

ACTUARIAL REPORT  
ON  
**MANITOBA PUBLIC INSURANCE CORPORATION**  
**UNIVERSAL COMPULSORY AUTOMOBILE INSURANCE**  
AS OF MARCH 31, 2021

Prepared by: Joe S. Cheng, F.C.I.A.

Date of Report: June 24, 2021



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## INTRODUCTION

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Corporation: Manitoba Public Insurance Corporation (“MPI” or “the Corporation”)

Purpose: To provide an opinion on the policy provision for the Universal Compulsory Automobile Insurance (Basic Insurance).

Valuation Date: March 31, 2021

Author: Joe S. Cheng, F.C.I.A.

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Position: Appointed Actuary of MPI

June 24, 2021

Mr. Mark Giesbrecht  
Vice-President, Finance and Chief Financial Officer  
Manitoba Public Insurance Corporation  
912 – 234 Donald St.  
Winnipeg, Manitoba R3C 4A4

**Re: Manitoba Public Insurance – Universal Compulsory Automobile Insurance  
Policy Liabilities as of March 31, 2021**

Dear Mr. Giesbrecht,

This letter, opinion, and attached exhibits provide an update to our Appointed Actuary Report as of October 31, 2020 using data as of March 31, 2021 for Manitoba Public Insurance – Universal Compulsory Automobile Insurance. All comments, caveats, limitations, and explanations contained in our October 31, 2020 report continue to apply unless noted in this letter.

This update to our previous report adds five additional months experience. We compared the methodologies and assumptions used in our October 31, 2020 report. For claims liabilities, our discount rate has changed from 2.48% to 2.88% (0.47% to 0.86% for indexed benefits). For premium liabilities, our discount rate has changed from 2.24% to 2.84% (0.24% to 0.82% for indexed benefits). These changes were made to reflect the changes in the portfolio yield from October 31, 2020 to March 31, 2021.

In this valuation, all historical insurance years are restated as periods from April 1, current year to March 31, subsequent year except for the PIPP enhancement part. The ultimate losses for all insurance years are estimated by using the restated triangles. The selected loss development factors are the same as those selected in October under the restated triangles.

The IBNR selection method for Accident Benefits - Other (Non-Indexed) insurance year 2016 was changed from 0 to the BF Incurred Method because the claims backlog has been rectified.

To recognize significant claims reduction due to COVID-19, we made a one-time adjustment to the weight applied toward the projected ultimate loss ratio in BF methods from 25% in October to 75% in fiscal accident year 2020 for both Accident Benefits - Weekly Indemnity and Accident Benefits - Other (Indexed). The impact of this change on the net actuarial present value is a reduction of \$28.3 million (\$14.1 million for Accident Benefits - Weekly Indemnity, \$9.7 million for Accident Benefits - Other (Indexed) and \$4.4 million on internal loss adjustment expenses).

All other previous methodologies and assumptions used to estimate the policy liabilities remain appropriate.

Based on the results of this valuation, the net claims development, excluding ILAE, from March 31, 2020 is as follows:

BASIC (\$000)	Unpaid claims @ 3/31/2020*	Paid in fiscal year 2020/21	Unpaid claims @ 3/31/2021	Favourable development (adverse development)
Undiscounted	1,785,834	239,353	1,514,322	32,159
Actuarial Present Value	1,850,917	239,353	1,601,991	9,573

\*Unpaid claims as of March 31, 2020 are indexed to the current benefit levels.

The updated Expression of Opinion follows this letter.

We are not aware of any event subsequent to March 31, 2021 which would have a significant impact on the claims liabilities.

If you have any questions, please do not hesitate to call me.

Yours truly,

Joe S. Cheng, FCIA

## EXPRESSION OF OPINION

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To the Directors of Manitoba Public Insurance Corporation:

I have valued the Automobile Insurance Division – Universal Compulsory Automobile Insurance policy liabilities and reinsurance recoverables of Manitoba Public Insurance Corporation for its statement of financial position at March 31, 2021 and their change in the statement of income for the year then ended in accordance with accepted actuarial practice in Canada including selection of appropriate assumptions and methods.

In my opinion, the amount of policy liabilities net of reinsurance recoverables makes appropriate provision for all policy obligations and the financial statements fairly present the results of the valuation.

The results of my valuation are as follows:

<b><u>Claims Liabilities</u></b>	Appointed Actuary's <u>Estimate</u> \$000's
(1) Direct unpaid claims and adjustment expenses:	<u>2,045,999</u>
(2) Assumed unpaid claims and adjustment expenses:	<u>0</u>
(3) Gross unpaid claims and adjustment expenses:	<u>2,045,999</u>
(4) Ceded unpaid claims and adjustment expenses:	<u>2,173</u>
(5) Net unpaid claims and adjustment expenses (3)-(4):	<u>2,043,826</u>

<b><u>Premium Liabilities</u></b>	Appointed Actuary's <u>Estimate</u> \$000's
(1) Gross policy liabilities in connection with unearned premiums:	<u>459,939</u>
(2) Net policy liabilities in connection with unearned premiums:	<u>467,291</u>
(3) Gross unearned premiums carried by the Corporation:	<u>571,607</u>
(4) Net unearned premiums carried by the Corporation:	<u>571,607</u>
(5) Premium deficiency:	<u>0</u>
(6) Deferred policy acquisition expenses carried by the Corporation:	<u>37,245</u>
(7) Maximum policy acquisition expenses deferrable [(4)+(5)] – (2) :	<u>104,316</u>

\_\_\_\_\_  
 Signature of Appointed Actuary

June 24, 2021  
 Date opinion was rendered

JOE S. CHENG, FCIA  
 Printed name of Appointed Actuary

Winnipeg, Manitoba  
 Location opinion was rendered



## DISTRIBUTION AND USE

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This report contains confidential information about MPI. It does not deal with the future financial condition or rate adequacy of the Corporation. Its sole purpose is to provide an opinion on the appropriateness of the Automobile Insurance Division – Universal Compulsory Automobile Insurance policy provisions for MPI as at March 31, 2021. The report is neither intended nor necessarily suitable for any other use.

This report may be distributed to the regulator in the jurisdiction where the Corporation operates. Furthermore, the Corporation may distribute this report to its external auditor.

It is our understanding that this report is also filed annually with MPI's General Rate Application, which is a public document. Nevertheless, any party other than the ones named in paragraph two should be considered as a third party.

Where the report is disclosed, it should be provided in its entirety.

## VARIABILITY OF ACTUARIAL ESTIMATES

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There is a limitation upon the accuracy of claims liabilities as there is an inherent uncertainty in any estimate of claims liabilities. This inherent uncertainty is present because future events could affect the ultimate claim settlement. Some examples of such future events are:

1. High/low inflation;
2. High/low investment return;
3. High/low termination rate;
4. Increase/decrease in benefit levels (other than regular indexation); and
5. Introduction of new benefits applicable to all insurance years.

Therefore, one must acknowledge that the actual ultimate claim amount may differ materially from our estimates. We have employed standard actuarial techniques and appropriate assumptions. In our judgment, the conclusions presented in this report are best estimates, given the information available while performing the valuation.

## SCOPE OF THE REPORT

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The scope of this report is limited to the Universal Compulsory Automobile Insurance (Basic Insurance). We were asked to:

1. Estimate the unpaid claims on gross, ceded, and net bases as of the valuation date;
2. Estimate the premium liabilities on the unearned premium as of the valuation date; and
3. Determine the maximum allowable deferred policy acquisition expense.

All valuations were done as of March 31, 2021.

## DATA AND RELIANCE

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We relied on the gross and net case incurred (loss and allocated loss adjustment expense paid plus case reserve), and loss and allocated loss adjustment expense payments by insurance year as provided by MPI.

Premium figures as of March 31, 2021 were provided by the Corporation. They included both earned premium and unearned premium.

Reported losses and paid losses triangles are as of March 31, 2021. Reported losses and incremental paid losses as of March 31, 2020 were also provided. We have used the work of PricewaterhouseCoopers LLP, the external auditor for MPI, to verify the valuation data against the Corporation's records.

We did not audit the claims and premium data, but a reconciliation was performed to ensure that no material data was omitted (see Appendix H).

## STANDARD OF MATERIALITY

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The Corporation's financial statement items for Basic Insurance are as follows:

<u>Item</u>	<u>Amount</u>	<u>%</u>	<u>Threshold</u>
	\$000		\$000
2020/2021 Net Unpaid Claims	2,043,826	0.5	10,219
Selected materiality for October 31, 2020 valuation			5,000
Auditor's materiality for MPI ( for Basic only)			14,400
This year's selected materiality			5,000

For the purpose of this valuation, an omission or inexplicable difference of \$5,000,000 or about 0.2% of the net unpaid claims would be considered as material.

However, this does not imply that the actuary's provision is accurate within 0.2%. In fact, the future claims payment could be significantly different from the actuary's provision due to adverse/favourable claims development as noted in the Variability of Actuarial Estimates section.

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## INDEX TO THE EXHIBITS

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EXHIBIT 4	IBNR Estimates
EXHIBIT 5	Internal Loss Adjustment Expenses
EXHIBIT 6	DPAC Calculation
EXHIBIT 7	Actuarial Present Value Calculations
EXHIBIT 8	Actuarial Present Value Calculations by Insurance Year
EXHIBIT 9	Projected Paid Losses
EXHIBIT 10	Discounted Claims Development Pfad
EXHIBIT 11	Duration

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## EXHIBIT 1 SUMMARY OF POLICY LIABILITIES

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Manitoba Public Insurance  
Automobile Insurance Division  
Summary of Policy Claim Liabilities  
As of March 31, 2021  
(\$000)

Exhibit 1  
Sheet 1

	Direct & Agency	Ceded	Net	Carried Before Review
<b>1. Selected IBNR (Including External Adjustment Expenses) [a]</b>				
Bodily Injury - Basic	6,470	-	6,470	
Property Damage - Basic	7,917	-	7,917	
Collision - Basic	19,396	-	19,396	
Comprehensive - Basic	9,257	(802)	10,060	
Accident Benefits - Weekly Indemnity	210,847	-	210,847	
Accident Benefits - Other (Indexed)	86,289	-	86,289	
Accident Benefits - Other (Non-Indexed)	16,366	-	16,366	
<b>Total</b>	<b>356,543</b>	<b>(802)</b>	<b>357,345</b>	
<b>Internal Loss Adjustment Expense (ILAE) Provision [b]</b>	<b>186,893</b>	<b>-</b>	<b>186,893</b>	
<b>Total Including ILAE Provision</b>	<b>543,436</b>	<b>(802)</b>	<b>544,238</b>	
<b>2. CIA Rules Adjustments [c]</b>				
i. Discount Amount - Excluding ILAE Provision	(140,027)	(20)	(140,007)	
ii. Discount Amount - ILAE Provision	(16,143)	-	(16,143)	
iii. Provision for Adverse Deviation - Excluding ILAE Provision	238,572	116	238,456	
iv. Provision for Adverse Deviation - ILAE Provision	27,503	-	27,503	
	<b>109,905</b>	<b>96</b>	<b>109,809</b>	
<b>3. Adjusted IBNR (Including External Adjustment Expense) (1+2i+2iii)</b>	<b>455,087</b>	<b>(707)</b>	<b>455,794</b>	<b>471,981</b>
<b>4. Adjusted ILAE Provision (1+2ii+2iv)</b>	<b>198,253</b>	<b>-</b>	<b>198,253</b>	<b>205,726</b>
<b>5. Adjusted IBNR - PIPP Enhancement [d]</b>	<b>53,425</b>	<b>-</b>	<b>53,425</b>	<b>58,472</b>
<b>6. Total Actuarial Liabilities (3+4+5)</b>	<b>706,765</b>	<b>(707)</b>	<b>707,472</b>	<b>736,179</b>
<b>7. Case Reserve Outstanding</b>				
Hail Catastrophe	1,421	1,421	-	
PIPP Enhancement [e]	64,094	-	64,094	
Other than Hail & Enh	1,273,719	1,459	1,272,260	
<b>Total [f]</b>	<b>1,339,234</b>	<b>2,880</b>	<b>1,336,354</b>	<b>1,336,354</b>
<b>8. Total - Claim Liabilities (6+7)</b>	<b>2,045,999</b>	<b>2,173</b>	<b>2,043,826</b>	<b>2,072,533</b>

## Notes:

[a] From Exhibit 2, Column 6 for the respective coverage

[b] From Exhibit 5, Row 12; Net equal to Direct &amp; Agency

[c] From Exhibit 7, Sheet 1 for Direct &amp; Agency and Exhibit 7, Sheet 2 for Net

[d] PE Exhibit 2, Sheet 8, Column 12 + PE Exhibit 4, Required IBNR

[e] PE Exhibit 1, Sheet 8, Column 4 + PE Exhibit 4, Case Reserves

[f] From MPI - Difference from Actuarial Database (Exh 2, Sheet 9 + PE Exh 1, Sheet 8 + PE Exhibit 4):

10,489

Manitoba Public Insurance Automobile  
Insurance Division Summary of Policy  
Premium Liabilities As of March 31,  
2021  
(\$000)

Exhibit 1  
Sheet 2

	Direct & Agency	Ceded	Net
1. Unearned Premium [a]	571,607	-	571,607
2. Equity in Unearned Premium [b]	111,668	7,352	104,316
3. Carried Deferred Policy Acquisition Expense [a]	37,245	-	37,245
4. Write Down Deferred Policy Acquisition Expense [c]	-	-	-
5. Maximum Permissible Deferred Policy Acquisition Expense [d]	111,668	7,352	104,316
6. Deferred Policy Acquisition Expense After Review [e]	37,245	-	37,245
7. Premium Deficiency [f]	-	-	-

## Notes:

[a] From MPI

[b] From Exhibit 6, Sheet 1 for Direct &amp; Agency and Exhibit 6, Sheet 5 for Net

[c]  $\text{Min}((3) - (2), (3))$  if greater than 0, otherwise 0[d]  $\text{Max}((2), (3) - (4))$ [e]  $\text{Min}((3), (5))$ 

[f] Negative of (2) if greater than 0, otherwise 0

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## EXHIBIT 2 CLAIMS LIABILITIES

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Manitoba Public Insurance  
Automobile Insurance Division

Exhibit 2

Sheet 1

Direct &amp; Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted

As of March 31, 2021

(\$000)

Insurance Year	Earned Premium	Actual Claims @ 31/03/2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(7)/(2)	(9)=(4)+(6)
<b>Bodily Injury - Basic</b>								
2002 & Prior			1					1
2003	563,789	3,971	-	3,971	-	3,971	0.70%	-
2004	598,905	5,253	-	5,253	-	5,253	0.88%	-
2005	632,408	4,229	25	4,254	-	4,254	0.67%	25
2006	656,746	3,448	-	3,448	-	3,448	0.52%	-
2007	679,930	3,643	40	3,683	-	3,683	0.54%	40
2008	709,787	3,132	25	3,157	-	3,157	0.44%	25
2009	741,553	2,915	50	2,965	-	2,965	0.40%	50
2010	761,034	4,254	175	4,429	-	4,429	0.58%	175
2011	772,649	2,396	64	2,460	-	2,460	0.32%	64
2012	769,715	4,089	86	4,175	2	4,177	0.54%	88
2013	781,394	3,625	20	3,645	6	3,651	0.47%	26
2014	822,358	4,872	519	5,391	32	5,423	0.66%	551
2015	877,262	4,061	556	4,618	106	4,723	0.54%	662
2016	923,168	3,241	1,582	4,823	230	5,053	0.55%	1,812
2017	977,104	2,603	2,390	4,992	461	5,454	0.56%	2,851
2018	1,044,467	1,639	3,176	4,816	972	5,787	0.55%	4,148
2019	1,099,731	761	2,143	2,904	1,838	4,741	0.43%	3,981
2020	1,134,690	15	1,830	1,845	2,823	4,669	0.41%	4,653
<b>Total</b>	<b>14,546,690</b>	<b>58,147</b>	<b>12,682</b>	<b>70,829</b>	<b>6,470</b>	<b>77,299</b>	<b>0.53%</b>	<b>19,152</b>

Notes:

(2) - From MPI

(3) to (5) - From MPI Fiscal Year Summaries

(6) - From Exhibit 4

Manitoba Public Insurance  
Automobile Insurance DivisionExhibit 2  
Sheet 2Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Insurance Year	Earned Premium	Actual Claims @ 31/03/2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(7)/(2)	(9)=(4)+(6)
<b>Property Damage - Basic</b>								
2002 & Prior			-					-
2003	563,789	29,118	-	29,118	-	29,118	5.16%	-
2004	598,905	29,627	-	29,627	-	29,627	4.95%	-
2005	632,408	30,392	-	30,392	-	30,392	4.81%	-
2006	656,746	33,606	-	33,606	-	33,606	5.12%	-
2007	679,930	34,389	3	34,391	-	34,391	5.06%	3
2008	709,787	36,158	-	36,158	-	36,158	5.09%	-
2009	741,553	34,397	10	34,407	-	34,407	4.64%	10
2010	761,034	38,404	-	38,404	-	38,404	5.05%	-
2011	772,649	37,189	-	37,189	-	37,189	4.81%	-
2012	769,715	42,274	91	42,365	(21)	42,344	5.50%	70
2013	781,394	45,222	-	45,222	(45)	45,176	5.78%	(45)
2014	822,358	40,724	20	40,744	(61)	40,683	4.95%	(41)
2015	877,262	41,144	4	41,148	(62)	41,086	4.68%	(58)
2016	923,168	43,676	1	43,677	(22)	43,656	4.73%	(21)
2017	977,104	46,447	187	46,634	67	46,701	4.78%	254
2018	1,044,467	42,054	954	43,008	245	43,253	4.14%	1,199
2019	1,099,731	36,068	1,827	37,895	1,381	39,276	3.57%	3,208
2020	1,134,690	18,056	6,531	24,587	6,435	31,022	2.73%	12,966
<b>Total</b>	<b>14,546,690</b>	<b>658,944</b>	<b>9,628</b>	<b>668,572</b>	<b>7,917</b>	<b>676,489</b>	<b>4.65%</b>	<b>17,545</b>

Notes: (2) - From MPI  
(3) to (5) - From MPI Fiscal Year Summaries  
(6) - From Exhibit 4

Manitoba Public Insurance  
Automobile Insurance Division

Exhibit 2

Sheet 3

Direct &amp; Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted

As of March 31, 2021

(\$000)

Insurance Year	Earned Premium	Actual Claims @ 31/03/2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(7)/(2)	(9)=(4)+(6)
<b>Collision - Basic</b>								
2002 & Prior			1					1
2003	563,789	193,481	-	193,481	-	193,481	34.32%	-
2004	598,905	202,721	-	202,721	-	202,721	33.85%	-
2005	632,408	204,598	-	204,598	-	204,598	32.35%	-
2006	656,746	225,727	-	225,727	-	225,727	34.37%	-
2007	679,930	232,688	-	232,688	-	232,688	34.22%	-
2008	709,787	243,051	-	243,051	-	243,051	34.24%	-
2009	741,553	238,289	-	238,289	-	238,289	32.13%	-
2010	761,034	279,577	-	279,577	-	279,577	36.74%	-
2011	772,649	271,446	2	271,448	-	271,448	35.13%	2
2012	769,715	315,837	2	315,840	-	315,840	41.03%	2
2013	781,394	350,403	2	350,405	-	350,405	44.84%	2
2014	822,358	313,814	-	313,814	-	313,814	38.16%	-
2015	877,262	355,293	10	355,302	-	355,302	40.50%	10
2016	923,168	387,324	17	387,341	-	387,341	41.96%	17
2017	977,104	408,447	36	408,483	408	408,891	41.85%	444
2018	1,044,467	407,937	163	408,100	1,429	409,529	39.21%	1,592
2019	1,099,731	401,719	848	402,567	5,254	407,821	37.08%	6,102
2020	1,134,690	266,633	40,766	307,399	12,305	319,704	28.18%	53,071
<b>Total</b>	<b>14,546,690</b>	<b>5,298,985</b>	<b>41,847</b>	<b>5,340,832</b>	<b>19,396</b>	<b>5,360,228</b>	<b>36.85%</b>	<b>61,243</b>

Notes: (2) - From MPI  
(3) to (5) - From MPI Fiscal Year Summaries  
(6) - From Exhibit 4



Manitoba Public Insurance  
Automobile Insurance Division

Exhibit 2

Sheet 4

Direct &amp; Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted

As of March 31, 2021

(\$000)

Insurance Year	Earned Premium	Actual Claims @ 31/03/2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(7)/(2)	(9)=(4)+(6)
<b>Comprehensive - Basic</b>								
2002 & Prior			(1)					(1)
2003	563,789	53,456	-	53,456	-	53,456	9.48%	-
2004	598,905	62,009	-	62,009	-	62,009	10.35%	-
2005	632,408	72,821	-	72,821	-	72,821	11.51%	-
2006	656,746	73,556	-	73,556	-	73,556	11.20%	-
2007	679,930	111,679	-	111,679	-	111,679	16.43%	-
2008	709,787	49,851	-	49,851	-	49,851	7.02%	-
2009	741,553	78,866	-	78,866	-	78,866	10.64%	-
2010	761,034	74,847	-	74,847	-	74,847	9.83%	-
2011	772,649	75,365	-	75,365	-	75,365	9.75%	-
2012	769,715	72,125	4	72,128	(4)	72,124	9.37%	-
2013	781,394	75,159	-	75,159	-	75,159	9.62%	-
2014	822,358	71,652	-	71,652	-	71,652	8.71%	-
2015	877,262	121,336	6	121,342	55	121,397	13.84%	61
2016	923,168	118,512	144	118,656	93	118,749	12.86%	237
2017	977,104	72,746	14	72,761	314	73,075	7.48%	328
2018	1,044,467	113,437	1,623	115,059	(99)	114,960	11.01%	1,524
2019	1,099,731	84,532	1,123	85,655	1,955	87,610	7.97%	3,078
2020	1,134,690	69,658	8,051	77,709	6,944	84,653	7.46%	14,995
<b>Total</b>	<b>14,546,690</b>	<b>1,451,607</b>	<b>10,964</b>	<b>1,462,571</b>	<b>9,257</b>	<b>1,471,828</b>	<b>10.12%</b>	<b>20,221</b>

Notes:

- (2) - From MPI
- (3) to (5) - From MPI Fiscal Year Summaries
- (6) - From Exhibit 4

Manitoba Public Insurance  
Automobile Insurance DivisionExhibit 2  
Sheet 5Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Insurance Year	Earned Premium	Actual Claims @ 31/03/2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(7)/(2)	(9)=(4)+(6)
<b>Accident Benefits - Weekly Indemnity</b>								
2002 & Prior			139,652		19,377			159,029
2003	563,789	38,414	15,432	53,846	1,080	54,926	9.74%	16,512
2004	598,905	32,097	16,229	48,326	1,164	49,491	8.26%	17,393
2005	632,408	38,462	17,721	56,182	1,495	57,678	9.12%	19,216
2006	656,746	45,799	24,986	70,785	2,009	72,794	11.08%	26,995
2007	679,930	46,148	27,312	73,460	2,043	75,503	11.10%	29,355
2008	709,787	44,148	27,560	71,708	2,362	74,070	10.44%	29,922
2009	741,553	42,181	26,965	69,146	2,661	71,808	9.68%	29,626
2010	761,034	51,523	38,921	90,444	2,969	93,413	12.27%	41,890
2011	772,649	45,594	38,832	84,426	4,925	89,351	11.56%	43,757
2012	769,715	44,911	35,389	80,300	4,661	84,961	11.04%	40,050
2013	781,394	37,476	30,098	67,574	3,894	71,468	9.15%	33,992
2014	822,358	32,923	38,170	71,092	4,036	75,128	9.14%	42,206
2015	877,262	36,074	48,297	84,371	4,753	89,124	10.16%	53,050
2016	923,168	35,056	53,500	88,556	5,854	94,410	10.23%	59,354
2017	977,104	32,594	52,996	85,590	9,008	94,598	9.68%	62,004
2018	1,044,467	25,584	45,268	70,853	20,770	91,622	8.77%	66,038
2019	1,099,731	18,152	13,847	31,999	60,455	92,454	8.41%	74,302
2020	1,134,690	7,867	5,342	13,209	57,329	70,538	6.22%	62,671
<b>Total</b>	<b>14,546,690</b>	<b>655,003</b>	<b>696,517</b>	<b>1,211,869</b>	<b>210,847</b>	<b>1,403,339</b>	<b>9.65%</b>	<b>907,364</b>

Notes:

- (2) - From MPI
- (3) to (5) - From MPI Fiscal Year Summaries
- (6) - From Exhibit 4

Manitoba Public Insurance  
Automobile Insurance DivisionExhibit 2  
Sheet 6Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Insurance Year	Earned Premium	Actual Claims @ 31/03/2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(7)/(2)	(9)=(4)+(6)
<b>Accident Benefits - Other (Indexed)</b>								
2002 & Prior			97,338		9,317			106,655
2003	563,789	40,338	11,372	51,710	2,029	53,739	9.53%	13,401
2004	598,905	37,043	17,211	54,254	2,081	56,335	9.41%	19,292
2005	632,408	38,117	16,389	54,506	2,346	56,852	8.99%	18,735
2006	656,746	42,743	21,253	63,995	2,553	66,548	10.13%	23,806
2007	679,930	42,421	23,259	65,679	3,116	68,795	10.12%	26,375
2008	709,787	38,126	12,571	50,697	2,624	53,321	7.51%	15,195
2009	741,553	40,466	16,140	56,606	3,055	59,661	8.05%	19,195
2010	761,034	40,877	17,393	58,270	2,398	60,668	7.97%	19,791
2011	772,649	40,826	19,970	60,796	3,486	64,282	8.32%	23,456
2012	769,715	41,274	13,409	54,683	3,092	57,775	7.51%	16,501
2013	781,394	38,949	11,160	50,109	2,870	52,978	6.78%	14,030
2014	822,358	34,333	11,410	45,744	2,433	48,177	5.86%	13,843
2015	877,262	42,425	18,646	61,071	3,213	64,284	7.33%	21,859
2016	923,168	41,857	32,420	74,277	3,131	77,408	8.38%	35,551
2017	977,104	39,835	27,128	66,963	2,502	69,464	7.11%	29,630
2018	1,044,467	31,771	24,832	56,604	8,334	64,937	6.22%	33,166
2019	1,099,731	24,193	26,562	50,754	11,110	61,864	5.63%	37,672
2020	1,134,690	10,190	19,956	30,146	16,600	46,746	4.12%	36,556
<b>Total</b>	<b>14,546,690</b>	<b>665,783</b>	<b>438,419</b>	<b>1,006,864</b>	<b>86,289</b>	<b>1,083,835</b>	<b>7.45%</b>	<b>524,708</b>

Notes:

- (2) - From MPI
- (3) to (5) - From MPI Fiscal Year Summaries
- (6) - From Exhibit 4

Manitoba Public Insurance  
Automobile Insurance DivisionExhibit 2  
Sheet 7Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Insurance Year	Earned Premium	Actual Claims @ 31/03/2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(7)/(2)	(9)=(4)+(6)
<b>Accident Benefits - Other (Non-Indexed)</b>								
2002 & Prior			3,412		-			3,412
2003	563,789	25,596	18	25,614	-	25,614	4.54%	18
2004	598,905	25,677	3	25,681	-	25,681	4.29%	3
2005	632,408	28,557	4	28,561	-	28,561	4.52%	4
2006	656,746	34,329	59	34,387	34	34,422	5.24%	93
2007	679,930	29,271	43	29,314	88	29,402	4.32%	131
2008	709,787	29,117	17	29,135	146	29,281	4.13%	163
2009	741,553	29,774	49	29,823	209	30,032	4.05%	258
2010	761,034	28,804	20	28,823	260	29,084	3.82%	280
2011	772,649	31,816	237	32,054	354	32,408	4.19%	591
2012	769,715	29,645	109	29,754	419	30,173	3.92%	528
2013	781,394	27,523	71	27,594	487	28,080	3.59%	558
2014	822,358	27,563	294	27,857	590	28,447	3.46%	884
2015	877,262	28,151	758	28,909	716	29,625	3.38%	1,474
2016	923,168	30,321	1,389	31,710	876	32,586	3.53%	2,265
2017	977,104	25,875	3,157	29,032	-	29,032	2.97%	3,157
2018	1,044,467	15,160	13,984	29,144	1,509	30,653	2.93%	15,493
2019	1,099,731	11,226	14,318	25,544	2,408	27,952	2.54%	16,726
2020	1,134,690	5,798	16,652	22,450	8,269	30,719	2.71%	24,921
<b>Total</b>	<b>14,546,690</b>	<b>464,203</b>	<b>54,594</b>	<b>515,386</b>	<b>16,366</b>	<b>531,752</b>	<b>3.66%</b>	<b>70,960</b>

Notes: (2) - From MPI  
(3) to (5) - From MPI Fiscal Year Summaries  
(6) - From Exhibit 4

Manitoba Public Insurance  
Automobile Insurance DivisionExhibit 2  
Sheet 8Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Insurance Year	Earned Premium	Actual Claims @ 31/03/2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(7)/(2)	(9)=(4)+(6)
<b>Accident Benefits - Total</b>								
2002 & Prior			240,402		28,695			269,097
2003	563,789	104,348	26,822	131,169	3,109	134,278	23.82%	29,931
2004	598,905	94,817	33,443	128,261	3,246	131,507	21.96%	36,689
2005	632,408	105,136	34,114	139,249	3,842	143,091	22.63%	37,956
2006	656,746	122,870	46,298	169,168	4,597	173,764	26.46%	50,895
2007	679,930	117,840	50,614	168,454	5,247	173,701	25.55%	55,861
2008	709,787	111,391	40,148	151,540	5,132	156,672	22.07%	45,280
2009	741,553	112,421	43,154	155,575	5,926	161,501	21.78%	49,080
2010	761,034	121,204	56,334	177,538	5,627	183,166	24.07%	61,961
2011	772,649	118,236	59,039	177,276	8,765	186,041	24.08%	67,804
2012	769,715	115,830	48,907	164,738	8,172	172,910	22.46%	57,079
2013	781,394	103,947	41,329	145,276	7,250	152,527	19.52%	48,579
2014	822,358	94,819	49,874	144,693	7,059	151,752	18.45%	56,933
2015	877,262	106,650	67,701	174,351	8,681	183,032	20.86%	76,382
2016	923,168	107,234	87,309	194,543	9,861	204,404	22.14%	97,170
2017	977,104	98,305	83,281	181,585	11,510	193,095	19.76%	94,791
2018	1,044,467	72,515	84,084	156,600	30,612	187,212	17.92%	114,696
2019	1,099,731	53,570	54,727	108,297	73,973	182,270	16.57%	128,700
2020	1,134,690	23,855	41,950	65,805	82,199	148,004	13.04%	124,149
<b>Total</b>	<b>14,546,690</b>	<b>1,784,989</b>	<b>1,189,530</b>	<b>2,734,118</b>	<b>313,502</b>	<b>3,018,926</b>	<b>20.75%</b>	<b>1,503,032</b>

Notes:

- (2) - From MPI
- (3) to (5) - From MPI Fiscal Year Summaries
- (6) - From Exhibit 4

Manitoba Public Insurance  
Automobile Insurance DivisionExhibit 2  
Sheet 9Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Insurance Year	Earned Premium	Actual Claims @ 31/03/2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(7)/(2)	(9)=(4)+(6)
<b>Basic - Total All Coverage*</b>								
2002 & Prior			240,403		28,695			269,098
2003	563,789	384,374	26,822	411,196	3,109	414,305	73.49%	29,931
2004	598,905	394,427	33,443	427,870	3,246	431,116	71.98%	36,689
2005	632,408	417,176	34,139	451,314	3,842	455,156	71.97%	37,981
2006	656,746	459,207	46,298	505,505	4,597	510,101	77.67%	50,895
2007	679,930	500,239	50,657	550,895	5,247	556,142	81.79%	55,904
2008	709,787	443,583	40,173	483,756	5,132	488,888	68.88%	45,305
2009	741,553	466,888	43,214	510,102	5,926	516,028	69.59%	49,140
2010	761,034	518,286	56,509	574,795	5,627	580,423	76.27%	62,136
2011	772,649	504,632	59,105	563,738	8,765	572,503	74.10%	67,870
2012	769,715	550,155	49,090	599,246	8,149	607,395	78.91%	57,239
2013	781,394	578,356	41,351	619,707	7,211	626,918	80.23%	48,562
2014	822,358	525,881	50,413	576,294	7,030	583,324	70.93%	57,443
2015	877,262	628,485	68,277	696,761	8,780	705,541	80.43%	77,057
2016	923,168	659,987	89,053	749,040	10,163	759,203	82.24%	99,216
2017	977,104	628,548	85,908	714,455	12,760	727,215	74.43%	98,668
2018	1,044,467	637,582	90,000	727,583	33,159	760,742	72.84%	123,159
2019	1,099,731	576,650	60,668	637,317	84,400	721,718	65.63%	145,068
2020	1,134,690	378,217	99,128	477,345	110,705	588,051	51.82%	209,833
<b>Total</b>	<b>14,546,690</b>	<b>9,252,672</b>	<b>1,264,651</b>	<b>10,276,922</b>	<b>356,543</b>	<b>10,604,770</b>	<b>72.90%</b>	<b>1,621,194</b>

Notes:

(2) - From MPI

(3) to (5) - From MPI Fiscal Year Summaries

(6) - From Exhibit 4

\*Not including PIPP Enhancements (see PE Exhibit 1, Sheet 8 &amp; PE Exhibit 4)

Manitoba Public Insurance  
Automobile Insurance Division  
Net Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Exhibit 2  
Sheet 10

Insurance Year	Earned Premium	Actual Claims @ 31/03/2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(7)/(2)	(9)=(4)+(6)
<b>Comprehensive - Basic</b>								
2002 & Prior			(1)					(1)
2003	552,343	53,456	-	53,456	-	53,456	9.68%	-
2004	586,846	62,009	-	62,009	-	62,009	10.57%	-
2005	621,331	72,821	-	72,821	-	72,821	11.72%	-
2006	647,698	73,556	-	73,556	-	73,556	11.36%	-
2007	667,689	75,552	-	75,552	-	75,552	11.32%	-
2008	699,646	49,851	-	49,851	-	49,851	7.13%	-
2009	728,959	60,640	-	60,640	-	60,640	8.32%	-
2010	750,546	74,847	-	74,847	-	74,847	9.97%	-
2011	761,267	75,175	-	75,175	-	75,175	9.88%	-
2012	757,411	72,125	4	72,128	(4)	72,124	9.52%	-
2013	767,939	75,159	-	75,159	-	75,159	9.79%	-
2014	808,646	71,652	-	71,652	-	71,652	8.86%	-
2015	864,905	121,336	6	121,342	55	121,397	14.04%	61
2016	911,562	118,512	144	118,656	93	118,749	13.03%	237
2017	965,709	72,746	14	72,761	314	73,075	7.57%	328
2018	1,031,748	99,869	202	100,070	703	100,773	9.77%	905
2019	1,085,549	84,532	1,123	85,655	1,955	87,610	8.07%	3,078
2020	1,120,929	69,658	8,051	77,709	6,944	84,653	7.55%	14,995
<b>Total</b>	<b>14,330,722</b>	<b>1,383,496</b>	<b>9,543</b>	<b>1,393,039</b>	<b>10,060</b>	<b>1,403,099</b>	<b>9.79%</b>	<b>19,603</b>

Notes: (2) - From MPI  
(3) to (5) - From MPI Fiscal Year Summaries  
(6) - From Exhibit 4

Manitoba Public Insurance  
Automobile Insurance Division  
Net Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Exhibit 2  
Sheet 11

Insurance Year	Earned Premium	Actual Claims @ 31/03/2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(7)/(2)	(9)=(4)+(6)
<b>Accident Benefits - Weekly Indemnity</b>								
2002 & Prior			139,652		19,377			159,029
2003	552,343	35,879	15,432	51,311	1,080	52,391	9.49%	16,512
2004	586,846	29,921	16,229	46,150	1,164	47,315	8.06%	17,393
2005	621,331	38,111	17,717	55,828	1,495	57,323	9.23%	19,212
2006	647,698	45,691	24,986	70,677	2,009	72,686	11.22%	26,995
2007	667,689	46,148	27,155	73,303	2,043	75,346	11.28%	29,198
2008	699,646	44,148	27,560	71,708	2,362	74,070	10.59%	29,922
2009	728,959	42,181	26,965	69,146	2,661	71,808	9.85%	29,626
2010	750,546	51,523	38,537	90,060	2,969	93,029	12.39%	41,506
2011	761,267	45,594	38,613	84,207	4,925	89,132	11.71%	43,538
2012	757,411	44,911	35,389	80,300	4,661	84,961	11.22%	40,050
2013	767,939	37,334	29,899	67,233	3,894	71,127	9.26%	33,793
2014	808,646	32,923	38,170	71,093	4,036	75,129	9.29%	42,206
2015	864,905	36,074	48,297	84,371	4,753	89,124	10.30%	53,050
2016	911,562	35,056	53,500	88,556	5,854	94,410	10.36%	59,354
2017	965,709	32,594	52,996	85,590	9,008	94,599	9.80%	62,004
2018	1,031,748	25,584	45,268	70,852	20,770	91,622	8.88%	66,038
2019	1,085,549	18,152	13,847	31,999	60,455	92,454	8.52%	74,302
2020	1,120,929	7,867	5,342	13,209	57,329	70,538	6.29%	62,671
<b>Total</b>	<b>14,330,722</b>	<b>649,691</b>	<b>695,554</b>	<b>1,205,593</b>	<b>210,847</b>	<b>1,397,063</b>	<b>9.75%</b>	<b>906,401</b>

Notes:  
(2) - From MPI  
(3) to (5) - From MPI Fiscal Year Summaries  
(6) - From Exhibit 4, Net = Direct & Agency



Manitoba Public Insurance  
Automobile Insurance DivisionExhibit 2  
Sheet 12Net Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Insurance Year	Earned Premium	Actual Claims @ 31/03/2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(7)/(2)	(9)=(4)+(6)
<b>Accident Benefits - Other (Indexed)</b>								
2002 & Prior			97,338		9,317			106,655
2003	552,343	38,470	11,372	49,842	2,029	51,871	9.39%	13,401
2004	586,846	34,735	17,211	51,946	2,081	54,027	9.21%	19,292
2005	621,331	37,793	16,385	54,178	2,346	56,525	9.10%	18,731
2006	647,698	42,651	21,253	63,904	2,553	66,456	10.26%	23,806
2007	667,689	42,421	23,125	65,546	3,116	68,661	10.28%	26,241
2008	699,646	38,126	12,571	50,697	2,624	53,321	7.62%	15,195
2009	728,959	40,466	16,140	56,606	3,055	59,662	8.18%	19,195
2010	750,546	40,877	17,222	58,099	2,398	60,497	8.06%	19,620
2011	761,267	40,826	19,857	60,683	3,486	64,169	8.43%	23,343
2012	757,411	41,274	13,409	54,683	3,092	57,775	7.63%	16,501
2013	767,939	38,897	11,086	49,983	2,870	52,852	6.88%	13,956
2014	808,646	34,333	11,410	45,743	2,433	48,176	5.96%	13,843
2015	864,905	42,425	18,646	61,071	3,213	64,284	7.43%	21,859
2016	911,562	41,857	32,420	74,277	3,131	77,407	8.49%	35,551
2017	965,709	39,835	27,128	66,963	2,502	69,464	7.19%	29,630
2018	1,031,748	31,771	24,832	56,603	8,334	64,937	6.29%	33,166
2019	1,085,549	24,193	26,562	50,755	11,110	61,864	5.70%	37,672
2020	1,120,929	10,190	19,956	30,146	16,600	46,746	4.17%	36,556
<b>Total</b>	<b>14,330,722</b>	<b>661,139</b>	<b>437,923</b>	<b>1,001,724</b>	<b>86,289</b>	<b>1,078,696</b>	<b>7.53%</b>	<b>524,212</b>

Notes:

- (2) - From MPI
- (3) to (5) - From MPI Fiscal Year Summaries
- (6) - From Exhibit 4, Net = Direct & Agency

Manitoba Public Insurance  
Automobile Insurance Division

Exhibit 2

Sheet 13

Net Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Insurance Year	Earned Premium	Actual Claims @ 31/03/2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(7)/(2)	(9)=(4)+(6)
<b>Accident Benefits - Total</b>								
2002 & Prior			240,402		28,695			269,097
2003	552,343	99,945	26,822	126,767	3,109	129,876	23.51%	29,931
2004	586,846	90,333	33,443	123,777	3,246	127,023	21.64%	36,689
2005	621,331	104,461	34,106	138,567	3,842	142,409	22.92%	37,948
2006	647,698	122,670	46,298	168,968	4,597	173,564	26.80%	50,895
2007	667,689	117,840	50,323	168,163	5,247	173,410	25.97%	55,570
2008	699,646	111,391	40,148	151,540	5,132	156,671	22.39%	45,280
2009	728,959	112,421	43,154	155,576	5,926	161,502	22.16%	49,080
2010	750,546	121,204	55,779	176,983	5,627	182,610	24.33%	61,406
2011	761,267	118,236	58,707	176,944	8,765	185,709	24.39%	67,472
2012	757,411	115,830	48,907	164,737	8,172	172,909	22.83%	57,079
2013	767,939	103,753	41,056	144,809	7,250	152,060	19.80%	48,306
2014	808,646	94,819	49,874	144,693	7,059	151,752	18.77%	56,933
2015	864,905	106,650	67,701	174,351	8,681	183,032	21.16%	76,382
2016	911,562	107,234	87,309	194,543	9,861	204,404	22.42%	97,170
2017	965,709	98,305	83,281	181,586	11,510	193,096	20.00%	94,791
2018	1,031,748	72,515	84,084	156,600	30,612	187,212	18.15%	114,696
2019	1,085,549	53,570	54,727	108,297	73,973	182,270	16.79%	128,700
2020	1,120,929	23,855	41,950	65,805	82,199	148,004	13.20%	124,149
<b>Total</b>	<b>14,330,722</b>	<b>1,775,033</b>	<b>1,188,071</b>	<b>2,722,703</b>	<b>313,502</b>	<b>3,007,511</b>	<b>20.99%</b>	<b>1,501,573</b>

Notes:

- (2) - From MPI
- (3) to (5) - From MPI Fiscal Year Summaries
- (6) - From Exhibit 4, Net = Direct & Agency

Manitoba Public Insurance  
Automobile Insurance Division  
Net Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Exhibit 2  
Sheet 14

Insurance Year	Earned Premium	Actual Claims @ 31/03/2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(7)/(2)	(9)=(4)+(6)
<b>Basic - Total All Coverage*</b>								
2002 & Prior			240,403		28,695			269,098
2003	552,343	379,971	26,822	406,793	3,109	409,902	74.21%	29,931
2004	586,846	389,943	33,443	423,387	3,246	426,633	72.70%	36,689
2005	621,331	416,501	34,131	450,632	3,842	454,474	73.15%	37,973
2006	647,698	459,007	46,298	505,305	4,597	509,901	78.73%	50,895
2007	667,689	464,112	50,366	514,478	5,247	519,725	77.84%	55,613
2008	699,646	443,583	40,173	483,756	5,132	488,888	69.88%	45,305
2009	728,959	448,662	43,214	491,876	5,926	497,802	68.29%	49,140
2010	750,546	518,286	55,954	574,240	5,627	579,867	77.26%	61,581
2011	761,267	504,442	58,773	563,215	8,765	571,981	75.14%	67,538
2012	757,411	550,155	49,090	599,246	8,149	607,394	80.19%	57,239
2013	767,939	578,162	41,078	619,240	7,211	626,451	81.58%	48,289
2014	808,646	525,881	50,413	576,294	7,030	583,324	72.14%	57,443
2015	864,905	628,485	68,277	696,761	8,780	705,541	81.57%	77,057
2016	911,562	659,987	89,053	749,040	10,163	759,203	83.29%	99,216
2017	965,709	628,548	85,908	714,456	12,760	727,216	75.30%	98,668
2018	1,031,748	624,014	88,579	712,594	33,961	746,555	72.36%	122,540
2019	1,085,549	576,650	60,668	637,317	84,400	721,718	66.48%	145,068
2020	1,120,929	378,217	99,128	477,346	110,705	588,051	52.46%	209,833
<b>Total</b>	<b>14,330,722</b>	<b>9,174,605</b>	<b>1,261,771</b>	<b>10,195,975</b>	<b>357,345</b>	<b>10,524,625</b>	<b>73.44%</b>	<b>1,619,116</b>

Notes:

(2) - From MPI

(3) to (5) - From MPI Fiscal Year Summaries

(6) - From Exhibit 4

\*Not including PIPP Enhancements (see PE Exhibit 1, Sheet 8 & PE Exhibit 4)

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## EXHIBIT 3 CLAIMS RUN-OFF

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Manitoba Public Insurance  
Automobile Insurance Division  
Comparison of Actual With Expected Experience in Previous Year-End Valuations  
Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Exhibit 3  
Sheet 1

Insurance Year	Earned Premium	Estimated Ultimate Losses								
		March 2021 Valuation	March 2020 Valuation	Feb 2019 Valuation	Feb 2018 Valuation	Feb 2017 Valuation	Feb 2016 Valuation	Feb 2015 Valuation	Feb 2014 Valuation	Feb 2013 Valuation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>Bodily Injury - Basic</b>										
2003	563,789	3,971	3,949	3,949	3,949	3,949	3,949	3,964	3,930	3,930
2004	598,905	5,253	5,196	5,196	5,196	5,196	5,180	5,238	5,176	5,180
2005	632,408	4,254	4,228	4,228	4,228	4,223	4,242	4,238	4,240	4,289
2006	656,746	3,448	3,549	3,549	3,565	3,565	3,547	3,628	3,471	3,482
2007	679,930	3,683	3,772	3,772	3,751	3,738	3,736	3,785	3,786	4,011
2008	709,787	3,157	2,462	2,432	2,431	2,442	2,444	2,471	2,467	2,456
2009	741,553	2,965	3,477	3,477	3,479	3,488	3,695	3,757	3,604	4,024
2010	761,034	4,429	4,555	4,516	4,444	4,283	4,462	4,492	4,100	4,489
2011	772,649	2,460	2,620	2,578	2,593	2,603	2,783	2,693	2,823	3,397
2012	769,715	4,177	3,640	3,668	3,804	3,959	4,067	4,150	3,130	4,119
2013	781,394	3,651	3,761	3,850	4,100	4,400	4,383	4,194	5,189	
2014	822,358	5,423	5,637	5,763	5,952	5,883	6,321	5,121		
2015	877,262	4,723	4,354	4,948	5,054	5,523	4,810			
2016	923,168	5,053	5,668	5,659	5,555	5,853				
2017	977,104	5,454	5,211	5,693	5,624					
2018	1,044,467	5,787	5,429	5,113						
2019	1,099,731	4,741	5,279							
2020	1,134,690	4,669								
<b>Total</b>	<b>14,546,690</b>	<b>77,299</b>								
Total Excl. 2020	13,412,000	72,630	72,790							
Total Excl. 2019 to 2020	12,312,269	67,888	67,511	68,390						
Total Excl. 2018 to 2020	11,267,803	62,101	62,081	63,277	63,725					
Total Excl. 2017 to 2020	10,290,699	56,647	56,870	57,584	58,101	59,106				
Total Excl. 2016 to 2020	9,367,531	51,594	51,201	51,926	52,546	53,252	53,619			
Total Excl. 2015 to 2020	8,490,269	46,871	46,848	46,978	47,492	47,729	48,810	47,730		
Total Excl. 2014 to 2020	7,667,910	41,449	41,211	41,215	41,540	41,846	42,489	42,609	41,915	
Total Excl. 2013 to 2020	6,886,517	37,797	37,449	37,364	37,441	37,446	38,105	38,415	36,726	39,377

Notes:

- (2) - From MPI  
(3) - From Exhibit 2, Column 7; All insurance years are from April to March.  
(4) to (11) - From respective Year-end valuations; All insurance years are from March to Feb.

Manitoba Public Insurance  
Automobile Insurance Division  
Comparison of Actual With Expected Experience in Previous Year-End Valuations  
Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Exhibit 3  
Sheet 2

Insurance Year	Earned Premium	Estimated Ultimate Losses								
		March 2021 Valuation	March 2020 Valuation	Feb 2019 Valuation	Feb 2018 Valuation	Feb 2017 Valuation	Feb 2016 Valuation	Feb 2015 Valuation	Feb 2014 Valuation	Feb 2013 Valuation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>Property Damage - Basic</b>										
2003	563,789	29,118	29,556	29,558	29,560	29,564	29,566	29,568	29,575	29,564
2004	598,905	29,627	29,607	29,608	29,616	29,618	29,626	29,630	29,655	29,660
2005	632,408	30,392	30,286	30,289	30,292	30,296	30,298	30,302	30,327	30,387
2006	656,746	33,606	33,563	33,570	33,574	33,580	33,582	33,586	33,570	33,572
2007	679,930	34,391	34,355	34,280	34,290	34,292	34,284	34,288	34,274	34,259
2008	709,787	36,158	36,014	35,972	36,015	35,965	35,949	36,098	35,999	36,004
2009	741,553	34,407	34,935	34,945	34,937	34,921	34,905	35,082	35,089	35,039
2010	761,034	38,404	37,352	37,344	37,337	37,314	37,260	37,315	37,237	37,054
2011	772,649	37,189	37,432	37,484	37,475	37,488	37,401	37,361	37,226	37,254
2012	769,715	42,344	41,816	41,885	41,770	41,689	41,545	41,275	41,250	40,524
2013	781,394	45,176	45,619	45,620	45,594	45,371	45,092	44,366	45,057	
2014	822,358	40,683	41,040	41,047	41,004	40,929	41,064	39,985		
2015	877,262	41,086	41,022	41,180	41,203	41,150	40,799			
2016	923,168	43,656	43,734	43,551	43,652	41,997				
2017	977,104	46,701	46,350	46,082	46,445					
2018	1,044,467	43,253	43,198	43,143						
2019	1,099,731	39,276	40,958							
2020	1,134,690	31,022								
<b>Total</b>	<b>14,546,690</b>	<b>676,489</b>								
Total Excl. 2020	13,412,000	645,467	646,837							
Total Excl. 2019 to 2020	12,312,269	606,191	605,879	605,558						
Total Excl. 2018 to 2020	11,267,803	562,938	562,681	562,416	562,765					
Total Excl. 2017 to 2020	10,290,699	516,237	516,331	516,333	516,320	514,174				
Total Excl. 2016 to 2020	9,367,531	472,582	472,597	472,783	472,669	472,177	471,372			
Total Excl. 2015 to 2020	8,490,269	431,495	431,575	431,603	431,466	431,027	430,572	428,857		
Total Excl. 2014 to 2020	7,667,910	390,813	390,535	390,556	390,461	390,098	389,508	388,872	389,259	
Total Excl. 2013 to 2020	6,886,517	345,636	344,916	344,936	344,867	344,727	344,416	344,507	344,202	343,317

Notes:

(2) - From MPI

(3) - From Exhibit 2, Column 7; All insurance years are from April to March.

(4) to (11) - From respective Year-end valuations; All insurance years are from March to Feb.

Manitoba Public Insurance  
Automobile Insurance Division  
Comparison of Actual With Expected Experience in Previous Year-End Valuations  
Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Exhibit 3  
Sheet 3

Insurance Year	Earned Premium	Estimated Ultimate Losses								
		March 2021 Valuation	March 2020 Valuation	Feb 2019 Valuation	Feb 2018 Valuation	Feb 2017 Valuation	Feb 2016 Valuation	Feb 2015 Valuation	Feb 2014 Valuation	Feb 2013 Valuation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>Collision - Basic</b>										
2003	563,789	193,481	193,924	193,932	193,942	193,956	193,970	193,991	194,025	194,069
2004	598,905	202,721	201,602	201,604	201,613	201,614	201,630	201,684	201,703	201,745
2005	632,408	204,598	203,041	203,046	203,057	203,050	203,062	203,087	203,099	203,150
2006	656,746	225,727	224,416	224,437	224,451	224,432	224,455	224,461	224,474	224,346
2007	679,930	232,688	233,047	233,065	233,083	233,097	233,118	233,125	233,055	232,978
2008	709,787	243,051	241,727	241,732	241,750	241,758	241,640	241,650	241,487	241,452
2009	741,553	238,289	242,479	242,491	242,510	242,523	242,417	242,278	242,137	242,021
2010	761,034	279,577	271,204	271,224	271,184	271,174	271,034	270,677	270,336	269,932
2011	772,649	271,448	273,142	273,155	273,139	273,093	272,845	272,363	271,756	272,042
2012	769,715	315,840	310,694	310,691	310,634	310,751	310,225	309,292	308,566	303,443
2013	781,394	350,405	349,411	349,350	349,215	349,214	348,258	346,295	347,122	
2014	822,358	313,814	317,802	317,689	317,797	317,313	316,130	315,862		
2015	877,262	355,302	352,280	352,243	352,355	352,428	349,069			
2016	923,168	387,341	386,054	385,820	386,123	385,169				
2017	977,104	408,891	408,331	408,218	414,398					
2018	1,044,467	409,529	409,515	405,314						
2019	1,099,731	407,821	414,142							
2020	1,134,690	319,704								
<b>Total</b>	<b>14,546,690</b>	<b>5,360,228</b>								
Total Excl. 2020	13,412,000	5,040,524	5,032,814							
Total Excl. 2019 to 2020	12,312,269	4,632,703	4,618,672	4,614,012						
Total Excl. 2018 to 2020	11,267,803	4,223,174	4,209,157	4,208,697	4,215,251					
Total Excl. 2017 to 2020	10,290,699	3,814,282	3,800,826	3,800,479	3,800,853	3,799,573				
Total Excl. 2016 to 2020	9,367,531	3,426,941	3,414,772	3,414,659	3,414,731	3,414,404	3,407,855			
Total Excl. 2015 to 2020	8,490,269	3,071,639	3,062,492	3,062,416	3,062,375	3,061,976	3,058,785	3,054,766		
Total Excl. 2014 to 2020	6,886,517	2,757,825	2,744,690	2,744,727	2,744,578	2,744,662	2,742,656	2,738,904	2,737,761	
Total Excl. 2013 to 2020	6,116,802	2,407,420	2,395,279	2,395,378	2,395,363	2,395,448	2,394,398	2,392,609	2,390,639	2,385,178

## Notes:

- (2) - From MPI  
(3) - From Exhibit 2, Column 7; All insurance years are from April to March.  
(4) to (11) - From respective Year-end valuations; All insurance years are from March to Feb.



Manitoba Public Insurance  
Automobile Insurance Division  
Comparison of Actual With Expected Experience in Previous Year-End Valuations  
Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Exhibit 3  
Sheet 4

Insurance Year	Earned Premium	Estimated Ultimate Losses								
		March 2021 Valuation	March 2020 Valuation	Feb 2019 Valuation	Feb 2018 Valuation	Feb 2017 Valuation	Feb 2016 Valuation	Feb 2015 Valuation	Feb 2014 Valuation	Feb 2013 Valuation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>Comprehensive - Basic</b>										
2003	563,789	53,456	53,135	53,136	53,147	53,146	53,151	53,160	53,164	53,192
2004	598,905	62,009	62,349	62,352	62,357	62,365	62,355	62,366	62,365	62,335
2005	632,408	72,821	70,851	70,853	70,856	70,857	70,861	70,858	70,831	70,835
2006	656,746	73,556	74,845	74,846	74,850	74,881	74,852	74,858	74,850	74,879
2007	679,930	111,679	113,321	113,326	113,323	113,288	113,283	113,262	113,240	113,286
2008	709,787	49,851	49,858	49,809	49,809	49,778	49,890	49,929	49,937	49,969
2009	741,553	78,866	78,638	78,638	78,618	78,588	78,538	78,510	78,487	78,452
2010	761,034	74,847	74,850	74,839	74,821	74,748	74,678	74,511	74,468	74,349
2011	772,649	75,365	74,636	74,631	74,634	74,545	74,488	74,356	74,116	73,327
2012	769,715	72,124	72,624	72,612	72,606	72,469	72,412	72,192	71,472	73,833
2013	781,394	75,159	74,738	74,788	74,802	74,636	74,477	74,116	75,439	
2014	822,358	71,652	70,972	70,995	70,979	70,931	71,616	72,352		
2015	877,262	121,397	120,234	120,140	120,099	119,834	125,330			
2016	923,168	118,749	119,244	119,063	119,093	123,042				
2017	977,104	73,075	73,854	74,831	73,678					
2018	1,044,467	114,960	116,908	114,610						
2019	1,099,731	87,610	85,563							
2020	1,134,690	84,653								
<b>Total</b>	<b>14,546,690</b>	<b>1,471,828</b>								
Total Excl. 2020	13,412,000	1,387,176	1,386,620							
Total Excl. 2019 to 2020	12,312,269	1,299,566	1,301,057	1,299,469						
Total Excl. 2018 to 2020	11,267,803	1,184,606	1,184,150	1,184,859	1,183,671					
Total Excl. 2017 to 2020	10,290,699	1,111,531	1,110,296	1,110,028	1,109,993	1,113,107				
Total Excl. 2016 to 2020	9,367,531	992,783	991,051	990,965	990,900	990,065	995,930			
Total Excl. 2015 to 2020	8,490,269	871,386	870,817	870,825	870,801	870,231	870,601	870,471		
Total Excl. 2014 to 2020	6,886,517	799,733	799,846	799,829	799,823	799,300	798,985	798,119	798,366	
Total Excl. 2013 to 2020	6,116,802	724,574	725,108	725,041	725,020	724,664	724,508	724,003	722,928	724,457

Notes:

- (2) - From MPI  
(3) - From Exhibit 2, Column 7; All insurance years are from April to March.  
(4) to (11) - From respective Year-end valuations; All insurance years are from March to Feb.

Manitoba Public Insurance  
Automobile Insurance Division  
Comparison of Actual With Expected Experience in Previous Year-End Valuations  
Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Exhibit 3  
Sheet 5

Insurance Year	Earned Premium	Estimated Ultimate Losses								
		March 2021 Valuation	March 2020 Valuation	Feb 2019 Valuation	Feb 2018 Valuation	Feb 2017 Valuation	Feb 2016 Valuation	Feb 2015 Valuation	Feb 2014 Valuation	Feb 2013 Valuation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>Accident Benefits - Weekly Indemnity</b>										
2003	563,789	63,776	63,483	63,590	64,022	64,511	63,131	61,702	62,725	60,110
2004	598,905	56,587	52,915	54,380	55,664	53,945	53,129	51,278	53,557	52,564
2005	632,408	65,288	65,673	67,062	67,722	66,187	64,121	64,210	64,107	62,573
2006	656,746	80,858	81,930	85,246	84,641	81,474	81,189	80,678	79,140	72,082
2007	679,930	83,100	83,172	84,016	82,359	81,782	79,292	76,491	74,833	71,116
2008	709,787	80,912	82,332	80,681	79,654	78,367	77,351	77,987	75,027	72,676
2009	741,553	77,746	75,037	77,005	74,711	71,847	70,039	67,792	64,579	69,745
2010	761,034	100,036	98,085	98,586	94,578	89,036	83,122	78,450	69,737	71,186
2011	772,649	94,674	92,384	94,144	90,789	84,750	75,147	67,681	75,001	63,097
2012	769,715	89,589	92,869	98,247	101,702	80,907	74,394	77,573	72,814	56,607
2013	781,394	74,857	77,103	83,835	84,978	87,159	79,685	72,306	68,969	
2014	822,358	77,581	76,870	75,661	71,426	78,955	70,639	62,123		
2015	877,262	91,357	94,410	90,813	90,903	76,073	65,595			
2016	923,168	96,207	96,684	89,269	87,310	70,043				
2017	977,104	95,925	97,047	90,653	81,071					
2018	1,044,467	92,341	96,417	93,455						
2019	1,099,731	92,662	92,543							
2020	1,134,690	70,538								
<b>Total</b>	<b>14,546,690</b>	<b>1,484,034</b>								
Total Excl. 2020	13,412,000	1,413,496	1,418,956							
Total Excl. 2019 to 2020	12,312,269	1,320,835	1,326,413	1,326,644						
Total Excl. 2018 to 2020	11,267,803	1,228,493	1,229,996	1,233,189	1,211,528					
Total Excl. 2017 to 2020	10,290,699	1,132,568	1,132,949	1,142,536	1,130,457	1,065,037				
Total Excl. 2016 to 2020	9,367,531	1,036,361	1,036,265	1,053,266	1,043,147	994,994	936,835			
Total Excl. 2015 to 2020	8,490,269	945,004	941,855	962,454	952,244	918,921	871,239	838,271		
Total Excl. 2014 to 2020	6,886,517	867,422	864,985	886,792	880,818	839,966	800,600	776,148	760,489	
Total Excl. 2013 to 2020	6,116,802	792,565	787,882	802,957	795,840	752,807	720,915	703,842	691,520	651,755

Notes:

(2) - From MPI

(3) = Appendix E, Page 12, Accumulated-to-Date + Exhibit 2, Column 9; All insurance years are from April to March.

(4) to (11) - From respective year-end valuations restated to current benefit level; All insurance years are from March to Feb.

Manitoba Public Insurance  
Automobile Insurance Division  
Comparison of Actual With Expected Experience in Previous Year-End Valuations  
Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Exhibit 3  
Sheet 6

Insurance Year	Earned Premium	Estimated Ultimate Losses								
		March 2021 Valuation	March 2020 Valuation	Feb 2019 Valuation	Feb 2018 Valuation	Feb 2017 Valuation	Feb 2016 Valuation	Feb 2015 Valuation	Feb 2014 Valuation	Feb 2013 Valuation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>Accident Benefits - Other (Indexed)</b>										
2003	563,789	64,180	59,123	60,659	63,071	64,319	65,032	64,333	64,059	62,803
2004	598,905	64,896	66,963	69,872	69,413	69,639	68,752	67,822	68,110	66,184
2005	632,408	64,896	59,128	59,681	60,050	60,528	60,770	61,384	61,306	62,388
2006	656,746	74,709	73,697	76,640	77,441	79,547	77,748	77,398	77,621	75,069
2007	679,930	76,005	76,788	76,553	76,313	74,289	72,613	74,166	76,127	74,032
2008	709,787	59,614	59,968	61,679	62,664	63,216	65,566	65,760	67,736	68,974
2009	741,553	65,693	65,614	66,517	67,633	67,322	66,787	66,469	67,442	70,245
2010	761,034	66,562	60,461	60,768	60,868	66,761	65,461	66,002	65,943	70,144
2011	772,649	69,464	67,172	68,781	68,161	68,997	72,548	72,249	73,946	69,253
2012	769,715	62,504	64,818	69,600	69,846	69,015	69,572	75,525	77,703	69,925
2013	781,394	56,898	55,531	59,079	60,921	75,804	75,970	77,151	75,464	
2014	822,358	51,060	52,741	56,178	58,922	70,712	71,132	74,171		
2015	877,262	67,199	66,180	70,194	74,486	73,945	70,198			
2016	923,168	79,759	74,139	82,105	73,940	70,318				
2017	977,104	71,236	71,874	76,697	74,072					
2018	1,044,467	65,836	69,249	77,251						
2019	1,099,731	62,146	66,215							
2020	1,134,690	46,746								
<b>Total</b>	<b>14,546,690</b>	<b>1,169,404</b>								
Total Excl. 2020	13,412,000	1,122,658	1,109,658							
Total Excl. 2019 to 2020	12,312,269	1,060,512	1,043,443	1,092,255						
Total Excl. 2018 to 2020	11,267,803	994,676	974,194	1,015,004	1,017,801					
Total Excl. 2017 to 2020	10,290,699	923,440	902,320	938,307	943,729	974,411				
Total Excl. 2016 to 2020	9,367,531	843,681	828,181	856,203	869,788	904,094	902,149			
Total Excl. 2015 to 2020	8,490,269	776,482	762,002	786,008	795,303	830,149	831,950	842,428		
Total Excl. 2014 to 2020	6,886,517	725,422	709,261	729,830	736,380	759,437	760,818	768,258	775,456	
Total Excl. 2013 to 2020	6,116,802	668,524	653,730	670,751	675,460	683,633	684,848	691,107	699,993	689,016

Notes:

(2) - From MPI

(3) = Appendix F, Page 17, Accumulated-to-Date + Exhibit 2, Column 9; All insurance years are from April to March.

(4) to (9) - From respective year-end valuations restated to current benefit level; All insurance years are from March to Feb.

Manitoba Public Insurance  
Automobile Insurance Division  
Comparison of Actual With Expected Experience in Previous Year-End Valuations  
Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Exhibit 3  
Sheet 7

Insurance Year	Earned Premium	Estimated Ultimate Losses								
		March 2021 Valuation	March 2020 Valuation	Feb 2019 Valuation	Feb 2018 Valuation	Feb 2017 Valuation	Feb 2016 Valuation	Feb 2015 Valuation	Feb 2014 Valuation	Feb 2013 Valuation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>Accident Benefits - Other (Non-Indexed)</b>										
2003	563,789	25,614	25,382	25,361	25,325	25,412	25,225	25,131	25,187	25,158
2004	598,905	25,681	24,767	24,761	24,781	24,786	24,711	24,681	24,705	24,819
2005	632,408	28,561	28,828	28,847	28,928	28,984	28,836	28,832	28,980	29,107
2006	656,746	34,422	33,974	34,048	34,070	34,067	34,023	33,997	34,024	33,807
2007	679,930	29,402	30,330	30,193	30,183	30,208	30,137	30,112	30,287	30,126
2008	709,787	29,281	28,898	28,654	29,155	28,989	28,490	28,390	28,518	28,304
2009	741,553	30,032	30,011	30,010	29,987	30,058	29,781	30,075	29,843	29,435
2010	761,034	29,084	28,721	28,655	28,605	28,504	28,453	28,358	28,228	27,643
2011	772,649	32,408	32,250	32,185	32,032	31,822	31,732	31,685	31,404	29,033
2012	769,715	30,173	30,622	30,572	30,277	30,373	30,199	30,413	29,857	26,503
2013	781,394	28,080	28,098	28,061	27,596	27,550	27,723	29,351	26,911	
2014	822,358	28,447	27,830	27,995	28,224	27,901	27,379	25,723		
2015	877,262	29,625	30,520	32,589	30,723	27,146	27,066			
2016	923,168	32,586	37,351	37,107	32,139	29,745				
2017	977,104	29,032	34,356	33,152	30,213					
2018	1,044,467	30,653	32,559	35,290						
2019	1,099,731	27,952	30,165							
2020	1,134,690	30,719								
<b>Total</b>	<b>14,546,690</b>	<b>531,752</b>								
Total Excl. 2020	13,412,000	501,033	514,662							
Total Excl. 2019 to 2020	12,312,269	473,081	484,497	487,480						
Total Excl. 2018 to 2020	11,267,803	442,428	451,938	452,190	442,239					
Total Excl. 2017 to 2020	10,290,699	413,396	417,582	419,038	412,025	405,545				
Total Excl. 2016 to 2020	9,367,531	380,809	380,231	381,932	379,886	375,800	373,756			
Total Excl. 2015 to 2020	8,490,269	351,185	349,712	349,342	349,163	348,654	346,690	346,748		
Total Excl. 2014 to 2020	6,886,517	322,737	321,881	321,347	320,939	320,753	319,311	321,025	317,944	
Total Excl. 2013 to 2020	6,116,802	294,657	293,783	293,286	293,343	293,203	291,588	291,674	291,034	283,935

Notes:

- (2) - From MPI  
(3) - From Exhibit 2, Column 7; All insurance years are from April to March.  
(4) to (11) - From respective Year-end valuations; All insurance years are from March to Feb.

Manitoba Public Insurance  
Automobile Insurance Division  
Comparison of Actual With Expected Experience in Previous Year-End Valuations  
Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Exhibit 3  
Sheet 8

Insurance Year	Earned Premium	Estimated Ultimate Losses								
		March 2021 Valuation	March 2020 Valuation	Feb 2019 Valuation	Feb 2018 Valuation	Feb 2017 Valuation	Feb 2016 Valuation	Feb 2015 Valuation	Feb 2014 Valuation	Feb 2013 Valuation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>Accident Benefits - Total</b>										
2003	563,789	153,570	147,989	149,610	152,419	154,242	153,388	151,165	153,388	151,165
2004	598,905	147,164	144,645	149,012	149,857	148,369	146,592	143,780	146,592	143,780
2005	632,408	158,745	153,629	155,591	156,699	155,699	153,728	154,426	153,728	154,426
2006	656,746	189,988	189,601	195,934	196,151	195,089	192,960	192,073	192,960	192,073
2007	679,930	188,507	190,290	190,762	188,855	186,279	182,043	180,769	182,043	180,769
2008	709,787	169,807	171,198	171,014	171,473	170,572	171,407	172,136	171,407	172,136
2009	741,553	173,472	170,662	173,533	172,331	169,227	166,607	164,336	166,607	164,336
2010	761,034	195,682	187,267	188,009	184,052	184,301	177,035	172,810	177,035	172,810
2011	772,649	196,546	191,805	195,110	190,982	185,569	179,428	171,615	179,428	171,615
2012	769,715	182,267	188,309	198,420	201,824	180,295	174,165	183,511	174,165	183,511
2013	781,394	159,835	160,732	170,976	173,495	190,514	183,378	178,808	183,378	
2014	822,358	157,089	157,441	159,834	158,572	177,568	169,151	162,017		
2015	877,262	188,181	191,109	193,597	196,111	177,164	162,859			
2016	923,168	208,553	208,174	208,481	193,390	170,106				
2017	977,104	196,194	203,277	200,502	185,356					
2018	1,044,467	188,830	198,225	205,996						
2019	1,099,731	182,759	188,922							
2020	1,134,690	148,004								
<b>Total</b>	<b>14,546,690</b>	<b>3,185,191</b>								
Total Excl. 2020	13,412,000	3,037,187	3,043,276							
Total Excl. 2019 to 2020	12,312,269	2,854,428	2,854,354	2,906,379						
Total Excl. 2018 to 2020	11,267,803	2,665,598	2,656,128	2,700,383	2,671,567					
Total Excl. 2017 to 2020	10,290,699	2,469,404	2,452,851	2,499,881	2,486,211	2,444,994				
Total Excl. 2016 to 2020	9,367,531	2,260,851	2,244,678	2,291,401	2,292,821	2,274,888	2,212,739			
Total Excl. 2015 to 2020	8,490,269	2,072,670	2,053,569	2,097,804	2,096,710	2,097,724	2,049,880	2,027,447		
Total Excl. 2014 to 2020	6,886,517	1,915,581	1,896,127	1,937,970	1,938,137	1,920,156	1,880,729	1,865,431	1,880,729	
Total Excl. 2013 to 2020	6,116,802	1,755,746	1,735,396	1,766,995	1,764,643	1,729,642	1,697,351	1,686,623	1,697,351	1,686,623

Notes:  
(2) - From MPI  
(3) to (11) - Total of Sheets 5 to 7

Manitoba Public Insurance  
Automobile Insurance Division  
Comparison of Actual With Expected Experience in Previous Year-End Valuations  
Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Exhibit 3  
Sheet 9

Insurance Year	Earned Premium	Estimated Ultimate Losses								
		March 2021 Valuation	March 2020 Valuation	Feb 2019 Valuation	Feb 2018 Valuation	Feb 2017 Valuation	Feb 2016 Valuation	Feb 2015 Valuation	Feb 2014 Valuation	Feb 2013 Valuation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>Basic - Total All Coverage*</b>										
2003	563,789	433,596	428,552	430,185	433,016	434,858	434,023	431,848	434,081	431,920
2004	598,905	446,773	443,400	447,773	448,640	447,162	445,384	442,699	445,490	442,700
2005	632,408	470,810	462,035	464,007	465,133	464,125	462,191	462,911	462,224	463,088
2006	656,746	526,325	525,974	532,336	532,592	531,547	529,396	528,606	529,325	528,353
2007	679,930	570,949	574,785	575,205	573,302	570,695	566,464	565,229	566,397	565,303
2008	709,787	502,023	501,260	500,959	501,478	500,514	501,330	502,285	501,297	502,018
2009	741,553	527,998	530,193	533,083	531,874	528,747	526,162	523,963	525,923	523,872
2010	761,034	592,939	575,229	575,933	571,838	571,819	564,470	559,806	563,176	558,633
2011	772,649	583,008	579,636	582,957	578,823	573,298	566,946	558,389	565,349	557,636
2012	769,715	616,752	617,083	627,275	630,638	609,163	602,413	610,421	598,583	605,430
2013	781,394	634,227	634,261	644,584	647,205	664,135	655,588	647,778	656,184	
2014	822,358	588,661	592,892	595,328	594,304	612,624	604,282	595,336		
2015	877,262	710,690	708,998	712,108	714,823	696,099	682,868			
2016	923,168	763,352	762,875	762,573	747,813	726,168				
2017	977,104	730,314	737,023	735,326	725,500					
2018	1,044,467	762,360	773,276	774,176						
2019	1,099,731	722,207	734,864							
2020	1,134,690	588,051								
<b>Total</b>	<b>14,546,690</b>	<b>10,771,035</b>								
Total Excl. 2020	13,412,000	10,182,984	10,182,336							
Total Excl. 2019 to 2020	12,312,269	9,460,777	9,447,472	9,493,808						
Total Excl. 2018 to 2020	11,267,803	8,698,417	8,674,197	8,719,632	8,696,980					
Total Excl. 2017 to 2020	10,290,699	7,968,103	7,937,174	7,984,306	7,971,479	7,930,954				
Total Excl. 2016 to 2020	9,367,531	7,204,751	7,174,299	7,221,733	7,223,667	7,204,786	7,141,515			
Total Excl. 2015 to 2020	8,490,269	6,494,061	6,465,301	6,509,625	6,508,844	6,508,687	6,458,648	6,429,272		
Total Excl. 2014 to 2020	6,886,517	5,905,400	5,872,409	5,914,297	5,914,539	5,896,063	5,854,366	5,833,935	5,848,030	
Total Excl. 2013 to 2020	6,116,802	5,271,173	5,238,148	5,269,713	5,267,334	5,231,928	5,198,778	5,186,157	5,191,846	5,178,953

Notes:  
(2) - From MPI  
(3) to (11) - Total of Sheets 1 to 4, & Sheet 8  
\*Not including PIPP Enhancements

Manitoba Public Insurance  
Automobile Insurance Division  
Comparison of Actual With Expected Experience in Previous Year-End Valuations  
Net Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Exhibit 3  
Sheet 10

Insurance Year	Earned Premium	Estimated Ultimate Losses								
		March 2021 Valuation	March 2020 Valuation	Feb 2019 Valuation	Feb 2018 Valuation	Feb 2017 Valuation	Feb 2016 Valuation	Feb 2015 Valuation	Feb 2014 Valuation	Feb 2013 Valuation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>Comprehensive - Basic</b>										
2003	552,343	53,456	53,135	53,136	53,147	53,146	53,151	53,160	53,164	53,192
2004	586,846	62,009	62,349	62,352	62,357	62,365	62,355	62,366	62,365	62,335
2005	621,331	72,821	70,851	70,853	70,856	70,857	70,861	70,858	70,831	70,835
2006	647,698	73,556	74,845	74,846	74,850	74,881	74,852	74,858	74,850	74,879
2007	667,689	75,552	77,194	77,199	77,196	77,161	77,156	77,135	77,153	77,149
2008	699,646	49,851	49,858	49,809	49,809	49,778	49,890	49,929	49,937	49,969
2009	728,959	60,640	60,412	60,412	60,392	60,362	60,312	60,284	60,400	60,306
2010	750,546	74,847	74,850	74,839	74,821	74,748	74,678	74,511	74,468	74,349
2011	761,267	75,175	74,446	74,441	74,115	74,017	73,976	74,356	74,116	73,327
2012	757,411	72,124	72,624	72,612	72,606	72,469	72,412	72,192	71,472	73,833
2013	767,939	75,159	74,738	74,788	74,802	74,636	74,477	74,116	75,439	
2014	808,646	71,652	70,972	70,995	70,979	70,931	71,616	72,352		
2015	864,905	121,397	120,234	120,140	120,099	119,834	125,330			
2016	911,562	118,749	119,244	119,063	119,093	123,042				
2017	965,709	73,075	73,854	74,831	73,678					
2018	1,031,748	100,773	101,392	99,620						
2019	1,085,549	87,610	85,563							
2020	1,120,929	84,653								
<b>Total</b>	<b>14,330,722</b>	<b>1,403,099</b>								
Total Excl. 2020	13,209,793	1,318,446	1,316,561							
Total Excl. 2019 to 2020	12,124,244	1,230,836	1,230,998	1,229,936						
Total Excl. 2018 to 2020	11,092,496	1,130,063	1,129,607	1,130,316	1,128,799					
Total Excl. 2017 to 2020	10,126,787	1,056,988	1,055,753	1,055,485	1,055,121	1,058,226				
Total Excl. 2016 to 2020	9,215,225	938,240	936,508	936,422	936,028	935,184	941,065			
Total Excl. 2015 to 2020	8,350,320	816,843	816,274	816,282	815,929	815,350	815,736	816,118		
Total Excl. 2014 to 2020	6,773,735	745,190	745,303	745,286	744,951	744,419	744,120	743,766	744,192	
Total Excl. 2013 to 2020	6,016,324	670,031	670,565	670,498	670,148	669,783	669,643	669,650	668,754	670,174

Notes:

- (2) - From MPI  
(3) - From Exhibit 2, Column 7; All insurance years are from April to March.  
(4) to (11) - From respective Year-end valuations; All insurance years are from March to Feb.

Manitoba Public Insurance  
Automobile Insurance Division  
Comparison of Actual With Expected Experience in Previous Year-End Valuations  
Net Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Exhibit 3  
Sheet 11

Insurance Year	Earned Premium	Estimated Ultimate Losses								
		March 2021 Valuation	March 2020 Valuation	Feb 2019 Valuation	Feb 2018 Valuation	Feb 2017 Valuation	Feb 2016 Valuation	Feb 2015 Valuation	Feb 2014 Valuation	Feb 2013 Valuation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>Accident Benefits - Weekly Indemnity</b>										
2003	552,343	55,363	60,652	60,799	61,396	61,957	60,683	59,127	63,395	61,442
2004	586,846	56,066	50,933	52,413	53,566	51,925	50,688	48,981	54,042	53,189
2005	621,331	62,997	65,000	66,492	67,366	65,958	63,905	63,998	67,718	66,398
2006	647,698	78,435	81,930	85,246	84,641	81,474	81,189	80,678	84,047	77,578
2007	667,689	82,746	83,056	83,956	82,214	81,782	79,292	76,491	80,113	76,887
2008	699,646	80,912	82,332	80,681	79,654	78,367	77,351	77,987	80,150	78,700
2009	728,959	77,746	75,037	77,005	74,711	71,847	70,039	67,792	69,916	76,124
2010	750,546	99,652	97,671	98,405	94,397	89,036	83,122	78,450	77,458	79,962
2011	761,267	94,455	92,384	94,144	90,789	84,750	75,147	67,681	84,005	74,176
2012	757,411	89,589	92,869	98,247	101,702	80,907	74,394	77,573	83,908	74,379
2013	767,939	74,658	76,754	83,501	84,676	86,896	79,439	72,204	84,792	-
2014	808,646	77,581	76,870	75,661	71,426	78,955	70,639	62,123	-	-
2015	864,905	91,224	94,410	90,813	90,903	76,073	65,595	-	-	-
2016	911,562	96,207	96,684	89,269	87,310	70,043	-	-	-	-
2017	965,709	95,925	97,047	90,653	81,071	-	-	-	-	-
2018	1,031,748	92,341	96,417	93,455	-	-	-	-	-	-
2019	1,085,549	92,662	92,543	-	-	-	-	-	-	-
2020	1,120,929	70,538	-	-	-	-	-	-	-	-
<b>Total</b>	<b>14,330,722</b>	<b>1,469,097</b>								
Total Excl. 2020	13,209,793	1,398,559	1,412,590							
Total Excl. 2019 to 2020	12,124,244	1,305,897	1,320,047	1,320,741						
Total Excl. 2018 to 2020	11,092,496	1,213,556	1,223,630	1,227,286	1,205,821					
Total Excl. 2017 to 2020	10,126,787	1,117,631	1,126,583	1,136,633	1,124,750	1,059,969				
Total Excl. 2016 to 2020	9,215,225	1,021,423	1,029,899	1,047,363	1,037,440	989,927	931,484			
Total Excl. 2015 to 2020	8,350,320	930,200	935,490	956,550	946,537	913,854	865,889	833,085		
Total Excl. 2014 to 2020	6,773,735	852,618	858,619	880,889	875,111	834,899	795,249	770,962	829,543	
Total Excl. 2013 to 2020	6,016,324	777,960	781,865	797,389	790,435	748,003	715,810	698,758	744,751	718,836

Notes:

(2) - From MPI

(3) = Appendix E, Page 12, Accumulated-to-Date + Exhibit 2, Column 9 - Ceded Paid; All insurance years are from April to March.

(4) to (11) - From respective year-end valuations restated to current benefit level; All insurance years are from March to Feb.



Manitoba Public Insurance  
Automobile Insurance Division  
Comparison of Actual With Expected Experience in Previous Year-End Valuations  
Net Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Exhibit 3  
Sheet 12

Insurance Year	Earned Premium	Estimated Ultimate Losses								
		March 2021 Valuation	March 2020 Valuation	Feb 2019 Valuation	Feb 2018 Valuation	Feb 2017 Valuation	Feb 2016 Valuation	Feb 2015 Valuation	Feb 2014 Valuation	Feb 2013 Valuation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>Accident Benefits - Other (Indexed)</b>										
2003	552,343	57,980	47,341	48,837	51,084	52,260	45,695	44,687	55,303	57,821
2004	586,846	64,344	67,872	70,766	70,438	70,586	41,016	39,934	66,930	65,970
2005	621,331	62,776	54,647	55,281	55,788	58,785	39,913	38,975	60,627	61,955
2006	647,698	72,648	69,213	72,156	76,219	78,325	44,253	42,649	78,170	75,882
2007	667,689	75,704	76,327	76,141	75,835	73,925	42,816	41,483	77,611	76,220
2008	699,646	59,614	59,968	61,679	62,664	63,216	40,891	39,225	69,865	71,171
2009	728,959	65,693	65,614	66,517	67,633	67,322	39,831	37,973	69,804	72,863
2010	750,546	66,391	60,297	60,700	60,801	66,761	38,672	36,938	68,479	73,567
2011	761,267	69,351	67,172	68,781	68,161	68,997	39,402	37,073	77,701	76,022
2012	757,411	62,504	64,818	69,600	69,846	69,015	39,494	36,658	84,028	89,061
2013	767,939	56,824	55,610	59,165	61,010	75,799	36,757	31,905	96,068	
2014	808,646	51,060	52,741	56,178	58,922	70,712	27,681	12,566		
2015	864,905	67,148	66,000	70,021	74,339	73,837	15,974			
2016	911,562	79,759	74,139	82,105	73,940	70,318				
2017	965,709	71,236	71,874	76,697	74,072					
2018	1,031,748	65,836	69,249	77,251						
2019	1,085,549	62,146	66,215							
2020	1,120,929	46,746								
<b>Total</b>	<b>14,330,722</b>	<b>1,157,761</b>								
Total Excl. 2020	13,209,793	1,111,015	1,089,095							
Total Excl. 2019 to 2020	12,124,244	1,048,869	1,022,880	1,071,876						
Total Excl. 2018 to 2020	11,092,496	983,033	953,631	994,625	1,000,752					
Total Excl. 2017 to 2020	10,126,787	911,797	881,757	917,928	926,680	959,856				
Total Excl. 2016 to 2020	9,215,225	832,037	807,618	835,823	852,740	889,539	492,394			
Total Excl. 2015 to 2020	8,350,320	764,890	741,618	765,802	778,401	815,702	476,420	440,066		
Total Excl. 2014 to 2020	6,773,735	713,830	688,878	709,624	719,479	744,990	448,740	427,500	804,585	
Total Excl. 2013 to 2020	6,016,324	657,006	633,267	650,459	658,469	669,191	411,983	395,595	708,517	720,530

Notes:

(2) - From MPI

(3) = Appendix F, Page 17, Accumulated-to-Date + Exhibit 2, Column 9 - Ceded Paid; All insurance years are from April to March.

(4) to (11) - From respective year-end valuations restated to current benefit level; All insurance years are from March to Feb.

Manitoba Public Insurance  
Automobile Insurance Division  
Comparison of Actual With Expected Experience in Previous Year-End Valuations  
Net Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Exhibit 3  
Sheet 13

Insurance Year	Earned Premium	Estimated Ultimate Losses								
		March 2021 Valuation	March 2020 Valuation	Feb 2019 Valuation	Feb 2018 Valuation	Feb 2017 Valuation	Feb 2016 Valuation	Feb 2015 Valuation	Feb 2014 Valuation	Feb 2013 Valuation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>Accident Benefits - Total</b>										
2003	552,343	138,957	133,376	134,997	137,806	139,629	131,603	128,945	143,923	144,394
2004	586,846	146,091	143,572	147,939	148,784	147,296	116,415	113,595	145,683	143,840
2005	621,331	154,334	148,475	150,621	152,081	153,726	132,654	131,804	157,182	157,184
2006	647,698	185,504	185,117	191,450	194,929	193,867	159,466	157,324	196,240	187,456
2007	667,689	187,852	189,713	190,290	188,232	185,915	152,246	148,086	187,862	183,220
2008	699,646	169,807	171,198	171,014	171,473	170,572	146,732	145,602	178,505	178,261
2009	728,959	173,472	170,662	173,533	172,331	169,227	139,651	135,840	169,501	179,062
2010	750,546	195,127	186,689	187,760	183,804	184,301	150,246	143,746	174,389	181,887
2011	761,267	196,214	191,805	195,110	190,982	185,569	146,281	136,439	193,438	181,883
2012	757,411	182,267	188,309	198,420	201,824	180,295	144,087	144,645	198,135	193,853
2013	767,939	159,562	160,463	170,727	173,283	190,244	143,919	133,460	208,583	
2014	808,646	157,089	157,441	159,834	158,572	177,568	125,699	100,413		
2015	864,905	187,996	190,929	193,424	195,964	177,056	108,635			
2016	911,562	208,553	208,174	208,481	193,390	170,106				
2017	965,709	196,194	203,277	200,502	185,356					
2018	1,031,748	188,830	198,225	205,996						
2019	1,085,549	182,759	188,922							
2020	1,120,929	148,004								
<b>Total</b>	<b>14,330,722</b>	<b>3,158,610</b>								
Total Excl. 2020	13,209,793	3,010,606	3,016,347							
Total Excl. 2019 to 2020	12,124,244	2,827,847	2,827,425	2,880,097						
Total Excl. 2018 to 2020	11,092,496	2,639,017	2,629,199	2,674,101	2,648,812					
Total Excl. 2017 to 2020	10,126,787	2,442,823	2,425,922	2,473,599	2,463,455	2,425,371				
Total Excl. 2016 to 2020	9,215,225	2,234,270	2,217,749	2,265,118	2,270,066	2,255,265	1,797,634			
Total Excl. 2015 to 2020	8,350,320	2,046,274	2,026,820	2,071,695	2,074,101	2,078,210	1,688,999	1,619,900		
Total Excl. 2014 to 2020	6,773,735	1,889,185	1,869,378	1,911,861	1,915,529	1,900,642	1,563,300	1,519,487	1,953,439	
Total Excl. 2013 to 2020	6,016,324	1,729,623	1,708,915	1,741,134	1,742,246	1,710,398	1,419,381	1,386,026	1,744,857	1,731,039

Notes:  
(2) - From MPI  
(3) to (11) - Total of Sheets 7, 11 & 12

Manitoba Public Insurance  
Automobile Insurance Division  
Comparison of Actual With Expected Experience in Previous Year-End Valuations  
Net Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

Exhibit 3  
Sheet 14

Insurance Year	Earned Premium	Estimated Ultimate Losses								
		March 2021 Valuation	March 2020 Valuation	Feb 2019 Valuation	Feb 2018 Valuation	Feb 2017 Valuation	Feb 2016 Valuation	Feb 2015 Valuation	Feb 2014 Valuation	Feb 2013 Valuation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>Basic - Total All Coverage*</b>										
2003	552,343	418,983	413,939	415,572	418,403	420,245	412,239	409,627	424,617	425,149
2004	586,846	445,700	442,327	446,700	447,567	446,089	415,207	412,514	444,581	442,759
2005	621,331	466,399	456,880	459,038	460,515	462,152	441,117	440,290	465,678	465,846
2006	647,698	521,841	521,490	527,852	531,370	530,325	495,901	493,857	532,604	523,737
2007	667,689	534,167	538,081	538,606	536,552	534,204	500,540	496,419	536,129	531,617
2008	699,646	502,023	501,260	500,959	501,478	500,514	476,654	475,750	508,395	508,142
2009	728,959	509,772	511,967	514,857	513,648	510,521	480,981	477,241	510,731	520,451
2010	750,546	592,384	574,650	575,683	571,591	571,819	537,680	530,743	560,530	567,710
2011	761,267	582,486	579,446	582,767	578,304	572,770	533,287	523,213	579,359	567,903
2012	757,411	616,752	617,083	627,275	630,638	609,163	572,336	571,554	622,554	615,772
2013	767,939	633,954	633,992	644,335	646,994	663,866	616,129	602,431	681,389	
2014	808,646	588,661	592,892	595,328	594,304	612,624	560,830	533,732		
2015	864,905	710,505	708,818	711,935	714,676	695,991	628,643			
2016	911,562	763,352	762,875	762,573	747,813	726,168				
2017	965,709	730,314	737,023	735,326	725,500					
2018	1,031,748	748,173	757,760	759,186						
2019	1,085,549	722,207	734,864							
2020	1,120,929	588,051								
<b>Total</b>	<b>14,330,722</b>	<b>10,675,724</b>								
Total Excl. 2020	13,209,793	10,087,673	10,085,348							
Total Excl. 2019 to 2020	12,124,244	9,365,466	9,350,485	9,397,992						
Total Excl. 2018 to 2020	11,092,496	8,617,293	8,592,725	8,638,807	8,619,352					
Total Excl. 2017 to 2020	10,126,787	7,886,979	7,855,702	7,903,481	7,893,852	7,856,450				
Total Excl. 2016 to 2020	9,215,225	7,123,627	7,092,827	7,140,908	7,146,039	7,130,283	6,671,545			
Total Excl. 2015 to 2020	8,350,320	6,413,122	6,384,009	6,428,973	6,431,363	6,434,292	6,042,902	5,967,371		
Total Excl. 2014 to 2020	6,773,735	5,824,461	5,791,117	5,833,645	5,837,059	5,821,668	5,482,072	5,433,638	5,866,566	
Total Excl. 2013 to 2020	6,016,324	5,190,507	5,157,124	5,189,309	5,190,065	5,157,802	4,865,943	4,831,208	5,185,177	5,169,086

Notes:

(2) - From MPI

(3) to (11) - Total of Sheets 1 to 3, Sheet 10, &amp; Sheet 13

\*Not including PIPP Enhancements

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## EXHIBIT 4 IBNR ESTIMATES

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Manitoba Public Insurance  
Summary of Direct & Agency IBNR Estimates  
(Including External Adjustment Expenses) As  
of March 31, 2021  
(\$000)

Exhibit 4  
Sheet 1

Insurance Year April-March	Incurred Development Method	Incurred Born/Ferg Method	Paid Development Method	Paid Born/Ferg Method	Selected IBNR
(1)	(2)	(3)	(4)	(5)	(6)
<b>Bodily Injury - Basic</b>					
2002 & Prior					
2003	-	-	-	-	-
2004	-	-	-	-	-
2005	-	-	(25)	(25)	-
2006	-	-	-	-	-
2007	-	-	(40)	(40)	-
2008	-	-	(25)	(25)	-
2009	-	-	(46)	(44)	-
2010	-	-	(147)	(149)	-
2011	-	-	(21)	8	-
2012	2	2	50	44	2
2013	5	6	189	202	6
2014	40	32	(55)	(146)	32
2015	109	106	182	147	106
2016	242	230	(467)	(350)	230
2017	497	461	(597)	(312)	461
2018	1,046	972	(849)	18	972
2019	1,370	1,838	547	2,326	1,838
2020	1,685	2,823	(1,251)	3,931	2,823
<b>Total</b>	<b>4,998</b>	<b>6,470</b>	<b>(2,554)</b>	<b>5,583</b>	<b>6,470</b>

Notes: (2) to (5) - Per Appendix A  
(6) - Incurred Born/Ferg Method for all years

Manitoba Public Insurance  
Summary of Direct & Agency IBNR Estimates  
(Including External Adjustment Expenses)  
As of March 31, 2021  
(\$000)

Exhibit 4  
Sheet 2

Insurance Year April-March	Incurred Development Method	Incurred Born/Ferg Method	Paid Development Method	Paid Born/Ferg Method	Selected IBNR
(1)	(2)	(3)	(4)	(5)	(6)
<b>Property Damage - Basic</b>					
2002 & Prior					
2003	-	-	-	-	-
2004	-	-	-	-	-
2005	-	-	-	-	-
2006	-	-	-	-	-
2007	-	-	(3)	(3)	-
2008	-	-	-	-	-
2009	-	-	(10)	(10)	-
2010	-	-	-	-	-
2011	-	-	-	-	-
2012	(21)	(21)	(91)	(91)	(21)
2013	(45)	(45)	-	-	(45)
2014	(61)	(61)	(20)	(20)	(61)
2015	(62)	(62)	17	17	(62)
2016	(22)	(22)	65	63	(22)
2017	70	67	(1)	(9)	67
2018	237	245	(427)	(401)	245
2019	1,242	1,381	618	935	1,381
2020	4,968	6,435	5,923	9,096	6,435
<b>Total</b>	<b>6,306</b>	<b>7,917</b>	<b>6,070</b>	<b>9,577</b>	<b>7,917</b>

Notes: (2) to (5) - Per Appendix B  
(6) - Incurred Born/Ferg Method for all years

Manitoba Public Insurance  
Summary of Direct & Agency IBNR Estimates  
(Including External Adjustment Expenses)  
As of March 31, 2021  
(\$000)

Exhibit 4  
Sheet 3

Insurance Year April-March	Incurred Development Method	Incurred Born/Ferg Method	Paid Development Method	Paid Born/Ferg Method	Selected IBNR
(1)	(2)	(3)	(4)	(5)	(6)

**Collision - Basic**

2002 & Prior					
2003	-	-	-	-	-
2004	-	-	-	-	-
2005	-	-	-	-	-
2006	-	-	-	-	-
2007	-	-	-	-	-
2008	-	-	-	-	-
2009	-	-	-	-	-
2010	-	-	-	-	-
2011	-	-	(2)	(2)	-
2012	-	-	(2)	(2)	-
2013	-	-	(2)	(2)	-
2014	-	-	-	-	-
2015	-	-	168	168	-
2016	-	-	370	361	-
2017	408	399	577	562	408
2018	1,429	1,450	1,471	1,494	1,429
2019	5,254	5,462	6,016	6,275	5,254
2020	12,305	15,455	27,422	41,011	12,305
<b>Total</b>	<b>19,396</b>	<b>22,766</b>	<b>36,017</b>	<b>49,865</b>	<b>19,396</b>

Notes: (2) to (5) - Per Appendix C  
(6) - Incurred Development Method for all years



Manitoba Public Insurance  
Summary of Direct & Agency IBNR Estimates  
(Including External Adjustment Expenses)  
As of March 31, 2021  
(\$000)

Exhibit 4  
Sheet 4

Insurance Year April-March	Incurred Development Method	Incurred Born/Ferg Method	Paid Development Method	Paid Born/Ferg Method	Selected IBNR
(1)	(2)	(3)	(4)	(5)	(6)

### Comprehensive - Basic

2002 & Prior					
2003	-	-	-	-	-
2004	-	-	-	-	-
2005	-	-	-	-	-
2006	-	-	-	-	-
2007	-	-	-	-	-
2008	-	-	-	-	-
2009	-	-	-	-	-
2010	-	-	-	-	-
2011	-	-	-	-	-
2012	-	-	(4)	(4)	(4)
2013	-	-	-	-	-
2014	-	-	-	-	-
2015	-	-	55	55	55
2016	-	-	93	84	93
2017	-	-	314	431	314
2018	(289)	(289)	(99)	5	(99)
2019	1,030	996	1,955	1,824	1,955
2020	6,944	7,294	12,570	12,259	6,944
<b>Total</b>	<b>7,684</b>	<b>8,001</b>	<b>14,883</b>	<b>14,653</b>	<b>9,257</b>

Notes: (2) to (5) - Per Appendix D  
(6) - Incurred Development Method for current year; Paid Development Method for all other years

Manitoba Public Insurance  
Summary of Direct & Agency IBNR Estimates  
(Including External Adjustment Expenses)  
As of March 31, 2021  
(\$000)

Exhibit 4  
Sheet 5

Insurance Year April-March	Tabular Reserve Method	Incurred Development Method	Incurred Born/Ferg Method	Paid Development Method	Paid Born/Ferg Method	Selected IBNR
(1)	(2)	(3)	(4)	(5)	(6)	(7)

#### Accident Benefits - Weekly Indemnity

2002 & Prior	19,377					19,377
2003	1,080	2,947	2,947	1,489	1,873	1,080
2004	1,164	2,663	2,663	(787)	188	1,164
2005	1,495	3,132	3,132	2,197	2,479	1,495
2006	2,009	3,954	3,954	653	1,718	2,009
2007	2,043	4,150	4,150	889	2,011	2,043
2008	2,362	4,104	4,104	2,072	2,819	2,362
2009	2,661	4,002	4,002	4,080	4,050	2,661
2010	2,969	5,276	5,276	2,611	3,721	2,969
2011	3,172	4,925	4,925	1,638	3,094	4,925
2012		4,661	4,661	8,654	6,775	4,661
2013		3,894	3,894	10,749	7,323	3,894
2014		4,036	4,036	1,682	2,929	4,036
2015		4,753	4,753	1,008	3,116	4,753
2016		6,055	5,854	1,983	2,512	5,854
2017		9,256	9,008	8,781	7,428	9,008
2018		13,324	14,806	16,105	20,770	20,770
2019		57,950	60,455	46,186	58,180	60,455
2020		50,574	56,401	52,931	57,329	57,329
<b>Total</b>	<b>38,334</b>	<b>189,653</b>	<b>199,020</b>	<b>162,921</b>	<b>188,312</b>	<b>210,847</b>

Notes: (2) to (6) - Per Appendix E  
(7) - Tabular Reserve Method for 2010 & prior; greater of Incurred Born/Ferg Method or Paid Born/Ferg Method for 2018 & after ; Incurred Born/Ferg Method for all other years

Manitoba Public Insurance  
Summary of Direct & Agency IBNR Estimates  
(Including External Adjustment Expenses)  
As of March 31, 2021  
(\$000)

Exhibit 4  
Sheet 6

Insurance Year April-March	Incurred Development Method	Incurred Born/Ferg Method	Paid Development Method	Paid Born/Ferg Method	Selected IBNR
(1)	(2)	(3)	(4)	(5)	(6)
<b>Accident Benefits - Other (Indexed)</b>					
2002 & Prior					9,317
2003	2,029	2,029	(962)	(453)	2,029
2004	2,081	2,081	(6,955)	(5,296)	2,081
2005	2,346	2,346	(5,047)	(3,589)	2,346
2006	2,553	2,553	(7,541)	(5,399)	2,553
2007	3,116	3,116	(8,441)	(5,784)	3,116
2008	2,624	2,624	2,306	2,386	2,624
2009	3,055	3,055	1,296	1,775	3,055
2010	2,398	2,398	2,074	2,169	2,398
2011	3,486	3,486	1,135	1,874	3,486
2012	3,092	3,092	9,706	7,494	3,092
2013	2,870	2,870	12,312	8,971	2,870
2014	2,433	2,433	10,696	7,617	2,433
2015	3,213	3,213	10,453	7,623	3,213
2016	3,428	3,131	(1,652)	(1,791)	3,131
2017	2,646	2,502	5,287	2,975	2,502
2018	1,482	2,053	5,067	8,334	8,334
2019	9,846	11,110	3,101	10,602	11,110
2020	11,118	12,853	16,107	16,600	16,600
<b>Total</b>	<b>63,815</b>	<b>66,943</b>	<b>48,943</b>	<b>56,109</b>	<b>86,289</b>

Notes: (2) to (5) - Per Appendix F  
(6) - Greater of Incurred Born/Ferg Method or Paid Born/Ferg Method for 2018  
& after ; Incurred Born/Ferg Method for all other years

Manitoba Public Insurance  
Summary of Direct & Agency IBNR Estimates  
(Including External Adjustment Expenses)  
As of March 31, 2021  
(\$000)

Exhibit 4  
Sheet 7

Insurance Year April-March	Incurred Development Method	Incurred Born/Ferg Method	Paid Development Method	Paid Born/Ferg Method	Selected IBNR
(1)	(2)	(3)	(4)	(5)	(6)
<b>Accident Benefits - Other (Non-Indexed)</b>					
2002 & Prior					
2003	-	-	(18)	(18)	-
2004	-	-	(3)	(3)	-
2005	-	-	39	39	-
2006	34	34	78	78	34
2007	88	88	177	176	88
2008	146	146	319	317	146
2009	209	209	415	412	209
2010	260	260	546	541	260
2011	354	354	502	499	354
2012	419	419	701	693	419
2013	487	487	879	866	487
2014	590	590	928	914	590
2015	716	716	784	781	716
2016	899	876	784	735	876
2017	1,047	1,069	(360)	(161)	-
2018	1,474	1,509	(10,749)	(8,473)	1,509
2019	2,239	2,408	(6,815)	(2,349)	2,408
2020	8,610	8,269	(2,329)	4,584	8,269
<b>Total</b>	<b>17,573</b>	<b>17,435</b>	<b>(14,122)</b>	<b>(369)</b>	<b>16,366</b>

Notes: (2) to (5) - Per Appendix G  
(6) - Zero for 2017 based on the assumption that case reserves are sufficient to cover unpaid claims.  
Incurred Born/Ferg Method for all other years

Manitoba Public Insurance  
 Summary of Direct & Agency IBNR Estimates  
 (Including External Adjustment Expenses)  
 As of March 31, 2021  
 (\$000)

Exhibit 4  
 Sheet 8

Insurance Year April-March	Selected IBNR
(1)	(2)

**Accident Benefits - Total**

2002 & Prior	28,695
2003	3,109
2004	3,246
2005	3,842
2006	4,597
2007	5,247
2008	5,132
2009	5,926
2010	5,627
2011	8,765
2012	8,172
2013	7,250
2014	7,059
2015	8,681
2016	9,861
2017	11,510
2018	30,612
2019	73,973
2020	82,199
Total	313,502

Manitoba Public Insurance  
Summary of Direct & Agency IBNR Estimates  
(Including External Adjustment Expenses)  
As of March 31, 2021  
(\$000)

Exhibit 4  
Sheet 9

Insurance Year April-March	Selected IBNR
(1)	(2)
<b>Basic - Total All Coverage*</b>	
2002 & Prior	28,695
2003	3,109
2004	3,246
2005	3,842
2006	4,597
2007	5,247
2008	5,132
2009	5,926
2010	5,627
2011	8,765
2012	8,149
2013	7,211
2014	7,030
2015	8,780
2016	10,163
2017	12,760
2018	33,159
2019	84,400
2020	110,705
Total	356,543

\*Not including PIPP Enhancements (see PE Exhibit 1,  
Sheet 8 & PE Exhibit 4)

Manitoba Public Insurance  
Summary of Net IBNR Estimates  
(Including External Adjustment Expenses)  
As of March 31, 2021  
(\$000)

Exhibit 4  
Sheet 10

Insurance Year April-March	Incurred Development Method	Incurred Born/Ferg Method	Paid Development Method	Paid Born/Ferg Method	Selected IBNR
(1)	(2)	(3)	(4)	(5)	(6)
<b>Comprehensive - Basic</b>					
2002 & Prior					
2003	-	-	-	-	-
2004	-	-	-	-	-
2005	-	-	-	-	-
2006	-	-	-	-	-
2007	-	-	-	-	-
2008	-	-	-	-	-
2009	-	-	-	-	-
2010	-	-	-	-	-
2011	-	-	-	-	-
2012	-	-	(4)	(4)	(4)
2013	-	-	-	-	-
2014	-	-	-	-	-
2015	-	-	55	55	55
2016	-	-	93	84	93
2017	-	-	314	431	314
2018	-	-	703	807	703
2019	1,030	996	1,955	1,824	1,955
2020	6,944	7,294	12,570	12,259	6,944
<b>Total</b>	<b>7,974</b>	<b>8,290</b>	<b>15,686</b>	<b>15,456</b>	<b>10,060</b>

Notes: (2) to (5) - Per Appendix D  
(6) - Incurred Development Method for current year; Paid Development Method for all other years

Manitoba Public Insurance  
Summary of Net IBNR Estimates  
(Including External Adjustment Expenses)  
As of March 31, 2021  
(\$000)

Exhibit 4

Sheet 11

Insurance Year April-March	Selected IBNR
(1)	(2)

**Basic - Total All Coverage\***

2002 & Prior	28,695
2003	3,109
2004	3,246
2005	3,842
2006	4,597
2007	5,247
2008	5,132
2009	5,926
2010	5,627
2011	8,765
2012	8,149
2013	7,211
2014	7,030
2015	8,780
2016	10,163
2017	12,760
2018	33,961
2019	84,400
2020	110,705
<b>Total</b>	<b>357,345</b>

\*Not including PIPP Enhancements (see PE Exhibit 1,  
Sheet 8 & PE Exhibit 4)



## EXHIBIT 5 INTERNAL LOSS ADJUSTMENT EXPENSES

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Manitoba Public Insurance  
Automobile Insurance Division  
Internal Loss Adjustment Expense (ILAE) Provision  
As of March 31, 2021  
(\$000)

Exhibit 5  
Sheet 1

#### A. Calculation of Claims Base

	Valuation as at		
	March 2021	March 2020	Change
1. Direct & Agency Unpaid Claims [a, b]	1,631,683	1,658,457	(26,775)
2. Direct & Agency Paid Claims in Fiscal Year 2020 as of March 31, 2021 [b, c]			616,159
3. Direct & Agency Incurred Claims in Fiscal Year 2020 as of March 31, 2021 [(2)+Change in (1)]			589,384
4a. Direct & Agency Claims Base: Kittel's Paid ILAE to Paid Plus Incurred Claims Method [(2)+(3)]			1,205,543
4b. Direct & Agency Claims Base: Traditional Paid ILAE to Paid Claims Method [(2)*2]			1,232,318

#### B. Calculation of Internal Loss Adjustment Expense Provision:

	Valuation as at				
	Feb 2017	Feb 2018	Feb 2019	March 2020	March 2021
5a. Direct & Agency Claims Base: Kittel's Method [d]	1,478,536	1,469,086	1,510,015	1,586,327	1,205,543
5b. Direct & Agency Claims Base: Traditional Method [d]	1,362,226	1,413,554	1,388,144	1,583,764	1,232,318
6. Internal Loss Adjustment Expenses Paid [c]	120,972	143,337	126,871	142,354	140,586
7a. Ratio of ILAE Paid To Direct & Agency Claims Base: Kittel [(6)/(5a)]	8.18%	9.76%	8.40%	8.97%	11.66%
7b. Ratio of ILAE Paid To Direct & Agency Claims Base: Trad [(6)/(5b)]	8.88%	10.14%	9.14%	8.99%	11.41%
8. Selected Ratio of ILAE Paid To Direct & Agency Claims Base	9.20%	9.20%	9.00%	9.40%	9.40%
9. Direct & Agency Unpaid Claims (1)					1,631,683
10. Direct & Agency IBNR [b, e]					356,543
11. Direct & Agency Reserve Base: Unpaid Claims Plus IBNR [(9)+(10)]					1,988,225
12. Ultimate Direct & Agency ILAE Provision [(8)x(11)] [f]					186,893
13. CIA Rules Direct & Agency ILAE Provision [g]					198,253
14. MPI Carried Before Review [c]					205,726

#### Notes:

- [a] March 2021: From Exhibit 1, Total Selected IBNR plus Case Reserve Outstanding;  
March 2020: From respective year-end valuation
- [b] Not including PIPP Enhancements
- [c] From MPI
- [d] March 2021: From Line 4; Other Years: From respective year-end valuations
- [e] From Exhibit 1, Total Selected IBNR
- [f] Selected Ratio applied twice to IBNR
- [g] From Exhibit 7, Sheet 1

## EXHIBIT 6 DPAC CALCULATION

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Manitoba Public Insurance  
Automobile Insurance Division  
Calculation of Equity in Unearned Premium - Direct & Agency  
As of March 31, 2021  
(\$000)

Exhibit 6  
Sheet 1

A. Claims (Including External Adjustment Expense) Data

	Estimated Ultimate Loss Ratio For Insurance Year [a]					Selected Undisc	Selected Disc [c]
	2016	2017	2018	2019	2020		
1a. Bodily Injury	0.55%	0.56%	0.55%	0.43%	0.41%		
1b. Property Damage	4.73%	4.78%	4.14%	3.57%	2.73%		
1c. Collision	41.96%	41.85%	39.21%	37.08%	28.18%		
1d. Comprehensive [b]	12.86%	7.48%	8.27%	7.97%	7.46%		
1e. Accident Benefits - Weekly Indemnity	10.23%	9.68%	8.77%	8.41%	6.22%		
1f. Accident Benefits - Other (Indexed)	8.38%	7.11%	6.22%	5.63%	4.12%		
1g. Accident Benefits - Other (Non-Indexed)	3.53%	2.97%	2.93%	2.54%	2.71%		
1. Total All Coverage	82.24%	74.43%	70.09%	65.63%	51.82%		
2. Trend/Rate Adjustment [Sheet 2]	0.8742	0.9068	0.9501	0.9804	0.9915		
3. Adjusted Loss Ratio [(1) x (2)]	71.89%	67.49%	66.60%	64.34%	51.38%	60.77%	64.99%

B. Actual Data Other Than Losses

	2016	2017	2018	2019	2020	Selected
4. Direct & Agency Earned Premium [d]	923,168	977,104	1,044,467	1,099,731	1,134,690	
5. Operating Expenses as Percentage of Earned Premium [d]	9.82%	9.03%	8.85%	7.80%	7.21%	7.50%
6. Maintenance Expense Rate [(5) x 1/3]	3.27%	3.01%	2.95%	2.60%	2.40%	2.50%
7. Internal Loss Adjustment Expense Ratio to Losses [e]	18.40%	18.40%	18.00%	18.80%	18.80%	18.80%

C. Equity in Unearned Premium

	Discounted
8. Direct & Agency Unearned Premium as of March 31, 2021 [d]	571,607
9. Expected Claims (Including Ext Adj Expenses) [Max(Sheet 5, Row 10, (8) x (3))]	371,488
10. Maintenance Expense [Sheet 5, Row 12]	14,183
11. Internal Loss Adjustment Expense [(7) x (9)]	69,840
12. Expected Claims (Including Ext Adj Expenses) for PIPP Enhancement [f]	4,428
13. Equity in Unearned Premium [(8) - Sum((9) to (12))]	111,668
14. Carried Deferred Policy Acquisition Expenses [d]	37,245
15. Write Down Deferred Policy Acquisition Expenses [g]	-
16. Premium Deficiency [h]	-

Notes:

- [a] [Exhibit 2, Column 7] / (4)  
[b] 2018: Removed impact of Hail  
[c] From Sheet 3  
[d] From MPI  
[e] [Exhibit 5, Row 8] x 2  
[f] From PE Exhibit 3  
[g] Min((14) - (13), (14)) if greater than 0, otherwise 0  
[h] Negative of (13) if greater than 0, otherwise 0

Manitoba Public Insurance  
Automobile Insurance Division  
Trend/Rate Adjustment - Direct & Agency  
As of March 31, 2021  
(\$000)

Exhibit 6  
Sheet 2

Insurance Year	Earned Premium	Earned Premium Increase	Ultimate Claims	Ultimate Claims Increase
(1)	(2)	(3)	(4)	(5)
2010	761,034		580,423	
2011	772,649	1.53%	558,524	-3.77%
2012	769,715	-0.38%	607,395	8.75%
2013	781,394	1.52%	626,918	3.21%
2014	822,358	5.24%	583,324	-6.95%
2015	877,262	6.68%	705,541	20.95%
2016	923,168	5.23%	759,203	7.61%
2017	977,104	5.84%	727,215	-4.21%
2018	1,044,467	6.89%	731,827	0.63%
2019	1,099,731	5.29%	721,718	-1.38%
2020	1,134,690	3.18%	588,051	-18.52%

(6) Average Claims Increase	0.63%
(7) Selected Claims Increase	2.03%
(8) 3-Year Average Premium Increase	5.12%
(9) Selected Premium Increase	3.20%
(10) 2020 Trend/Rate Adjustment	0.9915
(11) 2019 Trend/Rate Adjustment	0.9804
(12) 2018 Trend/Rate Adjustment	0.9501
(13) 2017 Trend/Rate Adjustment	0.9068
(14) 2016 Trend/Rate Adjustment	0.8742

Notes:

- (2) From MPI
- (4) From Exhibit 2, Sheet 9, Column 7; Removed impact of Hail
- (7) Selected based on the indicated exponential trend for Ultimate Claims
- (10) =  $[[1+(7)]/[1+(9)]]^{9/12}$ ; Trended from the average accident date for the current year to the average accident date of the unearned premium (per Sheet 3)
- (11) = (10)\*[1+(7)]/[(1+(3) for 2020]
- (12) = (11)\*[1+(7)]/[(1+(3) for 2019]
- (13) = (12)\*[1+(7)]/[(1+(3) for 2018]
- (14) = (13)\*[1+(7)]/[(1+(3) for 2017]

Manitoba Public Insurance  
Automobile Insurance Division  
Discounted Loss Ratio with Margins - Direct & Agency  
As of March 31, 2021  
(\$000)

Exhibit 6  
Sheet 3

Selected Undiscounted Loss Ratio [a]	60.77%							
	12	24	36	48	60	72	84	96

Cumulative % Paid

ABWI	11.89%	23.42%	30.00%	35.45%	39.91%	43.72%	47.02%	50.01%
ABO (Indexed)	22.03%	45.21%	52.21%	56.21%	58.96%	60.91%	62.74%	64.62%
ABO (Non-Indexed)	28.82%	59.94%	82.42%	90.25%	93.31%	94.81%	95.75%	96.66%
TPL-BI	2.59%	22.04%	41.33%	59.21%	74.39%	84.62%	91.31%	94.55%
TPL-PD	59.18%	93.65%	98.76%	99.60%	99.85%	99.95%	100.00%	100.00%
Collision	79.63%	98.32%	99.60%	99.85%	99.90%	99.95%	100.00%	100.00%
Comprehensive	77.16%	96.49%	98.96%	99.55%	99.80%	99.95%	100.00%	100.00%

Discount to Valuation Date [b]

Without Margin (1) [c]	99.80%	98.98%	98.17%	97.37%	96.57%	95.79%	95.00%	94.23%
Without Margin (2) [d]	99.30%	96.56%	93.89%	91.30%	88.78%	86.33%	83.94%	81.63%
With Margin (1) [c & e]	99.92%	99.60%	99.28%	98.96%	98.64%	98.32%	98.00%	97.69%
With Margin (2) [d & e]	99.42%	97.15%	94.93%	92.76%	90.64%	88.56%	86.54%	84.56%

Discounted % Paid; Includes Discount Rate Margin and Claims Development Margin [f]

ABWI [g]	13.67%	13.19%	7.50%	6.18%	5.05%	4.30%	3.71%	3.34%
ABO (Indexed) [g]	25.31%	26.52%	7.99%	4.54%	3.12%	2.19%	2.05%	2.10%
ABO (Non-Indexed) [h]	31.51%	33.24%	23.45%	7.98%	3.05%	1.45%	0.90%	0.84%
TPL-BI [h]	2.96%	21.71%	21.03%	19.03%	15.79%	10.38%	6.63%	3.14%
TPL-PD [h]	61.78%	35.15%	5.09%	0.82%	0.24%	0.09%	0.05%	0.00%
Collision [h]	85.11%	19.51%	1.31%	0.25%	0.05%	0.05%	0.05%	0.00%
Comprehensive [h]	82.46%	20.18%	2.52%	0.59%	0.24%	0.14%	0.05%	0.00%

	Estimated Ultimate Claims [i]				% by Cvrg	% by Cvrg	
	2018	2019	2020	3-yr Total	3-yr Total	Disc [j]	
ABWI	91,622	92,454	70,538	254,614	12.47%	13.67%	
ABO (Indexed)	64,937	61,864	46,746	173,548	8.50%	9.49%	
ABO (Non-Indexed)	30,653	27,952	30,719	89,324	4.37%	4.60%	
TPL-BI	5,787	4,741	4,669	15,197	0.74%	0.79%	
TPL-PD	43,253	39,276	31,022	113,551	5.56%	5.74%	
Collision	409,529	407,821	319,704	1,137,055	55.69%	59.20%	
Comprehensive	86,334	87,610	84,653	258,597	12.66%	13.45%	
Total All Coverage	732,116	721,718	588,051	2,041,885	100.00%	106.94%	
Selected Discounted Loss Ratio with Margins [k]							64.99%

Notes:

- [a] From Sheet 1
- [b] Accounts for Investable Assets
  - Months from Valuation Date to Average Accident Date 3
  - Percent in Non-Investable Assets 0.00%
- [c] Year Ending March 31, 2021 & After - 0.82%
- [d] Year Ending March 31, 2021 & After - 2.84%
- [e] Discount Rate Margin - 50 bps
- [f] Claims Development Margin - From Exhibit 7, Sheet 1
- [g] Discounted Using (1)
- [h] Discounted Using (2)
- [i] From Exhibit 2, Column 7; Removed impact of Hail
- [j] % by Cvrg 3-yr Total x Cumulative Discounted % Paid
- [k] Selected Undiscounted Loss Ratio x Total All Coverage % Disc

Manitoba Public Insurance  
Automobile Insurance Division  
Discounted Loss Ratio with Margins - Direct & Agency  
As of March 31, 2021  
(\$000)

Exhibit 6  
Sheet 4

	108	120	132	144	156	168	180	192	204	216	
	52.94%	55.72%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
	66.56%	68.55%	70.61%	72.73%	74.91%	77.01%	78.78%	80.28%	81.64%	100.00%	
	97.34%	97.73%	98.07%	98.46%	98.86%	99.25%	99.60%	99.85%	100.00%	100.00%	
	96.77%	98.22%	99.35%	99.85%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
	93.46%	92.69%	91.94%	91.19%	90.44%	89.70%	88.97%	88.24%	87.52%	86.81%	
	79.37%	77.18%	75.05%	72.98%	70.96%	69.00%	67.10%	65.24%	63.44%	61.69%	
	97.37%	97.06%	96.74%	96.43%	96.12%	95.81%	95.50%	95.19%	94.89%	94.58%	
	82.63%	80.74%	78.89%	77.09%	75.33%	73.60%	71.92%	70.28%	68.67%	67.10%	
											<u>Cumulative</u>
	3.26%	3.08%	46.36%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	109.64%
	2.16%	2.22%	2.27%	2.33%	2.39%	2.29%	1.93%	1.62%	1.47%	19.13%	111.64%
	0.61%	0.34%	0.30%	0.33%	0.32%	0.32%	0.27%	0.19%	0.11%	0.00%	105.23%
	2.10%	1.34%	1.02%	0.44%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	105.70%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	103.21%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	106.31%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	106.18%

Manitoba Public Insurance  
Automobile Insurance Division  
Calculation of Equity in Unearned Premium - Net  
As of March 31, 2021  
(\$000)

Exhibit 6  
Sheet 5

A. Claims (Including External Adjustment Expense) Data

	Estimated Ultimate Loss Ratio For Insurance Year [a]					Selected Undisc	Selected Disc [c]
	2016	2017	2018	2019	2020		
1a. Bodily Injury	0.55%	0.56%	0.56%	0.44%	0.42%		
1b. Property Damage	4.79%	4.84%	4.19%	3.62%	2.77%		
1c. Collision	42.49%	42.34%	39.69%	37.57%	28.52%		
1d. Comprehensive [b]	13.03%	7.57%	8.42%	8.07%	7.55%		
1e. Accident Benefits - Weekly Indemnity	10.36%	9.80%	8.88%	8.52%	6.29%		
1f. Accident Benefits - Other (Indexed)	8.49%	7.19%	6.29%	5.70%	4.17%		
1g. Accident Benefits - Other (Non-Indexed)	3.57%	3.01%	2.97%	2.57%	2.74%		
1. Total All Coverage	83.29%	75.30%	71.01%	66.48%	52.46%		
2. Trend/Rate Adjustment [Sheet 2]	0.8738	0.9073	0.9500	0.9797	0.9915		
3. Adjusted Loss Ratio [(1) x (2)]	72.77%	68.32%	67.46%	65.13%	52.01%	61.54%	65.80%

B. Actual Data Other Than Losses

	2016	2017	2018	2019	2020	Selected
4. Net Earned Premium [d]	911,562	965,709	1,031,748	1,085,549	1,120,929	
5. Operating Expenses as Percentage of Earned Premium [d]	9.94%	9.14%	8.96%	7.90%	7.30%	7.60%
6. Maintenance Expense Rate [(5) x 1/3]	3.31%	3.05%	2.99%	2.63%	2.43%	2.53%
7. Internal Loss Adjustment Expense Ratio to Losses [e]	18.40%	18.40%	18.00%	18.80%	18.80%	18.80%

C. Equity in Unearned Premium

	Discounted
8. Net Unearned Premium as of March 31, 2021 [d]	571,607
9. Additional Expected Cost of Non-Proportional Reinsurance [f]	7,815
10. Expected Claims (Including Ext Adj Expenses) [((8) - (9)) x (3)]	371,002
11. Reinsurance PFAD [g]	24
12. Maintenance Expense [h]	14,183
13. Internal Loss Adjustment Expense [Sheet 1, Row 11]	69,840
14. Expected Claims (Including Ext Adj Expenses) - PIPP Enhancement [i]	4,428
15. Equity in Unearned Premium [(8) - Sum((9) to (14))]	104,316
16. Carried Deferred Policy Acquisition Expenses [d]	37,245
17. Write Down Deferred Policy Acquisition Expenses [j]	-
18. Premium Deficiency [k]	-

Notes:

- [a] [Exhibit 2, Column 7] / (4)
- [b] 2018: Removed impact of Hail
- [c] From Sheet 7
- [d] From MPI
- [e] [Exhibit 5, Row 8] x 2
- [f] Ceded Unearned Premium x (-1) + (15,629 X (6/12));  
15,629: Annual premium on reinsurance effective April 1, 2021
- [g] (Sheet 1, Row 9 - (10)) x 5.00%
- [h] ((8) - (9)) x (6) x Discount to Valuation Date Without Margin
- [i] From PE Exhibit 3
- [j] Min((16) - (15), (16)) if greater than 0, otherwise 0
- [k] Negative of (15) if greater than 0, otherwise 0



Manitoba Public Insurance  
Automobile Insurance Division  
Trend/Rate Adjustment - Net  
As of March 31, 2021  
(\$000)

Exhibit 6  
Sheet 6

Insurance Year	Earned Premium	Earned Premium Increase	Ultimate Claims	Ultimate Claims Increase
(1)	(2)	(3)	(4)	(5)
2010	750,546		579,867	
2011	761,267	1.43%	558,192	-3.74%
2012	757,411	-0.51%	607,394	8.81%
2013	767,939	1.39%	626,451	3.14%
2014	808,646	5.30%	583,324	-6.88%
2015	864,905	6.96%	705,541	20.95%
2016	911,562	5.39%	759,203	7.61%
2017	965,709	5.94%	727,216	-4.21%
2018	1,031,748	6.84%	732,629	0.74%
2019	1,085,549	5.21%	721,718	-1.49%
2020	1,120,929	3.26%	588,051	-18.52%

(6) Average Claims Increase	0.64%
(7) Selected Claims Increase	2.03%
(8) 3-Year Average Premium Increase	5.10%
(9) Selected Premium Increase	3.20%
(10) 2020 Trend/Rate Adjustment	0.9915
(11) 2019 Trend/Rate Adjustment	0.9797
(12) 2018 Trend/Rate Adjustment	0.9500
(13) 2017 Trend/Rate Adjustment	0.9073
(14) 2016 Trend/Rate Adjustment	0.8738

Notes:

- (2) From MPI
- (4) From Exhibit 2, Sheet 14, Column 7; Removed impact of Hail
- (7) Sheet 2, Row 7
- (9) Sheet 2, Row 9
- (10) =  $[[1+(7)],[1+(9)]]^{[9/12]}$ ; Trended from the average accident date for the current year to the average accident date of the unearned premium (per Sheet 7)
- (11) = (10)\* $[1+(7)],[1+(3)$  for 2020]
- (12) = (11)\* $[1+(7)],[1+(3)$  for 2019]
- (13) = (12)\* $[1+(7)],[1+(3)$  for 2018]
- (14) = (13)\* $[1+(7)],[1+(3)$  for 2017]

Manitoba Public Insurance  
Automobile Insurance Division  
Discounted Loss Ratio with Margins - Net  
As of March 31, 2021  
(\$000)

Exhibit 6  
Sheet 7

Selected Undiscounted Loss Ratio [a]								61.54%
	12	24	36	48	60	72	84	96

Cumulative % Paid

ABWI	11.89%	23.42%	30.00%	35.45%	39.91%	43.72%	47.02%	50.01%
ABO (Indexed)	22.03%	45.21%	52.21%	56.21%	58.96%	60.91%	62.74%	64.62%
ABO (Non-Indexed)	28.82%	59.94%	82.42%	90.25%	93.31%	94.81%	95.75%	96.66%
TPL-BI	2.59%	22.04%	41.33%	59.21%	74.39%	84.62%	91.31%	94.55%
TPL-PD	59.18%	93.65%	98.76%	99.60%	99.85%	99.95%	100.00%	100.00%
Collision	79.63%	98.32%	99.60%	99.85%	99.90%	99.95%	100.00%	100.00%
Comprehensive	77.16%	96.49%	98.96%	99.55%	99.80%	99.95%	100.00%	100.00%

Discount to Valuation Date [b]

Without Margin (1) [c]	99.80%	98.98%	98.17%	97.37%	96.57%	95.79%	95.00%	94.23%
Without Margin (2) [d]	99.30%	96.56%	93.89%	91.30%	88.78%	86.33%	83.94%	81.63%
With Margin (1) [c & e]	99.92%	99.60%	99.28%	98.96%	98.64%	98.32%	98.00%	97.69%
With Margin (2) [d & e]	99.42%	97.15%	94.93%	92.76%	90.64%	88.56%	86.54%	84.56%

Discounted % Paid; Includes Discount Rate Margin and Claims Development Margin [f]

ABWI [g]	13.67%	13.19%	7.50%	6.18%	5.05%	4.30%	3.71%	3.34%
ABO (Indexed) [g]	25.31%	26.52%	7.99%	4.54%	3.12%	2.19%	2.05%	2.10%
ABO (Non-Indexed) [h]	31.51%	33.24%	23.45%	7.98%	3.05%	1.45%	0.90%	0.84%
TPL-BI [h]	2.96%	21.71%	21.03%	19.03%	15.79%	10.38%	6.63%	3.14%
TPL-PD [h]	61.78%	35.15%	5.09%	0.82%	0.24%	0.09%	0.05%	0.00%
Collision [h]	85.11%	19.51%	1.31%	0.25%	0.05%	0.05%	0.05%	0.00%
Comprehensive [h]	82.46%	20.18%	2.52%	0.59%	0.24%	0.14%	0.05%	0.00%

	Estimated Ultimate Claims [i]				% by Cvr	% by Cvr	
	2018	2019	2020	3-yr Total	3-yr Total	Disc [j]	
ABWI	91,622	92,454	70,538	254,614	12.47%	13.67%	
ABO (Indexed)	64,937	61,864	46,746	173,547	8.50%	9.49%	
ABO (Non-Indexed)	30,653	27,952	30,719	89,324	4.37%	4.60%	
TPL-BI	5,787	4,741	4,669	15,197	0.74%	0.79%	
TPL-PD	43,253	39,276	31,022	113,551	5.56%	5.74%	
Collision	409,529	407,821	319,704	1,137,055	55.67%	59.19%	
Comprehensive	86,847	87,610	84,653	259,110	12.69%	13.47%	
<b>Total All Coverage</b>	<b>732,629</b>	<b>721,718</b>	<b>588,051</b>	<b>2,042,397</b>	<b>100.00%</b>	<b>106.94%</b>	
Selected Discounted Loss Ratio with Margins [k]						65.80%	

Notes:

[a] From Sheet 5

[b] Accounts for Investable Assets

Months from Valuation Date to Average Accident Date 3  
Percent in Non-Investable Assets 0.00%

[c] Year Ending March 31, 2021 & After - 0.82%

[d] Year Ending March 31, 2021 & After - 2.84%

[e] Discount Rate Margin - 50 bps

[f] Claims Development Margin - From Exhibit 7, Sheet 2

[g] Discounted Using (1)

[h] Discounted Using (2)

[i] From Exhibit 2, Column 7;  
Removed impact of Hail

[j] % by Cvr 3-yr Total x Cumulative  
Discounted % Paid

[k] Selected Undiscounted Loss Ratio x  
Total All Coverage % Disc

Manitoba Public Insurance  
Automobile Insurance Division  
Discounted Loss Ratio with Margins - Net  
As of March 31, 2021  
(\$000)

Exhibit 6  
Sheet 8

	108	120	132	144	156	168	180	192	204	216	
	52.94%	55.72%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	66.56%	68.55%	70.61%	72.73%	74.91%	77.01%	78.78%	80.28%	81.64%	100.00%	100.00%
	97.34%	97.73%	98.07%	98.46%	98.86%	99.25%	99.60%	99.85%	100.00%	100.00%	100.00%
	96.77%	98.22%	99.35%	99.85%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	93.46%	92.69%	91.94%	91.19%	90.44%	89.70%	88.97%	88.24%	87.52%	86.81%	
	79.37%	77.18%	75.05%	72.98%	70.96%	69.00%	67.10%	65.24%	63.44%	61.69%	
	97.37%	97.06%	96.74%	96.43%	96.12%	95.81%	95.50%	95.19%	94.89%	94.58%	
	82.63%	80.74%	78.89%	77.09%	75.33%	73.60%	71.92%	70.28%	68.67%	67.10%	
											<u>Cumulative</u>
	3.26%	3.08%	46.36%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	109.64%
	2.16%	2.22%	2.27%	2.33%	2.39%	2.29%	1.93%	1.62%	1.47%	19.13%	111.64%
	0.61%	0.34%	0.30%	0.33%	0.32%	0.32%	0.27%	0.19%	0.11%	0.00%	105.23%
	2.10%	1.34%	1.02%	0.44%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	105.70%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	103.21%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	106.31%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	106.18%

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## EXHIBIT 7 ACTUARIAL PRESENT VALUE CALCULATIONS

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Manitoba Public Insurance  
Automobile Insurance Division  
Unpaid Claims Liabilities - Direct and Agency  
As of March 31, 2021

Exhibit 7  
Sheet 1

Coverage	Estimated Unpaid Claims (1)	Discount Factor		Discounted Unpaid Claims		Discount Amount		Interest Rate PFAD (8)=(7)-(6)
		With Margin (2)=(4)/(1)	Without Margin (3)=(5)/(1)	With Margin [a] (4)	Without Margin [a] (5)	With Margin (6)=(1)-(4)	Without Margin (7)=(1)-(5)	
Bodily Injury - Basic	19,152	94.74%	93.71%	18,144	17,947	1,008	1,205	198
Pre-PIPP	-	0.00%	0.00%	-	-	-	-	-
Accident Benefits:								
Weekly Indemnity (2019 & After)	136,973	95.39%	89.64%	130,657	122,782	6,317	14,191	7,875
Weekly Indemnity (Prior to 2019)	751,095	95.43%	89.67%	716,740	673,491	34,355	77,603	43,248
Pre-PIPP	19,297	96.84%	92.73%	18,686	17,895	610	1,402	792
Other (Indexed) (2011 & After)	262,262	96.09%	91.07%	252,005	238,842	10,257	23,420	13,163
Other (Indexed) (Prior to 2011)	262,446	97.37%	93.90%	255,539	246,436	6,907	16,010	9,103
Other (Non-Indexed)	67,637	94.80%	93.81%	64,123	63,451	3,514	4,186	672
Pre-PIPP	3,323	98.83%	98.59%	3,284	3,276	39	47	8
Collision - Basic	61,243	98.45%	98.13%	60,292	60,098	951	1,145	194
Comprehensive - Basic	20,221	98.13%	97.75%	19,843	19,767	378	455	77
Property Damage - Basic	17,545	98.28%	97.93%	17,243	17,182	301	363	61
ILAE Provision [d]	186,893	96.01%	91.36%	179,442	170,751	7,451	16,143	8,691
<b>Total</b>	<b>1,808,087</b>	<b>96.01%</b>	<b>91.36%</b>	<b>1,735,999</b>	<b>1,651,917</b>	<b>72,088</b>	<b>156,170</b>	<b>84,082</b>

Coverage	Claims Development Margin (9)	Claims Development PFAD (10)=(5)x(9)	Reinsurance Margin (11)	Reinsurance PFAD (12)	CIA Rules Unpaid Claims [b] (13)	Selected IBNR (14)	Required IBNR [c] (15)
	Bodily Injury - Basic	15.00%	2,692			20,836	6,470
Pre-PIPP	12.50%	-			-	-	-
Accident Benefits:							
Weekly Indemnity (2019 & After)	15.00%	18,417			149,074	117,784	129,885
Weekly Indemnity (Prior to 2019)	10.00%	67,349			784,089	81,624	114,618
Pre-PIPP	5.00%	895			19,581	11,440	11,724
Other (Indexed) (2011 & After)	15.00%	35,826			287,831	56,769	82,338
Other (Indexed) (Prior to 2011)	10.00%	24,644			280,183	29,520	47,257
Other (Non-Indexed)	10.00%	6,345			70,468	16,366	19,197
Pre-PIPP	5.00%	164			3,448	-	125
Collision - Basic	7.50%	4,507			64,799	19,396	22,952
Comprehensive - Basic	7.50%	1,482			21,326	9,257	10,362
Property Damage - Basic	5.00%	859			18,102	7,917	8,474
ILAE Provision [d]	11.02%	18,812			198,253	186,893	198,253
<b>Total</b>	<b>11.02%</b>	<b>181,993</b>			<b>1,917,991</b>	<b>543,436</b>	<b>653,340</b>

Notes:

[a] Summarized from the respective Exhibit 7 sheets

[b] (5) + (8) + (10) + (12)

[c] ((13) - (1)) + (14)

[d] Internal Loss Adjustment Expense (ILAE) Provision:

(1) From Exhibit 5, Row 12

(4) [Sum (4) all other coverage] / [Sum (1) all other coverage] \* (1)

(5) [Sum (5) all other coverage] / [Sum (1) all other coverage] \* (1)

(9) [Sum (10) all other coverage] / [Sum (5) all other coverage]

Manitoba Public Insurance  
Automobile Insurance Division  
Unpaid Claims Liabilities - Net  
As of March 31, 2021

Exhibit 7  
Sheet 2

Coverage	Estimated Unpaid Claims (1)	Discount Factor		Discounted Unpaid Claims		Discount Amount		Interest Rate PFAD (8)=(7)-(6)
		With Margin (2)=(4)/(1)	Without Margin (3)=(5)/(1)	With Margin [a] (4)	Without Margin [a] (5)	With Margin (6)=(1)-(4)	Without Margin (7)=(1)-(5)	
Bodily Injury - Basic	19,152	94.74%	93.71%	18,144	17,947	1,008	1,205	198
Pre-PIPP	-	0.00%	0.00%	-	-	-	-	-
Accident Benefits:								
Weekly Indemnity (2019 & After)	136,973	95.39%	89.64%	130,657	122,782	6,317	14,191	7,875
Weekly Indemnity (Prior to 2019)	750,132	95.42%	89.65%	715,777	672,528	34,355	77,603	43,248
Pre-PIPP	19,297	96.84%	92.73%	18,686	17,895	610	1,402	792
Other (Indexed) (2011 & After)	262,075	96.09%	91.06%	251,818	238,655	10,257	23,420	13,163
Other (Indexed) (Prior to 2011)	262,137	97.37%	93.89%	255,230	246,127	6,907	16,010	9,103
Other (Non-Indexed)	67,637	94.80%	93.81%	64,123	63,451	3,514	4,186	672
Pre-PIPP	3,323	98.83%	98.59%	3,284	3,276	39	47	8
Collision - Basic	61,243	98.45%	98.13%	60,292	60,098	951	1,145	194
Comprehensive - Basic	19,603	98.16%	97.78%	19,241	19,168	361	435	73
Property Damage - Basic	17,545	98.28%	97.93%	17,243	17,182	301	363	61
ILAE Provision [e]	186,893	96.01%	91.36%	179,442	170,751	7,451	16,143	8,691
<b>Total</b>	<b>1,806,009</b>	<b>96.01%</b>	<b>91.35%</b>	<b>1,733,938</b>	<b>1,649,859</b>	<b>72,071</b>	<b>156,150</b>	<b>84,078</b>

Coverage	Claims Development Margin (9)	Claims Development PFAD (10)=(5)x(9)	Reinsurance Margin (11)	Reinsurance PFAD [b] (12)	CIA Rules Unpaid Claims [c] (13)	Selected IBNR (14)	Required IBNR [d] (15)
	Bodily Injury - Basic	15.00%	2,692			20,836	6,470
Pre-PIPP	12.50%	-			-	-	-
Accident Benefits:							
Weekly Indemnity (2019 & After)	15.00%	18,417	5.00%	-	149,074	117,784	129,885
Weekly Indemnity (Prior to 2019)	10.00%	67,253	5.00%	48	783,078	81,624	114,570
Pre-PIPP	5.00%	895			19,581	11,440	11,724
Other (Indexed) (2011 & After)	15.00%	35,798	5.00%	9	287,625	56,769	82,319
Other (Indexed) (Prior to 2011)	10.00%	24,613	5.00%	15	279,858	29,520	47,241
Other (Non-Indexed)	10.00%	6,345			70,468	16,366	19,197
Pre-PIPP	5.00%	164			3,448	-	125
Collision - Basic	7.50%	4,507			64,799	19,396	22,952
Comprehensive - Basic	7.50%	1,438	2.50%	15	20,694	10,060	11,151
Property Damage - Basic	5.00%	859			18,102	7,917	8,474
ILAE Provision [e]	11.02%	18,812			198,253	186,893	198,253
<b>Total</b>	<b>11.02%</b>	<b>181,792</b>		<b>88</b>	<b>1,915,818</b>	<b>544,238</b>	<b>654,047</b>

Notes:

[a] Summarized from the respective Exhibit 7 sheets:

Other than Accident Benefits - Weekly indemnity, Accident Benefits - Other (Indexed), and  
Comprehensive - Basic, Net amounts are equal to Direct & Agency

Accident Benefits - Weekly Indemnity reduced by ceded unpaid claims of 963

Accident Benefits - Other (Indexed) reduced by ceded unpaid claims of 496

[b] [Exhibit 7, Sheet 1, Column 5 less corresponding amount from above] \* (11)

[c] (5) + (8) + (10) + (12)

[d] ((13) - (1)) + (14)

[e] Internal Loss Adjustment Expense (ILAE) Provision per Exhibit 7, Sheet 1

Manitoba Public Insurance  
Automobile Insurance Division  
Development of Direct & Agency Unpaid Claims  
As of March 31, 2021  
Accident Benefits - Weekly Indemnity  
(\$000)

Discount Rates	Year Ending March 31					
	2022	2023	2024	2025	2026	After 26
With Margin	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%
Without Margin	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%

Exhibit 7  
Sheet 3

Insurance Year	Case Reserve [a]	Selected IBNR [a]	Total Unpaid [a]	Amount Paid for Development Year Ending Feb 28												
				2022	2023	2024	2025	2026	2027	2028	2029	2030	2031			
2010 & Prior	334,778	35,162	369,940	369,940												
2011	38,832	4,925	43,757	43,757												
2012	35,389	4,661	40,050	2,365	37,685											
2013	30,098	3,894	33,992	1,989	1,890	30,113										
2014	38,170	4,036	42,206	2,379	2,331	2,214	35,282									
2015	48,297	4,753	53,050	3,112	2,815	2,758	2,620	41,745								
2016	53,500	5,854	59,354	3,765	3,261	2,950	2,890	2,745	43,744							
2017	52,996	9,008	62,004	4,290	3,661	3,171	2,868	2,810	2,669	42,535						
2018	45,268	20,770	66,038	5,137	4,213	3,596	3,114	2,817	2,760	2,622	41,778					
2019	13,847	60,455	74,302	6,385	5,283	4,333	3,698	3,203	2,897	2,839	2,696	42,967				
2020	5,342	57,329	62,671	8,198	4,681	3,873	3,177	2,711	2,348	2,124	2,081	1,977	31,500			
<b>Total</b>	<b>696,517</b>	<b>210,847</b>	<b>907,364</b>	<b>451,317</b>	<b>65,820</b>	<b>53,008</b>	<b>53,649</b>	<b>56,032</b>	<b>54,418</b>	<b>50,120</b>	<b>46,556</b>	<b>44,944</b>	<b>31,500</b>			
Total Payments				37,620	28,135	22,895	18,367	14,287	10,675	7,585	4,778	1,977	-			
Total Commuted Reserve				413,697	37,685	30,113	35,282	41,745	43,744	42,535	41,778	42,967	31,500			
Discounted with Margin [b]				395,994	35,933	28,713	33,642	39,805	41,710	40,558	39,836	40,970	30,036			
Discounted without Margin [b]				373,558	33,728	26,952	31,578	37,363	39,151	38,070	37,392	38,456	28,193			
Paid Factor to Ultimate [c]			8.4073	4.2699	3.3333	2.8212	2.5055	2.2871	2.1265	1.9996	1.8891	1.7948	1.0000			
Cumulative % Paid [c]			11.89%	23.42%	30.00%	35.45%	39.91%	43.72%	47.02%	50.01%	52.94%	55.72%	100.00%			
Discount Factor for Payments [d]																
With Margin				99.82%	99.46%	99.11%	98.75%	98.40%	98.04%	97.69%	97.34%	96.99%	96.64%			
Without Margin				99.57%	98.72%	97.88%	97.05%	96.22%	95.40%	94.59%	93.78%	92.98%	92.19%			
Discount Factor for Commuted Reserve [d]																
With Margin				100.00%	99.64%	99.28%	98.93%	98.57%	98.22%	97.87%	97.52%	97.17%	96.82%			
Without Margin				100.00%	99.15%	98.30%	97.46%	96.63%	95.81%	94.99%	94.18%	93.38%	92.58%			
Discounted Unpaid [d]		Discount Factor [f]	Total [e]													
With Margin		95.45%	866,083	433,547	63,788	51,198	51,419	53,294	51,433	47,102	43,497	41,726	29,080			
Without Margin		89.73%	814,168	411,017	61,217	48,904	48,602	49,851	47,694	43,337	39,697	37,748	26,102			

Notes:

[a] From Exhibit 2

[b] Discounted to the beginning of the development year

[c] Per Appendix E

[d] Discounted to Mar 31, 2021

[e] Sum of Row

[f] Total Discounted Unpaid / Total Unpaid



Manitoba Public Insurance  
Automobile Insurance Division  
Development of Direct & Agency Unpaid Claims  
As of March 31, 2021  
Accident Benefits - Other (Indexed)  
(\$000)

Discount Rates	Year Ending March 31					
	2022	2023	2024	2025	2026	After 26
With Margin	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%
Without Margin	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%

Exhibit 7  
Sheet 4

Insurance Year	Case Reserve [a]	Selected IBNR [a]	Total Unpaid [a]	Amount Paid for Development Year Ending Feb 28																	
				2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
2002 & Prior	97,338	9,317	106,655	106,655																	
2003	11,372	2,029	13,401	13,401																	
2004	17,211	2,081	19,292	1,416	17,877																
2005	16,389	2,346	18,735	1,296	1,280	16,160															
2006	21,253	2,553	23,806	1,679	1,531	1,511	19,085														
2007	23,259	3,116	26,375	2,032	1,717	1,565	1,545	19,515													
2008	12,571	2,624	15,195	1,270	1,073	906	826	816	10,303												
2009	16,140	3,055	19,195	1,536	1,476	1,247	1,054	961	948	11,974											
2010	17,393	2,398	19,791	1,426	1,469	1,412	1,193	1,008	919	907	11,456										
2011	19,970	3,486	23,456	1,534	1,580	1,627	1,565	1,321	1,116	1,018	1,005	12,690									
2012	13,409	3,092	16,501	985	1,015	1,045	1,077	1,035	874	739	673	665	8,394								
2013	11,160	2,870	14,030	769	792	815	840	865	832	702	594	541	534	6,746							
2014	11,410	2,433	13,843	699	720	742	764	787	811	779	658	556	507	500	6,320						
2015	18,646	3,213	21,859	1,022	1,052	1,084	1,117	1,150	1,184	1,220	1,173	990	837	763	753	9,513					
2016	32,420	3,131	35,551	1,686	1,583	1,630	1,679	1,730	1,782	1,835	1,890	1,817	1,534	1,297	1,182	1,167	14,738				
2017	27,128	2,502	29,630	1,864	1,317	1,236	1,273	1,312	1,351	1,392	1,433	1,476	1,419	1,198	1,013	923	911	11,511			
2018	24,832	8,334	33,166	2,772	1,912	1,350	1,268	1,306	1,345	1,386	1,427	1,470	1,514	1,456	1,229	1,039	947	935	11,808		
2019	26,562	11,110	37,672	4,818	2,746	1,894	1,338	1,256	1,294	1,333	1,373	1,414	1,456	1,500	1,442	1,218	1,029	938	926	11,697	
2020	19,956	16,600	36,556	10,866	3,285	1,873	1,291	912	857	882	909	936	964	993	1,023	983	830	702	640	632	7,976
<b>Total</b>	<b>438,419</b>	<b>86,289</b>	<b>524,708</b>	<b>157,725</b>	<b>42,424</b>	<b>36,099</b>	<b>35,914</b>	<b>33,974</b>	<b>23,616</b>	<b>24,167</b>	<b>22,591</b>	<b>22,555</b>	<b>17,161</b>	<b>14,453</b>	<b>12,962</b>	<b>14,843</b>	<b>18,456</b>	<b>14,086</b>	<b>13,374</b>	<b>12,328</b>	<b>7,976</b>
Total Payments				37,670	24,548	19,940	16,830	14,459	13,313	12,193	11,135	9,866	8,767	7,708	6,643	5,330	3,718	2,575	1,566	632	-
Total Commuted Reserve				120,056	17,877	16,160	19,085	19,515	10,303	11,974	11,456	12,690	8,394	6,746	6,320	9,513	14,738	11,511	11,808	11,697	7,976
Discounted with Margin [b]				117,616	17,401	15,729	18,576	18,996	10,029	11,656	11,151	12,352	8,170	6,566	6,152	9,260	14,346	11,204	11,493	11,385	7,764
Discounted without Margin [b]				114,360	16,771	15,160	17,905	18,309	9,666	11,234	10,748	11,905	7,875	6,329	5,929	8,925	13,827	10,799	11,077	10,973	7,483
Paid Factor to Ultimate [c]			4.5391	2.2120	1.9152	1.7791	1.6960	1.6418	1.5940	1.5475	1.5025	1.4587	1.4162	1.3750	1.3349	1.2986	1.2694	1.2457	1.2249	1.2050	1.0000
Cumulative % Paid [c]			22.03%	45.21%	52.21%	56.21%	58.96%	60.91%	62.74%	64.62%	66.56%	68.55%	70.61%	72.73%	74.91%	77.01%	78.78%	80.28%	81.64%	82.99%	100.00%
Discount Factor for Payments [d]																					
With Margin				99.82%	99.46%	99.11%	98.75%	98.40%	98.04%	97.69%	97.34%	96.99%	96.64%	96.30%	95.95%	95.61%	95.26%	94.92%	94.58%	94.24%	93.90%
Without Margin				99.57%	98.72%	97.88%	97.05%	96.22%	95.40%	94.59%	93.78%	92.98%	92.19%	91.40%	90.62%	89.85%	89.08%	88.32%	87.57%	86.82%	86.08%
Discount Factor for Commuted Reserve [d]																					
With Margin				100.00%	99.64%	99.28%	98.93%	98.57%	98.22%	97.87%	97.52%	97.17%	96.82%	96.47%	96.12%	95.78%	95.44%	95.09%	94.75%	94.41%	94.07%
Without Margin				100.00%	99.15%	98.30%	97.46%	96.63%	95.81%	94.99%	94.18%	93.38%	92.58%	91.79%	91.01%	90.23%	89.47%	88.70%	87.95%	87.20%	86.45%
Discounted Unpaid [d]		Discount Factor [f]	Total [e]																		
With Margin		96.73%	507,544	155,218	41,754	35,378	34,997	32,951	22,902	23,318	21,713	21,571	16,383	13,757	12,287	13,965	17,233	13,099	12,371	11,344	7,304
Without Margin		92.49%	485,278	151,869	40,863	34,420	33,783	31,604	21,961	22,204	20,565	20,290	15,372	12,854	11,416	12,842	15,682	11,853	11,113	10,117	6,469

Notes:

[a] From Exhibit 2

[b] Discounted to the beginning of the development year

[c] Per Appendix F

[d] Discounted to Mar 31, 2021

[e] Sum of Row

[f] Total Discounted Unpaid / Total Unpaid



Manitoba Public Insurance  
Automobile Insurance Division  
Development of Direct & Agency Unpaid Claims  
As of March 31, 2021  
Bodily Injury - Basic  
(\$000)

Discount Rates	Year Ending March 31					
	2022	2023	2024	2025	2026	After 26
With Margin	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%
Without Margin	2.88%	2.88%	2.88%	2.88%	2.88%	2.88%

Exhibit 7  
Sheet 6

Insurance Year	Case Reserve [a]	Selected IBNR [a]	Total Unpaid [a]	Amount Paid for Development Year Ending Feb 28																
				2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
2002 & Prior	1	-	1	1																
2003	-	-	-	-																
2004	-	-	-	-																
2005	25	-	25	25																
2006	-	-	-	-																
2007	40	-	40	40																
2008	25	-	25	25																
2009	50	-	50	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	175	-	175	134	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2011	64	-	64	41	18	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2012	86	2	88	40	31	14	4	-	-	-	-	-	-	-	-	-	-	-	-	-
2013	20	6	26	11	7	5	2	1	-	-	-	-	-	-	-	-	-	-	-	-
2014	519	32	551	205	141	92	72	31	9	-	-	-	-	-	-	-	-	-	-	-
2015	556	106	662	288	139	96	62	49	21	6	-	-	-	-	-	-	-	-	-	-
2016	1,582	230	1,812	724	473	229	157	103	80	35	11	-	-	-	-	-	-	-	-	-
2017	2,390	461	2,851	1,062	715	467	227	155	101	79	35	10	-	-	-	-	-	-	-	-
2018	3,176	972	4,148	1,264	1,074	723	473	229	157	103	80	35	11	-	-	-	-	-	-	-
2019	2,143	1,838	3,981	985	913	775	522	341	166	113	74	58	25	8	-	-	-	-	-	-
2020	1,830	2,823	4,653	929	921	854	726	489	319	155	106	69	54	24	7	-	-	-	-	-
<b>Total</b>	<b>12,682</b>	<b>6,470</b>	<b>19,152</b>	<b>5,823</b>	<b>4,473</b>	<b>3,261</b>	<b>2,245</b>	<b>1,398</b>	<b>854</b>	<b>491</b>	<b>305</b>	<b>173</b>	<b>90</b>	<b>31</b>	<b>7</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Paid Factor to Ultimate [b]			38.5600	4.5365	2.4195	1.6890	1.3442	1.1817	1.0952	1.0576	1.0334	1.0181	1.0065	1.0015	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Cumulative % Paid [b]			2.59%	22.04%	41.33%	59.21%	74.39%	84.62%	91.31%	94.55%	96.77%	98.22%	99.35%	99.85%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Discount Factor for Payments [c]																				
With Margin				98.83%	96.53%	94.29%	92.10%	89.96%	87.87%	85.82%	83.83%	81.88%	79.98%	78.12%	76.30%	74.53%	72.79%	71.10%	69.45%	67.83%
Without Margin				98.59%	95.83%	93.15%	90.54%	88.01%	85.54%	83.15%	80.82%	78.56%	76.36%	74.22%	72.14%	70.12%	68.16%	66.25%	64.40%	62.59%
Discounted Unpaid [c]		Discount Factor [e]	Total [d]																	
With Margin		94.74%	18,144	5,755	4,318	3,075	2,067	1,258	751	422	256	141	72	25	5	-	-	-	-	-
Without Margin		93.71%	17,947	5,741	4,286	3,038	2,032	1,230	731	409	247	136	69	23	5	-	-	-	-	-

Notes:

[a] From Exhibit 2

[b] Per Appendix A

[c] Discounted to Mar 31, 2021

[d] Sum of Row

[e] Total Discounted Unpaid / Total Unpaid



Manitoba Public Insurance  
Automobile Insurance Division  
Development of Direct & Agency Unpaid Claims  
As of March 31, 2021  
Collision - Basic  
(\$000)

Exhibit 7  
Sheet 8

Discount Rates	Year Ending March 31					
	2022	2023	2024	2025	2026	After 26
With Margin	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%
Without Margin	2.88%	2.88%	2.88%	2.88%	2.88%	2.88%

Insurance Year	Case Reserve [a]	Selected IBNR [a]	Total Unpaid [a]	Amount Paid for Development Year Ending Feb 28																
				2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
2002 & Prior	1	-	1	1																
2003	-	-	-	-																
2004	-	-	-	-																
2005	-	-	-	-																
2006	-	-	-	-																
2007	-	-	-	-																
2008	-	-	-	-																
2009	-	-	-	-																
2010	-	-	-	-																
2011	2	-	2	2																
2012	2	-	2	2																
2013	2	-	2	2																
2014	-	-	-	-																
2015	10	-	10	10																
2016	17	-	17	17																
2017	36	408	444	148	148	148	-	-	-	-	-	-	-	-	-	-	-	-	-	
2018	163	1,429	1,592	994	199	199	200	-	-	-	-	-	-	-	-	-	-	-	-	
2019	848	5,254	6,102	4,653	904	181	181	182	-	-	-	-	-	-	-	-	-	-	-	
2020	40,766	12,305	53,071	48,693	3,338	649	130	130	130	-	-	-	-	-	-	-	-	-	-	
<b>Total</b>	<b>41,847</b>	<b>19,396</b>	<b>61,243</b>	<b>54,522</b>	<b>4,590</b>	<b>1,178</b>	<b>511</b>	<b>312</b>	<b>130</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Paid Factor to Ultimate [b]			1.2557	1.0171	1.0040	1.0015	1.0010	1.0005	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Cumulative % Paid [b]			79.63%	98.32%	99.60%	99.85%	99.90%	99.95%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Discount Factor for Payments [c]																				
With Margin				98.83%	96.53%	94.29%	92.10%	89.96%	87.87%	85.82%	83.83%	81.88%	79.98%	78.12%	76.30%	74.53%	72.79%	71.10%	69.45%	
Without Margin				98.59%	95.83%	93.15%	90.54%	88.01%	85.54%	83.15%	80.82%	78.56%	76.36%	74.22%	72.14%	70.12%	68.16%	66.25%	64.40%	
Discounted Unpaid [c]		Discount Factor [e]	Total [d]																	
With Margin		98.45%	60,292	53,885	4,431	1,111	471	280	114	-	-	-	-	-	-	-	-	-	-	
Without Margin		98.13%	60,098	53,754	4,399	1,097	463	274	111	-	-	-	-	-	-	-	-	-	-	

Notes:  
[a] From Exhibit 2 [b] Per Appendix C [c] Discounted to Mar 31, 2021 [d] Sum of Row [e] Total Discounted Unpaid / Total Unpaid



Manitoba Public Insurance  
Automobile Insurance Division  
Development of Net Unpaid Claims  
As of March 31, 2021  
Comprehensive - Basic  
(\$000)

Exhibit 7  
Sheet 10

Discount Rates	Year Ending March 31					
	2022	2023	2024	2025	2026	After 26
With Margin	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%
Without Margin	2.88%	2.88%	2.88%	2.88%	2.88%	2.88%

Insurance Year	Case Reserve [a]	Selected IBNR [a]	Total Unpaid [a]	Amount Paid for Development Year Ending Feb 28																
				2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
2002 & Prior	(1)	-	(1)	(1)																
2003	-	-	-	-																
2004	-	-	-	-																
2005	-	-	-	-																
2006	-	-	-	-																
2007	-	-	-	-																
2008	-	-	-	-																
2009	-	-	-	-																
2010	-	-	-	-																
2011	-	-	-	-																
2012	4	(4)	-	-																
2013	-	-	-	-																
2014	-	-	-	-																
2015	6	55	61	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2016	144	93	237	178	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2017	14	314	328	182	109	37	-	-	-	-	-	-	-	-	-	-	-	-	-	
2018	202	703	905	516	216	130	43	-	-	-	-	-	-	-	-	-	-	-	-	
2019	1,123	1,955	3,078	2,165	520	218	131	44	-	-	-	-	-	-	-	-	-	-	-	
2020	8,051	6,944	14,995	12,689	1,622	390	163	98	33	-	-	-	-	-	-	-	-	-	-	
<b>Total</b>	<b>9,543</b>	<b>10,060</b>	<b>19,603</b>	<b>15,788</b>	<b>2,527</b>	<b>774</b>	<b>338</b>	<b>142</b>	<b>33</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Paid Factor to Ultimate [b]			1.2960	1.0364	1.0105	1.0045	1.0020	1.0005	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Cumulative % Paid [b]			77.16%	96.49%	98.96%	99.55%	99.80%	99.95%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Discount Factor for Payments [c]																				
With Margin				98.83%	96.53%	94.29%	92.10%	89.96%	87.87%	85.82%	83.83%	81.88%	79.98%	78.12%	76.30%	74.53%	72.79%	71.10%	69.45%	
Without Margin				98.59%	95.83%	93.15%	90.54%	88.01%	85.54%	83.15%	80.82%	78.56%	76.36%	74.22%	72.14%	70.12%	68.16%	66.25%	64.40%	
Discounted Unpaid [c]		Discount Factor [e]	Total [d]																	
With Margin		98.16%	19,241	15,604	2,440	730	311	128	29	-	-	-	-	-	-	-	-	-	-	
Without Margin		97.78%	19,168	15,566	2,422	721	306	125	28	-	-	-	-	-	-	-	-	-	-	

Notes:  
[a] From Exhibit 2    [b] Per Appendix D    [c] Discounted to Mar 31, 2021    [d] Sum of Row    [e] Total Discounted Unpaid / Total Unpaid

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## EXHIBIT 8 APV CALCULATIONS BY INSURANCE YEAR

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Manitoba Public Insurance  
Automobile Insurance Division  
Unpaid Claims Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021  
(\$000)

Exhibit 8  
Sheet 1

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin						
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)	(9)=(6)*(8)	(10)	(11)	(12)
<b>Bodily Injury - Basic</b>											
2002 & Prior	1	98.83%	98.59%	1	1	0	15.00%	0	1	-	0
2003	-	100.00%	100.00%	-	-	-	15.00%	-	-	-	-
2004	-	100.00%	100.00%	-	-	-	15.00%	-	-	-	-
2005	25	98.83%	98.59%	25	25	0	15.00%	4	28	-	3
2006	-	100.00%	100.00%	-	-	-	15.00%	-	-	-	-
2007	40	98.83%	98.59%	40	39	0	15.00%	6	45	-	5
2008	25	98.83%	98.59%	25	25	0	15.00%	4	28	-	3
2009	50	98.83%	98.59%	49	49	0	15.00%	7	57	-	7
2010	175	98.30%	97.95%	172	171	1	15.00%	26	198	-	23
2011	64	97.81%	97.36%	63	62	0	15.00%	9	72	-	8
2012	88	97.02%	96.41%	85	85	1	15.00%	13	98	2	12
2013	26	96.42%	95.70%	25	25	0	15.00%	4	29	6	9
2014	551	95.91%	95.10%	528	524	4	15.00%	79	607	32	88
2015	662	95.92%	95.11%	635	629	5	15.00%	94	729	106	173
2016	1,812	95.74%	94.90%	1,735	1,720	15	15.00%	258	1,993	230	411
2017	2,851	95.50%	94.61%	2,723	2,698	25	15.00%	405	3,128	461	738
2018	4,148	94.97%	93.98%	3,939	3,898	41	15.00%	585	4,524	972	1,348
2019	3,981	94.26%	93.14%	3,752	3,708	45	15.00%	556	4,308	1,838	2,165
2020	4,653	93.42%	92.14%	4,347	4,288	60	15.00%	643	4,990	2,823	3,160
<b>Total</b>	<b>19,152</b>	<b>94.74%</b>	<b>93.71%</b>	<b>18,144</b>	<b>17,947</b>	<b>198</b>	<b>15.00%</b>	<b>2,692</b>	<b>20,836</b>	<b>6,470</b>	<b>8,154</b>

Notes:  
(2) - Exhibit 2, Column 9  
(8) - Exhibit 7, Sheet 1, Column 9  
(10) = (6)+(7)+(9)  
(11) - Exhibit 2, Column 6  
(12) = (11)+[(10)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Unpaid Claims Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021  
(\$000)

Exhibit 8  
Sheet 2

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin						
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)	(9)=(6)*(8)	(10)	(11)	(12)
<b>Property Damage - Basic</b>											
2002 & Prior	-	100.00%	100.00%	-	-	-	5.00%	-	-	-	-
2003	-	100.00%	100.00%	-	-	-	5.00%	-	-	-	-
2004	-	100.00%	100.00%	-	-	-	5.00%	-	-	-	-
2005	-	100.00%	100.00%	-	-	-	5.00%	-	-	-	-
2006	-	100.00%	100.00%	-	-	-	5.00%	-	-	-	-
2007	3	98.83%	98.59%	3	3	0	5.00%	0	3	-	0
2008	-	100.00%	100.00%	-	-	-	5.00%	-	-	-	-
2009	10	98.83%	98.59%	10	10	0	5.00%	0	10	-	0
2010	-	100.00%	100.00%	-	-	-	5.00%	-	-	-	-
2011	-	100.00%	100.00%	-	-	-	5.00%	-	-	-	-
2012	70	98.83%	98.59%	69	69	0	5.00%	3	72	(21)	(19)
2013	(45)	98.83%	98.59%	(45)	(45)	(0)	5.00%	(2)	(47)	(45)	(47)
2014	(41)	98.83%	98.59%	(41)	(41)	(0)	5.00%	(2)	(43)	(61)	(63)
2015	(58)	98.83%	98.59%	(57)	(57)	(0)	5.00%	(3)	(60)	(62)	(64)
2016	(21)	98.06%	97.67%	(20)	(20)	(0)	5.00%	(1)	(21)	(22)	(22)
2017	254	97.69%	97.22%	248	247	1	5.00%	12	260	67	73
2018	1,199	97.73%	97.27%	1,171	1,166	6	5.00%	58	1,230	245	276
2019	3,208	98.17%	97.80%	3,150	3,138	12	5.00%	157	3,306	1,381	1,479
2020	12,966	98.37%	98.04%	12,755	12,712	43	5.00%	636	13,391	6,435	6,860
<b>Total</b>	<b>17,545</b>	<b>98.28%</b>	<b>97.93%</b>	<b>17,243</b>	<b>17,182</b>	<b>61</b>	<b>5.00%</b>	<b>859</b>	<b>18,102</b>	<b>7,917</b>	<b>8,474</b>

Notes:  
(2) - Exhibit 2, Column 9  
(8) - Exhibit 7, Sheet 1, Column 9  
(10) = (6)+(7)+(9)  
(11) - Exhibit 2, Column 6  
(12) = (11)+[(10)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Unpaid Claims Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021  
(\$000)

Exhibit 8  
Sheet 3

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin						
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)	(9)=(6)*(8)	(10)	(11)	(12)
<b>Collision - Basic</b>											
2002 & Prior	1	98.83%	98.59%	1	1	0	7.50%	0	1	-	0
2003	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2004	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2005	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2006	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2007	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2008	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2009	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2010	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2011	2	98.83%	98.59%	2	2	0	7.50%	0	2	-	0
2012	2	98.83%	98.59%	2	2	0	7.50%	0	2	-	0
2013	2	98.83%	98.59%	2	2	0	7.50%	0	2	-	0
2014	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2015	10	98.83%	98.59%	10	10	0	7.50%	1	11	-	1
2016	17	98.83%	98.59%	17	17	0	7.50%	1	18	-	1
2017	444	96.55%	95.86%	429	426	3	7.50%	32	461	408	425
2018	1,592	97.13%	96.55%	1,547	1,538	9	7.50%	115	1,662	1,429	1,499
2019	6,102	97.89%	97.47%	5,973	5,947	26	7.50%	446	6,419	5,254	5,571
2020	53,071	98.57%	98.27%	52,309	52,154	156	7.50%	3,912	56,221	12,305	15,455
<b>Total</b>	<b>61,243</b>	<b>98.45%</b>	<b>98.13%</b>	<b>60,292</b>	<b>60,098</b>	<b>194</b>	<b>7.50%</b>	<b>4,507</b>	<b>64,799</b>	<b>19,396</b>	<b>22,952</b>

Notes:  
(2) - Exhibit 2, Column 9  
(8) - Exhibit 7, Sheet 1, Column 9  
(10) = (6)+(7)+(9)  
(11) - Exhibit 2, Column 6  
(12) = (11)+[(10)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Unpaid Claims Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021  
(\$000)

Exhibit 8  
Sheet 4

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin						
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)	(9)=(6)*(8)	(10)	(11)	(12)
<b>Comprehensive - Basic</b>											
2002 & Prior	(1)	98.83%	98.59%	(1)	(1)	(0)	7.50%	(0)	(1)	-	(0)
2003	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2004	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2005	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2006	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2007	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2008	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2009	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2010	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2011	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2012	-	100.00%	100.00%	-	-	-	7.50%	-	-	(4)	(4)
2013	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2014	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-
2015	61	98.83%	98.59%	60	60	0	7.50%	4	64	55	58
2016	237	98.26%	97.90%	233	232	1	7.50%	17	250	93	106
2017	328	97.56%	97.06%	320	318	2	7.50%	24	344	314	330
2018	1,524	97.31%	96.76%	1,483	1,475	8	7.50%	111	1,593	(99)	(30)
2019	3,078	97.71%	97.24%	3,007	2,993	14	7.50%	224	3,232	1,955	2,109
2020	14,995	98.31%	97.96%	14,741	14,690	52	7.50%	1,102	15,843	6,944	7,792
<b>Total</b>	<b>20,221</b>	<b>98.13%</b>	<b>97.75%</b>	<b>19,843</b>	<b>19,767</b>	<b>77</b>	<b>7.50%</b>	<b>1,482</b>	<b>21,326</b>	<b>9,257</b>	<b>10,362</b>

Notes:  
(2) - Exhibit 2, Column 9  
(8) - Exhibit 7, Sheet 1, Column 9  
(10) = (6)+(7)+(9)  
(11) - Exhibit 2, Column 6  
(12) = (11)+[(10)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Unpaid Claims Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021  
(\$000)

Exhibit 8  
Sheet 5

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin						
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)	(9)=(6)*(8)	(10)	(11)	(12)
<b>Accident Benefits - Weekly Indemnity</b>											
2002 & Prior	159,029	95.93%	90.74%	152,552	144,301	8,251	9.38%	13,535	166,087	19,377	26,435
2003	16,512	95.97%	90.86%	15,847	15,004	844	10.00%	1,500	17,348	1,080	1,916
2004	17,393	95.62%	90.06%	16,632	15,665	967	10.00%	1,567	18,198	1,164	1,969
2005	19,216	95.83%	90.54%	18,416	17,399	1,017	10.00%	1,740	20,156	1,495	2,435
2006	26,995	95.34%	89.47%	25,737	24,151	1,586	10.00%	2,415	28,153	2,009	3,167
2007	29,355	95.52%	89.88%	28,040	26,384	1,656	10.00%	2,638	30,678	2,043	3,366
2008	29,922	95.77%	90.41%	28,657	27,053	1,604	10.00%	2,705	31,362	2,362	3,802
2009	29,626	95.75%	90.37%	28,367	26,773	1,595	10.00%	2,677	31,045	2,661	4,080
2010	41,890	95.54%	89.91%	40,022	37,664	2,358	10.00%	3,766	43,789	2,969	4,868
2011	43,757	95.35%	89.50%	41,723	39,163	2,560	10.00%	3,916	45,639	4,925	6,807
2012	40,050	95.29%	89.38%	38,165	35,796	2,369	10.00%	3,580	41,744	4,661	6,355
2013	33,992	95.24%	89.26%	32,373	30,341	2,032	10.00%	3,034	35,407	3,894	5,309
2014	42,206	95.17%	89.12%	40,168	37,614	2,554	10.00%	3,761	43,930	4,036	5,760
2015	53,050	95.12%	89.02%	50,463	47,224	3,239	10.00%	4,722	55,185	4,753	6,888
2016	59,354	95.10%	88.98%	56,447	52,811	3,636	10.00%	5,281	61,728	5,854	8,228
2017	62,004	95.11%	89.00%	58,973	55,186	3,787	10.00%	5,519	64,491	9,008	11,495
2018	66,038	95.16%	89.13%	62,843	58,857	3,986	10.00%	5,886	68,729	20,770	23,461
2019	74,302	95.25%	89.33%	70,774	66,373	4,400	15.00%	9,956	80,730	60,455	66,883
2020	62,671	95.55%	90.01%	59,883	56,408	3,475	15.00%	8,461	68,344	57,329	63,002
<b>Total</b>	<b>907,364</b>	<b>95.45%</b>	<b>89.73%</b>	<b>866,083</b>	<b>814,168</b>	<b>51,915</b>	<b>10.64%</b>	<b>86,661</b>	<b>952,744</b>	<b>210,847</b>	<b>256,227</b>

Notes:  
(2) - Exhibit 2, Column 9  
(8) - Exhibit 7, Sheet 1, Column 9  
(10) = (6)+(7)+(9)  
(11) - Exhibit 2, Column 6  
(12) = (11)+[(10)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Unpaid Claims Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021  
(\$000)

Exhibit 8  
Sheet 6

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin						
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)	(9)=(6)*(8)	(10)	(11)	(12)
<b>Accident Benefits - Other (Indexed)</b>											
2002 & Prior	106,655	98.05%	95.44%	104,572	101,788	2,784	10.00%	10,179	114,751	9,317	17,413
2003	13,401	97.34%	93.82%	13,044	12,572	472	10.00%	1,257	14,301	2,029	2,929
2004	19,292	97.20%	93.50%	18,751	18,038	713	10.00%	1,804	20,555	2,081	3,344
2005	18,735	97.05%	93.18%	18,183	17,457	726	10.00%	1,746	19,929	2,346	3,540
2006	23,806	96.92%	92.89%	23,074	22,113	961	10.00%	2,211	25,285	2,553	4,032
2007	26,375	96.83%	92.67%	25,538	24,442	1,096	10.00%	2,444	27,982	3,116	4,723
2008	15,195	96.76%	92.52%	14,702	14,059	643	10.00%	1,406	16,108	2,624	3,537
2009	19,195	96.68%	92.36%	18,559	17,729	829	10.00%	1,773	20,332	3,055	4,192
2010	19,791	96.59%	92.15%	19,116	18,238	878	10.00%	1,824	20,940	2,398	3,547
2011	23,456	96.48%	91.90%	22,629	21,556	1,073	15.00%	3,233	25,863	3,486	5,893
2012	16,501	96.35%	91.62%	15,899	15,119	780	15.00%	2,268	18,167	3,092	4,758
2013	14,030	96.21%	91.32%	13,498	12,812	686	15.00%	1,922	15,420	2,870	4,260
2014	13,843	96.07%	91.00%	13,299	12,597	702	15.00%	1,890	15,188	2,433	3,778
2015	21,859	95.91%	90.66%	20,966	19,817	1,149	15.00%	2,973	23,938	3,213	5,292
2016	35,551	95.77%	90.35%	34,048	32,119	1,929	15.00%	4,818	38,866	3,131	6,446
2017	29,630	95.71%	90.20%	28,357	26,727	1,630	15.00%	4,009	32,366	2,502	5,238
2018	33,166	95.73%	90.28%	31,751	29,943	1,808	15.00%	4,491	36,242	8,334	11,410
2019	37,672	95.96%	90.80%	36,149	34,206	1,943	15.00%	5,131	41,280	11,110	14,718
2020	36,556	96.86%	92.86%	35,410	33,947	1,463	15.00%	5,092	40,502	16,600	20,546
<b>Total</b>	<b>524,708</b>	<b>96.73%</b>	<b>92.49%</b>	<b>507,544</b>	<b>485,278</b>	<b>22,266</b>	<b>12.46%</b>	<b>60,470</b>	<b>568,014</b>	<b>86,289</b>	<b>129,595</b>

Notes:  
(2) - Exhibit 2, Column 9  
(8) - Exhibit 7, Sheet 1, Column 9  
(10) = (6)+(7)+(9)  
(11) - Exhibit 2, Column 6  
(12) = (11)+[(10)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Unpaid Claims Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021  
(\$000)

Exhibit 8  
Sheet 7

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin						
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)	(9)=(6)*(8)	(10)	(11)	(12)
<b>Accident Benefits - Other (Non-Indexed)</b>											
2002 & Prior	3,412	98.83%	98.59%	3,372	3,364	8	5.13%	173	3,545	-	133
2003	18	98.83%	98.59%	18	18	0	10.00%	2	20	-	2
2004	3	98.83%	98.59%	3	3	0	10.00%	0	3	-	0
2005	4	98.83%	98.59%	4	4	0	10.00%	0	4	-	0
2006	93	97.97%	97.55%	91	91	0	10.00%	9	101	34	42
2007	131	97.15%	96.58%	127	127	1	10.00%	13	140	88	97
2008	163	96.26%	95.51%	157	156	1	10.00%	16	172	146	155
2009	258	95.25%	94.31%	246	244	2	10.00%	24	270	209	221
2010	280	94.22%	93.08%	264	261	3	10.00%	26	290	260	270
2011	591	93.05%	91.70%	550	542	8	10.00%	54	604	354	367
2012	528	92.05%	90.51%	486	478	8	10.00%	48	534	419	425
2013	558	91.72%	90.13%	511	503	9	10.00%	50	562	487	491
2014	884	91.57%	89.96%	810	796	14	10.00%	80	889	590	595
2015	1,474	91.15%	89.48%	1,344	1,319	25	10.00%	132	1,476	716	718
2016	2,265	91.22%	89.57%	2,066	2,029	37	10.00%	203	2,269	876	880
2017	3,157	92.16%	90.69%	2,910	2,863	47	10.00%	286	3,196	-	39
2018	15,493	93.94%	92.80%	14,554	14,377	177	10.00%	1,438	15,992	1,509	2,008
2019	16,726	95.73%	94.91%	16,011	15,874	137	10.00%	1,587	17,599	2,408	3,281
2020	24,921	95.83%	95.02%	23,883	23,681	202	10.00%	2,368	26,251	8,269	9,599
<b>Total</b>	<b>70,960</b>	<b>94.99%</b>	<b>94.03%</b>	<b>67,408</b>	<b>66,727</b>	<b>680</b>	<b>9.75%</b>	<b>6,509</b>	<b>73,916</b>	<b>16,366</b>	<b>19,322</b>

Notes:  
(2) - Exhibit 2, Column 9  
(8) - Exhibit 7, Sheet 1, Column 9  
(10) = (6)+(7)+(9)  
(11) - Exhibit 2, Column 6  
(12) = (11)+[(10)-(2)]



Manitoba Public Insurance  
Automobile Insurance Division  
Unpaid Claims Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021  
(\$000)

Exhibit 8  
Sheet 8

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin						
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)=(9)/(6)	(9)	(10)	(11)	(12)
<b>Accident Benefits - Total</b>											
2002 & Prior	269,097	96.80%	92.70%	260,497	249,453	11,044	9.58%	23,887	284,383	28,695	43,981
2003	29,931	96.59%	92.19%	28,909	27,593	1,316	10.00%	2,759	31,668	3,109	4,846
2004	36,689	96.45%	91.87%	35,386	33,706	1,680	10.00%	3,371	38,757	3,246	5,314
2005	37,956	96.44%	91.84%	36,603	34,860	1,743	10.00%	3,486	40,089	3,842	5,975
2006	50,895	96.09%	91.08%	48,903	46,355	2,547	10.00%	4,636	53,538	4,597	7,240
2007	55,861	96.14%	91.21%	53,705	50,953	2,753	10.00%	5,095	58,800	5,247	8,186
2008	45,280	96.11%	91.14%	43,516	41,268	2,248	10.00%	4,127	47,643	5,132	7,495
2009	49,080	96.11%	91.17%	47,172	44,746	2,426	10.00%	4,475	51,647	5,926	8,493
2010	61,961	95.87%	90.64%	59,402	56,163	3,239	10.00%	5,616	65,019	5,627	8,685
2011	67,804	95.72%	90.35%	64,902	61,262	3,640	11.76%	7,204	72,106	8,765	13,067
2012	57,079	95.57%	90.04%	54,549	51,392	3,157	11.47%	5,895	60,445	8,172	11,538
2013	48,579	95.48%	89.86%	46,383	43,655	2,728	11.47%	5,006	51,389	7,250	10,060
2014	56,933	95.33%	89.59%	54,277	51,007	3,270	11.23%	5,731	60,007	7,059	10,133
2015	76,382	95.27%	89.50%	72,772	68,360	4,412	11.45%	7,827	80,599	8,681	12,898
2016	97,170	95.26%	89.49%	92,561	86,959	5,602	11.85%	10,302	102,863	9,861	15,554
2017	94,791	95.20%	89.43%	90,239	84,776	5,463	11.58%	9,814	100,053	11,510	16,772
2018	114,696	95.16%	89.96%	109,149	103,176	5,972	11.45%	11,815	120,963	30,612	36,879
2019	128,700	95.52%	90.48%	122,934	116,453	6,480	14.32%	16,674	139,608	73,973	84,881
2020	124,149	95.99%	91.85%	119,175	114,036	5,139	13.96%	15,921	135,097	82,199	93,147
<b>Total</b>	<b>1,503,032</b>	<b>95.88%</b>	<b>90.89%</b>	<b>1,441,034</b>	<b>1,366,173</b>	<b>74,861</b>	<b>11.25%</b>	<b>153,640</b>	<b>1,594,674</b>	<b>313,502</b>	<b>405,144</b>

Notes:  
(2) - Exhibit 2, Column 9  
(10) = (6)+(7)+(9)  
(11) - Exhibit 2, Column 6  
(12) = (11)+[(10)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Unpaid Claims Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021  
(\$000)

Exhibit 8  
Sheet 9

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin						
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)=(9)/(6)	(9)	(10)	(11)	(12)
<b>Basic - Total All Coverage*</b>											
2002 & Prior	269,098	96.80%	92.70%	260,498	249,454	11,044	9.58%	23,887	284,384	28,695	43,981
2003	29,931	96.59%	92.19%	28,909	27,593	1,316	10.00%	2,759	31,668	3,109	4,846
2004	36,689	96.45%	91.87%	35,386	33,706	1,680	10.00%	3,371	38,757	3,246	5,314
2005	37,981	96.44%	91.85%	36,628	34,885	1,743	10.00%	3,490	40,117	3,842	5,978
2006	50,895	96.09%	91.08%	48,903	46,355	2,547	10.00%	4,636	53,538	4,597	7,240
2007	55,904	96.14%	91.22%	53,748	50,995	2,753	10.00%	5,101	58,849	5,247	8,192
2008	45,305	96.11%	91.14%	43,541	41,292	2,248	10.00%	4,130	47,671	5,132	7,498
2009	49,140	96.12%	91.18%	47,232	44,805	2,427	10.00%	4,482	51,714	5,926	8,500
2010	62,136	95.88%	90.66%	59,574	56,335	3,240	10.02%	5,642	65,216	5,627	8,707
2011	67,870	95.72%	90.36%	64,967	61,326	3,641	11.76%	7,214	72,180	8,765	13,075
2012	57,239	95.58%	90.06%	54,706	51,548	3,158	11.47%	5,912	60,617	8,149	11,527
2013	48,562	95.48%	89.86%	46,365	43,637	2,728	11.48%	5,008	51,373	7,211	10,022
2014	57,443	95.34%	89.64%	54,765	51,490	3,275	11.28%	5,807	60,572	7,030	10,159
2015	77,057	95.28%	89.55%	73,420	69,002	4,418	11.48%	7,924	81,343	8,780	13,066
2016	99,216	95.27%	89.61%	94,526	88,907	5,618	11.90%	10,577	105,103	10,163	16,050
2017	98,668	95.23%	89.66%	93,959	88,465	5,494	11.63%	10,287	104,246	12,760	18,338
2018	123,159	95.23%	90.33%	117,289	111,252	6,036	11.40%	12,684	129,972	33,159	39,972
2019	145,068	95.69%	91.16%	138,816	132,239	6,577	13.66%	18,058	156,874	84,400	96,206
2020	209,833	96.90%	94.30%	203,328	197,880	5,449	11.23%	22,213	225,542	110,705	126,414
<b>Total</b>	<b>1,621,194</b>	<b>96.01%</b>	<b>91.36%</b>	<b>1,556,557</b>	<b>1,481,166</b>	<b>75,391</b>	<b>11.02%</b>	<b>163,181</b>	<b>1,719,738</b>	<b>356,543</b>	<b>455,087</b>

Notes: (2) - Exhibit 2, Column 9  
(10) = (6)+(7)+(9)  
(11) - Exhibit 2, Column 6  
(12) = (11)+[(10)-(2)]  
\*Not including PIPP Enhancements (see PE Exhibit 2, Sheet 8 & PE Exhibit 4)

Manitoba Public Insurance  
Automobile Insurance Division  
Unpaid Claims Liabilities Including Provision for Adverse Deviation (Net)  
As of March 31, 2021  
(\$000)

Exhibit 8  
Sheet 10

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	Reins PFAD	CIA Rules		Required IBNR
		With Margin	Without Margin	With Margin	Without Margin					Unpaid Claims	Selected IBNR	
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)	(9)=(6)*(8)	(10)	(11)	(12)	(13)
<b>Comprehensive - Basic</b>												
2002 & Prior	(1)	98.83%	98.59%	(1)	(1)	(0)	7.50%	(0)	-	(1)	-	(0)
2003	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-	-
2004	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-	-
2005	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-	-
2006	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-	-
2007	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-	-
2008	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-	-
2009	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-	-
2010	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-	-
2011	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-	-
2012	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	(4)	(4)
2013	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-	-
2014	-	100.00%	100.00%	-	-	-	7.50%	-	-	-	-	-
2015	61	98.83%	98.59%	60	60	0	7.50%	4	-	64	55	58
2016	237	98.26%	97.90%	233	232	1	7.50%	17	-	250	93	106
2017	328	97.56%	97.06%	320	318	2	7.50%	24	-	344	314	330
2018	905	97.31%	96.76%	881	876	5	7.50%	66	15	961	703	759
2019	3,078	97.71%	97.24%	3,007	2,993	14	7.50%	224	-	3,232	1,955	2,109
2020	14,995	98.31%	97.96%	14,741	14,690	52	7.50%	1,102	-	15,843	6,944	7,792
<b>Total</b>	<b>19,603</b>	<b>98.16%</b>	<b>97.78%</b>	<b>19,241</b>	<b>19,168</b>	<b>73</b>	<b>7.50%</b>	<b>1,438</b>	<b>15</b>	<b>20,694</b>	<b>10,060</b>	<b>11,151</b>

Notes:  
 (2) - Exhibit 2, Column 9  
 (8) - Exhibit 7, Sheet 2, Column 9  
 (10) = [Column 6 from Sheet 4 less corresponding amount from above] \* 2.50%  
 (11) = (6)+(7)+(9)+(10)  
 (12) - Exhibit 2, Column 6  
 (13) = (12)+[(11)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Unpaid Claims Liabilities Including Provision for Adverse Deviation (Net)  
As of March 31, 2021  
(\$000)

Exhibit 8  
Sheet 11

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	Reins PFAD	CIA Rules		
		With Margin	Without Margin	With Margin	Without Margin					Unpaid Claims	Selected IBNR	Required IBNR
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)	(9)=(6)*(8)	(10)	(11)	(12)	(13)
<b>Accident Benefits - Weekly Indemnity</b>												
2002 & Prior	159,029	95.93%	90.74%	152,552	144,301	8,251	9.38%	13,535	-	166,087	19,377	26,435
2003	16,512	95.97%	90.86%	15,847	15,004	844	10.00%	1,500	-	17,348	1,080	1,916
2004	17,393	95.62%	90.06%	16,632	15,665	967	10.00%	1,567	-	18,198	1,164	1,969
2005	19,212	95.83%	90.54%	18,412	17,395	1,017	10.00%	1,740	0	20,152	1,495	2,435
2006	26,995	95.34%	89.47%	25,737	24,151	1,586	10.00%	2,415	-	28,153	2,009	3,167
2007	29,198	95.50%	89.82%	27,883	26,227	1,656	10.00%	2,623	8	30,514	2,043	3,359
2008	29,922	95.77%	90.41%	28,657	27,053	1,604	10.00%	2,705	-	31,362	2,362	3,802
2009	29,626	95.75%	90.37%	28,367	26,773	1,595	10.00%	2,677	-	31,045	2,661	4,080
2010	41,506	95.50%	89.82%	39,638	37,280	2,358	10.00%	3,728	19	43,385	2,969	4,848
2011	43,538	95.33%	89.45%	41,504	38,944	2,560	10.00%	3,894	11	45,409	4,925	6,796
2012	40,050	95.29%	89.38%	38,165	35,796	2,369	10.00%	3,580	-	41,744	4,661	6,355
2013	33,793	95.21%	89.19%	32,174	30,142	2,032	10.00%	3,014	10	35,198	3,894	5,299
2014	42,206	95.17%	89.12%	40,168	37,614	2,554	10.00%	3,761	-	43,930	4,036	5,760
2015	53,050	95.12%	89.02%	50,463	47,224	3,239	10.00%	4,722	-	55,185	4,753	6,888
2016	59,354	95.10%	88.98%	56,447	52,811	3,636	10.00%	5,281	-	61,728	5,854	8,228
2017	62,004	95.11%	89.00%	58,973	55,186	3,787	10.00%	5,519	-	64,491	9,008	11,495
2018	66,038	95.16%	89.13%	62,843	58,857	3,986	10.00%	5,886	-	68,729	20,770	23,461
2019	74,302	95.25%	89.33%	70,774	66,373	4,400	15.00%	9,956	-	80,730	60,455	66,883
2020	62,671	95.55%	90.01%	59,883	56,408	3,475	15.00%	8,461	-	68,344	57,329	63,002
<b>Total</b>	<b>906,401</b>	<b>95.45%</b>	<b>89.72%</b>	<b>865,120</b>	<b>813,205</b>	<b>51,915</b>	<b>10.64%</b>	<b>86,565</b>	<b>48</b>	<b>951,733</b>	<b>210,847</b>	<b>256,179</b>

Notes:  
(2) - Exhibit 2, Column 9  
(8) - Exhibit 7, Sheet 2, Column 9  
(10) = [Column 6 from Sheet 5 less corresponding amount from above] \* 5.00%  
(11) = (6)+(7)+(9)+(10)  
(12) - Exhibit 2, Column 6  
(13) = (12)+[(11)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Unpaid Claims Liabilities Including Provision for Adverse Deviation (Net)  
As of March 31, 2021  
(\$000)

Exhibit 8  
Sheet 12

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	Reins PFAD	CIA Rules		
		With Margin	Without Margin	With Margin	Without Margin					Unpaid Claims	Selected IBNR	Required IBNR
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)	(9)=(6)*(8)	(10)	(11)	(12)	(13)
<b>Accident Benefits - Other (Indexed)</b>												
2002 & Prior	106,655	98.05%	95.44%	104,572	101,788	2,784	10.00%	10,179	-	114,751	9,317	17,413
2003	13,401	97.34%	93.82%	13,044	12,572	472	10.00%	1,257	-	14,301	2,029	2,929
2004	19,292	97.20%	93.50%	18,751	18,038	713	10.00%	1,804	-	20,555	2,081	3,344
2005	18,731	97.05%	93.17%	18,179	17,453	726	10.00%	1,745	0	19,925	2,346	3,540
2006	23,806	96.92%	92.89%	23,074	22,113	961	10.00%	2,211	-	25,285	2,553	4,032
2007	26,241	96.81%	92.63%	25,404	24,308	1,096	10.00%	2,431	7	27,841	3,116	4,716
2008	15,195	96.76%	92.52%	14,702	14,059	643	10.00%	1,406	-	16,108	2,624	3,537
2009	19,195	96.68%	92.36%	18,559	17,729	829	10.00%	1,773	-	20,332	3,055	4,192
2010	19,620	96.56%	92.08%	18,945	18,067	878	10.00%	1,807	9	20,760	2,398	3,538
2011	23,343	96.46%	91.86%	22,516	21,443	1,073	15.00%	3,217	6	25,738	3,486	5,881
2012	16,501	96.35%	91.62%	15,899	15,119	780	15.00%	2,268	-	18,167	3,092	4,758
2013	13,956	96.19%	91.27%	13,424	12,738	686	15.00%	1,911	4	15,339	2,870	4,253
2014	13,843	96.07%	91.00%	13,299	12,597	702	15.00%	1,890	-	15,188	2,433	3,778
2015	21,859	95.91%	90.66%	20,966	19,817	1,149	15.00%	2,973	-	23,938	3,213	5,292
2016	35,551	95.77%	90.35%	34,048	32,119	1,929	15.00%	4,818	-	38,866	3,131	6,446
2017	29,630	95.71%	90.20%	28,357	26,727	1,630	15.00%	4,009	-	32,366	2,502	5,238
2018	33,166	95.73%	90.28%	31,751	29,943	1,808	15.00%	4,491	-	36,242	8,334	11,410
2019	37,672	95.96%	90.80%	36,149	34,206	1,943	15.00%	5,131	-	41,280	11,110	14,718
2020	36,556	96.86%	92.86%	35,410	33,947	1,463	15.00%	5,092	-	40,502	16,600	20,546
<b>Total</b>	<b>524,212</b>	<b>96.73%</b>	<b>92.48%</b>	<b>507,048</b>	<b>484,782</b>	<b>22,266</b>	<b>12.46%</b>	<b>60,411</b>	<b>25</b>	<b>567,483</b>	<b>86,289</b>	<b>129,560</b>

Notes:  
(2) - Exhibit 2, Column 9  
(8) - Exhibit 7, Sheet 2, Column 9  
(10) = [Column 6 from Sheet 6 less corresponding amount from above] \* 5.00%  
(11) = (6)+(7)+(9)+(10)  
(12) - Exhibit 2, Column 6  
(13) = (12)+[(11)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Unpaid Claims Liabilities Including Provision for Adverse Deviation (Net)  
As of March 31, 2021  
(\$000)

Exhibit 8  
Sheet 13

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	Reins PFAD	CIA Rules		
		With Margin	Without Margin	With Margin	Without Margin					Unpaid Claims	Selected IBNR	Required IBNR
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)=(9)/(6)	(9)	(10)	(11)	(12)	(13)
<b>Accident Benefits - Total</b>												
2002 & Prior	269,097	96.80%	92.70%	260,497	249,453	11,044	9.58%	23,887	-	284,383	28,695	43,981
2003	29,931	96.59%	92.19%	28,909	27,593	1,316	10.00%	2,759	-	31,668	3,109	4,846
2004	36,689	96.45%	91.87%	35,386	33,706	1,680	10.00%	3,371	-	38,757	3,246	5,314
2005	37,948	96.44%	91.84%	36,595	34,852	1,743	10.00%	3,485	0	40,081	3,842	5,975
2006	50,895	96.09%	91.08%	48,903	46,355	2,547	10.00%	4,636	-	53,538	4,597	7,240
2007	55,570	96.12%	91.17%	53,414	50,662	2,753	10.00%	5,066	15	58,495	5,247	8,172
2008	45,280	96.11%	91.14%	43,516	41,268	2,248	10.00%	4,127	-	47,643	5,132	7,495
2009	49,080	96.11%	91.17%	47,172	44,746	2,426	10.00%	4,475	-	51,647	5,926	8,493
2010	61,406	95.83%	90.56%	58,847	55,608	3,239	10.00%	5,561	28	64,436	5,627	8,657
2011	67,472	95.70%	90.30%	64,570	60,930	3,640	11.76%	7,165	17	71,752	8,765	13,045
2012	57,079	95.57%	90.04%	54,549	51,392	3,157	11.47%	5,895	-	60,445	8,172	11,538
2013	48,306	95.45%	89.81%	46,110	43,382	2,728	11.47%	4,975	14	51,098	7,250	10,042
2014	56,933	95.33%	89.59%	54,277	51,007	3,270	11.23%	5,731	-	60,007	7,059	10,133
2015	76,382	95.27%	89.50%	72,772	68,360	4,412	11.45%	7,827	-	80,599	8,681	12,898
2016	97,170	95.26%	89.49%	92,561	86,959	5,602	11.85%	10,302	-	102,863	9,861	15,554
2017	94,791	95.20%	89.43%	90,239	84,776	5,463	11.58%	9,814	-	100,053	11,510	16,772
2018	114,696	95.16%	89.96%	109,149	103,176	5,972	11.45%	11,815	-	120,963	30,612	36,879
2019	128,700	95.52%	90.48%	122,934	116,453	6,480	14.32%	16,674	-	139,608	73,973	84,881
2020	124,149	95.99%	91.85%	119,175	114,036	5,139	13.96%	15,921	-	135,097	82,199	93,147
<b>Total</b>	<b>1,501,573</b>	<b>95.87%</b>	<b>90.89%</b>	<b>1,439,575</b>	<b>1,364,714</b>	<b>74,861</b>	<b>11.25%</b>	<b>153,485</b>	<b>73</b>	<b>1,593,133</b>	<b>313,502</b>	<b>405,062</b>

Notes: (2) - Exhibit 2, Column 9  
(11) = (6)+(7)+(9)+(10)  
(12) - Exhibit 2, Column 6  
(13) = (12)+[(11)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Unpaid Claims Liabilities Including Provision for Adverse Deviation (Net)  
As of March 31, 2021  
(\$000)

Exhibit 8  
Sheet 14

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	Reins PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin							
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)=(9)/(6)	(9)	(10)	(11)	(12)	(13)
<b>Basic - Total All Coverage*</b>												
2002 & Prior	269,098	96.80%	92.70%	260,498	249,454	11,044	9.58%	23,887	-	284,384	28,695	43,981
2003	29,931	96.59%	92.19%	28,909	27,593	1,316	10.00%	2,759	-	31,668	3,109	4,846
2004	36,689	96.45%	91.87%	35,386	33,706	1,680	10.00%	3,371	-	38,757	3,246	5,314
2005	37,973	96.44%	91.85%	36,620	34,877	1,743	10.00%	3,489	0	40,109	3,842	5,978
2006	50,895	96.09%	91.08%	48,903	46,355	2,547	10.00%	4,636	-	53,538	4,597	7,240
2007	55,613	96.12%	91.17%	53,457	50,704	2,753	10.00%	5,072	15	58,543	5,247	8,177
2008	45,305	96.11%	91.14%	43,541	41,292	2,248	10.00%	4,130	-	47,671	5,132	7,498
2009	49,140	96.12%	91.18%	47,232	44,805	2,427	10.00%	4,482	-	51,714	5,926	8,500
2010	61,581	95.84%	90.58%	59,019	55,780	3,240	10.02%	5,587	28	64,634	5,627	8,680
2011	67,538	95.70%	90.31%	64,635	60,994	3,641	11.76%	7,175	17	71,826	8,765	13,053
2012	57,239	95.58%	90.06%	54,706	51,548	3,158	11.47%	5,912	-	60,617	8,149	11,527
2013	48,289	95.45%	89.80%	46,092	43,364	2,728	11.48%	4,977	14	51,083	7,211	10,005
2014	57,443	95.34%	89.64%	54,765	51,490	3,275	11.28%	5,807	-	60,572	7,030	10,159
2015	77,057	95.28%	89.55%	73,420	69,002	4,418	11.48%	7,924	-	81,343	8,780	13,066
2016	99,216	95.27%	89.61%	94,526	88,907	5,618	11.90%	10,577	-	105,103	10,163	16,050
2017	98,668	95.23%	89.66%	93,959	88,465	5,494	11.63%	10,287	-	104,246	12,760	18,338
2018	122,540	95.22%	90.30%	116,687	110,654	6,033	11.42%	12,639	15	129,340	33,961	40,761
2019	145,068	95.69%	91.16%	138,816	132,239	6,577	13.66%	18,058	-	156,874	84,400	96,206
2020	209,833	96.90%	94.30%	203,328	197,880	5,449	11.23%	22,213	-	225,542	110,705	126,414
<b>Total</b>	<b>1,619,116</b>	<b>96.01%</b>	<b>91.35%</b>	<b>1,554,496</b>	<b>1,479,109</b>	<b>75,387</b>	<b>11.02%</b>	<b>162,981</b>	<b>88</b>	<b>1,717,565</b>	<b>357,345</b>	<b>455,794</b>

Notes: (2) - Exhibit 2, Column 9  
(11) = (6)+(7)+(9)+(10)  
(12) - Exhibit 2, Column 6  
(13) = (12)+[(11)-(2)]  
\*Not including PIPP Enhancements (see PE Exhibit 2, Sheet 8 & PE Exhibit 4)

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## EXHIBIT 9 PROJECTED PAID LOSSES

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**Manitoba Public Insurance Corporation**  
**Automobile Insurance Division - Universal Compulsory**  
**Paid Losses as at Mar 31, 2021**

**(Claim Liabilities Only)**  
**(S000)**

**Direct & Agency**

Amount Paid for Development Year Ending Mar 31

Coverage	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Accident Benefits - Pre-PIPP																			
Weekly Indemnity	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	0
Other - Non-Indexed	3,323	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Accident Benefits - PIPP																			
Weekly Indemnity (2019 & After)	14,583	9,964	8,207	6,875	5,914	5,245	4,963	4,778	4,518	4,241	4,132	4,022	3,765	3,545	3,333	3,211	3,021	2,728	2,456
Weekly Indemnity (Prior to 2019)	46,431	42,431	39,379	36,912	34,869	33,104	31,419	29,836	28,346	26,964	25,568	24,298	23,189	22,155	21,240	20,352	19,645	19,091	17,788
Other - Indexed (2011 & After)	27,014	16,002	13,298	12,212	11,674	11,446	11,286	11,135	10,861	10,387	9,800	9,157	8,502	7,932	7,541	7,278	7,053	6,811	6,558
Other - Indexed (Prior to 2011)	23,152	21,974	20,829	19,761	18,878	18,151	17,499	16,842	14,962	12,797	11,584	10,403	9,482	8,471	7,738	6,668	5,736	4,965	4,047
Other - Non-Indexed	29,828	15,532	6,641	3,599	2,546	1,965	1,528	1,217	1,062	978	889	740	551	358	150	52	0	0	0
PIPP Enhancement - Perm Imp	2,352	756	445	251	145	65	40	0	0	0	0	0	0	0	0	0	0	0	0
PIPP Enhancement - Other than Perm Imp	3,543	3,606	3,641	3,693	3,739	3,788	3,835	3,876	3,788	3,760	3,674	3,526	3,527	3,519	3,502	3,477	3,444	3,404	3,358
Public Liability - Bodily Injury																			
Pre-PIPP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PIPP	5,823	4,473	3,261	2,245	1,398	854	491	305	173	90	31	7	0	0	0	0	0	0	0
Property Damage	14,428	2,345	521	178	57	16	0	0	0	0	0	0	0	0	0	0	0	0	0
Collision	54,522	4,590	1,178	511	312	130	0	0	0	0	0	0	0	0	0	0	0	0	0
Comprehensive	16,141	2,675	863	368	142	33	0	0	0	0	0	0	0	0	0	0	0	0	0
ILAE -for Non-Indexed	14,302	3,414	1,437	795	514	346	233	176	142	123	106	86	64	41	17	6	0	0	0
ILAE - for Indexed	12,941	10,542	9,543	8,857	8,347	7,957	7,636	7,339	6,889	6,394	6,013	5,643	5,304	4,977	4,718	4,448	4,211	3,996	3,556
ILAE - Total	27,243	13,956	10,980	9,653	8,861	8,302	7,869	7,515	7,031	6,517	6,119	5,730	5,368	5,019	4,735	4,454	4,211	3,996	3,556

**Net**

Amount Paid for Development Year Ending Mar 31

Coverage	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Accident Benefits - Pre-PIPP																			
Weekly Indemnity	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	0
Other - Non-Indexed	3,323	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Accident Benefits - PIPP																			
Weekly Indemnity (2020 & After)	14,583	9,964	8,207	6,875	5,914	5,245	4,963	4,778	4,518	4,241	4,132	4,022	3,765	3,545	3,333	3,211	3,021	2,728	2,456
Ceded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weekly Indemnity (Prior to 2020)	46,431	42,431	39,379	36,912	34,869	33,104	31,419	29,836	28,346	26,964	25,568	24,298	23,189	22,155	21,240	20,352	19,645	19,091	17,788
Ceded	-60	-54	-50	-47	-45	-42	-40	-38	-36	-35	-33	-31	-30	-28	-27	-26	-25	-24	-23
Other - Indexed (2012 & After)	27,014	16,002	13,298	12,212	11,674	11,446	11,286	11,135	10,861	10,387	9,800	9,157	8,502	7,932	7,541	7,278	7,053	6,811	6,558
Ceded	-19	-11	-9	-9	-8	-8	-8	-8	-8	-7	-7	-7	-6	-6	-5	-5	-5	-5	-5
Other - Indexed (Prior to 2012)	23,152	21,974	20,829	19,761	18,878	18,151	17,499	16,842	14,962	12,797	11,584	10,403	9,482	8,471	7,738	6,668	5,736	4,965	4,047
Ceded	-27	-26	-25	-23	-22	-21	-21	-20	-18	-15	-14	-12	-11	-10	-9	-8	-7	-6	-5
Other - Non-Indexed	29,828	15,532	6,641	3,599	2,546	1,965	1,528	1,217	1,062	978	889	740	551	358	150	52	0	0	0
PIPP Enhancement - Perm Imp	2,352	756	445	251	145	65	40	0	0	0	0	0	0	0	0	0	0	0	0
PIPP Enhancement - Other than Perm Imp	3,543	3,606	3,641	3,693	3,739	3,788	3,835	3,876	3,788	3,760	3,674	3,526	3,527	3,519	3,502	3,477	3,444	3,404	3,358
Public Liability - Bodily Injury																			
Pre-PIPP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PIPP	5,823	4,473	3,261	2,245	1,398	854	491	305	173	90	31	7	0	0	0	0	0	0	0
Property Damage	14,428	2,345	521	178	57	16	0	0	0	0	0	0	0	0	0	0	0	0	0
Collision	54,522	4,590	1,178	511	312	130	0	0	0	0	0	0	0	0	0	0	0	0	0
Comprehensive	15,788	2,527	774	338	142	33	0	0	0	0	0	0	0	0	0	0	0	0	0
ILAE - for Non-Indexed	14,302	3,414	1,437	795	514	346	233	176	142	123	106	86	64	41	17	6	0	0	0
ILAE - for Indexed	12,941	10,542	9,543	8,857	8,347	7,957	7,636	7,339	6,889	6,394	6,013	5,643	5,304	4,977	4,718	4,448	4,211	3,996	3,556
ILAE Total	27,243	13,956	10,980	9,653	8,861	8,302	7,869	7,515	7,031	6,517	6,119	5,730	5,368	5,019	4,735	4,454	4,211	3,996	3,556

Manitoba Public Insurance Corporation  
Automobile Insurance Division - Universal Compulsory

Paid Losses as at Mar 31, 2021

(Claim Liabilities Only)  
 (\$000)

Direct & Agency

2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	Total
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19,297
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,323
2,205	1,976	1,767	1,577	1,406	1,344	1,357	1,370	1,383	1,396	1,410	1,423	1,437	1,451	1,465	1,479	1,493	1,507	1,522	1,536	6,973	136,973
16,324	15,521	14,855	14,064	13,479	12,853	12,345	11,748	11,258	10,774	10,265	9,558	8,829	8,131	7,482	6,587	5,699	4,935	4,328	3,603	5,436	751,095
6,310	6,068	5,831	5,601	5,377	5,159	4,443	3,927	3,496	3,099	2,591	1,896	1,358	831	331	0	0	0	0	0	0	262,262
3,234	2,339	1,465	993	475	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	262,446
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67,637
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,054
3,306	3,248	3,186	3,120	3,049	2,976	2,900	2,137	2,022	1,851	1,720	1,537	1,352	1,232	1,042	957	838	749	677	601	1,488	108,689
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19,152
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17,545
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61,243
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20,221
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21,802
3,236	2,986	2,757	2,563	2,391	2,231	2,092	1,965	1,860	1,760	1,645	1,484	1,340	1,200	1,070	930	829	743	674	592	1,430	165,091
3,236	2,986	2,757	2,563	2,391	2,231	2,092	1,965	1,860	1,760	1,645	1,484	1,340	1,200	1,070	930	829	743	674	592	1,430	186,893

Net

2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	Total
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19,297
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,323
2,205	1,976	1,767	1,577	1,406	1,344	1,357	1,370	1,383	1,396	1,410	1,423	1,437	1,451	1,465	1,479	1,493	1,507	1,522	1,536	6,973	136,973
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16,324	15,521	14,855	14,064	13,479	12,853	12,345	11,748	11,258	10,774	10,265	9,558	8,829	8,131	7,482	6,587	5,699	4,935	4,328	3,603	5,436	751,095
-21	-20	-19	-18	-17	-16	-16	-15	-14	-14	-13	-12	-11	-10	-10	-8	-7	-6	-6	-5	-7	-963
6,310	6,068	5,831	5,601	5,377	5,159	4,443	3,927	3,496	3,099	2,591	1,896	1,358	831	331	0	0	0	0	0	0	262,262
-4	-4	-4	-4	-4	-4	-3	-3	-2	-2	-2	-1	-1	-1	0	0	0	0	0	0	0	-187
3,234	2,339	1,465	993	475	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	262,446
-4	-3	-2	-1	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-309
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67,637
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,054
3,306	3,248	3,186	3,120	3,049	2,976	2,900	2,137	2,022	1,851	1,720	1,537	1,352	1,232	1,042	957	838	749	677	601	1,488	108,689
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19,152
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17,545
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61,243
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19,603
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21,802
3,236	2,986	2,757	2,563	2,391	2,231	2,092	1,965	1,860	1,760	1,645	1,484	1,340	1,200	1,070	930	829	743	674	592	1,430	165,091
3,236	2,986	2,757	2,563	2,391	2,231	2,092	1,965	1,860	1,760	1,645	1,484	1,340	1,200	1,070	930	829	743	674	592	1,430	186,893

Accident Benefits - Weekly Indemnity: Commuted Reserve Portion  
(S000)

Pre-PIPP (Appendix E)	Unpaid	Runoff	Annual															
		(a)																
Prior to 1984	6,243	18	347															
1984	917	18	51															
1985	351	18	20															
1986	705	18	39															
1987	1,720	18	96															
1988	1,351	18	75															
1989	1,374	18	76															
1990	1,957	18	109															
1991	1,701	18	94															
1992	1,431	18	79															
1993	1,547	18	86															
	Amount Paid for Development Year Ending Mar 31																	
	2,021	2,022	2,023	2,024	2,025	2,026	2,027	2,028	2,029	2,030	2,031	2,032	2,033	2,034	2,035	2,036	2,037	2,038
Pre-PIPP - Total	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072

Note: (a) Given the small group of claimants , assumed an average run-off period of 18 years; when selecting the average run-off period, consider the run-off period for 1994, as well as the difference in discounted unpaid.

**Accident Benefits - Weekly Indemnity: Commuted Reserve Portion  
(S000)**

2010 & Prior (Appendix E)

Insurance Year	Unpaid	Amount Paid for Development Year Ending Mar 31																	
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
1994	14,440	739	746	753	760	767	775	782	790	797	805	813	821	829	837	845	853	861	869
1995	20,030	966	975	985	994	1,004	1,013	1,023	1,033	1,043	1,053	1,063	1,073	1,083	1,094	1,104	1,115	1,126	1,137
1996	11,221	511	516	521	526	531	537	542	547	552	558	563	568	574	579	585	591	596	602
1997	11,488	559	498	503	508	513	518	523	528	533	538	543	548	553	559	564	570	575	581
1998	16,727	866	772	688	694	701	708	715	722	728	736	743	750	757	764	772	779	786	794
1999	15,309	838	749	668	595	601	607	612	618	624	630	636	642	649	655	661	667	674	680
2000	17,046	983	880	786	701	624	630	636	643	649	655	661	668	674	681	687	694	700	707
2001	15,147	915	820	734	656	585	521	526	531	536	542	547	552	557	563	568	574	579	585
2002	18,324	1,153	1,037	930	833	744	663	591	597	602	608	614	620	626	632	638	644	650	657
2003	16,512	1,077	971	873	783	701	627	559	498	503	507	512	517	522	527	532	537	543	548
2004	17,393	1,170	1,058	954	858	770	689	616	549	489	494	499	503	508	513	518	523	528	533
2005	19,216	1,223	1,211	1,095	987	888	796	713	637	568	506	511	516	521	526	531	536	541	546
2006	26,995	1,730	1,608	1,592	1,440	1,298	1,167	1,047	937	837	747	665	672	678	685	691	698	705	711
2007	29,355	1,847	1,763	1,638	1,622	1,467	1,323	1,189	1,067	955	853	761	678	684	691	698	704	711	718
2008	29,922	1,906	1,762	1,683	1,563	1,548	1,400	1,262	1,135	1,018	911	814	726	647	653	659	666	672	679
2009	29,626	1,860	1,768	1,635	1,561	1,451	1,436	1,299	1,171	1,053	945	846	756	674	600	606	612	618	624
2010	41,890	2,464	2,476	2,353	2,176	2,078	1,931	1,912	1,729	1,559	1,402	1,257	1,125	1,006	897	799	807	814	822

2011 & After (Exh 7, Sht 3)

2011	43,757	2,588	2,421	2,433	2,313	2,139	2,042	1,897	1,879	1,699	1,532	1,378	1,236	1,106	988	882	785	793	800
2012	37,685		2,229	2,085	2,095	1,992	1,842	1,759	1,634	1,618	1,463	1,319	1,186	1,064	953	851	759	676	683
2013	30,113			1,781	1,666	1,674	1,592	1,472	1,405	1,306	1,293	1,169	1,054	948	850	761	680	607	540
2014	35,282				2,087	1,952	1,962	1,865	1,725	1,647	1,530	1,515	1,370	1,235	1,111	996	892	797	711
2015	41,745					2,469	2,310	2,321	2,206	2,041	1,948	1,810	1,792	1,621	1,462	1,314	1,179	1,055	943
2016	43,744						2,587	2,421	2,432	2,312	2,138	2,042	1,897	1,878	1,699	1,532	1,377	1,235	1,106
2017	42,535							2,516	2,354	2,365	2,248	2,079	1,985	1,844	1,826	1,652	1,489	1,339	1,201
2018	41,778								2,471	2,312	2,323	2,208	2,042	1,950	1,812	1,794	1,622	1,463	1,315
2019	42,967									2,541	2,378	2,389	2,271	2,100	2,005	1,863	1,845	1,668	1,504
2020	31,500										1,863	1,743	1,751	1,665	1,540	1,470	1,366	1,352	1,223

2018 & Prior - Total  
2019 & After - Total

2018 & Prior - Total	667,283	23,394	24,261	24,691	25,420	26,497	27,675	28,797	29,836	28,346	26,964	25,568	24,298	23,189	22,155	21,240	20,352	19,645	19,091
2019 & After - Total	74,468	0	0	0	0	0	0	0	0	2,541	4,241	4,132	4,022	3,765	3,545	3,333	3,211	3,021	2,728

Evaluation in Months

	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-348
Selected Factors (Paid)	1.0470	1.0420	1.0405	1.0370	1.0330	1.0305	1.0275	1.0265	1.0233	1.0206	1.0181	1.0160	1.0141	1.0124	1.0109	1.0096	1.0096	1.0096	1.0096
Selected Ultimate (Paid)	1.7947	1.7141	1.6450	1.5810	1.5246	1.4759	1.4322	1.3939	1.3579	1.3269	1.3002	1.2770	1.2569	1.2395	1.2243	1.2111	1.1996	1.1881	1.1768
1/Selected Ultimate (Paid)	0.5572	0.5834	0.6079	0.6325	0.6559	0.6776	0.6982	0.7174	0.7364	0.7536	0.7691	0.7831	0.7956	0.8068	0.8168	0.8257	0.8336	0.8417	0.8498
Selected Decay Rate (a)	0.8811																		

Note: (a) Assume decay until 300 months; Goal seek the Decay Rate so that the tail factor 216 to ult equals 1.358

Accident Benefits - Weekly Indemnity: Commuted Reserve Portion  
(S000)

2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060
1,148																					
608	614																				
586	592	598																			
802	809	817	825																		
687	694	700	707	714																	
714	721	728	735	742	749																
590	596	602	608	613	619	625															
663	669	676	682	689	695	702	709														
553	558	564	569	575	580	586	591	597													
538	543	549	554	559	565	570	576	581	587												
551	557	562	568	573	579	584	590	595	601	607											
718	725	732	739	746	753	761	768	775	783	790	798										
725	732	739	746	753	760	768	775	783	790	798	805	813									
685	692	698	705	712	719	726	733	740	747	754	761	769	776								
630	636	642	648	654	661	667	673	680	686	693	700	706	713	720							
830	838	846	854	862	871	879	888	896	905	914	922	931	940	949	958						
808	816	824	832	840	848	856	864	872	881	889	898	906	915	924	933	942					
689	696	703	709	716	723	730	737	744	751	759	766	773	781	788	796	803	811				
546	551	556	561	567	572	578	583	589	595	600	606	612	618	624	630	636	642	648			
633	639	645	652	658	664	671	677	683	690	697	703	710	717	724	731	738	745	752	759		
841	749	756	764	771	778	786	793	801	809	816	824	832	840	848	857	865	873	881	890	899	
988	881	785	792	800	808	816	823	831	839	847	856	864	872	880	889	898	906	915	924	933	942
1,075	961	857	763	771	778	785	793	801	808	816	824	832	840	848	856	864	873	881	890	898	1,822
1,180	1,056	944	842	750	757	764	771	779	786	794	802	809	817	825	833	841	849	857	865	874	2,672
1,353	1,213	1,086	970	866	771	778	786	793	801	809	817	824	832	840	848	857	865	873	882	890	3,647
1,103	992	890	796	711	635	565	571	576	582	587	593	599	604	610	616	622	628	634	640	646	3,326
17,788	16,324	15,521	14,855	14,064	13,479	12,853	12,345	11,748	11,258	10,774	10,265	9,558	8,829	8,131	7,482	6,587	5,699	4,935	4,328	3,603	5,436
2,456	2,205	1,976	1,767	1,577	1,406	1,344	1,357	1,370	1,383	1,396	1,410	1,423	1,437	1,451	1,465	1,479	1,493	1,507	1,522	1,536	6,973
348-360	360-372	372-384	384-396	396-408	408-420	420-432	432-444	444-456	456-468	468-480	480-492	492-504	504-516	516-528	528-540	540-Ult					
1.0096	1.0096	1.0096	1.0096	1.0096	1.0096	1.0096	1.0096	1.0096	1.0096	1.0096	1.0096	1.0096	1.0096	1.0096	1.0096	1.0096	1.0096	1.0096	1.0096	1.0096	1.0000
1.1656	1.1545	1.1435	1.1326	1.1218	1.1111	1.1005	1.0900	1.0796	1.0693	1.0591	1.0490	1.0390	1.0291	1.0193	1.0096	1.0000					
0.8579	0.8662	0.8745	0.8829	0.8914	0.9000	0.9087	0.9174	0.9262	0.9352	0.9442	0.9532	0.9624	0.9717	0.9810	0.9905	1.0000					

Accident Benefits - Other - Indexed: Commuted Reserve Portion  
(S000)

Insurance Year	Unpaid	Amount Paid for Development Year Ending Mar 31																		
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	
1994	11,892	1,713	1,645	1,578	1,513	1,450	1,389	1,330	1,274	0										
1995	17,654	2,303	2,212	2,123	2,037	1,953	1,872	1,793	1,717	1,644	0									
1996	8,997	1,075	1,033	992	953	914	876	840	805	771	738	700	664	628	592	556	520	484	448	
1997	10,280	1,137	1,093	1,050	1,009	968	929	891	854	818	783	750	717	684	651	618	585	552	519	
1998	8,024	827	796	765	735	706	678	650	624	598	573	548	525	500	475	450	425	400	375	
1999	11,075	1,071	1,031	992	954	917	880	845	811	777	745	714	684	654	624	594	564	534	504	
2000	7,521	686	661	636	612	589	566	543	522	500	480	460	441	422	404	386	368	350	332	
2001	16,013	1,384	1,334	1,286	1,238	1,191	1,145	1,100	1,057	1,014	973	933	894	857	821	786	751	716	681	
2002	15,197	1,249	1,206	1,162	1,120	1,078	1,037	997	958	920	884	848	813	779	746	715	684	653	622	
2003	13,401	1,051	1,015	980	944	910	876	843	810	779	748	718	689	661	633	607	581	556	530	
2004	17,877		1,403	1,354	1,307	1,260	1,214	1,169	1,124	1,081	1,039	998	958	919	881	845	809	775	742	
2005	16,160			1,268	1,224	1,181	1,139	1,097	1,056	1,016	977	939	902	866	831	796	763	731	700	
2006	19,085				1,497	1,446	1,395	1,345	1,296	1,248	1,200	1,154	1,109	1,065	1,023	981	941	902	864	
2007	19,515					1,531	1,479	1,427	1,375	1,325	1,276	1,228	1,180	1,134	1,089	1,046	1,003	962	922	
2008	10,303						808	781	753	726	700	674	648	623	599	575	552	530	508	
2009	11,974							939	907	875	844	813	783	753	724	696	668	642	615	
2010	11,456								899	868	837	807	778	749	721	693	666	639	614	
2011	12,690									996	961	928	894	862	830	798	767	737	708	
2012	8,394										659	636	614	592	570	549	528	508	488	
2013	6,746											529	511	493	475	458	441	424	408	
2014	6,320												496	479	462	445	429	413	398	
2015	9,513													746	721	695	670	646	622	
2016	14,738														1,156	1,117	1,077	1,039	1,001	
2017	11,511															903	872	841	811	
2018	11,808																926	895	863	
2019	11,697																	918	886	
2020	7,976																		626	
2010 & Prior - Total	226,426	12,497	13,428	14,187	15,143	16,094	16,284	16,592	16,842	14,962	12,797	11,584	10,403	9,482	8,471	7,738	6,668	5,736	4,965	
2011 & After - Total	101,391	0	0	0	0	0	0	0	0	996	1,620	2,093	2,515	3,172	4,214	4,966	5,712	6,421	6,811	
Evaluation in Months	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-348	
Selected Factors (Paid)	1.0300	1.0300	1.0300	1.0280	1.0230	1.0190	1.0170	1.0165	1.0165	1.0157	1.0149	1.0141	1.0134	1.0128	1.0121	1.0115	1.0109	1.0104	1.0099	
Selected Ultimate (Paid)	1.4651	1.4225	1.3810	1.3408	1.3043	1.2750	1.2512	1.2303	1.2103	1.1907	1.1723	1.1551	1.1390	1.1239	1.1097	1.0964	1.0839	1.0722	1.0611	
1/Selected Ultimate (Paid)	0.6825	0.7030	0.7241	0.7458	0.7667	0.7843	0.7992	0.8128	0.8262	0.8399	0.8530	0.8657	0.8780	0.8898	0.9011	0.9121	0.9226	0.9327	0.9424	
Selected Decay Rate	0.9500																			

Accident Benefits - Other - Indexed: Commuted Reserve Portion  
(S000)

2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060
0	0																				
0	0	0																			
0	0	0	0																		
0	0	0	0	0																	
0	0	0	0	0	0																
0	0	0	0	0	0	0															
0	0	0	0	0	0	0	0														
0	0	0	0	0	0	0	0	0													
0	0	0	0	0	0	0	0	0	0												
670	0	0	0	0	0	0	0	0	0	0											
827	792	0	0	0	0	0	0	0	0	0	0										
883	846	810	0	0	0	0	0	0	0	0	0	0									
487	466	447	427	0	0	0	0	0	0	0	0	0	0								
590	566	542	519	497	0	0	0	0	0	0	0	0	0	0							
589	565	541	519	497	475	0	0	0	0	0	0	0	0	0	0						
680	652	625	599	574	550	526	0	0	0	0	0	0	0	0	0	0					
469	450	431	414	397	380	364	348	0	0	0	0	0	0	0	0	0	0				
392	377	361	347	332	319	305	292	280	0	0	0	0	0	0	0	0	0	0			
382	367	353	339	325	312	299	286	274	262	0	0	0	0	0	0	0	0	0	0		
598	575	553	531	510	489	469	449	431	412	395	0	0	0	0	0	0	0	0	0	0	0
964	927	891	857	823	790	758	726	696	667	639	611	0	0	0	0	0	0	0	0	0	0
782	753	724	696	669	642	617	592	567	544	521	499	478	0	0	0	0	0	0	0	0	0
832	802	772	743	714	686	659	633	607	582	558	534	512	490	0	0	0	0	0	0	0	0
855	824	794	765	736	707	680	653	627	601	577	553	529	507	485	0	0	0	0	0	0	0
604	583	562	542	521	502	482	464	445	427	410	393	377	361	346	331	0	0	0	0	0	0
4,047	3,234	2,339	1,465	993	475	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6,558	6,310	6,068	5,831	5,601	5,377	5,159	4,443	3,927	3,496	3,099	2,591	1,896	1,358	831	331	0	0	0	0	0	0
348-360	360-372	372-384	384-396	396-408	408-420	420-432	432-444	444-456	456-468	468-480	480-492	492-504	504-516	516-528	528-540	540-Ult					
1.0094	1.0089	1.0085	1.0080	1.0076	1.0073	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					
1.0508	1.0410	1.0318	1.0231	1.0150	1.0073	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					
0.9517	0.9606	0.9692	0.9774	0.9853	0.9928	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					



Accident Benefits: PIPP Enhancement  
(S000)

Insurance Year	Unpaid* (From PE Exh 1)						Ultimate [a]	1st 10 Yrs		Paid Factors (5)	Test: Selected % Paid	
	Weekly Indemnity	Personal Care	Vehicle Purchase	Death Benefits	ASA	Total (1)		Annual Payment (3)	Paid to Ultimate (4)		Ultimate PE Exh 1	Difference
2002	5,227	7,469	4,311	7,287	1,406	25,700					34,798	
2003	494	724	542	574	109	2,443					3,320	
2004	1,011	1,411	1,065	1,088	235	4,809					5,974	
2005	1,412	689	395	784	151	3,432					4,597	
2006	1,715	1,066	1,200	1,597	353	5,931					7,585	
2007	1,033	2,409	1,256	1,409	309	6,416					7,872	
2008	893	856	896	947	195	3,786					5,010	
2009	1,577	967	648	907	200	4,299					5,414	
2010	474	535	612	778	164	2,563					3,132	
2011	685	1,935	476	1,069	268	4,432	5,261	92	6.3440		5,187	-75
2012	639	870	607	829	200	3,146	3,658	64	7.1371	1.1250	3,894	236
2013	884	899	0	534	134	2,452	2,794	49	8.1566	1.1429	2,766	-29
2014	483	522	558	1,104	189	2,856	3,191	56	9.5161	1.1667	3,187	-4
2015	359	833	319	1,020	195	2,725	2,987	52	11.4193	1.2000	2,856	-131
2016	1,720	1,748	1,201	1,357	345	6,371	6,851	120	14.2741	1.2500	7,158	306
2017	2,169	1,282	973	1,329	289	6,041	6,376	112	19.0321	1.3333	6,172	-204
2018	1,156	1,168	960	820	201	4,305	4,461	78	28.5482	1.5000	4,378	-84
2019	1,154	1,136	1,079	1,089	208	4,666	4,749	83	57.0964	2.0000	4,711	-39
2020	2,177	1,111	960	1,247	296	5,792	5,792	101			5,815	23
<b>Total</b>	<b>25,260</b>	<b>27,627</b>	<b>18,060</b>	<b>25,771</b>	<b>5,447</b>	<b>102,164</b>	<b>46,122</b>	<b>808</b>			<b>123,824</b>	<b>0</b>

% Paid in Years 2 to 10 [b] 1.75%

Evaluation in Months	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-348
Selected Factors (Paid)	1.1182	1.1118	1.1057	1.1000	1.0945	1.0894	1.0845	1.0799	1.0756	1.0715	1.0676	1.0639	1.0604	1.0571	1.0540	1.0511	1.0483	1.0457	1.0432
Selected Ultimate (Paid)	6.0815	5.4386	4.8918	4.4242	4.0222	3.6749	3.3734	3.1105	2.8803	2.6779	2.4993	2.3411	2.2005	2.0751	1.9629	1.8623	1.7717	1.6901	1.6162
1/Selected Ultimate (Paid)	0.1644	0.1839	0.2044	0.2260	0.2486	0.2721	0.2964	0.3215	0.3472	0.3734	0.4001	0.4272	0.4544	0.4819	0.5094	0.5370	0.5644	0.5917	0.6187
Selected Decay Rate [c]	0.9456																		

Notes: (2)=(1)/(1-%paid); (3)=(1)\*1.75%; (4)=(2)/((2)-(1))

[a] Assume 0.0 % paid for year 1; 1.75% paid for years 2 to 10; thereafter decaying per [c] above

[b] Difference in discounted unpaid is minimal (From PE Exhibit 1).

[c] Decay rate is selected so that the difference in discounted unpaid is minimal from PE Exhibit 1.

**Accident Benefits: PIPP Enhancement**  
**(\$000)**

Insurance Year	PI							
	Unpaid PE Exh1	12-24	24-36	36-48	48-60	60-72	72-84	84-96
2002	229	229						
2003	106	106						
2004	0	0						
2005	0	0						
2006	0	0						
2007	0	0						
2008	0	0						
2009	271	271						
2010	93	93						
2011	182	182						
2012	185	185						
2013	93	93						
2014	313	313						
2015	199	100	100					
2016	299	150	75	75				
2017	488	163	163	81	81			
2018	399	160	80	80	40	40		
2019	399	150	100	50	50	25	25	
2020	798	160	239	160	80	80	40	40
<b>Total</b>	<b>4,054</b>	<b>2,352</b>	<b>756</b>	<b>445</b>	<b>251</b>	<b>145</b>	<b>65</b>	<b>40</b>

% Paid      20.00%    30.00%    20.00%    10.00%    10.00%    5.00%    5.00%  
 Note:      Roughly following ABO Non-Indexed, delayed by a year.

348-360	360-372	372-384	384-396	396-408	408-420	420-432	432-444	444-456	456-468	468-480	480-492	492-504	504-516	516-528	528-540	540-Ult
1.0409	1.0386	1.0365	1.0345	1.0327	1.0309	1.0292	1.0276	1.0261	1.0247	1.0234	1.0221	1.0209	1.0198	1.0187	1.0177	1.0000
1.5493	1.4885	1.4331	1.3826	1.3364	1.2941	1.2554	1.2197	1.1869	1.1567	1.1288	1.1031	1.0792	1.0571	1.0367	1.0177	1.0000
0.6455	0.6718	0.6978	0.7233	0.7483	0.7727	0.7966	0.8199	0.8425	0.8645	0.8859	0.9066	0.9266	0.9459	0.9646	0.9826	1.0000

Accident Benefits: PIPP Enhancement (Five benefits from Exhibit 9 page 8)  
(S000)

Insurance Year	Unpaid	Amount Paid for Development Year Ending Mar 31																		
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	
2002	25,700	1,095	1,109	1,120	1,126	1,130	1,129	1,125	1,119	1,109	1,097	1,082	1,065	1,046	1,025	1,003	979	955	929	
2003	2,443	98	100	101	102	103	103	103	103	102	101	100	99	97	95	94	91	89	87	
2004	4,809	182	186	189	192	193	195	195	195	194	193	192	189	187	184	181	177	173	169	
2005	3,432	122	125	128	130	132	133	134	134	134	134	133	132	130	129	127	124	122	119	
2006	5,931	198	204	209	214	217	220	222	224	224	224	224	222	220	218	215	211	208	204	
2007	6,416	201	208	214	219	224	228	231	233	235	235	235	234	233	231	228	225	222	218	
2008	3,786	111	115	119	123	126	128	131	132	134	134	135	135	134	133	132	131	129	127	
2009	4,299	117	122	127	131	135	139	142	144	146	147	148	149	149	148	147	146	144	142	
2010	2,563	65	68	71	74	76	79	81	82	84	85	86	86	86	86	86	86	85	84	
2011	4,432	103	109	115	120	125	129	133	136	139	142	143	145	146	146	146	146	145	143	
2012	3,146	64	72	76	80	83	87	90	92	95	97	98	100	101	101	102	102	101	101	
2013	2,452	49	49	55	58	61	64	66	69	71	72	74	75	76	77	77	78	78	77	
2014	2,856	56	56	56	63	66	70	73	76	78	81	83	84	86	87	88	88	89	89	
2015	2,725	52	52	52	52	59	62	65	68	71	73	75	77	79	80	81	82	83	83	
2016	6,371	120	120	120	120	120	134	142	149	156	162	168	173	177	181	184	187	189	190	
2017	6,041	112	112	112	112	112	112	125	132	139	145	151	156	161	165	169	172	174	175	
2018	4,305	78	78	78	78	78	78	78	87	92	97	102	106	109	113	116	118	120	122	
2019	4,666	83	83	83	83	83	83	83	83	93	98	103	108	113	116	120	123	126	128	
2020	5,792	101	101	101	101	101	101	101	101	101	114	120	126	132	137	142	146	150	153	
Total Enhancement	102,164	3,006	3,069	3,126	3,178	3,224	3,273	3,320	3,361	3,397	3,432	3,452	3,462	3,462	3,454	3,437	3,412	3,379	3,340	

Accident Benefits: PIPP Enhancement (Five benefits from Exhibit 9 page 8)  
(S000)

2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060
903	876	849	821	794	766	739	712														
85	82	80	77	75	72	70	67	65													
165	161	156	151	147	142	137	132	128	123												
116	114	110	107	104	101	98	94	91	88	85											
199	195	190	185	179	174	169	163	158	152	147	141										
213	209	204	199	193	188	182	177	171	165	160	154	148									
125	122	120	117	114	111	108	104	101	98	95	91	88	85								
140	138	135	132	129	126	122	119	115	112	108	105	101	97	94							
83	82	80	78	77	75	73	71	69	67	65	63	61	59	57	54						
142	140	138	135	133	130	127	123	120	117	113	110	106	103	99	96	92					
100	99	97	96	94	92	90	88	86	84	81	79	76	74	71	69	66	64				
77	76	75	74	73	72	70	69	67	66	64	62	60	58	56	55	53	51	49			
88	88	87	86	85	84	82	80	79	77	75	73	71	69	67	64	62	60	58	56	54	52
83	83	82	81	80	79	78	77	75	74	72	70	68	66	64	62	60	58	56	54	52	
190	190	190	188	187	185	182	179	176	173	169	165	161	156	152	148	143	138	134	129	124	120
177	177	177	176	175	174	172	170	167	164	161	157	153	150	146	141	137	133	129	124	120	227
123	124	124	124	123	123	122	120	119	117	115	112	110	107	105	102	99	96	93	90	87	243
129	131	131	132	132	131	131	129	128	126	124	122	120	117	114	111	108	105	102	99	96	352
156	158	159	160	161	161	160	159	158	156	154	152	149	146	143	139	136	132	129	125	121	546
3,293	3,241	3,184	3,122	3,055	2,985	2,912	2,836	2,073	1,957	1,786	1,656	1,472	1,287	1,167	1,042	957	838	749	677	601	1,488

**Accident Benefits: PIPP Enhancement**  
**CGWI Death Benefit [a]**  
**(\$000)**

Insurance Year	Unpaid PE Exh 1	Amount Paid for Development Year Ending Mar 31																	
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
2002	0																		
2003	0																		
2004	0																		
2005	0																		
2006	0																		
2007	0																		
2008	44	22	22																
2009	0																		
2010	0																		
2011	0																		
2012	0																		
2013	0																		
2014	0																		
2015	993	124	124	124	124	124	124	124	124										
2016	0																		
2017	1,062	106	106	106	106	106	106	106	106	106	106								
2018	773	70	70	70	70	70	70	70	70	70	70	70							
2019	566	63	63	63	63	63	63	63	63	63	63								
2020	956	87	87	87	87	87	87	87	87	87	87	87							
Total CGWI Death Benefit	4,395	472	472	450	450	450	450	450	450	450	326	263	157	0	0	0	0	0	0
PI (From Exhibit 9 page 9)	2,352	756	445	251	145	65	40												
Quality of Life - Total (From PE Exh 4) [b]	2,130	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65

Notes: [a] Length of payment period was estimated by average years that claimants will receive benefits.  
[b] Payments were selected to minimize the difference in the discounted unpaid from PE Exhibit 4.

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2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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65	65	65	65	65	65	65	65	65	65	65	65	65	65	65							
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## EXHIBIT 10 DISCOUNTED CLAIMS DEVELOPMENT PFAD

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**Manitoba Public Insurance Corporation**  
**Automobile Insurance Division - Universal Compulsory**  
**Discounted Claims Development PFAD as at Mar 31, 2021**  
**(Claim Liabilities Only)**  
**(S000)**  
**Direct & Agency**

Coverage	APV Amount for Claims Development PFAD for Development Year Ending Mar 31																	
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Accident Benefits - Pre-PIPP																		
Weekly Indemnity	53	53	52	52	52	51	51	50	50	49	49	49	48	48	47	47	47	46
Other - Non-Indexed	164	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Accident Benefits - PIPP																		
Weekly Indemnity (2020 & After)	2,178	1,476	1,205	1,001	854	751	704	672	630	586	567	547	507	474	442	422	393	352
Weekly Indemnity (Prior to 2020)	4,623	4,189	3,854	3,582	3,355	3,158	2,972	2,798	2,636	2,486	2,337	2,202	2,084	1,974	1,876	1,782	1,706	1,643
Other - Indexed (2012 & After)	4,035	2,370	1,952	1,778	1,685	1,638	1,601	1,566	1,515	1,436	1,344	1,245	1,146	1,060	999	956	919	879
Other - Indexed (Prior to 2012)	2,305	2,169	2,039	1,918	1,816	1,732	1,655	1,579	1,391	1,180	1,059	943	852	755	683	584	498	427
Other - Non-Indexed	2,941	1,488	619	326	224	168	127	98	83	75	66	53	39	24	10	3	0	0
PIPP Enhancement - Perm Imp	232	72	41	23	13	6	3	0	0	0	0	0	0	0	0	0	0	0
PIPP Enhancement - Other than Perm Imp	393	397	397	399	401	403	404	405	393	386	374	356	353	349	345	339	333	327
Public Liability - Bodily Injury																		
Pre-PIPP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PIPP	861	643	456	305	185	110	61	37	20	10	3	1	0	0	0	0	0	0
Property Damage																		
Collision	711	112	24	8	3	1	0	0	0	0	0	0	0	0	0	0	0	0
Comprehensive	4,032	330	82	35	21	8	0	0	0	0	0	0	0	0	0	0	0	0
Total	1,193	192	60	25	9	2	0	0	0	0	0	0	0	0	0	0	0	0
ILAE -for Non-Indexed	1,553	360	147	79	50	33	21	16	12	10	9	7	5	3	1	0	0	0
ILAE - for Indexed	1,420	1,147	1,029	947	885	836	796	758	706	649	605	563	525	488	459	429	403	379
ILAE - Total	2,973	1,507	1,177	1,026	935	869	817	774	718	660	614	570	530	492	460	430	403	379

**Net**

Coverage	APV Amount for Claims Development PFAD for Development Year Ending Mar 31																	
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Accident Benefits - Pre-PIPP																		
Weekly Indemnity	53	53	52	52	52	51	51	50	50	49	49	49	48	48	47	47	47	46
Other - Non-Indexed	164	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Accident Benefits - PIPP																		
Weekly Indemnity (2020 & After)	2,178	1,476	1,205	1,001	854	751	704	672	630	586	567	547	507	474	442	422	393	352
Ceded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weekly Indemnity (Prior to 2020)	4,623	4,189	3,854	3,582	3,355	3,158	2,972	2,798	2,636	2,486	2,337	2,202	2,084	1,974	1,876	1,782	1,706	1,643
Ceded	-6	-5	-5	-5	-4	-4	-4	-4	-4	-3	-3	-3	-3	-3	-3	-3	-3	-2
Other - Indexed (2012 & After)	4,035	2,370	1,952	1,778	1,685	1,638	1,601	1,566	1,515	1,436	1,344	1,245	1,146	1,060	999	956	919	879
Ceded	-3	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Other - Indexed (Prior to 2012)	2,305	2,169	2,039	1,918	1,816	1,732	1,655	1,579	1,391	1,180	1,059	943	852	755	683	584	498	427
Ceded	-3	-3	-2	-2	-2	-2	-2	-2	-2	-2	-1	-1	-1	-1	-1	-1	-1	-1
Other - Non-Indexed	2,941	1,488	619	326	224	168	127	98	83	75	66	53	39	24	10	3	0	0
PIPP Enhancement - Perm Imp	232	72	41	23	13	6	3	0	0	0	0	0	0	0	0	0	0	0
PIPP Enhancement - Other than Perm Imp	393	397	397	399	401	403	404	405	393	386	374	356	353	349	345	339	333	327
Public Liability - Bodily Injury																		
Pre-PIPP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PIPP	861	643	456	305	185	110	61	37	20	10	3	1	0	0	0	0	0	0
Property Damage																		
Collision	711	112	24	8	3	1	0	0	0	0	0	0	0	0	0	0	0	0
Comprehensive	4,032	330	82	35	21	8	0	0	0	0	0	0	0	0	0	0	0	0
Total	1,167	182	54	23	9	2	0	0	0	0	0	0	0	0	0	0	0	0
ILAE -for Non-Indexed	1,553	360	147	79	50	33	21	16	12	10	9	7	5	3	1	0	0	0
ILAE - for Indexed	1,420	1,147	1,029	947	885	836	796	758	706	649	605	563	525	488	459	429	403	379
ILAE - Total	2,973	1,507	1,177	1,026	935	869	817	774	718	660	614	570	530	492	460	430	403	379



**Manitoba Public Insurance Corporation**  
**Automobile Insurance Division - Universal Compulsory**  
**Discounted Claims Development PFAD as at Mar 31, 2021**  
**(Claim Liabilities Only)**  
**(\$000)**  
**Direct & Agency**

2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	Total	PFAD
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	894	5.00%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	164	5.00%
314	280	249	220	195	172	163	164	164	164	164	164	164	165	165	165	165	165	165	166	166	746	18,405	15.00%
1,518	1,381	1,302	1,236	1,160	1,102	1,042	992	936	890	844	797	736	674	616	562	490	421	361	314	259	388	67,278	10.00%
840	801	764	728	693	659	627	536	469	414	364	302	219	156	94	37	0	0	0	0	0	0	35,826	15.00%
345	274	196	122	82	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24,644	10.00%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,345	10.00%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	390	10.00%
319	312	304	295	287	278	269	260	190	178	162	149	132	115	104	87	79	69	61	55	48	118	10,626	11.14%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.50%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,692	15.00%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	859	5.00%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,507	7.50%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,482	7.50%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,308	11.02%
334	302	276	253	233	215	199	185	173	162	152	141	126	113	100	88	76	67	60	54	47	112	16,493	11.02%
334	302	276	253	233	215	199	185	173	162	152	141	126	113	100	88	76	67	60	54	47	112	18,801	11.02%

**Net**

2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	Total	PFAD
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	894	5.00%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	164	5.00%
314	280	249	220	195	172	163	164	164	164	164	164	164	165	165	165	165	165	165	166	166	746	18,405	15.00%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.00%
1,518	1,381	1,302	1,236	1,160	1,102	1,042	992	936	890	844	797	736	674	616	562	490	421	361	314	259	388	67,182	10.00%
-2	-2	-2	-2	-2	-2	-2	-2	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-1	10.00%
840	801	764	728	693	659	627	536	469	414	364	302	219	156	94	37	0	0	0	0	0	0	35,798	15.00%
-1	-1	-1	-1	-1	-1	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.00%
345	274	196	122	82	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24,613	10.00%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.00%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,345	10.00%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	390	10.00%
319	312	304	295	287	278	269	260	190	178	162	149	132	115	104	87	79	69	61	55	48	118	10,626	11.14%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.50%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,692	15.00%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	859	5.00%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,507	7.50%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,438	7.50%
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,308	11.02%
334	302	276	253	233	215	199	185	173	162	152	141	126	113	100	88	76	67	60	54	47	112	16,493	11.02%
334	302	276	253	233	215	199	185	173	162	152	141	126	113	100	88	76	67	60	54	47	112	18,801	11.02%

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## EXHIBIT 11 DURATION

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**Manitoba Public Insurance Corporation**  
**Automobile Insurance Division - Universal Compulsory**  
**Duration as at Mar 31, 2021**  
**(Claim Liabilities Only)**  
**(\$000)**  
**Direct & Agency**

Coverage	APV Amount Paid for Development Year Ending Mar 31																		
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
<b>Accident Benefits - Pre-PIPP</b>																			
Weekly Indemnity	1,123	1,119	1,115	1,111	1,106	1,102	1,098	1,094	1,090	1,085	1,081	1,077	1,073	1,069	1,065	1,061	1,057	1,053	0
Other - Non-Indexed	3,448	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Accident Benefits - Pre-PIPP</b>	<b>4,571</b>	<b>1,119</b>	<b>1,115</b>	<b>1,111</b>	<b>1,106</b>	<b>1,102</b>	<b>1,098</b>	<b>1,094</b>	<b>1,090</b>	<b>1,085</b>	<b>1,081</b>	<b>1,077</b>	<b>1,073</b>	<b>1,069</b>	<b>1,065</b>	<b>1,061</b>	<b>1,057</b>	<b>1,053</b>	<b>0</b>
<b>Accident Benefits - PIPP</b>																			
Weekly Indemnity	67,706	57,778	52,219	47,823	44,338	41,508	39,217	37,164	35,142	33,230	31,504	29,923	28,361	26,930	25,643	24,491	23,460	22,485	20,774
Other - Indexed	56,417	42,310	37,812	35,268	33,564	32,387	31,376	30,379	27,952	25,021	22,995	20,956	19,192	17,441	16,186	14,730	13,469	12,365	11,107
Other - Non-Indexed	32,420	16,482	6,880	3,640	2,514	1,894	1,439	1,119	953	857	761	618	450	285	116	40	0	0	0
PIPP Enhancement - Perm Imp	2,557	802	461	254	143	62	38	0	0	0	0	0	0	0	0	0	0	0	0
PIPP Enhancement - Other than Perm Imp	3,930	3,984	4,006	4,046	4,081	4,117	4,151	4,178	4,067	4,020	3,912	3,740	3,725	3,701	3,669	3,628	3,579	3,523	3,461
<b>Total PIPP Enhancement</b>	<b>6,487</b>	<b>4,786</b>	<b>4,467</b>	<b>4,300</b>	<b>4,223</b>	<b>4,180</b>	<b>4,188</b>	<b>4,178</b>	<b>4,067</b>	<b>4,020</b>	<b>3,912</b>	<b>3,740</b>	<b>3,725</b>	<b>3,701</b>	<b>3,669</b>	<b>3,628</b>	<b>3,579</b>	<b>3,523</b>	<b>3,461</b>
<b>Total Accident Benefits - PIPP</b>	<b>163,030</b>	<b>121,357</b>	<b>101,379</b>	<b>91,031</b>	<b>84,640</b>	<b>79,969</b>	<b>76,221</b>	<b>72,839</b>	<b>68,113</b>	<b>63,128</b>	<b>59,171</b>	<b>55,237</b>	<b>51,728</b>	<b>48,357</b>	<b>45,613</b>	<b>42,888</b>	<b>40,508</b>	<b>38,373</b>	<b>35,343</b>
<b>Public Liability - Bodily Injury</b>																			
Pre-PIPP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PIPP	6,616	4,960	3,531	2,372	1,442	860	483	293	162	82	28	6	0	0	0	0	0	0	0
<b>Total Public Liability - Bodily Injury</b>	<b>6,616</b>	<b>4,960</b>	<b>3,531</b>	<b>2,372</b>	<b>1,442</b>	<b>860</b>	<b>483</b>	<b>293</b>	<b>162</b>	<b>82</b>	<b>28</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Property Damage</b>																			
Collision	14,970	2,376	515	172	54	15	0	0	0	0	0	0	0	0	0	0	0	0	0
Comprehensive	57,916	4,761	1,193	505	301	123	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Bodily Injury</b>	<b>174,217</b>	<b>127,437</b>	<b>106,025</b>	<b>94,514</b>	<b>87,188</b>	<b>81,932</b>	<b>77,802</b>	<b>74,226</b>	<b>69,365</b>	<b>64,296</b>	<b>60,280</b>	<b>56,321</b>	<b>52,801</b>	<b>49,426</b>	<b>46,678</b>	<b>43,949</b>	<b>41,565</b>	<b>39,426</b>	<b>35,343</b>
<b>Total Physical Damage</b>	<b>90,032</b>	<b>9,912</b>	<b>2,583</b>	<b>1,041</b>	<b>492</b>	<b>168</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Division</b>	<b>264,250</b>	<b>137,348</b>	<b>108,607</b>	<b>95,555</b>	<b>87,680</b>	<b>82,100</b>	<b>77,802</b>	<b>74,226</b>	<b>69,365</b>	<b>64,296</b>	<b>60,280</b>	<b>56,321</b>	<b>52,801</b>	<b>49,426</b>	<b>46,678</b>	<b>43,949</b>	<b>41,565</b>	<b>39,426</b>	<b>35,343</b>
<b>ILAE -for Non-Indexed</b>																			
ILAE - for Indexed	15,689	3,656	1,502	812	512	336	221	163	129	109	92	73	52	33	14	5	0	0	0
ILAE - Total	14,337	11,632	10,487	9,694	9,098	8,637	8,255	7,902	7,388	6,828	6,395	5,978	5,596	5,230	4,937	4,636	4,371	4,132	3,662
<b>Total Division + ILAE</b>	<b>294,275</b>	<b>152,636</b>	<b>120,597</b>	<b>106,061</b>	<b>97,290</b>	<b>91,073</b>	<b>86,278</b>	<b>82,291</b>	<b>76,881</b>	<b>71,233</b>	<b>66,767</b>	<b>62,372</b>	<b>58,450</b>	<b>54,690</b>	<b>51,629</b>	<b>48,589</b>	<b>45,936</b>	<b>43,558</b>	<b>39,005</b>

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(\$000)  
Direct & Agency

2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	Total P	Total P+	Total P-	Effective Duration y=0.05%	CIA Rules Unpaid	Diff
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19,580	19,493	19,667	8.86	19,581	-1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,448	3,447	3,449	0.49	3,448	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23,028	22,941	23,116	7.61	23,029	-1
18,937	17,805	16,842	15,782	14,954	14,205	13,658	13,026	12,505	11,994	11,462	10,742	10,006	9,306	8,658	7,780	6,916	6,177	5,592	4,900	11,900	932,841	926,891	938,858	12.83	933,163	-322
9,973	8,770	7,603	6,857	6,076	5,351	4,590	4,040	3,581	3,161	2,632	1,918	1,368	834	331	0	0	0	0	0	0	568,014	565,431	570,617	9.13	568,014	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70,468	70,394	70,544	2.13	70,468	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,317	4,314	4,320	1.30	4,190	127
3,394	3,321	3,245	3,164	3,080	2,994	2,906	2,133	2,009	1,832	1,696	1,509	1,322	1,200	1,011	925	807	718	647	571	1,409	113,411	112,551	114,282	15.26	113,329	83
3,394	3,321	3,245	3,164	3,080	2,994	2,906	2,133	2,009	1,832	1,696	1,509	1,322	1,200	1,011	925	807	718	647	571	1,409	117,728	116,865	118,601	14.75	117,519	209
32,304	29,897	27,689	25,802	24,111	22,551	21,154	19,199	18,096	16,987	15,790	14,169	12,696	11,340	10,000	8,705	7,723	6,895	6,239	5,471	13,309	1,689,052	1,679,581	1,698,619	11.27	1,689,164	-112
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20,836	20,813	20,859	2.20	20,836	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20,836	20,813	20,859	2.20	20,836	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,102	18,096	18,109	0.72	18,102	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64,799	64,778	64,820	0.65	64,799	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21,326	21,318	21,334	0.78	21,326	0
32,304	29,897	27,689	25,802	24,111	22,551	21,154	19,199	18,096	16,987	15,790	14,169	12,696	11,340	10,000	8,705	7,723	6,895	6,239	5,471	13,309	1,732,916	1,723,335	1,742,594	11.11	1,733,029	-114
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104,227	104,192	104,263	0.69	104,227	0
32,304	29,897	27,689	25,802	24,111	22,551	21,154	19,199	18,096	16,987	15,790	14,169	12,696	11,340	10,000	8,705	7,723	6,895	6,239	5,471	13,309	1,837,143	1,827,527	1,846,857	10.52	1,837,257	-114
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23,396	23,381	23,412	1.34		
3,319	3,050	2,805	2,597	2,412	2,242	2,094	1,959	1,847	1,741	1,620	1,456	1,309	1,168	1,037	898	797	711	643	563	1,354	174,819	173,828	175,820	11.39		
3,319	3,050	2,805	2,597	2,412	2,242	2,094	1,959	1,847	1,741	1,620	1,456	1,309	1,168	1,037	898	797	711	643	563	1,354	198,216	197,209	199,232	10.21	198,253	-38
35,623	32,947	30,494	28,400	26,523	24,793	23,248	21,158	19,943	18,728	17,410	15,625	14,006	12,508	11,037	9,603	8,520	7,606	6,882	6,034	14,662	2,035,359	2,024,736	2,046,089	10.49	2,035,510	-151

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Coverage	APV Amount Paid for Development Year Ending Mar 31																			
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	
<b>Accident Benefits - Pre-PIPP</b>																				
Weekly Indemnity	1,123	1,119	1,115	1,111	1,106	1,102	1,098	1,094	1,090	1,085	1,081	1,077	1,073	1,069	1,065	1,061	1,057	1,053	0	
Other - Non-Indexed	3,448	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total Accident Benefits - Pre-PIPP</b>	<b>4,571</b>	<b>1,119</b>	<b>1,115</b>	<b>1,111</b>	<b>1,106</b>	<b>1,102</b>	<b>1,098</b>	<b>1,094</b>	<b>1,090</b>	<b>1,085</b>	<b>1,081</b>	<b>1,077</b>	<b>1,073</b>	<b>1,069</b>	<b>1,065</b>	<b>1,061</b>	<b>1,057</b>	<b>1,053</b>	<b>0</b>	
<b>Accident Benefits - PIPP</b>																				
Weekly Indemnity	67,641	57,719	52,164	47,771	44,289	41,461	39,173	37,122	35,102	33,192	31,468	29,889	28,329	26,899	25,613	24,462	23,432	22,458	20,749	
Other - Indexed	56,365	42,269	37,775	35,233	33,530	32,354	31,344	30,348	27,924	24,996	22,971	20,935	19,173	17,424	16,169	14,715	13,456	12,353	11,097	
Other - Non-Indexed	32,420	16,482	6,880	3,640	2,514	1,894	1,439	1,119	953	857	761	618	450	285	116	40	0	0	0	
PIPP Enhancement - Perm Imp	2,557	802	461	254	143	62	38	0	0	0	0	0	0	0	0	0	0	0	0	
PIPP Enhancement - Other than Perm Imp	3,930	3,984	4,006	4,046	4,081	4,117	4,151	4,178	4,067	4,020	3,912	3,740	3,725	3,701	3,669	3,628	3,579	3,523	3,461	
<b>Total PIPP Enhancement</b>	<b>6,487</b>	<b>4,786</b>	<b>4,467</b>	<b>4,300</b>	<b>4,223</b>	<b>4,180</b>	<b>4,188</b>	<b>4,178</b>	<b>4,067</b>	<b>4,020</b>	<b>3,912</b>	<b>3,740</b>	<b>3,725</b>	<b>3,701</b>	<b>3,669</b>	<b>3,628</b>	<b>3,579</b>	<b>3,523</b>	<b>3,461</b>	
<b>Total Accident Benefits - PIPP</b>	<b>162,912</b>	<b>121,255</b>	<b>101,286</b>	<b>90,944</b>	<b>84,556</b>	<b>79,890</b>	<b>76,144</b>	<b>72,766</b>	<b>68,045</b>	<b>63,065</b>	<b>59,112</b>	<b>55,182</b>	<b>51,676</b>	<b>48,309</b>	<b>45,567</b>	<b>42,844</b>	<b>40,467</b>	<b>38,334</b>	<b>35,307</b>	
<b>Public Liability - Bodily Injury</b>																				
Pre-PIPP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PIPP	6,616	4,960	3,531	2,372	1,442	860	483	293	162	82	28	6	0	0	0	0	0	0	0	
<b>Total Public Liability - Bodily Injury</b>	<b>6,616</b>	<b>4,960</b>	<b>3,531</b>	<b>2,372</b>	<b>1,442</b>	<b>860</b>	<b>483</b>	<b>293</b>	<b>162</b>	<b>82</b>	<b>28</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Property Damage</b>																				
Collision	14,970	2,376	515	172	54	15	0	0	0	0	0	0	0	0	0	0	0	0	0	
Comprehensive	57,916	4,761	1,193	505	301	123	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total Property Damage</b>	<b>16,771</b>	<b>2,621</b>	<b>784</b>	<b>334</b>	<b>137</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Total Bodily Injury</b>	<b>174,100</b>	<b>127,335</b>	<b>105,931</b>	<b>94,427</b>	<b>87,105</b>	<b>81,852</b>	<b>77,725</b>	<b>74,153</b>	<b>69,296</b>	<b>64,233</b>	<b>60,221</b>	<b>56,265</b>	<b>52,749</b>	<b>49,378</b>	<b>46,632</b>	<b>43,905</b>	<b>41,524</b>	<b>39,387</b>	<b>35,307</b>	
<b>Total Physical Damage</b>	<b>89,658</b>	<b>9,758</b>	<b>2,493</b>	<b>1,011</b>	<b>492</b>	<b>168</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Total Division</b>	<b>263,758</b>	<b>137,094</b>	<b>108,424</b>	<b>95,438</b>	<b>87,597</b>	<b>82,020</b>	<b>77,725</b>	<b>74,153</b>	<b>69,296</b>	<b>64,233</b>	<b>60,221</b>	<b>56,265</b>	<b>52,749</b>	<b>49,378</b>	<b>46,632</b>	<b>43,905</b>	<b>41,524</b>	<b>39,387</b>	<b>35,307</b>	
ILAE -for Non-Indexed	15,689	3,656	1,502	812	512	336	221	163	129	109	92	73	52	33	14	5	0	0	0	
ILAE - for Indexed	14,337	11,632	10,487	9,694	9,098	8,637	8,255	7,902	7,388	6,828	6,395	5,978	5,596	5,230	4,937	4,636	4,371	4,132	3,662	
<b>ILAE - Total</b>	<b>30,026</b>	<b>15,288</b>	<b>11,990</b>	<b>10,505</b>	<b>9,610</b>	<b>8,973</b>	<b>8,477</b>	<b>8,065</b>	<b>7,516</b>	<b>6,937</b>	<b>6,487</b>	<b>6,051</b>	<b>5,648</b>	<b>5,263</b>	<b>4,951</b>	<b>4,640</b>	<b>4,371</b>	<b>4,132</b>	<b>3,662</b>	
<b>Total Division + ILAE</b>	<b>293,783</b>	<b>152,381</b>	<b>120,413</b>	<b>105,944</b>	<b>97,207</b>	<b>90,994</b>	<b>86,202</b>	<b>82,218</b>	<b>76,813</b>	<b>71,170</b>	<b>66,708</b>	<b>62,316</b>	<b>58,398</b>	<b>54,641</b>	<b>51,583</b>	<b>48,546</b>	<b>45,895</b>	<b>43,519</b>	<b>38,969</b>	

Manitoba Public Insurance Corporation  
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(Claim Liabilities Only)  
(\$000)

Net

																					Effective Duration					
2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	Total P	Total P	Total P	y=0.05%	Total	Total
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19,580	19,493	19,667	8.86	19,581	-1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,448	3,447	3,449	0.49	3,448	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23,028	22,941	23,116	7.61	23,029	-1
18,914	17,783	16,821	15,762	14,935	14,187	13,640	13,010	12,489	11,979	11,448	10,729	9,994	9,294	8,648	7,771	6,908	6,170	5,586	4,895	11,892	931,782	925,832	937,799	12.84	932,104	-322
9,964	8,762	7,597	6,851	6,071	5,347	4,586	4,036	3,578	3,159	2,630	1,916	1,367	833	330	0	0	0	0	0	0	567,459	564,876	570,062	9.14	567,459	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70,468	70,394	70,544	2.13	70,468	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,317	4,314	4,320	1.30	4,190	127
3,394	3,321	3,245	3,164	3,080	2,994	2,906	2,133	2,009	1,832	1,696	1,509	1,322	1,200	1,011	925	807	718	647	571	1,409	113,411	112,551	114,282	15.26	113,329	83
3,394	3,321	3,245	3,164	3,080	2,994	2,906	2,133	2,009	1,832	1,696	1,509	1,322	1,200	1,011	925	807	718	647	571	1,409	117,728	116,865	118,601	14.75	117,519	209
32,271	29,867	27,662	25,777	24,087	22,528	21,133	19,179	18,077	16,970	15,773	14,154	12,683	11,327	9,989	8,696	7,715	6,888	6,232	5,466	13,301	1,687,437	1,677,967	1,697,005	11.28	1,687,550	-113
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20,836	20,813	20,859	2.20	20,836	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20,836	20,813	20,859	2.20	20,836	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,102	18,096	18,109	0.72	18,102	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64,799	64,778	64,820	0.65	64,799	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20,679	20,671	20,687	0.77	20,679	0
32,271	29,867	27,662	25,777	24,087	22,528	21,133	19,179	18,077	16,970	15,773	14,154	12,683	11,327	9,989	8,696	7,715	6,888	6,232	5,466	13,301	1,731,301	1,721,721	1,740,980	11.12	1,731,415	-114
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	103,581	103,545	103,616	0.68	103,581	0
32,271	29,867	27,662	25,777	24,087	22,528	21,133	19,179	18,077	16,970	15,773	14,154	12,683	11,327	9,989	8,696	7,715	6,888	6,232	5,466	13,301	1,834,882	1,825,266	1,844,596	10.53	1,834,996	-114
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23,396	23,381	23,412	1.34		
3,319	3,050	2,805	2,597	2,412	2,242	2,094	1,959	1,847	1,741	1,620	1,456	1,309	1,168	1,037	898	797	711	643	563	1,354	174,819	173,828	175,820	11.39		
3,319	3,050	2,805	2,597	2,412	2,242	2,094	1,959	1,847	1,741	1,620	1,456	1,309	1,168	1,037	898	797	711	643	563	1,354	198,216	197,209	199,232	10.21	198,253	-38
35,590	32,917	30,467	28,374	26,499	24,771	23,227	21,138	19,924	18,710	17,393	15,610	13,992	12,496	11,026	9,593	8,512	7,599	6,876	6,029	14,655	2,033,098	2,022,475	2,043,828	10.50	2,033,249	-152

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## INDEX TO THE APPENDICES

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## APPENDIX A      BODILY INJURY

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### Undiscounted Gross IBNR Calculations

Manitoba Public Insurance  
Automobile Insurance Division - Bodily Injury - Basic  
Reported Loss & ALAE - With Z-Files  
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Appendix A  
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Insurance Year (April-March)	Evaluation in Months																						
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	
2002	1,496,097	3,013,769	3,113,101	2,999,383	3,276,125	3,674,727	4,005,200	4,403,951	4,487,708	4,508,069	4,532,751	4,652,649	4,622,978	4,624,040	4,622,940	4,630,296	4,630,296	4,630,296	4,630,296	4,630,296	4,630,296	4,630,296	4,630,296
2003	1,511,658	2,819,549	2,874,802	2,868,733	3,010,792	3,409,437	3,586,007	3,890,026	4,030,809	4,034,608	3,963,838	3,963,838	3,964,944	3,951,506	3,985,508	3,970,682	3,970,682	3,970,682	3,970,682	3,970,682	3,970,682	3,970,682	3,970,682
2004	1,694,333	2,964,590	3,779,360	3,788,912	3,960,298	4,231,489	4,639,281	4,631,973	5,019,968	5,329,552	5,135,230	5,220,384	5,308,072	5,294,241	5,236,991	5,252,737	5,252,737	5,252,737	5,252,737	5,252,737	5,252,737	5,252,737	5,252,737
2005	1,376,564	2,753,779	2,890,831	3,068,306	3,283,564	3,271,304	3,508,937	3,917,458	4,396,689	4,240,089	4,282,116	4,261,984	4,264,274	4,268,116	4,248,689	4,254,479	4,254,479	4,254,479	4,254,479	4,254,479	4,254,479	4,254,479	4,254,479
2006	1,302,535	2,603,552	2,563,217	2,732,420	2,857,089	2,884,223	2,942,881	3,342,625	3,303,192	3,329,647	3,354,975	3,564,201	3,445,878	3,463,729	3,464,042	3,447,899	3,447,899	3,447,899	3,447,899	3,447,899	3,447,899	3,447,899	3,447,899
2007	1,265,295	2,209,183	2,453,826	2,691,083	2,890,796	3,174,460	3,668,430	3,730,174	3,755,599	3,652,433	3,649,143	3,657,462	3,647,464	3,661,599	3,682,547	3,682,855	3,683,204						
2008	981,946	1,951,231	2,503,788	2,700,164	2,822,080	2,878,898	2,950,089	2,751,803	2,905,596	3,168,444	3,109,340	3,119,902	3,123,385	3,123,579	3,154,481	3,156,580							
2009	1,998,095	3,320,976	2,692,373	2,260,117	2,841,196	2,924,149	2,977,001	2,903,570	3,151,609	3,268,778	2,955,973	2,960,891	2,961,311	2,961,932	2,965,187								
2010	1,399,423	3,546,500	3,583,766	3,324,771	3,463,743	3,339,869	3,603,935	4,086,374	4,157,459	4,116,393	4,295,759	4,372,799	4,413,833	4,429,466									
2011	1,036,084	1,992,480	2,166,959	2,011,617	1,595,043	1,739,672	1,795,067	2,151,638	2,298,537	2,409,296	2,410,181	2,469,869	2,459,869										
2012	959,831	1,768,291	2,193,172	2,661,653	3,452,353	3,612,963	3,859,590	4,194,319	4,176,581	4,149,401	4,159,918	4,175,363											
2013	1,247,683	2,632,412	2,283,068	2,284,075	2,797,287	3,194,463	3,699,657	3,702,536	3,628,059	3,655,384	3,644,964												
2014	1,785,731	3,082,362	4,175,017	4,479,958	4,478,129	4,774,913	5,200,476	5,399,820	5,362,218	5,390,665													
2015	1,359,258	2,595,157	3,788,459	3,980,533	4,112,559	4,381,507	4,688,186	4,562,008	4,617,597														
2016	1,586,225	3,181,932	3,336,806	3,333,326	3,708,072	4,020,399	4,841,493	4,822,858															
2017	1,288,120	3,335,111	4,216,662	3,957,340	4,432,870	4,685,358	4,992,473																
2018	808,157	2,875,691	3,340,431	3,690,541	4,554,275	4,815,514																	
2019	1,380,105	2,597,607	2,871,462	2,903,771																			
2020	1,000,029	1,845,272																					

Manitoba Public Insurance  
Automobile Insurance Division - Bodily Injury - Basic  
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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Manitoba Public Insurance  
Automobile Insurance Division - Bodily Injury - Basic  
Reported Loss & ALAE - Without Z-Files  
March 31, 2021

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Insurance Year	Evaluation in Months									
	7	12	19	24	31	36	48	60	72	84
2002	1,496	3,014	3,113	2,999	3,276	3,675	4,005	4,404	4,488	4,508
2003	1,512	2,820	2,875	2,869	3,011	3,409	3,586	3,890	4,031	4,035
2004	1,694	2,965	3,779	3,789	3,960	4,231	4,639	4,632	5,020	5,330
2005	1,377	2,754	2,891	3,068	3,284	3,271	3,509	3,917	4,397	4,240
2006	1,303	2,604	2,563	2,732	2,857	2,884	2,943	3,343	3,303	3,330
2007	1,265	2,209	2,454	2,691	2,891	3,174	3,668	3,730	3,756	3,652
2008	982	1,951	2,504	2,700	2,822	2,879	2,950	2,752	2,906	3,168
2009	1,998	3,321	2,692	2,260	2,841	2,924	2,977	2,904	3,152	3,269
2010	1,399	3,546	3,584	3,325	3,464	3,340	3,604	4,086	4,157	4,116
2011	1,036	1,992	2,167	2,012	1,595	1,740	1,795	2,152	2,299	2,409
2012	960	1,768	2,193	2,662	3,452	3,613	3,860	4,194	4,177	4,149
2013	1,248	2,632	2,283	2,284	2,797	3,194	3,700	3,703	3,628	3,655
2014	1,786	3,082	4,175	4,480	4,478	4,775	5,200	5,400	5,362	5,391
2015	1,359	2,595	3,788	3,981	4,113	4,382	4,688	4,562	4,618	
2016	1,586	3,182	3,337	3,333	3,708	4,020	4,841	4,823		
2017	1,288	3,335	4,217	3,957	4,433	4,685	4,992			
2018	808	2,876	3,340	3,691	4,554	4,816				
2019	1,380	2,598	2,871	2,904						
2020	1,000	1,845								
Insurance Year	7-12	12-19	19-24	24-31	31-36	36-48	48-60	60-72	72-84	84-96
2002	2.0144	1.0330	0.9635	1.0923	1.1217	1.0899	1.0996	1.0190	1.0045	1.0055
2003	1.8652	1.0196	0.9979	1.0495	1.1324	1.0518	1.0848	1.0362	1.0009	0.9825
2004	1.7497	1.2748	1.0025	1.0452	1.0685	1.0964	0.9984	1.0838	1.0617	0.9635
2005	2.0005	1.0498	1.0614	1.0702	0.9963	1.0726	1.1164	1.1223	0.9644	1.0099
2006	1.9988	0.9845	1.0660	1.0456	1.0095	1.0203	1.1358	0.9882	1.0080	1.0076
2007	1.7460	1.1107	1.0967	1.0742	1.0981	1.1556	1.0168	1.0068	0.9725	0.9991
2008	1.9871	1.2832	1.0784	1.0452	1.0201	1.0247	0.9328	1.0559	1.0905	0.9813
2009	1.6621	0.8107	0.8395	1.2571	1.0292	1.0181	0.9753	1.0854	1.0372	0.9043
2010	2.5343	1.0105	0.9277	1.0418	0.9642	1.0791	1.1339	1.0174	0.9901	1.0436
2011	1.9231	1.0876	0.9283	0.7929	1.0907	1.0318	1.1986	1.0683	1.0482	1.0004
2012	1.8423	1.2403	1.2136	1.2971	1.0465	1.0683	1.0867	0.9958	0.9935	1.0025
2013	2.1098	0.8673	1.0004	1.2247	1.1420	1.1581	1.0008	0.9799	1.0075	0.9971
2014	1.7261	1.3545	1.0730	0.9996	1.0663	1.0891	1.0383	0.9930	1.0053	
2015	1.9092	1.4598	1.0507	1.0332	1.0654	1.0700	0.9731	1.0122		
2016	2.0060	1.0487	0.9990	1.1124	1.0842	1.2042	0.9962			
2017	2.5891	1.2643	0.9385	1.1202	1.0570	1.0655				
2018	3.5583	1.1616	1.1048	1.2340	1.0574					
2019	1.8822	1.1054	1.0113							
Latest 9 Volume Weighted	2.0949	1.1792	1.0328	1.0966	1.0605	1.0913	1.0285	1.0171	1.0123	0.9960
Latest 6 Volume Weighted	2.2138	1.2299	1.0284	1.1085	1.0743	1.1059	1.0311	1.0060	1.0095	0.9908
Latest 3 Volume Weighted	2.2955	1.1839	1.0118	1.1561	1.0651	1.1096	1.0037	0.9959	1.0022	1.0001
Simple Average of Middle 4 of Last 6	2.0966	1.2215	1.0335	1.1226	1.0683	1.0964	1.0305	1.0046	1.0109	0.9953
Simple Average of Middle 3 of Last 5	2.1681	1.1771	1.0203	1.0886	1.0630	1.1058	1.0118	1.0003	1.0021	1.0000
Selected March 20										
Selected Oct 20	2.1000	1.2500	1.0400	1.1300	1.0700	1.1070	1.0470	1.0260	1.0160	1.0060
Selected Factors	2.1000	1.2500	1.0400	1.1300	1.0700	1.1070	1.0470	1.0260	1.0160	1.0060
Selected Ultimate	4.0180	1.9133	1.5307	1.4718	1.3025	1.2173	1.0996	1.0502	1.0236	1.0075

Manitoba Public Insurance  
Automobile Insurance Division - Bodily Injury - Basic  
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Appendix A  
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Evaluation in Months											
96	108	120	132	144	156	168	180	192	204	216	228
4,533	4,653	4,623	4,624	4,623	4,630	4,630	4,630	4,630	4,630	4,630	4,630
3,964	3,964	3,965	3,952	3,986	3,971	3,971	3,971	3,971	3,971	3,971	
5,135	5,220	5,308	5,294	5,237	5,253	5,253	5,253	5,253	5,253		
4,282	4,262	4,264	4,268	4,249	4,254	4,254	4,254	4,254			
3,355	3,564	3,446	3,464	3,464	3,448	3,448	3,448				
3,649	3,657	3,647	3,662	3,683	3,683	3,683					
3,109	3,120	3,123	3,124	3,154	3,157						
2,956	2,961	2,961	2,962	2,965							
4,296	4,373	4,414	4,429								
2,410	2,470	2,460									
4,160	4,175										
3,645											

96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-Ult
1.0265	0.9936	1.0002	0.9998	1.0016	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0003	0.9966	1.0086	0.9963	1.0000	1.0000	1.0000	1.0000	1.0000	
1.0166	1.0168	0.9974	0.9892	1.0030	1.0000	1.0000	1.0000	1.0000		
0.9953	1.0005	1.0009	0.9954	1.0014	1.0000	1.0000	1.0000			
1.0624	0.9668	1.0052	1.0001	0.9953	1.0000	1.0000				
1.0023	0.9973	1.0039	1.0057	1.0001	1.0001					
1.0034	1.0011	1.0001	1.0099	1.0007						
1.0017	1.0001	1.0002	1.0011							
1.0179	1.0094	1.0035								
1.0248	0.9960									
1.0037										
1.0135	0.9999	1.0007	1.0004	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0086	0.9954	1.0024	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0140	1.0032	1.0016	1.0057	0.9987	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0068	0.9986	1.0021	1.0006	0.9996	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0083	0.9995	1.0025	1.0023	1.0007	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0010	1.0005	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0010	1.0005	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0015	1.0005	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Manitoba Public Insurance  
Automobile Insurance Division - Bodily Injury - Basic  
Reported Loss & ALAE - Without Z-Files  
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**Reported Loss & ALAE Development Factors to Ultimate**

Months to Ultimate	Latest 9 Volume Weighted	Latest 6 Volume Weighted	Latest 3 Volume Weighted	Simple Average of Middle 4 of Last 6	Simple Average of Middle 3 of Last 5	Selected March 20 Factors	Selected Oct 20 Factors	Selected Factors
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7	3.4647	3.8446	3.8514	3.6532	3.4248		4.0180	4.0180
12	1.6538	1.7366	1.6779	1.7424	1.5796		1.9133	1.9133
19	1.4025	1.4121	1.4172	1.4265	1.3419		1.5307	1.5307
24	1.3580	1.3731	1.4007	1.3803	1.3152		1.4718	1.4718
31	1.2384	1.2387	1.2116	1.2295	1.2082		1.3025	1.3025
36	1.1678	1.1530	1.1375	1.1509	1.1366		1.2173	1.2173
48	1.0701	1.0426	1.0251	1.0497	1.0279		1.0996	1.0996
60	1.0404	1.0112	1.0214	1.0187	1.0159		1.0502	1.0502
72	1.0229	1.0052	1.0256	1.0140	1.0156		1.0236	1.0236
84	1.0105	0.9958	1.0234	1.0031	1.0135		1.0075	1.0075
96	1.0146	1.0051	1.0233	1.0078	1.0135		1.0015	1.0015
108	1.0011	0.9965	1.0091	1.0009	1.0051		1.0005	1.0005
120	1.0011	1.0012	1.0059	1.0023	1.0056		1.0000	1.0000
132	1.0004	0.9988	1.0043	1.0002	1.0030		1.0000	1.0000
144	1.0000	0.9997	0.9987	0.9996	1.0007		1.0000	1.0000
156	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000
168	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000
180	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000
192	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000
204	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000
216	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000



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Interpolated Percentage of Ultimate Factors

For October				For March					
Months of Devt	RTR Factors	Factor to Ultimate	Percentage Reported	Months of Devt	Percentage Reported	Factor to Ultimate	RTR Factors	Selected RTR Factors	Sel'd Factor to Ultimate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
7	2.1000	4.0177	24.89%	7		4.0177	2.1000	2.1000	4.0180
12	1.2500	1.9132		12	52.27%	1.9132	1.2500	1.2500	1.9133
19	1.0400	1.5306	65.34%	19		1.5306	1.0400	1.0400	1.5307
24	1.1300	1.4717		24	67.95%	1.4717	1.1300	1.1300	1.4718
31	1.0700	1.3024	76.78%	31		1.3024	1.0700	1.0700	1.3025
36	1.0800	1.2172		36	82.16%	1.2172	1.1070	1.1070	1.2173
43	1.0600	1.1270	88.73%	48	90.95%	1.0995	1.0471	1.0470	1.0996
55	1.0300	1.0632	94.05%	60	95.23%	1.0501	1.0258	1.0260	1.0502
67	1.0200	1.0323	96.87%	72	97.68%	1.0237	1.0158	1.0160	1.0236
79	1.0100	1.0120	98.81%	84	99.22%	1.0078	1.0062	1.0060	1.0075
91	1.0010	1.0020	99.80%	96	99.84%	1.0016	1.0010	1.0010	1.0015
103	1.0010	1.0010	99.90%	108	99.94%	1.0006	1.0006	1.0005	1.0005
115	1.0000	1.0000	100.00%	120	100.00%	1.0000	1.0000	1.0000	1.0000
127	1.0000	1.0000	100.00%	132	100.00%	1.0000	1.0000	1.0000	1.0000
139	1.0000	1.0000	100.00%	144	100.00%	1.0000	1.0000	1.0000	1.0000
151	1.0000	1.0000	100.00%	156	100.00%	1.0000	1.0000	1.0000	1.0000
163	1.0000	1.0000	100.00%	168	100.00%	1.0000	1.0000	1.0000	1.0000
175	1.0000	1.0000	100.00%	180	100.00%	1.0000	1.0000	1.0000	1.0000
187	1.0000	1.0000	100.00%	192	100.00%	1.0000	1.0000	1.0000	1.0000
199	1.0000	1.0000	100.00%	204	100.00%	1.0000	1.0000	1.0000	1.0000
Tail	1.0000	1.0000	100.00%	Tail	100.00%	1.0000	1.0000	1.0000	1.0000

Selected Development in 4th and Subsequent Years: 41.67%

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**Projected Ultimate Losses & ALAE Using the Development Method on Reported Loss & ALAE**

Insurance Year	Earned Premium	Reported Loss & ALAE	Development Factor to Ultimate	Ultimate Losses	IBNR	Case Reserves	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2003	563,789	3,971	1.0000	3,971	-	-	0.70%
2004	598,905	5,253	1.0000	5,253	-	-	0.88%
2005	632,408	4,254	1.0000	4,254	-	25	0.67%
2006	656,746	3,448	1.0000	3,448	-	-	0.52%
2007	679,930	3,683	1.0000	3,683	-	40	0.54%
2008	709,787	3,157	1.0000	3,157	-	25	0.44%
2009	741,553	2,965	1.0000	2,965	-	50	0.40%
2010	761,034	4,429	1.0000	4,429	-	175	0.58%
2011	772,649	2,460	1.0000	2,460	-	64	0.32%
2012	769,715	4,175	1.0005	4,177	2	86	0.54%
2013	781,394	3,645	1.0015	3,650	5	20	0.47%
2014	822,358	5,391	1.0075	5,431	40	519	0.66%
2015	877,262	4,618	1.0236	4,727	109	556	0.54%
2016	923,168	4,823	1.0502	5,065	242	1,582	0.55%
2017	977,104	4,992	1.0996	5,490	497	2,390	0.56%
2018	1,044,467	4,816	1.2173	5,862	1,046	3,176	0.56%
2019	1,099,731	2,904	1.4718	4,274	1,370	2,143	0.39%
2020	1,134,690	1,845	1.9133	3,531	1,685	1,830	0.31%
	14,546,690	70,829		75,827	4,998	12,681	0.52%

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**Development of Bornhuetter-Ferguson Initial Expected Loss Ratio**

Insurance Year	Earned Premium	Projected Ultimate Losses	Based on Prior Year	Based on 2nd Prior Year	Fitted Ultimate Losses	Fitted Ultimate Loss Ratio	Projected Ultimate Loss Ratio	Weight	Weighted Initial Ult Loss Ratio	Selected Initial Ult Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2003	563,789	3,971			3,971	0.70%	0.70%	100.00%	0.70%	0.52%
2004	598,905	5,253	4,030		4,030	0.67%	0.88%	100.00%	0.88%	0.52%
2005	632,408	4,254	5,332	4,091	4,711	0.74%	0.67%	100.00%	0.67%	0.52%
2006	656,746	3,448	4,318	5,412	4,865	0.74%	0.52%	100.00%	0.52%	0.52%
2007	679,930	3,683	3,500	4,383	3,941	0.58%	0.54%	100.00%	0.54%	0.52%
2008	709,787	3,157	3,738	3,552	3,645	0.51%	0.44%	100.00%	0.44%	0.52%
2009	741,553	2,965	3,204	3,795	3,499	0.47%	0.40%	100.00%	0.40%	0.52%
2010	761,034	4,429	3,010	3,252	3,131	0.41%	0.58%	100.00%	0.58%	0.52%
2011	772,649	2,460	4,496	3,055	3,775	0.49%	0.32%	100.00%	0.32%	0.52%
2012	769,715	4,177	2,497	4,563	3,530	0.46%	0.54%	100.00%	0.54%	0.52%
2013	781,394	3,650	4,240	2,534	3,387	0.43%	0.47%	100.00%	0.47%	0.52%
2014	822,358	5,431	3,705	4,304	4,004	0.49%	0.66%	100.00%	0.66%	0.52%
2015	877,262	4,727	5,513	3,761	4,637	0.53%	0.54%	100.00%	0.54%	0.52%
2016	923,168	5,065	4,798	5,595	5,196	0.56%	0.55%	75.00%	0.55%	0.52%
2017	977,104	5,490	5,141	4,870	5,005	0.51%	0.56%	50.00%	0.54%	0.52%
2018	1,044,467	5,862	5,572	5,218	5,395	0.52%	0.56%	25.00%	0.53%	0.52%
2019	1,099,731	4,274	5,950	5,656	5,803	0.53%	0.39%	25.00%	0.49%	0.52%
2020	1,134,690	3,531	4,338	6,039	5,188	0.46%	0.31%	25.00%	0.42%	0.52%
	14,546,690	75,827	73,381	70,079	77,715					

**Trend in Losses Based on Exponential Regression (a):**

**1.34%**

**Selected Trend (b):**

**1.50%**

Notes:

(3) Ultimate Losses from Page 7

(6) = Average [(4), (5)]

(10) = (8) \* (9) + (7) \* [1 - (9)]

(11) = Sum [Column (3)] / Sum [Column (2)]

(a) Based on the Projected Ultimate Losses

(b) Based on the exponential trend rounded up to the nearest 0.25%; minimum 0.00%

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**Projected Ultimate Losses and ALAE Using the Bornhuetter-Ferguson Method on Reported Loss & ALAE**

Insurance Year	Earned Premium	Selected	Initial	Expected Percentage:		Expected	Actual	Expected	Estimated	Estimated
		Initial Ult Loss Ratio	Expected Ult Losses	Reported	Unreported	Reported Loss	Reported Loss	Unreported Loss	Ultimate Losses	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2003	563,789	0.52%	2,939	100.00%	0.00%	2,939	3,971	-	3,971	0.70%
2004	598,905	0.52%	3,122	100.00%	0.00%	3,122	5,253	-	5,253	0.88%
2005	632,408	0.52%	3,297	100.00%	0.00%	3,297	4,254	-	4,254	0.67%
2006	656,746	0.52%	3,423	100.00%	0.00%	3,423	3,448	-	3,448	0.52%
2007	679,930	0.52%	3,544	100.00%	0.00%	3,544	3,683	-	3,683	0.54%
2008	709,787	0.52%	3,700	100.00%	0.00%	3,700	3,157	-	3,157	0.44%
2009	741,553	0.52%	3,865	100.00%	0.00%	3,865	2,965	-	2,965	0.40%
2010	761,034	0.52%	3,967	100.00%	0.00%	3,967	4,429	-	4,429	0.58%
2011	772,649	0.52%	4,028	100.00%	0.00%	4,028	2,460	-	2,460	0.32%
2012	769,715	0.52%	4,012	99.95%	0.05%	4,010	4,175	2	4,177	0.54%
2013	781,394	0.52%	4,073	99.85%	0.15%	4,067	3,645	6	3,651	0.47%
2014	822,358	0.52%	4,287	99.25%	0.75%	4,255	5,391	32	5,423	0.66%
2015	877,262	0.52%	4,573	97.69%	2.31%	4,467	4,618	106	4,723	0.54%
2016	923,168	0.52%	4,812	95.22%	4.78%	4,582	4,823	230	5,053	0.55%
2017	977,104	0.52%	5,093	90.94%	9.06%	4,632	4,992	461	5,454	0.56%
2018	1,044,467	0.52%	5,444	82.15%	17.85%	4,473	4,816	972	5,787	0.55%
2019	1,099,731	0.52%	5,733	67.94%	32.06%	3,895	2,904	1,838	4,741	0.43%
2020	1,134,690	0.52%	5,915	52.26%	47.74%	3,091	1,845	2,823	4,669	0.41%
	14,546,690		75,827			69,357	70,829	6,470	77,299	0.53%

Notes:

(10) = (8) + (9)

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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	54,718	311,853	536,860	726,228	1,403,410	1,754,523	2,172,613	2,563,107	3,231,880	3,897,143	4,316,639	4,612,649	4,622,978	4,624,040	4,622,940	4,630,296	4,630,296	4,630,296	4,630,296	4,630,296	4,630,296	4,630,296
2003	21,193	207,205	789,426	1,038,364	1,319,972	1,550,617	2,049,700	2,354,306	2,994,390	3,684,608	3,943,838	3,943,838	3,944,944	3,951,506	3,970,682	3,970,682	3,970,682	3,970,682	3,970,682	3,970,682	3,970,682	3,970,682
2004	38,591	160,690	454,659	583,267	1,055,064	1,462,349	2,578,781	3,270,774	3,740,853	4,643,332	4,888,941	5,074,095	5,086,782	5,094,241	5,186,991	5,252,737	5,252,737	5,252,737	5,252,737	5,252,737	5,252,737	5,252,737
2005	22,564	358,540	798,981	981,900	1,207,408	1,618,149	2,252,136	2,587,302	3,181,294	3,502,442	3,777,962	4,017,830	4,020,120	4,223,116	4,223,689	4,229,479	4,229,479	4,229,479	4,229,479	4,229,479	4,229,479	4,229,479
2006	12,135	84,476	424,051	607,895	1,214,391	1,607,832	2,175,483	2,890,125	3,013,192	3,039,647	3,134,975	3,170,677	3,225,878	3,443,729	3,444,042	3,447,899	3,447,899	3,447,899	3,447,899	3,447,899	3,447,899	3,447,899
2007	22,020	230,706	434,106	783,994	1,035,532	1,071,692	1,576,089	2,594,402	3,088,699	3,517,433	3,564,143	3,572,462	3,627,464	3,631,599	3,642,547	3,642,855	3,643,204					
2008	29,946	149,424	346,750	536,195	1,161,881	1,765,404	2,026,845	2,173,559	2,410,351	2,919,976	2,989,340	3,034,902	3,038,385	3,038,579	3,129,481	3,131,580						
2009	15,095	143,506	300,937	563,816	709,385	824,458	1,454,350	2,044,260	2,368,404	2,836,778	2,905,973	2,910,891	2,911,311	2,911,932	2,915,187							
2010	9,855	100,209	801,898	949,403	1,293,492	1,408,218	2,210,987	2,560,068	3,105,577	3,438,958	3,660,759	3,924,289	4,238,833	4,254,466								
2011	6,134	231,380	315,359	429,464	674,312	762,941	1,023,336	1,652,438	1,824,337	1,850,096	2,235,981	2,395,669	2,395,669									
2012	21,831	81,305	189,672	903,153	1,316,927	1,952,722	2,848,977	3,590,847	3,965,531	3,988,351	4,073,868	4,089,313										
2013	683	20,412	386,218	553,478	672,873	964,962	1,583,052	2,432,701	3,057,453	3,615,384	3,624,964											
2014	45,020	565,764	940,364	1,629,978	2,108,369	2,702,657	3,639,219	4,523,320	4,803,218	4,871,665												
2015	10,758	85,013	703,405	1,341,697	1,980,383	2,315,232	3,009,315	3,845,556	4,061,145													
2016	4,000	58,675	800,968	978,853	1,548,072	1,999,219	2,947,901	3,240,805														
2017	17,620	48,683	359,454	1,026,565	1,337,617	1,794,622	2,602,833															
2018	18,157	25,691	404,009	616,571	1,129,857	1,639,374																
2019	11,855	193,666	458,066	760,523																		
2020	4,733	15,422																				

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Insurance Year	Evaluation in Months									
	7	12	19	24	31	36	48	60	72	84
2002	55	312	537	726	1,403	1,755	2,173	2,563	3,232	3,897
2003	21	207	789	1,038	1,320	1,551	2,050	2,354	2,994	3,685
2004	39	161	455	583	1,055	1,462	2,579	3,271	3,741	4,643
2005	23	359	799	982	1,207	1,618	2,252	2,587	3,181	3,502
2006	12	84	424	608	1,214	1,608	2,175	2,890	3,013	3,040
2007	22	231	434	784	1,036	1,072	1,576	2,594	3,089	3,517
2008	30	149	347	536	1,162	1,765	2,027	2,174	2,410	2,920
2009	15	144	301	564	709	824	1,454	2,044	2,368	2,837
2010	10	100	802	949	1,293	1,408	2,211	2,560	3,106	3,439
2011	6	231	315	429	674	763	1,023	1,652	1,824	1,850
2012	22	81	190	903	1,317	1,953	2,849	3,591	3,966	3,988
2013	1	20	386	553	673	965	1,583	2,433	3,057	3,615
2014	45	566	940	1,630	2,108	2,703	3,639	4,523	4,803	4,872
2015	11	85	703	1,342	1,980	2,315	3,009	3,846	4,061	
2016	4	59	801	979	1,548	1,999	2,948	3,241		
2017	18	49	359	1,027	1,338	1,795	2,603			
2018	18	26	404	617	1,130	1,639				
2019	12	194	458	761						
2020	5	15								
Insurance Year	7-12	12-19	19-24	24-31	31-36	36-48	48-60	60-72	72-84	84-96
2002	5.6993	1.7215	1.3527	1.9325	1.2502	1.2383	1.1797	1.2609	1.2058	1.1076
2003	9.7769	3.8099	1.3153	1.2712	1.1747	1.3219	1.1486	1.2719	1.2305	1.0704
2004	4.1640	2.8294	1.2829	1.8089	1.3860	1.7635	1.2683	1.1437	1.2412	1.0529
2005	15.8896	2.2284	1.2289	1.2297	1.3402	1.3918	1.1488	1.2296	1.1009	1.0787
2006	6.9613	5.0198	1.4335	1.9977	1.3240	1.3531	1.3285	1.0426	1.0088	1.0314
2007	10.4769	1.8816	1.8060	1.3208	1.0349	1.4707	1.6461	1.1905	1.1388	1.0133
2008	4.9897	2.3206	1.5463	2.1669	1.5194	1.1481	1.0724	1.1089	1.2114	1.0238
2009	9.5066	2.0970	1.8735	1.2582	1.1622	1.7640	1.4056	1.1586	1.1978	1.0244
2010	10.1683	8.0022	1.1839	1.3624	1.0887	1.5701	1.1579	1.2131	1.1073	1.0645
2011	37.7219	1.3629	1.3618	1.5701	1.1314	1.3413	1.6148	1.1040	1.0141	1.2086
2012	3.7243	2.3328	4.7617	1.4581	1.4828	1.4590	1.2604	1.1043	1.0058	1.0214
2013	29.8881	18.9210	1.4331	1.2157	1.4341	1.6405	1.5367	1.2568	1.1825	1.0026
2014	12.5669	1.6621	1.7333	1.2935	1.2819	1.3465	1.2429	1.0619	1.0143	
2015	7.9025	8.2741	1.9074	1.4760	1.1691	1.2998	1.2779	1.0561		
2016	14.6688	13.6509	1.2221	1.5815	1.2914	1.4745	1.0994			
2017	2.7629	7.3835	2.8559	1.3030	1.3417	1.4504				
2018	1.4149	15.7256	1.5261	1.8325	1.4510					
2019	16.3368	2.3652	1.6603							
Latest 9 Volume Weighted	8.1291	3.4775	1.8081	1.4310	1.2883	1.4479	1.2564	1.1286	1.0883	1.0439
Latest 6 Volume Weighted	6.3637	3.7507	1.7331	1.4278	1.3007	1.4179	1.2813	1.1189	1.0772	1.0451
Latest 3 Volume Weighted	6.7573	4.5573	1.9677	1.5315	1.3530	1.4012	1.2098	1.1037	1.0549	1.0509
Simple Average of Middle 4 of Last 6	9.4753	7.9184	1.7068	1.4135	1.3373	1.4326	1.3295	1.1208	1.0796	1.0335
Simple Average of Middle 3 of Last 5	8.4447	9.7695	1.6980	1.4535	1.3050	1.4238	1.2604	1.0901	1.0452	1.0368
Selected Mar 20										
Selected Oct 20	9.0000	5.0000	1.7000	1.5000	1.2500	1.4325	1.2565	1.1375	1.0790	1.0355
Selected Factors	9.0000	5.0000	1.7000	1.5000	1.2500	1.4325	1.2565	1.1375	1.0790	1.0355
Selected Ultimate	347.0400	38.5600	7.7120	4.5365	3.0243	2.4195	1.6890	1.3442	1.1817	1.0952

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Evaluation in Months											
96	108	120	132	144	156	168	180	192	204	216	228
4,317	4,613	4,623	4,624	4,623	4,630	4,630	4,630	4,630	4,630	4,630	4,630
3,944	3,944	3,945	3,952	3,971	3,971	3,971	3,971	3,971	3,971	3,971	3,971
4,889	5,074	5,087	5,094	5,187	5,253	5,253	5,253	5,253	5,253		
3,778	4,018	4,020	4,223	4,224	4,229	4,229	4,229	4,229			
3,135	3,171	3,226	3,444	3,444	3,448	3,448	3,448				
3,564	3,572	3,627	3,632	3,643	3,643	3,643					
2,989	3,035	3,038	3,039	3,129	3,132						
2,906	2,911	2,911	2,912	2,915							
3,661	3,924	4,239	4,254								
2,236	2,396	2,396									
4,074	4,089										
3,625											

96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-Ult
1.0686	1.0022	1.0002	0.9998	1.0016	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0003	1.0017	1.0049	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
1.0379	1.0025	1.0015	1.0182	1.0127	1.0000	1.0000	1.0000	1.0000		
1.0635	1.0006	1.0505	1.0001	1.0014	1.0000	1.0000	1.0000			
1.0114	1.0174	1.0675	1.0001	1.0011	1.0000	1.0000				
1.0023	1.0154	1.0011	1.0030	1.0001	1.0001					
1.0152	1.0011	1.0001	1.0299	1.0007						
1.0017	1.0001	1.0002	1.0011							
1.0720	1.0802	1.0037								
1.0714	1.0000									
1.0038										
1.0307	1.0139	1.0131	1.0070	1.0030	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0256	1.0225	1.0210	1.0089	1.0033	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0440	1.0341	1.0016	1.0110	1.0006	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0232	1.0085	1.0139	1.0056	1.0008	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0302	1.0056	1.0017	1.0014	1.0011	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0235	1.0150	1.0115	1.0050	1.0015	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0235	1.0150	1.0115	1.0050	1.0015	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0576	1.0334	1.0181	1.0065	1.0015	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

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**Paid Loss & ALAE Development Factors to Ultimate**

Months to Ultimate	Latest 9 Volume Weighted	Latest 6 Volume Weighted	Latest 3 Volume Weighted	Simple Average of Middle 4 of Last 6	Simple Average of Middle 3 of Last 5	Selected Feb 20 Factors	Selected Oct 20 Factors	Selected Factors
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7	235.0249	190.5520	284.8959	607.0990	585.9284		347.0400	347.0400
12	28.9117	29.9434	42.1613	64.0719	69.3838		38.5600	38.5600
19	8.3140	7.9834	9.2515	8.0915	7.1021		7.7120	7.7120
24	4.5983	4.6063	4.7016	4.7407	4.1827		4.5365	4.5365
31	3.2134	3.2261	3.0699	3.3539	2.8777		3.0243	3.0243
36	2.4942	2.4803	2.2689	2.5080	2.2051		2.4195	2.4195
48	1.7227	1.7493	1.6193	1.7507	1.5488		1.6890	1.6890
60	1.3711	1.3653	1.3385	1.3168	1.2288		1.3442	1.3442
72	1.2149	1.2202	1.2127	1.1748	1.1272		1.1817	1.1817
84	1.1163	1.1327	1.1496	1.0883	1.0784		1.0952	1.0952
96	1.0694	1.0838	1.0939	1.0530	1.0402		1.0576	1.0576
108	1.0375	1.0568	1.0478	1.0291	1.0097		1.0334	1.0334
120	1.0233	1.0335	1.0133	1.0204	1.0042		1.0181	1.0181
132	1.0101	1.0122	1.0116	1.0064	1.0025		1.0065	1.0065
144	1.0030	1.0033	1.0006	1.0008	1.0011		1.0015	1.0015
156	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000
168	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000
180	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000
192	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000
204	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000
216	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000



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Interpolated Percentage of Ultimate Factors

For October				For March					
Months of Devt	RTR Factors	Factor to Ultimate	Percentage Paid	Months of Devt	Percentage Paid	Factor to Ultimate	RTR Factors	Selected RTR Factors	Sel'd Factor to Ultimate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
7	9.0000	347.2194	0.29%	7		347.2194	9.0000	9.0000	347.0400
12	5.0000	38.5799		12	2.59%	38.5799	5.0000	5.0000	38.5600
19	1.7000	7.7160	12.96%	19		7.7160	1.7000	1.7000	7.7120
24	1.5000	4.5388		24	22.03%	4.5388	1.5000	1.5000	4.5365
31	1.2500	3.0259	33.05%	31		3.0259	1.2500	1.2500	3.0243
36	1.2500	2.4207		36	41.31%	2.4207	1.4323	1.4325	2.4195
43	1.3500	1.9366	51.64%	48	59.17%	1.6901	1.2567	1.2565	1.6890
55	1.1600	1.4345	69.71%	60	74.36%	1.3448	1.1373	1.1375	1.3442
67	1.1100	1.2366	80.86%	72	84.57%	1.1824	1.0790	1.0790	1.1817
79	1.0400	1.1141	89.76%	84	91.26%	1.0958	1.0357	1.0355	1.0952
91	1.0300	1.0712	93.35%	96	94.52%	1.0580	1.0236	1.0235	1.0576
103	1.0150	1.0400	96.15%	108	96.75%	1.0336	1.0150	1.0150	1.0334
115	1.0150	1.0247	97.59%	120	98.20%	1.0183	1.0116	1.0115	1.0181
127	1.0070	1.0095	99.06%	132	99.35%	1.0066	1.0051	1.0050	1.0065
139	1.0025	1.0025	99.75%	144	99.85%	1.0015	1.0015	1.0015	1.0015
151	1.0000	1.0000	100.00%	156	100.00%	1.0000	1.0000	1.0000	1.0000
163	1.0000	1.0000	100.00%	168	100.00%	1.0000	1.0000	1.0000	1.0000
175	1.0000	1.0000	100.00%	180	100.00%	1.0000	1.0000	1.0000	1.0000
187	1.0000	1.0000	100.00%	192	100.00%	1.0000	1.0000	1.0000	1.0000
199	1.0000	1.0000	100.00%	204	100.00%	1.0000	1.0000	1.0000	1.0000
Tail	1.0000	1.0000	100.00%	Tail	100.00%	1.0000	1.0000	1.0000	1.0000

Selected Development in 4th and Subsequent Years: 41.67%

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**Projected Ultimate Losses & ALAE Using the Development Method on Paid Loss & ALAE**

Insurance Year	Earned Premium	Paid Loss & ALAE	Development Factor to Ultimate	Ultimate Losses	Unpaid	Case Reserves	IBNR	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2003	563,789	3,971	1.0000	3,971	-	-	-	0.70%
2004	598,905	5,253	1.0000	5,253	-	-	-	0.88%
2005	632,408	4,229	1.0000	4,229	-	25	(25)	0.67%
2006	656,746	3,448	1.0000	3,448	-	-	-	0.52%
2007	679,930	3,643	1.0000	3,643	-	40	(40)	0.54%
2008	709,787	3,132	1.0000	3,132	-	25	(25)	0.44%
2009	741,553	2,915	1.0015	2,920	4	50	(46)	0.39%
2010	761,034	4,254	1.0065	4,282	28	175	(147)	0.56%
2011	772,649	2,396	1.0181	2,439	43	64	(21)	0.32%
2012	769,715	4,089	1.0334	4,226	136	86	50	0.55%
2013	781,394	3,625	1.0576	3,834	209	20	189	0.49%
2014	822,358	4,872	1.0952	5,335	464	519	(55)	0.65%
2015	877,262	4,061	1.1817	4,799	738	556	182	0.55%
2016	923,168	3,241	1.3442	4,356	1,115	1,582	(467)	0.47%
2017	977,104	2,603	1.6890	4,396	1,793	2,390	(597)	0.45%
2018	1,044,467	1,639	2.4195	3,966	2,327	3,176	(849)	0.38%
2019	1,099,731	761	4.5365	3,450	2,690	2,143	547	0.31%
2020	1,134,690	15	38.5600	595	579	1,830	(1,251)	0.05%
	14,546,690	58,147		68,274	10,127	12,681	(2,554)	0.47%

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Paid Loss & ALAE - Without Z-Files  
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**Development of Bornhuetter-Ferguson Initial Expected Loss Ratio**

Insurance Year	Earned Premium	Projected Ultimate Losses	Based on Prior Year	Based on 2nd Prior Year	Fitted Ultimate Losses	Fitted Ultimate Loss Ratio	Projected Ultimate Loss Ratio	Weight	Weighted Initial Ult Loss Ratio	Selected Initial Ult Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2003	563,789	3,971			3,971	0.70%	0.70%	100.00%	0.70%	0.52%
2004	598,905	5,253	4,030		4,030	0.67%	0.88%	100.00%	0.88%	0.52%
2005	632,408	4,229	5,332	4,091	4,711	0.74%	0.67%	100.00%	0.67%	0.52%
2006	656,746	3,448	4,293	5,412	4,852	0.74%	0.52%	100.00%	0.52%	0.52%
2007	679,930	3,643	3,500	4,357	3,928	0.58%	0.54%	100.00%	0.54%	0.52%
2008	709,787	3,132	3,698	3,552	3,625	0.51%	0.44%	100.00%	0.44%	0.52%
2009	741,553	2,920	3,179	3,753	3,466	0.47%	0.39%	100.00%	0.39%	0.52%
2010	761,034	4,282	2,963	3,226	3,095	0.41%	0.56%	100.00%	0.56%	0.52%
2011	772,649	2,439	4,346	3,008	3,677	0.48%	0.32%	100.00%	0.32%	0.52%
2012	769,715	4,226	2,476	4,412	3,444	0.45%	0.55%	100.00%	0.55%	0.52%
2013	781,394	3,834	4,289	2,513	3,401	0.44%	0.49%	100.00%	0.49%	0.52%
2014	822,358	5,335	3,891	4,353	4,122	0.50%	0.65%	100.00%	0.65%	0.52%
2015	877,262	4,799	5,415	3,950	4,683	0.53%	0.55%	100.00%	0.55%	0.52%
2016	923,168	4,356	4,871	5,497	5,184	0.56%	0.47%	75.00%	0.49%	0.52%
2017	977,104	4,396	4,422	4,944	4,683	0.48%	0.45%	50.00%	0.46%	0.52%
2018	1,044,467	3,966	4,462	4,488	4,475	0.43%	0.38%	25.00%	0.42%	0.52%
2019	1,099,731	3,450	4,026	4,529	4,277	0.39%	0.31%	25.00%	0.37%	0.52%
2020	1,134,690	595	3,502	4,086	3,794	0.33%	0.05%	25.00%	0.26%	0.52%
	14,546,690	68,274	68,694	66,170	73,418					

**Trend in Losses Based on Exponential Regression (a):**

**-2.94%**

**Selected Trend (b):**

**1.50%**

Notes:

(3) Ultimate Losses from Page 15

(6) = Average [(4), (5)]

(10) = (8) \* (9) + (7) \* [1 - (9)]

(11) Selected Initial Ult Loss Ratio from Page 8

(a) Based on the Projected Ultimate Losses

(b) Selected Trend from Page 8

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**Projected Ultimate Losses and ALAE Using the Bornhuetter-Ferguson Method on Paid Loss & ALAE**

Insurance Year	Earned Premium	Selected	Initial	Expected Percentage:		Expected	Actual	Expected	Estimated	Expected IBNR	Estimated
		Initial Ult Loss Ratio	Expected Ult Losses	Paid	Unpaid	Paid Loss	Paid Loss	Unpaid Loss	Ultimate Losses		Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
2003	563,789	0.52%	2,939	100.00%	0.00%	2,939	3,971	-	3,971	-	0.70%
2004	598,905	0.52%	3,122	100.00%	0.00%	3,122	5,253	-	5,253	-	0.88%
2005	632,408	0.52%	3,297	100.00%	0.00%	3,297	4,229	-	4,229	(25)	0.67%
2006	656,746	0.52%	3,423	100.00%	0.00%	3,423	3,448	-	3,448	-	0.52%
2007	679,930	0.52%	3,544	100.00%	0.00%	3,544	3,643	-	3,643	(40)	0.54%
2008	709,787	0.52%	3,700	100.00%	0.00%	3,700	3,132	-	3,132	(25)	0.44%
2009	741,553	0.52%	3,865	99.85%	0.15%	3,860	2,915	6	2,921	(44)	0.39%
2010	761,034	0.52%	3,967	99.35%	0.65%	3,941	4,254	26	4,280	(149)	0.56%
2011	772,649	0.52%	4,028	98.22%	1.78%	3,956	2,396	72	2,467	8	0.32%
2012	769,715	0.52%	4,012	96.77%	3.23%	3,883	4,089	130	4,219	44	0.55%
2013	781,394	0.52%	4,073	94.55%	5.45%	3,851	3,625	222	3,847	202	0.49%
2014	822,358	0.52%	4,287	91.31%	8.69%	3,914	4,872	373	5,244	(146)	0.64%
2015	877,262	0.52%	4,573	84.62%	15.38%	3,870	4,061	703	4,764	147	0.54%
2016	923,168	0.52%	4,812	74.39%	25.61%	3,580	3,241	1,232	4,473	(350)	0.48%
2017	977,104	0.52%	5,093	59.21%	40.79%	3,016	2,603	2,078	4,681	(312)	0.48%
2018	1,044,467	0.52%	5,444	41.33%	58.67%	2,250	1,639	3,194	4,834	18	0.46%
2019	1,099,731	0.52%	5,733	22.04%	77.96%	1,264	761	4,469	5,229	2,326	0.48%
2020	1,134,690	0.52%	5,915	2.59%	97.41%	153	15	5,761	5,777	3,931	0.51%
14,546,690			75,827			57,562	58,147	18,264	76,411	5,583	0.53%

Notes:

(10) = (8) + (9)

## APPENDIX B      PROPERTY DAMAGE

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Undiscounted Gross IBNR Calculations

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Reported Loss & ALAE - With Z-Files  
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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	13,155,521	26,902,863	28,465,637	28,783,788	28,925,533	28,890,848	28,837,895	28,753,443	28,733,329	28,706,638	28,692,901	28,678,541	28,660,323	28,655,078	28,650,775	28,639,084	28,634,852	28,632,870	28,630,614	28,629,825	28,628,169	28,627,787
2003	12,183,544	26,895,120	28,497,241	28,974,874	29,203,884	29,324,201	29,292,899	29,251,427	29,219,878	29,164,263	29,156,179	29,132,299	29,124,368	29,136,435	29,129,869	29,127,900	29,125,991	29,122,273	29,120,773	29,119,020	29,117,820	
2004	12,086,393	26,940,815	28,717,997	29,485,232	29,841,027	29,784,004	29,780,473	29,749,964	29,709,964	29,699,206	29,690,624	29,682,832	29,677,764	29,653,889	29,649,672	29,640,378	29,638,717	29,629,776	29,629,076	29,626,881		
2005	13,715,133	27,474,350	29,783,836	30,313,604	30,577,010	30,694,884	30,573,250	30,570,244	30,528,024	30,523,327	30,505,357	30,432,458	30,408,559	30,405,756	30,403,219	30,400,105	30,397,687	30,394,532	30,392,172			
2006	14,198,615	30,835,641	32,125,589	33,012,529	33,615,563	33,753,334	33,721,763	33,683,864	33,676,442	33,653,121	33,648,386	33,645,976	33,641,325	33,636,525	33,629,891	33,623,564	33,618,178	33,606,308				
2007	14,656,586	31,044,976	33,241,207	33,897,840	34,635,070	34,674,166	34,574,355	34,406,655	34,347,844	34,343,422	34,341,729	34,337,815	34,332,329	34,330,461	34,320,272	34,396,526	34,391,416					
2008	14,730,948	31,849,308	34,686,637	35,790,847	36,267,641	36,487,568	36,261,483	36,171,277	36,197,945	36,282,398	36,133,314	36,130,287	36,162,232	36,118,819	36,160,739	36,157,683						
2009	15,950,757	31,739,730	33,379,295	34,155,886	34,306,530	34,688,754	34,668,194	34,669,092	34,657,886	34,428,218	34,425,603	34,423,361	34,413,512	34,404,474	34,407,125							
2010	15,750,312	33,284,613	36,261,711	37,701,440	38,362,086	38,510,778	38,586,070	38,608,846	38,598,720	38,641,018	38,637,375	38,627,237	38,613,733	38,404,411								
2011	15,859,864	32,537,772	35,521,740	36,271,050	36,986,427	37,131,920	37,200,026	37,188,759	37,293,017	37,264,774	37,255,313	37,192,057	37,188,723									
2012	17,900,052	35,613,391	39,511,095	40,773,438	41,327,215	41,798,168	42,016,762	42,267,777	42,325,319	42,413,056	42,328,856	42,365,009										
2013	15,617,757	36,399,058	41,468,442	43,255,265	44,251,811	44,522,232	45,011,846	45,200,538	45,205,413	45,209,293	45,221,587											
2014	15,537,810	34,513,227	39,167,930	39,670,308	40,299,837	40,610,408	40,715,014	40,752,985	40,771,334	40,743,607												
2015	16,594,326	34,967,708	38,880,853	40,157,159	40,925,164	41,143,831	41,201,441	41,141,050	41,148,017													
2016	17,853,971	35,901,142	41,311,225	42,400,122	43,213,699	43,316,660	43,647,435	43,677,279														
2017	18,290,942	39,095,838	44,261,127	45,012,949	46,055,938	46,434,305	46,633,972															
2018	16,821,736	35,270,051	39,957,785	41,576,768	42,778,316	43,008,440																
2019	15,794,739	32,795,176	36,494,888	37,894,667																		
2020	12,159,515	24,587,060																				

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Insurance Year (April-March)	Evaluation in Months																						
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	
2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Insurance Year	Evaluation in Months									
	7	12	19	24	31	36	48	60	72	84
2002	13,156	26,903	28,466	28,784	28,926	28,891	28,838	28,753	28,733	28,707
2003	12,184	26,895	28,497	28,975	29,204	29,324	29,293	29,251	29,220	29,164
2004	12,086	26,941	28,718	29,485	29,841	29,784	29,780	29,750	29,710	29,699
2005	13,715	27,474	29,784	30,314	30,577	30,695	30,573	30,570	30,528	30,523
2006	14,199	30,836	32,126	33,013	33,616	33,753	33,722	33,684	33,676	33,653
2007	14,657	31,045	33,241	33,898	34,635	34,674	34,574	34,407	34,348	34,343
2008	14,731	31,849	34,687	35,791	36,268	36,488	36,261	36,171	36,198	36,282
2009	15,951	31,740	33,379	34,156	34,307	34,689	34,668	34,669	34,658	34,428
2010	15,750	33,285	36,262	37,701	38,362	38,511	38,586	38,609	38,599	38,641
2011	15,860	32,538	35,522	36,271	36,986	37,132	37,200	37,189	37,293	37,265
2012	17,900	35,613	39,511	40,773	41,327	41,798	42,017	42,268	42,325	42,413
2013	15,618	36,399	41,468	43,255	44,252	44,522	45,012	45,201	45,205	45,209
2014	15,538	34,513	39,168	39,670	40,300	40,610	40,715	40,753	40,771	40,744
2015	16,594	34,968	38,881	40,157	40,925	41,144	41,201	41,141	41,148	
2016	17,854	35,901	41,311	42,400	43,214	43,317	43,647	43,677		
2017	18,291	39,096	44,261	45,013	46,056	46,434	46,634			
2018	16,822	35,270	39,958	41,577	42,778	43,008				
2019	15,795	32,795	36,495	37,895						
2020	12,160	24,587								
Insurance Year	7-12	12-19	19-24	24-31	31-36	36-48	48-60	60-72	72-84	84-96
2002	2.0450	1.0581	1.0112	1.0049	0.9988	0.9982	0.9971	0.9993	0.9991	0.9995
2003	2.2075	1.0596	1.0168	1.0079	1.0041	0.9989	0.9986	0.9989	0.9981	0.9997
2004	2.2290	1.0660	1.0267	1.0121	0.9981	0.9999	0.9990	0.9987	0.9996	0.9997
2005	2.0032	1.0841	1.0178	1.0087	1.0039	0.9960	0.9999	0.9986	0.9998	0.9994
2006	2.1717	1.0418	1.0276	1.0183	1.0041	0.9991	0.9989	0.9998	0.9993	0.9999
2007	2.1182	1.0707	1.0198	1.0217	1.0011	0.9971	0.9951	0.9983	0.9999	1.0000
2008	2.1621	1.0891	1.0318	1.0133	1.0061	0.9938	0.9975	1.0007	1.0023	0.9959
2009	1.9899	1.0517	1.0233	1.0044	1.0111	0.9994	1.0000	0.9997	0.9934	0.9999
2010	2.1133	1.0894	1.0397	1.0175	1.0039	1.0020	1.0006	0.9997	1.0011	0.9999
2011	2.0516	1.0917	1.0211	1.0197	1.0039	1.0018	0.9997	1.0028	0.9992	0.9997
2012	1.9896	1.1094	1.0319	1.0136	1.0114	1.0052	1.0060	1.0014	1.0021	0.9980
2013	2.3306	1.1393	1.0431	1.0230	1.0061	1.0110	1.0042	1.0001	1.0001	1.0003
2014	2.2212	1.1349	1.0128	1.0159	1.0077	1.0026	1.0009	1.0005	0.9993	
2015	2.1072	1.1119	1.0328	1.0191	1.0053	1.0014	0.9985	1.0002		
2016	2.0108	1.1507	1.0264	1.0192	1.0024	1.0076	1.0007			
2017	2.1374	1.1321	1.0170	1.0232	1.0082	1.0043				
2018	2.0967	1.1329	1.0405	1.0289	1.0054					
2019	2.0763	1.1128	1.0384							
Latest 9 Volume Weighted	2.1092	1.1245	1.0293	1.0201	1.0061	1.0041	1.0010	1.0004	0.9997	0.9992
Latest 6 Volume Weighted	2.0778	1.1295	1.0277	1.0216	1.0059	1.0054	1.0017	1.0007	0.9994	0.9990
Latest 3 Volume Weighted	2.0692	1.1265	1.0312	1.0237	1.0054	1.0045	1.0001	1.0002	1.0005	0.9993
Simple Average of Middle 4 of Last 6	2.1044	1.1282	1.0286	1.0211	1.0061	1.0049	1.0014	1.0005	0.9999	0.9994
Simple Average of Middle 3 of Last 5	2.0934	1.1259	1.0325	1.0205	1.0061	1.0048	1.0019	1.0007	1.0002	0.9999
Selected March 20										
Selected Oct 20	2.1000	1.1300	1.0300	1.0210	1.0060	1.0040	1.0020	1.0010	1.0000	0.9995
Selected Factors	2.1000	1.1300	1.0300	1.0210	1.0060	1.0040	1.0020	1.0010	1.0000	0.9995
Selected Ultimate	2.5243	1.2021	1.0638	1.0328	1.0115	1.0055	1.0015	0.9995	0.9985	0.9985



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Evaluation in Months											
96	108	120	132	144	156	168	180	192	204	216	228
28,693	28,679	28,660	28,655	28,651	28,639	28,635	28,633	28,631	28,630	28,628	28,628
29,156	29,132	29,124	29,136	29,130	29,128	29,126	29,122	29,121	29,119	29,118	
29,691	29,683	29,678	29,654	29,650	29,640	29,639	29,630	29,629	29,627		
30,505	30,432	30,409	30,406	30,403	30,400	30,398	30,395	30,392			
33,648	33,646	33,641	33,637	33,630	33,624	33,618	33,606				
34,342	34,338	34,332	34,330	34,320	34,397	34,391					
36,133	36,130	36,162	36,119	36,161	36,158						
34,426	34,423	34,414	34,404	34,407							
38,637	38,627	38,614	38,404								
37,255	37,192	37,189									
42,329	42,365										
45,222											

96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-Ult
0.9995	0.9994	0.9998	0.9998	0.9996	0.9999	0.9999	0.9999	1.0000	0.9999	1.0000
0.9992	0.9997	1.0004	0.9998	0.9999	0.9999	0.9999	0.9999	0.9999	1.0000	
0.9997	0.9998	0.9992	0.9999	0.9997	0.9999	0.9997	1.0000	0.9999		
0.9976	0.9992	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999			
0.9999	0.9999	0.9999	0.9998	0.9998	0.9998	0.9996				
0.9999	0.9998	0.9999	0.9997	1.0022	0.9999					
0.9999	1.0009	0.9988	1.0012	0.9999						
0.9999	0.9997	0.9997	1.0001							
0.9997	0.9997	0.9946								
0.9983	0.9999									
1.0009										
0.9996	0.9999	0.9990	1.0000	1.0002	0.9999	0.9998	0.9999	0.9999	1.0000	1.0000
0.9998	1.0000	0.9987	1.0001	1.0003	0.9999	0.9998	0.9999	0.9999	1.0000	1.0000
0.9997	0.9998	0.9976	1.0003	1.0006	0.9999	0.9997	0.9999	0.9999	1.0000	1.0000
0.9999	0.9998	0.9996	0.9999	0.9999	0.9999	0.9998	0.9999	0.9999	1.0000	1.0000
0.9999	0.9998	0.9995	0.9999	0.9999	0.9999	0.9998	0.9999	0.9999	1.0000	1.0000
0.9995	0.9995	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
0.9995	0.9995	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
0.9990	0.9995	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

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**Reported Loss & ALAE Development Factors to Ultimate**

Months to Ultimate	Latest 9 Volume Weighted	Latest 6 Volume Weighted	Latest 3 Volume Weighted	Simple Average of Middle 4 of Last 6	Simple Average of Middle 3 of Last 5	Selected March 20 Factors	Selected Oct 20 Factors	Selected Factors
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7	2.5123	2.4899	2.4792	2.5210	2.5137		2.5243	2.5243
12	1.1911	1.1983	1.1981	1.1980	1.2008		1.2021	1.2021
19	1.0592	1.0609	1.0636	1.0619	1.0665		1.0638	1.0638
24	1.0291	1.0324	1.0314	1.0323	1.0329		1.0328	1.0328
31	1.0088	1.0105	1.0075	1.0109	1.0121		1.0115	1.0115
36	1.0027	1.0046	1.0021	1.0048	1.0060		1.0055	1.0055
48	0.9986	0.9992	0.9976	0.9998	1.0011		1.0015	1.0015
60	0.9976	0.9975	0.9975	0.9985	0.9992		0.9995	0.9995
72	0.9972	0.9967	0.9973	0.9979	0.9985		0.9985	0.9985
84	0.9974	0.9973	0.9968	0.9980	0.9984		0.9985	0.9985
96	0.9982	0.9984	0.9975	0.9986	0.9985		0.9990	0.9990
108	0.9986	0.9986	0.9978	0.9987	0.9986		0.9995	0.9995
120	0.9988	0.9986	0.9980	0.9989	0.9988		1.0000	1.0000
132	0.9997	0.9999	1.0004	0.9993	0.9993		1.0000	1.0000
144	0.9997	0.9998	1.0001	0.9994	0.9994		1.0000	1.0000
156	0.9995	0.9995	0.9994	0.9995	0.9995		1.0000	1.0000
168	0.9996	0.9996	0.9996	0.9996	0.9996		1.0000	1.0000
180	0.9998	0.9998	0.9998	0.9998	0.9998		1.0000	1.0000
192	0.9999	0.9999	0.9999	0.9999	0.9999		1.0000	1.0000
204	0.9999	0.9999	0.9999	0.9999	0.9999		1.0000	1.0000
216	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000

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Interpolated Percentage of Ultimate Factors

For October				For March					
Months of Devt	RTR Factors	Factor to Ultimate	Percentage Reported	Months of Devt	Percentage Reported	Factor to Ultimate	RTR Factors	Selected RTR Factors	Sel'd Factor to Ultimate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
8	2.1000	2.5243	39.61%	8		2.5243	2.1000	2.1000	2.5243
12	1.1300	1.2021		12	83.19%	1.2021	1.1300	1.1300	1.2021
20	1.0300	1.0638	94.01%	20		1.0638	1.0300	1.0300	1.0638
24	1.0210	1.0328		24	96.83%	1.0328	1.0210	1.0210	1.0328
32	1.0060	1.0115	98.86%	32		1.0115	1.0060	1.0060	1.0115
36	1.0030	1.0055		36	99.45%	1.0055	1.0038	1.0040	1.0055
44	1.0020	1.0025	99.75%	48	99.83%	1.0017	1.0020	1.0020	1.0015
56	1.0020	1.0005	99.95%	60	100.03%	0.9997	1.0012	1.0010	0.9995
68	1.0000	0.9985	100.15%	72	100.15%	0.9985	0.9998	1.0000	0.9985
80	0.9995	0.9985	100.15%	84	100.13%	0.9987	0.9995	0.9995	0.9985
92	0.9995	0.9990	100.10%	96	100.08%	0.9992	0.9995	0.9995	0.9990
104	0.9995	0.9995	100.05%	108	100.03%	0.9997	0.9997	0.9995	0.9995
116	1.0000	1.0000	100.00%	120	100.00%	1.0000	1.0000	1.0000	1.0000
128	1.0000	1.0000	100.00%	132	100.00%	1.0000	1.0000	1.0000	1.0000
140	1.0000	1.0000	100.00%	144	100.00%	1.0000	1.0000	1.0000	1.0000
152	1.0000	1.0000	100.00%	156	100.00%	1.0000	1.0000	1.0000	1.0000
164	1.0000	1.0000	100.00%	168	100.00%	1.0000	1.0000	1.0000	1.0000
176	1.0000	1.0000	100.00%	180	100.00%	1.0000	1.0000	1.0000	1.0000
188	1.0000	1.0000	100.00%	192	100.00%	1.0000	1.0000	1.0000	1.0000
200	1.0000	1.0000	100.00%	204	100.00%	1.0000	1.0000	1.0000	1.0000
Tail	1.0000	1.0000	100.00%	Tail	100.00%	1.0000	1.0000	1.0000	1.0000

Selected Development in 4th and Subsequent Years: 41.67%

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**Projected Ultimate Losses & ALAE Using the Development Method on Reported Loss & ALAE**

Insurance Year	Earned Premium	Reported Loss & ALAE	Development Factor to Ultimate	Ultimate Losses	IBNR	Case Reserves	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2003	563,789	29,118	1.0000	29,118	-	-	5.16%
2004	598,905	29,627	1.0000	29,627	-	-	4.95%
2005	632,408	30,392	1.0000	30,392	-	-	4.81%
2006	656,746	33,606	1.0000	33,606	-	-	5.12%
2007	679,930	34,391	1.0000	34,391	-	3	5.06%
2008	709,787	36,158	1.0000	36,158	-	-	5.09%
2009	741,553	34,407	1.0000	34,407	-	10	4.64%
2010	761,034	38,404	1.0000	38,404	-	-	5.05%
2011	772,649	37,189	1.0000	37,189	-	-	4.81%
2012	769,715	42,365	0.9995	42,344	(21)	91	5.50%
2013	781,394	45,222	0.9990	45,176	(45)	-	5.78%
2014	822,358	40,744	0.9985	40,683	(61)	20	4.95%
2015	877,262	41,148	0.9985	41,086	(62)	4	4.68%
2016	923,168	43,677	0.9995	43,655	(22)	1	4.73%
2017	977,104	46,634	1.0015	46,704	70	187	4.78%
2018	1,044,467	43,008	1.0055	43,245	237	954	4.14%
2019	1,099,731	37,895	1.0328	39,137	1,242	1,827	3.56%
2020	1,134,690	24,587	1.2021	29,555	4,968	6,531	2.60%
	14,546,690	668,572		674,878	6,306	9,628	4.64%

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**Development of Bornhuetter-Ferguson Initial Expected Loss Ratio**

Insurance Year	Earned Premium	Projected Ultimate Losses	Based on Prior Year	Based on 2nd Prior Year	Fitted Ultimate Losses	Fitted Ultimate Loss Ratio	Projected Ultimate Loss Ratio	Weight	Weighted Initial Ult Loss Ratio	Selected Initial Ult Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2003	563,789	29,118			29,118	5.16%	5.16%	100.00%	5.16%	5.16%
2004	598,905	29,627	29,118		29,118	4.86%	4.95%	100.00%	4.95%	4.95%
2005	632,408	30,392	29,627	29,118	29,372	4.64%	4.81%	100.00%	4.81%	4.81%
2006	656,746	33,606	30,392	29,627	30,010	4.57%	5.12%	100.00%	5.12%	5.12%
2007	679,930	34,391	33,606	30,392	31,999	4.71%	5.06%	100.00%	5.06%	5.06%
2008	709,787	36,158	34,391	33,606	33,999	4.79%	5.09%	100.00%	5.09%	5.09%
2009	741,553	34,407	36,158	34,391	35,275	4.76%	4.64%	100.00%	4.64%	4.64%
2010	761,034	38,404	34,407	36,158	35,282	4.64%	5.05%	100.00%	5.05%	5.05%
2011	772,649	37,189	38,404	34,407	36,406	4.71%	4.81%	100.00%	4.81%	4.81%
2012	769,715	42,344	37,189	38,404	37,797	4.91%	5.50%	100.00%	5.50%	5.50%
2013	781,394	45,176	42,344	37,189	39,766	5.09%	5.78%	100.00%	5.78%	5.78%
2014	822,358	40,683	45,176	42,344	43,760	5.32%	4.95%	100.00%	4.95%	4.95%
2015	877,262	41,086	40,683	45,176	42,929	4.89%	4.68%	100.00%	4.68%	4.68%
2016	923,168	43,655	41,086	40,683	40,884	4.43%	4.73%	75.00%	4.65%	4.65%
2017	977,104	46,704	43,655	41,086	42,371	4.34%	4.78%	50.00%	4.56%	4.56%
2018	1,044,467	43,245	46,704	43,655	45,180	4.33%	4.14%	25.00%	4.28%	4.28%
2019	1,099,731	39,137	43,245	46,704	44,975	4.09%	3.56%	25.00%	3.96%	3.96%
2020	1,134,690	29,555	39,137	43,245	41,191	3.63%	2.60%	25.00%	3.37%	3.37%
	14,546,690	674,878	645,323	606,186	669,431					

**Trend in Losses Based on Exponential Regression (2011 & After) (a):**

**-1.42%**

**Selected Trend (b):**

**0.00%**

Notes:

(3) Ultimate Losses from Page 7

(6) = Average [(4), (5)]

(10) = (8) \* (9) + (7) \* [1 - (9)]

(a) Based on the Projected Ultimate Losses

(b) Based on the exponential trend rounded up to the nearest 0.25%; minimum 0.00%

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**Projected Ultimate Losses and ALAE Using the Bornhuetter-Ferguson Method on Reported Loss & ALAE**

Insurance Year	Earned Premium	Selected	Initial	Expected Percentage:		Expected	Actual	Expected	Estimated	Estimated
		Initial Ult Loss Ratio	Expected Ult Losses	Reported	Unreported	Reported Loss	Reported Loss	Unreported Loss	Ultimate Losses	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2003	563,789	5.16%	29,118	100.00%	0.00%	29,118	29,118	-	29,118	5.16%
2004	598,905	4.95%	29,627	100.00%	0.00%	29,627	29,627	-	29,627	4.95%
2005	632,408	4.81%	30,392	100.00%	0.00%	30,392	30,392	-	30,392	4.81%
2006	656,746	5.12%	33,606	100.00%	0.00%	33,606	33,606	-	33,606	5.12%
2007	679,930	5.06%	34,391	100.00%	0.00%	34,391	34,391	-	34,391	5.06%
2008	709,787	5.09%	36,158	100.00%	0.00%	36,158	36,158	-	36,158	5.09%
2009	741,553	4.64%	34,407	100.00%	0.00%	34,407	34,407	-	34,407	4.64%
2010	761,034	5.05%	38,404	100.00%	0.00%	38,404	38,404	-	38,404	5.05%
2011	772,649	4.81%	37,189	100.00%	0.00%	37,189	37,189	-	37,189	4.81%
2012	769,715	5.50%	42,344	100.05%	-0.05%	42,365	42,365	(21)	42,344	5.50%
2013	781,394	5.78%	45,176	100.10%	-0.10%	45,222	45,222	(45)	45,176	5.78%
2014	822,358	4.95%	40,683	100.15%	-0.15%	40,744	40,744	(61)	40,683	4.95%
2015	877,262	4.68%	41,086	100.15%	-0.15%	41,148	41,148	(62)	41,086	4.68%
2016	923,168	4.65%	42,963	100.05%	-0.05%	42,984	43,677	(22)	43,656	4.73%
2017	977,104	4.56%	44,537	99.85%	0.15%	44,471	46,634	67	46,701	4.78%
2018	1,044,467	4.28%	44,696	99.45%	0.55%	44,451	43,008	245	43,253	4.14%
2019	1,099,731	3.96%	43,515	96.83%	3.17%	42,134	37,895	1,381	39,276	3.57%
2020	1,134,690	3.37%	38,282	83.19%	16.81%	31,847	24,587	6,435	31,022	2.73%
	14,546,690		686,575			678,658	668,572	7,917	676,489	4.65%

Notes:

(10) = (8) + (9)

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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	7,866,472	19,012,841	27,207,206	28,060,526	28,535,468	28,646,128	28,730,565	28,712,063	28,698,099	28,684,558	28,671,021	28,657,791	28,650,323	28,645,078	28,640,775	28,638,084	28,634,352	28,632,370	28,630,614	28,629,825	28,628,169	28,627,787
2003	7,776,706	19,449,067	27,378,914	28,373,937	28,899,587	29,138,627	29,189,438	29,178,859	29,172,310	29,150,647	29,142,563	29,129,799	29,122,868	29,134,935	29,129,869	29,127,900	29,125,991	29,122,273	29,120,773	29,119,020	29,117,820	
2004	7,448,585	18,711,221	27,387,842	28,679,324	29,327,516	29,545,657	29,609,229	29,628,558	29,688,558	29,677,800	29,669,624	29,661,832	29,656,764	29,648,889	29,644,672	29,640,378	29,638,717	29,629,776	29,629,076	29,626,881		
2005	7,631,782	19,502,247	27,667,343	28,641,744	29,451,429	29,673,746	30,447,400	30,466,794	30,440,774	30,436,277	30,418,307	30,411,608	30,408,559	30,405,756	30,403,219	30,400,105	30,397,687	30,394,532	30,392,172			
2006	7,957,727	20,221,774	30,098,103	31,863,303	32,973,290	33,486,356	33,662,496	33,665,138	33,660,892	33,649,670	33,646,986	33,645,076	33,640,425	33,635,625	33,629,491	33,623,164	33,617,778	33,605,908				
2007	7,587,491	19,476,695	30,858,027	32,309,421	33,415,587	33,675,374	33,817,505	34,079,155	34,095,344	34,090,922	34,289,229	34,285,315	34,279,829	34,277,961	34,267,772	34,394,026	34,388,916					
2008	8,430,093	21,185,262	32,488,457	33,938,653	35,173,152	35,453,710	35,896,079	35,975,584	35,982,695	35,989,898	35,998,314	35,995,287	36,027,232	36,068,819	36,160,739	36,157,683						
2009	9,180,454	22,656,250	31,201,613	32,713,377	33,628,854	33,966,979	34,431,569	34,453,494	34,445,488	34,416,343	34,414,228	34,412,486	34,403,137	34,394,099	34,396,750							
2010	8,842,174	23,088,994	34,322,347	36,546,534	37,647,671	38,160,701	38,280,274	38,320,200	38,342,891	38,428,518	38,429,875	38,419,737	38,406,233	38,404,411								
2011	8,780,242	23,264,164	33,620,608	34,829,256	36,169,619	36,671,941	37,100,813	37,110,109	37,187,317	37,209,074	37,199,813	37,191,557	37,188,723									
2012	9,969,519	23,670,643	36,909,944	38,878,012	40,447,352	41,278,409	41,471,423	41,909,018	42,139,319	42,146,694	42,228,856	42,273,509										
2013	8,939,708	23,381,456	38,966,198	41,987,449	44,015,576	44,447,039	45,001,497	45,030,506	45,039,792	45,209,293	45,221,587											
2014	8,726,341	24,183,864	35,928,356	37,827,243	39,557,176	40,159,991	40,424,239	40,519,485	40,551,834	40,724,107												
2015	9,733,161	25,595,379	37,180,591	39,189,602	40,424,582	40,899,460	41,108,392	41,140,244	41,144,367													
2016	10,285,002	25,859,484	39,304,270	41,216,855	42,786,975	43,101,747	43,615,104	43,676,374														
2017	10,861,996	28,123,857	41,410,857	43,440,529	44,817,661	45,709,264	46,447,372															
2018	10,004,313	24,775,258	37,718,395	40,168,239	41,600,083	42,053,953																
2019	9,591,803	24,708,173	34,167,978	36,067,869																		
2020	7,073,182	18,055,726																				

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Insurance Year	Evaluation in Months									
	7	12	19	24	31	36	48	60	72	84
2002	7,866	19,013	27,207	28,061	28,535	28,646	28,731	28,712	28,698	28,685
2003	7,777	19,449	27,379	28,374	28,900	29,139	29,189	29,179	29,172	29,151
2004	7,449	18,711	27,388	28,679	29,328	29,546	29,609	29,629	29,689	29,678
2005	7,632	19,502	27,667	28,642	29,451	29,674	30,447	30,467	30,441	30,436
2006	7,958	20,222	30,098	31,863	32,973	33,486	33,662	33,665	33,661	33,650
2007	7,587	19,477	30,858	32,309	33,416	33,675	33,818	34,079	34,095	34,091
2008	8,430	21,185	32,488	33,939	35,173	35,454	35,896	35,976	35,983	35,990
2009	9,180	22,656	31,202	32,713	33,629	33,967	34,432	34,453	34,445	34,416
2010	8,842	23,089	34,322	36,547	37,648	38,161	38,280	38,320	38,343	38,429
2011	8,780	23,264	33,621	34,829	36,170	36,672	37,101	37,110	37,187	37,209
2012	9,970	23,671	36,910	38,878	40,447	41,278	41,471	41,909	42,139	42,147
2013	8,940	23,381	38,966	41,987	44,016	44,447	45,001	45,031	45,040	45,209
2014	8,726	24,184	35,928	37,827	39,557	40,160	40,424	40,519	40,552	40,724
2015	9,733	25,595	37,181	39,190	40,425	40,899	41,108	41,140	41,144	
2016	10,285	25,859	39,304	41,217	42,787	43,102	43,615	43,676		
2017	10,862	28,124	41,411	43,441	44,818	45,709	46,447			
2018	10,004	24,775	37,718	40,168	41,600	42,054				
2019	9,592	24,708	34,168	36,068						
2020	7,073	18,056								
Insurance Year	7-12	12-19	19-24	24-31	31-36	36-48	48-60	60-72	72-84	84-96
2002	2.4169	1.4310	1.0314	1.0169	1.0039	1.0029	0.9994	0.9995	0.9995	0.9995
2003	2.5009	1.4077	1.0363	1.0185	1.0083	1.0017	0.9996	0.9998	0.9993	0.9997
2004	2.5121	1.4637	1.0472	1.0226	1.0074	1.0022	1.0007	1.0020	0.9996	0.9997
2005	2.5554	1.4187	1.0352	1.0283	1.0075	1.0261	1.0006	0.9991	0.9999	0.9994
2006	2.5411	1.4884	1.0586	1.0348	1.0156	1.0053	1.0001	0.9999	0.9997	0.9999
2007	2.5669	1.5844	1.0470	1.0342	1.0078	1.0042	1.0077	1.0005	0.9999	1.0058
2008	2.5131	1.5335	1.0446	1.0364	1.0080	1.0125	1.0022	1.0002	1.0002	1.0002
2009	2.4679	1.3772	1.0485	1.0280	1.0101	1.0137	1.0006	0.9998	0.9992	0.9999
2010	2.6112	1.4865	1.0648	1.0301	1.0136	1.0031	1.0010	1.0006	1.0022	1.0000
2011	2.6496	1.4452	1.0359	1.0385	1.0139	1.0117	1.0003	1.0021	1.0006	0.9998
2012	2.3743	1.5593	1.0533	1.0404	1.0205	1.0047	1.0106	1.0055	1.0002	1.0019
2013	2.6155	1.6665	1.0775	1.0483	1.0098	1.0125	1.0006	1.0002	1.0038	1.0003
2014	2.7714	1.4856	1.0529	1.0457	1.0152	1.0066	1.0024	1.0008	1.0042	
2015	2.6297	1.4526	1.0540	1.0315	1.0117	1.0051	1.0008	1.0001		
2016	2.5143	1.5199	1.0487	1.0381	1.0074	1.0119	1.0014			
2017	2.5892	1.4724	1.0490	1.0317	1.0199	1.0161				
2018	2.4765	1.5224	1.0650	1.0356	1.0109					
2019	2.5760	1.3829	1.0556							
Latest 9 Volume Weighted	2.5633	1.4994	1.0549	1.0378	1.0136	1.0096	1.0023	1.0011	1.0012	1.0008
Latest 6 Volume Weighted	2.5564	1.4729	1.0541	1.0384	1.0125	1.0097	1.0027	1.0015	1.0018	1.0004
Latest 3 Volume Weighted	2.5325	1.4599	1.0563	1.0351	1.0128	1.0113	1.0015	1.0004	1.0027	1.0007
Simple Average of Middle 4 of Last 6	2.5773	1.4827	1.0529	1.0378	1.0119	1.0090	1.0013	1.0009	1.0017	1.0001
Simple Average of Middle 3 of Last 5	2.5598	1.4817	1.0529	1.0351	1.0126	1.0103	1.0015	1.0010	1.0022	1.0001
Selected March 20										
Selected Oct 20	2.6000	1.5000	1.0550	1.0400	1.0140	1.0085	1.0025	1.0010	1.0005	1.0000
Selected Factors	2.6000	1.5000	1.0550	1.0400	1.0140	1.0085	1.0025	1.0010	1.0005	1.0000
Selected Ultimate	4.3934	1.6898	1.1265	1.0678	1.0267	1.0125	1.0040	1.0015	1.0005	1.0000



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Evaluation in Months											
96	108	120	132	144	156	168	180	192	204	216	228
28,671	28,658	28,650	28,645	28,641	28,638	28,634	28,632	28,631	28,630	28,628	28,628
29,143	29,130	29,123	29,135	29,130	29,128	29,126	29,122	29,121	29,119	29,118	
29,670	29,662	29,657	29,649	29,645	29,640	29,639	29,630	29,629	29,627		
30,418	30,412	30,409	30,406	30,403	30,400	30,398	30,395	30,392			
33,647	33,645	33,640	33,636	33,629	33,623	33,618	33,606				
34,289	34,285	34,280	34,278	34,268	34,394	34,389					
35,998	35,995	36,027	36,069	36,161	36,158						
34,414	34,412	34,403	34,394	34,397							
38,430	38,420	38,406	38,404								
37,200	37,192	37,189									
42,229	42,274										
45,222											

96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-Ult
0.9995	0.9997	0.9998	0.9998	0.9999	0.9999	0.9999	0.9999	1.0000	0.9999	1.0000
0.9996	0.9998	1.0004	0.9998	0.9999	0.9999	0.9999	0.9999	0.9999	1.0000	
0.9997	0.9998	0.9997	0.9999	0.9999	0.9999	0.9997	1.0000	0.9999		
0.9998	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999			
0.9999	0.9999	0.9999	0.9998	0.9998	0.9998	0.9996				
0.9999	0.9998	0.9999	0.9997	1.0037	0.9999					
0.9999	1.0009	1.0012	1.0025	0.9999						
0.9999	0.9997	0.9997	1.0001							
0.9997	0.9996	1.0000								
0.9998	0.9999									
1.0011										

1.0000	0.9999	1.0001	1.0002	1.0005	0.9999	0.9998	0.9999	0.9999	1.0000	1.0000
1.0001	1.0000	1.0001	1.0004	1.0006	0.9999	0.9998	0.9999	0.9999	1.0000	1.0000
1.0002	0.9998	1.0003	1.0008	1.0011	0.9999	0.9997	0.9999	0.9999	1.0000	1.0000
0.9999	0.9998	0.9999	0.9999	0.9999	0.9999	0.9998	0.9999	0.9999	1.0000	1.0000
0.9999	0.9998	0.9999	0.9999	0.9999	0.9999	0.9998	0.9999	0.9999	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

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**Paid Loss & ALAE Development Factors to Ultimate**

Months to Ultimate	Latest 9 Volume Weighted	Latest 6 Volume Weighted	Latest 3 Volume Weighted	Simple Average of Middle 4 of Last 6	Simple Average of Middle 3 of Last 5	Selected Feb 20 Factors	Selected Oct 20 Factors	Selected Factors
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7	4.3302	4.2428	4.1691	4.2761	4.2453		4.3934	4.3934
12	1.6893	1.6597	1.6462	1.6591	1.6584		1.6898	1.6898
19	1.1267	1.1269	1.1277	1.1190	1.1193		1.1265	1.1265
24	1.0681	1.0691	1.0676	1.0628	1.0631		1.0678	1.0678
31	1.0292	1.0295	1.0314	1.0241	1.0270		1.0267	1.0267
36	1.0153	1.0168	1.0183	1.0121	1.0142		1.0125	1.0125
48	1.0057	1.0070	1.0069	1.0030	1.0038		1.0040	1.0040
60	1.0034	1.0043	1.0054	1.0017	1.0023		1.0015	1.0015
72	1.0023	1.0028	1.0051	1.0008	1.0013		1.0005	1.0005
84	1.0011	1.0010	1.0023	0.9991	0.9991		1.0000	1.0000
96	1.0002	1.0006	1.0016	0.9990	0.9990		1.0000	1.0000
108	1.0002	1.0005	1.0014	0.9991	0.9991		1.0000	1.0000
120	1.0003	1.0005	1.0017	0.9993	0.9993		1.0000	1.0000
132	1.0002	1.0004	1.0014	0.9994	0.9994		1.0000	1.0000
144	1.0000	1.0001	1.0006	0.9994	0.9994		1.0000	1.0000
156	0.9995	0.9995	0.9994	0.9995	0.9995		1.0000	1.0000
168	0.9996	0.9996	0.9996	0.9996	0.9996		1.0000	1.0000
180	0.9998	0.9998	0.9998	0.9998	0.9998		1.0000	1.0000
192	0.9999	0.9999	0.9999	0.9999	0.9999		1.0000	1.0000
204	0.9999	0.9999	0.9999	0.9999	0.9999		1.0000	1.0000
216	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000

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Interpolated Percentage of Ultimate Factors

For October				For March					
Months of Devt	RTR Factors	Factor to Ultimate	Percentage Paid	Months of Devt	Percentage Paid	Factor to Ultimate	RTR Factors	Selected RTR Factors	Sel'd Factor to Ultimate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
8	2.6000	4.3956	22.75%	8		4.3956	2.6000	2.6000	4.3934
12	1.5000	1.6906		12	59.15%	1.6906	1.5000	1.5000	1.6898
20	1.0550	1.1271	88.72%	20		1.1271	1.0550	1.0550	1.1265
24	1.0400	1.0683		24	93.60%	1.0683	1.0400	1.0400	1.0678
32	1.0140	1.0272	97.35%	32		1.0272	1.0140	1.0140	1.0267
36	1.0070	1.0131		36	98.71%	1.0131	1.0087	1.0085	1.0125
44	1.0040	1.0060	99.40%	48	99.57%	1.0043	1.0027	1.0025	1.0040
56	1.0010	1.0020	99.80%	60	99.84%	1.0016	1.0010	1.0010	1.0015
68	1.0010	1.0010	99.90%	72	99.94%	1.0006	1.0006	1.0005	1.0005
80	1.0000	1.0000	100.00%	84	100.00%	1.0000	1.0000	1.0000	1.0000
92	1.0000	1.0000	100.00%	96	100.00%	1.0000	1.0000	1.0000	1.0000
104	1.0000	1.0000	100.00%	108	100.00%	1.0000	1.0000	1.0000	1.0000
116	1.0000	1.0000	100.00%	120	100.00%	1.0000	1.0000	1.0000	1.0000
128	1.0000	1.0000	100.00%	132	100.00%	1.0000	1.0000	1.0000	1.0000
140	1.0000	1.0000	100.00%	144	100.00%	1.0000	1.0000	1.0000	1.0000
152	1.0000	1.0000	100.00%	156	100.00%	1.0000	1.0000	1.0000	1.0000
164	1.0000	1.0000	100.00%	168	100.00%	1.0000	1.0000	1.0000	1.0000
176	1.0000	1.0000	100.00%	180	100.00%	1.0000	1.0000	1.0000	1.0000
188	1.0000	1.0000	100.00%	192	100.00%	1.0000	1.0000	1.0000	1.0000
200	1.0000	1.0000	100.00%	204	100.00%	1.0000	1.0000	1.0000	1.0000
Tail	1.0000	1.0000	100.00%	Tail	100.00%	1.0000	1.0000	1.0000	1.0000

Selected Development in 4th and Subsequent Years: 41.67%

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**Projected Ultimate Losses & ALAE Using the Development Method on Paid Loss & ALAE**

Insurance Year	Earned Premium	Paid Loss & ALAE	Development Factor to Ultimate	Ultimate Losses	Unpaid	Case Reserves	IBNR	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2003	563,789	29,118	1.0000	29,118	-	-	-	5.16%
2004	598,905	29,627	1.0000	29,627	-	-	-	4.95%
2005	632,408	30,392	1.0000	30,392	-	-	-	4.81%
2006	656,746	33,606	1.0000	33,606	-	-	-	5.12%
2007	679,930	34,389	1.0000	34,389	-	3	(3)	5.06%
2008	709,787	36,158	1.0000	36,158	-	-	-	5.09%
2009	741,553	34,397	1.0000	34,397	-	10	(10)	4.64%
2010	761,034	38,404	1.0000	38,404	-	-	-	5.05%
2011	772,649	37,189	1.0000	37,189	-	-	-	4.81%
2012	769,715	42,274	1.0000	42,274	-	91	(91)	5.49%
2013	781,394	45,222	1.0000	45,222	-	-	-	5.79%
2014	822,358	40,724	1.0000	40,724	-	20	(20)	4.95%
2015	877,262	41,144	1.0005	41,165	21	4	17	4.69%
2016	923,168	43,676	1.0015	43,742	66	1	65	4.74%
2017	977,104	46,447	1.0040	46,633	186	187	(1)	4.77%
2018	1,044,467	42,054	1.0125	42,581	527	954	(427)	4.08%
2019	1,099,731	36,068	1.0678	38,513	2,445	1,827	618	3.50%
2020	1,134,690	18,056	1.6898	30,510	12,454	6,531	5,923	2.69%
	14,546,690	658,944		674,642	15,698	9,628	6,070	4.64%

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**Development of Bornhuetter-Ferguson Initial Expected Loss Ratio**

Insurance Year	Earned Premium	Projected Ultimate Losses	Based on Prior Year	Based on 2nd Prior Year	Fitted Ultimate Losses	Fitted Ultimate Loss Ratio	Projected Ultimate Loss Ratio	Weight	Weighted Initial Ult Loss Ratio	Selected Initial Ult Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2003	563,789	29,118			29,118	5.16%	5.16%	100.00%	5.16%	5.16%
2004	598,905	29,627	29,118		29,118	4.86%	4.95%	100.00%	4.95%	4.95%
2005	632,408	30,392	29,627	29,118	29,372	4.64%	4.81%	100.00%	4.81%	4.81%
2006	656,746	33,606	30,392	29,627	30,010	4.57%	5.12%	100.00%	5.12%	5.12%
2007	679,930	34,389	33,606	30,392	31,999	4.71%	5.06%	100.00%	5.06%	5.06%
2008	709,787	36,158	34,389	33,606	33,997	4.79%	5.09%	100.00%	5.09%	5.09%
2009	741,553	34,397	36,158	34,389	35,273	4.76%	4.64%	100.00%	4.64%	4.64%
2010	761,034	38,404	34,397	36,158	35,277	4.64%	5.05%	100.00%	5.05%	5.05%
2011	772,649	37,189	38,404	34,397	36,401	4.71%	4.81%	100.00%	4.81%	4.81%
2012	769,715	42,274	37,189	38,404	37,797	4.91%	5.49%	100.00%	5.49%	5.50%
2013	781,394	45,222	42,274	37,189	39,731	5.08%	5.79%	100.00%	5.79%	5.78%
2014	822,358	40,724	45,222	42,274	43,748	5.32%	4.95%	100.00%	4.95%	4.95%
2015	877,262	41,165	40,724	45,222	42,973	4.90%	4.69%	100.00%	4.69%	4.68%
2016	923,168	43,742	41,165	40,724	40,945	4.44%	4.74%	75.00%	4.66%	4.65%
2017	977,104	46,633	43,742	41,165	42,453	4.34%	4.77%	50.00%	4.56%	4.56%
2018	1,044,467	42,581	46,633	43,742	45,188	4.33%	4.08%	25.00%	4.26%	4.28%
2019	1,099,731	38,513	42,581	46,633	44,607	4.06%	3.50%	25.00%	3.92%	3.96%
2020	1,134,690	30,510	38,513	42,581	40,547	3.57%	2.69%	25.00%	3.35%	3.37%
	14,546,690	674,642	644,133	605,620	668,553					

**Trend in Losses Based on Exponential Regression (2011 & After) (a):**

**-1.36%**

**Selected Trend (b):**

**0.00%**

Notes:

(3) Ultimate Losses from Page 15

(6) = Average [(4), (5)]

(10) = (8) \* (9) + (7) \* [1 - (9)]

(11) Selected Initial Ult Loss Ratio from Page 8

(a) Based on the Projected Ultimate Losses

(b) Selected Trend from Page 8

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**Projected Ultimate Losses and ALAE Using the Bornhuetter-Ferguson Method on Paid Loss & ALAE**

Insurance Year	Earned Premium	Selected Initial Ult Loss Ratio	Initial Expected Ult Losses	Expected Percentage: Paid	Expected Percentage: Unpaid	Expected Paid Loss	Actual Paid Loss	Expected Unpaid Loss	Estimated Ultimate Losses	Expected IBNR	Estimated Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
2003	563,789	5.16%	29,118	100.00%	0.00%	29,118	29,118	-	29,118	-	5.16%
2004	598,905	4.95%	29,627	100.00%	0.00%	29,627	29,627	-	29,627	-	4.95%
2005	632,408	4.81%	30,392	100.00%	0.00%	30,392	30,392	-	30,392	-	4.81%
2006	656,746	5.12%	33,606	100.00%	0.00%	33,606	33,606	-	33,606	-	5.12%
2007	679,930	5.06%	34,391	100.00%	0.00%	34,391	34,389	-	34,389	(3)	5.06%
2008	709,787	5.09%	36,158	100.00%	0.00%	36,158	36,158	-	36,158	-	5.09%
2009	741,553	4.64%	34,407	100.00%	0.00%	34,407	34,397	-	34,397	(10)	4.64%
2010	761,034	5.05%	38,404	100.00%	0.00%	38,404	38,404	-	38,404	-	5.05%
2011	772,649	4.81%	37,189	100.00%	0.00%	37,189	37,189	-	37,189	-	4.81%
2012	769,715	5.50%	42,344	100.00%	0.00%	42,344	42,274	-	42,274	(91)	5.49%
2013	781,394	5.78%	45,176	100.00%	0.00%	45,176	45,222	-	45,222	-	5.79%
2014	822,358	4.95%	40,683	100.00%	0.00%	40,683	40,724	-	40,724	(20)	4.95%
2015	877,262	4.68%	41,086	99.95%	0.05%	41,066	41,144	21	41,165	17	4.69%
2016	923,168	4.65%	42,963	99.85%	0.15%	42,898	43,676	64	43,741	63	4.74%
2017	977,104	4.56%	44,537	99.60%	0.40%	44,360	46,447	178	46,625	(9)	4.77%
2018	1,044,467	4.28%	44,696	98.76%	1.24%	44,143	42,054	553	42,607	(401)	4.08%
2019	1,099,731	3.96%	43,515	93.65%	6.35%	40,753	36,068	2,762	38,830	935	3.53%
2020	1,134,690	3.37%	38,282	59.18%	40.82%	22,655	18,056	15,627	33,683	9,096	2.97%
	14,546,690		686,575			667,370	658,944	19,205	678,149	9,577	4.66%

Notes:  
(10) = (8) + (9)

## APPENDIX C      COLLISION

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### Undiscounted Gross IBNR Calculations

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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	89,956,912	179,906,788	181,687,081	182,335,341	182,641,298	182,805,903	182,717,104	182,630,673	182,473,950	182,337,669	182,234,748	182,169,239	182,118,412	182,072,358	182,022,074	182,001,463	181,995,041	181,982,224	181,975,125	181,971,217	181,967,158	181,962,251
2003	91,082,484	189,959,863	192,949,304	193,598,272	194,214,325	194,336,417	194,287,441	194,114,990	193,983,838	193,849,963	193,744,723	193,660,214	193,625,029	193,570,542	193,553,056	193,534,771	193,521,534	193,506,046	193,499,888	193,491,468	193,481,426	
2004	94,465,133	197,025,591	201,939,636	202,753,669	203,302,883	203,471,777	203,371,798	203,181,888	203,058,010	202,944,743	202,889,887	202,861,592	202,829,540	202,808,594	202,751,417	202,737,340	202,738,573	202,729,430	202,726,503	202,721,014		
2005	99,333,375	202,336,209	204,072,321	204,583,289	205,228,361	205,280,741	205,227,563	205,075,499	204,907,698	204,799,955	204,697,602	204,665,702	204,656,506	204,629,381	204,619,852	204,620,436	204,616,414	204,601,840	204,597,613			
2006	109,593,646	224,168,409	224,515,800	225,062,034	225,905,155	226,036,923	225,992,992	225,838,448	225,812,629	225,781,446	225,799,479	225,779,130	225,771,730	225,784,405	225,764,687	225,747,817	225,742,964	225,726,591				
2007	110,398,767	228,015,525	230,574,340	231,715,428	232,730,724	232,933,171	232,822,876	232,792,247	232,857,456	232,805,979	232,778,907	232,761,015	232,748,771	232,737,688	232,722,950	232,704,346	232,688,303					
2008	111,779,097	239,083,866	240,535,074	241,725,902	242,770,402	243,147,792	243,207,238	243,157,433	243,067,996	243,099,309	243,093,751	243,098,339	243,079,888	243,066,710	243,061,577	243,051,467						
2009	124,748,640	235,029,771	235,247,376	236,623,375	237,994,008	238,383,130	238,306,434	238,286,276	238,326,735	238,353,507	238,335,871	238,328,730	238,311,345	238,302,197	238,288,830							
2010	129,628,484	271,446,831	274,402,664	276,885,863	278,580,038	278,912,989	279,219,380	279,450,435	279,548,253	279,561,608	279,567,156	279,612,619	279,592,110	279,576,767								
2011	133,103,878	265,117,043	267,048,294	268,775,483	270,266,827	270,786,436	271,196,108	271,315,749	271,399,418	271,443,714	271,455,335	271,446,379	271,448,029									
2012	145,665,177	298,228,990	309,122,146	312,131,096	314,395,646	314,960,665	315,501,678	315,734,058	315,760,091	315,815,140	315,830,120	315,839,575										
2013	150,741,378	327,949,172	341,996,753	345,532,239	348,319,128	349,044,355	349,870,549	350,203,343	350,330,527	350,382,992	350,404,975											
2014	148,475,676	304,926,653	307,188,199	309,446,416	311,717,430	312,703,588	313,428,961	313,635,413	313,766,620	313,814,177												
2015	170,066,819	344,227,578	349,233,554	351,717,640	353,910,351	354,482,447	355,028,409	355,229,744	355,302,447													
2016	187,601,050	372,404,183	380,550,082	382,534,332	385,165,724	386,026,599	387,023,100	387,341,034														
2017	198,492,926	396,073,981	401,709,768	403,996,033	406,695,161	407,472,136	408,482,994															
2018	195,676,394	391,806,744	401,894,259	404,122,889	407,300,736	408,100,033																
2019	198,292,941	391,830,334	398,681,759	402,567,296																		
2020	164,792,375	307,399,331																				



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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Insurance Year	Evaluation in Months									
	7	12	19	24	31	36	48	60	72	84
2002	89,957	179,907	181,687	182,335	182,641	182,806	182,717	182,631	182,474	182,338
2003	91,082	189,960	192,949	193,598	194,214	194,336	194,287	194,115	193,984	193,850
2004	94,465	197,026	201,940	202,754	203,303	203,472	203,372	203,182	203,058	202,945
2005	99,333	202,336	204,072	204,583	205,228	205,281	205,228	205,075	204,908	204,800
2006	109,594	224,168	224,516	225,062	225,905	226,037	225,993	225,838	225,813	225,781
2007	110,399	228,016	230,574	231,715	232,731	232,933	232,823	232,792	232,857	232,806
2008	111,779	239,084	240,535	241,726	242,770	243,148	243,207	243,157	243,068	243,099
2009	124,749	235,030	235,247	236,623	237,994	238,383	238,306	238,286	238,327	238,354
2010	129,628	271,447	274,403	276,886	278,580	278,913	279,219	279,450	279,548	279,562
2011	133,104	265,117	267,048	268,775	270,267	270,786	271,196	271,316	271,399	271,444
2012	145,665	298,229	309,122	312,131	314,396	314,961	315,502	315,734	315,760	315,815
2013	150,741	327,949	341,997	345,532	348,319	349,044	349,871	350,203	350,331	350,383
2014	148,476	304,927	307,188	309,446	311,717	312,704	313,429	313,635	313,767	313,814
2015	170,067	344,228	349,234	351,718	353,910	354,482	355,028	355,230	355,302	
2016	187,601	372,404	380,550	382,534	385,166	386,027	387,023	387,341		
2017	198,493	396,074	401,710	403,996	406,695	407,472	408,483			
2018	195,676	391,807	401,894	404,123	407,301	408,100				
2019	198,293	391,830	398,682	402,567						
2020	164,792	307,399								
Insurance Year	7-12	12-19	19-24	24-31	31-36	36-48	48-60	60-72	72-84	84-96
2002	1.9999	1.0099	1.0036	1.0017	1.0009	0.9995	0.9995	0.9991	0.9993	0.9994
2003	2.0856	1.0157	1.0034	1.0032	1.0006	0.9997	0.9991	0.9993	0.9993	0.9995
2004	2.0857	1.0249	1.0040	1.0027	1.0008	0.9995	0.9991	0.9994	0.9994	0.9997
2005	2.0369	1.0086	1.0025	1.0032	1.0003	0.9997	0.9993	0.9992	0.9995	0.9995
2006	2.0455	1.0015	1.0024	1.0037	1.0006	0.9998	0.9993	0.9999	0.9999	1.0001
2007	2.0654	1.0112	1.0049	1.0044	1.0009	0.9995	0.9999	1.0003	0.9998	0.9999
2008	2.1389	1.0061	1.0050	1.0043	1.0016	1.0002	0.9998	0.9996	1.0001	1.0000
2009	1.8840	1.0009	1.0058	1.0058	1.0016	0.9997	0.9999	1.0002	1.0001	0.9999
2010	2.0940	1.0109	1.0090	1.0061	1.0012	1.0011	1.0008	1.0004	1.0000	1.0000
2011	1.9918	1.0073	1.0065	1.0055	1.0019	1.0015	1.0004	1.0003	1.0002	1.0000
2012	2.0474	1.0365	1.0097	1.0073	1.0018	1.0017	1.0007	1.0001	1.0002	1.0000
2013	2.1756	1.0428	1.0103	1.0081	1.0021	1.0024	1.0010	1.0004	1.0001	1.0001
2014	2.0537	1.0074	1.0074	1.0073	1.0032	1.0023	1.0007	1.0004	1.0002	
2015	2.0241	1.0145	1.0071	1.0062	1.0016	1.0015	1.0006	1.0002		
2016	1.9851	1.0219	1.0052	1.0069	1.0022	1.0026	1.0008			
2017	1.9954	1.0142	1.0057	1.0067	1.0019	1.0025				
2018	2.0023	1.0257	1.0055	1.0079	1.0020					
2019	1.9760	1.0175	1.0097							
Latest 9 Volume Weighted	2.0098	1.0210	1.0074	1.0069	1.0020	1.0018	1.0006	1.0002	1.0001	1.0000
Latest 6 Volume Weighted	1.9766	1.0173	1.0068	1.0072	1.0021	1.0022	1.0007	1.0003	1.0001	1.0000
Latest 3 Volume Weighted	1.9526	1.0191	1.0070	1.0071	1.0020	1.0022	1.0007	1.0003	1.0002	1.0001
Simple Average of Middle 4 of Last 6	2.0017	1.0170	1.0064	1.0072	1.0020	1.0022	1.0007	1.0003	1.0001	1.0000
Simple Average of Middle 3 of Last 5	1.9943	1.0180	1.0061	1.0070	1.0020	1.0024	1.0007	1.0003	1.0002	1.0000
Selected March 20										
Selected Oct 20	2.0000	1.0200	1.0065	1.0075	1.0020	1.0025	1.0010	1.0000	1.0000	1.0000
Selected Factors	2.0000	1.0200	1.0065	1.0075	1.0020	1.0025	1.0010	1.0000	1.0000	1.0000
Selected Ultimate	2.0801	1.0400	1.0196	1.0131	1.0055	1.0035	1.0010	1.0000	1.0000	1.0000

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Evaluation in Months											
96	108	120	132	144	156	168	180	192	204	216	228
182,235	182,169	182,118	182,072	182,022	182,001	181,995	181,982	181,975	181,971	181,967	181,962
193,745	193,660	193,625	193,571	193,553	193,535	193,522	193,506	193,500	193,491	193,481	
202,890	202,862	202,830	202,809	202,751	202,737	202,739	202,729	202,727	202,721		
204,698	204,666	204,657	204,629	204,620	204,620	204,616	204,602	204,598			
225,799	225,779	225,772	225,784	225,765	225,748	225,743	225,727				
232,779	232,761	232,749	232,738	232,723	232,704	232,688					
243,094	243,098	243,080	243,067	243,062	243,051						
238,336	238,329	238,311	238,302	238,289							
279,567	279,613	279,592	279,577								
271,455	271,446	271,448									
315,830	315,840										
350,405											

96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-Ult
0.9996	0.9997	0.9997	0.9997	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000	1.0000
0.9996	0.9998	0.9997	0.9999	0.9999	0.9999	0.9999	1.0000	1.0000	0.9999	
0.9999	0.9998	0.9999	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000		
0.9998	1.0000	0.9999	1.0000	1.0000	1.0000	0.9999	1.0000			
0.9999	1.0000	1.0001	0.9999	0.9999	1.0000	0.9999				
0.9999	0.9999	1.0000	0.9999	0.9999	0.9999					
1.0000	0.9999	0.9999	1.0000	1.0000						
1.0000	0.9999	1.0000	0.9999							
1.0002	0.9999	0.9999								
1.0000	1.0000									
1.0000										
1.0000	0.9999	0.9999	0.9999	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	0.9999	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000	1.0000
1.0001	1.0000	1.0000	1.0000	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000	1.0000
1.0000	0.9999	1.0000	0.9999	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000	1.0000
1.0000	0.9999	1.0000	0.9999	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

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**Reported Loss & ALAE Development Factors to Ultimate**

Months to Ultimate	Latest 9 Volume Weighted	Latest 6 Volume Weighted	Latest 3 Volume Weighted	Simple Average of Middle 4 of Last 6	Simple Average of Middle 3 of Last 5	Selected March 20 Factors	Selected Oct 20 Factors	Selected Factors
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7	2.0899	2.0490	2.0285	2.0739	2.0675		2.0801	2.0801
12	1.0399	1.0367	1.0389	1.0361	1.0367		1.0400	1.0400
19	1.0185	1.0191	1.0194	1.0187	1.0184		1.0196	1.0196
24	1.0110	1.0122	1.0123	1.0122	1.0122		1.0131	1.0131
31	1.0041	1.0050	1.0051	1.0050	1.0052		1.0055	1.0055
36	1.0021	1.0029	1.0031	1.0029	1.0032		1.0035	1.0035
48	1.0002	1.0007	1.0009	1.0007	1.0008		1.0010	1.0010
60	0.9997	1.0000	1.0002	1.0000	1.0000		1.0000	1.0000
72	0.9995	0.9997	0.9998	0.9997	0.9997		1.0000	1.0000
84	0.9994	0.9996	0.9997	0.9996	0.9996		1.0000	1.0000
96	0.9994	0.9995	0.9996	0.9995	0.9996		1.0000	1.0000
108	0.9994	0.9995	0.9996	0.9995	0.9995		1.0000	1.0000
120	0.9995	0.9996	0.9996	0.9996	0.9996		1.0000	1.0000
132	0.9996	0.9996	0.9997	0.9996	0.9997		1.0000	1.0000
144	0.9997	0.9997	0.9997	0.9997	0.9997		1.0000	1.0000
156	0.9998	0.9998	0.9998	0.9998	0.9998		1.0000	1.0000
168	0.9998	0.9998	0.9998	0.9998	0.9998		1.0000	1.0000
180	0.9999	0.9999	0.9999	0.9999	0.9999		1.0000	1.0000
192	0.9999	0.9999	0.9999	0.9999	0.9999		1.0000	1.0000
204	0.9999	0.9999	0.9999	0.9999	0.9999		1.0000	1.0000
216	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000

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Interpolated Percentage of Ultimate Factors

For October				For March					
Months of Devt	RTR Factors	Factor to Ultimate	Percentage Reported	Months of Devt	Percentage Reported	Factor to Ultimate	RTR Factors	Selected RTR Factors	Sel'd Factor to Ultimate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
8	2.0000	2.0801	48.08%	8		2.0801	2.0000	2.0000	2.0801
12	1.0200	1.0400		12	96.15%	1.0400	1.0200	1.0200	1.0400
20	1.0065	1.0196	98.07%	20		1.0196	1.0065	1.0065	1.0196
24	1.0075	1.0131		24	98.71%	1.0131	1.0075	1.0075	1.0131
32	1.0020	1.0055	99.45%	32		1.0055	1.0020	1.0020	1.0055
36	1.0020	1.0035		36	99.65%	1.0035	1.0024	1.0025	1.0035
44	1.0010	1.0015	99.85%	48	99.89%	1.0011	1.0008	1.0010	1.0010
56	1.0005	1.0005	99.95%	60	99.97%	1.0003	1.0003	1.0000	1.0000
68	1.0000	1.0000	100.00%	72	100.00%	1.0000	1.0000	1.0000	1.0000
80	1.0000	1.0000	100.00%	84	100.00%	1.0000	1.0000	1.0000	1.0000
92	1.0000	1.0000	100.00%	96	100.00%	1.0000	1.0000	1.0000	1.0000
104	1.0000	1.0000	100.00%	108	100.00%	1.0000	1.0000	1.0000	1.0000
116	1.0000	1.0000	100.00%	120	100.00%	1.0000	1.0000	1.0000	1.0000
128	1.0000	1.0000	100.00%	132	100.00%	1.0000	1.0000	1.0000	1.0000
140	1.0000	1.0000	100.00%	144	100.00%	1.0000	1.0000	1.0000	1.0000
152	1.0000	1.0000	100.00%	156	100.00%	1.0000	1.0000	1.0000	1.0000
164	1.0000	1.0000	100.00%	168	100.00%	1.0000	1.0000	1.0000	1.0000
176	1.0000	1.0000	100.00%	180	100.00%	1.0000	1.0000	1.0000	1.0000
188	1.0000	1.0000	100.00%	192	100.00%	1.0000	1.0000	1.0000	1.0000
200	1.0000	1.0000	100.00%	204	100.00%	1.0000	1.0000	1.0000	1.0000
Tail	1.0000	1.0000	100.00%	Tail	100.00%	1.0000	1.0000	1.0000	1.0000

Selected Development in 4th and Subsequent Years: 41.67%

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**Projected Ultimate Losses & ALAE Using the Development Method on Reported Loss & ALAE**

Insurance Year	Earned Premium	Reported Loss & ALAE	Development Factor to Ultimate	Ultimate Losses	IBNR	Case Reserves	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2003	563,789	193,481	1.0000	193,481	-	-	34.32%
2004	598,905	202,721	1.0000	202,721	-	-	33.85%
2005	632,408	204,598	1.0000	204,598	-	-	32.35%
2006	656,746	225,727	1.0000	225,727	-	-	34.37%
2007	679,930	232,688	1.0000	232,688	-	-	34.22%
2008	709,787	243,051	1.0000	243,051	-	-	34.24%
2009	741,553	238,289	1.0000	238,289	-	-	32.13%
2010	761,034	279,577	1.0000	279,577	-	-	36.74%
2011	772,649	271,448	1.0000	271,448	-	2	35.13%
2012	769,715	315,840	1.0000	315,840	-	2	41.03%
2013	781,394	350,405	1.0000	350,405	-	2	44.84%
2014	822,358	313,814	1.0000	313,814	-	-	38.16%
2015	877,262	355,302	1.0000	355,302	-	10	40.50%
2016	923,168	387,341	1.0000	387,341	-	17	41.96%
2017	977,104	408,483	1.0010	408,891	408	36	41.85%
2018	1,044,467	408,100	1.0035	409,529	1,429	163	39.21%
2019	1,099,731	402,567	1.0131	407,821	5,254	848	37.08%
2020	1,134,690	307,399	1.0400	319,704	12,305	40,766	28.18%
	14,546,690	5,340,832		5,360,228	19,396	41,846	36.85%

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**Development of Bornhuetter-Ferguson Initial Expected Loss Ratio**

Insurance Year	Earned Premium	Projected Ultimate Losses	Based on Prior Year	Based on 2nd Prior Year	Fitted Ultimate Losses	Fitted Ultimate Loss Ratio	Projected Ultimate Loss Ratio	Weight	Weighted Initial Ult Loss Ratio	Selected Initial Ult Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2003	563,789	193,481			193,481	34.32%	34.32%	100.00%	34.32%	34.32%
2004	598,905	202,721	199,770		199,770	33.36%	33.85%	100.00%	33.85%	33.85%
2005	632,408	204,598	209,309	206,262	207,786	32.86%	32.35%	100.00%	32.35%	32.35%
2006	656,746	225,727	211,247	216,112	213,680	32.54%	34.37%	100.00%	34.37%	34.37%
2007	679,930	232,688	233,063	218,113	225,588	33.18%	34.22%	100.00%	34.22%	34.22%
2008	709,787	243,051	240,251	240,637	240,444	33.88%	34.24%	100.00%	34.24%	34.24%
2009	741,553	238,289	250,951	248,059	249,505	33.65%	32.13%	100.00%	32.13%	32.13%
2010	761,034	279,577	246,033	259,107	252,570	33.19%	36.74%	100.00%	36.74%	36.74%
2011	772,649	271,448	288,663	254,029	271,346	35.12%	35.13%	100.00%	35.13%	35.13%
2012	769,715	315,840	280,270	298,045	289,157	37.57%	41.03%	100.00%	41.03%	41.03%
2013	781,394	350,405	326,104	289,379	307,742	39.38%	44.84%	100.00%	44.84%	44.84%
2014	822,358	313,814	361,793	336,703	349,248	42.47%	38.16%	100.00%	38.16%	38.16%
2015	877,262	355,302	324,013	373,551	348,782	39.76%	40.50%	100.00%	40.50%	40.50%
2016	923,168	387,341	366,850	334,544	350,697	37.99%	41.96%	75.00%	40.97%	40.97%
2017	977,104	408,891	399,930	378,772	389,351	39.85%	41.85%	50.00%	40.85%	40.85%
2018	1,044,467	409,529	422,180	412,927	417,554	39.98%	39.21%	25.00%	39.79%	39.79%
2019	1,099,731	407,821	422,839	435,901	429,370	39.04%	37.08%	25.00%	38.55%	38.55%
2020	1,134,690	319,704	421,075	436,581	428,828	37.79%	28.18%	25.00%	35.39%	35.39%
	14,546,690	5,360,228	5,204,341	4,938,722	5,364,898					

**Trend in Losses Based on Exponential Regression (2011 & After) (a):**

**3.03%**

**Selected Trend (b):**

**3.25%**

Notes:

(3) Ultimate Losses from Page 7

(6) = Average [(4), (5)]

(10) = (8) \* (9) + (7) \* [1 - (9)]

(a) Based on the Projected Ultimate Losses

(b) Based on the exponential trend rounded up to the nearest 0.25%; minimum 0.00%

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**Projected Ultimate Losses and ALAE Using the Bornhuetter-Ferguson Method on Reported Loss & ALAE**

Insurance Year	Earned Premium	Selected	Initial	Expected Percentage:		Expected	Actual	Expected	Estimated	Estimated
		Initial Ult Loss Ratio	Expected Ult Losses	Reported	Unreported	Reported Loss	Reported Loss	Unreported Loss	Ultimate Losses	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2003	563,789	34.32%	193,481	100.00%	0.00%	193,481	193,481	-	193,481	34.32%
2004	598,905	33.85%	202,721	100.00%	0.00%	202,721	202,721	-	202,721	33.85%
2005	632,408	32.35%	204,598	100.00%	0.00%	204,598	204,598	-	204,598	32.35%
2006	656,746	34.37%	225,727	100.00%	0.00%	225,727	225,727	-	225,727	34.37%
2007	679,930	34.22%	232,688	100.00%	0.00%	232,688	232,688	-	232,688	34.22%
2008	709,787	34.24%	243,051	100.00%	0.00%	243,051	243,051	-	243,051	34.24%
2009	741,553	32.13%	238,289	100.00%	0.00%	238,289	238,289	-	238,289	32.13%
2010	761,034	36.74%	279,577	100.00%	0.00%	279,577	279,577	-	279,577	36.74%
2011	772,649	35.13%	271,448	100.00%	0.00%	271,448	271,448	-	271,448	35.13%
2012	769,715	41.03%	315,840	100.00%	0.00%	315,840	315,840	-	315,840	41.03%
2013	781,394	44.84%	350,405	100.00%	0.00%	350,405	350,405	-	350,405	44.84%
2014	822,358	38.16%	313,814	100.00%	0.00%	313,814	313,814	-	313,814	38.16%
2015	877,262	40.50%	355,302	100.00%	0.00%	355,302	355,302	-	355,302	40.50%
2016	923,168	40.97%	378,180	100.00%	0.00%	378,180	387,341	-	387,341	41.96%
2017	977,104	40.85%	399,121	99.90%	0.10%	398,723	408,483	399	408,882	41.85%
2018	1,044,467	39.79%	415,548	99.65%	0.35%	414,097	408,100	1,450	409,550	39.21%
2019	1,099,731	38.55%	423,983	98.71%	1.29%	418,521	402,567	5,462	408,029	37.10%
2020	1,134,690	35.39%	401,547	96.15%	3.85%	386,093	307,399	15,455	322,854	28.45%
	14,546,690		5,445,320			5,422,555	5,340,832	22,766	5,363,598	36.87%

Notes:

(10) = (8) + (9)



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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	66,846,340	150,126,827	180,843,466	182,004,115	182,514,425	182,738,067	182,687,395	182,606,938	182,473,940	182,336,960	182,234,748	182,169,239	182,118,412	182,072,358	182,022,074	182,001,463	181,995,041	181,982,224	181,975,125	181,971,217	181,967,158	181,962,251
2003	68,039,583	161,227,102	191,945,587	193,284,933	194,067,359	194,263,346	194,270,179	194,098,016	193,981,579	193,845,404	193,742,664	193,660,214	193,625,029	193,570,542	193,553,056	193,534,771	193,521,534	193,506,046	193,499,888	193,491,468	193,481,426	
2004	69,469,087	161,260,967	200,701,848	202,277,118	203,067,925	203,319,673	203,281,558	203,110,573	202,988,020	202,894,318	202,839,662	202,810,567	202,779,315	202,758,369	202,750,692	202,736,615	202,738,573	202,729,305	202,726,503	202,721,014		
2005	71,104,373	167,869,419	202,576,696	204,082,940	205,033,132	205,205,587	205,212,862	205,060,873	204,899,222	204,791,479	204,691,626	204,663,501	204,654,306	204,627,181	204,617,652	204,619,736	204,616,414	204,601,840	204,597,613			
2006	74,450,286	173,611,110	222,429,297	224,327,149	225,714,807	225,941,727	225,965,932	225,820,900	225,810,155	225,779,147	225,798,220	225,778,171	225,770,771	225,784,405	225,764,687	225,747,817	225,742,964	225,726,591				
2007	72,445,499	171,952,171	228,803,628	231,038,178	232,478,520	232,821,160	232,800,198	232,788,248	232,851,588	232,802,866	232,775,644	232,760,772	232,748,453	232,737,445	232,722,357	232,704,346	232,688,303					
2008	78,052,354	185,658,561	238,630,041	241,005,810	242,489,201	243,007,924	243,129,550	243,119,853	243,058,845	243,096,179	243,092,499	243,097,563	243,079,112	243,065,933	243,061,577	243,051,467						
2009	86,006,954	195,105,593	233,633,552	235,937,096	237,615,938	238,138,506	238,271,591	238,271,761	238,316,352	238,342,064	238,330,408	238,327,882	238,311,345	238,302,197	238,288,830							
2010	88,686,752	214,929,259	272,178,176	276,113,920	278,335,753	278,798,088	279,177,732	279,426,404	279,542,232	279,555,474	279,566,716	279,601,969	279,583,385	279,576,767								
2011	89,466,875	215,765,775	265,351,744	268,042,742	270,019,721	270,648,804	271,166,510	271,300,962	271,394,472	271,439,973	271,453,400	271,444,069	271,446,094									
2012	98,882,190	227,111,655	306,208,979	310,907,452	313,831,380	314,666,973	315,405,018	315,662,493	315,758,341	315,805,202	315,827,345	315,837,475										
2013	101,245,368	247,626,043	338,402,775	344,169,358	347,613,782	348,805,605	349,802,532	350,166,172	350,301,692	350,361,879	350,402,975											
2014	101,422,460	253,795,226	304,199,747	308,317,683	311,332,860	312,485,298	313,397,848	313,619,547	313,763,812	313,813,827												
2015	122,022,462	285,312,183	346,248,989	350,647,785	353,500,648	354,328,605	354,977,378	355,221,920	355,292,582													
2016	135,678,946	305,689,682	377,180,400	381,413,223	384,762,099	385,880,621	386,947,249	387,323,971														
2017	142,616,377	327,459,078	398,842,597	403,038,603	406,232,288	407,364,138	408,446,944															
2018	139,618,695	319,009,463	398,581,637	403,145,235	406,888,827	407,936,571																
2019	137,575,808	334,240,901	396,093,503	401,719,318																		
2020	115,101,363	266,633,485																				

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Insurance Year	Evaluation in Months									
	7	12	19	24	31	36	48	60	72	84
2002	66,846	150,127	180,843	182,004	182,514	182,738	182,687	182,607	182,474	182,337
2003	68,040	161,227	191,946	193,285	194,067	194,263	194,270	194,098	193,982	193,845
2004	69,469	161,261	200,702	202,277	203,068	203,320	203,282	203,111	202,988	202,894
2005	71,104	167,869	202,577	204,083	205,033	205,206	205,213	205,061	204,899	204,791
2006	74,450	173,611	222,429	224,327	225,715	225,942	225,966	225,821	225,810	225,779
2007	72,445	171,952	228,804	231,038	232,479	232,821	232,800	232,788	232,852	232,803
2008	78,052	185,659	238,630	241,006	242,489	243,008	243,130	243,120	243,059	243,096
2009	86,007	195,106	233,634	235,937	237,616	238,139	238,272	238,272	238,316	238,342
2010	88,687	214,929	272,178	276,114	278,336	278,798	279,178	279,426	279,542	279,555
2011	89,467	215,766	265,352	268,043	270,020	270,649	271,167	271,301	271,394	271,440
2012	98,882	227,112	306,209	310,907	313,831	314,667	315,405	315,662	315,758	315,805
2013	101,245	247,626	338,403	344,169	347,614	348,806	349,803	350,166	350,302	350,362
2014	101,422	253,795	304,200	308,318	311,333	312,485	313,398	313,620	313,764	313,814
2015	122,022	285,312	346,249	350,648	353,501	354,329	354,977	355,222	355,293	
2016	135,679	305,690	377,180	381,413	384,762	385,881	386,947	387,324		
2017	142,616	327,459	398,843	403,039	406,232	407,364	408,447			
2018	139,619	319,009	398,582	403,145	406,889	407,937				
2019	137,576	334,241	396,094	401,719						
2020	115,101	266,633								

  

Insurance Year	7-12	12-19	19-24	24-31	31-36	36-48	48-60	60-72	72-84	84-96
2002	2.2458	1.2046	1.0064	1.0028	1.0012	0.9997	0.9996	0.9993	0.9992	0.9994
2003	2.3696	1.1905	1.0070	1.0040	1.0010	1.0000	0.9991	0.9994	0.9993	0.9995
2004	2.3213	1.2446	1.0078	1.0039	1.0012	0.9998	0.9992	0.9994	0.9995	0.9997
2005	2.3609	1.2068	1.0074	1.0047	1.0008	1.0000	0.9993	0.9992	0.9995	0.9995
2006	2.3319	1.2812	1.0085	1.0062	1.0010	1.0001	0.9994	1.0000	0.9999	1.0001
2007	2.3735	1.3306	1.0098	1.0062	1.0015	0.9999	0.9999	1.0003	0.9998	0.9999
2008	2.3786	1.2853	1.0100	1.0062	1.0021	1.0005	1.0000	0.9997	1.0002	1.0000
2009	2.2685	1.1975	1.0099	1.0071	1.0022	1.0006	1.0000	1.0002	1.0001	1.0000
2010	2.4235	1.2664	1.0145	1.0080	1.0017	1.0014	1.0009	1.0004	1.0000	1.0000
2011	2.4117	1.2298	1.0101	1.0074	1.0023	1.0019	1.0005	1.0003	1.0002	1.0000
2012	2.2968	1.3483	1.0153	1.0094	1.0027	1.0023	1.0008	1.0003	1.0001	1.0001
2013	2.4458	1.3666	1.0170	1.0100	1.0034	1.0029	1.0010	1.0004	1.0002	1.0001
2014	2.5024	1.1986	1.0135	1.0098	1.0037	1.0029	1.0007	1.0005	1.0002	
2015	2.3382	1.2136	1.0127	1.0081	1.0023	1.0018	1.0007	1.0002		
2016	2.2530	1.2339	1.0112	1.0088	1.0029	1.0028	1.0010			
2017	2.2961	1.2180	1.0105	1.0079	1.0028	1.0027				
2018	2.2849	1.2494	1.0114	1.0093	1.0026					
2019	2.4295	1.1851	1.0142							

  

Latest 9 Volume Weighted	2.3460	1.2445	1.0129	1.0088	1.0027	1.0022	1.0007	1.0003	1.0001	1.0000
Latest 6 Volume Weighted	2.3193	1.2167	1.0122	1.0089	1.0029	1.0026	1.0008	1.0003	1.0001	1.0000
Latest 3 Volume Weighted	2.3449	1.2170	1.0121	1.0087	1.0028	1.0024	1.0008	1.0003	1.0002	1.0001
Simple Average of Middle 4 of Last 6	2.3372	1.2160	1.0122	1.0090	1.0029	1.0027	1.0008	1.0004	1.0001	1.0000
Simple Average of Middle 3 of Last 5	2.3064	1.2218	1.0118	1.0087	1.0028	1.0028	1.0008	1.0003	1.0002	1.0001
Selected March 20										
Selected Oct 20	2.3500	1.2200	1.0120	1.0100	1.0030	1.0025	1.0005	1.0005	1.0005	1.0000
Selected Factors	2.3500	1.2200	1.0120	1.0100	1.0030	1.0025	1.0005	1.0005	1.0005	1.0000
Selected Ultimate	2.9510	1.2557	1.0293	1.0171	1.0070	1.0040	1.0015	1.0010	1.0005	1.0000

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Evaluation in Months											
96	108	120	132	144	156	168	180	192	204	216	228
182,235	182,169	182,118	182,072	182,022	182,001	181,995	181,982	181,975	181,971	181,967	181,962
193,743	193,660	193,625	193,571	193,553	193,535	193,522	193,506	193,500	193,491	193,481	
202,840	202,811	202,779	202,758	202,751	202,737	202,739	202,729	202,727	202,721		
204,692	204,664	204,654	204,627	204,618	204,620	204,616	204,602	204,598			
225,798	225,778	225,771	225,784	225,765	225,748	225,743	225,727				
232,776	232,761	232,748	232,737	232,722	232,704	232,688					
243,092	243,098	243,079	243,066	243,062	243,051						
238,330	238,328	238,311	238,302	238,289							
279,567	279,602	279,583	279,577								
271,453	271,444	271,446									
315,827	315,837										
350,403											

96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-Ult
0.9996	0.9997	0.9997	0.9997	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000	1.0000
0.9996	0.9998	0.9997	0.9999	0.9999	0.9999	0.9999	1.0000	1.0000	0.9999	
0.9999	0.9998	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000	1.0000		
0.9999	1.0000	0.9999	1.0000	1.0000	1.0000	0.9999	1.0000			
0.9999	1.0000	1.0001	0.9999	0.9999	1.0000	0.9999				
0.9999	0.9999	1.0000	0.9999	0.9999	0.9999					
1.0000	0.9999	0.9999	1.0000	1.0000						
1.0000	0.9999	1.0000	0.9999							
1.0001	0.9999	1.0000								
1.0000	1.0000									
1.0000										

1.0000	0.9999	0.9999	0.9999	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	0.9999	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000	1.0000
1.0000	0.9999	1.0000	0.9999	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000	1.0000
1.0000	0.9999	1.0000	0.9999	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

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**Paid Loss & ALAE Development Factors to Ultimate**

Months to Ultimate	Latest 9 Volume Weighted	Latest 6 Volume Weighted	Latest 3 Volume Weighted	Simple Average of Middle 4 of Last 6	Simple Average of Middle 3 of Last 5	Selected March 20 Factors	Selected Oct 20 Factors	Selected Factors
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7	2.9992	2.9006	2.9312	2.9215	2.8948		2.9510	2.9510
12	1.2784	1.2506	1.2501	1.2500	1.2551		1.2557	1.2557
19	1.0273	1.0278	1.0272	1.0280	1.0273		1.0293	1.0293
24	1.0142	1.0154	1.0149	1.0156	1.0153		1.0171	1.0171
31	1.0054	1.0064	1.0062	1.0065	1.0065		1.0070	1.0070
36	1.0027	1.0035	1.0035	1.0036	1.0037		1.0040	1.0040
48	1.0005	1.0009	1.0010	1.0009	1.0010		1.0015	1.0015
60	0.9998	1.0001	1.0002	1.0001	1.0001		1.0010	1.0010
72	0.9995	0.9998	0.9999	0.9997	0.9998		1.0005	1.0005
84	0.9994	0.9996	0.9997	0.9996	0.9996		1.0000	1.0000
96	0.9995	0.9996	0.9996	0.9996	0.9996		1.0000	1.0000
108	0.9995	0.9996	0.9996	0.9996	0.9996		1.0000	1.0000
120	0.9995	0.9996	0.9996	0.9996	0.9996		1.0000	1.0000
132	0.9996	0.9997	0.9997	0.9997	0.9997		1.0000	1.0000
144	0.9997	0.9997	0.9997	0.9997	0.9997		1.0000	1.0000
156	0.9998	0.9998	0.9998	0.9998	0.9998		1.0000	1.0000
168	0.9998	0.9998	0.9998	0.9998	0.9998		1.0000	1.0000
180	0.9999	0.9999	0.9999	0.9999	0.9999		1.0000	1.0000
192	0.9999	0.9999	0.9999	0.9999	0.9999		1.0000	1.0000
204	0.9999	0.9999	0.9999	0.9999	0.9999		1.0000	1.0000
216	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000

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Interpolated Percentage of Ultimate Factors

For October				For March					
Months of Devt	RTR Factors	Factor to Ultimate	Percentage Paid	Months of Devt	Percentage Paid	Factor to Ultimate	RTR Factors	Selected RTR Factors	Sel'd Factor to Ultimate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
8	2.3500	2.9525	33.87%	8		2.9525	2.3500	2.3500	2.9510
12	1.2200	1.2564		12	79.59%	1.2564	1.2200	1.2200	1.2557
20	1.0120	1.0298	97.11%	20		1.0298	1.0120	1.0120	1.0293
24	1.0100	1.0176		24	98.27%	1.0176	1.0100	1.0100	1.0171
32	1.0030	1.0075	99.25%	32		1.0075	1.0030	1.0030	1.0070
36	1.0020	1.0045		36	99.55%	1.0045	1.0026	1.0025	1.0040
44	1.0015	1.0025	99.75%	48	99.81%	1.0019	1.0011	1.0005	1.0015
56	1.0005	1.0010	99.90%	60	99.92%	1.0008	1.0005	1.0005	1.0010
68	1.0005	1.0005	99.95%	72	99.97%	1.0003	1.0003	1.0005	1.0005
80	1.0000	1.0000	100.00%	84	100.00%	1.0000	1.0000	1.0000	1.0000
92	1.0000	1.0000	100.00%	96	100.00%	1.0000	1.0000	1.0000	1.0000
104	1.0000	1.0000	100.00%	108	100.00%	1.0000	1.0000	1.0000	1.0000
116	1.0000	1.0000	100.00%	120	100.00%	1.0000	1.0000	1.0000	1.0000
128	1.0000	1.0000	100.00%	132	100.00%	1.0000	1.0000	1.0000	1.0000
140	1.0000	1.0000	100.00%	144	100.00%	1.0000	1.0000	1.0000	1.0000
152	1.0000	1.0000	100.00%	156	100.00%	1.0000	1.0000	1.0000	1.0000
164	1.0000	1.0000	100.00%	168	100.00%	1.0000	1.0000	1.0000	1.0000
176	1.0000	1.0000	100.00%	180	100.00%	1.0000	1.0000	1.0000	1.0000
188	1.0000	1.0000	100.00%	192	100.00%	1.0000	1.0000	1.0000	1.0000
200	1.0000	1.0000	100.00%	204	100.00%	1.0000	1.0000	1.0000	1.0000
Tail	1.0000	1.0000	100.00%	Tail	100.00%	1.0000	1.0000	1.0000	1.0000

Selected Development in 4th and Subsequent Years: 41.67%

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**Projected Ultimate Losses & ALAE Using the Development Method on Paid Loss & ALAE**

Insurance Year	Earned Premium	Paid Loss & ALAE	Development Factor to Ultimate	Ultimate Losses	Unpaid	Case Reserves	IBNR	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2003	563,789	193,481	1.0000	193,481	-	-	-	34.32%
2004	598,905	202,721	1.0000	202,721	-	-	-	33.85%
2005	632,408	204,598	1.0000	204,598	-	-	-	32.35%
2006	656,746	225,727	1.0000	225,727	-	-	-	34.37%
2007	679,930	232,688	1.0000	232,688	-	-	-	34.22%
2008	709,787	243,051	1.0000	243,051	-	-	-	34.24%
2009	741,553	238,289	1.0000	238,289	-	-	-	32.13%
2010	761,034	279,577	1.0000	279,577	-	-	-	36.74%
2011	772,649	271,446	1.0000	271,446	-	2	(2)	35.13%
2012	769,715	315,837	1.0000	315,837	-	2	(2)	41.03%
2013	781,394	350,403	1.0000	350,403	-	2	(2)	44.84%
2014	822,358	313,814	1.0000	313,814	-	-	-	38.16%
2015	877,262	355,293	1.0005	355,470	178	10	168	40.52%
2016	923,168	387,324	1.0010	387,711	387	17	370	42.00%
2017	977,104	408,447	1.0015	409,060	613	36	577	41.86%
2018	1,044,467	407,937	1.0040	409,570	1,634	163	1,471	39.21%
2019	1,099,731	401,719	1.0171	408,583	6,864	848	6,016	37.15%
2020	1,134,690	266,633	1.2557	334,821	68,188	40,766	27,422	29.51%
	14,546,690	5,298,985		5,376,849	77,863	41,846	36,017	36.96%

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**Development of Bornhuetter-Ferguson Initial Expected Loss Ratio**

Insurance Year	Earned Premium	Projected Ultimate Losses	Based on Prior Year	Based on 2nd Prior Year	Fitted Ultimate Losses	Fitted Ultimate Loss Ratio	Projected Ultimate Loss Ratio	Weight	Weighted Initial Ult Loss Ratio	Selected Initial Ult Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2003	563,789	193,481			193,481	34.32%	34.32%	100.00%	34.32%	34.32%
2004	598,905	202,721	199,770		199,770	33.36%	33.85%	100.00%	33.85%	33.85%
2005	632,408	204,598	209,309	206,262	207,786	32.86%	32.35%	100.00%	32.35%	32.35%
2006	656,746	225,727	211,247	216,112	213,680	32.54%	34.37%	100.00%	34.37%	34.37%
2007	679,930	232,688	233,063	218,113	225,588	33.18%	34.22%	100.00%	34.22%	34.22%
2008	709,787	243,051	240,251	240,637	240,444	33.88%	34.24%	100.00%	34.24%	34.24%
2009	741,553	238,289	250,951	248,059	249,505	33.65%	32.13%	100.00%	32.13%	32.13%
2010	761,034	279,577	246,033	259,107	252,570	33.19%	36.74%	100.00%	36.74%	36.74%
2011	772,649	271,446	288,663	254,029	271,346	35.12%	35.13%	100.00%	35.13%	35.13%
2012	769,715	315,837	280,268	298,045	289,156	37.57%	41.03%	100.00%	41.03%	41.03%
2013	781,394	350,403	326,102	289,377	307,739	39.38%	44.84%	100.00%	44.84%	44.84%
2014	822,358	313,814	361,791	336,701	349,246	42.47%	38.16%	100.00%	38.16%	38.16%
2015	877,262	355,470	324,013	373,549	348,781	39.76%	40.52%	100.00%	40.52%	40.50%
2016	923,168	387,711	367,023	334,543	350,783	38.00%	42.00%	75.00%	41.00%	40.97%
2017	977,104	409,060	400,312	378,951	389,632	39.88%	41.86%	50.00%	40.87%	40.85%
2018	1,044,467	409,570	422,354	413,322	417,838	40.00%	39.21%	25.00%	39.81%	39.79%
2019	1,099,731	408,583	422,881	436,081	429,481	39.05%	37.15%	25.00%	38.58%	38.55%
2020	1,134,690	334,821	421,862	436,625	429,244	37.83%	29.51%	25.00%	35.75%	35.39%
	14,546,690	5,376,849	5,205,893	4,939,512	5,366,069					

**Trend in Losses Based on Exponential Regression (2011 & After) (a):**

**3.30%**

**Selected Trend (b):**

**3.25%**

Notes:

(3) Ultimate Losses from Page 15

(6) = Average [(4), (5)]

(10) = (8) \* (9) + (7) \* [1 - (9)]

(11) Selected Initial Ult Loss Ratio from Page 8

(a) Based on the Projected Ultimate Losses

(b) Selected Trend from Page 8

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**Projected Ultimate Losses and ALAE Using the Bornhuetter-Ferguson Method on Paid Loss & ALAE**

Insurance Year	Earned Premium	Selected Initial Ult Loss Ratio	Initial Expected Ult Losses	Expected Percentage: Paid Unpaid	Expected Paid Loss	Actual Paid Loss	Expected Unpaid Loss	Estimated Ultimate Losses	Expected IBNR	Estimated Ultimate Loss Ratio	
(1)	(2)	(3)	(4)	(5) (6)	(7)	(8)	(9)	(10)	(11)	(12)	
2003	563,789	34.32%	193,481	100.00%	0.00%	193,481	193,481	-	193,481	-	34.32%
2004	598,905	33.85%	202,721	100.00%	0.00%	202,721	202,721	-	202,721	-	33.85%
2005	632,408	32.35%	204,598	100.00%	0.00%	204,598	204,598	-	204,598	-	32.35%
2006	656,746	34.37%	225,727	100.00%	0.00%	225,727	225,727	-	225,727	-	34.37%
2007	679,930	34.22%	232,688	100.00%	0.00%	232,688	232,688	-	232,688	-	34.22%
2008	709,787	34.24%	243,051	100.00%	0.00%	243,051	243,051	-	243,051	-	34.24%
2009	741,553	32.13%	238,289	100.00%	0.00%	238,289	238,289	-	238,289	-	32.13%
2010	761,034	36.74%	279,577	100.00%	0.00%	279,577	279,577	-	279,577	-	36.74%
2011	772,649	35.13%	271,448	100.00%	0.00%	271,448	271,446	-	271,446	(2)	35.13%
2012	769,715	41.03%	315,840	100.00%	0.00%	315,840	315,837	-	315,837	(2)	41.03%
2013	781,394	44.84%	350,405	100.00%	0.00%	350,405	350,403	-	350,403	(2)	44.84%
2014	822,358	38.16%	313,814	100.00%	0.00%	313,814	313,814	-	313,814	-	38.16%
2015	877,262	40.50%	355,302	99.95%	0.05%	355,125	355,293	178	355,470	168	40.52%
2016	923,168	40.97%	378,180	99.90%	0.10%	377,802	387,324	378	387,702	361	42.00%
2017	977,104	40.85%	399,121	99.85%	0.15%	398,523	408,447	598	409,045	562	41.86%
2018	1,044,467	39.79%	415,548	99.60%	0.40%	413,890	407,937	1,657	409,594	1,494	39.22%
2019	1,099,731	38.55%	423,983	98.32%	1.68%	416,860	401,719	7,123	408,842	6,275	37.18%
2020	1,134,690	35.39%	401,547	79.63%	20.37%	319,770	266,633	81,777	348,410	41,011	30.71%
	14,546,690		5,445,320			5,353,610	5,298,985	91,711	5,390,696	49,865	37.06%

Notes:  
(10) = (8) + (9)



## APPENDIX D      COMPREHENSIVE

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### Undiscounted Gross IBNR Calculations

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Reported Loss & ALAE - With Z-Files & Hailstorm Losses  
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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	28,757,612	43,911,787	46,874,427	47,197,454	47,606,410	47,673,290	47,530,666	47,502,736	47,435,665	47,415,431	47,401,967	47,384,554	47,365,013	47,348,440	47,337,323	47,337,199	47,334,848	47,334,688	47,334,708	47,354,586	47,327,536	47,326,028
2003	32,498,250	48,695,994	52,455,621	52,972,251	53,471,297	53,564,112	53,666,760	53,639,788	53,610,551	53,580,699	53,566,521	53,554,206	53,518,473	53,496,200	53,481,931	53,473,925	53,469,612	53,469,470	53,458,462	53,457,625	53,456,305	
2004	33,937,904	58,171,539	61,368,966	61,688,973	62,041,115	62,091,728	62,131,221	62,154,856	62,128,966	62,111,605	62,060,990	62,038,863	62,032,032	62,036,130	62,025,724	62,028,807	62,023,648	62,017,375	62,015,760	62,009,139		
2005	45,949,663	66,990,222	71,109,820	71,605,358	72,650,030	72,796,562	72,904,548	72,919,931	72,919,400	72,920,082	72,925,607	72,906,828	72,850,745	72,838,869	72,834,412	72,833,850	72,831,018	72,829,156	72,821,011			
2006	46,275,130	67,433,856	71,110,414	71,995,918	73,088,298	73,283,490	73,515,577	73,548,976	73,590,363	73,618,897	73,605,217	73,613,737	73,605,003	73,572,850	73,571,031	73,565,380	73,565,969	73,556,372				
2007	87,411,107	103,142,576	108,702,320	110,079,108	112,992,254	113,193,356	112,808,817	112,744,492	111,638,786	111,644,253	111,665,910	111,681,911	111,679,438	111,677,363	111,678,173	111,678,636	111,678,920					
2008	32,464,188	45,936,238	48,687,796	49,003,875	49,644,371	49,947,441	50,035,972	50,039,495	50,030,305	50,012,668	49,979,707	49,869,821	49,874,179	49,876,916	49,874,245	49,850,646						
2009	58,872,121	74,545,976	78,142,656	78,879,059	79,877,487	80,048,013	78,581,503	78,639,272	78,694,282	78,802,704	78,838,597	78,846,379	78,866,233	78,866,142	78,865,537							
2010	55,163,698	69,219,718	71,693,839	72,849,561	74,447,489	74,589,673	74,616,992	74,711,126	74,814,675	74,841,723	74,877,968	74,885,457	74,856,175	74,846,676								
2011	54,606,269	69,794,020	74,705,997	75,173,779	75,720,890	76,009,347	76,045,005	75,635,762	75,730,900	75,745,750	75,706,369	75,360,338	75,365,309									
2012	52,440,954	66,127,279	71,401,904	72,280,825	73,163,300	73,259,015	72,829,626	72,947,423	72,868,567	72,881,752	72,131,902	72,128,293										
2013	52,569,122	68,849,210	74,111,076	75,156,280	76,132,731	76,255,712	76,179,832	75,101,604	75,157,335	75,142,011	75,159,176											
2014	47,033,573	65,921,793	70,686,151	71,226,110	71,693,275	71,867,650	71,434,313	71,557,058	71,638,601	71,652,465												
2015	87,844,216	113,139,753	121,216,991	122,137,000	122,885,787	122,872,168	120,974,825	121,175,377	121,342,039													
2016	85,375,875	112,794,020	118,468,686	118,584,606	119,582,080	119,906,419	119,931,410	118,655,817														
2017	45,279,379	66,458,960	71,693,417	72,231,278	72,798,710	73,028,975	72,760,764															
2018	82,404,158	106,416,207	113,681,448	113,940,935	114,799,185	115,059,138																
2019	51,150,105	78,524,194	84,510,671	85,654,687																		
2020	51,625,363	77,708,759																				

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	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	
2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Insurance Year	Evaluation in Months									
	7	12	19	24	31	36	48	60	72	84
2002	28,758	43,912	46,874	47,197	47,606	47,673	47,531	47,503	47,436	47,415
2003	32,498	48,696	52,456	52,972	53,471	53,564	53,667	53,640	53,611	53,581
2004	33,938	58,172	61,369	61,689	62,041	62,092	62,131	62,155	62,129	62,112
2005	45,950	66,990	71,110	71,605	72,650	72,797	72,905	72,920	72,919	72,920
2006	46,275	67,434	71,110	71,996	73,088	73,283	73,516	73,549	73,590	73,619
2007	46,067	60,955	63,864	64,808	66,143	66,362	66,528	66,559	66,493	66,529
2008	32,464	45,936	48,688	49,004	49,644	49,947	50,036	50,039	50,030	50,013
2009	31,024	45,190	47,433	47,940	48,408	48,491	48,461	48,456	48,427	48,536
2010	55,164	69,220	71,694	72,850	74,447	74,590	74,617	74,711	74,815	74,842
2011	54,606	69,794	74,706	75,174	75,721	76,009	76,045	75,636	75,731	75,746
2012	52,441	66,127	71,402	72,281	73,163	73,259	72,830	72,947	72,869	72,882
2013	52,569	68,849	74,111	75,156	76,133	76,256	76,180	75,102	75,157	75,142
2014	47,034	65,922	70,686	71,226	71,693	71,868	71,434	71,557	71,639	71,652
2015	87,844	113,140	121,217	122,137	122,886	122,872	120,975	121,175	121,342	
2016	85,376	112,794	118,469	118,585	119,582	119,906	119,931	118,656		
2017	45,279	66,459	71,693	72,231	72,799	73,029	72,761			
2018	54,578	78,915	85,195	85,180	85,918	86,144				
2019	51,150	78,524	84,511	85,655						
2020	51,625	77,709								
Insurance Year	7-12	12-19	19-24	24-31	31-36	36-48	48-60	60-72	72-84	84-96
2002	1.5270	1.0675	1.0069	1.0087	1.0014	0.9970	0.9994	0.9986	0.9996	0.9997
2003	1.4984	1.0772	1.0098	1.0094	1.0017	1.0019	0.9995	0.9995	0.9994	0.9997
2004	1.7141	1.0550	1.0052	1.0057	1.0008	1.0006	1.0004	0.9996	0.9997	0.9992
2005	1.4579	1.0615	1.0070	1.0146	1.0020	1.0015	1.0002	1.0000	1.0000	1.0001
2006	1.4572	1.0545	1.0125	1.0152	1.0027	1.0032	1.0005	1.0006	1.0004	0.9998
2007	1.3232	1.0477	1.0148	1.0206	1.0033	1.0025	1.0005	0.9990	1.0005	0.9999
2008	1.4150	1.0599	1.0065	1.0131	1.0061	1.0018	1.0001	0.9998	0.9996	0.9993
2009	1.4566	1.0496	1.0107	1.0098	1.0017	0.9994	0.9999	0.9994	1.0022	1.0007
2010	1.2548	1.0357	1.0161	1.0219	1.0019	1.0004	1.0013	1.0014	1.0004	1.0005
2011	1.2781	1.0704	1.0063	1.0073	1.0038	1.0005	0.9946	1.0013	1.0002	0.9995
2012	1.2610	1.0798	1.0123	1.0122	1.0013	0.9941	1.0016	0.9989	1.0002	0.9897
2013	1.3097	1.0764	1.0141	1.0130	1.0016	0.9990	0.9858	1.0007	0.9998	1.0002
2014	1.4016	1.0723	1.0076	1.0066	1.0024	0.9940	1.0017	1.0011	1.0002	
2015	1.2880	1.0714	1.0076	1.0061	0.9999	0.9846	1.0017	1.0014		
2016	1.3211	1.0503	1.0010	1.0084	1.0027	1.0002	0.9894			
2017	1.4678	1.0788	1.0075	1.0079	1.0032	0.9963				
2018	1.4459	1.0796	0.9998	1.0087	1.0026					
2019	1.5352	1.0762	1.0135							
Latest 9 Volume Weighted	1.3799	1.0714	1.0073	1.0098	1.0021	0.9959	0.9969	1.0005	1.0003	0.9988
Latest 6 Volume Weighted	1.4036	1.0698	1.0059	1.0083	1.0019	0.9943	0.9957	1.0009	1.0004	0.9982
Latest 3 Volume Weighted	1.4944	1.0782	1.0069	1.0083	1.0028	0.9932	0.9970	1.0011	1.0001	0.9965
Simple Average of Middle 4 of Last 6	1.4091	1.0747	1.0059	1.0079	1.0023	0.9959	0.9968	1.0011	1.0002	0.9999
Simple Average of Middle 3 of Last 5	1.4116	1.0755	1.0054	1.0076	1.0026	0.9964	0.9975	1.0010	1.0002	1.0001
Selected March 20										
Selected Oct 20	1.4500	1.0700	1.0060	1.0100	1.0020	1.0000	1.0000	1.0000	1.0000	1.0000
Selected Factors	1.4500	1.0700	1.0060	1.0100	1.0020	1.0000	1.0000	1.0000	1.0000	1.0000
Selected Ultimate	1.5796	1.0894	1.0181	1.0120	1.0020	1.0000	1.0000	1.0000	1.0000	1.0000

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Evaluation in Months											
96	108	120	132	144	156	168	180	192	204	216	228
47,402	47,385	47,365	47,348	47,337	47,337	47,335	47,335	47,335	47,355	47,328	47,326
53,567	53,554	53,518	53,496	53,482	53,474	53,470	53,469	53,458	53,458	53,456	
62,061	62,039	62,032	62,036	62,026	62,029	62,024	62,017	62,016	62,009		
72,926	72,907	72,851	72,839	72,834	72,834	72,831	72,829	72,821			
73,605	73,614	73,605	73,573	73,571	73,565	73,566	73,556				
66,522	66,538	66,535	66,533	66,534	66,535	66,535					
49,980	49,870	49,874	49,877	49,874	49,851						
48,572	48,579	48,599	48,599	48,599							
74,878	74,885	74,856	74,847								
75,706	75,360	75,365									
72,132	72,128										
75,159											

96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-Ult
0.9996	0.9996	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0004	0.9994	1.0000
0.9998	0.9993	0.9996	0.9997	0.9999	0.9999	1.0000	0.9998	1.0000	1.0000	
0.9996	0.9999	1.0001	0.9998	1.0000	0.9999	0.9999	1.0000	0.9999		
0.9997	0.9992	0.9998	0.9999	1.0000	1.0000	1.0000	0.9999			
1.0001	0.9999	0.9996	1.0000	0.9999	1.0000	0.9999				
1.0002	1.0000	1.0000	1.0000	1.0000	1.0000					
0.9978	1.0001	1.0001	0.9999	0.9995						
1.0002	1.0004	1.0000	1.0000							
1.0001	0.9996	0.9999								
0.9954	1.0001									
0.9999										
0.9992	0.9998	0.9998	0.9999	0.9999	1.0000	0.9999	0.9999	1.0001	0.9997	1.0000
0.9989	1.0000	0.9999	0.9999	0.9999	1.0000	0.9999	0.9999	1.0001	0.9997	1.0000
0.9985	1.0000	1.0000	1.0000	0.9998	1.0000	0.9999	0.9999	1.0001	0.9997	1.0000
0.9995	1.0000	0.9999	1.0000	0.9999	1.0000	1.0000	0.9999	1.0000	0.9997	1.0000
0.9993	1.0000	0.9999	1.0000	1.0000	1.0000	1.0000	0.9999	1.0000	0.9997	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

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**Reported Loss & ALAE Development Factors to Ultimate**

Months to Ultimate	Latest 9 Volume Weighted	Latest 6 Volume Weighted	Latest 3 Volume Weighted	Simple Average of Middle 4 of Last 6	Simple Average of Middle 3 of Last 5	Selected March 20 Factors	Selected Oct 20 Factors	Selected Factors
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7	1.4929	1.5069	1.6171	1.5277	1.5326		1.5796	1.5796
12	1.0819	1.0736	1.0821	1.0842	1.0857		1.0894	1.0894
19	1.0098	1.0035	1.0037	1.0089	1.0095		1.0181	1.0181
24	1.0024	0.9977	0.9968	1.0029	1.0042		1.0120	1.0120
31	0.9927	0.9895	0.9885	0.9951	0.9966		1.0020	1.0020
36	0.9906	0.9876	0.9858	0.9928	0.9940		1.0000	1.0000
48	0.9948	0.9933	0.9925	0.9969	0.9976		1.0000	1.0000
60	0.9979	0.9976	0.9955	1.0001	1.0000		1.0000	1.0000
72	0.9974	0.9967	0.9944	0.9989	0.9990		1.0000	1.0000
84	0.9971	0.9963	0.9944	0.9987	0.9988		1.0000	1.0000
96	0.9983	0.9982	0.9978	0.9988	0.9987		1.0000	1.0000
108	0.9991	0.9993	0.9993	0.9993	0.9994		1.0000	1.0000
120	0.9992	0.9993	0.9994	0.9993	0.9994		1.0000	1.0000
132	0.9994	0.9994	0.9994	0.9994	0.9994		1.0000	1.0000
144	0.9995	0.9995	0.9994	0.9994	0.9995		1.0000	1.0000
156	0.9996	0.9996	0.9996	0.9995	0.9995		1.0000	1.0000
168	0.9996	0.9996	0.9996	0.9995	0.9995		1.0000	1.0000
180	0.9997	0.9997	0.9997	0.9996	0.9996		1.0000	1.0000
192	0.9998	0.9998	0.9998	0.9997	0.9997		1.0000	1.0000
204	0.9997	0.9997	0.9997	0.9997	0.9997		1.0000	1.0000
216	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000

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**Interpolated Percentage of Ultimate Factors**

For October				For March					
Months of Devt	RTR Factors	Factor to Ultimate	Percentage Reported	Months of Devt	Percentage Reported	Factor to Ultimate	RTR Factors	Selected RTR Factors	Sel'd Factor to Ultimate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
7	1.4500	1.5796	63.31%	7		1.5796	1.4500	1.4500	1.5796
12	1.0700	1.0894		12	91.80%	1.0894	1.0700	1.0700	1.0894
19	1.0060	1.0181	98.22%	19		1.0181	1.0060	1.0060	1.0181
24	1.0100	1.0120		24	98.81%	1.0120	1.0100	1.0100	1.0120
31	1.0020	1.0020	99.80%	31		1.0020	1.0020	1.0020	1.0020
36	1.0000	1.0000		36	100.00%	1.0000	1.0000	1.0000	1.0000
43	1.0000	1.0000	100.00%	48	100.00%	1.0000	1.0000	1.0000	1.0000
55	1.0000	1.0000	100.00%	60	100.00%	1.0000	1.0000	1.0000	1.0000
67	1.0000	1.0000	100.00%	72	100.00%	1.0000	1.0000	1.0000	1.0000
79	1.0000	1.0000	100.00%	84	100.00%	1.0000	1.0000	1.0000	1.0000
91	1.0000	1.0000	100.00%	96	100.00%	1.0000	1.0000	1.0000	1.0000
103	1.0000	1.0000	100.00%	108	100.00%	1.0000	1.0000	1.0000	1.0000
115	1.0000	1.0000	100.00%	120	100.00%	1.0000	1.0000	1.0000	1.0000
127	1.0000	1.0000	100.00%	132	100.00%	1.0000	1.0000	1.0000	1.0000
139	1.0000	1.0000	100.00%	144	100.00%	1.0000	1.0000	1.0000	1.0000
151	1.0000	1.0000	100.00%	156	100.00%	1.0000	1.0000	1.0000	1.0000
163	1.0000	1.0000	100.00%	168	100.00%	1.0000	1.0000	1.0000	1.0000
175	1.0000	1.0000	100.00%	180	100.00%	1.0000	1.0000	1.0000	1.0000
187	1.0000	1.0000	100.00%	192	100.00%	1.0000	1.0000	1.0000	1.0000
199	1.0000	1.0000	100.00%	204	100.00%	1.0000	1.0000	1.0000	1.0000
Tail	1.0000	1.0000	100.00%	Tail	100.00%	1.0000	1.0000	1.0000	1.0000

Selected Development in 4th and Subsequent Years: 41.67%

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**Projected Ultimate Losses & ALAE Using the Development Method on Reported Loss & ALAE**

Insurance Year	Earned Premium	Reported Loss & ALAE	Development Factor to Ultimate	Ultimate Losses	IBNR	Case Reserves	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2003	563,789	53,456	1.0000	53,456	-	-	9.48%
2004	598,905	62,009	1.0000	62,009	-	-	10.35%
2005	632,408	72,821	1.0000	72,821	-	-	11.51%
2006	656,746	73,556	1.0000	73,556	-	-	11.20%
2007	679,930	66,535	1.0000	66,535	-	-	9.79%
2008	709,787	49,851	1.0000	49,851	-	-	7.02%
2009	741,553	48,599	1.0000	48,599	-	-	6.55%
2010	761,034	74,847	1.0000	74,847	-	-	9.83%
2011	772,649	75,365	1.0000	75,365	-	-	9.75%
2012	769,715	72,128	1.0000	72,128	-	4	9.37%
2013	781,394	75,159	1.0000	75,159	-	-	9.62%
2014	822,358	71,652	1.0000	71,652	-	-	8.71%
2015	877,262	121,342	1.0000	121,342	-	6	13.83%
2016	923,168	118,656	1.0000	118,656	-	144	12.85%
2017	977,104	72,761	1.0000	72,761	-	14	7.45%
2018	1,044,467	86,144	1.0000	86,144	-	202	8.25%
2019	1,099,731	85,655	1.0120	86,684	1,030	1,123	7.88%
2020	1,134,690	77,709	1.0894	84,653	6,944	8,051	7.46%
	14,546,690	1,358,245		1,366,219	7,974	9,544	9.39%



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**Development of Bornhuetter-Ferguson Initial Expected Loss Ratio**

Insurance Year	Earned Premium	Projected Ultimate Losses	Based on Prior Year	Based on 2nd Prior Year	Fitted Ultimate Losses	Fitted Ultimate Loss Ratio	Projected Ultimate Loss Ratio	Weight	Weighted Initial Ult Loss Ratio	Selected Initial Ult Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2003	563,789	53,456			53,456	9.48%	9.48%	100.00%	9.48%	9.48%
2004	598,905	62,009	55,060		55,060	9.19%	10.35%	100.00%	10.35%	10.35%
2005	632,408	72,821	63,869	56,712	60,291	9.53%	11.51%	100.00%	11.51%	11.51%
2006	656,746	73,556	75,006	65,785	70,396	10.72%	11.20%	100.00%	11.20%	11.20%
2007	679,930	66,535	75,763	77,256	76,509	11.25%	9.79%	100.00%	9.79%	9.79%
2008	709,787	49,851	68,531	78,036	73,283	10.32%	7.02%	100.00%	7.02%	7.02%
2009	741,553	48,599	51,346	70,587	60,967	8.22%	6.55%	100.00%	6.55%	6.55%
2010	761,034	74,847	50,056	52,887	51,472	6.76%	9.83%	100.00%	9.83%	9.83%
2011	772,649	75,365	77,092	51,558	64,325	8.33%	9.75%	100.00%	9.75%	9.75%
2012	769,715	72,128	77,626	79,405	78,516	10.20%	9.37%	100.00%	9.37%	9.37%
2013	781,394	75,159	74,292	79,955	77,124	9.87%	9.62%	100.00%	9.62%	9.62%
2014	822,358	71,652	77,414	76,521	76,967	9.36%	8.71%	100.00%	8.71%	8.71%
2015	877,262	121,342	73,802	79,736	76,769	8.75%	13.83%	100.00%	13.83%	13.83%
2016	923,168	118,656	124,982	76,016	100,499	10.89%	12.85%	75.00%	12.36%	12.36%
2017	977,104	72,761	122,215	128,732	125,474	12.84%	7.45%	50.00%	10.14%	10.14%
2018	1,044,467	86,144	74,944	125,882	100,413	9.61%	8.25%	25.00%	9.27%	9.27%
2019	1,099,731	86,684	88,728	77,192	82,960	7.54%	7.88%	25.00%	7.63%	7.63%
2020	1,134,690	84,653	89,285	91,390	90,338	7.96%	7.46%	25.00%	7.84%	7.84%
	14,546,690	1,366,219	1,320,013	1,267,650	1,374,818					

**Trend in Losses Based on Exponential Regression (a):**

**2.96%**

**Selected Trend (b):**

**3.00%**

Notes:

(3) Ultimate Losses from Page 7

(6) = Average [(4), (5)]

(10) = (8) \* (9) + (7) \* [1 - (9)]

(a) Based on the Projected Ultimate Losses

(b) Based on the exponential trend rounded up to the nearest 0.25%; minimum 0.00%

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**Projected Ultimate Losses and ALAE Using the Bornhuetter-Ferguson Method on Reported Loss & ALAE**

Insurance Year	Earned Premium	Selected	Initial	Expected Percentage:		Expected	Actual	Expected	Estimated	Estimated
		Initial Ult Loss Ratio	Expected Ult Losses	Reported	Unreported	Reported Loss	Reported Loss	Unreported Loss	Ultimate Losses	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2003	563,789	9.48%	53,456	100.00%	0.00%	53,456	53,456	-	53,456	9.48%
2004	598,905	10.35%	62,009	100.00%	0.00%	62,009	62,009	-	62,009	10.35%
2005	632,408	11.51%	72,821	100.00%	0.00%	72,821	72,821	-	72,821	11.51%
2006	656,746	11.20%	73,556	100.00%	0.00%	73,556	73,556	-	73,556	11.20%
2007	679,930	9.79%	66,535	100.00%	0.00%	66,535	66,535	-	66,535	9.79%
2008	709,787	7.02%	49,851	100.00%	0.00%	49,851	49,851	-	49,851	7.02%
2009	741,553	6.55%	48,599	100.00%	0.00%	48,599	48,599	-	48,599	6.55%
2010	761,034	9.83%	74,847	100.00%	0.00%	74,847	74,847	-	74,847	9.83%
2011	772,649	9.75%	75,365	100.00%	0.00%	75,365	75,365	-	75,365	9.75%
2012	769,715	9.37%	72,128	100.00%	0.00%	72,128	72,128	-	72,128	9.37%
2013	781,394	9.62%	75,159	100.00%	0.00%	75,159	75,159	-	75,159	9.62%
2014	822,358	8.71%	71,652	100.00%	0.00%	71,652	71,652	-	71,652	8.71%
2015	877,262	13.83%	121,342	100.00%	0.00%	121,342	121,342	-	121,342	13.83%
2016	923,168	12.36%	114,117	100.00%	0.00%	114,117	118,656	-	118,656	12.85%
2017	977,104	10.14%	99,117	100.00%	0.00%	99,117	72,761	-	72,761	7.45%
2018	1,044,467	9.27%	96,846	100.00%	0.00%	96,846	86,144	-	86,144	8.25%
2019	1,099,731	7.63%	83,891	98.81%	1.19%	82,895	85,655	996	86,651	7.88%
2020	1,134,690	7.84%	88,916	91.80%	8.20%	81,623	77,709	7,294	85,002	7.49%
	14,546,690		1,400,208			1,391,918	1,358,245	8,290	1,366,535	9.39%

Notes:

(10) = (8) + (9)

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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	22,079,320	39,212,323	46,519,012	47,074,559	47,541,612	47,626,180	47,502,710	47,477,822	47,425,820	47,408,962	47,396,094	47,381,254	47,364,713	47,348,140	47,337,023	47,336,899	47,334,548	47,334,688	47,334,708	47,332,586	47,327,536	47,326,028
2003	23,136,087	43,809,740	52,092,611	52,813,351	53,406,236	53,546,640	53,655,387	53,634,292	53,598,204	53,568,752	53,554,574	53,546,706	53,510,973	53,488,700	53,481,931	53,473,925	53,469,612	53,469,470	53,458,462	53,457,625	53,456,305	
2004	25,828,732	52,125,600	60,812,062	61,487,091	61,951,010	62,047,073	62,118,591	62,125,976	62,121,231	62,109,980	62,059,915	62,037,788	62,030,957	62,035,555	62,025,149	62,028,807	62,023,648	62,017,375	62,015,760	62,009,139		
2005	30,752,164	58,038,438	70,246,141	71,268,943	72,431,394	72,640,412	72,832,776	72,851,413	72,852,152	72,855,645	72,860,850	72,842,803	72,835,595	72,838,869	72,834,412	72,833,850	72,831,018	72,829,156	72,821,011			
2006	30,981,502	57,525,104	70,368,778	71,679,667	72,921,003	73,177,347	73,489,795	73,532,074	73,572,410	73,618,849	73,605,217	73,613,737	73,605,003	73,572,850	73,571,031	73,565,380	73,565,969	73,556,372				
2007	46,002,782	80,811,474	101,102,447	104,779,770	109,455,172	110,500,251	111,306,409	111,500,854	111,635,356	111,642,076	111,665,685	111,677,432	111,676,063	111,677,363	111,678,173	111,673,061	111,678,920					
2008	22,286,875	39,245,466	47,792,352	48,677,494	49,483,370	49,824,326	49,949,370	49,971,570	49,964,630	49,955,968	49,924,007	49,818,121	49,824,479	49,827,216	49,874,245	49,850,646						
2009	29,369,987	58,492,076	72,022,010	74,660,960	77,229,595	77,975,361	78,480,498	78,617,285	78,682,868	78,765,771	78,838,574	78,846,379	78,866,233	78,863,842	78,865,537							
2010	31,047,559	57,110,863	69,622,731	71,832,774	73,802,666	74,117,828	74,481,607	74,637,758	74,742,524	74,788,997	74,824,413	74,841,852	74,856,171	74,846,676								
2011	31,216,693	56,631,237	70,279,098	72,171,071	74,021,164	74,607,841	75,048,055	75,204,293	75,299,512	75,348,776	75,346,344	75,360,338	75,365,309									
2012	32,505,976	54,270,650	66,986,040	68,999,173	70,954,459	71,413,845	71,806,395	71,956,106	72,055,889	72,101,104	72,122,311	72,124,518										
2013	30,200,593	55,195,175	69,778,381	72,198,824	74,059,875	74,460,289	74,939,931	75,096,617	75,155,771	75,139,151	75,158,994											
2014	30,669,817	57,147,456	68,139,697	69,548,801	70,787,835	71,084,302	71,398,665	71,539,540	71,629,102	71,652,465												
2015	49,643,154	92,742,524	113,606,525	116,660,462	119,458,725	120,154,738	120,807,312	121,119,115	121,336,454													
2016	51,303,911	91,292,774	111,168,008	114,004,187	116,592,904	117,371,025	118,277,403	118,512,108														
2017	31,557,960	57,910,603	70,130,522	71,256,520	72,247,773	72,542,033	72,746,327															
2018	54,351,451	89,993,897	108,605,270	111,230,495	112,971,771	113,436,518																
2019	33,917,966	68,242,641	82,597,683	84,531,772																		
2020	37,552,888	69,657,595																				

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Insurance Year	Evaluation in Months									
	7	12	19	24	31	36	48	60	72	84
2002	22,079	39,212	46,519	47,075	47,542	47,626	47,503	47,478	47,426	47,409
2003	23,136	43,810	52,093	52,813	53,406	53,547	53,655	53,634	53,598	53,569
2004	25,829	52,126	60,812	61,487	61,951	62,047	62,119	62,126	62,121	62,110
2005	30,752	58,038	70,246	71,269	72,431	72,640	72,833	72,851	72,852	72,856
2006	30,982	57,525	70,369	71,680	72,921	73,177	73,490	73,532	73,572	73,619
2007	29,245	54,196	62,902	64,686	65,804	66,346	66,483	66,507	66,539	66,527
2008	22,287	39,245	47,792	48,677	49,483	49,824	49,949	49,972	49,965	49,956
2009	20,643	40,100	46,415	47,611	48,094	48,363	48,433	48,449	48,416	48,499
2010	31,048	57,111	69,623	71,833	73,803	74,118	74,482	74,638	74,743	74,789
2011	31,217	56,631	70,279	72,171	74,021	74,608	75,048	75,204	75,300	75,349
2012	32,506	54,271	66,986	68,999	70,954	71,414	71,806	71,956	72,056	72,101
2013	30,201	55,195	69,778	72,199	74,060	74,460	74,940	75,097	75,156	75,139
2014	30,670	57,147	68,140	69,549	70,788	71,084	71,399	71,540	71,629	71,652
2015	49,643	92,743	113,607	116,660	119,459	120,155	120,807	121,119	121,336	
2016	51,304	91,293	111,168	114,004	116,593	117,371	118,277	118,512		
2017	31,558	57,911	70,131	71,257	72,248	72,542	72,746			
2018	36,533	68,193	82,827	84,744	85,650	85,943				
2019	33,918	68,243	82,598	84,532						
2020	37,553	69,658								
Insurance Year	7-12	12-19	19-24	24-31	31-36	36-48	48-60	60-72	72-84	84-96
2002	1.7760	1.1863	1.0119	1.0099	1.0018	0.9974	0.9995	0.9989	0.9996	0.9997
2003	1.8936	1.1891	1.0138	1.0112	1.0026	1.0020	0.9996	0.9993	0.9995	0.9997
2004	2.0181	1.1666	1.0111	1.0075	1.0016	1.0012	1.0001	0.9999	0.9998	0.9992
2005	1.8873	1.2103	1.0146	1.0163	1.0029	1.0026	1.0003	1.0000	1.0000	1.0001
2006	1.8568	1.2233	1.0186	1.0173	1.0035	1.0043	1.0006	1.0005	1.0006	0.9998
2007	1.8532	1.1606	1.0284	1.0173	1.0082	1.0021	1.0004	1.0005	0.9998	0.9999
2008	1.7609	1.2178	1.0185	1.0166	1.0069	1.0025	1.0004	0.9999	0.9998	0.9994
2009	1.9426	1.1575	1.0258	1.0101	1.0056	1.0015	1.0003	0.9993	1.0017	1.0015
2010	1.8395	1.2191	1.0317	1.0274	1.0043	1.0049	1.0021	1.0014	1.0006	1.0005
2011	1.8141	1.2410	1.0269	1.0256	1.0079	1.0059	1.0021	1.0013	1.0007	1.0000
2012	1.6696	1.2343	1.0301	1.0283	1.0065	1.0055	1.0021	1.0014	1.0006	1.0003
2013	1.8276	1.2642	1.0347	1.0258	1.0054	1.0064	1.0021	1.0008	0.9998	1.0003
2014	1.8633	1.1923	1.0207	1.0178	1.0042	1.0044	1.0020	1.0013	1.0003	
2015	1.8682	1.2250	1.0269	1.0240	1.0058	1.0054	1.0026	1.0018		
2016	1.7795	1.2177	1.0255	1.0227	1.0067	1.0077	1.0020			
2017	1.8351	1.2110	1.0161	1.0139	1.0041	1.0028				
2018	1.8666	1.2146	1.0231	1.0107	1.0034					
2019	2.0120	1.2104	1.0234							
Latest 9 Volume Weighted	1.8409	1.2225	1.0253	1.0218	1.0054	1.0053	1.0019	1.0010	1.0004	1.0002
Latest 6 Volume Weighted	1.8629	1.2134	1.0232	1.0197	1.0051	1.0056	1.0022	1.0014	1.0006	1.0003
Latest 3 Volume Weighted	1.9082	1.2120	1.0211	1.0166	1.0050	1.0057	1.0022	1.0014	1.0002	1.0002
Simple Average of Middle 4 of Last 6	1.8583	1.2134	1.0232	1.0196	1.0049	1.0054	1.0021	1.0013	1.0006	1.0002
Simple Average of Middle 3 of Last 5	1.8566	1.2144	1.0240	1.0181	1.0047	1.0054	1.0021	1.0013	1.0005	1.0003
Selected March 20										
Selected Oct 20	1.8500	1.2200	1.0250	1.0200	1.0055	1.0060	1.0025	1.0015	1.0005	1.0000
Selected Factors	1.8500	1.2200	1.0250	1.0200	1.0055	1.0060	1.0025	1.0015	1.0005	1.0000
Selected Ultimate	2.3977	1.2960	1.0623	1.0364	1.0161	1.0105	1.0045	1.0020	1.0005	1.0000

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Evaluation in Months											
96	108	120	132	144	156	168	180	192	204	216	228
47,396	47,381	47,365	47,348	47,337	47,337	47,335	47,335	47,335	47,333	47,328	47,326
53,555	53,547	53,511	53,489	53,482	53,474	53,470	53,469	53,458	53,458	53,456	
62,060	62,038	62,031	62,036	62,025	62,029	62,024	62,017	62,016	62,009		
72,861	72,843	72,836	72,839	72,834	72,834	72,831	72,829	72,821			
73,605	73,614	73,605	73,573	73,571	73,565	73,566	73,556				
66,522	66,533	66,532	66,533	66,534	66,529	66,535					
49,924	49,818	49,824	49,827	49,874	49,851						
48,572	48,579	48,599	48,597	48,599							
74,824	74,842	74,856	74,847								
75,346	75,360	75,365									
72,122	72,125										
75,159											

96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-Ult
0.9997	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	1.0000
0.9999	0.9993	0.9996	0.9999	0.9999	0.9999	1.0000	0.9998	1.0000	1.0000	
0.9996	0.9999	1.0001	0.9998	1.0001	0.9999	0.9999	1.0000	0.9999		
0.9998	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000	0.9999			
1.0001	0.9999	0.9996	1.0000	0.9999	1.0000	0.9999				
1.0002	1.0000	1.0000	1.0000	0.9999	1.0001					
0.9979	1.0001	1.0001	1.0009	0.9995						
1.0002	1.0004	1.0000	1.0000							
1.0002	1.0002	0.9999								
1.0002	1.0001									
1.0000										

0.9999	1.0000	0.9999	1.0000	0.9999	1.0000	0.9999	0.9999	0.9999	0.9999	1.0000
0.9999	1.0001	0.9999	1.0001	0.9999	1.0000	0.9999	0.9999	0.9999	0.9999	1.0000
1.0002	1.0002	0.9999	1.0003	0.9998	1.0000	0.9999	0.9999	0.9999	0.9999	1.0000
1.0001	1.0001	1.0000	1.0000	0.9999	1.0000	1.0000	0.9999	1.0000	0.9999	1.0000
1.0001	1.0001	0.9999	1.0000	0.9999	1.0000	1.0000	0.9999	1.0000	0.9999	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

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**Paid Loss & ALAE Development Factors to Ultimate**

Months to Ultimate	Latest 9 Volume Weighted	Latest 6 Volume Weighted	Latest 3 Volume Weighted	Simple Average of Middle 4 of Last 6	Simple Average of Middle 3 of Last 5	Selected Feb 20 Factors	Selected Oct 20 Factors	Selected Factors
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7	2.3899	2.3930	2.4365	2.3863	2.3844		2.3977	2.3977
12	1.2982	1.2846	1.2768	1.2841	1.2843		1.2960	1.2960
19	1.0619	1.0587	1.0535	1.0583	1.0575		1.0623	1.0623
24	1.0357	1.0346	1.0317	1.0343	1.0327		1.0364	1.0364
31	1.0136	1.0147	1.0148	1.0144	1.0143		1.0161	1.0161
36	1.0081	1.0095	1.0098	1.0095	1.0095		1.0105	1.0105
48	1.0028	1.0039	1.0041	1.0040	1.0041		1.0045	1.0045
60	1.0009	1.0017	1.0019	1.0020	1.0020		1.0020	1.0020
72	0.9999	1.0004	1.0005	1.0006	1.0007		1.0005	1.0005
84	0.9995	0.9998	1.0003	1.0001	1.0002		1.0000	1.0000
96	0.9993	0.9995	1.0001	0.9998	0.9999		1.0000	1.0000
108	0.9995	0.9997	0.9999	0.9997	0.9997		1.0000	1.0000
120	0.9995	0.9996	0.9997	0.9996	0.9996		1.0000	1.0000
132	0.9996	0.9997	0.9998	0.9996	0.9997		1.0000	1.0000
144	0.9996	0.9996	0.9995	0.9996	0.9997		1.0000	1.0000
156	0.9997	0.9997	0.9997	0.9997	0.9997		1.0000	1.0000
168	0.9997	0.9997	0.9997	0.9997	0.9997		1.0000	1.0000
180	0.9998	0.9998	0.9997	0.9998	0.9998		1.0000	1.0000
192	0.9998	0.9998	0.9998	0.9999	0.9999		1.0000	1.0000
204	0.9999	0.9999	0.9999	0.9999	0.9999		1.0000	1.0000
216	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000

Manitoba Public Insurance  
Automobile Insurance Division - Comprehensive - Basic  
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Interpolated Percentage of Ultimate Factors

For October				For March					
Months of Devt	RTR Factors	Factor to Ultimate	Percentage Paid	Months of Devt	Percentage Paid	Factor to Ultimate	RTR Factors	Selected RTR Factors	Sel'd Factor to Ultimate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
7	1.8500	2.3965	41.73%	7		2.3965	1.8500	1.8500	2.3977
12	1.2200	1.2954		12	77.20%	1.2954	1.2200	1.2200	1.2960
19	1.0250	1.0618	94.18%	19		1.0618	1.0250	1.0250	1.0623
24	1.0200	1.0359		24	96.53%	1.0359	1.0200	1.0200	1.0364
31	1.0055	1.0156	98.47%	31		1.0156	1.0055	1.0055	1.0161
36	1.0045	1.0100		36	99.01%	1.0100	1.0058	1.0060	1.0105
43	1.0030	1.0055	99.45%	48	99.58%	1.0043	1.0024	1.0025	1.0045
55	1.0015	1.0025	99.75%	60	99.81%	1.0019	1.0013	1.0015	1.0020
67	1.0010	1.0010	99.90%	72	99.94%	1.0006	1.0006	1.0005	1.0005
79	1.0000	1.0000	100.00%	84	100.00%	1.0000	1.0000	1.0000	1.0000
91	1.0000	1.0000	100.00%	96	100.00%	1.0000	1.0000	1.0000	1.0000
103	1.0000	1.0000	100.00%	108	100.00%	1.0000	1.0000	1.0000	1.0000
115	1.0000	1.0000	100.00%	120	100.00%	1.0000	1.0000	1.0000	1.0000
127	1.0000	1.0000	100.00%	132	100.00%	1.0000	1.0000	1.0000	1.0000
139	1.0000	1.0000	100.00%	144	100.00%	1.0000	1.0000	1.0000	1.0000
151	1.0000	1.0000	100.00%	156	100.00%	1.0000	1.0000	1.0000	1.0000
163	1.0000	1.0000	100.00%	168	100.00%	1.0000	1.0000	1.0000	1.0000
175	1.0000	1.0000	100.00%	180	100.00%	1.0000	1.0000	1.0000	1.0000
187	1.0000	1.0000	100.00%	192	100.00%	1.0000	1.0000	1.0000	1.0000
199	1.0000	1.0000	100.00%	204	100.00%	1.0000	1.0000	1.0000	1.0000
Tail	1.0000	1.0000	100.00%	Tail	100.00%	1.0000	1.0000	1.0000	1.0000

Selected Development in 4th and Subsequent Years: 41.67%

Manitoba Public Insurance  
Automobile Insurance Division - Comprehensive - Basic  
Paid Loss & ALAE - Without Z-Files & Hailstorm Losses  
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**Projected Ultimate Losses & ALAE Using the Development Method on Paid Loss & ALAE**

Insurance Year	Earned Premium	Paid Loss & ALAE	Development Factor to Ultimate	Ultimate Losses	Unpaid	Case Reserves	IBNR	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2003	563,789	53,456	1.0000	53,456	-	-	-	9.48%
2004	598,905	62,009	1.0000	62,009	-	-	-	10.35%
2005	632,408	72,821	1.0000	72,821	-	-	-	11.51%
2006	656,746	73,556	1.0000	73,556	-	-	-	11.20%
2007	679,930	66,535	1.0000	66,535	-	-	-	9.79%
2008	709,787	49,851	1.0000	49,851	-	-	-	7.02%
2009	741,553	48,599	1.0000	48,599	-	-	-	6.55%
2010	761,034	74,847	1.0000	74,847	-	-	-	9.83%
2011	772,649	75,365	1.0000	75,365	-	-	-	9.75%
2012	769,715	72,125	1.0000	72,125	-	4	(4)	9.37%
2013	781,394	75,159	1.0000	75,159	-	-	-	9.62%
2014	822,358	71,652	1.0000	71,652	-	-	-	8.71%
2015	877,262	121,336	1.0005	121,397	61	6	55	13.84%
2016	923,168	118,512	1.0020	118,749	237	144	93	12.86%
2017	977,104	72,746	1.0045	73,074	328	14	314	7.48%
2018	1,044,467	85,943	1.0105	86,848	905	202	703	8.32%
2019	1,099,731	84,532	1.0364	87,610	3,078	1,123	1,955	7.97%
2020	1,134,690	69,658	1.2960	90,279	20,621	8,051	12,570	7.96%
	14,546,690	1,348,702		1,373,931	25,230	9,544	15,686	9.44%



Manitoba Public Insurance  
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Paid Loss & ALAE - Without Z-Files & Hailstorm Losses  
March 31, 2021

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**Development of Bornhuetter-Ferguson Initial Expected Loss Ratio**

Insurance Year	Earned Premium	Projected Ultimate Losses	Based on Prior Year	Based on 2nd Prior Year	Fitted Ultimate Losses	Fitted Ultimate Loss Ratio	Projected Ultimate Loss Ratio	Weight	Weighted Initial Ult Loss Ratio	Selected Initial Ult Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2003	563,789	53,456			53,456	9.48%	9.48%	100.00%	9.48%	9.48%
2004	598,905	62,009	55,060		55,060	9.19%	10.35%	100.00%	10.35%	10.35%
2005	632,408	72,821	63,869	56,712	60,291	9.53%	11.51%	100.00%	11.51%	11.51%
2006	656,746	73,556	75,006	65,785	70,396	10.72%	11.20%	100.00%	11.20%	11.20%
2007	679,930	66,535	75,763	77,256	76,509	11.25%	9.79%	100.00%	9.79%	9.79%
2008	709,787	49,851	68,531	78,036	73,283	10.32%	7.02%	100.00%	7.02%	7.02%
2009	741,553	48,599	51,346	70,587	60,967	8.22%	6.55%	100.00%	6.55%	6.55%
2010	761,034	74,847	50,056	52,887	51,472	6.76%	9.83%	100.00%	9.83%	9.83%
2011	772,649	75,365	77,092	51,558	64,325	8.33%	9.75%	100.00%	9.75%	9.75%
2012	769,715	72,125	77,626	79,405	78,516	10.20%	9.37%	100.00%	9.37%	9.37%
2013	781,394	75,159	74,288	79,955	77,122	9.87%	9.62%	100.00%	9.62%	9.62%
2014	822,358	71,652	77,414	76,517	76,965	9.36%	8.71%	100.00%	8.71%	8.71%
2015	877,262	121,397	73,802	79,736	76,769	8.75%	13.84%	100.00%	13.84%	13.83%
2016	923,168	118,749	125,039	76,016	100,528	10.89%	12.86%	75.00%	12.37%	12.36%
2017	977,104	73,074	122,312	128,790	125,551	12.85%	7.48%	50.00%	10.16%	10.14%
2018	1,044,467	86,848	75,266	125,981	100,624	9.63%	8.32%	25.00%	9.30%	9.27%
2019	1,099,731	87,610	89,453	77,524	83,489	7.59%	7.97%	25.00%	7.69%	7.63%
2020	1,134,690	90,279	90,238	92,137	91,187	8.04%	7.96%	25.00%	8.02%	7.84%
	14,546,690	1,373,931	1,322,162	1,268,882	1,376,509					

**Trend in Losses Based on Exponential Regression (a):**

**3.11%**

**Selected Trend (b):**

**3.00%**

Notes:

(3) Ultimate Losses from Page 15

(6) = Average [(4), (5)]

(10) = (8) \* (9) + (7) \* [1 - (9)]

(11) Selected Initial Ult Loss Ratio from Page 8

(a) Based on the Projected Ultimate Losses

(b) Selected Trend from Page 8

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**Projected Ultimate Losses and ALAE Using the Bornhuetter-Ferguson Method on Paid Loss & ALAE**

Insurance Year	Earned Premium	Selected Initial Ult Loss Ratio	Initial Expected Ult Losses	Expected Percentage: Paid Unpaid	Expected Paid Loss	Actual Paid Loss	Expected Unpaid Loss	Estimated Ultimate Losses	Expected IBNR	Estimated Ultimate Loss Ratio	
(1)	(2)	(3)	(4)	(5) (6)	(7)	(8)	(9)	(10)	(11)	(12)	
2003	563,789	9.48%	53,456	100.00%	0.00%	53,456	53,456	-	53,456	-	9.48%
2004	598,905	10.35%	62,009	100.00%	0.00%	62,009	62,009	-	62,009	-	10.35%
2005	632,408	11.51%	72,821	100.00%	0.00%	72,821	72,821	-	72,821	-	11.51%
2006	656,746	11.20%	73,556	100.00%	0.00%	73,556	73,556	-	73,556	-	11.20%
2007	679,930	9.79%	66,535	100.00%	0.00%	66,535	66,535	-	66,535	-	9.79%
2008	709,787	7.02%	49,851	100.00%	0.00%	49,851	49,851	-	49,851	-	7.02%
2009	741,553	6.55%	48,599	100.00%	0.00%	48,599	48,599	-	48,599	-	6.55%
2010	761,034	9.83%	74,847	100.00%	0.00%	74,847	74,847	-	74,847	-	9.83%
2011	772,649	9.75%	75,365	100.00%	0.00%	75,365	75,365	-	75,365	-	9.75%
2012	769,715	9.37%	72,128	100.00%	0.00%	72,128	72,125	-	72,125	(4)	9.37%
2013	781,394	9.62%	75,159	100.00%	0.00%	75,159	75,159	-	75,159	-	9.62%
2014	822,358	8.71%	71,652	100.00%	0.00%	71,652	71,652	-	71,652	-	8.71%
2015	877,262	13.83%	121,342	99.95%	0.05%	121,281	121,336	61	121,397	55	13.84%
2016	923,168	12.36%	114,117	99.80%	0.20%	113,889	118,512	228	118,740	84	12.86%
2017	977,104	10.14%	99,117	99.55%	0.45%	98,673	72,746	445	73,191	431	7.49%
2018	1,044,467	9.27%	96,846	98.96%	1.04%	95,836	85,943	1,009	86,952	807	8.33%
2019	1,099,731	7.63%	83,891	96.49%	3.51%	80,944	84,532	2,947	87,479	1,824	7.95%
2020	1,134,690	7.84%	88,916	77.16%	22.84%	68,606	69,658	20,310	89,967	12,259	7.93%
	14,546,690		1,400,208			1,375,208	1,348,702	25,000	1,373,701	15,456	9.44%

Notes:  
(10) = (8) + (9)

Manitoba Public Insurance  
Automobile Insurance Division - Comprehensive - Basic  
Development of 2007 & 2009 Hailstorm Losses  
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### Interpolated Percentage of Ultimate Factors

Months of Devt	Reported Loss & ALAE		Factor to Ultimate	Selected Factor to Ultimate	Percentage Reported		
	2007 Hail	2009 Hail			Beginning of Year	End of 8 Months	End of 12 Months
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
8	41,344,000	27,848,000	1.0899	1.0800	0.00%	92.59%	95.24%
12	42,188,000	29,356,000	1.0541	1.0500	95.24%	99.09%	101.01%
24	45,271,000	30,939,000	0.9895	0.9900	101.01%	101.01%	101.01%
36	46,831,000	31,557,000	0.9620	0.9900	101.01%	101.01%	101.01%
48	46,281,000	30,121,000	0.9870	0.9900	101.01%	101.01%	101.01%
60	46,185,000	30,183,000	0.9875	0.9900	101.01%	100.34%	100.00%
Tail	45,144,000	30,267,000	1.0000	1.0000	100.00%	100.00%	100.00%

#### Hail Loss

	<u>2018 Hail</u>
Reported Loss and ALAE	28,915,000
Development Factor to Ultimate	0.9900
Projected Ultimate Losses	28,625,850
Indicated IBNR	(289,150)

Months of Devt	Paid Loss & ALAE		Factor to Ultimate	Selected Factor to Ultimate	Percentage Paid		
	2007 Hail	2009 Hail			Beginning of Year	End of 8 Months	End of 12 Months
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
8	16,758,000	8,727,000	2.9590	2.9000	0.00%	34.48%	59.88%
12	26,615,000	18,392,000	1.6755	1.6700	59.88%	79.32%	89.05%
24	40,094,000	27,050,000	1.1231	1.1230	89.05%	94.88%	97.80%
36	44,154,000	29,612,000	1.0223	1.0225	97.80%	98.80%	99.30%
48	44,823,000	30,047,000	1.0072	1.0070	99.30%	99.54%	99.65%
60	44,994,000	30,168,000	1.0033	1.0035	99.65%	99.88%	100.00%
Tail	45,144,000	30,267,000	1.0000	1.0000	100.00%	100.00%	100.00%

#### Hail Loss

	<u>2018 Hail</u>
Paid Loss and ALAE	27,494,000
Development Factor to Ultimate	1.0225
Projected Ultimate Losses	28,112,615
Unpaid Loss	618,615
Case Reserves	1,421,000
Indicated IBNR	(802,385)

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## APPENDIX E      ACCIDENT BENEFITS – WEEKLY INDEMNITY

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Undiscounted Gross IBNR Calculations

Manitoba Public Insurance  
Automobile Insurance Division - Accident Benefits - Weekly  
Indemnity Reported Loss & ALAE - With Z-Files  
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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	8,207,898	20,026,606	34,437,301	39,628,988	43,865,593	45,775,515	44,164,862	43,605,308	45,963,586	46,380,688	47,328,404	48,372,407	48,999,220	50,315,818	50,118,567	49,325,462	51,002,518	52,068,186	53,634,877	54,254,104	55,252,406	55,395,590
2003	17,796,010	40,235,722	58,219,067	59,972,247	50,122,735	50,268,262	46,217,170	45,435,333	46,190,994	46,299,661	46,371,585	46,337,696	51,377,118	51,998,583	51,134,772	52,164,793	53,246,600	53,192,530	53,495,673	53,497,614	53,845,896	
2004	11,491,699	21,941,748	29,039,490	33,110,325	37,650,095	42,411,181	43,408,793	45,537,192	45,357,502	46,249,721	44,972,535	46,089,592	44,687,992	45,786,405	46,254,198	46,175,512	47,784,208	47,167,019	47,715,812	48,326,106		
2005	17,064,683	33,942,762	42,589,257	45,957,895	52,543,344	56,417,128	51,479,406	53,770,560	53,314,000	52,298,726	53,891,025	52,781,490	54,221,881	54,556,309	55,855,854	56,392,623	56,788,615	56,269,915	56,182,494			
2006	19,195,334	38,464,274	53,039,228	56,627,733	57,977,827	58,453,884	57,920,458	59,253,043	58,648,129	64,852,637	67,895,843	68,460,635	68,220,078	69,352,394	71,071,227	72,067,576	70,907,942	70,785,304				
2007	13,739,955	24,123,942	33,290,876	36,384,393	44,818,917	48,210,181	51,005,251	55,408,083	64,549,609	61,495,080	65,367,867	67,747,529	69,005,971	69,954,073	71,722,905	72,779,855	73,460,103					
2008	11,732,887	22,321,213	28,498,827	31,596,587	37,456,593	41,081,096	46,091,810	58,565,812	59,722,048	63,872,532	62,730,103	63,768,937	65,518,771	66,698,293	69,954,360	71,708,098						
2009	13,434,057	22,529,899	29,478,107	34,149,352	36,165,529	38,621,560	50,552,788	52,465,812	57,539,988	60,119,741	61,795,493	65,806,512	66,671,553	68,244,911	69,146,496							
2010	11,737,393	28,361,233	30,618,626	33,702,371	39,219,108	55,050,689	58,648,137	70,545,395	74,093,606	80,026,930	86,608,542	88,067,481	89,244,227	90,444,363								
2011	11,962,886	23,865,379	29,293,332	38,881,325	44,816,562	49,369,759	55,004,844	61,274,577	71,413,923	80,546,650	82,464,904	83,698,469	84,426,128									
2012	12,680,327	24,879,529	31,797,701	36,689,995	40,774,415	45,276,456	49,787,944	61,667,567	86,053,713	81,833,693	78,756,057	80,300,301										
2013	12,532,301	22,583,021	32,108,902	35,167,293	39,832,742	43,090,872	48,811,020	70,552,684	71,205,566	67,008,377	67,573,871											
2014	7,034,738	16,538,309	25,503,604	29,076,255	35,574,262	38,370,838	63,621,961	71,008,439	73,223,513	71,092,172												
2015	9,241,872	18,247,834	29,774,581	34,606,382	60,472,151	71,485,367	77,523,420	82,577,147	84,371,388													
2016	9,127,243	20,110,374	27,148,016	31,034,346	60,016,266	75,431,117	86,137,347	88,555,719														
2017	9,734,088	19,288,609	28,391,228	31,974,032	64,951,511	80,728,064	85,589,951															
2018	8,551,949	16,253,842	25,135,728	29,055,731	59,194,942	70,852,707																
2019	7,694,118	17,227,797	26,584,134	31,998,846																		
2020	7,197,382	13,208,731																				

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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	2,214,389	5,960,273	10,409,683	12,401,492	13,827,217	14,991,999	17,385,235	19,114,372	20,582,453	21,943,001	23,352,347	24,633,539	26,015,431	27,521,352	28,855,024	30,076,077	31,612,390	33,004,256	34,269,278	35,554,157	36,845,230	38,133,182
2003	2,302,120	6,274,124	10,401,405	12,249,968	14,141,419	15,411,843	17,754,467	19,423,585	21,338,687	23,074,263	24,403,949	25,765,823	27,483,530	29,016,476	30,683,635	32,301,913	33,633,342	34,893,356	36,098,257	37,300,008	38,414,104	
2004	2,149,645	5,949,307	9,744,965	11,326,146	12,971,026	13,981,363	16,039,516	17,876,524	19,398,086	20,761,874	22,044,312	23,195,121	24,414,814	25,701,964	26,843,934	27,928,978	28,991,237	30,030,441	31,017,183	32,097,187		
2005	2,421,716	6,712,035	11,137,092	13,050,812	15,202,734	16,549,179	19,119,946	21,170,780	22,958,987	24,354,440	26,118,183	27,808,557	29,715,066	31,264,361	32,762,635	34,312,036	35,279,077	36,698,417	38,461,580			
2006	2,475,031	7,096,339	12,300,249	14,355,680	16,643,687	18,015,417	21,092,510	23,795,176	26,178,616	29,119,706	31,785,031	34,134,078	36,379,358	38,644,319	40,591,875	42,427,502	44,141,489	45,798,886				
2007	2,640,677	7,555,553	13,109,106	15,194,783	18,007,477	19,619,312	22,658,982	25,907,961	29,062,947	31,582,189	34,439,643	36,399,710	38,407,467	40,252,378	42,138,098	43,909,962	46,148,354					
2008	3,067,864	8,054,076	13,901,047	16,215,515	18,762,001	20,407,347	24,029,387	27,592,404	30,285,190	32,588,548	34,720,976	36,614,605	38,627,913	40,236,890	42,105,193	44,148,114						
2009	3,212,033	8,333,876	13,803,649	16,171,208	18,742,522	20,272,758	23,678,990	26,673,910	29,260,810	31,642,351	33,934,876	36,028,271	37,979,546	39,996,353	42,181,317							
2010	3,577,749	9,550,590	16,316,707	19,502,377	22,873,478	24,936,578	29,143,832	33,198,267	36,658,009	40,143,122	43,074,682	46,129,318	48,731,786	51,523,014								
2011	3,050,064	8,686,262	15,508,483	18,327,535	21,785,433	23,735,909	28,410,404	31,974,609	34,971,561	37,970,941	40,550,563	43,133,991	45,593,922									
2012	3,820,815	9,717,787	16,751,188	19,589,858	23,070,139	25,268,743	29,736,952	33,775,063	37,444,358	40,314,350	42,682,087	44,910,893										
2013	3,484,285	9,123,177	15,369,565	17,906,303	20,981,578	22,862,408	26,840,898	30,327,378	33,094,434	35,165,861	37,475,849											
2014	2,612,249	7,989,429	13,823,178	16,132,826	18,989,072	20,825,635	24,547,986	27,711,373	30,495,524	32,922,540												
2015	3,148,342	9,057,123	15,746,387	18,768,480	22,206,608	24,265,630	28,696,649	32,562,814	36,074,154													
2016	3,636,628	9,953,923	16,694,743	19,743,539	23,470,381	25,654,843	30,607,911	35,055,883														
2017	4,009,426	10,853,966	18,051,525	21,216,180	24,896,225	27,393,512	32,594,319															
2018	4,083,223	10,675,354	17,513,950	20,292,709	23,563,524	25,584,453																
2019	3,296,340	9,442,483	15,841,214	18,151,532																		
2020	2,987,900	7,867,051																				

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	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	
2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	11,401,631	27,819,057	47,214,069	54,312,296	59,344,062	61,909,191	58,977,746	57,333,317	59,715,022	59,603,361	60,068,375	61,147,292	61,666,808	62,390,748	61,752,205	60,350,314	61,781,072	62,679,154	64,082,831	64,406,919	64,949,400	64,687,626
2003	24,331,225	55,011,455	78,343,043	80,697,658	66,471,873	66,663,491	60,262,957	58,598,829	58,889,233	58,331,028	58,250,209	58,000,939	63,106,249	63,378,009	61,855,470	62,555,346	63,464,711	63,135,794	63,146,643	62,704,122	62,696,057	
2004	15,433,975	29,468,958	38,393,545	43,753,694	48,820,048	54,924,251	55,499,808	57,450,031	56,466,242	57,348,967	55,587,820	56,083,324	54,074,491	54,799,842	54,893,882	54,557,920	56,017,614	55,056,092	55,179,119	55,422,043		
2005	22,469,407	44,693,109	54,836,166	59,155,108	66,654,234	71,528,218	64,453,843	66,319,068	65,537,389	64,041,379	64,911,804	63,146,146	64,136,758	63,993,606	65,093,361	65,345,132	65,389,865	64,310,184	63,792,191			
2006	24,610,396	49,315,164	66,903,458	71,418,505	72,041,008	72,628,238	70,863,546	72,195,932	71,139,335	77,177,625	79,985,905	79,730,582	78,756,504	79,565,359	80,969,853	81,502,720	79,560,270	78,848,771				
2007	17,287,574	30,352,679	41,251,587	45,067,523	54,650,161	58,739,325	61,883,887	66,849,597	76,381,385	72,265,438	75,839,594	77,794,846	78,746,060	79,331,773	80,686,889	81,011,200	81,056,310					
2008	14,472,831	27,533,814	34,587,067	38,322,326	45,235,526	49,579,862	55,341,385	68,977,963	69,728,656	73,623,204	71,728,181	72,485,822	73,972,480	74,757,376	77,408,988	78,550,044						
2009	16,198,699	27,166,407	35,392,450	40,991,414	43,217,806	46,138,246	59,276,832	60,961,977	65,972,656	68,201,140	69,639,413	73,522,903	73,929,969	74,804,861	75,084,977							
2010	14,068,461	33,993,828	36,499,130	40,165,978	46,043,008	64,319,865	67,860,068	80,365,947	83,463,116	89,375,779	95,828,825	96,627,475	96,758,589	97,067,451								
2011	14,224,938	28,378,064	34,118,687	45,187,598	51,557,984	56,731,669	62,369,840	68,659,331	79,211,958	88,427,800	89,723,664	89,913,456	89,748,697									
2012	14,638,874	28,722,310	36,307,611	41,866,603	45,989,455	50,994,892	55,502,535	68,051,098	93,619,615	88,384,201	84,178,038	84,928,655										
2013	14,240,142	25,660,525	35,922,318	39,322,684	44,055,252	47,610,147	53,515,596	76,351,505	76,361,223	71,097,956	70,962,915											
2014	7,821,329	18,387,544	27,992,215	31,890,280	38,728,626	41,743,747	68,376,032	75,458,827	76,616,393	73,545,036												
2015	10,083,664	19,909,931	32,218,550	37,427,940	64,738,024	76,459,508	81,993,230	85,910,615	86,604,541													
2016	9,840,508	21,681,936	29,031,650	33,167,913	63,338,680	79,486,507	89,156,490	90,353,215														
2017	10,360,095	20,529,075	29,923,152	33,676,319	67,104,439	83,228,076	86,916,603															
2018	8,958,594	17,026,712	25,961,470	29,967,713	59,914,136	71,571,902																
2019	7,863,389	17,606,809	26,791,869	32,206,580																		
2020	7,197,382	13,208,731																				

\*Prior years' figures indexed to current benefit level

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	7	12	19	24	31	36	48	60	72	84
2002	11,402	27,819	47,214	54,312	59,344	61,909	58,978	57,333	59,715	59,603
2003	24,331	55,011	78,343	80,698	66,472	66,663	60,263	58,599	58,889	58,331
2004	15,434	29,469	38,394	43,754	48,820	54,924	55,500	57,450	56,466	57,349
2005	22,469	44,693	54,836	59,155	66,654	71,528	64,454	66,319	65,537	64,041
2006	24,610	49,315	66,903	71,419	72,041	72,628	70,864	72,196	71,139	77,178
2007	17,288	30,353	41,252	45,068	54,650	58,739	61,884	66,850	76,381	72,265
2008	14,473	27,534	34,587	38,322	45,236	49,580	55,341	68,978	69,729	73,623
2009	16,199	27,166	35,392	40,991	43,218	46,138	59,277	60,962	65,973	68,201
2010	14,068	33,994	36,499	40,166	46,043	64,320	67,860	80,366	83,463	89,376
2011	14,225	28,378	34,119	45,188	51,558	56,732	62,370	68,659	79,212	88,428
2012	14,639	28,722	36,308	41,867	45,989	50,995	55,503	68,051	93,620	88,384
2013	14,240	25,661	35,922	39,323	44,055	47,610	53,516	76,352	76,361	71,098
2014	7,821	18,388	27,992	31,890	38,729	41,744	68,376	75,459	76,616	73,545
2015	10,084	19,910	32,219	37,428	64,738	76,460	81,993	85,911	86,605	
2016	9,841	21,682	29,032	33,168	63,339	79,487	89,156	90,353		
2017	10,360	20,529	29,923	33,676	67,104	83,228	86,917			
2018	8,959	17,027	25,961	29,968	59,914	71,572				
2019	7,863	17,607	26,792	32,207						
2020	7,197	13,209								
Insurance Year	7-12	12-19	19-24	24-31	31-36	36-48	48-60	60-72	72-84	84-96
2002	2.4399	1.6972	1.1503	1.0926	1.0432	0.9526	0.9721	1.0415	0.9981	1.0078
2003	2.2609	1.4241	1.0301	0.8237	1.0029	0.9040	0.9724	1.0050	0.9905	0.9986
2004	1.9094	1.3028	1.1396	1.1158	1.1250	1.0105	1.0351	0.9829	1.0156	0.9693
2005	1.9891	1.2269	1.0788	1.1268	1.0731	0.9011	1.0289	0.9882	0.9772	1.0136
2006	2.0038	1.3567	1.0675	1.0087	1.0082	0.9757	1.0188	0.9854	1.0849	1.0364
2007	1.7558	1.3591	1.0925	1.2126	1.0748	1.0535	1.0802	1.1426	0.9461	1.0495
2008	1.9024	1.2562	1.1080	1.1804	1.0960	1.1162	1.2464	1.0109	1.0559	0.9743
2009	1.6771	1.3028	1.1582	1.0543	1.0676	1.2848	1.0284	1.0822	1.0338	1.0211
2010	2.4163	1.0737	1.1005	1.1463	1.3970	1.0550	1.1843	1.0385	1.0708	1.0722
2011	1.9950	1.2023	1.3244	1.1410	1.1003	1.0994	1.1008	1.1537	1.1163	1.0147
2012	1.9621	1.2641	1.1531	1.0985	1.1088	1.0884	1.2261	1.3757	0.9441	0.9524
2013	1.8020	1.3999	1.0947	1.1204	1.0807	1.1240	1.4267	1.0001	0.9311	0.9981
2014	2.3509	1.5223	1.1393	1.2144	1.0779	1.6380	1.1036	1.0153	0.9599	
2015	1.9745	1.6182	1.1617	1.7297	1.1811	1.0724	1.0478	1.0081		
2016	2.2033	1.3390	1.1425	1.9096	1.2549	1.1217	1.0134			
2017	1.9816	1.4576	1.1254	1.9926	1.2403	1.0443				
2018	1.9006	1.5247	1.1543	1.9993	1.1946					
2019	2.2391	1.5217	1.2021							
Latest 9 Volume Weighted	2.0080	1.4061	1.1669	1.4473	1.1883	1.1431	1.1377	1.0865	1.0139	1.0147
Latest 6 Volume Weighted	2.0250	1.4931	1.1537	1.6446	1.1842	1.1474	1.1311	1.0903	1.0080	1.0062
Latest 3 Volume Weighted	1.9918	1.4988	1.1593	1.9663	1.2308	1.0790	1.0509	1.0078	0.9450	0.9877
Simple Average of Middle 4 of Last 6	2.0996	1.5066	1.1494	1.7116	1.1742	1.1016	1.1196	1.0539	1.0022	1.0020
Simple Average of Middle 3 of Last 5	2.0531	1.5013	1.1528	1.8773	1.2053	1.1060	1.1258	1.0590	0.9916	1.0113
Selected March 20										
Selected Oct 20	2.1000	1.5000	1.1500	2.0000	1.1800	1.0720	1.0370	1.0115	1.0000	1.0000
Selected Factors*	2.1000	1.5000	1.1500	2.0000	1.1800	1.0720	1.0370	1.0115	1.0000	1.0000
Selected Ultimate	10.1406	4.8288	3.2192	2.7993	1.3997	1.1862	1.1065	1.0670	1.0549	1.0549

\*216-Ult Factor = [Tab Rsv 120-Ult] / Product [120-132 Factor to 204-216 Factor]

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Evaluation in Months											
96	108	120	132	144	156	168	180	192	204	216	228
60,068	61,147	61,667	62,391	61,752	60,350	61,781	62,679	64,083	64,407	64,949	64,688
58,250	58,001	63,106	63,378	61,855	62,555	63,465	63,136	63,147	62,704	62,696	
55,588	56,083	54,074	54,800	54,894	54,558	56,018	55,056	55,179	55,422		
64,912	63,146	64,137	63,994	65,093	65,345	65,390	64,310	63,792			
79,986	79,731	78,757	79,565	80,970	81,503	79,560	78,849				
75,840	77,795	78,746	79,332	80,687	81,011	81,056					
71,728	72,486	73,972	74,757	77,409	78,550						
69,639	73,523	73,930	74,805	75,085							
95,829	96,627	96,759	97,067								
89,724	89,913	89,749									
84,178	84,929										
70,963											

96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-Ult	Tab Rsv 120-Ult
1.0180	1.0085	1.0117	0.9898	0.9773	1.0237	1.0145	1.0224	1.0051	1.0084	0.9960	1.0598
0.9957	1.0880	1.0043	0.9760	1.0113	1.0145	0.9948	1.0002	0.9930	0.9999		1.0046
1.0089	0.9642	1.0134	1.0017	0.9939	1.0268	0.9828	1.0022	1.0044			1.0402
0.9728	1.0157	0.9978	1.0172	1.0039	1.0007	0.9835	0.9919				1.0119
0.9968	0.9878	1.0103	1.0177	1.0066	0.9762	0.9911					1.0205
1.0258	1.0122	1.0074	1.0171	1.0040	1.0006						1.0490
1.0106	1.0205	1.0106	1.0355	1.0147							1.0873
1.0558	1.0055	1.0118	1.0037								1.0453
1.0083	1.0014	1.0032									1.0277
1.0021	0.9982										
1.0089											
1.0099	1.0089	1.0077	1.0085	1.0025	1.0048	0.9933	1.0042	1.0007	1.0042	0.9960	1.0386
1.0171	1.0037	1.0069	1.0161	1.0062	1.0048	0.9933	1.0042	1.0007	1.0042	0.9960	1.0401
1.0064	1.0014	1.0080	1.0187	1.0084	0.9919	0.9863	0.9979	1.0007	1.0042	0.9960	1.0510
1.0134	1.0043	1.0079	1.0139	1.0064	1.0099	0.9898	1.0012	1.0044	1.0041	0.9960	1.0356
1.0093	1.0064	1.0094	1.0173	1.0048	1.0053	0.9898	1.0012	1.0044	1.0041	0.9960	1.0407
1.0000	1.0000	1.0005	1.0010	1.0010	1.0010	1.0010	1.0010	1.0010	1.0010	1.0470	1.0549
1.0000	1.0000	1.0005	1.0010	1.0010	1.0010	1.0010	1.0010	1.0010	1.0010	1.0470	1.0549
1.0549	1.0549	1.0549	1.0544	1.0533	1.0522	1.0512	1.0501	1.0491	1.0480	1.0470	

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**Reported Loss & ALAE Development Factors to Ultimate**

Months to Ultimate	Latest 9 Volume Weighted	Latest 6 Volume Weighted	Latest 3 Volume Weighted	Simple Average of Middle 4 of Last 6	Simple Average of Middle 3 of Last 5	Selected March 20 Factors	Selected Oct 20 Factors	Selected Factors
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7	8.5769	10.2772	9.1102	10.0364	11.1514		10.1406	10.1406
12	4.2714	5.0752	4.5738	4.7801	5.4314		4.8288	4.8288
19	3.0378	3.3991	3.0517	3.1728	3.6177		3.2192	3.2192
24	2.6033	2.9464	2.6322	2.7603	3.1381		2.7993	2.7993
31	1.7988	1.7916	1.3387	1.6127	1.6716		1.3997	1.3997
36	1.5137	1.5130	1.0877	1.3735	1.3869		1.1862	1.1862
48	1.3242	1.3186	1.0081	1.2468	1.2539		1.1065	1.1065
60	1.1639	1.1658	0.9592	1.1137	1.1138		1.0670	1.0670
72	1.0712	1.0692	0.9518	1.0567	1.0517		1.0549	1.0549
84	1.0566	1.0608	1.0072	1.0544	1.0606		1.0549	1.0549
96	1.0412	1.0543	1.0197	1.0523	1.0488		1.0549	1.0549
108	1.0310	1.0365	1.0132	1.0384	1.0391		1.0549	1.0549
120	1.0219	1.0326	1.0117	1.0339	1.0326		1.0549	1.0549
132	1.0142	1.0256	1.0037	1.0258	1.0229		1.0544	1.0544
144	1.0056	1.0093	0.9852	1.0117	1.0055		1.0533	1.0533
156	1.0031	1.0031	0.9770	1.0053	1.0007		1.0522	1.0522
168	0.9983	0.9983	0.9851	0.9954	0.9954		1.0512	1.0512
180	1.0050	1.0050	0.9987	1.0057	1.0057		1.0501	1.0501
192	1.0008	1.0008	1.0008	1.0045	1.0045		1.0491	1.0491
204	1.0002	1.0002	1.0002	1.0001	1.0001		1.0480	1.0480
216	0.9960	0.9960	0.9960	0.9960	0.9960		1.0470	1.0470

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**Interpolated Percentage of Ultimate Factors**

For October				For March					
Months of Devt	RTR Factors	Factor to Ultimate	Percentage Reported	Months of Devt	Percentage Reported	Factor to Ultimate	RTR Factors	Selected RTR Factors	Sel'd Factor to Ultimate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
7	2.1000	10.1422	9.86%	7		10.1422	2.1000	2.1000	10.1406
12	1.5000	4.8296		12	20.71%	4.8296	1.5000	1.5000	4.8288
19	1.1500	3.2198	31.06%	19		3.2198	1.1500	1.1500	3.2192
24	2.0000	2.7998		24	35.72%	2.7998	2.0000	2.0000	2.7993
31	1.1800	1.3999	71.43%	31		1.3999	1.1800	1.1800	1.3997
36	1.0500	1.1863		36	84.29%	1.1863	1.0719	1.0720	1.1862
43	1.0500	1.1299	88.51%	48	90.35%	1.1068	1.0371	1.0370	1.1065
55	1.0200	1.0761	92.93%	60	93.71%	1.0672	1.0116	1.0115	1.0670
67	1.0000	1.0550	94.79%	72	94.79%	1.0550	1.0000	1.0000	1.0549
79	1.0000	1.0550	94.79%	84	94.79%	1.0550	1.0000	1.0000	1.0549
91	1.0000	1.0550	94.79%	96	94.79%	1.0550	1.0000	1.0000	1.0549
103	1.0000	1.0550	94.79%	108	94.79%	1.0550	1.0000	1.0000	1.0549
115	1.0000	1.0550	94.79%	120	94.79%	1.0550	1.0004	1.0005	1.0549
127	1.0010	1.0550	94.79%	132	94.83%	1.0545	1.0010	1.0010	1.0544
139	1.0010	1.0539	94.89%	144	94.93%	1.0535	1.0010	1.0010	1.0533
151	1.0010	1.0528	94.98%	156	95.02%	1.0524	1.0010	1.0010	1.0522
163	1.0010	1.0518	95.08%	168	95.12%	1.0514	1.0010	1.0010	1.0512
175	1.0010	1.0507	95.17%	180	95.21%	1.0503	1.0010	1.0010	1.0501
187	1.0010	1.0497	95.27%	192	95.31%	1.0493	1.0010	1.0010	1.0491
199	1.0010	1.0486	95.36%	204	95.40%	1.0482	1.0010	1.0010	1.0480
Tail	1.0476	1.0476	95.46%	Tail	95.50%	1.0472	1.0472	1.0470	1.0470

Selected Development in 4th and Subsequent Years: 41.67%

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**Projected Ultimate Losses & ALAE Using the Development Method on Reported Loss & ALAE**

Insurance Year	Earned Premium	Restated Earned Premium	Reported Loss & ALAE	Development Factor to Ultimate	Ultimate Losses	IBNR	Case Reserves	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2003	563,789	770,829	62,696	1.0470	65,643	2,947	15,432	8.52%
2004	598,905	804,362	55,422	1.0480	58,085	2,663	16,229	7.22%
2005	632,408	832,705	63,792	1.0491	66,924	3,132	17,721	8.04%
2006	656,746	842,017	78,849	1.0501	82,803	3,954	24,986	9.83%
2007	679,930	855,486	81,056	1.0512	85,206	4,150	27,312	9.96%
2008	709,787	875,541	78,550	1.0522	82,654	4,104	27,560	9.44%
2009	741,553	894,160	75,085	1.0533	79,087	4,002	26,965	8.84%
2010	761,034	912,177	97,067	1.0544	102,343	5,276	38,921	11.22%
2011	772,649	918,749	89,749	1.0549	94,674	4,925	38,832	10.30%
2012	769,715	888,601	84,929	1.0549	89,589	4,661	35,389	10.08%
2013	781,394	887,878	70,963	1.0549	74,857	3,894	30,098	8.43%
2014	822,358	914,310	73,545	1.0549	77,581	4,036	38,170	8.49%
2015	877,262	957,167	86,605	1.0549	91,357	4,753	48,297	9.54%
2016	923,168	995,311	90,353	1.0670	96,408	6,055	53,500	9.69%
2017	977,104	1,039,942	86,917	1.1065	96,172	9,256	52,996	9.25%
2018	1,044,467	1,094,131	71,572	1.1862	84,895	13,324	45,268	7.76%
2019	1,099,731	1,123,925	32,207	2.7993	90,157	57,950	13,847	8.02%
2020	1,134,690	1,134,690	13,209	4.8288	63,783	50,574	5,342	5.62%
	14,546,690	16,741,981	1,292,565		1,482,218	189,653	556,865	8.85%

Notes:

(3) Indexed to match the indexing done on losses

(9) = (6) / (3)

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**Development of Bornhuetter-Ferguson Initial Expected Loss Ratio**

Insurance Year	Restated Earned Premium	Projected Ultimate Losses	Based on Prior Year	Based on 2nd Prior Year	Based on 3rd Prior Year	Fitted Ultimate Losses	Fitted Ultimate Loss Ratio	Projected Ultimate Loss Ratio	Weight	Weighted Initial Ult Loss Ratio	Selected Initial Ult Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
2003	770,829	65,643				65,643	8.52%	8.52%	100.00%	8.52%	8.52%
2004	804,362	58,085	66,627			66,627	8.28%	7.22%	100.00%	7.22%	7.22%
2005	832,705	66,924	58,956	67,627		63,292	7.60%	8.04%	100.00%	8.04%	8.04%
2006	842,017	82,803	67,928	59,841	68,641	65,470	7.78%	9.83%	100.00%	9.83%	9.83%
2007	855,486	85,206	84,045	68,947	60,738	71,243	8.33%	9.96%	100.00%	9.96%	9.96%
2008	875,541	82,654	86,484	85,305	69,981	80,590	9.20%	9.44%	100.00%	9.44%	9.44%
2009	894,160	79,087	83,894	87,781	86,585	86,087	9.63%	8.84%	100.00%	8.84%	8.84%
2010	912,177	102,343	80,273	85,152	89,098	84,841	9.30%	11.22%	100.00%	11.22%	11.22%
2011	918,749	94,674	103,878	81,477	86,429	90,595	9.86%	10.30%	100.00%	10.30%	10.30%
2012	888,601	89,589	96,094	105,436	82,699	94,743	10.66%	10.08%	100.00%	10.08%	10.08%
2013	887,878	74,857	90,933	97,535	107,018	98,496	11.09%	8.43%	100.00%	8.43%	8.43%
2014	914,310	77,581	75,980	92,297	98,998	89,092	9.74%	8.49%	100.00%	8.49%	8.49%
2015	957,167	91,357	78,745	77,120	93,682	83,182	8.69%	9.54%	100.00%	9.54%	9.54%
2016	995,311	96,408	92,728	79,926	78,277	83,643	8.40%	9.69%	75.00%	9.37%	9.37%
2017	1,039,942	96,172	97,854	94,119	81,125	91,032	8.75%	9.25%	50.00%	9.00%	9.00%
2018	1,094,131	84,895	97,615	99,322	95,530	97,489	8.91%	7.76%	25.00%	8.62%	8.62%
2019	1,123,925	90,157	86,169	99,079	100,811	95,353	8.48%	8.02%	25.00%	8.37%	8.37%
2020	1,134,690	63,783	91,509	87,461	100,565	93,179	8.21%	5.62%	75.00%	6.27%	6.27%
	16,741,981	1,482,218	1,439,712	1,368,426	1,300,179	1,500,597					

**Trend in Losses Based on Exponential Regression (a):**

**1.20%**

**Selected Trend (b):**

**1.50%**

Notes:

- (3) Ultimate Losses from Page 9
- (7) = Average [(4), (5), (6)]
- (11) = (9) \* (10) + (8) \* [1 - (10)]
- (a) Based on the Projected Ultimate Losses
- (b) Selected Trend from Page 18

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**Projected Ultimate Losses and ALAE Using the Bornhuetter-Ferguson Method on Reported Loss & ALAE**

Insurance Year	Restated	Selected	Initial	Expected Percentage:		Expected	Actual	Expected	Estimated	Estimated
	Earned Premium	Initial Ult Loss Ratio	Expected Ult Losses	Reported	Unreported	Reported Loss	Reported Loss	Unreported Loss	Ultimate Losses	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2003	770,829	8.52%	65,643	95.51%	4.49%	62,696	62,696	2,947	65,643	8.52%
2004	804,362	7.22%	58,085	95.42%	4.58%	55,422	55,422	2,663	58,085	7.22%
2005	832,705	8.04%	66,924	95.32%	4.68%	63,792	63,792	3,132	66,924	8.04%
2006	842,017	9.83%	82,803	95.23%	4.77%	78,849	78,849	3,954	82,803	9.83%
2007	855,486	9.96%	85,206	95.13%	4.87%	81,056	81,056	4,150	85,206	9.96%
2008	875,541	9.44%	82,654	95.03%	4.97%	78,550	78,550	4,104	82,654	9.44%
2009	894,160	8.84%	79,087	94.94%	5.06%	75,085	75,085	4,002	79,087	8.84%
2010	912,177	11.22%	102,343	94.85%	5.15%	97,067	97,067	5,276	102,343	11.22%
2011	918,749	10.30%	94,674	94.80%	5.20%	89,749	89,749	4,925	94,674	10.30%
2012	888,601	10.08%	89,589	94.80%	5.20%	84,929	84,929	4,661	89,589	10.08%
2013	887,878	8.43%	74,857	94.80%	5.20%	70,963	70,963	3,894	74,857	8.43%
2014	914,310	8.49%	77,581	94.80%	5.20%	73,545	73,545	4,036	77,581	8.49%
2015	957,167	9.54%	91,357	94.80%	5.20%	86,605	86,605	4,753	91,357	9.54%
2016	995,311	9.37%	93,217	93.72%	6.28%	87,363	90,353	5,854	96,207	9.67%
2017	1,039,942	9.00%	93,602	90.38%	9.62%	84,594	86,917	9,008	95,925	9.22%
2018	1,094,131	8.62%	94,341	84.31%	15.69%	79,535	71,572	14,806	86,378	7.89%
2019	1,123,925	8.37%	94,054	35.72%	64.28%	33,599	32,207	60,455	92,662	8.24%
2020	1,134,690	6.27%	71,132	20.71%	79.29%	14,731	13,209	56,401	69,610	6.13%
	16,741,981		1,497,148			1,298,128	1,292,565	199,020	1,491,585	8.91%

Notes:

(10) = (8) + (9)



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Insurance Year (April-March)	Evaluation in Months																						
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	
2002	3,076,019	8,279,444	14,362,808	17,086,068	19,000,893	20,565,259	23,716,481	25,933,412	27,780,547	29,458,820	31,158,200	32,693,839	34,337,032	36,075,551	37,590,969	38,948,555	40,624,802	42,125,438	43,471,814	44,817,789	46,137,266	47,425,218	
2003	3,147,525	8,578,166	14,121,328	16,604,048	19,094,559	20,767,352	23,770,838	25,870,917	28,233,247	30,325,993	31,919,757	33,539,148	35,522,164	37,264,012	39,117,585	40,883,263	42,318,739	43,659,786	44,921,979	46,150,169	47,264,265		
2004	2,887,090	7,990,242	12,988,061	15,070,032	17,178,938	18,474,294	21,063,857	23,329,856	25,164,546	26,799,185	28,324,117	29,652,675	31,038,582	32,469,655	33,715,641	34,885,478	36,016,051	37,104,670	38,113,120	39,193,124			
2005	3,188,721	8,837,870	14,511,248	16,964,835	19,672,378	21,366,471	24,537,581	27,010,464	29,153,813	30,813,130	32,849,293	34,770,023	36,889,709	38,580,120	40,195,480	41,844,524	42,857,548	44,308,113	46,071,276				
2006	3,173,245	9,098,238	15,645,783	18,231,921	21,054,240	22,746,305	26,456,645	29,696,065	32,530,187	35,925,545	38,954,088	41,565,793	44,015,584	46,457,545	48,530,350	50,453,260	52,204,955	53,862,353					
2007	3,322,492	9,506,376	16,356,833	18,929,572	22,321,100	24,264,640	27,907,994	31,771,320	35,413,611	38,276,163	41,453,124	43,591,723	45,756,380	47,719,939	49,695,324	51,506,170	53,744,562						
2008	3,784,293	9,934,919	16,985,158	19,775,929	22,828,151	24,800,267	29,107,195	33,220,541	36,280,286	38,841,194	41,167,854	43,209,464	45,352,249	47,037,733	48,947,139	50,990,059							
2009	3,873,049	10,048,934	16,605,014	19,442,775	22,500,297	24,319,884	28,252,228	31,655,280	34,531,436	37,129,898	39,601,576	41,829,600	43,873,658	45,934,834	48,119,799								
2010	4,288,297	11,447,356	19,492,873	23,280,918	27,172,704	29,554,462	34,335,059	38,842,843	42,617,713	46,375,177	49,495,268	52,695,152	55,354,874	58,146,102									
2011	3,626,799	10,328,741	18,204,691	21,459,161	25,388,285	27,604,563	32,801,738	36,690,587	39,921,741	43,114,013	45,816,297	48,456,559	50,916,491										
2012	4,410,961	11,218,754	19,210,631	22,436,142	26,305,572	28,750,013	33,625,206	37,978,884	41,884,154	44,890,614	47,310,441	49,539,247											
2013	3,959,107	10,366,439	17,311,268	20,131,652	23,487,037	25,539,182	29,828,579	33,539,277	36,437,906	38,554,904	40,864,893												
2014	2,904,339	8,882,768	15,247,883	17,767,904	20,847,356	22,827,441	26,789,179	30,102,985	32,948,388	35,375,404													
2015	3,435,107	9,882,087	17,094,097	20,352,356	24,011,593	26,203,033	30,844,746	34,795,967	38,307,307														
2016	3,920,818	10,731,791	17,906,118	21,150,985	25,055,038	27,343,371	32,405,407	36,853,379															
2017	4,267,276	11,551,993	19,091,796	22,406,930	26,167,937	28,720,164	33,920,971																
2018	4,277,381	11,182,967	18,172,012	21,011,904	24,282,719	26,303,648																	
2019	3,368,860	9,650,217	16,048,948	18,359,266																			
2020	2,987,900	7,867,051																					

\*Prior years' figures indexed to current benefit level

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Insurance Year	Evaluation in Months									
	7	12	19	24	31	36	48	60	72	84
2002	3,076	8,279	14,363	17,086	19,001	20,565	23,716	25,933	27,781	29,459
2003	3,148	8,578	14,121	16,604	19,095	20,767	23,771	25,871	28,233	30,326
2004	2,887	7,990	12,988	15,070	17,179	18,474	21,064	23,330	25,165	26,799
2005	3,189	8,838	14,511	16,965	19,672	21,366	24,538	27,010	29,154	30,813
2006	3,173	9,098	15,646	18,232	21,054	22,746	26,457	29,696	32,530	35,926
2007	3,322	9,506	16,357	18,930	22,321	24,265	27,908	31,771	35,414	38,276
2008	3,784	9,935	16,985	19,776	22,828	24,800	29,107	33,221	36,280	38,841
2009	3,873	10,049	16,605	19,443	22,500	24,320	28,252	31,655	34,531	37,130
2010	4,288	11,447	19,493	23,281	27,173	29,554	34,335	38,843	42,618	46,375
2011	3,627	10,329	18,205	21,459	25,388	27,605	32,802	36,691	39,922	43,114
2012	4,411	11,219	19,211	22,436	26,306	28,750	33,625	37,979	41,884	44,891
2013	3,959	10,366	17,311	20,132	23,487	25,539	29,829	33,539	36,438	38,555
2014	2,904	8,883	15,248	17,768	20,847	22,827	26,789	30,103	32,948	35,375
2015	3,435	9,882	17,094	20,352	24,012	26,203	30,845	34,796	38,307	
2016	3,921	10,732	17,906	21,151	25,055	27,343	32,405	36,853		
2017	4,267	11,552	19,092	22,407	26,168	28,720	33,921			
2018	4,277	11,183	18,172	21,012	24,283	26,304				
2019	3,369	9,650	16,049	18,359						
2020	2,988	7,867								

Insurance Year	7-12	12-19	19-24	24-31	31-36	36-48	48-60	60-72	72-84	84-96
2002	2.6916	1.7348	1.1896	1.1121	1.0823	1.1532	1.0935	1.0712	1.0604	1.0577
2003	2.7254	1.6462	1.1758	1.1500	1.0876	1.1446	1.0883	1.0913	1.0741	1.0526
2004	2.7676	1.6255	1.1603	1.1399	1.0754	1.1402	1.1076	1.0786	1.0650	1.0569
2005	2.7716	1.6419	1.1691	1.1596	1.0861	1.1484	1.1008	1.0794	1.0569	1.0661
2006	2.8672	1.7196	1.1653	1.1548	1.0804	1.1631	1.1224	1.0954	1.1044	1.0843
2007	2.8612	1.7206	1.1573	1.1792	1.0871	1.1502	1.1384	1.1146	1.0808	1.0830
2008	2.6253	1.7096	1.1643	1.1543	1.0864	1.1737	1.1413	1.0921	1.0706	1.0599
2009	2.5946	1.6524	1.1709	1.1573	1.0809	1.1617	1.1205	1.0909	1.0752	1.0666
2010	2.6694	1.7028	1.1943	1.1672	1.0877	1.1618	1.1313	1.0972	1.0882	1.0673
2011	2.8479	1.7625	1.1788	1.1831	1.0873	1.1883	1.1186	1.0881	1.0800	1.0627
2012	2.5434	1.7124	1.1679	1.1725	1.0929	1.1696	1.1295	1.1028	1.0718	1.0539
2013	2.6184	1.6699	1.1629	1.1667	1.0874	1.1680	1.1244	1.0864	1.0581	1.0599
2014	3.0584	1.7166	1.1653	1.1733	1.0950	1.1736	1.1237	1.0945	1.0737	
2015	2.8768	1.7298	1.1906	1.1798	1.0913	1.1771	1.1281	1.1009		
2016	2.7371	1.6685	1.1812	1.1846	1.0913	1.1851	1.1373			
2017	2.7071	1.6527	1.1736	1.1679	1.0975	1.1811				
2018	2.6144	1.6250	1.1563	1.1557	1.0832					
2019	2.8645	1.6631	1.1440							

Latest 9 Volume Weighted	2.7238	1.6876	1.1692	1.1722	1.0904	1.1741	1.1284	1.0964	1.0779	1.0667
Latest 6 Volume Weighted	2.7347	1.6735	1.1689	1.1712	1.0910	1.1759	1.1270	1.0951	1.0749	1.0617
Latest 3 Volume Weighted	2.6989	1.6462	1.1588	1.1694	1.0909	1.1812	1.1301	1.0940	1.0679	1.0587
Simple Average of Middle 4 of Last 6	2.7964	1.6752	1.1691	1.1719	1.0912	1.1753	1.1264	1.0952	1.0752	1.0623
Simple Average of Middle 3 of Last 5	2.7696	1.6614	1.1704	1.1737	1.0925	1.1773	1.1273	1.0945	1.0751	1.0631
Selected March 20										
Selected Oct 20	2.8000	1.6800	1.1720	1.1720	1.0930	1.1815	1.1260	1.0955	1.0755	1.0635
Selected Factors*	2.8000	1.6800	1.1720	1.1720	1.0930	1.1815	1.1260	1.0955	1.0755	1.0635
Selected Ultimate	23.5403	8.4073	5.0043	4.2699	3.6433	3.3333	2.8212	2.5055	2.2871	2.1265

\*216-Ult Factor = [Tab Rsv 120-Ult] / Product [120-132 Factor to 204-216 Factor]

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Evaluation in Months											
96	108	120	132	144	156	168	180	192	204	216	228
31,158	32,694	34,337	36,076	37,591	38,949	40,625	42,125	43,472	44,818	46,137	47,425
31,920	33,539	35,522	37,264	39,118	40,883	42,319	43,660	44,922	46,150	47,264	
28,324	29,653	31,039	32,470	33,716	34,885	36,016	37,105	38,113	39,193		
32,849	34,770	36,890	38,580	40,195	41,845	42,858	44,308	46,071			
38,954	41,566	44,016	46,458	48,530	50,453	52,205	53,862				
41,453	43,592	45,756	47,720	49,695	51,506	53,745					
41,168	43,209	45,352	47,038	48,947	50,990						
39,602	41,830	43,874	45,935	48,120							
49,495	52,695	55,355	58,146								
45,816	48,457	50,916									
47,310	49,539										
40,865											

											Tab Rsv
96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-Ult	120-Ult
1.0493	1.0503	1.0506	1.0420	1.0361	1.0430	1.0369	1.0320	1.0310	1.0294	1.0279	1.9034
1.0507	1.0591	1.0490	1.0497	1.0451	1.0351	1.0317	1.0289	1.0273	1.0241		1.7847
1.0469	1.0467	1.0461	1.0384	1.0347	1.0324	1.0302	1.0272	1.0283			1.8122
1.0585	1.0610	1.0458	1.0419	1.0410	1.0242	1.0338	1.0398				1.7592
1.0670	1.0589	1.0555	1.0446	1.0396	1.0347	1.0317					1.8260
1.0516	1.0497	1.0429	1.0414	1.0364	1.0435						1.8053
1.0496	1.0496	1.0372	1.0406	1.0417							1.7734
1.0563	1.0489	1.0470	1.0476								1.7614
1.0647	1.0505	1.0504									1.7964
1.0576	1.0508										
1.0471											
1.0557	1.0526	1.0471	1.0434	1.0394	1.0358	1.0329	1.0322	1.0289	1.0268	1.0279	1.8005
1.0547	1.0513	1.0466	1.0426	1.0398	1.0358	1.0329	1.0322	1.0289	1.0268	1.0279	1.7881
1.0566	1.0501	1.0452	1.0431	1.0393	1.0348	1.0320	1.0323	1.0289	1.0268	1.0279	1.7786
1.0538	1.0501	1.0465	1.0421	1.0397	1.0363	1.0324	1.0304	1.0283	1.0268	1.0279	1.7841
1.0545	1.0499	1.0468	1.0426	1.0390	1.0341	1.0324	1.0304	1.0283	1.0268	1.0279	1.7917
1.0585	1.0525	1.0470	1.0420	1.0405	1.0370	1.0330	1.0305	1.0275	1.0265	1.3580	1.7948
1.0585	1.0525	1.0470	1.0420	1.0405	1.0370	1.0330	1.0305	1.0275	1.0265	1.3580	1.7948
1.9996	1.8891	1.7948	1.7143	1.6452	1.5811	1.5247	1.4760	1.4323	1.3940	1.3580	

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**Paid Loss & ALAE Development Factors to Ultimate**

Months to Ultimate	Latest 9 Volume Weighted	Latest 6 Volume Weighted	Latest 3 Volume Weighted	Simple Average of Middle 4 of Last 6	Simple Average of Middle 3 of Last 5	Selected Feb 20 Factors	Selected Oct 20 Factors	Selected Factors
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7	17.3594	17.0776	16.3178	17.4140	17.1855		23.5403	23.5403
12	6.3732	6.2449	6.0462	6.2273	6.2051		8.4073	8.4073
19	3.7766	3.7316	3.6728	3.7173	3.7348		5.0043	5.0043
24	3.2299	3.1925	3.1695	3.1797	3.1911		4.2699	4.2699
31	2.7554	2.7257	2.7104	2.7132	2.7189		3.6433	3.6433
36	2.5270	2.4985	2.4847	2.4864	2.4887		3.3333	3.3333
48	2.1523	2.1248	2.1035	2.1155	2.1140		2.8212	2.8212
60	1.9074	1.8853	1.8614	1.8780	1.8752		2.5055	2.5055
72	1.7397	1.7215	1.7014	1.7148	1.7133		2.2871	2.2871
84	1.6139	1.6016	1.5933	1.5950	1.5936		2.1265	2.1265
96	1.5131	1.5085	1.5049	1.5015	1.4990		1.9996	1.9996
108	1.4332	1.4303	1.4244	1.4249	1.4216		1.8891	1.8891
120	1.3616	1.3605	1.3564	1.3568	1.3540		1.7948	1.7948
132	1.3003	1.3000	1.2977	1.2965	1.2935		1.7143	1.7143
144	1.2463	1.2469	1.2440	1.2441	1.2406		1.6452	1.6452
156	1.1991	1.1991	1.1971	1.1966	1.1940		1.5811	1.5811
168	1.1577	1.1577	1.1568	1.1547	1.1547		1.5247	1.5247
180	1.1208	1.1208	1.1209	1.1184	1.1184		1.4760	1.4760
192	1.0859	1.0859	1.0859	1.0854	1.0854		1.4323	1.4323
204	1.0554	1.0554	1.0554	1.0555	1.0555		1.3940	1.3940
216	1.0279	1.0279	1.0279	1.0279	1.0279		1.3580	1.3580

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**Interpolated Percentage of Ultimate Factors**

For October				For March					
Months of Devt	RTR Factors	Factor to Ultimate	Percentage Paid	Months of Devt	Percentage Paid	Factor to Ultimate	RTR Factors	Selected RTR Factors	Sel'd Factor to Ultimate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
7	2.8000	23.5570	4.25%	7		23.5570	2.8000	2.8000	23.5403
12	1.6800	8.4132		12	11.89%	8.4132	1.6800	1.6800	8.4073
19	1.1720	5.0079	19.97%	19		5.0079	1.1720	1.1720	5.0043
24	1.1720	4.2729		24	23.40%	4.2729	1.1720	1.1720	4.2699
31	1.0930	3.6458	27.43%	31		3.6458	1.0930	1.0930	3.6433
36	1.1150	3.3356		36	29.98%	3.3356	1.1814	1.1815	3.3333
43	1.1430	2.9916	33.43%	48	35.42%	2.8234	1.1259	1.1260	2.8212
55	1.1050	2.6173	38.21%	60	39.88%	2.5076	1.0957	1.0955	2.5055
67	1.0840	2.3686	42.22%	72	43.70%	2.2885	1.0757	1.0755	2.2871
79	1.0650	2.1851	45.77%	84	47.00%	2.1274	1.0637	1.0635	2.1265
91	1.0620	2.0517	48.74%	96	50.00%	2.0000	1.0585	1.0585	1.9996
103	1.0540	1.9319	51.76%	108	52.93%	1.8894	1.0523	1.0525	1.8891
115	1.0500	1.8329	54.56%	120	55.69%	1.7955	1.0470	1.0470	1.7948
127	1.0430	1.7457	57.28%	132	58.31%	1.7149	1.0421	1.0420	1.7143
139	1.0410	1.6737	59.75%	144	60.77%	1.6456	1.0406	1.0405	1.6452
151	1.0400	1.6078	62.20%	156	63.23%	1.5814	1.0370	1.0370	1.5811
163	1.0330	1.5459	64.69%	168	65.58%	1.5250	1.0330	1.0330	1.5247
175	1.0330	1.4966	66.82%	180	67.74%	1.4763	1.0307	1.0305	1.4760
187	1.0275	1.4487	69.03%	192	69.82%	1.4323	1.0273	1.0275	1.4323
199	1.0270	1.4100	70.92%	204	71.72%	1.3943	1.0267	1.0265	1.3940
Tail	1.3729	1.3729	72.84%	Tail	73.64%	1.3580	1.3580	1.3580	1.3580

Selected Development in 4th and Subsequent Years: 41.67%

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**Projected Ultimate Losses & ALAE Using the Development Method on Paid Loss & ALAE**

Insurance Year	Earned Premium	Restated Earned Premium	Paid Loss & ALAE	Development Factor to Ultimate	Ultimate Losses	Unpaid	Case Reserves	IBNR	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2003	563,789	770,829	47,264	1.3580	64,185	16,921	15,432	1,489	8.33%
2004	598,905	804,362	39,193	1.3940	54,635	15,442	16,229	(787)	6.79%
2005	632,408	832,705	46,071	1.4323	65,989	19,918	17,721	2,197	7.92%
2006	656,746	842,017	53,862	1.4760	79,501	25,639	24,986	653	9.44%
2007	679,930	855,486	53,745	1.5247	81,945	28,201	27,312	889	9.58%
2008	709,787	875,541	50,990	1.5811	80,622	29,632	27,560	2,072	9.21%
2009	741,553	894,160	48,120	1.6452	79,165	31,045	26,965	4,080	8.85%
2010	761,034	912,177	58,146	1.7143	99,678	41,532	38,921	2,611	10.93%
2011	772,649	918,749	50,916	1.7948	91,387	40,470	38,832	1,638	9.95%
2012	769,715	888,601	49,539	1.8891	93,583	44,043	35,389	8,654	10.53%
2013	781,394	887,878	40,865	1.9996	81,712	40,847	30,098	10,749	9.20%
2014	822,358	914,310	35,375	2.1265	75,227	39,852	38,170	1,682	8.23%
2015	877,262	957,167	38,307	2.2871	87,613	49,305	48,297	1,008	9.15%
2016	923,168	995,311	36,853	2.5055	92,337	55,483	53,500	1,983	9.28%
2017	977,104	1,039,942	33,921	2.8212	95,698	61,777	52,996	8,781	9.20%
2018	1,044,467	1,094,131	26,304	3.3333	87,677	61,373	45,268	16,105	8.01%
2019	1,099,731	1,123,925	18,359	4.2699	78,392	60,033	13,847	46,186	6.97%
2020	1,134,690	1,134,690	7,867	8.4073	66,140	58,273	5,342	52,931	5.83%
	14,546,690	16,741,981	735,699		1,455,486	719,786	556,865	162,921	8.69%

Notes:

- (3) Indexed to match the indexing done on losses
- (10) = (6) / (3)

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**Development of Bornhuetter-Ferguson Initial Expected Loss Ratio**

Insurance Year	Restated Earned Premium	Projected Ultimate Losses	Based on Prior Year	Based on 2nd Prior Year	Based on 3rd Prior Year	Fitted Ultimate Losses	Fitted Ultimate Loss Ratio	Projected Ultimate Loss Ratio	Weight	Weighted Initial Ult Loss Ratio	Selected Initial Ult Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
2003	770,829	64,185				64,185	8.33%	8.33%	100.00%	8.33%	8.52%
2004	804,362	54,635	65,148			65,148	8.10%	6.79%	100.00%	6.79%	7.22%
2005	832,705	65,989	55,454	66,125		60,790	7.30%	7.92%	100.00%	7.92%	8.04%
2006	842,017	79,501	66,979	56,286	67,117	63,460	7.54%	9.44%	100.00%	9.44%	9.83%
2007	855,486	81,945	80,694	67,983	57,130	68,602	8.02%	9.58%	100.00%	9.58%	9.96%
2008	875,541	80,622	83,174	81,904	69,003	78,027	8.91%	9.21%	100.00%	9.21%	9.44%
2009	894,160	79,165	81,831	84,422	83,133	83,129	9.30%	8.85%	100.00%	8.85%	8.84%
2010	912,177	99,678	80,353	83,059	85,688	83,033	9.10%	10.93%	100.00%	10.93%	11.22%
2011	918,749	91,387	101,173	81,558	84,305	89,012	9.69%	9.95%	100.00%	9.95%	10.30%
2012	888,601	93,583	92,757	102,690	82,781	92,743	10.44%	10.53%	100.00%	10.53%	10.08%
2013	887,878	81,712	94,986	94,149	104,231	97,789	11.01%	9.20%	100.00%	9.20%	8.43%
2014	914,310	75,227	82,938	96,411	95,561	91,637	10.02%	8.23%	100.00%	8.23%	8.49%
2015	957,167	87,613	76,356	84,182	97,857	86,132	9.00%	9.15%	100.00%	9.15%	9.54%
2016	995,311	92,337	88,927	77,501	85,445	83,958	8.44%	9.28%	75.00%	9.07%	9.37%
2017	1,039,942	95,698	93,722	90,261	78,664	87,549	8.42%	9.20%	50.00%	8.81%	9.00%
2018	1,094,131	87,677	97,134	95,128	91,615	94,625	8.65%	8.01%	25.00%	8.49%	8.62%
2019	1,123,925	78,392	88,992	98,591	96,555	94,712	8.43%	6.97%	25.00%	8.06%	8.37%
2020	1,134,690	66,140	79,568	90,327	100,070	89,988	7.93%	5.83%	75.00%	6.35%	6.27%
	16,741,981	1,455,486	1,410,185	1,350,577	1,279,153	1,474,518					

**Trend in Losses Based on Exponential Regression (a):**

**1.30%**

**Selected Trend (b):**

**1.50%**

Notes:

(3) Ultimate Losses from Page 17

(7) = Average [(4), (5), (6)]

(11) = (9) \* (10) + (8) \* [1 - (10)]

(12) Selected Initial Ult Loss Ratio from Page 10

(a) Based on the Projected Ultimate Losses

(b) Based on the exponential trend rounded up to the nearest 0.25%; minimum 0.00%

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**Projected Ultimate Losses and ALAE Using the Bornhuetter-Ferguson Method on Paid Loss & ALAE**

Insurance Year	Restated Earned Premium	Selected Initial Ult Loss Ratio	Initial Expected Ult Losses	Expected Percentage: Paid Unpaid		Expected Paid Loss	Actual Paid Loss	Expected Unpaid Loss	Estimated Ultimate Losses	Expected IBNR	Estimated Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
2003	770,829	8.52%	65,643	73.64%	26.36%	48,338	47,264	17,305	64,569	1,873	8.38%
2004	804,362	7.22%	58,085	71.74%	28.26%	41,668	39,193	16,417	55,610	188	6.91%
2005	832,705	8.04%	66,924	69.82%	30.18%	46,724	46,071	20,200	66,271	2,479	7.96%
2006	842,017	9.83%	82,803	67.75%	32.25%	56,099	53,862	26,704	80,566	1,718	9.57%
2007	855,486	9.96%	85,206	65.59%	34.41%	55,883	53,745	29,323	83,067	2,011	9.71%
2008	875,541	9.44%	82,654	63.25%	36.75%	52,275	50,990	30,379	81,369	2,819	9.29%
2009	894,160	8.84%	79,087	60.78%	39.22%	48,072	48,120	31,015	79,134	4,050	8.85%
2010	912,177	11.22%	102,343	58.33%	41.67%	59,701	58,146	42,642	100,788	3,721	11.05%
2011	918,749	10.30%	94,674	55.72%	44.28%	52,748	50,916	41,926	92,842	3,094	10.11%
2012	888,601	10.08%	89,589	52.94%	47.06%	47,425	49,539	42,164	91,703	6,775	10.32%
2013	887,878	8.43%	74,857	50.01%	49.99%	37,437	40,865	37,421	78,286	7,323	8.82%
2014	914,310	8.49%	77,581	47.02%	52.98%	36,482	35,375	41,099	76,474	2,929	8.36%
2015	957,167	9.54%	91,357	43.72%	56.28%	39,945	38,307	51,413	89,720	3,116	9.37%
2016	995,311	9.37%	93,217	39.91%	60.09%	37,205	36,853	56,012	92,865	2,512	9.33%
2017	1,039,942	9.00%	93,602	35.45%	64.55%	33,178	33,921	60,424	94,345	7,428	9.07%
2018	1,094,131	8.62%	94,341	30.00%	70.00%	28,303	26,304	66,038	92,341	20,770	8.44%
2019	1,123,925	8.37%	94,054	23.42%	76.58%	22,027	18,359	72,027	90,386	58,180	8.04%
2020	1,134,690	6.27%	71,132	11.89%	88.11%	8,461	7,867	62,671	70,538	57,329	6.22%
	16,741,981		1,497,148			751,971	735,699	745,177	1,480,877	188,312	8.85%

Notes:  
(10) = (8) + (9)



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Insurance Year	(1) Paid-to-Date Disc to 120 Months			(2) Tabular Reserves at Valuation			Ultimate Adjustment [a]	
	Undisc 0.00%	With Margin 0.36%	No Margin 0.86%	Undisc 0.00%	With Margin 0.36%	No Margin 0.86%	Incremental	Accumulated
2000	52,388,827	52,138,257	51,802,138	16,562,215	15,809,682	14,857,944	1.0010	1.0010
2001	45,364,720	45,175,348	44,920,479	14,665,068	14,057,741	13,282,728	1.0010	1.0020
2002	47,425,218	47,225,530	46,956,168	17,734,868	17,012,277	16,092,462	1.0010	1.0030
2003	47,264,265	47,113,247	46,908,825	15,877,934	15,238,507	14,427,251	1.0010	1.0040
2004	39,193,124	39,097,132	38,966,930	16,774,759	16,040,211	15,107,850	1.0010	1.0050
2005	46,071,276	45,974,374	45,842,649	18,437,977	17,669,900	16,694,489	1.0010	1.0060
2006	53,862,353	53,781,148	53,670,363	25,951,363	24,742,233	23,217,447	1.0010	1.0070
2007	53,744,562	53,686,245	53,606,514	28,200,422	26,937,023	25,345,987	1.0010	1.0080
2008	50,990,059	50,958,498	50,915,219	28,717,979	27,504,013	25,964,739	1.0010	1.0090
2009	48,119,799	48,104,353	48,083,106	28,392,860	27,186,356	25,658,153	1.0010	1.0100
2010	58,146,102	58,141,091	58,134,177	40,204,566	38,411,997	36,148,982	1.0010	1.0111
2011	50,916,491	50,916,491	50,916,491	40,438,055	38,555,016	36,189,821	1.0000	1.0111

Insurance Year	(3) Tab Rsv at Valuation Adjusted [b]			(4) Ultimate Disc to 120 Months [c]			Disc Factor for Tab Rsv [d]	
	Undisc 0.00%	With Margin 0.36%	No Margin 0.86%	Undisc 0.00%	With Margin 0.36%	No Margin 0.86%	With Margin 0.36%	No Margin 0.86%
2000	16,631,166	15,875,500	14,919,800	69,019,992	67,398,457	65,380,719	96.12%	91.01%
2001	14,785,187	14,172,886	13,391,525	60,149,907	58,847,969	57,212,984	96.47%	91.79%
2002	17,930,544	17,199,980	16,270,016	65,355,762	63,878,131	62,019,370	96.82%	92.58%
2003	16,130,881	15,481,268	14,657,089	63,395,147	62,155,792	60,595,439	97.17%	93.38%
2004	17,055,158	16,308,332	15,360,387	56,248,283	55,000,348	53,433,628	97.52%	94.18%
2005	18,826,001	18,041,760	17,045,823	64,897,277	63,631,295	62,034,787	97.87%	94.99%
2006	26,511,738	25,276,499	23,718,787	80,374,091	78,607,543	76,395,037	98.22%	95.81%
2007	28,858,281	27,565,409	25,937,257	82,602,842	80,858,260	78,670,388	98.57%	96.63%
2008	29,438,228	28,193,815	26,615,937	80,428,287	78,849,999	76,856,108	98.93%	97.46%
2009	29,161,439	27,922,275	26,352,704	77,281,238	75,826,668	73,988,325	99.28%	98.30%
2010	41,291,849	39,450,802	37,126,586	99,437,951	97,450,380	94,944,197	99.64%	99.15%
2011	41,447,995	39,517,927	37,093,661	92,364,486	90,434,417	88,010,152	100.00%	100.00%

Insurance Year	(5) 120-Ult Paid Development Factor [e]			Paid to 120 Months
	Undisc 0.00%	With Margin 0.36%	No Margin 0.86%	
2000	1.7573	1.7160	1.6647	39,275,416
2001	1.7698	1.7315	1.6834	33,986,686
2002	1.9034	1.8603	1.8062	34,337,032
2003	1.7847	1.7498	1.7058	35,522,164
2004	1.8122	1.7720	1.7215	31,038,582
2005	1.7592	1.7249	1.6816	36,889,709
2006	1.8260	1.7859	1.7356	44,015,584
2007	1.8053	1.7671	1.7193	45,756,380
2008	1.7734	1.7386	1.6946	45,352,249
2009	1.7614	1.7283	1.6864	43,873,658
2010	1.7964	1.7605	1.7152	55,354,874
2011	1.8140	1.7761	1.7285	50,916,491
Simple Average of Middle 4 of Last 6 [f]	1.7841	1.7486	1.7039	
Simple Average of Middle 3 of Last 5 [f]	1.7917	1.7554	1.7097	
Latest 10 Volume Weighted [f]	1.7979	1.7608	1.7141	
Selected	1.7979	1.7608	1.7141	
Commuted Rsv Factor [g]		0.9535	0.8950	

Notes:

- [a] Incremental Factors per the Selected Incurred Loss Development Factors for 120 months and thereafter
- [b] Undiscounted = [(1) Undiscounted + (2) Undiscounted] \* Ultimate Adjustment Accumulated - (1) Undiscounted;  
Discounted = (3) Undiscounted / (2) Undiscounted \* (2) Discounted
- [c] (1) + (3) \* Discount Factor for Tab Rsv
- [d] Discount from Valuation Date to 120 Months
- [e] (4) / Paid to 120 Months
- [f] Not including 2011
- [g] (Selected 120-Ult Paid Development Factor - 1) / (Selected 120-Ult Paid Development Factor @ 0.00% - 1)

Manitoba Public Insurance  
 Automobile Insurance Division - Accident Benefits - Weekly Indemnity  
 Tabular Reserving  
 March 31, 2021

Appendix E  
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Insurance Year	Tabular Reserve [a]	Case Reserves	IBNR
2002 & Prior	139,733	131,795	7,938
2003	16,512	15,432	1,080
2004	17,393	16,229	1,164
2005	19,216	17,721	1,495
2006	26,995	24,986	2,009
2007	29,355	27,312	2,043
2008	29,922	27,560	2,362
2009	29,626	26,965	2,661
2010	41,890	38,921	2,969
2011	42,004	38,832	3,172
	392,647	365,753	26,894

Notes:

[a] Tabular Reserves at Valuation Adjusted at 0.00% from Page 20

Manitoba Public Insurance  
Automobile Insurance Division - Accident Benefits - Weekly Indemnity  
Tabular Reserving - Pre-PIPP  
March 31, 2021

Appendix E  
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Insurance Year	Tabular Reserves at Valuation		
	0.00%	With Margin 0.36%	No Margin 0.86%
1972	110,342	108,319	105,620
1973	146,247	142,859	138,377
1974	146,638	143,214	138,686
1975	149,031	145,524	140,888
1976	240,170	234,553	227,155
1977	444,882	434,106	419,892
1978	233,670	227,519	219,428
1979	264,733	257,280	247,508
1980	961,627	924,348	876,639
1981	1,115,060	1,086,395	1,048,671
1982	807,217	785,422	756,843
1983	1,623,840	1,574,925	1,511,233
1984	916,895	894,132	864,197
1985	351,255	337,986	320,872
1986	704,973	679,836	647,343
1987	1,719,865	1,664,503	1,592,571
1988	1,350,829	1,304,442	1,244,581
1989	1,373,577	1,324,292	1,260,748
1990	1,956,984	1,897,398	1,819,795
1991	1,700,806	1,642,105	1,566,141
1992	1,430,715	1,381,310	1,317,819
1993	1,547,320	1,495,991	1,429,653
Total Tabular Reserves	19,296,674	18,686,458	17,894,660
Total Case Reserves	7,857,000		
Total IBNR	11,439,674		

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**APPENDIX F      ACCIDENT BENEFITS – OTHER INDEXED**

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Undiscounted Gross IBNR Calculations

Manitoba Public Insurance  
Automobile Insurance Division - Accident Benefits - Other  
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Appendix F  
Page 1

Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	21,978,242	40,991,573	52,056,117	52,973,386	52,369,511	51,481,361	43,890,094	44,090,382	43,301,257	42,500,624	44,425,516	44,279,776	44,597,525	45,539,111	46,160,208	45,598,555	47,138,476	48,236,605	48,695,995	49,144,642	49,882,575	50,952,250
2003	25,687,619	58,364,486	59,981,998	58,156,046	52,133,239	47,932,261	46,446,260	47,854,357	47,958,239	49,381,793	50,219,250	51,075,669	53,819,209	54,090,396	54,145,238	54,058,739	54,270,420	52,857,795	51,069,791	51,109,584	51,710,037	
2004	17,388,416	35,932,196	49,546,528	47,937,843	46,325,205	46,210,809	47,306,893	47,283,296	47,824,342	49,273,088	49,119,864	48,554,523	50,821,353	50,742,986	51,127,299	51,669,981	52,154,808	53,703,501	52,832,723	54,253,798		
2005	22,488,048	44,608,457	49,434,920	49,646,436	47,797,978	48,954,351	47,088,272	47,541,162	48,784,942	51,099,548	52,442,483	51,397,326	51,228,613	50,744,403	50,822,635	50,535,625	51,060,689	52,667,656	54,505,875			
2006	31,832,623	53,549,208	62,338,770	61,114,334	60,211,839	59,551,150	58,048,199	58,461,909	59,997,401	60,391,825	62,850,085	63,035,706	63,760,131	64,460,056	62,840,328	63,433,943	62,918,015	63,995,148				
2007	25,975,543	44,626,001	50,691,895	49,139,944	50,089,496	50,652,895	52,508,809	55,199,041	58,892,661	60,062,273	58,599,975	57,554,062	60,160,112	60,732,997	61,997,282	64,545,785	65,679,240					
2008	20,265,288	40,556,655	42,094,625	44,046,311	44,845,556	48,600,828	49,138,736	51,575,988	52,294,965	51,756,735	51,069,124	48,969,086	49,117,731	48,849,433	49,279,351	50,697,164						
2009	23,022,141	39,954,751	49,377,158	52,873,823	52,216,852	51,407,183	52,374,883	52,649,745	53,190,845	56,119,038	54,451,632	54,621,562	54,843,865	56,383,991	56,605,972							
2010	28,924,643	61,430,894	54,305,760	59,107,381	56,512,157	58,662,812	56,711,501	57,979,741	58,503,029	60,521,851	55,381,674	56,416,315	57,980,149	58,270,264								
2011	33,284,566	64,505,391	50,095,380	51,332,619	55,450,009	57,949,982	56,780,332	57,276,384	54,528,010	54,248,936	55,454,596	56,427,161	60,795,792									
2012	29,934,822	51,471,199	59,050,899	60,791,868	60,764,020	57,968,931	52,986,957	54,847,484	56,913,991	57,987,079	55,909,857	54,683,389										
2013	26,503,788	55,591,413	61,933,250	59,259,981	57,165,299	51,969,610	51,986,774	50,906,469	50,779,616	49,978,180	50,108,576											
2014	24,177,339	46,259,953	48,210,482	47,594,259	48,723,091	48,004,679	46,002,787	45,673,516	45,653,619	45,743,588												
2015	28,129,934	55,410,130	61,027,790	61,292,861	60,956,125	61,661,629	60,999,722	60,667,383	61,070,932													
2016	31,327,671	57,440,618	66,141,482	68,292,089	72,910,057	75,455,430	72,709,175	74,276,702														
2017	32,258,206	61,569,418	61,319,321	57,745,746	61,284,073	69,135,892	66,962,689															
2018	27,835,547	47,061,538	48,779,355	49,474,544	54,124,552	56,603,697																
2019	23,696,504	42,447,072	42,351,707	50,754,423																		
2020	18,575,477	30,146,356																				

Manitoba Public Insurance  
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Insurance Year (April-March)	Evaluation in Months																						
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	
2002	3,787,951	10,659,568	17,597,613	19,724,908	20,778,841	21,714,918	23,247,870	24,320,322	25,146,394	25,892,512	26,729,966	27,777,879	28,613,011	29,590,009	30,692,775	31,592,580	32,595,842	33,804,087	34,743,407	35,522,256	36,420,256	37,500,564	
2003	4,190,345	11,288,523	18,490,194	20,558,765	22,856,188	23,986,697	25,861,678	27,312,735	28,548,920	29,759,662	31,038,538	32,243,175	33,437,072	34,455,531	35,598,229	36,566,198	37,389,780	38,268,596	38,958,215	39,668,771	40,338,066		
2004	3,637,105	9,478,801	16,455,878	18,482,710	20,231,879	21,251,557	22,951,138	24,358,221	25,592,641	26,860,454	28,101,007	29,242,173	30,564,552	31,611,554	32,526,793	33,504,657	34,423,978	35,279,794	36,074,167	37,043,038			
2005	3,279,192	9,740,218	16,753,051	19,076,470	21,049,593	21,994,321	23,612,443	25,140,688	26,642,221	28,091,200	29,450,361	30,539,351	31,572,539	32,531,029	33,428,811	34,442,616	35,325,835	36,960,332	38,117,341				
2006	3,527,227	10,229,571	18,282,875	20,564,186	22,993,378	24,205,890	26,926,149	29,058,995	30,740,333	32,303,015	33,867,232	35,299,614	36,753,502	37,812,603	39,467,449	40,601,043	41,759,632	42,742,511					
2007	3,575,819	10,020,536	18,645,923	21,063,740	23,600,910	24,873,979	27,167,195	28,985,849	30,738,842	32,375,347	34,175,288	35,356,595	36,687,791	37,915,869	39,138,680	41,295,528	42,420,521						
2008	3,510,954	9,857,807	18,518,664	21,467,095	24,098,311	25,416,126	27,669,522	29,727,251	31,244,354	32,810,025	34,119,094	34,915,942	35,676,992	36,055,915	37,100,776	38,125,960							
2009	3,742,912	11,350,241	19,366,829	22,131,538	24,536,529	25,912,074	28,735,388	30,595,303	32,306,476	33,966,025	35,389,832	36,694,846	37,955,283	39,292,207	40,466,277								
2010	3,571,700	11,108,884	20,937,499	24,322,717	27,353,591	28,795,629	31,560,295	33,560,574	35,239,703	36,510,288	37,536,866	38,537,007	39,833,118	40,876,997									
2011	3,319,445	11,264,361	21,296,056	24,598,218	27,782,113	29,335,220	32,030,360	34,170,423	35,219,323	36,653,660	38,331,043	39,644,500	40,825,741										
2012	5,159,701	13,594,426	24,164,269	27,520,897	30,638,121	32,310,391	34,908,919	36,590,088	38,255,780	39,615,513	40,606,043	41,274,198											
2013	4,174,827	12,656,387	24,884,663	28,294,598	31,266,003	32,702,898	34,879,931	36,407,133	37,463,172	38,262,855	38,948,833												
2014	3,705,383	11,982,963	21,817,182	25,464,314	27,988,054	29,293,956	31,340,337	32,593,291	33,653,125	34,333,418													
2015	4,840,528	15,414,013	27,067,760	30,751,108	34,074,093	35,858,523	38,381,729	40,681,432	42,425,157														
2016	5,117,465	14,957,009	26,925,175	31,099,383	34,136,254	35,728,567	39,132,864	41,856,609															
2017	5,107,011	15,235,083	27,805,159	31,492,971	35,070,134	37,020,104	39,834,945																
2018	4,581,223	12,510,640	25,133,690	28,489,715	30,532,552	31,771,208																	
2019	3,772,726	13,278,421	21,164,242	24,192,538																			
2020	3,314,353	10,190,059																					

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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	2,883,415	4,849,156	3,433,143	3,226,174	3,203,258	3,176,451	3,113,016	3,007,342	2,873,604	2,751,319	2,647,661	2,640,676	2,638,220	2,641,246	2,697,649	2,652,843	2,662,156	2,656,188	2,540,517	2,571,027	2,597,858	2,585,383
2003	3,122,460	5,313,858	3,410,609	3,228,391	3,037,797	3,029,198	2,983,400	2,942,476	2,955,598	3,024,343	2,947,373	2,958,367	3,117,143	3,189,055	3,092,179	3,102,782	3,123,774	2,975,384	2,992,088	2,994,098	3,023,944	
2004	2,821,341	4,307,749	3,372,509	2,926,192	2,810,048	2,866,030	2,855,578	2,741,424	2,646,223	2,670,046	2,663,588	2,651,399	2,722,375	2,707,453	2,727,873	2,729,006	2,713,203	2,624,413	2,647,504	2,638,400		
2005	2,627,270	4,584,367	3,068,686	2,683,913	2,588,192	2,602,144	2,512,479	2,440,191	2,390,242	2,401,663	2,335,556	2,311,417	2,281,822	2,265,783	2,337,439	2,271,802	2,271,470	2,240,530	2,239,397			
2006	3,289,673	5,601,555	4,211,270	3,547,720	3,399,475	3,350,253	3,128,657	2,978,346	3,074,130	3,011,628	3,248,119	3,112,010	3,055,662	3,052,505	2,951,116	2,984,690	2,907,725	2,900,457				
2007	3,130,375	5,483,277	3,825,526	3,120,569	2,970,310	2,965,025	3,007,559	3,325,331	3,538,455	3,362,617	3,350,256	3,618,211	3,595,949	3,378,351	3,353,677	3,358,890	3,349,214					
2008	2,823,079	4,837,409	3,549,719	3,045,596	2,971,301	3,018,430	3,103,228	3,167,874	3,345,432	3,337,213	3,197,418	3,342,597	3,078,508	3,068,170	3,051,536	3,081,412						
2009	2,605,442	4,496,767	4,072,628	3,231,024	2,874,360	2,825,381	2,763,752	2,836,998	2,843,287	2,858,326	2,921,818	2,790,362	2,707,406	2,731,810	2,759,335							
2010	2,894,877	5,580,086	4,146,942	4,061,368	3,458,969	3,196,157	3,188,969	3,301,818	3,279,904	3,313,929	3,115,530	3,177,605	3,137,718	3,118,047								
2011	3,182,140	6,618,172	2,921,864	2,928,039	3,264,922	3,300,034	3,245,593	3,231,403	3,231,352	3,243,811	3,237,902	3,256,233	3,287,396									
2012	3,383,995	5,969,361	5,315,763	4,847,265	4,546,268	3,560,336	3,221,880	3,288,720	3,181,146	3,029,500	3,035,130	3,033,909										
2013	3,616,940	7,092,489	6,035,835	4,230,836	3,714,910	3,206,945	3,108,320	2,925,879	2,803,648	2,765,451	2,769,121											
2014	3,341,313	5,889,808	4,472,269	3,654,468	3,386,144	3,117,889	2,631,716	2,520,703	2,465,263	2,461,901												
2015	3,569,997	6,482,327	5,802,607	4,762,398	3,498,511	3,202,216	2,722,696	2,615,792	2,578,565													
2016	4,104,617	7,061,430	6,039,154	4,684,926	3,447,885	2,921,420	2,790,569	2,786,350														
2017	4,265,702	7,585,508	4,899,209	4,115,490	2,883,703	2,523,630	2,413,962															
2018	3,504,446	6,259,674	3,832,816	3,123,287	2,238,579	1,996,348																
2019	3,340,536	5,335,378	2,901,662	2,341,669																		
2020	2,361,672	3,420,357																				



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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	254,886	829,551	1,564,446	1,859,178	2,043,168	2,114,927	2,216,307	2,262,569	2,295,011	2,323,504	2,340,644	2,336,417	2,365,849	2,382,463	2,399,863	2,412,263	2,437,375	2,452,462	2,474,520	2,490,553	2,504,787	2,512,009
2003	303,525	882,025	1,633,770	1,877,617	2,039,538	2,101,979	2,185,162	2,251,873	2,321,035	2,376,876	2,426,738	2,473,302	2,523,127	2,576,804	2,615,897	2,650,268	2,677,516	2,714,637	2,735,528	2,754,643	2,765,380	
2004	218,120	715,888	1,459,768	1,699,614	1,837,057	1,897,894	2,014,936	2,098,693	2,169,489	2,220,785	2,281,689	2,349,534	2,405,104	2,450,299	2,491,801	2,530,625	2,548,159	2,561,021	2,574,298	2,582,488		
2005	201,067	709,624	1,337,577	1,537,811	1,668,096	1,742,159	1,857,669	1,914,327	1,963,473	2,006,538	2,033,258	2,049,131	2,059,905	2,070,720	2,080,867	2,094,779	2,104,324	2,116,849	2,120,354			
2006	231,410	736,316	1,475,159	1,707,728	1,924,895	2,032,763	2,187,928	2,264,780	2,337,766	2,394,851	2,456,869	2,507,837	2,547,181	2,584,927	2,623,800	2,660,166	2,699,394	2,712,833				
2007	227,050	742,530	1,539,477	1,839,156	2,096,106	2,209,634	2,433,185	2,605,815	2,738,419	2,829,517	2,896,515	2,937,064	2,961,767	2,992,620	3,024,084	3,045,985	3,057,239					
2008	216,753	740,989	1,491,021	1,881,453	2,157,040	2,305,810	2,523,070	2,680,956	2,780,499	2,824,077	2,874,079	2,904,162	2,920,154	2,929,796	2,936,633	2,939,504						
2009	211,527	777,189	1,491,201	1,770,782	1,976,246	2,093,824	2,266,621	2,371,991	2,433,351	2,477,857	2,515,880	2,543,587	2,569,685	2,593,886	2,604,978							
2010	190,686	677,610	1,472,938	1,832,693	2,169,007	2,301,535	2,551,012	2,710,547	2,811,575	2,880,614	2,923,194	2,956,614	2,981,285	2,992,242								
2011	181,911	716,352	1,567,479	1,944,438	2,273,494	2,382,956	2,596,083	2,705,317	2,779,934	2,844,002	2,883,087	2,918,483	2,969,994									
2012	238,033	795,059	1,623,031	1,962,594	2,258,185	2,390,205	2,578,344	2,709,869	2,798,676	2,843,987	2,875,751	2,896,857										
2013	225,946	748,261	1,562,648	1,886,437	2,181,116	2,310,366	2,503,530	2,594,771	2,643,881	2,667,016	2,676,938											
2014	177,702	631,352	1,340,785	1,624,337	1,845,449	1,933,045	2,073,136	2,135,829	2,164,807	2,181,064												
2015	250,215	800,555	1,537,027	1,844,585	2,097,390	2,199,684	2,339,522	2,443,356	2,472,671													
2016	226,448	735,900	1,460,745	1,800,667	2,077,915	2,208,796	2,424,869	2,491,164														
2017	197,359	727,666	1,462,142	1,763,730	1,965,751	2,078,928	2,160,478															
2018	173,666	561,548	1,230,060	1,483,211	1,591,295	1,646,207																
2019	111,572	478,725	820,709	973,474																		
2020	94,150	350,769																				

Manitoba Public Insurance  
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Insurance Year (April-March)	Evaluation in Months																						
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	
2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Automobile Insurance Division - Accident Benefits - Other (Indexed)  
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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	29,858,145	55,811,569	70,662,742	71,960,562	70,294,164	69,108,115	58,350,642	57,946,371	56,490,743	55,092,719	56,983,109	56,684,760	56,908,972	57,451,355	57,864,149	56,873,657	58,267,628	59,266,797	59,566,300	59,802,079	60,209,660	60,985,212
2003	34,461,525	78,675,558	80,005,654	77,599,427	68,734,107	63,204,721	60,512,430	61,777,693	61,407,836	62,584,721	63,467,326	64,306,098	66,813,430	66,752,018	66,358,532	65,888,572	65,894,694	64,173,379	62,059,404	61,797,133	62,151,157	
2004	22,639,403	47,168,443	64,650,579	62,642,722	59,622,662	59,464,094	60,219,638	59,629,746	59,678,909	61,254,193	60,864,286	59,498,774	61,719,226	61,146,045	61,172,229	61,519,636	61,788,068	63,120,207	61,760,657	62,814,654		
2005	28,960,996	57,603,581	63,040,919	63,393,901	60,325,811	61,777,367	58,845,270	58,768,389	60,111,792	62,655,328	63,432,718	61,835,912	61,147,874	60,218,139	60,063,769	59,525,410	59,808,692	61,053,939	62,549,317			
2006	40,113,370	67,464,801	77,678,184	76,298,824	74,249,955	73,446,100	70,725,798	71,034,472	72,569,284	72,046,505	74,308,085	73,840,115	74,073,195	74,485,237	72,405,638	72,639,621	71,538,947	72,155,179				
2007	31,921,776	54,816,049	61,899,946	60,144,872	60,567,968	61,248,399	63,284,494	66,187,728	69,535,992	70,391,651	68,103,048	66,440,529	68,973,600	69,281,333	70,230,940	72,259,779	72,888,613					
2008	24,359,844	48,934,610	50,285,356	52,742,432	53,561,155	58,052,871	58,462,687	60,542,936	60,947,329	59,848,757	58,729,109	56,238,502	56,225,317	55,722,129	55,838,533	56,990,945						
2009	27,223,766	47,251,775	58,450,762	62,809,016	61,816,708	60,863,202	61,132,234	61,013,834	61,086,657	63,855,746	61,771,389	61,702,578	61,643,066	62,788,554	62,637,550							
2010	34,094,204	72,522,972	63,889,481	69,615,218	65,584,658	68,108,086	65,365,107	66,162,944	66,241,925	68,120,937	62,336,720	63,121,737	64,269,683	64,164,005								
2011	38,976,610	75,451,240	57,746,907	59,174,291	63,338,711	66,174,582	64,202,752	64,245,661	60,990,382	60,431,649	61,406,709	61,971,826	65,978,670									
2012	34,035,744	58,499,210	66,606,360	68,648,424	67,907,871	64,910,491	58,997,905	60,773,039	62,734,762	63,559,770	60,972,072	59,412,427										
2013	29,622,696	62,200,611	68,474,703	65,704,349	62,872,536	57,249,867	57,038,411	55,672,041	55,307,497	54,153,117	54,027,941											
2014	26,507,123	50,773,949	52,429,685	51,831,823	52,809,792	52,056,202	49,714,344	49,138,303	48,794,821	48,627,389												
2015	30,366,967	59,866,699	65,532,529	65,899,603	65,240,287	66,010,218	64,923,961	64,018,562	63,986,214													
2016	33,455,067	61,377,592	70,203,475	72,579,480	76,900,817	79,592,256	75,791,648	76,628,542														
2017	34,058,426	65,041,167	64,245,253	60,539,021	63,571,620	71,604,100	68,734,133															
2018	28,992,491	49,001,666	50,073,478	50,799,571	55,023,995	57,503,140																
2019	24,144,336	43,263,529	42,633,301	51,036,016																		
2020	18,575,477	30,146,356																				

\*Prior years' figures indexed to current benefit level; Travel indexed separately from other benefits

Manitoba Public Insurance  
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Insurance Year (April-March)	Evaluation in Months																						
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	
2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\*Prior years' figures indexed to current benefit level

Manitoba Public Insurance  
Automobile Insurance Division - Accident Benefits - Other (Indexed)  
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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	-	-	-	-	-	-	-	-	-	-	-	-	-	359,038	394,610	324,394	305,865	397,178	203,326	154,546	174,303	164,324
2003	-	-	-	-	-	-	-	-	-	-	-	-	455,486	464,931	517,450	491,561	489,647	256,698	112,224	139,867	111,699	
2004	-	-	-	-	-	-	-	-	-	-	519,887	578,589	451,272	399,482	361,350	80,059	175,829	148,497	270,452			
2005	-	-	-	-	-	-	-	-	-	644,770	563,474	442,117	431,328	498,116	221,597	273,831	241,370	192,469				
2006	-	-	-	-	-	-	-	-	1,011,207	1,145,260	995,274	887,459	793,620	465,140	546,707	564,929	584,583					
2007	-	-	-	-	-	-	-	853,053	874,588	812,768	720,553	638,138	422,525	367,036	297,477	293,810						
2008	-	-	-	-	-	-	-	950,853	1,001,531	834,205	761,579	563,113	313,958	240,569	194,315	221,104						
2009	-	-	-	-	-	-	1,010,112	1,026,742	866,915	713,714	644,490	288,440	240,255	314,248	266,504							
2010	-	-	-	-	2,260,578	2,145,269	1,206,130	888,189	887,860	792,702	503,566	411,750	384,212	326,806								
2011	-	-	3,506,025	2,924,526	1,849,967	1,516,572	934,443	774,991	838,927	521,227	297,429	334,392	322,657									
2012	2,639,046	4,724,733	3,397,624	2,985,986	2,398,727	1,621,255	1,135,967	950,065	494,560	433,336	325,055	334,817										
2013	2,654,251	4,655,062	3,374,341	2,494,554	2,067,158	1,164,945	878,125	466,600	364,205	284,462	249,917											
2014	2,096,724	3,535,315	2,416,511	2,019,004	1,724,998	1,387,936	795,861	707,951	509,830	366,448												
2015	2,403,193	4,283,463	3,660,760	3,028,255	2,209,140	1,855,067	1,516,548	1,069,855	471,534													
2016	3,004,456	4,607,479	3,708,701	2,804,592	2,239,071	2,648,104	1,820,966	961,255														
2017	2,705,849	4,327,837	2,306,426	1,678,629	1,950,057	2,092,454	1,267,316															
2018	2,151,264	3,618,148	1,678,195	1,220,744	1,577,455	1,752,119																
2019	1,939,922	2,628,432	1,303,915	1,231,330																		
2020	1,285,572	1,616,846																				

\*Prior years' figures indexed to current benefit level

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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	242,118	275,869	117,754	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	424,305	284,192	196,257	64,768	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	842,617	544,603	200,875	162,487	33,354	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	970,868	3,804,363	1,781,256	1,342,482	207,802	165,896	121,188	43,643	-	-	-	-	-	-	-	-	-	-	-	-
2010	2,187,449	11,588,083	5,397,276	5,183,240	2,388,569	664,966	451,101	313,532	337,145	1,109,413	1,027,060	869,467	848,260	830,000	-	-	-	-	-	-	-	-
2011	10,177,415	17,750,724	2,589,444	559,911	560,184	614,725	233,481	163,663	138,003	-	-	-	-	-	-	-	-	-	-	-	-	-
2012	4,516,230	4,031,359	2,383,905	2,682,746	2,433,763	790,501	305,504	241,505	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2013	1,551,016	4,880,302	3,900,248	1,534,305	1,132,546	473,531	422,634	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2014	1,624,362	2,161,369	1,374,767	1,019,073	1,175,180	963,863	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2015	1,551,522	2,785,539	3,834,968	3,527,696	1,425,112	822,712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	3,496,430	4,481,856	4,919,245	3,244,019	556,249	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	3,522,869	5,471,622	909,273	1,064,311	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018	939,652	1,655,129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2019	410,844	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\*Prior years' figures indexed to current benefit level

Manitoba Public Insurance  
Automobile Insurance Division - Accident Benefits - Other (Indexed)  
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Insurance Year	Evaluation in Months									
	7	12	19	24	31	36	48	60	72	84
2002	29,858	55,812	70,663	71,961	70,294	69,108	58,351	57,946	56,491	55,093
2003	34,462	78,676	80,006	77,599	68,734	63,205	60,512	61,778	61,408	62,585
2004	22,639	47,168	64,651	62,643	59,623	59,464	60,220	59,630	59,679	61,254
2005	28,961	57,604	63,041	63,394	60,326	61,777	58,845	58,768	60,112	62,655
2006	40,113	67,465	77,678	76,299	74,250	73,446	70,726	70,792	72,293	70,918
2007	31,922	54,816	61,900	60,145	60,568	61,248	62,860	65,904	68,487	69,452
2008	24,360	48,935	50,285	52,742	53,561	57,210	57,918	59,391	59,783	58,981
2009	27,224	47,252	57,480	59,005	60,035	59,521	59,914	59,821	60,099	63,098
2010	31,907	60,935	58,492	64,432	60,936	65,298	63,708	64,961	65,017	66,219
2011	28,799	57,701	51,651	55,690	60,929	64,043	63,035	63,307	60,013	59,910
2012	26,880	49,743	60,825	62,980	63,075	62,499	57,556	59,581	62,240	63,126
2013	25,417	52,665	61,200	61,675	59,673	55,611	55,738	55,205	54,943	53,869
2014	22,786	45,077	48,638	48,794	49,910	49,704	48,918	48,430	48,285	48,261
2015	26,412	52,798	58,037	59,344	61,606	63,332	63,407	62,949	63,515	
2016	26,954	52,288	61,576	66,531	74,105	76,944	73,971	75,667		
2017	27,830	55,242	61,030	57,796	61,622	69,512	67,467			
2018	25,902	43,728	48,395	49,579	53,447	55,751				
2019	21,794	40,635	41,329	49,805						
2020	17,290	28,530								

Insurance Year	7-12	12-19	19-24	24-31	31-36	36-48	48-60	60-72	72-84	84-96
2002	1.8692	1.2661	1.0184	0.9768	0.9831	0.8443	0.9931	0.9749	0.9753	1.0343
2003	2.2830	1.0169	0.9699	0.8858	0.9196	0.9574	1.0209	0.9940	1.0192	1.0141
2004	2.0835	1.3706	0.9689	0.9518	0.9973	1.0127	0.9902	1.0008	1.0264	0.9936
2005	1.9890	1.0944	1.0056	0.9516	1.0241	0.9525	0.9987	1.0229	1.0423	1.0021
2006	1.6819	1.1514	0.9822	0.9731	0.9892	0.9630	1.0009	1.0212	0.9810	1.0317
2007	1.7172	1.1292	0.9716	1.0070	1.0112	1.0263	1.0484	1.0392	1.0141	0.9689
2008	2.0088	1.0276	1.0489	1.0155	1.0681	1.0124	1.0254	1.0066	0.9866	0.9828
2009	1.7357	1.2165	1.0265	1.0175	0.9914	1.0066	0.9984	1.0046	1.0499	0.9688
2010	1.9098	0.9599	1.1015	0.9457	1.0716	0.9757	1.0197	1.0009	1.0185	0.9183
2011	2.0035	0.8952	1.0782	1.0941	1.0511	0.9843	1.0043	0.9480	0.9983	1.0200
2012	1.8505	1.2228	1.0354	1.0015	0.9909	0.9209	1.0352	1.0446	1.0142	0.9607
2013	2.0720	1.1621	1.0078	0.9675	0.9319	1.0023	0.9905	0.9953	0.9804	0.9983
2014	1.9783	1.0790	1.0032	1.0229	0.9959	0.9842	0.9900	0.9970	0.9995	
2015	1.9990	1.0992	1.0225	1.0381	1.0280	1.0012	0.9928	1.0090		
2016	1.9399	1.1776	1.0805	1.1139	1.0383	0.9614	1.0229			
2017	1.9850	1.1048	0.9470	1.0662	1.1280	0.9706				
2018	1.6883	1.1067	1.0245	1.0780	1.0431					
2019	1.8645	1.0171	1.2051							

Latest 9 Volume Weighted	1.9014	1.0951	1.0396	1.0351	1.0319	0.9775	1.0095	1.0052	1.0049	0.9832
Latest 6 Volume Weighted	1.8691	1.1009	1.0403	1.0484	1.0291	0.9721	1.0069	0.9988	1.0111	0.9733
Latest 3 Volume Weighted	1.7372	1.0799	1.0426	1.0878	1.0689	0.9764	1.0040	1.0010	0.9987	0.9922
Simple Average of Middle 4 of Last 6	1.9419	1.0974	1.0327	1.0513	1.0263	0.9793	1.0026	1.0005	1.0076	0.9777
Simple Average of Middle 3 of Last 5	1.9298	1.1036	1.0425	1.0608	1.0365	0.9853	1.0021	1.0004	1.0040	0.9759
Selected March 20										
Selected Oct 20	2.0000	1.1600	1.0200	1.0900	1.0600	1.0000	1.0000	1.0000	1.0000	1.0000
Selected Factors*	2.0000	1.1600	1.0200	1.0900	1.0600	1.0000	1.0000	1.0000	1.0000	1.0000
Selected Ultimate	2.8927	1.4464	1.2469	1.2224	1.1215	1.0580	1.0580	1.0580	1.0580	1.0580

\*216-Ult Factor - Successive LDF's reduced by 5% starting at 1.0030 for the 216-228 factor for 17 years

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Evaluation in Months											
96	108	120	132	144	156	168	180	192	204	216	228
56,983	56,685	56,909	57,092	57,470	56,549	57,962	58,870	59,363	59,648	60,035	60,821
63,467	64,306	66,358	66,287	65,841	65,397	65,405	63,917	61,947	61,657	62,039	
60,864	58,979	61,141	60,695	60,773	61,158	61,708	62,944	61,612	62,544		
62,788	61,272	60,706	59,787	59,566	59,304	59,535	60,813	62,357			
73,163	72,845	73,186	73,692	71,940	72,093	70,974	71,571				
67,290	65,720	68,335	68,859	69,864	71,962	72,595					
57,968	55,675	55,911	55,482	55,644	56,770						
61,127	61,414	61,403	62,474	62,371							
60,806	61,841	63,037	63,007								
61,109	61,637	65,656									
60,647	59,078										
53,778											

96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-Ult
0.9948	1.0040	1.0032	1.0066	0.9840	1.0250	1.0157	1.0084	1.0048	1.0065	1.0131
1.0132	1.0319	0.9989	0.9933	0.9933	1.0001	0.9772	0.9692	0.9953	1.0062	
0.9690	1.0367	0.9927	1.0013	1.0063	1.0090	1.0200	0.9788	1.0151		
0.9759	0.9908	0.9849	0.9963	0.9956	1.0039	1.0215	1.0254			
0.9957	1.0047	1.0069	0.9762	1.0021	0.9845	1.0084				
0.9767	1.0398	1.0077	1.0146	1.0300	1.0088					
0.9605	1.0042	0.9923	1.0029	1.0202						
1.0047	0.9998	1.0175	0.9983							
1.0170	1.0194	0.9995								
1.0086	1.0652									
0.9741										
0.9871	1.0214	1.0007	0.9982	1.0048	1.0044	1.0080	0.9949	1.0051	1.0063	1.0131
0.9903	1.0221	1.0019	0.9978	1.0080	1.0044	1.0080	0.9949	1.0051	1.0063	1.0131
1.0000	1.0281	1.0034	1.0057	1.0171	0.9987	1.0162	0.9906	1.0051	1.0063	1.0131
0.9910	1.0170	1.0016	0.9997	1.0061	1.0054	1.0147	0.9936	1.0048	1.0064	1.0131
0.9958	1.0211	1.0047	0.9992	1.0096	1.0043	1.0147	0.9936	1.0048	1.0064	1.0131
1.0000	1.0000	1.0015	1.0030	1.0030	1.0030	1.0030	1.0030	1.0030	1.0030	1.0345
1.0000	1.0000	1.0015	1.0030	1.0030	1.0030	1.0030	1.0030	1.0030	1.0030	1.0345
1.0580	1.0580	1.0580	1.0564	1.0533	1.0501	1.0470	1.0438	1.0407	1.0376	1.0345



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**Reported Loss & ALAE Development Factors to Ultimate**

Months to Ultimate	Latest 9 Volume Weighted	Latest 6 Volume Weighted	Latest 3 Volume Weighted	Simple Average of Middle 4 of Last 6	Simple Average of Middle 3 of Last 5	Selected March 20 Factors	Selected Oct 20 Factors	Selected Factors
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7	2.3667	2.3391	2.4042	2.4230	2.5254		2.8927	2.8927
12	1.2447	1.2515	1.3839	1.2478	1.3086		1.4464	1.4464
19	1.1366	1.1368	1.2816	1.1370	1.1858		1.2469	1.2469
24	1.0933	1.0928	1.2292	1.1010	1.1375		1.2224	1.2224
31	1.0562	1.0423	1.1300	1.0473	1.0723		1.1215	1.1215
36	1.0236	1.0128	1.0571	1.0204	1.0346		1.0580	1.0580
48	1.0472	1.0419	1.0827	1.0420	1.0500		1.0580	1.0580
60	1.0373	1.0348	1.0783	1.0392	1.0478		1.0580	1.0580
72	1.0319	1.0360	1.0773	1.0387	1.0474		1.0580	1.0580
84	1.0269	1.0246	1.0787	1.0308	1.0432		1.0580	1.0580
96	1.0445	1.0528	1.0871	1.0544	1.0689		1.0580	1.0580
108	1.0582	1.0631	1.0871	1.0639	1.0734		1.0580	1.0580
120	1.0360	1.0401	1.0574	1.0461	1.0512		1.0580	1.0580
132	1.0353	1.0381	1.0538	1.0445	1.0463		1.0564	1.0564
144	1.0372	1.0404	1.0478	1.0448	1.0472		1.0533	1.0533
156	1.0322	1.0322	1.0302	1.0384	1.0372		1.0501	1.0501
168	1.0276	1.0276	1.0315	1.0328	1.0328		1.0470	1.0470
180	1.0194	1.0194	1.0151	1.0179	1.0179		1.0438	1.0438
192	1.0247	1.0247	1.0247	1.0244	1.0244		1.0407	1.0407
204	1.0195	1.0195	1.0195	1.0195	1.0195		1.0376	1.0376
216	1.0131	1.0131	1.0131	1.0131	1.0131		1.0345	1.0345

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**Interpolated Percentage of Ultimate Factors**

For October				For March					
Months of Devt	RTR Factors	Factor to Ultimate	Percentage Reported	Months of Devt	Percentage Reported	Factor to Ultimate	RTR Factors	Selected RTR Factors	Sel'd Factor to Ultimate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
7	2.0000	2.8923	34.57%	7		2.8923	2.0000	2.0000	2.8927
12	1.1600	1.4462		12	69.15%	1.4462	1.1600	1.1600	1.4464
19	1.0200	1.2467	80.21%	19		1.2467	1.0200	1.0200	1.2469
24	1.0900	1.2222		24	81.82%	1.2222	1.0900	1.0900	1.2224
31	1.0600	1.1213	89.18%	31		1.1213	1.0600	1.0600	1.1215
36	1.0000	1.0579		36	94.53%	1.0579	1.0000	1.0000	1.0580
43	1.0000	1.0579	94.53%	48	94.53%	1.0579	1.0000	1.0000	1.0580
55	1.0000	1.0579	94.53%	60	94.53%	1.0579	1.0000	1.0000	1.0580
67	1.0000	1.0579	94.53%	72	94.53%	1.0579	1.0000	1.0000	1.0580
79	1.0000	1.0579	94.53%	84	94.53%	1.0579	1.0000	1.0000	1.0580
91	1.0000	1.0579	94.53%	96	94.53%	1.0579	1.0000	1.0000	1.0580
103	1.0000	1.0579	94.53%	108	94.53%	1.0579	1.0000	1.0000	1.0580
115	1.0000	1.0579	94.53%	120	94.53%	1.0579	1.0013	1.0015	1.0580
127	1.0030	1.0579	94.53%	132	94.65%	1.0565	1.0030	1.0030	1.0564
139	1.0030	1.0547	94.81%	144	94.93%	1.0534	1.0030	1.0030	1.0533
151	1.0030	1.0515	95.10%	156	95.22%	1.0502	1.0030	1.0030	1.0501
163	1.0030	1.0484	95.38%	168	95.50%	1.0471	1.0030	1.0030	1.0470
175	1.0030	1.0453	95.67%	180	95.79%	1.0439	1.0030	1.0030	1.0438
187	1.0030	1.0421	95.96%	192	96.08%	1.0408	1.0030	1.0030	1.0407
199	1.0030	1.0390	96.25%	204	96.37%	1.0377	1.0030	1.0030	1.0376
Tail	1.0359	1.0359	96.53%	Tail	96.65%	1.0346	1.0346	1.0345	1.0345

Selected Development in 4th and Subsequent Years: 41.67%

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**Projected Ultimate Losses & ALAE Using the Development Method on Reported Loss & ALAE**

Insurance Year	Earned Premium	Restated Earned Premium	Reported Loss & ALAE	Development Factor to Ultimate	Ultimate Losses	IBNR	Case Reserves	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2003	563,789	770,829	62,039	1.0345	64,180	2,140	11,372	8.33%
2004	598,905	804,362	62,544	1.0376	64,896	2,352	17,211	8.07%
2005	632,408	832,705	62,357	1.0407	64,896	2,539	16,389	7.79%
2006	656,746	842,017	71,571	1.0438	74,708	3,138	21,253	8.87%
2007	679,930	855,486	72,595	1.0470	76,005	3,410	23,259	8.88%
2008	709,787	875,541	56,770	1.0501	59,615	2,845	12,571	6.81%
2009	741,553	894,160	62,371	1.0533	65,693	3,322	16,140	7.35%
2010	761,034	912,177	63,007	1.0564	66,562	3,555	17,393	7.30%
2011	772,649	918,749	65,656	1.0580	69,464	3,808	19,970	7.56%
2012	769,715	888,601	59,078	1.0580	62,504	3,427	13,409	7.03%
2013	781,394	887,878	53,778	1.0580	56,897	3,119	11,160	6.41%
2014	822,358	914,310	48,261	1.0580	51,060	2,799	11,410	5.58%
2015	877,262	957,167	63,515	1.0580	67,199	3,684	18,646	7.02%
2016	923,168	995,311	75,667	1.0580	80,056	4,389	32,420	8.04%
2017	977,104	1,039,942	67,467	1.0580	71,380	3,913	27,128	6.86%
2018	1,044,467	1,094,131	55,751	1.0580	58,985	3,234	24,832	5.39%
2019	1,099,731	1,123,925	49,805	1.2224	60,882	11,078	26,562	5.42%
2020	1,134,690	1,134,690	28,530	1.4464	41,264	12,735	19,956	3.64%
	14,546,690	16,741,981	1,080,761		1,156,248	75,487	341,081	6.91%

Notes:

(3) Indexed to match the indexing done on losses

(9) = (6) / (3)

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**Development of Bornhuetter-Ferguson Initial Expected Loss Ratio**

Insurance Year	Restated Earned Premium	Projected Ultimate Losses	Based on Prior Year	Based on 2nd Prior Year	Based on 3rd Prior Year	Fitted Ultimate Losses	Fitted Ultimate Loss Ratio	Projected Ultimate Loss Ratio	Weight	Weighted Initial Ult Loss Ratio	Selected Initial Ult Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
2003	770,829	64,180				64,180	8.33%	8.33%	100.00%	8.33%	8.33%
2004	804,362	64,896	64,180			64,180	7.98%	8.07%	100.00%	8.07%	8.07%
2005	832,705	64,896	64,896	64,180		64,538	7.75%	7.79%	100.00%	7.79%	7.79%
2006	842,017	74,708	64,896	64,896	64,180	64,657	7.68%	8.87%	100.00%	8.87%	8.87%
2007	855,486	76,005	74,708	64,896	64,896	68,167	7.97%	8.88%	100.00%	8.88%	8.88%
2008	875,541	59,615	76,005	74,708	64,896	71,870	8.21%	6.81%	100.00%	6.81%	6.81%
2009	894,160	65,693	59,615	76,005	74,708	70,109	7.84%	7.35%	100.00%	7.35%	7.35%
2010	912,177	66,562	65,693	59,615	76,005	67,104	7.36%	7.30%	100.00%	7.30%	7.30%
2011	918,749	69,464	66,562	65,693	59,615	63,957	6.96%	7.56%	100.00%	7.56%	7.56%
2012	888,601	62,504	69,464	66,562	65,693	67,240	7.57%	7.03%	100.00%	7.03%	7.03%
2013	887,878	56,897	62,504	69,464	66,562	66,177	7.45%	6.41%	100.00%	6.41%	6.41%
2014	914,310	51,060	56,897	62,504	69,464	62,955	6.89%	5.58%	100.00%	5.58%	5.58%
2015	957,167	67,199	51,060	56,897	62,504	56,821	5.94%	7.02%	100.00%	7.02%	7.02%
2016	995,311	80,056	67,199	51,060	56,897	58,386	5.87%	8.04%	75.00%	7.50%	7.50%
2017	1,039,942	71,380	80,056	67,199	51,060	66,105	6.36%	6.86%	50.00%	6.61%	6.61%
2018	1,094,131	58,985	71,380	80,056	67,199	72,879	6.66%	5.39%	25.00%	6.34%	6.34%
2019	1,123,925	60,882	58,985	71,380	80,056	70,141	6.24%	5.42%	25.00%	6.03%	6.03%
2020	1,134,690	41,264	60,882	58,985	71,380	63,749	5.62%	3.64%	75.00%	4.13%	4.13%
	16,741,981	1,156,248	1,114,984	1,054,101	995,116	1,183,213					

**Trend in Losses Based on Exponential Regression (a):**

**-1.10%**

**Selected Trend (b):**

**0.00%**

Notes:

(3) Ultimate Losses from Page 14

(7) = Average [(4), (5), (6)]

(11) = (9) \* (10) + (8) \* [1 - (10)]

(a) Based on the Projected Ultimate Losses

(b) Selected Trend from Page 23

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**Projected Ultimate Losses and ALAE Using the Bornhuetter-Ferguson Method on Reported Loss & ALAE**

Insurance Year	Restated	Selected	Initial	Expected Percentage:		Expected	Actual	Expected	Estimated	Estimated
	Earned Premium	Initial Ult Loss Ratio	Expected Ult Losses	Reported	Unreported	Reported Loss	Reported Loss	Unreported Loss	Ultimate Losses	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2003	770,829	8.33%	64,180	96.67%	3.33%	62,039	62,039	2,140	64,180	8.33%
2004	804,362	8.07%	64,896	96.38%	3.62%	62,544	62,544	2,352	64,896	8.07%
2005	832,705	7.79%	64,896	96.09%	3.91%	62,357	62,357	2,539	64,896	7.79%
2006	842,017	8.87%	74,708	95.80%	4.20%	71,571	71,571	3,138	74,708	8.87%
2007	855,486	8.88%	76,005	95.51%	4.49%	72,595	72,595	3,410	76,005	8.88%
2008	875,541	6.81%	59,615	95.23%	4.77%	56,770	56,770	2,845	59,615	6.81%
2009	894,160	7.35%	65,693	94.94%	5.06%	62,371	62,371	3,322	65,693	7.35%
2010	912,177	7.30%	66,562	94.66%	5.34%	63,007	63,007	3,555	66,562	7.30%
2011	918,749	7.56%	69,464	94.52%	5.48%	65,656	65,656	3,808	69,464	7.56%
2012	888,601	7.03%	62,504	94.52%	5.48%	59,078	59,078	3,427	62,504	7.03%
2013	887,878	6.41%	56,897	94.52%	5.48%	53,778	53,778	3,119	56,897	6.41%
2014	914,310	5.58%	51,060	94.52%	5.48%	48,261	48,261	2,799	51,060	5.58%
2015	957,167	7.02%	67,199	94.52%	5.48%	63,515	63,515	3,684	67,199	7.02%
2016	995,311	7.50%	74,639	94.52%	5.48%	70,547	75,667	4,092	79,759	8.01%
2017	1,039,942	6.61%	68,743	94.52%	5.48%	64,974	67,467	3,769	71,236	6.85%
2018	1,094,131	6.34%	69,405	94.52%	5.48%	65,600	55,751	3,805	59,556	5.44%
2019	1,123,925	6.03%	67,826	81.80%	18.20%	55,485	49,805	12,341	62,146	5.53%
2020	1,134,690	4.13%	46,885	69.14%	30.86%	32,416	28,530	14,469	42,999	3.79%
	16,741,981		1,171,178			1,092,563	1,080,761	78,615	1,159,376	6.92%

Notes:

(10) = (8) + (9)

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Insurance Year	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	5,202,464	14,613,943	23,944,661	26,790,925	28,159,840	29,398,878	31,392,285	32,757,444	33,788,923	34,702,842	35,709,110	36,965,980	37,953,461	39,078,796	40,329,470	41,328,501	42,420,857	43,722,344	44,720,654	45,535,775	46,453,218	47,533,526
2003	5,665,069	15,247,750	24,729,691	27,446,169	30,431,204	31,904,331	34,290,568	36,100,074	37,609,313	39,057,727	40,580,687	42,004,303	43,374,908	44,524,843	45,790,941	46,843,946	47,729,760	48,662,705	49,384,122	50,109,890	50,779,185	
2004	4,829,616	12,549,326	21,552,295	24,161,775	26,375,171	27,669,571	29,779,541	31,496,289	32,970,175	34,479,591	35,943,203	37,250,149	38,745,163	39,904,182	40,899,005	41,950,253	42,927,568	43,823,466	44,635,024	45,603,894		
2005	4,268,074	12,649,719	21,507,400	24,443,696	26,894,620	28,065,279	30,035,174	31,866,261	33,656,241	35,371,063	36,936,028	38,171,257	39,318,767	40,363,575	41,330,723	42,408,832	43,333,593	45,003,774	46,160,783			
2006	4,473,075	12,958,836	22,911,965	25,725,797	28,673,197	30,144,489	33,392,627	35,933,797	37,919,258	39,714,487	41,483,417	43,070,262	44,652,993	45,791,910	47,550,681	48,736,448	49,919,662	50,902,541				
2007	4,443,920	12,427,400	22,886,959	25,801,683	28,808,108	30,319,803	33,024,058	35,153,958	37,157,229	39,004,334	40,998,044	42,283,257	43,716,551	45,021,624	46,301,084	48,504,901	49,629,893					
2008	4,281,876	11,992,427	22,281,282	25,756,132	28,855,180	30,405,170	33,043,578	35,394,748	37,105,029	38,840,893	40,264,643	41,121,412	41,930,378	42,326,859	43,394,557	44,419,741						
2009	4,469,649	13,526,106	22,993,000	26,251,261	29,072,159	30,685,571	33,918,273	36,017,288	37,912,935	39,719,590	41,251,691	42,638,851	43,957,980	45,323,784	46,497,854							
2010	4,243,176	13,180,555	24,717,267	28,674,567	32,121,632	33,765,930	36,873,355	39,079,457	40,902,326	42,266,808	43,356,667	44,402,776	45,726,859	46,770,738								
2011	3,912,719	13,258,876	24,708,561	28,462,537	32,035,475	33,785,315	36,757,982	39,083,022	40,208,059	41,730,519	43,485,803	44,827,377	46,008,618									
2012	5,919,880	15,571,359	27,468,778	31,236,556	34,669,282	36,513,775	39,331,853	41,134,121	42,901,224	44,323,457	45,335,080	46,003,236										
2013	4,712,962	14,279,169	27,783,691	31,538,705	34,753,918	36,309,919	38,641,985	40,261,534	41,365,453	42,182,220	42,868,199											
2014	4,099,831	13,252,246	23,917,592	27,871,094	30,574,777	31,975,887	34,144,862	35,454,413	36,536,926	37,217,219												
2015	5,258,635	16,745,074	29,251,971	33,199,127	36,719,558	38,612,167	41,248,702	43,596,715	45,340,440													
2016	5,499,683	16,068,343	28,759,577	33,180,371	36,348,462	38,010,265	41,484,703	44,208,448														
2017	5,422,754	16,168,067	29,300,925	33,149,752	36,801,169	38,791,548	41,606,389															
2018	4,790,802	13,078,819	25,964,869	29,389,157	31,431,994	32,670,650																
2019	3,853,271	13,560,014	21,445,835	24,474,131																		
2020	3,314,353	10,190,059																				

\*Prior years' figures indexed to current benefit level; Travel indexed separately from other benefits

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Insurance Year	Evaluation in Months									
	7	12	19	24	31	36	48	60	72	84
2002	5,202	14,614	23,945	26,791	28,160	29,399	31,392	32,757	33,789	34,703
2003	5,665	15,248	24,730	27,446	30,431	31,904	34,291	36,100	37,609	39,058
2004	4,830	12,549	21,552	24,162	26,375	27,670	29,780	31,496	32,970	34,480
2005	4,268	12,650	21,507	24,444	26,895	28,065	30,035	31,866	33,656	35,371
2006	4,473	12,959	22,912	25,726	28,673	30,144	33,393	35,934	37,919	39,714
2007	4,444	12,427	22,887	25,802	28,808	30,320	33,024	35,154	37,157	39,004
2008	4,282	11,992	22,281	25,756	28,855	30,405	33,044	35,395	37,105	38,841
2009	4,470	13,526	22,993	26,251	29,072	30,686	33,918	36,017	37,913	39,720
2010	4,243	13,181	24,717	28,675	32,122	33,766	36,873	39,079	40,902	42,267
2011	3,913	13,259	24,709	28,463	32,035	33,785	36,758	39,083	40,208	41,731
2012	5,920	15,571	27,469	31,237	34,669	36,514	39,332	41,134	42,901	44,323
2013	4,713	14,279	27,784	31,539	34,754	36,310	38,642	40,262	41,365	42,182
2014	4,100	13,252	23,918	27,871	30,575	31,976	34,145	35,454	36,537	37,217
2015	5,259	16,745	29,252	33,199	36,720	38,612	41,249	43,597	45,340	
2016	5,500	16,068	28,760	33,180	36,348	38,010	41,485	44,208		
2017	5,423	16,168	29,301	33,150	36,801	38,792	41,606			
2018	4,791	13,079	25,965	29,389	31,432	32,671				
2019	3,853	13,560	21,446	24,474						
2020	3,314	10,190								

Insurance Year	7-12	12-19	19-24	24-31	31-36	36-48	48-60	60-72	72-84	84-96
2002	2.8090	1.6385	1.1189	1.0511	1.0440	1.0678	1.0435	1.0315	1.0270	1.0290
2003	2.6915	1.6219	1.1098	1.1088	1.0484	1.0748	1.0528	1.0418	1.0385	1.0390
2004	2.5984	1.7174	1.1211	1.0916	1.0491	1.0763	1.0576	1.0468	1.0458	1.0424
2005	2.9638	1.7002	1.1365	1.1003	1.0435	1.0702	1.0610	1.0562	1.0510	1.0442
2006	2.8971	1.7681	1.1228	1.1146	1.0513	1.1078	1.0761	1.0553	1.0473	1.0445
2007	2.7965	1.8417	1.1274	1.1165	1.0525	1.0892	1.0645	1.0570	1.0497	1.0511
2008	2.8007	1.8579	1.1560	1.1203	1.0537	1.0868	1.0712	1.0483	1.0468	1.0367
2009	3.0262	1.6999	1.1417	1.1075	1.0555	1.1053	1.0619	1.0526	1.0477	1.0386
2010	3.1063	1.8753	1.1601	1.1202	1.0512	1.0920	1.0598	1.0466	1.0334	1.0258
2011	3.3887	1.8635	1.1519	1.1255	1.0546	1.0880	1.0633	1.0288	1.0379	1.0421
2012	2.6304	1.7641	1.1372	1.1099	1.0532	1.0772	1.0458	1.0430	1.0332	1.0228
2013	3.0298	1.9457	1.1352	1.1019	1.0448	1.0642	1.0419	1.0274	1.0197	1.0163
2014	3.2324	1.8048	1.1653	1.0970	1.0458	1.0678	1.0384	1.0305	1.0186	
2015	3.1843	1.7469	1.1349	1.1060	1.0515	1.0683	1.0569	1.0400		
2016	2.9217	1.7898	1.1537	1.0955	1.0457	1.0914	1.0657			
2017	2.9815	1.8123	1.1314	1.1101	1.0541	1.0726				
2018	2.7300	1.9853	1.1319	1.0695	1.0394					
2019	3.5191	1.5815	1.1412							

Latest 9 Volume Weighted	3.0069	1.8078	1.1421	1.1039	1.0490	1.0803	1.0560	1.0413	1.0369	1.0353
Latest 6 Volume Weighted	3.0495	1.7850	1.1426	1.0972	1.0471	1.0738	1.0524	1.0362	1.0317	1.0301
Latest 3 Volume Weighted	3.0797	1.7920	1.1343	1.0926	1.0468	1.0773	1.0546	1.0329	1.0242	1.0269
Simple Average of Middle 4 of Last 6	3.0800	1.7884	1.1404	1.1001	1.0470	1.0715	1.0520	1.0356	1.0310	1.0310
Simple Average of Middle 3 of Last 5	3.0292	1.7830	1.1360	1.0995	1.0477	1.0696	1.0482	1.0331	1.0288	1.0291
Selected March 20										
Selected Oct 20	3.1000	1.8000	1.1400	1.1000	1.0500	1.0765	1.0490	1.0330	1.0300	1.0300
Selected Factors*	3.1000	1.8000	1.1400	1.1000	1.0500	1.0765	1.0490	1.0330	1.0300	1.0300
Selected Ultimate	14.0712	4.5391	2.5217	2.2120	2.0109	1.9152	1.7791	1.6960	1.6418	1.5940

\*216-Ult Factor - Successive LDF's reduced by 5% starting at 1.0165 for the 216-228 factor for 17 years

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Evaluation in Months											
96	108	120	132	144	156	168	180	192	204	216	228
35,709	36,966	37,953	39,079	40,329	41,329	42,421	43,722	44,721	45,536	46,453	47,534
40,581	42,004	43,375	44,525	45,791	46,844	47,730	48,663	49,384	50,110	50,779	
35,943	37,250	38,745	39,904	40,899	41,950	42,928	43,823	44,635	45,604		
36,936	38,171	39,319	40,364	41,331	42,409	43,334	45,004	46,161			
41,483	43,070	44,653	45,792	47,551	48,736	49,920	50,903				
40,998	42,283	43,717	45,022	46,301	48,505	49,630					
40,265	41,121	41,930	42,327	43,395	44,420						
41,252	42,639	43,958	45,324	46,498							
43,357	44,403	45,727	46,771								
43,486	44,827	46,009									
45,335	46,003										
42,868											

96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-Ult
1.0352	1.0267	1.0297	1.0320	1.0248	1.0264	1.0307	1.0228	1.0182	1.0201	1.0233
1.0351	1.0326	1.0265	1.0284	1.0230	1.0189	1.0195	1.0148	1.0147	1.0134	
1.0364	1.0401	1.0299	1.0249	1.0257	1.0233	1.0209	1.0185	1.0217		
1.0334	1.0301	1.0266	1.0240	1.0261	1.0218	1.0385	1.0257			
1.0383	1.0367	1.0255	1.0384	1.0249	1.0243	1.0197				
1.0313	1.0339	1.0299	1.0284	1.0476	1.0232					
1.0213	1.0197	1.0095	1.0252	1.0236						
1.0336	1.0309	1.0311	1.0259							
1.0241	1.0298	1.0228								
1.0309	1.0264									
1.0147										

1.0290	1.0310	1.0256	1.0285	1.0281	1.0229	1.0256	1.0204	1.0181	1.0166	1.0233
1.0259	1.0296	1.0243	1.0280	1.0286	1.0229	1.0256	1.0204	1.0181	1.0166	1.0233
1.0231	1.0290	1.0213	1.0265	1.0322	1.0232	1.0261	1.0196	1.0181	1.0166	1.0233
1.0269	1.0303	1.0262	1.0261	1.0251	1.0231	1.0237	1.0207	1.0182	1.0168	1.0233
1.0254	1.0290	1.0261	1.0265	1.0256	1.0228	1.0237	1.0207	1.0182	1.0168	1.0233
1.0300	1.0300	1.0300	1.0300	1.0300	1.0280	1.0230	1.0190	1.0170	1.0165	1.2050
1.0300	1.0300	1.0300	1.0300	1.0300	1.0280	1.0230	1.0190	1.0170	1.0165	1.2050
1.5475	1.5025	1.4587	1.4162	1.3750	1.3349	1.2986	1.2694	1.2457	1.2249	1.2050



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**Paid Loss & ALAE Development Factors to Ultimate**

Months to Ultimate	Latest 9 Volume Weighted	Latest 6 Volume Weighted	Latest 3 Volume Weighted	Simple Average of Middle 4 of Last 6	Simple Average of Middle 3 of Last 5	Selected March 20 Factors	Selected Oct 20 Factors	Selected Factors
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7	11.9594	11.5329	11.4127	11.6108	11.1836		14.0712	14.0712
12	3.9773	3.7820	3.7057	3.7698	3.6920		4.5391	4.5391
19	2.2000	2.1187	2.0679	2.1078	2.0707		2.5217	2.5217
24	1.9264	1.8543	1.8231	1.8483	1.8227		2.2120	2.2120
31	1.7450	1.6900	1.6686	1.6801	1.6578		2.0109	2.0109
36	1.6634	1.6140	1.5940	1.6047	1.5823		1.9152	1.9152
48	1.5399	1.5031	1.4796	1.4977	1.4794		1.7791	1.7791
60	1.4582	1.4283	1.4030	1.4237	1.4114		1.6960	1.6960
72	1.4004	1.3783	1.3583	1.3748	1.3661		1.6418	1.6418
84	1.3505	1.3359	1.3262	1.3334	1.3279		1.5940	1.5940
96	1.3045	1.2969	1.2914	1.2934	1.2904		1.5475	1.5475
108	1.2677	1.2642	1.2623	1.2595	1.2585		1.5025	1.5025
120	1.2295	1.2278	1.2267	1.2225	1.2229		1.4587	1.4587
132	1.1988	1.1987	1.2011	1.1913	1.1919		1.4162	1.4162
144	1.1655	1.1661	1.1700	1.1610	1.1611		1.3750	1.3750
156	1.1336	1.1336	1.1336	1.1326	1.1321		1.3349	1.3349
168	1.1082	1.1082	1.1079	1.1069	1.1069		1.2986	1.2986
180	1.0806	1.0806	1.0798	1.0813	1.0813		1.2694	1.2694
192	1.0590	1.0590	1.0590	1.0594	1.0594		1.2457	1.2457
204	1.0402	1.0402	1.0402	1.0404	1.0404		1.2249	1.2249
216	1.0233	1.0233	1.0233	1.0233	1.0233		1.2050	1.2050

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**Interpolated Percentage of Ultimate Factors**

For October				For March					
Months of Devt	RTR Factors	Factor to Ultimate	Percentage Paid	Months of Devt	Percentage Paid	Factor to Ultimate	RTR Factors	Selected RTR Factors	Sel'd Factor to Ultimate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
7	3.1000	14.0643	7.11%	7		14.0643	3.1000	3.1000	14.0712
12	1.8000	4.5369		12	22.04%	4.5369	1.8000	1.8000	4.5391
19	1.1400	2.5205	39.68%	19		2.5205	1.1400	1.1400	2.5217
24	1.1000	2.2109		24	45.23%	2.2109	1.1000	1.1000	2.2120
31	1.0500	2.0099	49.75%	31		2.0099	1.0500	1.0500	2.0109
36	1.0500	1.9142		36	52.24%	1.9142	1.0763	1.0765	1.9152
43	1.0600	1.8231	54.85%	48	56.22%	1.7786	1.0492	1.0490	1.7791
55	1.0350	1.7199	58.14%	60	58.99%	1.6952	1.0329	1.0330	1.6960
67	1.0300	1.6617	60.18%	72	60.93%	1.6412	1.0300	1.0300	1.6418
79	1.0300	1.6133	61.98%	84	62.76%	1.5934	1.0300	1.0300	1.5940
91	1.0300	1.5663	63.84%	96	64.64%	1.5470	1.0300	1.0300	1.5475
103	1.0300	1.5207	65.76%	108	66.58%	1.5019	1.0300	1.0300	1.5025
115	1.0300	1.4764	67.73%	120	68.58%	1.4582	1.0300	1.0300	1.4587
127	1.0300	1.4334	69.76%	132	70.64%	1.4157	1.0300	1.0300	1.4162
139	1.0300	1.3917	71.86%	144	72.75%	1.3745	1.0300	1.0300	1.3750
151	1.0300	1.3511	74.01%	156	74.94%	1.3345	1.0279	1.0280	1.3349
163	1.0250	1.3118	76.23%	168	77.03%	1.2983	1.0229	1.0230	1.2986
175	1.0200	1.2798	78.14%	180	78.79%	1.2692	1.0189	1.0190	1.2694
187	1.0175	1.2547	79.70%	192	80.28%	1.2456	1.0171	1.0170	1.2457
199	1.0165	1.2331	81.10%	204	81.65%	1.2247	1.0164	1.0165	1.2249
Tail	1.2131	1.2131	82.43%	Tail	82.99%	1.2050	1.2050	1.2050	1.2050

Selected Development in 4th and Subsequent Years: 41.67%

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**Projected Ultimate Losses & ALAE Using the Development Method on Paid Loss & ALAE**

Insurance Year	Earned Premium	Restated Earned Premium	Paid Loss & ALAE	Development Factor to Ultimate	Ultimate Losses	Unpaid	Case Reserves	IBNR	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2003	563,789	770,829	50,779	1.2050	61,189	10,410	11,372	(962)	7.94%
2004	598,905	804,362	45,604	1.2249	55,859	10,256	17,211	(6,955)	6.94%
2005	632,408	832,705	46,161	1.2457	57,503	11,342	16,389	(5,047)	6.91%
2006	656,746	842,017	50,903	1.2694	64,614	13,712	21,253	(7,541)	7.67%
2007	679,930	855,486	49,630	1.2986	64,448	14,818	23,259	(8,441)	7.53%
2008	709,787	875,541	44,420	1.3349	59,297	14,877	12,571	2,306	6.77%
2009	741,553	894,160	46,498	1.3750	63,933	17,436	16,140	1,296	7.15%
2010	761,034	912,177	46,771	1.4162	66,238	19,467	17,393	2,074	7.26%
2011	772,649	918,749	46,009	1.4587	67,113	21,105	19,970	1,135	7.30%
2012	769,715	888,601	46,003	1.5025	69,119	23,115	13,409	9,706	7.78%
2013	781,394	887,878	42,868	1.5475	66,341	23,472	11,160	12,312	7.47%
2014	822,358	914,310	37,217	1.5940	59,323	22,106	11,410	10,696	6.49%
2015	877,262	957,167	45,340	1.6418	74,440	29,099	18,646	10,453	7.78%
2016	923,168	995,311	44,208	1.6960	74,976	30,768	32,420	(1,652)	7.53%
2017	977,104	1,039,942	41,606	1.7791	74,021	32,415	27,128	5,287	7.12%
2018	1,044,467	1,094,131	32,671	1.9152	62,570	29,899	24,832	5,067	5.72%
2019	1,099,731	1,123,925	24,474	2.2120	54,137	29,663	26,562	3,101	4.82%
2020	1,134,690	1,134,690	10,190	4.5391	46,254	36,063	19,956	16,107	4.08%
	14,546,690	16,741,981	751,352		1,141,376	390,024	341,081	48,943	6.82%

Notes:

- (3) Indexed to match the indexing done on losses
- (10) = (6) / (3)

Manitoba Public Insurance  
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**Development of Bornhuetter-Ferguson Initial Expected Loss Ratio**

Insurance Year	Restated Earned Premium	Projected Ultimate Losses	Based on Prior Year	Based on 2nd Prior Year	Based on 3rd Prior Year	Fitted Ultimate Losses	Fitted Ultimate Loss Ratio	Projected Ultimate Loss Ratio	Weight	Weighted Initial Ult Loss Ratio	Selected Initial Ult Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
2003	770,829	61,189				61,189	7.94%	7.94%	100.00%	7.94%	8.33%
2004	804,362	55,859	61,189			61,189	7.61%	6.94%	100.00%	6.94%	8.07%
2005	832,705	57,503	55,859	61,189		58,524	7.03%	6.91%	100.00%	6.91%	7.79%
2006	842,017	64,614	57,503	55,859	61,189	58,184	6.91%	7.67%	100.00%	7.67%	8.87%
2007	855,486	64,448	64,614	57,503	55,859	59,326	6.93%	7.53%	100.00%	7.53%	8.88%
2008	875,541	59,297	64,448	64,614	57,503	62,188	7.10%	6.77%	100.00%	6.77%	6.81%
2009	894,160	63,933	59,297	64,448	64,614	62,786	7.02%	7.15%	100.00%	7.15%	7.35%
2010	912,177	66,238	63,933	59,297	64,448	62,560	6.86%	7.26%	100.00%	7.26%	7.30%
2011	918,749	67,113	66,238	63,933	59,297	63,156	6.87%	7.30%	100.00%	7.30%	7.56%
2012	888,601	69,119	67,113	66,238	63,933	65,762	7.40%	7.78%	100.00%	7.78%	7.03%
2013	887,878	66,341	69,119	67,113	66,238	67,490	7.60%	7.47%	100.00%	7.47%	6.41%
2014	914,310	59,323	66,341	69,119	67,113	67,524	7.39%	6.49%	100.00%	6.49%	5.58%
2015	957,167	74,440	59,323	66,341	69,119	64,928	6.78%	7.78%	100.00%	7.78%	7.02%
2016	995,311	74,976	74,440	59,323	66,341	66,701	6.70%	7.53%	75.00%	7.33%	7.50%
2017	1,039,942	74,021	74,976	74,440	59,323	69,580	6.69%	7.12%	50.00%	6.90%	6.61%
2018	1,094,131	62,570	74,021	74,976	74,440	74,479	6.81%	5.72%	25.00%	6.54%	6.34%
2019	1,123,925	54,137	62,570	74,021	74,976	70,522	6.27%	4.82%	25.00%	5.91%	6.03%
2020	1,134,690	46,254	54,137	62,570	74,021	63,576	5.60%	4.08%	75.00%	4.46%	4.13%
	16,741,981	1,141,376	1,095,123	1,040,985	978,415	1,159,664					

**Trend in Losses Based on Exponential Regression (a):**

**0.00%**

**Selected Trend (b):**

**0.00%**

Notes:

(3) Ultimate Losses from Page 22

(7) = Average [(4), (5), (6)]

(11) = (9) \* (10) + (8) \* [1 - (10)]

(12) Selected Initial Ult Loss Ratio from Page 15

(a) Based on the Projected Ultimate Losses

(b) Based on the exponential trend rounded up to the nearest (b) Selected Trend from Page 15

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Paid Loss & ALAE - Without Z-Files - Adjusted  
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**Projected Ultimate Losses and ALAE Using the Bornhuetter-Ferguson Method on Paid Loss & ALAE**

Insurance Year	Restated	Selected	Initial	Expected Percentage:		Expected	Actual	Expected	Estimated	Expected	Estimated
	Earned Premium	Initial Ult Loss Ratio	Expected Ult Losses	Paid	Unpaid	Paid Loss	Paid Loss	Unpaid Loss	Ultimate Losses	IBNR	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
2003	770,829	8.33%	64,180	82.99%	17.01%	53,261	50,779	10,919	61,698	(453)	8.00%
2004	804,362	8.07%	64,896	81.64%	18.36%	52,981	45,604	11,915	57,519	(5,296)	7.15%
2005	832,705	7.79%	64,896	80.28%	19.72%	52,096	46,161	12,800	58,961	(3,589)	7.08%
2006	842,017	8.87%	74,708	78.78%	21.22%	58,854	50,903	15,854	66,756	(5,399)	7.93%
2007	855,486	8.88%	76,005	77.01%	22.99%	58,529	49,630	17,475	67,105	(5,784)	7.84%
2008	875,541	6.81%	59,615	74.91%	25.09%	44,658	44,420	14,957	59,377	2,386	6.78%
2009	894,160	7.35%	65,693	72.73%	27.27%	47,778	46,498	17,915	64,413	1,775	7.20%
2010	912,177	7.30%	66,562	70.61%	29.39%	47,000	46,771	19,562	66,333	2,169	7.27%
2011	918,749	7.56%	69,464	68.55%	31.45%	47,620	46,009	21,844	67,853	1,874	7.39%
2012	888,601	7.03%	62,504	66.56%	33.44%	41,601	46,003	20,903	66,907	7,494	7.53%
2013	887,878	6.41%	56,897	64.62%	35.38%	36,766	42,868	20,131	62,999	8,971	7.10%
2014	914,310	5.58%	51,060	62.74%	37.26%	32,033	37,217	19,027	56,244	7,617	6.15%
2015	957,167	7.02%	67,199	60.91%	39.09%	40,930	45,340	26,269	71,609	7,623	7.48%
2016	995,311	7.50%	74,639	58.96%	41.04%	44,009	44,208	30,629	74,838	(1,791)	7.52%
2017	1,039,942	6.61%	68,743	56.21%	43.79%	38,640	41,606	30,103	71,710	2,975	6.90%
2018	1,094,131	6.34%	69,405	52.21%	47.79%	36,240	32,671	33,166	65,836	8,334	6.02%
2019	1,123,925	6.03%	67,826	45.21%	54.79%	30,662	24,474	37,164	61,638	10,602	5.48%
2020	1,134,690	4.13%	46,885	22.03%	77.97%	10,329	10,190	36,556	46,746	16,600	4.12%
	16,741,981		1,171,178			773,988	751,352	397,190	1,148,542	56,109	6.86%

Notes:

(10) = (8) + (9)

Manitoba Public Insurance  
Automobile Insurance Division - Accident Benefits - Other (Indexed)  
Discount Factors for Unpaid  
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Period in Months	Selected Factor	Growth in Paid	Paid in Period	Cumulative Paid	Discount Factor to 192 Months [a]		Discounted Paid in Period [b]		Discounted Cumulative Paid [b]		Disc to Undisc Cumulative Paid [b]		Discount to Beginning of Period [c]	
					No Margin	Margin	No Margin	Margin	No Margin	Margin	No Margin	Margin	No Margin	Margin
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(4)*(6)	(9)=(4)*(7)	(10)	(11)	(12)=(10)/(5)	(13)=(11)/(5)	(14)	(15)
192-204	1.0170	1,017.00	17.00	251.20	99.57%	99.82%	16.93	16.97	234.00	243.77	93.15%	97.04%	93.15%	97.04%
204-216	1.0165	1,033.78	16.78	234.20	98.72%	99.46%	16.57	16.69	217.07	226.80	92.69%	96.84%	93.49%	97.19%
216-228	1.0165	1,050.84	17.06	217.42	97.88%	99.11%	16.70	16.90	200.51	210.11	92.22%	96.64%	93.82%	97.34%
228-240	1.0157	1,067.31	16.47	200.36	97.05%	98.75%	15.99	16.27	183.81	193.20	91.74%	96.43%	94.13%	97.47%
240-252	1.0149	1,083.20	15.89	183.89	96.22%	98.40%	15.29	15.64	167.83	176.94	91.27%	96.22%	94.45%	97.61%
252-264	1.0141	1,098.53	15.32	167.99	95.40%	98.04%	14.62	15.02	152.53	161.30	90.80%	96.02%	94.77%	97.76%
264-276	1.0134	1,113.29	14.76	152.67	94.59%	97.69%	13.96	14.42	137.91	146.28	90.33%	95.81%	95.10%	97.90%
276-288	1.0128	1,127.50	14.21	137.91	93.78%	97.34%	13.33	13.84	123.95	131.85	89.88%	95.61%	95.43%	98.05%
288-300	1.0121	1,141.18	13.68	123.69	92.98%	96.99%	12.72	13.26	110.62	118.02	89.43%	95.41%	95.77%	98.20%
300-312	1.0115	1,154.33	13.15	110.02	92.19%	96.64%	12.12	12.71	97.90	104.75	88.99%	95.22%	96.12%	98.35%
312-324	1.0109	1,166.97	12.64	96.87	91.40%	96.30%	11.55	12.17	85.78	92.05	88.56%	95.02%	96.47%	98.50%
324-336	1.0104	1,179.10	12.14	84.23	90.62%	95.95%	11.00	11.64	74.23	79.88	88.13%	94.83%	96.83%	98.65%
336-348	1.0099	1,190.75	11.65	72.10	89.85%	95.61%	10.47	11.14	63.24	68.23	87.71%	94.64%	97.20%	98.81%
348-360	1.0094	1,201.92	11.18	60.45	89.08%	95.26%	9.96	10.65	52.77	57.10	87.30%	94.46%	97.58%	98.97%
360-372	1.0089	1,212.64	10.72	49.27	88.32%	94.92%	9.46	10.17	42.81	46.45	86.89%	94.27%	97.96%	99.14%
372-384	1.0085	1,222.91	10.27	38.56	87.57%	94.58%	8.99	9.71	33.35	36.28	86.50%	94.09%	98.35%	99.30%
384-396	1.0080	1,232.75	9.84	28.28	86.82%	94.24%	8.54	9.27	24.35	26.56	86.11%	93.92%	98.75%	99.47%
396-408	1.0076	1,242.18	9.42	18.44	86.08%	93.90%	8.11	8.85	15.81	17.29	85.72%	93.74%	99.16%	99.65%
408-Ult	1.0073	1,251.20	9.02	9.02	85.35%	93.57%	7.70	8.44	7.70	8.44	85.35%	93.57%	99.57%	99.82%

Notes:  
 (2) - Per comment in Page 19: 216-Ult Factor - Successive LDF's reduced by 5% starting at 1.0165 for the 216-228 factor for 17 years  
 (3), (4) & (5) - Assuming Paid at 192 Months of 1,000  
 (14) = (12) / [(6) \* (1 + Discount Rate Without Margin) ^ 0.5]  
 (15) = (13) / [(7) \* (1 + Discount Rate With Margin) ^ 0.5]  
 [a] Assuming the Paid in Period is paid in the middle of the period:  
     Discount Rate Without Margin      0.86%  
     Discount Rate With Margin         0.36%  
 [b] As at 192 months  
 [c] Represents the discounting of the remaining unpaid at the beginning of the period back to the beginning of the period.  
 For example, the discount factor for the period 300-312 represents the remaining unpaid at 300 months discounted back to 300 months.

**APPENDIX G      ACCIDENT BENEFITS – OTHER NON-INDEXED**

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Undiscounted Gross IBNR Calculations

Manitoba Public Insurance  
Automobile Insurance Division - Accident Benefits - Other (Non-Indexed) Reported Loss & ALAE - With Z-Files  
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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	12,385,947	21,688,437	24,788,518	25,488,543	26,083,851	25,984,550	26,108,801	25,835,447	25,680,498	25,613,336	25,730,758	25,851,870	25,828,303	25,953,145	25,970,446	25,904,607	25,919,791	26,000,914	26,071,768	26,088,859	26,106,772	26,121,904
2003	14,536,044	22,521,612	23,705,977	24,405,895	25,000,281	24,914,624	24,872,586	25,000,836	25,109,192	25,038,417	24,930,887	24,980,994	25,208,409	25,269,654	25,310,243	25,403,340	25,618,640	25,541,976	25,573,963	25,595,561	25,613,514	
2004	10,863,456	21,301,662	24,065,860	24,372,824	25,030,752	25,641,314	25,597,069	25,462,269	25,395,764	25,445,309	25,245,918	25,346,461	25,322,325	25,369,559	25,507,364	25,544,330	25,583,905	25,596,024	25,602,609	25,680,678		
2005	13,300,354	23,243,920	26,142,111	27,515,134	28,170,288	28,527,064	28,637,983	28,281,251	28,192,550	28,380,017	28,526,472	28,431,997	28,340,407	28,330,850	28,469,285	28,469,325	28,446,969	28,470,512	28,560,783			
2006	17,881,379	29,196,335	33,477,308	33,147,756	33,512,439	33,850,439	33,627,042	33,301,703	33,437,684	33,824,989	34,093,238	34,050,801	34,151,143	34,168,806	34,217,579	34,269,868	34,264,424	34,387,138				
2007	14,589,889	24,177,745	27,620,794	28,263,353	28,240,464	28,271,765	28,153,100	28,497,911	28,841,111	28,811,645	28,749,873	28,909,429	28,991,106	28,999,795	29,067,420	29,236,508	29,314,183					
2008	12,433,931	26,348,095	27,378,145	26,916,192	27,393,087	27,516,699	27,697,701	28,213,995	28,315,253	28,278,509	28,561,696	29,010,371	29,236,937	28,792,619	29,097,070	29,134,683						
2009	13,592,106	24,385,374	26,457,236	26,686,203	27,720,221	28,019,674	29,002,395	29,319,650	29,484,519	29,398,650	29,633,381	29,657,501	29,735,103	29,805,514	29,822,991							
2010	11,654,816	20,359,059	22,992,832	24,207,762	26,576,992	27,559,996	27,953,542	28,267,296	28,372,820	28,391,412	28,602,240	28,640,703	28,751,964	28,823,492								
2011	11,541,489	22,605,145	25,578,495	27,691,280	29,488,486	30,425,389	31,058,922	31,237,727	31,374,276	31,662,008	31,840,238	31,987,203	32,053,900									
2012	14,678,392	21,303,452	25,436,878	26,776,153	28,398,283	28,528,388	28,602,119	28,978,341	28,978,529	29,529,381	29,682,204	29,754,379										
2013	11,056,541	20,148,621	24,304,562	26,235,341	26,379,408	26,636,331	26,711,505	27,204,041	27,371,557	27,509,708	27,593,731											
2014	9,369,072	17,566,157	21,370,846	24,257,186	26,372,930	27,062,687	27,529,409	27,734,445	27,696,388	27,856,990												
2015	9,808,758	17,707,682	21,872,546	23,995,005	28,011,610	28,658,796	32,340,649	30,244,985	28,908,727													
2016	10,551,457	21,433,904	26,800,784	27,943,303	33,711,978	36,961,707	37,133,018	31,710,452														
2017	11,151,246	20,746,898	24,614,720	33,698,776	34,127,017	34,921,853	29,032,400															
2018	10,179,859	25,699,956	28,203,912	29,645,255	30,077,901	29,143,910																
2019	12,951,401	22,180,455	25,415,281	25,543,724																		
2020	14,107,454	22,449,991																				



Manitoba Public Insurance  
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Insurance Year (April-March)	Evaluation in Months																						
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	
2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Insurance Year	Evaluation in Months									
	7	12	19	24	31	36	48	60	72	84
2002	12,386	21,688	24,789	25,489	26,084	25,985	26,109	25,835	25,680	25,613
2003	14,536	22,522	23,706	24,406	25,000	24,915	24,873	25,001	25,109	25,038
2004	10,863	21,302	24,066	24,373	25,031	25,641	25,597	25,462	25,396	25,445
2005	13,300	23,244	26,142	27,515	28,170	28,527	28,638	28,281	28,193	28,380
2006	17,881	29,196	33,477	33,148	33,512	33,850	33,627	33,302	33,438	33,825
2007	14,590	24,178	27,621	28,263	28,240	28,272	28,153	28,498	28,841	28,812
2008	12,434	26,348	27,378	26,916	27,393	27,517	27,698	28,214	28,315	28,279
2009	13,592	24,385	26,457	26,686	27,720	28,020	29,002	29,320	29,485	29,399
2010	11,655	20,359	22,993	24,208	26,577	27,560	27,954	28,267	28,373	28,391
2011	11,541	22,605	25,578	27,691	29,488	30,425	31,059	31,238	31,374	31,662
2012	14,678	21,303	25,437	26,776	28,398	28,528	28,602	28,978	28,979	29,529
2013	11,057	20,149	24,305	26,235	26,379	26,636	26,712	27,204	27,372	27,510
2014	9,369	17,566	21,371	24,257	26,373	27,063	27,529	27,734	27,696	27,857
2015	9,809	17,708	21,873	23,995	28,012	28,659	32,341	30,245	28,909	
2016	10,551	21,434	26,801	27,943	33,712	36,962	37,133	31,710		
2017	11,151	20,747	24,615	33,699	34,127	34,922	29,032			
2018	10,180	25,700	28,204	29,645	30,078	29,144				
2019	12,951	22,180	25,415	25,544						
2020	14,107	22,450								
Insurance Year	7-12	12-19	19-24	24-31	31-36	36-48	48-60	60-72	72-84	84-96
2002	1.7511	1.1429	1.0282	1.0234	0.9962	1.0048	0.9895	0.9940	0.9974	1.0046
2003	1.5494	1.0526	1.0295	1.0244	0.9966	0.9983	1.0052	1.0043	0.9972	0.9957
2004	1.9609	1.1298	1.0128	1.0270	1.0244	0.9983	0.9947	0.9974	1.0020	0.9922
2005	1.7476	1.1247	1.0525	1.0238	1.0127	1.0039	0.9875	0.9969	1.0066	1.0052
2006	1.6328	1.1466	0.9902	1.0110	1.0101	0.9934	0.9903	1.0041	1.0116	1.0079
2007	1.6572	1.1424	1.0233	0.9992	1.0011	0.9958	1.0122	1.0120	0.9990	0.9979
2008	2.1190	1.0391	0.9831	1.0177	1.0045	1.0066	1.0186	1.0036	0.9987	1.0100
2009	1.7941	1.0850	1.0087	1.0387	1.0108	1.0351	1.0109	1.0056	0.9971	1.0080
2010	1.7468	1.1294	1.0528	1.0979	1.0370	1.0143	1.0112	1.0037	1.0007	1.0074
2011	1.9586	1.1315	1.0826	1.0649	1.0318	1.0208	1.0058	1.0044	1.0092	1.0056
2012	1.4513	1.1940	1.0527	1.0606	1.0046	1.0026	1.0132	1.0000	1.0190	1.0052
2013	1.8223	1.2063	1.0794	1.0055	1.0097	1.0028	1.0184	1.0062	1.0050	1.0031
2014	1.8749	1.2166	1.1351	1.0872	1.0262	1.0172	1.0074	0.9986	1.0058	
2015	1.8053	1.2352	1.0970	1.1674	1.0231	1.1285	0.9352	0.9558		
2016	2.0314	1.2504	1.0426	1.2064	1.0964	1.0046	0.8540			
2017	1.8605	1.1864	1.3690	1.0127	1.0233	0.8314				
2018	2.5246	1.0974	1.0511	1.0146	0.9689					
2019	1.7126	1.1458	1.0051							
Latest 9 Volume Weighted	1.8221	1.1806	1.0992	1.0765	1.0257	1.0022	0.9809	0.9986	1.0053	1.0056
Latest 6 Volume Weighted	1.8941	1.1831	1.1133	1.0779	1.0263	0.9922	0.9658	0.9944	1.0062	1.0065
Latest 3 Volume Weighted	1.8886	1.1400	1.1362	1.0726	1.0318	0.9797	0.9246	0.9858	1.0101	1.0047
Simple Average of Middle 4 of Last 6	1.8930	1.1960	1.0815	1.0705	1.0206	1.0068	0.9904	1.0017	1.0052	1.0066
Simple Average of Middle 3 of Last 5	1.8991	1.1892	1.0636	1.0897	1.0242	1.0082	0.9853	1.0010	1.0067	1.0061
Selected March 20										
Selected Oct 20	1.9200	1.2000	1.0600	1.0200	1.0150	1.0140	1.0075	1.0035	1.0035	1.0035
Selected Factors	1.9200	1.2000	1.0600	1.0200	1.0150	1.0140	1.0075	1.0035	1.0035	1.0035
Selected Ultimate	2.6563	1.3835	1.1529	1.0877	1.0663	1.0506	1.0361	1.0284	1.0248	1.0212

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Evaluation in Months											
96	108	120	132	144	156	168	180	192	204	216	228
25,731	25,852	25,828	25,953	25,970	25,905	25,920	26,001	26,072	26,089	26,107	26,122
24,931	24,981	25,208	25,270	25,310	25,403	25,619	25,542	25,574	25,596	25,614	
25,246	25,346	25,322	25,370	25,507	25,544	25,584	25,596	25,603	25,681		
28,526	28,432	28,340	28,331	28,469	28,469	28,447	28,471	28,561			
34,093	34,051	34,151	34,169	34,218	34,270	34,264	34,387				
28,750	28,909	28,991	29,000	29,067	29,237	29,314					
28,562	29,010	29,237	28,793	29,097	29,135						
29,633	29,658	29,735	29,806	29,823							
28,602	28,641	28,752	28,823								
31,840	31,987	32,054									
29,682	29,754										
27,594											

96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-Ult
1.0047	0.9991	1.0048	1.0007	0.9975	1.0006	1.0031	1.0027	1.0007	1.0007	1.0006
1.0020	1.0091	1.0024	1.0016	1.0037	1.0085	0.9970	1.0013	1.0008	1.0007	
1.0040	0.9990	1.0019	1.0054	1.0014	1.0015	1.0005	1.0003	1.0030		
0.9967	0.9968	0.9997	1.0049	1.0000	0.9992	1.0008	1.0032			
0.9988	1.0029	1.0005	1.0014	1.0015	0.9998	1.0036				
1.0055	1.0028	1.0003	1.0023	1.0058	1.0027					
1.0157	1.0078	0.9848	1.0106	1.0013						
1.0008	1.0026	1.0024	1.0006							
1.0013	1.0039	1.0025								
1.0046	1.0021									
1.0024										

1.0032	1.0030	0.9998	1.0034	1.0016	1.0019	1.0012	1.0019	1.0015	1.0007	1.0006
1.0050	1.0036	0.9984	1.0041	1.0023	1.0019	1.0012	1.0019	1.0015	1.0007	1.0006
1.0029	1.0028	0.9966	1.0044	1.0028	1.0005	1.0018	1.0016	1.0015	1.0007	1.0006
1.0035	1.0031	1.0007	1.0035	1.0020	1.0012	1.0015	1.0020	1.0008	1.0007	1.0006
1.0028	1.0031	1.0011	1.0029	1.0014	1.0013	1.0015	1.0020	1.0008	1.0007	1.0006
1.0035	1.0030	1.0020	1.0020	1.0020	1.0020	1.0020	1.0010	1.0000	1.0000	1.0000
1.0035	1.0030	1.0020	1.0020	1.0020	1.0020	1.0020	1.0010	1.0000	1.0000	1.0000
1.0176	1.0141	1.0111	1.0090	1.0070	1.0050	1.0030	1.0010	1.0000	1.0000	1.0000

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**Reported Loss & ALAE Development Factors to Ultimate**

Months to Ultimate	Latest 9 Volume Weighted	Latest 6 Volume Weighted	Latest 3 Volume Weighted	Simple Average of Middle 4 of Last 6	Simple Average of Middle 3 of Last 5	Selected March 20 Factors	Selected Oct 20 Factors	Selected Factors
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7	2.6402	2.7205	2.4936	2.7565	2.7493		2.6563	2.6563
12	1.4489	1.4363	1.3203	1.4561	1.4477		1.3835	1.3835
19	1.2273	1.2141	1.1582	1.2175	1.2174		1.1529	1.1529
24	1.1165	1.0905	1.0194	1.1258	1.1446		1.0877	1.0877
31	1.0372	1.0117	0.9504	1.0517	1.0504		1.0663	1.0663
36	1.0112	0.9858	0.9211	1.0305	1.0256		1.0506	1.0506
48	1.0090	0.9935	0.9401	1.0235	1.0172		1.0361	1.0361
60	1.0287	1.0286	1.0168	1.0334	1.0324		1.0284	1.0284
72	1.0301	1.0344	1.0314	1.0317	1.0314		1.0248	1.0248
84	1.0247	1.0280	1.0211	1.0264	1.0245		1.0212	1.0212
96	1.0189	1.0213	1.0163	1.0197	1.0184		1.0176	1.0176
108	1.0157	1.0162	1.0134	1.0161	1.0155		1.0141	1.0141
120	1.0126	1.0125	1.0106	1.0130	1.0124		1.0111	1.0111
132	1.0128	1.0142	1.0141	1.0123	1.0113		1.0090	1.0090
144	1.0094	1.0100	1.0096	1.0088	1.0084		1.0070	1.0070
156	1.0078	1.0078	1.0068	1.0068	1.0070		1.0050	1.0050
168	1.0059	1.0059	1.0062	1.0056	1.0056		1.0030	1.0030
180	1.0047	1.0047	1.0044	1.0041	1.0041		1.0010	1.0010
192	1.0028	1.0028	1.0028	1.0021	1.0021		1.0000	1.0000
204	1.0013	1.0013	1.0013	1.0013	1.0013		1.0000	1.0000
216	1.0006	1.0006	1.0006	1.0006	1.0006		1.0000	1.0000

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**Interpolated Percentage of Ultimate Factors**

For October				For March					
Months of Devt	RTR Factors	Factor to Ultimate	Percentage Reported	Months of Devt	Percentage Reported	Factor to Ultimate	RTR Factors	Selected RTR Factors	Sel'd Factor to Ultimate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
7	1.9200	2.6564	37.65%	7		2.6564	1.9200	1.9200	2.6563
12	1.2000	1.3835		12	72.28%	1.3835	1.2000	1.2000	1.3835
19	1.0600	1.1529	86.73%	19		1.1529	1.0600	1.0600	1.1529
24	1.0200	1.0877		24	91.94%	1.0877	1.0200	1.0200	1.0877
31	1.0150	1.0664	93.78%	31		1.0664	1.0150	1.0150	1.0663
36	1.0100	1.0506		36	95.18%	1.0506	1.0142	1.0140	1.0506
43	1.0100	1.0402	96.14%	48	96.54%	1.0359	1.0073	1.0075	1.0361
55	1.0035	1.0299	97.10%	60	97.24%	1.0284	1.0035	1.0035	1.0284
67	1.0035	1.0263	97.44%	72	97.58%	1.0248	1.0035	1.0035	1.0248
79	1.0035	1.0227	97.78%	84	97.92%	1.0212	1.0035	1.0035	1.0212
91	1.0035	1.0192	98.12%	96	98.26%	1.0177	1.0035	1.0035	1.0176
103	1.0035	1.0156	98.46%	108	98.61%	1.0141	1.0029	1.0030	1.0141
115	1.0020	1.0121	98.81%	120	98.89%	1.0112	1.0020	1.0020	1.0111
127	1.0020	1.0100	99.01%	132	99.09%	1.0092	1.0020	1.0020	1.0090
139	1.0020	1.0080	99.20%	144	99.29%	1.0072	1.0020	1.0020	1.0070
151	1.0020	1.0060	99.40%	156	99.49%	1.0052	1.0020	1.0020	1.0050
163	1.0020	1.0040	99.60%	168	99.68%	1.0032	1.0020	1.0020	1.0030
175	1.0020	1.0020	99.80%	180	99.88%	1.0012	1.0012	1.0010	1.0010
187	1.0000	1.0000	100.00%	192	100.00%	1.0000	1.0000	1.0000	1.0000
199	1.0000	1.0000	100.00%	204	100.00%	1.0000	1.0000	1.0000	1.0000
Tail	1.0000	1.0000	100.00%	Tail	100.00%	1.0000	1.0000	1.0000	1.0000

Selected Development in 4th and Subsequent Years: 41.67%

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**Projected Ultimate Losses & ALAE Using the Development Method on Reported Loss & ALAE**

Insurance Year	Earned Premium	Reported Loss & ALAE	Development Factor to Ultimate	Ultimate Losses	IBNR	Case Reserves	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2003	563,789	25,614	1.0000	25,614	-	18	4.54%
2004	598,905	25,681	1.0000	25,681	-	3	4.29%
2005	632,408	28,561	1.0000	28,561	-	4	4.52%
2006	656,746	34,387	1.0010	34,422	34	59	5.24%
2007	679,930	29,314	1.0030	29,402	88	43	4.32%
2008	709,787	29,135	1.0050	29,281	146	17	4.13%
2009	741,553	29,823	1.0070	30,032	209	49	4.05%
2010	761,034	28,823	1.0090	29,084	260	20	3.82%
2011	772,649	32,054	1.0111	32,408	354	237	4.19%
2012	769,715	29,754	1.0141	30,173	419	109	3.92%
2013	781,394	27,594	1.0176	28,080	487	71	3.59%
2014	822,358	27,857	1.0212	28,447	590	294	3.46%
2015	877,262	28,909	1.0248	29,625	716	758	3.38%
2016	923,168	31,710	1.0284	32,610	899	1,389	3.53%
2017	977,104	29,032	1.0361	30,080	1,047	3,157	3.08%
2018	1,044,467	29,144	1.0506	30,618	1,474	13,984	2.93%
2019	1,099,731	25,544	1.0877	27,783	2,239	14,318	2.53%
2020	1,134,690	22,450	1.3835	31,060	8,610	16,652	2.74%
	14,546,690	515,386		532,959	17,573	51,182	3.66%

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**Development of Bornhuetter-Ferguson Initial Expected Loss Ratio**

Insurance Year	Earned Premium	Projected Ultimate Losses	Based on Prior Year	Based on 2nd Prior Year	Fitted Ultimate Losses	Fitted Ultimate Loss Ratio	Projected Ultimate Loss Ratio	Weight	Weighted Initial Ult Loss Ratio	Selected Initial Ult Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2003	563,789	25,614			25,614	4.54%	4.54%	100.00%	4.54%	4.54%
2004	598,905	25,681	25,742		25,742	4.30%	4.29%	100.00%	4.29%	4.29%
2005	632,408	28,561	25,809	25,870	25,840	4.09%	4.52%	100.00%	4.52%	4.52%
2006	656,746	34,422	28,704	25,938	27,321	4.16%	5.24%	100.00%	5.24%	5.24%
2007	679,930	29,402	34,594	28,847	31,720	4.67%	4.32%	100.00%	4.32%	4.32%
2008	709,787	29,281	29,549	34,767	32,158	4.53%	4.13%	100.00%	4.13%	4.13%
2009	741,553	30,032	29,427	29,697	29,562	3.99%	4.05%	100.00%	4.05%	4.05%
2010	761,034	29,084	30,182	29,574	29,878	3.93%	3.82%	100.00%	3.82%	3.82%
2011	772,649	32,408	29,229	30,333	29,781	3.85%	4.19%	100.00%	4.19%	4.19%
2012	769,715	30,173	32,570	29,375	30,973	4.02%	3.92%	100.00%	3.92%	3.92%
2013	781,394	28,080	30,324	32,733	31,529	4.03%	3.59%	100.00%	3.59%	3.59%
2014	822,358	28,447	28,221	30,476	29,348	3.57%	3.46%	100.00%	3.46%	3.46%
2015	877,262	29,625	28,590	28,362	28,476	3.25%	3.38%	100.00%	3.38%	3.38%
2016	923,168	32,610	29,773	28,733	29,253	3.17%	3.53%	75.00%	3.44%	3.44%
2017	977,104	30,080	32,773	29,922	31,347	3.21%	3.08%	50.00%	3.14%	3.14%
2018	1,044,467	30,618	30,230	32,937	31,583	3.02%	2.93%	25.00%	3.00%	3.00%
2019	1,099,731	27,783	30,771	30,381	30,576	2.78%	2.53%	25.00%	2.72%	2.72%
2020	1,134,690	31,060	27,922	30,925	29,423	2.59%	2.74%	25.00%	2.63%	2.63%
	14,546,690	532,959	504,409	478,869	530,123					

**Trend in Losses Based on Exponential Regression (a):**

**0.46%**

**Selected Trend (b):**

**0.50%**

Notes:

(3) Ultimate Losses from Page 7

(6) = Average [(4), (5)]

(10) = (8) \* (9) + (7) \* [1 - (9)]

(a) Based on the Projected Ultimate Losses

(b) Based on the exponential trend rounded up to the nearest 0.25%; minimum 0.00%

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**Projected Ultimate Losses and ALAE Using the Bornhuetter-Ferguson Method on Reported Loss & ALAE**

Insurance Year	Earned Premium	Selected	Initial	Expected Percentage:		Expected	Actual	Expected	Estimated	Estimated
		Initial Ult Loss Ratio	Expected Ult Losses	Reported	Unreported	Reported Loss	Reported Loss	Unreported Loss	Ultimate Losses	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2003	563,789	4.54%	25,614	100.00%	0.00%	25,614	25,614	-	25,614	4.54%
2004	598,905	4.29%	25,681	100.00%	0.00%	25,681	25,681	-	25,681	4.29%
2005	632,408	4.52%	28,561	100.00%	0.00%	28,561	28,561	-	28,561	4.52%
2006	656,746	5.24%	34,422	99.90%	0.10%	34,387	34,387	34	34,422	5.24%
2007	679,930	4.32%	29,402	99.70%	0.30%	29,314	29,314	88	29,402	4.32%
2008	709,787	4.13%	29,281	99.50%	0.50%	29,135	29,135	146	29,281	4.13%
2009	741,553	4.05%	30,032	99.30%	0.70%	29,823	29,823	209	30,032	4.05%
2010	761,034	3.82%	29,084	99.10%	0.90%	28,823	28,823	260	29,084	3.82%
2011	772,649	4.19%	32,408	98.91%	1.09%	32,054	32,054	354	32,408	4.19%
2012	769,715	3.92%	30,173	98.61%	1.39%	29,754	29,754	419	30,173	3.92%
2013	781,394	3.59%	28,080	98.27%	1.73%	27,594	27,594	487	28,080	3.59%
2014	822,358	3.46%	28,447	97.92%	2.08%	27,857	27,857	590	28,447	3.46%
2015	877,262	3.38%	29,625	97.58%	2.42%	28,909	28,909	716	29,625	3.38%
2016	923,168	3.44%	31,770	97.24%	2.76%	30,894	31,710	876	32,586	3.53%
2017	977,104	3.14%	30,713	96.52%	3.48%	29,644	29,032	1,069	30,102	3.08%
2018	1,044,467	3.00%	31,342	95.19%	4.81%	29,833	29,144	1,509	30,653	2.93%
2019	1,099,731	2.72%	29,878	91.94%	8.06%	27,470	25,544	2,408	27,952	2.54%
2020	1,134,690	2.63%	29,832	72.28%	27.72%	21,563	22,450	8,269	30,719	2.71%
	14,546,690		534,345			516,910	515,386	17,435	532,821	3.66%

Notes:  
(10) = (8) + (9)



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Insurance Year (April-March)	Evaluation in Months																					
	7	12	19	24	31	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
2002	3,276,316	6,892,465	11,922,767	15,585,707	20,144,708	21,570,131	23,521,339	24,694,740	25,003,674	25,089,152	25,231,866	25,464,488	25,654,578	25,787,012	25,824,502	25,868,470	25,883,835	25,986,366	26,070,718	26,077,809	26,088,813	26,120,854
2003	2,419,980	5,316,905	10,555,568	14,894,721	18,580,503	20,475,975	22,772,167	23,672,345	24,080,006	24,340,140	24,451,370	24,672,717	24,908,577	24,971,525	25,146,379	25,257,675	25,480,360	25,520,961	25,556,986	25,563,380	25,595,502	
2004	1,170,342	4,887,865	10,583,971	15,588,411	19,139,328	20,921,255	23,222,634	23,846,594	24,709,621	24,989,319	25,134,463	25,248,461	25,209,368	25,274,719	25,451,748	25,504,655	25,548,844	25,575,738	25,593,650	25,677,200		
2005	3,032,717	7,576,615	13,696,717	18,503,654	21,798,849	23,280,262	25,126,928	26,433,599	27,142,037	27,656,741	28,098,883	28,223,452	28,261,197	28,294,121	28,409,739	28,445,634	28,429,113	28,434,181	28,557,196			
2006	3,395,269	9,435,822	17,682,382	22,567,594	26,130,968	27,787,897	30,643,920	31,921,324	32,391,634	32,996,240	33,558,833	33,848,243	34,050,116	34,142,075	34,179,910	34,241,597	34,257,924	34,328,592				
2007	2,931,920	7,303,536	13,080,678	17,698,829	21,780,198	24,305,775	25,764,436	26,987,769	27,574,742	28,087,264	28,515,490	28,678,011	28,831,638	28,874,050	28,926,455	29,170,664	29,271,140					
2008	2,204,842	6,515,008	12,660,011	18,276,650	21,792,401	23,019,177	25,286,209	26,771,896	27,463,383	27,836,870	28,167,146	28,667,800	28,799,592	28,650,114	29,015,795	29,117,345						
2009	2,830,926	7,197,447	12,251,906	16,154,018	21,620,966	23,859,882	27,184,761	28,314,011	29,018,963	29,219,696	29,439,277	29,595,103	29,679,522	29,761,262	29,773,723							
2010	1,104,063	5,642,958	11,939,112	17,665,459	22,770,197	24,869,513	26,671,074	27,639,809	28,109,783	28,242,810	28,391,199	28,545,932	28,653,874	28,803,515								
2011	3,917,347	8,865,266	16,218,868	21,048,464	25,053,555	27,252,453	29,679,220	30,575,995	30,903,412	31,343,812	31,536,307	31,753,321	31,816,490									
2012	3,173,436	7,245,781	12,986,554	17,401,922	22,665,022	24,826,276	27,627,222	28,097,126	28,589,801	29,188,089	29,504,389	29,645,194										
2013	3,095,074	7,595,012	12,723,717	17,182,570	21,879,349	24,144,364	25,603,486	26,830,976	26,986,259	27,377,460	27,522,666											
2014	3,288,266	7,599,570	12,342,563	16,827,432	21,916,339	23,785,499	26,294,181	26,890,972	27,315,430	27,563,086												
2015	2,375,818	7,961,428	11,940,407	14,865,937	19,250,539	21,559,818	23,206,557	25,671,375	28,150,708													
2016	3,455,112	9,671,882	15,462,911	17,879,228	20,373,971	21,832,667	24,562,945	30,321,192														
2017	2,520,793	8,896,703	14,023,077	14,817,584	16,595,741	18,972,243	25,875,414															
2018	3,653,700	7,166,424	9,140,255	11,637,754	13,725,674	15,159,737																
2019	2,093,122	5,790,308	8,452,025	11,226,024																		
2020	1,648,155	5,798,148																				

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Insurance Year	Evaluation in Months									
	7	12	19	24	31	36	48	60	72	84
2002	3,276	6,892	11,923	15,586	20,145	21,570	23,521	24,695	25,004	25,089
2003	2,420	5,317	10,556	14,895	18,581	20,476	22,772	23,672	24,080	24,340
2004	1,170	4,888	10,584	15,588	19,139	20,921	23,223	23,847	24,710	24,989
2005	3,033	7,577	13,697	18,504	21,799	23,280	25,127	26,434	27,142	27,657
2006	3,395	9,436	17,682	22,568	26,131	27,788	30,644	31,921	32,392	32,996
2007	2,932	7,304	13,081	17,699	21,780	24,306	25,764	26,988	27,575	28,087
2008	2,205	6,515	12,660	18,277	21,792	23,019	25,286	26,772	27,463	27,837
2009	2,831	7,197	12,252	16,154	21,621	23,860	27,185	28,314	29,019	29,220
2010	1,104	5,643	11,939	17,665	22,770	24,870	26,671	27,640	28,110	28,243
2011	3,917	8,865	16,219	21,048	25,054	27,252	29,679	30,576	30,903	31,344
2012	3,173	7,246	12,987	17,402	22,665	24,826	27,627	28,097	28,590	29,188
2013	3,095	7,595	12,724	17,183	21,879	24,144	25,603	26,831	26,986	27,377
2014	3,288	7,600	12,343	16,827	21,916	23,785	26,294	26,891	27,315	27,563
2015	2,376	7,961	11,940	14,866	19,251	21,560	23,207	25,671	28,151	
2016	3,455	9,672	15,463	17,879	20,374	21,833	24,563	30,321		
2017	2,521	8,897	14,023	14,818	16,596	18,972	25,875			
2018	3,654	7,166	9,140	11,638	13,726	15,160				
2019	2,093	5,790	8,452	11,226						
2020	1,648	5,798								
Insurance Year	7-12	12-19	19-24	24-31	31-36	36-48	48-60	60-72	72-84	84-96
2002	2.1037	1.7298	1.3072	1.2925	1.0708	1.0905	1.0499	1.0125	1.0034	1.0057
2003	2.1971	1.9853	1.4111	1.2475	1.1020	1.1121	1.0395	1.0172	1.0108	1.0046
2004	4.1764	2.1654	1.4728	1.2278	1.0931	1.1100	1.0269	1.0362	1.0113	1.0058
2005	2.4983	1.8078	1.3510	1.1781	1.0680	1.0793	1.0520	1.0268	1.0190	1.0160
2006	2.7791	1.8740	1.2763	1.1579	1.0634	1.1028	1.0417	1.0147	1.0187	1.0171
2007	2.4910	1.7910	1.3531	1.2306	1.1160	1.0600	1.0475	1.0217	1.0186	1.0152
2008	2.9549	1.9432	1.4437	1.1924	1.0563	1.0985	1.0588	1.0258	1.0136	1.0119
2009	2.5424	1.7023	1.3185	1.3384	1.1036	1.1394	1.0415	1.0249	1.0069	1.0075
2010	5.1111	2.1158	1.4796	1.2890	1.0922	1.0724	1.0363	1.0170	1.0047	1.0053
2011	2.2631	1.8295	1.2978	1.1903	1.0878	1.0890	1.0302	1.0107	1.0143	1.0061
2012	2.2833	1.7923	1.3400	1.3024	1.0954	1.1128	1.0170	1.0175	1.0209	1.0108
2013	2.4539	1.6753	1.3504	1.2733	1.1035	1.0604	1.0479	1.0058	1.0145	1.0053
2014	2.3111	1.6241	1.3634	1.3024	1.0853	1.1055	1.0227	1.0158	1.0091	
2015	3.3510	1.4998	1.2450	1.2949	1.1200	1.0764	1.1062	1.0966		
2016	2.7993	1.5987	1.1563	1.1395	1.0716	1.1251	1.2344			
2017	3.5293	1.5762	1.0567	1.1200	1.1432	1.3639				
2018	1.9614	1.2754	1.2732	1.1794	1.1045					
2019	2.7663	1.4597	1.3282							
Latest 9 Volume Weighted	2.6765	1.6003	1.2612	1.2337	1.0986	1.1213	1.0635	1.0256	1.0136	1.0106
Latest 6 Volume Weighted	2.8758	1.5155	1.2227	1.2203	1.1030	1.1336	1.0727	1.0262	1.0118	1.0078
Latest 3 Volume Weighted	2.5362	1.4467	1.1919	1.1435	1.1039	1.1809	1.1191	1.0385	1.0149	1.0074
Simple Average of Middle 4 of Last 6	2.8069	1.5336	1.2507	1.2218	1.1033	1.1049	1.0518	1.0153	1.0112	1.0074
Simple Average of Middle 3 of Last 5	2.9722	1.5119	1.2248	1.2046	1.1032	1.1023	1.0590	1.0147	1.0126	1.0063
Selected March 20										
Selected Oct 20	2.8000	1.6000	1.3000	1.2500	1.1000	1.0950	1.0340	1.0160	1.0100	1.0095
Selected Factors	2.8000	1.6000	1.3000	1.2500	1.1000	1.0950	1.0340	1.0160	1.0100	1.0095
Selected Ultimate	9.7166	3.4702	2.1689	1.6684	1.3347	1.2134	1.1081	1.0717	1.0548	1.0443

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Evaluation in Months											
96	108	120	132	144	156	168	180	192	204	216	228
25,232	25,464	25,655	25,787	25,825	25,868	25,884	25,986	26,071	26,078	26,089	26,121
24,451	24,673	24,909	24,972	25,146	25,258	25,480	25,521	25,557	25,563	25,596	
25,134	25,248	25,209	25,275	25,452	25,505	25,549	25,576	25,594	25,677		
28,099	28,223	28,261	28,294	28,410	28,446	28,429	28,434	28,557			
33,559	33,848	34,050	34,142	34,180	34,242	34,258	34,329				
28,515	28,678	28,832	28,874	28,926	29,171	29,271					
28,167	28,668	28,800	28,650	29,016	29,117						
29,439	29,595	29,680	29,761	29,774							
28,391	28,546	28,654	28,804								
31,536	31,753	31,816									
29,504	29,645										
27,523											

96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-Ult
1.0092	1.0075	1.0052	1.0015	1.0017	1.0006	1.0040	1.0032	1.0003	1.0004	1.0012
1.0091	1.0096	1.0025	1.0070	1.0044	1.0088	1.0016	1.0014	1.0003	1.0013	
1.0045	0.9985	1.0026	1.0070	1.0021	1.0017	1.0011	1.0007	1.0033		
1.0044	1.0013	1.0012	1.0041	1.0013	0.9994	1.0002	1.0043			
1.0086	1.0060	1.0027	1.0011	1.0018	1.0005	1.0021				
1.0057	1.0054	1.0015	1.0018	1.0084	1.0034					
1.0178	1.0046	0.9948	1.0128	1.0035						
1.0053	1.0029	1.0028	1.0004							
1.0055	1.0038	1.0052								
1.0069	1.0020									
1.0048										
1.0071	1.0038	1.0020	1.0043	1.0033	1.0023	1.0018	1.0025	1.0013	1.0008	1.0012
1.0076	1.0041	1.0014	1.0043	1.0036	1.0023	1.0018	1.0025	1.0013	1.0008	1.0012
1.0057	1.0028	1.0009	1.0049	1.0044	1.0011	1.0012	1.0022	1.0013	1.0008	1.0012
1.0058	1.0041	1.0020	1.0035	1.0030	1.0016	1.0016	1.0023	1.0003	1.0008	1.0012
1.0059	1.0037	1.0023	1.0023	1.0025	1.0019	1.0016	1.0023	1.0003	1.0008	1.0012
1.0070	1.0040	1.0035	1.0040	1.0040	1.0040	1.0035	1.0025	1.0015	1.0000	1.0000
1.0070	1.0040	1.0035	1.0040	1.0040	1.0040	1.0035	1.0025	1.0015	1.0000	1.0000
1.0345	1.0273	1.0232	1.0197	1.0156	1.0115	1.0075	1.0040	1.0015	1.0000	1.0000

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**Paid Loss & ALAE Development Factors to Ultimate**

Months to Ultimate	Latest 9 Volume Weighted	Latest 6 Volume Weighted	Latest 3 Volume Weighted	Simple Average of Middle 4 of Last 6	Simple Average of Middle 3 of Last 5	Selected March 20 Factors	Selected Oct 20 Factors	Selected Factors
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7	9.4548	9.4118	7.9553	8.9550	9.0502		9.7166	9.7166
12	3.5325	3.2727	3.1367	3.1903	3.0449		3.4702	3.4702
19	2.2074	2.1594	2.1682	2.0802	2.0140		2.1689	2.1689
24	1.7502	1.7661	1.8192	1.6633	1.6443		1.6684	1.6684
31	1.4186	1.4473	1.5909	1.3613	1.3650		1.3347	1.3347
36	1.2912	1.3122	1.4411	1.2339	1.2372		1.2134	1.2134
48	1.1516	1.1576	1.2204	1.1167	1.1224		1.1081	1.1081
60	1.0828	1.0791	1.0905	1.0617	1.0599		1.0717	1.0717
72	1.0558	1.0515	1.0501	1.0458	1.0446		1.0548	1.0548
84	1.0417	1.0393	1.0346	1.0342	1.0316		1.0443	1.0443
96	1.0307	1.0312	1.0270	1.0266	1.0251		1.0345	1.0345
108	1.0235	1.0235	1.0211	1.0206	1.0191		1.0273	1.0273
120	1.0196	1.0193	1.0182	1.0164	1.0153		1.0232	1.0232
132	1.0176	1.0179	1.0173	1.0143	1.0130		1.0197	1.0197
144	1.0132	1.0135	1.0123	1.0108	1.0106		1.0156	1.0156
156	1.0099	1.0099	1.0078	1.0078	1.0081		1.0115	1.0115
168	1.0076	1.0076	1.0067	1.0063	1.0063		1.0075	1.0075
180	1.0058	1.0058	1.0056	1.0047	1.0047		1.0040	1.0040
192	1.0033	1.0033	1.0033	1.0023	1.0023		1.0015	1.0015
204	1.0021	1.0021	1.0021	1.0021	1.0021		1.0000	1.0000
216	1.0012	1.0012	1.0012	1.0012	1.0012		1.0000	1.0000

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**Interpolated Percentage of Ultimate Factors**

For October				For March					
Months of Devt	RTR Factors	Factor to Ultimate	Percentage Paid	Months of Devt	Percentage Paid	Factor to Ultimate	RTR Factors	Selected RTR Factors	Sel'd Factor to Ultimate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
7	2.8000	9.7171	10.29%	7		9.7171	2.8000	2.8000	9.7166
12	1.6000	3.4704		12	28.82%	3.4704	1.6000	1.6000	3.4702
19	1.3000	2.1690	46.10%	19		2.1690	1.3000	1.3000	2.1689
24	1.2500	1.6685		24	59.94%	1.6685	1.2500	1.2500	1.6684
31	1.1000	1.3348	74.92%	31		1.3348	1.1000	1.1000	1.3347
36	1.0750	1.2134		36	82.41%	1.2134	1.0952	1.0950	1.2134
43	1.0450	1.1288	88.59%	48	90.25%	1.1080	1.0343	1.0340	1.1081
55	1.0200	1.0802	92.58%	60	93.35%	1.0712	1.0158	1.0160	1.0717
67	1.0100	1.0590	94.43%	72	94.82%	1.0546	1.0100	1.0100	1.0548
79	1.0100	1.0485	95.37%	84	95.77%	1.0441	1.0094	1.0095	1.0443
91	1.0085	1.0381	96.33%	96	96.67%	1.0345	1.0070	1.0070	1.0345
103	1.0050	1.0294	97.15%	108	97.35%	1.0272	1.0042	1.0040	1.0273
115	1.0030	1.0242	97.63%	120	97.75%	1.0230	1.0034	1.0035	1.0232
127	1.0040	1.0212	97.93%	132	98.09%	1.0195	1.0040	1.0040	1.0197
139	1.0040	1.0171	98.32%	144	98.48%	1.0154	1.0040	1.0040	1.0156
151	1.0040	1.0131	98.71%	156	98.88%	1.0114	1.0040	1.0040	1.0115
163	1.0040	1.0090	99.11%	168	99.27%	1.0073	1.0034	1.0035	1.0075
175	1.0025	1.0050	99.50%	180	99.61%	1.0040	1.0025	1.0025	1.0040
187	1.0025	1.0025	99.75%	192	99.85%	1.0015	1.0015	1.0015	1.0015
199	1.0000	1.0000	100.00%	204	100.00%	1.0000	1.0000	1.0000	1.0000
Tail	1.0000	1.0000	100.00%	Tail	100.00%	1.0000	1.0000	1.0000	1.0000

Selected Development in 4th and Subsequent Years: 41.67%

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**Projected Ultimate Losses & ALAE Using the Development Method on Paid Loss & ALAE**

Insurance Year	Earned Premium	Paid Loss & ALAE	Development Factor to Ultimate	Ultimate Losses	Unpaid	Case Reserves	IBNR	Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2003	563,789	25,596	1.0000	25,596	-	18	(18)	4.54%
2004	598,905	25,677	1.0000	25,677	-	3	(3)	4.29%
2005	632,408	28,557	1.0015	28,600	43	4	39	4.52%
2006	656,746	34,329	1.0040	34,466	137	59	78	5.25%
2007	679,930	29,271	1.0075	29,491	220	43	177	4.34%
2008	709,787	29,117	1.0115	29,454	336	17	319	4.15%
2009	741,553	29,774	1.0156	30,238	464	49	415	4.08%
2010	761,034	28,804	1.0197	29,370	566	20	546	3.86%
2011	772,649	31,816	1.0232	32,555	739	237	502	4.21%
2012	769,715	29,645	1.0273	30,455	810	109	701	3.96%
2013	781,394	27,523	1.0345	28,472	950	71	879	3.64%
2014	822,358	27,563	1.0443	28,785	1,222	294	928	3.50%
2015	877,262	28,151	1.0548	29,693	1,542	758	784	3.38%
2016	923,168	30,321	1.0717	32,494	2,173	1,389	784	3.52%
2017	977,104	25,875	1.1081	28,672	2,797	3,157	(360)	2.93%
2018	1,044,467	15,160	1.2134	18,394	3,235	13,984	(10,749)	1.76%
2019	1,099,731	11,226	1.6684	18,729	7,503	14,318	(6,815)	1.70%
2020	1,134,690	5,798	3.4702	20,121	14,323	16,652	(2,329)	1.77%
	14,546,690	464,203		501,263	37,060	51,182	(14,122)	3.45%

Manitoba Public Insurance  
Automobile Insurance Division - Accident Benefits - Other (Non-Indexed)  
Paid Loss & ALAE - Without Z-Files  
March 31, 2021

Appendix G  
Page 16

**Development of Bornhuetter-Ferguson Initial Expected Loss Ratio**

Insurance Year	Earned Premium	Projected Ultimate Losses	Based on Prior Year	Based on 2nd Prior Year	Fitted Ultimate Losses	Fitted Ultimate Loss Ratio	Projected Ultimate Loss Ratio	Weight	Weighted Initial Ult Loss Ratio	Selected Initial Ult Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2003	563,789	25,596			25,596	4.54%	4.54%	100.00%	4.54%	4.54%
2004	598,905	25,677	25,723		25,723	4.30%	4.29%	100.00%	4.29%	4.29%
2005	632,408	28,600	25,806	25,852	25,829	4.08%	4.52%	100.00%	4.52%	4.52%
2006	656,746	34,466	28,743	25,935	27,339	4.16%	5.25%	100.00%	5.25%	5.24%
2007	679,930	29,491	34,638	28,887	31,763	4.67%	4.34%	100.00%	4.34%	4.32%
2008	709,787	29,454	29,639	34,812	32,225	4.54%	4.15%	100.00%	4.15%	4.13%
2009	741,553	30,238	29,601	29,787	29,694	4.00%	4.08%	100.00%	4.08%	4.05%
2010	761,034	29,370	30,389	29,749	30,069	3.95%	3.86%	100.00%	3.86%	3.82%
2011	772,649	32,555	29,517	30,541	30,029	3.89%	4.21%	100.00%	4.21%	4.19%
2012	769,715	30,455	32,718	29,664	31,191	4.05%	3.96%	100.00%	3.96%	3.92%
2013	781,394	28,472	30,607	32,882	31,745	4.06%	3.64%	100.00%	3.64%	3.59%
2014	822,358	28,785	28,615	30,760	29,688	3.61%	3.50%	100.00%	3.50%	3.46%
2015	877,262	29,693	28,929	28,758	28,843	3.29%	3.38%	100.00%	3.38%	3.38%
2016	923,168	32,494	29,841	29,074	29,458	3.19%	3.52%	75.00%	3.44%	3.44%
2017	977,104	28,672	32,656	29,990	31,323	3.21%	2.93%	50.00%	3.07%	3.14%
2018	1,044,467	18,394	28,816	32,820	30,818	2.95%	1.76%	25.00%	2.65%	3.00%
2019	1,099,731	18,729	18,486	28,960	23,723	2.16%	1.70%	25.00%	2.04%	2.72%
2020	1,134,690	20,121	18,823	18,579	18,701	1.65%	1.77%	25.00%	1.68%	2.63%
	14,546,690	501,263	483,548	467,048	513,755					

**Trend in Losses Based on Exponential Regression (a):**

**-1.64%**

**Selected Trend (b):**

**0.50%**

Notes:

(3) Ultimate Losses from Page 15

(6) = Average [(4), (5)]

(10) = (8) \* (9) + (7) \* [1 - (9)]

(11) Selected Initial Ult Loss Ratio from Page 8

(a) Based on the Projected Ultimate Losses

(b) Selected Trend from Page 8

Manitoba Public Insurance  
Automobile Insurance Division - Accident Benefits - Other (Non-Indexed)  
Paid Loss & ALAE - Without Z-Files  
March 31, 2021

Appendix G  
Page 17

**Projected Ultimate Losses and ALAE Using the Bornhuetter-Ferguson Method on Paid Loss & ALAE**

Insurance Year	Earned Premium	Selected Initial Ult Loss Ratio	Initial Expected Ult Losses	Expected Percentage:		Expected Paid Loss	Actual Paid Loss	Expected Unpaid Loss	Estimated Ultimate Losses	Expected IBNR	Estimated Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
2003	563,789	4.54%	25,614	100.00%	0.00%	25,614	25,596	-	25,596	(18)	4.54%
2004	598,905	4.29%	25,681	100.00%	0.00%	25,681	25,677	-	25,677	(3)	4.29%
2005	632,408	4.52%	28,561	99.85%	0.15%	28,518	28,557	43	28,600	39	4.52%
2006	656,746	5.24%	34,422	99.60%	0.40%	34,284	34,329	137	34,466	78	5.25%
2007	679,930	4.32%	29,402	99.25%	0.75%	29,183	29,271	219	29,491	176	4.34%
2008	709,787	4.13%	29,281	98.86%	1.14%	28,946	29,117	334	29,452	317	4.15%
2009	741,553	4.05%	30,032	98.46%	1.54%	29,571	29,774	461	30,235	412	4.08%
2010	761,034	3.82%	29,084	98.07%	1.93%	28,523	28,804	561	29,364	541	3.86%
2011	772,649	4.19%	32,408	97.73%	2.27%	31,672	31,816	736	32,552	499	4.21%
2012	769,715	3.92%	30,173	97.34%	2.66%	29,371	29,645	802	30,448	693	3.96%
2013	781,394	3.59%	28,080	96.66%	3.34%	27,144	27,523	937	28,459	866	3.64%
2014	822,358	3.46%	28,447	95.75%	4.25%	27,240	27,563	1,208	28,771	914	3.50%
2015	877,262	3.38%	29,625	94.81%	5.19%	28,086	28,151	1,539	29,689	781	3.38%
2016	923,168	3.44%	31,770	93.31%	6.69%	29,646	30,321	2,124	32,446	735	3.51%
2017	977,104	3.14%	30,713	90.25%	9.75%	27,717	25,875	2,996	28,871	(161)	2.95%
2018	1,044,467	3.00%	31,342	82.42%	17.58%	25,831	15,160	5,511	20,671	(8,473)	1.98%
2019	1,099,731	2.72%	29,878	59.94%	40.06%	17,908	11,226	11,969	23,195	(2,349)	2.11%
2020	1,134,690	2.63%	29,832	28.82%	71.18%	8,597	5,798	21,236	27,034	4,584	2.38%
	14,546,690		534,345			483,532	464,203	50,813	515,016	(369)	3.54%

Notes:

(10) = (8) + (9)



## APPENDIX H RECONCILIATION

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**Manitoba Public Insurance**  
**Appendix H: Reconciliation of Paid and Outstanding Claim Amounts (\$000) - Basic**  
**As of March 31, 2021**

Gross Basis	Bodily Injury	Property Damage	Collision	Compre- hensive	Accident Benefits		Total
					Weekly Indemnity	Other	
1. March 2021 Cumulative Paid	58,147	658,944	5,298,985	1,451,607	664,553	1,171,289	9,303,525
2. March 2020 Cumulative Paid	55,110	626,639	4,958,529	1,362,801	604,219	1,094,467	8,701,765
3. Calendar Year Paid in Database [(1)-(2)]	3,037	32,305	340,456	88,806	60,334	76,822	601,760
4. Calendar Year Adjustments	-	-	-	-	-	-	-
5. Prior Years Not in Database	(10)	(4)	(14)	(15)	11,301	6,661	17,917
6. Per Financial Controls	3,027	32,302	340,440	88,793	71,615	83,503	619,679
7. Difference [(3)+(4)+(5)-(6)]	(0)	(1)	1	(3)	20	(20)	(2)
8. March 2021 O/S Claims in Database	12,682	9,628	41,847	10,964	713,944	539,680	1,328,745
9. Prior Years Not in Database	-	-	-	-	-	-	-
10. Per Financial Controls	12,682	9,628	41,847	10,964	723,462	540,651	1,339,234
11. Difference [(8)+(9)-(10)]	-	-	-	-	(9,518)	(971)	(10,489)

Net Basis	Bodily Injury	Property Damage	Collision	Compre- hensive	Accident Benefits		Total
					Weekly Indemnity	Other	
1. March 2021 Cumulative Paid	58,147	658,944	5,298,985	1,383,496	659,241	1,166,645	9,225,458
2. March 2020 Cumulative Paid	55,110	626,639	4,958,529	1,295,865	599,042	1,090,203	8,625,388
3. Calendar Year Paid in Database [(1)-(2)]	3,037	32,305	340,456	87,631	60,199	76,442	600,070
4. Calendar Year Adjustments	-	-	-	-	-	-	-
5. Prior Years Not in Database	(10)	(4)	(14)	(15)	11,991	5,971	17,917
6. Per Financial Controls	3,027	32,302	340,440	87,617.97	72,170	82,433	617,989
7. Difference [(3)+(4)+(5)-(6)]	(0)	(1)	1	(3)	20	(20)	(2)
8. March 2021 O/S Claims in Database	12,682	9,628	41,847	9,543	712,981	539,184	1,325,865
9. Prior Years Not in Database	-	-	-	-	-	-	-
10. Per Financial Controls	12,682	9,628	41,847	9,543	722,499	540,155	1,336,354
11. Difference [(8)+(9)-(10)]	-	-	-	-	(9,518)	(971)	(10,489)

## APPENDIX PE      PIPP ENHANCEMENT BENEFITS

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Manitoba Public Insurance  
Automobile Insurance Division  
Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

PE Exhibit 1  
Sheet 1

Insurance Year	Earned Premium	As of March 31, 2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)=(9)-(4)	(7)=(5)+(6)	(8)=(7)/(2)	(9)
<b>PIPP Enhancement: Increasing the Weekly Indemnity to IAW</b>								
2002 & Prior		3,875	5,130	9,005	97	9,101		5,227
2003	563,789	342	482	824	12	836	0.15%	494
2004	598,905	425	1,004	1,429	7	1,436	0.24%	1,011
2005	632,408	712	1,392	2,105	19	2,124	0.34%	1,412
2006	656,746	938	1,684	2,622	31	2,652	0.40%	1,715
2007	679,930	587	1,017	1,605	16	1,620	0.24%	1,033
2008	709,787	609	881	1,489	12	1,501	0.21%	893
2009	741,553	600	964	1,565	613	2,177	0.29%	1,577
2010	761,034	209	467	677	7	684	0.09%	474
2011	772,649	145	676	821	9	830	0.11%	685
2012	769,715	334	628	962	11	973	0.13%	639
2013	781,394	162	428	590	456	1,046	0.13%	884
2014	822,358	70	154	225	328	553	0.07%	483
2015	877,262	9	-	9	359	368	0.04%	359
2016	923,168	398	1,662	2,060	58	2,118	0.23%	1,720
2017	977,104	58	286	344	1,883	2,227	0.23%	2,169
2018	1,044,467	50	488	539	668	1,206	0.12%	1,156
2019	1,099,731	4	55	59	1,099	1,158	0.11%	1,154
2020	1,134,690	22	28	50	2,149	2,199	0.19%	2,177
<b>Total</b>	<b>14,546,690</b>	<b>9,550</b>	<b>17,427</b>	<b>26,977</b>	<b>7,833</b>	<b>34,810</b>	<b>0.24%</b>	<b>25,260</b>

Notes: (2) - From MPI  
(3) to (5) - From MPI Fiscal Year Summaries  
(9) - PE Appendix A, Column 14 & PE Appendix B, Column 5

Manitoba Public Insurance  
Automobile Insurance Division  
Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

PE Exhibit 1  
Sheet 2

Insurance Year	Earned Premium	As of March 31, 2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)=(9)-(4)	(7)=(5)+(6)	(8)=(7)/(2)	(9)
<b>PIPP Enhancement: Increasing the Maximum Personal Care</b>								
2002 & Prior		3,321	7,220	10,541	250	10,790		7,469
2003	563,789	278	666	944	58	1,002	0.18%	724
2004	598,905	463	1,472	1,935	(61)	1,873	0.31%	1,411
2005	632,408	315	684	999	5	1,004	0.16%	689
2006	656,746	347	897	1,244	169	1,413	0.22%	1,066
2007	679,930	407	2,221	2,628	188	2,815	0.41%	2,409
2008	709,787	424	845	1,269	10	1,279	0.18%	856
2009	741,553	284	1,006	1,289	(39)	1,250	0.17%	967
2010	761,034	180	523	702	12	714	0.09%	535
2011	772,649	319	1,468	1,787	467	2,254	0.29%	1,935
2012	769,715	236	868	1,104	2	1,106	0.14%	870
2013	781,394	152	940	1,091	(41)	1,050	0.13%	899
2014	822,358	74	468	542	54	596	0.07%	522
2015	877,262	38	371	410	462	871	0.10%	833
2016	923,168	211	1,504	1,715	243	1,959	0.21%	1,748
2017	977,104	10	885	895	397	1,292	0.13%	1,282
2018	1,044,467	21	341	362	827	1,189	0.11%	1,168
2019	1,099,731	-	277	277	859	1,136	0.10%	1,136
2020	1,134,690	-	156	156	955	1,111	0.10%	1,111
<b>Total</b>	<b>14,546,690</b>	<b>7,079</b>	<b>22,810</b>	<b>29,889</b>	<b>4,818</b>	<b>34,707</b>	<b>0.24%</b>	<b>27,627</b>

Notes:  
(2) - From MPI  
(3) to (5) - From MPI Fiscal Year Summaries  
(9) - PE Appendix C, Column 10

Manitoba Public Insurance  
Automobile Insurance Division  
Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

PE Exhibit 1  
Sheet 3

Insurance Year	Earned Premium	As of March 31, 2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)=(7)-(5)	(7)	(8)=(7)/(2)	(9)=(4)+(6)
<b>PIPP Enhancement: Increasing the Maximum Permanent Impairment</b>								
2002 & Prior		10,068	-	10,068	229	10,296		229
2003	563,789	954	-	954	106	1,060	0.19%	106
2004	598,905	977	-	977	-	977	0.16%	-
2005	632,408	1,250	-	1,250	-	1,250	0.20%	-
2006	656,746	1,687	-	1,687	-	1,687	0.26%	-
2007	679,930	1,371	-	1,371	-	1,371	0.20%	-
2008	709,787	1,379	-	1,379	-	1,379	0.19%	-
2009	741,553	813	-	813	271	1,084	0.15%	271
2010	761,034	745	-	745	93	839	0.11%	93
2011	772,649	911	-	911	182	1,093	0.14%	182
2012	769,715	924	-	924	185	1,109	0.14%	185
2013	781,394	648	-	648	93	740	0.09%	93
2014	822,358	940	-	940	313	1,253	0.15%	313
2015	877,262	618	-	618	199	818	0.09%	199
2016	923,168	1,357	-	1,357	299	1,656	0.18%	299
2017	977,104	896	89	986	399	1,385	0.14%	488
2018	1,044,467	279	-	279	399	678	0.06%	399
2019	1,099,731	637	-	637	399	1,036	0.09%	399
2020	1,134,690	375	-	375	798	1,173	0.10%	798
<b>Total</b>	<b>14,546,690</b>	<b>26,829</b>	<b>89</b>	<b>26,918</b>	<b>3,964</b>	<b>30,882</b>	<b>0.21%</b>	<b>4,054</b>

Notes:  
(2) - From MPI  
(3) to (5) - From MPI Fiscal Year Summaries  
(7) - PE Appendix D, Column 9

Manitoba Public Insurance  
Automobile Insurance Division  
Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

PE Exhibit 1  
Sheet 4

Insurance Year	Earned Premium	As of March 31, 2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)=(9)-(4)	(7)=(5)+(6)	(8)=(7)/(2)	(9)
<b>PIPP Enhancement: Change to Vehicle Purchase Policy</b>								
2002 & Prior		1,792	4,502	6,294	(191)	6,103		4,311
2003	563,789	244	541	785	1	787	0.14%	542
2004	598,905	256	1,046	1,303	19	1,322	0.22%	1,065
2005	632,408	134	402	537	(7)	529	0.08%	395
2006	656,746	359	1,328	1,687	(128)	1,560	0.24%	1,200
2007	679,930	406	1,121	1,528	135	1,662	0.24%	1,256
2008	709,787	165	954	1,119	(58)	1,060	0.15%	896
2009	741,553	227	665	892	(17)	875	0.12%	648
2010	761,034	150	634	784	(22)	762	0.10%	612
2011	772,649	269	541	811	(65)	745	0.10%	476
2012	769,715	175	603	778	5	783	0.10%	607
2013	781,394	-	-	-	-	-	0.00%	-
2014	822,358	178	579	758	(21)	737	0.09%	558
2015	877,262	81	315	396	4	400	0.05%	319
2016	923,168	172	1,201	1,373	0	1,374	0.15%	1,201
2017	977,104	50	457	507	515	1,023	0.10%	973
2018	1,044,467	-	-	-	960	960	0.09%	960
2019	1,099,731	40	923	964	156	1,120	0.10%	1,079
2020	1,134,690	-	-	-	960	960	0.08%	960
<b>Total</b>	<b>14,546,690</b>	<b>4,701</b>	<b>15,814</b>	<b>20,515</b>	<b>2,245</b>	<b>22,761</b>	<b>0.16%</b>	<b>18,060</b>

Notes:  
(2) - From MPI  
(3) to (5) - From MPI Fiscal Year Summaries  
(9) - PE Appendix E, Column 11

Manitoba Public Insurance  
Automobile Insurance Division  
Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

PE Exhibit 1  
Sheet 5

Insurance Year	Earned Premium	As of March 31, 2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(7)/(2)	(9)=(4)+(6)
<b>PIPP Enhancement: Death Benefits</b>								
2002 & Prior		-	-	-	7,287	7,287		7,287
2003	563,789	-	-	-	574	574	0.10%	574
2004	598,905	-	-	-	1,088	1,088	0.18%	1,088
2005	632,408	-	-	-	784	784	0.12%	784
2006	656,746	-	-	-	1,597	1,597	0.24%	1,597
2007	679,930	-	-	-	1,409	1,409	0.21%	1,409
2008	709,787	-	-	-	947	947	0.13%	947
2009	741,553	-	-	-	907	907	0.12%	907
2010	761,034	-	-	-	778	778	0.10%	778
2011	772,649	-	-	-	1,069	1,069	0.14%	1,069
2012	769,715	-	-	-	829	829	0.11%	829
2013	781,394	-	-	-	534	534	0.07%	534
2014	822,358	-	-	-	1,104	1,104	0.13%	1,104
2015	877,262	-	-	-	1,020	1,020	0.12%	1,020
2016	923,168	-	-	-	1,357	1,357	0.15%	1,357
2017	977,104	-	-	-	1,329	1,329	0.14%	1,329
2018	1,044,467	-	-	-	820	820	0.08%	820
2019	1,099,731	-	-	-	1,089	1,089	0.10%	1,089
2020	1,134,690	-	-	-	1,247	1,247	0.11%	1,247
<b>Total</b>	<b>14,546,690</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>25,771</b>	<b>25,771</b>	<b>0.18%</b>	<b>25,771</b>

Notes:  
(2) - From MPI  
(3) to (5) - From MPI Fiscal Year Summaries  
(6) - PE Appendix F, Column 11



Manitoba Public Insurance  
Automobile Insurance Division  
Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

PE Exhibit 1  
Sheet 6

Insurance Year	Earned Premium	As of March 31, 2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)=(9)-(4)	(7)=(5)+(6)	(8)=(7)/(2)	(9)
<b>PIPP Enhancement: Annual Spending Allowance</b>								
2002 & Prior		111	1,572	1,683	(166)	1,517		1,406
2003	563,789	11	91	102	18	120	0.02%	109
2004	598,905	20	293	313	(58)	255	0.04%	235
2005	632,408	3	131	134	20	155	0.02%	151
2006	656,746	10	389	399	(36)	363	0.06%	353
2007	679,930	56	524	580	(214)	365	0.05%	309
2008	709,787	27	203	230	(8)	222	0.03%	195
2009	741,553	5	141	146	59	205	0.03%	200
2010	761,034	30	192	222	(27)	194	0.03%	164
2011	772,649	21	323	344	(55)	289	0.04%	268
2012	769,715	3	62	64	138	203	0.03%	200
2013	781,394	1	15	15	120	135	0.02%	134
2014	822,358	9	104	112	85	197	0.02%	189
2015	877,262	2	114	117	80	197	0.02%	195
2016	923,168	5	89	94	256	350	0.04%	345
2017	977,104	13	98	110	191	301	0.03%	289
2018	1,044,467	1	67	68	133	202	0.02%	201
2019	1,099,731	-	-	-	208	208	0.02%	208
2020	1,134,690	1	3	4	294	298	0.03%	296
<b>Total</b>	<b>14,546,690</b>	<b>329</b>	<b>4,409</b>	<b>4,738</b>	<b>1,038</b>	<b>5,775</b>	<b>0.04%</b>	<b>5,447</b>

Notes:  
(2) - From MPI  
(3) to (5) - From MPI Fiscal Year Summaries  
(9) - PE Appendix G, Column 10

Manitoba Public Insurance  
Automobile Insurance Division  
Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

PE Exhibit 1  
Sheet 7

Insurance Year	Earned Premium	As of March 31, 2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)=(9)-(4)	(7)=(5)+(6)	(8)=(7)/(2)	(9)
2002 & Prior		-	-	-	-	-		-
2003	563,789	-	-	-	-	-	0.00%	-
2004	598,905	-	-	-	-	-	0.00%	-
2005	632,408	-	-	-	-	-	0.00%	-
2006	656,746	-	-	-	-	-	0.00%	-
2007	679,930	-	-	-	-	-	0.00%	-
2008	709,787	131	43	175	1	175	0.02%	44
2009	741,553	-	-	-	-	-	0.00%	-
2010	761,034	-	-	-	-	-	0.00%	-
2011	772,649	-	-	-	-	-	0.00%	-
2012	769,715	-	-	-	-	-	0.00%	-
2013	781,394	-	-	-	-	-	0.00%	-
2014	822,358	-	-	-	-	-	0.00%	-
2015	877,262	746	991	1,737	2	1,739	0.20%	993
2016	923,168	-	-	-	-	-	0.00%	-
2017	977,104	398	1,054	1,452	7	1,459	0.15%	1,062
2018	1,044,467	109	518	628	255	883	0.08%	773
2019	1,099,731	90	75	165	491	656	0.06%	566
2020	1,134,690	20	303	324	653	976	0.09%	956
<b>Total</b>	<b>14,546,690</b>	<b>1,495</b>	<b>2,985</b>	<b>4,480</b>	<b>1,409</b>	<b>5,889</b>	<b>0.04%</b>	<b>4,395</b>

Notes: (2) - From MPI  
(3) to (5) - From MPI Fiscal Year Summaries  
(9) - PE Appendix H, Column 11

Manitoba Public Insurance  
Automobile Insurance Division  
Direct & Agency Ultimate Claim Experience (Including External Adjustment Expenses) - Undiscounted  
As of March 31, 2021  
(\$000)

PE Exhibit 1  
Sheet 8

Insurance Year	Earned Premium	As of March 31, 2021			Selected IBNR	Estimated Ultimate Claims	Estimated Ultimate Loss Ratio	Estimated Unpaid Claims
		Paid	Case Reserves	Reported				
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(7)/(2)	(9)=(4)+(6)
<b>PIPP Enhancement: Total</b>								
2002 & Prior		19,166	18,424	37,590	7,505	45,095		25,929
2003	563,789	1,831	1,780	3,610	769	4,379	0.78%	2,549
2004	598,905	2,141	3,814	5,955	995	6,951	1.16%	4,809
2005	632,408	2,415	2,609	5,024	822	5,846	0.92%	3,432
2006	656,746	3,341	4,298	7,639	1,633	9,272	1.41%	5,931
2007	679,930	2,827	4,884	7,710	1,533	9,243	1.36%	6,416
2008	709,787	2,734	2,926	5,660	904	6,564	0.92%	3,830
2009	741,553	1,929	2,776	4,705	1,794	6,499	0.88%	4,570
2010	761,034	1,315	1,816	3,130	840	3,971	0.52%	2,656
2011	772,649	1,666	3,008	4,674	1,606	6,280	0.81%	4,614
2012	769,715	1,672	2,160	3,832	1,170	5,002	0.65%	3,330
2013	781,394	962	1,382	2,344	1,162	3,506	0.45%	2,544
2014	822,358	1,271	1,306	2,577	1,863	4,440	0.54%	3,169
2015	877,262	1,495	1,791	3,287	2,126	5,413	0.62%	3,918
2016	923,168	2,143	4,456	6,600	2,214	8,814	0.95%	6,670
2017	977,104	1,425	2,869	4,294	4,721	9,016	0.92%	7,591
2018	1,044,467	461	1,415	1,876	4,062	5,938	0.57%	5,477
2019	1,099,731	771	1,330	2,102	4,301	6,403	0.58%	5,631
2020	1,134,690	419	490	909	7,056	7,965	0.70%	7,546
<b>Total</b>	<b>14,546,690</b>	<b>49,983,361</b>	<b>63,534</b>	<b>113,518</b>	<b>47,078</b>	<b>160,596</b>	<b>1.10%</b>	<b>110,612</b>

Notes:  
(2) - From MPI  
(3) to (5) - From MPI Fiscal Year Summaries  
(6) - Total All PIPP Enhancements

Manitoba Public Insurance  
Automobile Insurance Division  
Estimate of Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021  
(\$000)

PE Exhibit 2  
Sheet 1

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin						
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)	(9)=(6)*(8)	(10)	(11)	(12)
<b>PIPP Enhancement: Increasing the Weekly Indemnity to IAW</b>											
2002 & Prior	5,227	95.77%	90.39%	5,006	4,724	281	10.00%	472	5,478	97	348
2003	494	95.08%	88.88%	470	439	31	10.00%	44	514	12	32
2004	1,011	94.44%	87.51%	954	884	70	10.00%	88	1,043	7	39
2005	1,412	94.80%	88.28%	1,338	1,246	92	10.00%	125	1,463	19	70
2006	1,715	94.54%	87.72%	1,621	1,504	117	10.00%	150	1,771	31	87
2007	1,033	94.80%	88.29%	979	912	67	10.00%	91	1,070	16	53
2008	893	95.55%	89.91%	853	803	50	10.00%	80	933	12	52
2009	1,577	94.88%	88.47%	1,496	1,395	101	10.00%	139	1,635	613	671
2010	474	94.76%	88.18%	450	418	31	10.00%	42	491	7	24
2011	685	94.67%	88.03%	648	603	46	10.00%	60	709	9	33
2012	639	94.80%	88.30%	606	564	42	10.00%	56	662	11	34
2013	884	93.81%	86.18%	830	762	67	10.00%	76	906	456	478
2014	483	95.34%	89.45%	460	432	28	10.00%	43	503	328	349
2015	359	94.58%	87.79%	339	315	24	10.00%	31	371	359	371
2016	1,720	94.03%	86.66%	1,618	1,491	127	10.00%	149	1,767	58	105
2017	2,169	94.26%	87.13%	2,044	1,890	155	10.00%	189	2,233	1,883	1,947
2018	1,156	94.28%	87.21%	1,090	1,008	82	10.00%	101	1,191	668	702
2019	1,154	94.58%	87.83%	1,091	1,013	78	15.00%	152	1,243	1,099	1,188
2020	2,177	94.08%	86.77%	2,049	1,889	159	15.00%	283	2,332	2,149	2,304
<b>Total</b>	<b>25,260</b>	<b>94.78%</b>	<b>88.25%</b>	<b>23,941</b>	<b>22,293</b>	<b>1,648</b>	<b>10.65%</b>	<b>2,374</b>	<b>26,316</b>	<b>7,833</b>	<b>8,889</b>

Notes:

- (2) - PE Exhibit 1, Column 9
- (5) - PE Appendix A, Column 14 & PE Appendix B, Column 8
- (6) - PE Appendix A, Column 14 & PE Appendix B, Column 11
- (8) - Exhibit 7, Sheet 1, Column 9 for Accident Benefits - Weekly Indemnity
- (10) = (6)+(7)+(9)
- (11) - PE Exhibit 1, Column 6
- (12) = (11)+[(10)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Estimate of Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021  
(\$000)

PE Exhibit 2  
Sheet 2

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin						
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)	(9)=(6)*(8)	(10)	(11)	(12)
<b>PIPP Enhancement: Increasing the Maximum Personal Care</b>											
2002 & Prior	7,469	95.13%	89.01%	7,106	6,649	457	10.00%	665	7,771	250	551
2003	724	94.96%	88.65%	687	641	46	10.00%	64	751	58	85
2004	1,411	93.74%	86.03%	1,322	1,214	109	10.00%	121	1,444	(61)	(28)
2005	689	95.31%	89.37%	657	616	41	10.00%	62	718	5	35
2006	1,066	94.02%	86.61%	1,002	923	79	10.00%	92	1,095	169	198
2007	2,409	93.25%	85.03%	2,246	2,048	198	10.00%	205	2,451	188	230
2008	856	95.38%	89.53%	816	766	50	10.00%	77	893	10	48
2009	967	94.29%	87.20%	911	843	69	10.00%	84	996	(39)	(10)
2010	535	95.65%	90.14%	511	482	29	10.00%	48	560	12	37
2011	1,935	93.32%	85.21%	1,805	1,648	157	15.00%	247	2,053	467	585
2012	870	93.08%	84.80%	810	738	72	15.00%	111	920	2	52
2013	899	92.80%	84.10%	834	756	78	15.00%	113	947	(41)	8
2014	522	95.22%	89.21%	497	466	31	15.00%	70	567	54	99
2015	833	94.63%	87.98%	788	733	55	15.00%	110	898	462	527
2016	1,748	93.51%	85.59%	1,634	1,496	138	15.00%	224	1,859	243	354
2017	1,282	93.74%	86.07%	1,202	1,103	98	15.00%	166	1,367	397	482
2018	1,168	93.78%	86.16%	1,096	1,007	89	15.00%	151	1,247	827	906
2019	1,136	93.20%	85.00%	1,059	965	93	15.00%	145	1,203	859	927
2020	1,111	93.91%	86.46%	1,044	961	83	15.00%	144	1,188	955	1,032
<b>Total</b>	<b>27,627</b>	<b>94.21%</b>	<b>87.07%</b>	<b>26,027</b>	<b>24,055</b>	<b>1,973</b>	<b>12.05%</b>	<b>2,899</b>	<b>28,926</b>	<b>4,818</b>	<b>6,117</b>

Notes:  
(2) - PE Exhibit 1, Column 9  
(5) & (6) - PE Appendix C, Column 10  
(8) - Exhibit 7, Sheet 1, Column 9 for Accident Benefits - Other (Indexed)  
(10) = (6)+(7)+(9)  
(11) - PE Exhibit 1, Column 6  
(12) = (11)+[(10)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Estimate of Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021  
(\$000)

PE Exhibit 2  
Sheet 3

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin						
(1)	(2)	(3)	(4)	(5)=(2)*(3)	(6)=(2)*(4)	(7)=(5)-(6)	(8)	(9)=(6)*(8)	(10)	(11)	(12)
<b>PIPP Enhancement: Increasing the Maximum Permanent Impairment</b>											
2002 & Prior	229	98.83%	98.59%	226	226	1	10.00%	23	249	229	249
2003	106	98.83%	98.59%	105	104	0	10.00%	10	115	106	115
2004	-	98.83%	98.59%	-	-	-	10.00%	-	-	-	-
2005	-	98.83%	98.59%	-	-	-	10.00%	-	-	-	-
2006	-	97.97%	97.55%	-	-	-	10.00%	-	-	-	-
2007	-	97.15%	96.58%	-	-	-	10.00%	-	-	-	-
2008	-	96.26%	95.51%	-	-	-	10.00%	-	-	-	-
2009	271	95.25%	94.31%	258	256	3	10.00%	26	284	271	284
2010	93	94.22%	93.08%	88	87	1	10.00%	9	96	93	96
2011	182	93.05%	91.70%	170	167	2	10.00%	17	186	182	186
2012	185	92.05%	90.51%	170	167	3	10.00%	17	187	185	187
2013	93	91.72%	90.13%	85	83	1	10.00%	8	93	93	93
2014	313	91.57%	89.96%	287	282	5	10.00%	28	315	313	315
2015	199	91.15%	89.48%	182	178	3	10.00%	18	200	199	200
2016	299	91.22%	89.57%	273	268	5	10.00%	27	300	299	300
2017	488	92.16%	90.69%	450	443	7	10.00%	44	494	399	405
2018	399	93.94%	92.80%	375	370	5	10.00%	37	412	399	412
2019	399	95.73%	94.91%	382	378	3	10.00%	38	420	399	420
2020	798	95.83%	95.02%	764	758	6	10.00%	76	840	798	840
<b>Total</b>	<b>4,054</b>	<b>94.08%</b>	<b>92.94%</b>	<b>3,813</b>	<b>3,767</b>	<b>46</b>	<b>10.00%</b>	<b>377</b>	<b>4,190</b>	<b>3,964</b>	<b>4,101</b>

Notes:  
 (2) - PE Exhibit 1, Column 9  
 (3) - Exhibit 8, Sheet 7, Column 3  
 (4) - Exhibit 8, Sheet 7, Column 4  
 (8) - Exhibit 7, Sheet 1, Column 9 for Accident Benefits - Other (Non-Indexed)  
 (10) = (6)+(7)+(9)  
 (11) - PE Exhibit 1, Column 6  
 (12) = (11)+[(10)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Estimate of Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021  
(\$000)

PE Exhibit 2  
Sheet 4

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin						
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)	(9)=(6)*(8)	(10)	(11)	(12)
<b>PIPP Enhancement: Change to Vehicle Purchase Policy</b>											
2002 & Prior	4,311	95.41%	89.63%	4,113	3,864	249	10.00%	386	4,500	(191)	(3)
2003	542	95.44%	89.72%	518	487	31	10.00%	49	566	1	25
2004	1,065	94.75%	88.26%	1,009	940	69	10.00%	94	1,103	19	57
2005	395	94.89%	88.53%	375	350	25	10.00%	35	410	(7)	8
2006	1,200	94.45%	87.58%	1,134	1,051	82	10.00%	105	1,239	(128)	(89)
2007	1,256	93.80%	86.23%	1,178	1,083	95	10.00%	108	1,286	135	165
2008	896	95.34%	89.52%	854	802	52	10.00%	80	934	(58)	(20)
2009	648	95.98%	90.88%	622	589	33	10.00%	59	681	(17)	16
2010	612	95.59%	90.08%	585	551	34	10.00%	55	640	(22)	6
2011	476	94.00%	86.68%	447	413	35	15.00%	62	509	(65)	(32)
2012	607	92.72%	84.03%	563	510	53	15.00%	77	640	5	37
2013	-	100.00%	100.00%	-	-	-	15.00%	-	-	-	-
2014	558	94.55%	87.78%	528	490	38	15.00%	73	601	(21)	22
2015	319	95.16%	89.07%	303	284	19	15.00%	43	346	4	31
2016	1,201	93.15%	84.86%	1,119	1,019	100	15.00%	153	1,272	0	71
2017	973	95.65%	90.18%	931	877	53	15.00%	132	1,062	515	605
2018	960	96.55%	92.07%	927	884	43	15.00%	133	1,059	960	1,059
2019	1,079	94.39%	87.56%	1,019	945	74	15.00%	142	1,161	156	237
2020	960	96.55%	92.07%	927	884	43	15.00%	133	1,059	960	1,059
<b>Total</b>	<b>18,060</b>	<b>94.97%</b>	<b>88.72%</b>	<b>17,151</b>	<b>16,023</b>	<b>1,128</b>	<b>11.97%</b>	<b>1,918</b>	<b>19,069</b>	<b>2,245</b>	<b>3,255</b>

Notes:  
 (2) - PE Exhibit 1, Column 9  
 (5) - PE Appendix E, Column 12  
 (6) - PE Appendix E, Column 13  
 (8) - Exhibit 7, Sheet 1, Column 9 for Accident Benefits - Other (Indexed)  
 (10) = (6)+(7)+(9)  
 (11) - PE Exhibit 1, Column 6  
 (12) = (11)+[(10)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Estimate of Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021  
(\$000)

PE Exhibit 2  
Sheet 5

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin						
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)	(9)=(6)*(8)	(10)	(11)	(12)
<b>PIPP Enhancement: Death Benefits</b>											
2002 & Prior	7,287	94.39%	87.96%	6,878	6,409	469	10.00%	641	7,519	7,287	7,519
2003	574	94.34%	87.95%	542	505	37	10.00%	50	592	574	592
2004	1,088	93.41%	86.10%	1,016	937	80	10.00%	94	1,110	1,088	1,110
2005	784	94.13%	87.65%	738	687	51	10.00%	69	807	784	807
2006	1,597	92.92%	85.14%	1,484	1,360	124	10.00%	136	1,620	1,597	1,620
2007	1,409	93.03%	85.13%	1,311	1,200	111	10.00%	120	1,431	1,409	1,431
2008	947	94.25%	87.46%	892	828	64	10.00%	83	975	947	975
2009	907	94.30%	87.49%	855	793	62	10.00%	79	935	907	935
2010	778	93.51%	86.27%	727	671	56	10.00%	67	794	778	794
2011	1,069	92.66%	84.18%	990	900	91	10.00%	90	1,080	1,069	1,080
2012	829	92.76%	84.91%	769	704	65	10.00%	70	840	829	840
2013	534	92.50%	83.89%	494	448	46	10.00%	45	539	534	539
2014	1,104	93.46%	86.32%	1,032	953	79	10.00%	95	1,128	1,104	1,128
2015	1,020	94.57%	88.11%	964	899	66	10.00%	90	1,054	1,020	1,054
2016	1,357	92.37%	84.00%	1,254	1,140	114	10.00%	114	1,368	1,357	1,368
2017	1,329	92.92%	85.25%	1,235	1,133	102	10.00%	113	1,348	1,329	1,348
2018	820	92.13%	83.64%	756	686	70	10.00%	69	824	820	824
2019	1,089	92.99%	85.01%	1,013	926	87	10.00%	93	1,106	1,089	1,106
2020	1,247	91.95%	83.26%	1,147	1,039	108	10.00%	104	1,251	1,247	1,251
<b>Total</b>	<b>25,771</b>	<b>93.51%</b>	<b>86.21%</b>	<b>24,099</b>	<b>22,218</b>	<b>1,881</b>	<b>10.00%</b>	<b>2,222</b>	<b>26,321</b>	<b>25,771</b>	<b>26,321</b>

Notes:

- (2) - PE Exhibit 1, Column 9
- (5) - PE Appendix F, Column 12
- (6) - PE Appendix F, Column 13
- (8) - Exhibit 7, Sheet 1, Column 9 for Accident Benefits - Other (Non-Indexed)
- (10) = (6)+(7)+(9)
- (11) - PE Exhibit 1, Column 6
- (12) = (11)+[(10)-(2)]



Manitoba Public Insurance  
Automobile Insurance Division  
Estimate of Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021  
(\$000)

PE Exhibit 2  
Sheet 6

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin						
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)	(9)=(6)*(8)	(10)	(11)	(12)
<b>PIPP Enhancement: Annual Spending Allowance</b>											
2002 & Prior	1,406	95.24%	89.24%	1,339	1,254	84	10.00%	125	1,464	(166)	(108)
2003	109	95.42%	89.66%	104	98	6	10.00%	10	114	18	23
2004	235	94.50%	87.67%	222	206	16	10.00%	21	242	(58)	(50)
2005	151	94.92%	88.56%	144	134	10	10.00%	13	157	20	26
2006	353	94.19%	86.98%	332	307	25	10.00%	31	363	(36)	(26)
2007	309	93.68%	85.95%	290	266	24	10.00%	27	317	(214)	(207)
2008	195	95.12%	89.01%	186	174	12	10.00%	17	203	(8)	0
2009	200	94.80%	88.31%	190	177	13	10.00%	18	208	59	66
2010	164	94.57%	87.82%	155	144	11	10.00%	14	170	(27)	(22)
2011	268	93.70%	86.01%	251	230	21	15.00%	35	286	(55)	(37)
2012	200	93.78%	86.21%	188	172	15	15.00%	26	213	138	152
2013	134	93.66%	85.92%	126	116	10	15.00%	17	143	120	129
2014	189	94.70%	88.11%	179	166	12	15.00%	25	203	85	100
2015	195	94.95%	88.63%	185	173	12	15.00%	26	211	80	96
2016	345	93.84%	86.29%	324	298	26	15.00%	45	368	256	279
2017	289	94.12%	86.90%	272	251	21	15.00%	38	309	191	212
2018	201	93.76%	86.11%	188	173	15	15.00%	26	214	133	146
2019	208	93.57%	85.78%	195	178	16	15.00%	27	221	208	221
2020	296	93.59%	85.76%	277	254	23	15.00%	38	316	294	313
<b>Total</b>	<b>5,447</b>	<b>94.45%</b>	<b>87.58%</b>	<b>5,144</b>	<b>4,770</b>	<b>374</b>	<b>12.11%</b>	<b>578</b>	<b>5,722</b>	<b>1,038</b>	<b>1,313</b>

Notes:  
(2) - PE Exhibit 1, Column 9  
(5) & (6) - PE Appendix G, Column 10  
(8) - Exhibit 7, Sheet 1, Column 9 for Accident Benefits - Other (Indexed)  
(10) = (6)+(7)+(9)  
(11) - PE Exhibit 1, Column 6  
(12) = (11)+[(10)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Estimate of Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021  
(\$000)

PE Exhibit 2  
Sheet 7

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin						
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)	(9)=(6)*(8)	(10)	(11)	(12)
<b>PIPP Enhancement: Caregiver Death Benefit</b>											
2002 & Prior	-	100.00%	100.00%	-	-	-	10.00%	-	-	-	-
2003	-	100.00%	100.00%	-	-	-	10.00%	-	-	-	-
2004	-	100.00%	100.00%	-	-	-	10.00%	-	-	-	-
2005	-	100.00%	100.00%	-	-	-	10.00%	-	-	-	-
2006	-	100.00%	100.00%	-	-	-	10.00%	-	-	-	-
2007	-	100.00%	100.00%	-	-	-	10.00%	-	-	-	-
2008	44	99.68%	99.23%	44	44	0	10.00%	4	48	1	5
2009	-	100.00%	100.00%	-	-	-	10.00%	-	-	-	-
2010	-	100.00%	100.00%	-	-	-	10.00%	-	-	-	-
2011	-	100.00%	100.00%	-	-	-	10.00%	-	-	-	-
2012	-	100.00%	100.00%	-	-	-	10.00%	-	-	-	-
2013	-	100.00%	100.00%	-	-	-	10.00%	-	-	-	-
2014	-	100.00%	100.00%	-	-	-	10.00%	-	-	-	-
2015	993	98.60%	96.70%	979	961	19	10.00%	96	1,075	2	85
2016	-	100.00%	100.00%	-	-	-	10.00%	-	-	-	-
2017	1,062	98.25%	95.89%	1,043	1,018	25	10.00%	102	1,145	7	91
2018	773	98.10%	95.54%	759	739	20	10.00%	74	833	255	314
2019	566	98.59%	96.68%	558	548	11	10.00%	55	613	491	538
2020	956	98.18%	95.72%	939	915	24	10.00%	92	1,030	653	727
<b>Total</b>	<b>4,395</b>	<b>98.34%</b>	<b>96.11%</b>	<b>4,322</b>	<b>4,224</b>	<b>98</b>	<b>10.00%</b>	<b>422</b>	<b>4,744</b>	<b>1,409</b>	<b>1,759</b>

Notes:  
 (2) - PE Exhibit 1, Column 9  
 (5) - PE Appendix H, Column 12  
 (6) - PE Appendix H, Column 13  
 (8) - Exhibit 7, Sheet 1, Column 9 for Accident Benefits - Other (Non-Indexed)  
 (10) = (6)+(7)+(9)  
 (11) - PE Exhibit 1, Column 6  
 (12) = (11)+[(10)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Estimate of Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021  
(\$000)

PE Exhibit 2  
Sheet 8

Insurance Year	Estimated Unpaid Claims	Discount Factor		Discounted Unpaid		Interest PFAD	Claims Devt. Margin	Claims Devt. PFAD	CIA Rules Unpaid Claims	Selected IBNR	Required IBNR
		With Margin	Without Margin	With Margin	Without Margin						
(1)	(2)	(3)=(5)/(2)	(4)=(6)/(2)	(5)	(6)	(7)=(5)-(6)	(8)=(9)/(6)	(9)	(10)	(11)	(12)
<b>PIPP Enhancement: Total</b>											
2002 & Prior	25,929	95.14%	89.19%	24,668	23,127	1,541	10.00%	2,313	26,981	7,505	8,557
2003	2,549	95.13%	89.22%	2,425	2,274	151	10.00%	227	2,652	769	873
2004	4,809	94.07%	86.93%	4,524	4,181	343	10.00%	418	4,942	995	1,129
2005	3,432	94.77%	88.40%	3,252	3,033	219	10.00%	303	3,555	822	946
2006	5,931	93.97%	86.75%	5,573	5,145	428	10.00%	515	6,088	1,633	1,790
2007	6,416	93.58%	85.86%	6,004	5,509	495	10.00%	551	6,555	1,533	1,671
2008	3,830	95.17%	89.19%	3,645	3,416	229	10.00%	342	3,986	904	1,060
2009	4,570	94.81%	88.69%	4,333	4,053	280	10.00%	405	4,738	1,794	1,962
2010	2,656	94.73%	88.60%	2,516	2,353	163	10.00%	235	2,751	840	936
2011	4,614	93.45%	85.84%	4,312	3,961	351	12.89%	511	4,823	1,606	1,815
2012	3,330	93.25%	85.76%	3,106	2,856	250	12.49%	357	3,462	1,170	1,302
2013	2,544	93.09%	85.09%	2,369	2,165	204	12.01%	260	2,629	1,162	1,246
2014	3,169	94.12%	87.99%	2,983	2,789	194	12.01%	335	3,318	1,863	2,012
2015	3,918	95.50%	90.40%	3,741	3,542	200	11.68%	414	4,155	2,126	2,364
2016	6,670	93.26%	85.62%	6,221	5,711	509	12.46%	712	6,933	2,214	2,476
2017	7,591	94.53%	88.46%	7,176	6,714	461	11.66%	783	7,959	4,721	5,089
2018	5,477	94.75%	88.85%	5,189	4,866	323	12.12%	590	5,779	4,062	4,364
2019	5,631	94.41%	87.98%	5,317	4,954	362	13.13%	651	5,967	4,301	4,637
2020	7,546	94.70%	88.78%	7,146	6,700	447	12.98%	869	8,016	7,056	7,526
<b>Total</b>	<b>110,612</b>	<b>94.47%</b>	<b>88.01%</b>	<b>104,499</b>	<b>97,350</b>	<b>7,149</b>	<b>11.08%</b>	<b>10,790</b>	<b>115,288</b>	<b>47,078</b>	<b>51,754</b>

Notes:  
(2) - PE Exhibit 1, Column 9  
(5), (6) & (9) - Total All PIPP Enhancements  
(10) = (6)+(7)+(9)  
(11) - PE Exhibit 1, Column 6  
(12) = (11)+[(10)-(2)]

Manitoba Public Insurance  
Automobile Insurance Division  
Calculation of Equity in Direct & Agency Unearned Premium  
As of March 31, 2021  
(\$000)

PE Exhibit 3  
Sheet 1

Insurance Year	Estimated Ultimate Claims							Restated Earned Premium	Estimated Ultimate Loss Ratio						
	Incr to IAW	Incr Max PC	Incr Max PI	Change Veh Pur	Death Benefits	Annual Spending	C/Giver DB		Incr to IAW	Incr Max PC	Incr Max PI	Change Veh Pur	Death Benefits	Annual Spending	C/Giver DB
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
2002 & Prior	9,101	10,790	10,296	6,103	7,287	1,517	-								
2003	836	1,002	1,060	787	574	120	-	723,513	0.12%	0.14%	0.15%	0.11%	0.08%	0.02%	0.00%
2004	1,436	1,873	977	1,322	1,088	255	-	750,313	0.19%	0.25%	0.13%	0.18%	0.15%	0.03%	0.00%
2005	2,124	1,004	1,250	529	784	155	-	783,288	0.27%	0.13%	0.16%	0.07%	0.10%	0.02%	0.00%
2006	2,652	1,413	1,687	1,560	1,597	363	-	812,149	0.33%	0.17%	0.21%	0.19%	0.20%	0.04%	0.00%
2007	1,620	2,815	1,371	1,662	1,409	365	-	821,528	0.20%	0.34%	0.17%	0.20%	0.17%	0.04%	0.00%
2008	1,501	1,279	1,379	1,060	947	222	175	834,035	0.18%	0.15%	0.17%	0.13%	0.11%	0.03%	0.02%
2009	2,177	1,250	1,084	875	907	205	-	853,392	0.26%	0.15%	0.13%	0.10%	0.11%	0.02%	0.00%
2010	684	714	839	762	778	194	-	872,939	0.08%	0.08%	0.10%	0.09%	0.09%	0.02%	0.00%
2011	830	2,254	1,093	745	1,069	289	-	891,267	0.09%	0.25%	0.12%	0.08%	0.12%	0.03%	0.00%
2012	973	1,106	1,109	783	829	203	-	899,362	0.11%	0.12%	0.12%	0.09%	0.09%	0.02%	0.00%
2013	1,046	1,050	740	-	534	135	-	868,613	0.12%	0.12%	0.09%	0.00%	0.06%	0.02%	0.00%
2014	553	596	1,253	737	1,104	197	-	865,095	0.06%	0.07%	0.14%	0.09%	0.13%	0.02%	0.00%
2015	368	871	818	400	1,020	197	1,739	889,572	0.04%	0.10%	0.09%	0.04%	0.11%	0.02%	0.20%
2016	2,118	1,959	1,656	1,374	1,357	350	-	932,534	0.23%	0.21%	0.18%	0.15%	0.15%	0.04%	0.00%
2017	2,227	1,292	1,385	1,023	1,329	301	1,459	969,256	0.23%	0.13%	0.14%	0.11%	0.14%	0.03%	0.15%
2018	1,206	1,189	678	960	820	202	883	1,011,654	0.12%	0.12%	0.07%	0.09%	0.08%	0.02%	0.09%
2019	1,158	1,136	1,036	1,120	1,089	208	656	1,065,423	0.11%	0.11%	0.10%	0.11%	0.10%	0.02%	0.06%
2020	2,199	1,111	1,173	960	1,247	298	976	743,087	0.30%	0.15%	0.16%	0.13%	0.17%	0.04%	0.13%
<b>Total</b>	<b>34,810</b>	<b>34,707</b>	<b>30,882</b>	<b>22,761</b>	<b>25,771</b>	<b>5,775</b>	<b>5,889</b>	<b>15,587,020</b>	<b>0.22%</b>	<b>0.22%</b>	<b>0.20%</b>	<b>0.15%</b>	<b>0.17%</b>	<b>0.04%</b>	<b>0.04%</b>
								Selected Ultimate Loss Ratio (a):	0.14%	0.13%	0.12%	0.09%	0.12%	0.03%	0.10%
								Discount Factor (Including Interest & Claims Devt PFAD) (b):	1.0710	1.0688	1.0533	1.1036	1.0028	1.0645	1.0775
								Discounted Ultimate Loss Ratio (c):	0.15%	0.14%	0.13%	0.10%	0.12%	0.03%	0.11%
								Total Discounted Ultimate Loss Ratio (d):							0.77%
								Direct & Agency Unearned Premium as of October 31, 2020 (e):							571,607
								Expected Claims (Including External Adjustment Expenses) (f):							4,428

Notes:  
 (2) to (7) - PE Exhibit 1, Column 7  
 (8) - From PE Exhibit 1, Sheet 7, Column 7  
 (a) - Selected per the 10-Year Volume Weighted Hi-Lo Average  
 (b) - PE Exhibit 2, [Column 10 / Column 2] for 2020  
 (c) = (a) \* (b)  
 (e) - Exhibit 6, Sheet 1  
 (f) = (d) \* (e)

Manitoba Public Insurance  
Automobile Insurance Division  
Estimate of Liabilities Including Provision for Adverse Deviation (Direct & Agency)  
As of March 31, 2021

PE Exhibit 4  
Sheet 1

**PIPP Enhancement: Quality of Life Enhancements**

240	Catastrophic claimants (PE Appendix G, Column 8)
60	Paneled; Assume 25% of catastrophic claimants
<u>180</u>	Remaining catastrophic claimants

I) Cottage Modifications

35,000	Manitobans with cottages
1,200,000	Total Manitobans
2.92%	Percent of Manitobans with cottages
5	Expected number of cottages requiring modifications; 180 x 2.92%
\$ 150,000	Expected cost per cottage
<u>\$ 750,000</u>	<b>Estimated Ultimate Claims - Cottage Modifications</b>

II) Attendant Care (for Work)

	Per claimant cost:
\$ 20	Cost per hour
8	Hours per day (above PCA and Home Care)
<u>240</u>	Expected number of working days per year
\$ 38,400	Total per claimant cost per year
20	Expected working life (in years)
\$ 768,000	Total expected per claimant cost
0	Expected number of claimants utilizing benefit
<u>\$ -</u>	<b>Estimated Ultimate Claims - Attendant Care</b>

III) Activity Cost

	Per claimant cost:
\$ 2,000	Total per claimant cost per year
<u>25</u>	Expected life (in years)
\$ 50,000	Total expected per claimant cost
45	Expected number of claimants utilizing benefit; 180 x 25.00%
<u>\$ 2,250,000</u>	<b>Estimated Ultimate Claims - Activity Cost</b>

<u>\$ 3,000,000</u>	<b>Estimated Ultimate Claims - All Cost [(I) + (II) + (III)]</b>	(a)
\$ 869,661	Paid	(b)
\$ 559,591	Case Reserves	(c)
\$ 1,429,253	Reported	(d)
\$ 1,570,747	Estimated IBNR [(a) - (d)]	(e)
\$ 2,130,339	Estimated Unpaid Claims [(c) + (e)]	(f)
94.21%	Discount Factor With Margin [PE Exhibit 2, Sheet 2, Column 3]	(g)
87.07%	Discount Factor Without Margin [PE Exhibit 2, Sheet 2, Column 4]	(h)
\$ 2,006,957	Discounted Unpaid With Margin [(f) x (g)]	(i)
\$ 1,854,842	Discounted Unpaid Without Margin [(f) x (h)]	(j)
\$ 152,116	Interest PFAD [(i) - (j)]	(k)
12.05%	Claims Development Margin [PE Exhibit 2, Sheet 2, Column 8]	(l)
\$ 223,547	Claims Development PFAD [(j) x (l)]	(m)
\$ 2,230,504	<b>CIA Rules Unpaid Claims [(j) + (k) + (m)]</b>	(n)
\$ 1,670,913	<b>Required IBNR [(n) - (f) + (e)]</b>	(o)

(b), (c), & (d) - From MPI Fiscal Year Summaries

**PE Appendix A**

**PIPP Enhancement: Increasing the Weekly Indemnity to IAW**

**Estimated Unpaid Claims - Undiscounted**

Insurance Year	CAT Claims = Yes				CAT Claims = Potential				All CAT Claims			All CAT Claims - Selected		
	Count	IRI	RIB	IRI & RIB	Count	IRI	RIB	IRI & RIB	Count	IRI & RIB	Average	Count	IRI & RIB	Average
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
2002 & Prior	26	2,933,525	1,617,235	4,550,760	0	-	-	-	26	4,550,760	175,029	26	4,550,760	175,029
2003	3	375,234	99,663	474,898	0	-	-	-	3	474,898	158,299	3	474,898	158,299
2004	4	794,861	179,594	974,456	0	-	-	-	4	974,456	243,614	4	974,456	243,614
2005	5	1,159,554	225,768	1,385,323	0	-	-	-	5	1,385,323	277,065	5	1,385,323	277,065
2006	6	1,355,173	315,206	1,670,378	0	-	-	-	6	1,670,378	278,396	6	1,670,378	278,396
2007	4	794,463	231,065	1,025,528	0	-	-	-	4	1,025,528	256,382	4	1,025,528	256,382
2008	5	666,402	226,153	892,554	0	-	-	-	5	892,554	178,511	5	892,554	178,511
2009	4	738,490	237,338	975,828	2	544,552	56,359	600,912	6	1,576,740	262,790	6	1,576,740	262,790
2010	2	419,246	55,214	474,460	0	-	-	-	2	474,460	237,230	2	474,460	237,230
2011	2	581,535	103,378	684,913	0	-	-	-	2	684,913	342,456	2	684,913	342,456
2012	3	552,154	86,817	638,970	0	-	-	-	3	638,970	212,990	3	638,970	212,990
2013	2	357,430	80,847	438,277	1	381,432	64,620	446,052	3	884,328	294,776	3	884,328	294,776
2014	1	112,143	42,837	154,980	1	289,656	38,041	327,696	2	482,676	241,338	2	482,676	241,338
2015	0	-	-	-	1	280,998	77,580	358,577	1	358,577	358,577	1	358,577	358,577
2016	5	1,448,916	271,341	1,720,257	0	-	-	-	5	1,720,257	344,051	5	1,720,257	344,051
2017	3	562,508	124,405	686,913	4	1,272,846	209,031	1,481,876	7	2,168,789	309,827	7	2,168,789	309,827
2018	1	421,763	66,913	488,677	1	17,457	100,638	118,096	2	606,772	303,386	4	1,155,787	288,947
2019	1	47,442	8,343	55,785	0	-	-	-	1	55,785	55,785	5	1,153,815	230,763
2020	1	468,198	62,224	530,421	0	-	-	-	1	530,421	530,421	7	2,177,466	311,067
<b>Total</b>	<b>78</b>	<b>13,789,038</b>	<b>4,034,340</b>	<b>17,823,378</b>	<b>10</b>	<b>2,786,940</b>	<b>546,269</b>	<b>3,333,209</b>	<b>88</b>	<b>21,156,587</b>	<b>240,416</b>	<b>100</b>	<b>24,450,675</b>	<b>244,507</b>

Notes:

(13) for 2018 & After: Judgmentally selected per the more recent maximum observed weighted by year - 2018, 2019, & 2020 at 50%, 75%, & 100% respectively

(14) for 2018 & After: [(13) - (10)] \* F + (11) where F = [Sum (11) for 2008 to 2017] / [Sum (10) for 2008 to 2017]

**PE Appendix A**

**PIPP Enhancement: Increasing the Weekly Indemnity to IAW**

**Estimated Unpaid Claims - Discounted with Margin**

Insurance Year	CAT Claims = Yes				CAT Claims = Potential				All CAT Claims			All CAT Claims - Selected		
	Count	IRI	RIB	IRI & RIB	Count	IRI	RIB	IRI & RIB	Count	IRI & RIB	Average	Count	IRI & RIB	Average
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
2002 & Prior	26	2,844,006	1,520,012	4,364,018	0	-	-	-	26	4,364,018	167,847	26	4,364,018	167,847
2003	3	359,511	92,204	451,715	0	-	-	-	3	451,715	150,572	3	451,715	150,572
2004	4	761,137	158,681	919,818	0	-	-	-	4	919,818	229,954	4	919,818	229,954
2005	5	1,112,555	200,629	1,313,184	0	-	-	-	5	1,313,184	262,637	5	1,313,184	262,637
2006	6	1,297,683	281,624	1,579,306	0	-	-	-	6	1,579,306	263,218	6	1,579,306	263,218
2007	4	761,772	210,477	972,248	0	-	-	-	4	972,248	243,062	4	972,248	243,062
2008	5	642,947	209,928	852,875	0	-	-	-	5	852,875	170,575	5	852,875	170,575
2009	4	711,687	217,981	929,668	2	517,624	48,648	566,272	6	1,495,939	249,323	6	1,495,939	249,323
2010	2	401,087	48,505	449,592	0	-	-	-	2	449,592	224,796	2	449,592	224,796
2011	2	555,109	93,325	648,435	0	-	-	-	2	648,435	324,217	2	648,435	324,217
2012	3	528,311	77,460	605,772	0	-	-	-	3	605,772	201,924	3	605,772	201,924
2013	2	338,406	75,043	413,449	1	360,852	55,245	416,097	3	829,546	276,515	3	829,546	276,515
2014	1	109,757	39,875	149,632	1	277,143	33,429	310,572	2	460,203	230,102	2	460,203	230,102
2015	0	-	-	-	1	270,152	68,984	339,136	1	339,136	339,136	1	339,136	339,136
2016	5	1,377,029	240,565	1,617,594	0	-	-	-	5	1,617,594	323,519	5	1,617,594	323,519
2017	3	537,944	111,878	649,822	4	1,211,929	182,560	1,394,489	7	2,044,311	292,044	7	2,044,311	292,044
2018	1	398,451	57,018	455,470	1	17,418	97,768	115,186	2	570,655	285,328	4	1,089,733	272,433
2019	1	45,700	7,462	53,162	0	-	-	-	1	53,162	53,162	5	1,091,318	218,264
2020	1	439,243	52,087	491,331	0	-	-	-	1	491,331	491,331	7	2,048,564	292,652
<b>Total</b>	<b>78</b>	<b>13,222,335</b>	<b>3,694,754</b>	<b>16,917,089</b>	<b>10</b>	<b>2,655,118</b>	<b>486,632</b>	<b>3,141,751</b>	<b>88</b>	<b>20,058,840</b>	<b>227,941</b>	<b>100</b>	<b>23,173,307</b>	<b>231,733</b>

Notes:

(13) for 2018 & After: Judgmentally selected per the more recent maximum observed weighted by year - 2018, 2019, & 2020 at 50%, 75%, & 100% respectively

(14) for 2018 & After: [(13) - (10)] \* F + (11) where F = [Sum (11) for 2008 to 2017] / [Sum (10) for 2008 to 2017]

**PE Appendix A**

**PIPP Enhancement: Increasing the Weekly Indemnity to IAW**

**Estimated Unpaid Claims - Discounted without Margin**

Insurance Year	CAT Claims = Yes				CAT Claims = Potential				All CAT Claims			All CAT Claims - Selected		
	Count	IRI	RIB	IRI & RIB	Count	IRI	RIB	IRI & RIB	Count	IRI & RIB	Average	Count	IRI & RIB	Average
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
2002 & Prior	26	2,726,961	1,398,808	4,125,769	0	-	-	-	26	4,125,769	158,683	26	4,125,769	158,683
2003	3	339,329	83,158	422,488	0	-	-	-	3	422,488	140,829	3	422,488	140,829
2004	4	717,811	133,903	851,714	0	-	-	-	4	851,714	212,929	4	851,714	212,929
2005	5	1,052,125	170,698	1,222,822	0	-	-	-	5	1,222,822	244,564	5	1,222,822	244,564
2006	6	1,223,830	241,744	1,465,574	0	-	-	-	6	1,465,574	244,262	6	1,465,574	244,262
2007	4	719,864	185,710	905,574	0	-	-	-	4	905,574	226,394	4	905,574	226,394
2008	5	612,634	189,886	802,520	0	-	-	-	5	802,520	160,504	5	802,520	160,504
2009	4	677,270	194,420	871,690	2	483,472	39,714	523,186	6	1,394,876	232,479	6	1,394,876	232,479
2010	2	377,792	40,573	418,365	0	-	-	-	2	418,365	209,183	2	418,365	209,183
2011	2	521,566	81,355	602,921	0	-	-	-	2	602,921	301,460	2	602,921	301,460
2012	3	497,894	66,310	564,204	0	-	-	-	3	564,204	188,068	3	564,204	188,068
2013	2	314,449	68,237	382,686	1	334,903	44,516	379,419	3	762,105	254,035	3	762,105	254,035
2014	1	106,572	36,134	142,706	1	261,089	27,973	289,062	2	431,767	215,884	2	431,767	215,884
2015	0	-	-	-	1	256,097	58,692	314,789	1	314,789	314,789	1	314,789	314,789
2016	5	1,286,309	204,450	1,490,760	0	-	-	-	5	1,490,760	298,152	5	1,490,760	298,152
2017	3	506,667	96,834	603,501	4	1,134,553	151,626	1,286,179	7	1,889,680	269,954	7	1,889,680	269,954
2018	1	369,129	45,736	414,865	1	17,364	93,988	111,352	2	526,216	263,108	4	1,007,993	251,998
2019	1	43,437	6,399	49,836	0	-	-	-	1	49,836	49,836	5	1,013,390	202,678
2020	1	403,260	40,765	444,025	0	-	-	-	1	444,025	444,025	7	1,889,356	269,908
<b>Total</b>	<b>78</b>	<b>12,496,898</b>	<b>3,285,120</b>	<b>15,782,018</b>	<b>10</b>	<b>2,487,478</b>	<b>416,507</b>	<b>2,903,985</b>	<b>88</b>	<b>18,686,003</b>	<b>212,341</b>	<b>100</b>	<b>21,576,665</b>	<b>215,767</b>

Notes:

(13) for 2018 & After: Judgmentally selected per the more recent maximum observed weighted by year - 2018, 2019, & 2020 at 50%, 75%, & 100% respectively

(14) for 2018 & After: [(13) - (10)] \* F + (11) where F = [Sum (11) for 2008 to 2017] / [Sum (10) for 2008 to 2017]



**PE Appendix B**  
**PIPP Enhancement: Increasing the Weekly Indemnity to IAW**  
**Adjustment to 2009 IAW for Claimants at Older IAW Levels**

**Estimated Unpaid Claims**

Insurance Year	Count	Undiscounted			Discounted with Margin			Discounted Without Margin		
		IRI	RIB	IRI & RIB	IRI	RIB	IRI & RIB	IRI	RIB	IRI & RIB
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2002 & Prior	20	569,049	106,752	675,800	546,632	95,031	641,663	517,690	80,987	598,677
2003	1	17,435	1,759	19,194	16,550	1,513	18,063	15,430	1,228	16,659
2004	2	27,009	9,089	36,099	26,105	8,474	34,579	24,937	7,711	32,647
2005	1	22,818	3,546	26,364	21,920	3,149	25,069	20,760	2,674	23,434
2006	3	39,090	5,226	44,316	37,201	4,527	41,728	34,799	3,714	38,513
2007	1	6,669	721	7,390	6,338	622	6,961	5,919	508	6,427
2008	0	-	-	-	-	-	-	-	-	-
2009	0	-	-	-	-	-	-	-	-	-
2010	0	-	-	-	-	-	-	-	-	-
2011	0	-	-	-	-	-	-	-	-	-
2012	0	-	-	-	-	-	-	-	-	-
2013	0	-	-	-	-	-	-	-	-	-
2014	0	-	-	-	-	-	-	-	-	-
2015	0	-	-	-	-	-	-	-	-	-
2016	0	-	-	-	-	-	-	-	-	-
2017	0	-	-	-	-	-	-	-	-	-
2018	0	-	-	-	-	-	-	-	-	-
2019	0	-	-	-	-	-	-	-	-	-
2020	0	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>28</b>	<b>682,070</b>	<b>127,093</b>	<b>809,163</b>	<b>654,747</b>	<b>113,316</b>	<b>768,063</b>	<b>619,535</b>	<b>96,822</b>	<b>716,358</b>

**PE Appendix C**

**PIPP Enhancement: Increasing the Maximum Personal Care**

**Estimated Unpaid Claims - Undiscounted**

Insurance Year	CAT Claims = Yes		CAT Claims = Potential		All CAT Claims			All CAT Claims - Selected		
	Count	PC	Count	PC	Count	PC	Average	Count	PC	Average
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2002 & Prior	37	7,469,427	0	-	37	7,469,427	201,876	37	7,469,427	201,876
2003	4	723,559	0	-	4	723,559	180,890	4	723,559	180,890
2004	5	1,410,579	0	-	5	1,410,579	282,116	5	1,410,579	282,116
2005	3	689,079	0	-	3	689,079	229,693	3	689,079	229,693
2006	4	1,066,196	0	-	4	1,066,196	266,549	4	1,066,196	266,549
2007	9	2,408,790	0	-	9	2,408,790	267,643	9	2,408,790	267,643
2008	4	855,603	0	-	4	855,603	213,901	4	855,603	213,901
2009	4	966,503	0	-	4	966,503	241,626	4	966,503	241,626
2010	3	534,622	0	-	3	534,622	178,207	3	534,622	178,207
2011	6	1,509,285	2	425,266	8	1,934,551	241,819	8	1,934,551	241,819
2012	3	869,746	0	-	3	869,746	289,915	3	869,746	289,915
2013	3	898,778	0	-	3	898,778	299,593	3	898,778	299,593
2014	3	522,065	0	-	3	522,065	174,022	3	522,065	174,022
2015	4	607,084	1	225,996	5	833,079	166,616	5	833,079	166,616
2016	6	1,551,173	1	196,558	7	1,747,731	249,676	7	1,747,731	249,676
2017	6	1,134,529	1	147,329	7	1,281,857	183,122	7	1,281,857	183,122
2018	2	501,579	0	-	2	501,579	250,789	5	1,168,251	233,650
2019	1	246,873	0	-	1	246,873	246,873	5	1,135,770	227,154
2020	0	-	0	-	0	-	-	5	1,111,121	222,224
<b>Total</b>	<b>107</b>	<b>23,965,469</b>	<b>5</b>	<b>995,148</b>	<b>112</b>	<b>24,960,617</b>	<b>222,863</b>	<b>124</b>	<b>27,627,307</b>	<b>222,801</b>

Notes:

(9) for 2018 & After: Greater of the average for 2008 to 2017 or column (6)

(10) for 2018 & After: [(9) - (6)] \* F + (7) where F = [Sum (7) for 2008 to 2017] / [Sum (6) for 2008 to 2017]

PE Appendix CPIPP Enhancement: Increasing the Maximum Personal CareEstimated Unpaid Claims - Discounted with Margin

Insurance Year	CAT Claims = Yes		CAT Claims = Potential		All CAT Claims			All CAT Claims - Selected		
	Count	PC	Count	PC	Count	PC	Average	Count	PC	Average
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2002 & Prior	37	7,106,020	0	-	37	7,106,020	192,055	37	7,106,020	192,055
2003	4	687,062	0	-	4	687,062	171,765	4	687,062	171,765
2004	5	1,322,264	0	-	5	1,322,264	264,453	5	1,322,264	264,453
2005	3	656,791	0	-	3	656,791	218,930	3	656,791	218,930
2006	4	1,002,411	0	-	4	1,002,411	250,603	4	1,002,411	250,603
2007	9	2,246,093	0	-	9	2,246,093	249,566	9	2,246,093	249,566
2008	4	816,064	0	-	4	816,064	204,016	4	816,064	204,016
2009	4	911,286	0	-	4	911,286	227,822	4	911,286	227,822
2010	3	511,379	0	-	3	511,379	170,460	3	511,379	170,460
2011	6	1,415,647	2	389,626	8	1,805,273	225,659	8	1,805,273	225,659
2012	3	809,583	0	-	3	809,583	269,861	3	809,583	269,861
2013	3	834,102	0	-	3	834,102	278,034	3	834,102	278,034
2014	3	497,107	0	-	3	497,107	165,702	3	497,107	165,702
2015	4	581,655	1	206,670	5	788,325	157,665	5	788,325	157,665
2016	6	1,453,430	1	180,810	7	1,634,240	233,463	7	1,634,240	233,463
2017	6	1,062,514	1	139,035	7	1,201,549	171,650	7	1,201,549	171,650
2018	2	469,541	0	-	2	469,541	234,770	5	1,095,641	219,128
2019	1	223,747	0	-	1	223,747	223,747	5	1,058,548	211,710
2020	0	-	0	-	0	-	-	5	1,043,501	208,700
<b>Total</b>	<b>107</b>	<b>22,606,696</b>	<b>5</b>	<b>916,140</b>	<b>112</b>	<b>23,522,836</b>	<b>210,025</b>	<b>124</b>	<b>26,027,238</b>	<b>209,897</b>

## Notes:

(9) for 2018 &amp; After: Greater of the average for 2008 to 2017 or column (6)

(10) for 2018 &amp; After: [(9) - (6)] \* F + (7) where F = [Sum (7) for 2008 to 2017] / [Sum (6) for 2008 to 2017]

**PE Appendix C**

**PIPP Enhancement: Increasing the Maximum Personal Care**

**Estimated Unpaid Claims - Discounted without Margin**

Insurance Year	CAT Claims = Yes		CAT Claims = Potential		All CAT Claims			All CAT Claims - Selected		
	Count	PC	Count	PC	Count	PC	Average	Count	PC	Average
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2002 & Prior	37	6,648,902	0	-	37	6,648,902	179,700	37	6,648,902	179,700
2003	4	641,428	0	-	4	641,428	160,357	4	641,428	160,357
2004	5	1,213,583	0	-	5	1,213,583	242,717	5	1,213,583	242,717
2005	3	615,858	0	-	3	615,858	205,286	3	615,858	205,286
2006	4	923,381	0	-	4	923,381	230,845	4	923,381	230,845
2007	9	2,048,292	0	-	9	2,048,292	227,588	9	2,048,292	227,588
2008	4	766,041	0	-	4	766,041	191,510	4	766,041	191,510
2009	4	842,764	0	-	4	842,764	210,691	4	842,764	210,691
2010	3	481,923	0	-	3	481,923	160,641	3	481,923	160,641
2011	6	1,301,036	2	347,405	8	1,648,441	206,055	8	1,648,441	206,055
2012	3	737,542	0	-	3	737,542	245,847	3	737,542	245,847
2013	3	755,872	0	-	3	755,872	251,957	3	755,872	251,957
2014	3	465,708	0	-	3	465,708	155,236	3	465,708	155,236
2015	4	549,142	1	183,796	5	732,938	146,588	5	732,938	146,588
2016	6	1,333,873	1	162,060	7	1,495,933	213,705	7	1,495,933	213,705
2017	6	974,673	1	128,678	7	1,103,350	157,621	7	1,103,350	157,621
2018	2	430,103	0	-	2	430,103	215,051	5	1,006,518	201,304
2019	1	196,801	0	-	1	196,801	196,801	5	965,355	193,071
2020	0	-	0	-	0	-	-	5	960,693	192,139
<b>Total</b>	<b>107</b>	<b>20,926,921</b>	<b>5</b>	<b>821,938</b>	<b>112</b>	<b>21,748,860</b>	<b>194,186</b>	<b>124</b>	<b>24,054,522</b>	<b>193,988</b>

Notes:

(9) for 2018 & After: Greater of the average for 2008 to 2017 or column (6)

(10) for 2018 & After: [(9) - (6)] \* F + (7) where F = [Sum (7) for 2008 to 2017] / [Sum (6) for 2008 to 2017]

PE Appendix DPIPP Enhancement: Increasing the Maximum Permanent ImpairmentEstimated Ultimate Claims - Undiscounted

Insurance Year	CAT Claims = Yes			CAT Claims = Potential			All CAT Claims	
	Count	PI	Average	Selected Avg	Count	PI	Count	PI
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2002 & Prior	88	10,067,537	114,404	114,404	2	228,808	90	10,296,345
2003	9	953,922	105,991	105,991	1	105,991	10	1,059,913
2004	9	977,026	108,558	108,558	0	-	9	977,026
2005	12	1,249,611	104,134	104,134	0	-	12	1,249,611
2006	16	1,686,913	105,432	105,432	0	-	16	1,686,913
2007	15	1,370,752	91,383	91,383	0	-	15	1,370,752
2008	15	1,378,936	91,929	91,929	0	-	15	1,378,936
2009	9	813,042	90,338	90,338	3	271,014	12	1,084,055
2010	8	745,455	93,182	93,182	1	93,182	9	838,637
2011	10	911,116	91,112	91,112	2	182,223	12	1,093,340
2012	10	923,849	92,385	92,385	2	184,770	12	1,108,619
2013	7	647,779	92,540	92,540	1	92,540	8	740,319
2014	9	939,725	104,414	104,414	3	313,242	12	1,252,966
2015	7	618,282	88,326	99,700	2	199,400	9	817,682
2016	12	1,357,087	113,091	99,700	3	299,100	15	1,656,187
2017	10	985,747	98,575	99,700	4	398,800	14	1,384,547
2018	3	278,926	92,975	99,700	4	398,800	7	677,726
2019	6	636,819	106,137	99,700	4	398,800	10	1,035,619
2020	3	375,492	125,164	99,700	8	797,600	11	1,173,092
<b>Total</b>	<b>258</b>	<b>26,918,015</b>			<b>40</b>	<b>3,964,269</b>	<b>298</b>	<b>30,882,285</b>

## Notes:

(5): Prior to 2015 per column (4); 2015 to 2020 per the weighted average for 2011 to 2020

(7) = (5) \* (6)

**PE Appendix E**

**PIPP Enhancement: Change to Vehicle Purchase Policy**

**Estimated Unpaid Claims**

Insurance Year	Head & Quad Claims				Other Claims				All Claims			
	Count	Undisc	Disc with Margin	Disc w/out Margin	Count	Undisc	Disc with Margin	Disc w/out Margin	Count	Undisc	Disc with Margin	Disc w/out Margin
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2002 & Prior	22	3,041,946	2,897,833	2,716,734	14	1,269,274	1,215,441	1,147,434	36	4,311,220	4,113,275	3,864,168
2003	3	468,647	445,921	417,569	2	73,791	71,756	69,112	5	542,438	517,676	486,681
2004	4	818,523	777,361	726,128	2	246,760	232,033	214,080	6	1,065,283	1,009,394	940,208
2005	1	-	-	-	4	395,293	375,097	349,958	5	395,293	375,097	349,958
2006	2	420,628	397,993	369,844	7	779,564	735,565	681,278	9	1,200,192	1,133,558	1,051,122
2007	4	947,419	887,765	815,091	3	308,429	290,236	267,783	7	1,255,848	1,178,001	1,082,874
2008	4	645,276	618,184	584,077	2	250,270	235,600	217,577	6	895,546	853,784	801,654
2009	3	505,289	483,606	456,248	2	143,033	138,650	132,979	5	648,322	622,256	589,227
2010	2	222,640	217,279	210,337	3	389,174	367,526	340,809	5	611,814	584,804	551,146
2011	2	176,885	170,981	163,282	2	299,047	276,417	249,260	4	475,931	447,398	412,542
2012	3	457,394	422,541	381,189	1	149,984	140,629	129,186	4	607,378	563,170	510,375
2013	0	-	-	-	0	-	-	-	0	-	-	-
2014	3	394,092	371,129	342,696	2	164,022	156,546	147,194	5	558,114	527,675	489,890
2015	1	117,978	114,051	108,966	2	200,703	189,214	174,872	3	318,681	303,265	283,838
2016	3	710,021	658,711	596,628	4	491,221	460,240	422,686	7	1,201,242	1,118,952	1,019,314
2017	3	655,511	626,079	589,209	3	317,418	304,554	288,129	6	972,928	930,632	877,338
2018	3	600,000	579,279	552,413	3	360,000	347,567	331,448	6	960,000	926,846	883,861
2019	3	701,879	658,187	605,476	3	377,451	360,645	339,577	6	1,079,330	1,018,832	945,053
2020	3	600,000	579,279	552,413	3	360,000	347,567	331,448	6	960,000	926,846	883,861
<b>Total</b>	<b>69</b>	<b>11,484,128</b>	<b>10,906,178</b>	<b>10,188,302</b>	<b>62</b>	<b>6,575,432</b>	<b>6,245,283</b>	<b>5,834,809</b>	<b>131</b>	<b>18,059,560</b>	<b>17,151,461</b>	<b>16,023,111</b>

Notes:

Head & Quad Claimants have higher average entitlement due to greater severity of injury

**PE Appendix F**

**PIPP Enhancement: Death Benefits**

**Estimated IBNR**

Insurance Year	CAT Claims = Yes				CAT Claims = Potential				All CAT Claims			
	Count	Undisc	Disc with Margin	Disc w/out Margin	Count	Undisc	Disc with Margin	Disc w/out Margin	Count	Undisc	Disc with Margin	Disc w/out Margin
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2002 & Prior	69	7,076,315	6,680,662	6,226,289	2	210,800	197,800	183,200	71	7,287,115	6,878,462	6,409,489
2003	5	468,626	442,659	413,238	1	105,400	98,900	91,600	6	574,026	541,559	504,838
2004	10	1,088,223	1,016,486	936,979	0	-	-	-	10	1,088,223	1,016,486	936,979
2005	7	784,185	738,149	687,302	0	-	-	-	7	784,185	738,149	687,302
2006	14	1,597,073	1,484,057	1,359,824	0	-	-	-	14	1,597,073	1,484,057	1,359,824
2007	12	1,409,141	1,310,942	1,199,550	0	-	-	-	12	1,409,141	1,310,942	1,199,550
2008	10	946,726	892,327	828,027	0	-	-	-	10	946,726	892,327	828,027
2009	6	590,683	558,462	518,605	3	316,200	296,700	274,800	9	906,883	855,162	793,405
2010	6	672,266	628,318	579,257	1	105,400	98,900	91,600	7	777,666	727,218	670,857
2011	8	858,042	792,594	716,515	2	210,800	197,800	183,200	10	1,068,842	990,394	899,715
2012	6	614,401	568,571	519,457	2	215,000	200,800	184,800	8	829,401	769,371	704,257
2013	4	426,015	393,253	355,454	1	108,300	101,000	92,800	5	534,315	494,253	448,254
2014	6	775,094	725,073	671,075	3	329,400	307,200	282,300	9	1,104,494	1,032,273	953,375
2015	7	799,888	759,093	709,818	2	220,000	205,400	188,800	9	1,019,888	964,493	898,618
2016	11	1,036,113	954,186	865,141	3	321,000	299,400	274,800	14	1,357,113	1,253,586	1,139,941
2017	8	905,142	839,498	769,893	4	423,600	395,200	362,800	12	1,328,742	1,234,698	1,132,693
2018	3	385,485	351,352	315,666	4	434,800	404,400	370,400	7	820,285	755,752	686,066
2019	5	644,588	599,838	548,140	4	444,800	413,200	378,000	9	1,089,388	1,013,038	926,140
2020	3	355,346	320,547	284,160	8	892,000	826,400	754,400	11	1,247,346	1,146,947	1,038,560
<b>Total</b>	<b>200</b>	<b>21,433,351</b>	<b>20,056,065</b>	<b>18,504,389</b>	<b>40</b>	<b>4,337,500</b>	<b>4,043,100</b>	<b>3,713,500</b>	<b>240</b>	<b>25,770,851</b>	<b>24,099,165</b>	<b>22,217,889</b>

Notes:

(7) to (9): Column (6) \* F where F as follows:

2011 & Prior: F = Weighted average for 2011 & Prior for CAT Claims = Yes

2012 & After: F = 10-year weighted rolling average for CAT Claims = Yes

**PE Appendix G**  
**PIPP Enhancement: Annual Spending Allowance**

**Estimated Unpaid Claims - Undiscounted**

Insurance Year	Mild		Moderate		Severe		Catastrophic		Total Allowance
	Count	Allowance	Count	Allowance	Count	Allowance	Count	Allowance	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2002 & Prior	159	540,984	74	628,115	56	888,837	71	2,605,319	1,405,556
2003	22	84,234	8	54,109	4	54,961	6	198,379	108,855
2004	22	79,745	5	47,508	3	34,286	10	453,367	234,761
2005	18	79,585	13	77,367	1	24,860	7	284,490	151,336
2006	30	95,491	11	77,152	5	70,313	14	680,994	352,645
2007	32	125,252	10	69,008	2	31,069	12	596,375	309,454
2008	30	103,107	10	76,462	3	47,587	10	368,009	195,362
2009	38	139,868	10	93,005	5	103,783	9	366,982	200,324
2010	37	159,710	13	134,985	4	66,231	7	292,252	164,172
2011	47	204,004	11	66,576	6	108,237	10	497,853	267,867
2012	39	155,178	12	139,448	5	58,029	8	364,824	200,045
2013	43	173,860	10	87,220	1	26,972	5	240,130	134,468
2014	39	165,186	9	71,968	0	-	9	353,315	188,515
2015	65	298,713	12	100,990	6	133,232	9	336,250	194,772
2016	55	249,178	16	155,737	8	136,445	14	635,650	344,893
2017	55	268,930	14	163,290	4	65,500	12	527,460	288,616
2018	55	285,155	12	101,137	4	65,500	7	355,863	200,521
2019	60	256,860	13	111,488	4	65,500	9	372,536	207,960
2020	55	235,455	12	102,912	4	65,500	11	552,541	296,464
<b>Total</b>	<b>901</b>	<b>3,700,496</b>	<b>275</b>	<b>2,358,476</b>	<b>125</b>	<b>2,046,841</b>	<b>240</b>	<b>10,082,589</b>	<b>5,446,585</b>

Notes:

Mild - Permanent Impairment 20% or greater but less than 50%; Maximum allowance = \$250/Year

Moderate - Permanent Impairment 50% or greater but less than 70%; Maximum allowance = \$500/Year

Severe - Permanent Impairment 70% or greater; Maximum allowance = \$1,000/Year

Catastrophic - Special category; Maximum allowance = \$2,000/Year

(3), (5), (7), & (9): Based on assumption that claimants will use up the maximum allowance

(10): Based on expected uptake of 5% for Mild, Moderate and Severe, and 50% for Catastrophic



**PE Appendix G**  
**PIPP Enhancement: Annual Spending Allowance****Estimated Unpaid Claims - Discounted with Margin**

Insurance Year	Mild		Moderate		Severe		Catastrophic		Total Allowance
	Count	Allowance	Count	Allowance	Count	Allowance	Count	Allowance	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2002 & Prior	159	519,540	74	599,770	56	850,151	71	2,480,265	1,338,605
2003	22	80,461	8	52,103	4	52,994	6	189,192	103,874
2004	22	76,591	5	45,223	3	33,141	10	428,222	221,859
2005	18	75,708	13	74,665	1	23,489	7	269,921	143,653
2006	30	91,678	11	73,644	5	67,699	14	640,990	332,146
2007	32	119,838	10	66,212	2	29,918	12	558,221	289,909
2008	30	99,169	10	72,904	3	45,355	10	349,934	185,839
2009	38	133,510	10	88,093	5	97,358	9	347,920	189,908
2010	37	152,014	13	127,519	4	63,208	7	276,257	155,265
2011	47	193,757	11	63,708	6	103,182	10	465,936	251,001
2012	39	147,976	12	131,408	5	55,984	8	341,683	187,610
2013	43	165,781	10	82,787	1	25,273	5	224,505	125,945
2014	39	157,539	9	68,575	0	-	9	334,448	178,530
2015	65	283,323	12	95,837	6	125,648	9	319,404	184,942
2016	55	236,086	16	147,503	8	129,955	14	595,933	323,644
2017	55	253,796	14	153,311	4	62,508	12	496,337	271,649
2018	55	268,743	12	96,266	4	62,508	7	333,279	188,015
2019	60	244,140	13	106,054	4	62,508	9	347,927	194,598
2020	55	223,795	12	97,896	4	62,508	11	516,481	277,450
<b>Total</b>	<b>901</b>	<b>3,523,444</b>	<b>275</b>	<b>2,243,478</b>	<b>125</b>	<b>1,953,385</b>	<b>240</b>	<b>9,516,855</b>	<b>5,144,443</b>

## Notes:

Mild - Permanent Impairment 20% or greater but less than 50%; Maximum allowance = \$250/Year

Moderate - Permanent Impairment 50% or greater but less than 70%; Maximum allowance = \$500/Year

Severe - Permanent Impairment 70% or greater; Maximum allowance = \$1,000/Year

Catastrophic - Special category; Maximum allowance = \$2,000/Year

(3), (5), (7), &amp; (9): Based on assumption that claimants will use up the maximum allowance

(10): Based on expected uptake of 5% for Mild, Moderate and Severe, and 50% for Catastrophic

**PE Appendix G**  
**PIPP Enhancement: Annual Spending Allowance****Estimated Unpaid Claims - Discounted without Margin**

Insurance Year	Mild		Moderate		Severe		Catastrophic		Total Allowance
	Count	Allowance	Count	Allowance	Count	Allowance	Count	Allowance	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2002 & Prior	159	492,203	74	563,899	56	801,126	71	2,322,778	1,254,250
2003	22	75,707	8	49,526	4	50,460	6	177,626	97,598
2004	22	72,559	5	42,346	3	31,658	10	396,952	205,804
2005	18	70,847	13	71,192	1	21,773	7	251,655	134,018
2006	30	86,842	11	69,241	5	64,340	14	591,421	306,731
2007	32	112,980	10	62,658	2	28,433	12	511,556	265,981
2008	30	94,129	10	68,434	3	42,554	10	327,282	173,897
2009	38	125,524	10	81,971	5	89,512	9	324,105	176,903
2010	37	142,368	13	118,261	4	59,404	7	256,354	144,179
2011	47	180,993	11	60,103	6	96,805	10	426,995	230,393
2012	39	138,920	12	121,470	5	53,364	8	313,526	172,451
2013	43	155,631	10	77,264	1	23,181	5	205,466	115,537
2014	39	147,906	9	64,318	0	-	9	310,984	166,103
2015	65	264,187	12	89,427	6	116,245	9	298,279	172,632
2016	55	219,836	16	137,274	8	121,817	14	547,342	297,617
2017	55	235,096	14	141,041	4	58,740	12	458,147	250,817
2018	55	248,525	12	90,149	4	58,740	7	305,607	172,674
2019	60	228,300	13	99,242	4	58,740	9	318,163	178,395
2020	55	209,275	12	91,608	4	58,740	11	472,508	254,235
<b>Total</b>	<b>901</b>	<b>3,301,829</b>	<b>275</b>	<b>2,099,424</b>	<b>125</b>	<b>1,835,633</b>	<b>240</b>	<b>8,816,743</b>	<b>4,770,216</b>

## Notes:

Mild - Permanent Impairment 20% or greater but less than 50%; Maximum allowance = \$250/Year

Moderate - Permanent Impairment 50% or greater but less than 70%; Maximum allowance = \$500/Year

Severe - Permanent Impairment 70% or greater; Maximum allowance = \$1,000/Year

Catastrophic - Special category; Maximum allowance = \$2,000/Year

(3), (5), (7), &amp; (9): Based on assumption that claimants will use up the maximum allowance

(10): Based on expected uptake of 5% for Mild, Moderate and Severe, and 50% for Catastrophic

**PE Appendix H**

**PIPP Enhancement: Caregiver Death Benefit**

**Estimated Unpaid Claims**

Insurance Year	Known Claims				Potential Claims				All Claims			
	Count	Undisc	Disc with Margin	Disc w/out Margin	Count	Undisc	Disc with Margin	Disc w/out Margin	Count	Undisc	Disc with Margin	Disc w/out Margin
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2002 & Prior	0	-	-	-	0	-	-	-	0	-	-	-
2003	0	-	-	-	0	-	-	-	0	-	-	-
2004	0	-	-	-	0	-	-	-	0	-	-	-
2005	0	-	-	-	0	-	-	-	0	-	-	-
2006	0	-	-	-	0	-	-	-	0	-	-	-
2007	0	-	-	-	0	-	-	-	0	-	-	-
2008	1	43,928	43,786	43,590	0	-	-	-	1	43,928	43,786	43,590
2009	0	-	-	-	0	-	-	-	0	-	-	-
2010	0	-	-	-	0	-	-	-	0	-	-	-
2011	0	-	-	-	0	-	-	-	0	-	-	-
2012	0	-	-	-	0	-	-	-	0	-	-	-
2013	0	-	-	-	0	-	-	-	0	-	-	-
2014	0	-	-	-	0	-	-	-	0	-	-	-
2015	5	993,274	979,340	960,511	0	-	-	-	5	993,274	979,340	960,511
2016	0	-	-	-	0	-	-	-	0	-	-	-
2017	4	1,061,519	1,042,911	1,017,913	0	-	-	-	4	1,061,519	1,042,911	1,017,913
2018	2	555,968	544,858	529,979	1	217,500	213,900	209,000	3	773,468	758,758	738,979
2019	2	131,376	130,610	129,561	2	435,000	427,800	418,000	4	566,376	558,410	547,561
2020	1	303,484	296,893	288,089	3	652,500	641,700	627,000	4	955,984	938,593	915,089
<b>Total</b>	<b>15</b>	<b>3,089,549</b>	<b>3,038,397</b>	<b>2,969,643</b>	<b>6</b>	<b>1,305,000</b>	<b>1,283,400</b>	<b>1,254,000</b>	<b>21</b>	<b>4,394,549</b>	<b>4,321,797</b>	<b>4,223,643</b>

Notes:

(6) = (10) - (2)

(7) to (9): Column (6) \* F where F = Weighted average for 2015 to 2020 for Known Claims

(10) for 2017 & After: Judgmentally selected per the more recent maximum observed weighted by year - 2017, 2018, 2019, & 2020 at 25%, 50%, 75%, & 100% respectively