

Metropolitan Life Insurance Company  
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**William P. Bigelow, FSA, MAAA**

February 28, 2020

Maryland Department of Insurance

Re: Group long-term policy G.LTC 1697 (including GCLTCAARP-04-OP 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.

<b>Title</b>	<b>Description</b>
<b>Actuarial Memorandum</b> Exhibit I-A	Lifetime Loss Ratio (“LLR”) <ul style="list-style-type: none"> <li>• <i>Nationwide</i> experience</li> <li>• Without/with proposed rate increase of 21%</li> <li>• Weighted average statutory rate 4.20%</li> </ul> LLR without rate increase – 113.5% LLR with rate increase – 107.9%
Exhibit II-A	Demonstration of rate action meeting Rate Stability (58/85) limitations
Exhibit I-B	Lifetime Loss Ratio (“LLR”) <ul style="list-style-type: none"> <li>• <i>Maryland</i> experience</li> <li>• Without/with proposed rate increase of 21%</li> <li>• Weighted average statutory rate 4.20%</li> </ul> LLR without rate increase – 110.7% LLR with rate increase – 104.7%
Exhibit II-B	Demonstration of rate action meeting Rate Stability (58/85) limitations
<b>Review of Prior Correspondence</b>	Attachment 1 – Assumptions Summary Attachment 2 – A/E Ratios (Calendar Year) Attachment 3 – A/E Ratios (Policy Duration) 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 (with or without a margin for adverse deviation) 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.

### Additional Notes

MetLife requests the rate action based on deviations from anticipated experience outlined in the Actuarial Memorandum 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. 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,



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William P. Bigelow, FSA, MAAA  
Vice President and Actuary, Metropolitan Life Insurance Company

# METROPOLITAN LIFE INSURANCE COMPANY

New York, NY

## Actuarial Memorandum for AARP Group Policy

February 28, 2020

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 (situated in District of Columbia):

- GCLTCAARP-04-OP

### 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%

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III. Informal Care (for Comprehensive Coverage Option only) – 50% of the selected Home Health Care coverage

### 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 July 1, 2005 to January 22, 2007 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 sited). These policy forms are no longer being marketed to AARP members and spouses.

### 5. Actuarial Assumptions

- a. Expected Claim Costs 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, 2018.
- b. Voluntary Termination Rates vary by duration as developed from actual experience through June 30, 2018 and are shown in the following table:

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### 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%
9	0.80%
10	0.80%
11+	0.70%

In the year of rate increase implementation, it is assumed that there are no policy lapses and net reductions to premiums and benefits due to benefit downgrades. There is no adverse selection assumed due to the additional lapse rates.

- c. Ultimate Mortality is assumed to be 93% of Annuity 2000 Basic Table with selection consistent with experience.
- d. 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 10% of projected future incurred claims.

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### 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.

### 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 two or more members of the same household purchased coverage, then a household discount was applied. Additionally, monthly EFT Premium was equal to the monthly premium less \$2 and annual premium was equal to monthly premium times 12 less \$24.

### 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, 2018 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, 2018 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.

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### 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 4.20%. 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, 2018 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 4.20%.

### 14. Projected Earned Premiums and Incurred Claims

Earned premiums for projection years 2019 through 2099 are developed by multiplying each prior period's earned premium (starting with December 31, 2018 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.

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 the exhibits (unless otherwise stated) 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 4.20%.

The assumptions used in Exhibit I and II projections are developed from the company's LTC insurance experience, plus a 10% 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:

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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 %	Authorization Date	Implementation Date
1	15.00%	10/10/2017	5/1/2018
2	7.06%	11/15/2018	6/1/2019

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 phased-in series of rate increases (two phases of 10.00% and 10.00%) resulting in a cumulative compounded increase of 21.00% after the final phase for the policy forms listed above. Although a larger premium rate increase is currently supportable under loss ratio regulation, MetLife agreed with AARP to reduce the impact on AARP members by seeking the rate increases shown above.

Corresponding rate tables reflecting each of the two phases for the 21.00% cumulative compounded increase are included with this filing. Please note 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:

- a. Incidence and continuance rates for nursing home care and home health care rates were based on studies from the 1985 and 1997 National Nursing Home Survey and 1982/1984/1989 National Long Term Care Survey, respectively, supplemented with the 1984-1999 Long Term Care Experience Committee Inter-Company Study and with modifications to incorporate experience of other long-term care business that MetLife issued or administered.



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- b. Voluntary termination rates by duration were assumed to be 6.25% in year one, grading down to 1.5% in year fifteen and thereafter.
- c. Mortality was based on 105% 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 10% 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, plus a margin for adverse deviation, 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 the exhibits (unless otherwise stated). As shown in these exhibits, the expected lifetime loss ratio, with and without the requested rate increase, exceed the minimum requirements under rate stability regulations.

### 19. Average Annual Premium

The average September 30, 2019 annualized premiums for all premium-paying certificates situated in Maryland, before and after the current requested increases are:

Before increase:	\$2,323
After all prior authorized increases:	\$2,431
After current requested increase:	\$2,942

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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, 2019 (based on premium-paying certificates in force count)

#### By Issue Age:

Issue Age	Percent
<45	0%
45-49	1%
50-54	12%
55-59	26%
60-64	30%
65-69	23%
70-74	7%
75+	1%
Total	100%

#### By Benefit Period:

Benefit Period	Percent
2 Year	6%
3 Year	29%
4 Year	48%
5 Year	7%
7 Year	1%
Unlimited	9%
Total	100%

#### By Inflation Option:

Inflation	Percent
Optional	74%
Auto 5% Compound	26%
Total	100%

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By Home Care Percentage:

<b>Home Care %</b>	<b>Percent</b>
0% (FC Only)	16%
50%	55%
80%	7%
100%	22%
Total	100%

By Elimination Period:

<b>Days</b>	<b>Percent</b>
20	2%
30	53%
45	-
60	29%
90	16%
Total	100%

By Gender:

<b>Gender</b>	<b>Percent</b>
Female	60%
Male	40%
Total	100%

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### 22. Number of Certificateholders

As of September 30, 2019, the number of premium-paying insured lives inforce and their premiums that will be affected by this increase are:

	Issued Before Rate Stability Regulation Effective Date		Issued On or After Rate Stability Regulation Effective Date	
	Number of Insured	2019 Annualized Premium	Number of Insured	2019 Annualized Premium
Certificates Issued in Maryland	-	-	132	\$306,634
Nationwide	3,260	\$6,889,883	4,564	\$9,322,881

### 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. The projections contained in this actuarial memorandum are based on best estimate assumptions, plus a margin for moderately adverse experience. Moderately adverse conditions are interpreted as those conditions where aggregate experience deviates unfavorably from the aggregate best estimate experience assumptions, such that the value of the deviation is equal to 10% of projected future incurred claims or more, or other conditions that result in a similar lifetime loss ratio.

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;

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- 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.



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William P. Bigelow, FSA, MAAA  
Vice President and Actuary, Metropolitan Life Insurance Company

**Exhibit I-A**  
**Metropolitan Life Insurance Company**  
**Nationwide Experience Projections (Premium Normalized to Include Prior Authorized Increases)**  
**Group Policy Form: G.LTC.1697**

Calendar Year	Loss Ratio Demonstration						Factors Derived from Projected Values for Illustrative Purposes Only					Interest Rate Factors		
	Without Interest			With Interest			Premium Rate Increase Factor	Benefit Downgrade	Persistence Factors			Calendar Year Effective Int Rate	Mid-Year Disc / Accum Factor	
	Earned Premium	Incurred Claims	Loss Ratio	Life Years	Earned Premium	Incurred Claims			Loss Ratio	Policy Lapse & Mortality	Policy Shock Lapse			Policy Persistence
1997	-	-	N/A	-	-	-	-	N/A				4.20%	2.4205	
1998	-	-	N/A	-	-	-	-	N/A				4.20%	2.3230	
1999	-	-	N/A	-	-	-	-	N/A				4.20%	2.2294	
2000	-	-	N/A	-	-	-	-	N/A				4.20%	2.1396	
2001	-	-	N/A	-	-	-	-	N/A				4.20%	2.0534	
2002	-	-	N/A	-	-	-	-	N/A				4.20%	1.9707	
2003	-	-	N/A	-	-	-	-	N/A				4.20%	1.8913	
2004	15,224	-	0.0%	87	27,633	-	0.0%					4.20%	1.8152	
2005	3,072,136	33,318	1.1%	4,622	5,351,771	58,041	1.1%					4.20%	1.7420	
2006	11,981,616	727,300	6.1%	9,810	20,031,637	1,215,947	6.1%					4.20%	1.6719	
2007	16,482,658	169,408	1.0%	10,362	26,447,064	271,818	1.0%					4.20%	1.6045	
2008	16,826,547	1,712,877	10.2%	10,102	25,910,982	2,637,937	10.2%					4.20%	1.5399	
2009	16,435,961	1,174,914	7.1%	9,882	24,290,021	1,736,356	7.1%					4.20%	1.4779	
2010	16,136,980	3,128,563	19.4%	9,666	22,887,532	4,437,328	19.4%					4.20%	1.4183	
2011	15,773,830	1,852,409	11.7%	9,460	21,471,273	2,521,491	11.7%					4.20%	1.3612	
2012	15,645,657	3,776,592	24.1%	9,273	20,438,939	4,933,608	24.1%					4.20%	1.3064	
2013	15,359,441	2,734,046	17.8%	9,091	19,256,789	3,427,791	17.8%					4.20%	1.2537	
2014	15,229,966	4,124,495	27.1%	8,925	18,325,309	4,962,750	27.1%					4.20%	1.2032	
2015	14,957,661	4,761,014	31.8%	8,768	17,272,690	5,497,887	31.8%					4.20%	1.1548	
2016	14,654,901	8,762,298	59.8%	8,607	16,241,386	9,710,872	59.8%					4.20%	1.1083	
2017	14,778,947	4,784,946	32.4%	8,306	15,719,098	5,089,336	32.4%					4.20%	1.0636	
2018	14,363,096	9,329,976	65.0%	8,104	14,661,422	9,523,762	65.0%					4.20%	1.0208	
2019	15,868,351	11,565,128	72.9%	8,000	15,545,466	11,329,804	72.9%	1.1573	N/A	0.0128	N/A	0.989	0.9797	
2020	16,111,063	13,172,530	81.8%	7,892	15,147,469	12,384,688	81.8%	1.2233	N/A	0.0136	N/A	0.986	0.961	
2021	15,491,554	14,901,734	96.2%	7,823	13,978,314	13,446,108	96.2%	1.2289	N/A	0.0087	N/A	0.991	0.957	
2022	14,762,932	16,709,223	113.2%	7,760	12,784,282	14,469,714	113.2%	1.2289	N/A	0.0080	N/A	0.992	0.953	
2023	13,999,531	16,998,804	132.9%	7,698	11,634,858	15,457,265	132.9%	1.2289	N/A	0.0080	N/A	0.992	0.948	
2024	13,204,463	20,556,223	155.3%	7,637	10,532,027	16,935,905	155.3%	1.2289	N/A	0.0079	N/A	0.992	0.943	
2025	12,367,698	22,504,867	182.0%	7,576	9,467,261	17,227,089	182.0%	1.2289	N/A	0.0079	N/A	0.992	0.937	
2026	11,493,803	24,360,567	211.9%	7,516	8,443,901	17,896,445	211.9%	1.2289	N/A	0.0080	N/A	0.992	0.929	
2027	10,611,466	26,113,506	246.1%	7,455	7,481,672	18,411,471	246.1%	1.2289	N/A	0.0080	N/A	0.992	0.923	
2028	9,739,908	27,740,128	284.8%	7,396	6,590,556	18,770,493	284.8%	1.2289	N/A	0.0079	N/A	0.992	0.918	
2029	8,885,592	29,163,017	328.4%	7,338	5,770,288	18,951,401	328.4%	1.2289	N/A	0.0079	N/A	0.992	0.912	
2030	8,053,161	30,412,042	377.6%	7,280	5,019,049	18,993,989	377.6%	1.2289	N/A	0.0079	N/A	0.992	0.906	
2031	7,252,330	31,413,590	433.2%	7,222	4,337,870	18,789,557	433.2%	1.2289	N/A	0.0080	N/A	0.992	0.901	
2032	6,485,570	32,136,586	495.5%	7,164	3,722,983	18,447,716	495.5%	1.2289	N/A	0.0080	N/A	0.992	0.894	
2033	5,759,150	32,593,482	565.9%	7,105	3,172,818	17,956,329	565.9%	1.2289	N/A	0.0082	N/A	0.992	0.888	
2034	5,076,335	32,738,959	644.9%	7,049	2,683,991	17,309,941	644.9%	1.2289	N/A	0.0079	N/A	0.992	0.881	
2035	4,440,558	32,556,422	733.2%	6,991	2,253,265	16,520,264	733.2%	1.2289	N/A	0.0082	N/A	0.992	0.875	
2036	3,854,623	32,080,078	831.7%	6,932	1,877,156	15,612,884	831.7%	1.2289	N/A	0.0084	N/A	0.992	0.868	
2037	3,319,702	31,281,441	942.3%	6,868	1,551,535	14,620,062	942.3%	1.2289	N/A	0.0092	N/A	0.991	0.861	
2038	2,835,427	30,232,853	1066.3%	6,811	1,271,818	13,560,806	1066.3%	1.2289	N/A	0.0083	N/A	0.992	0.854	
2039	2,402,084	28,914,755	1203.7%	6,747	1,034,043	12,447,147	1203.7%	1.2289	N/A	0.0094	N/A	0.991	0.847	
2040	2,017,939	27,370,448	1356.4%	6,674	833,685	11,307,748	1356.4%	1.2289	N/A	0.0108	N/A	0.989	0.840	
2041	1,680,625	25,635,195	1525.3%	6,584	666,360	10,164,237	1525.3%	1.2289	N/A	0.0136	N/A	0.986	0.833	
2042	1,387,394	23,754,230	1712.1%	6,478	527,937	9,039,055	1712.1%	1.2289	N/A	0.0161	N/A	0.984	0.826	
2043	1,134,906	21,769,752	1918.2%	6,355	414,463	7,950,225	1918.2%	1.2289	N/A	0.0190	N/A	0.981	0.818	
2044	919,906	19,729,817	2144.8%	6,210	322,414	6,915,012	2144.8%	1.2289	N/A	0.0228	N/A	0.977	0.811	
2045	738,562	17,686,956	2394.8%	6,014	248,428	5,949,314	2394.8%	1.2289	N/A	0.0316	N/A	0.968	0.803	
2046	587,077	15,684,337	2671.6%	5,802	189,519	5,063,186	2671.6%	1.2289	N/A	0.0351	N/A	0.965	0.795	
2047	461,925	13,752,600	2977.2%	5,533	143,111	4,280,764	2977.2%	1.2289	N/A	0.0464	N/A	0.954	0.787	
2048	359,592	11,921,280	3315.2%	5,245	106,919	3,544,610	3315.2%	1.2289	N/A	0.0520	N/A	0.948	0.778	
2049	276,954	10,221,412	3690.7%	4,903	79,031	2,916,758	3690.7%	1.2289	N/A	0.0652	N/A	0.935	0.770	
2050	211,037	8,663,804	4105.3%	4,486	57,795	2,372,696	4105.3%	1.2289	N/A	0.0851	N/A	0.915	0.762	
2051	159,024	7,263,775	4567.7%	4,064	41,796	1,909,148	4567.7%	1.2289	N/A	0.0941	N/A	0.906	0.754	
2052	118,481	6,023,035	5083.5%	3,648	29,886	1,519,276	5083.5%	1.2289	N/A	0.1024	N/A	0.898	0.745	
2053	87,228	4,929,590	5651.4%	3,228	21,117	1,193,372	5651.4%	1.2289	N/A	0.1150	N/A	0.885	0.736	
2054	63,446	3,973,154	6262.2%	2,876	14,741	923,091	6262.2%	1.2289	N/A	0.1091	N/A	0.891	0.727	
2055	45,558	3,158,775	6933.5%	2,513	10,158	704,323	6933.5%	1.2289	N/A	0.1263	N/A	0.874	0.718	
2056	32,300	2,470,574	7648.8%	2,139	6,912	528,682	7648.8%	1.2289	N/A	0.1488	N/A	0.851	0.709	
2057	22,627	1,906,827	8427.1%	1,735	4,647	391,608	8427.1%	1.2289	N/A	0.1886	N/A	0.811	0.701	
2058	15,651	1,448,967	9258.1%	1,304	3,085	285,590	9258.1%	1.2289	N/A	0.1969	N/A	0.803	0.692	
2059	10,688	1,085,951	10160.2%	1,118	2,022	205,418	10160.2%	1.2289	N/A	0.1976	N/A	0.802	0.683	
2060	7,204	804,522	11168.5%	880	1,308	146,053	11168.5%	1.2289	N/A	0.2131	N/A	0.787	0.674	
2061	4,806	588,642	12248.7%	675	837	102,558	12248.7%	1.2289	N/A	0.2334	N/A	0.767	0.667	
2062	3,175	427,171	13455.5%	490	531	71,427	13455.5%	1.2289	N/A	0.2737	N/A	0.726	0.661	
2063	2,068	307,023	14762.3%	364	337	50,271	14762.3%	1.2289	N/A	0.2574	N/A	0.743	0.658	
2064	1,380	221,635	16058.8%	240	213	34,134	16058.8%	1.2289	N/A	0.3417	N/A	0.658	0.661	
2065	932	160,488	17219.0%	133	138	23,721	17219.0%	1.2289	N/A	0.4459	N/A	0.554	0.675	
2066	641	116,504	18185.0%	67	91	16,526	18185.0%	1.2289	N/A	0.4922	N/A	0.508	0.687	
2067	447	83,821	18764.9%	49	61	11,411	18764.9%	1.2289	N/A	0.2712	N/A	0.279	0.697	
2068	311	59,866	19182.4%	34	41	7,796	19182.4%	1.2289	N/A	0.3084	N/A	0.692	0.696	
2069	215	41,028	19048.5%	27	27	5,145	19048.5%	1.2289	N/A	0.2154	N/A	0.785	0.692	
2070+	388	71,318	18369.4%	20	47	8,582	18369.4%	1.2289	N/A	0.2333	N/A	0.767	N/A	0.1203
Past	201,714,822	47,072,155	23.3%	125,155	268,333,547	56,024,632	20.9%							
Future	202,367,797	771,078,142	381.0%	244,239	148,028,274	416,579,491	281.4%							
Lifetime	404,082,619	818,150,296	202.5%	369,394	416,361,821	472,604,123	113.5%							

Note:  
- The premiums shown in this exhibit are normalized to reflect prior rate increases authorized by Maryland rather than that authorized by other states.  
- The projections are based on the assumptions derived using experience data through June 30, 2018  
- Includes certificate forms GCLTCARP-04-OP issued under group policy G.LTC.1697

**Exhibit I-A**  
**Metropolitan Life Insurance Company**  
**Nationwide Experience Projections (Premium Normalized to Include Prior Authorized Increases) and With 21% Future Increase**  
**Group Policy Form: G.LTC.1697**

Calendar Year	Loss Ratio Demonstration						Factors Derived from Projected Values for Illustrative Purposes Only					Interest Rate Factors		
	Without Interest			With Interest			Premium Rate Increase Factor	Benefit Downgrade	Policy Factors			Premium Persistency	Calendar Year Effective Int Rate	Mid-Year Disc / Accum Factor
	Earned Premium	Incurred Claims	Loss Ratio	Life Years	Earned Premium	Incurred Claims			Loss Ratio	Policy Lapse & Mortality	Persistency Shock Lapse			
1997	-	-	N/A	-	-	-	-	N/A					4.20%	2.4205
1998	-	-	N/A	-	-	-	-	N/A					4.20%	2.3230
1999	-	-	N/A	-	-	-	-	N/A					4.20%	2.2294
2000	-	-	N/A	-	-	-	-	N/A					4.20%	2.1396
2001	-	-	N/A	-	-	-	-	N/A					4.20%	2.0534
2002	-	-	N/A	-	-	-	-	N/A					4.20%	1.9707
2003	-	-	N/A	-	-	-	-	N/A					4.20%	1.8913
2004	15,224	-	0.0%	87	27,633	-	0.0%						4.20%	1.8152
2005	3,072,136	33,318	1.1%	4,622	5,351,771	58,041	1.1%						4.20%	1.7420
2006	11,981,616	727,300	6.1%	9,810	20,031,637	1,215,947	6.1%						4.20%	1.6719
2007	16,482,658	169,408	1.0%	10,362	26,447,064	271,818	1.0%						4.20%	1.6045
2008	16,826,547	1,712,877	10.2%	10,102	25,910,982	2,637,937	10.2%						4.20%	1.5399
2009	16,435,961	1,174,914	7.1%	9,882	24,290,021	1,736,356	7.1%						4.20%	1.4779
2010	16,136,980	3,128,563	19.4%	9,666	22,887,532	4,437,328	19.4%						4.20%	1.4183
2011	15,773,830	1,852,409	11.7%	9,460	21,471,273	2,521,491	11.7%						4.20%	1.3612
2012	15,645,657	3,776,592	24.1%	9,273	20,438,939	4,933,608	24.1%						4.20%	1.3064
2013	15,359,441	2,734,046	17.8%	9,091	19,256,789	3,427,791	17.8%						4.20%	1.2537
2014	15,229,966	4,124,495	27.1%	8,925	18,325,309	4,962,750	27.1%						4.20%	1.2032
2015	14,957,661	4,761,014	31.8%	8,768	17,272,690	5,497,887	31.8%						4.20%	1.1548
2016	14,654,901	8,762,298	59.8%	8,607	16,241,386	9,710,872	59.8%						4.20%	1.1083
2017	14,778,947	4,784,946	32.4%	8,306	15,719,098	5,089,336	32.4%						4.20%	1.0636
2018	14,363,096	9,329,976	65.0%	8,104	14,661,422	9,523,762	65.0%						4.20%	1.0208
2019	15,868,351	11,565,128	72.9%	8,000	15,545,466	11,329,804	72.9%	1.1573	1.0000	0.0128	1.0000	0.987	0.989	0.9797
2020	16,111,063	13,172,530	81.8%	7,892	15,147,469	12,384,688	81.8%	1.2233	1.0000	0.0136	1.0000	0.986	0.961	0.9402
2021	16,330,680	14,901,734	91.2%	7,823	14,735,472	13,446,108	91.2%	1.2955	1.0000	0.0087	1.0000	0.991	0.957	0.9023
2022	17,118,850	16,709,223	97.6%	7,760	14,824,440	14,469,714	97.6%	1.4250	1.0000	0.0080	1.0000	0.992	0.953	0.8660
2023	16,939,432	16,598,804	109.8%	7,698	14,078,179	15,457,265	109.8%	1.4870	1.0000	0.0080	1.0000	0.992	0.948	0.8311
2024	15,977,368	20,556,125	128.6%	7,637	12,743,753	16,935,926	128.6%	1.4870	1.0000	0.0079	1.0000	0.992	0.943	0.7976
2025	14,964,915	22,504,887	150.4%	7,576	11,455,388	17,227,089	150.4%	1.4870	1.0000	0.0079	1.0000	0.992	0.937	0.7655
2026	13,907,501	24,360,567	175.2%	7,516	10,217,120	17,896,445	175.2%	1.4870	1.0000	0.0080	1.0000	0.992	0.929	0.7346
2027	12,839,874	26,113,506	203.4%	7,455	9,052,824	18,411,471	203.4%	1.4870	1.0000	0.0080	1.0000	0.992	0.923	0.7051
2028	11,785,288	27,740,128	235.4%	7,396	7,974,573	18,770,493	235.4%	1.4870	1.0000	0.0079	1.0000	0.992	0.918	0.6767
2029	10,751,566	28,183,017	271.4%	7,338	6,982,048	18,951,401	271.4%	1.4870	1.0000	0.0079	1.0000	0.992	0.912	0.6494
2030	9,744,324	30,412,042	312.1%	7,280	6,073,049	18,933,989	312.1%	1.4870	1.0000	0.0079	1.0000	0.992	0.906	0.6232
2031	8,775,319	31,413,590	358.0%	7,222	5,248,822	18,789,557	358.0%	1.4870	1.0000	0.0080	1.0000	0.992	0.901	0.5981
2032	7,847,540	32,136,586	409.5%	7,164	4,504,809	18,447,716	409.5%	1.4870	1.0000	0.0080	1.0000	0.992	0.894	0.5740
2033	6,968,572	32,593,482	467.7%	7,105	3,839,110	17,956,329	467.7%	1.4870	1.0000	0.0082	1.0000	0.992	0.888	0.5509
2034	6,142,365	32,738,959	533.0%	7,049	3,247,629	17,309,941	533.0%	1.4870	1.0000	0.0079	1.0000	0.992	0.881	0.5287
2035	5,373,076	32,556,472	605.9%	6,991	2,726,450	16,620,426	605.9%	1.4870	1.0000	0.0082	1.0000	0.992	0.875	0.5074
2036	4,664,093	32,080,078	687.4%	6,932	2,271,359	15,612,884	687.4%	1.4870	1.0000	0.0084	1.0000	0.992	0.868	0.4870
2037	4,016,840	31,281,441	778.8%	6,868	1,877,358	14,620,062	778.8%	1.4870	1.0000	0.0092	1.0000	0.991	0.861	0.4674
2038	3,430,866	30,232,853	881.2%	6,811	1,538,899	13,560,806	881.2%	1.4870	1.0000	0.0083	1.0000	0.992	0.854	0.4485
2039	2,906,522	28,914,755	994.8%	6,747	1,251,192	12,447,147	994.8%	1.4870	1.0000	0.0094	1.0000	0.991	0.847	0.4305
2040	2,441,706	27,370,448	1121.0%	6,674	1,008,759	11,307,748	1121.0%	1.4870	1.0000	0.0108	1.0000	0.989	0.840	0.4131
2041	2,033,556	25,635,195	1260.6%	6,584	806,295	10,164,237	1260.6%	1.4870	1.0000	0.0136	1.0000	0.986	0.833	0.3965
2042	1,678,747	23,754,230	1415.0%	6,478	638,803	9,039,055	1415.0%	1.4870	1.0000	0.0161	1.0000	0.984	0.826	0.3805
2043	1,373,237	21,769,752	1585.3%	6,355	501,500	7,950,225	1585.3%	1.4870	1.0000	0.0190	1.0000	0.981	0.818	0.3652
2044	1,113,087	19,729,817	1772.5%	6,210	390,121	6,915,012	1772.5%	1.4870	1.0000	0.0228	1.0000	0.977	0.811	0.3505
2045	893,660	17,686,956	1979.2%	6,014	300,598	5,949,314	1979.2%	1.4870	1.0000	0.0316	1.0000	0.968	0.803	0.3364
2046	710,363	15,684,337	2207.9%	5,802	229,318	5,063,186	2207.9%	1.4870	1.0000	0.0351	1.0000	0.965	0.795	0.3228
2047	558,929	13,752,000	2460.9%	5,533	173,164	4,280,764	2460.9%	1.4870	1.0000	0.0464	1.0000	0.954	0.787	0.3098
2048	435,106	11,921,280	2739.9%	5,245	129,372	3,544,610	2739.9%	1.4870	1.0000	0.0520	1.0000	0.948	0.778	0.2973
2049	335,114	10,221,412	3050.1%	4,903	95,627	2,916,758	3050.1%	1.4870	1.0000	0.0652	1.0000	0.935	0.770	0.2854
2050	255,355	8,663,804	3392.9%	4,486	69,932	2,372,696	3392.9%	1.4870	1.0000	0.0851	1.0000	0.915	0.762	0.2739
2051	192,419	7,263,775	3775.0%	4,064	50,574	1,909,148	3775.0%	1.4870	1.0000	0.0941	1.0000	0.906	0.754	0.2628
2052	143,362	6,023,035	4201.3%	3,648	36,162	1,519,276	4201.3%	1.4870	1.0000	0.1024	1.0000	0.898	0.745	0.2522
2053	105,546	4,929,590	4670.5%	3,228	25,551	1,193,372	4670.5%	1.4870	1.0000	0.1150	1.0000	0.885	0.736	0.2421
2054	76,770	3,973,154	5175.4%	2,876	17,836	923,091	5175.4%	1.4870	1.0000	0.1091	1.0000	0.891	0.727	0.2323
2055	55,126	3,158,775	5730.1%	2,513	12,292	704,323	5730.1%	1.4870	1.0000	0.1263	1.0000	0.874	0.718	0.2230
2056	39,083	2,470,574	6321.3%	2,139	8,363	528,662	6321.3%	1.4870	1.0000	0.1488	1.0000	0.851	0.709	0.2140
2057	27,379	1,906,827	6964.6%	1,735	5,023	391,608	6964.6%	1.4870	1.0000	0.1886	1.0000	0.811	0.701	0.2054
2058	18,938	1,448,967	7651.3%	1,304	3,733	285,590	7651.3%	1.4870	1.0000	0.1969	1.0000	0.803	0.692	0.1971
2059	12,933	1,085,951	8396.8%	1,118	2,446	205,418	8396.8%	1.4870	1.0000	0.1976	1.0000	0.802	0.683	0.1892
2060	8,716	804,522	9230.1%	880	1,582	146,053	9230.1%	1.4870	1.0000	0.2131	1.0000	0.787	0.674	0.1815
2061	5,815	588,642	10122.9%	675	1,013	102,558	10122.9%	1.4870	1.0000	0.2334	1.0000	0.767	0.667	0.1742
2062	3,841	427,171	11120.2%	490	642	71,427	11120.2%	1.4870	1.0000	0.2737	1.0000	0.726	0.661	0.1672
2063	2,527	307,032	12150.7%	364	405	50,743	12150.7%	1.4870	1.0000	0.2574	1.0000	0.743	0.658	0.1605
2064	1,670	221,635	13271.7%	240	257	34,134	13271.7%	1.4870	1.0000	0.3417	1.0000	0.658	0.661	0.1540
2065	1,128	160,488	14230.6%	133	167	23,721	14230.6%	1.4870	1.0000	0.4459	1.0000	0.554	0.675	0.1478
2066	775	116,504	15028.9%	67	110	16,526	15028.9%	1.4870	1.0000	0.4922	1.0000	0.508	0.687	0.1419
2067	540	83,821	15508.1%	49	74	11,411	15508.1%	1.4870	1.0000	0.2712	1.0000	0.729	0.697	0.1361
2068	376	59,866	15853.2%	34	49	7,796	15853.2%	1.4870	1.0000	0.3084	1.0000	0.692	0.696	0.1307
2069	261	41,028	15742.6%	27	33	5,145	15742.6%	1.4870	1.0000	0.2164	1.0000	0.765	0.692	0.1254
2070+	470	71,318	15181.3%	20	57	8,582	15181.3%	1.4870	1.0000	0.2333	1.0000	0.767	N/A	0.1203
Past	201,714,822	47,072,155	23.3%	125,155	268,333,547	56,024,632	20.9%							
Future	234,990,959	771,078,142	328.1%	244,239	169,845,867	416,579,491	245.3%							
Lifetime	436,705,781	816,150,296	187.3%	369,39										

**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**

1	Accumulated value of initial earned premium	267,830,015	x	58%	=	155,341,409
2a	Accumulated value of earned premium	268,333,547				
2b	Accumulated value of prior premium rate schedule increases (2a-1)	503,532	x	85%	=	428,003
3	Present value of future projected initial earned premium	121,295,869	x	58%	=	70,351,604
4a	Present value of future projected premium	169,845,867				
4b	Present value of future projected premium in excess of the projected initial earned premiums (4a-3)	48,549,998	x	85%	=	41,267,499
<b>5</b>	<b>Lifetime Earned Premium Times Prescribed Factor: Sum of 1, 2b, 3, and 4b</b>					<b>267,388,514</b>
6a	Accumulated value of incurred claims without the inclusion of active life reserves					56,024,632
6b	Present value of future projected incurred claims without the inclusion of active life reserves					416,579,491
<b>7</b>	<b>Lifetime Incurred Claims with Rate Increase: Sum of 6a and 6b</b>					<b>472,604,123</b>
8	Test: 7 is not less than 5					TRUE



**Exhibit I-B**  
**Metropolitan Life Insurance Company**  
**Maryland Experience Projections (Premium Normalized to Include Prior Authorized Increases)**  
**Group Policy Form: G.LTC.1697**

Calendar Year	Loss Ratio Demonstration					Factors Derived from Projected Values for Illustrative Purposes Only					Interest Rate Factors				
	Without Interest			Life Years	With Interest			Premium Rate Increase Factor	Benefit Downgrade	Policy Factors			Premium Persistence	Calendar Year Effective Int Rate	Mid-Year Disc / Accum Factor
	Earned Premium	Incurred Claims	Loss Ratio		Earned Premium	Incurred Claims	Loss Ratio			Policy Lapse & Mortality	Persistence Shock Lapse	Policy Persistency			
1997	-	-	N/A	-	-	-	N/A	-	-	-	-	-	4.20%	2.4205	
1998	-	-	N/A	-	-	-	N/A	-	-	-	-	-	4.20%	2.3230	
1999	-	-	N/A	-	-	-	N/A	-	-	-	-	-	4.20%	2.2294	
2000	-	-	N/A	-	-	-	N/A	-	-	-	-	-	4.20%	2.1396	
2001	-	-	N/A	-	-	-	N/A	-	-	-	-	-	4.20%	2.0534	
2002	-	-	N/A	-	-	-	N/A	-	-	-	-	-	4.20%	1.9707	
2003	-	-	N/A	-	-	-	N/A	-	-	-	-	-	4.20%	1.8913	
2004	-	-	N/A	-	-	-	N/A	-	-	-	-	-	4.20%	1.8152	
2005	14,274	-	0.0%	46	24,866	-	0.0%	-	-	-	-	-	4.20%	1.7420	
2006	193,564	-	0.0%	170	323,613	-	0.0%	-	-	-	-	-	4.20%	1.6719	
2007	314,379	-	0.0%	163	504,428	-	0.0%	-	-	-	-	-	4.20%	1.6045	
2008	309,856	46,625	15.0%	178	477,143	71,797	15.0%	-	-	-	-	-	4.20%	1.5399	
2009	303,386	5,372	1.8%	172	448,361	7,939	1.8%	-	-	-	-	-	4.20%	1.4779	
2010	290,129	-	0.0%	168	411,497	-	0.0%	-	-	-	-	-	4.20%	1.4183	
2011	284,935	180	0.1%	161	387,853	245	0.1%	-	-	-	-	-	4.20%	1.3612	
2012	275,511	101,227	36.7%	154	359,918	132,239	36.7%	-	-	-	-	-	4.20%	1.3064	
2013	267,400	56,464	21.1%	153	335,250	70,792	21.1%	-	-	-	-	-	4.20%	1.2537	
2014	263,685	-	0.0%	148	317,277	-	0.0%	-	-	-	-	-	4.20%	1.2032	
2015	259,207	-	0.0%	147	299,325	-	0.0%	-	-	-	-	-	4.20%	1.1548	
2016	261,463	322,126	123.2%	144	289,768	356,998	123.2%	-	-	-	-	-	4.20%	1.1083	
2017	266,991	3,862	1.4%	142	283,975	4,108	1.4%	-	-	-	-	-	4.20%	1.0636	
2018	269,260	92,118	34.2%	134	274,853	94,032	34.2%	-	-	-	-	-	4.20%	1.0208	
2019	298,154	183,575	61.6%	132	292,087	179,839	61.6%	1.1573	N/A	0.0131	N/A	0.987	0.991	0.9797	
2020	304,598	210,913	69.2%	130	286,380	198,299	69.2%	1.2233	N/A	0.0139	N/A	0.986	0.967	0.9402	
2021	295,002	241,341	81.8%	129	266,186	217,767	81.8%	1.2289	N/A	0.0092	N/A	0.991	0.964	0.9023	
2022	283,216	273,583	96.6%	128	245,257	236,915	96.6%	1.2289	N/A	0.0080	N/A	0.992	0.960	0.8660	
2023	270,710	307,757	113.7%	127	224,984	255,773	113.7%	1.2289	N/A	0.0079	N/A	0.992	0.956	0.8311	
2024	257,615	343,968	133.5%	126	205,477	273,874	133.5%	1.2289	N/A	0.0080	N/A	0.992	0.952	0.7976	
2025	243,823	380,729	156.1%	125	186,642	291,441	156.1%	1.2289	N/A	0.0079	N/A	0.992	0.948	0.7655	
2026	229,082	420,364	183.5%	124	168,295	308,819	183.5%	1.2289	N/A	0.0081	N/A	0.992	0.940	0.7346	
2027	213,901	457,614	213.9%	123	150,812	322,643	213.9%	1.2289	N/A	0.0081	N/A	0.992	0.934	0.7051	
2028	198,668	492,801	248.1%	122	134,429	333,456	248.1%	1.2289	N/A	0.0079	N/A	0.992	0.929	0.6767	
2029	183,456	527,053	287.3%	121	119,136	342,268	287.3%	1.2289	N/A	0.0079	N/A	0.992	0.923	0.6494	
2030	169,328	559,027	332.1%	120	104,909	348,408	332.1%	1.2289	N/A	0.0078	N/A	0.992	0.918	0.6232	
2031	153,445	586,093	382.0%	119	91,781	350,563	382.0%	1.2289	N/A	0.0081	N/A	0.992	0.912	0.5981	
2032	138,937	608,739	438.1%	118	79,756	349,441	438.1%	1.2289	N/A	0.0079	N/A	0.992	0.905	0.5740	
2033	124,894	626,995	502.0%	117	68,806	345,423	502.0%	1.2289	N/A	0.0079	N/A	0.992	0.899	0.5509	
2034	111,408	638,446	573.1%	116	58,904	337,563	573.1%	1.2289	N/A	0.0079	N/A	0.992	0.892	0.5287	
2035	98,599	643,063	652.1%	116	50,032	326,276	652.1%	1.2289	N/A	0.0079	N/A	0.992	0.885	0.5074	
2036	86,559	640,211	739.6%	115	42,153	311,775	739.6%	1.2289	N/A	0.0078	N/A	0.992	0.878	0.4870	
2037	75,354	631,316	837.8%	114	35,218	295,059	837.8%	1.2289	N/A	0.0078	N/A	0.992	0.871	0.4674	
2038	64,996	615,277	946.6%	113	29,154	275,979	946.6%	1.2289	N/A	0.0082	N/A	0.992	0.863	0.4485	
2039	55,539	592,113	1066.1%	111	23,908	254,891	1066.1%	1.2289	N/A	0.0153	N/A	0.985	0.854	0.4305	
2040	47,022	563,621	1198.6%	110	19,426	232,853	1198.6%	1.2289	N/A	0.0077	N/A	0.992	0.847	0.4131	
2041	39,432	531,664	1348.3%	109	15,835	210,802	1348.3%	1.2289	N/A	0.0079	N/A	0.992	0.839	0.3965	
2042	32,736	495,628	1514.0%	109	12,457	188,598	1514.0%	1.2289	N/A	0.0079	N/A	0.992	0.830	0.3805	
2043	26,899	457,240	1699.8%	107	9,824	166,982	1699.8%	1.2289	N/A	0.0153	N/A	0.985	0.822	0.3652	
2044	21,872	416,198	1902.9%	104	7,666	145,871	1902.9%	1.2289	N/A	0.0306	N/A	0.969	0.813	0.3505	
2045	17,582	374,361	2129.2%	100	5,914	125,923	2129.2%	1.2289	N/A	0.0377	N/A	0.962	0.804	0.3364	
2046	13,977	333,384	2385.3%	98	4,512	107,622	2385.3%	1.2289	N/A	0.0160	N/A	0.984	0.795	0.3228	
2047	10,985	293,042	2667.6%	96	3,403	90,789	2667.6%	1.2289	N/A	0.0237	N/A	0.976	0.786	0.3098	
2048	8,520	253,967	2980.9%	93	2,533	75,513	2980.9%	1.2289	N/A	0.0323	N/A	0.968	0.776	0.2973	
2049	6,528	217,129	3326.3%	86	1,863	61,960	3326.3%	1.2289	N/A	0.0746	N/A	0.925	0.766	0.2854	
2050	4,938	183,115	3708.1%	80	1,352	50,149	3708.1%	1.2289	N/A	0.1705	N/A	0.929	0.757	0.2739	
2051	3,681	152,644	4146.7%	76	968	40,120	4146.7%	1.2289	N/A	0.0457	N/A	0.954	0.745	0.2628	
2052	2,710	125,511	4631.0%	68	684	31,659	4631.0%	1.2289	N/A	0.1070	N/A	0.893	0.736	0.2522	
2053	1,957	101,637	5193.3%	62	474	24,605	5193.3%	1.2289	N/A	0.0846	N/A	0.915	0.722	0.2421	
2054	1,392	81,055	5822.1%	56	323	18,832	5822.1%	1.2289	N/A	0.1036	N/A	0.896	0.711	0.2323	
2055	974	63,507	6520.8%	49	217	14,160	6520.8%	1.2289	N/A	0.1261	N/A	0.874	0.700	0.2230	
2056	669	48,926	7310.7%	41	143	10,470	7310.7%	1.2289	N/A	0.1577	N/A	0.842	0.687	0.2140	
2057	451	36,776	8147.3%	35	93	7,553	8147.3%	1.2289	N/A	0.1494	N/A	0.851	0.674	0.2054	
2058	298	27,123	9103.1%	28	59	5,346	9103.1%	1.2289	N/A	0.1928	N/A	0.807	0.660	0.1971	
2059	192	19,452	10153.1%	26	36	3,679	10153.1%	1.2289	N/A	0.0838	N/A	0.916	0.643	0.1892	
2060	118	13,669	11558.6%	20	21	2,481	11558.6%	1.2289	N/A	0.2379	N/A	0.762	0.617	0.1815	
2061	70	9,534	13641.9%	15	12	1,661	13641.9%	1.2289	N/A	0.2511	N/A	0.749	0.591	0.1742	
2062	40	6,124	15357.3%	10	7	1,024	15357.3%	1.2289	N/A	0.2912	N/A	0.709	0.571	0.1672	
2063	23	3,797	16793.8%	8	4	609	16793.8%	1.2289	N/A	0.2730	N/A	0.727	0.557	0.1605	
2064	12	2,282	19421.8%	5	2	351	19421.8%	1.2289	N/A	0.2793	N/A	0.721	0.520	0.1540	
2065	6	1,334	21803.6%	3	1	197	21803.6%	1.2289	N/A	0.5027	N/A	0.497	0.521	0.1478	
2066	4	941	25770.9%	1	1	133	25770.9%	1.2289	N/A	0.5074	N/A	0.493	0.596	0.1419	
2067	2	466	23099.4%	1	0	63	23099.4%	1.2289	N/A	0.0000	N/A	1.000	0.552	0.1361	
2068	1	221	24658.3%	1	0	29	24658.3%	1.2289	N/A	0.0149	N/A	0.985	0.445	0.1307	
2069	0	84	30396.0%	1	0	84	30396.0%	1.2289	N/A	0.0000	N/A	1.000	0.233	0.1254	
2070+	-	32	N/A	-	-	4	N/A	1.2289	N/A	N/A	N/A	N/A	N/A	0.1203	
Past		3,574,040	627,975	17.6%	2,100	4,738,127	738,150	15.6%							
Future		4,099,378	14,794,780	360.9%	4,145	2,951,938	7,776,522	263.4%							
Lifetime		7,673,418	15,422,735	201.0%	6,245	7,690,065	8,514,673	110.7%							

Note:  
- The premiums shown in this exhibit reflect prior rate increases authorized by Maryland.  
- The projections are based on the assumptions derived using experience data through June 30, 2018.  
- Includes certificate forms GCLTCARP-04-OP issued under group policy G.LTC.1697

**Exhibit I-B**  
**Metropolitan Life Insurance Company**  
**Maryland Experience Projections (Premium Normalized to Include Prior Authorized Increases) and With 21% Future Increase**  
**Group Policy Form: G.LTC.1697**

Calendar Year	Loss Ratio Demonstration					Factors Derived from Projected Values for Illustrative Purposes Only					Interest Rate Factors			
	Without Interest			With Interest		Premium Rate Increase Factor	Benefit Downgrade	Policy Persistence Factors			Premium Persistence	Calendar Year Effective Int Rate	Mid-Year Disc / Accum Factor	
	Earned Premium	Incurred Claims	Loss Ratio	Life Years	Earned Premium			Incurred Claims	Loss Ratio	Policy Lapse & Mortality				Policy Shock Lapse
1997	-	-	N/A	-	-	-	-	N/A	-	-	-	4.20%	2.4205	
1998	-	-	N/A	-	-	-	-	N/A	-	-	-	4.20%	2.3230	
1999	-	-	N/A	-	-	-	-	N/A	-	-	-	4.20%	2.2294	
2000	-	-	N/A	-	-	-	-	N/A	-	-	-	4.20%	2.1396	
2001	-	-	N/A	-	-	-	-	N/A	-	-	-	4.20%	2.0534	
2002	-	-	N/A	-	-	-	-	N/A	-	-	-	4.20%	1.9707	
2003	-	-	N/A	-	-	-	-	N/A	-	-	-	4.20%	1.8913	
2004	-	-	N/A	-	-	-	-	N/A	-	-	-	4.20%	1.8152	
2005	14,274	-	0.0%	46	24,866	-	0.0%	-	-	-	-	4.20%	1.7420	
2006	193,564	-	0.0%	170	323,613	-	0.0%	-	-	-	-	4.20%	1.6719	
2007	314,379	-	0.0%	163	504,428	-	0.0%	-	-	-	-	4.20%	1.6045	
2008	309,856	46,625	15.0%	178	477,143	71,797	15.0%	-	-	-	-	4.20%	1.5399	
2009	303,386	5,372	1.8%	172	448,361	7,939	1.8%	-	-	-	-	4.20%	1.4779	
2010	290,129	-	0.0%	168	411,497	-	0.0%	-	-	-	-	4.20%	1.4183	
2011	284,935	180	0.1%	161	387,853	245	0.1%	-	-	-	-	4.20%	1.3612	
2012	275,511	101,227	36.7%	154	359,918	132,239	36.7%	-	-	-	-	4.20%	1.3064	
2013	267,400	56,464	21.1%	153	335,250	70,792	21.1%	-	-	-	-	4.20%	1.2537	
2014	263,685	-	0.0%	148	317,277	-	0.0%	-	-	-	-	4.20%	1.2032	
2015	259,207	-	0.0%	147	299,325	-	0.0%	-	-	-	-	4.20%	1.1548	
2016	261,463	322,126	123.2%	144	289,768	356,998	123.2%	-	-	-	-	4.20%	1.1083	
2017	266,991	3,862	1.4%	142	283,975	4,108	1.4%	-	-	-	-	4.20%	1.0636	
2018	269,260	92,118	34.2%	134	274,853	94,032	34.2%	-	-	-	-	4.20%	1.0208	
2019	298,154	183,575	61.6%	132	292,087	179,839	61.6%	1.1573	1.0000	0.0131	1.0000	0.987	0.991	0.9797
2020	304,598	210,913	69.2%	130	286,380	198,299	69.2%	1.2233	1.0000	0.0139	1.0000	0.986	0.967	0.9402
2021	310,982	241,341	77.6%	129	280,604	217,767	77.6%	1.2955	1.0000	0.0092	1.0000	0.991	0.964	0.9023
2022	328,413	273,583	83.3%	128	284,396	236,915	83.3%	1.4250	1.0000	0.0080	1.0000	0.992	0.960	0.8660
2023	327,559	307,757	94.0%	127	272,231	255,773	94.0%	1.4870	1.0000	0.0079	1.0000	0.992	0.956	0.8311
2024	311,715	343,968	110.2%	126	248,627	273,294	110.2%	1.4870	1.0000	0.0080	1.0000	0.992	0.952	0.7976
2025	295,026	380,729	129.0%	125	225,837	291,441	129.0%	1.4870	1.0000	0.0079	1.0000	0.992	0.946	0.7655
2026	277,189	420,364	151.7%	124	203,637	308,819	151.7%	1.4870	1.0000	0.0081	1.0000	0.992	0.940	0.7346
2027	258,821	457,614	176.8%	123	182,483	322,643	176.8%	1.4870	1.0000	0.0081	1.0000	0.992	0.934	0.7051
2028	240,388	492,801	205.0%	122	162,860	333,456	205.0%	1.4870	1.0000	0.0079	1.0000	0.992	0.929	0.6767
2029	221,982	527,053	237.4%	121	144,155	342,268	237.4%	1.4870	1.0000	0.0079	1.0000	0.992	0.923	0.6494
2030	203,677	559,027	274.5%	120	126,940	348,408	274.5%	1.4870	1.0000	0.0078	1.0000	0.992	0.918	0.6232
2031	185,669	586,093	315.7%	119	111,055	350,563	315.7%	1.4870	1.0000	0.0081	1.0000	0.992	0.912	0.5981
2032	168,114	608,739	362.1%	118	96,504	349,441	362.1%	1.4870	1.0000	0.0079	1.0000	0.992	0.905	0.5740
2033	151,122	626,995	414.9%	117	83,256	345,423	414.9%	1.4870	1.0000	0.0079	1.0000	0.992	0.899	0.5509
2034	134,803	638,446	473.6%	116	71,274	337,563	473.6%	1.4870	1.0000	0.0079	1.0000	0.992	0.892	0.5287
2035	119,305	643,063	539.0%	116	60,539	326,276	539.0%	1.4870	1.0000	0.0079	1.0000	0.992	0.885	0.5074
2036	104,737	640,211	611.3%	115	51,006	311,775	611.3%	1.4870	1.0000	0.0078	1.0000	0.992	0.878	0.4870
2037	91,178	631,316	692.4%	114	42,614	295,059	692.4%	1.4870	1.0000	0.0078	1.0000	0.992	0.871	0.4674
2038	78,646	615,277	782.3%	113	35,276	275,979	782.3%	1.4870	1.0000	0.0082	1.0000	0.992	0.863	0.4485
2039	67,202	592,113	881.1%	111	28,929	254,891	881.1%	1.4870	1.0000	0.0153	1.0000	0.985	0.854	0.4305
2040	56,896	563,621	990.6%	110	23,506	232,853	990.6%	1.4870	1.0000	0.0077	1.0000	0.992	0.847	0.4131
2041	47,713	531,664	1114.3%	109	18,918	210,802	1114.3%	1.4870	1.0000	0.0079	1.0000	0.992	0.839	0.3965
2042	39,610	495,628	1251.3%	109	15,073	188,598	1251.3%	1.4870	1.0000	0.0079	1.0000	0.992	0.830	0.3805
2043	32,548	457,240	1404.8%	107	11,886	166,982	1404.8%	1.4870	1.0000	0.0153	1.0000	0.985	0.822	0.3652
2044	26,465	416,198	1572.6%	104	9,276	145,871	1572.6%	1.4870	1.0000	0.0306	1.0000	0.969	0.813	0.3505
2045	21,275	374,361	1759.7%	100	7,156	125,923	1759.7%	1.4870	1.0000	0.0377	1.0000	0.962	0.804	0.3364
2046	16,912	333,384	1971.3%	98	5,459	107,622	1971.3%	1.4870	1.0000	0.0160	1.0000	0.984	0.795	0.3228
2047	13,292	293,042	2204.6%	96	4,118	90,789	2204.6%	1.4870	1.0000	0.0237	1.0000	0.976	0.786	0.3098
2048	10,309	253,967	2463.6%	93	3,065	75,513	2463.6%	1.4870	1.0000	0.0323	1.0000	0.968	0.776	0.2973
2049	7,899	217,129	2749.0%	86	2,254	61,960	2749.0%	1.4870	1.0000	0.0746	1.0000	0.925	0.766	0.2854
2050	5,975	183,115	3064.5%	80	1,636	50,149	3064.5%	1.4870	1.0000	0.0705	1.0000	0.929	0.757	0.2739
2051	4,454	152,644	3427.0%	76	1,171	40,120	3427.0%	1.4870	1.0000	0.0457	1.0000	0.954	0.745	0.2628
2052	3,279	125,911	3827.3%	68	827	31,659	3827.3%	1.4870	1.0000	0.1070	1.0000	0.893	0.736	0.2522
2053	2,368	101,637	4292.0%	62	573	24,605	4292.0%	1.4870	1.0000	0.0846	1.0000	0.915	0.722	0.2421
2054	1,685	81,055	4811.6%	56	391	18,832	4811.6%	1.4870	1.0000	0.1036	1.0000	0.896	0.711	0.2323
2055	1,178	63,507	5389.1%	49	263	14,160	5389.1%	1.4870	1.0000	0.1261	1.0000	0.874	0.700	0.2230
2056	810	48,926	6041.9%	41	173	10,470	6041.9%	1.4870	1.0000	0.1577	1.0000	0.842	0.687	0.2140
2057	546	36,776	6733.3%	35	112	7,555	6733.3%	1.4870	1.0000	0.1494	1.0000	0.851	0.674	0.2054
2058	361	27,123	7523.2%	28	71	5,346	7523.2%	1.4870	1.0000	0.1928	1.0000	0.807	0.660	0.1971
2059	232	19,452	8391.0%	26	44	3,679	8391.0%	1.4870	1.0000	0.0838	1.0000	0.916	0.643	0.1892
2060	143	13,669	9552.6%	20	26	2,481	9552.6%	1.4870	1.0000	0.2379	1.0000	0.762	0.617	0.1815
2061	85	9,534	11274.3%	15	15	1,661	11274.3%	1.4870	1.0000	0.2511	1.0000	0.749	0.591	0.1742
2062	48	6,124	12692.0%	10	8	1,024	12692.0%	1.4870	1.0000	0.2912	1.0000	0.709	0.571	0.1672
2063	27	3,797	13879.1%	8	5	605	13879.1%	1.4870	1.0000	0.2730	1.0000	0.727	0.567	0.1605
2064	14	2,282	16051.1%	5	2	351	16051.1%	1.4870	1.0000	0.2793	1.0000	0.721	0.520	0.1540
2065	7	1,334	18019.5%	3	1	197	18019.5%	1.4870	1.0000	0.5027	1.0000	0.497	0.521	0.1478
2066	4	941	21298.3%	1	1	133	21298.3%	1.4870	1.0000	0.5074	1.0000	0.493	0.596	0.1419
2067	2	466	19090.4%	1	0	63	19090.4%	1.4870	1.0000	0.0000	1.0000	1.000	0.552	0.1361
2068	1	221	20378.7%	1	0	29	20378.7%	1.4870	1.0000	0.0149	1.0000	0.985	0.445	0.1307
2069	0	84	25120.7%	1	0	8	25120.7%	1.4870	1.0000	0.0000	1.0000	0.000	0.233	0.1254
2070+	-	32	N/A	-	-	4	N/A	1.4870	1.0000	N/A	1.0000	N/A	N/A	0.1203
Past		3,574,040	627,975	17.6%	2,100	4,738,127	738,150	15.6%						
Future		4,773,420	14,794,760	309.9%	4,145	3,396,521	7,776,522	229.0%						
Lifetime		8,347,460	15,422,735	184.8%	6,245	8,134,648	8,514,673	104.7%						

Note:  
- The premiums shown in this exhibit reflect prior rate increases authorized by Maryland.  
- The projections are based on the assumptions derived using experience data through June 30, 2018  
- Includes certificate forms GCLTCARP-04-OP issued under group policy G.LTC.1697  
- The current requested increase of 21% is assumed to be implemented over two phases

**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**

1	Accumulated value of initial earned premium	4,728,688	x	58%	=	2,742,639
2a	Accumulated value of earned premium	4,738,127				
2b	Accumulated value of prior premium rate schedule increases (2a-1)	9,440	x	85%	=	8,024
3	Present value of future projected initial earned premium	2,417,887	x	58%	=	1,402,375
4a	Present value of future projected premium	3,396,521				
4b	Present value of future projected premium in excess of the projected initial earned premiums (4a-3)	978,634	x	85%	=	831,839
<b>5</b>	<b>Lifetime Earned Premium Times Prescribed Factor: Sum of 1, 2b, 3, and 4b</b>					<b>4,984,876</b>
6a	Accumulated value of incurred claims without the inclusion of active life reserves					738,150
6b	Present value of future projected incurred claims without the inclusion of active life reserves					7,776,522
<b>7</b>	<b>Lifetime Incurred Claims with Rate Increase: Sum of 6a and 6b</b>					<b>8,514,673</b>
8	Test: 7 is not less than 5					TRUE

**Attachment 1**  
**Metropolitan Life Insurance Company**  
**Group Policy Form: G.LGC1697, Certificate Form: GCLTCAARP-04-OP**  
**Comparison of Original Pricing and Current Best Estimate Assumptions**

**Original Pricing Assumptions**

**Current Best Estimate Assumptions**

*Discount Rate*

5.50%

4.20%

*Voluntary Lapse Rates*

Policy Duration	Lapse Rate
1	6.25%
2	3.50%
3-7	3.00%
8	2.50%
9	2.25%
10-12	2.00%
13-14	1.75%
15+	1.50%

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%
9	0.80%
10	0.80%
11+	0.70%

*Active Life Mortality Rates*

Mortality was based on 105% of the Annuity 2000 Basic mortality table with Projection Scale H.

93% Annuity 2000 Basic Table with Mortality Selection Factors of:

Policy Duration	Mortality Selection	Policy Duration	Mortality Selection
1	30%	11	76%
2	48%	12	79%
3	49%	13	80%
4	58%	14	80%
5	62%	15	81%
6	63%	16	88%
7	69%	17	88%
8	72%	18	88%
9	73%	19	88%
10	75%	20+	100%

**Morbidity:**

*Incidence*

Incidence rates for nursing home care and home health care were based on studies from the 1985 and 1997 National Nursing Home Survey and 1982-84-89 National Long Term Care Survey, respectively, supplemented with the 1984-1999 Long Term Care Experience Committee Inter-Company Study and with modifications to incorporate experience of other long-term care business that MetLife issued or administered.

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

Attained Age	Facility Care		Home Care	
	Male	Female	Male	Female
80	1.43%	1.56%	1.18%	1.29%
81	1.72%	1.84%	1.37%	1.48%
82	2.06%	2.17%	1.59%	1.68%
83	2.45%	2.53%	1.84%	1.91%
84	2.89%	2.94%	2.11%	2.16%
85	3.37%	3.39%	2.42%	2.44%

*Continuance*

Continuance rates for nursing home care and home health care were based on studies from the 1985 and 1997 National Nursing Home Survey and 1982-84-89 National Long Term Care Survey, respectively, supplemented with the 1984-1999 Long Term Care Experience Committee Inter-Company Study and with modifications to incorporate experience of other long-term care business that MetLife issued or administered.

Continuance curves were constructed in 2016 by gender and care path separately for deaths and recoveries. 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 are recombined into a single termination table for modeling and valuation uses.

In 2019, there were some minor refinements to the coefficients of the curves

*Utilization*

Home care prevalence rates were based on 1982-1984 National Long Term Care Surveys with modifications. Note that the actual utilization assumption at original pricing is not available.

Home Care	Facility Care
72%	87%

**Attachment 2**  
**Metropolitan Life Insurance Company**  
**Nationwide Experience Projections (Premium Normalized to Include Prior Authorized Increases)**  
**Actual to Expected Ratios**  
**Group Policy Form: G.LTC.1697**

	Calendar Year	Actual / Projected Experience			Expected Pricing Experience			Accumulative Loss Ratio as of 12/31/2018			
		A	B	C = B / A	D	E	F = E / D	G = C / F	H	I	J = H / I
		Earned Premium	Incurred Claims	Loss Ratio	Earned Premium	Incurred Claims	Loss Ratio	Actual to Expected Ratio	Actual/Projected at 4.2% (on C)	Expected at 5.5% (on F)	Actual to Expected Ratio
Historical Experience	2004	15,224	0	0.0%	15,224	520	3.4%	0.00	0.0%	3.4%	0.00
	2005	3,072,136	33,318	1.1%	863,918	35,102	4.1%	0.27	1.1%	4.1%	0.27
	2006	11,981,616	727,300	6.1%	7,710,584	539,518	7.0%	0.87	5.0%	6.7%	0.75
	2007	16,482,858	169,408	1.0%	15,081,579	1,340,409	8.9%	0.12	3.0%	8.1%	0.37
	2008	16,826,547	1,712,877	10.2%	15,930,501	1,913,097	12.0%	0.85	5.4%	9.6%	0.56
	2009	16,435,961	1,174,914	7.1%	15,394,390	2,463,946	16.0%	0.45	5.8%	11.2%	0.52
	2010	16,136,980	3,128,563	19.4%	14,764,562	3,162,324	21.4%	0.91	8.3%	13.2%	0.63
	2011	15,773,830	1,852,409	11.7%	14,140,956	3,858,423	27.3%	0.43	8.8%	15.3%	0.58
	2012	15,645,657	3,776,592	24.1%	13,523,578	4,333,320	32.0%	0.75	10.7%	17.3%	0.62
	2013	15,359,441	2,734,046	17.8%	12,934,417	4,747,869	36.7%	0.48	11.4%	19.1%	0.60
	2014	15,229,966	4,124,495	27.1%	12,390,316	5,188,295	41.9%	0.65	12.8%	21.0%	0.61
	2015	14,957,661	4,761,014	31.8%	11,876,427	5,606,464	47.2%	0.67	14.3%	22.8%	0.63
2016	14,654,901	8,762,298	59.8%	11,376,611	6,076,757	53.4%	1.12	17.4%	24.6%	0.71	
2017	14,778,947	4,784,946	32.4%	10,876,958	6,598,865	60.7%	0.53	18.3%	26.4%	0.69	
2018	14,363,096	9,329,976	65.0%	10,385,297	7,059,654	68.0%	0.96	20.9%	28.2%	0.74	
Projected Experience	2019	15,868,351	11,565,128	72.9%	9,904,031	7,555,080	76.3%	0.96	23.7%	30.0%	0.79
	2020	16,111,063	13,172,530	81.8%	9,431,488	8,117,186	86.1%	0.95	26.7%	31.9%	0.84
	2021	15,491,554	14,901,734	96.2%	8,967,652	8,625,502	96.2%	1.00	29.8%	33.7%	0.88
	2022	14,762,932	16,709,223	113.2%	8,502,737	9,163,142	107.8%	1.05	33.0%	35.6%	0.93
	2023	13,999,531	18,598,804	132.9%	8,035,698	9,726,578	121.0%	1.10	36.5%	37.5%	0.97
	2024	13,204,453	20,556,123	155.7%	7,567,973	10,204,255	134.8%	1.15	40.1%	39.4%	1.02
	2025	12,367,698	22,504,867	182.0%	7,101,354	10,712,994	150.9%	1.21	43.9%	41.3%	1.06
	2026	11,493,803	24,360,567	211.9%	6,637,745	11,269,317	169.8%	1.25	47.7%	43.2%	1.10
	2027	10,611,466	26,113,506	246.1%	6,179,000	11,752,047	190.2%	1.29	51.7%	45.1%	1.15
	2028	9,739,908	27,740,128	284.8%	5,726,994	12,225,768	213.5%	1.33	55.7%	47.0%	1.19
	2029	8,885,592	29,183,017	328.4%	5,283,811	12,715,561	240.7%	1.36	59.8%	48.9%	1.22
	2030	8,053,161	30,412,042	377.6%	4,851,585	13,159,078	271.2%	1.39	63.9%	50.7%	1.26
	2031	7,252,330	31,413,590	433.2%	4,432,342	13,619,977	307.3%	1.41	68.0%	52.6%	1.29
	2032	6,485,570	32,136,586	495.5%	4,027,977	14,098,171	350.0%	1.42	72.0%	54.4%	1.32
	2033	5,759,150	32,593,482	565.9%	3,640,221	14,462,185	397.3%	1.42	75.9%	56.2%	1.35
	2034	5,076,335	32,738,959	644.9%	3,270,436	14,817,285	453.1%	1.42	79.6%	58.0%	1.37
	2035	4,440,558	32,556,422	733.2%	2,919,785	15,210,988	521.0%	1.41	83.2%	59.7%	1.39
	2036	3,854,623	32,060,078	831.7%	2,589,381	15,497,300	598.5%	1.39	86.7%	61.4%	1.41
	2037	3,319,702	31,281,441	942.3%	2,280,046	15,736,324	690.2%	1.37	89.9%	63.1%	1.43
	2038	2,835,427	30,232,853	1066.3%	1,992,265	15,826,953	794.4%	1.34	92.9%	64.7%	1.44
	2039	2,402,084	28,914,755	1203.7%	1,726,263	15,762,212	913.1%	1.32	95.7%	66.2%	1.45
	2040	2,017,939	27,370,448	1356.4%	1,482,245	15,666,332	1056.9%	1.28	98.3%	67.6%	1.45
	2041	1,680,625	25,635,195	1525.3%	1,260,312	15,402,704	1222.1%	1.25	100.6%	69.0%	1.46
	2042	1,387,394	23,754,230	1712.1%	1,060,323	14,768,681	1392.8%	1.23	102.6%	70.2%	1.46
	2043	1,134,906	21,769,752	1918.2%	881,980	13,894,170	1575.3%	1.22	104.4%	71.3%	1.47
	2044	919,906	19,729,817	2144.8%	724,752	13,158,373	1815.6%	1.18	106.0%	72.3%	1.47
	2045	738,562	17,686,956	2394.8%	588,045	11,814,078	2009.0%	1.19	107.4%	73.1%	1.47
	2046	587,077	15,684,337	2671.6%	470,945	9,659,180	2051.0%	1.30	108.5%	73.8%	1.47
	2047	461,925	13,752,600	2977.2%	372,070	7,644,386	2054.6%	1.45	109.5%	74.3%	1.47
	2048	359,592	11,921,280	3315.2%	289,915	5,956,518	2054.6%	1.61	110.4%	74.6%	1.48
	2049	276,954	10,221,412	3690.7%	222,666	4,574,929	2054.6%	1.80	111.0%	74.9%	1.48
	2050	211,037	8,663,804	4105.3%	168,524	3,462,630	2054.7%	2.00	111.6%	75.1%	1.49
2051	159,024	7,263,775	4567.7%	125,640	2,581,514	2054.7%	2.22	112.0%	75.2%	1.49	
2052	118,481	6,023,035	5083.5%	92,072	1,891,782	2054.7%	2.47	112.4%	75.3%	1.49	
2053	87,228	4,929,590	5651.4%	66,196	1,360,116	2054.7%	2.75	112.7%	75.4%	1.49	
2054	63,446	3,973,154	6262.2%	46,499	955,401	2054.7%	3.05	112.9%	75.4%	1.50	
2055	45,558	3,158,775	6933.5%	31,866	654,735	2054.7%	3.37	113.1%	75.4%	1.50	
2056	32,300	2,470,574	7648.8%	21,338	438,419	2054.7%	3.72	113.2%	75.5%	1.50	
2057	22,627	1,906,827	8427.1%	13,882	285,230	2054.7%	4.10	113.3%	75.5%	1.50	
2058	15,651	1,448,967	9258.1%	8,766	180,107	2054.7%	4.51	113.3%	75.5%	1.50	
2059	10,688	1,085,951	10160.2%	5,395	110,840	2054.7%	4.94	113.4%	75.5%	1.50	
2060	7,204	804,522	11168.5%	3,266	67,099	2054.7%	5.44	113.4%	75.5%	1.50	
2061	4,806	588,642	12248.7%	1,878	38,579	2054.7%	5.96	113.5%	75.5%	1.50	
2062	3,175	427,171	13455.5%	1,062	21,823	2054.7%	6.55	113.5%	75.5%	1.50	
2063	2,088	307,032	14702.3%	700	14,380	2054.7%	7.16	113.5%	75.5%	1.50	
2064	1,380	221,635	16058.8%	341	7,003	2054.7%	7.82	113.5%	75.5%	1.50	
2065	932	160,488	17219.0%	56	1,149	2054.7%	8.38	113.5%	75.5%	1.50	
2066	641	116,504	18185.0%	4	76	2054.7%	8.85	113.5%	75.5%	1.50	
2067	447	83,821	18764.9%	0	1	2054.7%	9.13	113.5%	75.5%	1.50	
2068	311	59,666	19182.4%	0	1	2054.7%	9.34	113.5%	75.5%	1.50	
2069	215	41,028	19048.5%	0	1	2054.7%	9.27	113.5%	75.5%	1.50	
2070	388	71,318	18369.4%	0	0	N/A	N/A	113.5%	75.5%	1.50	
Past	201,714,822	47,072,155	23.3%	167,265,319	52,924,564	31.6%	0.74	20.9%	28.2%	0.74	
Future	202,367,797	771,078,142	381.0%	123,009,520	384,868,144	312.9%	1.22	281.4%	217.6%	1.29	
Lifetime	404,082,619	818,150,296	202.5%	290,274,839	437,792,708	150.8%	1.34	113.5%	75.0%	1.51	

**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 (Premium Normalized to Include Prior Authorized Increases)**  
**Actual to Expected Ratios**  
**Group Policy Form: G.LTC.1697**

Duration	Actual / Projected Experience			Expected Pricing Experience			G = C / F Actual to Expected Ratio
	Actual Experience through 12/31/2018			Reproduced based on Original Pricing			
	Projections based on Current Assumptions			Assumptions since inception			
	A	B	C = B / A	D	E	F = E / D	
	Earned Premium	Incurred Claims	Loss Ratio	Earned Premium	Incurred Claims	Loss Ratio	
1	9,160,850	414,834	4.5%	9,160,850	312,836	3.4%	1.33
2	17,359,560	417,725	2.4%	17,359,560	1,399,713	8.1%	0.30
3	16,868,254	917,576	5.4%	16,538,969	1,956,663	11.8%	0.46
4	16,518,113	1,354,352	8.2%	15,822,344	2,513,648	15.9%	0.52
5	16,189,298	2,405,319	14.9%	15,116,519	3,155,088	20.9%	0.71
6	15,914,952	2,659,444	16.7%	14,422,405	4,110,874	28.5%	0.59
7	15,685,648	2,803,112	17.9%	13,739,098	4,632,265	33.7%	0.53
8	15,457,003	2,895,868	18.7%	13,065,702	4,990,647	38.2%	0.49
9	15,237,664	4,453,222	29.2%	12,464,279	5,477,834	43.9%	0.66
10	15,061,689	4,861,153	32.3%	11,896,125	5,912,487	49.7%	0.65
11	14,799,939	6,005,144	40.6%	11,356,597	6,309,731	55.6%	0.73
12	14,720,655	7,563,342	51.4%	10,818,528	6,898,547	63.8%	0.81
13	14,790,674	7,264,682	49.1%	10,282,155	7,388,643	71.9%	0.68
14	15,723,868	10,883,983	69.2%	9,773,726	7,774,931	79.5%	0.87
15	16,288,486	12,735,105	78.2%	9,265,785	8,396,821	90.6%	0.86
16	15,632,062	14,383,669	92.0%	8,782,437	8,918,810	101.6%	0.91
17	14,908,775	16,175,669	108.5%	8,299,242	9,351,018	112.7%	0.96
18	14,154,857	18,040,925	127.5%	7,817,322	9,986,181	127.7%	1.00
19	13,374,507	19,976,926	149.4%	7,338,196	10,447,895	142.4%	1.05
20	12,562,799	21,956,121	174.8%	6,863,526	10,837,999	157.9%	1.11
21	11,695,306	23,843,918	203.9%	6,395,068	11,429,934	178.7%	1.14
22	10,813,969	25,620,093	236.9%	5,934,609	11,904,073	200.6%	1.18
23	9,943,381	27,283,317	274.4%	5,483,670	12,273,111	223.8%	1.23
24	9,088,438	28,791,185	316.8%	5,044,075	12,767,812	253.1%	1.25
25	8,253,598	30,082,131	364.5%	4,617,746	13,164,508	285.1%	1.28
26	7,447,941	31,150,626	418.2%	4,206,459	13,524,759	321.5%	1.30
27	6,675,731	31,964,206	478.8%	3,811,804	13,989,208	367.0%	1.30
28	5,941,673	32,501,503	547.0%	3,435,265	14,372,646	418.4%	1.31
29	5,250,071	32,741,419	623.6%	3,078,064	14,529,242	472.0%	1.32
30	4,604,144	32,655,266	709.3%	2,740,860	14,962,959	545.9%	1.30
31	4,007,029	32,249,267	804.8%	2,424,583	15,196,903	626.8%	1.28
32	3,460,284	31,561,526	912.1%	2,129,813	15,341,893	720.3%	1.27
33	2,963,979	30,583,405	1031.8%	1,856,822	15,527,937	836.3%	1.23
34	2,518,047	29,348,536	1165.5%	1,605,554	15,314,068	953.8%	1.22
35	2,121,458	27,865,264	1313.5%	1,375,847	15,212,559	1105.7%	1.19
36	1,772,162	26,181,222	1477.4%	1,167,712	14,997,956	1284.4%	1.15
37	1,467,452	24,337,515	1658.5%	980,743	14,509,547	1479.4%	1.12
38	1,204,210	22,380,340	1858.5%	814,483	13,493,575	1656.7%	1.12
39	979,157	20,347,057	2078.0%	668,299	12,633,311	1890.4%	1.10
40	788,692	18,293,238	2319.4%	541,303	12,103,263	2236.0%	1.04
41	629,107	16,275,545	2587.1%	432,870	9,678,774	2236.0%	1.16
42	496,715	14,317,360	2882.4%	341,435	7,634,322	2236.0%	1.29
43	388,024	12,448,965	3208.3%	265,579	5,938,218	2236.0%	1.43
44	299,904	10,706,810	3570.1%	203,708	4,554,818	2236.0%	1.60
45	229,293	9,100,880	3969.1%	153,821	3,439,358	2236.0%	1.78
46	173,416	7,653,309	4413.3%	114,577	2,561,875	2236.0%	1.97
47	129,663	6,367,188	4910.6%	83,862	1,875,112	2236.0%	2.20
48	95,807	5,224,201	5452.8%	60,243	1,347,007	2236.0%	2.44
49	69,924	4,228,134	6046.8%	42,370	947,379	2236.0%	2.70
50	50,375	3,371,588	6692.9%	28,907	646,349	2236.0%	2.99
51	35,804	2,647,657	7394.9%	19,384	433,424	2236.0%	3.31
52	25,121	2,048,149	8153.1%	12,597	281,652	2236.0%	3.65
53	17,409	1,558,758	8953.7%	7,930	177,322	2236.0%	4.00
54	11,899	1,169,286	9827.1%	4,855	108,550	2236.0%	4.40
55	8,022	865,942	10795.0%	2,917	65,231	2236.0%	4.83
56	5,345	634,133	11863.9%	1,749	39,117	2236.0%	5.31
57	3,522	459,412	13042.7%	860	19,236	2236.0%	5.83
58	2,304	330,059	14325.0%	611	13,656	2236.0%	6.41
59	1,507	235,641	15639.8%	421	9,416	2236.0%	6.99
60	997	169,948	17044.1%	0	0	0.0%	0.00
Lifetime	404,080,534	817,762,171	202.4%	290,274,839	437,792,708	150.8%	1.34
Lifetime*	236,115,045	267,934,235	113.5%	161,117,259	120,850,672	75.0%	1.51

**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.
- \* Columns A and B are discounted back to the inception date at an interest rate of 4.2%, 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 Results - Lapse  
Group Policy Form: G.LTC1697**

<b>Lapse</b>			
<b>Policy Duration</b>	<b>Actual</b>	<b>Expected <sup>1,2</sup></b>	<b>A/E%</b>
1	6,620	6,653	99.5%
2	3,764	4,040	93.2%
3	2,701	2,795	96.6%
4	2,059	2,177	94.6%
5	1,545	1,595	96.8%
6	1,403	1,301	107.8%
7	1,196	917	130.5%
8	1,032	797	129.5%
9	893	780	114.6%
10	852	761	111.9%
11	794	728	109.0%
12	651	678	96.0%
13+	2,013	2,328	86.5%

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

<b>Mortality</b>			
<b>Policy Duration</b>	<b>Actual</b>	<b>Expected <sup>1</sup></b>	<b>A/E%</b>
1	291	260	111.93%
2	499	438	113.93%
3	541	478	113.13%
4	691	608	113.58%
5	795	700	113.50%
6	870	767	113.37%
7	1,034	905	114.21%
8	1,152	1,017	113.29%
9	1,199	1,107	108.34%
10	1,388	1,218	113.94%
11	1,494	1,314	113.72%
12	1,592	1,409	113.02%
13	1,715	1,434	119.60%
14	1,577	1,391	113.35%
15	1,474	1,302	113.22%
16	1,353	1,194	113.29%
17	980	981	99.86%
18	665	692	96.12%
19	339	349	97.14%
20+	154	113	136.05%

<sup>1</sup> The expecteds are based on current best estimate assumptions.

<sup>2</sup> Experience based on most recent five years only. The majority of the remaining policies are in their 13<sup>th</sup> duration or later, as a result, the results for duration 12 and before are no longer relevant.

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

Attained Age	Female						Male					
	Facility Care			Home Care			Facility Care			Home Care		
	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	35%	4	4	102%	1	1	79%	2	2	115%
55 to 59	22	28	79%	48	42	116%	4	16	26%	28	22	128%
60 to 64	62	87	71%	135	142	95%	50	54	92%	86	78	111%
65 to 69	189	205	92%	291	321	91%	118	125	94%	162	181	89%
70 to 74	581	567	102%	473	512	92%	365	284	128%	329	301	109%
75 to 79	1,224	1,162	105%	715	729	98%	680	658	103%	438	477	92%
80 to 84	1,513	1,475	103%	734	702	104%	796	855	93%	458	471	97%
85 to 89	1,077	1,067	101%	413	412	100%	547	548	100%	262	261	100%
over 89	296	317	93%	107	91	117%	136	98	139%	63	62	101%
<b>Total</b>	<b>4,965</b>	<b>4,911</b>	<b>101%</b>	<b>2,920</b>	<b>2,956</b>	<b>99%</b>	<b>2,697</b>	<b>2,640</b>	<b>102%</b>	<b>1,828</b>	<b>1,855</b>	<b>99%</b>

<sup>1</sup> Based on actual experience through 6/30/2018.

<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)**

<b>Claim Duration (Months)</b>	<b>Actual Deaths</b>	<b>Expected Deaths<sup>1</sup></b>	<b>Actual Recoveries</b>	<b>Expected Recoveries<sup>1</sup></b>	<b>Deaths A/E%</b>	<b>Recoveries A/E%</b>	<b>Total A/E%</b>
1	970	678	69	107	143%	64%	132%
2	850	1,334	180	257	64%	70%	65%
3	891	1,224	251	254	73%	99%	77%
4	1,019	1,394	336	294	73%	114%	80%
5	1,036	1,191	312	246	87%	127%	94%
6	885	1,001	228	201	88%	113%	93%
7	799	844	203	168	95%	121%	99%
8	722	734	151	139	98%	108%	100%
9	668	649	126	117	103%	108%	104%
10	618	588	124	100	105%	124%	108%
11	553	544	98	87	102%	112%	103%
12	616	512	94	77	120%	122%	121%
13	500	483	89	69	103%	129%	107%
14+	15,204	13,659	1,350	1,476	111%	91%	109%
<b>Total</b>	<b>25,331</b>	<b>24,835</b>	<b>3,611</b>	<b>3,594</b>	<b>102%</b>	<b>100%</b>	<b>102%</b>

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