

Actuarial Memorandum

Policy Form (Certificates): GP001 796 (GC001-NH (MD) 796, GC001-LTC (MD) 796, GC001-HCC (MD) 796) as NEA Group Series

Long Term Care Coverage

1) Scope and Purpose

This rate filing is a request for two annual increases of 15% in premium, the first of which is to be effective upon approval by the state, on the base contract and all associated riders. This is a follow up to the 2017 approval of 15%. The original requested rate increase of the prior filing was 70%.

This premium rate increase is needed due to claim levels that produce lifetime loss ratios above the statutorily required minimum loss ratio.

This filing is also a request to allow the company to make available to eligible insureds with a benefit increase option ("BIO") the means to partially or completely offset the rate increase request indicated above in return for agreeing to reduce the BIO growth factor applicable to their coverage. If elected, the reduced BIO growth factor would begin to apply at the same time the indicated rate increase would otherwise have become effective, if a contract anniversary, or the next contract anniversary thereafter if not a contract anniversary. Once applicable, the reduced BIO factor would remain in effect in all future years the contract remains inforce. The growth in benefits accumulated from issue-to-date would not be lost for insureds electing this downgrade option. Insureds eligible for this downgrade option would be limited only to those who currently have BIO included in their coverage where benefit growth is unlimited. The reduced future BIO growth factors to which insureds would need to agree to completely offset the requested rate increase are as follows:

	Current BIO	Reduced Future	Rate Increase	
ВІО Туре	Growth Factor	BIO Growth Factor	If Elected	
Simple Unlimited	5.0%/year	2.07%/year	0%	
Compound	5.0%/year	3.25%/year	0%	

This BIO downgrade offer would only affect the rate increase request of this filing. Insureds who elect this BIO downgrade offer may still be subject to additional future rate action were it to become justified due to further deterioration of experience not currently anticipated as mentioned above.

The purpose of this memorandum is to file revised premium rates in this state and demonstrate that the anticipated loss ratio meets the minimum requirements of this state. This memorandum is not to be used for other purposes.

2) Benefits *

NEA Group Series

A. Nursing Home

Pays actual charges up to the Nursing Home Daily Benefit for each day benefits are payable. Benefits are payable up to the Maximum Nursing Home Lifetime Benefit.

B. Home and Community Care - Certificate forms: GC001-HHC (MD) 796 & GC001-LTC (MD) 796

Pays actual charges up to the Home and Community Care Maximum Daily Benefit. Benefits include Home Health, Adult Day Care, Respite Care, Equipment Purchases and Rentals, Assisted Living Facility, Bed Reservation, Ambulance, Hospice Facility, Home Hospice, Chore Services, and Emergency Response. Benefits are payable up to the Maximum Home and Community Care Lifetime Benefit.

- *C.* Simple Benefit Increase Option (BIO) Increases benefits by 5% of the original amount on each anniversary of the policy.
- *D.* Compound Benefit Increase Option (BIO) Increases benefits by 5% of the current amount on each certificate anniversary.

3) Renewability

This policy form is guaranteed renewable for life, subject to the company's right to change premium rates.

4) Applicability

This filing applies to inforce certificate holders only, as these certificates are no longer actively being issued. The premium change will be applicable to the base form(s) and to all certificates and riders associated with the base form(s).

5) Morbidity

The underlying claim costs are based on internal data derived from company experience. The confinement length of stay and incidence rates were originally based on unpublished industry data and the 1985 national nursing home survey as reported in the Society of Actuaries transactions of 1988-1989-1990 Reports. The claim costs were also based on data from the 1984 National Long Term Care Survey. The claim costs represent best estimate values and do not include an explicit provision for moderately adverse conditions.

6) Mortality

The 1983 GAM mortality table, with select factors based on company experience, was used for projecting future mortality.

7) Persistency

Voluntary lapse rates are based on Company experience and vary by duration and issue age. Different lapse rates are assumed based on inflation option, marital discount, and issue era.

8) Expenses

Expenses have not been explicitly projected. It is assumed that the originally filed expense assumptions remain appropriate.

^{*} This is not intended to be a comprehensive listing of all benefits available.

9) Marketing

This policy form was marketed by agents to individuals.

10) Underwriting

This policy form was fully underwritten with the use of various underwriting tools in addition to the application, which may have included medical records, an attending physician's statement, telephone interview and/or face-to-face assessment.

11) Premiums

Premiums vary based on original issue age, rate class and benefit options selected.

12) Issue Age Range

For the NEA Group Series, applicants age 18–79 were eligible for all elimination periods and benefit periods. Applicants age 80-84 were eligible for the 100-day elimination period and the 1-year, 2-year, 3-year and 4-year benefit periods only. Applicants age 85 and older were eligible for the 100-day elimination period and the 1-year and 2-year benefit periods only.

13) Area Factors

Area factors are not used for these products.

14) Average Annual Premium

	Before	After 1 st	After 2 nd
Series	Increase	Increase	Increase
NEA Group	\$2,082	\$2,394	\$2,753

15) Premium Modalization Rules

Modal factors which are applied to the annual premium are as follows:

Premium Mode	Annual	Semi- annual	Quarterly	Monthly
NEA Group Series	1.000	0.500	0.250	0.083

16) Claim Liability and Reserve

The present value of amounts not yet due (Exhibit 6) is calculated for all open claims using termination rates derived from company experience. The resulting reserve is adjusted by factors based on age at incurral, sex, and benefit period developed from company experience. The interest rate varies by year of incurral. The incurred but not reported and in course of settlement reserves (Exhibit 8) are calculated based on the development of incurred claims by month of incurral, based on internal Company data. The claim reserves underlying the incurred claims in the projection are consistent with the reserves reported in Exhibits 6 and 8 of the Company's financial statement.

17) Active Life Reserve

Active life reserves were used in the original pricing of the captioned form to demonstrate compliance with the minimum 60% loss ratio. However, active life reserves have <u>not</u> been used in this premium rate increase filing to demonstrate compliance with the 60% loss ratio requirement. As a result, we are requesting a lesser increase than would have been necessary had we included the cost of the active life reserves.

18) Trend Assumptions

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

19) Minimum Required Loss Ratio

The Statutorily Required Minimum Loss Ratio for this form is 60%.

20) Anticipated Loss Ratio

The anticipated lifetime loss ratio for this block of business is shown in Exhibit I.

21) Distribution of Business

See Attachment A.

22) Contingency and Risk Margins

Contingency and risk margins have not been included in the justification for this rate increase.

23) Experience on the Form

See Exhibit I for calendar year historical experience through June 30, 2017, as well as projected experience thereafter both with and without the proposed rate increase. See Exhibit II for actual-to-expected experience where 'actual' experience includes historical experience through June 30, 2017, combined with current-assumption projected experience thereafter. Historical Incurred Claims reflect claim payment runoff through October 31, 2017, plus the claim reserve estimate as of October 31, 2017 (as described in Section 16 above).

24) History of Rate Adjustments

The magnitude of rate increases approved for each product discussed herein is displayed in Attachment B.

25) Number of Certificate Holders

As of September 2017, the number of certificate holders that will be affected by this increase is:

	Certificate Holders	Annualized Premium
Maryland:	463	\$1,009,359
Nationwide:	8,466	\$17,624,722

26) **Proposed Effective Date**

The proposed rate increase will be implemented following approval and after fulfillment of all statutory and contractual requirements. The increase for any certificate holder will not become effective until a period of one year has elapsed since the previously approved rate increase effective date if applicable.

27) Actuarial Certification

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 your state when the original issued rates were first filed and accepted. In my opinion, the actuarial assumptions are appropriate and the rates are not excessive or unfairly discriminatory. Going forward, the Company will continue to monitor the experience of this block and reserves the right to take additional rate action if currently unanticipated future deterioration thereof justifies.

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Brad Rokosh, ASA, MAAA Director, Actuarial, LTC Margin Analytics

December 20, 2018

Attachment A

Transamerica Life Insurance Company

Distribution of Business

By Issue Age					
0 to 59	68.8%				
60 to 64	19.2%				
65 to 69	8.5%				
70 to 74	2.7%				
75 to 79	0.7%				
80 to 84	0.1%				
85 +	0.0%				

By Elimination Period

0 day	20 day	60 day	90 day
9.8%	11.1%	49.1%	30.0%

By Maximum Benefit Option

≤ 2 Yr	3 Yr	4 Yr	5 Yr	≥ 6 Yr*
3.5%	8.3%	24.6%	0.0%	63.6%

* Including Unlimited

Attachment B

Transamerica Life Insurance Company

Rate Increase History

Policy Form	First Increase	Second Increase	Third Increase	Fourth Increase	Fifth Increase	Sixth Increase	Seventh Increase
	(Approved,	(Approved,	(Approved,	(Approved,	(Approved,	(Approved,	(Approved,
	Implemented)	Implemented)	Implemented)	Implemented)	Implemented)	Implemented)	Implemented)
NEA Group (BP < 4 years)	20% (2005,2005)	20% (2006,2006)				15% (2013,2013)	15% (2017,2018)
NEA Group (4 ≤ BP < 6 years)	20% (2005,2005)	20% (2006,2006)	20% (2008,2008)			15% (2013,2013)	15% (2017,2018)
NEA Group	20%	20%	20%	20%	14%	15%	15%
(BP ≥ 6 years)	(2005,2005)	(2006,2006)	(2008,2008)	(2009,2009)	(2011,2011)	(2013,2013)	(2017,2018)

Exhibit I

Transamerica Life Insurance Company

NEA Group

Nationwide Experience Adjusted to Maryland-Specific Rate History

		Earr Prem		Incurred Claims	Lo	oss Ratios Exclu	iding Change in Al	_R
		Actual Past &	Actual Past &					
Vee	Number of	Projected Future w/o Proposed Rate	Projected Future w/ Proposed Rate	Actual Past &	Actual w/o Rate	Actual w/ Rate	PV Actual Cumulative w/o	PV Actual Cumulative w/
Year 1991	Lives 2	Increase 1,949	Increase 1,949	Projected Future 0	Increase 0.0%	Increase 0.0%	Rate Increase 0.0%	Rate Increase 0.0%
1992	7	5,262	5,262	0		0.0%	0.0%	0.0%
1993	13	7,634	7,634	0		0.0%	0.0%	0.0%
1994	23	15,345	15,345	0		0.0%	0.0%	0.0%
1995	98	61,520	61,520	0		0.0%	0.0%	0.0%
1996 1997	236 968	156,529 917,257	156,529 917,257	0		0.0% 0.0%	0.0% 0.0%	0.0% 0.0%
1998	2,835	2,773,561	2,773,561	10.458		0.4%	0.3%	0.0%
1999	5,183	5,262,763	5,262,763	695,687		13.2%	7.5%	7.5%
2000	7,638	8,015,238	8,015,238	778,054		9.7%	8.5%	8.5%
2001	9,931	10,469,824	10,469,824	867,401	8.3%	8.3%	8.4%	8.4%
2002	11,912	12,889,213	12,889,213	1,834,658		14.2%	10.1%	10.1%
2003	13,040	14,428,680	14,428,680	1,921,827		13.3%	10.9%	10.9%
2004	12,854	14,174,913	14,174,913	2,628,364		18.5%	12.3%	12.3%
2005 2006	12,647 12,473	14,110,795 15,820,246	14,110,795 15,820,246	3,653,762 3,190,859		25.9% 20.2%	14.4% 15.2%	14.4% 15.2%
2000	12,473	17,800,294	17,800,294	4,438,447		20.2%	15.2%	15.2%
2008	12,077	17,834,189	17,834,189	4,376,426		24.5%	17.3%	17.3%
2009	11,879	19,594,701	19,594,701	5,129,950		26.2%	18.2%	18.2%
2010	11,669	20,965,359	20,965,359	6,867,473	32.8%	32.8%	19.6%	19.6%
2011	11,450	20,783,132	20,783,132	6,202,331	29.8%	29.8%	20.5%	20.5%
2012	11,228	21,420,306	21,420,306	6,824,026		31.9%	21.4%	21.4%
2013	10,997	20,906,329	20,906,329	11,687,325		55.9%	23.7%	23.7%
2014	10,761	22,670,639	22,670,639	11,037,628		48.7%	25.3%	25.3%
2015 2016	10,532 10,295	22,194,594 21,324,947	22,194,594 21,324,947	14,925,198 13,486,616		67.2% 63.2%	27.7% 29.5%	27.7% 29.5%
2017Q12	5,014	10,221,069	10,221,069	5,446,084		53.3%	30.0%	30.0%
2017Q34	4,977	10,114,854	10,114,854	8,402,929		83.1%	31.1%	31.1%
2018	9,741	21,637,996	21,738,155	17,987,796	83.1%	82.7%	33.3%	33.3%
2019	9,451	21,292,920	23,813,351	19,819,129	93.1%	83.2%	35.6%	35.5%
2020	9,153	20,241,357	25,912,965	21,680,130		83.7%	38.1%	37.5%
2021	8,848	19,194,013	25,384,082	23,528,107		92.7%	40.6%	39.6%
2022	8,533	18,150,422	24,003,933	25,396,062		105.8%	43.2%	41.9%
2023	8,211	17,109,558	22,627,390	27,241,756		120.4%	45.8%	44.2%
2024 2025	7,881 7,543	16,071,478 15,039,062	21,254,530 19,889,159	29,032,312 30,768,716		136.6% 154.7%	48.6% 51.4%	46.6% 49.0%
2025	7,197	14,015,828	18,535,932	32,396,059		174.8%	54.2%	51.5%
2027	6,846	13,005,772	17,200,134	33,854,561	260.3%	196.8%	57.0%	54.0%
2028	6,489	12,013,406	15,887,730	35,113,192	292.3%	221.0%	59.8%	56.5%
2029	6,128	11,042,994	14,604,359	36,073,743	326.7%	247.0%	62.6%	59.0%
2030	5,764	10,098,528	13,355,304	36,772,987		275.3%	65.4%	61.4%
2031	5,398	9,183,962	12,145,790	37,189,507		306.2%	68.0%	63.8%
2032	5,031	8,302,522	10,980,086	37,764,766		343.9%	70.6%	66.1%
2033 2034	4,664 4,299	7,456,091 6,648,534	9,860,680 8,792,687	37,943,296 37,711,053		384.8% 428.9%	73.1% 75.5%	68.4% 70.5%
2034	4,299 3,937	5,883,934	7,781,503	37,067,164		428.9%	75.5%	70.5%
2036	3,581	5,166,004	6,832,040	36,054,772		527.7%	80.0%	74.5%
2037	3,234	4,498,071	5,948,699	34,683,855		583.0%	81.9%	76.3%
2038	2,898	3,882,803	5,135,007	32,946,740		641.6%	83.7%	77.9%
2039	2,577	3,322,109	4,393,489	30,888,329		703.0%	85.4%	79.4%
2040	2,272	2,816,918	3,725,374	28,564,556		766.8%	86.8%	80.7%
2041	1,986	2,367,101	3,130,491	26,066,167		832.7%	88.1%	81.9%
2042	1,721	1,971,418	2,607,201	23,468,071	1190.4%	900.1%	89.2%	82.9%
2043 2044	1,478 1,258	1,627,512 1,332,080	2,152,384 1,761,676	20,847,940 18,283,818		968.6% 1037.9%	90.1% 90.9%	83.8% 84.5%
2044 2045	1,258	1,081,195	1,429,881	15,828,206		1037.9%	90.9%	84.5% 85.1%
2045	887	870,476	1,151,205	13,534,659		1107.0%	92.1%	85.6%
2047	735	695,419	919,692	11,424,034		1242.2%	92.6%	86.0%
2048	604	551,516	729,379	9,531,742		1306.8%	92.9%	86.3%
2049	492	434,417	574,516	7,867,977		1369.5%	93.2%	86.6%
2050	398	340,072	449,745	6,433,934		1430.6%	93.4%	86.8%
2051	319	264,808	350,208	5,221,911		1491.1%	93.6%	86.9%
2052	255	205,345	271,568	4,208,223		1549.6%	93.7%	87.0%
2053	203	158,812	210,029	3,371,977		1605.5%	93.8%	87.1%
2054 2055	161 128	122,719 94,953	162,296 125,575	2,697,653 2,159,213		1662.2% 1719.5%	93.9% 93.9%	87.2% 87.3%
2055	120	94,953 73,747	97,530	1,736,131	2274.0%	1719.5%	94.0%	87.3%
2050	82	57,642	76,232	1,398,511	2426.2%	1834.5%	94.0%	87.3%
2058	66	45,442	60,098	1,139,166		1895.5%	94.0%	87.3%
2059	54	36,197	47,870	937,849		1959.2%	94.1%	87.4%
2060	44	29,162	38,567	782,653		2029.3%	94.1%	87.4%
2061	37	23,763	31,426	665,069		2116.3%	94.1%	87.4%
2062	31	19,562	25,871	570,463		2205.0%	94.1%	87.4%
2063	26	16,234	21,469	494,558		2303.6%	94.1%	87.4%
2064	22	13,537	17,903	430,457	3179.9%	2404.4%	94.1%	87.4%
		100 000 00 -	100 000 00	11 000 100				
PV Past PV Future		139,382,892 61,558,820	139,382,892 3,081,909	41,807,483 147,339,811	30.0% 239.3%	30.0% 4780.8%		

Exhibit I.MD

Transamerica Life Insurance Company

NEA Group

Nationwide Experience Adjusted to Maryland-Specific Rate History

		Ear Pren		Incurred Claims	Loss Ratios Excluding Change in ALR			R
Year	Number of Lives	Actual Past & Projected Future w/o Proposed Rate Increase	Actual Past & Projected Future w/ Proposed Rate Increase	Actual Past & Projected Future	Actual w/o Rate Increase	Actual w/ Rate Increase	PV Actual Cumulative w/o Rate Increase	PV Actual Cumulative v Rate Increas
1997	6	8,357	8,357	0		0.0%	0.0%	0.0
1998	65	63,910	63,910	0		0.0%	0.0%	0.0
1999	133	136,081	136,081	0	0.0%	0.0%	0.0%	0.0
2000	245	255,178	255,178	0	0.0%	0.0%	0.0%	0.0
2001	411	436,776	436,776	120,394	27.6%	27.6%	12.9%	12.9
2002	553	594,022	594,022	0	0.0%	0.0%	8.0%	8.0
2003	606	666,625	666,625	444	0.1%	0.1%	5.7%	5.3
2004	624	694,857	694,857	2,114	0.3%	0.3%	4.5%	4.5
2005	616	703,655	703,655	0	0.0%	0.0%	3.7%	3.3
2006	610	781,698	781,698	0		0.0%	3.1%	3.:
2007	604	893,897	893,897	496,011	55.5%	55.5%	10.9%	10.9
2008	594	868,954	868,954	635		0.1%	9.6%	9.6
2008	587	966,740	966,740	035		0.1%	8.5%	8.5
2010	579	1,031,729	1,031,729	170,757		16.6%	9.3%	9.3
2011	562	1,012,261	1,012,261	176,776		17.5%	10.1%	10.
2012	551	1,056,772	1,056,772	7,972		0.8%	9.3%	9.3
2013	544	1,040,626	1,040,626	2,191	0.2%	0.2%	8.6%	8.
2014	538	1,145,578	1,145,578	749,878	65.5%	65.5%	12.6%	12.
2015	529	1,152,364	1,152,364	324,940	28.2%	28.2%	13.6%	13.
2016	519	1,114,679	1,114,679	488,427	43.8%	43.8%	15.3%	15.
2017Q12	254	548,223	548,223	126,551	23.1%	23.1%	15.5%	15.
2017Q34	254	546,777	546,777	361,810		66.2%	16.7%	16.
2018	501	1,191,522	1,197,037	804,223		67.2%	19.2%	19.
2019	491	1,202,342	1,344,663	930,916		69.2%	21.9%	21.
2013	481	1,173,051	1,501,738	1,073,260		71.5%	24.7%	24.
2020	401	1,142,592	1,511,078	1,221,984	106.9%	80.9%	24.7%	24.
2022	459	1,110,891	1,469,154	1,379,886		93.9%	30.8%	29.
2023	447	1,077,906	1,425,531	1,540,893		108.1%	34.1%	32
2024	434	1,043,585	1,380,141	1,705,229		123.6%	37.6%	35.
2025	421	1,007,901	1,332,949	1,872,121	185.7%	140.4%	41.1%	38
2026	408	970,793	1,283,874	2,040,124	210.2%	158.9%	44.8%	42.
2027	393	932,273	1,232,931	2,196,625	235.6%	178.2%	48.5%	45.
2028	378	892,356	1,180,141	2,343,376	262.6%	198.6%	52.2%	48.
2029	363	851,077	1,125,550	2,470,257	290.3%	219.5%	56.0%	51.
2030	347	808,472	1,069,204	2,579,773		241.3%	59.7%	55.
2031	330	764,623	1,011,214	2,673,640		264.4%	63.4%	58.
2032	313	719,606	951,678	2,773,495		291.4%	67.0%	61
2033	295	673,416	890,593	2,837,552		318.6%	70.5%	64.
2033	233	626,263	828,232			346.6%	73.9%	67.
				2,871,065				
2035	257	578,438	764,984	2,866,727		374.7%	77.2%	70
2036	238	530,316	701,343	2,832,554		403.9%	80.2%	73
2037	219	482,358	637,919	2,762,200		433.0%	83.1%	75
2038	199	435,055	575,360	2,656,955		461.8%	85.7%	78
2039	180	388,920	514,346	2,520,069	648.0%	490.0%	88.1%	80
2040	162	344,463	455,552	2,353,845	683.3%	516.7%	90.2%	82
2041	144	302,151	399,595	2,171,352	718.6%	543.4%	92.1%	83
2042	127	262,409	347,035	1,971,870		568.2%	93.8%	85
2043	111	225,577	298,325	1,766,066		592.0%	95.2%	86
2044	96	191,897	253,784	1,560,049		614.7%	96.4%	87
2045	83	161,516	213,605	1,356,877		635.2%	97.4%	88
2046	70	134,487	177,859	1,164,454		654.7%	98.2%	89
2040	60	110,769	146,492	985,036		672.4%	98.8%	89
2047 2048	50	90,249	140,492	822,930		689.5%		90
2048 2049							99.4%	90.
	42	72,744	96,205	679,293		706.1%	99.8%	
2050	35	58,027	76,741	555,774	957.8%	724.2%	100.1%	90
2051	29	45,825	60,604	451,789		745.5%	100.4%	91
2052	24	35,850	47,412	365,029		769.9%	100.6%	91
2053	19	27,817	36,788	294,427		800.3%	100.7%	91
2054	16	21,428	28,338	237,642		838.6%	100.9%	91
2055	13	16,418	21,713	194,229	1183.0%	894.5%	101.0%	91
2056	11	12,548	16,594	160,585	1279.8%	967.7%	101.0%	91
2057	9	9,594	12,689	134,991	1407.0%	1063.9%	101.1%	91
2058	7	7,366	9,742	115,630		1187.0%	101.1%	91
2059	6	5,696	7,534	101,216		1343.5%	101.2%	91
2059	5	4,448	5,883	90,052		1530.7%	101.2%	91
2060	5					1740.4%	101.2%	91.
		3,513	4,646	80,866				
2062	4	2,807	3,713	71,757		1932.8%	101.3%	91
2063	3	2,269	3,001	63,260		2107.8%	101.3%	91
2064	3	1,846	2,442	55,494	3005.6%	2272.7%	101.3%	91
	-							
PV Past		8,568,125	8,568,125	1,327,162	15.5%	15.5%		
PV Future		5,480,362	6,927,567	12,906,385		186.3%		
		0,400,002	0,021,001	12,000,000	233.370	100.570		

Exhibit II Transamerica Life Insurance Company

NEA Group

Actual To Expected Lifetime Experience Actual Nationwide Experience Through June 30, 2017 and Projected Experience Thereafter

Duration 1 2	A Earned Premium @ Original Rate	B Earned Premium	С	D	E	Expected F	G	H=A/E	I=C/F	J=D/G
Duration 1	Premium @									0-0,0
Duration 1	Premium @	Premium	la sum sul	Ourselation	E a ma a d	la suma d	Ourselation		la suma d	Ourse de time
Duration 1		Adjusted to	Incurred Claims	Cumulative Loss Ratio	Earned Premium @	Incurred Claims	Cumulative Loss Ratio		Incurred Claims	Cumulative Loss Ratio
Duration 1		Approved SC		Excluding ALR	Original Rate	Excluding ALR		Earned		Excluding ALR
	Level	Rate History	Increase	Increase	Level	Increase	Increase	Premium	Increase	Increase
2	15,896,691	15,896,841	332,188	2.1%	15,896,691	832,889	5.2%	100.0%	39.9%	39.9%
	14,979,906	14,986,052	1,705,834	6.5%	13,913,218	1,188,951	6.7%	107.7%	143.5%	96.3%
3	14,471,936	14,551,789	648,749	5.9%	12,554,475		8.5%	115.3%	40.4%	69.5%
4	14,226,969	14,640,314	1,044,066	6.2%	11,523,760		10.3%	123.5%		60.0%
5	13,937,298	15,058,855	3,371,253	9.1%	10,623,264		11.7%	131.2%		77.8%
6 7	13,610,163	15,732,318	3,632,437	11.3%	9,803,835		13.0%	138.8%	162.4%	86.7%
8	13,202,077 12,825,509	16,630,154 17,837,867	2,875,522 4,162,825	12.1% 13.5%	9,013,162 8,266,743		14.4% 15.7%	146.5% 155.1%	116.5% 155.1%	84.3% 85.7%
9	12,391,765	19,014,635	5,543,643	15.2%	7,567,118		17.1%	163.8%		89.0%
10	11,908,935	19,961,701	6,746,519	17.1%	6,911,663		18.4%	172.3%	227.7%	92.7%
11	11,288,297	20,468,786	5,498,954	17.9%	6,289,469		19.7%	179.5%		91.1%
12	10,776,902	21,084,627	6,638,940	19.0%	5,736,002	3,383,277	21.1%	187.9%	196.2%	90.2%
13	10,391,042	21,721,340	6,792,319	19.9%	5,229,117	3,673,984	22.6%	198.7%	184.9%	88.2%
14	9,987,571	21,985,480	9,628,566	21.5%	4,758,812	3,900,902		209.9%	246.8%	89.2%
15	9,564,150	21,969,620	9,644,698	22.9%	4,329,341	4,086,621	25.7%	220.9%	236.0%	89.1%
16	9,114,932	21,846,008	15,860,005	25.6%	3,931,611	4,213,351	27.2%	231.8%	376.4%	94.0%
17	8,739,863	21,845,504 21,635,286	13,556,037 16,548,628	27.4%	3,563,336		28.8%	245.3%		95.0%
18	8,356,294		, ,	29.5%	3,221,641	4,746,184	30.4%	259.4%	348.7%	97.1%
19 20	7,952,858 7,541,609	21,189,553 20,597,335	18,697,003 19,692,854	31.9% 34.2%	2,903,722 2,608,069		32.0% 33.6%	273.9% 289.2%		99.6% 101.8%
20	7,144,521	19,859,951	22,687,795	36.8%	2,335,073			306.0%	457.6%	104.7%
22	6,746,691	18,922,401	24,541,935	39.4%	2,083,286		36.7%	323.8%		107.2%
23	6,356,502	17,891,271	26,508,977	42.1%	1,852,074		38.4%	343.2%		109.6%
24	5,963,043	16,817,488	28,435,705	44.9%	1,639,703	6,304,709	40.2%	363.7%	451.0%	111.7%
25	5,575,248	15,746,859	30,414,795	47.8%	1,450,589	6,566,275	42.0%	384.3%	463.2%	113.9%
26	5,192,724	14,684,601	32,345,415	50.7%	1,276,930			406.7%		116.0%
27	4,814,507	13,630,921	34,024,242	53.7%	1,119,722		45.4%	430.0%	498.5%	118.2%
28	4,442,987	12,592,944	35,393,788	56.6%	976,798		47.1%	454.9%	518.4%	120.3%
29	4,079,603	11,574,969	36,496,885	59.6%	847,489		48.6%	481.4%		122.5%
30 31	3,726,021	10,582,074	37,402,500 38,339,621	62.4% 65.3%	730,575 626,023		50.1% 51.4%	510.0%	573.8% 615.5%	124.7% 127.0%
32	3,383,663 3,053,736	9,618,588 8,688,192	38,923,409	68.0%	533,121	6,228,826 6,188,475	52.6%	540.5% 572.8%		127.0%
33	2,737,579	7,794,950	39,023,166	70.7%	450,553		53.8%	607.6%		131.3%
34	2,436,664	6,943,329	38,729,937	73.3%	376,992		55.0%	646.3%		133.3%
35	2,152,295	6,137,380	38,113,505	75.7%	317,594		56.0%	677.7%	670.3%	135.2%
36	1,885,838	5,381,206	37,338,108	78.0%	265,428	5,420,532	56.9%	710.5%	688.8%	136.9%
37	1,638,421	4,678,237	36,129,831	80.1%	220,681	5,010,066	57.8%	742.4%	721.1%	138.6%
38	1,411,024	4,031,477	34,419,091	82.0%	181,761	4,601,569	58.5%	776.3%	748.0%	140.2%
39	1,204,408	3,443,267	32,280,027	83.8%	148,947			808.6%	765.5%	141.6%
40	1,019,012	2,914,970	29,858,424	85.3%	120,645			844.6%		142.9%
41	854,624	2,446,152	27,335,702	86.7%	96,131	3,408,972		889.0%	801.9%	144.1%
42 43	710,548 585,726	2,034,968	24,675,392 21,956,748	87.9% 88.9%	75,717 59,103		60.6% 60.9%	938.4%	817.7% 839.4%	145.1% 145.9%
43 44	585,726 478,745	1,678,529 1,372,941	19,297,918	88.9% 89.8%	43,558		60.9% 61.2%	991.0% 1099.1%	839.4% 851.5%	145.9% 146.7%
44 45	388,120	1,113,991	16,728,111	90.5%	43,556 34,574			1122.6%		140.7%
46	312,242	897,066	14,329,387	91.1%	27,322		61.7%	1142.8%		147.7%
47	249,363	717,198	12,110,036	91.6%	21,151	1,445,148	61.8%	1179.0%		148.1%
48	197,780	569,532	10,111,725	91.9%	16,065		61.9%	1231.1%		148.4%
49	155,868	449,438	8,393,612	92.2%	12,047	915,586	62.0%	1293.8%	916.7%	148.7%
50	122,136	352,675	6,896,716	92.5%	8,770	702,519	62.1%	1392.7%	981.7%	148.9%
51	95,235	275,412	5,614,540	92.7%	6,199			1536.2%		149.1%
52	73,973	214,258	4,531,202	92.8%	4,390		62.2%	1685.1%		149.3%
53	57,314	166,276	3,637,714	92.9%	2,651	227,510	62.2%	2161.7%	1598.9%	149.4%
54 55	44,371	128,940	2,925,293	93.0%	1,285		62.2%	3453.4%		149.5%
55 56	34,390 26,744	100,108 77,990	2,347,518 1,890,835	93.1% 93.1%	994 768		62.2% 62.2%	3460.9% 3482.8%	1806.9% 1684.2%	149.6% 149.7%
56 57	26,744 20,922	61,122	1,890,835	93.1% 93.2%	768 566		62.2% 62.2%	3482.8% 3695.7%		149.7%
58	16,506	48,312	1,233,089	93.2%	408		62.2%	4046.0%		149.7%
59	13,157	38,583	1,011,161	93.2%	295		62.2%	4467.3%		149.8%
60+	38,968	115,921	3,405,188	93.3%	474		62.2%	8212.8%		149.9%
PV Lifetime	181,849,148	303,916,303	283,528,172	93.3%	114,788,073		62.2%	158.4%		149.9%