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#### William P. Bigelow, FSA, MAAA

September 27, 2019

Maryland Insurance Administration 200 St. Paul Place, Suite 2700, Baltimore, MD 21202

Re: Group long-term policy G.LTC1697 (including GCLTCAARP-06-FC in Maryland) Issued by Metropolitan Life Insurance Company (MetLife)

Attached is the filing for the captioned forms. This letter provides an overview of the filing and notes on some of the content. After a careful review of earlier filings, we have endeavored to reflect in this filing additional content based on previous questions submitted by your Department. Hopefully, this will make your review easier and more effective.

#### Filing Overview

In addition to this overview, this filing consists of the Actuarial Memorandum and Attachments on specific aspects of the Maryland Administrative Code as well as supporting data based on earlier reviews. These documents are outlined and summarized here for your convenience.

Title	Description					
Actuarial Memorandum						
Exhibit I-A	Lifetime Loss Ratio ("LLR")					
	• <i>Nationwide</i> experience					
	• Without/with proposed rate increase of 7.06%					
	<ul> <li>Weighted average statutory rate 4.00%</li> </ul>					
	LLR without rate increase – 109.3%					
	LLR with rate increase – 106.1%					
Exhibit II-A	Demonstration of rate action meeting Rate Stability					
	(58/85) limitations					
Exhibit I-B	Lifetime Loss Ratio ("LLR")					
	• Maryland experience					
	<ul> <li>Without/with proposed rate increase of 7.06%</li> </ul>					
	<ul> <li>Weighted average statutory rate 4.00%</li> </ul>					
	LLR without rate increase – 103.7%					
	LLR with rate increase – 100.9%					
Exhibit II-B	Demonstration of rate action meeting Rate Stability					
	(58/85) limitations					
Review of Prior Correspondence	Attachment 1 – Assumptions Summary					
	Attachment 2 – A/E Ratios (Policy Duration)					
	Attachment 3 – A/E Ratios (Calendar Year)					
	Attachment 4 – A/E Ratios (Lapse, Mortality,					
	Incidence, Claim Termination)					

#### Rationale for the Rate Increase Request

Exhibit I demonstrates that the combination of historical and projected experience using the most recent Best Estimate assumptions is clearly far beyond the expected loss ratio using the original pricing assumptions. Attachments 2 and 3 support the development of the experience by analyzing the Actual-to-Expected Ratios by Calendar Year and Policy Duration.

Attachment 1 compares the development of the changes in assumptions from the time of original pricing to the latest Experience Study. Generally, worse than expected morbidity and lower decrements are the primary reasons for the rate action.

#### Assumption Setting and Review

All projection assumptions are based on the Experience Study performed each year. In general, the assumptions used in all projections are those that reproduce historical experience within a non-material degree of tolerance. Attachment 4 shows the Actual-to-Expected Ratios comparing the latest Best Estimate assumptions with the set of actual experience for Lapse, Mortality, Incidence, and Claim Termination.

Some actuarial judgment is used in areas where credibility or trending requires adjustment. In any case, the methodology, results, conclusions and use are prescribed by MetLife internal Standards and Actuarial Standards of Practice and are reviewed and approved by MetLife management, internal auditors, and external auditors.

#### Calculation of the Rate Request

MetLife's evaluation of the Justifiable Rate Increase ("JRI") uses the industry standard "If Knew" basis. This method calculates the premium needed at time zero to achieve the original loss ratio if all current experience had been known at inception. Of course, the Company cannot retroactively charge such premiums, so all historical losses stemming from past premium shortfalls are taken by the Company.

#### Additional Notes

MetLife requests the rate action based on deviations from anticipated experience outlined in the Actuarial Memorandum, the Addendum, and the supporting attachments. Lifetime Loss Ratios exceed all minimum requirements in Maryland as well as the application of rate stability standards even at the full requested rate action. In addition, though Maryland-only experience is not necessarily credible, the Maryland LLR's still meet the standards above at the full rate action level.

Despite the rate action requested, the experience of the block does not fully return to pricing levels. In general, the rate action restricts consideration of recovering historical losses by focusing on lifetime experience. We will continue, of course, to analyze and adjust experience assumptions and reserve the right to update those in the future along with requesting any resulting changes in premium rates.

The actuarial justification for experience analysis and projections, including assumptions and methods, are reflective of the Code of Professional Conduct and applicable Actuarial Standards of Practice. 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 to render the actuarial opinion contained herein.

Thank you for your consideration. I look forward to hearing from you.

Sincerely,



William P. Bigelow, FSA, MAAA

Vice President and Actuary, Metropolitan Life Insurance Company

#### New York, NY

#### **Actuarial Memorandum for AARP Group Policy**

#### **September 27, 2019**

This actuarial memorandum pertains to long-term care insurance provided under group policy issued to cover eligible members of the American Association of Retired Persons ("AARP") and their spouses (including domestic partners) who meet the eligibility requirements specified in the policy.

#### **Policy Forms**

The premium rate schedule increase for which we are seeking approval will apply to the following certificate forms approved by your Department and that were issued under the group long-term care policy G.LTC1697 (sitused in District of Columbia):

GCLTCAARP-06-FC

#### 1. Purpose of Filing

This actuarial memorandum has been prepared for the purpose of demonstrating that the anticipated loss ratio standard of this product meets the minimum requirements of your state and may not be suitable for other purposes.

#### 2. Description of Benefits

There are two options available: The Comprehensive Monthly Reimbursement Plan and the Facility-only Monthly Reimbursement Plan. Both plans provide benefits for Primary Services equal to the lesser of:

- a. the actual expenses incurred for the receipt of one month's services
- b. the Monthly Benefit Amount ("MBA") times a percentage that varies based on the site of care

MBA = Daily Benefit Amount ("DBA") times the number of days in the month.

#### Reimbursement Percentages by Site of Care

- I. Nursing Home, Hospice, or Assisted Living Facility 100%
- II. Home Health Care (for Comprehensive Coverage Option only) optional 50%, 80% or 100%
- III. Informal Care (for Comprehensive Coverage Option only) -50% of the selected Home Health Care coverage

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#### Respite Service

Both plans reimburse the actual incurred expenses for Respite Services provided by a Formal or Informal Caregiver, up to the DBA corresponding to the type of service. Benefits are limited to 30 days per calendar year.

#### 3. Renewability

These policy forms are guaranteed renewable for life.

#### 4. Applicability

This filing is applicable to the group long-term care insurance certificates shown on the first page issued to AARP from March 1, 2007 to March 1, 2008 with a group policy situs within District of Columbia.

We will only implement a premium rate schedule increase for certificates issued to residents of your state after we have received approval from your Department. We will implement the amount of the increase approved by your Department irrespective of the amount of the increase approved by the District of Columbia (where the long-term care insurance policy issued to AARP was sitused). These policy forms are no longer being marketed to AARP members and spouses.

#### 5. Actuarial Assumptions

- a. <u>Expected Claim Costs</u> are the product of attained age frequency rates and continuance curves, adjusted by utilization factors and underwriting selection factors based on actual experience through June 30, 2017.
- b. <u>Voluntary Termination Rates</u> vary by duration as developed from actual experience through June 30, 2017 and are shown in the following table:

#### **Voluntary Termination Rates**

Policy Duration	Lapse Rate
1	5.50%
2	3.50%
3	2.50%
4	2.00%
5	1.50%
6	1.25%
7	0.90%
8+	0.80%

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In the year of rate increase implementation, it is assumed that an additional 1.1% of policies lapse and there is 0.3% net reduction to premiums and benefits due to benefit downgrades. There is no adverse selection assumed due to the additional lapse rates.

- c. Mortality 88% of Annuity 2000 Basic Table with selection consistent with experience.
- d. <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 inforce experience of MetLife and are deemed reasonable for the group policy form, including certificate forms issued under such group policy. In establishing the assumptions described in this section, the policy design, underwriting, and claims adjudication practices for the above-referenced policy forms were taken into consideration.

The assumptions described above were developed from the actual historical experience on these forms and supplemented, as needed, based on the experience of other forms. The projections contained in this actuarial memorandum are based on the best estimate assumptions, as described above, except the projections include a margin for moderately adverse experience equal to 5% of projected future incurred claims.

#### 6. Marketing Method

These policy forms were issued to provide coverage to eligible AARP members and spouses. The primary method of marketing was direct mail. Enrollment programs hosted by local AARP chapter were also part of the marketing method for this certificate form.

#### 7. Underwriting Description

Certain health information was required of applicants at the time of enrollment, including answering questions on the enrollment form regarding medical history, supplemented by contacting health care providers for medical records, as well as telephone and face-to-face interviews as needed.

#### 8. Premiums

Premium rates varied based upon the age of the insured at issue and the particular benefit variations selected. A preferred risk discount was applied to insured persons that qualified based on underwriting criteria. If an insured was married or had a domestic partner that did not purchase coverage, then a marital discount was applied. If two or more members of the same household purchased coverage, then a household discount was applied. Additionally, annual premium was equal to monthly premium times 11.04 (i.e., 8% discount off monthly) and quarterly premium was equal to monthly premium times 2.94 (i.e., 2% discount off monthly).

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#### 9. Issue Age Range

The issue age is 18 and over.

#### 10. Area Factors

Area factors are not used for this product.

#### 11. Reserves

Active life reserves have not been used in this rate increase analysis. Claim reserves as of December 31, 2017 have been discounted to the incurral date of each respective claim and included in historical incurred claims. Incurred but not reported reserve balances as of December 31, 2017 have been allocated to a calendar year of incurral and included in historical incurred claims.

#### 12. Trend Assumptions

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

#### 13. Past and Future Policy Experience

Nationwide experience and specific experience for those certificates issued in Maryland are shown in Exhibit I-A and Exhibit I-B, respectively.

Historical experience is shown by claim incurral year. Claim payments and reserves were discounted to the mid-point of the year of incurral at the weighted average maximum valuation interest rate for contract reserves which is 4.00%. Incurred but not reported reserves were allocated based on a historical analysis of claim development pattern.

Annual loss ratios are calculated, with and without interest, as incurred claims divided by earned premiums.

A lifetime loss ratio as of December 31, 2017 is calculated as the sum of accumulated past experience and discounted future experience where accumulation and discounting occur at the weighted average maximum valuation interest rate for contract reserves, which is 4.00%.

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

Earned premiums for projection years 2018 through 2098 are developed by multiplying each prior period's earned premium (starting with December 31, 2017 actual earned premium) by a persistency factor. For a year in which the rate increase is effective, the earned premium prior to the increase is multiplied by 1 plus the rate increase percent and an effectiveness factor.

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Incurred claims for each projection year combine the impact of incidence rates, claim continuance rates and utilization factors by the policy benefits on a seriatim basis.

Present and accumulated values in the lifetime projections in Exhibit I and II are determined at the average maximum valuation interest rate for contract reserves applicable to LTC business issued in the years in which the applicable business of this filing were issued. The maximum valuation interest rate averages 4.00%.

The assumptions used in Exhibit I and II projections are developed from the company's LTC insurance experience, plus a margin for moderately adverse experience.

Projections in Exhibit II provide a demonstration that the sum of the accumulated value of incurred claims without the inclusion of active life reserves, and the present value of future projected incurred claims, without the inclusion of active life reserves, will not be less than the sum of the following:

- 1. Accumulated value of the initial earned premium times 58%;
- 2. 85% of the accumulated value of prior premium rate schedule increases;
- 3. Present value of future projected initial earned premium times 58%; and
- 4. 85% of the present value of future projected premium in excess of the projected initial earned premium.

#### 15. History of Previous Inforce Rate Increases

Round	Authorized %	<b>Authorization Date</b>	Implementation Date
1	15%	10/10/2017	5/1/2018

The experience and projections in Exhibit I have been restated to reflect a rate level similar to that authorized in Maryland on a nationwide basis.

#### 16. Requested Rate Increase

The company is requesting a rate increase of 7.06% for the policy forms listed above. Corresponding rate tables reflecting the 7.06% rate increase are included with this filing. *Please note that, any authorized premium rate increase will not become effective for any insured until that insured's prior rate increase has been effective for at least one (1) year.* Please note also that the actual rates implemented may vary slightly from those filed due to implementation rounding algorithms.

#### 17. Analysis Performed

The initial premium schedule was based on pricing assumptions believed to be appropriate, given the information available at the time the initial rate schedule was developed. The original pricing assumptions for claim costs, voluntary termination rates, and mortality were as follows:

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- a. Incidence and continuance rates for nursing home care and home health care rates were based on MetLife's experience in the long-term care business that the company issued or administered.
- b. Voluntary termination rates by duration were assumed to be 6.25% in year one, grading down to 1.4% in year five and thereafter.
- c. Mortality was based on 95% of the Annuity 2000 Basic Mortality Table modified using Projection Scale H.

As part of the inforce management of the business, MetLife monitors the performance of the business by completing periodic analyses of lapse rates, mortality rates, claim incidence rates, claim continuance rates and claim utilization rates. The findings from these analyses were used to determine the current experience assumptions on a best estimate basis. A margin for moderately adverse experience equal to 5% of projected future incurred claims was added to the best estimate assumptions. A model of this business was developed for use in the cash flow testing that is part of the company's annual statutory reporting requirements. Using this model, a future projection of these policies under the new moderately adverse assumptions was performed and the projected lifetime loss ratio for these policies was determined. For these policies, the past experience and future projections based on current moderately adverse assumptions combine to a resulting loss ratio that exceeds both original pricing expectations and state minimum requirements.

The experience analysis, management's view of when a change to the original rate schedule may be considered and the seriatim inforce and claim data used in developing the projections in Exhibit I and II have been relied upon by the actuary in the development of this memorandum.

#### 18. Loss Ratio Requirement Compliance Demonstration

Projected experience assuming the increase is implemented is shown in Exhibit I and II. As shown in these exhibits, the expected lifetime loss ratios, with and without the requested rate increase, exceed the minimum requirements under rate stability regulations.

#### 19. Average Annual Premium

The average September 30, 2018 annualized premiums for all premium-paying certificates holders in Maryland before and after the current requested increases are:

Before increase: \$1,942 After prior authorized 15% increase: \$2,113 After current requested 7.06% increase: \$2,262

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#### 20. Proposed Effective Date

The rate increase will apply to certificateholders on the anniversary of their original coverage effective date, following at least a 60-day notification period after the increase is approved.

# 21. Nationwide Distribution of Business as of September 30, 2018 (based on premium-paying certificates inforce count)

By Issue Age:

Issue Age	Percent
<45	0%
45-49	1%
50-54	10%
55-59	27%
60-64	30%
65-69	23%
70-74	8%
75+	2%
Total	100%

#### By Benefit Period:

Benefit Period	Percent
2 Year	6%
3 Year	32%
4 Year	53%
5 Year	4%
7 Year	1%
Unlimited	4%
Total	100%

#### **By Inflation Option:**

Inflation	Percent
Optional	77%
Auto 3% Compound	16%
Auto 5% Compound	7%
Total	100%

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#### By Home Care Percentage:

Home Care %	Percent
0% (FC Only)	15%
50%	53%
80%	6%
100%	26%
Total	100%

### By Elimination Period:

Days	Percent
20	2%
30	34%
45	-
60	53%
90	11%
Total	100%

#### By Gender:

Gender	Percent
Female	61%
Male	39%
Total	100%

#### 22. Number of Certificateholders

As of September 30, 2018, the number of premium-paying insured lives inforce and their premiums that will be affected by this increase are:

		sued Before Rate Regulation Effective Date	Issued On or After Rate Stabil Regulation Effective Date				
	Number of Insured	2018 Annualized Premium	Number of Insured	2018 Annualized Premium			
Certificates issued in Maryland	-	-	55	\$106,817			
Certificates issued nationwide	534	\$962,242	2,024	\$3,969,115			

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#### 23. 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 to render the actuarial opinion contained herein.

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

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 Maryland.

#### I further certify that:

- the analysis described in Section 17 of this memorandum was used in determining the need for a rate increase;
- the policy design, underwriting and claims adjudication practices have been reviewed and taken into consideration in this rate increase request;
- the actuarial assumptions used are appropriate and the gross premiums bear reasonable relationship to the benefits; and
- the relationship between renewal premium rate schedules and new business premium rate schedules is not applicable because MetLife is no longer issuing new business on these policy forms.

William P. Bigelow, FSA, MAAA

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Vice President and Actuary, Metropolitan Life Insurance Company

## Exhibit I-A Metropolitan Life Insurance Company Nationwide Experience Projections (Premium Normalized to Include Prior Authorized Increase) Group Policy Form: G.LTC.1897

		Group Palley Form: G.LTC.1697														
			Loss Ratio Demonstration Without Interest With Interest							tors Derived f	from Projected Values for Illustrative Purposes Only Persistency Factors				Interest Ra	
	Calendar	Earned	Incurred	Loss	Life	Earned	Incurred	Loss	Premium Rate Increase	Benefit	Policy	Policy	Policy	Premium	Calendar Year Effective	Mid-Year Disc / Accum
	Year 1997	Premium	Claims	Ratio N/A	Years	Premium	Claims	Ratio N/A	Factor	Downgrade	Lapse & Mortality	Shock Lapse	Persistency	Persistency	Int Rate 4.00%	Factor 2.2345
	1998			N/A		-		N/A							4.00%	2.1486
	1999 2000		-	N/A N/A		-		N/A N/A							4.00% 4.00%	2.0659 1.9865
	2000			N/A				N/A							4.00%	1.9101
	2002		-	N/A		-		N/A							4.00%	1.8366 1.7660
	2003 2004	:	:	N/A N/A				N/A N/A							4.00% 4.00%	1.7660
Historical	2005		-	N/A			-	N/A							4.00%	1.6327
Experience	2006 2007	55,921 2,754,957	:	0.0%	268 3,030	87,793 4.158,770		0.0%							4.00% 4.00%	1.5699 1.5096
	2008	5,205,618		0.0%	3,163	7,555,949		0.0%							4.00%	1.4515
	2009 2010	5,069,488 4,929,577	152,062 380,241	3.0% 7.7%	3,092 3,000	7,075,343 6.615.454	212,228 510,280	3.0% 7.7%							4.00% 4.00%	1.3957 1.3420
	2011	4,822,314	458,909	9.5%	2,949	6,222,605	592,166	9.5%							4.00%	1.2904
	2012	4,765,259 4,696,615	563,181 350 438	11.8% 7.5%	2,887 2,842	5,912,482 5,603,185	698,765 418,081	11.8%							4.00% 4.00%	1.2407 1.1930
	2014	4,672,229	1,522,692	32.6%	2,808	5,359,704	1,746,742	32.6%							4.00%	1.1471
	2015 2016	4,613,502 4,560,996	1,145,499 966 901	24.8% 21.2%	2,765 2,721	5,088,785 4,837,375	1,263,508 1,025,491	24.8%							4.00% 4.00%	1.1030
II.	2016	4,528,732	2,076,727	45.9%	2,721	4,618,418	2,117,854	45.9%							4.00%	1.0198
Projected Future	2018 2019	4,480,768 4,738,559	2,486,014 2,818,497	55.5% 59.5%	2,595 2,510	4,393,754 4,467,826	2,437,737 2,657,465	55.5% 59.5%	1.0417 1.1453	N/A N/A	0.0303	N/A N/A	0.970 0.967	0.950 0.962	4.00% 4.00%	0.9806
Experience	2019	4,738,559	2,818,497 3,179,295	69.6%	2,435	4,467,826	2,882,355	69.6%	1.1453	N/A N/A	0.0326	N/A N/A	0.967	0.962	4.00%	0.9429
	2021	4,372,385	3,567,772	81.6%	2,360	3,811,551	3,110,143	81.6%	1.1500	N/A	0.0309	N/A	0.969	0.957	4.00%	0.8717
	2022 2023	4,172,746 3,968,473	3,988,421 4,443,435	95.6% 112.0%	2,282	3,497,614 3,198,454	3,343,113 3,581,256	95.6% 112.0%	1.1500 1.1500	N/A N/A	0.0329 0.0352	N/A N/A	0.967 0.965	0.954 0.951	4.00% 4.00%	0.8382 0.8060
	2024	3,759,896	4,922,886	130.9%	2,119	2,913,796	3,815,075	130.9%	1.1500	N/A	0.0376	N/A	0.962	0.947	4.00%	0.7750
	2025 2026	3,547,788 3,332,909	5,419,331 5,922,508	152.8% 177.7%	2,034 1,947	2,643,672 2,388,031	4,038,273 4,243,481	152.8% 177.7%	1.1500 1.1500	N/A N/A	0.0401 0.0430	N/A N/A	0.960 0.957	0.944 0.939	4.00% 4.00%	0.7452 0.7165
	2027	3,116,377	6,417,132	205.9%	1,857	2,147,006	4,421,038	205.9%	1.1500	N/A	0.0460	N/A	0.954	0.935	4.00%	0.6889
	2028	2,899,932 2,684,751	6,898,318 7,350,712	237.9% 273.8%	1,766 1,672	1,921,046 1,710,097	4,569,757 4,682,157	237.9% 273.8%	1.1500	N/A N/A	0.0492	N/A N/A	0.951	0.931	4.00% 4.00%	0.6624
	2030	2,472,303	7,764,419	314.1%	1,578	1,514,206	4,755,457	314.1%	1.1500	N/A	0.0566	N/A	0.943	0.921	4.00%	0.6125
	2031 2032	2,264,169	8,119,558 8,419,669	358.6% 408.4%	1,483 1,387	1,333,395	4,781,700	358.6% 408.4%	1.1500 1.1500	N/A N/A	0.0604	N/A N/A	0.940 0.935	0.916	4.00%	0.5889 0.5663
	2032	2,061,710 1,866,061	8,419,669	463.9%	1,387	1,167,466 1,016,036	4,767,730 4,713,061	408.4%	1.1500	N/A N/A	0.0689	N/A N/A	0.935	0.911 0.905	4.00% 4.00%	0.5663
	2034	1,678,479	8,810,568	524.9%	1,196	878,751	4,612,685	524.9%	1.1500	N/A	0.0737	N/A	0.926	0.899	4.00%	0.5235
	2035 2036	1,500,107 1,331,816	8,884,544 8,866,410	592.3% 665.7%	1,102 1.010	755,160 644,655	4,472,514 4,291,716	592.3% 665.7%	1.1500 1.1500	N/A N/A	0.0785	N/A N/A	0.922 0.916	0.894 0.888	4.00% 4.00%	0.5034 0.4840
	2037	1,174,389	8,768,979	746.7%	920	546,590	4,081,304	746.7%	1.1500	N/A	0.0888	N/A	0.911	0.882	4.00%	0.4654
	2038 2039	1,028,241 893,769	8,594,137 8,333,577	835.8% 932.4%	833 750	460,163 384,600	3,846,085 3,586,036	835.8% 932.4%	1.1500 1.1500	N/A N/A	0.0945	N/A N/A	0.906 0.900	0.876 0.869	4.00% 4.00%	0.4475 0.4303
	2040	771,100	8,002,306	1037.8%	670	319,051	3,311,045	1037.8%	1.1500	N/A	0.1062	N/A	0.894	0.863	4.00%	0.4138
	2041	660,080 560,531	7,601,925 7,150,633	1151.7% 1275.7%	595 524	262,611 214,429	3,024,406 2,735,443	1151.7% 1275.7%	1.1500 1.1500	N/A N/A	0.1123 0.1187	N/A N/A	0.888	0.856 0.849	4.00% 4.00%	0.3978 0.3825
	2043	472,047	6,656,056	1410.0%	458	173,634	2,448,312	1410.0%	1.1500	N/A	0.1255	N/A	0.874	0.842	4.00%	0.3678
	2044 2045	394,166 326.312	6,130,943 5,584,934	1555.4% 1711.5%	398 343	139,410 110,973		1555.4% 1711.5%	1.1500 1.1500	N/A N/A	0.1317 0.1392	N/A N/A	0.868 0.861	0.835 0.828	4.00% 4.00%	0.3537 0.3401
	2046	267,664	5,033,273	1880.4%	293	87,527	1,645,888	1880.4%	1.1500	N/A	0.1464	N/A	0.854	0.820	4.00%	0.3270
	2047	217,434 174,874	4,492,618 3,959,614	2066.2%	248 208	68,367 52 870	1,412,589 1,197,115	2066.2% 2264.3%	1.1500 1.1500	N/A N/A	0.1530 0.1610	N/A N/A	0.847	0.812 0.804	4.00% 4.00%	0.3144 0.3023
	2049	139,255	3,446,826	2475.2%	173	40,482	1,002,003	2475.2%	1.1500	N/A	0.1691	N/A	0.831	0.796	4.00%	0.3023
	2050 2051	109,776	2,966,153 2,523,329	2702.0% 2948.1%	142	30,685	829,106	2702.0%	1.1500	N/A	0.1762	N/A N/A	0.824	0.788	4.00%	0.2795
	2051	85,591 65,920	2,523,329	3221.1%	116 93	23,004 17,036	678,199 548,747	2948.1% 3221.1%	1.1500 1.1500	N/A N/A	0.1847 0.1954	N/A N/A	0.815 0.805	0.780 0.770	4.00% 4.00%	0.2688 0.2584
	2053	50,233	1,764,082 1,444,507	3511.8%	75	12,483	438,364 345,146	3511.8%	1.1500	N/A	0.2015	N/A	0.798	0.762	4.00%	0.2485
	2054 2055	37,880 28.182	1,444,507	3813.4% 4137.0%	59 46	9,051 6,475	345,146 267.856	3813.4% 4137.0%	1.1500 1.1500	N/A N/A	0.2112 0.2194	N/A N/A	0.789 0.781	0.754 0.744	4.00% 4.00%	0.2389 0.2297
	2056	20,665	927,486	4488.1%	35	4,565	204,891	4488.1%	1.1500	N/A	0.2303	N/A	0.770	0.733	4.00%	0.2209
	2057 2058	14,903 10,602	727,443 560 718	4881.3% 5288.7%	27 20	3,166 2,165	154,519 114,523	4881.3% 5288.7%	1.1500 1.1500	N/A N/A	0.2415	N/A N/A	0.758	0.721	4.00% 4.00%	0.2124
	2059	7,429	424,862	5719.3%	15	1,459	83,438	5719.3%	1.1500	N/A	0.2600	N/A	0.740	0.701	4.00%	0.1964
	2060 2061	5,121 3,483	316,417 231,743	6178.3% 6653.1%	11 8	967 632	59,751 42,078	6178.3% 6653.1%	1.1500 1.1500	N/A N/A	0.2765 0.2740	N/A N/A	0.724 0.726	0.689 0.680	4.00% 4.00%	0.1888 0.1816
	2062	2,325	166,991	7181.7%	6	406	29,155	7181.7%	1.1500	N/A	0.2927	N/A	0.707	0.668	4.00%	0.1746
	2063 2064	1,523 987	117,559 81,217	7718.3% 8232.5%	4 3	256 159		7718.3% 8232.5%	1.1500 1.1500	N/A N/A	0.2976	N/A N/A	0.702 0.705	0.655 0.648	4.00% 4.00%	0.1679 0.1614
	2064	987 632	56,486	8232.5% 8936.2%	2	159	13,110 8,767	8232.5% 8936.2%	1.1500	N/A N/A	0.2946	N/A N/A	0.705	0.648	4.00% 4.00%	0.1552
	2066	403	40,205	9985.3%	1	60	6,000	9985.3%	1.1500	N/A	0.3194	N/A	0.681	0.637	4.00%	0.1492
	2067 2068	263 177	29,416 21,039	11203.5% 11899.8%	1	38 24		11203.5% 11899.8%	1.1500 1.1500	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	4.00% 4.00%	0.1435 0.1380
	2069	122	15,519	12672.2%	0	16	2,059	12672.2%	1.1500	N/A	N/A	N/A	N/A	N/A	4.00%	0.1327
	2070 2071	85 59	11,692 8.642	13754.4% 14582.7%	0	11 7	1,492 1.060	13754.4% 14582.7%	1.1500 1.1500	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	4.00% 4.00%	0.1276 0.1227
	2072	41	6,135	14889.7%	0	5	724	14889.7%	1.1500	N/A	N/A	N/A	N/A	N/A	4.00%	0.1179
	2073 2074	28 19	4,121 2.729	14649.3% 14633.0%	0	3 2		14649.3% 14633.0%	1.1500 1.1500	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	4.00% 4.00%	0.1134 0.1090
	2075	12	1,789	15150.5%	0	1	188	15150.5%	1.1500	N/A	N/A	N/A	N/A	N/A	4.00%	0.1049
	2076 2077	7	1,080 582	14740.6% 12568.2%	0	1 0	109 56	14740.6% 12568.2%	1.1500 1.1500	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	4.00% 4.00%	0.1008 0.0969
	2078-2098	5	386	8584.2%	0	0	36	8584.2%	1.1500	N/A N/A		N/A N/A	N/A N/A	N/A N/A	4.00%	0.0969
	Past	50 675 209	7.616.648	15.0%	32.201	63 135 864	8.585.116	13.6%			-					
	Future	66,342,938	216,432,917	326.2%	41,904	47,516,785	112,391,693	236.5%								
Note:	Lifetime	117,018,147	224,049,565	191.5%	74,105	110,652,649	120,976,809	109.3%								

<sup>|</sup> Lifetime | 117,016,147 | 224,045,565 | 191.5% | 74,105 | 110,652,649 | 120,976,809 | 103. Note:

- The premiums shown in this exhibit are normalized to reflect prior rate inreases authorized by Maryland rather than that authorized by other states. Includes certificate forms CSCLTCAARP-06-PC Issued under group policy G.LTC.1897
- The prior authorized increase of 15% was implemented from May 2018 through April 2019.
- The prior authorized increase of 15% was implemented from May 2018 through April 2019.

## Exhibit I-A Metropolitan Life Insurance Company Nationwide Experience Projections (Premium Normalized to Include Prior Authorized Increase) and With 7.06% Future Increase Group Policy Form: G.LTC.1697

							Group Policy									
		Loss Ratio Demonstration Without Interest With Interest								Factors Derived from Projected Values for Illustrative Purposes Only Premium Persistency Factors					Interest Rat Calendar Year	te Factors Mid-Year
	Calendar	Earned	Incurred	Loss	Life	Earned	Incurred	Loss	Rate Increase	Benefit	Policy	Policy	Policy	Premium	Effective	Disc / Accum
	Year 1997	Premium	Claims	Ratio N/A	Years	Premium	Claims	Ratio N/A	Factor	Downgrade	Lapse & Mortality	Shock Lapse	Persistency	Persistency	Int Rate 4.00%	Factor 2.234
	1998			N/A		-		N/A							4.00%	2.234
	1999 2000		-	N/A N/A		-		N/A N/A							4.00% 4.00%	2.065
	2000	:		N/A N/A				N/A N/A							4.00%	1.986
	2002		-	N/A		-		N/A							4.00%	1.836
	2003			N/A N/A				N/A N/A							4.00% 4.00%	1.766
Historical	2005			N/A		-		N/A							4.00%	1.632
Experience	2006 2007	55,921 2,754,957		0.0%	268 3,030	87,793 4.158,770		0.0%							4.00% 4.00%	1.569
	2008	5,205,618		0.0%	3,163	7,555,949		0.0%							4.00%	1.451
	2009 2010	5,069,488 4,929,577	152,062 380,241	3.0%	3,092 3.000	7,075,343 6.615.454	212,228	3.0%							4.00%	1.395
	2010	4,929,577	458,909	7.7% 9.5%	2,949	6,222,605	510,280 592,166	7.7% 9.5%							4.00% 4.00%	1.342
	2012	4,765,259	563,181	11.8%	2,887	5,912,482	698,765	11.8%							4.00%	1.240
	2013 2014	4,696,615 4,672,229	350,438 1,522,692	7.5% 32.6%	2,842 2,808	5,603,185 5,359,704	418,081 1,746,742	7.5% 32.6%							4.00% 4.00%	1.193 1.147
	2015	4,613,502	1,145,499	24.8%	2,765	5,088,785	1,263,508	24.8%							4.00%	1.103
	2016 2017	4,560,996 4,528,732	966,901 2,076,727	21.2% 45.9%	2,721 2,676	4,837,375 4,618,418	1,025,491 2,117,854	21.2% 45.9%							4.00% 4.00%	1.060 1.019
Projected	2018	4,480,768	2,486,014	55.5%	2,595	4,393,754	2,437,737	55.5%	1.0417	1.0000	0.0303	1.0000	0.970	0.950	4.00%	0.980
Future Experience	2019 2020	4,738,559 4.623,713	2,818,497 3,169,563	59.5% 68.6%	2,510 2,429	4,467,826 4,191,867	2,657,465 2.873.532	59.5% 68.6%	1.1453 1.1678	1.0000 0.9993	0.0326 0.0322	1.0000 0.9976	0.967 0.968	0.962 0.960	4.00% 4.00%	0.942
- Aprilounce	2021	4,602,395	3,520,703	76.5%	2,335	4,012,058	3,069,112	76.5%	1.2267	0.9972	0.0387	0.9896	0.961	0.957	4.00%	0.871
	2022 2023	4,404,946 4,189,307	3,932,715 4,381,373	89.3% 104.6%	2,257 2,178	3,692,246 3,376,438	3,296,419 3,531,237	89.3% 104.6%	1.2312 1.2312	0.9970 0.9970	0.0335 0.0352	0.9890	0.966 0.965	0.954 0.951	4.00% 4.00%	0.838
	2023	3,969,123	4,854,128	122.3%	2,178	3,075,940	3,761,790	122.3%	1.2312	0.9970	0.0352	0.9890	0.962	0.951	4.00%	0.806
	2025	3,745,211	5,343,640	142.7%	2,012	2,790,784	3,981,870	142.7%	1.2312	0.9970	0.0401	0.9890	0.960	0.944	4.00%	0.745
	2026 2027	3,518,375 3,289,794	5,839,788 6,327,503	166.0% 192.3%	1,925 1,837	2,520,918 2,266,480	4,184,212 4,359,289	166.0% 192.3%	1.2312 1.2312	0.9970 0.9970	0.0430 0.0460	0.9890 0.9890	0.957 0.954	0.939 0.935	4.00% 4.00%	0.716 0.688
	2028	3,061,304	6,801,969	222.2%	1,746	2,027,946	4,505,931	222.2%	1.2312	0.9970	0.0492	0.9890	0.951	0.931	4.00%	0.662
	2029 2030	2,834,150 2,609,879	7,248,044 7.655,973	255.7% 293.3%	1,654 1,560	1,805,258 1,598,467	4,616,761 4.689.037	255.7% 293.3%	1.2312 1.2312	0.9970	0.0528	0.9890 0.9890	0.947 0.943	0.926 0.921	4.00% 4.00%	0.637
	2031	2,390,163	8,006,152	335.0%	1,466	1,407,594	4,714,914	335.0%	1.2312	0.9970	0.0604	0.9890	0.940	0.916	4.00%	0.588
	2032	2,176,438 1,969,902	8,302,072 8,535,152	381.5% 433.3%	1,371 1,277	1,232,432 1,072,575	4,701,139 4,647,234	381.5% 433.3%	1.2312 1.2312	0.9970	0.0646	0.9890	0.935	0.911	4.00% 4.00%	0.566
	2034	1,771,881	8,687,511	490.3%	1,183	927,651	4,548,260	490.3%	1.2312	0.9970	0.0737	0.9890	0.926	0.899	4.00%	0.523
	2035 2036	1,583,583 1,405,928	8,760,453 8,742,572	553.2% 621.8%	1,090 999	797,182 680.528	4,410,046 4,231,774	553.2% 621.8%	1.2312 1.2312	0.9970 0.9970	0.0785 0.0836	0.9890	0.922 0.916	0.894 0.888	4.00% 4.00%	0.5034
	2037	1,239,740	8,646,503	697.4%	910	577,006	4,024,300	697.4%	1.2312	0.9970	0.0888	0.9890	0.911	0.882	4.00%	0.4654
	2038 2039	1,085,460 943,505	8,474,103 8,217,182	780.7% 870.9%	824 742	485,769 406,001	3,792,366 3,535,950	780.7% 870.9%	1.2312 1.2312	0.9970 0.9970	0.0945 0.1002	0.9890 0.9890	0.906 0.900	0.876 0.869	4.00% 4.00%	0.4475
	2040	814,009	7,890,538	969.3%	663	336,805	3,264,799	969.3%	1.2312	0.9970	0.1062	0.9890	0.894	0.863	4.00%	0.4138
	2041 2042	696,811 591,723	7,495,749 7.050,760	1075.7% 1191.6%	588 519	277,225 226,361	2,982,164 2,697,237	1075.7% 1191.6%	1.2312 1.2312	0.9970	0.1123 0.1187	0.9890	0.888	0.856	4.00% 4.00%	0.3978
	2042	498,315	6,563,091	1317.1%	453	183,296		1317.1%	1.2312	0.9970	0.1157	0.9890	0.874	0.842	4.00%	0.3678
	2044 2045	416,100 344,471	6,045,312 5,506,929	1452.9% 1598.7%	394 339	147,168 117,148	2,138,135 1.872.805	1452.9% 1598.7%	1.2312 1.2312	0.9970 0.9970	0.1317 0.1392	0.9890	0.868 0.861	0.835 0.828	4.00% 4.00%	0.353
	2045	282,559	4,962,973	1756.4%	289	92,397	1,622,900	1756.4%	1.2312	0.9970	0.1392	0.9890	0.854	0.828	4.00%	0.340
	2047	229,534	4,429,869	1929.9%	245	72,171		1929.9%	1.2312	0.9970	0.1530	0.9890	0.847	0.812	4.00%	0.314
	2048 2049	184,606 147,004	3,904,310 3,398,684	2114.9% 2312.0%	206 171	55,812 42,734	1,180,395 988.008	2114.9% 2312.0%	1.2312 1.2312	0.9970	0.1610 0.1691	0.9890	0.839 0.831	0.804 0.796	4.00% 4.00%	0.3023
	2050	115,885	2,924,725	2523.8%	141	32,392	817,526	2523.8%	1.2312	0.9970	0.1762	0.9890	0.824	0.788	4.00%	0.279
	2051 2052	90,353 69.588	2,488,085 2,093,697	2753.7% 3008.7%	115 92	24,284 17,984	668,726 541.083	2753.7% 3008.7%	1.2312 1.2312	0.9970 0.9970	0.1847 0.1954	0.9890	0.815 0.805	0.780 0.770	4.00% 4.00%	0.268
	2053	53,029	1,739,443	3280.2%	74	13,177	432,242	3280.2%	1.2312	0.9970	0.2015	0.9890	0.798	0.762	4.00%	0.248
	2054 2055	39,988 29,750	1,424,332 1,149,592	3561.9% 3864.2%	58 45	9,554 6,835	340,325 264,115	3561.9% 3864.2%	1.2312 1.2312	0.9970 0.9970	0.2112 0.2194	0.9890	0.789 0.781	0.754 0.744	4.00% 4.00%	0.238 0.229
	2056	21,815	914,532	4192.1%	35	4,819	202,030	4192.1%	1.2312	0.9970	0.2303	0.9890	0.770	0.733	4.00%	0.220
	2057 2058	15,732 11,192	717,283 552,886	4559.4% 4940.0%	26 20	3,342 2,286	152,361 112,924	4559.4% 4940.0%	1.2312	0.9970	0.2415 0.2520	0.9890	0.758 0.748	0.721 0.711	4.00% 4.00%	0.212
	2059	7,842	418,928	5342.1%	15	1,540	82,273	5342.1%	1.2312	0.9970	0.2600	0.9890	0.740	0.701	4.00%	0.196
	2060 2061	5,406 3,677	311,997 228.506	5770.9% 6214.4%	11 8	1,021 668	58,916 41,490	5770.9% 6214.4%	1.2312 1.2312	0.9970 0.9970	0.2765 0.2740	0.9890	0.724 0.726	0.689 0.680	4.00% 4.00%	0.188 0.181
	2062	2,455	164,658	6708.1%	5	429	28,747	6708.1%	1.2312	0.9970	0.2927	0.9890	0.707	0.668	4.00%	0.174
	2063 2064	1,608 1,041	115,917 80,083	7209.4% 7689.6%	4 3	270 168	19,459 12,927	7209.4% 7689.6%	1.2312 1.2312	0.9970 0.9970	0.2976 0.2946	0.9890	0.702 0.705	0.655 0.648	4.00% 4.00%	0.167 0.161
	2064	1,041 667	80,083 55,697	7689.6% 8346.9%	2	168	12,927 8,645	7689.6% 8346.9%	1.2312	0.9970	0.2946	0.9890	0.705	0.648	4.00%	0.155
	2066	425	39,643	9326.8%	1	63	5,916	9326.8%	1.2312	0.9970	0.3194	0.9890	0.681	0.637	4.00%	0.149
	2067 2068	277 187	29,005 20,745	10464.7% 11115.1%	1	40 26	4,162 2,862	10464.7% 11115.1%	1.2312 1.2312	0.9970 0.9970	N/A N/A	0.9890 0.9890	N/A N/A	N/A N/A	4.00% 4.00%	0.143 0.138
	2069	129	15,302	11836.5%	ō	17	2,030	11836.5%	1.2312	0.9970	N/A	0.9890	N/A	N/A	4.00%	0.132
	2070 2071	90 63	11,529 8.521	12847.4% 13621.0%	0	11	1,471 1.045	12847.4% 13621.0%	1.2312 1.2312	0.9970 0.9970	N/A N/A	0.9890	N/A N/A	N/A N/A	4.00% 4.00%	0.127 0.122
	2072	43	6,050	13907.8%	0	5	714	13907.8%	1.2312	0.9970	N/A	0.9890	N/A	N/A	4.00%	0.117
	2073 2074	30 20	4,063 2,691	13683.3% 13668.0%	0	3 2	461 293	13683.3% 13668.0%	1.2312 1.2312	0.9970 0.9970	N/A N/A	0.9890	N/A N/A	N/A N/A	4.00% 4.00%	0.113
	2075	12	1,764	14151.4%	0	1	185	14151.4%	1.2312	0.9970	N/A	0.9890	N/A	N/A	4.00%	0.104
	2076 2077	8 5	1,065 574	13768.6% 11739.4%	0	1 0	107 56	13768.6% 11739.4%	1.2312 1.2312	0.9970 0.9970	N/A N/A	0.9890	N/A N/A	N/A N/A	4.00% 4.00%	0.100
	2078-2098	5	381	8018.1%	0	0	36	8018.1%	1.2312	0.9970	N/A N/A	0.9890	N/A N/A	N/A N/A	4.00%	0.098
	Past	50 675 209	7,616,648	15.0%	32 201	63 135 864	8 585 116	13.6%				-				
	Future	69,310,573	213,521,522	308.1%	41,522	49,476,892	110,926,926	224.2%								
	Lifetime	119,985,782	221,138,171	184.3%	73,723	112,612,756	119,512,042	106.1%								

Lifetime 119,986,782 221,138,171 184.3% 73,723 112,612,756 119,512,042 106.

The premiums shown in this exhibit are normalized to reflect prior rate inreases authorized by Maryland rather than that authorized by other states. Includes conflicate forms GCLTCAARP-06-FC issued under group policy GLTC.1697.

The prior authorized increase of 15% was implemented from May 2018 through April 2019.

The projections are based on the assumptions derived using experience data through 6/30/2017.

#### Exhibit II-A

#### Demonstration that Lifetime Incurred Claims with Requested Increase are Not Less than Lifetime Earned Premium with Prescribed Factors Group Policy Form: G.LTC.1697

Accumulated value of initial earned premium	63,135,864	x	58%	=	36,618,801
2a Accumulated value of earned premium 2b Accumulated value of prior premium rate schedule increases (2a-1)	63,135,864 0	х	85%	=	0
3 Present value of future projected initial earned premium	41,732,192	x	58%	=	24,204,672
4a Present value of future projected premium 4b Present value of future projected premium in excess of the projected initial earned premiums (4a-3)	49,476,892 7,744,700	х	85%	=	6,582,995
5 Lifetime Earned Premium Times Prescribed Factor: Sum of 1, 2b, 3, and 4b					67,406,468
6a Accumulated value of incurred claims without the inclusion of active life reserves 6b Present value of future projected incurred claims without the inclusion of active life reserves					8,585,116 110,926,926
7 Lifetime Incurred Claims with Rate Increase: Sum of 6a and 6b					119,512,042
8 Test: 7 is not less than 5					TRUE

## Exhibit HB Metropolitan Life Insurance Company Maryland Experience Projections (Premium Normalized to Include Prior Authorized Increase) Group Policy Form: G.I.Tc.1697

	Group Policy Form: G.LTC.1697															
		,	Without Interest	Loss R	atio Demonst	ration	With Interest		Fac: Premium	tors Derived f	rom Projected Value	es for Illustrati Persistency		nly	Interest Ra Calendar Year	te Factors Mid-Year
	Calendar	Earned	Incurred	Loss	Life	Earned	Incurred	Loss	Rate Increase	Benefit	Policy	Policy	Policy	Premium	Effective	Disc / Accum
	Year 1997	Premium	Claims	Ratio N/A	Years -	Premium	Claims	Ratio N/A	Factor	Downgrade	Lapse & Mortality	Shock Lapse	Persistency	Persistency	Int Rate 4.00%	Factor 2.2345
	1998	-	-	N/A		-	-	N/A							4.00%	2.1486
	1999 2000			N/A N/A		-		N/A N/A							4.00% 4.00%	2.0659 1.9865
	2001		-	N/A		-	-	N/A							4.00%	1.9101
	2002 2003			N/A N/A		-		N/A N/A							4.00% 4.00%	1.8366 1.7660
	2004		-	N/A		-	-	N/A							4.00%	1.6980
Historical Experience	2005 2006			N/A N/A		-		N/A N/A							4.00% 4.00%	1.6327 1.5699
	2007	52,042	-	0.0%	67	78,560	-	0.0%							4.00%	1.5096
	2008 2009	131,067 130,111		0.0%	76 72	190,244 181,592		0.0%							4.00% 4.00%	1.4515 1.3957
	2010	128,742	-	0.0%	71	172,771	-	0.0%							4.00%	1.3420
	2011 2012	125,160 121,182		0.0%	71 68	161,504 150,356		0.0%							4.00% 4.00%	1.2904
	2013	121,603	-	0.0%	67	145,076	-	0.0%							4.00%	1.1930
	2014 2015	117,527 116,598	132,042	0.0% 113.2%	66 65	134,820 128,610		0.0% 113.2%							4.00% 4.00%	1.1471 1.1030
	2016	116,097	223,466	192.5%	64	123,133	237,007	192.5%							4.00%	1.0606
Projected	2017 2018	101,894 100,193	37,493 55,459	36.8% 55.4%	60 58	103,911 98,247	38,236 54,382	36.8% 55.4%	1.0417	N/A	0.0303	N/A	0.970	0.944	4.00% 4.00%	1.0198 0.9806
Future	2019	105,737	61,190	57.9%	56	99,696		57.9%	1.1453	N/A	0.0321	N/A	0.968	0.960	4.00%	0.9429 0.9066
Experience	2020 2021	101,671 97,103	67,228 73,909	66.1% 76.1%	55 53	92,175 84,648	60,949 64,429	66.1% 76.1%	1.1500 1.1500	N/A N/A	0.0300	N/A N/A	0.970 0.970	0.958 0.955	4.00% 4.00%	0.9066
	2022 2023	92,471 87,793	80,886 88,234	87.5% 100.5%	51 50	77,509 70,759	67,799 71,113	87.5% 100.5%	1.1500 1.1500	N/A N/A	0.0327 0.0340	N/A N/A	0.967 0.966	0.952 0.949	4.00% 4.00%	0.8382 0.8060
	2024	83,085	95,999	115.5%	48	64,388	74,396	115.5%	1.1500	N/A	0.0370	N/A	0.963	0.946	4.00%	0.7750
	2025 2026	78,361 73,647	103,929 111,859	132.6% 151.9%	46 44	58,392 52,768	77,444 80,147	132.6% 151.9%	1.1500 1.1500	N/A N/A	0.0384	N/A N/A	0.962 0.959	0.943 0.940	4.00% 4.00%	0.7452 0.7165
	2027	68,966	120,038	174.1%	42	47,514	82,699	174.1%	1.1500	N/A	0.0434	N/A	0.957	0.940	4.00%	0.6889
	2028 2029	64,334 59.772	128,256 136,518	199.4% 228.4%	40 38	42,618 38,073	84,963 86,958	199.4% 228.4%	1.1500 1.1500	N/A N/A	0.0461	N/A N/A	0.954	0.933	4.00% 4.00%	0.6624
	2030	55,296	144,407	261.2%	36	33,867	88,444	261.2%	1.1500	N/A	0.0513	N/A	0.949	0.925	4.00%	0.6125
	2031 2032	50,933 46,693	152,200 159.661	298.8% 341.9%	34 32	29,995 26,440		298.8% 341.9%	1.1500 1.1500	N/A N/A	0.0552 0.0587	N/A N/A	0.945 0.941	0.921 0.917	4.00% 4.00%	0.5889 0.5663
	2033	42,576	166,739	391.6%	30	23,182	90,787	391.6%	1.1500	N/A	0.0615	N/A	0.939	0.912	4.00%	0.5445
	2034 2035	38,607 34,807	172,988 177,517	448.1% 510.0%	28 26	20,212 17,522	90,566 89.363	448.1% 510.0%	1.1500 1.1500	N/A N/A	0.0652 0.0704	N/A N/A	0.935 0.930	0.907 0.902	4.00% 4.00%	0.5235 0.5034
	2036	31,194	180,330	578.1%	24	15,099	87,287	578.1%	1.1500	N/A	0.0750	N/A	0.925	0.896	4.00%	0.4840
	2037 2038	27,778 24,574	181,498 181,497	653.4% 738.6%	22 20	12,929 10,997	84,474 81.225	653.4% 738.6%	1.1500 1.1500	N/A N/A	0.0790 0.0845	N/A N/A	0.921	0.891 0.885	4.00% 4.00%	0.4654 0.4475
	2039	21,589	179,216	830.1%	19	9,290	77,119	830.1%	1.1500	N/A	0.0888	N/A	0.911	0.879	4.00%	0.4303
	2040 2041	18,828 16,294	175,452 169,947	931.9% 1043.0%	17 15	7,790 6.483		931.9%	1.1500 1.1500	N/A N/A	0.0964	N/A N/A	0.904	0.872	4.00% 4.00%	0.4138
	2042	13,996	162,628	1161.9%	14	5,354	62,213	1161.9%	1.1500	N/A	0.1062	N/A	0.894	0.859	4.00%	0.3825
	2043 2044	11,924 10,072	154,751 144,970	1297.8% 1439.3%	12 11	4,386 3,562	56,923 51,274	1297.8% 1439.3%	1.1500 1.1500	N/A N/A	0.1144 0.1175	N/A N/A	0.886	0.852 0.845	4.00% 4.00%	0.3678 0.3537
	2045 2046	8,436	134,846 123,441	1598.5% 1763.4%	9	2,869 2,289	45,859 40,365	1598.5% 1763.4%	1.1500	N/A N/A	0.1275	N/A N/A	0.873	0.838	4.00% 4.00%	0.3401
	2046	7,000 5,753	111,305	1934.6%	8 7	1,809		1763.4%	1.1500	N/A N/A	0.1331	N/A N/A	0.867	0.830	4.00%	0.3270
	2048 2049	4,680 3,767	98,928 86,549	2113.9% 2297.5%	6	1,415 1.095		2113.9% 2297.5%	1.1500 1.1500	N/A N/A	0.1478 0.1565	N/A N/A	0.852 0.844	0.813 0.805	4.00% 4.00%	0.3023 0.2907
	2049	3,003	74,867	2493.0%	5 4	1,095	20,927	2493.0%	1.1500	N/A N/A	0.1593	N/A N/A	0.844	0.805	4.00%	0.2907
	2051 2052	2,369 1.846	64,099 54,114	2705.7% 2931.3%	3	637 477	17,228 13.985	2705.7% 2931.3%	1.1500 1.1500	N/A N/A	0.1727 0.1826	N/A N/A	0.827 0.817	0.789 0.779	4.00% 4.00%	0.2688 0.2584
	2053	1,422	45,036	3166.2%	2	353	11,191	3166.2%	1.1500	N/A	0.1879	N/A	0.812	0.771	4.00%	0.2485
	2054 2055	1,084 813	36,671 29,357	3384.2% 3612.1%	2	259 187	8,762 6,745	3384.2% 3612.1%	1.1500 1.1500	N/A N/A	0.1965 0.2011	N/A N/A	0.803	0.762 0.750	4.00% 4.00%	0.2389 0.2297
	2056	598	22,921	3834.8%	1	132	5,063	3834.8%	1.1500	N/A	0.2313	N/A	0.769	0.735	4.00%	0.2209
	2057 2058	430 306	17,705 13,417	4115.0% 4383.3%	1	91 63	3,761 2,740	4115.0% 4383.3%	1.1500 1.1500	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	4.00% 4.00%	0.2124
	2059	214	9,755	4549.4%	0	42	1,916	4549.4%	1.1500	N/A	N/A	N/A	N/A	N/A	4.00%	0.1964
	2060 2061	148 100	6,853 4,452	4633.1% 4473.7%	0	28 18		4633.1% 4473.7%	1.1500 1.1500	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	4.00% 4.00%	0.1888 0.1816
	2062	64	2,741	4311.4%	0	11	479	4311.4%	1.1500	N/A	N/A	N/A	N/A	N/A	4.00%	0.1746
	2063 2064	40 25	1,479 635	3726.4% 2577.1%	0	7		3726.4% 2577.1%	1.1500 1.1500	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	4.00% 4.00%	0.1679 0.1614
	2065	13	348	2648.9%	0	2		2648.9%	1.1500	N/A	N/A	N/A	N/A	N/A	4.00%	0.1552 0.1492
	2066 2067	7 4	164 115	2193.1% 2588.8%	0	1 1	24 17	2193.1% 2588.8%	1.1500 1.1500	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	4.00% 4.00%	0.1492 0.1435
	2068 2069	3 2	56 16	2035.6% 972.3%	0	0	8	2035.6% 972.3%	1.1500 1.1500	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	4.00% 4.00%	0.1380 0.1327
	2070	1	16 4	688.9%	-	0		688.9%	1.1500	N/A	N/A	N/A	N/A	N/A	4.00%	0.1276
	2071 2072	-	-	N/A N/A		-	-	N/A N/A	1.1500 1.1500	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	4.00% 4.00%	0.1227 0.1179
	2073	:	- :	N/A			- :	N/A	1.1500	N/A	N/A	N/A	N/A	N/A	4.00%	0.1134
	2074 2075	-	-	N/A N/A	-	-	-	N/A N/A	1.1500	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	4.00% 4.00%	0.1090
	2076			N/A		-		N/A	1.1500	N/A	N/A	N/A	N/A	N/A	4.00%	0.1008
	2077 2078-2098		-	N/A N/A			-	N/A N/A	1.1500 1.1500	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	4.00% 4.00%	0.0969 0.0932
									1500	1 197	1870		.47		4.3076	0.0002
	Past Future	1,262,024 1,500,424	393,001 4,567,180	31.1% 304.4%	747 977	1,570,578 1,066,526	420,887 2,314,541	26.8% 217.0%								
Note	Lifetime	2,762,448	4,960,181	179.6%	1,724	2,637,104	2,735,428	103.7%								

<sup>|</sup> Lifetime | 2,762,448 | 4,960,181 | 179.6% | 1,724 | 2,637,104 | 2,735,428 | 103. |
Note:
- The premiums shown in this exhibit are normalized to reflect prior rate inreases authorized by Maryland rather than that authorized by other states. Includes certificate forms CSCLTCAARP-06-PC Issued under group policy G.LTC.1897
- The prior authorized increase of 15% was implemented from May 2018 through April 2019.
- The prior authorized increase of 15% was implemented from May 2018 through April 2019.
- The projections are based on the assumptions devined using experience data through 6302017.

## Exhibit I-B Metropolitan Life Insurance Company Maryland Experience Projections (Premium Normalized to Include Prior Authorized Increase) and With 7.06% Future Increase Group Policy Form: G.I.TC.1697

		Loss Ratio Demonstration Factors Derived from Projected Values for Illustrative Purposes Only							Interest Ra	te Factors						
			Without Interest				With Interest		Premium			Persistency	Factors		Calendar Year	Mid-Year
	Calendar Year	Earned Premium	Incurred Claims	Loss Ratio	Life Years	Earned Premium	Incurred Claims	Loss Ratio	Rate Increase Factor	Benefit Downgrade	Policy Lapse & Mortality	Policy Shock Lapse	Policy Persistency	Premium Persistency	Effective Int Rate	Disc / Accum Factor
	1997	-	-	N/A		-	-	N/A			,				4.00%	2.2345
	1998 1999		-	N/A N/A		-	-	N/A N/A							4.00% 4.00%	2.1486 2.0659
	2000			N/A		-		N/A							4.00%	1.9865
	2001 2002		:	N/A N/A	:		:	N/A N/A							4.00% 4.00%	1.9101 1.8366
	2003			N/A		-		N/A							4.00%	1.7660
Historical	2004 2005			N/A N/A		-		N/A N/A							4.00% 4.00%	1.6980 1.6327
Experience	2006			N/A		-		N/A							4.00%	1.5699
	2007 2008	52,042 131,067		0.0%	67 76	78,560 190,244		0.0%							4.00% 4.00%	1.5096 1.4515
	2008	131,067		0.0%	76	190,244		0.0%							4.00%	1.4515
	2010	128,742	-	0.0%	71	172,771	-	0.0%							4.00%	1.3420
	2011 2012	125,160 121,182		0.0%	71 68	161,504 150,356	:	0.0%							4.00% 4.00%	1.2904 1.2407
	2013	121,603		0.0%	67	145,076		0.0%							4.00%	1.1930
	2014 2015	117,527 116,598	132,042	0.0% 113.2%	66 65	134,820 128.610	145,644	0.0% 113.2%							4.00% 4.00%	1.1471 1.1030
	2016	116,097	223,466	192.5%	64	123,133	237,007	192.5%							4.00%	1.0606
Projected	2017 2018	101,894 100,193	37,493 55,459	36.8% 55.4%	60 58	103,911 98,247	38,236 54,382	36.8% 55.4%	1.0417	1.0000	0.0303	1.0000	0.970	0.944	4.00% 4.00%	1.0198
Future	2019	105,737	61,190	57.9%	56	99,696	57,694	57.9%	1.1453	1.0000	0.0321	1.0000	0.968	0.960	4.00%	0.9429
Experience	2020 2021	102,925 102,212	67,022 72,934	65.1% 71.4%	54 52	93,312 89,101	60,762 63.579	65.1% 71.4%	1.1678 1.2267	0.9993 0.9972	0.0323 0.0380	0.9976	0.968		4.00% 4.00%	0.9066 0.8717
	2022	97,617	79,756	81.7%	51	81,823	66,852	81.7%	1.2312	0.9970	0.0333	0.9890	0.967	0.952	4.00%	0.8382
	2023 2024	92,679 87,709	87,001 94,659	93.9% 107.9%	49 47	74,696 67,971	70,120 73,357	93.9% 107.9%	1.2312	0.9970	0.0340	0.9890	0.966		4.00% 4.00%	0.8060
	2025	82,722	102,477	123.9%	45	61,641	76,362	123.9%	1.2312	0.9970	0.0384	0.9890	0.962	0.943	4.00%	0.7452
	2026 2027	77,745 72,804	110,297 118,361	141.9% 162.6%	43 42	55,704 50,158	79,028 81,544	141.9% 162.6%	1.2312 1.2312	0.9970 0.9970	0.0406 0.0434	0.9890 0.9890	0.959 0.957		4.00% 4.00%	0.7165 0.6889
	2027	67,914	126,465	186.2%	40	44,990	83,776	186.2%	1.2312	0.9970	0.0461	0.9890	0.954		4.00%	0.6624
	2029 2030	63,099 58,373	134,612 142,390	213.3% 243.9%	38 36	40,192 35,751	85,743 87,209	213.3% 243.9%	1.2312 1.2312	0.9970 0.9970	0.0486 0.0513	0.9890	0.951 0.949		4.00% 4.00%	0.6370 0.6125
	2030	53,767	150,074	279.1%	34	31,664	88,380	279.1%	1.2312	0.9970	0.0513	0.9890	0.949		4.00%	0.5889
	2032 2033	49,291 44,945	157,431	319.4% 365.8%	32	27,912	89,147 89,519	319.4% 365.8%	1.2312	0.9970 0.9970	0.0587	0.9890 0.9890	0.941 0.939		4.00% 4.00%	0.5663 0.5445
	2033	44,945	164,411 170,572	418.5%	30 28	24,472 21,337	89,319 89,301	418.5%	1.2312 1.2312	0.9970	0.0615 0.0652	0.9890	0.939		4.00%	0.5235
	2035 2036	36,744 32,930	175,038 177,811	476.4% 540.0%	26 24	18,497 15,939	88,115 86,068	476.4% 540.0%	1.2312	0.9970	0.0704	0.9890	0.930		4.00% 4.00%	0.5034
	2036	29,324	177,811	610.3%	24	13,648	83,294	610.3%	1.2312	0.9970	0.0750	0.9890	0.925		4.00%	0.4654
	2038	25,941	178,963	689.9%	20	11,609	80,090	689.9%	1.2312	0.9970	0.0845	0.9890	0.916		4.00%	0.4475
	2039 2040	22,791 19.875	176,713 173.001	775.4% 870.4%	18 17	9,807 8,224	76,041 71,581	775.4% 870.4%	1.2312 1.2312	0.9970 0.9970	0.0888 0.0964	0.9890	0.911		4.00% 4.00%	0.4303 0.4138
	2041	17,201	167,573	974.2%	15	6,843	66,669	974.2%	1.2312	0.9970	0.1014	0.9890	0.899		4.00%	0.3978
	2042 2043	14,775 12.588	160,356 152,590	1085.3% 1212.2%	13 12	5,652 4.630	61,344 56,127	1085.3% 1212.2%	1.2312 1.2312	0.9970 0.9970	0.1062 0.1144	0.9890 0.9890	0.894 0.886		4.00% 4.00%	0.3825 0.3678
	2044	10,633	142,945	1344.4%	10	3,761	50,557	1344.4%	1.2312	0.9970	0.1175	0.9890	0.883	0.845	4.00%	0.3537
	2045 2046	8,905 7,390	132,962 121,716	1493.1% 1647.1%	9	3,029 2,416	45,218 39,801	1493.1% 1647.1%	1.2312 1.2312	0.9970 0.9970	0.1275 0.1331	0.9890 0.9890	0.873 0.867		4.00% 4.00%	0.3401 0.3270
	2047	6,074	109,751	1807.0%	7	1,910	34,508	1807.0%	1.2312	0.9970	0.1386	0.9890	0.861	0.822	4.00%	0.3144
	2048 2049	4,940 3,977	97,546 85.340	1974.5% 2146.0%	6 5	1,494 1,156	29,491 24,809	1974.5% 2146.0%	1.2312 1.2312	0.9970 0.9970	0.1478 0.1565	0.9890	0.852 0.844		4.00% 4.00%	0.3023 0.2907
	2050	3,170	73,821	2328.6%	4	886	20,635	2328.6%	1.2312	0.9970	0.1593	0.9890	0.841	0.797	4.00%	0.2795
	2051 2052	2,501 1,949	63,204 53,358	2527.3% 2738.0%	3	672 504	16,987 13,790	2527.3% 2738.0%	1.2312	0.9970	0.1727 0.1826	0.9890	0.827		4.00% 4.00%	0.2688
	2053	1,502	44,407	2957.4%	2	373	11,035	2957.4%	1.2312	0.9970	0.1879	0.9890	0.812	0.771	4.00%	0.2485
	2054 2055	1,144 858	36,159 28,947	3161.0% 3373.9%	2	273 197	8,640 6,650	3161.0% 3373.9%	1.2312 1.2312	0.9970 0.9970	0.1965 0.2011	0.9890 0.9890	0.803 0.799		4.00% 4.00%	0.2389 0.2297
	2056	631	22,601	3581.9%	1	139	4,993	3581.9%	1.2312	0.9970	0.2313	0.9890	0.769	0.735	4.00%	0.2209
	2057 2058	454 323	17,458 13,230	3843.7% 4094.3%	1	96 66	3,708 2,702	3843.7% 4094.3%	1.2312 1.2312	0.9970 0.9970	N/A N/A	0.9890	N/A N/A		4.00% 4.00%	0.2124 0.2042
	2059	226	9,618	4249.3%	0	44	1,889	4249.3%	1.2312	0.9970	N/A	0.9890	N/A	N/A	4.00%	0.1964
	2060 2061	156 105	6,758 4,390	4327.5% 4178.7%	0	29 19	1,276 797	4327.5% 4178.7%	1.2312 1.2312	0.9970 0.9970	N/A N/A	0.9890	N/A N/A		4.00% 4.00%	0.1888 0.1816
	2062	67	2,703	4027.1%	0	12	472	4027.1%	1.2312	0.9970	N/A	0.9890	N/A	N/A	4.00%	0.1746
	2063 2064	42 26	1,459 626	3480.7%	0	7	245	3480.7%	1.2312	0.9970	N/A N/A	0.9890	N/A N/A		4.00% 4.00%	0.1679 0.1614
	2064 2065	26 14	626 344	2407.2% 2474.2%	0	4 2	101 53	2407.2% 2474.2%	1.2312 1.2312	0.9970 0.9970	N/A N/A	0.9890 0.9890	N/A N/A		4.00% 4.00%	0.1614 0.1552
	2066	8	162	2048.5%	0	1	24	2048.5%	1.2312	0.9970	N/A	0.9890	N/A	N/A	4.00%	0.1492
	2067 2068	5	114 55	2418.1% 1901.4%	0	1 0	16 8	2418.1% 1901.4%	1.2312 1.2312	0.9970 0.9970	N/A N/A	0.9890 0.9890	N/A N/A		4.00% 4.00%	0.1435 0.1380
	2069	2	16	908.2%	ō	0	2	908.2%	1.2312	0.9970	N/A	0.9890	N/A		4.00%	0.1327
	2070 2071	1	4	643.4% N/A		0	0	643.4% N/A	1.2312 1.2312	0.9970 0.9970	N/A N/A	0.9890 0.9890	N/A N/A		4.00% 4.00%	0.1276 0.1227
	2072	-	-	N/A		-	-	N/A	1.2312	0.9970	N/A	0.9890	N/A	N/A	4.00%	0.1179
	2073 2074	-	-	N/A N/A		1 :	-	N/A N/A	1.2312 1.2312	0.9970 0.9970	N/A N/A	0.9890	N/A N/A		4.00% 4.00%	0.1134 0.1090
	2075			N/A		-		N/A	1.2312	0.9970	N/A	0.9890	N/A	N/A	4.00%	0.1049
	2076 2077	-	-	N/A N/A		1 :	-	N/A N/A	1.2312 1.2312	0.9970 0.9970	N/A N/A	0.9890 0.9890	N/A N/A		4.00% 4.00%	0.1008 0.0969
	2078-2098			N/A		1		N/A	1.2312	0.9970	N/A	0.9890	N/A		4.00%	0.0932
	Past	1.262.024	393.001	31.1%	747	1.570.578	420.887	26.8%								
	Future	1,567,760	4,505,810	287.4%	968	1,110,611	2,284,494	205.7%								
Motor	Lifetime	2,829,784	4,898,811	173.1%	1,715	2,681,189	2,705,381	100.9%								

Lifetime 2,282/764 4,888,811 173.1% 1,715 2,681,189 2,705,381 100.1

The premiums shown in this exhibit are normalized to reflect prior rate inreases authorized by Maryland rather than that authorized by other states. Includes conflicate forms GCLTCAARP-06-FC issued under group policy GLTC.1692

The prior authorized increase of 15% was implemented from May 2018 through April 2019.

The current requested increase of 7.08% is assumed to be implemented starting 61/1202.

The projections are based on the assumptions derived using experience data through 6/30/2017.

#### Exhibit II-B

#### Demonstration that Lifetime Incurred Claims with Requested Increase are Not Less than Lifetime Earned Premium with Prescribed Factors Group Policy Form: G.LTC.1697

Accumulated value of initial earned premium	1,570,578	х	58%	=	910,935
2a Accumulated value of earned premium 2b Accumulated value of prior premium rate schedule increases (2a-1)	1,570,578 0	х	85%	=	0
3 Present value of future projected initial earned premium	936,654	х	58%	=	543,259
4a Present value of future projected premium 4b Present value of future projected premium in excess of the projected initial earned premiums (4a-3)	1,110,611 173,957	x	85%	=	147,863
5 Lifetime Earned Premium Times Prescribed Factor: Sum of 1, 2b, 3, and 4b					1,602,058
6a Accumulated value of incurred claims without the inclusion of active life reserves 6b Present value of future projected incurred claims without the inclusion of active life reserves					420,887 2,284,494
7 Lifetime Incurred Claims with Rate Increase: Sum of 6a and 6b					2,705,381
8 Test: 7 is not less than 5					TRUE

#### Attachment 1

#### **Metropolitan Life Insurance Company**

## Group Policy Form: G.LGC1697, Certificate Form: GCLTCAARP-06-FC Comparison of Original Pricing and Current Best Estimate Assumptions

#### **Original Pricing Assumptions**

#### **Current Best Estimate Assumptions**

Discount Rate

6.25%

Voluntary Lapse Rates

Policy	Lapse
Duration	Rate
1	6.25%
2	2.90%
3	2.40%
4	1.90%
5+	1.40%

4.00%

Policy	Lapse
Duration	Rate
1	5.50%
2	3.50%
3	2.50%
4	2.00%
5	1.50%
6	1.25%
7	0.90%
8+	0.80%

Active Life Mortality Rates

Mortality was based on 95% of the Annuity 2000 Basic mortality table using Projection Scale H.

88% Annuity 2000 Basic Table with Mortality Selection Factors of:

Policy	Mortality				
Duration	Selection				
1	25.00%				
2	50.00%				
3	55.00%				
4	65.00%				
5	70.00%				
6	75.00%				
7	80.00%				
8	85.00%				
9	90.00%				
10	95.00%				
11+	100.00%				

Morbidity:

Incidence Incidence rates for nursing home care and home health care were

based on MetLife's experience in the long-term care business that the

company issued or administered.

Continuance Continuance rates for nursing home care and home health care were

based on MetLife's experience in the long-term care business that the

company issued or administered.

Sample Ultimate Smoothed Incidence Rates (before gross-up to zero-day elimination)

Attained	Facilit	y Care	Home	Care
Age	Male	Female	Male	Female
81	1.68%	1.84%	1.42%	1.47%
82	2.02%	2.15%	1.64%	1.68%
83	2.40%	2.51%	1.90%	1.92%
84	2.84%	2.89%	2.18%	2.19%
85	3.33%	3.32%	2.49%	2.48%

Termination curves were constructed separately for deaths and recoveries, gender and care path. Coefficients to an exponential-shaped curve were based on experience adjusted to minimize differences between actual and expected terminations in total as well as at periodic duration points along the curves. Death and recovery termination rates were recombined into a single termination table for modelling and valuation uses.

Utilization

Utilization rates for nursing home care and home health care were based on MetLife's experience in the long-term care business that the

company issued or administered.

Home Care	Facility Care
72%	87%

#### Attachment 2

## Metropolitan Life Insurance Company Nationwide Experience Projections (Premiums Normalized to Reflect Prior Authorized Increase)

Actual to Expected Ratios
Group Policy Form: G.LTC.1697

		Actual / I	Projected Experie			ted Pricing Experie			Accumulati	ve Loss Ratio as of 1	12/31/2017
	[	Α	В	C = B / A	D	E	F=E/D	G = C / F	Н	I	J = H/I
	Calendar	Earned	Incurred	Loss	Earned	Incurred	Loss	Actual to	Actual/Projected	Expected at 5.5%	Actual to
	Year	Premium	Claims	Ratio	Premium	Claims	Ratio	Expected Ratio	at 4% (on C)	(on F)	Expected Ratio
	2006	55,921	0	0.0%	55,921	1,615	2.9%	0.00	0.0%	2.9%	0.00
	2007	2,754,957	0	0.0%	978,177	43,134	4.4%	0.00	0.0%	4.3%	0.00
	2008	5,205,618 5,069,488	0	0.0%	4,694,968	307,865	6.6%	0.00	0.0%	6.1%	0.00
Llistorical	2009 2010		152,062	3.0%	4,945,061	458,805	9.3%	0.32	1.1%	7.5%	0.15
Historical		4,929,577	380,241	7.7%	4,794,077	599,395	12.5%	0.62	2.8%	9.0%	0.32
Experience	2011	4,822,314	458,909	9.5%	4,663,356	770,631	16.5%	0.58	4.1%	10.6%	0.39
	2012	4,765,259	563,181	11.8%	4,554,075	1,009,469	22.2%	0.53	5.4%	12.5%	0.43
	2013	4,696,615	350,438	7.5%	4,442,719	1,172,703	26.4%	0.28	5.6%	14.3%	0.39
	2014	4,672,229	1,522,692	32.6%	4,328,267	1,300,928	30.1%	1.08	8.6%	16.0%	0.54
	2015	4,613,502	1,145,499	24.8%	4,209,938	1,451,696	34.5%	0.72	10.1%	17.7%	0.57
	2016	4,560,996	966,901	21.2%	4,087,841	1,594,702	39.0%	0.54	11.1%	19.3%	0.57
	2017	4,528,732	2,076,727	45.9%	3,961,859	1,733,637	43.8%	1.05	13.6%	21.0%	0.65
	2018	4,480,768	2,486,014	55.5%	3,832,967	1,917,350	50.0%	1.11	16.3%	22.6%	0.72
	2019	4,738,559	2,818,497	59.5%	3,701,188	2,086,146	56.4%	1.06	19.0%	24.3%	0.78
	2020	4,567,372	3,179,295	69.6%	3,566,508	2,234,549	62.7%	1.11	21.8%	26.0%	0.84
	2021	4,372,385	3,567,772	81.6%	3,428,951	2,437,604	71.1%	1.15	24.6%	27.7%	0.89
	2022	4,172,746	3,988,421	95.6%	3,288,618	2,621,007	79.7%	1.20	27.6%	29.4%	0.94
	2023	3,968,473	4,443,435	112.0%	3,145,653	2,789,330	88.7%	1.26	30.7%	31.2%	0.98
	2024	3,759,896	4,922,886	130.9%	3,000,169	3,005,685	100.2%	1.31	34.0%	33.0%	1.03
	2025	3,547,788	5,419,331	152.8%	2,852,457	3,188,147	111.8%	1.37	37.4%	34.8%	1.07
	2026	3,332,909	5,922,508	177.7%	2,702,907	3,357,874	124.2%	1.43	40.9%	36.6%	1.12
	2027	3,116,377	6,417,132	205.9%	2,551,985	3,579,041	140.2%	1.47	44.6%	38.4%	1.16
	2028	2,899,932	6,898,318	237.9%	2,400,219	3,778,352	157.4%	1.51	48.3%	40.2%	1.20
	2029	2,684,751	7,350,712	273.8%	2,248,097	3,955,052	175.9%	1.56	52.2%	42.1%	1.24
	2030	2,472,303	7,764,419	314.1%	2,096,308	4,164,081	198.6%	1.58	56.1%	43.9%	1.28
	2031	2,264,169	8,119,558	358.6%	1,945,663	4,354,464	223.8%	1.60	60.0%	45.8%	1.31
	2032	2,061,710	8,419,669	408.4%	1,797,005	4,539,525	252.6%	1.62	63.9%	47.7%	1.34
	2033	1,866,061	8,656,051	463.9%	1,651,171	4,754,815	288.0%	1.61	67.7%	49.5%	1.37
	2034	1,678,479	8,810,568	524.9%	1,509,046	4,949,371	328.0%	1.60	71.5%	51.4%	1.39
	2035	1,500,107	8,884,544	592.3%	1,371,419	5,089,696	371.1%	1.60	75.2%	53.2%	1.41
	2036	1,331,816	8,866,410	665.7%	1,238,872	5,301,504	427.9%	1.56	78.7%	55.0%	1.43
	2037	1,174,389	8,768,979	746.7%	1,112,117	5,467,029	491.6%	1.52	82.1%	56.8%	1.44
	2038	1,028,241	8,594,137	835.8%	991,747	5,606,410	565.3%	1.48	85.3%	58.6%	1.46
	2039	893,769	8,333,577	932.4%	878,233	5,748,536	654.6%	1.42	88.3%	60.3%	1.46
	2040	771,100	8,002,306	1037.8%	771,889	5,778,793	748.7%	1.39	91.0%	62.0%	1.47
	2041	660,080	7,601,925	1151.7%	672,978	5,831,530	866.5%	1.33	93.6%	63.6%	1.47
	2042	560,531	7,150,633	1275.7%	581,789	5,849,382	1005.4%	1.27	95.9%	65.1%	1.47
Projected	2043	472,047	6,656,056	1410.0%	498,410	5,762,008	1156.1%	1.22	98.0%	66.6%	1.47
Experience	2044	394,166	6,130,943	1555.4%	422,871	5,496,423	1299.8%	1.20	99.8%	67.9%	1.47
	2045	326,312	5,584,934	1711.5%	355,110	5,271,186	1484.4%	1.15	101.4%	69.1%	1.47
	2046	267,664	5,033,273	1880.4%	294,956	5,093,874	1727.0%	1.09	102.8%	70.2%	1.47
	2047	217,434	4,492,618	2066.2%	242,417	4,260,167	1757.4%	1.18	104.1%	71.0%	1.46
	2048	174,874	3,959,614	2264.3%	196,997	3,462,812	1757.8%	1.29	105.1%	71.7%	1.47
	2049	139,255	3,446,826	2475.2%	158,258	2,782,069	1757.9%	1.41	106.0%	72.2%	1.47
	2050	109,776	2,966,153	2702.0%	125,670	2,209,444	1758.1%	1.54	106.7%	72.6%	1.47
	2051	85,591	2,523,329	2948.1%	98,451	1,730,905	1758.1%	1.68	107.3%	72.9%	1.47
	2052	65,920	2,123,353	3221.1%	76,397	1,343,156	1758.1%	1.83	107.7%	73.1%	1.47
	2053	50,233	1,764,082	3511.8%	58,492	1,028,372	1758.1%	2.00	108.1%	73.3%	1.48
	2054	37,880	1,444,507	3813.4%	44,143	776,101	1758.1%	2.17	108.4%	73.4%	1.48
	2055	28,182	1,165,876	4137.0%	32,772	576,178	1758.1%	2.35	108.7%	73.4%	1.48
	2056	20,665	927,486	4488.1%	23,716	416,958	1758.1%	2.55	108.8%	73.5%	1.48
	2057	14,903	727,443	4881.3%	17,046	299,692	1758.1%	2.78	109.0%	73.5%	1.48
	2058	10,602	560,718	5288.7%	12,008	211,124	1758.1%	3.01	109.1%	73.6%	1.48
	2059	7,429	424,862	5719.3%	8,275	145,487	1758.1%	3.25	109.2%	73.6%	1.48
	2060	5,121	316,417	6178.3%	5,593	98,336	1758.1%	3.51	109.2%	73.6%	1.48
	2061	3,483	231,743	6653.1%	3,729	65,565	1758.1%	3.78	109.2%	73.6%	1.48
	2062	2,325	166,991	7181.7%	2,450	43,066	1758.1%	4.08	109.3%	73.6%	1.48
	2063	1,523	117,559	7718.3%	1,406	24,716	1758.1%	4.39	109.3%	73.6%	1.49
	2064	987	81,217	8232.5%	995	17,498	1758.1%	4.68	109.3%	73.6%	1.49
	2065	632	56,486	8936.2%	718	12,627	1758.1%	5.08	109.3%	73.6%	1.49
	2066	403	40,205	9985.3%	503	8,850	1758.1%	5.68	109.3%	73.6%	1.49
	2067	263	29,416	11203.5%	340	5,985	1758.1%	6.37	109.3%	73.6%	1.49
	2068	177	21,039	11899.8%	221	3,881	1758.1%	6.77	109.3%	73.6%	1.49
	2069	122	15,519	12672.2%	130	2,278	1758.1%	7.21	109.3%	73.6%	1.49
	2070	85	11,692	13754.4%	13	221	1758.1%	7.82	109.3%	73.6%	1.49
	Past	50,675,209	7,616,648	15.0%	45,716,259	10,444,580	22.8%	0.66	13.6%	21.0%	0.65
	Future	66,342,762	216,407,452	326.2%	56,020,042	143,534,254	256.2%	1.27	236.5%	165.5%	1.43
	Lifetime	117,017,971	224,024,100	191.4%	101,736,301	153,978,834	151.4%	1.26	109.3%	74.0%	1.48

Note:
- Figures in column A are normalized to reflect the prior rate action authorized by Maryland rather than the prior rate action approved by other states.
- Figures in column D do not reflect any rate action.

#### Attachment 3

# Metropolitan Life Insurance Company Nationwide Experience Projections (Premiums Normalized to Reflect Prior Authorized Increase) Actual to Expected Ratios Group Policy Form: G.LTC.1697

ŀ		Actual / Projected Experience Expected Pricing Experience lal Experience through 12/31/2017 Reproduced based on Original Pricing Assumptions							
		ased on Current A		. top. oddood baoo	since inception				
	Α	В	C = B / A	D	E	F=E/D	G = C / F		
	Earned	Incurred	Loss	Earned	Incurred	Loss	Actual to		
Duration	Premium	Claims	Ratio	Premium	Claims	Ratio	Expected Rat		
1	2,826,739	0	0.0%	2,826,739	81,633	2.9%	0.00		
2	5,252,409	46,131	0.9%	5,252,409	358,144	6.8%	0.13		
3	5,063,661	105,931	2.1%	5,048,006	505,040	10.0%	0.21		
4	4,920,725	248,972	5.1%	4,872,592	654,625	13.4%	0.38		
5	4,830,605	801,571	16.6%	4,722,650	833,574	17.7%	0.94		
6	4,745,903	351,788	7.4%	4,595,978	1,107,830	24.1%	0.31		
7	4,692,428	395,348	8.4%	4,467,387	1,273,760	28.5%	0.30		
8	4,666,921	1,366,267	29.3%	4,336,579	1,400,781	32.3%	0.91		
9	4,621,994	1,556,206	33.7%	4,202,671	1,561,945	37.2%	0.91		
10	4,572,665	771,207	16.9%	4,065,966	1,708,942	42.0%	0.40		
11	4,552,854	2,043,119	44.9%	3,926,216	1,844,742	47.0%	0.96		
12	4,854,473	2,454,594	50.6%	3,784,671	2,040,875	53.9%	0.94		
13	4,722,689	2,822,908	59.8%	3,641,252	2,212,738	60.8%	0.98		
14	4,532,944	3,181,707	70.2%	3,495,972	2,351,815	67.3%	1.04		
15	4,339,025	3,569,335	82.3%	3,348,882	2,566,441	76.6%	1.07		
16	4,140,479	3,988,437	96.3%	3,200,103	2,748,240	85.9%	1.12		
17	3,937,445	4,440,730	112.8%	3,049,812	2,905,978	95.3%	1.18		
18	3,730,232	4,916,721	131.8%	2,898,116	3,130,805	108.0%	1.18		
19	3,519,599	5,410,491	153.7%	2,745,330	3,305,467	120.4%	1.28		
20	3,306,315	5,410,491	153.7%	2,745,330	3,305,467	120.4%	1.28		
21			207.1%				1.34		
	3,091,611	6,403,554		2,438,122	3,685,130	151.1%			
22	2,876,854	6,880,954	239.2%	2,284,687	3,875,512	169.6%	1.41		
23	2,663,588	7,332,971	275.3%	2,131,979	4,035,200	189.3%	1.45		
24	2,452,980	7,743,661	315.7%	1,980,659	4,239,780	214.1%	1.47		
25	2,246,645	8,101,883	360.6%	1,831,491	4,415,482	241.1%	1.50		
26	2,046,018	8,399,707	410.5%	1,685,252	4,582,225	271.9%	1.51		
27	1,852,187	8,640,251	466.5%	1,542,692	4,787,852	310.4%	1.50		
28	1,666,288	8,798,833	528.0%	1,404,616	4,969,733	353.8%	1.49		
29	1,489,480	8,877,766	596.0%	1,271,726	5,076,423	399.2%	1.49		
30	1,322,650	8,867,403	670.4%	1,144,472	5,283,656	461.7%	1.45		
31	1,166,474	8,771,671	752.0%	1,023,481	5,424,959	530.1%	1.42		
32	1,021,494	8,603,135	842.2%	909,231	5,538,734	609.2%	1.38		
33	888,038	8,345,556	939.8%	802,088	5,672,367	707.2%	1.33		
34	766,266	8,016,908	1046.2%	702,256	5,664,477	806.6%	1.30		
35	656,008	7,619,625	1161.5%	609,887	5,702,701	935.0%	1.24		
36	557,136	7,167,516	1286.5%	525,193	5,704,450	1086.2%	1.18		
37	469,241	6,670,950	1421.6%	448,152	5,606,903	1251.1%	1.14		
38	391,868	6,143,746	1567.8%	378,716	5,305,878	1401.0%	1.12		
39	324,406	5,597,193	1725.4%	316,754	5,063,693	1598.6%	1.08		
40	266,123	5,044,116	1895.4%	262,000	4,954,067	1890.9%	1.00		
41	216,204	4,499,585	2081.2%	214,458	4,055,110	1890.9%	1.10		
42			2280.7%				1.10		
42	173,921 138 504	3,966,688	2492.7%	173,547	3,281,549	1890.9% 1890.9%	1.21		
	138,504	3,452,459		138,831	2,625,106				
44	109,200	2,970,782	2720.5%	109,795	2,076,076	1890.9%	1.44		
45	85,134	2,526,947	2968.2%	85,602	1,618,625	1890.9%	1.57		
46	65,583	2,124,964	3240.1%	66,175	1,251,275	1890.9%	1.71		
47	49,963	1,763,964	3530.6%	50,440	953,756	1890.9%	1.87		
48	37,666	1,443,542	3832.5%	37,897	716,584	1890.9%	2.03		
49	28,024	1,163,404	4151.4%	28,025	529,922	1890.9%	2.20		
50	20,545	923,895	4496.9%	20,134	380,716	1890.9%	2.38		
51	14,824	723,147	4878.2%	14,433	272,908	1890.9%	2.58		
52	10,528	556,369	5284.7%	10,113	191,223	1890.9%	2.79		
53	7,373	420,850	5708.2%	6,930	131,034	1890.9%	3.02		
54	5,086	313,130	6157.2%	4,658	88,070	1890.9%	3.26		
55	3,461	229,538	6631.7%	3,089	58,406	1890.9%	3.51		
56	2,313	165,291	7145.4%	2,039	38,556	1890.9%	3.78		
57	1,519	116,578	7676.8%	1,116	21,097	1890.9%	4.06		
58	984	80,937	8224.5%	822	15,547	1890.9%	4.35		
59	631	56,738	8991.5%	591	11,170	1890.9%	4.76		
60	404	40,168	9939.8%	412	7,787	1890.9%	5.26		
				,	. ,		0.20		
etime	117,017,329	223,946,430	191.4%	101,735,737	153,968,176	151.3%	1.26		
etime*	70,575,802	77,056,768	109.2%	53,954,096	39,390,911	73.0%	1.50		

#### Note:

<sup>-</sup> Figures in column A are normalized to reflect the prior rate action authorized by Maryland rather than the prior rate action approved by other states.

<sup>-</sup> Figures in column D do not reflect any rate action.

\* Columns A and B are discounted back to the inception date at an interest rate of 4%, which is the weighted average maximum valuation interest rate for contract reserves. Columns D and E are discounted back to the inception date at the original pricing interest rate of 5.5%.

# Attachment 4 Metropolitan Life Insurance Company Actual to Expected Lapse/Mortality Individual Business Metropolitan Life Insurance Company Group Policy Form: G.LTC1697 Actual to Expected - Lapse

	Lapse									
Policy Duration	Actual	Expected *	A/E%							
1	6,620	6,653	99.51%							
2	3,764	4,040	93.16%							
3	2,701	2,795	96.63%							
4	2,055	2,177	94.38%							
5	1,542	1,595	96.66%							
6	1,408	1,301	108.22%							
7	1,194	1,018	117.24%							
8	1,031	996	103.47%							
9	899	974	92.26%							
10+	4,076	5,210	78.24%							

Attachment 4
Metropolitan Life Insurance Company
Group Policy Form: G.LTC1697
Actual to Expected - Mortality

Mortality							
Policy Duration	Actual	Expected *	A/E%				
1	536	541	99.05%				
2	924	1,129	81.85%				
3	1,110	1,318	84.25%				
4	1,316	1,663	79.11%				
5	1,532	1,922	79.72%				
6	1,703	2,213	76.97%				
7	1,903	2,520	75.52%				
8	2,125	2,801	75.86%				
9	2,218	3,068	72.30%				
10	2,416	3,259	74.13%				
11	2,462	3,388	72.67%				
12	2,476	3,260	75.95%				
13	2,305	2,836	81.28%				
14+	6,736	7,196	93.61%				

<sup>\*</sup> The expecteds are based on current best estimate assumptions.

Attachment 4
Metropolitan Life Insurance Company
Group Policy Form: G.LTC1697
Actual to Expected - Incidence

	Female					Male						
	Facility Care Home Care			Facility Care			Home Care					
Attained Age	Actual Claims <sup>1</sup>	Expected Claims <sup>2</sup>	A/E%	Actual Claims <sup>1</sup>	Expected Claims <sup>2</sup>	A/E%	Actual Claims <sup>1</sup>	Expected Claims <sup>2</sup>	A/E%	Actual Claims <sup>1</sup>	Expected Claims <sup>2</sup>	A/E%
under 50	0	0	0%	0	0	0%	0	0	0%	0	0	0%
50 to 54	1	3	34%	4	4	105%	1	1	81%	2	2	125%
55 to 59	21	28	74%	50	40	124%	5	15	33%	28	20	138%
60 to 64	62	88	70%	131	135	97%	49	52	94%	84	72	117%
65 to 69	174	200	87%	281	290	97%	110	117	94%	154	165	93%
70 to 74	539	538	100%	428	448	96%	338	257	131%	298	272	110%
75 to 79	1,087	1,055	103%	649	628	103%	602	576	104%	403	431	93%
80 to 84	1,322	1,281	103%	644	602	107%	677	726	93%	403	414	97%
85 to 89	872	862	101%	350	357	98%	442	467	95%	213	217	98%
over 89	200	242	82%	83	101	83%	91	108	84%	42	47	90%
Total	4,278	4,297	100%	2,620	2,606	101%	2,315	2,321	100%	1,627	1,640	99%

<sup>&</sup>lt;sup>1</sup>Based on actual experience through 6/30/2017 including adjustments for incurred but not reported claims.

<sup>&</sup>lt;sup>2</sup>The expected claims are based on current best estimate assumptions.

Attachment 4
Metropolitan Life Insurance Company
Actual to Expected - Claim Termination
All Business (exclude AARP-Pru)

Claim Duration (Months)	Actual Deaths	Expected Deaths <sup>1</sup>	Actual Recoveries	Expected Recoveries <sup>1</sup>	Deaths A/E%	Recoveries A/E%	Total A/E%
1	881	542	64	85	163%	76%	151%
2	766	1,329	163	260	58%	63%	58%
3	822	1,155	251	247	71%	102%	77%
4	928	1,272	324	281	73%	115%	81%
5	926	1,047	288	230	88%	125%	95%
6	806	916	212	199	88%	106%	91%
7	703	760	193	164	93%	118%	97%
8	631	654	143	136	96%	105%	98%
9	613	575	123	114	107%	108%	107%
10	541	519	120	97	104%	124%	107%
11	491	478	91	84	103%	108%	104%
12	536	449	87	74	119%	118%	119%
13	442	423	78	66	104%	118%	106%
14+	13,138	11,830	1,272	1,427	111%	89%	109%
Total	22,224	21,949	3,409	3,461	101%	98%	101%

<sup>&</sup>lt;sup>1</sup>The expected deaths and recoveries are based on current best estimate assumptions.