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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 G.LTC5398, G.LTC5498 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
<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 4.49%</li> </ul> LLR without rate increase – 116.5% LLR with rate increase – 112.9%
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 4.49%</li> </ul> LLR without rate increase – 116.7% LLR with rate increase – 112.5%
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 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):

- G.LTC5398
- G.LTC5498

### 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 Plan and the Facilities Plan. Both plans pay benefits up to a monthly benefit limit ("MBL") determined by the chosen Nursing Home daily benefit amount multiplied by the number of days in a given month (except for those plans that multiply by 30 days in February). There is no limit to benefits payable on a daily basis, except for Respite Care, which is subject to a daily benefit limit ("DBL").

#### Comprehensive Plan

There are five types of benefits covered under the Comprehensive Plan. These benefits are Nursing Home (and In-Patient Hospice care), Assisted Living Facility, Home Care (including Adult Day Care and At-Home Hospice care), Informal Care and Respite Care benefits.

#### I. Nursing Home Care

The benefit reimburses 100% of room and board charges in a Nursing Home, up to the MBL for Skilled, Intermediate, and Custodial Care. Also covered under the

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Nursing Home benefit are Hospice services and Bed reservation charges in a Nursing Home.

### II. Assisted Living Facility Care

The benefit reimburses 100% of room and board charges in an Assisted Living Facility, up to the MBL for maintenance or personal care.

### III. Home Care

The benefit will be paid for Home Care services and reimburses 100% of the charges from licensed providers, up to 50% or 80% of the MBL (as chosen by the insured). Covered under the Home Care benefit are services received from a Registered Nurse, Licensed Practical Nurse, Licensed Vocational Nurse, Home Health Aide, Homemaker, Physical, Occupational and Speech Therapist, Adult Day Care Centers, At-Home Hospice care, and Ongoing Care Advisory Services.

### IV. Informal Home Care

The benefit will be paid for Informal Home Care Services provided from a family member or an unlicensed, private provider and reimburses 100% of the charges from informal caregivers, up to 50% of the Home Care monthly benefit limit (therefore, either 25% or 40% of the MBL).

### V. Respite Care

The benefit will be paid for Respite Care Services provided at home or in a Nursing Home or Assisted Living Facility and reimburses 100% of the charges from licensed providers, up to a daily limit that varies according to the type of service received. Respite Care Benefits are limited to 21 days per calendar year.

### Facilities Plan

There are three types of benefits covered under the Facilities Plan. These benefits are Nursing Home (and In-Patient Hospice care), Assisted Living Facility and Respite Care benefits.

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### I. Nursing Home Care

The benefit reimburses 100% of room and board charges in a Nursing Home, up to the MBL for Skilled, Intermediate, and Custodial Care. Also covered under the Nursing Home benefit are Hospice services and Bed reservation charges in a Nursing Home.

### II. Assisted Living Facility Care

The benefit reimburses 100% of room and board charges in an Assisted Living Facility, up to the MBL for maintenance or personal care.

### III. Respite Care

The benefit will be paid for Respite Care Services provided in a Nursing Home or Assisted Living Facility and reimburses 100% of the charges from licensed providers, up to a daily limit that varies according to the type of service received. Respite Care Benefits are limited to 21 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 June 1, 2000 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 situated). These policy forms are no longer being marketed to AARP members and spouses.

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**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:

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.

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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.

### **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. If two or more members of the same household purchased coverage, a household discount was applied. The monthly EFT Premium was equal to the monthly premium less \$2.

### **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.

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### 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 4.49%. 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 4.49%.

### 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 4.49%.

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.



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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 %	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 National Nursing Home Survey and 1982-84 National

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Long Term Care Survey, respectively, with modifications to incorporate experience of other long-term care business that MetLife issued or administered, as well as to incorporate industry expectations.

- b. Voluntary termination rates by duration were assumed to be 11% in year one, grading down to 4.5% in year ten and thereafter.
- c. Mortality was based on the 1983 Group Annuity Mortality Table, adjusted to remove loading. These rates vary by age and sex.

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:

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Before increase:	\$2,063
After all prior authorized increases:	\$2,159
After current requested increase:	\$2,612

### 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	18%
55-59	25%
60-64	28%
65-69	19%
70-74	8%
75+	2%
Total	100%

#### By Benefit Period:

Benefit Period	Percent
4 Year	53%
Unlimited	47%
Total	100%

#### By Inflation Option:

Inflation	Percent
Optional	89%
Auto 5% Compound	11%
Total	100%

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By Home Care Percentage:

<b>Home Care %</b>	<b>Percent</b>
0% (FC Only)	21%
50%	68%
80%	11%
Total	100%

By Elimination Period:

<b>Days</b>	<b>Percent</b>
20	N/A
30	100%
45	N/A
60	N/A
90	N/A
Total	100%

By Gender:

<b>Gender</b>	<b>Percent</b>
Female	62%
Male	38%
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:

	<b>Issued Before Rate Stability Regulation Effective Date</b>		<b>Issued On or After Rate Stability Regulation Effective Date</b>	
	<b>Number of Insured</b>	<b>2019 Annualized Premium</b>	<b>Number of Insured</b>	<b>2019 Annualized Premium</b>
Certificates Issued in Maryland	485	\$1,104,402	636	\$1,207,923
Nationwide	47,683	\$92,163,140	13,765	\$24,757,717

**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			Life Years	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		Earned Premium	Incurred Claims	Loss Ratio			Policy Lapse & Mortality	Policy Shock Lapse	Policy Persistency		
1997	35,397	-	0.0%	151	91,046	-	0.0%						4.40%	2.5721
1998	2,709,668	68,198	2.5%	3,784	6,669,962	167,873	2.5%						4.40%	2.4615
1999	13,625,336	1,239,998	9.1%	17,805	32,097,505	2,921,090	9.1%						4.40%	2.3557
2000	33,643,817	3,791,849	11.3%	37,513	75,848,332	8,548,537	11.3%						4.40%	2.2545
2001	56,040,100	6,151,971	16.3%	53,930	120,908,378	19,745,681	16.3%						4.40%	2.1575
2002	73,045,895	15,491,137	21.2%	65,678	150,823,848	31,985,821	21.2%						4.40%	2.0648
2003	93,280,952	21,215,512	22.6%	81,214	184,324,850	41,736,490	22.6%						4.40%	1.9760
2004	110,414,946	27,600,772	25.0%	90,841	208,802,406	52,194,995	25.0%						4.40%	1.8911
2005	120,430,373	30,475,808	25.3%	92,413	217,951,760	55,154,326	25.3%						4.40%	1.8098
2006	122,086,764	45,845,925	37.6%	91,244	211,450,952	79,403,895	37.6%						4.40%	1.7320
2007	122,583,084	42,232,214	34.5%	89,726	203,183,446	70,000,579	34.5%						4.40%	1.6575
2008	122,270,964	55,503,944	45.4%	87,660	193,953,594	88,043,710	45.4%						4.40%	1.5863
2009	120,794,526	58,925,904	48.8%	85,783	183,374,297	89,453,526	48.8%						4.40%	1.5181
2010	119,357,523	66,471,216	55.7%	83,614	173,403,445	96,569,848	55.7%						4.40%	1.4528
2011	116,881,753	76,089,617	65.2%	81,442	162,228,661	105,791,320	65.2%						4.40%	1.3904
2012	115,258,145	92,109,164	79.9%	79,470	153,360,311	122,558,714	79.9%						4.40%	1.3306
2013	112,707,215	92,762,493	82.3%	77,212	143,519,128	118,121,915	82.3%						4.40%	1.2734
2014	110,773,968	94,126,231	85.0%	74,958	134,993,388	114,705,819	85.0%						4.40%	1.2188
2015	107,963,580	99,254,143	91.9%	72,537	125,912,479	115,755,102	91.9%						4.40%	1.1662
2016	104,984,586	128,059,965	122.0%	70,125	117,174,674	142,929,407	122.0%						4.40%	1.1161
2017	103,870,010	138,859,601	133.7%	67,494	110,946,882	148,320,384	133.7%						4.40%	1.0681
2018	99,056,531	144,761,038	146.1%	64,007	101,256,930	147,976,698	146.1%						4.40%	1.0222
2019	113,289,600	154,635,751	136.5%	63,191	110,826,742	151,275,384	136.5%	1.1586	N/A	0.0127	N/A	0.987	N/A	0.9783
2020	112,579,442	165,963,575	147.4%	62,330	105,398,436	155,377,401	147.4%	1.2247	N/A	0.0136	N/A	0.986	0.940	0.9362
2021	105,827,937	176,741,148	167.0%	61,785	94,818,290	158,354,153	167.0%	1.2303	N/A	0.0087	N/A	0.991	0.936	0.8960
2022	98,524,094	186,605,794	189.4%	61,289	84,479,425	160,005,027	189.4%	1.2303	N/A	0.0080	N/A	0.992	0.931	0.8574
2023	91,222,525	195,525,347	214.3%	60,796	74,856,119	160,445,774	214.3%	1.2303	N/A	0.0080	N/A	0.992	0.926	0.8206
2024	83,872,190	203,871,731	242.3%	60,302	65,865,862	159,826,242	242.3%	1.2303	N/A	0.0080	N/A	0.992	0.919	0.7853
2025	76,630,658	209,683,209	273.6%	59,831	57,591,873	157,572,663	273.6%	1.2303	N/A	0.0080	N/A	0.992	0.914	0.7516
2026	69,627,458	214,674,198	308.3%	59,352	50,079,029	154,402,814	308.3%	1.2303	N/A	0.0080	N/A	0.992	0.909	0.7192
2027	62,895,301	218,124,080	346.8%	58,876	43,292,262	150,139,750	346.8%	1.2303	N/A	0.0080	N/A	0.992	0.903	0.6883
2028	56,482,268	219,927,550	389.4%	58,407	37,206,680	144,873,325	389.4%	1.2303	N/A	0.0080	N/A	0.992	0.898	0.6587
2029	50,407,126	220,045,876	436.5%	57,938	31,777,333	138,719,892	436.5%	1.2303	N/A	0.0080	N/A	0.992	0.892	0.6304
2030	44,684,961	219,439,550	488.8%	57,472	26,958,989	131,787,290	488.8%	1.2303	N/A	0.0080	N/A	0.992	0.886	0.6033
2031	39,340,455	215,176,028	547.0%	56,983	22,714,245	124,237,534	547.0%	1.2303	N/A	0.0085	N/A	0.991	0.880	0.5774
2032	34,399,053	210,284,848	611.3%	56,481	19,007,375	116,193,981	611.3%	1.2303	N/A	0.0088	N/A	0.991	0.874	0.5526
2033	29,855,507	203,935,680	683.1%	55,940	15,787,626	107,841,416	683.1%	1.2303	N/A	0.0096	N/A	0.990	0.868	0.5288
2034	25,702,008	196,186,945	763.3%	55,313	13,006,970	99,283,982	763.3%	1.2303	N/A	0.0112	N/A	0.989	0.861	0.5061
2035	21,948,167	187,053,757	852.3%	54,638	10,629,774	90,597,341	852.3%	1.2303	N/A	0.0122	N/A	0.988	0.854	0.4843
2036	18,586,804	176,618,410	950.2%	53,983	8,614,840	81,981,271	950.2%	1.2303	N/A	0.0142	N/A	0.986	0.847	0.4635
2037	15,602,958	165,173,082	1058.6%	52,963	6,920,957	73,265,328	1058.6%	1.2303	N/A	0.0167	N/A	0.983	0.839	0.4436
2038	12,976,272	152,905,779	1178.3%	51,920	5,508,405	64,908,241	1178.3%	1.2303	N/A	0.0197	N/A	0.980	0.832	0.4245
2039	10,692,522	140,044,142	1309.7%	50,676	4,343,830	56,892,839	1309.7%	1.2303	N/A	0.0240	N/A	0.976	0.824	0.4062
2040	8,729,796	126,862,019	1453.2%	49,239	3,394,009	49,322,035	1453.2%	1.2303	N/A	0.0284	N/A	0.972	0.816	0.3888
2041	7,059,285	113,575,442	1608.9%	47,739	2,626,557	42,258,154	1608.9%	1.2303	N/A	0.0305	N/A	0.970	0.809	0.3721
2042	5,651,554	100,520,009	1778.6%	46,070	2,012,383	35,792,771	1778.6%	1.2303	N/A	0.0350	N/A	0.965	0.801	0.3561
2043	4,476,916	87,970,255	1965.0%	44,192	1,525,592	29,977,497	1965.0%	1.2303	N/A	0.0407	N/A	0.959	0.792	0.3408
2044	3,507,925	76,099,449	2169.4%	42,096	1,144,001	24,817,484	2169.4%	1.2303	N/A	0.0474	N/A	0.953	0.784	0.3261
2045	2,717,914	65,065,181	2393.9%	39,705	848,259	20,306,805	2393.9%	1.2303	N/A	0.0568	N/A	0.943	0.775	0.3121
2046	2,080,467	54,981,732	2642.8%	37,125	621,399	16,422,077	2642.8%	1.2303	N/A	0.0650	N/A	0.935	0.765	0.2987
2047	1,573,356	45,914,227	2918.2%	34,332	449,731	13,124,225	2918.2%	1.2303	N/A	0.0752	N/A	0.925	0.756	0.2858
2048	1,174,597	37,860,620	3223.3%	31,243	321,316	10,356,925	3223.3%	1.2303	N/A	0.0900	N/A	0.910	0.747	0.2736
2049	865,121	30,807,091	3561.0%	28,224	226,484	8,065,114	3561.0%	1.2303	N/A	0.0966	N/A	0.903	0.737	0.2618
2050	627,548	24,703,772	3936.6%	25,392	157,226	6,189,275	3936.6%	1.2303	N/A	0.1003	N/A	0.900	0.725	0.2505
2051	447,902	19,486,404	4350.6%	22,694	107,393	4,672,238	4350.6%	1.2303	N/A	0.1062	N/A	0.894	0.714	0.2398
2052	314,169	15,104,986	4807.9%	19,934	72,090	3,465,991	4807.9%	1.2303	N/A	0.1216	N/A	0.878	0.701	0.2295
2053	216,252	11,489,984	5304.0%	17,144	47,458	2,518,776	5304.0%	1.2303	N/A	0.1400	N/A	0.860	0.688	0.2196
2054	145,986	8,506,108	5826.7%	14,699	30,680	1,787,616	5826.7%	1.2303	N/A	0.1426	N/A	0.857	0.675	0.2102
2055	96,262	6,147,354	6386.1%	12,544	19,360	1,236,370	6386.1%	1.2303	N/A	0.1466	N/A	0.853	0.659	0.2011
2056	61,997	4,319,699	6967.6%	10,390	11,933	831,439	6967.6%	1.2303	N/A	0.1717	N/A	0.828	0.644	0.1925
2057	39,063	2,959,602	7576.5%	7,952	7,195	545,164	7576.5%	1.2303	N/A	0.2347	N/A	0.765	0.630	0.1842
2058	24,167	1,984,241	8127.6%	5,908	4,260	346,262	8127.6%	1.2303	N/A	0.2570	N/A	0.743	0.619	0.1763
2059	14,803	1,289,126	8573.2%	4,179	2,497	214,107	8573.2%	1.2303	N/A	0.2927	N/A	0.707	0.613	0.1687
2060	9,093	799,993	8797.9%	2,823	1,468	129,161	8797.9%	1.2303	N/A	0.3246	N/A	0.675	0.614	0.1615
2061	5,737	493,508	8602.3%	1,844	886	76,253	8602.3%	1.2303	N/A	0.3467	N/A	0.653	0.631	0.1545
2062	3,835	310,467	8094.8%	1,059	567	45,908	8094.8%	1.2303	N/A	0.4257	N/A	0.574	0.609	0.1479
2063	2,482	199,598	7173.8%	548	394	28,244	7173.8%	1.2303	N/A	0.4830	N/A	0.517	0.725	0.1415
2064	2,186	132,767	6073.1%	262	296	17,980	6073.1%	1.2303	N/A	0.5215	N/A	0.478	0.786	0.1354
2065	1,829	91,032	4977.3%	146	237	11,798	4977.3%	1.2303	N/A	0.4424	N/A	0.558	0.837	0.1296
2066	1,605	64,239	4001.4%	87	199	7,968	4001.4%	1.2303	N/A	0.4071	N/A	0.593	0.878	0.1240
2067	1,454	47,080	3237.6%	54	173	5,588	3237.6%	1.2303	N/A	0.3736	N/A	0.626	0.906	0.1187
2068	1,351	33,933	2512.1%	37	153	3,855	2512.1%	1.2303	N/A	0.3183	N/A	0.662	0.929	0.1136
2069	1,281	25,115	1961.3%	20	139	2,730	1961.3%	1.2303	N/A	0.4469	N/A	0.553	0.948	0.1087
2070+	15,485	52,856	341.3%	16	1,611	5,499	341.3%	1.2303	N/A	0.2058	N/A	0.794	N/A	0.1040
Past	1,981,615,135	1,243,942,700	62.8%	1,468,601	3,012,276,273	1,652,085,728	54.8%							
Future	1,215,018,617	4,868,824,258	400.7%	1,758,052	903,321,443	2,910,236,615	322.2%							

**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 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	Persistence Shock Lapse				Policy Persistency
1997	35,397	-	0.0%	151	91,046	-	0.0%						4.40%	2.5721	
1998	2,709,668	68,198	2.5%	3,784	6,669,962	167,873	2.5%						4.40%	2.4615	
1999	13,625,336	1,239,998	9.1%	17,805	32,097,505	2,921,090	9.1%						4.40%	2.3557	
2000	33,643,817	3,791,849	11.3%	37,513	75,848,332	8,548,537	11.3%						4.40%	2.2545	
2001	56,040,100	6,151,971	16.3%	53,930	120,908,378	19,745,681	16.3%						4.40%	2.1575	
2002	73,045,895	15,491,137	21.2%	65,678	150,823,848	31,985,821	21.2%						4.40%	2.0648	
2003	93,280,952	21,215,512	22.6%	81,214	184,324,850	41,736,490	22.6%						4.40%	1.9760	
2004	110,414,946	27,600,772	25.0%	90,841	208,802,406	52,194,995	25.0%						4.40%	1.8911	
2005	120,430,373	30,475,808	25.3%	92,413	217,951,760	55,154,326	25.3%						4.40%	1.8098	
2006	122,086,764	45,845,925	37.6%	91,244	211,450,952	79,403,895	37.6%						4.40%	1.7320	
2007	122,583,084	42,232,214	34.5%	89,726	203,183,446	70,000,579	34.5%						4.40%	1.6575	
2008	122,270,964	55,503,944	45.4%	87,660	193,953,594	88,043,710	45.4%						4.40%	1.5863	
2009	120,794,526	58,925,904	48.8%	85,783	183,374,297	89,453,526	48.8%						4.40%	1.5181	
2010	119,357,523	66,471,216	55.7%	83,614	173,403,445	96,569,848	55.7%						4.40%	1.4528	
2011	116,681,753	76,089,617	65.2%	81,442	162,228,661	105,791,320	65.2%						4.40%	1.3904	
2012	115,258,145	92,109,164	79.9%	79,470	153,360,311	122,558,714	79.9%						4.40%	1.3306	
2013	112,707,215	92,762,493	82.3%	77,212	143,513,128	118,121,915	82.3%						4.40%	1.2734	
2014	110,773,968	94,126,231	85.0%	74,958	134,993,388	114,705,819	85.0%						4.40%	1.2188	
2015	107,963,580	99,254,143	91.9%	72,537	125,912,479	115,755,102	91.9%						4.40%	1.1662	
2016	104,984,586	128,059,965	122.0%	70,125	117,174,674	142,929,407	122.0%						4.40%	1.1161	
2017	103,870,010	138,859,601	133.7%	67,494	110,946,882	148,320,384	133.7%						4.40%	1.0681	
2018	99,056,531	144,761,038	146.1%	64,007	101,256,930	147,976,698	146.1%						4.40%	1.0222	
2019	113,268,600	154,635,751	136.5%	63,191	110,826,742	151,275,384	136.5%	1.1586	1.0000	0.0127	1.0000	0.987	N/A	0.9783	
2020	112,579,442	165,983,575	147.4%	62,330	105,398,436	155,377,401	147.4%	1.2247	1.0000	0.0136	1.0000	0.986	0.940	0.9362	
2021	111,560,284	176,741,148	158.4%	61,785	99,954,281	158,354,153	158.4%	1.2970	1.0000	0.0087	1.0000	0.991	0.936	0.8960	
2022	114,246,897	186,605,794	163.3%	61,289	97,960,933	160,005,027	163.3%	1.4267	1.0000	0.0080	1.0000	0.992	0.931	0.8749	
2023	110,379,255	195,525,347	177.1%	60,796	90,575,904	160,445,774	177.1%	1.4887	1.0000	0.0080	1.0000	0.992	0.926	0.8206	
2024	101,465,076	203,251,127	200.3%	60,312	79,698,172	159,515,812	200.3%	1.4887	1.0000	0.0080	1.0000	0.992	0.919	0.7553	
2025	92,723,097	209,683,209	226.1%	59,831	69,686,166	157,572,663	226.1%	1.4887	1.0000	0.0080	1.0000	0.992	0.914	0.449%	0.7516
2026	84,249,224	214,674,198	254.8%	59,352	60,595,625	154,402,814	254.8%	1.4887	1.0000	0.0080	1.0000	0.992	0.909	0.449%	0.7192
2027	76,103,315	218,124,080	286.6%	58,876	52,383,637	150,139,570	286.6%	1.4887	1.0000	0.0080	1.0000	0.992	0.903	0.449%	0.6883
2028	68,343,545	219,927,550	321.8%	58,407	45,020,083	144,873,325	321.8%	1.4887	1.0000	0.0080	1.0000	0.992	0.898	0.449%	0.6587
2029	60,992,623	220,045,876	360.8%	57,938	38,450,573	138,719,892	360.8%	1.4887	1.0000	0.0080	1.0000	0.992	0.892	0.449%	0.6304
2030	54,068,803	219,439,550	404.0%	57,472	32,620,377	131,787,290	404.0%	1.4887	1.0000	0.0080	1.0000	0.992	0.886	0.449%	0.6033
2031	47,601,950	215,176,028	452.0%	56,983	27,484,237	124,237,534	452.0%	1.4887	1.0000	0.0085	1.0000	0.991	0.880	0.449%	0.5774
2032	41,622,854	210,284,848	505.2%	56,481	22,998,923	116,193,981	505.2%	1.4887	1.0000	0.0088	1.0000	0.991	0.874	0.449%	0.5526
2033	36,125,163	203,935,680	564.5%	55,940	19,103,027	107,841,416	564.5%	1.4887	1.0000	0.0096	1.0000	0.990	0.868	0.449%	0.5288
2034	31,099,429	196,186,945	630.8%	55,313	15,738,433	99,283,982	630.8%	1.4887	1.0000	0.0112	1.0000	0.989	0.861	0.449%	0.5061
2035	26,553,282	187,533,757	704.4%	54,638	12,862,027	90,597,341	704.4%	1.4887	1.0000	0.0122	1.0000	0.988	0.854	0.449%	0.4843
2036	22,490,033	176,618,410	785.3%	53,983	10,423,857	81,981,271	785.3%	1.4887	1.0000	0.0142	1.0000	0.986	0.847	0.449%	0.4635
2037	18,879,579	165,173,082	874.9%	52,963	8,374,358	73,265,328	874.9%	1.4887	1.0000	0.0167	1.0000	0.983	0.839	0.449%	0.4436
2038	15,701,289	152,905,779	973.8%	51,920	6,665,170	64,908,241	973.8%	1.4887	1.0000	0.0197	1.0000	0.980	0.832	0.449%	0.4245
2039	12,937,952	140,044,142	1082.4%	50,676	5,256,034	56,892,839	1082.4%	1.4887	1.0000	0.0240	1.0000	0.976	0.824	0.449%	0.4062
2040	10,563,041	126,862,019	1201.0%	49,239	4,106,751	49,322,035	1201.0%	1.4887	1.0000	0.0284	1.0000	0.972	0.816	0.449%	0.3888
2041	8,541,735	113,571,042	1329.7%	47,739	3,178,134	42,258,154	1329.7%	1.4887	1.0000	0.0305	1.0000	0.970	0.809	0.449%	0.3721
2042	6,838,380	100,520,009	1469.9%	46,070	2,434,983	35,792,771	1469.9%	1.4887	1.0000	0.0350	1.0000	0.965	0.801	0.449%	0.3561
2043	5,417,068	87,970,255	1623.9%	44,192	1,845,967	29,977,497	1623.9%	1.4887	1.0000	0.0407	1.0000	0.959	0.792	0.449%	0.3408
2044	4,244,589	76,099,449	1792.9%	42,096	1,384,242	24,817,484	1792.9%	1.4887	1.0000	0.0474	1.0000	0.953	0.784	0.449%	0.3261
2045	3,288,676	65,065,181	1978.5%	39,705	1,026,394	20,306,805	1978.5%	1.4887	1.0000	0.0568	1.0000	0.943	0.775	0.449%	0.3121
2046	2,517,365	54,981,732	2184.1%	37,125	751,893	16,422,077	2184.1%	1.4887	1.0000	0.0650	1.0000	0.935	0.765	0.449%	0.2987
2047	1,903,790	45,914,227	2411.8%	34,332	544,175	13,124,225	2411.8%	1.4887	1.0000	0.0752	1.0000	0.925	0.756	0.449%	0.2858
2048	1,421,263	37,860,620	2663.9%	31,243	388,792	10,356,925	2663.9%	1.4887	1.0000	0.0900	1.0000	0.910	0.747	0.449%	0.2736
2049	1,046,797	30,807,091	2943.0%	28,224	274,045	8,065,114	2943.0%	1.4887	1.0000	0.0966	1.0000	0.903	0.737	0.449%	0.2618
2050	799,333	24,703,772	3253.4%	25,392	190,243	6,189,275	3253.4%	1.4887	1.0000	0.1003	1.0000	0.900	0.725	0.449%	0.2505
2051	541,961	19,486,404	3595.5%	22,694	129,946	4,672,238	3595.5%	1.4887	1.0000	0.1062	1.0000	0.894	0.714	0.449%	0.2398
2052	380,145	15,104,886	3973.5%	19,934	87,229	3,465,991	3973.5%	1.4887	1.0000	0.1216	1.0000	0.878	0.701	0.449%	0.2295
2053	261,665	11,469,984	4383.5%	17,144	57,461	2,518,776	4383.5%	1.4887	1.0000	0.1400	1.0000	0.860	0.688	0.449%	0.2196
2054	176,643	8,506,108	4815.4%	14,699	37,123	1,787,616	4815.4%	1.4887	1.0000	0.1426	1.0000	0.857	0.675	0.449%	0.2102
2055	116,477	6,147,354	5277.7%	12,544	23,426	1,236,370	5277.7%	1.4887	1.0000	0.1466	1.0000	0.853	0.659	0.449%	0.2011
2056	75,017	4,319,699	5758.3%	10,390	14,439	831,439	5758.3%	1.4887	1.0000	0.1717	1.0000	0.828	0.644	0.449%	0.1925
2057	47,296	2,959,602	6261.6%	7,952	8,706	545,164	6261.6%	1.4887	1.0000	0.2347	1.0000	0.765	0.630	0.449%	0.1842
2058	29,243	1,984,241	6717.0%	5,908	5,155	346,262	6717.0%	1.4887	1.0000	0.2570	1.0000	0.743	0.619	0.449%	0.1763
2059	17,912	1,269,126	7085.3%	4,179	3,022	214,107	7085.3%	1.4887	1.0000	0.2927	1.0000	0.707	0.613	0.449%	0.1687
2060	11,003	799,993	7271.0%	2,823	1,776	129,161	7271.0%	1.4887	1.0000	0.3246	1.0000	0.675	0.614	0.449%	0.1615
2061	6,942	493,508	7109.4%	1,844	1,073	76,253	7109.4%	1.4887	1.0000	0.3467	1.0000	0.653	0.631	0.449%	0.1545
2062	4,641	310,467	6689.9%	1,059	686	45,908	6689.9%	1.4887	1.0000	0.4257	1.0000	0.574	0.609	0.449%	0.1479
2063	3,396	193,588	5928.8%	648	476	28,244	5928.8%	1.4887	1.0000	0.4830	1.0000	0.517	0.725	0.449%	0.1415
2064	2,645	132,767	5019.1%	262	358	17,980	5019.1%	1.4887	1.0000	0.5215	1.0000	0.478	0.786	0.449%	0.1354
2065	2,213	91,032	4113.5%	146	287	11,798	4113.5%	1.4887	1.0000	0.4424	1.0000	0.558	0.837	0.449%	0.1296
2066	1,943	64,239	3306.9%	87	241	7,968	3306.9%	1.4887	1.0000						



**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	3,008,684,479	x	58%	=	1,745,036,998
2a	Accumulated value of earned premium	3,012,276,273				
2b	Accumulated value of prior premium rate schedule increases (2a-1)	3,591,793	x	85%	=	3,053,024
3	Present value of future projected initial earned premium	740,177,322	x	58%	=	429,302,847
4a	Present value of future projected premium	1,028,576,637				
4b	Present value of future projected premium in excess of the projected initial earned premiums (4a-3)	288,399,315	x	85%	=	245,139,418
<b>5</b>	<b>Lifetime Earned Premium Times Prescribed Factor: Sum of 1, 2b, 3, and 4b</b>					<b>2,422,532,287</b>
6a	Accumulated value of incurred claims without the inclusion of active life reserves					1,652,085,728
6b	Present value of future projected incurred claims without the inclusion of active life reserves					2,910,236,615
<b>7</b>	<b>Lifetime Incurred Claims with Rate Increase: Sum of 6a and 6b</b>					<b>4,562,322,343</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 Persistence			
1997	-	-	N/A	-	-	-	N/A							4.49%	2.5721
1998	-	-	N/A	-	-	-	N/A							4.49%	2.4615
1999	-	-	N/A	1	-	-	N/A							4.49%	2.3557
2000	89,918	-	0.0%	334	202,716	-	0.0%							4.49%	2.2545
2001	645,355	2,310	0.4%	686	1,392,374	4,984	0.4%							4.49%	2.1575
2002	939,193	0.0%	920	1,939,229	-	-	0.0%							4.49%	2.0648
2003	1,389,084	352,569	25.4%	1,280	2,744,856	696,683	25.4%							4.49%	1.9760
2004	1,756,640	146,966	8.4%	1,496	3,321,929	277,922	8.4%							4.49%	1.8911
2005	2,110,460	866,762	41.1%	1,631	3,819,455	1,568,643	41.1%							4.49%	1.8098
2006	2,199,641	433,169	19.7%	1,602	3,809,718	750,237	19.7%							4.49%	1.7320
2007	2,210,588	544,347	24.6%	1,563	3,604,086	902,264	24.6%							4.49%	1.6575
2008	2,210,943	399,639	18.1%	1,532	3,507,131	633,932	18.1%							4.49%	1.5863
2009	2,190,443	752,040	34.3%	1,499	3,325,241	1,141,648	34.3%							4.49%	1.5181
2010	2,159,749	767,254	35.5%	1,464	3,137,698	1,114,672	35.5%							4.49%	1.4528
2011	2,120,298	869,659	41.0%	1,427	2,947,960	1,209,132	41.0%							4.49%	1.3904
2012	2,123,273	1,404,042	66.1%	1,400	2,825,187	1,888,192	66.1%							4.49%	1.3306
2013	2,105,771	2,040,967	96.9%	1,379	2,681,446	2,596,417	96.9%							4.49%	1.2734
2014	2,114,464	1,848,808	87.4%	1,352	2,576,767	2,253,029	87.4%							4.49%	1.2186
2015	2,071,141	1,750,816	84.5%	1,315	2,415,467	2,041,889	84.5%							4.49%	1.1662
2016	2,010,712	2,617,667	130.2%	1,278	2,244,183	2,921,613	130.2%							4.49%	1.1161
2017	2,021,940	1,440,749	71.3%	1,239	2,159,699	1,538,910	71.3%							4.49%	1.0681
2018	1,988,038	2,022,305	101.7%	1,170	2,032,199	2,067,227	101.7%							4.49%	1.0222
2019	2,225,863	2,608,434	117.1%	1,155	2,177,513	2,549,794	117.1%	1.1586	N/A	0.0128	N/A	0.987	N/A	4.49%	0.9783
2020	2,226,529	2,843,269	127.7%	1,139	2,084,508	2,661,908	127.7%	1.2247	N/A	0.0137	N/A	0.986	0.946	4.49%	0.9362
2021	2,106,737	3,074,191	145.9%	1,129	1,887,566	2,754,373	145.9%	1.2303	N/A	0.0088	N/A	0.991	0.942	4.49%	0.8960
2022	1,974,784	3,294,934	166.9%	1,120	1,693,277	2,825,239	166.9%	1.2303	N/A	0.0081	N/A	0.992	0.937	4.49%	0.8574
2023	1,841,225	3,507,395	190.5%	1,111	1,510,887	2,878,127	190.5%	1.2303	N/A	0.0081	N/A	0.992	0.932	4.49%	0.8206
2024	1,705,448	3,730,458	217.7%	1,102	1,338,304	2,936,308	217.7%	1.2303	N/A	0.0080	N/A	0.992	0.926	4.49%	0.7853
2025	1,569,585	3,886,215	247.6%	1,093	1,179,609	2,920,690	247.6%	1.2303	N/A	0.0081	N/A	0.992	0.920	4.49%	0.7516
2026	1,436,605	4,047,245	281.7%	1,084	1,033,268	2,910,951	281.7%	1.2303	N/A	0.0080	N/A	0.992	0.915	4.49%	0.7192
2027	1,307,257	4,187,521	320.3%	1,076	899,815	2,882,365	320.3%	1.2303	N/A	0.0080	N/A	0.992	0.910	4.49%	0.6883
2028	1,182,484	4,296,464	363.3%	1,067	778,940	2,830,219	363.3%	1.2303	N/A	0.0080	N/A	0.992	0.905	4.49%	0.6587
2029	1,062,855	4,374,701	411.6%	1,059	670,038	2,757,871	411.6%	1.2303	N/A	0.0080	N/A	0.992	0.899	4.49%	0.6304
2030	948,770	4,413,182	465.2%	1,050	572,405	2,662,889	465.2%	1.2303	N/A	0.0080	N/A	0.992	0.893	4.49%	0.6033
2031	840,942	4,415,962	525.1%	1,042	485,540	2,549,672	525.1%	1.2303	N/A	0.0080	N/A	0.992	0.886	4.49%	0.5774
2032	740,042	4,376,595	591.4%	1,033	408,914	2,418,310	591.4%	1.2303	N/A	0.0088	N/A	0.991	0.880	4.49%	0.5526
2033	646,158	4,296,112	664.9%	1,024	341,689	2,271,789	664.9%	1.2303	N/A	0.0080	N/A	0.992	0.873	4.49%	0.5288
2034	559,487	4,175,332	746.3%	1,015	283,138	2,113,003	746.3%	1.2303	N/A	0.0089	N/A	0.991	0.866	4.49%	0.5061
2035	480,350	4,017,193	836.3%	1,006	232,640	1,945,577	836.3%	1.2303	N/A	0.0096	N/A	0.990	0.859	4.49%	0.4843
2036	408,802	3,825,165	935.7%	992	189,477	1,772,949	935.7%	1.2303	N/A	0.0139	N/A	0.986	0.851	4.49%	0.4635
2037	344,688	3,604,942	1045.9%	980	152,892	1,599,033	1045.9%	1.2303	N/A	0.0114	N/A	0.989	0.843	4.49%	0.4436
2038	287,809	3,361,913	1168.1%	967	122,174	1,427,126	1168.1%	1.2303	N/A	0.0140	N/A	0.986	0.835	4.49%	0.4245
2039	238,091	3,102,342	1303.0%	947	96,724	1,260,324	1303.0%	1.2303	N/A	0.0201	N/A	0.980	0.827	4.49%	0.4062
2040	195,125	2,833,416	1452.1%	919	75,862	1,101,589	1452.1%	1.2303	N/A	0.0298	N/A	0.970	0.820	4.49%	0.3888
2041	153,338	2,561,259	1617.6%	895	58,913	952,971	1617.6%	1.2303	N/A	0.0259	N/A	0.974	0.811	4.49%	0.3721
2042	127,164	2,282,929	1795.3%	871	45,280	812,896	1795.3%	1.2303	N/A	0.0271	N/A	0.973	0.803	4.49%	0.3561
2043	101,046	2,013,637	1992.6%	845	34,433	686,184	1992.6%	1.2303	N/A	0.0294	N/A	0.971	0.795	4.49%	0.3408
2044	79,400	1,754,437	2209.6%	813	25,894	572,155	2209.6%	1.2303	N/A	0.0383	N/A	0.962	0.786	4.49%	0.3261
2045	61,662	1,508,610	2446.6%	779	19,245	470,836	2446.6%	1.2303	N/A	0.0419	N/A	0.958	0.777	4.49%	0.3121
2046	47,302	1,281,484	2709.2%	738	14,128	382,757	2709.2%	1.2303	N/A	0.0526	N/A	0.947	0.767	4.49%	0.2987
2047	35,853	1,074,358	2996.5%	695	10,248	307,097	2996.5%	1.2303	N/A	0.0579	N/A	0.942	0.758	4.49%	0.2858
2048	26,819	888,589	3313.2%	643	7,337	243,077	3313.2%	1.2303	N/A	0.0751	N/A	0.925	0.748	4.49%	0.2736
2049	19,782	725,087	3665.4%	589	5,179	189,824	3665.4%	1.2303	N/A	0.0836	N/A	0.916	0.738	4.49%	0.2618
2050	14,360	583,457	4063.1%	540	3,598	146,179	4063.1%	1.2303	N/A	0.0833	N/A	0.917	0.726	4.49%	0.2505
2051	10,243	462,684	4516.9%	492	2,456	110,937	4516.9%	1.2303	N/A	0.0896	N/A	0.910	0.713	4.49%	0.2398
2052	7,176	360,483	5023.5%	439	1,647	82,717	5023.5%	1.2303	N/A	0.1075	N/A	0.892	0.701	4.49%	0.2295
2053	4,930	276,441	5607.2%	376	1,083	60,706	5607.2%	1.2303	N/A	0.1440	N/A	0.856	0.687	4.49%	0.2196
2054	3,324	206,870	6223.7%	316	699	43,475	6223.7%	1.2303	N/A	0.1594	N/A	0.841	0.674	4.49%	0.2102
2055	2,201	151,441	6881.9%	261	443	30,458	6881.9%	1.2303	N/A	0.1734	N/A	0.827	0.662	4.49%	0.2011
2056	1,425	108,065	7583.2%	206	274	20,800	7583.2%	1.2303	N/A	0.2091	N/A	0.791	0.648	4.49%	0.1925
2057	901	73,995	8213.2%	164	166	13,630	8213.2%	1.2303	N/A	0.2039	N/A	0.796	0.632	4.49%	0.1842
2058	554	48,824	8820.4%	123	98	8,607	8820.4%	1.2303	N/A	0.2528	N/A	0.747	0.614	4.49%	0.1763
2059	329	30,673	9321.2%	94	56	5,175	9321.2%	1.2303	N/A	0.2342	N/A	0.766	0.594	4.49%	0.1687
2060	191	18,532	9695.1%	64	31	2,992	9695.1%	1.2303	N/A	0.3160	N/A	0.684	0.581	4.49%	0.1615
2061	105	10,280	9768.4%	45	16	1,588	9768.4%	1.2303	N/A	0.3029	N/A	0.697	0.551	4.49%	0.1545
2062	56	5,108	9076.3%	30	8	755	9076.3%	1.2303	N/A	0.3324	N/A	0.668	0.535	4.49%	0.1479
2063	27	2,620	8285.9%	14	4	371	8285.9%	1.2303	N/A	0.3895	N/A	0.461	0.562	4.49%	0.1415
2064	18	1,325	7168.9%	7	3	179	7168.9%	1.2303	N/A	0.5051	N/A	0.495	0.584	4.49%	0.1354
2065	11	729	6375.2%	2	1	94	6375.2%	1.2303	N/A	0.7013	N/A	0.299	0.619	4.49%	0.1296
2066	7	318	4359.8%	1	1	39	4359.8%	1.2303	N/A	0.3382	N/A	0.662	0.637	4.49%	0.1240
2067	5	185	4047.3%	1	1	22	4047.3%	1.2303	N/A	0.0074	N/A	0.993	0.627	4.49%	0.1187
2068	3	95	3194.6%	1	0	11	3194.6%	1.2303	N/A	N/A	N/A	N/A	N/A	4.49%	0.1136
2069	2	36	183.3%	1	0	1	183.3%	1.2303	N/A	N/A	N/A	N/A	N/A	4.49%	0.1087
2070+	1	14	922.3%	1	0	1	922.3%	1.2303	N/A	N/A	N/A	N/A	N/A	4.49%	0.1040
Past		34,457,650	18,259,670	53.0%	24,568	50,747,341	23,589,394	46.5%							
Future		25,032,880	98,678,422	394.2%	33,154	18,447,424	57,149,684	309.8%							
Lifetime		59,490,530	116,938,092	196.6%	57,722	69,194,765	80,739,078	116.7%							

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 G.LTC5398 and G.LTC5498 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 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	Persistence Shock Lapse				Policy Persistence
1997	-	-	N/A	-	-	-	N/A						4.49%	2.5721	
1998	-	-	N/A	-	-	-	N/A						4.49%	2.4615	
1999	-	-	N/A	1	-	-	N/A						4.49%	2.3557	
2000	89,918	-	0.0%	334	202,716	-	0.0%						4.49%	2.2545	
2001	645,355	2,310	0.4%	686	1,392,374	4,984	0.4%						4.49%	2.1575	
2002	939,193	-	0.0%	920	1,939,229	-	0.0%						4.49%	2.0648	
2003	1,389,084	352,569	25.4%	1,280	2,744,856	696,683	25.4%						4.49%	1.9760	
2004	1,756,640	146,966	8.4%	1,496	3,321,929	277,922	8.4%						4.49%	1.8911	
2005	2,110,460	866,762	41.1%	1,631	3,819,455	1,568,643	41.1%						4.49%	1.8098	
2006	2,199,641	433,169	19.7%	1,602	3,809,718	750,237	19.7%						4.49%	1.7320	
2007	2,210,588	544,347	24.6%	1,563	3,604,086	902,264	24.6%						4.49%	1.6575	
2008	2,210,943	399,639	18.1%	1,532	3,507,131	633,932	18.1%						4.49%	1.5863	
2009	2,190,443	752,040	34.3%	1,499	3,325,241	1,141,648	34.3%						4.49%	1.5181	
2010	2,159,749	767,254	35.5%	1,464	3,137,698	1,114,672	35.5%						4.49%	1.4528	
2011	2,120,298	869,659	41.0%	1,427	2,947,960	1,209,132	41.0%						4.49%	1.3904	
2012	2,123,273	1,404,042	66.1%	1,400	2,825,187	1,888,192	66.1%						4.49%	1.3306	
2013	2,105,771	2,040,967	96.9%	1,379	2,681,446	2,598,417	96.9%						4.49%	1.2734	
2014	2,114,464	1,848,808	87.4%	1,352	2,576,767	2,253,029	87.4%						4.49%	1.2188	
2015	2,071,141	1,750,816	84.5%	1,315	2,415,467	2,041,889	84.5%						4.49%	1.1662	
2016	2,010,712	2,617,667	130.2%	1,278	2,244,183	2,921,613	130.2%						4.49%	1.1161	
2017	2,021,940	1,440,749	71.3%	1,239	2,159,699	1,538,910	71.3%						4.49%	1.0681	
2018	1,988,038	2,022,305	101.7%	1,170	2,032,199	2,067,227	101.7%						4.49%	1.0222	
2019	2,225,863	2,608,434	117.1%	1,155	2,177,513	2,549,794	117.1%	1.1566	1.0000	0.0128	1.0000	0.987	N/A	0.9783	
2020	2,226,529	2,843,269	127.7%	1,139	2,084,508	2,661,908	127.7%	1.2247	1.0000	0.0137	1.0000	0.986	0.946	4.49%	0.9362
2021	2,220,852	3,074,191	138.4%	1,129	1,989,809	2,754,373	138.4%	1.2970	1.0000	0.0088	1.0000	0.991	0.942	4.49%	0.8960
2022	2,289,926	3,294,934	143.9%	1,120	1,963,496	2,825,239	143.9%	1.4267	1.0000	0.0081	1.0000	0.992	0.932	4.49%	0.8206
2023	2,227,882	3,507,395	157.4%	1,111	1,828,174	2,878,127	157.4%	1.4887	1.0000	0.0081	1.0000	0.992	0.932	4.49%	0.7853
2024	2,063,592	3,703,592	179.6%	1,102	1,620,563	2,909,562	179.6%	1.4887	1.0000	0.0080	1.0000	0.992	0.926	4.49%	0.7516
2025	1,899,174	3,886,215	204.6%	1,093	1,427,327	2,920,690	204.6%	1.4887	1.0000	0.0081	1.0000	0.992	0.920	4.49%	0.7192
2026	1,738,292	4,047,245	232.8%	1,084	1,250,254	2,910,951	232.8%	1.4887	1.0000	0.0080	1.0000	0.992	0.915	4.49%	0.6883
2027	1,581,781	4,187,521	264.7%	1,076	1,088,776	2,882,365	264.7%	1.4887	1.0000	0.0080	1.0000	0.992	0.910	4.49%	0.6587
2028	1,430,806	4,296,464	300.3%	1,067	942,518	2,830,219	300.3%	1.4887	1.0000	0.0080	1.0000	0.992	0.905	4.49%	0.6304
2029	1,286,054	4,374,701	340.2%	1,059	810,746	2,757,871	340.2%	1.4887	1.0000	0.0080	1.0000	0.992	0.899	4.49%	0.6033
2030	1,148,011	4,413,782	384.5%	1,050	692,610	2,662,889	384.5%	1.4887	1.0000	0.0080	1.0000	0.992	0.893	4.49%	0.5774
2031	1,017,539	4,415,962	434.0%	1,042	587,503	2,549,672	434.0%	1.4887	1.0000	0.0080	1.0000	0.992	0.886	4.49%	0.5526
2032	895,451	4,376,595	488.8%	1,033	494,786	2,418,310	488.8%	1.4887	1.0000	0.0088	1.0000	0.991	0.880	4.49%	0.5288
2033	781,852	4,296,112	549.5%	1,024	413,444	2,271,789	549.5%	1.4887	1.0000	0.0080	1.0000	0.992	0.873	4.49%	0.5061
2034	676,979	4,175,332	616.8%	1,015	342,598	2,113,003	616.8%	1.4887	1.0000	0.0089	1.0000	0.991	0.866	4.49%	0.4843
2035	581,224	4,017,193	691.2%	1,006	281,494	1,957,577	691.2%	1.4887	1.0000	0.0096	1.0000	0.990	0.859	4.49%	0.4635
2036	494,650	3,825,195	773.3%	992	229,267	1,772,949	773.3%	1.4887	1.0000	0.0139	1.0000	0.986	0.851	4.49%	0.4436
2037	417,072	3,604,942	864.3%	980	185,000	1,599,033	864.3%	1.4887	1.0000	0.0114	1.0000	0.989	0.843	4.49%	0.4245
2038	348,249	3,361,913	965.4%	967	147,831	1,427,126	965.4%	1.4887	1.0000	0.0140	1.0000	0.986	0.835	4.49%	0.4062
2039	288,090	3,102,342	1076.9%	947	117,036	1,260,324	1076.9%	1.4887	1.0000	0.0201	1.0000	0.980	0.827	4.49%	0.3888
2040	236,101	2,833,416	1200.1%	919	91,793	1,101,589	1200.1%	1.4887	1.0000	0.0298	1.0000	0.970	0.820	4.49%	0.3721
2041	191,589	2,561,259	1336.8%	895	71,285	952,971	1336.8%	1.4887	1.0000	0.0259	1.0000	0.974	0.811	4.49%	0.3561
2042	153,868	2,282,929	1483.7%	871	54,789	812,896	1483.7%	1.4887	1.0000	0.0271	1.0000	0.973	0.803	4.49%	0.3408
2043	122,266	2,013,637	1646.9%	845	41,664	686,184	1646.9%	1.4887	1.0000	0.0294	1.0000	0.971	0.795	4.49%	0.3261
2044	96,074	1,754,437	1826.1%	813	31,332	572,155	1826.1%	1.4887	1.0000	0.0383	1.0000	0.962	0.786	4.49%	0.3121
2045	74,612	1,508,610	2022.0%	779	23,286	470,836	2022.0%	1.4887	1.0000	0.0419	1.0000	0.958	0.777	4.49%	0.2987
2046	57,235	1,281,484	2239.0%	738	17,095	382,757	2239.0%	1.4887	1.0000	0.0526	1.0000	0.947	0.767	4.49%	0.2838
2047	43,383	1,074,358	2476.5%	695	12,401	307,997	2476.5%	1.4887	1.0000	0.0579	1.0000	0.942	0.758	4.49%	0.2736
2048	32,451	888,589	2738.2%	643	8,877	243,077	2738.2%	1.4887	1.0000	0.0751	1.0000	0.925	0.748	4.49%	0.2618
2049	23,936	725,087	3029.2%	589	6,266	189,824	3029.2%	1.4887	1.0000	0.0836	1.0000	0.916	0.738	4.49%	0.2505
2050	17,376	583,457	3357.9%	540	4,353	146,179	3357.9%	1.4887	1.0000	0.0833	1.0000	0.917	0.726	4.49%	0.2398
2051	12,395	462,684	3733.0%	492	2,972	110,937	3733.0%	1.4887	1.0000	0.0896	1.0000	0.910	0.713	4.49%	0.2295
2052	8,683	360,483	4151.7%	439	1,992	82,717	4151.7%	1.4887	1.0000	0.1075	1.0000	0.892	0.701	4.49%	0.2196
2053	5,965	276,441	4634.1%	376	1,310	60,706	4634.1%	1.4887	1.0000	0.1440	1.0000	0.856	0.687	4.49%	0.2102
2054	4,022	206,870	5143.5%	316	845	43,475	5143.5%	1.4887	1.0000	0.1594	1.0000	0.841	0.674	4.49%	0.2011
2055	2,663	151,441	5687.5%	261	536	30,458	5687.5%	1.4887	1.0000	0.1734	1.0000	0.827	0.662	4.49%	0.1925
2056	1,724	108,065	6267.1%	206	332	20,800	6267.1%	1.4887	1.0000	0.2091	1.0000	0.791	0.648	4.49%	0.1842
2057	1,090	73,995	6787.7%	164	201	13,630	6787.7%	1.4887	1.0000	0.2039	1.0000	0.796	0.632	4.49%	0.1763
2058	670	48,824	7289.6%	123	118	8,607	7289.6%	1.4887	1.0000	0.2528	1.0000	0.747	0.614	4.49%	0.1687
2059	398	30,673	7703.5%	94	67	5,175	7703.5%	1.4887	1.0000	0.2342	1.0000	0.766	0.594	4.49%	0.1615
2060	231	18,532	8012.5%	64	37	2,992	8012.5%	1.4887	1.0000	0.3160	1.0000	0.684	0.581	4.49%	0.1545
2061	127	10,280	8073.0%	45	20	1,588	8073.0%	1.4887	1.0000	0.3029	1.0000	0.697	0.551	4.49%	0.1479
2062	68	5,108	7501.0%	30	10	755	7501.0%	1.4887	1.0000	0.3324	1.0000	0.668	0.535	4.49%	0.1415
2063	36	2,620	6847.9%	14	5	371	6847.9%	1.4887	1.0000	0.371	1.0000	0.661	0.526	4.49%	0.1354
2064	22	1,325	5924.7%	7	3	179	5924.7%	1.4887	1.0000	0.5051	1.0000	0.495	0.584	4.49%	0.1296
2065	14	729	5268.8%	2	2	94	5268.8%	1.4887	1.0000	0.7013	1.0000	0.299	0.619	4.49%	0.1240
2066	9	318	3603.2%	1	1	39	3603.2%	1.4887	1.0000	0.3382	1.0000	0.662	0.637	4.49%	0.1187
2067	6	185	3344.9%	1	1	22	3344.9%	1.4887	1.0000	0.0074	1.0000	0.993	0.627	4.49%	0.1136
2068	4	95	2640.2%	1	0	11	2640.2%	1.4887	1.0000	N/A	1.0000	N/A	N/A	4.49%	0.1087
2069	2	36	1556.3%	1	0	4	1556.3%	1.4887	1.0000	N/A	1.0000	N/A	N/A	4.49%	0.1040
2070+	2	14	762.3%	1	0	1	762.3%	1.4887	1.0000	N/A	1.0000	N/A	N/A	4.49%	0.1040
Past	34,457,650	18,259,670	53.0%	24,568	50,747,341	23,589,394	46.5%								
Future	28,926,916	98,678,422	341.1%	33,154	21,046,844	57,149,684									

**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	50,675,255	x	58%	=	29,391,648
2a	Accumulated value of earned premium	50,747,341				
2b	Accumulated value of prior premium rate schedule increases (2a-1)	72,086	x	85%	=	61,273
3	Present value of future projected initial earned premium	15,111,165	x	58%	=	8,764,476
4a	Present value of future projected premium	21,046,844				
4b	Present value of future projected premium in excess of the projected initial earned premiums (4a-3)	5,935,679	x	85%	=	5,045,327
<b>5</b>	<b>Lifetime Earned Premium Times Prescribed Factor: Sum of 1, 2b, 3, and 4b</b>					<b>43,262,724</b>
6a	Accumulated value of incurred claims without the inclusion of active life reserves					23,589,394
6b	Present value of future projected incurred claims without the inclusion of active life reserves					57,149,684
<b>7</b>	<b>Lifetime Incurred Claims with Rate Increase: Sum of 6a and 6b</b>					<b>80,739,078</b>
8	Test: 7 is not less than 5					TRUE

**Attachment 1**  
**Metropolitan Life Insurance Company**  
**Group Policy Form: G.LTC1697, Certificate Forms: G.LTC5398 and G.LTC5498**  
**Comparison of Original Pricing and Current Best Estimate Assumptions**

**Original Pricing Assumptions**

**Current Best Estimate Assumptions**

*Discount Rate*

6.25%

4.49%

*Voluntary Lapse Rates*

Policy Duration	Lapse Rate
1	11.00%
2	5.30%
3	5.10%
4	4.90%
5	4.80%
6	4.70%
7	4.65%
8	4.60%
9	4.55%
10+	4.50%

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 the 1983 Group Annuity Mortality Table, adjusted to remove loading.

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 National Nursing Home Survey and 1982-84 National Long Term Care Survey, respectively, with modifications to incorporate experience of other long-term care business that MetLife issued or administered, as well as to incorporate industry expectation.

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 National Nursing Home Survey and 1982-84 National Long Term Care Survey, respectively, with modifications to incorporate experience of other long-term care business that MetLife issued or administered, as well as to incorporate industry expectation.

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 4.49% (on C)	Expected at 6.25% (on F)	Actual to Expected Ratio
Historical Experience	1997	35,397	0	0.0%	35,397	2,651	7.5%	0.00	0.0%	7.5%	0.00
	1998	2,709,668	68,198	2.5%	972,997	91,932	9.4%	0.27	2.5%	9.4%	0.26
	1999	13,625,336	1,239,998	9.1%	7,608,611	994,301	13.1%	0.70	7.9%	12.6%	0.63
	2000	33,643,817	3,791,849	11.3%	24,271,185	3,799,281	15.7%	0.72	10.1%	14.8%	0.68
	2001	56,040,100	9,151,971	16.3%	44,796,695	8,325,796	18.6%	0.88	13.3%	16.9%	0.79
	2002	73,045,895	15,491,137	21.2%	60,032,531	13,453,873	22.4%	0.95	16.4%	19.2%	0.85
	2003	93,280,952	21,121,512	22.6%	71,437,495	19,167,258	26.8%	0.84	18.4%	21.6%	0.85
	2004	110,414,946	27,600,772	25.0%	85,127,390	26,424,022	31.0%	0.81	20.2%	24.1%	0.84
	2005	120,430,373	30,475,808	25.3%	91,074,926	33,468,939	36.7%	0.69	21.3%	26.7%	0.80
	2006	122,086,764	45,845,925	37.6%	87,924,412	38,994,345	44.3%	0.85	24.1%	29.5%	0.82
	2007	122,583,084	42,232,214	34.5%	80,918,904	43,240,210	53.4%	0.64	25.6%	32.4%	0.79
	2008	122,270,964	55,503,944	45.4%	73,847,996	46,837,922	63.4%	0.72	28.0%	35.4%	0.79
	2009	120,794,526	58,925,904	48.8%	66,619,828	49,324,984	74.0%	0.66	30.1%	38.2%	0.79
	2010	119,357,523	66,471,216	55.7%	59,768,221	50,721,942	84.9%	0.66	32.4%	41.0%	0.79
	2011	116,681,753	76,089,617	65.2%	53,388,612	51,463,568	96.4%	0.68	34.9%	43.6%	0.80
	2012	115,258,145	92,109,164	79.9%	47,495,432	51,711,193	108.9%	0.73	37.9%	46.1%	0.82
	2013	112,707,215	92,762,493	82.3%	42,066,518	51,516,554	122.5%	0.67	40.6%	48.4%	0.84
	2014	110,773,968	94,126,231	85.0%	37,086,444	51,061,820	137.7%	0.62	42.9%	50.7%	0.85
2015	107,963,580	99,254,143	91.9%	32,517,950	50,260,858	154.6%	0.59	45.2%	52.7%	0.86	
2016	104,984,586	128,059,965	122.0%	28,364,305	49,071,834	173.0%	0.71	48.4%	54.7%	0.89	
2017	103,870,010	138,859,601	133.7%	24,611,550	47,659,712	193.6%	0.69	51.7%	56.5%	0.91	
2018	99,056,531	144,761,038	146.1%	21,242,423	46,000,151	216.5%	0.67	54.8%	58.2%	0.94	
Projected Experience	2019	113,288,600	154,635,751	136.5%	18,236,331	44,102,654	241.8%	0.56	57.7%	59.7%	0.97
	2020	112,579,442	165,963,575	147.4%	15,570,811	42,106,747	270.4%	0.55	60.7%	61.1%	0.99
	2021	105,827,937	176,741,148	167.0%	13,223,249	39,987,666	302.4%	0.55	63.7%	62.4%	1.02
	2022	98,524,094	186,605,794	189.4%	11,170,388	37,756,225	338.0%	0.56	66.8%	63.6%	1.05
	2023	91,222,525	195,525,347	214.3%	9,386,082	35,535,247	378.6%	0.57	70.0%	64.6%	1.08
	2024	83,872,790	203,251,731	242.3%	7,844,563	33,334,393	424.9%	0.57	73.2%	65.6%	1.12
	2025	76,630,658	209,663,209	273.6%	6,522,052	31,148,519	477.6%	0.57	76.4%	66.4%	1.15
	2026	69,627,458	214,674,198	308.3%	5,394,402	29,030,230	538.2%	0.57	79.6%	67.2%	1.18
	2027	62,895,301	218,124,080	346.8%	4,438,989	26,977,337	607.7%	0.57	82.7%	67.8%	1.22
	2028	56,482,268	219,927,550	389.4%	3,632,898	24,988,707	687.8%	0.57	85.7%	68.4%	1.25
	2029	50,407,126	220,045,876	436.5%	2,956,726	23,102,819	781.4%	0.56	88.7%	68.9%	1.29
	2030	44,684,961	218,439,550	488.8%	2,392,768	21,301,400	890.2%	0.55	91.5%	69.4%	1.32
	2031	39,340,455	215,176,028	547.0%	1,925,673	19,555,975	1015.5%	0.54	94.3%	69.8%	1.35
	2032	34,399,053	210,284,848	611.3%	1,539,782	17,884,587	1161.5%	0.53	96.8%	70.1%	1.38
	2033	29,855,507	203,935,680	683.1%	1,223,197	16,280,759	1331.0%	0.51	99.2%	70.4%	1.41
	2034	25,702,008	196,186,945	763.3%	964,866	14,734,377	1527.1%	0.50	101.5%	70.7%	1.44
	2035	21,948,167	187,063,757	852.3%	755,802	13,249,572	1753.0%	0.49	103.5%	70.9%	1.46
	2036	18,586,804	176,618,410	950.2%	588,446	11,812,399	2007.4%	0.47	105.4%	71.1%	1.48
	2037	15,602,958	165,173,082	1058.6%	454,250	10,416,455	2293.1%	0.46	107.1%	71.2%	1.50
	2038	12,976,272	152,905,779	1178.3%	346,420	9,050,884	2612.7%	0.45	108.6%	71.4%	1.52
	2039	10,692,522	140,044,142	1309.7%	260,732	7,680,267	2945.7%	0.44	109.9%	71.5%	1.54
	2040	8,729,786	126,862,019	1453.2%	194,252	6,323,856	3255.5%	0.45	111.1%	71.5%	1.55
	2041	7,059,285	113,575,442	1608.9%	142,764	5,061,765	3545.5%	0.45	112.1%	71.6%	1.57
	2042	5,651,554	100,520,009	1778.6%	102,892	3,944,255	3833.4%	0.46	113.0%	71.6%	1.58
	2043	4,476,916	87,970,255	1965.0%	72,948	2,950,738	4045.0%	0.49	113.7%	71.7%	1.59
	2044	3,507,925	76,099,449	2169.4%	51,337	2,128,083	4145.3%	0.52	114.3%	71.7%	1.59
	2045	2,717,914	65,065,181	2393.9%	36,025	1,506,081	4180.6%	0.57	114.8%	71.7%	1.60
	2046	2,080,467	54,981,732	2642.8%	25,234	1,060,462	4202.5%	0.63	115.2%	71.7%	1.61
	2047	1,573,356	45,914,227	2918.2%	17,671	743,137	4205.4%	0.69	115.5%	71.7%	1.61
	2048	1,174,597	37,860,620	3223.3%	12,375	520,499	4206.1%	0.77	115.8%	71.7%	1.61
	2049	865,121	30,807,091	3561.0%	8,666	364,600	4207.3%	0.85	116.0%	71.7%	1.62
	2050	627,548	24,703,772	3936.6%	6,069	255,424	4208.4%	0.94	116.1%	71.7%	1.62
	2051	447,902	19,486,404	4350.6%	4,250	178,953	4210.7%	1.03	116.2%	71.7%	1.62
	2052	314,169	15,104,886	4807.9%	2,975	125,383	4214.6%	1.14	116.3%	71.7%	1.62
2053	216,252	11,469,984	5304.0%	2,082	87,768	4214.6%	1.26	116.4%	71.7%	1.62	
2054	145,986	8,506,108	5826.7%	1,458	61,438	4214.6%	1.38	116.4%	71.7%	1.62	
2055	96,262	6,147,354	6386.1%	1,020	43,006	4214.6%	1.52	116.5%	71.7%	1.62	
2056	61,997	4,319,699	6967.6%	714	30,104	4214.6%	1.65	116.5%	71.7%	1.62	
2057	39,063	2,959,602	7576.5%	500	21,073	4214.6%	1.80	116.5%	71.7%	1.62	
2058	24,167	1,964,241	8127.6%	350	14,747	4214.6%	1.93	116.5%	71.7%	1.62	
2059	14,803	1,269,126	8573.2%	243	10,227	4214.6%	2.03	116.5%	71.7%	1.62	
2060	9,093	799,993	8797.9%	163	6,854	4214.6%	2.09	116.5%	71.7%	1.62	
2061	5,737	493,508	8602.3%	104	4,369	4214.6%	2.04	116.5%	71.7%	1.62	
2062	3,835	310,467	8094.8%	64	2,696	4214.6%	1.92	116.5%	71.7%	1.62	
2063	2,782	199,588	7173.8%	38	1,594	4214.6%	1.70	116.5%	71.7%	1.62	
2064	2,186	132,767	6073.1%	17	732	4214.6%	1.44	116.5%	71.7%	1.62	
2065	1,829	91,032	4977.3%	6	241	4214.6%	1.18	116.5%	71.7%	1.62	
2066	1,605	64,239	4001.4%	2	65	4214.6%	0.95	116.5%	71.7%	1.62	
2067	1,454	47,080	3237.6%	1	25	4214.6%	0.77	116.5%	71.7%	1.62	
2068	1,351	33,933	2512.1%	0	4	4214.6%	0.60	116.5%	71.7%	1.62	
2069	1,281	25,115	1961.3%	0	2	4214.6%	0.47	116.5%	71.7%	1.62	
2070	1,485	52,856	341.3%	0	1	4214.6%	0.08	116.5%	71.7%	1.62	
Past	1,981,615,135	1,243,942,700	62.8%	1,041,209,823	733,593,147	70.5%	0.89	54.8%	58.2%	0.94	
Future	1,215,018,617	4,868,824,258	400.7%	109,512,649	535,485,399	489.0%	0.82	322.2%	408.6%	0.79	
Lifetime	3,196,633,752	6,112,766,958	191.2%	1,150,722,472	1,269,078,546	110.3%	1.73	116.5%	72.0%	1.62	

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	67,789,539	5,458,062	8.1%	67,789,539	5,076,885	7.5%	1.08
2	126,454,760	11,459,640	9.1%	126,454,760	22,360,904	17.7%	0.51
3	124,444,643	23,355,476	18.8%	114,609,874	29,736,064	25.9%	0.72
4	123,539,764	33,935,067	27.5%	103,704,303	36,131,360	34.8%	0.79
5	122,883,446	33,754,557	27.5%	93,616,971	42,851,722	45.8%	0.60
6	122,393,239	42,118,692	34.4%	84,134,493	52,592,581	62.5%	0.55
7	121,802,271	46,668,451	38.3%	75,160,420	55,574,847	73.9%	0.52
8	120,965,045	52,402,107	43.3%	66,593,401	55,783,944	83.8%	0.52
9	119,778,402	66,862,087	55.8%	58,976,379	56,842,570	96.4%	0.58
10	118,240,420	68,433,083	57.9%	52,099,284	56,787,190	109.0%	0.53
11	116,536,517	75,700,351	65.0%	45,771,541	55,771,474	121.8%	0.53
12	114,506,068	87,679,823	76.6%	40,010,697	55,952,499	139.8%	0.55
13	112,518,931	101,695,647	90.4%	34,788,293	54,823,606	157.6%	0.57
14	110,379,056	110,373,577	100.0%	30,094,419	52,502,057	174.5%	0.57
15	108,736,283	113,530,612	104.4%	25,901,833	51,477,458	198.7%	0.53
16	108,372,419	127,560,645	117.7%	22,167,127	49,369,103	222.7%	0.53
17	108,776,232	142,283,878	130.8%	18,865,605	46,617,088	247.1%	0.53
18	107,744,862	148,934,865	138.2%	15,965,115	44,726,761	280.2%	0.49
19	106,559,033	164,782,506	154.6%	13,434,802	41,949,300	312.2%	0.50
20	105,098,412	174,308,922	165.9%	11,253,166	38,970,009	346.3%	0.48
21	101,545,382	185,592,431	182.8%	9,367,520	36,717,838	392.0%	0.47
22	95,010,725	195,142,456	205.4%	7,751,309	34,098,281	439.9%	0.47
23	87,609,193	203,727,611	232.5%	6,386,886	31,349,203	490.8%	0.47
24	80,286,771	211,296,318	263.2%	5,226,581	29,013,926	555.1%	0.47
25	73,145,209	217,352,546	297.2%	4,262,883	26,652,136	625.2%	0.48
26	66,231,571	221,858,924	335.0%	3,451,132	24,334,833	705.1%	0.48
27	59,597,849	224,738,200	377.1%	2,785,710	22,420,870	804.9%	0.47
28	53,286,275	225,746,673	423.6%	2,232,066	20,480,354	917.6%	0.46
29	47,330,101	224,911,934	475.2%	1,786,045	18,488,929	1035.2%	0.46
30	41,752,090	222,243,374	532.3%	1,408,221	16,859,908	1197.2%	0.44
31	36,565,837	217,827,984	595.7%	1,110,042	15,258,481	1374.6%	0.43
32	31,782,995	211,825,732	666.5%	867,835	13,709,724	1579.8%	0.42
33	27,408,809	204,224,748	745.1%	672,708	12,337,404	1834.0%	0.41
34	23,442,649	195,123,028	832.3%	522,890	10,937,800	2091.8%	0.40
35	19,875,811	184,640,235	929.0%	396,818	9,622,272	2424.9%	0.38
36	16,698,058	172,981,817	1035.9%	300,139	8,454,208	2816.8%	0.37
37	13,896,220	160,315,436	1153.7%	225,298	7,309,875	3244.5%	0.36
38	11,452,382	146,813,423	1281.9%	171,466	6,229,834	3633.3%	0.35
39	9,343,251	132,796,137	1421.3%	125,305	5,194,797	4145.7%	0.34
40	7,543,383	118,605,256	1572.3%	86,535	4,243,333	4903.6%	0.32
41	6,025,185	104,698,193	1737.7%	59,760	2,930,419	4903.6%	0.35
42	4,759,179	91,249,580	1917.3%	41,270	2,023,729	4903.6%	0.39
43	3,716,010	78,471,770	2111.7%	28,501	1,397,574	4903.6%	0.43
44	2,866,824	66,659,257	2325.2%	19,683	965,156	4903.6%	0.47
45	2,184,322	55,953,377	2561.6%	13,593	666,530	4903.6%	0.52
46	1,642,557	46,420,334	2826.1%	9,387	460,302	4903.6%	0.58
47	1,218,088	38,017,016	3121.0%	6,483	317,881	4903.6%	0.64
48	889,862	30,688,061	3448.6%	4,477	219,527	4903.6%	0.70
49	639,582	24,376,216	3811.3%	3,092	151,604	4903.6%	0.78
50	451,471	19,001,646	4208.8%	2,135	104,697	4903.6%	0.86
51	312,469	14,503,053	4641.4%	1,474	72,303	4903.6%	0.95
52	211,851	10,793,778	5095.0%	1,018	49,932	4903.6%	1.04
53	140,176	7,801,900	5565.8%	703	34,483	4903.6%	1.14
54	90,033	5,464,203	6069.1%	486	23,813	4903.6%	1.24
55	55,857	3,680,910	6589.9%	335	16,445	4903.6%	1.34
56	33,369	2,376,699	7122.6%	232	11,357	4903.6%	1.45
57	19,154	1,447,887	7559.1%	160	7,843	4903.6%	1.54
58	10,655	835,186	7838.1%	110	5,416	4903.6%	1.60
59	5,962	468,039	7850.3%	76	3,741	4903.6%	1.60
60	3,654	269,861	7384.7%	53	2,583	4903.6%	1.51
Lifetime	3,196,600,165	6,112,239,275	191.2%	1,150,722,436	1,269,076,764	110.3%	1.73
Lifetime*	1,768,605,737	2,060,044,814	116.5%	754,374,690	550,707,116	73.0%	1.60

**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 4.49%, 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 6.25%.

**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.