting the approval of a flat increase of $15 \%$ on the current base rates. The increase does not vary by issue age or other policy characteristics. The new premium for any contract is equal to the product of the contract's current premium and one plus the base premium increase percentage. Paid-up policies will not be affected by the rate increase.

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Please see Exhibits B1-B3 for rate tables reflecting the rate increase:

| B1 | LB-6301-P-MD proposed rates |
| :--- | :--- |
| B2 | LB-6302-P-MD proposed rates |
| B3 | LB-6303-P-MD proposed rates |

Please note that the actual rates implemented may vary from those in rate pages slightly due to implementation rounding algorithms.

## 5. History of Previous Rate Revisions

The first rate increase was approved on August 23, 2007 for these forms with a cap of $15 \%$. Three other flat rate increases of $15 \%, 15 \%$ and $10 \%$ were approved on July 23, 2009, April 5, 2016 and December 6, 2018 respectively.

## 6. Actuarial Assumptions

a. Interest

The maximum valuation interest rate for contract reserves, $4.5 \%$, has been used for accumulating historical experience and for discounting projected future experience.
b. Lapse

The current best estimate ultimate lapse rate is assumed to be $1.0 \%$, formulated by analyzing the trend in lapse rates of later durations. Exhibit $C$ shows the comparison of actual and expected lapses based on best estimate assumptions for these policy forms.

## c. Mortality

The current best estimate mortality assumptions are based on experience from the reinsurer's entire similarly underwritten and administered block of LTC policies. The attained age mortality is assumed to be $85 \%$ of the 1994 Group Annuity Mortality Table for ages 85 and younger, graded to $100 \%$ of the 1994 Group Annuity Mortality Table at ages 90 and older, with duration selection factors, varied by single vs. joint, shown in Exhibit D1. Mortality selection factors for Single grade from $16.5 \%$ to $100 \%$ over 21 years, while selection factors for Joint grade from

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$9.5 \%$ to $100 \%$ over 25 years. No mortality improvement is assumed in the projections.
Exhibit D2 shows the comparison of actual and expected deaths based on best estimate assumptions for the combined reinsurer's block of LTC policies.

## d. Morbidity

The current best estimate morbidity assumptions are also based on the reinsurer's combined experience. Studies are performed for incidence, continuance, and recovery from claim data. Incidence rates by gender, marital status, and attained age have been developed.

Claim termination rates are derived from reinsurer data that has been credibility blended with the latest industry data. Recovery and return to active status is based on the policyholder's attained age at the time his/her claim is incurred, grading down from $59 \%$ of all claims at age 40, to $8.5 \%$ at age 99 , and then $0 \%$ at age 120. Utilization factors are then applied to the claim costs as follows: $69 \%$ for COLA reimbursement policies and $86 \%$ for non-COLA reimbursement policies. No underwriting selection durational factors or morbidity improvement are assumed in the projections.

Policy design features have been taken into consideration. Benefit provisions, 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.

Exhibit E1 shows the best estimate incidence rates by gender and partner status. Exhibit E2 demonstrates the best estimate length of stay for lifetime benefit period, 90-day elimination period policies with and without 5\% Compound Inflation Protection.

Exhibits E3 and E4 contain the analysis of actual to expected incidence and termination, with expected based on best estimate assumptions for the combined reinsurer block of LTC policies.
e. Expenses

Expenses have not been explicitly projected. It is assumed that the originally filed expenses assumptions remain appropriate.

## f. Rate Increase Impact on Policyholder Behavior

Premium rate increases on long-term care policies may induce some policyholders to seek a reduction in benefits or to lapse their policy. Similarly, policyholders who accept the rate increase and remain inforce or retain their full benefits may exhibit some morbidity anti-

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selection, understanding that they may need the long-term care benefits in the future. All else equal, additional lapses or benefit reductions on a long-term care block of policies is financially favorable to the Company, while anti-selection is unfavorable to the Company.

The projections in Exhibits F1 and F2 do not include either the assumption of additional lapses and reduction in benefits or the assumption of anti-selection. We assume for the purpose of this rate increase that the two impacts offset each other.

The above discussed current best estimate assumptions are based on the experience of the company, reinsurer and industry experience, and judgement. The best estimate assumptions reflect an estimate of the most likely outcome and do not include an explicit margin for conservatism.

## 7. Area Factors and Trend Assumptions

Area factors were not used in pricing for the above-listed policy forms. As this is not medical insurance, an explicit medical cost trend is not included in the projections.

## 8. Reserves

Active life reserves have not been used in this rate increase analysis. Claim reserves as of December 31, 2018 have been discounted to the incurral date of each respective claim and included in historical incurred claims. Incurred but not reported reserve (IBNR) balances as of December 31, 2018 have been allocated to a calendar year of incurral and included in historical incurred claims. Paid claims have been discounted to the incurral date and included in historical incurred claims. Claim reserves are calculated for active and pending claimants as present value of benefit payments discounted by interest and terminations. The IBNR is based on lag factors which are applied to the claim reserves and survivor payments based on the difference between the incurral date and the valuation date.

## 9. Past and Future Policy Experience

Earned premiums and incurred claims for projection years 2019 through 2058 are developed from an active lives model representing actual contracts inforce as of December 31, 2018. The best estimate assumptions

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described above for morbidity, voluntary lapse, and mortality are used to project earned premiums and incurred claims.

Nationwide and statewide historical experience and projections before and after proposed rate increase are shown in Exhibits F1 and F2 respectively.

Historical experience is shown by claim incurral year with the loss ratio for each loss year calculated by the following formula:

$$
L R_{j}=\frac{\sum_{t=j}^{2018} P m t_{t}^{j} \times v^{t-j}+{ }_{j} C R_{2018} \times v^{2018-j+0.5}+{ }_{j} I B N R_{2018} \times v^{2018-j+0.5}}{E P_{j}}
$$

$\boldsymbol{L R}_{j}=$ loss ratio for year $j$
$\boldsymbol{P m} \boldsymbol{t}_{t}^{j}=$ claim payments in year $t$ on claims incurred in year $j$, assumed to occur mid-year
${ }_{j} \boldsymbol{C R}_{2018}=$ claim reserve held on December 31, 2018 for claims incurred in year $j$
${ }_{j} \boldsymbol{I B N R} \boldsymbol{R}_{2018}=$ incurred but not reported reserve as of December 31, 2018 attributable to claims incurred in year $j$
$\boldsymbol{E P}_{j}=$ earned premium in year $j$, assumed mid-year
$\boldsymbol{j}=$ year of incurral
$v=1 / 1.045=0.956938$

Future anticipated loss ratio is calculated, with and without interest, as anticipated incurred claims divided by earned premiums. Lifetime loss ratio as of December 31, 2018 is calculated as the sum of accumulated past experience and discounted future experience, where accumulation and discounting occur at maximum valuation interest rate $4.5 \%$.

## 10. Analysis Performed

The originally approved premium schedule was based on pricing assumptions believed to be appropriate, given industry experience available when the originally approved rate schedule was developed. The original pricing assumptions for voluntary lapse, mortality and claim costs were as follows:
a. Original Pricing Ultimate Lapse: 5\%
b. Original Pricing Mortality: 1975-80 Select and Ultimate

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## c. Original Pricing Morbidity

Original pricing claim costs for skilled, intermediate and Facility Care Benefits are derived from The Reports of the Society of Actuaries based on the 1985 National Nursing Home Survey Utilization Data in Transactions, Society of Actuaries, 1988-89-90 Reports; and the Long Term Care Intercompany Study: 1984-1991 Experience in Transactions, Society of Actuaries, 1993-94 Reports. Claim costs factors shown in the original actuarial memorandum are applied to the inforce lives and represent the expected cost per life of incurred benefits.

Original pricing claim costs for Home and Community Based Care are decreasing percentages of Facility Care claims costs derived from information provided by a reinsurer.

Underwriting selection durational factors are $10 \%, 20 \%, 40 \%, 60 \%, 80 \%, 100 \%$ for durations 6 and later.
d. Original Pricing Interest

Pre-enhanced policies: 7.5\%
Enhanced policies: $\quad 7.0 \%$

As part of the inforce management of the business, the reinsurer and administrator of the business monitor the performance of the business by completing periodic actual-to-expected analysis for voluntary lapse, mortality, claim incidence, and claim length of stay. The findings from these analyses were used in projecting the inforce business to determine the effect of experience on the projected lifetime loss ratio. An analysis of the projected lifetime loss ratio based on current best estimate assumptions compared to that assumed at the time of original pricing revealed that experience has deteriorated significantly.

The best estimate assumptions used in this filing (described in Section 6) are based on actual inforce experience of the Company, experience of reinsurer's similarly underwritten and administered LTC products, industry experience, and judgement. Actual persistency and claim continuance have been higher than what were assumed in original pricing.

## 11. Loss Ratio Requirement Compliance Demonstration

This filing uses the pooled experience of all policy forms specified at the beginning of this actuarial

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memorandum. Pooling these forms' experience is appropriate as they provide similar benefits and were issued during the same period. It is consistent with how the Company manages this block of business, and combining experience increases credibility.

Exhibits F1 (nationwide) and F2 (statewide) show actual and projected experience using current best estimate assumptions. Actual experience is provided from inception through 2018 and then projected on a seriatim basis for 40 years using the current assumptions described above in Section 6. Included in Exhibits F1 and F2 are calendar year earned premiums, incurred claims, annual loss ratios, and cumulative loss ratios. As shown in Exhibits F1 and F2, the anticipated lifetime loss ratios with the requested rate increase exceed the minimum loss ratio required by pre-rate stability regulation.

## 12. Proposed Effective Date

The rate increase will apply to policies on their policy anniversary date following at least a 60-day policyholder notification period after approval.
13. Nationwide Distribution of Business as of December 31, 2018

As of December 31, 2018, the number of policies in force that will be affected by this increase by policy form is shown in Exhibits G1 (nationwide) and G2 (statewide).

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## 14. Actuarial Certification

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries, and I meet the Academy's qualification standards for preparing health rate filings and am familiar with the requirements for filing long-term care insurance premium rate increases.

This memorandum has been prepared in conformity with all applicable Actuarial Standards of Practice, including ASOP No. 8 and No. 18.

The data used to develop this actuarial memorandum was provided by LifeCare Assurance Company, the administrator of the policies, and Employers Reassurance Corporation, the reinsurer of the business. I have reviewed the data for reasonableness.

To the best of my knowledge and judgement, I hereby certify that:

- this rate submission is in compliance with the applicable laws and regulations of the jurisdiction where it is filed;
- policy design, underwriting, and claims adjudication practices have been taken into consideration;
- the rates are not excessive or unfairly discriminatory, and bear reasonable relationship to the benefits based on the loss ratio standards of this jurisdiction;
- this filing will enhance premium adequacy, but may not be sufficient to prevent future rate action. Additional rate increases are needed to certify the rates will remain stable under moderately adverse conditions; and
- the relationship between renewal premium rate schedules and new business premium rate schedules is not applicable because the company is no longer marketing new business in any states.


Xiaoyan Song, FSA, MAAA, FLMI, LTCP
Consulting Actuary

# Lincoln Benefit Life Company <br> Policy Form: LB-6301, LB-6302, LB-6303 

Exhibit A: Benefit Summary
(does not reflect state variations)

| Benefits | Benefit Description |
| :---: | :---: |
| General Information |  |
| Issue Age | 40-84 age nearest birthday |
| Benefit Periods | 3-year, 5-year \& Lifetime |
| Risk Classes | Preferred Non-smoker, Preferred \& Standard |
| Benefit Type | Reimbursement (optional Indemnity Rider) |
| Elimination Periods | $0,30 \& 90$ days |
| Elimination Period Cumulative | Yes |
| Personal Care Advisor | Yes |
| Alternative Plan of Care | Yes |
| Benefit Triggers | 2 of 6 ADL's or Cognitive Impairment |
| Base Policy Benefits |  |
| Nursing Care (In A Nursing or Assisted Living Facility) |  |
| Waiver of Premium | After 60 days of care |
| Bed Reservation (up to 21 days per calendar year) | 100\% of daily benefit |
| Home \& Community Based Care Benefit |  |
| Waiver of Premium | By Rider Only |
| Professional Services | $50 \%$ or $100 \%$ of daily benefit |
| Homemaker Services | $50 \%$ or $100 \%$ of daily benefit |
| Adult Day Care \& Hospice Care | $50 \%$ or $100 \%$ of daily benefit |
| Respite Care (up to 14 days per calendar year) | $50 \%$ or $100 \%$ of daily benefit |
| Optional Riders/Payment Options |  |
| Compound Benefit Increase (5\%) | Yes |
| Simple Benefit Increase (5\%) | Yes |
| HCBC Indemnity Rider | Available to Comprehensive LTC policies only |
| Single Premium Payment Option | Not available to HCBC policies |
| 10-Year Premium Payment Option | Not available to HCBC policies |
| Full Nonforfeiture Rider | Yes |
| Limited Nonforfeiture Rider | Yes |
| Shortened Benefit Period Nonforfeiture Rider | Yes |
| HCBC Waiver of Premium Benefit Rider | Available to Comprehensive LTC policies only |
| Paid-up Survivor Benefit Rider | Yes |
| Asisted Living Facility Benefit Rider | Available to HCBC policies only |

# Lincoln Benefit Life Company <br> Policy Form: LB-6301, LB-6302, LB-6303 

Exhibit B: Policies Inforce, Annual Premium and Average Premium

\left.| Nationwide | Cost of Living Adjustment |  |  | Simple |
| :---: | :---: | :---: | :---: | :---: |
|  | None |  |  | Compound |$\right]$| Total |
| :---: |
|  |
| Number of Policies |


| Maryland | Cost of Living Adjustment |  |  | Compound |
| :---: | :---: | :---: | :---: | :---: |

Exhibit B1: Proposed Rates and Factors After 15\% Increase Individual Coverage / Preferred Risk Class / Lifetime Benefit Period / 90 Day Elimination Period

| $\begin{gathered} \text { Issue } \\ \text { Age } \end{gathered}$ | Nursing Care \$10 Daily Benefit | Other Riders <br> Shortened <br> Benefit Period | Benefit Increase Factors |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  | Compound | Simple |
| 40 | 40.65 | 1.600 | 3.248 | 2.343 |
| 41 | 42.00 | 1.600 | 3.194 | 2.279 |
| 42 | 43.35 | 1.600 | 3.141 | 2.215 |
| 43 | 44.71 | 1.600 | 3.088 | 2.151 |
| 44 | 46.06 | 1.600 | 3.035 | 2.087 |
| 45 | 47.41 | 1.600 | 2.981 | 2.055 |
| 46 | 50.14 | 1.600 | 2.928 | 2.023 |
| 47 | 52.83 | 1.600 | 2.875 | 1.991 |
| 48 | 55.54 | 1.600 | 2.822 | 1.959 |
| 49 | 58.24 | 1.600 | 2.769 | 1.927 |
| 50 | 60.97 | 1.600 | 2.715 | 1.895 |
| 51 | 65.03 | 1.600 | 2.662 | 1.868 |
| 52 | 69.10 | 1.600 | 2.556 | 1.840 |
| 53 | 73.16 | 1.600 | 2.449 | 1.812 |
| 54 | 77.23 | 1.600 | 2.343 | 1.785 |
| 55 | 81.29 | 1.600 | 2.236 | 1.757 |
| 56 | 89.43 | 1.600 | 2.130 | 1.725 |
| 57 | 97.56 | 1.530 | 2.023 | 1.693 |
| 58 | 105.68 | 1.514 | 1.917 | 1.661 |
| 59 | 113.81 | 1.498 | 1.810 | 1.629 |
| 60 | 121.95 | 1.482 | 1.703 | 1.597 |
| 61 | 135.50 | 1.466 | 1.683 | 1.580 |
| 62 | 149.06 | 1.450 | 1.661 | 1.563 |
| 63 | 162.59 | 1.424 | 1.640 | 1.546 |
| 64 | 176.15 | 1.398 | 1.619 | 1.529 |
| 65 | 189.70 | 1.372 | 1.597 | 1.512 |
| 66 | 216.79 | 1.346 | 1.576 | 1.495 |
| 67 | 243.91 | 1.320 | 1.555 | 1.478 |
| 68 | 271.00 | 1.296 | 1.533 | 1.460 |
| 69 | 298.10 | 1.272 | 1.512 | 1.430 |
| 70 | 325.20 | 1.248 | 1.491 | 1.400 |
| 71 | 365.87 | 1.224 | 1.469 | 1.390 |
| 72 | 406.51 | 1.200 | 1.448 | 1.380 |
| 73 | 447.18 | 1.184 | 1.427 | 1.370 |
| 74 | 487.83 | 1.168 | 1.406 | 1.360 |
| 75 | 528.48 | 1.152 | 1.384 | 1.350 |
| 76 | 609.78 | 1.136 | 1.374 | 1.340 |
| 77 | 691.10 | 1.120 | 1.363 | 1.330 |
| 78 | 772.40 | 1.116 | 1.352 | 1.320 |
| 79 | 853.70 | 1.112 | 1.341 | 1.310 |
| 80 | 935.01 | 1.108 | 1.331 | 1.300 |
| 81 | 1,016.32 | 1.104 | 1.320 | 1.290 |
| 82 | 1,097.61 | 1.100 | 1.310 | 1.280 |
| 83 | 1,178.93 | 1.090 | 1.299 | 1.270 |
| 84 | 1,260.23 | 1.085 | 1.289 | 1.260 |

Issue Age Independent Factors


[^0]Exhibit B2: Proposed Rates and Factors After 15\% Increase
Individual Coverage / Preferred Risk Class / Lifetime Benefit Period / 90 Day Elimination Period

| $\begin{gathered} \text { Issue } \\ \text { Age } \\ \hline \end{gathered}$ | Comprehensive LTC |  | $\begin{gathered} \hline \text { Other Riders } \\ \hline \text { Shortened } \\ \text { Benefit Period } \end{gathered}$ | Benefit Increase Factors |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$10 NC + \$10 HCBCDaily Benefit\$10 NC + \$5 HCBC <br> Daily Benefit |  |  |  |  |
|  |  |  | Compound | Simple |
| 40 | 60.97 | 50.81 |  | 1.600 | 3.248 | 2.343 |
| 41 | 63.00 | 52.50 | 1.600 | 3.194 | 2.279 |
| 42 | 65.03 | 54.18 | 1.600 | 3.141 | 2.215 |
| 43 | 67.07 | 55.87 | 1.600 | 3.088 | 2.151 |
| 44 | 69.10 | 57.58 | 1.600 | 3.035 | 2.087 |
| 45 | 71.13 | 59.28 | 1.600 | 2.981 | 2.055 |
| 46 | 75.19 | 62.66 | 1.600 | 2.928 | 2.023 |
| 47 | 79.26 | 66.05 | 1.600 | 2.875 | 1.991 |
| 48 | 83.32 | 69.44 | 1.600 | 2.822 | 1.959 |
| 49 | 87.41 | 72.82 | 1.600 | 2.769 | 1.927 |
| 50 | 91.47 | 76.19 | 1.600 | 2.715 | 1.895 |
| 51 | 97.56 | 81.29 | 1.600 | 2.662 | 1.868 |
| 52 | 103.67 | 86.37 | 1.600 | 2.556 | 1.840 |
| 53 | 109.74 | 91.47 | 1.600 | 2.449 | 1.812 |
| 54 | 115.85 | 96.54 | 1.600 | 2.343 | 1.785 |
| 55 | 121.95 | 101.61 | 1.600 | 2.236 | 1.757 |
| 56 | 134.14 | 111.78 | 1.600 | 2.130 | 1.725 |
| 57 | 146.33 | 121.95 | 1.530 | 2.023 | 1.693 |
| 58 | 158.53 | 132.12 | 1.514 | 1.917 | 1.661 |
| 59 | 170.72 | 142.27 | 1.498 | 1.810 | 1.629 |
| 60 | 182.93 | 152.45 | 1.482 | 1.703 | 1.597 |
| 61 | 203.25 | 169.38 | 1.466 | 1.683 | 1.580 |
| 62 | 223.58 | 186.33 | 1.450 | 1.661 | 1.563 |
| 63 | 243.91 | 203.25 | 1.424 | 1.640 | 1.546 |
| 64 | 264.22 | 220.19 | 1.398 | 1.619 | 1.529 |
| 65 | 284.56 | 237.13 | 1.372 | 1.597 | 1.512 |
| 66 | 325.20 | 271.00 | 1.346 | 1.576 | 1.495 |
| 67 | 365.87 | 304.88 | 1.320 | 1.555 | 1.478 |
| 68 | 406.51 | 338.77 | 1.296 | 1.533 | 1.460 |
| 69 | 447.18 | 372.63 | 1.272 | 1.512 | 1.430 |
| 70 | 487.83 | 406.51 | 1.248 | 1.491 | 1.400 |
| 71 | 548.80 | 457.34 | 1.224 | 1.469 | 1.390 |
| 72 | 609.78 | 508.15 | 1.200 | 1.448 | 1.380 |
| 73 | 670.76 | 558.96 | 1.184 | 1.427 | 1.370 |
| 74 | 731.74 | 609.78 | 1.168 | 1.406 | 1.360 |
| 75 | 792.71 | 660.60 | 1.152 | 1.384 | 1.350 |
| 76 | 914.67 | 762.23 | 1.136 | 1.374 | 1.340 |
| 77 | 1,036.64 | 863.88 | 1.120 | 1.363 | 1.330 |
| 78 | 1,158.59 | 965.50 | 1.116 | 1.352 | 1.320 |
| 79 | 1,280.57 | 1,067.13 | 1.112 | 1.341 | 1.310 |
| 80 | 1,402.51 | 1,168.76 | 1.108 | 1.331 | 1.300 |
| 81 | 1,524.48 | 1,270.40 | 1.104 | 1.320 | 1.290 |
| 82 | 1,646.43 | 1,372.04 | 1.100 | 1.310 | 1.280 |
| 83 | 1,768.40 | 1,473.66 | 1.090 | 1.299 | 1.270 |
| 84 | 1,890.34 | 1,575.30 | 1.085 | 1.289 | 1.260 |

Issue Age Independent Factors

| Risk Classes |  | Elimination Period |  | Payment Mode |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Preferred Nonsmoker Preferred Standard | $\begin{aligned} & \hline 0.80 \\ & 1.00 \\ & 1.20 \end{aligned}$ | $\begin{array}{l\|l} \hline 90 \text {-Day } \\ 30 \text {-Day } \\ 0 \text {-Day } \end{array}$ | $\begin{aligned} & \hline 1.00 \\ & 1.10 \\ & 1.20 \end{aligned}$ | Monthly <br> Quarterly <br> Semi-Annual <br> Annual |  | $\begin{aligned} & \hline 0.085 \\ & 0.270 \\ & 0.520 \\ & 1.000 \end{aligned}$ |
| Joint Coverage Risk Class * |  | Benefit Period |  | Waiver of Premium Rider |  |  |
| 2 Preferred Nonsmokers1 Preferred Nonsmoker / 1 Preferred2 Preferreds1 Preferred Nonsmoker / 1 Standard1 Preferred / 1 Standard2 Standards | $\begin{aligned} & \hline 0.80 \\ & 0.90 \\ & 1.00 \end{aligned}$ | 3-Yr Benefit Period 5-Yr Benefit Period | $\begin{aligned} & \hline 0.70 \\ & 0.90 \end{aligned}$ | Enhanced | $\begin{gathered} \hline 50 \% \text { HCBC } \\ 100 \% \text { HCBC } \end{gathered}$ | $\begin{aligned} & \hline 1.10 \\ & 1.15 \end{aligned}$ |
|  | 1.00 | HCBC In |  | Pre-Enhanced | 50\% HCBC | 1.15 |
|  | $\begin{aligned} & 1.10 \\ & 1.20 \end{aligned}$ | Enhanced Pre-Enhanced | $\begin{aligned} & \hline 1.12 \\ & 1.16 \end{aligned}$ |  | 100\% HCBC | 1.20 |

[^1]Exhibit B3: Proposed Rates and Factors After 15\% Increase Individual Coverage / Preferred Risk Class / Lifetime Benefit Period


Issue Age Independent Factors

| Risk Classes |  | Payment Mode |  |
| :--- | :--- | :--- | :---: |
| Preferred Nonsmoker | 0.80 | Monthly | 0.085 |
| Preferred | 1.00 | Quarterly | 0.270 |
| Standard | 1.20 | Semi-Annual | 0.520 |
| Joint Coverage Risk Class ** |  | 1.000 |  |
| Annual |  | Benefit Period |  |
| 2 Preferred Nonsmokers | 0.80 | 3-Yr Benefit Period | 0.70 |
| 1 Preferred Nonsmoker / Preferred | 0.90 | 5-Yr Benefit Period | 0.90 |
| 2 Preferreds | 1.00 | Endorsed Group Discount |  |
| 1 Preferred Nonsmoker / 1 Standard | 1.00 | Ages 40-64 | 0.85 |
| 1 Preferred / 1 Standard | 1.10 | Ages 65-84 | 0.90 |
| 2 Standards | 1.20 |  |  |

* HCBC with Assisted Living Facility Benefit Rider, multiply base rates by 1.20
** Premiums for various joint combinations are calculated as $150 \%$ of the base policy premium of the older insured, times the Joint Coverage Risk Class factor

Lincoln Benefit Life Company
Policy Form: LB-6301, LB-6302, LB-6303

Exhibit C
Lapse Actual to Expected (Best Estimate) Analysis

| Duration | Exposure* | Lapses | Actual Lapse Rates | Best Estimate Lapse Rates | A/E |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 31,171 | 1,636 | 5.25\% | 5.00\% | 105\% |
| 2 | 29,593 | 1,129 | 3.82\% | 3.75\% | 102\% |
| 3 | 28,538 | 747 | 2.62\% | 2.50\% | 105\% |
| 4 | 27,799 | 477 | 1.72\% | 1.75\% | 98\% |
| 5 | 27,259 | 362 | 1.33\% | 1.50\% | 89\% |
| 6 | 26,695 | 336 | 1.26\% | 1.25\% | 101\% |
| 7 | 25,926 | 320 | 1.23\% | 1.00\% | 123\% |
| 8 | 25,126 | 318 | 1.27\% | 1.00\% | 127\% |
| 9 | 24,454 | 264 | 1.08\% | 1.00\% | 108\% |
| 10 | 23,802 | 195 | 0.82\% | 1.00\% | 82\% |
| 11 | 23,230 | 177 | 0.76\% | 1.00\% | 76\% |
| 12 | 22,730 | 174 | 0.77\% | 1.00\% | 77\% |
| 13 | 22,183 | 177 | 0.80\% | 1.00\% | 80\% |
| 14 | 21,542 | 139 | 0.65\% | 1.00\% | 65\% |
| 15 | 19,901 | 129 | 0.65\% | 1.00\% | 65\% |
| 16 | 16,075 | 97 | 0.60\% | 1.00\% | 60\% |
| 17 | 10,048 | 62 | 0.62\% | 1.00\% | 62\% |
| 18 | 5,946 | 37 | 0.62\% | 1.00\% | 62\% |
| 19 | 3,171 | 20 | 0.63\% | 1.00\% | 63\% |
| 20 | 988 | 5 | 0.51\% | 1.00\% | 51\% |
| 21 | 41 | 0 | 0.00\% | 1.00\% | 0\% |
| Total/Average | 416,216 | 6,801 | 1.63\% | 1.70\% | 96\% |

*Policy Form: LB-6301, LB-6302, LB-6303 Lifetime Pay Policies Only

## Lincoln Benefit Life Company

Exhibit D1: Mortality Selection Factors

| Policy <br> Duration | Selection Factors |  |
| :---: | :---: | :---: |
|  | Single | Joint |
| 1 | 0.165 | 0.095 |
| 2 | 0.335 | 0.135 |
| 3 | 0.390 | 0.225 |
| 4 | 0.425 | 0.240 |
| 5 | 0.470 | 0.280 |
| 6 | 0.485 | 0.320 |
| 7 | 0.520 | 0.330 |
| 8 | 0.530 | 0.370 |
| 9 | 0.600 | 0.380 |
| 10 | 0.610 | 0.390 |
| 11 | 0.630 | 0.410 |
| 12 | 0.670 | 0.435 |
| 13 | 0.680 | 0.455 |
| 14 | 0.760 | 0.490 |
| 15 | 0.800 | 0.500 |
| 16 | 0.850 | 0.520 |
| 17 | 0.875 | 0.590 |
| 18 | 0.925 | 0.610 |
| 19 | 0.930 | 0.650 |
| 20 | 0.940 | 0.680 |
| 21 | 1.000 | 0.820 |
| 22 | 1.000 | 0.830 |
| 23 | 1.000 | 0.930 |
| 24 | 1.000 | 0.960 |
| 25 | 1.000 | 1.000 |

## Lincoln Benefit Life Company

Combined Reinsurer Experience

Exhibit D2: Mortality Actual to Expected (Best Estimate) Analysis

| Attained Age | Single Lives Death Counts |  |  | Joint Lives Death Counts** |  |  | Total Death Counts |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual | Expected* | A/E | Actual | Expected* | A/E | Actual | Expected* | A/E |
| <40 | 1 | 1 | 85\% | 1 | 2 | 62\% | 2 | 3 | 72\% |
| 40-44 | 1 | 3 | 30\% | 14 | 7 | 213\% | 15 | 10 | 151\% |
| 45-49 | 26 | 13 | 198\% | 50 | 27 | 186\% | 76 | 40 | 190\% |
| 50-54 | 66 | 52 | 127\% | 154 | 106 | 145\% | 220 | 158 | 139\% |
| 55-59 | 180 | 179 | 101\% | 510 | 375 | 136\% | 690 | 554 | 125\% |
| 60-64 | 455 | 526 | 86\% | 1,163 | 1,091 | 107\% | 1,618 | 1,617 | 100\% |
| 65-69 | 849 | 1,119 | 76\% | 1,894 | 2,232 | 85\% | 2,743 | 3,351 | 82\% |
| 70-74 | 1,402 | 1,601 | 88\% | 2,890 | 3,019 | 96\% | 4,292 | 4,620 | 93\% |
| 75-79 | 1,810 | 1,985 | 91\% | 3,409 | 3,306 | 103\% | 5,219 | 5,291 | 99\% |
| 80-84 | 2,202 | 2,082 | 106\% | 3,174 | 2,846 | 112\% | 5,376 | 4,928 | 109\% |
| 85-89 | 1,792 | 1,666 | 108\% | 1,998 | 1,595 | 125\% | 3,790 | 3,260 | 116\% |
| 90+ | 1,295 | 1,092 | 119\% | 707 | 572 | 124\% | 2,002 | 1,664 | 120\% |
| Total | 10,079 | 10,319 | 98\% | 15,964 | 15,178 | 105\% | 26,043 | 25,497 | 102\% |

[^2]Lincoln Benefit Life Company
Policy Form: LB-6301, LB-6302, LB-6303
Exhibit E1: Incidence Rates Per 100

| Best Estimate |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Nursing Facility Care Incidence Rates |  |  |  | Incidence Rate Factors |  |
| Attained Age | Single Male | Single Female | Married Male | Married Female | Home and Community Based Care and Assisted Living Facility | Assisted Living Facility |
| 40 | 0.0035 | 0.0039 | 0.0008 | 0.0007 | 1.550 | 0.300 |
| 41 | 0.0041 | 0.0046 | 0.0010 | 0.0009 | 1.550 | 0.300 |
| 42 | 0.0047 | 0.0053 | 0.0012 | 0.0011 | 1.550 | 0.300 |
| 43 | 0.0055 | 0.0062 | 0.0014 | 0.0013 | 1.550 | 0.300 |
| 44 | 0.0064 | 0.0072 | 0.0017 | 0.0016 | 1.550 | 0.300 |
| 45 | 0.0075 | 0.0084 | 0.0020 | 0.0019 | 1.550 | 0.300 |
| 46 | 0.0087 | 0.0098 | 0.0024 | 0.0023 | 1.550 | 0.300 |
| 47 | 0.0101 | 0.0115 | 0.0029 | 0.0028 | 1.550 | 0.300 |
| 48 | 0.0117 | 0.0134 | 0.0035 | 0.0033 | 1.550 | 0.300 |
| 49 | 0.0136 | 0.0156 | 0.0042 | 0.0040 | 1.550 | 0.300 |
| 50 | 0.0159 | 0.0182 | 0.0050 | 0.0048 | 1.550 | 0.300 |
| 51 | 0.0184 | 0.0212 | 0.0060 | 0.0058 | 1.550 | 0.300 |
| 52 | 0.0214 | 0.0247 | 0.0072 | 0.0070 | 1.550 | 0.300 |
| 53 | 0.0249 | 0.0288 | 0.0086 | 0.0085 | 1.550 | 0.300 |
| 54 | 0.0290 | 0.0336 | 0.0103 | 0.0102 | 1.550 | 0.300 |
| 55 | 0.0337 | 0.0392 | 0.0124 | 0.0123 | 1.550 | 0.300 |
| 56 | 0.0392 | 0.0457 | 0.0148 | 0.0148 | 1.550 | 0.300 |
| 57 | 0.0455 | 0.0532 | 0.0178 | 0.0179 | 1.550 | 0.300 |
| 58 | 0.0554 | 0.0650 | 0.0223 | 0.0226 | 1.436 | 0.290 |
| 59 | 0.0679 | 0.0799 | 0.0282 | 0.0287 | 1.311 | 0.290 |
| 60 | 0.0827 | 0.0975 | 0.0354 | 0.0362 | 1.206 | 0.280 |
| 61 | 0.1005 | 0.1188 | 0.0444 | 0.0456 | 1.111 | 0.270 |
| 62 | 0.1206 | 0.1430 | 0.0549 | 0.0567 | 1.045 | 0.270 |
| 63 | 0.1456 | 0.1732 | 0.0684 | 0.0709 | 0.969 | 0.260 |
| 64 | 0.1780 | 0.2124 | 0.0862 | 0.0899 | 0.872 | 0.260 |
| 65 | 0.2158 | 0.2582 | 0.1078 | 0.1130 | 0.795 | 0.250 |
| 66 | 0.2607 | 0.3128 | 0.1342 | 0.1415 | 0.728 | 0.240 |
| 67 | 0.3134 | 0.3771 | 0.1664 | 0.1763 | 0.671 | 0.240 |
| 68 | 0.3775 | 0.4555 | 0.2067 | 0.2201 | 0.613 | 0.230 |
| 69 | 0.4552 | 0.5508 | 0.2570 | 0.2751 | 0.555 | 0.230 |
| 70 | 0.5461 | 0.6627 | 0.3179 | 0.3421 | 0.507 | 0.220 |
| 71 | 0.6509 | 0.7921 | 0.3907 | 0.4226 | 0.470 | 0.220 |
| 72 | 0.7661 | 0.9349 | 0.4741 | 0.5156 | 0.452 | 0.210 |
| 73 | 0.9076 | 1.1107 | 0.5791 | 0.6331 | 0.425 | 0.210 |
| 74 | 1.0763 | 1.3209 | 0.7081 | 0.7783 | 0.397 | 0.200 |
| 75 | 1.2769 | 1.5715 | 0.8662 | 0.9571 | 0.369 | 0.200 |
| 76 | 1.5156 | 1.8705 | 1.0601 | 1.1775 | 0.341 | 0.190 |
| 77 | 1.7860 | 2.2105 | 1.2881 | 1.4383 | 0.323 | 0.190 |
| 78 | 2.1051 | 2.6128 | 1.5654 | 1.7572 | 0.305 | 0.190 |
| 79 | 2.4625 | 3.0651 | 1.8881 | 2.1307 | 0.297 | 0.180 |
| 80 | 2.9032 | 3.6239 | 2.2952 | 2.6038 | 0.279 | 0.180 |
| 81 | 3.4235 | 4.2855 | 2.7907 | 3.1826 | 0.261 | 0.170 |
| 82 | 4.0056 | 5.0284 | 3.3668 | 3.8598 | 0.253 | 0.170 |
| 83 | 4.7249 | 5.9480 | 4.0948 | 4.7193 | 0.235 | 0.170 |
| 84 | 5.5290 | 6.9801 | 4.9407 | 5.7242 | 0.227 | 0.160 |
| 85 | 6.4703 | 8.1915 | 5.9615 | 6.9435 | 0.219 | 0.160 |
| 86 | 6.8761 | 8.6235 | 6.3562 | 7.3582 | 0.212 | 0.150 |
| 87 | 7.3137 | 9.0862 | 6.7829 | 7.8044 | 0.204 | 0.150 |
| 88 | 7.7794 | 9.5740 | 7.2385 | 8.2780 | 0.196 | 0.150 |
| 89 | 8.2752 | 10.0886 | 7.7251 | 8.7807 | 0.188 | 0.140 |
| 90 | 8.8030 | 10.6312 | 8.2448 | 9.3144 | 0.180 | 0.140 |
| 91 | 9.2856 | 11.1088 | 8.7253 | 9.7974 | 0.182 | 0.140 |
| 92 | 9.8782 | 11.7067 | 9.3126 | 10.3932 | 0.174 | 0.130 |
| 93 | 10.5091 | 12.3374 | 9.9399 | 11.0258 | 0.166 | 0.130 |
| 94 | 11.0756 | 12.8803 | 10.5100 | 11.5874 | 0.169 | 0.130 |
| 95 | 11.6826 | 13.4587 | 11.1225 | 12.1880 | 0.171 | 0.130 |
| 96 | 12.4289 | 14.1841 | 11.8718 | 12.9301 | 0.163 | 0.120 |
| 97 | 13.0988 | 14.8082 | 12.5527 | 13.5886 | 0.166 | 0.120 |
| 98 | 13.8167 | 15.4730 | 13.2841 | 14.2929 | 0.168 | 0.120 |
| 99 | 14.5615 | 16.1540 | 14.0462 | 15.0209 | 0.171 | 0.110 |
| 100 | 15.3466 | 16.8651 | 14.8521 | 15.7861 | 0.174 | 0.110 |
| 101 | 16.1879 | 17.6226 | 15.7176 | 16.6045 | 0.176 | 0.110 |
| 102 | 17.0609 | 18.3985 | 16.6196 | 17.4506 | 0.179 | 0.110 |
| 103 | 17.9962 | 19.2249 | 17.5883 | 18.3555 | 0.181 | 0.100 |
| 104 | 18.9669 | 20.0716 | 18.5978 | 19.2910 | 0.184 | 0.100 |
| 105 | 19.9901 | 20.9557 | 19.6654 | 20.2743 | 0.187 | 0.100 |
| 106 | 21.0863 | 21.8973 | 20.8118 | 21.3258 | 0.189 | 0.100 |
| 107 | 22.2240 | 22.8621 | 22.0067 | 22.4131 | 0.192 | 0.100 |
| 108 | 23.4233 | 23.8695 | 23.2704 | 23.5560 | 0.195 | 0.100 |
| 109 | 24.7081 | 24.9423 | 24.6273 | 24.7779 | 0.197 | 0.100 |
| 110 | 26.0417 | 26.0417 | 26.0417 | 26.0417 | 0.200 | 0.100 |
| Lincoln | it Life |  |  |  |  | 18 |

Exhibit E2: Length of Stay Per \$1 of Daily Benefit

| Best Estimate Length of Stay* |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Attained | Male |  | Female |  |
| Age | No COLA | 5\% Compound COLA | No COLA | 5\% Compound COLA |
| 40 | 657.68 | 914.60 | 671.46 | 862.32 |
| 41 | 657.68 | 914.60 | 671.46 | 862.32 |
| 42 | 657.68 | 914.60 | 671.46 | 862.32 |
| 43 | 657.68 | 914.60 | 671.46 | 862.32 |
| 44 | 657.68 | 914.60 | 671.46 | 862.32 |
| 45 | 657.68 | 914.60 | 671.46 | 862.32 |
| 46 | 657.68 | 914.60 | 671.46 | 862.32 |
| 47 | 657.68 | 914.60 | 671.46 | 862.32 |
| 48 | 657.68 | 914.60 | 671.46 | 862.32 |
| 49 | 657.68 | 914.60 | 671.46 | 862.32 |
| 50 | 657.68 | 914.60 | 671.46 | 862.32 |
| 51 | 657.68 | 914.60 | 671.46 | 862.32 |
| 52 | 657.68 | 914.60 | 671.46 | 862.32 |
| 53 | 649.68 | 897.86 | 643.79 | 813.94 |
| 54 | 642.05 | 881.97 | 624.06 | 783.77 |
| 55 | 634.77 | 866.89 | 605.68 | 756.03 |
| 56 | 627.83 | 852.56 | 588.48 | 730.40 |
| 57 | 621.21 | 838.95 | 572.34 | 706.65 |
| 58 | 614.89 | 826.02 | 557.14 | 684.55 |
| 59 | 608.86 | 813.73 | 542.77 | 663.90 |
| 60 | 603.10 | 802.04 | 529.15 | 644.56 |
| 61 | 597.59 | 790.93 | 516.21 | 626.36 |
| 62 | 592.32 | 780.36 | 503.89 | 609.20 |
| 63 | 598.15 | 779.79 | 533.27 | 644.42 |
| 64 | 605.41 | 781.20 | 564.62 | 682.10 |
| 65 | 614.11 | 784.55 | 598.09 | 722.45 |
| 66 | 624.26 | 789.82 | 633.85 | 765.70 |
| 67 | 635.85 | 796.99 | 677.51 | 824.27 |
| 68 | 615.94 | 755.13 | 699.34 | 844.71 |
| 69 | 600.38 | 722.62 | 724.30 | 870.87 |
| 70 | 588.16 | 697.20 | 750.74 | 898.92 |
| 71 | 578.53 | 677.19 | 778.69 | 928.84 |
| 72 | 570.94 | 661.35 | 808.18 | 960.63 |
| 73 | 566.37 | 645.00 | 815.05 | 965.04 |
| 74 | 567.57 | 643.34 | 822.53 | 970.39 |
| 75 | 569.47 | 642.82 | 830.58 | 976.60 |
| 76 | 571.96 | 643.24 | 839.16 | 983.61 |
| 77 | 574.96 | 644.45 | 849.38 | 994.20 |
| 78 | 574.83 | 642.01 | 852.50 | 994.71 |
| 79 | 575.59 | 641.24 | 856.05 | 995.82 |
| 80 | 576.67 | 640.88 | 860.02 | 997.50 |
| 81 | 578.03 | 640.92 | 864.39 | 999.74 |
| 82 | 579.68 | 641.33 | 869.16 | 1,002.52 |
| 83 | 565.68 | 622.01 | 851.36 | 971.65 |
| 84 | 554.92 | 608.01 | 840.86 | 955.39 |
| 85 | 545.15 | 595.41 | 831.61 | 941.04 |
| 86 | 536.20 | 583.95 | 823.41 | 928.25 |
| 87 | 527.95 | 573.45 | 816.11 | 916.79 |
| 88 | 509.29 | 550.33 | 779.39 | 870.24 |
| 89 | 494.17 | 532.30 | 746.39 | 828.95 |
| 90 | 480.29 | 515.83 | 716.44 | 791.86 |
| 91 | 467.49 | 500.71 | 689.11 | 758.30 |
| 92 | 455.64 | 486.79 | 664.02 | 727.77 |
| 93 | 455.64 | 486.79 | 664.02 | 727.77 |
| 94 | 455.64 | 486.79 | 664.02 | 727.77 |
| 95 | 455.64 | 486.79 | 664.02 | 727.77 |
| 96 | 455.64 | 486.79 | 664.02 | 727.77 |
| 97 | 455.64 | 486.79 | 664.02 | 727.77 |
| 98 | 455.64 | 486.79 | 664.02 | 727.77 |
| 99 | 455.64 | 486.79 | 664.02 | 727.77 |
| 100 | 455.64 | 486.79 | 664.02 | 727.77 |
| 101 | 455.64 | 486.79 | 664.02 | 727.77 |
| 102 | 455.64 | 486.79 | 664.02 | 727.77 |
| 103 | 455.64 | 486.79 | 664.02 | 727.77 |
| 104 | 455.64 | 486.79 | 664.02 | 727.77 |
| 105 | 455.64 | 486.79 | 664.02 | 727.77 |
| 106 | 455.64 | 486.79 | 664.02 | 727.77 |
| 107 | 455.64 | 486.79 | 664.02 | 727.77 |
| 108 | 455.64 | 486.79 | 664.02 | 727.77 |
| 109 | 455.64 | 486.79 | 664.02 | 727.77 |
| 110 | 455.64 | 486.79 | 664.02 | 727.77 |

[^3]Lincoln Benefit Life Company

## Combined Reinsurer Experience

Exhibit E3: Incidence Actual to Expected (Best Estimate) Analysis

| Attained <br> Age | Single Male |  |  |  |  | Single Female |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Exposure | Actual <br> Claim Count | Expected <br> Claim Count | $\mathrm{A} / \mathrm{E}$ | Exposure | Actual <br> Claim Count | Elaim Count | A/E |  |
|  | 1,179 | 0 | 0 | $0 \%$ | 1,462 | 0 | 0 | $0 \%$ |  |
| $45-49$ | 3,700 | 5 | 1 | $608 \%$ | 5,699 | 7 | 1 | $479 \%$ |  |
| $50-54$ | 8,678 | 6 | 4 | $147 \%$ | 16,582 | 24 | 9 | $264 \%$ |  |
| $55-59$ | 18,253 | 33 | 18 | $183 \%$ | 39,710 | 62 | 46 | $134 \%$ |  |
| $60-64$ | 29,977 | 65 | 62 | $105 \%$ | 71,865 | 194 | 177 | $110 \%$ |  |
| $65-69$ | 37,945 | 162 | 164 | $99 \%$ | 96,385 | 507 | 501 | $101 \%$ |  |
| $70-74$ | 35,298 | 310 | 316 | $98 \%$ | 92,470 | 1,013 | 1,015 | $100 \%$ |  |
| $75-79$ | 23,976 | 457 | 450 | $102 \%$ | 67,201 | 1,571 | 1,569 | $100 \%$ |  |
| $80-84$ | 12,732 | 515 | 497 | $104 \%$ | 38,817 | 1,937 | 1,919 | $101 \%$ |  |
| $85-89$ | 4,959 | 400 | 346 | $116 \%$ | 17,502 | 1,746 | 1,525 | $114 \%$ |  |
| $90+$ | 696 | 92 | 67 | $137 \%$ | 3,003 | 497 | 343 | $145 \%$ |  |
| Total | 177,394 | 2,045 | 1,925 | $106 \%$ | 450,696 | 7,558 | 7,106 | $106 \%$ |  |


| Attained <br> Age | Married Male |  |  |  |  | Married Female |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Exposure | Actual <br> Claim Count | Expected <br> Claim Count | A/E | Exposure | Actual <br> Claim Count | Expected <br> Claim Count | A/E |  |
| $40-44$ | 3,861 | 0 | 0 | $0 \%$ | 7,045 | 6 | 0 | $3406 \%$ |  |
| $45-49$ | 13,391 | 5 | 1 | $569 \%$ | 21,267 | 15 | 1 | $1128 \%$ |  |
| $50-54$ | 35,278 | 21 | 6 | $368 \%$ | 51,914 | 44 | 8 | $537 \%$ |  |
| $55-59$ | 83,318 | 79 | 33 | $240 \%$ | 109,609 | 115 | 43 | $265 \%$ |  |
| $60-64$ | 151,245 | 216 | 145 | $149 \%$ | 176,000 | 263 | 173 | $152 \%$ |  |
| $65-69$ | 196,472 | 459 | 454 | $101 \%$ | 197,117 | 488 | 479 | $102 \%$ |  |
| $70-74$ | 172,459 | 918 | 957 | $96 \%$ | 151,788 | 877 | 911 | $96 \%$ |  |
| $75-79$ | 105,083 | 1,463 | 1,412 | $104 \%$ | 86,111 | 1,314 | 1,287 | $102 \%$ |  |
| $80-84$ | 45,535 | 1,486 | 1,470 | $101 \%$ | 35,777 | 1,348 | 1,321 | $102 \%$ |  |
| $85-89$ | 12,731 | 953 | 812 | $117 \%$ | 9,978 | 806 | 735 | $110 \%$ |  |
| $90+$ | 977 | 158 | 87 | $181 \%$ | 911 | 133 | 91 | $146 \%$ |  |
| Total | 820,349 | 5,758 | 5,376 | $107 \%$ | 847,518 | 5,409 | 5,049 | $107 \%$ |  |

Lincoln Benefit Life Company
Combined Reinsurer Experience

Exhibit E4: Claim Termination Actual to Expected (Best Estimate) Analysis

| Duration | Claim Exposure | Actual | Expected | A/E |
| :---: | :---: | :---: | :---: | :---: |
| 1st quarter | 1,643 | 477 | 496 | 96\% |
| 2nd quarter | 3,883 | 651 | 496 | 131\% |
| 3rd quarter | 3,250 | 289 | 280 | 103\% |
| 4th quarter | 2,876 | 224 | 208 | 108\% |
| 2 | 9,957 | 2,246 | 2,264 | 99\% |
| 3 | 6,738 | 1,547 | 1,654 | 94\% |
| 4 | 4,548 | 1,406 | 1,282 | 110\% |
| 5 | 2,701 | 676 | 739 | 92\% |
| 6 | 1,757 | 405 | 457 | 89\% |
| 7 | 1,167 | 258 | 313 | 82\% |
| 8 | 776 | 162 | 198 | 82\% |
| 9 | 515 | 107 | 131 | 82\% |
| 10 | 343 | 72 | 100 | 72\% |
| 11 | 223 | 54 | 57 | 95\% |
| 12 | 137 | 35 | 44 | 79\% |
| 13 | 84 | 13 | 31 | 42\% |
| 14 | 56 | 22 | 17 | 128\% |
| 15 | 35 | 14 | 12 | 118\% |
| 16 | 20 | 8 | 3 | 288\% |
| 17 | 15 | 6 | 3 | 173\% |
| 18 | 9 | 4 | 8 | 51\% |
| 19 | 3 | 1 | 2 | 40\% |
| 20 | 2 | 1 | 2 | 58\% |
| 21 | 1 | 1 | 1 | 100\% |
| Average | 40,740 | 8,679 | 8,797 | 99\% |

Lincoln Benefit Life Company
Policy Form: LB-6301, LB-6302, LB-6303
All Issue Years
Exhibit F1: Nationwide Experience Projection**

|  | $\begin{aligned} & \text { Calendar } \\ & \text { Year } \end{aligned}$ | Before Proposed Increase |  |  | After Proposed Increase* |  |  | At <br> Year End <br> 2018 | $\begin{aligned} & \hline 4.50 \% \\ & \text { Factor } \\ & 1.0450 \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Earned <br> Premium | Incurred Claims | Loss <br> Ratio | Earned Premium | Incurred Claims | Loss <br> Ratio |  |  |
| Historical <br> Experience | 1998 | 468,385 | 0 | 0\% | 468,385 | 0 | 0\% | 20.5 | 2.4654 |
|  | 1999 | 4,486,447 | 92,404 | $2 \%$ | 4,486,447 | 92,404 | 2\% | 19.5 | 2.3592 |
|  | 2000 | 10,423,173 | 1,481,976 | 14\% | 10,423,173 | 1,481,976 | 14\% | 18.5 | 2.2576 |
|  | 2001 | 18,002,509 | 1,293,352 | 7\% | 18,002,509 | 1,293,352 | 7\% | 17.5 | 2.1604 |
|  | 2002 | 27,745,251 | 2,750,934 | 10\% | 27,745,251 | 2,750,934 | 10\% | 16.5 | 2.0674 |
|  | 2003 | 38,568,615 | 2,678,361 | 7\% | 38,568,615 | 2,678,361 | 7\% | 15.5 | 1.9783 |
|  | 2004 | 43,187,255 | 7,514,247 | 17\% | 43,187,255 | 7,514,247 | 17\% | 14.5 | 1.8932 |
|  | 2005 | 43,020,831 | 7,394,143 | 17\% | 43,020,831 | 7,394,143 | 17\% | 13.5 | 1.8116 |
|  | 2006 | 41,994,717 | 10,823,305 | 26\% | 41,994,717 | 10,823,305 | 26\% | 12.5 | 1.7336 |
|  | 2007 | 42,567,991 | 16,342,554 | 38\% | 42,567,991 | 16,342,554 | 38\% | 11.5 | 1.6590 |
|  | 2008 | 43,211,744 | 17,896,345 | 41\% | 43,211,744 | 17,896,345 | 41\% | 10.5 | 1.5875 |
|  | 2009 | 44,302,232 | 16,162,861 | 36\% | 44,302,232 | 16,162,861 | 36\% | 9.5 | 1.5192 |
|  | 2010 | 45,535,065 | 17,448,152 | 38\% | 45,535,065 | 17,448,152 | 38\% | 8.5 | 1.4537 |
|  | 2011 | 46,425,719 | 29,815,591 | 64\% | 46,425,719 | 29,815,591 | 64\% | 7.5 | 1.3911 |
|  | 2012 | 46,027,745 | 28,218,004 | 61\% | 46,027,745 | 28,218,004 | 61\% | 6.5 | 1.3312 |
|  | 2013 | 43,931,015 | 25,805,927 | 59\% | 43,931,015 | 25,805,927 | 59\% | 5.5 | 1.2739 |
|  | 2014 | 42,574,510 | 41,658,658 | 98\% | 42,574,510 | 41,658,658 | 98\% | 4.5 | 1.2191 |
|  | 2015 | 41,315,579 | 42,316,090 | 102\% | 41,315,579 | 42,316,090 | 102\% | 3.5 | 1.1666 |
|  | 2016 | 41,589,907 | 40,646,854 | 98\% | 41,589,907 | 40,646,854 | 98\% | 2.5 | 1.1163 |
|  | 2017 | 42,063,477 | 53,316,807 | 127\% | 42,063,477 | 53,316,807 | 127\% | 1.5 | 1.0683 |
|  | 2018 | 41,069,951 | 60,640,283 | 148\% | 41,069,951 | 60,640,283 | 148\% | 0.5 | 1.0223 |
| Projected Future Experience | 2019 | 39,519,565 | 57,159,461 | 145\% | 39,519,565 | 57,159,461 | 145\% | -0.5 | 0.9782 |
|  | 2020 | 37,016,585 | 63,601,862 | 172\% | 42,569,073 | 63,601,862 | 149\% | -1.5 | 0.9361 |
|  | 2021 | 34,506,743 | 70,195,336 | 203\% | 39,682,755 | 70,195,336 | 177\% | -2.5 | 0.8958 |
|  | 2022 | 32,002,232 | 76,783,077 | 240\% | 36,802,566 | 76,783,077 | 209\% | -3.5 | 0.8572 |
|  | 2023 | 29,512,718 | 83,178,427 | 282\% | 33,939,626 | 83,178,427 | 245\% | -4.5 | 0.8203 |
|  | 2024 | 27,064,052 | 89,214,669 | 330\% | 31,123,660 | 89,214,669 | 287\% | -5.5 | 0.7850 |
|  | 2025 | 24,675,739 | 94,685,733 | 384\% | 28,377,100 | 94,685,733 | 334\% | -6.5 | 0.7512 |
|  | 2026 | 22,366,214 | 99,458,098 | 445\% | 25,721,146 | 99,458,098 | 387\% | -7.5 | 0.7188 |
|  | 2027 | 20,153,010 | 103,403,222 | 513\% | 23,175,962 | 103,403,222 | 446\% | -8.5 | 0.6879 |
|  | 2028 | 18,050,385 | 106,307,675 | 589\% | 20,757,943 | 106,307,675 | 512\% | -9.5 | 0.6583 |
|  | 2029 | 16,069,816 | 108,035,919 | 672\% | 18,480,288 | 108,035,919 | 585\% | -10.5 | 0.6299 |
|  | 2030 | 14,217,311 | 108,575,793 | 764\% | 16,349,907 | 108,575,793 | 664\% | -11.5 | 0.6028 |
|  | 2031 | 12,496,827 | 107,918,632 | 864\% | 14,371,351 | 107,918,632 | 751\% | -12.5 | 0.5768 |
|  | 2032 | 10,910,939 | 105,930,452 | 971\% | 12,547,580 | 105,930,452 | 844\% | -13.5 | 0.5520 |
|  | 2033 | 9,460,731 | 102,667,972 | 1085\% | 10,879,841 | 102,667,972 | 944\% | -14.5 | 0.5282 |
|  | 2034 | 8,145,485 | 98,370,395 | 1208\% | 9,367,307 | 98,370,395 | 1050\% | -15.5 | 0.5055 |
|  | 2035 | 6,962,239 | 93,232,184 | 1339\% | 8,006,575 | 93,232,184 | 1164\% | -16.5 | 0.4837 |
|  | 2036 | 5,906,780 | 87,303,938 | 1478\% | 6,792,798 | 87,303,938 | 1285\% | -17.5 | 0.4629 |
|  | 2037 | 4,973,820 | 80,823,475 | 1625\% | 5,719,893 | 80,823,475 | 1413\% | -18.5 | 0.4429 |
|  | 2038 | 4,156,510 | 74,074,023 | 1782\% | 4,779,987 | 74,074,023 | 1550\% | -19.5 | 0.4239 |
|  | 2039 | 3,447,049 | 67,245,544 | 1951\% | 3,964,106 | 67,245,544 | 1696\% | -20.5 | 0.4056 |
|  | 2040 | 2,836,808 | 60,520,926 | 2133\% | 3,262,329 | 60,520,926 | 1855\% | -21.5 | 0.3882 |
|  | 2041 | 2,316,756 | 54,020,152 | 2332\% | 2,664,270 | 54,020,152 | 2028\% | -22.5 | 0.3714 |
|  | 2042 | 1,877,713 | 47,846,335 | 2548\% | 2,159,370 | 47,846,335 | 2216\% | -23.5 | 0.3554 |
|  | 2043 | 1,510,469 | 42,030,054 | 2783\% | 1,737,039 | 42,030,054 | 2420\% | -24.5 | 0.3401 |
|  | 2044 | 1,206,049 | 36,653,559 | 3039\% | 1,386,956 | 36,653,559 | 2643\% | -25.5 | 0.3255 |
|  | 2045 | 955,904 | 31,705,288 | 3317\% | 1,099,290 | 31,705,288 | 2884\% | -26.5 | 0.3115 |
|  | 2046 | 752,118 | 27,186,863 | 3615\% | 864,936 | 27,186,863 | 3143\% | -27.5 | 0.2981 |
|  | 2047 | 587,484 | 23,095,902 | 3931\% | 675,606 | 23,095,902 | 3419\% | -28.5 | 0.2852 |
|  | 2048 | 455,556 | 19,442,795 | 4268\% | 523,889 | 19,442,795 | 3711\% | -29.5 | 0.2729 |
|  | 2049 | 350,655 | 16,205,828 | 4622\% | 403,254 | 16,205,828 | 4019\% | -30.5 | 0.2612 |
|  | 2050 | 267,882 | 13,373,464 | 4992\% | 308,064 | 13,373,464 | 4341\% | -31.5 | 0.2499 |
|  | 2051 | 203,060 | 10,927,371 | 5381\% | 233,519 | 10,927,371 | 4679\% | -32.5 | 0.2392 |
|  | 2052 | 152,686 | 8,846,625 | 5794\% | 175,589 | 8,846,625 | 5038\% | -33.5 | 0.2289 |
|  | 2053 | 113,842 | 7,091,874 | 6230\% | 130,918 | 7,091,874 | 5417\% | -34.5 | 0.2190 |
|  | 2054 | 84,138 | 5,623,898 | 6684\% | 96,759 | 5,623,898 | 5812\% | -35.5 | 0.2096 |
|  | 2055 | 61,618 | 4,415,574 | 7166\% | 70,860 | 4,415,574 | 6231\% | -36.5 | 0.2006 |
|  | 2056 | 44,693 | 3,430,147 | 7675\% | 51,397 | 3,430,147 | 6674\% | -37.5 | 0.1919 |
|  | 2057 | 32,099 | 2,634,614 | 8208\% | 36,914 | 2,634,614 | 7137\% | -38.5 | 0.1837 |
|  | 2058 | 22,824 | 1,998,475 | 8756\% | 26,247 | 1,998,475 | 7614\% | -39.5 | 0.1758 |
|  | Past | 748,512,115 | 424,296,846 | 57\% | 748,512,115 | 424,296,846 | 57\% |  |  |
|  | Future | 395,447,105 | 2,295,215,631 | 580\% | 448,836,235 | 2,295,215,631 | 511\% |  |  |
|  | Lifetime | 1,143,959,220 | 2,719,512,476 | 238\% | 1,197,348,350 | 2,719,512,476 | 227\% |  |  |
| Interest | 4.50\% |  |  |  |  |  |  |  |  |
|  | Past w/ int | 1,128,310,741 | 545,556,588 | 48\% | 1,128,310,741 | 545,556,588 | 48\% |  |  |
|  | Future w/ int | 294,635,205 | 1,338,291,157 | 454\% | 333,031,591 | 1,338,291,157 | 402\% |  |  |
|  | Lifetime w/ int | 1,422,945,947 | 1,883,847,746 | 132\% | 1,461,342,332 | 1,883,847,746 | 129\% |  |  |

## * Proposed rate increase of $\mathbf{1 5 \%}$ will be implemented in 2020.

**Projection is for lifetime-pay policies only.

Lincoln Benefit Life Company
Policy Form: LB-6301-P-MD, LB-6302-P-MD, LB-6303-P-MD All Issue Years

Exhibit F2: Maryland Experience Projection**

|  | Calendar Year | Before Proposed Increase |  |  | After Proposed Increase* |  |  | At | 4.50\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Earned Premium | Incurred Claims | Loss <br> Ratio | Earned Premium | Incurred Claims | Loss <br> Ratio | $\begin{gathered} \text { Year End } \\ 2018 \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Factor } \\ & 1.0450 \end{aligned}$ |
| Historical Experience | 1998 | 0 | 0 | 0\% | 0 | 0 | 0\% | 20.5 | 2.4654 |
|  | 1999 | 31,861 | 0 | 0\% | 31,861 | 0 | 0\% | 19.5 | 2.3592 |
|  | 2000 | 162,198 | 0 | 0\% | 162,198 | 0 | 0\% | 18.5 | 2.2576 |
|  | 2001 | 282,650 | 0 | 0\% | 282,650 | 0 | 0\% | 17.5 | 2.1604 |
|  | 2002 | 441,654 | 0 | 0\% | 441,654 | 0 | 0\% | 16.5 | 2.0674 |
|  | 2003 | 703,780 | 0 | 0\% | 703,780 | 0 | 0\% | 15.5 | 1.9783 |
|  | 2004 | 913,013 | 0 | 0\% | 913,013 | 0 | 0\% | 14.5 | 1.8932 |
|  | 2005 | 863,985 | 9,970 | 1\% | 863,985 | 9,970 | 1\% | 13.5 | 1.8116 |
|  | 2006 | 825,078 | 1,170,923 | 142\% | 825,078 | 1,170,923 | 142\% | 12.5 | 1.7336 |
|  | 2007 | 852,043 | 835,222 | 98\% | 852,043 | 835,222 | 98\% | 11.5 | 1.6590 |
|  | 2008 | 883,290 | 0 | 0\% | 883,290 | 0 | 0\% | 10.5 | 1.5875 |
|  | 2009 | 889,555 | 58,548 | 7\% | 889,555 | 58,548 | 7\% | 9.5 | 1.5192 |
|  | 2010 | 903,155 | 0 | 0\% | 903,155 | 0 | 0\% | 8.5 | 1.4537 |
|  | 2011 | 942,241 | 71,697 | 8\% | 942,241 | 71,697 | 8\% | 7.5 | 1.3911 |
|  | 2012 | 916,394 | 43,948 | 5\% | 916,394 | 43,948 | 5\% | 6.5 | 1.3312 |
|  | 2013 | 887,046 | 179,854 | 20\% | 887,046 | 179,854 | 20\% | 5.5 | 1.2739 |
|  | 2014 | 871,236 | 855,664 | 98\% | 871,236 | 855,664 | 98\% | 4.5 | 1.2191 |
|  | 2015 | 852,450 | 750,934 | 88\% | 852,450 | 750,934 | 88\% | 3.5 | 1.1666 |
|  | 2016 | 875,367 | 475,499 | 54\% | 875,367 | 475,499 | 54\% | 2.5 | 1.1163 |
|  | 2017 | 916,352 | 518,609 | 57\% | 916,352 | 518,609 | 57\% | 1.5 | 1.0683 |
|  | 2018 | 928,545 | 1,831,189 | 197\% | 928,545 | 1,831,189 | 197\% | 0.5 | 1.0223 |
| Projected Future Experience | 2019 | 882,263 | 1,146,915 | 130\% | 882,263 | 1,146,915 | 130\% | -0.5 | 0.9782 |
|  | 2020 | 837,531 | 1,306,933 | 156\% | 963,161 | 1,306,933 | 136\% | -1.5 | 0.9361 |
|  | 2021 | 791,315 | 1,472,162 | 186\% | 910,012 | 1,472,162 | 162\% | -2.5 | 0.8958 |
|  | 2022 | 744,052 | 1,642,741 | 221\% | 855,659 | 1,642,741 | 192\% | -3.5 | 0.8572 |
|  | 2023 | 695,799 | 1,821,488 | 262\% | 800,168 | 1,821,488 | 228\% | -4.5 | 0.8203 |
|  | 2024 | 646,977 | 2,000,180 | 309\% | 744,023 | 2,000,180 | 269\% | -5.5 | 0.7850 |
|  | 2025 | 598,097 | 2,168,367 | 363\% | 687,812 | 2,168,367 | 315\% | -6.5 | 0.7512 |
|  | 2026 | 549,762 | 2,327,821 | 423\% | 632,226 | 2,327,821 | 368\% | -7.5 | 0.7188 |
|  | 2027 | 502,360 | 2,475,799 | 493\% | 577,714 | 2,475,799 | 429\% | -8.5 | 0.6879 |
|  | 2028 | 456,381 | 2,605,703 | 571\% | 524,838 | 2,605,703 | 496\% | -9.5 | 0.6583 |
|  | 2029 | 412,245 | 2,700,924 | 655\% | 474,082 | 2,700,924 | 570\% | -10.5 | 0.6299 |
|  | 2030 | 370,248 | 2,757,725 | 745\% | 425,785 | 2,757,725 | 648\% | -11.5 | 0.6028 |
|  | 2031 | 330,586 | 2,777,538 | 840\% | 380,174 | 2,777,538 | $731 \%$ | -12.5 | 0.5768 |
|  | 2032 | 293,393 | 2,752,508 | 938\% | 337,402 | 2,752,508 | 816\% | -13.5 | 0.5520 |
|  | 2033 | 258,756 | 2,697,577 | 1043\% | 297,570 | 2,697,577 | 907\% | -14.5 | 0.5282 |
|  | 2034 | 226,706 | 2,619,504 | 1155\% | 260,711 | 2,619,504 | 1005\% | -15.5 | 0.5055 |
|  | 2035 | 197,277 | 2,511,949 | 1273\% | 226,868 | 2,511,949 | 1107\% | -16.5 | 0.4837 |
|  | 2036 | 170,490 | 2,387,295 | 1400\% | 196,063 | 2,387,295 | 1218\% | -17.5 | 0.4629 |
|  | 2037 | 146,319 | 2,251,213 | 1539\% | 168,267 | 2,251,213 | 1338\% | -18.5 | 0.4429 |
|  | 2038 | 124,710 | 2,093,611 | 1679\% | 143,417 | 2,093,611 | 1460\% | -19.5 | 0.4239 |
|  | 2039 | 105,579 | 1,931,373 | 1829\% | 121,416 | 1,931,373 | 1591\% | -20.5 | 0.4056 |
|  | 2040 | 88,780 | 1,775,197 | 2000\% | 102,096 | 1,775,197 | 1739\% | -21.5 | 0.3882 |
|  | 2041 | 74,142 | 1,624,990 | 2192\% | 85,263 | 1,624,990 | 1906\% | -22.5 | 0.3714 |
|  | 2042 | 61,488 | 1,486,252 | 2417\% | 70,711 | 1,486,252 | 2102\% | -23.5 | 0.3554 |
|  | 2043 | 50,642 | 1,355,082 | 2676\% | 58,238 | 1,355,082 | 2327\% | -24.5 | 0.3401 |
|  | 2044 | 41,418 | 1,231,504 | 2973\% | 47,631 | 1,231,504 | 2586\% | -25.5 | 0.3255 |
|  | 2045 | 33,637 | 1,108,532 | 3296\% | 38,683 | 1,108,532 | 2866\% | -26.5 | 0.3115 |
|  | 2046 | 27,119 | 989,916 | 3650\% | 31,187 | 989,916 | 3174\% | -27.5 | 0.2981 |
|  | 2047 | 21,690 | 869,478 | 4009\% | 24,944 | 869,478 | 3486\% | -28.5 | 0.2852 |
|  | 2048 | 17,206 | 750,669 | 4363\% | 19,787 | 750,669 | 3794\% | -29.5 | 0.2729 |
|  | 2049 | 13,526 | 638,322 | 4719\% | 15,555 | 638,322 | 4104\% | -30.5 | 0.2612 |
|  | 2050 | 10,526 | 535,719 | 5089\% | 12,105 | 535,719 | 4426\% | -31.5 | 0.2499 |
|  | 2051 | 8,100 | 443,122 | 5471\% | 9,314 | 443,122 | 4757\% | -32.5 | 0.2392 |
|  | 2052 | 6,155 | 362,448 | 5889\% | 7,078 | 362,448 | 5121\% | -33.5 | 0.2289 |
|  | 2053 | 4,614 | 293,031 | 6351\% | 5,306 | 293,031 | 5523\% | -34.5 | 0.2190 |
|  | 2054 | 3,408 | 234,266 | 6875\% | 3,919 | 234,266 | 5978\% | -35.5 | 0.2096 |
|  | 2055 | 2,476 | 185,322 | 7485\% | 2,847 | 185,322 | 6508\% | -36.5 | 0.2006 |
|  | 2056 | 1,767 | 144,518 | 8178\% | 2,032 | 144,518 | 7112\% | -37.5 | 0.1919 |
|  | 2057 | 1,237 | 110,735 | 8951\% | 1,423 | 110,735 | 7784\% | -38.5 | 0.1837 |
|  | 2058 | 848 | 83,391 | 9831\% | 976 | 83,391 | 8549\% | -39.5 | 0.1758 |
|  | Past | 14,941,894 | 6,802,058 | 46\% | 14,941,894 | 6,802,058 | 46\% |  |  |
|  | Future | 9,809,623 | 60,671,820 | 618\% | 11,148,727 | 60,671,820 | 544\% |  |  |
|  | Lifetime | 24,751,518 | 67,473,878 | 273\% | 26,090,622 | 67,473,878 | 259\% |  |  |
| Interest | 4.50\% |  |  |  |  |  |  |  |  |
|  | Past w/ int | 22,184,104 | 8,785,775 | 40\% | 22,184,104 | 8,785,775 | 40\% |  |  |
|  | Future w/ int | 7,140,887 | 33,557,848 | 470\% | 8,082,562 | 33,557,848 | 415\% |  |  |
|  | Lifetime w/ int | 29,324,992 | 42,343,623 | 144\% | 30,266,666 | 42,343,623 | 140\% |  |  |

## * Proposed rate increase of $\mathbf{1 5 \%}$ will be implemented in 2020.

**Projection is for lifetime-pay policies only.
Lincoln Benefit Life

Lincoln Benefit Life Company
Policy Form: LB-6301, LB-6302, LB-6303
Exhibit G1: Nationwide Policy and Premium Distribution

|  | Policies | Premium | \% of Policies | \% of Premium |
| :---: | :---: | :---: | :---: | :---: |
| Base |  |  |  |  |
| Comprehensive | 11,923 | 37,931,089 | 86\% | 91\% |
| Nursing Home Only | 821 | 2,164,868 | 6\% | 5\% |
| Home Health Only Only | 1,043 | 1,807,452 | 8\% | 4\% |
| Total | 13,787 | 41,903,409 | 100\% | 100\% |
| COLA Options |  |  |  |  |
| No COLA | 2,366 | 4,804,212 | 17\% | 11\% |
| Simple COLA | 1,092 | 3,185,141 | 8\% | 8\% |
| Compound COLA | 10,329 | 33,914,056 | 75\% | 81\% |
| Total | 13,787 | 41,903,409 | 100\% | 100\% |
| Nonforfeiture Options |  |  |  |  |
| None | 13,518 | 40,828,377 | 98\% | 97\% |
| SBP | 77 | 222,412 | 1\% | 1\% |
| Full ROP \& SBP | 16 | 54,708 | 0\% | 0\% |
| Limited ROP | 65 | 202,953 | 0\% | 0\% |
| Full ROP | 111 | 594,959 | 1\% | 1\% |
| Total | 13,787 | 41,903,409 | 100\% | 100\% |
| Joint/Single Life |  |  |  |  |
| Joint | 5,961 | 22,367,461 | 43\% | 53\% |
| Single | 7,826 | 19,535,947 | 57\% | 47\% |
| Total | 13,787 | 41,903,409 | 100\% | 100\% |
| Billing Mode |  |  |  |  |
| Annual | 4,778 | 15,967,529 | 35\% | 38\% |
| Semi-Annual | 596 | 1,848,639 | 4\% | 4\% |
| Quarterly | 1,353 | 4,150,679 | 10\% | 10\% |
| Monthly | 7,060 | 19,936,562 | 51\% | 48\% |
| Total | 13,787 | 41,903,409 | 100\% | 100\% |
| Elimination Period |  |  |  |  |
| 0 Day | 1,644 | 4,234,305 | 12\% | 10\% |
| 30 Days | 3,613 | 11,499,292 | 26\% | 27\% |
| 60 Days | 486 | 1,259,960 | 4\% | 3\% |
| 90 Days | 8,044 | 24,909,851 | 58\% | 59\% |
| Total | 13,787 | 41,903,409 | 100\% | 100\% |
| Benefit Period (NH/HH) |  |  |  |  |
| 3 Year / 3 Year | 1,865 | 4,563,691 | 14\% | 11\% |
| 5 Year / 3 Year | 156 | 464,875 | 1\% | 1\% |
| 5 Year/5 Year | 1,233 | 3,618,315 | 9\% | 9\% |
| Lifetime / 3 Year | 753 | 2,449,385 | 5\% | 6\% |
| Lifetime / 5 Year | 266 | 903,309 | 2\% | 2\% |
| Lifetime / Lifetime | 9,514 | 29,903,834 | 69\% | 71\% |
| Total | 13,787 | 41,903,409 | 100\% | 100\% |
| Issue Age Cohort |  |  |  |  |
| 20-29 | 1 | 1,561 | 0\% | 0\% |
| 30-39 | 38 | 57,445 | 0\% | 0\% |
| 40-49 | 914 | 1,794,394 | 7\% | 4\% |
| 50-59 | 5,620 | 14,759,497 | 41\% | 35\% |
| 60-69 | 6,260 | 21,264,242 | 45\% | 51\% |
| 70-79 | 940 | 3,937,399 | 7\% | 9\% |
| 80-89 | 14 | 88,870 | 0\% | 0\% |
| Total | 13,787 | 41,903,409 | 100\% | 100\% |
| Daily Benefit Cohort |  |  |  |  |
| \$1-\$50 | 341 | 541,091 | 2\% | 1\% |
| \$51-\$100 | 6,571 | 17,807,632 | 48\% | 42\% |
| \$101-\$150 | 5,584 | 18,209,766 | 41\% | 43\% |
| \$151-\$200 | 1,059 | 4,338,075 | 8\% | 10\% |
| \$201-\$250 | 224 | 973,801 | 2\% | 2\% |
| \$251-\$300 | 8 | 33,043 | 0\% | 0\% |
| Total | 13,787 | 41,903,409 | 100\% | 100\% |
| Attained Age Cohort |  |  |  |  |
| 30-39 | 0 | 0 | 0\% | 0\% |
| 40-49 | 5 | 3,432 | 0\% | 0\% |
| 50-59 | 240 | 437,059 | 2\% | 1\% |
| 60-69 | 2,099 | 4,722,699 | 15\% | 11\% |
| 70-79 | 7,170 | 21,102,589 | 52\% | 50\% |
| 80-89 | 3,845 | 13,858,224 | 28\% | 33\% |
| 90-99 | 428 | 1,779,407 | 3\% | 4\% |
| Total | 13,787 | 41,903,409 | 100\% | 100\% |

## Lincoln Benefit Life Company

Policy Form: LB-6301-P-MD, LB-6302-P-MD, LB-6303-P-MD
Exhibit G2: Maryland Policy and Premium Distribution

|  | Policies | Premium | \% of Policies | \% of Premium |
| :---: | :---: | :---: | :---: | :---: |
| Base |  |  |  |  |
| Comprehensive | 265 | 871,761 | 92\% | 96\% |
| Nursing Home Only | 5 | 8,474 | 2\% | 1\% |
| Home Health Only Only | 17 | 31,664 | 6\% | 3\% |
| Total | 287 | 911,899 | 100\% | 100\% |
| COLA Options |  |  |  |  |
| No COLA | 31 | 76,416 | 11\% | 8\% |
| Simple COLA | 17 | 46,025 | 6\% | 5\% |
| Compound COLA | 239 | 789,458 | 83\% | 87\% |
| Total | 287 | 911,899 | 100\% | 100\% |
| Nonforfeiture Options |  |  |  |  |
| None | 287 | 911,899 | 100\% | 100\% |
| SBP | 0 | 0 | 0\% | 0\% |
| Full ROP \& SBP | 0 | 0 | 0\% | 0\% |
| Limited ROP | 0 | 0 | 0\% | 0\% |
| Full ROP | 0 | 0 | 0\% | 0\% |
| Total | 287 | 911,899 | 100\% | 100\% |
| Joint/Single Life |  |  |  |  |
| Joint | 122 | 494,486 | 43\% | 54\% |
| Single | 165 | 417,413 | 57\% | 46\% |
| Total | 287 | 911,899 | 100\% | 100\% |
| Billing Mode |  |  |  |  |
| Annual | 114 | 368,620 | 40\% | 40\% |
| Semi-Annual | 10 | 39,028 | 3\% | 4\% |
| Quarterly | 38 | 111,852 | 13\% | 12\% |
| Monthly | 125 | 392,399 | 44\% | 43\% |
| Total | 287 | 911,899 | 100\% | 100\% |
| Elimination Period |  |  |  |  |
| 0 Day | 23 | 78,253 | 8\% | 9\% |
| 30 Days | 73 | 215,551 | 25\% | 24\% |
| 60 Days | 0 | 0 | 0\% | 0\% |
| 90 Days | 191 | 618,095 | 67\% | 68\% |
| Total | 287 | 911,899 | 100\% | 100\% |
| Benefit Period (NH/HH) |  |  |  |  |
| 3 Year/3 Year | 44 | 107,373 | 15\% | 12\% |
| 5 Year/3 Year | 6 | 18,786 | 2\% | 2\% |
| 5 Year / 5 Year | 24 | 72,485 | 8\% | 8\% |
| Lifetime / 3 Year | 15 | 63,575 | 5\% | 7\% |
| Lifetime / 5 Year | 7 | 19,278 | 2\% | 2\% |
| Lifetime / Lifetime | 191 | 630,402 | 67\% | 69\% |
| Total | 287 | 911,899 | 100\% | 100\% |
| Issue Age Cohort |  |  |  |  |
| 20-29 | 0 | 0 | 0\% | 0\% |
| 30-39 | 1 | 2,480 | 0\% | 0\% |
| 40-49 | 31 | 85,309 | 11\% | 9\% |
| 50-59 | 132 | 350,014 | 46\% | 38\% |
| 60-69 | 116 | 446,137 | 40\% | 49\% |
| 70-79 | 7 | 27,959 | 2\% | 3\% |
| 80-89 | 0 | 0 | 0\% | 0\% |
| Total | 287 | 911,899 | 100\% | 100\% |
| Daily Benefit Cohort |  |  |  |  |
| \$1-\$50 | 3 | 2,765 | 1\% | 0\% |
| \$51-\$100 | 76 | 178,931 | 26\% | 20\% |
| \$101-\$150 | 160 | 542,937 | 56\% | 60\% |
| \$151-\$200 | 42 | 162,464 | 15\% | 18\% |
| \$201-\$250 | 6 | 24,801 | 2\% | 3\% |
| \$251-\$300 | 0 | 0 | 0\% | 0\% |
| Total | 287 | 911,899 | 100\% | 100\% |
| Attained Age Cohort |  |  |  |  |
| 30-39 | 0 | 0 | 0\% | 0\% |
| 40-49 | 0 | 0 | 0\% | 0\% |
| 50-59 | 8 | 16,253 | 3\% | 2\% |
| 60-69 | 60 | 165,819 | 21\% | 18\% |
| 70-79 | 160 | 504,399 | 56\% | 55\% |
| 80-89 | 56 | 214,076 | 20\% | 23\% |
| 90-99 | 3 | 11,352 | 1\% | 1\% |
| Total | 287 | 911,899 | 100\% | 100\% |


[^0]:    * Premiums for various joint combinations are calculated as $150 \%$ of the base policy premium of the older insured, times the Joint Coverage Risk Class factor

[^1]:    * Premiums for various joint combinations are calculated as $150 \%$ of the base policy premium of the older insured, times the Joint Coverage Risk Class factor

[^2]:    * Expected - $85 \%$ of 94 GAM and graded to $100 \%$ from ages 85 to 90 with selection
    ** Joint lives - joint policy at issue

[^3]:    * Based on SOA LTC Intercompany 2000-2011 Study and reinsurer's experiences, 4.5\% interest, Lifetime Benefits, 90 Day Elimination Period

