Address: 1209 Orange Street, Wilmington, DE 19801

#### Actuarial Memorandum for the LTC3+ Tax-Qualified Comprehensive Product

#### September 2017

Product or RiderForm NumberLong Term CareH-LTC3JQ8, et al.Annual 5% Compound Benefit Inflation RiderH-5Al-2Cost of Living (CPI) Benefit Inflation RiderH-COLI-1Nonforfeiture Benefit RiderH-NF3-4Increased Benefits Option RiderH-IBOR

These policy forms are tax-qualified individual policy forms providing comprehensive long term care coverage. These forms were issued in Maryland from January 1997 through August 1998.

#### 1. Purpose of Filing

This actuarial memorandum has been prepared for the purpose of documenting the rates and demonstrating that the anticipated loss ratio of this product with those rates meets the minimum requirements in the statutes of Maryland. It may not be suitable for other purposes.

#### 2. Description of Benefits

These are individually underwritten policies which pay a daily benefit for Nursing Facility Care, Assisted Living Facility Care, Alzheimer's Facility Care, Hospice Facility Care, Bed Reservation, and Respite Care provided in a Facility setting, Home Health Care, Home Hospice Care, Adult Day Care, and Respite Care provided in a Home or Community Based setting.

Reduced Benefit option pays 80% of expenses up to 50% of the daily benefit amount for Nursing Facility Care. Standard Benefit option pays 80% of expenses up to 100% of the daily benefit amount for Nursing Facility Care. Increased Benefit option pays 100% of expenses up to 100% of the daily benefit amount for Nursing Facility Care.

Elimination periods are generally 20, 60, and 100 days. In some states, a 90 day elimination period also exists. The elimination period applies to all benefits except the Respite Care Benefit, Care Coordination Benefit, and Alternate Plan of Care Benefit. The elimination period must be satisfied in full only once during the life of the contract.

Benefit periods are 2 years, 3 years, 5 years, and unlimited. Benefit eligibility is defined as having a 90-day certification period and not being able to perform at least two of five Activities of Daily Living (ADLs) (dressing, eating, toileting, transferring, and bathing) or cognitive impairment.

The most the company will pay for all services received on one day will be the daily benefit amount for Nursing Facility Care, except for Care Coordination benefits and Alternate Plan of Care benefits, which may be paid in a lump sum.

Premiums will be waived if benefits, other than Respite Care, Care Coordination, or Alternate Plan of Care, are being paid.

A 5% compound and a cost of living (CPI) inflation rider as well as a non-forfeiture rider are available options.

#### 3. Renewability

These policy forms are guaranteed renewable for life.

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#### 4. Applicability

This filing is applicable to in-force policies only as these policy forms are no longer being sold in the market. The premium changes will apply to the base form and all riders associated with the base form.

#### 5. Actuarial Assumptions

a. Morbidity. In 2015 Genworth long-term care (LTC) actuaries undertook a project to develop a completely new and up-to-date set of claim costs to be used for this block of business. Genworth is the administrator and a reinsurer for these policies. The claim costs were derived from Genworth's 2014 best estimate morbidity assumptions used for older blocks of Genworth LTC business that correlate to the Brighthouse policy forms.

The Genworth best estimate claim cost assumptions were developed from first principles, using incidence rates, continuance rates, and utilization factors. These rates and factors were individually developed based upon experience from inception to fourth quarter of 2013. Incidence rates were developed by product, gender, attained age, and policy duration. Utilization factors were developed by product, situs, benefit inflation option, benefit period, claim age, diagnosis, and claim duration. Continuance was developed by situs, gender, claim age, and benefit period. The incidence rates, continuance, and utilization factors were then combined together to develop total life claim cost factors which can be applied to life years of LTC exposure adjusted for daily benefit amounts.

The Genworth LTC actuaries then customized the Genworth morbidity assumption for use with the Brighthouse policy forms based on the actual emerging experience of the Brighthouse policy forms. These claim costs provided by Genworth were used as the basis for the morbidity assumption in this filing.

The company reviewed emerging experience in 2016 and determined that no changes were needed to the morbidity assumption developed in 2015.

A cumulative 0.6% increase in morbidity is assumed due to adverse selection from the rate increase.

 Termination Rates. Historical termination rates are based on actual experience of these policy forms.

Future voluntary lapse rates vary by duration as developed from actual experience through December 31, 2015, including runout through June 30, 2016, and are shown in the following table:

**Voluntary Lapse Rates** 

Policy Duration	Lapse Rate
1	6.0%
2	4.0%
3	2.5%
4	1.5%
5	1.3%
6	1.1%
7	1.0%
8+	0.8%

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A benefit exhaustion rate assumption, varying by benefit period, is applied to policies with non-lifetime benefit periods additively in conjunction with the lapse assumption. Policies with benefit periods less than 4 years have been mapped to the 3-year benefit period assumption while all other non-lifetime policies have been mapped to the 5-year benefit period assumption. The benefit exhaustion assumption is not applicable to policies with a lifetime benefit period. Benefit exhaustion rates were developed from actual experience through December 31, 2015, including runout through June 30, 2016, and are shown in the following table:

#### **Assumed Benefit Exhaustion Rates**

Attained	3-year Assumed	5-year Assumed	Attained	3-year Assumed	5-year Assumed
Age	Rates	Rates	Age	Rates	Rates
< 67	0.000%	0.000%	84	0.912%	0.667%
67	0.013%	0.006%	85	1.109%	0.806%
68	0.016%	0.008%	86	1.346%	0.971%
69	0.020%	0.010%	87	1.632%	1.168%
70	0.025%	0.013%	88	1.980%	1.405%
71	0.031%	0.016%	89	2.405%	1.684%
72	0.039%	0.021%	90	2.928%	2.013%
73	0.049%	0.026%	91	3.533%	2.394%
74	0.062%	0.033%	92	4.221%	2.835%
75	0.077%	0.042%	93	4.996%	3.336%
76	0.097%	0.053%	94	5.859%	3.909%
77	0.123%	0.069%	95	6.814%	4.552%
78	0.199%	0.131%	96	7.862%	5.287%
79	0.282%	0.198%	97	9.003%	6.107%
80	0.376%	0.272%	98	10.202%	6.999%
81	0.482%	0.353%	99	11.503%	8.001%
82	0.603%	0.444%	100	12.907%	9.134%
83	0.745%	0.547%	101+	12.907%	9.134%

In the year of rate increase implementation, an additional 1.0% of in-force policyholders are assumed to lapse, and a 1.5% reduction in premium and claims is expected due to the election of reduced benefits.

Future mortality is based on 1983 IAM with selection factors consistent with experience through December 31, 2015, including runout through June 30, 2016, and shown in the following table:

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**Mortality Selection Factors** 

Policy Duration	Factor
1	30%
2	45%
3	51%
4	55%
5	59%
6	63%
7	66%
8	68%
9	69%
10	70%
11	71%
12	72%
13	73%
14	75%
15	77%
16	80%
17	84%
18	88%
19	91%
20	94%
21	96%
22	98%
23	100%
24	101%
25+	102%

c. <u>Expenses</u>. Expenses have not been explicitly projected. It is assumed that the originally filed expense assumptions remain appropriate.

The above assumptions are based on actual experience of the policies in-force under these policy forms and general experience of the reinsurer and are deemed reasonable for these particular policies. Exhibit I provides justification for the assumptions used in this filing.

Exhibit II provides an analysis of actual and projected nationwide experience with respect to changes in morbidity, mortality, lapse, and interest and how changing each assumption from original pricing to current impacts the projected lifetime loss ratio.

Exhibit III provides a comparison of the current and original pricing assumptions used to project the values in Exhibit II.

#### 6. Marketing Method

These policy forms were marketed by agents as well as through various subsidiaries of Citigroup.

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#### 7. Underwriting Description

These policy forms were fully 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.

#### 8. Premiums

Premiums are unisex, level and payable for life. The premiums vary by issue age, elimination period, benefit period, initial daily benefit, level of community-based care benefits, and inflation protection option.

#### 9. Issue Age Range

Elimination periods of 20, 60, 100, and in some states 90 days are available for issue ages 18 to 79. Only the 60, 90, and 100 day elimination periods of the 2-year benefit period are available for issue ages 80 through 84.

#### 10. Area Factors

Area factors are not used for this product.

#### 11. Premium Modalization Rules

The following modal factors and nationwide percent distributions (based on in-force count as of 12/31/2016) are applied to the annual premium (AP):

Premium Mode	Modal Factors	Percent Distribution
Annual	1.00*AP	53.2%
Semi-Annual	0.51*AP	18.6%
Quarterly	0.26*AP	7.0%
Monthly	0.09*AP	21.2%

#### 12. Reserves

Active life reserves have not been used in this rate increase analysis. Claim reserves as of December 31, 2016 have been discounted to the incurred date of each respective claim and included in historical incurred claims. Incurred but not reported balances as of December 31, 2016 have been allocated to a calendar year of incurred and included in historic incurred claims.

#### 13. Trend Assumptions

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

#### 14. Past and Future Policy Experience

Nationwide experience for these policy forms is shown in Exhibit IV. The experience and projections in Exhibit IV have been restated to reflect the rate level approved in Maryland on a nationwide basis as described in Section 16. Maryland-specific experience for these policy forms is shown in Exhibit V.

The company has chosen a credibility standard of a 90% confidence interval for the number of claims with an error of plus or minus 5%. Based on these parameters, 1,082 claims (over the

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entire historical period) is the criterion for full credibility. Using this standard, the nationwide experience provided with this filing is 100.0% credible; whereas Maryland-specific experience is only 45.2% credible. The credibility percentages shown in the following table are determined as (Number of Claims / 1.082) $^{1/2}$ .

Experience	Claim Count	Credibility
Maryland	221	45.2%
Nationwide	3,848	100.0%

Maryland-specific experience for the above-referenced forms is not considered fully credible, but is being provided as generally requested by the Administration.

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

$$LR_{j} = \frac{\sum_{t=j}^{2016} Pmt_{t}^{j} * v^{t-j} + {}_{j}CR_{2016} * v^{2016-j+1/2} + {}_{j}IBNR_{2016} * v^{2016-j+1/2}}{EP_{j}}$$

 $LR_i = loss ratio for year j$ 

 $Pmt_{i}^{j}$  = claim payments in year t on claims incurred in year j, assumed to occur mid-year

 $_{i}$   $CR_{2016}$  = open claim reserve held on December 31, 2016 for claims incurred in year  $_{i}$ 

 $_{j}$   $IBNR_{2016}$  = incurred but not reported reserve as of December 31, 2016 attributable to claims incurred in year  $_{i}$ 

 $EP_i$  = earned premium in year i, assumed mid-year

i = year of incurral

V = 1 / 1.045 = 0.956938

A future annual loss ratio is calculated, with and without interest, as anticipated incurred claims divided by earned premiums.

A lifetime loss ratio as of 12/31/2016 is calculated as the sum of accumulated past and discounted future claims divided by the sum of accumulated past and discounted future earned premium. Historical values are accumulated with interest using an interest rate of 4.5% from inception through 2014 and 4.0% for 2015 and 2016. Future values are discounted using an interest rate of 4.0%.

#### 15. Projected Earned Premiums and Incurred Claims

Exhibits IV and V contain lifetime projections of earned premium and incurred claims based on the current premiums and the filed premium rate schedule increase. Earned premiums and incurred claims for projection years 2017 through 2056 are developed from an asset share model representing actual contracts in-force as of December 31, 2016. The assumptions described

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above for morbidity, voluntary lapse and mortality are used to project life years, earned premiums and incurred claims. The projections reflecting the rate increase assume that the increase is effective on each policy's first anniversary on or after January 1, 2018, but no sooner than 12 months after the prior rate increase was effective.

A large and complex Excel-based and Access-integrated model was used to project the earned premium, incurred claim, and end of year life values. A description of how the model works to project these values on a seriatim basis is provided in Exhibit VI.

Enclosed with this actuarial memorandum is an Excel workbook of Exhibits IV and V. This workbook contains formulas for the projected earned premium, incurred claims, and life years using illustrative factors, which are retained in this workbook.

#### 16. History of Previous Rate Revisions

Five prior rate increases have been approved and implemented on these policy forms and associated riders. A 15.0% increase was approved on August 19, 2004 and implemented on each contract's next billing anniversary beginning December 4, 2004. A 15.0% increase was approved on August 13, 2010 and implemented on each contract's next billing anniversary beginning December 2, 2010. A 15.0% increase was approved on February 4, 2014 and implemented on each contract's next billing anniversary beginning September 27, 2014. A 15.0% increase was approved on June 16, 2015 and implemented on each contract's next billing anniversary beginning October 3, 2015. A 15.0% increase was approved on November 9, 2016 and implemented on each contract's next billing anniversary beginning February 4, 2017.

The experience and projections in Exhibit IV have been restated to reflect the rate level approved in Maryland on a nationwide basis. The restated nationwide projections assume the previously approved rate increases in Maryland were implemented on each policy's first anniversary on or after the effective dates of the prior rate increases in Maryland.

Exhibit VII provides a nationwide status listing of the current and all prior rate increase filings for each jurisdiction in which these policy forms are in force.

#### 17. Requested Rate Increase and Demonstration of Satisfaction of Loss Ratio Requirements

Emerging experience continues to show the need for significant rate relief. The company is requesting a premium rate increase of 15.0% at this time. Even though the company believes a larger increase is needed to alleviate the poor performance on this block of business, it is limiting the increase to 15.0% to comply with COMAR 31.14.01.04(5).

The company is seeking approximately equal cumulative premium rate increases across all jurisdictions (except where limited by regulatory restrictions) and as such, is requesting a 21.0% increase in all jurisdictions plus the difference between past requests and prior approvals in each jurisdiction.

As mentioned above, the rate increase request is limited to 15.0% in Maryland in order to comply with COMAR 31.14.01.04(5). Absent this restriction, the company would be requesting a 34.0% rate increase in Maryland at this time. Exhibit VIII shows projected nationwide experience with a 34.0% rate increase. Similar to Exhibit IV, the experience and projections in Exhibit VIII have been restated to reflect the rate level approved in Maryland on a nationwide basis.

As shown in Exhibit VIII, the projected lifetime loss ratio would be 112.2% if the company were able to request a 34.0% rate increase. The company agrees to establish this as a target loss ratio for this product going forward. This means that any future rate increase requests will result in a lifetime loss ratio exceeding 112.2%. As the current 15.0% rate increase request does not achieve the target loss ratio of 112.2%, future rate increase requests are likely.

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Projected experience assuming the requested increase is implemented is shown in Exhibits IV and V. As shown in Exhibits IV and V, the expected lifetime loss ratio with and without the requested rate increase exceeds the minimum loss ratio of 60.0%.

Corresponding rate tables are included with this memorandum in Exhibit IX. The actual rates implemented may vary slightly from those in Exhibit IX due to rounding in the implementation algorithm.

#### 18. Maryland Average Annual Premium (Annual Premium Based on 2016 In-force)

Before increase: \$4,131 After increase: \$4,750

#### 19. Proposed Effective Date

The rate increase will apply to policies on their billing anniversary date following at least a 60-day policyholder notification period following approval, but no sooner than 12 months after the prior rate increase was effective.

#### 20. Nationwide Distribution of Business as of 12/31/2016 (based on in-force count)

#### By Issue Age:

Issue Ages	Percent Distribution
< 48	6.3%
48 - 52	10.5%
53 - 57	18.3%
58 - 62	22.6%
63 - 67	25.5%
68 - 72	13.3%
73 +	3.5%

#### By Elimination Period:

Elimination Period	Percent Distribution
20-day	34.9%
60-day	15.1%
90-day	2.4%
100-day	47.6%

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#### By Benefit Period:

Benefit Period	Percent Distribution
2-Year	4.8%
3-Year	32.4%
5-Year	30.6%
Unlimited	32.2%

#### By Inflation Protection Option:

Inflation Option	Percent Distribution
None	7.6%
Compound	55.9%
CPI	36.5%

#### By Home Care (HC) Daily Benefit:

HC Benefit Option	Percent Distribution
Reduced	10.4%
Standard	25.7%
Increased	63.9%

#### 21. Number of Policyholders

As of 12/31/2016, the number of policies in-force and annualized premium in the state and nationwide are:

	Number of Insured	Annual Premium* based on 2016 In-force
Maryland	648	\$2,676,665
Nationwide	9,111	\$29,967,540

<sup>\*</sup>Annualized premiums reflect all prior rate increases approved prior to March 21, 2017.

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#### 22. Actuarial Certification

I am a Principal and Consulting Actuary for Milliman, Inc. and have been retained by GNA Corporation (Genworth), a reinsurer of this business, to prepare this memorandum on behalf of Brighthouse Life Insurance Company. I am a Fellow of the Society of Actuaries and a member of the American Academy of Actuaries. I meet the Academy's qualification standards to render this actuarial opinion and am familiar with the requirements for filing long-term care insurance premium and rate increases. This memorandum has been prepared for the sole purpose stated, and it may not be appropriate for other purposes.

I believe this rate filing is in compliance with the applicable laws of the State of Maryland and with the rules of the Administration. This memorandum has been prepared in conformity with all applicable Actuarial Standards of Practice, including ASOP No. 8 and 18.

I hereby certify that, to the best of my knowledge and judgment, this rate submission is in compliance with the applicable laws and regulations of the state where it is filed. In my opinion, the actuarial assumptions are appropriate and the rates are not excessive or unfairly discriminatory. Furthermore, the gross premiums bear reasonable relationship to the benefits, based on the lifetime loss ratio exceeding the minimum loss ratio requirement.

In preparing this actuarial memorandum, I relied on data and assumptions provided to me by Union Fidelity Life Insurance Company, the retrocessionaire on this business, and Genworth. I did not audit this information but did review it for reasonableness and for consistency with the intended purpose. To the extent that this information is incomplete or inaccurate the contents of this memorandum may be materially affected.

Mike Bergerson, FSA, MAAA

Principal and Consulting Actuary, Milliman, Inc.

Michael Berguson

Date: September 18, 2017

#### **Voluntary Lapse**

The voluntary lapse assumption for this policy form was developed from experience on all of Brighthouse's individual long-term care (LTC) policy forms combined.

Table 1 below provides a comparison of the actual voluntary lapse rates for all individual LTC policy forms combined through December 2015, including runout through June 2016, and the currently assumed voluntary lapse rates for this policy form.

Table 1
Actual and Assumed Voluntary Lapse Rates
Using Experience through December 2015

Duration	Actual Lapse Rates	Currently Assumed Lapse Rates
1	6.0%	6.0%
2	4.1%	4.0%
3	2.4%	2.5%
4	1.6%	1.5%
5	1.2%	1.3%
6	1.0%	1.1%
7	0.9%	1.0%
8 +	0.8%	0.8%

Table 2 below provides the benefit exhaustion rate assumption. This assumption which was embedded in the voluntary lapse assumption prior to 2014 is now split out as a separate assumption. This assumption, varying by benefit period, is applied to policies with non-lifetime benefit periods additively in conjunction with the lapse assumption. Policies with benefit periods less than 4 years have been mapped to the 3-year benefit period assumption while all other non-lifetime policies have been mapped to the 5-year benefit period assumption. The benefit exhaustion assumption is not applicable to policies with a lifetime benefit period. The assumption is based on actual benefit exhaustion experience for all individual LTC policy forms combined through December 2015, including runout through June 2016.

Table 2
Assumed Benefit Exhaustion Rates
Using Experience through December 2015

Attained Age	3-year Assumed Rates	5-year Assumed Rates	Attained Age	3-year Assumed Rates	5-year Assumed Rates
< 67	0.000%	0.000%	84	0.912%	0.667%
67	0.013%	0.006%	85	1.109%	0.806%
68	0.016%	0.008%	86	1.346%	0.971%
69	0.020%	0.010%	87	1.632%	1.168%
70	0.025%	0.013%	88	1.980%	1.405%
71	0.031%	0.016%	89	2.405%	1.684%
72	0.039%	0.021%	90	2.928%	2.013%
73	0.049%	0.026%	91	3.533%	2.394%
74	0.062%	0.033%	92	4.221%	2.835%
75	0.077%	0.042%	93	4.996%	3.336%
76	0.097%	0.053%	94	5.859%	3.909%
77	0.123%	0.069%	95	6.814%	4.552%
78	0.199%	0.131%	96	7.862%	5.287%
79	0.282%	0.198%	97	9.003%	6.107%
80	0.376%	0.272%	98	10.202%	6.999%
81	0.482%	0.353%	99	11.503%	8.001%
82	0.603%	0.444%	100	12.907%	9.134%
83	0.745%	0.547%	101+	12.907%	9.134%

In the year of rate increase implementation, an additional 1.0% of in-force policyholders are assumed to lapse, and a 1.5% reduction in premium and claims is expected due to the election of reduced benefits. These assumptions are loosely based on data from prior rate increase requests as well as actuarial judgment.

#### Mortality

The mortality assumption for this policy form was developed from experience on all of Brighthouse's individual LTC policy forms combined.

Future mortality is based on the 1983 Individual Annuitant Mortality Table with selection consistent with experience. Table 3 below provides a comparison of the actual selection experienced through December 2015, including runout through June 2016, and the currently assumed selection factors.

Table 3
Actual and Assumed Mortality Selection Factors
Using Experience through December 2015

Using Experience unrough December 2015									
Duration	Actual Selection	Currently Assumed							
	Factors	Selection Factors							
1	29%	30%							
3	48%	45%							
3	51%	51%							
4	56%	55%							
5	57%	59%							
6	64%	63%							
7	66%	66%							
8	68%	68%							
9	69%	69%							
10	69%	70%							
11	70%	71%							
12	73%	72%							
13	75%	73%							
14	75%	75%							
15	75%	77%							
16	81%	80%							
17	81%	84%							
18	89%	88%							
19	90%	91%							
20	93%	94%							
21	93%	96%							
22	98%	98%							
23	105%	100%							
24	114%	101%							
25+	100%	102%							

#### Morbidity

In 2015 Genworth LTC actuaries undertook a project to develop a completely new and up-to-date set of claim costs to be used for this block of business. Genworth is the administrator and a reinsurer for these policies. The claim costs were derived from Genworth's 2014 best estimate morbidity assumptions used for older blocks of Genworth LTC business that correlate to the Brighthouse policy forms.

The Genworth best estimate claim cost assumptions were developed from first principles, using incidence rates, continuance rates, and utilization factors. These rates and factors were individually developed based upon experience from inception to fourth quarter of 2013. Incidence rates were developed by product, gender, attained age, and policy duration. Utilization factors were developed by product, situs, benefit inflation option, benefit period, claim age, diagnosis, and claim duration. Continuance was developed by situs, gender, claim age, and benefit period. The incidence rates, continuance, and utilization factors were then combined together to develop total life claim cost factors which can be applied to life years of LTC exposure adjusted for daily benefit amounts.

The Genworth LTC actuaries then customized the Genworth morbidity assumption for use with the Brighthouse policy forms based on the actual emerging experience of the Brighthouse policy forms. These claim costs provided by Genworth were used as the basis for the morbidity assumption in this filing.

The company reviewed emerging experience in 2016 and determined that no changes were needed to the morbidity assumption developed in 2015.

Table 4 below provides a projection of historical experience using the current morbidity assumption compared to actual historical experience for this policy form and other similar policy forms sold during the same issue era. As seen in this table, the assumption validates reasonably well to emerging experience.

Table 4
Nationwide Historical Actual-to-Model Incurred Claim Projection Results (in 000's)

				Cumulative	Cumulative	Cumulative
	Actual	Model	Actual	Actual	Model	Actual
Policy	Incurred	Incurred	To	Incurred	Incurred	To
Duration	Claims	Claims	Model	Claims	Claims	Model
1	\$9,823	\$17,946	55%	\$9,823	\$17,946	55%
2	19,025	25,809	74%	28,848	43,755	66%
3	25,962	34,665	75%	54,810	78,420	70%
4	35,676	44,907	79%	90,486	123,327	73%
5	49,192	57,078	86%	139,679	180,405	77%
6	60,333	67,636	89%	200,011	248,041	81%
7	76,170	78,967	96%	276,182	327,009	84%
8	86,843	91,430	95%	363,024	418,439	87%
9	106,442	106,269	100%	469,466	524,708	89%
10	125,631	122,966	102%	595,097	647,673	92%
11	145,182	141,675	102%	740,279	789,349	94%
12	162,959	159,251	102%	903,237	948,600	95%
13	189,800	179,344	106%	1,093,038	1,127,944	97%
14	212,073	200,577	106%	1,305,111	1,328,521	98%
15	247,704	222,638	111%	1,552,814	1,551,159	100%
16	267,867	245,365	109%	1,820,681	1,796,524	101%
17	280,404	253,303	111%	2,101,086	2,049,828	103%
18	249,921	229,624	109%	2,351,006	2,279,452	103%
19	207,699	186,691	111%	2,558,705	2,466,143	104%
20	153,147	136,566	112%	2,711,852	2,602,709	104%
21	69,793	72,112	97%	2,781,645	2,674,820	104%
22	23,429	25,076	93%	2,805,074	2,699,896	104%
23	1,872	2,604	72%	2,806,946	2,702,500	104%

Exhibit I-a provides an analysis of the loss ratios using three-year groupings of the before increase values with experience restated to the originally filed rate level. The use of three-year groupings and restating of earned premium to the original rate level smooths the historical and projected loss ratios and aids in identifying the trend in claim experience. As seen in Exhibit I-a, the annualized trend in loss ratios is reasonably consistent from the historical to projection periods.

#### **Interest Rate**

The company has provided actual historical earned rates on the assets backing its LTC products in Table 5 below. Actual earned rates are unavailable prior to 2004. The historical earned rates are net of investment expenses and default risk, but are provided on both a pre-tax and post-tax basis.

Table 5
Historical Earned Investment Rates
Net of Investment Expenses and Default Risk

Calendar Year	Pre-Tax Rates	Post-Tax Rates
2004	6.19%	4.17%
2005	6.17%	4.16%
2006	6.38%	4.30%
2007	6.02%	4.06%
2008	5.14%	4.04%
2009	5.12%	4.03%
2010	5.92%	4.04%
2011	5.93%	4.05%
2012	5.77%	3.95%
2013	5.68%	3.89%
2014	5.56%	3.81%
2015	5.26%	3.61%
2016	5.22%	3.57%

A 4.5% interest rate assumption had been used for this block of business. However, based on the continued low interest rate environment, the company has revised its interest rate assumption to be 4.5% for historical years through 2014 and 4.0% for years 2015 and later (including all projection years). This assumption, like all assumptions, will continue to be monitored and updates will be made as the interest rate environment changes.

#### **Expenses**

Expenses have not been reflected in the projections for this filing. It is assumed that the originally filed expense assumptions remain appropriate.

#### Exhibit I-a

#### Brighthouse Life Insurance Company

#### Nationwide Three-Year Average Experience Projections Restated to the Original Rate Level with No Increase LTC3+ Tax-Qualified Comprehensive Policy Form

		Cale			stration with Int			Analysis			
	Calendar	Earned	Incurred	Loss	Earned	3-Year Totals Incurred	Loss	Loss 3-Year Annualized			
	Year	Premium	Claims	Ratio	Premium	Claims	Ratio	3-1 ear Trend	Trend		
	1996	263	0	0.0%	Ticiliani	Olaiiiis	ratio	ricia	Hond		
	1997	21,890,901	658,656	3.0%	79,277,208	5,671,976	7.2%				
	1998	57,386,044	5,013,320	8.7%	,,	2,211,212					
Historical	1999	59,083,343	6,315,793	10.7%							
Experience	2000	56,241,577	9,763,980	17.4%	168,400,402	31,785,699	18.9%	2.64	1.3		
	2001	53,075,482	15,705,926	29.6%	,, -	, , , , , , , , , , , , , , , , , , , ,					
	2002	50,188,720	18,818,351	37.5%							
	2003	47,338,478	18,790,110	39.7%	142,097,674	54,523,694	38.4%	2.03	1.2		
	2004	44,570,477	16,915,233	38.0%	,,	- 1,,					
	2005	41,793,388	24,934,044	59.7%							
	2006	39,184,744	32,093,230	81.9%	118,094,199	84,463,019	71.5%	1.86	1.:		
	2007	37,116,066	27,435,745	73.9%	,,	- 1, 122,212					
	2008	35,002,458	34,329,558	98.1%							
	2009	32,952,235	43,133,503	130.9%	98,622,854	119,745,982	121.4%	1.70	1.		
	2010	30,668,161	42,282,921	137.9%	00,022,00	,,	1211170				
	2011	27,792,081	53,025,629	190.8%							
	2012	25,476,879	53,101,021	208.4%	76,618,668	159,263,930	207.9%	1.71	1.		
	2013	23,349,708	53,137,281	227.6%	70,010,000	.00,200,000	207.070				
	2014	21,281,558	51,383,261	241.4%							
	2015	18,953,054	48,735,252	257.1%	56,964,994	149,953,968	263.2%	1.27	1.		
	2016	16,730,381	49,835,455	297.9%	00,001,001	0,000,000	200.270		••		
	2017	14,885,023	48,360,035	324.9%							
	2018	13,109,325	47,052,852	358.9%	39,464,347	140,725,974	356.6%	1.35	1.		
	2019	11,469,999	45,313,087	395.1%	00,101,011	140,720,074	000.070	1.00			
Projected	2020	9,970,522	43,205,782	433.3%							
Future	2021	8,613,599	40,831,779	474.0%	25,982,656	122,315,444	470.8%	1.32	1.		
Experience	2021	7,398,536	38,277,884	517.4%	23,902,030	122,313,444	470.076	1.32	1.		
Lxperience	2022	6,321,515	35,607,764	563.3%							
	2023	5,375,014	32,882,342	611.8%	16,245,125	98,822,401	608.3%	1.29	1.		
	2024	4,548,596	30,332,295	666.8%	10,245,125	90,022,401	006.3%	1.29	1.		
	2025	3,831,397	28,163,931	735.1%							
	2020	3,212,617	26,035,140	810.4%	9,725,775	78,138,982	803.4%	1.32	1.		
	2027	2,681,760	23,939,911	892.7%	9,723,773	70,130,902	003.476	1.32	1.		
	2029	2,228,816	21,886,566	982.0%							
	2029	1,844,391	19,873,144	1077.5%	5,592,982	59,687,616	1067.2%	1.33	1.		
	2030	1,519,774	17,927,906	1179.6%	3,392,902	39,007,010	1007.276	1.55	''		
	2032	1,246,965	16,073,843	1289.0%							
	2032	1,018,750	14,365,265	1410.1%	3,094,404	43,245,523	1397.5%	1.31	1.		
	2033	828,689	12,806,415	1545.4%	3,034,404	43,243,323	1397.376	1.51	1.		
	2035	671,097	11,375,954	1695.1%							
	2036	540,990	10,062,339	1860.0%	1,646,128	30,258,717	1020 20/	1.32	1.		
	2037	434,041	8,820,423	2032.2%	1,040,120	30,230,717	1838.2%	1.32	1.		
		346,518									
	2038		7,652,749	2208.5% 2391.9%	020 407	19,830,747	2262.40/	4.20	4		
	2039 2040	275,228	6,583,171	2573.0%	839,187	19,030,747	2363.1%	1.29	1.		
		217,441	5,594,826	2750.2%							
	2041	170,840	4,698,381		407.044	11 702 000	2000 40/	1.00	4		
	2042	133,459	3,892,982	2917.0%	407,941	11,783,068	2888.4%	1.22	1.		
	2043	103,642	3,191,704	3079.6%							
	2044	79,995	2,584,548	3230.9%	400 447	0.070.404	2222 50/	4.40			
	2045	61,358	2,064,617	3364.9%	188,117	6,276,464	3336.5%	1.16	1.		
	2046	46,763	1,627,299	3479.9%							
	2047	35,408	1,267,088	3578.5%	04.040	0.005.004	0040 704	4.00			
	2048	26,634	975,327	3661.9%	81,946	2,985,881	3643.7%	1.09	1		
	2049	19,904	743,466	3735.3%							
	2050	14,780	559,473	3785.5%			0001.1				
	2051	10,908	416,505	3818.3%	33,693	1,281,721	3804.1%	1.04	1		
	2052	8,006	305,743	3819.1%							
	2053	5,846	221,730	3792.9%							
	2054	4,250	159,058	3742.1%	13,176	493,708	3747.0%	0.99	0		
	2055	3,080	112,921	3666.7%							
	2056	2,225	79,532	3573.9%							
	Past	740,076,000	605,408,267	81.8%							
	Future	103,317,703	615,925,778	596.1%							
	Lifetime	843,393,703	1,221,334,045	144.8%							

# Exhibit II Brighthouse Life Insurance Company Nationwide Experience

#### Impact on the Lifetime Loss Ratio of Changing from Original Pricing to Current Assumptions

The following table provides the isolated impact of each changed assumption (current versus original pricing) on the projected lifetime loss ratio when actual historical experience and rate history is reflected and only the projection assumptions vary. All of the lifetime loss ratios in the table below reflect actual historical experience, except for the loss ratio calculated using the original pricing assumptions from inception.

This table also shows the rate increase needed to produce a lifetime loss ratio of 78.2%. This lifetime loss ratio represents the maximum of the lifetime loss ratio based on (a) original pricing assumptions from inception and (b) historical experience and projections with original pricing assumptions.

Please note that the lifetime loss ratio for each changed assumption does not reflect any synergy of the assumptions. As a result, the total impact of all current assumptions on the lifetime loss ratio (e.g. 44.5%) is not equal to the sum of each changed assumptions' impact on the lifetime loss ratio (e.g. 28.7% = 4.2% + 6.2% + 2.5% + 15.8%).

LTC3+ Tax-Qualified Comprehensive Policy Form

		Impact of Each	Increase Needed to
Scenario	Lifetime Loss Ratio	Assumption on the	Produce a Lifetime
		Lifetime Loss Ratio	Loss Ratio of 78.2%*
Original Pricing Assumptions	47.6%	N/A	N/A
Historical Experience & Projections			
with Original Pricing Assumptions	78.2%	N/A	0.0%
Historical Experience & Projections			
with Original Pricing Assumptions			
except for Current:			
Morbidity	82.4%	4.2%	76.0%
Mortality	84.4%	6.2%	85.3%
Lapse	80.7%	2.5%	39.6%
Interest	94.0%	15.8%	185.9%
Historical Experience & Projections			
with All Current Assumptions	122.7%	44.5%	339.6%

<sup>\*</sup> Calculations ignore the effects of shock lapse, reduced benefit option election, and adverse selection due to the needed rate increase. Calculations do not include the effects of rate increases implemented after March 21, 2017 and assume that the needed rate increase is fully implemented on January 1, 2018.

### Exhibit III Brighthouse Life Insurance Company Original Pricing & Current Assumptions Comparison

Policy Form: LTC3+ Tax-Qualified Comprehensive Policy Form

**Original Pricing Assumptions** 

Mortality: 1980 Commissioners Standard Ordinary Table D

Voluntary Lapse Rates:

Duration	Rate
1	13.00%
2	10.00%
3	7.00%
4+	4.00%

Morbidity: Data published by the National Center for Health Statistics ("NCHS") in 1977 and 1985,

the Wilkins adjustments to the 1985 National Nursing Home Survey conducted by the NCHS, the 1982 and 1984 National Long Term Care Surveys, and the NCHS advance

data publications #92 and #133.

Interest Rate: 7.5%

## Exhibit III Brighthouse Life Insurance Company Original Pricing & Current Assumptions Comparison

Policy Form: LTC3+ Tax-Qualified Comprehensive Policy Form

**Current Assumptions** 

Mortality: 1983 Individual Annuitant Mortality Basic Table with selection.

D	F1-
Duration	Factor
1	30%
2	45%
3	51%
4	55%
5	59%
6	63%
7	66%
8	68%
9	69%
10	70%
11	71%
12	72%
13	73%
14	75%
15	77%
16	80%
17	84%
18	88%
19	91%
20	94%
21	96%
22	98%
23	100%
24	101%
25+	102%

**Voluntary Lapse Rates:** 

Duration	Rate
1	6.0%
2	4.0%
3	2.5%
4	1.5%
5	1.3%
6	1.1%
7	1.0%
8+	0.8%

### Exhibit III Brighthouse Life Insurance Company Original Pricing & Current Assumptions Comparison

Policy Form: LTC3+ Tax-Qualified Comprehensive Policy Form

#### **Current Assumptions**

#### **Voluntary Lapse Rates (Continued):**

A benefit exhaustion rate assumption, varying by benefit period, is applied to policies with non-lifetime benefit periods additively in conjunction with the lapse assumption. Policies with benefit periods less than 4 years have been mapped to the 3-year benefit period assumption while all other non-lifetime policies have been mapped to the 5-year benefit period assumption. The benefit exhaustion assumption is not applicable to policies with a lifetime benefit period.

	3-year	5-year		3-year	5-year
Attained	Assumed	Assumed	Attained	Assumed	Assumed
Age	Rates	Rates	Age	Rates	Rates
< 67	0.000%	0.000%	84	0.912%	0.667%
67	0.013%	0.006%	85	1.109%	0.806%
68	0.016%	0.008%	86	1.346%	0.971%
69	0.020%	0.010%	87	1.632%	1.168%
70	0.025%	0.013%	88	1.980%	1.405%
71	0.031%	0.016%	89	2.405%	1.684%
72	0.039%	0.021%	90	2.928%	2.013%
73	0.049%	0.026%	91	3.533%	2.394%
74	0.062%	0.033%	92	4.221%	2.835%
75	0.077%	0.042%	93	4.996%	3.336%
76	0.097%	0.053%	94	5.859%	3.909%
77	0.123%	0.069%	95	6.814%	4.552%
78	0.199%	0.131%	96	7.862%	5.287%
79	0.282%	0.198%	97	9.003%	6.107%
80	0.376%	0.272%	98	10.202%	6.999%
81	0.482%	0.353%	99	11.503%	8.001%
82	0.603%	0.444%	100	12.907%	9.134%
83	0.745%	0.547%	101+	12.907%	9.134%

Morbidity:

In 2015 Genworth long-term care (LTC) actuaries undertook a project to develop a completely new and up-to-date set of claim costs to be used for this block of business. Genworth is the administrator and a reinsurer for these policies. The claim costs were derived from Genworth's 2014 best estimate morbidity assumptions used for older blocks of Genworth LTC business that correlate to the Brighthouse policy forms.

The Genworth best estimate claim cost assumptions were developed from first principles, using incidence rates, continuance rates, and utilization factors. These rates and factors were individually developed based upon experience from inception to fourth quarter of 2013. Incidence rates were developed by product, gender, attained age, and policy duration. Utilization factors were developed by product, situs, benefit inflation option, benefit period, claim age, diagnosis, and claim duration. Continuance was developed by situs, gender, claim age, and benefit period. The incidence rates, continuance, and utilization factors were then combined together to develop total life claim cost factors which can be applied to life years of LTC exposure adjusted for daily benefit amounts.

The Genworth LTC actuaries then customized the Genworth morbidity assumption for use with the Brighthouse policy forms based on the actual emerging experience of the Brighthouse policy forms. These claim costs provided by Genworth were used as the basis for the morbidity assumption in this filing.

The company reviewed emerging experience in 2016 and determined that no changes were needed to the morbidity assumption developed in 2015.

Interest Rate:

4.5% from inception through 2014 and 4.0% for 2015 and beyond.

Exhibit IV
Brighthouse Life Insurance Company
Nationwide Experience Projections with No Increase
LTC3+ Tax-Qualified Comprehensive Policy Form

				Loss R	atio Demonstr	ation			Interest Ra	
			Vithout Interest				With Interest		Calendar Year	_ Mid-Year
	Calendar	Earned	Incurred	Loss	Life	Earned	Incurred	Loss	Effective	Disc / Accur
	Year	Premium	Claims	Ratio	Years	Premium	Claims	Ratio	Int Rate	Factor
	1996	108	0	0.0%	1	263	0	0.0%	4.5%	2.441
	1997	9,368,324	281,875	3.0%	12,265	21,890,902	658,656	3.0%	4.4%	2.336
	1998	25,663,791	2,242,022	8.7%	16,093	57,386,044	5,013,320	8.7%	4.4%	2.236
Historical	1999	27,611,874	2,951,608	10.7%	16,433	59,083,343	6,315,793	10.7%	4.4%	2.139
Experience	2000	27,466,581	4,768,414	17.4%	16,022	56,241,577	9,763,980	17.4%	4.4%	2.047
	2001	27,086,778	8,015,432	29.6%	15,615	53,075,482	15,705,926	29.6%	4.4%	1.959
	2002	26,766,144	10,036,014	37.5%	15,288	50,188,720	18,818,351	37.5%	4.4%	1.875
	2003	26,382,155	10,471,896	39.7%	14,985	47,338,478	18,790,110	39.7%	4.4%	1.794
	2004	25,966,663	9,851,225	37.9%	14,623	44,586,550	16,915,233	37.9%	4.4%	1.717
	2005	27,716,418	15,174,741	54.8%	14,266	45,541,627	24,934,044	54.8%	4.4%	1.643
	2006	28,658,910	20,410,718	71.2%	13,932	45,062,451	32,093,230	71.2%	4.4%	1.572
	2007	28,367,489	18,233,830	64.3%	13,593	42,683,473	27,435,745	64.3%	4.4%	1.504
	2008	27,955,922	23,842,162	85.3%	13,231	40,252,827	34,329,558	85.3%	4.4%	1.439
	2009	27,502,773	31,304,621	113.8%	12,841	37,895,074	43,133,503	113.8%	4.4%	1.377
	2010	26,759,949	32,068,230	119.8%	12,386	35,283,793	42,282,921	119.8%	4.3%	1.318
	2011	27,616,899	42,025,427	152.2%	11,869	34,845,653	53,025,629	152.2%	4.3%	1.261
	2012	27,902,721	43,979,012	157.6%	11,357	33,690,229	53,101,021	157.6%	4.3%	1.207
	2013	26,719,772	45,989,450	172.1%	10,862	30,872,646	53,137,281	172.1%	4.2%	1.155
	2014	25,564,129	46,472,586	181.8%	10,312	28,265,445	51,383,261	181.8%	4.1%	1.105
	2015	26,313,548	45,950,814	174.6%	9,648	27,908,045	48.735.252	174.6%	4.0%	1.060
	2016	27,625,882	48,867,684	176.9%	9,111	28,172,982	49,835,455	176.9%	4.0%	1.019
	2017	28,288,506	49,317,753	174.3%	8,530	27,739,162	48,360,035	174.3%	4.0%	0.980
	2018	27,907,552	49,904,069	178.8%	7,943	26,313,083	47,052,852	178.8%	4.0%	0.942
	2019	25,409,055	49,981,237	196.7%	7,357	23,035,899	45,313,087	196.7%	4.0%	0.906
Projected	2020	22,970,972	49,563,111	215.8%	6,777	20,024,546	43,205,782	215.8%	4.0%	0.871
Future	2021	20,638,813	48,713,387	236.0%	6,212	17,299,545	40,831,779	236.0%	4.0%	0.838
Experience	2022	18.436.859	47.493.184	257.6%	5,666	14.859.478	38,277,884	257.6%	4.0%	0.806
Expendice	2023	16,383,476	45,947,449	280.4%	5,145	12,696,656	35,607,764	280.4%	4.0%	0.775
	2024	14,488,083	44,127,852	304.6%	4,651	10,795,950	32,882,342	304.6%	4.0%	0.745
	2025	12,751,404	42,333,936	332.0%	4,187	9,136,390	30,332,295	332.0%	4.0%	0.743
	2026	11,170,942	40,879,915	365.9%	3,754	7,696,142	28,163,931	365.9%	4.0%	0.716
	2027	9,741,960	39.301.577	403.4%	3,754	6.453.514	26,103,931	403.4%	4.0%	0.662
	2027	8,457,936	37,584,254	444.4%	2,978	5,387,422	23,939,911	444.4%	4.0%	0.637
	2029		35,735,047	488.8%	2,636			488.8%	4.0%	0.637
		7,311,021				4,477,765	21,886,566		4.0%	
	2030 2031	6,292,424	33,745,562	536.3% 587.1%	2,323	3,705,680	19,873,144	536.3%	4.0%	0.588
		5,392,704	31,660,152		2,039	3,053,678	17,927,906	587.1%		0.566
	2032	4,601,987	29,521,368	641.5%	1,782	2,505,697	16,073,843	641.5%	4.0%	0.544
	2033	3,910,416	27,438,713	701.7%	1,550	2,047,259	14,365,265	701.7%	4.0%	0.523
	2034	3,308,350	25,439,643	769.0%	1,343	1,665,436	12,806,415	769.0%	4.0%	0.503
	2035	2,786,568	23,501,989	843.4%	1,157	1,348,817	11,375,954	843.4%	4.0%	0.484
	2036	2,336,347	21,619,670	925.4%	993	1,087,395	10,062,339	925.4%	4.0%	0.465
	2037	1,949,581	19,709,376	1011.0%	847	872,485	8,820,423	1011.0%	4.0%	0.447
	2038	1,618,820	17,784,198	1098.6%	719	696,597	7,652,749	1098.6%	4.0%	0.430
	2039	1,337,289	15,910,553	1189.8%	608	553,318	6,583,171	1189.8%	4.0%	0.413
	2040	1,098,838	14,062,744	1279.8%	510	437,170	5,594,826	1279.8%	4.0%	0.397
	2041	897,921	12,281,886	1367.8%	426	343,496	4,698,381	1367.8%	4.0%	0.382
	2042	729,547	10,583,579	1450.7%	354	268,351	3,892,982	1450.7%	4.0%	0.367
	2043	589,239	9,024,146	1531.5%	292	208,405	3,191,704	1531.5%	4.0%	0.353
	2044	473,013	7,599,788	1606.7%	239	160,863	2,584,548	1606.7%	4.0%	0.340
	2045	377,338	6,313,782	1673.2%	195	123,390	2,064,617	1673.2%	4.0%	0.327
	2046	299,094	5,175,483	1730.4%	158	94,043	1,627,299	1730.4%	4.0%	0.314
	2047	235,534	4,191,059	1779.4%	127	71,209	1,267,088	1779.4%	4.0%	0.302
	2048	184,260	3,355,061	1820.8%	102	53,565	975,327	1820.8%	4.0%	0.290
	2049	143,207	2,659,772	1857.3%	81	40,029	743,466	1857.3%	4.0%	0.279
	2050	110,594	2.081.592	1882.2%	64	29.725	559.473	1882.2%	4.0%	0.268
	2051	84,892	1,611,650	1898.5%	50	21,939	416,505	1898.5%	4.0%	0.258
	2052	64,796	1,230,384	1898.9%	39	16,101	305,743	1898.9%	4.0%	0.248
	2053	49,209	927,985	1885.8%	30	11,758	221,730	1885.8%	4.0%	0.240
	2053	37,210	692,317	1860.6%	23	8,549	159,058	1860.6%	4.0%	0.238
					23 18				4.0%	
	2055 2056	28,039	511,161 374,420	1823.0% 1776.9%	18	6,194	112,921	1823.0%	4.0% 4.0%	0.220
	∠∪ენ	21,072	3/4,420	1770.9%	14	4,476	79,532	1776.9%	4.0%	0.212
				00.00/	264,733	820,265,605	605,408,267	73.8%		
	Past	525,016,830	462,937,762	88.2%						
	Past Future Lifetime	525,016,830 262,914,866 787,931,696	462,937,762 909,890,808 1,372,828,569	346.1% 174.2%	85,268 350,001	205,351,177	615,925,778 1,221,334,045	299.9% 119.1%		

## Exhibit IV Brighthouse Life Insurance Company Nationwide Experience Projections with 15.0% Increase LTC3+ Tax-Qualified Comprehensive Policy Form

				Loss	s Ratio Demonstration				Interest Ra	
			Vithout Interest				With Interest		Calendar Year	Mid-Yea
	Calendar	Earned	Incurred	Loss	Life	Earned	Incurred	Loss	Effective	Disc / Acc
	Year	Premium	Claims	Ratio	Years	Premium	Claims	Ratio	Int Rate	Factor
	1996	108	0	0.0%	1	263	0	0.0%	4.5%	2.44
	1997	9,368,324	281,875	3.0%	12,265	21,890,902	658,656	3.0%	4.4%	2.33
118-1-21	1998	25,663,791	2,242,022	8.7%	16,093	57,386,044	5,013,320	8.7%	4.4%	2.23
Historical	1999	27,611,874	2,951,608	10.7%	16,433	59,083,343	6,315,793	10.7%	4.4%	2.13
Experience	2000	27,466,581	4,768,414	17.4%	16,022	56,241,577	9,763,980	17.4%	4.4%	2.04
	2001	27,086,778	8,015,432	29.6%	15,615	53,075,482	15,705,926	29.6%	4.4%	1.9
	2002	26,766,144	10,036,014	37.5%	15,288	50,188,720	18,818,351	37.5%	4.4%	1.8
	2003	26,382,155	10,471,896	39.7%	14,985	47,338,478	18,790,110	39.7%	4.4%	1.7
	2004	25,966,663	9,851,225	37.9%	14,623	44,586,550	16,915,233	37.9%	4.4%	1.7
	2005	27,716,418	15,174,741	54.8%	14,266	45,541,627	24,934,044	54.8%	4.4%	1.6
	2006	28,658,910	20,410,718	71.2%	13,932	45,062,451	32,093,230	71.2%	4.4%	1.5
	2007	28,367,489	18,233,830	64.3%	13,593	42,683,473	27,435,745	64.3%	4.4%	1.5
	2008	27,955,922	23,842,162	85.3%	13,231	40,252,827	34,329,558	85.3%	4.4%	1.4
	2009	27,502,773	31,304,621	113.8%	12,841	37,895,074	43,133,503	113.8%	4.4%	1.3
	2010	26,759,949	32,068,230	119.8%	12,386	35,283,793	42,282,921	119.8%	4.3%	1.3
	2011	27,616,899	42,025,427	152.2%	11,869	34,845,653	53,025,629	152.2%	4.3%	1.2
	2012	27,902,721	43,979,012	157.6%	11,357	33,690,229	53,101,021	157.6%	4.3%	1.2
	2013	26,719,772	45,989,450	172.1%	10,862	30,872,646	53,137,281	172.1%	4.2%	1.1
	2014	25,564,129	46,472,586	181.8%	10,312	28,265,445	51,383,261	181.8%	4.1%	1.1
	2015	26,313,548	45,950,814	174.6%	9,648	27,908,045	48,735,252	174.6%	4.0%	1.0
	2016 2017	27,625,882	48,867,684	176.9% 174.3%	9,111	28,172,982	49,835,455	176.9% 174.3%	4.0%	1.0
	2017	28,288,506 29,708,501	49,317,753 49,394,939	166.3%	8,530 7,864	27,739,162 28,011,137	48,360,035 46,572,810	166.3%	4.0% 4.0%	0.9
	2019	28,494,288	49,045,739	172.1%	7,004	25,832,977	44,464,963	172.1%	4.0%	0.9
Desirated	2019					25,832,977			4.0%	
Projected	2020	25,760,166 23,144,830	48,635,439 47,801,619	188.8% 206.5%	6,709 6,149	19,400,100	42,397,100 40,067,531	188.8% 206.5%	4.0%	0.8
Future	2022		46,604,255		5,609	16,663,754	37,561,437		4.0%	0.8
Experience	2022	20,675,510 18,372,800	45,087,452	225.4% 245.4%	5,093	14,238,317	34,941,294	225.4% 245.4%	4.0%	0.
	2023			266.5%	4,605			266.5%	4.0%	
	2024	16,247,263 14.299,712	43,301,912 41.541.573	200.5%		12,106,822 10,245,754	32,266,884 29,764,566	290.5%	4.0%	0.
	2025				4,146				4.0%	
		12,527,347	40,114,767	320.2%	3,716	8,630,628	27,636,787	320.2%		0.6
	2027 2028	10,924,854 9,484,920	38,565,970 36,880,790	353.0% 388.8%	3,317 2,948	7,237,117 6,041,577	25,547,841 23,491,828	353.0% 388.8%	4.0% 4.0%	0.6
	2029	8,198,744	35,066,195	427.7%	2,946	5,021,467	21,476,915	427.7%	4.0%	0.6
	2029	7,056,467		469.3%	2,300	4,155,633	19,501,179	469.3%	4.0%	0.6
	2030		33,113,947 31,067,569	513.7%	2,300	3,424,463	17,592,350	513.7%	4.0%	0.5
		6,047,500			1,764				4.0%	0.5
	2032 2033	5,160,772 4,385,229	28,968,817 26,925,143	561.3% 614.0%	1,764	2,809,946 2,295,843	15,772,989 14,096,390	561.3% 614.0%	4.0%	0.:
	2033	3,710,059	24,963,490	672.9%	1,329	1,867,658	12,566,718	672.9%	4.0%	0.
	2034		23,062,103		1,146				4.0%	0.4
	2036	3,124,920		738.0%	983	1,512,593	11,163,031	738.0% 809.7%	4.0%	
	2036	2,620,032	21,215,016 19,340,476	809.7% 884.6%	839	1,219,429 978,424	9,874,003	884.6%	4.0%	0.4 0.4
	2037	2,186,304	17,451,332	961.3%	712	781,180	8,655,332 7,509,513	961.3%	4.0%	0.
	2039	1,815,382 1,499,666			601	620,504		1041.1%	4.0%	
	2039	1,499,666	15,612,755 13,799,532	1041.1% 1119.9%	505	490.252	6,459,954 5,490,108	1119.9%	4.0%	0. 0.
	2040	1,006,949	12,052,006	1119.9%	422	385.204	4,610,442	1119.9%	4.0%	0
	2041	818,130	10,385,487	1269.4%	350	300,935	3,820,117	1269.4%	4.0%	0.
	2043 2044	660,786 530,448	8,855,241 7,457,543	1340.1% 1405.9%	289 237	233,710 180,396	3,131,965 2,536,173	1340.1% 1405.9%	4.0% 4.0%	0. 0.
	2044	423,155	6.195.607	1405.9%	193	138.372	2,025,973	1405.9%	4.0%	0.
	2045 2046	335,411	5,078,614	1514.1%	156	105,462	1,596,841	1514.1%	4.0%	0.
	2046	264,133	4,112,615	1514.1%	126	79,856	1,243,372	1557.0%	4.0%	0.
	2047	206.633	3.292.265	1597.0%	126	79,856 60.069	957,072	1597.0%	4.0%	0.
	2048	160,595	2,609,990	1625.2%	80	44,890	729,550	1625.2%	4.0%	0.
	2050	124,023	2,042,631	1647.0%	63	33,334	549,001	1647.0%	4.0%	0.2
	2050	95,199	1,581,484	1661.2%	50	24,603	408,709	1661.2%	4.0%	0.2
	2052	72,664	1,207,355	1661.6%	39	18,057	300,021	1661.6%	4.0%	0.2
	2052	72,664 55,184	910,616	1650.2%	39	13,185		1650.2%	4.0%	0.2
	2053	41,728	679,359	1628.1%	23	9,587	217,580 156,081	1628.1%	4.0%	0.
	2054	31,443	501,594	1528.1%	23 18	9,587 6,946	110,807	1595.2%	4.0%	0
	2055 2056	23,630	501,594 367,412	1595.2% 1554.8%	18	5,946 5,019	78,043	1595.2%	4.0% 4.0%	0.2
	2000	23,030	307,412	1004.0%	14	5,019	10,043	1004.0%	4.0%	U.,
	Past	525,016,830	462,937,762	88.2%	264,733	820,265,605	605,408,267	73.8%		
	Future	289,816,146	894,208,401	308.5%	84,500	225,420,337	605,703,306	268.7%		

## Exhibit V Brighthouse Life Insurance Company Maryland-Specific Experience Projections with No Increase LTC3+ Tax-Qualified Comprehensive Policy Form

				Loss F	Ratio Demonstr	ation			Interest Ra	
			/ithout Interest				With Interest		Calendar Year	Mid-Year
	Calendar	Earned	Incurred	Loss	Life	Earned	Incurred	Loss	Effective	Disc / Accum
	Year	Premium	Claims	Ratio	Years	Premium	Claims	Ratio	Int Rate	Factor
	1996	0	0	0.0%	0	0	0	0.0%	0.0%	0.000
	1997	616,351	0	0.0%	749	1,440,223	0	0.0%	4.4%	2.336
	1998	1,763,300	19,723	1.1%	1,062	3,942,863	44,102	1.1%	4.4%	2.236
Historical	1999	1,843,627	190,152	10.3%	1,033	3,944,956	406,883	10.3%	4.4%	2.139
Experience	2000	1,832,636	3,195	0.2%	1,025	3,752,573	6,543	0.2%	4.4%	2.047
	2001	1,827,686	257,652	14.1%	1,004	3,581,278	504,858	14.1%	4.4%	1.959
	2002	1,818,616	9,368	0.5%	986	3,410,054	17,565	0.5%	4.4%	1.875
	2003	1,820,944	65,984	3.6%	973	3,267,387	118,398	3.6%	4.4%	1.794
	2004	1,826,982	433,894	23.7%	961	3,137,054	745,026	23.7%	4.4%	1.717
	2005	1,962,625	1,145,695	58.4%	934	3,224,844	1,882,524	58.4%	4.4%	1.643
	2006	2,020,800	917,272	45.4%	917	3,177,448	1,442,293	45.4%	4.4%	1.572
	2007	2,012,988	725,623	36.0%	900	3,028,866	1,091,818	36.0%	4.4%	1.504
	2008	1,999,792	2,353,601	117.7%	878	2,879,436	3,388,874	117.7%	4.4%	1.439
	2009	1,986,357	1,004,228	50.6%	860	2,736,929	1,383,689	50.6%	4.4%	1.377
	2010	1,970,137	1,392,112	70.7%	837	2,597,685	1,835,541	70.7%	4.3%	1.318
	2011	2,096,599	1,979,656	94.4%	805	2,645,386	2,497,833	94.4%	4.3%	1.261
	2012	2,138,252	4,198,999	196.4%	776	2,581,762	5,069,944	196.4%	4.3%	1.207
	2013	2,084,407	4,458,159	213.9%	756	2,408,373	5,151,061	213.9%	4.2%	1.155
	2014	2,023,968	4,006,701	198.0%	724	2,237,837	4,430,082	198.0%	4.1%	1.105
	2015	2.134.451	3,342,842	156.6%	683	2,263,791	3.545.405	156.6%	4.0%	1.060
	2016	2,309,961	4,482,357	194.0%	648	2,355,708	4,571,125	194.0%	4.0%	1.019
	2017	2,392,253	3,666,405	153.3%	609	2,345,797	3,595,206	153.3%	4.0%	0.980
	2018	2,382,616	3,779,185	158.6%	570	2,246,488	3,563,265	158.6%	4.0%	0.942
	2019	2,192,777	3,860,629	176.1%	531	1,987,975	3,500,054	176.1%	4.0%	0.906
Projected	2020	2,005,349	3,900,396	194.5%	492	1,748,128	3,400,103	194.5%	4.0%	0.871
Future	2021	1,824,030	3,910,135	214.4%	453	1,528,910	3,277,492	214.4%	4.0%	0.838
Experience	2022	1,650,677	3.894.680	235.9%	416	1,330,389	3.138.979	235.9%	4.0%	0.806
Expendice	2023	1,486,804	3,854,112	259.2%	380	1,152,224	2,986,810	259.2%	4.0%	0.775
	2024	1,333,298	3,786,522	284.0%	345	993,521	2,821,567	284.0%	4.0%	0.745
	2025	1,190,368	3,708,549	311.5%	312	852.900	2,657,178	311.5%	4.0%	0.745
	2026	1,058,057	3,661,862	346.1%	281	728,941	2,522,814	346.1%	4.0%	0.688
	2026		3,561,862	346.1%	252	620,229	2,522,814	346.1%	4.0%	0.662
		936,273								
	2028	824,766	3,517,443	426.5%	225	525,348	2,240,493	426.5%	4.0%	0.637
	2029	723,177	3,416,511	472.4%	199	442,923	2,092,503	472.4%	4.0%	0.612
	2030	631,087	3,285,623	520.6%	176	371,654	1,934,941	520.6%	4.0%	0.588
	2031	548,012	3,137,184	572.5%	155	310,318	1,776,464	572.5%	4.0%	0.566
	2032	473,417	2,971,471	627.7%	135	257,767	1,617,911	627.7%	4.0%	0.544
	2033	406,749	2,806,938	690.1%	117	212,949	1,469,544	690.1%	4.0%	0.523
	2034	347,458	2,641,961	760.4%	101	174,912	1,329,974	760.4%	4.0%	0.503
	2035	294,998	2,465,958	835.9%	87	142,791	1,193,628	835.9%	4.0%	0.484
	2036	248,829	2,285,916	918.7%	74	115,811	1,063,923	918.7%	4.0%	0.465
	2037	208,426	2,091,562	1003.5%	62	93,276	936,024	1003.5%	4.0%	0.447
	2038	173,282	1,891,357	1091.5%	52	74,565	813,873	1091.5%	4.0%	0.430
	2039	142,912	1,692,781	1184.5%	43	59,132	700,407	1184.5%	4.0%	0.413
	2040	116,863	1,489,490	1274.6%	35	46,494	592,590	1274.6%	4.0%	0.397
	2041	94,700	1,293,959	1366.4%	29	36,227	494,998	1366.4%	4.0%	0.382
	2042	76,005	1,105,743	1454.8%	23	27,957	406,728	1454.8%	4.0%	0.367
	2043	60,382	935,327	1549.0%	18	21,356	330,811	1549.0%	4.0%	0.353
	2044	47,457	778,815	1641.1%	15	16,139	264,861	1641.1%	4.0%	0.340
	2045	36,880	635,936	1724.3%	11	12,060	207,952	1724.3%	4.0%	0.327
	2046	28,325	509,745	1799.6%	9	8,906	160,276	1799.6%	4.0%	0.314
	2047	21,485	400.114	1862.3%	7	6.496	120,967	1862.3%	4.0%	0.302
	2048	16,086	310,020	1927.3%	5	4,676	90,124	1927.3%	4.0%	0.302
	2049	11,880	234,564	1974.5%	4	3,321	65,566	1974.5%	4.0%	0.290
	2049	8.649	174,705	2019.9%	3	2.325	46.956	2019.9%	4.0%	0.279
	2050	6,203	126,881	2019.9%	3 2	1,603	32,790	2019.9%	4.0%	0.258
	2052	4,378	90,874	2075.5%	4	1,088	22,582	2075.5%	4.0%	0.236
					]]					
	2053	3,037	63,572	2093.0%	1	726	15,190	2093.0%	4.0%	0.238
	2054	2,068	43,673	2111.7%	1	475	10,034	2111.7%	4.0%	0.229
	2055	1,380	29,379	2128.6%	0	305	6,490	2128.6%	4.0%	0.220
	2056	901	19,296	2141.0%	0	191	4,099	2141.0%	4.0%	0.212
	Past	38,090,478	30,987,213	81.4%	17,511	58.614.452	38,133,565	65.1%		
	Future	38,090,478 24.012.294	30,987,213 82.068.073	81.4% 341.8%	6,230	58,614,452 18,507,294	38,133,565 53.890.176	65.1% 291.2%		
	Lifetime	62,102,772	113,055,287	182.0%	23,741	77,121,745	92,023,741	119.3%		

## Exhibit V Brighthouse Life Insurance Company Maryland-Specific Experience Projections with 15.0% Increase LTC3+ Tax-Qualified Comprehensive Policy Form

				Loss R	atio Demonstra							
			Vithout Interest				With Interest		Calendar Year	Mid-Year		
	Calendar Year	Earned Premium	Incurred Claims	Loss Ratio	Life Years	Earned Premium	Incurred Claims	Loss Ratio	Effective Int Rate	Disc / Accu Factor		
	1996	0	0	0.0%	0	0	0	0.0%	0.0%	0.00		
	1997	616,351	0	0.0%	749	1,440,223	0	0.0%	4.4%	2.33		
	1998	1,763,300	19,723	1.1%	1,062	3,942,863	44,102	1.1%	4.4%	2.23		
Historical	1999	1,843,627	190,152	10.3%	1,033	3,944,956	406,883	10.3%	4.4%	2.13		
xperience	2000	1,832,636	3,195	0.2%	1,025	3,752,573	6,543	0.2%	4.4%	2.0		
	2001	1,827,686	257,652	14.1%	1,004	3,581,278	504,858	14.1%	4.4%	1.9		
	2002	1,818,616	9,368	0.5%	986	3,410,054	17,565	0.5%	4.4%	1.8		
	2003	1,820,944	65,984	3.6%	973	3,267,387	118,398	3.6%	4.4%	1.7		
	2004	1,826,982	433,894	23.7%	961	3,137,054	745,026	23.7%	4.4%	1.7		
	2005	1,962,625	1,145,695	58.4%	934	3,224,844	1,882,524	58.4%	4.4%	1.6		
	2006	2,020,800	917,272	45.4%	917	3,177,448	1,442,293	45.4%	4.4%	1.5		
	2007	2.012.988	725,623	36.0%	900	3.028.866	1.091.818	36.0%	4.4%	1.5		
	2008	1,999,792	2,353,601	117.7%	878	2,879,436	3,388,874	117.7%	4.4%	1.4		
	2009	1,986,357	1,004,228	50.6%	860	2,736,929	1,383,689	50.6%	4.4%	1.3		
	2010	1,970,137	1,392,112	70.7%	837	2,597,685	1,835,541	70.7%	4.3%	1.3		
	2011	2,096,599	1,979,656	94.4%	805	2,645,386	2,497,833	94.4%	4.3%	1.2		
	2012	2,138,252	4,198,999	196.4%	776	2,581,762	5,069,944	196.4%	4.3%	1.2		
	2013	2,084,407	4,458,159	213.9%	756	2,408,373	5,151,061	213.9%	4.2%	1.1		
	2014	2,023,968	4,006,701	198.0%	724	2,237,837	4,430,082	198.0%	4.1%	1.1		
	2015	2,134,451	3,342,842	156.6%	683	2,263,791	3,545,405	156.6%	4.0%	1.0		
	2016	2,309,961	4,482,357	194.0%	648	2,355,708	4,571,125	194.0%	4.0%	1.0		
	2017	2,392,253	3,666,405	153.3%	609	2,345,797	3,595,206	153.3%	4.0%	0.9		
	2018	2,540,121	3,740,205	147.2%	565	2,394,994	3,526,513	147.2%	4.0%	0.9		
	2019	2,459,029	3,788,370	154.1%	526	2,229,361	3,434,544	154.1%	4.0%	0.9		
Projected	2020	2,248,843	3.827.392	170.2%	487	1,960,390	3,336,463	170.2%	4.0%	0.8		
Future	2021	2,045,508	3,836,949	187.6%	449	1,714,554	3,216,148	187.6%	4.0%	0.8		
xperience	2022	1,851,107	3,821,783	206.5%	412	1,491,929	3,080,227	206.5%	4.0%	0.8		
хропопос	2023	1,667,336	3,781,975	226.8%	376	1,292,130	2,930,906	226.8%	4.0%	0.7		
	2024	1,495,190	3,715,649	248.5%	342	1,114,157	2,768,756	248.5%	4.0%	0.7		
	2025	1,334,906	3.639.137	272.6%	309	956.461	2,607,444	272.6%	4.0%	0.7		
	2026	1,186,529	3,593,323	302.8%	278	817,451	2,475,595	302.8%	4.0%	0.6		
	2027	1,049,958	3,531,440	336.3%	249	695,539	2,339,385	336.3%	4.0%	0.6		
	2028	924,911	3,451,607	373.2%	222	589,137	2,198,558	373.2%	4.0%	0.6		
	2029	810.987	3,352,565	413.4%	197	496,704	2,053,338	413.4%	4.0%	0.6		
	2030	707,715	3,224,126	455.6%	174	416.782	1,898,724	455.6%	4.0%	0.5		
	2031	614,554	3,078,465	500.9%	153	347,998	1,743,214	500.9%	4.0%	0.5		
	2032	530,901	2,915,854	549.2%	134	289.066	1,587,629	549.2%	4.0%	0.5		
	2033	456,137	2,754,400	603.9%	116	238,806	1,442,039	603.9%	4.0%	0.4		
	2034	389,647	2,592,512	665.3%	100	196,150	1,305,081	665.3%	4.0%	0.4		
	2035	330,817	2,419,803	731.5%	86	160,130	1,171,287	731.5%	4.0%	0.4		
	2036	279,042	2,243,131	803.9%	73	129,873	1,044,010	803.9%	4.0%	0.4		
	2037	233,734	2,052,414	878.1%	61	104,602	918,505	878.1%	4.0%	0.4		
	2038	194,322	1,855,956	955.1%	51	83,619	798,640	955.1%	4.0%	0.4		
	2039	160,265	1,661,097	1036.5%	43	66,311	687,298	1036.5%	4.0%	0.4		
	2040	131,053	1,461,611	1115.3%	35	52,139	581,498	1115.3%	4.0%	0.3		
	2041	106,198	1,269,740	1195.6%	29	40,626	485,734	1195.6%	4.0%	0.3		
	2042	85,234	1,085,047	1273.0%	23	31,352	399.115	1273.0%	4.0%	0.3		
	2043	67,713	917,821	1355.5%	18	23,949	324,619	1355.5%	4.0%	0.3		
	2043	53,219	764,238	1436.0%	14	18,099	259,903	1436.0%	4.0%	0		
	2045	41,358	624,033	1508.8%	11	13,524	204,060	1508.8%	4.0%	0.:		
	2046	31,764	500,204	1574.8%	9	9,987	157,277	1574.8%	4.0%	0		
	2047	24.094	392.625	1629.5%	7	7,284	118,703	1629.5%	4.0%	0		
	2047	18,039	304,218	1686.5%	5	5,244	88,437	1686.5%	4.0%	0		
	2049	13,322	230,174	1727.8%	4	3,724	64,339	1727.8%	4.0%	0.2		
	2050	9,699	171.435	1767.5%	3	2.607	46.077	1767.5%	4.0%	0.2		
	2050	6,957	124,506	1789.8%	2	1,798	32,177	1789.8%	4.0%	0.2		
	2052	4,910	89,173	1816.1%	1	1,220	22,159	1816.1%	4.0%	0.2		
	2052	3,406	62,382	1831.4%	<u> </u>	814	14,905	1831.4%	4.0%	0.2		
	2054	2,319	62,382 42,856	1847.8%	¦	533	9,846	1847.8%	4.0%	0.2		
	2054	2,319 1,548	42,856 28,829	1862.6%	0	342	9,846 6,369	1862.6%	4.0%	0.2		
	2055 2056	1,548 1,011	28,829 18,935	1862.6% 1873.4%	0	342 215	6,369 4.022	1862.6%	4.0% 4.0%	0.2		
			·		-		,-		4.0%	0.4		
	Past	38,090,478	30,987,213	81.4%	17,511	58,614,452	38,133,565	65.1%				
	Future	26,505,656	80,632,386	304.2%	6,174	20,345,396	52,978,747	260.4%				
	Lifetime	64,596,134	111,619,600	172.8%	23,685	78,959,848	91,112,312	115.4%				

## Exhibit VI Brighthouse Life Insurance Company Projection Model Description

A large and complex Excel-based and Access-integrated model was used to project the earned premium, incurred claim, and end of year life values. A description of how the model works to project these values on a seriatim basis is provided below.

Enclosed with this actuarial memorandum is an Excel workbook of Exhibits IV and V. This workbook contains formulas for the projected earned premium, incurred claims, and life years using the illustrative factors, which are retained in this workbook.

The projection system performs calculations at a policy level.

Projection of Earned Premium – the following steps are performed in relation to the projection of earned premium:

- a) A lifetime policy year projection of earned premium is performed from issue for each policy, where each projection year's earned premium is developed based on the annualized premium issued for the policy and the current assumptions for lapse and mortality. The policy year projection is then converted to a calendar year projection based on the policy's issue date. From this calendar year projection, a set of calendar year "expected premium persistency factors" are calculated as the ratio of earned premium from one calendar year to the next. These "expected premium persistency factors" are later used to develop future calendar year earned premium projected from the actual earned premium amount in the last historical calendar year of experience for the policy (see b below).
- b) Beginning with the actual in-force premium earned for each policy as of the last historical calendar year of experience, a 40-year projection of earned premium on a calendar year basis is performed for each policy by multiplying the prior calendar year earned premium for in-force business on that policy by the "expected premium persistency factor" for the current calendar projection year (see a above).
- c) Total projected earned premium for each future calendar year for a policy form is then determined by adding the earned premium by calendar year from each policy.

Projection of Incurred Claims – the following steps are performed in relation to the projection of incurred claims:

- a) A lifetime policy year projection of incurred claims is performed from issue for each policy, where each projection year's incurred claims are developed based on the daily benefit issued for the policy and the current assumptions for lapse, mortality, and morbidity. The policy year projection for the policy is then converted to a calendar year projection based on the policy's issue date. From this projection of incurred claims and the earned premiums from step a above, a set of calendar year "current expected loss ratios" are developed based on the relationship of expected incurred claims to expected earned premium for each calendar year. These "current expected loss ratios" are later used to develop the future projected calendar year incurred claims based on the future projected calendar year earned premiums for the policy (see b below).
- b) A 40-year projection of incurred claims on a calendar year basis is developed for each policy by multiplying each future calendar year's projected earned premium (calculated as explained above) by the "current expected loss ratio" for the projection calendar year.
- c) Total projected incurred claims for each future calendar year for a policy form are then determined by adding the incurred claims by calendar year from each policy.

Projected Life Years – the following steps are performed in relation to the projection of life years:

a) A lifetime policy year projection of life years is performed from issue for each policy, where each projection life year is developed based on the current assumptions for lapse and mortality. The policy year projection for the policy is then converted to a calendar year projection based on the policy's issue date. From this calendar year projection, a set of calendar year "expected life year persistency factors" are calculated as the ratio of the life years from one calendar year to the next. These "expected life year persistency factors" are later used to develop future calendar year life years projected from the actual life years amount in the last historical calendar year of experience for the policy (see b below).

## Exhibit VI Brighthouse Life Insurance Company Projection Model Description

- b) Beginning with the actual in-force life years for each policy as of the last historical calendar year of experience, a 40-year projection of life years on a calendar year basis is performed for each policy by multiplying the prior calendar year life years for in-force business within that cell by the "expected life year persistency factor" for the current calendar projection year (see a above).
- c) Total projected life years for each future calendar year for a policy form are then determined by adding the life years by calendar year from each policy.

The projection system performs all calculations on a seriatim basis. The factors displayed in Exhibits IV and V are derived from the already-projected values and are displayed for illustrative purposes only. These factors do not influence the projection results, but can be used to reproduce them.

The before-increase projected values for earned premium, incurred claims, and life years can be reproduced using the factors that were displayed for illustrative purposes. The formulas are provided below.

- (Earned Premium) $_t$  = (Earned Premium) $_{t-1}$  x (Premium Persistency) $_t$ x (Premium Rate Increase Factor) $_t$
- (Incurred Claims)<sub>t-1</sub> x (Claim Factor)<sub>t</sub> x (Policy Persistency)<sub>t</sub> x
   [(Adverse Selection)<sub>t-1</sub> ]
- (Life Years)<sub>t</sub> = (Life Years)<sub>t-1</sub> x (Policy Persistency)<sub>t</sub>
- *t* = any calendar year in the projection period (2017+)

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Exhibit VII
Brighthouse Life Insurance Company
Status of Filings as of September 12, 2017
All Jurisdictions in which these Forms are Active
LTC3+ Tax-Qualified Comprehensive Policy Form

		First Round			Second Roun	d		Third Round		Third Round Follow-Up <sup>[2]</sup>			Second Third Round Follow-Up <sup>[3]</sup>							Fou	rth Round		
		Date	Amount		Date	Amount		Date	Amount		Date	Amount			Date	Amount	Cumulative			Date	Amount		
	Requested	Approved or	Approved or	Requested	Approved or		Requested	Approved or	Approved or	Requested	Approved or	Approved or	Requested	Date of	Approved or	Approved or	Approved	Requested	Date of	Approved or	Approved or	2016 Annualized	Proportion of
Jurisdiction	Increase	Filed	Filed	Increase	Filed	Filed	Increase	Filed	Filed	Increase	Filed	Filed	Increase	Submission	Filed	Filed	Increase	Increase	Submission	Filed	Filed	Premium <sup>[4]</sup>	Nationwide
Alaska <sup>[1]</sup>	15.9%	5/14/2004	15.9%	30.0%	N/A	30.0%	50.0%	N/A	50.0%	Not Filing			Not Filing				126.0%	21.0%	N/A	N/A	21.0%	4,566	0.02%
Alabama	15.9%	5/19/2004	15.9%	30.0%	6/23/2010	30.0%	50.0%	1/14/2014	20.0%	25.0%	2/16/2016	20.0%	Not Filing				117.0%	26.0%	12/14/2016	6/7/2017	20.0%	44,668	0.15%
Arkansas	15.9%	Disapproved	0.0%	39.0%	5/5/2010	10.0%	90.7%	1/29/2015	25.0%	52.6%	11/19/2015	25.0%	Not Filing				71.9%	47.7%	1/24/2017	Disapproved	0.0%	25,575	0.09%
Arizona	15.9%	Disapproved	0.0%	39.0%	7/12/2010	15.0%	85.7%	12/20/2013	85.7%	Not Filing			Not Filing				113.6%	21.0%	12/7/2016			143,903	0.48%
California	3.8%	6/2/2004	3.8%	30.0%	10/28/2013	15.0%	81.3%			Not Filing			Not Filing				19.4%	TBD				1,833,692	6.12%
Colorado	15.9%	8/31/2004	15.9%	30.0%	11/22/2010	10.0%	73.2%	1/12/2015	35.0%	28.3%	Disapproved	0.0%	Not Filing				72.1%	TBD				181,641	0.61%
Connecticut	39.0%	Disapproved	0.0%	39.0%	9/3/2010	30.0%	70.7%	3/28/2014	20.0%	42.3%	3/20/2015	10.0%	29.4%	4/27/2016	10/13/2016	23.2%	111.4%	27.0%				3,129,453	10.44%
District of Columbia	15.9%	Withdrawn	0.0%	39.0%	Disapproved	0.0%	10.0%	4/18/2014	10.0%	10.0%	5/13/2015	10.0%	10.0%	8/18/2016	8/31/2016	10.0%	33.1%	10.0%	9/5/2017			97,491	0.33%
Delaware	15.9%	9/8/2004	10.0%	30.6%	7/12/2010	25.0%	25.0%	2/25/2014	25.0%	25.0%	11/18/2015	25.0%	Not Filing				114.8%	25.0%	12/21/2016	2/23/2017	25.0%	39,741	0.13%
Florida	32.0%	12/6/2004	12.0%	34.2%	11/13/2012	17.0%	75.4%	5/22/2015	8.9%	7.0%	7/8/2016	9.4%	Not Filing				56.2%	88.6%	8/15/2017			2,365,179	7.89%
Georgia	15.9%	2/4/2005	10.0%	30.0%	5/13/2010	15.0%	74.2%	7/16/2014	15.0%	51.5%	8/3/2015	13.0%	34.1%	6/9/2016	9/22/2016	15.0%	89.0%	41.0%	8/28/2017			269,234	0.90%
Hawaii	15.9%	11/19/2004	15.9%	30.0%	10/10/2011	30.0%	50.0%	7/7/2017	50.0%	Not Filing	8/18/2015	47.50/	Not Filing	0/04/0040	40/40/0040	47.50/	126.0%	21.0%				179,467 486,934	0.60% 1.62%
lowa	15.9%	6/23/2004	12.0%	30.0%	7/12/2010	20.5%	65.7%	4/7/2014	17.0% 30.0%	41.6% 46.7%		17.5%	45.8%	8/24/2016	10/19/2016	17.5%	118.0% 71.6%	24.1% 47.9%					0.02%
Idaho Illinois	15.9% 15.9%	Disapproved	0.0%	39.0%	7/28/2010	10.0%	90.7%	10/31/2014 1/8/2015			12/24/2015	20.0%	Not Filing Not Filing				126.0%		11/10/2016	6/30/2017	21.0%	5,367	3.38%
Indiana	15.9%	7/28/2004 Disapproved	15.9% 0.0%	30.0% 39.0%	8/2/2010 6/8/2012	30.0% 9.0%	50.0% 91.7%	2/25/2015	50.0% 18.1%	Not Filing 62.3%	5/9/2016	15.0%	Not Filing Not Filing				48.0%	21.0% 70.8%	3/3/2017	8/29/2017	10.0%	1,013,981 274,925	0.92%
Kansas	15.9%	6/17/2004	15.9%	30.0%	8/5/2010	10.0%	73.2%	5/21/2014	49.7%	Not Filing	3/9/2016	13.0%	Not Filing				90.9%	TBD	3/3/2017	0/29/2017	10.0%	134.066	0.45%
Kentucky	15.9%	9/20/2004	15.9%	30.0%	5/10/2010	20.0%	61.6%	3/4/2014	20.4%	24.3%	11/10/2015	13.5%	Not Filing				90.1%	43.1%	1/12/2017	4/18/2017	19.6%	64,107	0.43%
Louisiana	15.9%	6/9/2004	15.9%	30.0%	Disapproved	0.0%	84.8%	Disapproved	0.0%	53.4%	Disapproved	0.0%	Not Filing				15.9%	95.7%	2/16/2017	7/6/2017	25.0%	23,326	0.08%
Massachusetts	0.0%	Not Filed	0.0%	39.0%	11/26/2012	10.0%	90.7%	1/20/2017	40.0%	Not Filing	Disapproved	0.078	Not Filing				54.0%	Not Filing	2/10/2017	1/0/2017	25.076	2,466,619	8.23%
Maryland	15.9%	8/19/2004	15.0%	15.0%	8/13/2010	15.0%	15.0%	2/4/2014	15.0%	15.0%	6/16/2015	15.0%	15.0%	6/23/2016	11/9/2016	15.0%	101.1%	15.0%				2,676,665	8.93%
Maine	15.9%	6/22/2004	15.9%	30.0%	10/19/2010	30.0%	30.0%	12/19/2014	30.0%	Not Filing	0/10/2010	10.070	Not Filing	0/20/2010	11/0/2010	10.070	95.9%	TBD				155,928	0.52%
Michigan	15.9%	9/1/2004	15.9%	30.0%	3/19/2010	30.0%	50.0%	12/2/2013	50.0%	Not Filing			Not Filing				126.0%	21.0%	11/11/2016	11/28/2016	21.0%	191,363	0.64%
Minnesota	15.9%	7/26/2004	15.9%	30.0%	3/3/2015	26.5%	Not Filing	1222010	00.070	Not Filing			Not Filing				46.6%	86.5%	11/11/2010	11/20/2010	21.070	751,372	2.51%
Missouri	15.9%	7/15/2004	15.9%	30.0%	8/8/2012	16.0%	13.7%	1/30/2014	13.7%	46.3%	3/27/2015	25.0%	17.0%	6/24/2016	6/29/2016	17.0%	123.6%	21.0%	12/12/2016	1/18/2017	21.0%	288,521	0.96%
Mississippi	15.9%	8/19/2004	15.9%	30.6%	5/6/2010	30.6%	25.0%	5/20/2014	25.0%	20.0%	10/28/2015	20.0%	Not Filing				127.0%	21.0%	1/25/2017	4/17/2017	21.0%	16.570	0.06%
Montana	15.9%	7/9/2004	15.9%	30.0%	5/11/2010	30.0%	50.0%	2/6/2014	30.0%	15.4%	Withdrawn	Withdrawn	Not Filing				95.9%	39.6%	3/2/2017	Disapproved	0.0%	15,846	0.05%
North Carolina	15.9%	6/9/2004	15.9%	30.0%	7/2/2010	30.0%	50.0%	3/14/2014	50.0%	Not Filing			Not Filing				126.0%	21.0%	12/6/2016	5/9/2017	21.0%	1,538,900	5.14%
North Dakota	15.9%	6/23/2004	10.0%	30.0%	7/21/2010	17.0%	72.0%	1/21/2014	15.0%	49.6%	3/20/2015	15.0%	30.1%	6/29/2016	7/20/2016	15.0%	95.7%	36.8%	8/29/2017			15,260	0.05%
Nebraska	15.9%	7/21/2004	15.9%	30.0%	12/14/2010	14.0%	68.5%	9/29/2014	25.0%	34.8%	11/13/2015	34.8%	Not Filing				122.6%	21.0%				50,766	0.17%
New Hampshire	15.9%	Disapproved	0.0%	39.0%	8/26/2010	17.9%	82.8%	Disapproved	0.0%	Not Filing			Not Filing				17.9%	21.7%				89,734	0.30%
New Jersey	39.0%	4/4/2005	15.0%	30.0%	7/16/2010	30.0%	51.2%	7/3/2014	52.1%	Not Filing			Not Filing				127.4%	21.0%	2/17/2017	6/15/2017	10.3%	6,581,860	21.96%
New Mexico	15.9%	6/23/2004	15.9%	30.0%	Disapproved	0.0%	84.8%	5/21/2014	15.0%	60.7%	7/31/2015	15.0%	Not Filing				53.3%	69.1%	2/1/2017	4/19/2017	15.0%	39,967	0.13%
Nevada	15.9%	7/23/2004	5.0%	30.0%	11/30/2010	10.0%	85.2%	10/16/2014	50.0%	Not Filing			Not Filing				73.3%	49.4%	3/2/2017	7/12/2017	49.4%	60,219	0.20%
Ohio	15.9%	6/10/2004	15.9%	34.7%	6/1/2010	33.8%	50.0%	3/31/2015	15.0%	30.4%	3/11/2016	15.0%	Not Filing				105.1%	15.0%	12/9/2016	3/20/2017	15.0%	685,309	2.29%
Oklahoma	15.9%	8/25/2004	15.0%	30.0%	11/15/2010	10.0%	74.2%	3/17/2014	25.0%	39.4%	2/1/2016	10.0%	Not Filing				73.9%	53.3%	12/27/2016	2/9/2017	10.0%	40,657	0.14%
Oregon	15.9%	7/2/2004	15.9%	30.0%	6/4/2010	15.0%	67.4%	4/21/2014	30.0%	28.8%	4/7/2016	28.8%	Not Filing				123.2%	21.0%				58,016	0.19%
Pennsylvania	15.9%	8/10/2004	15.9%	30.0%	7/28/2010	14.9%	67.5%	2/28/2014	15.0%	45.7%	7/21/2015	15.0%	53.3%	8/17/2016	12/13/2016	15.0%	102.6%	33.3%				1,303,810	4.35%
Rhode Island	15.9%	Disapproved	0.0%	39.0%	9/19/2011	25.0%	75.7%	3/9/2017	75.7%	Not Filing	=:::::::		Not Filing				119.6%	21.0%				303,372	1.01%
South Carolina	15.9%	7/12/2004	15.9%	30.0%	11/12/2010	20.0%	61.6%	2/4/2014	20.0%	34.7%	5/4/2015	20.0%	Not Filing				100.3%	35.8%	11/10/2016	2/3/2017	20.0%	398,015	1.33%
South Dakota	15.9%	Disapproved	0.0%	39.0%	4/9/2010	39.0%	61.7%	3/5/2014	61.7%	Not Filing			Not Filing				124.8%	21.0%	1/24/2017	2/8/2017	21.0%	35,738	0.12%
Tennessee	15.9%	8/16/2004	15.9%	30.0%	6/24/2010	10.0%	73.2%	4/14/2014	73.2%	Not Filing	40/44/0040	00.00/	Not Filing				120.8%	21.0%	11/16/2016	9/11/2017	12.0%	64,096	0.21%
Texas Utah	15.9% 15.9%	9/15/2004 10/28/2004	15.0% 15.9%	30.0% 30.0%	7/16/2010 6/25/2010	20.0%	62.7% 61.6%	4/28/2014 11/5/2014	20.0% 30.0%	64.1% 24.3%	12/14/2016 Disconstrued	38.0% 0.0%	Not Filing Not Filing				128.5% 80.8%	21.0% 50.4%	2/27/2017	5/1/2017	35.0%	426,671 19,401	1.42% 0.06%
Virginia	15.9%	Withdrawn	0.0%	39.0%	2/25/2010	39.0%	61.7%	1/20/2016	25.0%	Not Filing	Disapproved	0.0%	Not Filing Not Filing				73.8%	56.5%	2/2//2017	3/1/2017	30.0%	819,969	2.74%
Virginia Vermont	15.9%	Disapproved	0.0%	39.0%	Disapproved	0.0%	100.0%	Disapproved	0.0%	Not Filing Not Filing			Not Filing Not Filing				0.0%	142.8%	12/12/2016	1		159,175	0.53%
Washington	15.9%	7/19/2004	7.6%	39.0%	8/17/2010	30.0%	60.8%	8/14/2014	60.8%	Not Filing Not Filing			Not Filing Not Filing				124.9%	21.0%	12/30/2016	3/3/2017	21.0%	366.753	1.22%
Washington West Virginia	15.9%	7/19/2004	15.9%	30.0%	5/24/2010	30.0%	50.0%	9/11/2014	50.0%	Not Filing Not Filing	1		Not Filing Not Filing				124.9%	21.0%	2/22/2017	Disapproved	0.0%	25,812	0.09%
Wyoming	15.9%	5/6/2004	15.9%	30.0%	6/4/2010	30.0%	50.0%	2/7/2014	50.0%	Not Filing			Not Filing				126.0%	21.0%	2/28/2017	3/1/2017	21.0%	3.840	0.09%
			e filed before us		G-4/2010	50.070	00.070	2772014	00.070	. tot i mig	1		. 101 1 11119				120.078	21.070	L LOILO II	G 112011	Total	29.967.540	

In Jaskia does not require Long Term Care rates to be filed before use.

12] The company is generally filing in jurisdictions where the requested third round rate increase was not achieved.

13] The company is generally filing in jurisdictions where the requested third round rate increase was passed-in over multiple years.

13] The company is generally filing in jurisdictions where the requested third round rate individual requested in the property of the property of the requested third round and third round rate increases were not achieved.

13] The company is generally filing in jurisdictions where the requested third round and third round rate increases were not achieved.

13] The company is generally filing in jurisdictions to requisitory restrictions or because the third round rate increases was phased-in over multiple years.

[4] Annualized premiums reflect all prior rate increases approved prior to March 21, 2017.

## Exhibit VIII Brighthouse Life Insurance Company Nationwide Experience Projections with 34.0% Increase LTC3+ Tax-Qualified Comprehensive Policy Form

				Loss	Ratio Demonstr	ation			Interest Ra	
			Vithout Interest	_			With Interest		Calendar Year	Mid-Year
	Calendar	Earned	Incurred	Loss	Life	Earned	Incurred	Loss	Effective	Disc / Accu
	Year	Premium	Claims	Ratio	Years	Premium	Claims	Ratio	Int Rate	Factor
	1996	108	0	0.0%	10.005	263	0	0.0%	4.5%	2.44
	1997 1998	9,368,324	281,875 2,242,022	3.0% 8.7%	12,265 16,093	21,890,902 57,386,044	658,656	3.0% 8.7%	4.4% 4.4%	2.33 2.23
Historical		25,663,791					5,013,320			
Historical	1999 2000	27,611,874	2,951,608	10.7%	16,433	59,083,343	6,315,793	10.7%	4.4% 4.4%	2.13
Experience		27,466,581	4,768,414	17.4%	16,022	56,241,577	9,763,980	17.4%		2.04
	2001	27,086,778	8,015,432	29.6%	15,615	53,075,482	15,705,926	29.6%	4.4%	1.95
	2002 2003	26,766,144	10,036,014 10,471,896	37.5% 39.7%	15,288 14,985	50,188,720	18,818,351	37.5% 39.7%	4.4% 4.4%	1.87 1.79
	2003	26,382,155				47,338,478	18,790,110			
	2004	25,966,663	9,851,225 15,174,741	37.9% 54.8%	14,623 14,266	44,586,550	16,915,233 24,934,044	37.9% 54.8%	4.4% 4.4%	1.7° 1.6
		27,716,418				45,541,627				
	2006	28,658,910	20,410,718	71.2%	13,932	45,062,451	32,093,230	71.2%	4.4%	1.5
	2007 2008	28,367,489	18,233,830	64.3%	13,593	42,683,473	27,435,745	64.3% 85.3%	4.4% 4.4%	1.50 1.43
		27,955,922	23,842,162	85.3%	13,231	40,252,827	34,329,558			
	2009	27,502,773	31,304,621	113.8%	12,841	37,895,074	43,133,503	113.8%	4.4%	1.3
	2010	26,759,949	32,068,230	119.8%	12,386	35,283,793	42,282,921	119.8%	4.3%	1.3
	2011	27,616,899	42,025,427	152.2%	11,869	34,845,653	53,025,629	152.2%	4.3%	1.2
	2012	27,902,721	43,979,012	157.6%	11,357	33,690,229	53,101,021	157.6%	4.3%	1.2
	2013	26,719,772	45,989,450	172.1%	10,862	30,872,646	53,137,281	172.1%	4.2%	1.1
	2014	25,564,129	46,472,586	181.8%	10,312	28,265,445	51,383,261	181.8%	4.1%	1.1
	2015	26,313,548	45,950,814	174.6%	9,648	27,908,045	48,735,252	174.6%	4.0%	1.0
	2016	27,625,882	48,867,684	176.9%	9,111	28,172,982	49,835,455	176.9%	4.0%	1.0
	2017	28,288,506	49,317,753	174.3%	8,530	27,739,162	48,360,035	174.3%	4.0%	0.9
	2018	32,082,719	49,005,787	152.7%	7,864	30,249,706	46,205,892	152.7%	4.0%	0.9
	2019	32,561,593	48,330,694	148.4%	7,283	29,520,404	43,816,702	148.4%	4.0%	0.9
Projected	2020	29,437,200	47,926,375	162.8%	6,709	25,661,368	41,778,986	162.8%	4.0%	0.8
Future	2021	26,448,548	47,104,712	178.1%	6,149	22,169,291	39,483,381	178.1%	4.0%	8.0
Experience	2022	23,626,754	45,924,804	194.4%	5,609	19,042,357	37,013,823	194.4%	4.0%	0.8
	2023	20,995,353	44,430,115	211.6%	5,093	16,270,709	34,431,880	211.6%	4.0%	0.7
	2024	18,566,415	42,670,607	229.8%	4,605	13,834,963	31,796,460	229.8%	4.0%	0.7
	2025	16,340,868	40,935,932	250.5%	4,146	11,708,244	29,330,623	250.5%	4.0%	0.7
	2026	14,315,514	39,529,927	276.1%	3,716	9,862,573	27,233,866	276.1%	4.0%	0.6
	2027	12,484,280	38,003,711	304.4%	3,317	8,270,151	25,175,375	304.4%	4.0%	0.6
	2028	10,838,808	36,343,100	335.3%	2,948	6,903,958	23,149,337	335.3%	4.0%	0.6
	2029	9,369,042	34,554,959	368.8%	2,609	5,738,236	21,163,800	368.8%	4.0%	0.6
	2030	8,063,714	32,631,173	404.7%	2,300	4,748,813	19,216,868	404.7%	4.0%	0.5
	2031	6,910,727	30,614,630	443.0%	2,018	3,913,275	17,335,868	443.0%	4.0%	0.5
	2032	5,897,426	28,546,476	484.0%	1,764	3,211,040	15,543,032	484.0%	4.0%	0.5
	2033	5,011,181	26,532,597	529.5%	1,535	2,623,554	13,890,877	529.5%	4.0%	0.5
	2034	4,239,636	24,599,543	580.2%	1,329	2,134,249	12,383,506	580.2%	4.0%	0.5
	2035	3,570,975	22,725,877	636.4%	1,146	1,728,503	11,000,283	636.4%	4.0%	0.4
	2036	2,994,019	20,905,719	698.2%	983	1,393,492	9,730,048	698.2%	4.0%	0.4
	2037	2,498,379	19,058,509	762.8%	839	1,118,085	8,529,144	762.8%	4.0%	0.4
	2038	2,074,511	17,196,906	829.0%	712	892,687	7,400,031	829.0%	4.0%	0.4
	2039	1,713,730	15,385,135	897.8%	601	709,075	6,365,773	897.8%	4.0%	0.4
	2040	1,408,156	13,598,346	965.7%	505	560,231	5,410,067	965.7%	4.0%	0.3
	2041	1,150,682	11,876,298	1032.1%	422	440,188	4,543,225	1032.1%	4.0%	0.3
	2042	934,911	10,234,075	1094.7%	350	343,890	3,764,423	1094.7%	4.0%	0.3
	2043	755,108	8,726,140	1155.6%	289	267,070	3,086,304	1155.6%	4.0%	0.3
	2044	606,164	7,348,818	1212.3%	237	206,145	2,499,198	1212.3%	4.0%	0.3
	2045	483,557	6,105,281	1262.6%	193	158,124	1,996,436	1262.6%	4.0%	0.3
	2046	383,288	5,004,572	1305.7%	156	120,515	1,573,560	1305.7%	4.0%	0.3
	2047	301,835	4,052,656	1342.7%	126	91,254	1,225,245	1342.7%	4.0%	0.3
	2048	236,128	3,244,266	1373.9%	101	68,643	943,119	1373.9%	4.0%	0.2
	2049	183,519	2,571,938	1401.5%	80	51,298	718,914	1401.5%	4.0%	0.2
	2050	141,726	2,012,851	1420.2%	63	38,092	540,997	1420.2%	4.0%	0.2
	2051	108,788	1,558,428	1432.5%	50	28,115	402,751	1432.5%	4.0%	0.2
	2052	83,036	1,189,753	1432.8%	39	20,634	295,647	1432.8%	4.0%	0.2
	2053	63,060	897,340	1423.0%	30	15,067	214,408	1423.0%	4.0%	0.2
	2054	47,684	669,454	1403.9%	23	10,955	153,805	1403.9%	4.0%	0.2
	2055	35,932	494,281	1375.6%	18	7,938	109,192	1375.6%	4.0%	0.2
	2056	27,004	362,056	1340.8%	14	5,736	76,906	1340.8%	4.0%	0.2
	Dest	FOE 010 05	100 000 000		60175	000 00= 00=	005 400 005	=0.07:		
	Past	525,016,830	462,937,762	88.2%	264,733	820,265,605	605,408,267	73.8%		
	Future	325,280,478	882,221,596	271.2%	84,500	251,877,791	597,889,787	237.4%		
	Lifetime	850,297,307	1,345,159,357	158.2%	349,233	1,072,143,396	1,203,298,055	112.2%		