Review of the DCRB December 1, 2015 Workers' Compensation Residual Market Rate And Voluntary Market Loss Cost Revision

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Delaware Insurance Department

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Introduction

Background

The Delaware Insurance Department (the Department) engaged Milliman, Inc. (Milliman) to review the Delaware Compensation Rating Bureau, Inc. (DCRB) Workers' Compensation Residual Market Rate and Voluntary Market Loss Cost Filing with proposed effective date of December 1, 2015 (DCRB Filing No. 1502).

Summary of Findings

The Milliman indications reflect three differences from the DCRB indications. Milliman made independent loss development factor (LDF) selections, independent trend rate selections, and included an additional loss estimation technique. The following table summarized the cumulative impact of the three differences.

	Indicated Changes			
	DCRB	Milliman LDFs [1]	Milliman LDFs & Trend [2]	Milliman Final [3]
Residual Market Rates	**14.92%**	13.90%	10.10%	**9.46%**
Voluntary Market Loss Costs	**15.03%**	14.01%	10.21%	**9.57%**

[1] These rate and loss cost changes are the result of substituting Milliman-selected LDFs for the DCRB-selected LDFs.

[2] These rate and loss cost changes are the result of using Milliman-selected LDFs and Milliman-selected loss ratio trend rates.

[3] These rate and loss cost changes are the result of using Milliman-selected LDFs, Milliman-selected loss ratio trend rates, and including Cape Cod and Bornhuetter-Ferguson loss estimation methods.

As noted in the preceding table, Milliman's indicated rate changes are 9.46% and 9.57% for residual market rates and voluntary market loss costs, respectively. We arrived at these indications even though our estimates of policy year ultimate losses did not change significantly (and in fact, declined slightly in total) relative to the estimates in our prior review of the December 1, 2014 DCRB rate filing (see the following table).

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Estimated Ultimate Losses

Policy Year	Current Review	Prior Review	Current ÷ Prior
	Indemnity		
2010	$43,221,004	$43,192,285	0.1%
2011	44,173,312	45,834,925	-3.6%
2012	41,979,425	40,736,022	3.1%
	Medical		
2010	$99,939,864	$100,958,467	-1.0%
2011	104,925,156	104,671,654	0.2%
2012	92,166,484	93,451,253	-1.4%
Total	$426,405,245	$428,844,606	-0.6%

There are several reasons for the increase in rates despite the slight decrease in estimated ultimate historical losses.

1. We are projecting rates for the policy year beginning December 1, 2015, and the upward trend in loss ratios translates into an upward trend in rates.
2. The current and prior rate change indications are each based on the latest four policy years. Relative to our prior analysis, we have dropped off the 2009 policy year, which has a relatively low loss ratio, and we have added the 2013 policy year, which has a relatively high loss ratio.
3. We increased our indemnity loss ratio trend rate from -1.5% to 0.0%. Our medical loss ratio trend rate changed from a constant +4.0% rate to +5.2% prior to September 1, 2008, +3.7% for September 1, 2008 to January 31, 2013 and +3.4% subsequent to January 31, 2013 (see the "Trend Rates" section below).

Reliance and Limitations

Distribution

Milliman's work has been prepared solely for the internal use of the Department. No portion of Milliman's work may be provided to any other party without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work. Milliman's work may not be filed with the SEC or other securities regulatory bodies. In addition, references to Milliman or its estimates in communication with third parties are not authorized.

Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Third Party Release Agreement, with the exception that the Department may provide a copy of Milliman's work to governmental entities, as required by law.

In the event Milliman consents to release its work product, it must be provided in its entirety. We recommend that any recipient have its own actuary or other qualified professional review the work product to ensure that the party understands the assumptions and uncertainties inherent in our estimates. No third party recipient of Milliman's work product should rely upon Milliman's work product.

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Use of Milliman's Name

Any readers of this report agree that they shall not use Milliman's name, trademarks or service marks, or refer to Milliman directly or indirectly in any third party communication without Milliman's prior written consent for each such use or release, which consent shall be given at Milliman's sole discretion.

Data

The primary data and other information used in our analysis was provided to us by the Department. We also relied on information from the DCRB.

We have not audited or verified this data as such a review is outside the scope of our assignment. If the underlying data or other information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete. In that event, the results of our analysis may not be suitable for the intended purpose.

We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have not found material defects in the data. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of or assignment.

If the underlying data or other information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

Variability of Results

Any estimate of future loss activity for workers' compensation coverage is necessarily subject to substantial uncertainty, due to the unpredictability of changes in inflation, particularly on medical costs, the legal system, and claims handling, among other variables. The estimates developed in this report represent an actuarial central estimate of the future loss activity based upon the available data. By that we mean it is not a statistically defined estimate (such as a mean, median, mode, or percentile), but is an estimate which represents an expected value of the range of reasonably possible outcomes. The range of reasonably possible outcomes may not include all possible outcomes; e.g., it may exclude extreme events whose contribution to the true statistical mean is not reliably estimable.

Disclosures

Actuarial standards require us to disclose the following:

- There have not been any unusual constraints (such as time, availability of data, or access to staff) on our ability to provide this analysis.

- In performing this analysis, the sensitivity of key variables was considered. A number of assumptions about model variables are made in our analysis. We view the key variables to include the selection of loss development factors (including tail factors) and claim frequency and severity trend factors.

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Qualification Statement

Christopher Tait is a Principal and Consulting Actuary for Milliman. He is a Member of the American Academy of Actuaries and a Fellow of the Casualty Actuarial Society, and meets the qualification standards to render the actuarial opinion contained herein.

William Vogan is an Associate Actuary for Milliman. He is a Member of the American Academy of Actuaries and an Associate of the Casualty Actuarial Society, and meets the qualification standards to render the actuarial opinion contained herein.

We will be available to answer any questions regarding the study if authorized to do so by the Department.

DESCRIPTION OF ANALYSIS

This section describes the analysis that underlies the Milliman rate change indications shown in the Summary of Results section. The actual calculations are contained in the supporting exhibits. More detailed descriptions of the calculations and sources are provided in footnotes to those exhibits.

Following is an overview of the steps in our analysis.

Exhibit 1 (Indemnity) and Exhibit 10 (Medical)

1. We used the projection techniques described below to estimate ultimate indemnity losses and medical losses separately, for policy years 2010 through 2013.
2. We applied a DCRB-selected loss adjustment expense loading of 19.98% to include loss adjustment expenses in the ultimate loss estimates.
3. We applied benefit change on-level factors to adjust the indemnity losses to the current benefit level.
4. We divided the estimated ultimate losses at current benefit level by standard earned on-level premium to calculate estimated historical on-level loss ratios.

Summary Exhibit (Indicated Change in Rate Levels)

5. We trended the loss ratios from Step 4 to the projected average accident date for the proposed rates (December 1, 2016).
6. We multiplied the average Medical loss ratio times a Combined Legislative adjustment of 0.5184 (discussed in the “Legislative Changes” section below).
7. The preceding analysis was based on losses limited on a per-claim basis. We applied a DCRB-selected factor to reflect potential losses in excess of the loss limits.
8. To calculate the Residual Market Rate Level change, we divided the loss and expense ratio from Step 7, by the DCRB permissible loss and loss adjustment expense ratio.
9. To calculate the Voluntary Market Loss Cost change, we multiplied the Residual Market change from Step 8, times the change in the permissible loss and loss adjustment expense ratio, including the administrative assessment.

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Data

This analysis is based primarily on data included in DCRB Filing No. 1502. The most recent evaluation of losses used is December 31, 2014.

Loss Projection Techniques

DCRB used only the paid and incurred loss development methods to estimate its ultimate indemnity and medical losses. Milliman used the paid and incurred development methods, plus two additional methods, described below.

For each development interval, DCRB calculated the arithmetic average of the latest four development factors. It generally based its selected factors on a curve fitted to the series of four-year averages across maturities.

In order to select its development factors, Milliman calculated the latest five development factors. We reviewed not only the arithmetic averages of the latest five and the latest four factors, but also the denominator-weighted averages (which give greater weight to the factors with greater underlying loss volume) and ".8-weighted" averages. The .8-weighted averages give a relative weight of 1.000 to the most recent policy year factor, a 0.800 relative weight to the first prior policy year, a 0.640 weight to the second prior policy year, 0.512 weight to the third prior policy year and .4096 weight to the fourth prior policy year.

In each of the four Appendix exhibits, there are two sets of Milliman factors: Indicated and Smoothed. The initial Indicated selections are each based on a judgmental review of the four averages for that individual development interval, without reference to the development in surrounding intervals. The final Smoothed factors are the Indicated factors, judgmentally smoothed with surrounding intervals. The Smoothed factors are thus conceptually comparable to the DCRB curve-fitted factor selections.

Milliman's selected estimate of ultimate loss is a weighted average of its four methods, giving greater weight to the methods we judge more reliable. This is shown in Exhibits 2 and 9 for indemnity and medical loss, respectively.

Following is a brief description of each of the projection methods used by Milliman.

Incurred Loss Development Method

The incurred losses for a given policy year equal the total losses paid plus case reserves for known open claims as of a specific date (maturity). We study the development of incurred losses for past policy years as they move from one point of maturity to the next in order to project the future development of incurred losses for more recent policy years that are currently at similar stages of maturity.

The most important assumption underlying the incurred development method is consistency over time in the relative adequacy of case reserves. This method is also sensitive, to some degree, to consistency in the rate of claims handling.

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Paid Loss Development Method

In this method, the same technique as described above for incurred losses is applied to cumulative paid losses. The Paid Loss Development Method is based on an assumption of consistency in the rate of claims payment. This method tends to be distorted if changes in claims handling cause acceleration or deceleration in the rate of claims payment.

Bornhuetter-Ferguson Method

In addition to the reported and paid loss development methods, the Bornhuetter-Ferguson ("B-F") method is useful for immature policy years. The B-F method tempers the loss development projections with those implied from an initial expected loss ratio. This technique provides more stability during the early periods, when development methods can provide less stable results, due to larger age-to-ultimate factors and greater variability in loss payment and loss emergence.

Trend Rates

Milliman selected trend rates for its analysis that differ from the trend rates used in the DCRB filing.

DCRB selected an Indemnity loss ratio trend rate of +1.95% (-5.3% frequency and +7.66 severity), based on historical severity and claim frequency loss ratios over seven years. As shown in the attached Exhibit 8, Milliman selected an indemnity loss ratio trend rate of 0%, based on historical loss ratios over ten years.

The DCRB and Milliman Medical rate change indications are the result of three different Medical trend rates for three time periods. The following is an excerpt from page 23 of the August 28, 2015 DCRB Filing Letter.

> ***The adjudication of the DCRB's December 1, 2009 filing had included an adjustment to medical severity trend based on the Insurance Department's expectation that such trend would be more favorable after the implementation of the Delaware medical fee schedule than before that transition. The trend adjustment so required was in the amount of a 1.8 percent reduction in annual loss ratio or claim severity trend.***
>
> ***While the DCRB could not and cannot estimate whether or the extent to which the provisions of SB1 affected medical trend, the opinion that some mitigation of medical trends should be applied upon the implementation of the medical fee schedule was widely held by the Department and its consultants in their review of the 2009 filing. After considering analytical and administrative alternatives, the DCRB elected to incorporate the mandated improvement in medical trend from the 2009 filing's adjudication in each subsequent annual rating value filing through, and including, DCRB Filing No. 1404 last year.***
>
> ***Subsequent to the enactment of SB1, it came to light that the regulation of provider charges for hospitals and ambulatory surgical centers intended under that legislation had not been accomplished by virtue of both legal and practical limitations. Providers could not separate workers compensation cases from other services and charge them different amounts than were applicable to other patients due to Medicare requirements.***

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Further, neither providers nor payers were possessed of the extent of historical information that would have been required to index charges or reimbursements back to historical benchmarks envisioned under SB1.

SB238 addressed these issues by changing the regulation of hospitals and ambulatory surgical centers from specifying allowable charges to providing a mechanism for adjusting reimbursements from prevailing charges at levels consistent with the original intent of SB1. These changes became effective January 31, 2013.

The DCRB evaluated the impacts of hospital and ambulatory surgical center charges escaping the intended effects of SB1 and found that the trend adjustment previously posited for enhanced control of inflationary changes would have been 1.5 percent instead of 1.8 percent from the implementation of SB1 to the effective date of SB238.

As shown in the table below, although the DCRB and Milliman Medical trend rates reflect the same legislative-driven reductions at September 1, 2008 and January 1, 2013, they start from different selected base trend rates.

Medical Loss Ratio Trend Rates

	DCRB	Milliman
Prior to 9/1/08	+4.9%	+5.2%
9/1/08 to 1/31/13 (SB1)	+3.5%	+3.7%
1/31/13 and later (SB1, SB238)	+3.2%	+3.4%

Legislative Changes

DCRB Filing No. 1502 reflects the following legislative changes that impact medical loss costs.

Senate Bill 1

SB1 was signed on January 17, 2007. It establishes a Health Care Advisory Panel charged to develop various health care cost containment measures and provides for a health care payment system intended to control care costs in connection with workers' compensation. It provides schedules of maximum acceptable charges for professional services.

SB1 is reflected by the application of a factor of 0.8260 to the historical Medical Loss and Loss Adjustment Expense ratios underlying the filing. The Department approved this factor for prior DCRB rate and loss cost filings.

Senate Bill 238

SB238 was signed on August 7, 2012. It revised the basis for hospital reimbursement rates from 85% of charges to 80% of charges, reduced reimbursement rates for emergency services from 100% of charges to 80% of charges, and established procedures to be used in determining allowable reimbursement rates for hospitals, emergency services and ambulatory surgical centers on a going-forward basis.

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SB238 is reflected by the application of a factor of 0.9958 to the historical Medical Loss and Loss Adjustment Expense ratios underlying the filing. The Department approved this factor for prior DCRB rate and loss cost filings.

House Bill 175

HB175 affects the current payment structure for services provided. The combined savings in medical costs in this section of HB175 is 4.50%.

During the period 7/1/2013 to 1/1/2016, professional, hospital and ambulatory surgical centers will not have those values adjusted for inflation. The combined savings in medical costs in this section of HB175 is 1.60%.

HB175 is reflected by the application of a factor of 0.9397[1] to the historical Medical Loss and Loss Adjustment Expense ratios underlying the filing. The adjustment factor is based on an update of the factor that was previously approved by the Department for DCRB Filing No. 1404.

House Bill 373

HB373 became effective as of July 15, 2014. It directs that the following benchmarks be achieved.

1. There must be a 33% reduction in workers' compensation medical costs, phased in over three years.
2. By January 31, 2017, there must be reimbursement caps expressed as percentages of Medicare per-procedure reimbursements on workers' compensation medical procedures.

HB373 is reflected by the application of a factor of 0.6707 to the historical Medical Loss and Loss Adjustment Expense ratios underlying the filing. The DCRB estimated the adjustment factor based on the assumption that the above benchmarks will be achieved. Milliman reviewed the DCRB methodology to adjust for HB373 and found it to be reasonable.

The DCRB filing analyzed historical medical losses adjusted to a pre-SB1 basis. DCRB then applied a single factor of 0.5184 (a reduction of 48.16%) to reflect the combined impact of the legislative changes described above (SB1, SB238, HB175 and HB373). Milliman approved an adopted this methodology in our analysis.

Excess Loss Factor

The historical losses from DCRB Filing No. 1502 are limited on a per-claim basis, with the actual limitation varying by policy year. Milliman used the DCRB excess loss factor of 0.1155 in its analysis.

Loss Adjustment Expense Factor

Milliman reviewed and accepted the DCRB's loss adjustment expense factor of 1.1998.

[1] (1-.0450) × (1-.0160)

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Permissible Loss Ratio

Milliman accepted the DCRB's Target Rate of Return of 8.85% and its Residual Market permissible loss and loss adjustment expense ratio of 0.6880. The permissible loss and expense ratio equals total premium (100.00%), less an underwriting expense provision of 27.16%, a profit and contingencies ratio of 1.82%, and a loss based assessment factor of 2.22%.

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ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015

Indicated Change in Rate Levels

		Indemnity	Medical	Total
(1a)	Policy Year 2010 Loss and Loss Adjustment Expense Ratio	0.2763	0.6119	0.8882
(1b)	Policy Year 2011 Loss and Loss Adjustment Expense Ratio	0.2792	0.6332	0.9124
(1c)	Policy Year 2012 Loss and Loss Adjustment Expense Ratio	0.2816	0.5989	0.8805
(1d)	Policy Year 2013 Loss and Loss Adjustment Expense Ratio	0.3098	0.6470	0.9568
(1e)	Average (Midpoint = 7/1/2012)	0.2867	0.6228	0.9095
(2a)	Policy Year 2010 Loss and LAE Ratio Trended to 12/1/2016	0.2763	0.7503	
(2b)	Policy Year 2011 Loss and LAE Ratio Trended to 12/1/2016	0.2792	0.7488	
(2c)	Policy Year 2012 Loss and LAE Ratio Trended to 12/1/2016	0.2816	0.6829	
(2d)	Policy Year 2013 Loss and LAE Ratio Trended to 12/1/2016	0.3098	0.7133	
(2e)	Average at 12/1/2016	0.2867	0.7238	1.0105
(3ai)	Senate Bill 1 Adjustment	1.0000	0.8260	
(3aii)	Senate Bill 238 Adjustment	1.0000	0.9958	
(3aiii)	House Bill 175 Adjustment	1.0000	0.9397	
(3aiv)	House Bill 373 Adjustment	1.0000	0.6707	
(3a)	Combined Legislative Adjustment	1.0000	0.5184	
(3b)	Average Trended Loss and LAE Ratio Post-Legislation (2e) × (3a)	0.2867	0.3752	0.6619
(4a)	Excess Loss Factor at $1,632,672 (Post-Legislative Basis) *			0.1155
(4b)	Provision for Excess Loss (5a) - (3b)			0.0864
(5a)	Total Trended Loss and LAE Ratio (3b)/(1.0 - (4a))	0.3180	0.4303	0.7483
(5b)	Percentage of Total	42.50%	57.50%	
(6)	Permissible Loss and Loss Adjustment Ratio			0.6880
(7)	Indicated Change in Rates (5a) / (6)			1.0876
(8)	Estimated Effect of the 7/1/2016 Benefit Change			1.0064
(9)	Indicated Change in Residual Market Rate Level (7) × (8)			1.0946
(10)	Indicated Change in Voluntary Market Loss Costs (9) × [0.7102 / 0.7095]			1.0957

* $3,180,000 on a Pre-Legislative basis.

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ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015
INDEMNITY LOSSES

Estimated Ultimate Loss Ratio
Individual Losses Limited [1]

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Policy Year	Selected Ultimate Loss	LAE	Ultimate Loss & LAE	On-Level Factor	Earned Premium	Ultimate Loss & LAE Ratio
2009	$44,608,006	$8,912,680	$53,520,686	1.0414	$200,054,026	0.2786
2010	43,221,004	8,635,557	51,856,561	1.0442	195,960,361	0.2763
2011	44,173,312	8,825,828	52,999,140	1.0474	198,803,517	0.2792
2012	41,979,425	8,387,489	50,366,914	1.0324	184,652,808	0.2816
2013	44,188,410	8,828,844	53,017,254	1.0105	172,910,972	0.3098
Total excl 2013	$173,981,747	$34,761,554	$208,743,301		$779,470,712	0.2789
Total excl 2009	173,562,151	34,677,718	208,239,869		752,327,658	0.2861

(2) From Exhibit 2.
(3) Based on selected ratio of LAE to loss of 19.98% from Exhibit 11 of the DCRB filing.
(4) (2) + (3)
(5) Factor to adjust to the 7/1/2015 benefit level, from Exhibit IV-1 to IV-4 of the DCRB filing.
(6) From Exhibit 2 of the DCRB Filing.
(7) (4) x (5) ÷ (6)

[1] Losses limited on a per-claim basis, with the actual limitation varying by policy year.

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Exhibit 2

ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015
INDEMNITY LOSSES

Estimated Ultimate Loss
Individual Losses Limited [1]

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Projection Method								
Policy Year	Paid Loss Dev.	Weights	Incurred Loss Dev.	Weights	Paid BF	Weights	Incurred BF	Weights	Selected Ultimate Loss
2004	$40,907,325	1.000	$38,642,560	1.000	—	0.000	—	0.000	$39,774,943
2005	42,945,325	1.000	41,516,907	1.000	—	0.000	—	0.000	42,231,116
2006	45,038,701	1.000	43,835,399	1.000	—	0.000	—	0.000	44,437,050
2007	43,843,528	1.000	42,967,162	1.000	—	0.000	—	0.000	43,405,345
2008	40,529,093	1.000	38,538,276	1.000	—	0.000	—	0.000	39,533,685
2009	43,996,810	1.000	45,219,202	1.000	—	0.000	—	0.000	44,608,006
2010	44,306,029	1.000	42,135,978	1.000	—	0.000	—	0.000	43,221,004
2011	48,011,270	0.750	41,294,843	1.000	—	0.000	—	0.000	44,173,312
2012	42,630,498	0.500	41,303,049	1.000	$42,607,829	1.000	$41,701,860	1.000	41,979,425
2013	54,459,933	0.100	45,399,523	0.750	43,264,951	1.000	43,176,383	1.000	44,188,410
Total	$446,668,512		$420,852,899						$427,552,296

(2) From Exhibit 3.
(4) From Exhibit 4.
(6) From Exhibit 5.
(8) From Exhibit 6
(10), (12) From Exhibit 9.
(14) Weighted average of the estimates in columns (2), (4), (6), (8), (10) and (12) using weights in columns (3), (5), (7), (9), (11) and (13).

[1] Losses limited on a per-claim basis, with the actual limitation varying by policy year.

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ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015
INDEMNITY LOSSES

Paid Loss Development
Individual Losses Limited [1]

(1)	(2)	(3)	(4)
Policy Year	Paid Loss	Cumulative Paid Loss Development Factor	Estimated Ultimate Loss
2004	$36,589,736	1.1180	$40,907,325
2005	37,658,124	1.1404	42,945,325
2006	38,272,180	1.1768	45,038,701
2007	35,925,539	1.2204	43,843,528
2008	31,809,978	1.2741	40,529,093
2009	32,123,839	1.3696	43,996,810
2010	29,013,181	1.5271	44,306,029
2011	26,352,308	1.8219	48,011,270
2012	15,917,593	2.6782	42,630,498
2013	9,992,465	5.4501	54,459,933
Total	$293,654,943		$446,668,512

(2) From Exhibit 1, Table I-D of the DCRB Filing.
(3) Selected by Milliman.
(4) (2) x (3)

[1] Losses limited on a per-claim basis, with the actual limitation varying by policy year.

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ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015
INDEMNITY LOSSES

Incurred Loss Development
Individual Losses Limited [1]

(1)	(2)	(3)	(4)
Policy Year	Incurred Loss	Incurred Loss Development Factor	Estimated Ultimate Loss
2004	$37,707,416	1.0248	$38,642,560
2005	40,252,964	1.0314	41,516,907
2006	42,161,584	1.0397	43,835,399
2007	40,835,546	1.0522	42,967,162
2008	35,561,757	1.0837	38,538,276
2009	40,708,680	1.1108	45,219,202
2010	36,127,907	1.1663	42,135,978
2011	33,881,558	1.2188	41,294,843
2012	28,718,571	1.4382	41,303,049
2013	23,913,365	1.8985	45,399,523
Total	$359,869,348		$420,852,899

(2) From Exhibit 1, Table I-B of the DCRB Filing.
(3) Selected by Milliman.
(4) (2) x (3)

[1] Losses limited on a per-claim basis, with the actual limitation varying by policy year.

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Exhibit 5

ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015
INDEMNITY LOSSES

Indemnity Trend Factors

(1)	(2)
Policy Year	Claim Frequency
2001	13.74
2002	13.92
2003	13.32
2004	11.73
2005	10.49
2006	9.88
2007	9.18
2008	8.16
2009	8.13
2010	8.14
2011	7.67
2012	6.90
2013	7.30

	Frequency Trend
2001 - 2013	-6.02%
2003 - 2013	-5.80%
2008 - 2013	-3.12%
Selected	-4.0%

	Selected Trend	
(3)	Frequency	-4.0%
(4)	Loss Ratio	0.0%
(5)	Severity	4.2%

(2) From Exhibit 12 of the DCRB Filing.
(4) From Exhibit 6, column (5).
(5) [1.0 + (4)] ÷ [1.0 + (3)] - 1.0

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ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015
INDEMNITY LOSSES

Expected Ultimate Loss for Bornhuetter-Ferguson Methods
Individual Losses Limited [1]

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Policy Year	On-Level Standard Earned Premium	Ultimate Loss	Benefit Level Adjustment	Loss Ratio	Trend Factor	Loss Ratio Trended to 2013
2004	$173,639,957	$39,774,943	1.1306	0.2590	1.0000	0.2590
2005	188,039,413	42,231,116	1.1149	0.2504	1.0000	0.2504
2006	198,340,648	44,437,050	1.0919	0.2446	1.0000	0.2446
2007	197,151,548	43,405,345	1.0632	0.2341	1.0000	0.2341
2008	202,073,612	39,533,685	1.0452	0.2045	1.0000	0.2045
2009	200,054,026	44,608,006	1.0414	0.2322	1.0000	0.2322
2010	195,960,361	43,221,004	1.0442	0.2303	1.0000	0.2303
2011	198,803,517	44,173,312	1.0474	0.2327	1.0000	0.2327
2012	184,652,808	41,745,532	1.0324	0.2334	1.0000	0.2334
2013	172,910,972	46,465,454	1.0105	0.2715	1.0000	0.2715

	Trend in Est. Ult. Loss Ratios		Estimated PY 2013 Loss Ratio
2004 - 2013	-0.1%	Average	0.2393
2004 - 2013 excl H/L	-1.3%	Premium-wtd Average	0.2385
		0.9-wtd Average	0.2396
Selected Loss Ratio Trend	0.0%	Average excl H/L	0.2368
		Selected	0.2380

2012	184,652,808	42,568,160 [2]	1.0324	0.2380 [3]	—	—
2013	172,910,972	40,725,197 [2]	1.0105	0.2380 [4]	—	—

(2) From Exhibit 2 of the DCRB Filing.
(3) Weighted average of the paid and incurred development methods from Exhibit 2.
(4) From Exhibit V-3 of the DCRB Filing.
(5) [(3) x (4)] ÷ (2).
(6) Trend from each PY to PY 2013 at the selected annual rate of 0.0%.
(7) (5) × (6)

[1] Losses limited on a per-claim basis, with the actual limitation varying by policy year.
[2] [(2) × (5)] ÷ (4).
[3] Selected PY 2013 loss ratio trended to PY 2012.
[4] Selected PY 2013 loss ratio.

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ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015
INDEMNITY LOSSES

Bornhuetter-Ferguson Methods
Individual Losses Limited [1]

(1)	(2)	(3)	(4)	(5)	(6)
		Paid Bornhuetter-Ferguson Method			
Policy Year	Estimated Ultimate Loss	Percent Unpaid	Estimated Unpaid Loss	Paid Loss	Estimated Ultimate Loss
2012	42,568,160	62.7%	26,690,236	15,917,593	42,607,829
2013	40,725,197	81.7%	33,272,486	9,992,465	43,264,951

		Incurred Bornhuetter-Ferguson Method			
Policy Year	Estimated Ultimate Loss	Percent Unreported	Estimated Unreported Loss	Incurred Loss	Estimated Ultimate Loss
2012	42,568,160	30.5%	12,983,289	28,718,571	41,701,860
2013	40,725,197	47.3%	19,263,018	23,913,365	43,176,383

(2) From Exhibit 6.
(3) Based on the cumulative development factors from Exhibits 3 and 4.
(4) (2) × (3)
(5) From Exhibits 3 and 4.
(6) (4) + (5)

[1] Losses limited on a per-claim basis, with the actual limitation varying by policy year.

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ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015
MEDICAL LOSSES

Estimated Ultimate Loss Ratio
Individual Losses Limited [1]

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Policy Year	Selected Ultimate Loss	LAE	Ultimate Loss & LAE	On-Level Factor	Earned Premium	Ultimate Loss & LAE Ratio
2009	$86,518,415	$17,286,379	$103,804,794	1.0000	$200,054,026	0.5189
2010	99,939,864	19,967,985	119,907,849	1.0000	195,960,361	0.6119
2011	104,925,156	20,964,046	125,889,202	1.0000	198,803,517	0.6332
2012	92,166,484	18,414,864	110,581,348	1.0000	184,652,808	0.5989
2013	93,249,036	18,631,157	111,880,193	1.0000	172,910,972	0.6470
Total excl 2013	$383,549,919	$76,633,274	$460,183,193		$779,470,712	0.5904
Total excl 2009	390,280,540	77,978,052	468,258,592		752,327,658	0.6224

(2) From Exhibit 9.
(3) Based on selected ratio of LAE to loss of 19.98% from Exhibit 11 of the DCRB Filing.
(4) (2) + (3)
(5) Factor to adjust to the 7/1/2015 benefit level, from Exhibit IV-1 to IV-4 of the DCRB filing.
(6) From Exhibit 2 of the DCRB Filing.
(7) (4) x (5) ÷ (6)

[1] Losses limited on a per-claim basis, with the actual limitation varying by policy year.

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Exhibit 9

ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015
MEDICAL LOSSES

Estimated Ultimate Loss
Individual Losses Limited [1]

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Projection Method								
Policy Year	Paid Loss Dev.	Weights	Incurred Loss Dev.	Weights	Paid BF	Weights	Incurred BF	Weights	Selected Ultimate Loss
2004	66,021,305	1.000	63,249,910	1.000	—	0.000	—	0.000	$64,635,608
2005	68,732,867	1.000	68,033,239	1.000	—	0.000	—	0.000	68,383,053
2006	71,502,692	1.000	73,519,684	1.000	—	0.000	—	0.000	72,511,188
2007	76,765,965	1.000	74,092,540	1.000	—	0.000	—	0.000	75,429,253
2008	77,829,812	1.000	76,226,217	1.000	—	0.000	—	0.000	77,028,015
2009	86,235,795	1.000	86,801,034	1.000	—	0.000	—	0.000	86,518,415
2010	102,107,454	0.750	98,314,171	1.000	—	0.000	—	0.000	99,939,864
2011	105,249,995	0.750	104,681,526	1.000	—	0.000	—	0.000	104,925,156
2012	91,923,956	0.500	90,942,145	1.000	93,296,906	1.000	92,381,664	1.000	92,166,484
2013	95,686,669	0.500	93,121,320	0.500	92,962,481	1.000	92,380,631	1.000	93,249,036
Total	842,056,510		828,981,786						834,786,072

(2) From Exhibit 12.
(4) From Exhibit 13.
(6) From Exhibit 14.
(8) From Exhibit 15
(10), (12) From Exhibit 17.
(14) Weighted average of the estimates in columns (2), (4), (6), (8), (10) and (12) using weights in columns (3), (5), (7), (9), (11) and (13).

[1] Losses limited on a per-claim basis, with the actual limitation varying by policy year.

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ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015
MEDICAL LOSSES

Paid Loss Development
Individual Losses Limited [1]

(1)	(2)	(3)	(4)
Policy Year	Paid Loss	Paid Loss Development Factor	Estimated Ultimate Loss
2004	$50,344,140	1.3114	$66,021,305
2005	50,883,082	1.3508	68,732,867
2006	51,194,023	1.3967	71,502,692
2007	52,898,267	1.4512	76,765,965
2008	51,471,339	1.5121	77,829,812
2009	54,212,482	1.5907	86,235,795
2010	60,045,548	1.7005	102,107,454
2011	56,784,459	1.8535	105,249,995
2012	43,124,393	2.1316	91,923,956
2013	32,294,937	2.9629	95,686,669
Total	$503,252,670		$842,056,510
	105,249,995		
	0.540		

(2) From Exhibit 1, Table I-E of the DCRB Filing.
(3) Selected by Milliman.
(4) (2) x (3)

[1] Losses limited on a per-claim basis, with the actual limitation varying by policy year.

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ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015
MEDICAL LOSSES

Incurred Loss Development
Individual Losses Limited [1]

(1)	(2)	(3)	(4)
Policy Year	Incurred Loss	Incurred Loss Development Factor	Estimated Ultimate Loss
2004	$57,053,861	1.1086	$63,249,910
2005	60,398,827	1.1264	68,033,239
2006	63,680,974	1.1545	73,519,684
2007	62,367,458	1.1880	74,092,540
2008	62,174,728	1.2260	76,226,217
2009	67,428,753	1.2873	86,801,034
2010	71,041,384	1.3839	98,314,171
2011	69,399,049	1.5084	104,681,526
2012	53,831,032	1.6894	90,942,145
2013	44,451,439	2.0949	93,121,320
Total	$611,827,505		$828,981,786

(2) From Exhibit 1, Table I-C of the DCRB Filing.
(3) Selected by Milliman.
(4) (2) x (3)

[1] Losses limited on a per-claim basis, with the actual limitation varying by policy year.

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ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015
MEDICAL LOSSES

Expected Ultimate Loss for Bornhuetter-Ferguson Methods
Individual Losses Limited [1]

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Policy Year	On-Level Standard Earned Premium	Ultimate Loss	Benefit Level Adjustment	Ultimate Loss Ratio	Trend Factor	Loss Ratio Trended to 2013
2004	173,639,957	64,635,608	1.0000	0.3722	1.4707	0.5474
2005	188,039,413	68,383,053	1.0000	0.3637	1.3980	0.5085
2006	198,340,648	72,511,188	1.0000	0.3656	1.3289	0.4858
2007	197,151,548	75,429,253	1.0000	0.3826	1.2632	0.4833
2008	202,073,612	77,028,015	1.0000	0.3812	1.2007	0.4577
2009	200,054,026	86,518,415	1.0000	0.4325	1.1551	0.4996
2010	195,960,361	99,939,864	1.0000	0.5100	1.1139	0.5681
2011	198,803,517	104,925,156	1.0000	0.5278	1.0742	0.5670
2012	184,652,808	91,269,415	1.0000	0.4943	1.0358	0.5120
2013	172,910,972	94,403,995	1.0000	0.5460	1.0000	0.5460

	Trend in Est. Ult. Loss Ratios		Estimated PY 2013 Loss Ratio
	5.7%		
2004 - 2013	5.2%	Average	0.5175
2004 - 2008	1.0%	Premium-wtd average	0.5167
2008 - 2013	6.6%	0.9-wtd Average	0.5218
2008 - 2011	12.1%	Average excl H/L	0.5187
2010 - 2013	1.4%	Average, 2010-2013	0.5483
Selected pre-adjustment trend	5.2%	Selected	0.5300
Trend from 9/1/2008 to 1/31/2013	3.7%		
Trend from 1/31/2013	3.4%		

2012	184,652,808	94,486,842 [2]	1.0000	0.5117 [3]	—	—
2013	172,910,972	91,642,815 [2]	1.0000	0.5300 [4]	—	—

(2) From Exhibit 2 of the DCRB Filing.
(3) Weighted average of the paid and incurred development methods from Exhibit 9.
(4) From Exhibit V-3 of the DCRB Filing.
(5) [(3) x (4)] ÷ (2).
(6) Trend from each PY to PY 2013 at the selected trend rates shown above.
(7) (5) × (6)

[1] Losses limited on a per-claim basis, with the actual limitation varying by policy year.
[2] [(2) × (5)] ÷ (4).
[3] Selected PY 2013 loss ratio trended to PY 2012.
[4] Selected PY 2013 loss ratio.

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ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015
MEDICAL LOSSES

Bornhuetter-Ferguson Methods
Individual Losses Limited [1]

(1)	(2)	(3)	(4)	(5)	(6)
		Paid Bornhuetter-Ferguson Method			
Policy Year	Estimated Ultimate Loss	Percent Unpaid	Estimated Unpaid Loss	Paid Loss	Estimated Ultimate Loss
2012	$94,486,842	53.1%	$50,172,513	$43,124,393	$93,296,906
2013	91,642,815	66.2%	60,667,544	32,294,937	92,962,481

		Incurred Bornhuetter-Ferguson Method			
Policy Year	Estimated Ultimate Loss	Percent Unreported	Estimated Unreported Loss	Incurred Loss	Estimated Ultimate Loss
2012	$94,486,842	40.8%	$38,550,632	53,831,032	$92,381,664
2013	91,642,815	52.3%	47,929,192	44,451,439	92,380,631

(2) From Exhibit 12.
(3) Based on the cumulative development factors from Exhibits 10 and 11.
(4) (2) × (3)
(5) From Exhibits 10 and 11.
(6) (4) + (5)

[1] Losses limited on a per-claim basis, with the actual limitation varying by policy year.

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ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015
INDEMNITY LOSSES

Paid Loss Development
Individual Losses Limited [1]

Policy Year	Paid Loss As of 12/31/09	Paid Loss As of 12/31/10	Paid Loss As of 12/31/10	Paid Loss As of 12/31/11	Paid Loss As of 12/31/11	Paid Loss As of 12/31/12	Paid Loss As of 12/31/12	Paid Loss As of 12/31/13	Paid Loss As of 12/31/13	Paid Loss As of 12/31/14
Prior to 1986	191,116,262	191,175,866	191,175,866	191,328,548	191,327,418	191,652,838	191,652,838	191,879,474	184,403,141	184,421,280
1986	24,427,118	24,831,169	24,831,169	24,841,194	24,841,194	24,901,986	24,901,986	24,923,659	23,199,174	23,243,283
1987	30,049,062	30,140,018	30,140,018	30,241,544	30,241,544	30,237,593	30,237,593	29,777,432	27,739,497	27,790,550
1988	28,623,672	28,765,565	28,765,565	28,842,284	28,842,284	28,891,842	28,573,864	28,794,496	27,372,066	27,376,603
1989	30,733,569	30,850,497	30,850,497	31,157,649	31,157,649	31,157,909	31,149,064	31,259,930	30,310,704	30,308,173
1990	32,271,340	32,293,914	32,293,914	32,372,194	32,372,194	32,444,044	32,415,881	32,435,281	30,337,725	30,405,010
1991	29,346,940	29,489,454	29,489,454	29,524,841	29,524,841	29,691,868	29,671,698	29,757,094	27,532,504	28,110,892
1992	26,520,054	26,613,363	26,613,363	26,515,669	26,515,669	26,683,204	26,639,742	26,581,177	24,580,111	24,534,947
1993	30,662,783	30,808,705	30,808,705	30,999,497	30,999,497	31,197,569	31,161,485	31,232,338	29,544,749	29,577,402
1994	22,613,504	22,684,965	22,684,965	22,828,002	22,828,002	22,919,069	22,848,804	22,899,457	20,449,306	21,352,696
1995	23,887,481	24,147,835	24,147,835	24,294,306	24,294,306	24,341,964	24,200,842	24,253,180	20,803,570	20,815,138
1996	28,523,218	29,186,016	29,186,017	29,659,273	29,616,085	29,772,791	29,673,497	29,853,666	28,147,161	28,245,037
1997	28,547,970	28,792,104	28,792,104	29,061,057	29,053,904	29,442,300	29,208,544	29,587,194	27,938,217	28,175,232
1998	25,502,640	25,999,454	25,999,454	26,408,964	26,408,964	26,677,148	26,361,097	26,434,660	24,159,601	24,404,376
1999	30,634,493	30,708,773	30,708,773	30,806,650	30,806,650	31,141,747	30,691,434	31,411,246	27,866,016	27,952,795
2000	38,631,604	39,648,830	39,648,830	40,143,368	40,143,368	40,570,487	39,865,854	40,287,400	36,111,102	36,425,378
2001	31,236,737	32,875,759	32,875,759	33,811,618	33,811,618	34,198,317	33,528,500	33,950,123	29,253,267	29,581,654
2002	32,803,036	33,645,987	33,645,987	34,717,921	34,717,921	35,155,782	33,657,716	34,179,712	32,285,776	32,696,295
2003	32,292,611	33,961,203	33,961,203	35,255,021	35,255,021	35,979,392	35,863,015	36,565,044	34,905,133	36,110,803
2004	31,722,256	33,921,820	33,921,820	35,366,564	35,366,564	36,261,922	36,261,922	37,518,334	36,003,288	36,589,736
2005	29,048,707	31,808,368	31,808,536	34,738,932	34,738,932	36,367,505	36,367,505	37,650,418	36,617,325	37,658,124
2006	24,358,872	29,189,642	29,189,642	32,760,208	32,344,850	34,826,041	35,450,215	37,329,223	36,281,443	38,272,180
2007	17,784,361	25,422,802	25,422,905	29,869,561	29,869,561	33,564,749	33,564,749	36,240,920	34,844,133	35,925,539
2008	7,603,925	16,321,241	16,327,770	23,662,972	23,662,972	28,511,920	28,511,920	31,623,522	30,133,639	31,809,978
2009	1,718,914	7,766,785	7,766,785	16,321,011	16,145,615	24,415,496	24,415,496	28,957,371	28,647,317	32,123,839
2010		1,787,340	1,787,340	8,170,574	8,102,199	15,502,111	15,502,111	24,478,931	24,163,612	29,013,181
2011				2,594,845	2,594,389	9,487,937	9,487,937	19,160,744	18,900,917	26,352,308
2012						1,502,171	1,502,171	7,907,030	7,805,174	15,917,593
2013								1,726,219	1,700,833	9,992,465
2014										1,458,345

Maturity	LDF 12/31/09-10	LDF 12/31/10-11	LDF 12/31/11-12	LDF 12/31/12-13	LDF 12/31/13-14	All Years Average	Latest 4 Years Avg	All Years Col Avg	All Years 0.8-wtd Avg	DCRB Incremental Selected	Milliman Incremental Selected Indicated	Milliman Incremental Selected Smoothed
360-ultimate											1.0050	1.0050
348-360					1.0001	1.0001	1.0001	1.0001	1.0001		1.0001	1.0005
336-348				1.0012	1.0019	1.0015	1.0015	1.0013	1.0016		1.0015	1.0010
324-336			1.0017	1.0009	1.0018	1.0015	1.0015	1.0016	1.0015		1.0015	1.0015
312-324		1.0008	1.0024	0.9848	1.0002	0.9970	0.9970	0.9991	0.9966		0.9970	1.0020
300-312	1.0003	1.0004	0.9999	1.0077	0.9999	1.0016	1.0020	1.0009	1.0019	1.0047	1.0015	1.0025
288-300	1.0165	1.0034	1.0017	1.0036	1.0022	1.0055	1.0027	1.0051	1.0044	1.0046	1.0045	1.0030
276-288	1.0030	1.0027	1.0000	1.0006	1.0210	1.0055	1.0061	1.0051	1.0072	1.0046	1.0050	1.0035
264-276	1.0050	1.0100	1.0022	1.0029	0.9982	1.0036	1.0033	1.0038	1.0027	1.0046	1.0030	1.0040
252-264	1.0038	1.0024	1.0057	0.9978	1.0011	1.0022	1.0017	1.0023	1.0017	1.0047	1.0020	1.0045
240-252	1.0007	1.0012	1.0063	1.0023	1.0442	1.0109	1.0135	1.0086	1.0152	1.0048	1.0100	1.0045
228-240	1.0049	0.9963	1.0064	1.0022	1.0006	1.0021	1.0014	1.0023	1.0019	1.0050	1.0020	1.0045
216-228	1.0035	1.0062	1.0040	1.0022	1.0035	1.0039	1.0040	1.0040	1.0037	1.0054	1.0040	1.0050
204-216	1.0048	1.0063	1.0020	1.0061	1.0085	1.0055	1.0057	1.0056	1.0059	1.0059	1.0055	1.0055
192-204	1.0032	1.0061	1.0053	1.0130	1.0101	1.0075	1.0086	1.0077	1.0084	1.0066	1.0075	1.0075
180-192	1.0109	1.0162	1.0134	1.0028	1.0031	1.0093	1.0089	1.0094	1.0079	1.0075	1.0090	1.0090
168-180	1.0232	1.0093	1.0102	1.0235	1.0087	1.0150	1.0129	1.0148	1.0144	1.0089	1.0145	1.0100
156-168	1.0086	1.0158	1.0109	1.0106	1.0112	1.0114	1.0121	1.0113	1.0114	1.0107	1.0110	1.0110
144-156	1.0195	1.0032	1.0106	1.0126	1.0127	1.0117	1.0098	1.0114	1.0117	1.0131	1.0115	1.0115
132-144	1.0024	1.0125	1.0114	1.0155	1.0345	1.0153	1.0185	1.0155	1.0183	1.0165	1.0160	1.0160
120-132	1.0263	1.0285	1.0126	1.0196	1.0163	1.0207	1.0192	1.0207	1.0194	1.0213	1.0200	1.0200
108-120	1.0525	1.0319	1.0205	1.0346	1.0284	1.0336	1.0289	1.0331	1.0319	1.0279	1.0320	1.0320
96-108	1.0257	1.0381	1.0253	1.0353	1.0549	1.0359	1.0384	1.0361	1.0385	1.0376	1.0370	1.0370
84-96	1.0517	1.0426	1.0469	1.0530	1.0310	1.0450	1.0434	1.0450	1.0436	1.0520	1.0440	1.0440
72-84	1.0693	1.0921	1.0767	1.0797	1.0556	1.0747	1.0760	1.0750	1.0726	1.0746	1.0750	1.0750
60-72	1.0950	1.1223	1.1237	1.1091	1.1214	1.1143	1.1191	1.1144	1.1158	1.1131	1.1150	1.1150
48-60	1.1983	1.1749	1.2049	1.1860	1.2007	1.1930	1.1916	1.1927	1.1938	1.1942	1.1930	1.1930
36-48	1.4295	1.4492	1.5122	1.5791	1.3942	1.4729	1.4837	1.4686	1.4734	1.4835	1.4700	1.4700
24-36	2.1464	2.1014	1.9133	2.0195	2.0394	2.0440	2.0184	2.0415	2.0331	2.0184	2.0350	2.0350
12-24	4.5184	4.5714	3.6571	5.2637	5.8750	4.7771	4.8418	4.6568	4.9434		4.8000	4.8000

[1] Losses limited on a per-claim basis, with the actual limitation varying by policy year.

This work product was prepared solely to assist the Delaware Insurance Department. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends Recipient be aided by its own actuary or other qualified professional when reviewing this Milliman work product.

ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015
INDEMNITY LOSSES

Incurred Loss Development
Individual Losses Limited [1]

Policy Year	Incurred Loss as of 12/31/09	Incurred Loss as of 12/31/10	Incurred Loss as of 12/31/10	Incurred Loss as of 12/31/11	Incurred Loss as of 12/31/11	Incurred Loss as of 12/31/12	Incurred Loss as of 12/31/12	Incurred Loss as of 12/31/13	Incurred Loss as of 12/31/13	Incurred Loss as of 12/31/14
Prior to 1986	194,372,350	193,960,725	193,960,725	193,991,037	193,989,907	193,851,142	193,851,142	193,645,757	186,150,443	185,901,500
1986	25,010,174	25,561,945	25,561,945	25,519,371	25,519,371	25,551,932	25,551,932	25,514,484	23,709,165	23,723,623
1987	30,582,610	30,597,293	30,597,293	30,630,490	30,630,490	30,661,267	30,661,267	30,308,049	28,269,226	28,257,440
1988	29,280,332	29,351,205	29,351,205	29,285,480	29,285,480	29,315,542	28,997,564	29,133,080	27,710,649	27,679,096
1989	31,803,152	31,587,638	31,587,638	31,656,381	31,656,381	31,606,682	31,597,837	31,657,577	30,708,351	30,641,912
1990	33,260,248	33,185,300	33,185,300	33,216,940	33,216,940	33,196,473	33,168,310	33,118,496	31,021,213	30,984,679
1991	30,251,664	30,731,073	30,731,073	30,775,849	30,775,849	30,717,063	30,696,893	30,480,835	28,256,316	28,545,765
1992	26,827,326	26,778,896	26,778,896	26,826,126	26,826,126	26,748,729	26,705,267	26,613,759	24,612,693	24,564,268
1993	31,784,760	31,910,119	31,910,119	31,970,649	31,970,649	32,421,428	32,385,344	32,119,224	30,431,635	30,403,388
1994	23,978,756	23,941,750	23,941,750	24,545,738	24,545,738	23,997,353	23,927,088	24,815,880	22,365,729	22,112,170
1995	25,080,041	24,908,764	24,908,764	24,988,433	24,988,433	24,979,419	24,849,072	24,823,176	21,115,280	21,121,605
1996	30,184,426	30,625,160	30,625,161	30,750,667	30,707,479	30,790,561	30,691,267	30,810,970	28,971,115	28,867,673
1997	31,049,984	31,052,911	31,052,911	31,044,219	31,037,066	31,158,888	30,925,132	30,966,530	29,299,510	29,242,375
1998	27,198,854	27,390,822	27,390,822	27,599,888	27,599,888	27,737,206	27,421,070	27,322,522	25,050,610	25,036,652
1999	32,357,255	32,140,011	32,140,011	31,891,181	31,891,181	32,583,107	32,132,794	32,010,542	28,316,523	28,258,447
2000	43,904,799	43,484,114	43,484,114	43,257,521	43,257,521	43,069,691	42,360,058	43,152,699	38,528,223	38,632,232
2001	35,133,028	35,733,637	35,733,637	36,303,942	36,303,942	36,311,042	35,640,805	35,733,869	30,606,043	30,662,324
2002	36,593,934	36,897,409	36,897,409	36,945,505	36,945,505	37,184,443	35,675,826	35,736,286	33,842,350	33,722,424
2003	36,918,906	38,082,280	38,082,280	38,694,787	38,694,787	39,169,791	39,053,414	39,372,927	37,611,460	38,541,271
2004	37,113,807	37,630,063	37,630,063	37,801,288	37,801,288	38,565,525	38,565,525	38,912,046	37,400,693	37,707,416
2005	38,128,445	39,679,223	39,679,662	39,978,465	39,978,465	41,205,830	41,205,830	41,450,447	40,203,152	40,252,964
2006	35,248,807	37,844,217	37,844,217	40,502,741	40,087,380	40,682,046	41,439,300	42,772,471	41,731,888	42,161,584
2007	33,127,626	39,249,417	39,253,275	39,130,309	39,130,309	39,833,962	39,833,962	41,000,948	39,369,701	40,835,546
2008	19,212,296	28,113,434	28,119,963	33,551,280	33,551,280	34,614,692	34,614,692	36,305,545	34,340,954	35,561,757
2009	7,262,996	22,830,721	22,830,721	30,555,377	30,228,861	36,726,707	36,726,707	38,892,192	38,302,469	40,708,680
2010		6,750,974	6,750,974	21,779,417	21,700,514	28,477,714	28,477,714	35,592,421	34,178,244	36,127,907
2011				8,181,222	8,180,430	24,389,820	24,389,820	31,374,817	30,814,418	33,881,558
2012						7,133,322	7,133,322	22,015,191	21,716,539	28,718,571
2013								8,102,822	7,939,085	23,913,365
2014										7,909,972

Maturity	LDF 12/31/09-10	LDF 12/31/10-11	LDF 12/31/11-12	LDF 12/31/12-13	LDF 12/31/13-14	All Years Average	Latest 4 Years Avg	All Years Col Avg	All Years 0.8-wtd Avg	DCRB Incremental Selected	Milliman Incremental Selected Indicated	Milliman Incremental Selected Smoothed
360-ultimate											1.0000	1.0000
348-360					0.9987	0.9987	0.9987	0.9987	0.9987		0.9990	1.0000
336-348				0.9989	1.0006	0.9998	0.9998	0.9991	0.9999		1.0000	1.0000
324-336			0.9993	0.9985	0.9996	0.9991	0.9991	0.9992	0.9992		0.9990	1.0000
312-324		1.0002	1.0013	0.9885	0.9989	0.9972	0.9972	0.9988	0.9968	0.9912	0.9980	1.0000
300-312	0.9979	0.9983	1.0010	1.0047	0.9978	0.9999	1.0005	0.9989	1.0001	0.9999	1.0000	1.0000
288-300	1.0221	1.0011	1.0010	1.0019	0.9988	1.0050	1.0007	1.0043	1.0031	1.0000	1.0040	1.0000
276-288	1.0005	0.9978	0.9984	0.9985	1.0102	1.0011	1.0012	1.0009	1.0021	1.0001	1.0010	1.0000
264-276	1.0024	1.0022	0.9994	0.9930	0.9980	0.9990	0.9981	0.9990	0.9982	1.0003	0.9990	1.0000
252-264	0.9932	1.0010	0.9981	0.9966	0.9991	0.9976	0.9987	0.9976	0.9979	1.0005	0.9980	1.0005
240-252	0.9977	1.0015	0.9971	0.9918	0.9887	0.9954	0.9948	0.9957	0.9941	1.0007	0.9950	1.0005
228-240	1.0158	1.0018	1.0141	1.0371	1.0003	1.0138	1.0133	1.0140	1.0138	1.0009	1.0140	1.0010
216-228	0.9982	1.0019	0.9777	0.9990	0.9964	0.9946	0.9937	0.9951	0.9945	1.0012	0.9950	1.0010
204-216	1.0039	1.0252	0.9996	1.0039	0.9980	1.0062	1.0067	1.0056	1.0046	1.0015	1.0055	1.0015
192-204	0.9985	1.0032	1.0027	1.0013	0.9994	1.0010	1.0017	1.0011	1.0010	1.0018	1.0010	1.0020
180-192	0.9932	1.0041	1.0039	0.9964	0.9979	0.9991	1.0006	0.9994	0.9991	1.0023	1.0000	1.0025
168-180	1.0146	0.9997	1.0050	0.9962	1.0027	1.0036	1.0009	1.0035	1.0026	1.0028	1.0030	1.0030
156-168	1.0001	1.0076	1.0217	1.0187	1.0018	1.0100	1.0125	1.0107	1.0103	1.0034	1.0100	1.0035
144-156	1.0071	0.9923	0.9957	1.0026	0.9965	0.9988	0.9967	0.9984	0.9984	1.0042	0.9980	1.0040
132-144	0.9933	0.9948	1.0002	1.0017	1.0247	1.0029	1.0054	1.0030	1.0062	1.0052	1.0050	1.0050
120-132	0.9904	1.0160	1.0065	1.0082	1.0082	1.0058	1.0097	1.0053	1.0069	1.0065	1.0065	1.0065
108-120	1.0171	1.0013	1.0123	1.0090	1.0012	1.0082	1.0060	1.0080	1.0071	1.0083	1.0080	1.0080
96-108	1.0083	1.0161	1.0202	1.0059	1.0103	1.0122	1.0131	1.0120	1.0118	1.0110	1.0120	1.0120
84-96	1.0315	1.0046	1.0307	1.0322	1.0372	1.0272	1.0262	1.0274	1.0291	1.0153	1.0300	1.0300
72-84	1.0139	1.0075	1.0148	1.0293	1.0355	1.0202	1.0218	1.0199	1.0232	1.0234	1.0250	1.0250
60-72	1.0407	1.0702	1.0180	1.0488	1.0628	1.0481	1.0500	1.0479	1.0494	1.0402	1.0500	1.0500
48-60	1.0736	0.9969	1.0317	1.0590	1.0570	1.0436	1.0361	1.0428	1.0455	1.0781	1.0450	1.0450
36-48	1.1848	1.1931	1.2150	1.2498	1.0995	1.1885	1.1894	1.1873	1.1819	1.1678	1.1800	1.1800
24-36	1.4633	1.3383	1.3123	1.2864	1.3224	1.3446	1.3149	1.3404	1.3315	1.3177	1.3200	1.3200
12-24	3.1434	3.2261	2.9815	3.0862	3.0121	3.0899	3.0765	3.0839	3.0725		3.0800	3.0800

[1] Losses limited on a per-claim basis, with the actual limitation varying by policy year.

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ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015
MEDICAL LOSSES

Paid Loss Development
Individual Losses Limited [1]

Policy Year	Paid Loss As of 12/31/09	Paid Loss As of 12/31/10	Paid Loss As of 12/31/10	Paid Loss As of 12/31/11	Paid Loss As of 12/31/11	Paid Loss As of 12/31/12	Paid Loss As of 12/31/12	Paid Loss As of 12/31/13	Paid Loss As of 12/31/13	Paid Loss As of 12/31/14
Prior to 1986	109,923,396	110,475,886	110,473,057	111,131,720	111,128,859	111,790,684	111,794,109	112,802,280	107,600,908	108,210,509
1986	17,064,814	17,411,049	17,410,223	17,449,584	17,447,145	17,488,985	17,488,693	17,656,155	16,486,149	16,631,043
1987	21,851,142	22,181,002	22,181,454	22,538,204	22,537,675	22,914,681	22,914,672	23,515,675	21,597,653	21,792,128
1988	23,740,256	23,980,977	23,981,659	24,032,737	24,033,894	24,092,569	23,846,362	23,967,150	23,077,407	23,152,448
1989	27,273,890	27,721,132	27,721,741	28,215,995	28,214,937	28,258,848	28,251,872	28,501,929	27,609,753	27,967,941
1990	27,524,010	27,766,734	27,767,376	28,199,433	28,198,453	28,403,436	28,380,689	28,647,440	26,372,733	26,525,390
1991	28,464,868	28,612,140	28,611,167	28,875,363	28,874,275	29,006,701	28,980,522	29,149,461	27,021,613	27,150,944
1992	28,733,376	28,958,088	28,959,641	29,192,144	29,193,870	29,469,803	29,431,848	29,611,487	27,583,392	27,797,808
1993	29,864,681	30,405,833	30,407,155	30,661,518	30,661,828	31,056,101	30,972,852	31,359,531	29,537,581	29,740,059
1994	25,137,368	25,501,663	25,502,863	25,881,460	25,880,804	26,117,846	26,038,716	26,297,186	23,686,970	24,192,379
1995	28,259,430	28,569,584	28,570,721	28,984,054	28,983,212	29,239,360	28,486,530	29,153,111	25,555,846	25,827,282
1996	33,235,615	33,921,188	33,920,640	34,869,803	34,849,028	35,841,735	35,647,965	36,373,344	34,515,732	35,080,728
1997	30,892,069	31,306,453	31,307,497	31,860,368	31,832,642	32,270,169	32,073,320	32,573,973	31,021,814	31,661,207
1998	30,912,054	31,359,611	31,358,808	31,855,412	31,853,835	32,155,048	31,537,887	31,841,067	29,308,978	29,434,760
1999	36,134,469	36,953,131	36,951,992	37,549,334	37,547,622	38,156,897	37,637,997	38,064,263	33,634,685	33,786,520
2000	44,401,298	46,115,939	46,117,873	47,696,996	47,697,487	49,472,876	48,934,443	50,123,662	45,818,592	46,757,009
2001	36,206,992	37,272,491	37,271,696	38,288,727	38,289,020	39,177,733	38,352,197	39,198,493	33,985,663	34,668,604
2002	40,170,930	42,302,298	42,302,987	43,653,228	43,653,432	44,680,567	42,983,283	44,411,733	41,809,698	43,099,128
2003	40,954,674	42,552,613	42,551,294	44,115,065	44,113,552	45,878,060	45,800,750	47,566,237	45,694,497	47,112,025
2004	44,486,543	46,780,846	46,782,673	48,616,805	48,614,856	49,648,508	49,647,679	50,880,644	49,021,034	50,344,140
2005	42,473,678	45,265,423	45,266,199	47,136,942	47,136,054	49,518,280	49,517,812	51,411,108	49,473,384	50,883,082
2006	38,466,982	41,309,248	41,310,785	44,313,523	43,622,362	46,648,292	47,556,310	49,767,914	48,958,319	51,194,023
2007	37,982,613	44,337,263	44,355,996	47,872,942	47,871,913	50,531,247	50,529,117	52,896,608	51,070,918	52,898,267
2008	25,737,001	36,802,866	36,823,801	42,533,940	42,533,112	46,296,151	46,296,304	50,526,595	48,952,046	51,471,339
2009	6,412,220	27,965,260	27,967,855	40,246,794	40,002,094	47,124,414	47,124,542	51,829,782	51,244,730	54,212,482
2010		7,180,198	7,180,010	34,551,850	34,421,535	48,212,331	48,211,968	56,070,512	54,293,781	60,045,548
2011				9,891,779	9,891,495	38,183,429	38,182,616	51,528,936	51,012,120	56,784,459
2012						6,139,642	6,139,843	31,943,650	31,672,213	43,124,393
2013								7,188,412	7,015,150	32,294,937
2014										6,081,426

Maturity	LDF 12/31/09-10	LDF 12/31/10-11	LDF 12/31/11-12	LDF 12/31/12-13	LDF 12/31/13-14	All Years Average	Latest 4 Years Avg	All Years Col Avg	All Years 0.8-wtd Avg	DCRB Incremental Selected	Milliman Incremental Selected Indicated	Milliman Incremental Selected Smoothed
360-ultimate											1.0350	1.0350
348-360					1.0057	1.0057	1.0057	1.0057	1.0057		1.0055	1.0070
336-348				1.0090	1.0088	1.0089	1.0089	1.0090	1.0089		1.0090	1.0070
324-336			1.0060	1.0096	1.0090	1.0082	1.0082	1.0068	1.0084		1.0080	1.0075
312-324		1.0060	1.0024	1.0262	1.0033	1.0095	1.0095	1.0079	1.0098		1.0090	1.0075
300-312	1.0050	1.0023	1.0167	1.0051	1.0130	1.0084	1.0093	1.0072	1.0092	1.0073	1.0085	1.0075
288-300	1.0203	1.0161	1.0024	1.0089	1.0058	1.0107	1.0083	1.0099	1.0092	1.0078	1.0090	1.0075
276-288	1.0151	1.0021	1.0016	1.0094	1.0048	1.0066	1.0045	1.0063	1.0061	1.0085	1.0060	1.0080
264-276	1.0101	1.0178	1.0073	1.0058	1.0078	1.0098	1.0097	1.0097	1.0090	1.0091	1.0095	1.0090
252-264	1.0164	1.0156	1.0046	1.0061	1.0069	1.0099	1.0083	1.0098	1.0087	1.0099	1.0095	1.0100
240-252	1.0088	1.0092	1.0095	1.0125	1.0213	1.0123	1.0131	1.0120	1.0136	1.0108	1.0125	1.0110
228-240	1.0052	1.0080	1.0129	1.0099	1.0106	1.0093	1.0104	1.0093	1.0098	1.0117	1.0095	1.0120
216-228	1.0078	1.0084	1.0092	1.0234	1.0164	1.0130	1.0143	1.0132	1.0144	1.0127	1.0135	1.0130
204-216	1.0181	1.0148	1.0088	1.0203	1.0206	1.0166	1.0162	1.0168	1.0171	1.0139	1.0160	1.0140
192-204	1.0145	1.0145	1.0285	1.0156	1.0043	1.0155	1.0157	1.0160	1.0144	1.0153	1.0150	1.0145
180-192	1.0110	1.0280	1.0137	1.0096	1.0045	1.0134	1.0140	1.0135	1.0118	1.0168	1.0130	1.0150
168-180	1.0206	1.0177	1.0095	1.0113	1.0205	1.0159	1.0147	1.0161	1.0158	1.0185	1.0160	1.0170
156-168	1.0134	1.0158	1.0162	1.0243	1.0201	1.0180	1.0191	1.0186	1.0189	1.0205	1.0190	1.0200
144-156	1.0145	1.0162	1.0372	1.0221	1.0308	1.0242	1.0266	1.0253	1.0257	1.0229	1.0250	1.0240
132-144	1.0227	1.0342	1.0232	1.0332	1.0310	1.0289	1.0304	1.0293	1.0295	1.0256	1.0290	1.0270
120-132	1.0386	1.0273	1.0235	1.0385	1.0270	1.0310	1.0291	1.0311	1.0305	1.0288	1.0300	1.0300
108-120	1.0294	1.0319	1.0400	1.0248	1.0285	1.0309	1.0313	1.0308	1.0304	1.0328	1.0300	1.0340
96-108	1.0531	1.0368	1.0213	1.0382	1.0457	1.0390	1.0355	1.0385	1.0388	1.0377	1.0390	1.0390
84-96	1.0390	1.0392	1.0505	1.0465	1.0358	1.0422	1.0430	1.0422	1.0421	1.0442	1.0420	1.0420
72-84	1.0516	1.0413	1.0694	1.0469	1.0515	1.0521	1.0523	1.0519	1.0522	1.0532	1.0520	1.0520
60-72	1.0657	1.0727	1.0556	1.0914	1.0579	1.0687	1.0694	1.0683	1.0686	1.0673	1.0690	1.0690
48-60	1.0739	1.0793	1.0885	1.0998	1.1059	1.0895	1.0934	1.0907	1.0932	1.0928	1.0900	1.0900
36-48	1.1673	1.1551	1.1780	1.1630	1.1132	1.1553	1.1523	1.1533	1.1504	1.1530	1.1500	1.1500
24-36	1.4300	1.4390	1.4006	1.3495	1.3616	1.3962	1.3877	1.3920	1.3863	1.3876	1.3900	1.3900
12-24	4.3612	4.8122	3.8602	5.2027	4.6036	4.5680	4.6197	4.5018	4.6069		4.5500	4.5500

[1] Losses limited on a per-claim basis, with the actual limitation varying by policy year.

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ANALYSIS OF DCRB RATE FILING, PROPOSED EFFECTIVE DECEMBER 1, 2015
MEDICAL LOSSES

Incurred Loss Development
Individual Losses Limited [1]

Policy Year	Incurred Loss as of 12/31/09	Incurred Loss as of 12/31/10	Incurred Loss as of 12/31/10	Incurred Loss as of 12/31/11	Incurred Loss as of 12/31/11	Incurred Loss as of 12/31/12	Incurred Loss as of 12/31/12	Incurred Loss as of 12/31/13	Incurred Loss as of 12/31/13	Incurred Loss as of 12/31/14
Prior to 1986	116,349,567	115,690,958	115,688,129	116,596,692	116,593,831	116,631,707	116,635,132	117,324,220	112,157,473	112,415,091
1986	17,611,431	18,255,950	18,255,124	18,628,829	18,626,390	18,643,236	18,642,944	18,258,610	17,022,412	17,033,212
1987	23,864,144	24,006,277	24,006,729	24,192,742	24,192,213	24,413,273	24,413,264	24,943,452	22,799,548	22,874,591
1988	24,471,696	24,513,344	24,514,026	24,395,822	24,396,979	24,413,077	24,166,870	24,166,194	23,198,989	23,187,352
1989	28,056,483	28,539,721	28,540,330	29,230,738	29,229,680	29,211,967	29,204,991	29,282,479	28,391,468	28,557,872
1990	30,389,450	30,471,327	30,471,969	30,606,717	30,605,737	30,748,484	30,725,737	30,496,280	27,638,380	27,696,415
1991	30,235,886	30,275,122	30,274,149	30,232,567	30,231,479	30,197,421	30,171,242	30,183,789	28,035,782	27,663,120
1992	29,594,098	29,617,281	29,618,834	29,664,731	29,666,457	29,931,227	29,893,272	29,902,378	27,874,282	27,949,702
1993	33,607,412	33,910,092	33,911,414	33,858,684	33,858,994	33,703,169	33,619,920	33,047,117	31,126,369	31,444,469
1994	27,514,022	27,867,918	27,869,118	28,461,402	28,460,746	28,679,990	28,600,860	28,895,588	26,288,791	25,776,031
1995	30,668,861	30,911,792	30,912,929	31,689,619	31,688,777	32,275,559	31,534,334	31,446,797	27,621,292	27,544,567
1996	38,604,647	39,084,240	39,083,692	40,875,766	40,854,991	41,571,756	41,377,986	42,154,917	39,709,220	39,175,069
1997	35,027,515	35,340,779	35,341,823	35,933,375	35,905,649	36,361,201	36,164,352	36,508,739	34,321,957	34,381,207
1998	33,920,873	34,431,911	34,431,108	34,861,400	34,859,823	34,731,743	33,875,316	34,326,312	31,636,774	31,613,626
1999	41,216,706	42,064,159	42,063,020	42,560,899	42,559,187	42,413,211	41,894,141	41,615,280	37,017,895	36,212,411
2000	54,609,823	55,476,862	55,478,796	56,973,768	56,974,259	58,513,171	57,420,253	58,614,341	53,549,722	53,008,694
2001	44,687,988	46,351,971	46,351,176	46,267,087	46,267,380	46,915,286	45,924,927	45,644,630	38,901,959	38,842,394
2002	48,591,763	50,564,537	50,565,226	51,479,416	51,479,620	53,011,379	51,001,823	49,917,128	47,183,893	47,696,918
2003	50,189,048	52,565,629	52,564,310	53,787,962	53,786,449	56,443,035	56,365,725	57,601,818	55,210,026	55,744,525
2004	54,848,928	56,991,968	56,993,795	57,890,068	57,888,119	58,364,327	58,363,498	58,006,387	56,159,846	57,053,861
2005	52,560,436	56,848,434	56,849,539	59,147,942	59,147,054	61,368,190	61,367,722	62,081,713	58,485,093	60,398,827
2006	45,451,737	50,533,185	50,534,722	55,621,375	54,446,777	56,911,357	58,861,125	61,118,620	59,978,063	63,680,974
2007	48,066,951	53,629,281	53,661,374	60,640,147	60,639,118	61,517,877	61,515,747	63,730,197	60,937,856	62,367,458
2008	35,955,051	45,871,713	45,892,648	52,013,778	52,012,950	56,215,608	56,215,761	59,301,604	57,485,558	62,174,728
2009	13,175,019	37,523,163	37,525,758	50,184,741	49,876,106	57,119,701	57,119,829	61,052,787	60,127,131	67,428,753
2010		16,980,852	16,980,664	51,728,852	51,566,234	61,794,175	61,793,812	69,912,637	66,443,494	71,041,384
2011				22,288,515	22,285,685	54,635,701	54,634,888	64,728,847	63,789,793	69,399,049
2012						13,010,397	13,010,598	43,919,408	43,431,407	53,831,032
2013								16,148,411	15,800,717	44,451,439
2014										13,989,281

Maturity	LDF 12/31/09-10	LDF 12/31/10-11	LDF 12/31/11-12	LDF 12/31/12-13	LDF 12/31/13-14	All Years Average	Latest 4 Years Avg	All Years Col Avg	All Years 0.8-wtd Avg	DCRB Incremental Selected	Milliman Incremental Selected Indicated	Milliman Incremental Selected Smoothed
360-ultimate											1.0160	1.0160
348-360					1.0023	1.0023	1.0023	1.0023	1.0023		1.0020	1.0020
336-348				1.0059	1.0006	1.0033	1.0033	1.0052	1.0030		1.0040	1.0020
324-336			1.0003	0.9794	1.0033	0.9943	0.9943	0.9983	0.9947		0.9960	1.0025
312-324		1.0079	1.0009	1.0217	0.9995	1.0075	1.0075	1.0079	1.0073	1.0273	1.0075	1.0025
300-312	0.9943	1.0205	1.0091	1.0000	1.0059	1.0060	1.0089	1.0005	1.0059	1.0032	1.0050	1.0030
288-300	1.0366	1.0077	1.0007	1.0027	1.0021	1.0100	1.0033	1.0080	1.0070	1.0031	1.0070	1.0030
276-288	1.0060	0.9952	0.9994	0.9925	0.9867	0.9960	0.9935	0.9956	0.9941	1.0031	0.9950	1.0035
264-276	1.0017	1.0242	1.0047	1.0004	1.0027	1.0067	1.0080	1.0068	1.0057	1.0031	1.0065	1.0035
252-264	1.0172	1.0044	0.9989	1.0003	1.0102	1.0062	1.0035	1.0061	1.0057	1.0031	1.0060	1.0040
240-252	1.0027	0.9986	1.0089	0.9830	0.9805	0.9947	0.9928	0.9948	0.9920	1.0032	0.9940	1.0040
228-240	1.0013	1.0015	0.9954	1.0103	0.9972	1.0012	1.0011	1.0010	1.0011	1.0033	1.0011	1.0045
216-228	1.0008	0.9984	1.0077	0.9972	0.9865	0.9981	0.9975	0.9974	0.9967	1.0036	0.9980	1.0045
204-216	1.0090	1.0213	1.0185	1.0188	1.0017	1.0139	1.0151	1.0137	1.0128	1.0039	1.0130	1.0050
192-204	1.0129	1.0251	1.0175	1.0095	0.9993	1.0129	1.0129	1.0130	1.0108	1.0044	1.0120	1.0050
180-192	1.0079	1.0459	1.0127	1.0133	0.9782	1.0116	1.0125	1.0121	1.0071	1.0051	1.0110	1.0055
168-180	1.0124	1.0167	0.9963	0.9933	0.9899	1.0017	0.9991	1.0006	0.9988	1.0061	1.0010	1.0055
156-168	1.0089	1.0125	0.9966	1.0208	0.9985	1.0075	1.0071	1.0083	1.0068	1.0075	1.0075	1.0070
144-156	1.0151	1.0118	1.0270	0.9939	1.0109	1.0117	1.0109	1.0123	1.0106	1.0093	1.0110	1.0085
132-144	1.0206	1.0269	1.0140	0.9787	1.0097	1.0100	1.0073	1.0098	1.0071	1.0118	1.0100	1.0120
120-132	1.0159	0.9982	1.0298	1.0219	1.0159	1.0163	1.0164	1.0168	1.0173	1.0153	1.0160	1.0160
108-120	1.0372	1.0181	1.0494	0.9939	1.0327	1.0263	1.0235	1.0255	1.0250	1.0202	1.0250	1.0250
96-108	1.0406	1.0233	1.0082	1.0116	1.0617	1.0291	1.0262	1.0289	1.0312	1.0269	1.0290	1.0290
84-96	1.0474	1.0157	1.0376	1.0384	1.0235	1.0325	1.0288	1.0321	1.0314	1.0364	1.0320	1.0320
72-84	1.0391	1.0404	1.0453	1.0360	1.0816	1.0485	1.0508	1.0484	1.0524	1.0497	1.0500	1.0500
60-72	1.0816	1.1007	1.0145	1.0549	1.1214	1.0746	1.0729	1.0737	1.0772	1.0677	1.0750	1.0750
48-60	1.1118	1.1301	1.0808	1.0689	1.0692	1.0921	1.0872	1.0903	1.0858	1.0895	1.0900	1.0900
36-48	1.1157	1.1334	1.1452	1.1314	1.0879	1.1227	1.1245	1.1212	1.1195	1.1243	1.1200	1.1200
24-36	1.2758	1.3373	1.1983	1.1848	1.2394	1.2471	1.2400	1.2389	1.2379	1.2400	1.2400	1.2400
12-24	2.8481	3.0463	2.4516	3.3757	2.8133	2.9070	2.9217	2.8585	2.9180		2.9000	2.9000

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