

April 25, 2017

Re: Group long-term policy G.LTC1697 (including G.LTC5398 and 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 all the 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 supporting Attachments based on earlier reviews. These documents are outlined and summarized here for your convenience.

Title	Description
Actuarial Memorandum Exhibit I	Lifetime Loss Ratio (“LLR”) • Without/with proposed phase-in rate increase of 23.12% • Nationwide earned premium and incurred claims experience • Weighted average statutory discount rate 4.49% LLR without proposed rate increase – 115.1% With proposed rate increase – 109.9%
Exhibit II	Demonstration of rate action meeting Rate Stability requirements
Attachment 1	Lifetime Loss Ratio (“LLR”) • Without/with proposed phase-in rate increase of 23.12% • Maryland earned premium and incurred claims experience • Weighted average statutory discount rate 4.49% LLR without proposed rate increase – 116.9% With proposed rate increase – 110.9%
Attachment 2	Comparison of Original Pricing and Current Best Estimate Assumptions
Attachment 3	Actual-to-Expected results for Lapse, Mortality, Incidence and Claim Termination assumptions

Attachment 4	Actual-to-Expected Loss Ratios by Duration LLR without rate increase – 115.1%; A/E – 1.58
Attachment 5	Actual-to-Expected Loss Ratios by Calendar Year LLR without rate increase – 115.1%; A/E – 1.60

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, it is provided in this filing for your information only.

We note that, despite the rate action requested, the experience of the block does not fully return to pricing levels. In general, the rate action addresses primarily future experience and does not seek to recover historical losses. We will continue, of course, to monitor and adjust experience assumptions and reserve the right to update those in the future along with requesting any resulting changes in premium rates.

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

Sincerely,



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

METROPOLITAN LIFE INSURANCE COMPANY

New York, NY

Actuarial Memorandum for AARP Group Policy

April 25, 2017

This actuarial memorandum pertains to long-term care insurance provided under a group policy issued to AARP (previously known as “American Association of Retired Persons”) to cover eligible members 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 Nursing Home benefit are Hospice services and Bed reservation charges in a Nursing Home.

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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.

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.

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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. No in-force premium rate schedule increase has been previously implemented for these forms.

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.

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, 2015.
- b. Voluntary Termination Rates vary by duration as developed from actual experience through June 30, 2015 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+	1.00%

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

- c. Mortality 88% of Annuity 2000 Basic Table with selection consistent with experience.
- d. Expenses Expenses have not been explicitly projected. It is assumed that the originally filed expense assumptions remain appropriate.

The above assumptions are based on actual inforce experience of MetLife and are deemed reasonable for the group policy form, including certificate forms issued under such group policy. In establishing the assumptions described in this section, the policy design, underwriting, and claims adjudication practices for the above-referenced policy forms were taken into consideration.

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

6. Marketing Method

These policy forms were issued to provide coverage to eligible AARP members and spouses. The primary method of marketing was direct mail.

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.

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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, 2015 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, 2015 have been allocated to a calendar year of incurral and included in historical incurred claims.

12. Trend Assumptions

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

13. Past and Future Policy Experience

Nationwide experience and specific experience for those certificates issued in Maryland are shown in Exhibit I and Attachment 1, 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, 2015 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%.

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14. Projected Earned Premiums and Incurred Claims

Earned premiums for projection years 2016 through 2096 are developed by multiplying each prior period's earned premium (starting with December 31, 2015 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 Exhibit I and II are determined at the average maximum valuation interest rate for contract reserves applicable to LTC business issued in the years in which the applicable business of this filing were issued. The maximum valuation interest rate averages 4.49%.

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

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

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

15. History of Previous Inforce Rate Increases

There has not been any rate increase on these policy forms.

16. Requested Rate Increase

The company is requesting a phased-in series of rate increases (two phases of 10% each and a final phase of 1.75%), resulting in a cumulative compounded increase of 23.12% after the final phase. These phased increases are actuarially equivalent to a single one-time increase of 20.80%. 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 increase shown above.

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Corresponding rate tables reflecting each of the three phases for the 23.12% 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 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 5% of projected future incurred claims was added to the best estimate assumptions. A model of this business was developed for use in the cash flow testing that is part of the company's annual statutory reporting requirements. Using this model, a future projection of these policies under the new moderately adverse assumptions was performed and the projected lifetime loss ratio for these policies was determined. For these policies, the past experience and future projections based on current moderately adverse assumptions combine to a resulting loss ratio that exceeds both original pricing expectations and state minimum requirements.

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

18. Loss Ratio Requirement Compliance Demonstration

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

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the minimum loss ratio requirement.

19. Average Annual Premium

The average September 30, 2016 annualized premium for all premium-paying certificate holders before and after the current requested increase are:

Before increase:	\$1,623
After Phase 1:	\$1,785
After Phase 2:	\$1,964
After Phase 3:	\$1,998

20. Proposed Effective Date

The rate increase will apply to certificate holders 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, 2016 (based on premium-paying certificates inforce count)

By Issue Age:

Issue Age	Percent
<45	<1%
45-49	1%
50-54	16%
55-59	23%
60-64	27%
65-69	20%
70-74	9%
75+	3%
Total	100%

By Benefit Period:

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

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By Inflation Option:

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

By Home Care Percentage:

Home Care %	Percent
0% (FC Only)	22%
50%	67%
80%	11%
Total	100%

By Elimination Period:

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

By Gender:

Gender	Percent
Female	61%
Male	39%
Total	100%

22. Number of Insured Lives

As of September 30, 2016, the number of premium-paying insured lives inforce and their premiums that will be affected by this increase are:

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	Issued Before Rate Stability Regulation Effective Date		Issued On or After Rate Stability Regulation Effective Date	
	Number of Insured Lives	2016 Annualized Premium	Number of Insured Lives	2016 Annualized Premium
Certificates issued in Maryland	572	\$1,042,403	717	\$1,158,899
Certificates issued nationwide	55,236	\$90,813,457	15,442	\$23,866,666

23. Actuarial Certification

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries, and I meet the Academy's qualification standards for preparing health rate filings and to render the actuarial opinion contained herein.

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

I hereby certify that, to the best of my knowledge and judgment, this rate submission is in compliance with the applicable laws and regulations of Maryland.

I further certify that:

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



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

Exhibit II
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	2,351,151,085	x	58%	=	1,363,667,629
2a. Accumulated value of earned premium	2,351,151,085				
2b. Accumulated value of prior premium rate schedule increases (2a-1)	0		85%	=	0
3. Present value of future projected initial earned premium	877,206,514		58%	=	508,779,778
4a. Present value of future projected premium	998,410,611				
4b. Present value of future projected premium in excess of the projected initial earned premiums (4a-3)	121,204,098		85%	=	103,023,483
5. Lifetime Earned Premium Times Prescribed Factor: Sum of 1, 2b, 3, and 4b					1,975,470,890
6a. Accumulated value of incurred claims without the inclusion of active life reserves					1,035,091,238
6b. Present value of future projected incurred claims without the inclusion of active life reserves					2,646,457,604
7. Lifetime Incurred Claims with Rate Increase: Sum of 6a and 6b					3,681,548,842
8. Test: 7 is not less than 5					TRUE

Attachment 2
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

Discount Rate 6.25%

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%

Active Life Mortality Rates Mortality was based on the 1983 Group Annuity Mortality Table, adjusted to remove loading.

Current Best Estimate Assumptions

4.49%

Policy Duration	Lapse Rate
1	5.50%
2	3.50%
3	2.50%
4	2.00%
5	1.50%
6	1.25%
7+	1.00%

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

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

Morbidity:

Incidence

Incidence rates for nursing home care and home health care were based on 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
81	1.62%	1.89%	1.49%	1.48%
82	1.93%	2.31%	1.79%	1.65%
83	2.25%	2.75%	1.92%	1.85%
84	2.44%	3.31%	2.24%	2.05%
85	2.55%	3.85%	2.43%	2.30%

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.

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

Utilization

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 3
Metropolitan Life Insurance Company
Group Policy Form: G.LTC1697
Actual-to-Expected Results - Lapse

Lapse (AARP-Met)			
Policy Duration	Actual	Expected *	A/E%
1	6,624	6,653	99.57%
2	3,765	4,040	93.19%
3	2,702	2,795	96.67%
4	2,056	2,177	94.44%
5	1,545	1,595	96.86%
6	1,410	1,301	108.39%
7	1,207	1,018	118.54%
8	1,052	991	106.11%
9	906	937	96.67%
10	845	864	97.78%
11	752	772	97.42%
12	557	657	84.75%
13	438	512	85.51%
14+	703	780	90.18%

Attachment 3
Metropolitan Life Insurance Company
Group Policy Form: G.LTC1697
Actual-to-Expected Results - Mortality

Mortality (AARP-Met)			
Policy Duration	Actual	Expected *	A/E%
1	535	534	100.22%
2	923	1,113	82.96%
3	1,110	1,297	85.55%
4	1,316	1,637	80.39%
5	1,529	1,874	81.59%
6	1,656	2,093	79.11%
7	1,798	2,308	77.89%
8	1,931	2,475	78.03%
9	1,976	2,597	76.08%
10	2,042	2,655	76.90%
11	1,926	2,463	78.18%
12	1,714	2,058	83.30%
13	1,473	1,673	88.07%
14+	2,710	2,829	95.80%

* The expecteds are based on current best estimate assumptions.

Attachment 3
Metropolitan Life Insurance Company
Group Policy Form: G.LTC1697
Actual-to-Expected Results - Incidence

Incidence (AARP-Met)												
Calendar Year	Female						Male					
	Facility Care			Home Care			Facility Care			Home Care		
	Actual Claims ¹	Expected Claims ²	A/E%	Actual Claims ¹	Expected Claims ²	A/E%	Actual Claims ¹	Expected Claims ²	A/E%	Actual Claims ¹	Expected Claims ²	A/E%
2001	4	2	169%	5	2	227%	2	2	124%	1	1	69%
2002	21	15	144%	13	13	100%	10	9	111%	7	9	82%
2003	50	41	123%	52	35	147%	24	24	100%	24	22	109%
2004	72	71	102%	63	61	103%	43	42	103%	48	38	127%
2005	111	100	111%	83	83	100%	57	59	96%	49	52	94%
2006	139	138	101%	126	109	115%	99	81	122%	83	70	119%
2007	189	178	106%	153	135	113%	102	104	98%	92	87	106%
2008	243	222	109%	178	159	112%	117	127	92%	106	103	103%
2009	285	266	107%	180	181	100%	143	148	97%	97	117	83%
2010	295	309	95%	214	200	107%	169	169	100%	121	131	93%
2011	352	352	100%	180	216	83%	216	189	114%	116	140	83%
2012	411	398	103%	233	232	101%	212	208	102%	134	150	89%
2013	418	445	94%	241	245	98%	235	228	103%	169	158	107%
2014	464	482	96%	238	260	92%	225	243	93%	175	167	105%
2015	448	504	89%	221	266	83%	216	254	85%	165	170	97%
Total	3,502	3,523	99%	2,180	2,198	99%	1,870	1,886	99%	1,387	1,413	98%

¹ Based on actual experience through 12/31/2015 including adjustments for incurred but not reported claims.

² The expected claims are based on current best estimate assumptions.

Attachment 3
Metropolitan Life Insurance Company
Group Policy Form: G.LTC1697
Actual-to-Expected Results - Claim Termination

	Claim Termination (AARP-Met)						
Calendar Year	Actual Deaths	Expected Deaths ¹	Actual Recoveries	Expected Recoveries ¹	Deaths A/E%	Recoveries A/E%	Total A/E%
1991	1	1	1	0	84%	393%	138%
1992	6	4	2	1	138%	221%	153%
1993	10	9	6	2	107%	332%	143%
1994	22	25	5	5	88%	110%	91%
1995	37	38	7	7	96%	106%	97%
1996	59	56	13	9	106%	138%	111%
1997	73	73	25	12	100%	200%	114%
1998	106	90	20	16	118%	129%	120%
1999	122	118	110	19	104%	564%	169%
2000	125	157	34	26	79%	130%	87%
2001	217	211	33	35	103%	94%	102%
2002	291	297	51	49	98%	103%	99%
2003	374	394	73	67	95%	109%	97%
2004	507	515	101	88	98%	115%	101%
2005	619	633	128	110	98%	117%	101%
2006	771	788	173	133	98%	130%	102%
2007	895	923	143	152	97%	94%	97%
2008	1,069	1,091	173	184	98%	94%	97%
2009	1,251	1,258	163	211	99%	77%	96%
2010	1,430	1,433	226	238	100%	95%	99%
2011	1,621	1,589	210	262	102%	80%	99%
2012	1,728	1,780	209	294	97%	71%	93%
2013	2,015	1,985	268	334	102%	80%	98%
2014	2,222	2,113	358	356	105%	101%	105%
2015 (through Q2)	1,162	1,257	300	213	92%	141%	99%
Total	16,733	16,839	2,832	2,823	99%	100%	100%

¹ The expected deaths and recoveries are based on current best estimate assumptions.

Attachment 4
Metropolitan Life Insurance Company
Nationwide Experience Projections With No Rate Increase
Group Policy Form: G.LTC1697, Certificate Forms: G.LTC5398 and G.LTC5498
Actual to Expected Loss Ratios by Duration

Duration	Actual / Projected Experience			Expected Pricing Experience			G = C / F
	Actual Experience through 12/31/2015			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	Actual to Expected Ratio
1	67,782,673	5,347,359	7.9%	67,782,673	5,076,371	7.5%	1.05
2	126,439,569	11,511,284	9.1%	126,439,569	22,358,218	17.7%	0.51
3	124,429,437	23,582,236	19.0%	114,596,135	29,732,500	25.9%	0.73
4	123,529,953	34,378,286	27.8%	103,691,898	36,127,038	34.8%	0.80
5	122,877,531	34,181,793	27.8%	93,605,797	42,846,607	45.8%	0.61
6	122,390,785	42,430,986	34.7%	84,124,471	52,586,317	62.5%	0.55
7	121,795,007	45,341,480	37.2%	75,151,487	55,568,242	73.9%	0.50
8	120,962,666	51,676,063	42.7%	66,585,503	55,777,328	83.8%	0.51
9	119,776,899	66,146,558	55.2%	58,969,399	56,835,843	96.4%	0.57
10	118,265,393	65,436,593	55.3%	52,093,131	56,780,484	109.0%	0.51
11	116,548,674	73,064,261	62.7%	45,766,147	55,764,902	121.8%	0.51
12	114,509,311	83,647,522	73.0%	40,005,992	55,945,919	139.8%	0.52
13	112,376,991	92,979,848	82.7%	34,784,211	54,817,173	157.6%	0.53
14	109,879,361	102,542,044	93.3%	30,090,896	52,495,910	174.5%	0.53
15	106,652,787	107,088,585	100.4%	25,898,807	51,471,445	198.7%	0.51
16	102,892,915	117,184,213	113.9%	22,164,544	49,363,348	222.7%	0.51
17	98,755,968	128,703,089	130.3%	18,863,411	46,611,666	247.1%	0.53
18	93,947,014	139,531,207	148.5%	15,963,262	44,721,570	280.2%	0.53
19	88,287,912	151,055,649	171.1%	13,433,246	41,944,442	312.2%	0.55
20	82,297,825	160,542,369	195.1%	11,251,866	38,965,506	346.3%	0.56
21	76,339,359	169,749,516	222.4%	9,366,440	36,713,604	392.0%	0.57
22	70,475,504	178,144,216	252.8%	7,750,417	34,094,358	439.9%	0.57
23	64,740,101	185,666,421	286.8%	6,386,153	31,345,604	490.8%	0.58
24	59,163,994	192,135,493	324.8%	5,225,982	29,010,603	555.1%	0.59
25	53,778,192	197,267,278	366.8%	4,262,396	26,649,090	625.2%	0.59
26	48,612,340	201,054,516	413.6%	3,450,738	24,332,058	705.1%	0.59
27	43,694,056	203,404,752	465.5%	2,785,393	22,418,319	804.9%	0.58
28	39,044,002	204,230,317	523.1%	2,231,812	20,478,029	917.6%	0.57
29	34,679,161	203,519,625	586.9%	1,785,843	18,486,835	1035.2%	0.57
30	30,611,117	201,276,208	657.5%	1,408,062	16,858,003	1197.2%	0.55
31	26,846,004	197,512,178	735.7%	1,109,916	15,256,760	1374.6%	0.54
32	23,386,757	192,264,723	822.1%	867,737	13,708,182	1579.8%	0.52
33	20,232,337	185,560,759	917.1%	672,632	12,336,019	1834.0%	0.50
34	17,377,621	177,475,212	1021.3%	522,831	10,936,575	2091.8%	0.49
35	14,813,364	168,037,415	1134.4%	396,774	9,621,196	2424.9%	0.47
36	12,528,072	157,478,915	1257.0%	300,106	8,453,265	2816.8%	0.45
37	10,508,879	146,045,477	1389.7%	225,273	7,309,062	3244.5%	0.43
38	8,741,458	134,051,848	1533.5%	171,447	6,229,143	3633.3%	0.42
39	7,207,230	121,689,269	1688.4%	125,291	5,194,222	4145.7%	0.41
40	5,887,555	109,185,903	1854.5%	86,525	4,242,865	4903.6%	0.38
41	4,763,445	96,903,951	2034.3%	59,754	2,930,096	4903.6%	0.41
42	3,815,602	85,037,813	2228.7%	41,266	2,023,506	4903.6%	0.45
43	3,024,765	73,749,737	2438.2%	28,498	1,397,421	4903.6%	0.50
44	2,371,794	63,221,180	2665.5%	19,680	965,050	4903.6%	0.54
45	1,838,383	53,579,913	2914.5%	13,591	666,458	4903.6%	0.59
46	1,407,662	44,903,975	3190.0%	9,386	460,251	4903.6%	0.65
47	1,064,857	37,156,985	3489.4%	6,482	317,847	4903.6%	0.71
48	795,182	30,325,277	3813.6%	4,476	219,503	4903.6%	0.78
49	585,196	24,374,444	4165.2%	3,091	151,587	4903.6%	0.85
50	423,761	19,238,949	4540.1%	2,135	104,685	4903.6%	0.93
51	301,533	14,880,277	4934.9%	1,474	72,295	4903.6%	1.01
52	210,710	11,232,635	5330.8%	1,018	49,927	4903.6%	1.09
53	144,174	8,251,088	5723.0%	703	34,479	4903.6%	1.17
54	96,094	5,875,614	6114.4%	486	23,811	4903.6%	1.25
55	61,996	4,022,510	6488.4%	335	16,444	4903.6%	1.32
56	38,470	2,631,259	6839.7%	232	11,356	4903.6%	1.39
57	22,823	1,624,395	7117.4%	160	7,842	4903.6%	1.45
58	12,798	951,313	7433.6%	110	5,416	4903.6%	1.52
59	6,711	537,344	8007.3%	76	3,740	4903.6%	1.63
60	3,278	307,115	9367.9%	53	2,583	4903.6%	1.91
Lifetime	2,884,055,004	5,640,927,236	195.6%	1,150,587,218	1,268,928,919	110.3%	1.77
Lifetime*	1,661,370,209	1,911,729,669	115.1%	754,286,086	550,642,431	73.0%	1.58

Note:

* 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 5
Metropolitan Life Insurance Company
Nationwide Experience Projections With No Rate Increase
Group Policy Form: G.LTC1697, Certificate Forms: G.LTC5398 and G.LTC5498
Actual to Expected Loss Ratios by Calendar Year

	Calendar Year	Actual / Projected Experience			Expected Pricing Experience			Accumulative Loss Ratio as of 12/31/2015			
		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	2,709,604	68,198	2.5%	972,967	91,928	9.4%	0.27	2.5%	9.4%	0.26
	1999	13,623,438	1,218,378	8.9%	7,607,979	994,205	13.1%	0.68	7.8%	12.6%	0.62
	2000	33,640,515	3,784,749	11.3%	24,268,678	3,798,867	15.7%	0.72	10.1%	14.8%	0.68
	2001	56,030,732	9,542,806	17.0%	44,791,679	8,324,849	18.6%	0.92	13.7%	16.9%	0.81
	2002	73,030,614	15,466,210	21.2%	60,025,634	13,452,324	22.4%	0.94	16.6%	19.2%	0.86
	2003	93,258,676	21,382,522	22.9%	71,429,320	19,165,048	26.8%	0.85	18.6%	21.6%	0.86
	2004	110,391,364	27,556,797	25.0%	85,117,480	26,420,959	31.0%	0.80	20.3%	24.1%	0.84
	2005	120,405,983	31,288,106	26.0%	91,064,154	33,465,043	36.7%	0.71	21.6%	26.7%	0.81
	2006	122,056,862	46,138,589	37.8%	87,913,941	38,989,799	44.3%	0.85	24.4%	29.5%	0.83
	2007	122,545,837	41,747,270	34.1%	80,909,262	43,235,169	53.4%	0.64	25.8%	32.4%	0.80
	2008	122,235,837	55,569,213	45.5%	73,839,187	46,832,460	63.4%	0.72	28.2%	35.4%	0.80
	2009	120,757,506	57,171,692	47.3%	66,611,880	49,319,232	74.0%	0.64	30.1%	38.2%	0.79
	2010	119,346,889	65,016,196	54.5%	59,761,091	50,716,026	84.9%	0.64	32.3%	41.0%	0.79
	2011	116,674,370	74,542,532	63.9%	53,382,242	51,457,567	96.4%	0.66	34.7%	43.6%	0.80
Projected Experience	2012	115,249,590	86,299,083	74.9%	47,489,766	51,705,162	108.9%	0.69	37.4%	46.1%	0.81
	2013	112,701,598	86,366,307	76.6%	42,061,500	51,510,547	122.5%	0.63	39.7%	48.4%	0.82
	2014	110,776,029	88,987,863	80.3%	37,082,020	51,055,866	137.7%	0.58	41.9%	50.6%	0.83
	2015	107,988,278	94,727,074	87.7%	32,514,070	50,254,996	154.6%	0.57	44.0%	52.7%	0.84
	2016	108,209,580	114,512,978	105.8%	28,360,921	49,066,112	173.0%	0.61	46.7%	54.7%	0.85
	2017	102,230,496	124,628,890	121.9%	24,608,614	47,654,154	193.6%	0.63	49.5%	56.5%	0.88
	2018	96,241,863	134,716,792	140.0%	21,239,889	45,994,786	216.5%	0.65	52.5%	58.2%	0.90
	2019	90,250,935	144,420,176	160.0%	18,234,156	44,097,511	241.8%	0.66	55.5%	59.7%	0.93
	2020	84,290,375	153,662,631	182.3%	15,568,954	42,101,837	270.4%	0.67	58.7%	61.1%	0.96
	2021	78,389,475	162,476,460	207.3%	13,221,671	39,983,003	302.4%	0.69	61.9%	62.4%	0.99
	2022	72,572,798	170,688,803	235.2%	11,169,056	37,751,822	338.0%	0.70	65.1%	63.6%	1.02
	2023	66,868,294	178,131,929	266.4%	9,384,962	35,531,103	378.6%	0.70	68.4%	64.6%	1.06
	2024	61,310,409	184,622,504	301.1%	7,843,627	33,330,506	424.9%	0.71	71.7%	65.6%	1.09
	2025	55,929,712	190,029,630	339.8%	6,521,274	31,144,887	477.6%	0.71	75.0%	66.4%	1.13
	2026	50,756,852	194,225,515	382.7%	5,393,758	29,026,844	538.2%	0.71	78.2%	67.2%	1.16
	2027	45,819,299	197,155,517	430.3%	4,438,459	26,974,191	607.7%	0.71	81.3%	67.8%	1.20
	2028	41,127,185	198,669,935	483.1%	3,632,465	24,985,793	687.8%	0.70	84.4%	68.4%	1.23
	2029	36,707,642	198,777,896	541.5%	2,956,374	23,100,125	781.4%	0.69	87.4%	68.9%	1.27
	2030	32,576,133	197,477,055	606.2%	2,392,483	21,298,916	890.2%	0.68	90.2%	69.4%	1.30
	2031	28,733,954	194,752,921	677.8%	1,925,444	19,553,694	1015.5%	0.67	92.9%	69.8%	1.33
	2032	25,185,449	190,561,273	756.6%	1,539,599	17,882,501	1161.5%	0.65	95.5%	70.1%	1.36
	2033	21,931,559	184,914,044	843.1%	1,223,051	16,278,860	1331.0%	0.63	97.8%	70.4%	1.39
	2034	18,969,144	178,002,428	938.4%	964,750	14,732,658	1527.1%	0.61	100.1%	70.7%	1.42
	2035	16,291,741	169,885,353	1042.8%	755,712	13,248,027	1753.1%	0.59	102.1%	70.9%	1.44
	2036	13,890,413	160,611,790	1156.3%	588,376	11,811,021	2007.4%	0.58	103.9%	71.1%	1.46
	2037	11,753,103	150,422,711	1279.9%	454,196	10,415,240	2293.1%	0.56	105.6%	71.2%	1.48
	2038	9,866,628	139,498,709	1413.8%	346,379	9,049,828	2612.7%	0.54	107.1%	71.4%	1.50
	2039	8,215,741	128,080,469	1559.0%	260,701	7,679,371	2945.7%	0.53	108.4%	71.5%	1.52
	2040	6,783,431	116,415,617	1716.2%	194,229	6,323,119	3255.5%	0.53	109.6%	71.5%	1.53
	2041	5,552,174	104,689,235	1885.6%	142,747	5,061,175	3545.6%	0.53	110.6%	71.6%	1.54
	2042	4,503,193	93,158,981	2068.7%	102,880	3,943,795	3833.4%	0.54	111.4%	71.6%	1.56
	2043	3,617,520	82,029,845	2267.6%	72,939	2,950,394	4045.0%	0.56	112.2%	71.7%	1.56
	2044	2,877,365	71,474,220	2484.0%	51,331	2,127,834	4145.3%	0.60	112.8%	71.7%	1.57
	2045	2,265,246	61,604,904	2719.6%	36,021	1,505,905	4180.6%	0.65	113.3%	71.7%	1.58
	2046	1,764,381	52,513,580	2976.3%	25,231	1,060,338	4202.5%	0.71	113.7%	71.7%	1.59
	2047	1,358,426	44,255,860	3257.9%	17,669	743,050	4205.4%	0.77	114.0%	71.7%	1.59
	2048	1,033,785	36,843,198	3563.9%	12,373	520,439	4206.2%	0.85	114.3%	71.7%	1.59
	2049	777,313	30,279,132	3895.4%	8,665	364,557	4207.3%	0.93	114.5%	71.7%	1.60
	2050	577,126	24,538,575	4251.9%	6,069	255,394	4208.5%	1.01	114.6%	71.7%	1.60
	2051	422,515	19,581,340	4634.5%	4,249	178,932	4210.7%	1.10	114.8%	71.7%	1.60
	2052	303,812	15,353,781	5053.7%	2,975	125,368	4214.6%	1.20	114.9%	71.7%	1.60
	2053	214,752	11,800,178	5494.8%	2,082	87,758	4214.6%	1.30	114.9%	71.7%	1.60
	2054	149,395	8,860,069	5930.6%	1,458	61,430	4214.6%	1.41	115.0%	71.7%	1.60
	2055	101,765	6,482,195	6369.8%	1,020	43,001	4214.6%	1.51	115.0%	71.7%	1.60
	2056	67,578	4,614,413	6828.3%	714	30,101	4214.6%	1.62	115.0%	71.7%	1.60
	2057	43,599	3,202,193	7344.6%	500	21,071	4214.6%	1.74	115.0%	71.7%	1.60
	2058	27,343	2,146,346	7849.7%	350	14,745	4214.6%	1.86	115.1%	71.7%	1.60
	2059	16,693	1,397,355	8371.1%	243	10,226	4214.6%	1.99	115.1%	71.7%	1.60
	2060	9,922	885,426	8923.6%	163	6,854	4214.6%	2.12	115.1%	71.7%	1.60
Past		1,673,459,119	806,873,584	48.2%	966,878,247	590,792,697	61.1%	0.79	41.9%	50.6%	0.83
Future		1,210,586,116	4,833,052,851	399.2%	183,708,777	678,128,276	369.1%	1.08	281.1%	272.6%	1.03
Lifetime		2,884,045,235	5,639,926,435	195.6%	1,150,587,024	1,268,920,973	110.3%	1.77	115.1%	72.0%	1.60