

LOSS COSTS – IMPLEMENTATION

JANUARY 29, 2018

COMMERCIAL AUTOMOBILE

LI-CA-2018-040

MONTANA REVISED COMMERCIAL AUTO ADVISORY PROSPECTIVE LOSS COSTS TO BE IMPLEMENTED

KEY MESSAGE

Loss costs representing a **+3.5%** statewide change to be implemented.

BACKGROUND

In circular [LI-CA-2017-349](#), we provided you with information about the Commercial Auto loss cost level experience review.

ISO ACTION

We are implementing CA-2018-BRLA1, which:

- Changes the liability and physical damage loss costs for Trucks, Tractors and Trailers, Private Passenger Types and Public Autos;
- Changes the liability loss cost for Auto Dealers; and
- Changes the liability loss cost for Hired Autos in Rule **90.B.3.b**.

Refer to the attached explanatory material for complete details about the filing.

SUPPLEMENTARY INFORMATION

We are including the following supplementary information:

- Supplementary Information – Montana, which provides additional information on the attached loss cost level experience review.
- The loss cost exhibits contained in this filing in a Microsoft® Excel workbook.

NOTE: This supplementary information is **not** part of the experience review document and, in states where we are making a filing, is **not** part of the filing.

EFFECTIVE DATE

The ISO revision is subject to the following rule of application:

These changes are applicable to all policies written on or after July 1, 2018.

This effective date applies only to those insurers who have filed their Commercial Auto loss cost adjustments to be automatically applicable to future ISO loss cost revisions.

IMPACT ON THE STATISTICAL REPORTING OF LOSS COST MULTIPLIER

For the purpose of reporting your company Loss Cost Multiplier under the CSP, as of July 1, 2018, the multiplier must be based on the relationship between your gross rates and the ISO advisory prospective loss costs contained in this circular.

COMPANY ACTION

You must independently determine the final rates you will use. The action, if any, you must take in response to this filing is dependent upon how you filed to have your loss cost adjustments apply to subsequent revisions of ISO loss costs. Any submission you make with respect to this revision must comply with applicable regulatory filing requirements.

For guidance on submission requirements, consult the ISO State Filing Handbook.

In all correspondence with the Insurance Department on this revision, you should refer to ISO Reference Filing Number CA-2018-BRLA1, NOT this circular number.

CAUTION: This reference filing revises only certain advisory prospective loss costs for Commercial Auto in this state. In determining whether or not to revise your rates, you should consider the application of your loss cost adjustments to any loss costs not included in this revision.

RATING SOFTWARE IMPACT

No new attributes are being introduced with this revision.

POLICYHOLDER NOTIFICATION

If you decide to implement this revision, you should check all applicable laws for the state(s) to which this revision applies, to determine whether or not a specific policyholder notice requirement may apply. Please note that circular [LI-CL-2017-074](#) contains the ISO Guide To Renewals With Changed Conditions For Commercial Lines, which is available only as a guide to assist participating companies in complying with various conditional renewal statutes or regulations, for the major commercial lines of insurance serviced by ISO. The information in the Guide does not necessarily reflect all requirements or exceptions that may apply, and it is not intended as a substitute for your review of all applicable statutes and regulations concerning policyholder notification.

FUTURE ISO ACTION

We will provide a status report for this and other Basic Limits Loss Costs (BRLA1) revisions. Please refer to the Insurance Lines Services web site (www.verisk.com/ils). In addition to other information, this web site contains copies of major multistate filing status reports that are updated approximately every two weeks.

REVISION DISTRIBUTION

We will issue a Notice to Manualholders with an edition date of 7-18 (or the earliest possible subsequent date), along with any new and/or revised manual pages.

REFERENCE(S)

- [LI-CA-2017-349](#) (12/06/2017) Commercial Auto Experience Level Indications Reviewed By Staff
- [LI-CL-2017-074](#) (11/20/2017) Revised Lead Time Requirements Listing

ATTACHMENT(S)

- Filing CA-2018-BRLA1
- Supplementary Information Exhibit
- Excel Workbook

FILES AVAILABLE FOR DOWNLOAD

To download all files associated with this circular, including attachments in the full circular PDF and/or any additional files not included in the PDF, search for the circular number on [ISOnet Circulars](#). Then click the Word/Excel link under the Full Circular column on the Search Results screen.

Please note that in some instances, not all files listed in the Attachment(s) block (if applicable) are included in the PDF.

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ACKNOWLEDGEMENT OF ACTUARIAL QUALIFICATIONS

The American Academy of Actuaries' "Qualifications Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States" requires that an actuary issuing a Statement of Actuarial Opinion should include an acknowledgment with the opinion that he/she has met the qualification standards of the AAA. ISO considers this loss cost review a Statement of Actuarial Opinion; therefore, we are including the following acknowledgment:

I, David Terné, am a Director of Actuarial Operations for ISO and I, James Davidson, am an Actuarial Director for Commercial Auto for ISO. We are jointly responsible for the content of this Statement of Actuarial Opinion. We are both members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

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Callers outside the United States, Canada, and the Caribbean may contact us using our global toll-free number (International Access Code + 800 48977489). For information on all ISO products, visit us at www.verisk.com/iso. To keep abreast of the latest Insurance Lines Services updates, view www.verisk.com/ils.

MONTANA

BASIC LIMITS PROSPECTIVE LOSS COST LEVEL – COMMERCIAL AUTOMOBILE

FILING CA-2018-BRLA1

EXECUTIVE SUMMARY

PURPOSE

This document:

- revises the advisory prospective loss costs for the major Commercial Automobile classes. These loss costs represent a 3.5% statewide change from the loss costs currently in effect.
 - provides the analyses used to derive these advisory loss costs.
-

DEFINITION OF
THE ISO ADVISORY
PROSPECTIVE
LOSS COST

Advisory prospective loss costs in this document are that portion of a rate that does not include provisions for expenses (other than loss adjustment expenses) or profit, and are based on historical aggregate losses and loss adjustment expenses adjusted through development to their ultimate value and projected through trending to a future point in time. Throughout this document the words “loss cost” are synonymous with the words “prospective loss cost.”

OPTIONAL CLASS
PLAN LOSS COSTS

The loss costs contained in this filing CA-2018-BRLA1 are intended for use with the class plan in our standard manual. The prospective loss costs in this filing have also been used as the basis to develop the loss costs for the Optional Class Plan, which are located in companion filing CA-2018-BRLB1.

REVISED LOSS
COST CHANGES

The statewide advisory loss cost level changes are:

<u>Trucks, Tractors & Trailers</u>	<u>Indicated</u>	<u>Filed</u>
Single Limit Liability	4.9%	4.9%
Physical Damage		
Other than Collision	9.6%	9.6%
Collision	-3.8%	-3.8%
Total Trucks, Tractors & Trailers	3.6%	3.6%
 <u>Private Passenger Types</u>		
Single Limit Liability	6.6%	6.6%
Physical Damage		
Other than Collision	14.5%	14.5%
Collision	3.0%	3.0%
Total Private Passenger Types	7.7%	7.7%

REVISED LOSS
COST CHANGES
(CONT'D)

<u>Auto Dealers</u>		
Single Limit Liability	1.6%	-20.0%
<u>Grand Total</u>	4.3%	3.5%

Loss cost level changes are relative to the current loss costs.

INDICATED VS.
FILED

Indicated changes are based on standard ISO methodology, utilizing a 07/01/2018 trend effective date. The filed loss cost level changes are the same as the indicated with the following exception: For Auto Dealers Liability, -20.0% was selected to better reflect the favorable state experience.

PRIOR ISO
REVISIONS

The latest selected revisions in this state are:

<u>Filing</u>	CA-17-BRLA1	CA-14-BRLA1	CA-13-BRLA1
Rate Level/ Loss Costs	Loss Costs	Loss Costs	Loss Costs
Effective Date	07/01/17	07/01/14	07/01/13
<u>Changes</u>			
Indicated	2.3%	7.7%	0.8%
Filed	1.3%	7.7%	0.8%
Approved	1.3%	7.7%	0.8%

HISTORICAL
SOURCE DATA

The sources of the data underlying this loss cost review are:

- ISO companies reporting voluntary automobile experience under the Commercial Automobile modules of ISO's statistical plans.
- Accident year data through year ended 12/31/2016 for all coverages.

ADJUSTMENTS TO
REPORTED
EXPERIENCE

Loss Trend

To adjust the loss data to levels expected to prevail during the period when the revised loss costs will be in effect, historical losses have been multiplied by trend factors. These trend factors are based on the changes in claim cost and claim frequency that are expected to arise between the historical experience period and the prospective period during which the revised loss costs are anticipated to be in effect. Based on earlier analyses, there had been differences in historical frequency trends between Trucks, Tractors, and Trailers (TTT) and Private Passenger Types (PPT) liability classes. In general, Commercial Auto classes had experienced an abnormally long period of negative frequency trends prior to 2010. For the most recent 6 years, however, the frequency trends have been slightly increasing (TTT BI) or somewhat cyclical and/or flat (TTT PD and PPT BI and PD) over the experience period. An exponential curve of the form $Y=A(B^X)$ does not fit the data well. To reflect these recent patterns and the difficulty in predicting turning points and rates of change, frequency trend is being selected to be 0% for TTT and PPT for both the Bodily Injury and Property Damage coverages. Due to the limited volume of data for the Auto Dealers coverage, the PPT frequency trend will be used for the Auto Dealers coverage.

Claim cost trend data through fourth quarter 2016 and claim frequency trend data through third quarter 2016 were used in selecting the following annual liability trend factors:

<u>Coverage</u>	<u>Annual Trend Factor</u>
Trucks, Tractors, and Trailers Liability:	
Bodily Injury	+2.7%
Property Damage	+5.6%
Private Passenger Types and Auto Dealers Liability:	
Bodily Injury	+2.7%
Property Damage	+5.6%
Trucks, Tractors & Trailers OTC	+6.5%
Trucks, Tractors & Trailers Collision	+5.5%
Private Passenger Types OTC	+5.0%
Private Passenger Types Collision	+5.0%

ADJUSTMENTS TO
REPORTED
EXPERIENCE
(CONT'D)

OCN Trend

To recognize the trend in the Original Cost New (OCN) relativities for Trucks, Tractors & Trailers and Private Passenger Type's physical damage, aggregate loss costs at current level have been multiplied by trend factors. The selected annual OCN trend factors for Trucks, Tractors & Trailers are +0.9% and +1.3% for OTC and Collision respectively. For Private Passenger Types, the OCN Trend factors are +1.0% and +0.6% for OTC and Collision respectively.

Standard actuarial procedures have been used in calculating the loss costs including adjusting the losses to ultimate settlement level, reflecting all loss adjustment expenses.

TEN LARGEST
COMPANIES/
GROUPS
IN THIS REVIEW

LIABILITY (ASLOB 19.3 & 19.4)

1. Liberty Mutual Insurance Co.
2. Cincinnati Insurance Company
3. Travelers Indemnity Company
4. Nationwide Mutual Insurance Co.
5. Employers Mutual Casualty Co.
6. Firemans Fund Insurance Co.
7. Zurich American Insurance Co.
8. Western National Mutual Ins. Co.
9. Tokio Marine Companies
10. Hartford Accident & Indemnity Co.

PHYSICAL DAMAGE (ASLOB 21.2)

1. Liberty Mutual Insurance Co.
2. Travelers Indemnity Company
3. Cincinnati Insurance Company
4. Firemans Fund Insurance Co.
5. Employers Mutual Casualty Co.
6. Western National Mutual Ins. Co.
7. Tokio Marine Companies
8. Zurich American Insurance Co.
9. Allstate Insurance Company
10. Hartford Accident & Indemnity Co.

Insurers are listed in descending order based on the percent of statewide written premium volume from Annual Statement Page 15 for the year ending 12/31/2016 for the Annual Statement Line of Business (ASLOB) indicated.

MARKET SHARE

The market share of ISO participating insurers used in this review as measured by Annual Statement Page 15 written premium for the year ending 12/31/2016 is:

Liability (ASLOB 19.3 & 19.4)
55.8%

Physical Damage (ASLOB 21.2)
38.7%

COMPANY
DECISION

We encourage each insurer to decide independently whether the judgments made and the procedures or data used by ISO in developing the loss costs contained herein are appropriate for its use. We have included within this document the information upon which ISO relied in order to make such independent judgments.

The data underlying the enclosed material comes from companies reporting to Insurance Services Office, Inc. Therefore, the ISO experience permits the establishment of a much broader statistical ratemaking base than could be employed by using any individual company's data. A broader data base enhances the validity of ratemaking analysis derived therefrom. At the same time, however, an individual company may benefit from a comparison of its own experience to the aggregate ISO experience, and may reach valid conclusions with respect to the manner in which its own costs can be expected to differ from ISO's projections based on the aggregate data.

Some calculations included in this document involve areas of ISO staff judgment. Each company should carefully review and evaluate its own experience in order to determine whether the ISO selected loss costs are appropriate for its use.

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COMMERCIAL AUTOMOBILE
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MONTANA
COMMERCIAL AUTOMOBILE

SECTION A - SCOPE OF REVISION

Summary of Prospective Loss Cost Level Changes	A2
Revised Prospective Loss Costs and Percentage Changes	A3-A22

MONTANA
STATEWIDE LOSS COST LEVEL CHANGES (A)

Coverages	Aggregate Loss Cost at Current Level (B)	Loss Cost Changes (C)
TRUCKS, TRACTORS & TRAILERS (D)		
Single Limit Liability	\$ 15,125,667	4.9%
Physical Damage		
Other Than Collision	3,751,218	9.6%
Collision	5,651,190	-3.8%
Combined	9,402,408	1.5%
Total Trucks, Tractors & Trailers	24,528,075	3.6%
PRIVATE PASSENGER TYPES		
Single Limit Liability	3,187,861	6.6%
Physical Damage		
Other Than Collision	1,433,913	14.5%
Collision	1,334,450	3.0%
Combined	2,768,363	9.0%
Total Private Passenger Types	5,956,224	7.7%
AUTO DEALERS		
Single Limit Liability	1,234,908	-20.0%
GRAND TOTAL ALL COVERAGES	31,719,207	3.5%
TOTAL LIABILITY	19,548,436	3.6%
TOTAL PHYSICAL DAMAGE	12,170,771	3.2%

(A) An implementation date of 7/1/2018 is assumed for purposes of trending.

(B) Accident Year ending 12/31/2016 Aggregate Loss Cost at Current Level for all coverages.

The liability loss costs are on a Total Limits basis.

(C) Loss Cost changes are calculated on a \$100,000 CSL Basic Limits basis for liability and on an all deductibles combined basis for physical damage.

(D) Classes related to Trucks, Tractors & Trailers, such as the Public Automobile classes, are impacted by the Trucks, Tractors & Trailers loss cost level changes.

MONTANA

TERRITORY LOSS COST LEVEL CHANGES

FOR TRUCKS, TRACTORS AND TRAILERS POLICY COVERAGES

TERRITORY CODE	\$100,000 CSL LIABILITY	\$500 MED PAY
101	2.2%	0.0%
105	2.1%	0.0%
106	13.2%	50.0%
107	7.1%	0.0%

MONTANA

TERRITORY LOSS COST LEVEL CHANGES

FOR TRUCKS, TRACTORS AND TRAILERS POLICY COVERAGES

TERRITORY CODE	PHYSICAL DAMAGE		SPECIFIED CAUSES OF LOSS
	COMPREHENSIVE	COLLISION	
101	7.2%	-3.5%	7.6%
105	9.5%	-6.5%	9.3%
106	10.2%	3.5%	10.1%
107	10.6%	-10.0%	10.6%

MONTANA

REVISED BASE LOSS COSTS BY TERRITORY

FOR TRUCKS, TRACTORS AND TRAILERS POLICY COVERAGES

TERRITORY	LIABILITY			PHYSICAL DAMAGE	
CODE	\$100,000	\$500			SPECIFIED CAUSES
	CSL	MED PAY (a)	COMPREHENSIVE (b)	COLLISION (c)	OF LOSS (d)
101	187	7	148	164	85
105	146	5	184	188	106
106	77	3	227	208	131
107	226	8	199	243	115

- (a) THE LOSS COSTS FOR MEDICAL PAYMENTS HAVE BEEN CALCULATED BY A RELATIVITY OF 0.036 TO THE TRUCKS, TRACTORS, & TRAILERS CSL LIABILITY LOSS COSTS.
- (b) COMPREHENSIVE BASE LOSS COST IS THE \$15,001-20,000 OCN, AGE 1, \$500 DEDUCTIBLE LOSS COST.
- (c) COLLISION BASE LOSS COST IS THE \$15,001-20,000 OCN, AGE 1, \$500 DEDUCTIBLE LOSS COST.
- (d) THE LOSS COSTS FOR SPECIFIED CAUSES OF LOSS HAVE BEEN CALCULATED BY A RELATIVITY OF 0.576 TO THE TRUCKS, TRACTORS & TRAILERS COMPREHENSIVE BASE LOSS COSTS.

MONTANA

TERRITORY LOSS COST LEVEL CHANGES

FOR PRIVATE PASSENGER TYPES POLICY COVERAGES

TERRITORY CODE	LIABILITY	
	\$100,000 CSL	\$500 MED PAY
101	5.9%	0.0%
105	5.9%	0.0%
106	5.8%	0.0%
107	10.4%	0.0%

MONTANA

TERRITORY LOSS COST LEVEL CHANGES

FOR PRIVATE PASSENGER TYPES POLICY COVERAGES

TERRITORY CODE	PHYSICAL DAMAGE	
	COMPREHENSIVE	COLLISION
101	14.3%	1.5%
105	14.4%	2.1%
106	14.0%	3.0%
107	18.6%	7.6%

MONTANA

REVISED BASE LOSS COSTS BY TERRITORY

FOR PRIVATE PASSENGER TYPES POLICY COVERAGES

TERRITORY CODE	LIABILITY	\$500	PHYSICAL DAMAGE	
	\$100,000 CSL	MED PAY (a)	COMPREHENSIVE (b)	COLLISION (c)
101	214	4	160	209
105	179	4	206	293
106	127	3	285	240
107	298	6	172	297

(a) THE LOSS COSTS FOR MEDICAL PAYMENTS HAVE BEEN CALCULATED BY A RELATIVITY OF 0.021 TO THE PRIVATE PASSENGER TYPES CSL LIABILITY LOSS COSTS.

(b) COMPREHENSIVE BASE LOSS COST IS THE \$15,001-20,000 OCN, AGE 1, \$500 DEDUCTIBLE LOSS COST.

(c) COLLISION BASE LOSS COST IS THE \$15,001-20,000 OCN, AGE 1, \$500 DEDUCTIBLE LOSS COST.

MONTANA

TERRITORY LOSS COST LEVEL CHANGES
FOR AUTO DEALERS POLICY COVERAGES

TERRITORY	\$100,000 CSL LIABILITY
CODE	DEALERS
101	-21.6%
105	-21.7%
106	-12.9%
107	-17.8%

MONTANA

REVISED BASE LOSS COSTS BY TERRITORY

FOR AUTO DEALERS POLICY COVERAGES

TERRITORY	\$100,000 CSL LIABILITY
CODE	DEALERS
101	475
105	371
106	196
107	574

MONTANA

TERRITORY LOSS COST LEVEL CHANGES

FOR VAN POOLS POLICY COVERAGES

TERRITORY CODE	\$100,000 CSL LIABILITY	\$500 MED PAY
101	2.2%	0.0%
105	1.9%	6.7%
106	13.7%	14.3%
107	6.9%	4.3%

MONTANA

TERRITORY LOSS COST LEVEL CHANGES

FOR VAN POOLS POLICY COVERAGES

TERRITORY CODE	PHYSICAL DAMAGE		SPECIFIED CAUSES OF LOSS
	COMPREHENSIVE	COLLISION	
101	7.1%	-3.7%	7.4%
105	9.9%	-6.3%	9.1%
106	10.5%	3.5%	10.7%
107	10.3%	-9.9%	10.4%

MONTANA

REVISED BASE LOSS COSTS BY TERRITORY
FOR VAN POOLS POLICY COVERAGES

TERRITORY	LIABILITY		PHYSICAL DAMAGE		SPECIFIED CAUSES
CODE	\$100,000	\$500	COMPREHENSIVE (c)	COLLISION (d)	OF LOSS (e)
	CSL (a)	MED PAY (b)			
101	281	20	151	208	87
105	219	16	188	239	108
106	116	8	232	264	134
107	339	24	203	309	117

- (a) THE LOSS COSTS FOR VAN POOLS HAVE BEEN CALCULATED BY A RELATIVITY OF 1.50 TO THE TRUCKS, TRACKERS & TRAILERS CSL LIABILITY LOSS COSTS.
- (b) THE LOSS COSTS FOR MEDICAL PAYMENTS HAVE BEEN CALCULATED BY A RELATIVITY OF 0.071 TO THE VAN POOLS CSL LIABILITY LOSS COSTS.
- (c) COMPREHENSIVE BASE LOSS COST IS THE \$15,001-20,000 OCN, AGE 1, \$500 DEDUCTIBLE LOSS COST, AND HAS BEEN CALCULATED BY A RELATIVITY OF 1.02 TO THE TRUCKS,TRACTORS, & TRAILERS LOSS COST.
- (d) COLLISION BASE LOSS COST IS THE \$15,001-20,000 OCN, AGE 1, \$500 DEDUCTIBLE LOSS COST, AND HAS BEEN CALCULATED BY A RELATIVITY OF 1.27 TO THE TRUCKS, TRACTORS, & TRAILERS LOSS COST.
- (e) THE LOSS COSTS FOR SPECIFIED CAUSES OF LOSS HAVE BEEN CALCULATED BY A RELATIVITY OF 1.02 TO THE CORRESPONDING TRUCKS, TRACTORS & TRAILERS LOSS COST.

MONTANA

TERRITORY LOSS COST LEVEL CHANGES

FOR TAXIS AND LIMOUSINES POLICY COVERAGES

TERRITORY CODE	\$100,000 CSL LIABILITY	\$500 MED PAY
101	2.1%	2.4%
105	2.0%	3.1%
106	13.0%	13.3%
107	7.1%	6.4%

MONTANA

TERRITORY LOSS COST LEVEL CHANGES

FOR TAXIS AND LIMOUSINES POLICY COVERAGES

TERRITORY CODE	PHYSICAL DAMAGE		SPECIFIED CAUSES OF LOSS
	COMPREHENSIVE	COLLISION	
101	7.1%	-3.7%	7.4%
105	9.9%	-6.3%	9.1%
106	10.5%	3.5%	10.7%
107	10.3%	-9.9%	10.4%

MONTANA

REVISED BASE LOSS COSTS BY TERRITORY
FOR TAXIS AND LIMOUSINES POLICY COVERAGES

TERRITORY	LIABILITY				
CODE	\$100,000	\$500			SPECIFIED CAUSES
	CSL (a)	MED PAY (b)	COMPREHENSIVE (c)	COLLISION (d)	OF LOSS (e)
101	1,159	42	151	208	87
105	905	33	188	239	108
106	477	17	232	264	134
107	1,401	50	203	309	117

- (a) THE LOSS COSTS FOR TAXIS AND LIMOUSINES HAVE BEEN CALCULATED BY A RELATIVITY OF 6.20 TO THE TRUCKS, TRACTORS & TRAILERS CSL LIABILITY LOSS COSTS.
- (b) THE LOSS COSTS FOR MEDICAL PAYMENTS HAVE BEEN CALCULATED BY A RELATIVITY OF 0.036 TO THE TAXIS AND LIMOUSINES CSL LIABILITY LOSS COSTS.
- (c) COMPREHENSIVE BASE LOSS COST IS THE \$15,001-20,000 OCN, AGE 1, \$500 DEDUCTIBLE LOSS COST, AND HAS BEEN CALCULATED BY A RELATIVITY OF 1.02 TO THE TRUCKS, TRACTORS, & TRAILERS LOSS COST.
- (d) COLLISION BASE LOSS COST IS THE \$15,001-20,000 OCN, AGE 1, \$500 DEDUCTIBLE LOSS COST, AND HAS BEEN CALCULATED BY A RELATIVITY OF 1.27 TO THE TRUCKS, TRACTORS, & TRAILERS LOSS COST.
- (e) THE LOSS COSTS FOR SPECIFIED CAUSES OF LOSS HAVE BEEN CALCULATED BY A RELATIVITY OF 1.02 TO THE CORRESPONDING TRUCKS, TRACTORS & TRAILERS LOSS COST.

MONTANA

TERRITORY LOSS COST LEVEL CHANGES

FOR SCHOOL AND CHURCH BUSES POLICY COVERAGES

TERRITORY CODE	\$100,000 CSL LIABILITY	\$500 MED PAY
101	2.0%	0.0%
105	1.3%	0.0%
106	13.5%	0.0%
107	6.9%	0.0%

MONTANA

TERRITORY LOSS COST LEVEL CHANGES

FOR SCHOOL AND CHURCH BUSES POLICY COVERAGES

TERRITORY CODE	PHYSICAL DAMAGE		SPECIFIED CAUSES OF LOSS
	COMPREHENSIVE	COLLISION	
101	7.2%	-3.6%	9.1%
105	9.3%	-6.9%	8.8%
106	10.4%	3.1%	10.8%
107	10.3%	-10.2%	11.0%

MONTANA

REVISED BASE LOSS COSTS BY TERRITORY
FOR SCHOOL AND CHURCH BUSES POLICY COVERAGES

TERRITORY CODE	LIABILITY \$100,000	\$500	PHYSICAL DAMAGE		SPECIFIED CAUSES OF LOSS (e)
	CSL (a)	MED PAY (b)	COMPREHENSIVE (c)	COLLISION (d)	
101	103	4	104	107	60
105	80	3	129	122	74
106	42	2	159	135	92
107	124	5	139	158	81

- (a) THE LOSS COSTS FOR SCHOOL AND CHURCH BUSES HAVE BEEN CALCULATED BY A RELATIVITY OF 0.55 TO THE TRUCKS, TRACTORS & TRAILERS CSL LIABILITY LOSS COSTS.
- (b) THE LOSS COSTS FOR MEDICAL PAYMENTS HAVE BEEN CALCULATED BY A RELATIVITY OF 0.043 TO THE SCHOOL AND CHURCH BUSES CSL LIABILITY LOSS COSTS.
- (c) COMPREHENSIVE BASE LOSS COST IS THE \$15,001-20,000 OCN, AGE 1, \$500 DEDUCTIBLE LOSS COST, AND HAS BEEN CALCULATED BY A RELATIVITY OF 0.70 TO THE TRUCKS, TRACTORS, & TRAILERS LOSS COST.
- (d) COLLISION BASE LOSS COST IS THE \$15,001-20,000 OCN, AGE 1, \$500 DEDUCTIBLE LOSS COST, AND HAS BEEN CALCULATED BY A RELATIVITY OF 0.65 TO THE TRUCKS, TRACTORS, & TRAILERS LOSS COST.
- (e) THE LOSS COSTS FOR SPECIFIED CAUSES OF LOSS HAVE BEEN CALCULATED BY A RELATIVITY OF 0.70 TO THE CORRESPONDING TRUCKS, TRACTORS & TRAILERS LOSS COST.

MONTANA

TERRITORY LOSS COST LEVEL CHANGES
FOR ALL OTHER BUSES POLICY COVERAGES

TERRITORY CODE	\$100,000 CSL LIABILITY	\$500 MED PAY
101	2.3%	4.5%
105	2.2%	5.9%
106	13.6%	12.5%
107	7.1%	3.8%

MONTANA

TERRITORY LOSS COST LEVEL CHANGES
FOR ALL OTHER BUSES POLICY COVERAGES

TERRITORY CODE	PHYSICAL DAMAGE		SPECIFIED CAUSES OF LOSS
	COMPREHENSIVE	COLLISION	
101	7.2%	-3.6%	9.1%
105	9.3%	-6.9%	8.8%
106	10.4%	3.1%	10.8%
107	10.3%	-10.2%	11.0%

MONTANA

REVISED BASE LOSS COSTS BY TERRITORY

FOR ALL OTHER BUSES POLICY COVERAGES

TERRITORY CODE	LIABILITY \$100,000	\$500	PHYSICAL DAMAGE		SPECIFIED CAUSES OF LOSS (e)
	CSL (a)	MED PAY (b)	COMPREHENSIVE (c)	COLLISION (d)	
101	711	23	104	107	60
105	555	18	129	122	74
106	293	9	159	135	92
107	859	27	139	158	81

- (a) THE LOSS COSTS FOR ALL OTHER BUSES HAVE BEEN CALCULATED BY A RELATIVITY OF 3.80 TO THE TRUCKS, TRACTORS & TRAILERS CSL LIABILITY LOSS COSTS.
- (b) THE LOSS COSTS FOR MEDICAL PAYMENTS HAVE BEEN CALCULATED BY A RELATIVITY OF 0.032 TO THE ALL OTHER BUSES CSL LIABILITY LOSS COSTS.
- (c) COMPREHENSIVE BASE LOSS COST IS THE \$15,001-20,000 OCN, AGE 1, \$500 DEDUCTIBLE LOSS COST, AND HAS BEEN CALCULATED BY A RELATIVITY OF 0.70 TO THE TRUCKS, TRACTORS, & TRAILERS LOSS COST.
- (d) COLLISION BASE LOSS COST IS THE \$15,001-20,000 OCN, AGE 1, \$500 DEDUCTIBLE LOSS COST, AND HAS BEEN CALCULATED BY A RELATIVITY OF 0.65 TO THE TRUCKS, TRACTORS, & TRAILERS LOSS COST.
- (e) THE LOSS COSTS FOR SPECIFIED CAUSES OF LOSS HAVE BEEN CALCULATED BY A RELATIVITY OF 0.70 TO THE CORRESPONDING TRUCKS, TRACTORS & TRAILERS LOSS COST.

MONTANA
COMMERCIAL AUTOMOBILE

SECTION B - CALCULATION OF CHANGES

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OVERVIEW OF ISO ACTUARIAL PROCEDURES – COMMERCIAL AUTOMOBILE

INTRODUCTION	Commercial Automobile advisory prospective loss costs are determined by evaluating the adequacy of the current ISO loss costs to pay for our best estimate of losses and all loss adjustment expenses that will be incurred in the prospective (or future) period. This evaluation is done separately by coverage for the major classes.
STEP 1: DETERMINATION OF STATEWIDE LOSS COST INDICATION	The first step in this process is the determination of the statewide loss cost indication by major class/coverage. In other words, what percentage changes on average must be made to the current ISO loss costs in order to achieve adequacy for the prospective conditions? The percentage changes are presented on the exhibits labeled "Determination of Statewide Advisory Loss Cost Level Change."
STEP 2: DISTRIBUTION TO TERRITORIES	For all of the liability coverages and for Trucks, Tractors & Trailers and Private Passenger Types Physical Damage, ISO then distributes the filed statewide basic limit loss cost change to the individual territorial loss costs by comparing the relative loss experience by territory to the statewide average.
STEP 3: APPLICATION OF PERCENT CHANGES	The last step is the calculation of the ISO advisory prospective loss costs. This is achieved by applying either the filed statewide or territorial changes to the current ISO loss costs. For liability, the percentage change is applied at the basic limit; for physical damage, it is applied at the base OCN, age and deductible. The resulting Loss Costs are displayed in Section D.

OVERVIEW OF ISO ACTUARIAL PROCEDURES – COMMERCIAL AUTOMOBILE

STEP 1 – DETERMINATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGE

OBJECTIVE	<p>The objective of this procedure is to determine the indicated statewide advisory loss cost level change. This procedure answers the question: what percentage changes must be made on average to the current ISO loss costs in order for them to be adequate to cover indemnity losses and all loss adjustment expenses incurred in the prospective period in which the revised loss costs are assumed to be in effect?</p>
DESCRIPTION	<p>This procedure compares the developed and trended incurred losses and loss adjustment expenses with the aggregate loss costs at current ISO loss cost level, which is the aggregate amount that would have been collected if the current ISO loss costs were used during the experience period. This experience ratio (losses and all loss adjustment expenses divided by aggregate loss costs) is calculated for several years and a weighted average is calculated. The weights are determined as a function of the credibility or volume of claim experience. The average experience ratio is then credibility weighted with the expected experience ratio in order to minimize the impact of random variation in the observed losses. This credibility weighted experience ratio is the indicated statewide advisory loss cost level change in decimal form.</p>
EXPERIENCE BASE	<p>The experience used in this review is the latest available as reported under the ISO Commercial Statistical Plan. All coverages are on an accident year basis. For liability, the review is conducted on a \$100,000 basic limits basis - indemnity losses are limited to \$100,000 per occurrence.</p>
AGGREGATE LOSS COSTS (Item 1)	<p>The aggregate loss costs at current ISO loss cost level are the loss-related revenue that would have been collected if the current ISO loss costs were used during the experience period. It is calculated by extending the exposures by the current ISO loss costs. For liability, the \$100,000 basic limit loss costs are used. For Trucks, Tractors, and Trailers and Private Passenger Types Physical Damage, loss costs are on an all deductibles combined basis.</p> <p>Trucks, Tractors & Trailers and Private Passenger Types physical damage aggregate loss costs are placed on the prospective OCN relativity level by the application of OCN trend factors.</p>

INCURRED
LOSSES & LAE
(Item 2)

The incurred losses and loss adjustment expenses are our best estimate of the ultimate payment for indemnity losses and loss adjustment expenses using the claim frequency and severity levels ISO expects to occur during the prospective period for which the revised loss costs will be used.

For the liability coverages, the reported incurred losses and allocated loss adjustment expenses are subject to the following adjustments:

- Incurred indemnity losses are capped at the basic limit;
- Developed to an ultimate settlement basis by the application of loss development factors;
- Loaded for unallocated loss adjustment expenses;
- Placed on the prospective cost/frequency levels by the application of trend factors.

For the physical damage coverages, the reported paid (accident year) losses are subject to the following adjustments:

- Paid Other Than Collision losses are adjusted using an Excess Wind and Water procedure;
- Developed to an ultimate settlement basis by the application of loss development factors;
- Loaded for all loss adjustment expenses;
- Placed on the prospective cost/frequency levels by the application of trend factors.

Refer to Section C for the support for these loss related adjustments.

EXPERIENCE
RATIO
(Item 3)

The experience ratio is the ratio of the incurred losses and loss adjustment expenses to the aggregate loss costs at current ISO loss cost level. It measures the adequacy of the current ISO loss costs for the prospective period.

YEAR WEIGHTS
(Item 4)

The number of years of experience used and year weights are determined by the total number of claims in the experience period. To the extent there is adequate credibility, ISO uses fewer years and gives greater weight to the most recent years. Refer to the credibility pages of Section C for the methodology used to arrive at both the number of years used and the year weights.

EXPECTED
EXPERIENCE
RATIO
(Item 7)

The expected experience ratio is our best prediction of the experience ratio if the most recent data was not available. For this review we have assumed that the current loss costs were adequate when implemented and will be inadequate for the prospective period to the extent of the net trend. It is calculated as the combined trend factor projected for the number of years between the last revision (or review) and this revision.

CREDIBILITY

Credibility is based upon the number of claims for all years in the experience period. The procedure for assigning credibility is outlined in the credibility pages of Section C.

CREDIBILITY
WEIGHTED
EXPERIENCE
RATIO

The average experience ratio is credibility weighted with the expected experience ratio. The resulting credibility weighted experience ratio, converted to a percentage, is the indicated change to the current ISO loss costs.

INSURANCE SERVICES OFFICE, INC.

MONTANA

AUTOMOBILE LIABILITY INSURANCE - TRUCKS, TRACTORS AND TRAILERS (A)
 DETERMINATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGES
 SINGLE LIMIT LIABILITY COVERAGE

	(1)	(2)	(3)	(4)	(5)
ACCIDENT	AGGREGATE		EXPERIENCE	ACCIDENT	NUMBER
YEAR	LOSS COST	\$ 100,000	RATIO	YEAR	OF
ENDING	AT CURRENT	INCURRED	(2) / (1)	WEIGHTS	INCURRED
	LEVEL (B)	LOSSES (C)			CLAIMS
12/31/12	\$ 7,614,321	\$ 9,890,013	1.299	10%	988
12/31/13	\$ 8,049,064	\$ 8,111,286	1.008	15%	981
12/31/14	\$ 8,097,751	\$ 9,320,789	1.151	20%	994
12/31/15	\$ 8,258,261	\$ 7,831,916	0.948	25%	887
12/31/16	\$ 8,379,871	\$ 8,516,779	1.016	30%	954
(6)	AVERAGE EXPERIENCE RATIO (SUM OF (3) * (4)).				1.053
(7)	EXPECTED EXPERIENCE RATIO (D).				1.043
(8)	CREDIBILITY (E).				0.60
(9)	CREDIBILITY WEIGHTED EXPERIENCE RATIO: ((6) * (8)) + ((7) * (1.000 - (8))).				1.049
(10)	INDICATED PERCENTAGE CHANGE IN ADVISORY LOSS COST LEVEL ((9) - 1.000).				4.9%
(11)	FILED CHANGE.				4.9%

- (A) TRUCK, TRACTOR AND TRAILER EXPERIENCE IS FOR VEHICLES WRITTEN IN ACCORDANCE WITH RULE 23 OF THE COMMERCIAL LINES MANUAL, DIVISION 1, AUTOMOBILE.
- (B) THE AGGREGATE LOSS COST AT CURRENT LEVEL IS CALCULATED BY EXTENDING EXPOSURES BY THE CURRENT LOSS COSTS FROM THE LAST REVISION.
- (C) LOSSES INCLUDE ALL LOSS ADJUSTMENT EXPENSES FOR BODILY INJURY AND PROPERTY DAMAGE LIABILITY. SEE FOLLOWING PAGE.
- (D) EXPECTED EXPERIENCE RATIO IS EQUAL TO THE COMBINED TREND FACTOR SHOWN ON THE FOLLOWING PAGE, PROJECTED FOR M YEARS. THE PERIOD M IS EQUAL TO THE NUMBER OF YEARS FROM ONE YEAR BEYOND THE IMPLEMENTATION DATE OF THE LAST REVISION TO ONE YEAR BEYOND THE ANTICIPATED IMPLEMENTATION DATE OF 07/01/18 WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING, SUBJECT TO A MAXIMUM OF THE N-VALUE CORRESPONDING TO THE LATEST YEAR SHOWN ON THE FOLLOWING PAGE, FOOTNOTE B. IN THIS REVISION, THE PERIOD M IS 1.00 YEAR(S).
- (E) CREDIBILITY IS BASED ON A 5 YEAR TOTAL OF CLAIMS FOR B.I. AND P.D. SHOWN IN COLUMN (5). THE STANDARD FOR FULL CREDIBILITY IS 11,500 CLAIMS (SEE CREDIBILITY TABLES IN SECTION C).

INSURANCE SERVICES OFFICE, INC.

MONTANA
TRUCKS, TRACTORS AND TRAILERS
AUTOMOBILE LIABILITY INSURANCE
DETERMINATION OF SINGLE LIMIT LOSSES

	ACC. YEAR ENDING	BODILY INJURY	PROPERTY DAMAGE	COMBINED
(1) INCURRED LOSSES AND	12/31/12	\$3,391,832	\$3,343,471	
ALLOCATED LOSS	12/31/13	\$2,443,504	\$3,204,983	
ADJUSTMENT EXPENSES.	12/31/14	\$3,392,764	\$3,287,205	
	12/31/15	\$2,513,993	\$3,055,017	
	12/31/16	\$2,230,523	\$3,395,887	
(2) DEVELOPED LOSSES AND	12/31/12	\$3,698,538	\$3,711,252	
ALL LOSS ADJUSTMENT	12/31/13	\$2,704,226	\$3,561,090	
EXPENSES (A) .	12/31/14	\$3,949,873	\$3,663,393	
	12/31/15	\$3,207,755	\$3,428,370	
	12/31/16	\$3,472,869	\$4,037,065	
(3) SELECTED ANNUAL LOSS TREND (SEE TREND EXHIBIT IN SECTION C) .		+ 2.7%	+ 5.6%	+ 4.3%
(4) TRENDED LOSSES AND	12/31/12	\$4,456,739	\$5,433,274	\$9,890,013
ALL LOSS ADJUSTMENT	12/31/13	\$3,172,057	\$4,939,229	\$8,111,286
EXPENSES (B) .	12/31/14	\$4,510,755	\$4,810,034	\$9,320,789
	12/31/15	\$3,567,023	\$4,264,893	\$7,831,916
	12/31/16	\$3,761,117	\$4,755,662	\$8,516,779

(A) INCURRED LOSSES AND ALLOCATED LOSS ADJUSTMENT EXPENSES ARE ADJUSTED BY THE FOLLOWING FACTORS:

1 - UNALLOCATED LOSS ADJUSTMENT FACTORS: B.I. 1.085 P.D. 1.110

2 - LOSS DEVELOPMENT FACTORS:

YEAR ENDING	B.I.	P.D.
12/31/12	1.005	1.000
12/31/13	1.020	1.001
12/31/14	1.073	1.004
12/31/15	1.176	1.011
12/31/16	1.435	1.071

(B) TRENDED LOSSES ARE EQUAL TO (2) * ((1.0 + (3))**N), WHERE N IS EQUAL TO THE NUMBER OF YEARS PROJECTION FROM THE AVERAGE DATE OF ACCIDENT TO ONE YEAR BEYOND THE ANTICIPATED IMPLEMENTATION DATE OF 07/01/18, WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING.

YEAR ENDING	AVERAGE DATE OF ACCIDENT	PROJECTION PERIOD
12/31/12	07/01/12	7.000
12/31/13	07/01/13	6.000
12/31/14	07/01/14	5.000
12/31/15	07/01/15	4.000
12/31/16	07/01/16	3.000

INSURANCE SERVICES OFFICE, INC.

MONTANA

AUTOMOBILE PHYSICAL DAMAGE INSURANCE - TRUCKS, TRACTORS AND TRAILERS (A)
DETERMINATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGES

		(1)	(2)	(3)	(4)	(5)
	ACCIDENT	AGGREGATE		EXPERIENCE	ACCIDENT	NUMBER
COV- ERAGE	YEAR ENDING	LOSS COST AT CURRENT LEVEL (B)	INCURRED LOSSES (C)	RATIO (2) / (1)	YEAR WEIGHTS	OF PAID CLAIMS
O.T.C.	12/31/12	\$ 3,353,131	\$ 5,155,557	1.538	10%	1,039
	12/31/13	\$ 3,439,389	\$ 3,706,746	1.078	15%	830
	12/31/14	\$ 3,562,309	\$ 3,351,606	0.941	20%	792
	12/31/15	\$ 3,628,679	\$ 4,320,991	1.191	25%	942
	12/31/16	\$ 3,751,218	\$ 3,998,113	1.066	30%	915
COLL.	12/31/14	\$ 5,442,652	\$ 5,958,860	1.095	20%	696
	12/31/15	\$ 5,541,774	\$ 5,218,508	0.942	30%	586
	12/31/16	\$ 5,651,190	\$ 4,599,647	0.814	50%	567

O.T.C. COLLISION

- (6) AVERAGE EXPERIENCE RATIO (SUM OF (3) * (4)). 1.122 0.909
- (7) EXPECTED EXPERIENCE RATIO (D). 1.056 1.041
- (8) CREDIBILITY (E). 0.60 0.60
- (9) CREDIBILITY WEIGHTED EXPERIENCE RATIO:
((6) * (8)) + ((7) * (1.000 - (8))). 1.096 0.962
- (10) INDICATED PERCENTAGE CHANGE IN ADVISORY
LOSS COST LEVEL ((9) - 1.000). 9.6% -3.8%
- (11) FILED CHANGE. 9.6% -3.8%
- (A) TRUCK, TRACTOR AND TRAILER EXPERIENCE INCLUDES FLEET AND NON-FLEET LOCAL AND INTERMEDIATE EXPERIENCE ALSO INCLUDES LONG DISTANCE FOR LIGHT VEHICLES: COVERAGES 01, 03, 10, 11, 12, 20, 21, 31, 55, 726, 727, 731, 735 AND 737 FOR O.T.C. AND 74, 76, 77, 78, 84, 101 AND 102 FOR COLLISION.
- (B) THE AGGREGATE LOSS COST AT CURRENT LEVEL IS CALCULATED BY EXTENDING EXPOSURES BY THE CURRENT LOSS COSTS AND ADJUSTING TO A PROSPECTIVE OCN LEVEL BY THE APPLICATION OF OCN TREND FACTORS. (SEE SUBSEQUENT PAGE).
- (C) LOSSES INCLUDE ALL LOSS ADJUSTMENT EXPENSES FOR O.T.C. AND COLL. SEE FOLLOWING PAGE.
- (D) EXPECTED EXPERIENCE RATIO IS EQUAL TO THE TREND FACTOR DIVIDED BY THE OCN TREND FACTOR, PROJECTED FOR M YEARS. THE PERIOD M IS EQUAL TO THE NUMBER OF YEARS FROM ONE YEAR BEYOND THE IMPLEMENTATION DATE OF THE LAST REVISION TO ONE YEAR BEYOND THE ANTICIPATED IMPLEMENTATION DATE OF 07/01/18, WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING, SUBJECT TO A MAXIMUM OF THE N-VALUE CORRESPONDING TO THE LATEST YEAR SHOWN ON THE FOLLOWING PAGE, FOOTNOTE B. IN THIS REVISION, THE PERIOD IS 1.00 YEAR(S).
- (E) CREDIBILITY IS BASED ON A 5 YEAR TOTAL OF CLAIMS FOR O.T.C. AND A 3 YEAR TOTAL OF CLAIMS FOR COLLISION SHOWN IN COLUMN (5). THE STANDARDS FOR FULL CREDIBILITY ARE 11,000 CLAIMS FOR O.T.C. AND 4,500 CLAIMS FOR COLLISION (SEE CREDIBILITY TABLES IN SECTION C).

INSURANCE SERVICES OFFICE, INC.

MONTANA
TRUCKS, TRACTORS AND TRAILERS
AUTOMOBILE PHYSICAL DAMAGE INSURANCE
DETERMINATION OF PHYSICAL DAMAGE LOSSES

	ACC. YEAR ENDING	O.T.C.	COLLISION
(1) PAID LOSSES.	12/31/12	\$2,884,873	----
	12/31/13	\$2,209,224	----
	12/31/14	\$2,125,203	\$3,968,480
	12/31/15	\$2,915,929	\$3,684,604
	12/31/16	\$2,805,065	\$3,490,670
(2) DEVELOPED LOSSES AND	12/31/12	\$3,317,605	----
ALL LOSS ADJUSTMENT	12/31/13	\$2,540,608	----
EXPENSES (A) .	12/31/14	\$2,446,428	\$4,559,188
	12/31/15	\$3,360,024	\$4,211,870
	12/31/16	\$3,309,696	\$3,917,929
(3) SELECTED ANNUAL LOSS TREND (SEE TREND EXHIBIT IN SECTION C)		+ 6.5%	+ 5.5%
(4) TRENDED LOSSES & ALL LOSS	12/31/12	\$5,155,557	----
ADJUSTMENT EXPENSES (B) .	12/31/13	\$3,706,746	----
	12/31/14	\$3,351,606	\$5,958,860
	12/31/15	\$4,320,991	\$5,218,508
	12/31/16	\$3,998,113	\$4,599,647

(A) PAID LOSSES ARE ADJUSTED BY THE FOLLOWING:

1-LOSS ADJUSTMENT EXPENSE FACTORS:

O.T.C.	COLL.
1.150	1.150

2-LOSS DEVELOPMENT FACTORS:

YEAR ENDING	O.T.C.	COLL.
12/31/12	1.000	----
12/31/13	1.000	----
12/31/14	1.001	0.999
12/31/15	1.002	0.994
12/31/16	1.026	0.976

(B) TRENDED LOSSES ARE EQUAL TO (2) * ((1.0 + (3))**N), WHERE N IS EQUAL TO THE NUMBER OF YEARS PROJECTION FROM THE AVERAGE DATE OF ACCIDENT TO ONE YEAR BEYOND THE ANTICIPATED IMPLEMENTATION DATES OF 07/01/18 FOR OTC AND 07/01/18 FOR COLLISION, WHICH ARE ASSUMED FOR THE PURPOSE OF TRENDING.

YEAR ENDING	AVERAGE DATE OF ACCIDENT	PROJECTION PERIOD OTC	PROJECTION PERIOD COLL
12/31/12	07/01/12	7.000	-----
12/31/13	07/01/13	6.000	-----
12/31/14	07/01/14	5.000	5.000
12/31/15	07/01/15	4.000	4.000
12/31/16	07/01/16	3.000	3.000

INSURANCE SERVICES OFFICE, INC.

MONTANA

TRUCKS, TRACTORS AND TRAILERS

AUTOMOBILE PHYSICAL DAMAGE INSURANCE

DETERMINATION OF PHYSICAL DAMAGE TRENDED

AGGREGATE LOSS COSTS

	ACC. YEAR ENDING	O.T.C.	COLLISION
(1) AGGREGATE LOSS COSTS	12/31/12	\$3,148,479	----
AT CURRENT LEVEL.	12/31/13	\$3,260,085	----
	12/31/14	\$3,405,649	\$5,100,892
	12/31/15	\$3,502,586	\$5,262,843
	12/31/16	\$3,652,597	\$5,433,836
(2) SELECTED ANNUAL OCN TREND		0.9%	1.3%
(SEE OCN EXHIBIT IN SECTION C).			

(3) TRENDED AGGREGATE	12/31/12	\$3,353,131	----
LOSS COSTS AT	12/31/13	\$3,439,389	----
CURRENT LEVEL (A).	12/31/14	\$3,562,309	\$5,442,652
	12/31/15	\$3,628,679	\$5,541,774
	12/31/16	\$3,751,218	\$5,651,190

(A) TRENDED AGGREGATE LOSS COSTS ARE EQUAL TO $(1) * ((1.0 + (2))^{*N})$,
 WHERE N IS EQUAL TO THE NUMBER OF YEARS PROJECTION FROM THE AVERAGE DATE OF
 WRITING TO SIX MONTHS BEYOND THE ANTICIPATED IMPLEMENTATION DATES OF
 07/01/18 FOR OTC AND 07/01/18 FOR COLLISION, WHICH ARE ASSUMED FOR THE
 PURPOSE OF TRENDING.

YEAR ENDING	AVERAGE DATE OF WRITING	PROJECTION PERIOD OTC	PROJECTION PERIOD COLL
12/31/12	01/01/12	7.000	-----
12/31/13	01/01/13	6.000	-----
12/31/14	01/01/14	5.000	5.000
12/31/15	01/01/15	4.000	4.000
12/31/16	01/01/16	3.000	3.000

INSURANCE SERVICES OFFICE, INC.

MONTANA

AUTOMOBILE LIABILITY INSURANCE - PRIVATE PASSENGER TYPES (A)
 DETERMINATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGES
 SINGLE LIMIT LIABILITY COVERAGE

	(1)	(2)	(3)	(4)	(5)
ACCIDENT	AGGREGATE		EXPERIENCE	ACCIDENT	NUMBER
YEAR	LOSS COST	\$ 100,000	RATIO	YEAR	OF
ENDING	AT CURRENT	INCURRED	(2) / (1)	WEIGHTS	INCURRED
	LEVEL (B)	LOSSES (C)			CLAIMS
12/31/12	\$ 1,729,408	\$ 2,248,625	1.300	10%	234
12/31/13	\$ 1,846,320	\$ 1,870,173	1.013	15%	231
12/31/14	\$ 1,872,326	\$ 2,337,696	1.249	20%	256
12/31/15	\$ 1,860,775	\$ 2,108,976	1.133	25%	216
12/31/16	\$ 1,787,920	\$ 1,849,543	1.034	30%	220
(6)	AVERAGE EXPERIENCE RATIO (SUM OF (3)*(4)).				1.125
(7)	EXPECTED EXPERIENCE RATIO (D).				1.041
(8)	CREDIBILITY (E).				0.30
(9)	CREDIBILITY WEIGHTED EXPERIENCE RATIO: ((6) * (8)) + ((7) * (1.000 - (8))).				1.066
(10)	INDICATED PERCENTAGE CHANGE IN ADVISORY LOSS COST LEVEL ((9) - 1.000).				6.6%
(11)	FILED CHANGE.				6.6%

- (A) PRIVATE PASSENGER TYPE EXPERIENCE IS FOR VEHICLES WRITTEN IN ACCORDANCE WITH RULE 31 OF THE COMMERCIAL LINES MANUAL, DIVISION 1, AUTOMOBILE.
- (B) THE AGGREGATE LOSS COST AT CURRENT LEVEL IS CALCULATED BY EXTENDING EXPOSURES BY THE CURRENT LOSS COSTS FROM THE LAST REVISION.
- (C) LOSSES INCLUDE ALL LOSS ADJUSTMENT EXPENSES FOR BODILY INJURY AND PROPERTY DAMAGE LIABILITY. SEE FOLLOWING PAGE.
- (D) EXPECTED EXPERIENCE RATIO IS EQUAL TO THE COMBINED TREND FACTOR SHOWN ON THE FOLLOWING PAGE, PROJECTED FOR M YEARS. THE PERIOD M IS EQUAL TO THE NUMBER OF YEARS FROM ONE YEAR BEYOND THE IMPLEMENTATION DATE OF THE LAST REVISION TO ONE YEAR BEYOND THE ANTICIPATED IMPLEMENTATION DATE OF 07/01/18 WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING, SUBJECT TO A MAXIMUM OF THE N-VALUE CORRESPONDING TO THE LATEST YEAR SHOWN ON THE FOLLOWING PAGE, FOOTNOTE B. IN THIS REVISION, THE PERIOD M IS 1.00 YEAR(S).
- (E) CREDIBILITY IS BASED ON A 5 YEAR TOTAL OF CLAIMS FOR B.I. AND P.D. SHOWN IN COLUMN (5). THE STANDARD FOR FULL CREDIBILITY IS 11,500 CLAIMS (SEE CREDIBILITY TABLES IN SECTION C).

INSURANCE SERVICES OFFICE, INC.

MONTANA
PRIVATE PASSENGER TYPES
AUTOMOBILE LIABILITY INSURANCE
DETERMINATION OF SINGLE LIMIT LOSSES

	ACC. YEAR ENDING	BODILY INJURY	PROPERTY DAMAGE	COMBINED
(1) INCURRED LOSSES AND	12/31/12	\$1,096,285	\$498,575	
ALLOCATED LOSS	12/31/13	\$737,475	\$592,309	
ADJUSTMENT EXPENSES.	12/31/14	\$1,021,837	\$678,669	
	12/31/15	\$937,590	\$585,550	
	12/31/16	\$540,857	\$690,143	
(2) DEVELOPED LOSSES AND	12/31/12	\$1,193,038	\$553,972	
ALL LOSS ADJUSTMENT	12/31/13	\$816,163	\$658,120	
EXPENSES (A) .	12/31/14	\$1,177,432	\$756,335	
	12/31/15	\$1,160,722	\$657,761	
	12/31/16	\$846,207	\$792,105	
(3) SELECTED ANNUAL LOSS TREND (SEE TREND EXHIBIT IN SECTION C) .		+ 2.7%	+ 5.6%	+ 4.1%
(4) TRENDED LOSSES AND	12/31/12	\$1,437,610	\$811,015	\$2,248,625
ALL LOSS ADJUSTMENT	12/31/13	\$957,359	\$912,814	\$1,870,173
EXPENSES (B) .	12/31/14	\$1,344,627	\$993,069	\$2,337,696
	12/31/15	\$1,290,723	\$818,253	\$2,108,976
	12/31/16	\$916,444	\$933,099	\$1,849,543

(A) INCURRED LOSSES AND ALLOCATED LOSS ADJUSTMENT EXPENSES ARE ADJUSTED BY THE FOLLOWING FACTORS:

1 - UNALLOCATED LOSS ADJUSTMENT FACTORS: B.I. 1.085 P.D. 1.110

2 - LOSS DEVELOPMENT FACTORS:

YEAR ENDING	B.I.	P.D.
12/31/12	1.003	1.001
12/31/13	1.020	1.001
12/31/14	1.062	1.004
12/31/15	1.141	1.012
12/31/16	1.442	1.034

(B) TRENDED LOSSES ARE EQUAL TO (2) * ((1.0 + (3))**N), WHERE N IS EQUAL TO THE NUMBER OF YEARS PROJECTION FROM THE AVERAGE DATE OF ACCIDENT TO ONE YEAR BEYOND THE ANTICIPATED IMPLEMENTATION DATE OF 07/01/18, WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING.

YEAR ENDING	AVERAGE DATE OF ACCIDENT	PROJECTION PERIOD
12/31/12	07/01/12	7.000
12/31/13	07/01/13	6.000
12/31/14	07/01/14	5.000
12/31/15	07/01/15	4.000
12/31/16	07/01/16	3.000

INSURANCE SERVICES OFFICE, INC.

MONTANA

AUTOMOBILE PHYSICAL DAMAGE INSURANCE - PRIVATE PASSENGER TYPES (A)
DETERMINATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGES

		(1)	(2)	(3)	(4)	(5)
	ACCIDENT	AGGREGATE		EXPERIENCE	ACCIDENT	NUMBER
COV-	YEAR	LOSS COST		RATIO	YEAR	OF
ERAGE	ENDING	AT CURRENT	INCURRED	(2) / (1)	WEIGHTS	PAID
O.T.C.		LEVEL (B)	LOSSES (C)			CLAIMS
	12/31/12	\$ 1,440,071	\$ 1,642,192	1.140	10%	537
	12/31/13	\$ 1,507,540	\$ 1,589,094	1.054	15%	502
	12/31/14	\$ 1,520,540	\$ 1,802,301	1.185	20%	542
	12/31/15	\$ 1,474,937	\$ 2,048,571	1.389	25%	576
	12/31/16	\$ 1,433,913	\$ 1,794,102	1.251	30%	526
COLL.	12/31/12	\$ 1,301,823	\$ 1,324,508	1.017	10%	214
	12/31/13	\$ 1,397,420	\$ 1,432,223	1.025	15%	251
	12/31/14	\$ 1,396,679	\$ 1,823,942	1.306	20%	305
	12/31/15	\$ 1,369,526	\$ 1,348,519	0.985	25%	244
	12/31/16	\$ 1,334,450	\$ 1,137,307	0.852	30%	212

O.T.C. COLLISION

- (6) AVERAGE EXPERIENCE RATIO (SUM OF (3)*(4)). 1.231 1.019
- (7) EXPECTED EXPERIENCE RATIO (D). 1.040 1.044
- (8) CREDIBILITY (E). 0.55 0.55
- (9) CREDIBILITY WEIGHTED EXPERIENCE RATIO:
((6) * (8)) + ((7) * (1.000 - (8))). 1.145 1.030
- (10) INDICATED PERCENTAGE CHANGE IN ADVISORY
LOSS COST LEVEL ((9) - 1.000). 14.5% 3.0%
- (11) FILED CHANGE. 14.5% 3.0%
- (A) PRIVATE PASSENGER TYPES EXPERIENCE INCLUDES COVERAGES 01, 03, 10, 55, 61, 62, 65, 66, 722, 723, 726, 727, 729, 731, 734, 735, 736 AND 737 FOR O.T.C. AND 73, 74, 76, 77, 78, 84, 101 AND 102 FOR COLLISION.
- (B) THE AGGREGATE LOSS COST AT CURRENT LEVEL IS CALCULATED BY EXTENDING EXPOSURES BY THE CURRENT LOSS COSTS AND ADJUSTING TO A PROSPECTIVE OCN LEVEL BY THE APPLICATION OF OCN TREND FACTORS. (SEE SUBSEQUENT PAGE).
- (C) LOSSES INCLUDE ALL LOSS ADJUSTMENT EXPENSES FOR O.T.C. AND COLL. SEE FOLLOWING PAGE.
- (D) EXPECTED EXPERIENCE RATIO IS EQUAL TO THE LOSS TREND FACTOR DIVIDED BY THE OCN TREND FACTOR, PROJECTED FOR M YEARS. THE PERIOD M IS EQUAL TO THE NUMBER OF YEARS FROM ONE YEAR BEYOND THE IMPLEMENTATION DATE OF THE LAST REVISION TO ONE YEAR BEYOND THE ANTICIPATED IMPLEMENTATION DATE OF 07/01/18, WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING, SUBJECT TO A MAXIMUM OF THE N-VALUE CORRESPONDING TO THE LATEST YEAR SHOWN ON THE FOLLOWING PAGE, FOOTNOTE B. IN THIS REVISION, THE PERIOD IS 1.00 YEAR(S).
- (E) CREDIBILITY IS BASED ON A 5 YEAR TOTAL OF CLAIMS FOR O.T.C. AND A 5 YEAR TOTAL OF CLAIMS FOR COLLISION SHOWN IN COLUMN (5). THE STANDARDS FOR FULL CREDIBILITY ARE 8,500 CLAIMS FOR O.T.C. AND 3,500 CLAIMS FOR COLLISION (SEE CREDIBILITY TABLES IN SECTION C).

INSURANCE SERVICES OFFICE, INC.

MONTANA
PRIVATE PASSENGER TYPES
AUTOMOBILE PHYSICAL DAMAGE INSURANCE
DETERMINATION OF PHYSICAL DAMAGE LOSSES

	ACC. YEAR ENDING	O.T.C.	COLLISION
(1) PAID LOSSES.	12/31/12	\$1,014,921	\$818,583
	12/31/13	\$1,031,209	\$929,411
	12/31/14	\$1,228,227	\$1,244,220
	12/31/15	\$1,463,476	\$969,176
	12/31/16	\$1,335,210	\$897,087
(2) DEVELOPED LOSSES AND ALL LOSS ADJUSTMENT EXPENSES (A) .	12/31/12	\$1,167,159	\$941,370
	12/31/13	\$1,185,890	\$1,068,822
	12/31/14	\$1,412,462	\$1,429,422
	12/31/15	\$1,684,680	\$1,108,980
	12/31/16	\$1,549,311	\$982,130
(3) SELECTED ANNUAL LOSS TREND (SEE TREND EXHIBIT IN SECTION C)		+ 5.0%	+ 5.0%
(4) TRENDED LOSSES & ALL LOSS ADJUSTMENT EXPENSES (B) .	12/31/12	\$1,642,192	\$1,324,508
	12/31/13	\$1,589,094	\$1,432,223
	12/31/14	\$1,802,301	\$1,823,942
	12/31/15	\$2,048,571	\$1,348,519
	12/31/16	\$1,794,102	\$1,137,307

(A) PAID LOSSES ARE ADJUSTED BY THE FOLLOWING:

1-LOSS ADJUSTMENT EXPENSE FACTORS:

O.T.C.	COLL.
1.150	1.150

2-LOSS DEVELOPMENT FACTORS:

YEAR ENDING	O.T.C.	COLL.
12/31/12	1.000	1.000
12/31/13	1.000	1.000
12/31/14	1.000	0.999
12/31/15	1.001	0.995
12/31/16	1.009	0.952

(B) TRENDED LOSSES ARE EQUAL TO (2) * ((1.0 + (3))**N), WHERE N IS EQUAL TO THE NUMBER OF YEARS PROJECTION FROM THE AVERAGE DATE OF ACCIDENT TO ONE YEAR BEYOND THE ANTICIPATED IMPLEMENTATION DATES OF 07/01/18 FOR OTC AND 07/01/18 FOR COLLISION, WHICH ARE ASSUMED FOR THE PURPOSE OF TRENDING.

YEAR ENDING	AVERAGE DATE OF ACCIDENT	PROJECTION PERIOD OTC	PROJECTION PERIOD COLL
12/31/12	07/01/12	7.000	7.000
12/31/13	07/01/13	6.000	6.000
12/31/14	07/01/14	5.000	5.000
12/31/15	07/01/15	4.000	4.000
12/31/16	07/01/16	3.000	3.000

INSURANCE SERVICES OFFICE, INC.

MONTANA

PRIVATE PASSENGER TYPES

AUTOMOBILE PHYSICAL DAMAGE INSURANCE

DETERMINATION OF PHYSICAL DAMAGE TRENDED

AGGREGATE LOSS COSTS

	ACC. YEAR ENDING	O.T.C.	COLLISION
(1) AGGREGATE LOSS COSTS	12/31/12	\$1,343,349	\$1,248,152
AT CURRENT LEVEL.	12/31/13	\$1,419,529	\$1,347,560
	12/31/14	\$1,446,755	\$1,355,999
	12/31/15	\$1,416,846	\$1,337,428
	12/31/16	\$1,392,149	\$1,310,855
(2) SELECTED ANNUAL OCN TREND		1.0%	0.6%
(SEE OCN EXHIBIT IN SECTION C).			
(3) TRENDED AGGREGATE	12/31/12	\$1,440,071	\$1,301,823
LOSS COSTS AT	12/31/13	\$1,507,540	\$1,397,420
CURRENT LEVEL (A).	12/31/14	\$1,520,540	\$1,396,679
	12/31/15	\$1,474,937	\$1,369,526
	12/31/16	\$1,433,913	\$1,334,450

- (A) TRENDED AGGREGATE LOSS COSTS ARE EQUAL TO $(1) * ((1.0 + (2))^{**N})$,
 WHERE N IS EQUAL TO THE NUMBER OF YEARS PROJECTION FROM THE AVERAGE DATE OF
 WRITING TO SIX MONTHS BEYOND THE ANTICIPATED IMPLEMENTATION DATES OF
 07/01/18 FOR OTC AND 07/01/18 FOR COLLISION, WHICH ARE ASSUMED FOR THE
 PURPOSE OF TRENDING.

YEAR ENDING	AVERAGE DATE OF WRITING	PROJECTION PERIOD OTC	PROJECTION PERIOD COLL
12/31/12	01/01/12	7.000	7.000
12/31/13	01/01/13	6.000	6.000
12/31/14	01/01/14	5.000	5.000
12/31/15	01/01/15	4.000	4.000
12/31/16	01/01/16	3.000	3.000

INSURANCE SERVICES OFFICE, INC.

MONTANA

AUTOMOBILE LIABILITY INSURANCE - AUTO DEALERS (A)
 DETERMINATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGES
 SINGLE LIMIT LIABILITY COVERAGE

	(1)	(2)	(3)	(4)	(5)
ACCIDENT	AGGREGATE		EXPERIENCE	ACCIDENT	NUMBER
YEAR	LOSS COST	\$ 100,000	RATIO	YEAR	OF
ENDING	AT CURRENT	INCURRED	(2) / (1)	WEIGHTS	INCURRED
	LEVEL (B)	LOSSES (C)			CLAIMS
12/31/12	\$ 508,521	\$ 378,910	0.745	10%	25
12/31/13	\$ 517,271	\$ 173,036	0.335	15%	16
12/31/14	\$ 658,231	\$ 128,888	0.196	20%	12
12/31/15	\$ 625,138	\$ 313,051	0.501	25%	14
12/31/16	\$ 692,601	\$ 283,354	0.409	30%	11
(6) AVERAGE EXPERIENCE RATIO (SUM OF (3)*(4)).					0.412
(7) EXPECTED EXPERIENCE RATIO (D).					1.048
(8) CREDIBILITY (E).					0.05
(9) CREDIBILITY WEIGHTED EXPERIENCE RATIO: ((6) * (8)) + ((7) * (1.000 - (8))).					1.016
(10) INDICATED PERCENTAGE CHANGE IN ADVISORY LOSS COST LEVEL ((9) - 1.000).					1.6%
(11) FILED CHANGE.					-20.0%

(A) AUTO DEALERS EXPERIENCE IS FOR ALL AUTO DEALERS RISKS WRITTEN IN ACCORDANCE WITH RULE 48 OF THE COMMERCIAL LINES MANUAL, DIVISION 1, AUTOMOBILE.

(B) THE AGGREGATE LOSS COST AT CURRENT LEVEL IS CALCULATED BY EXTENDING EXPOSURES BY THE CURRENT LOSS COSTS FROM THE LAST REVISION.

(C) LOSSES INCLUDE ALL LOSS ADJUSTMENT EXPENSES FOR BODILY INJURY AND PROPERTY DAMAGE LIABILITY. SEE FOLLOWING PAGE.

(D) EXPECTED EXPERIENCE RATIO IS EQUAL TO THE COMBINED TREND FACTOR SHOWN ON THE FOLLOWING PAGE, PROJECTED FOR M YEARS. THE PERIOD M IS EQUAL TO THE NUMBER OF YEARS FROM ONE YEAR BEYOND THE IMPLEMENTATION DATE OF THE LAST REVISION TO ONE YEAR BEYOND THE ANTICIPATED IMPLEMENTATION DATE OF 07/01/18 WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING, SUBJECT TO A MAXIMUM OF THE N-VALUE CORRESPONDING TO THE LATEST YEAR SHOWN ON THE FOLLOWING PAGE, FOOTNOTE B. IN THIS REVISION, THE PERIOD M IS 1.00 YEAR(S).

(E) CREDIBILITY IS BASED ON A 5 YEAR TOTAL OF CLAIMS FOR B.I. AND P.D. SHOWN IN COLUMN (5). THE STANDARD FOR FULL CREDIBILITY IS 11,500 CLAIMS (SEE CREDIBILITY TABLES IN SECTION C).

INSURANCE SERVICES OFFICE, INC.

MONTANA
 AUTO DEALERS
 AUTOMOBILE LIABILITY INSURANCE
 DETERMINATION OF SINGLE LIMIT LOSSES

	ACC. YEAR ENDING	BODILY INJURY	PROPERTY DAMAGE	COMBINED
(1) INCURRED LOSSES AND	12/31/12	\$190,514	\$76,139	
ALLOCATED LOSS	12/31/13	\$50,932	\$67,217	
ADJUSTMENT EXPENSES.	12/31/14	\$34,377	\$52,888	
	12/31/15	\$75,828	\$126,590	
	12/31/16	\$32,994	\$137,950	
(2) DEVELOPED LOSSES AND	12/31/12	\$211,255	\$84,936	
ALL LOSS ADJUSTMENT	12/31/13	\$58,411	\$75,357	
EXPENSES (A) .	12/31/14	\$42,260	\$61,406	
	12/31/15	\$110,493	\$152,881	
	12/31/16	\$63,936	\$181,759	
(3) SELECTED ANNUAL LOSS TREND (SEE TREND EXHIBIT IN SECTION C) .		+ 2.7%	+ 5.6%	+ 4.8%
(4) TRENDED LOSSES AND	12/31/12	\$254,563	\$124,347	\$378,910
ALL LOSS ADJUSTMENT	12/31/13	\$68,516	\$104,520	\$173,036
EXPENSES (B) .	12/31/14	\$48,261	\$80,627	\$128,888
	12/31/15	\$122,869	\$190,182	\$313,051
	12/31/16	\$69,243	\$214,111	\$283,354

(A) INCURRED LOSSES AND ALLOCATED LOSS ADJUSTMENT EXPENSES ARE ADJUSTED BY THE FOLLOWING FACTORS:

1 - UNALLOCATED LOSS ADJUSTMENT FACTORS: B.I. 1.085 P.D. 1.110

2 - LOSS DEVELOPMENT FACTORS:

YEAR ENDING	B.I.	P.D.
12/31/12	1.022	1.005
12/31/13	1.057	1.010
12/31/14	1.133	1.046
12/31/15	1.343	1.088
12/31/16	1.786	1.187

(B) TRENDED LOSSES ARE EQUAL TO (2) * ((1.0 + (3))**N), WHERE N IS EQUAL TO THE NUMBER OF YEARS PROJECTION FROM THE AVERAGE DATE OF ACCIDENT TO ONE YEAR BEYOND THE ANTICIPATED IMPLEMENTATION DATE OF 07/01/18, WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING.

YEAR ENDING	AVERAGE DATE OF ACCIDENT	PROJECTION PERIOD
12/31/12	07/01/12	7.000
12/31/13	07/01/13	6.000
12/31/14	07/01/14	5.000
12/31/15	07/01/15	4.000
12/31/16	07/01/16	3.000

OVERVIEW OF ISO ACTUARIAL PROCEDURES – COMMERCIAL AUTOMOBILE

STEP 2 – DETERMINATION OF TERRITORY RELATIVITIES

OBJECTIVE	The objective of this procedure is to distribute the statewide loss cost indication by territory. In other words, what percentage changes by territory should be made in order to equitably achieve an adequate statewide prospective loss cost level?
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TRUCKS, TRACTORS & TRAILERS AND PRIVATE PASSENGER TYPES LIABILITY AND PHYSICAL DAMAGE	For Trucks, Tractors & Trailers and Private Passenger Types, this procedure compares the individual territory experience ratios to the statewide average experience ratio. The territory experience ratio is calculated for the latest 5 years and a statewide weighted-average experience ratio for the same period is calculated using the aggregate loss costs (product of earned car years (col 1) and underlying loss cost (col 2)) as weights. The territory experience ratio is then credibility weighted with the statewide average experience ratio to produce a formula experience ratio. The territory formula experience ratio is then compared to the statewide weighted average formula experience ratio to determine the territory index to state. The territory index is then multiplied by the filed loss cost level change in order to produce the indicated change to the individual territories. This change is then applied to the current territory base loss cost.
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AUTO DEALERS LIABILITY	Because Auto Dealers Statistics by territory lack sufficient credibility to be used meaningfully in developing revised loss costs, it is appropriate to utilize a body of statistics which can be expected to reflect the Auto Dealers hazard differences by territory. Consequently, the development of indicated Auto Dealers base loss costs is based upon a relationship to the corresponding Trucks, Tractors & Trailers \$100,000 revised base loss costs by territory. The revised Trucks, Tractors & Trailers base loss costs are compared to the revised statewide average Trucks, Tractors & Trailers base loss cost to produce the indicated territorial indices to the statewide average base loss costs for Auto Dealers. The relationship between these Trucks, Tractors & Trailers indicated territorial indices and the current Auto Dealers territorial indices yields the change in the Auto Dealers index.
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INSURANCE SERVICES OFFICE

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE
SINGLE LIMIT LIABILITY

DETERMINATION OF LOSS COST LEVEL CHANGES BY TERRITORY
TRUCKS, TRACTORS, AND TRAILERS (TTT)+

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
T	EARNED	\$100000	EXPER								ADV
E	CAR YRS	UND	LOSS COST				INDEX	BASE CLASS			LOSS
R	YR ENDED	LOSS	5YRS END	EXPER		FORM	(6) TO	LOSS COST			COST
R	12/31/2016	COST	12/31/2016	RATIO	CRED	RATIO	STATE	PRES	IND*	REV	CHG**
101	10565	186.57	172.70	0.926	0.25	1.031	.972	183	187	187	2.2%
105	26994	130.57	128.88	0.987	0.40	1.034	.975	143	146	146	2.1%
106	27592	52.13	71.97	1.381	0.25	1.145	1.079	68	77	77	13.2%
107	7143	202.41	230.40	1.138	0.25	1.084	1.022	211	226	226	7.1%
SW	72294	115.91	123.59	1.066		1.061					

+ REFER TO EXPLANATORY NOTE ON PAGE B-21

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 4.9 PERCENT

** PERCENTAGE CHANGE IN LOSS COST IS (COL 10/COL 8)

INSURANCE SERVICES OFFICE

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE
SINGLE LIMIT LIABILITY

DETERMINATION OF LOSS COST LEVEL CHANGES BY TERRITORY
PRIVATE PASSENGER TYPES+

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
T	EARNED	100K	EXPER								ADV
E	CAR YRS	UND	LOSS COST				INDEX	BASE CLASS			LOSS
R	YR ENDED	LOSS	5YRS END	EXPER		FORM	(6) TO	LOSS COST			COST
R	12/31/2016	COST	12/31/2016	RATIO	CRED	RATIO	STATE	PRES	IND*	REV	CHG**
101	1598	200.87	215.39	1.072	0.10	1.141	.995	202	214	214	5.9%
105	4287	166.41	179.18	1.077	0.15	1.138	.992	169	179	179	5.9%
106	4046	117.33	127.52	1.087	0.15	1.140	.994	120	127	127	5.8%
107	1033	269.90	412.61	1.529	0.10	1.187	1.035	270	298	298	10.4%
SW	10964	163.07	187.38	1.149		1.147					

+ REFER TO EXPLANATORY NOTE ON PAGE B-21

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 6.6 PERCENT

** PERCENTAGE CHANGE IN LOSS COST IS (COL 10/COL 8)

EXPLANATORY MEMORANDUM FOR TRUCKS, TRACTORS & TRAILERS AND PRIVATE
PASSENGER TYPES LIABILITY TERRITORY DEVELOPMENT

COLUMN (1) EARNED CAR YEARS	Number of car-years, or exposures, earned in the latest year. These exposures are used to calculate the weighted averages through the analysis. (For calculating the weighted average of the Experience Ratio in Col (4) and the Formula Experience Ratio in Col (6) the product of [Col(1) x Col(2)] are used as weights).
COLUMN (2) \$100,000 LOSS COST	Average \$100,000 loss cost at current level (earned aggregate loss cost at current level divided by exposures) is based on the latest accident year experience available and reflects the \$100,000 basic limit at the present ISO manual level.
COLUMN (3) 5 YEAR ENDED EXPERIENCE LOSS COST	Loss cost based on the latest 5 years of experience (for purposes of stability). The loss cost is Bodily Injury and Property Damage combined and is trended and developed to an ultimate settlement basis including all loss adjustment expenses.
COLUMN (4) EXPERIENCE RATIO LOSS COST	For each coverage, an experience ratio by territory is derived by dividing the 5 year experience loss cost by the average \$100,000 loss cost at present ISO manual level. [Col. (3) / Col. (2)]
COLUMN (5) CREDIBILITY	The experience ratio thus calculated is assigned a credibility value on the basis of the number of claims underlying the 5 year pure premium (See Section C for credibility standards). The complement of the credibility is assigned to the statewide experience ratio which appears in Col. (4).
COLUMN (6) FORMULA EXPERIENCE RATIO	<p>The formula experience ratio is a credibility weighted average of the territory group experience ratio and statewide experience ratio. The formula is as follows:</p> $\frac{[\text{Terr. Group Col. (4)} \times \text{Terr. Group Col. (5)}] + [\text{SW Total Col. (4)} \times (1.0 - \text{Terr. Group Col. (5)})]}{[\text{Terr. Group Col. (4)} + \text{SW Total Col. (4)}]}$

COLUMN (7)
INDEX TO
STATE

Territory indices to state are calculated by dividing the territory formula experience ratio by the statewide average formula experience ratio

[Terr. Col (6) / SW Total Col. (6)]

(Statewide Total Col. (6) is the weighted average formula experience ratio using the individual products of [Col. (1) x Col. (2)] as weights.)

COLUMN (8)
BASE CLASS
LOSS COST

Present ISO \$100,000 base class loss cost.

COLUMN (9)
INDICATED BASE
LOSS COST

Indicated base class loss cost for a particular territory. It is calculated by applying the product of the statewide loss cost level change and the territory index [Col. (7)] to the present ISO loss cost.

COLUMN (10)
REVISED BASE
LOSS COST

Revised \$100,000 base loss cost.

COLUMN (11)
ADVISORY
LOSS COST
CHANGE

Percentage change from the present \$100,000 base loss cost to the revised \$100,000 base loss cost.

INSURANCE SERVICES OFFICE

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE
SINGLE LIMIT LIABILITY

DETERMINATION OF LOSS COST LEVEL CHANGE BY TERRITORY
AUTO DEALERS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	TTT	AGG LOSS COSTS AT CURRENT	REV TTT	AUTO DEALERS BASE	RATIO TO STATEWIDE AVERAGE		CHANGES IN TERRITORY RELATIVITY		AUTO DEALERS BASE		ADV
T E R	ACC-YR 12/31/2016	LEVEL	BASE LOSS	LOSS COST	COLUMNS		REQ	ADJ+	LOSS COST		LOSS COST
R	EARNED EXPOS	YEAR END 12/31/2017	LOSS COST	PRES	(3)	(4)	5/6	1.013	IND*	REV	CHG**
101	10565	202308	187	606	1.396	1.443	0.967	0.980	475	475	-21.6%
105	26994	252504	146	474	1.090	1.129	0.965	0.978	371	371	-21.7%
106	27592	52637	77	225	0.575	0.536	1.073	1.087	196	196	-12.9%
107	7143	185152	226	698	1.687	1.662	1.015	1.028	574	574	-17.8%
SW	72294	692601	134	420			0.987				

DEALERS BASE LOSS COST

+ REFER TO EXPLANATORY NOTE ON PAGE B-24

* KEYED TO A STATEWIDE LOSS COST CHANGE OF -20.0 PERCENT

** PERCENTAGE CHANGE IN LOSS COST IS (COL 10/COL 4)

EXPLANATORY MEMORANDUM FOR AUTO DEALERS LIABILITY

COLUMN (1) EARNED CAR YEARS	Number of car-years, or exposures (Trucks, Tractors and Trailers), earned in the latest year. These exposures are used to calculate the weighted averages for column (3) and column (4).
COLUMN (2) AUTO DEALERS AGGREGATE LOSS COST AT CURRENT LEVEL	The Auto Dealers aggregate loss cost at current level. This column is used to calculate the weighted average for column (7).
COLUMN (3) REVISED TRUCKS, TRACTORS & TRAILERS \$100,000 LOSS COST	These are the revised Trucks, Tractors & Trailers \$100,000 base loss costs.
COLUMN (4) AUTO DEALERS PRESENT \$100,000 LOSS COST	Current Auto Dealers \$100,000 base loss cost.
COLUMN (5) & (6) RATIOS TO STATEWIDE AVERAGE	Are derived by dividing each base loss cost by the statewide average loss cost for Trucks, Tractors & Trailers and Auto Dealers, respectively.
COLUMN (7) TERRITORY RELATIVITY	Is derived by dividing the Trucks, Tractors & Trailers indices (column (5)) by the Auto Dealers indices (column (6)).
COLUMN (8) ADJUSTED TERRITORY RELATIVITY	Is derived by multiplying the territory relativity (column (7)) by the adjustment, which is one divided by the statewide average territory relativity (SW column (7)). This yields the required change in the Auto Dealers index in column (7).
COLUMN (9) INDICATED BASE LOSS COST	Indicated base loss cost for a particular territory. It is calculated by applying the product of the adjusted territory relativity (column (8)) and the statewide Auto Dealers loss cost level indication to the present Auto Dealers base loss cost.

COLUMN (10)
REVISED
BASE LOSS COST

Revised \$100,000 base loss cost.

COLUMN (11)
LOSS COST
CHANGE

Percentage change from the present \$100,000 base loss cost to the revised
\$100,000 base loss cost.

INSURANCE SERVICES OFFICE

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE
PHYSICAL DAMAGE - COMPREHENSIVE

DETERMINATION OF LOSS COST LEVEL CHANGES BY TERRITORY
TRUCKS, TRACTORS AND TRAILERS+

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
T	EARNED		EXPER								ADV
E	CAR YRS	UND	LOSS COST				INDEX	BASE CLASS			LOSS
R	YR ENDED	LOSS	5YRS END	EXPER		FORM	(6) TO	LOSS COST			COST
R	12/31/2016	COST	12/31/2016	RATIO	CRED	RATIO	STATE	PRES	IND*	REV	CHG**
101	6312	89.13	97.30	1.092	0.25	1.163	.979	138	148	148	7.2%
105	14758	100.75	120.17	1.193	0.35	1.189	1.001	168	184	184	9.5%
106	11339	103.76	124.83	1.203	0.35	1.193	1.004	206	227	227	10.2%
107	4367	120.27	149.18	1.240	0.20	1.198	1.008	180	199	199	10.6%
SW	36776	102.00	121.12	1.187		1.188					

+ REFER TO EXPLANATORY NOTE ON PAGE B-30

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 9.6 PERCENT

** PERCENTAGE CHANGE IN LOSS COST IS (COL 10/COL 8)

INSURANCE SERVICES OFFICE

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE
PHYSICAL DAMAGE - COLLISION

DETERMINATION OF LOSS COST LEVEL CHANGES BY TERRITORY
TRUCKS, TRACTORS AND TRAILERS+

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
T	EARNED		EXPER								ADV
E	CAR YRS	UND	LOSS COST				INDEX	BASE CLASS			LOSS
R	YR ENDED	LOSS	5YRS END	EXPER		FORM	(6) TO	LOSS COST			COST
R	12/31/2016	COST	12/31/2016	RATIO	CRED	RATIO	STATE	PRES	IND*	REV	CHG**
101	6334	142.42	151.16	1.061	0.30	1.051	1.003	170	164	164	-3.5%
105	14577	154.26	153.57	0.996	0.50	1.021	.974	201	188	188	-6.5%
106	10255	147.42	185.08	1.255	0.40	1.130	1.078	201	208	208	3.5%
107	4214	234.62	193.65	0.825	0.30	.980	.935	270	243	243	-10.0%
SW	35380	159.72	167.04	1.046		1.048					

+ REFER TO EXPLANATORY NOTE ON PAGE B-30

* KEYED TO A STATEWIDE LOSS COST CHANGE OF -3.8 PERCENT

** PERCENTAGE CHANGE IN LOSS COST IS (COL 10/COL 8)

INSURANCE SERVICES OFFICE

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE
PHYSICAL DAMAGE - COMPREHENSIVE

DETERMINATION OF LOSS COST LEVEL CHANGES BY TERRITORY
PRIVATE PASSENGER TYPES+

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
T	EARNED		EXPER								ADV
E	CAR YRS	UND	LOSS COST				INDEX	BASE CLASS			LOSS
R	YR ENDED	LOSS	5YRS END	EXPER		FORM	(6) TO	LOSS COST			COST
R	12/31/2016	COST	12/31/2016	RATIO	CRED	RATIO	STATE	PRES	IND*	REV	CHG**
101	1217	141.24	168.28	1.191	0.20	1.221	.997	140	160	160	14.3%
105	2942	183.02	220.96	1.207	0.30	1.222	.998	180	206	206	14.4%
106	2346	256.40	307.81	1.201	0.35	1.219	.995	250	285	285	14.0%
107	795	153.54	230.76	1.503	0.15	1.269	1.036	145	172	172	18.6%
SW	7300	196.42	241.15	1.228		1.225					

+ REFER TO EXPLANATORY NOTE ON PAGE B-30

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 14.5 PERCENT

** PERCENTAGE CHANGE IN LOSS COST IS (COL 10/COL 8)

INSURANCE SERVICES OFFICE

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE
PHYSICAL DAMAGE - COLLISION

DETERMINATION OF LOSS COST LEVEL CHANGES BY TERRITORY
PRIVATE PASSENGER TYPES+

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
T	EARNED		EXPER								ADV
E	CAR YRS	UND	LOSS COST				INDEX	BASE CLASS			LOSS
R	YR ENDED	LOSS	5YRS END	EXPER		FORM	(6) TO	LOSS COST			COST
R	12/31/2016	COST	12/31/2016	RATIO	CRED	RATIO	STATE	PRES	IND*	REV	CHG**
101	1193	157.95	151.40	0.959	0.20	1.037	.984	206	209	209	1.5%
105	2797	210.85	215.68	1.023	0.35	1.044	.991	287	293	293	2.1%
106	2194	174.18	183.79	1.055	0.30	1.056	1.002	233	240	240	3.0%
107	802	217.09	276.88	1.275	0.20	1.100	1.044	276	297	297	7.6%
SW	6986	191.01	201.71	1.056		1.054					

+ REFER TO EXPLANATORY NOTE ON PAGE B-30

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 3.0 PERCENT

** PERCENTAGE CHANGE IN LOSS COST IS (COL 10/COL 8)

EXPLANATORY MEMORANDUM FOR TRUCKS, TRACTORS & TRAILERS AND
PRIVATE PASSENGER TYPES
PHYSICAL DAMAGE TERRITORY DEVELOPMENT

COLUMN (1) EARNED CAR YEARS	Number of car-years, or exposures, earned in the latest year. These exposures are used to calculate the weighted averages through the analysis. (For calculating the weighted average of the Experience Ratio in Col (4) and the Formula Experience Ratio in Col (6) the product of [Col(1) x Col(2)] are used as weights).
COLUMN (2) UNDERLYING LOSS COST	Average loss cost at current level (earned aggregate loss cost at current level divided by exposures) is based on the latest accident year experience available and reflects the present ISO manual loss cost trended to a prospective OCN level by the application of OCN factors.
COLUMN (3) 5 YEAR ENDED EXPERIENCE LOSS COST	Loss cost based on the latest 5 years of experience (for purposes of stability). The loss cost is trended and include all loss adjustment expenses.
COLUMN (4) EXPERIENCE RATIO LOSS COST	For each coverage, an experience ratio by territory is derived by dividing the 5 year experience loss cost by the average loss cost at present ISO manual level. [Col. (3) / Col. (2)]
COLUMN (5) CREDIBILITY	The experience ratio thus calculated is assigned a credibility value on the basis of the number of claims underlying the 5 year pure premium (See Section C for credibility standards). The complement of the credibility is assigned to the statewide experience ratio which appears in Col. (4).
COLUMN (6) FORMULA EXPERIENCE RATIO	<p>The formula experience ratio is a credibility weighted average of the territory group experience ratio and statewide experience ratio. The formula is as follows:</p> $\begin{aligned} &[\text{Terr. Group Col. (4)} \times \text{Terr. Group Col. (5)}] \\ &+ [\text{SW Total Col. (4)} \times (1.0 - \text{Terr. Group Col. (5)})] \end{aligned}$

COLUMN (7)
INDEX TO
STATE

Territory indices to state are calculated by dividing the territory formula experience ratio by the statewide average formula experience ratio

$$[\text{Terr. Col (6)} / \text{SW Total Col. (6)}]$$

(Statewide Total Col. (6) is the weighted average formula experience ratio using the individual products of [Col. (1) x Col. (2)] as weights.)

COLUMN (8)
BASE CLASS
LOSS COST

Present ISO base class loss cost.

COLUMN (9)
INDICATED BASE
LOSS COST

Indicated base class loss cost for a particular territory. It is calculated by applying the product of the statewide loss cost level change and the territory index [Col. (7)] to the present ISO loss cost.

COLUMN (10)
REVISED BASE
LOSS COST

Revised base loss cost.

COLUMN (11)
ADVISORY
LOSS COST
CHANGE

Percentage change:
[Col. (10) / Col. (8)]

MONTANA
COMMERCIAL AUTOMOBILE

SECTION C - SUPPORTING MATERIAL

Loss Adjustment Expense	C2-C4
Loss Trend.....	C5-C28
Physical Damage OCN Trend	C29-C31
Loss Development for Liability.....	C32-C47
Loss Development for Physical Damage.....	C48-C56
Credibility Procedures and Tables.....	C57-C62
Claims for Credibility.....	C63-C64
Relativities for Developing Minor Class & Coverage Loss Costs	C65
Excess Wind and Water Procedure	C66-C71

LOSS ADJUSTMENT EXPENSE FACTORS

OBJECTIVE	The reported indemnity losses must be loaded for any loss adjustment expenses (LAE) that are not reported in statistical detail to ISO.
LIABILITY COVERAGES	For the liability coverages, allocated loss adjustment expenses are reported in detail to ISO under the Commercial Statistical Plan. Unallocated loss adjustment expenses must be loaded into the losses. A factor representing the ratio of the sum of the incurred indemnity losses plus all LAE to the sum of the incurred indemnity losses plus allocated LAE was selected based on multistate financial data from a Special Call Submission for available writers.
PHYSICAL DAMAGE COVERAGES	For the physical damage coverages, accident year paid indemnity losses are reported. All loss adjustment expenses must be loaded into the reported losses. A factor representing the ratio of incurred losses plus all LAE to incurred losses was selected based on multistate financial data from the Insurance Expense Exhibits for agency and direct writers.

COMMERCIAL AUTOMOBILE LIABILITY INSURANCE
MULTISTATE LOSS ADJUSTMENT EXPENSE EXPERIENCE

Calendar Year

Development of Unallocated Loss Adjustment Expense Factor

Bodily Injury
(000's)

<u>ITEM</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>3 YR AVG</u>	<u>5 YR AVG</u>
(1) Direct Losses Incurred	3,382,082	4,091,432	4,241,671	4,816,654	5,408,567		
(2) Allocated Loss Adjustment Expenses Incurred	290,174	463,736	481,558	518,587	611,974		
(3) Unallocated Loss Adjustment Expenses Incurred	368,213	392,749	440,405	473,498	481,607		
(4) Unallocated LAE as a Ratio to Losses + Allocated LAE (3) / [(1) + (2)]	10.0%	8.6%	9.3%	8.9%	8.0%	8.7%	9.0%
(5) Selected Factor							8.5%

Property Damage
(000's)

<u>ITEM</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>3 YR AVG</u>	<u>5 YR AVG</u>
(1) Direct Losses Incurred	834,325	892,691	1,005,713	1,066,493	1,164,414		
(2) Allocated Loss Adjustment Expenses Incurred	50,208	64,825	79,678	75,866	93,908		
(3) Unallocated Loss Adjustment Expenses Incurred	108,058	110,707	115,006	129,452	129,263		
(4) Unallocated LAE as a Ratio to Losses + Allocated LAE (3) / [(1) + (2)]	12.2%	11.6%	10.6%	11.3%	10.3%	10.7%	11.2%
(5) Selected Factor							11.0%

All items are from Special Call Submission for available writers.

COMMERCIAL AUTOMOBILE PHYSICAL DAMAGE INSURANCE
MULTISTATE LOSS ADJUSTMENT EXPENSE EXPERIENCE

Calendar Year

Development of Factor to Include all Loss Adjustment Expenses

(000's)

<u>ITEM</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>3 YR AVG</u>	<u>5 YR AVG</u>
(1) Direct Losses Incurred	3,672,754	3,776,681	3,729,471	4,160,445	4,385,421		
(2) Loss Adjustment Expenses Incurred	487,270	551,511	589,857	664,010	585,473		
(3) Losses + LAE Incurred as Ratio to Losses Incurred [(1)+(2)]/(1)	1.133	1.146	1.158	1.160	1.134	1.150	1.146
(4) Selected							1.150

Items (1) and (2) are from the Insurance Expense Exhibits for agency and direct writers.

AVERAGE ANNUAL CHANGE IN LOSSES (LOSS TREND)

OBJECTIVE	The application of the average annual change in losses to historical data recognizes that advisory loss costs are being made for use in a future period based on historical experience. Due to economic and social factors, claim cost and frequency levels continue to change from those underlying the historical data.
DETERMINATION OF HISTORICAL AVERAGE CLAIM COST TREND	To determine the historical average claim cost trend, ISO makes use of the Least Squares Method fitted to the reported time series data; specifically, an exponential curve represented by the equation $Y=A(B^X)$ is fitted to the paid claim cost data. The parameters A and B are calculated by regressing Y, which is the applicable claim cost on X, which is the unit of time. The resulting fitted curve allows the determination of a historical average trend for the data under review.
LIABILITY LOSS TREND	The historical average annual change in claim costs for both Bodily Injury and Property Damage coverages are measured in this document using a credibility-weighted mix of multistate and statewide data. Prospective average annual changes for claim frequency have been selected based on the historical multistate data, as well as other relevant factors. Combining the state credibility-weighted claim cost trends with the selected claim frequency trends results in the selected Bodily Injury and Property Damage pure premium trend used to adjust the losses to a prospective level.
TREND CREDIBILITY FOR LIABILITY CLAIM SEVERITY	<p>Trend credibility is based on a full credibility standard of 975,000 claims for BI and 390,000 claims for PD. These standards were developed using a Bayesian analysis. Partial credibility is determined by the following formula:</p> $A = C/(C+K)$ <p>where C equals the number of claims for the latest year ended point and K equals 25,000 for bodily injury and 10,000 for property damage. The resulting table of partial credibilities is shown in this section.</p>

LIABILITY:
FREQUENCY
TREND

The data underlying the claim frequency trend selections is shown on the attached claim frequency exhibits. The exhibits include quarterly points for Multistate incurred frequency trend separately for Trucks, Tractors, and Trailers and Private Passenger Types. As can be seen from these exhibits (and corresponding graphs), frequency for both bodily injury and property damage has generally changed from year to year in an unpredictable manner.

Commercial Auto classes had experienced an abnormally long period of negative frequency trends prior to 2010. For the most recent 6 years, however, the frequency trends have been slightly increasing (TTT BI) or somewhat cyclical and/or flat (TTT PD and PPT BI and PD) over the experience period. An exponential curve of the form $Y=A(B^X)$ does not fit the data well. To reflect these recent patterns and the difficulty in predicting turning points and rates of change, frequency trend is being selected to be 0% for TTT and PPT for both the Bodily Injury and Property Damage coverages. Due to the limited volume of data for the Auto Dealers coverage, the PPT frequency trend will be used for the Auto Dealers coverage.

PHYSICAL
DAMAGE:
LOSS TREND

Data Selections

- In our Physical Damage Trend review, we try to include as much data as possible for each deductible level that we analyze. With this goal in mind, for a given deductible level, we include all losses written at or below that deductible level. For example, consider an event causing \$1,500 of damage on a policy written with a \$250 deductible. This would be reported as a \$1,250 loss. In order to include as much data as possible in our review, we would generate 3 different records for this loss, one at each deductible that we analyze:

At \$250 deductible: \$1,250 loss

At \$500 deductible: \$1,000 loss

At \$1,000 deductible: \$500 loss

Each of these deductible levels is analyzed independently of the other levels, so that there are no instances of double-counting loss records.

- Wind and Water losses are removed from our Other Than Collision trend reviews due to the high variability of these types of losses from year to year.

Data Adjustments

In our Physical Damage trend review, we employ two adjustments to the data with the objective of diminishing distortions in the trend that we do not wish to measure. Our goal is to only measure inflationary effects.

1) All losses are divided by the appropriate class plan and age factors that correspond to that record in order to diminish the effect that variations in these factors from one year to the next have on the trend calculation.

PHYSICAL
DAMAGE:
LOSS TREND
(CONT'D)

For example, consider 12 Truck exposures reported with Age Code 1 (current model year, age factor of 1.00). Each exposure experiences a loss of \$500. The average severity of the losses for these 12 exposures is \$500.

Now consider these 12 exposures 5 years in the future. The exposures are now reported with Age Code A (6th preceding model year, age factor of 0.80). Assume that there is 10% inflation per year on all severities. Also assume that each of these 12 exposures experience the same amount of damage as they did 5 years ago. The average severity of the losses for these 12 exposures is now \$644 (taking into account both inflation and the older age of the vehicles).

If we analyze the severity trend without dividing each loss by its corresponding age factor, we get an annual trend of $(\$644/\$500)^{1/5} - 1 = 5.2\%$

If we first divide each loss by its corresponding age factor, we get an annual trend of $((\$644/0.80) / (\$500/1.00))^{1/5} - 1 = 10.0\%$

The first calculated severity is not equal to the assumed inflation because the calculation includes the decrease in average severity caused by aging of the vehicles. By dividing each loss record by its corresponding class plan and age factors, we remove distortions on the severity trend caused by the change in the distribution of classes and ages from one year to the next.

2) All Other Than Collision losses are adjusted to correct for the distortion on trend results created by a change in the distribution of types of loss from one year to the next. The Other Than Collision severity is a weighted-average of the severities for each type of loss (glass, fire, theft, etc.). Since each type of loss has a different severity (for example, glass losses have a much smaller severity than other types of loss), then variations in the distribution of types of loss may lead to changes in the severity that we do not want to measure (if one year 5% of losses are glass losses, and the next year 30% of losses are glass losses, we would expect the average severity of all Other Than Collision losses to decrease). To correct this, we calculate the proportion of losses for each type of loss averaged over all years in the experience period.

Consider the following example, where an adjustment is NOT made to the data. Assume 10% annual inflation for all losses:

	Year 1		Year 2	
Type of Loss	Glass	Fire	Glass	Fire
Claims	10	3	15	5
Severity of Each Loss	\$50	\$1,000	\$55	\$1,100
Total Losses	\$500	\$3,000	\$825	\$5,500

Average severity of losses in Year 1 is $(\$500 + \$3,000) / 13 \text{ claims} = \269

Average severity of losses in Year 2 is $(\$825 + \$5,500) / 20 \text{ claims} = \316.25

Average Severity trend = $(\$316.25/\$269) - 1 = 17.6\%$

PHYSICAL
DAMAGE:
LOSS TREND
(CONT'D)

Now consider the same scenario, where an adjustment IS made to the data:

	Year 1		Year 2	
Type of Loss	Glass	Fire	Glass	Fire
Claims	10	3	15	5
Percentage of Total Claims	10/13 = 77%	3/13 = 23%	15/20 = 75%	5/20 = 25%

Average Percentage of Claims for Glass losses: $(77\% + 75\%) / 2 = 76\%$

Average Percentage of Claims for Fire losses: $(23\% + 25\%) / 2 = 24\%$

The number of claims for each type of loss for each year is replaced by these averages:

	Year 1		Year 2	
Type of Loss	Glass	Fire	Glass	Fire
Claims	76% x 13 = 9.88	24% x 13 = 3.12	76% x 20 = 15.2	24% x 20 = 4.8
Severity of Each Loss	\$50	\$1,000	\$55	\$1,100
Total Losses	\$494	\$3,120	\$836	\$5,280

Average severity of losses in Year 1 is $(\$494 + \$3,120) / 13 \text{ claims} = \278

Average severity of losses in Year 2 is $(\$836 + \$5,280) / 20 \text{ claims} = \305.80

Average Severity trend = $(\$305.80 / \$278) - 1 = 10.0\%$

Note that the total number of claims each year remains unchanged from the total before the adjustment is made.

Year 1 claims = $9.88 + 3.12 = 13 \text{ claims}$

Year 2 claims = $15.2 + 4.8 = 20 \text{ claims}$

Although new claims totals by type of loss are used in the calculation, the impact of the adjustment is to change only the loss totals, so frequency figures are not changed. The result is equivalent to a re-weighting of the severities so that each type of loss has a consistent weight from year to year.

By keeping each type of loss' proportion of total claims constant from year to year, we remove distortions in the trend caused by changes in the distribution of types of loss.

PHYSICAL
DAMAGE:
LOSS TREND
(CONT'D)

The trend selections for physical damage are based on the data in the attached exhibits. Each exhibit includes the distribution of losses, by deductible, for the most recent year. We analyze frequency trend and severity trend separately, using data at the \$250, \$500, and \$1,000 deductibles for OTC, and at the \$500, \$1,000, and \$2,000 deductibles for Collision.

Historically, claim frequency (like liability claim frequency) had been variable from year to year, often cyclical. As a result, an exponential curve of the form $Y=A(B^x)$ did not fit the frequency data well. In the interest of long-term stability, we have selected 0.0% trend factors for frequency.

Based on this multistate experience and on the continued positive trends in the Consumer Price Index for Bodywork, ISO has selected the following annual trends:

	Trucks, Tractors & Trailers <u>Pure Premium</u>	Private Passenger Types <u>Pure Premium</u>
OTC:	+6.5%	+5.0%
COLL:	+5.5%	+5.0%

INSURANCE SERVICES OFFICE

COMMERCIAL AUTO LIABILITY
DETERMINATION OF FACTORS TO ADJUST ACCIDENT YEAR
LOSS RATIOS FOR SUBSEQUENT CHANGES

AVERAGE PAID CLAIM COST DATA

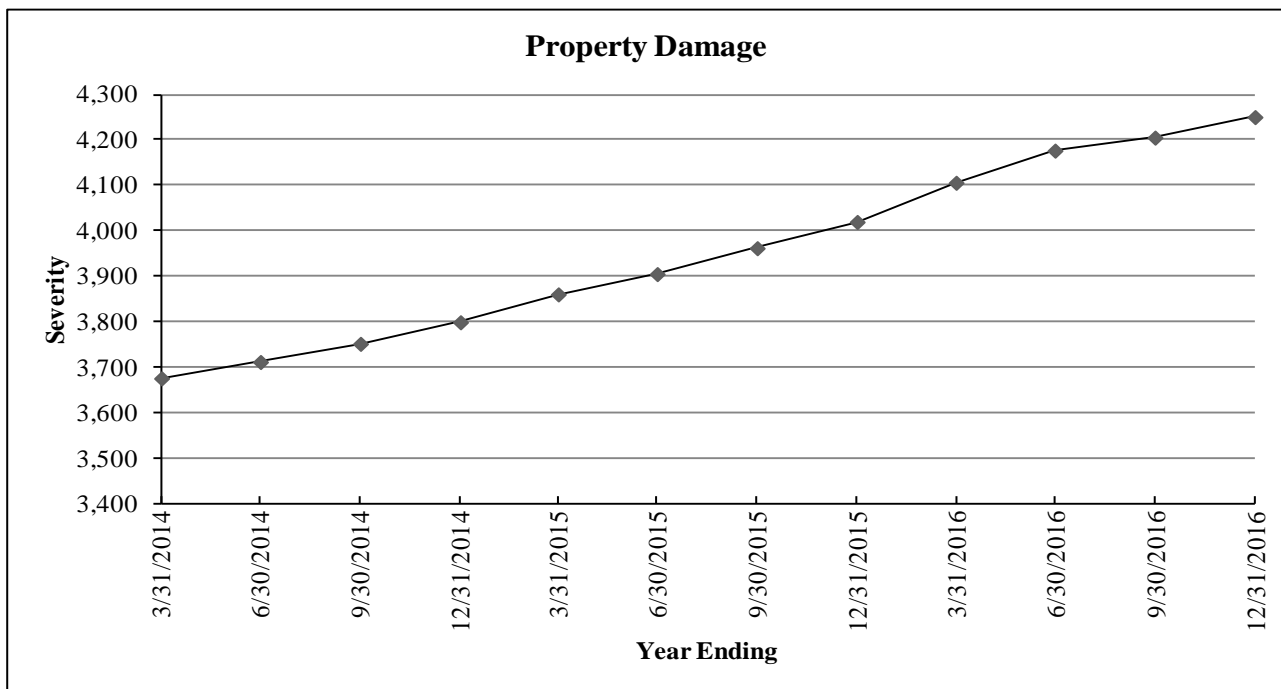
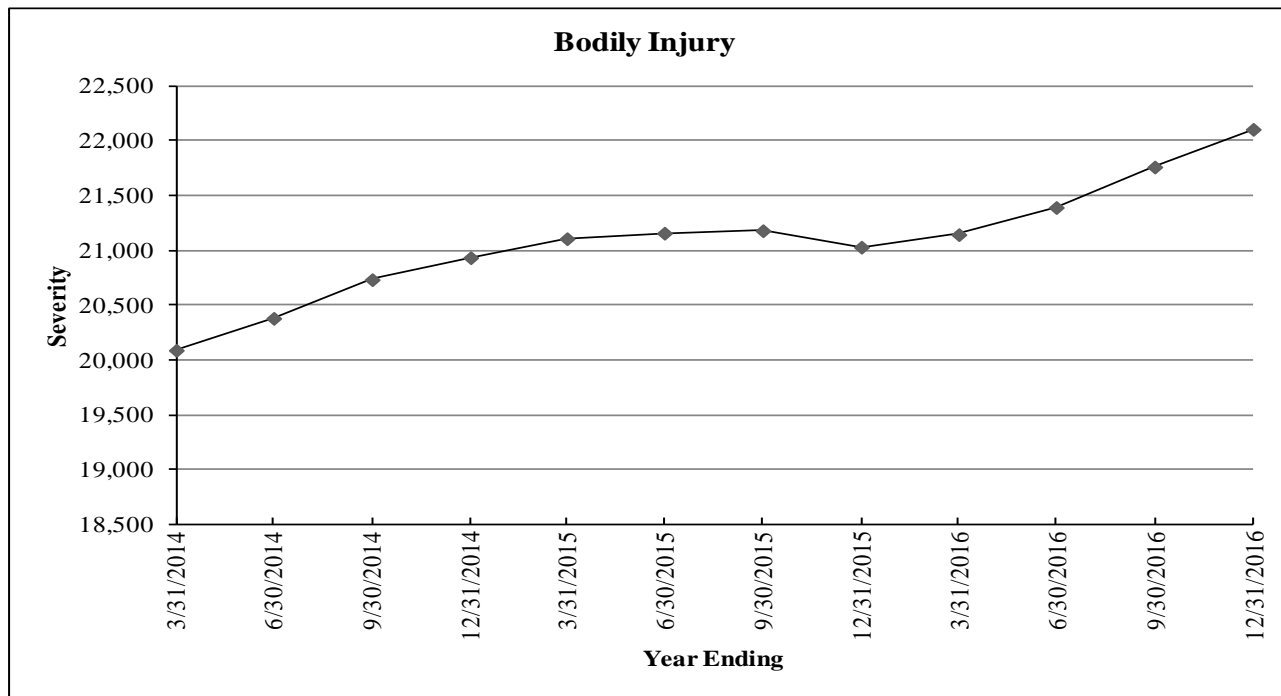
YEAR ENDED	MONTANA				MULTISTATE*			
	BODILY INJURY (\$100000 LIMITS)		PROPERTY DAMAGE (\$100000 LIMITS)		BODILY INJURY (\$100000 LIMITS)		PROPERTY DAMAGE (\$100000 LIMITS)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	ACTUAL	EXPONEN- TIAL FIT	ACTUAL	EXPONEN- TIAL FIT	ACTUAL	EXPONEN- TIAL FIT	ACTUAL	EXPONEN- TIAL FIT
3/31/2014	22953.03	21798.88	3996.40	3812.96	20088.87	20321.23	3676.14	3655.72
6/30/2014	21146.33	22520.75	3841.88	3843.94	20380.29	20456.67	3712.11	3707.17
9/30/2014	22677.11	23266.54	3697.90	3875.18	20732.93	20593.01	3752.08	3759.33
12/31/2014	23360.16	24037.02	3631.29	3906.66	20933.35	20730.27	3799.50	3812.23
3/31/2015	25747.84	24833.01	3840.10	3938.40	21106.46	20868.43	3860.83	3865.87
6/30/2015	26215.74	25655.36	4006.66	3970.40	21156.78	21007.52	3905.50	3920.27
9/30/2015	27744.08	26504.95	4303.57	4002.66	21179.18	21147.53	3962.46	3975.44
12/31/2015	25920.29	27382.67	4388.71	4035.19	21029.30	21288.48	4020.15	4031.38
3/31/2016	30178.50	28289.45	4006.83	4067.97	21143.66	21430.37	4106.33	4088.10
6/30/2016	28460.25	29226.27	4117.66	4101.02	21391.10	21573.20	4177.05	4145.63
9/30/2016	29865.11	30194.10	3956.60	4134.35	21760.24	21716.98	4205.66	4203.97
12/31/2016	30880.09	31193.99	4119.16	4167.94	22103.74	21861.73	4250.83	4263.12

	<u>BODILY INJURY</u>	<u>PROPERTY DAMAGE</u>
(9) AVERAGE ANNUAL PERCENT CHANGE IN PAID CLAIM COST (12TH POINT / 8TH POINT)		
(A) MONTANA	13.9%	3.3%
(B) MULTISTATE	2.7%	5.7%
(10) CREDIBILITY	0.00	0.05
(11) WEIGHTED AVERAGE ANNUAL PERCENT CHANGE IN PAID CLAIM COSTS {(10) * (9A)} + {(1.0 - (10)) * (9B)}	2.7%	5.6%
(12) AVERAGE ANNUAL PERCENT CHANGE IN CLAIM FREQUENCY		
(A) TRUCKS, TRACTORS, TRAILERS	0.0%	0.0%
(B) PRIVATE PASSENGER TYPES#	0.0%	0.0%
(13) AVERAGE ANNUAL PERCENT CHANGE IN LIABILITY LOSS RATIO		
(A) TRUCKS, TRACTORS, TRAILERS {1.0 + (11)} * {1.0 + (12A)}	2.7%	5.6%
(B) PRIVATE PASSENGER TYPES AND AUTO DEALERS# {1.0 + (11)} * {1.0 + (12B)}	2.7%	5.6%

* EXCLUDES MASSACHUSETTS

THE PRIVATE PASSENGER TYPES FREQUENCY IS ALSO USED FOR THE
AUTO DEALERS COVERAGE.

Commercial Automobile Liability
Average Paid Claim Cost Experience
Multistate*



* Excludes Massachusetts

INSURANCE SERVICES OFFICE, INC.

COMMERCIAL AUTO LIABILITY
INCURRED CLAIM FREQUENCY

MULTISTATE*

TRUCKS, TRACTORS, AND TRAILERS

<u>YEAR ENDING</u>	<u>BODILY INJURY ACTUAL</u>	<u>BODILY INJURY ACTUAL CHANGE@</u>	<u>PROPERTY DAMAGE ACTUAL</u>	<u>PROPERTY DAMAGE ACTUAL CHANGE@</u>
12/31/2010	0.7818		2.8895	
3/31/2011	0.7920		2.9395	
6/30/2011	0.7918		2.9392	
9/30/2011	0.7939		2.9462	
12/31/2011	0.7924	1.4% &	2.9345	1.6% &
3/31/2012	0.7919		2.8289	
6/30/2012	0.7932		2.8175	
9/30/2012	0.7840	-1.2%	2.7782	-5.7%
12/31/2012	0.7932		2.7713	
3/31/2013	0.7969		2.8072	
6/30/2013	0.8161		2.8516	
9/30/2013	0.8354	6.6%	2.8976	4.3%
12/31/2013	0.8340		2.9127	
3/31/2014	0.8414		3.0039	
6/30/2014	0.8209		2.9990	
9/30/2014	0.8094	-3.1%	3.0018	3.6%
12/31/2014	0.8143		3.0024	
3/31/2015	0.8048		2.9674	
6/30/2015	0.8135		2.9657	
9/30/2015	0.8210	1.4%	2.9812	-0.7%
12/31/2015	0.8266		2.9951	
3/31/2016	0.8346		2.9640	
6/30/2016	0.8408		2.9661	
9/30/2016	0.8494	3.5%	2.9583	-0.8%

* EXCLUDES MASSACHUSETTS

@ CHANGE BASED ON YEARS ENDING 9/30/XXXX

& CHANGE BASED ON YEAR ENDING 12/31/2011 DIVIDED BY 12/31/2010

INSURANCE SERVICES OFFICE, INC.

COMMERCIAL AUTO LIABILITY
INCURRED CLAIM FREQUENCY

MULTISTATE*

PRIVATE PASSENGER TYPES

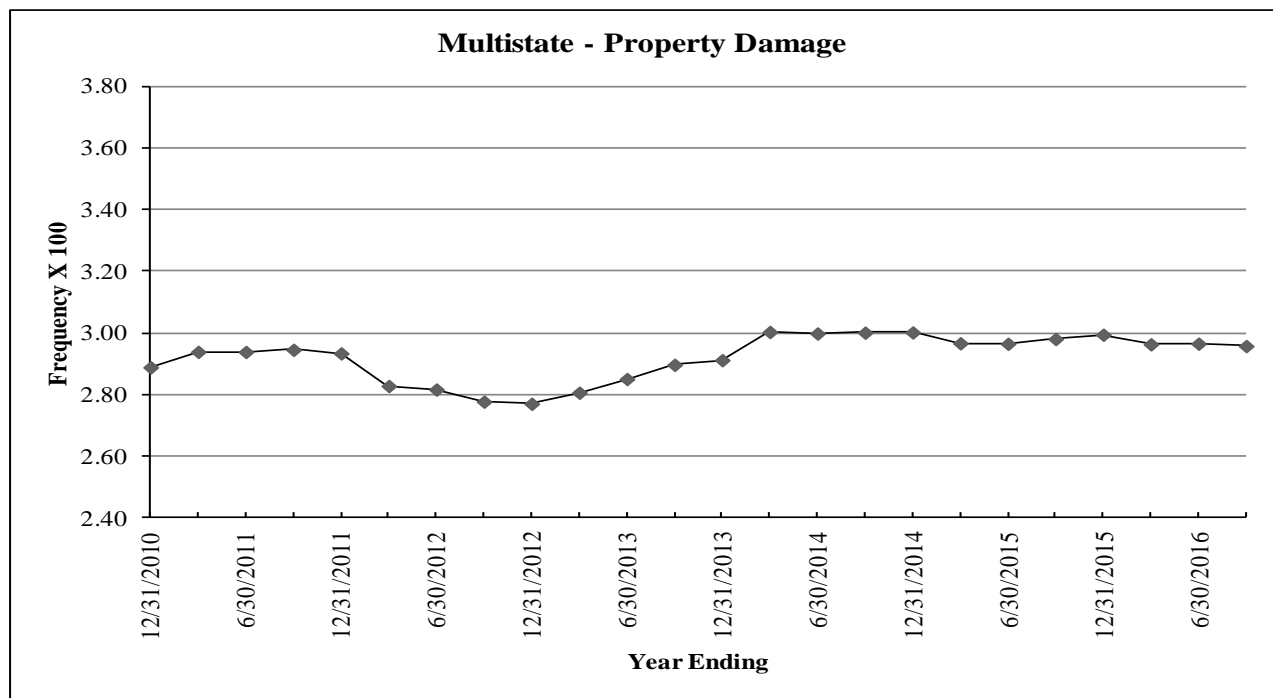
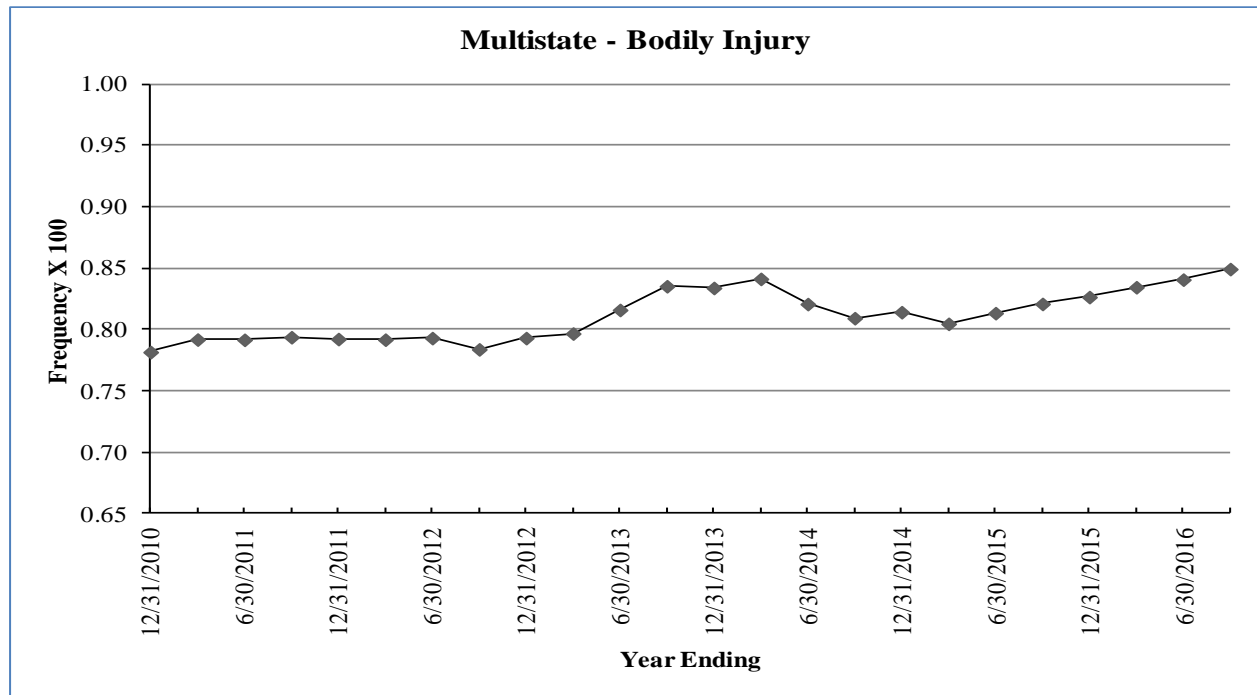
<u>YEAR ENDING</u>	<u>BODILY INJURY ACTUAL</u>	<u>BODILY INJURY ACTUAL CHANGE@</u>	<u>PROPERTY DAMAGE ACTUAL</u>	<u>PROPERTY DAMAGE ACTUAL CHANGE@</u>
12/31/2010	0.8786		3.3406	
3/31/2011	0.8891		3.3765	
6/30/2011	0.9204		3.3849	
9/30/2011	0.9378		3.3833	
12/31/2011	0.9370	6.6% &	3.3425	0.1% &
3/31/2012	0.9616		3.3280	
6/30/2012	0.9470		3.3350	
9/30/2012	0.9331	-0.5%	3.3194	-1.9%
12/31/2012	0.9198		3.2786	
3/31/2013	0.9128		3.2543	
6/30/2013	0.9189		3.2182	
9/30/2013	0.9319	-0.1%	3.2230	-2.9%
12/31/2013	0.9330		3.2488	
3/31/2014	0.9285		3.2876	
6/30/2014	0.9199		3.2862	
9/30/2014	0.9056	-2.8%	3.2590	1.1%
12/31/2014	0.8951		3.2283	
3/31/2015	0.8635		3.1815	
6/30/2015	0.8454		3.1421	
9/30/2015	0.8327	-8.0%	3.1557	-3.2%
12/31/2015	0.8201		3.1602	
3/31/2016	0.8343		3.1661	
6/30/2016	0.8418		3.1990	
9/30/2016	0.8631	3.7%	3.1959	1.3%

* EXCLUDES MASSACHUSETTS

@ CHANGE BASED ON YEARS ENDING 9/30/XXXX

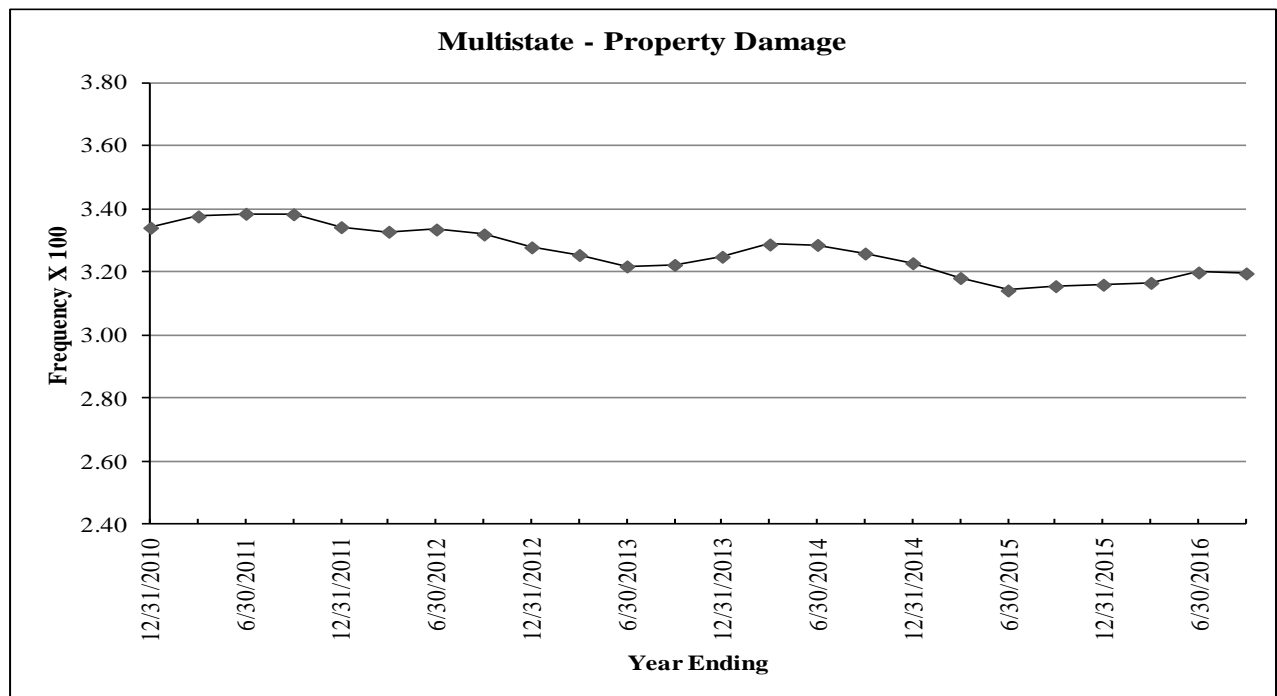
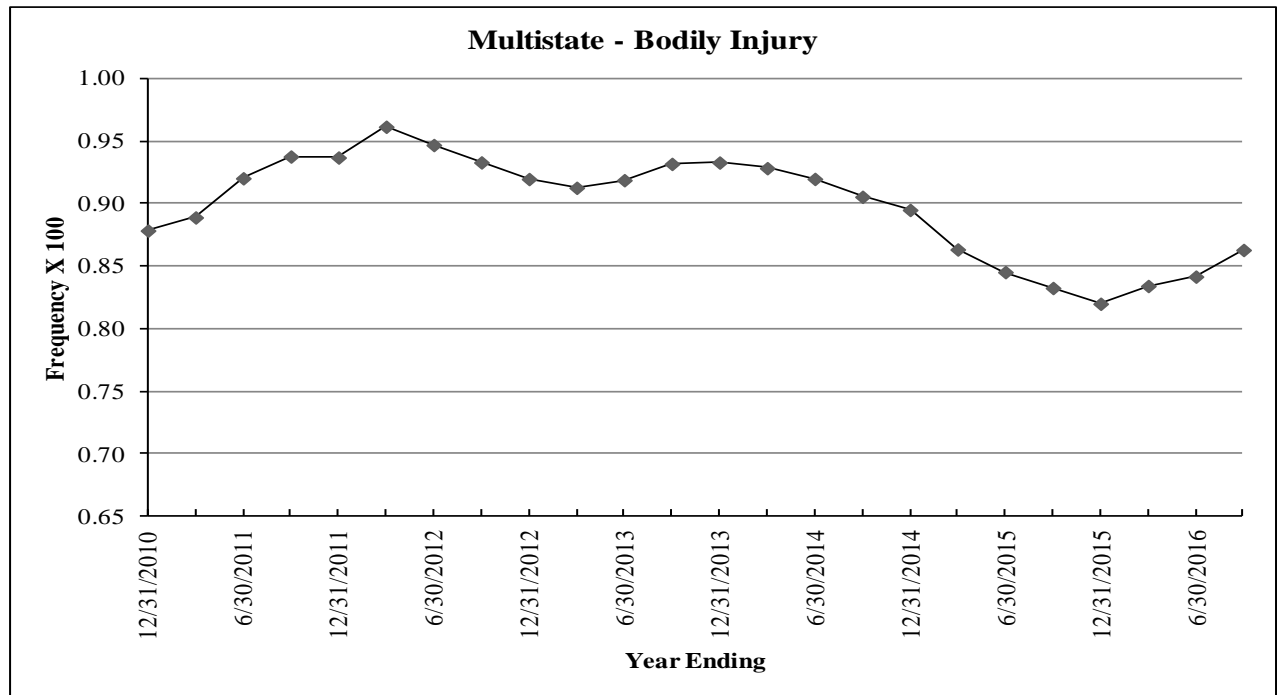
& CHANGE BASED ON YEAR ENDING 12/31/2011 DIVIDED BY 12/31/2010

Commercial Automobile Liability
Incurred Claim Frequency Experience
Trucks, Tractors, and Trailers
Multistate*



* Excludes Massachusetts

Commercial Automobile Liability
Incurred Claim Frequency Experience
Private Passenger Types
Multistate*



* Excludes Massachusetts

Multistate*
Trucks, Tractors & Trailers Physical Damage
Other Than Collision

Frequency (expressed as claims per 100 exposures)

	\$250 Deductible		\$500 Deductible		\$1,000 Deductible	
Year Ending:	Actual	Change **	Actual	Change **	Actual	Change **
06/30/2012	2.53		1.37		0.83	
12/31/2012	2.38		1.31		0.80	
06/30/2013	2.33		1.30		0.79	
12/31/2013	2.27	-4.6%	1.28	-2.3%	0.77	-3.8%
06/30/2014	2.35		1.29		0.78	
12/31/2014	2.31	1.8%	1.25	-2.3%	0.76	-1.3%
06/30/2015	2.20		1.24		0.75	
12/31/2015	2.11	-8.7%	1.24	-0.8%	0.76	0.0%
06/30/2016	2.03		1.24		0.79	
12/31/2016	2.02	-4.3%	1.24	0.0%	0.79	3.9%

Volume*** of losses for the most recent year by deductible:

Deductible	Percent of Losses
Full	0.2%
\$50	0.6%
\$100	2.3%
\$200	0.2%
\$250	11.0%
\$500	33.5%
\$1,000	43.9%
\$2,000	3.8%
\$3,000	1.5%
\$5,000	1.8%

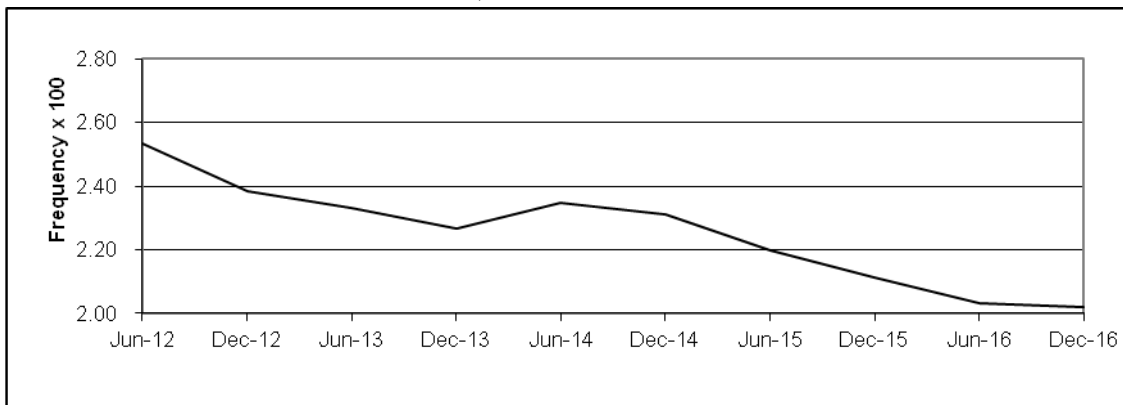
* Multistate data excludes Massachusetts

** Change based on years ending 12/31/xxxx

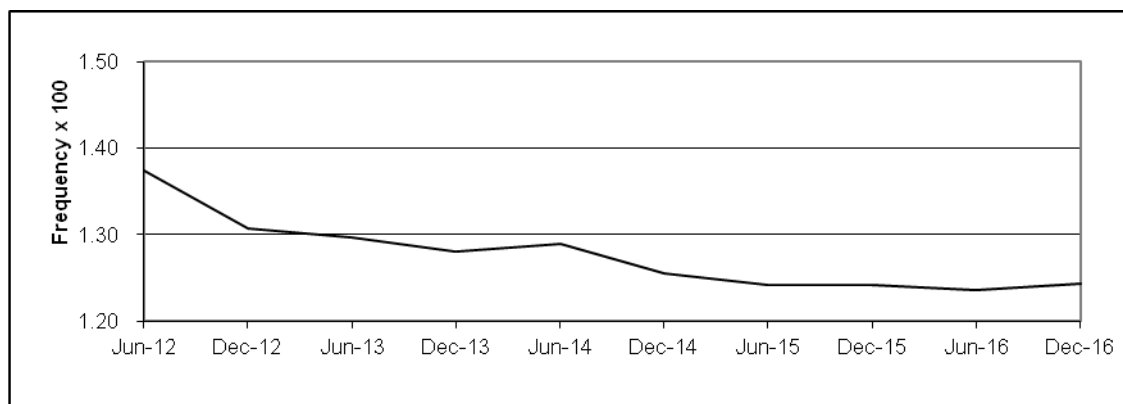
***Deductibles above \$1,000, totaling 7.1% of losses, are excluded from the trend calculations.

Multistate*
Trucks, Tractors & Trailers Physical Damage
Other Than Collision Frequency Trend

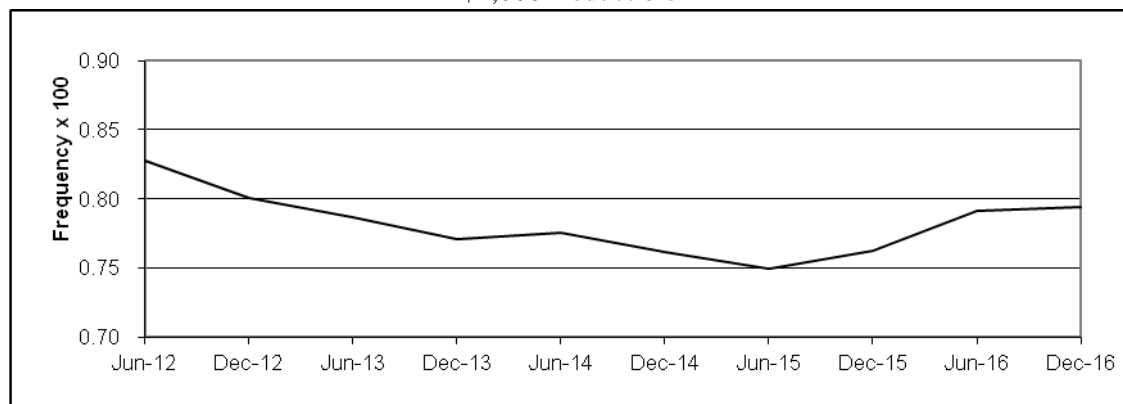
\$250 Deductible



\$500 Deductible



\$1,000 Deductible



* Multistate data excludes Massachusetts
Selected Other Than Collision Frequency Trend Factor: 0.0%

Multistate*
Trucks, Tractors & Trailers Physical Damage
Other Than Collision Loss Trend

Severity Trend

Year Ending:	\$250 Deductible	\$500 Deductible	\$1,000 Deductible
06/30/2012	2,692.43	4,765.56	7,591.23
12/31/2012	2,939.79	5,142.89	8,216.06
06/30/2013	2,996.17	5,296.30	8,348.47
12/31/2013	3,020.21	5,246.79	8,349.31
06/30/2014	3,085.14	5,464.68	8,658.09
12/31/2014	3,269.75	5,705.86	8,833.61
06/30/2015	3,421.26	5,903.18	9,103.20
12/31/2015	3,518.83	6,188.31	9,518.01
06/30/2016	4,149.10	6,561.49	9,862.84
12/31/2016	4,280.12	6,724.77	10,316.65

Average Annual Change Using Exponential Fits:

10 point fit:	9.9%	7.5%	6.2%
8 point fit:	11.4%	7.9%	6.5%
6 point fit:	14.6%	9.0%	7.4%

Selected severity trend:	6.5%
Selected frequency trend:	0.0%
Selected pure premium trend:	6.5%

* Multistate data excludes Massachusetts

Multistate*
Trucks, Tractors & Trailers Physical Damage
Collision

Frequency (expressed as claims per 100 exposures)

	\$500 Deductible		\$1,000 Deductible		\$2,000 Deductible	
Year Ending:	Actual	Change **	Actual	Change **	Actual	Change **
06/30/2012	2.18		1.84		1.45	
12/31/2012	2.17		1.83		1.44	
06/30/2013	2.22		1.88		1.49	
12/31/2013	2.22	2.3%	1.89	3.3%	1.51	4.9%
06/30/2014	2.29		1.95		1.56	
12/31/2014	2.27	2.3%	1.95	3.2%	1.57	4.0%
06/30/2015	2.24		1.94		1.57	
12/31/2015	2.26	-0.4%	1.96	0.5%	1.60	1.9%
06/30/2016	2.25		1.96		1.61	
12/31/2016	2.31	2.2%	2.01	2.6%	1.65	3.1%

Volume*** of losses for the most recent year by deductible:

Deductible	Percent of Losses
\$100	0.1%
\$200	0.0%
\$250	2.0%
\$500	37.1%
\$1,000	51.2%
\$2,000	5.0%
\$3,000	1.2%
\$5,000	3.2%

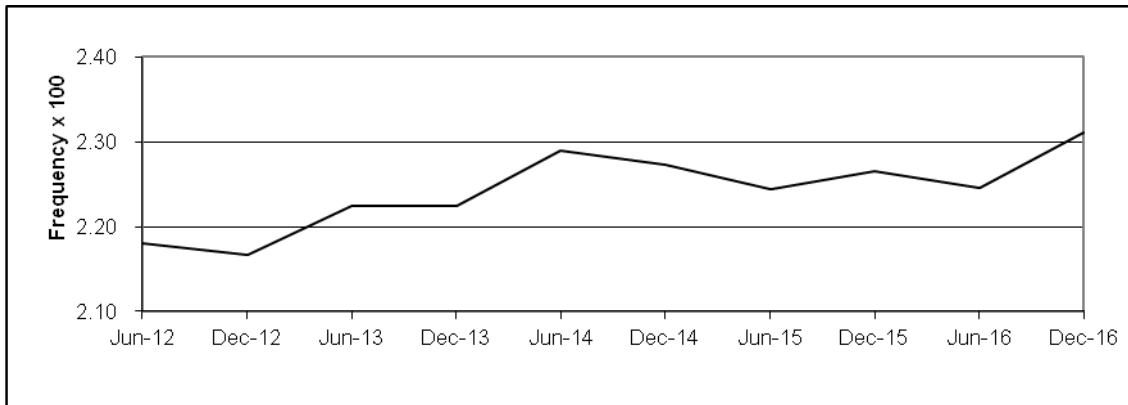
* Multistate data excludes Massachusetts

** Change based on years ending 12/31/xxxx

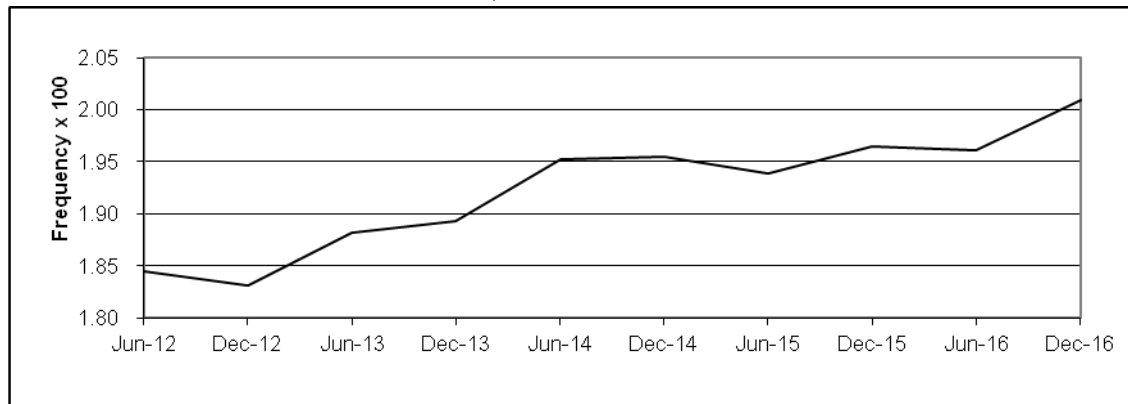
***Deductibles above \$2,000, totaling 4.4% of losses, are excluded from the trend calculations.

Multistate*
Trucks, Tractors & Trailers Physical Damage
Collision Frequency Trend

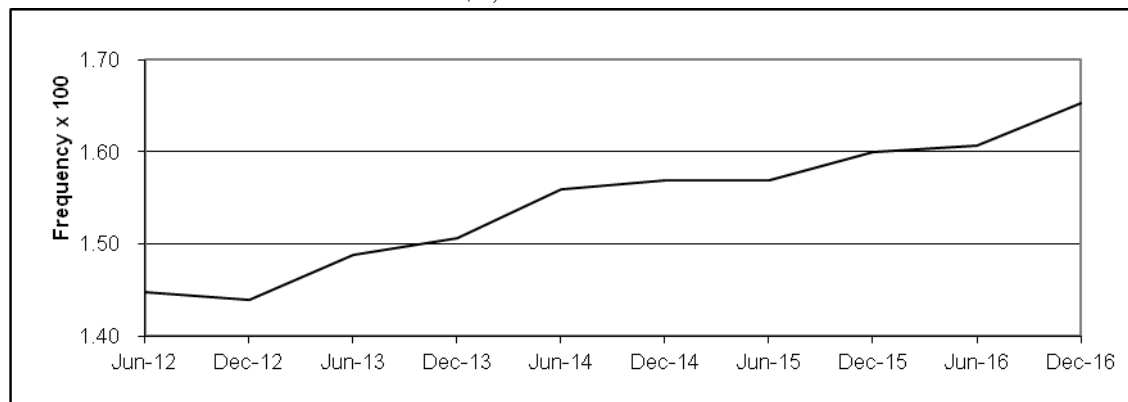
\$500 Deductible



\$1,000 Deductible



\$2,000 Deductible



* Multistate data excludes Massachusetts
Selected Collision Frequency Trend Factor: 0.0%

Multistate*
Trucks, Tractors & Trailers Physical Damage
Collision Loss Trend

Severity Trend

Year Ending:	\$500 Deductible	\$1,000 Deductible	\$2,000 Deductible
06/30/2012	7,538.84	9,161.48	10,026.25
12/31/2012	7,611.33	9,308.93	10,255.26
06/30/2013	7,714.78	9,404.00	10,220.27
12/31/2013	7,931.00	9,552.46	10,353.64
06/30/2014	8,122.70	9,867.33	10,777.70
12/31/2014	8,427.65	10,238.49	11,219.82
06/30/2015	8,716.43	10,426.73	11,335.66
12/31/2015	8,877.32	10,619.60	11,523.11
06/30/2016	9,283.23	10,995.51	11,914.75
12/31/2016	9,588.82	11,322.06	12,197.70

Average Annual Change Using Exponential Fits:

10 point fit:	5.7%	4.9%	4.6%
8 point fit:	6.4%	5.5%	5.3%
6 point fit:	6.7%	5.4%	4.8%

Selected severity trend:	5.5%
Selected frequency trend:	0.0%
Selected pure premium trend:	5.5%

* Multistate data excludes Massachusetts

Multistate*
Private Passenger Types Physical Damage
Other Than Collision

Frequency (expressed as claims per 100 exposures)

	\$250 Deductible		\$500 Deductible		\$1,000 Deductible	
Year Ending:	Actual	Change **	Actual	Change **	Actual	Change **
06/30/2012	5.21		2.97		1.65	
12/31/2012	4.87		2.84		1.59	
06/30/2013	4.86		2.83		1.57	
12/31/2013	4.94	1.4%	2.85	0.4%	1.56	-1.9%
06/30/2014	5.23		3.00		1.63	
12/31/2014	5.07	2.6%	2.97	4.2%	1.62	3.8%
06/30/2015	4.78		2.90		1.60	
12/31/2015	4.89	-3.6%	3.00	1.0%	1.66	2.5%
06/30/2016	4.92		3.07		1.71	
12/31/2016	4.88	-0.2%	2.99	-0.3%	1.70	2.4%

Volume*** of losses for the most recent year by deductible:

Deductible	Percent of Losses
Full	0.9%
\$50	0.7%
\$100	3.7%
\$200	0.7%
\$250	15.7%
\$500	43.0%
\$1,000	32.8%
\$2,000	1.7%
\$3,000	0.3%
\$5,000	0.4%

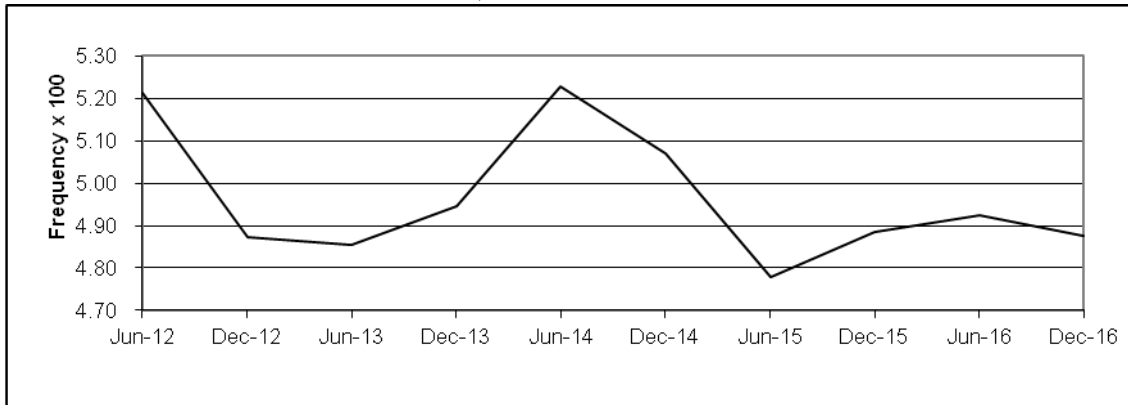
* Multistate data excludes Massachusetts

** Change based on years ending 12/31/xxxx

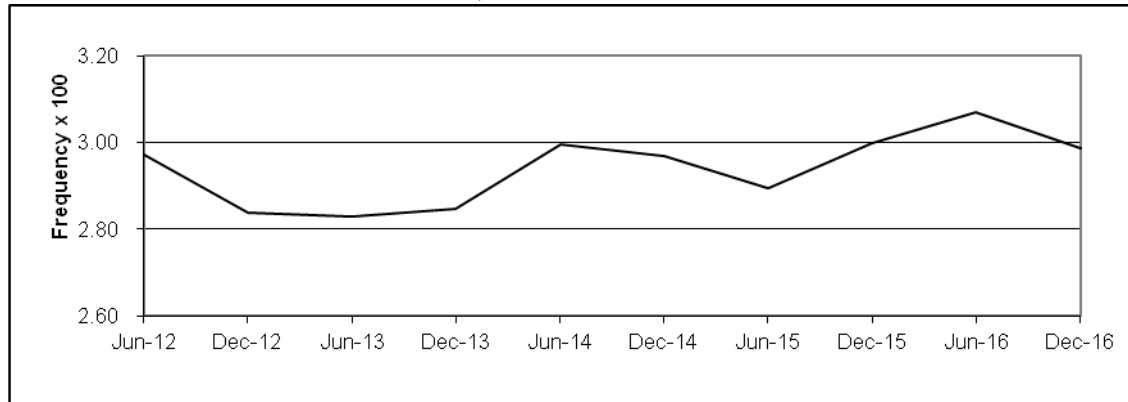
***Deductibles above \$1,000, totaling 2.4% of losses, are excluded from the trend calculations.

Multistate*
Private Passenger Types Physical Damage
Other Than Collision Frequency Trend

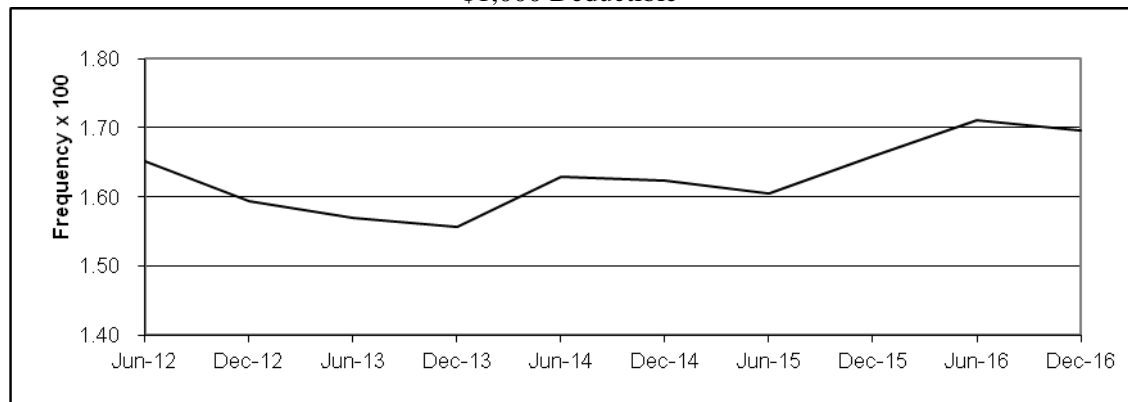
\$250 Deductible



\$500 Deductible



\$1,000 Deductible



* Multistate data excludes Massachusetts
Selected Other Than Collision Frequency Trend Factor: 0.0%

Multistate*
Private Passenger Types Physical Damage
Other Than Collision Loss Trend

Severity Trend

Year Ending:	\$250 Deductible	\$500 Deductible	\$1,000 Deductible
06/30/2012	1,433.90	2,004.59	2,944.20
12/31/2012	1,468.10	2,086.89	2,979.23
06/30/2013	1,547.57	2,168.10	3,120.96
12/31/2013	1,492.31	2,177.75	3,201.79
06/30/2014	1,434.86	2,179.81	3,222.57
12/31/2014	1,560.39	2,234.18	3,322.28
06/30/2015	1,636.37	2,257.29	3,351.19
12/31/2015	1,674.65	2,371.74	3,456.80
06/30/2016	1,776.74	2,487.98	3,596.05
12/31/2016	1,802.42	2,511.44	3,619.49

Average Annual Change Using Exponential Fits:

10 point fit:	5.2%	4.8%	4.8%
8 point fit:	6.0%	4.8%	4.5%
6 point fit:	9.3%	6.4%	5.0%

Selected severity trend:	5.0%
Selected frequency trend:	0.0%
Selected pure premium trend:	5.0%

* Multistate data excludes Massachusetts

Multistate*
Private Passenger Types Physical Damage
Collision

Frequency (expressed as claims per 100 exposures)

	\$500 Deductible		\$1,000 Deductible		\$2,000 Deductible	
Year Ending:	Actual	Change **	Actual	Change **	Actual	Change **
06/30/2012	5.16		4.14		2.95	
12/31/2012	5.13		4.08		2.91	
06/30/2013	5.18		4.15		2.96	
12/31/2013	5.18	1.0%	4.18	2.5%	2.99	2.7%
06/30/2014	5.33		4.35		3.12	
12/31/2014	5.33	2.9%	4.40	5.3%	3.19	6.7%
06/30/2015	5.30		4.32		3.16	
12/31/2015	5.32	-0.2%	4.39	-0.2%	3.24	1.6%
06/30/2016	5.19		4.36		3.24	
12/31/2016	5.18	-2.6%	4.38	-0.2%	3.29	1.5%

Volume*** of losses for the most recent year by deductible:

Deductible	Percent of Losses
\$ 100	0.5%
\$ 200	0.2%
\$ 250	2.6%
\$ 500	47.9%
\$ 1,000	46.8%
\$ 2,000	1.4%
\$ 3,000	0.1%
\$ 5,000	0.4%

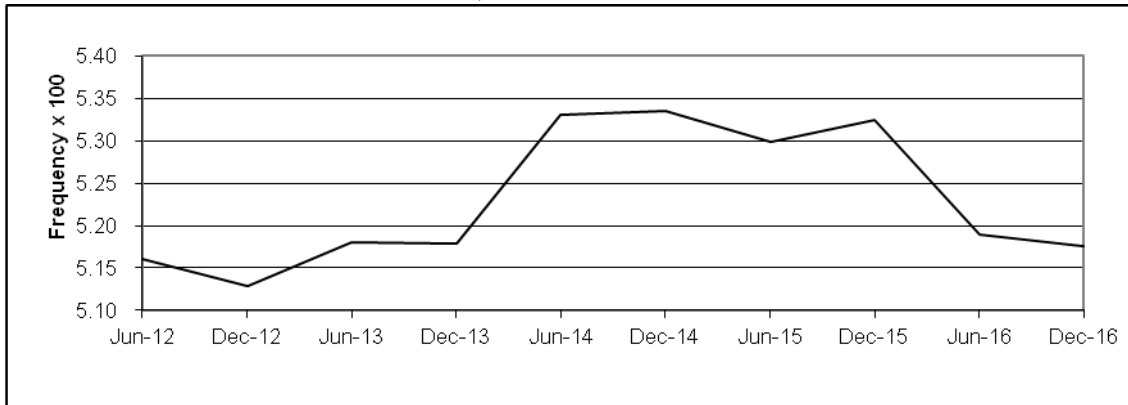
* Multistate data excludes Massachusetts

** Change based on years ending 12/31/xxxx

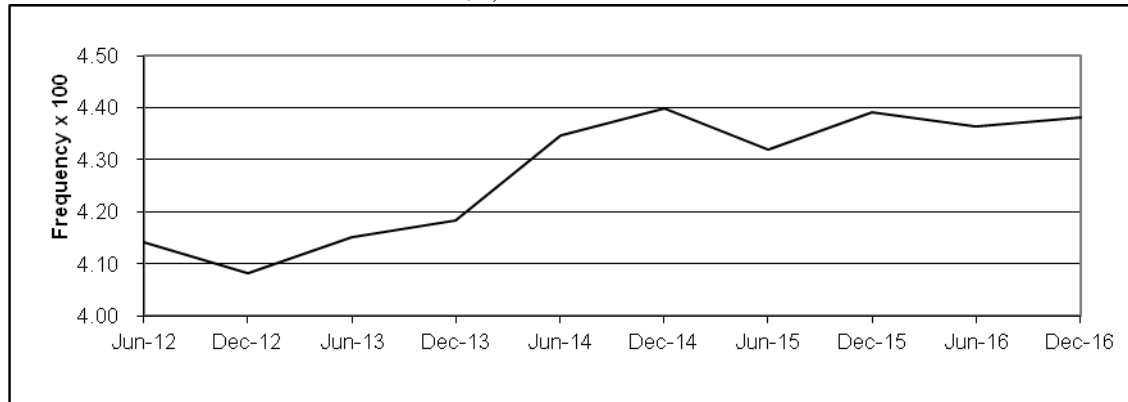
***Deductibles above \$2,000, totaling 0.5% of losses, are excluded from the trend calculations.

Multistate*
Private Passenger Types Physical Damage
Collision Frequency Trend

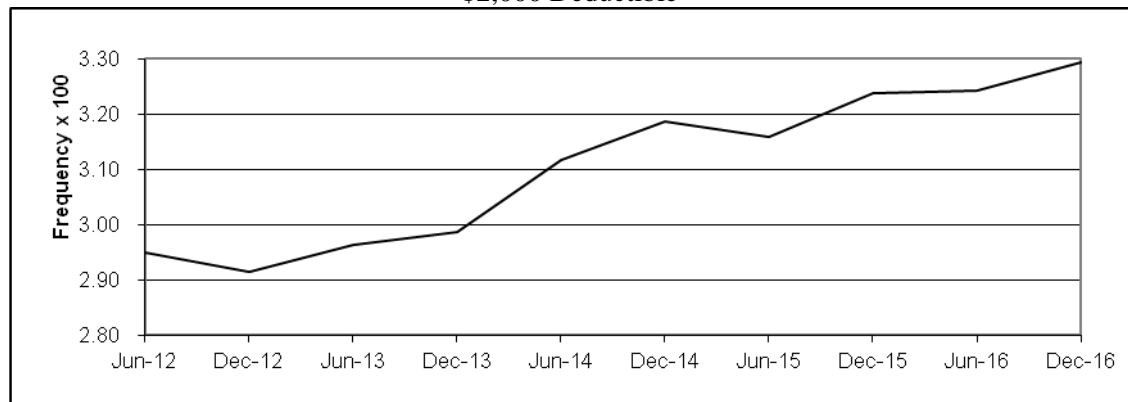
\$500 Deductible



\$1,000 Deductible



\$2,000 Deductible



* Multistate data excludes Massachusetts
Selected Collision Frequency Trend Factor: 0.0%

Multistate*
Private Passenger Types Physical Damage
Collision Loss Trend

Severity Trend

Year Ending:	\$500 Deductible	\$1,000 Deductible	\$2,000 Deductible
06/30/2012	4,921.52	5,382.99	5,981.67
12/31/2012	4,903.71	5,429.79	6,018.80
06/30/2013	4,989.41	5,453.09	6,043.91
12/31/2013	5,012.35	5,483.17	6,077.25
06/30/2014	5,095.40	5,560.52	6,149.31
12/31/2014	5,319.98	5,734.96	6,342.16
06/30/2015	5,454.76	5,901.29	6,494.68
12/31/2015	5,588.22	6,082.68	6,639.80
06/30/2016	5,778.31	6,270.13	6,845.08
12/31/2016	6,026.59	6,435.21	7,011.02

Average Annual Change Using Exponential Fits:

10 point fit:	4.8%	4.2%	3.7%
8 point fit:	5.7%	5.2%	4.6%
6 point fit:	6.6%	6.1%	5.3%

Selected severity trend:	5.0%
Selected frequency trend:	0.0%
Selected pure premium trend:	5.0%

* Multistate data excludes Massachusetts

COMMERCIAL AUTOMOBILE PHYSICAL DAMAGE
SUPPLEMENTARY EXHIBIT

Quarterly Values <u>Ending</u>	Consumer Price Index for Bodywork	
	<u>Actual</u>	<u>Exponential Fit</u>
12/31/2013	2.735	2.736
3/31/2014	2.764	2.749
6/30/2014	2.785	2.762
9/30/2014	2.784	2.776
12/31/2014	2.785	2.789
3/31/2015	2.792	2.803
6/30/2015	2.804	2.816
9/30/2015	2.805	2.830
12/31/2015	2.831	2.844
3/31/2016	2.847	2.857
6/30/2016	2.866	2.871
9/30/2016	2.877	2.885
12/31/2016	2.913	2.899
3/31/2017	2.925	2.913
6/30/2017	2.942	2.927
9/31/2017	2.945	2.942
		Average
		Annual
		<u>Change</u>
16 Point Fit	<u>R-Squared</u>	
12 Point Fit	0.9600	2.0%
	0.9788	2.3%

PHYSICAL DAMAGE OCN TREND

OBJECTIVE

In Physical Damage for Trucks, Tractors & Trailers and Private Passenger Types, as new, higher-valued commercial automobiles are introduced, there is an increase in revenue due to the original cost new component of the rating procedure. In order to reflect the revenue impact of the higher-valued vehicles during the prospective period, ISO uses an OCN trend procedure. The effect of this procedure is to reduce the indicated loss costs for Trucks, Tractors & Trailers and Private Passenger Types physical damage coverages.

DESCRIPTION OF ORIGINAL COST NEW DATA

The average original cost new (OCN) relativities for Comprehensive and Collision are displayed on the following exhibits. The data is displayed by coverage. To determine the historical average trend for OCN, ISO makes use of the Least Squares Method to fit a curve to the reported time series data. Specifically, an exponential curve represented by the equation

$$Y = A(B^X)$$

is fitted to the average OCN relativities. Based on the results of these curves, ISO has selected annual OCN trends of 0.9% and 1.3% for Trucks, Tractors & Trailers OTC and Collision coverages respectively. This trend is necessary to reflect the additional revenue generated by the shift in the OCN distribution as new, higher-priced automobiles are introduced.

For Private Passenger Types, OCN trends of 1.0% and 0.6% were selected for the OTC and Collision coverages respectively.

MULTISTATE
TRUCKS, TRACTORS & TRAILERS
PHYSICAL DAMAGE
OCN TREND CALCULATION

AVERAGE OCN RELATIVITIES

YEAR ENDING	OTHER THAN COLLISION	COLLISION
6/30/2012	1.214	1.344
12/31/2012	1.219	1.353
6/30/2013	1.225	1.361
12/31/2013	1.231	1.370
6/30/2014	1.237	1.379
12/31/2014	1.243	1.388
6/30/2015	1.249	1.397
12/31/2015	1.255	1.405
6/30/2016	1.261	1.415
12/31/2016	1.266	1.426

EXPONENTIAL TREND (AVERAGE ANNUAL CHANGE)

9 POINTS	1.0%	1.3%
7 POINTS	0.9%	1.3%
5 POINTS	0.9%	1.3%

Selected Other Than Collision Physical Damage Annual OCN Trend: 0.9%

Selected Collision Physical Damage Annual OCN Trend: 1.3%

Data excludes the following state: Massachusetts.

MULTISTATE
PRIVATE PASSENGER TYPES
PHYSICAL DAMAGE
OCN TREND CALCULATION

AVERAGE OCN RELATIVITIES

YEAR ENDING	OTHER THAN COLLISION	COLLISION
6/30/2012	1.296	1.147
12/31/2012	1.300	1.149
6/30/2013	1.304	1.151
12/31/2013	1.309	1.153
6/30/2014	1.314	1.155
12/31/2014	1.320	1.158
6/30/2015	1.326	1.162
12/31/2015	1.332	1.166
6/30/2016	1.340	1.170
12/31/2016	1.348	1.174

EXPONENTIAL TREND (AVERAGE ANNUAL CHANGE)

9 POINTS	0.9%	0.5%
7 POINTS	1.0%	0.6%
5 POINTS	1.0%	0.7%
Selected Other Than Collision Physical Damage Annual OCN Trend:		1.0%
Selected Collision Physical Damage Annual OCN Trend:		0.6%

Data excludes the following state: Massachusetts.

LOSS DEVELOPMENT FOR LIABILITY

OBJECTIVE	The application of loss development recognizes the important concept that some of the losses for a particular accident year have not been finally determined at the time the experience is compiled.
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DESCRIPTION OF EXPERIENCE PERIOD DATA	For Trucks, Tractors & Trailers, Private Passenger Types, and Auto Dealers Liability, the incurred losses and allocated loss adjustment expenses underlying the statewide loss cost level indications are on an accident year basis and were evaluated as of March 31, 2017. In other words, accident year ended December 31, 2016 includes all losses and allocated loss adjustment expenses paid through March 31, 2017 on accidents occurring from January 1, 2016 to December 31, 2016 and all losses and allocated loss adjustment expenses outstanding on these accidents as of March 31, 2017, 15 months after the inception of the accident year. Similarly, the incurred losses and allocated loss adjustment expenses for accident year ended December 31, 2015 include all loss and loss adjustment expenses paid through March 31, 2017 on accidents occurring from January 1, 2015 to December 31, 2015 and all losses and allocated loss adjustment expenses outstanding on these accidents as of March 31, 2017, 27 months after the inception of the accident year. The immature experience reported as of 15 or as of 27 months must be adjusted to a mature or ultimate settlement basis through the use of a loss development factor.
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DESCRIPTION OF LOSS DEVELOPMENT METHODOLOGY	For Bodily Injury Coverage, states are divided into two multistate groups. One group (No-Fault) consists of states with a no-fault law that has a tort threshold. The other group (Tort) contains the remaining states. The applicable multistate group for this state is used in this document. Losses are developed up to 123 months and are based on \$100,000 CSL data. Three-year averages for Trucks, Tractors & Trailers, Private Passenger Types, and Auto Dealers are calculated for each link ratio based on a "best three of five" approach. Specifically, for the latest five years, the highest and lowest ratios were removed from the calculation and the three year average was calculated using the three remaining factors. Beyond 123 months the loss development is assumed to be unity.
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For Property Damage Coverage, one multistate group is used. Losses are developed up to 111 months and \$100,000 CSL data is used. Three-year averages for Trucks, Tractors & Trailers, Private Passenger Types, and Auto Dealers are calculated for each link ratio based on a "best three of five" years approach. Specifically, for the latest five years, the highest and lowest ratios were removed from the calculation and the three year average was calculated using the three remaining factors. Development beyond 111 months is assumed to be unity.

STATE
CREDIBILITY
WEIGHTED
FACTORS

For Trucks, Tractors & Trailers and Private Passenger Types, statewide loss development factors are credibility weighted with multistate factors. A Bayesian credibility study was done on state 15 to 27 months and 27 to 39 months loss development factors. The study concluded that there is significant statewide variation for bodily injury through 39 months and for property damage through 27 months. For these link ratios, statewide credibility is determined by the formula $Z = L / (L + K)$, where Z is the credibility, and L is the 3-year total losses for the particular state (at the earliest of the two evaluations). The complement of credibility is assigned to multistate loss development factors. K is a constant that varies by coverage as follows:

Trucks, Tractors & Trailers

	<u>15 to 27</u>	<u>27 to 39</u>
Bodily Injury (tort)	\$ 2,500,000	\$ 11,000,000
Bodily Injury (no-fault)	900,000	3,000,000
Property Damage	1,500,000	-

Private Passenger Types

	<u>15 to 27</u>	<u>27 to 39</u>
Bodily Injury (tort)	\$ 1,500,000	\$ 4,000,000
Bodily Injury (no-fault)	700,000	1,700,000
Property Damage	600,000	-

TRUCKS,
TRACTORS &
TRAILERS AND
PRIVATE
PASSENGER
TYPES

For Trucks, Tractors & Trailers and Private Passenger Types, Bodily Injury loss development factors to ultimate are calculated by accumulating the statewide credibility-weighted 15 to 27 month factor and 27 to 39 month factor, and the multistate average 39 to ultimate factor.

For the property damage coverage, loss development factors to ultimate are calculated by accumulating the statewide credibility-weighted 15-27 month factor and the multistate average 27 to ultimate factor.

AUTO DEALERS

For the Auto Dealers Bodily Injury coverage, development is based upon \$100,000 CSL multistate tort or no-fault data. For the Auto Dealers Property Damage coverage, basic limits multistate experience is used.

Insurance Services Office

Montana

Automobile Liability Insurance - Trucks, Tractors and Trailers

Loss Development

Incurred Losses and Expenses

Bodily Injury

Accident Year	\$100,000 Basic Limit			Loss Development Factors	
				15 to 27	27 to 39
<u>Ending</u>	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>Months</u>	<u>Months</u>
12/31/2005	2,685,964	3,641,977	3,825,704	1.356	1.050
12/31/2006	2,470,985	3,182,319	3,484,542	1.288	1.095
12/31/2007	2,914,206	3,454,908	4,022,974	1.186	1.164
12/31/2008	2,651,895	2,858,189	2,978,366	1.078	1.042
12/31/2009	2,252,271	2,474,490	2,658,553	1.099	1.074
12/31/2010	2,912,045	3,655,828	4,168,465	1.255	1.140
12/31/2011	2,174,561	2,492,164	2,441,951	1.146	0.980
12/31/2012	1,756,585	2,128,933	2,542,731	1.212	1.194
12/31/2013	1,913,237	2,474,139	2,389,542	1.293	0.966
12/31/2014	2,563,098	2,660,064	2,953,811	1.038	1.110
12/31/2015	1,857,918	2,430,163		1.308	
12/31/2016	1,871,784				
(1) Average Factor (Best 3 of 5) : (A) State				1.217	1.077
(B) Multistate				1.226	1.109
(2) Credibility				0.720	0.400
(3) Credibility Weighted Factors				1.220	1.096

Property Damage

Accident Year	\$100,000 Basic Limit			Loss Development Factors	
				15 to 27	27 to 39
<u>Ending</u>	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>Months</u>	<u>Months</u>
12/31/2005	2,041,400	2,082,875	2,100,060	1.020	1.008
12/31/2006	2,366,108	2,394,770	2,385,372	1.012	0.996
12/31/2007	2,619,437	2,589,264	2,530,975	0.988	0.977
12/31/2008	2,339,076	2,364,278	2,326,934	1.011	0.984
12/31/2009	2,510,506	2,454,746	2,440,595	0.978	0.994
12/31/2010	2,548,987	2,613,574	2,616,404	1.025	1.001
12/31/2011	2,614,465	2,765,181	2,737,909	1.058	0.990
12/31/2012	2,991,148	3,125,499	3,117,523	1.045	0.997
12/31/2013	3,027,916	3,036,365	3,052,748	1.003	1.005
12/31/2014	2,935,004	3,190,624	3,107,937	1.087	0.974
12/31/2015	2,520,405	2,749,166		1.091	
12/31/2016	3,107,712				
(1) Average Factor (Best 3 of 5) : (A) State				1.063	0.996
(B) Multistate				1.038	1.007
(2) Credibility				0.850	0.000
(3) Credibility Weighted Factors				1.059	1.007

Summary of Factors

	Bodily <u>Injury</u>	Property <u>Damage</u>
39 to Ultimate **	1.073	1.004
27 to Ultimate	1.176	1.011
15 to Ultimate	1.435	1.071
** Multistate factors		

Insurance Services Office

Basic Limits Loss Development
Trucks, Tractors and Trailers - Bodily Injury
Tort States #
Incurred Losses and Expenses

Accident Year Ended	\$100,000 Basic Limit				
	15 Months	27 Months	39 Months	51 Months	63 Months
12/31/2005	409,402,961	488,625,817	528,454,235	547,124,093	554,211,463
12/31/2006	402,423,626	482,619,069	529,937,853	554,856,823	559,303,977
12/31/2007	396,521,208	479,374,511	529,762,592	549,881,526	558,940,629
12/31/2008	360,573,092	436,411,038	477,948,536	496,137,677	502,215,677
12/31/2009	314,526,486	386,872,505	426,409,785	447,462,375	452,763,689
12/31/2010	338,399,233	407,537,941	447,001,125	472,000,370	480,371,215
12/31/2011	353,320,417	428,345,357	477,535,263	494,865,450	503,017,681
12/31/2012	365,984,429	447,656,629	494,020,953	518,609,615	529,680,443
12/31/2013	385,828,709	474,707,631	526,648,657	561,004,713	
12/31/2014	419,040,290	513,617,728	591,926,787		
12/31/2015	448,225,220	576,976,409			
12/31/2016	503,945,051				

Ratios

Accident Year Ended	27:15	39:27	51:39	63:51
12/31/2005	1.194	1.082	1.035	1.013
12/31/2006	1.199	1.098	1.047	1.008
12/31/2007	1.209	1.105	1.038	1.016
12/31/2008	1.210	1.095	1.038	1.012
12/31/2009	1.230	1.102	1.049	1.012
12/31/2010	1.204	1.097	1.056	1.018
12/31/2011	1.212	1.115	1.036	1.016
12/31/2012	1.223	1.104	1.050	1.021
12/31/2013	1.230	1.109	1.065	
12/31/2014	1.226	1.152		
12/31/2015	1.287			

Average Factor : 1.226 1.109 1.052 1.015
(Best 3 of 5)

Summary of factors

63 to Ult:	(75:63) (75:Ult) =	1.005
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.020
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	1.073
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.190
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.459

Includes Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Dist. of Col., Georgia, Idaho, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

Insurance Services Office

Basic Limits Loss Development
Trucks, Tractors and Trailers - Bodily Injury
Tort States #
Incurred Losses and Expenses

Accident Year <u>Ended</u>	\$100,000 Basic Limit				
	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>	<u>123 Months</u>
12/31/2005	557,891,098	558,656,755	558,344,663	557,975,073	558,149,456
12/31/2006	562,619,157	562,229,415	562,766,963	563,153,199	563,027,284
12/31/2007	560,256,665	560,925,064	560,460,721	560,629,055	560,556,193
12/31/2008	504,981,209	505,429,219	506,027,349	506,023,277	
12/31/2009	454,915,104	454,926,172	454,766,634		
12/31/2010	482,953,091	483,136,927			
12/31/2011	506,635,951				

Ratios					
Accident Year <u>Ended</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>	<u>123:111</u>
12/31/2005	1.007	1.001	0.999	0.999	1.000
12/31/2006	1.006	0.999	1.001	1.001	1.000
12/31/2007	1.002	1.001	0.999	1.000	1.000
12/31/2008	1.006	1.001	1.001	1.000	
12/31/2009	1.005	1.000	1.000		
12/31/2010	1.005	1.000			
12/31/2011	1.007				
Average Factor :	1.005	1.000	1.000	1.000	1.000
(Best 3 of 5)					

Summary of factors			
123 to Ult:	(1.000)	=	1.000
111 to Ult:	(123:111) (123:Ult)	=	1.000
99 to Ult:	(111:99) (123:111) (123:Ult)	=	1.000
87 to Ult:	(99:87) (111:99) (123:111) (123:Ult)	=	1.000
75 to Ult:	(87:75) (99:87) (111:99) (123:111) (123:Ult)	=	1.000

Includes Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Dist. of Col., Georgia, Idaho, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

Insurance Services Office

Basic Limits Loss Development
Trucks, Tractors and Trailers - Property Damage
Multistate #
Incurred Losses and Expenses

Accident Year Ended	\$100,000 Basic Limit				
	15 Months	27 Months	39 Months	51 Months	63 Months
12/31/2005	513,889,802	531,142,622	533,340,310	532,964,051	532,970,246
12/31/2006	517,623,689	535,852,394	539,319,201	539,722,672	539,904,690
12/31/2007	535,775,666	554,951,838	558,771,527	558,547,395	559,175,685
12/31/2008	483,254,708	497,280,424	500,520,332	501,180,671	501,966,321
12/31/2009	415,222,340	425,584,020	427,885,102	429,100,976	428,839,561
12/31/2010	432,258,565	447,236,232	450,216,525	451,434,292	451,547,100
12/31/2011	471,958,199	486,944,212	490,530,716	491,840,315	493,213,515
12/31/2012	467,985,618	485,198,533	489,113,247	491,328,212	491,670,059
12/31/2013	503,043,791	521,868,104	529,017,806	529,857,120	
12/31/2014	541,854,974	568,603,769	571,342,782		
12/31/2015	584,906,498	608,850,853			
12/31/2016	605,976,507				

Ratios

Accident Year Ended	27:15	39:27	51:39	63:51
12/31/2005	1.034	1.004	0.999	1.000
12/31/2006	1.035	1.006	1.001	1.000
12/31/2007	1.036	1.007	1.000	1.001
12/31/2008	1.029	1.007	1.001	1.002
12/31/2009	1.025	1.005	1.003	0.999
12/31/2010	1.035	1.007	1.003	1.000
12/31/2011	1.032	1.007	1.003	1.003
12/31/2012	1.037	1.008	1.005	1.001
12/31/2013	1.037	1.014	1.002	
12/31/2014	1.049	1.005		
12/31/2015	1.041			

Average Factor : 1.038 1.007 1.003 1.001
(Best 3 of 5)

Summary of factors

63 to Ult:	(75:63) (75:Ult) =	1.000
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.001
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	1.004
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.011
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.049

Includes Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Dist. of Col., Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

Insurance Services Office

Basic Limits Loss Development
Trucks, Tractors and Trailers - Property Damage
Multistate #
Incurred Losses and Expenses

Accident Year <u>Ended</u>	\$100,000 Basic Limit			
	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>
12/31/2005	533,287,219	532,989,586	533,035,925	533,030,845
12/31/2006	539,910,024	539,920,034	539,880,229	539,779,131
12/31/2007	560,038,052	559,836,802	559,942,633	559,909,625
12/31/2008	501,885,862	501,901,151	501,883,883	501,864,981
12/31/2009	428,941,450	429,014,416	429,287,863	
12/31/2010	452,082,299	452,079,436		
12/31/2011	493,293,518			

Ratios				
Accident Year <u>Ended</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>
12/31/2005	1.001	0.999	1.000	1.000
12/31/2006	1.000	1.000	1.000	1.000
12/31/2007	1.002	1.000	1.000	1.000
12/31/2008	1.000	1.000	1.000	1.000
12/31/2009	1.000	1.000	1.001	
12/31/2010	1.001	1.000		
12/31/2011	1.000			
Average Factor :	1.000	1.000	1.000	1.000
(Best 3 of 5)				

Summary of factors			
111 to Ult:	(1.000)	=	1.000
99 to Ult:	(111:99) (111:Ult)	=	1.000
87 to Ult:	(99:87) (111:99) (111:Ult)	=	1.000
75 to Ult:	(87:75) (99:87) (111:99) (111:Ult)	=	1.000

Includes Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Dist. of Col., Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

Insurance Services Office

Montana

Automobile Liability Insurance - Private Passenger Types

Loss Development

Incurred Losses and Expenses

Bodily Injury

Accident Year Ending	\$100,000 Basic Limit			Loss Development Factors	
	15 Months	27 Months	39 Months	15 to 27 Months	27 to 39 Months
12/31/2005	272,601	300,366	323,637	1.102	1.077
12/31/2006	521,946	647,811	774,204	1.241	1.195
12/31/2007	417,046	393,995	402,165	0.945	1.021
12/31/2008	319,411	339,110	415,967	1.062	1.227
12/31/2009	810,260	1,120,706	1,213,176	1.383	1.083
12/31/2010	527,334	609,858	668,733	1.156	1.097
12/31/2011	604,927	777,562	754,285	1.285	0.970
12/31/2012	821,999	1,144,102	1,008,396	1.392	0.881
12/31/2013	396,125	516,715	540,797	1.304	1.047
12/31/2014	650,356	684,066	902,778	1.052	1.320
12/31/2015	724,249	983,407		1.358	
12/31/2016	590,727				

(1) Average Factor (Best 3 of 5) :	(A) State	1.316	1.038
	(B) Multistate	1.203	1.095
(2) Credibility		0.540	0.370
(3) Credibility Weighted Factors		1.264	1.074

Property Damage

Accident Year Ending	\$100,000 Basic Limit			Loss Development Factors	
	15 Months	27 Months	39 Months	15 to 27 Months	27 to 39 Months
12/31/2005	363,843	379,923	379,923	1.044	1.000
12/31/2006	323,570	324,568	327,470	1.003	1.009
12/31/2007	425,288	448,192	408,602	1.054	0.912
12/31/2008	368,709	383,827	383,127	1.041	0.998
12/31/2009	375,955	391,112	391,210	1.040	1.000
12/31/2010	338,699	361,547	361,449	1.067	1.000
12/31/2011	548,521	530,866	531,380	0.968	1.001
12/31/2012	486,155	486,562	486,562	1.001	1.000
12/31/2013	575,809	587,340	587,340	1.020	1.000
12/31/2014	620,846	637,940	648,010	1.028	1.016
12/31/2015	527,554	562,840		1.067	
12/31/2016	676,064				

(1) Average Factor (Best 3 of 5) :	(A) State	1.016	1.000
	(B) Multistate	1.038	1.008
(2) Credibility		0.740	0.000
(3) Credibility Weighted Factors		1.022	1.008

Summary of Factors

	Bodily Injury	Property Damage
39 to Ultimate **	1.062	1.004
27 to Ultimate	1.141	1.012
15 to Ultimate	1.442	1.034
** Multistate factors		

Insurance Services Office

Basic Limits Loss Development
Private Passenger Types - Bodily Injury
Tort States #
Incurred Losses and Expenses

Accident Year Ended	\$100,000 Basic Limit				
	15 Months	27 Months	39 Months	51 Months	63 Months
12/31/2005	73,306,461	87,277,830	95,154,249	98,002,828	98,686,137
12/31/2006	71,173,032	86,508,098	95,490,095	99,291,589	100,108,620
12/31/2007	70,307,260	83,691,451	92,701,325	96,035,258	97,087,939
12/31/2008	68,153,005	82,337,867	88,913,996	90,631,952	91,240,558
12/31/2009	65,194,607	78,023,024	84,938,920	86,402,936	88,132,116
12/31/2010	69,692,359	81,155,192	88,323,490	92,117,134	93,916,955
12/31/2011	74,747,906	89,616,147	97,517,298	101,191,028	102,311,768
12/31/2012	74,002,251	89,184,655	95,126,448	98,998,331	101,139,257
12/31/2013	75,462,819	88,110,543	97,674,964	103,216,693	
12/31/2014	71,077,018	85,704,281	96,760,039		
12/31/2015	76,443,661	94,721,383			
12/31/2016	81,760,361				

Ratios

Accident Year Ended	27:15	39:27	51:39	63:51
12/31/2005	1.191	1.090	1.030	1.007
12/31/2006	1.215	1.104	1.040	1.008
12/31/2007	1.190	1.108	1.036	1.011
12/31/2008	1.208	1.080	1.019	1.007
12/31/2009	1.197	1.089	1.017	1.020
12/31/2010	1.164	1.088	1.043	1.020
12/31/2011	1.199	1.088	1.038	1.011
12/31/2012	1.205	1.067	1.041	1.022
12/31/2013	1.168	1.109	1.057	
12/31/2014	1.206	1.129		
12/31/2015	1.239			

Average Factor : 1.203 1.095 1.041 1.017
(Best 3 of 5)

Summary of factors

63 to Ult:	(75:63) (75:Ult) =	1.003
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.020
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	1.062
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.163
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.399

Includes Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Dist. of Col., Georgia, Idaho, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

Insurance Services Office

Basic Limits Loss Development
 Private Passenger Types - Bodily Injury
 Tort States #
 Incurred Losses and Expenses

Accident Year <u>Ended</u>	\$100,000 Basic Limit				
	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>	<u>123 Months</u>
12/31/2005	98,699,428	98,739,404	98,833,813	98,835,876	98,839,438
12/31/2006	100,964,883	101,075,544	101,256,148	101,139,902	101,090,976
12/31/2007	97,449,133	97,509,958	97,708,101	97,661,281	97,694,884
12/31/2008	91,031,516	91,119,701	91,206,543	91,400,883	
12/31/2009	88,250,686	88,163,522	88,356,457		
12/31/2010	93,751,470	93,425,864			
12/31/2011	103,046,026				

Ratios					
Accident Year <u>Ended</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>	<u>123:111</u>
12/31/2005	1.000	1.000	1.001	1.000	1.000
12/31/2006	1.009	1.001	1.002	0.999	1.000
12/31/2007	1.004	1.001	1.002	1.000	1.000
12/31/2008	0.998	1.001	1.001	1.002	
12/31/2009	1.001	0.999	1.002		
12/31/2010	0.998	0.997			
12/31/2011	1.007				
Average Factor :	1.001	1.000	1.002	1.000	1.000
(Best 3 of 5)					

Summary of factors			
123 to Ult:	(1.000)	=	1.000
111 to Ult:	(123:111) (123:Ult)	=	1.000
99 to Ult:	(111:99) (123:111) (123:Ult)	=	1.000
87 to Ult:	(99:87) (111:99) (123:111) (123:Ult)	=	1.002
75 to Ult:	(87:75) (99:87) (111:99) (123:111) (123:Ult)	=	1.002

Includes Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Dist. of Col., Georgia, Idaho, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

Insurance Services Office

Basic Limits Loss Development
Private Passenger Types - Property Damage
Multistate #
Incurred Losses and Expenses

Accident Year Ended	\$100,000 Basic Limit				
	15 Months	27 Months	39 Months	51 Months	63 Months
12/31/2005	97,289,229	100,650,595	101,023,161	100,938,238	101,160,822
12/31/2006	95,286,298	98,419,173	99,159,886	99,125,678	99,089,134
12/31/2007	100,557,586	102,498,872	102,882,168	103,196,353	103,241,835
12/31/2008	92,945,648	95,971,887	96,375,066	96,520,020	96,624,767
12/31/2009	86,036,533	88,183,829	88,546,174	88,807,379	88,844,589
12/31/2010	86,335,134	89,060,701	89,556,388	89,764,936	89,806,512
12/31/2011	89,967,373	92,439,969	93,229,071	93,652,462	94,216,906
12/31/2012	90,742,171	93,657,477	94,278,435	94,628,645	94,582,399
12/31/2013	91,804,251	95,170,544	95,900,916	96,156,171	
12/31/2014	91,584,642	95,738,304	96,458,446		
12/31/2015	101,058,051	105,486,854			
12/31/2016	108,045,627				

Ratios

Accident Year Ended	27:15	39:27	51:39	63:51
12/31/2005	1.035	1.004	0.999	1.002
12/31/2006	1.033	1.008	1.000	1.000
12/31/2007	1.019	1.004	1.003	1.000
12/31/2008	1.033	1.004	1.002	1.001
12/31/2009	1.025	1.004	1.003	1.000
12/31/2010	1.032	1.006	1.002	1.000
12/31/2011	1.027	1.009	1.005	1.006
12/31/2012	1.032	1.007	1.004	1.000
12/31/2013	1.037	1.008	1.003	
12/31/2014	1.045	1.008		
12/31/2015	1.044			

Average Factor : 1.038 1.008 1.003 1.000
(Best 3 of 5)

Summary of factors

63 to Ult:	(75:63) (75:Ult) =	1.001
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.001
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	1.004
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.012
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.050

Includes Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Dist. of Col., Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

Insurance Services Office

Basic Limits Loss Development
 Private Passenger Types - Property Damage
 Multistate #
 Incurred Losses and Expenses

Accident Year <u>Ended</u>	\$100,000 Basic Limit			
	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>
12/31/2005	101,202,340	101,269,220	101,269,967	101,284,952
12/31/2006	99,030,434	99,143,244	99,156,949	99,160,161
12/31/2007	103,354,653	103,248,633	103,275,640	103,276,529
12/31/2008	96,574,353	96,541,709	96,546,542	96,559,489
12/31/2009	88,882,644	88,924,997	88,917,770	
12/31/2010	90,179,228	90,094,848		
12/31/2011	94,364,907			

Ratios				
Accident Year <u>Ended</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>
12/31/2005	1.000	1.001	1.000	1.000
12/31/2006	0.999	1.001	1.000	1.000
12/31/2007	1.001	0.999	1.000	1.000
12/31/2008	0.999	1.000	1.000	1.000
12/31/2009	1.000	1.000	1.000	
12/31/2010	1.004	0.999		
12/31/2011	1.002			

Average Factor : 1.001 1.000 1.000 1.000
 (Best 3 of 5)

Summary of factors			
111 to Ult:	(1.000)	=	1.000
99 to Ult:	(111:99) (111:Ult)	=	1.000
87 to Ult:	(99:87) (111:99) (111:Ult)	=	1.000
75 to Ult:	(87:75) (99:87) (111:99) (111:Ult)	=	1.000

Includes Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Dist. of Col., Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

Insurance Services Office

Basic Limits Loss Development
Auto Dealers - Bodily Injury
Tort States #
Incurred Losses and Expenses

Accident Year Ended	\$100,000 Basic Limit				
	15 Months	27 Months	39 Months	51 Months	63 Months
12/31/2005	17,877,802	25,173,950	31,004,447	32,791,157	34,782,563
12/31/2006	16,533,929	21,952,358	25,647,959	27,466,919	28,390,377
12/31/2007	18,040,499	24,634,349	31,074,539	32,330,224	33,569,776
12/31/2008	10,810,541	16,904,412	20,310,755	22,365,181	23,096,457
12/31/2009	8,493,119	11,904,211	14,527,451	15,259,689	15,994,199
12/31/2010	9,324,469	12,436,427	16,878,058	18,391,615	18,499,220
12/31/2011	11,168,901	14,686,412	17,738,524	19,374,394	20,779,725
12/31/2012	11,589,978	15,114,349	17,800,448	18,823,588	19,198,650
12/31/2013	9,838,555	13,838,964	16,195,947	17,332,096	
12/31/2014	11,272,625	15,441,659	16,933,633		
12/31/2015	12,002,874	15,590,033			
12/31/2016	10,015,052				

Ratios

Accident Year Ended	27:15	39:27	51:39	63:51
12/31/2005	1.408	1.232	1.058	1.061
12/31/2006	1.328	1.168	1.071	1.034
12/31/2007	1.366	1.261	1.040	1.038
12/31/2008	1.564	1.202	1.101	1.033
12/31/2009	1.402	1.220	1.050	1.048
12/31/2010	1.334	1.357	1.090	1.006
12/31/2011	1.315	1.208	1.092	1.073
12/31/2012	1.304	1.178	1.057	1.020
12/31/2013	1.407	1.170	1.070	
12/31/2014	1.370	1.097		
12/31/2015	1.299			

Average Factor : 1.330 1.185 1.072 1.034
(Best 3 of 5)

Summary of factors

63 to Ult:	(75:63) (75:Ult) =	1.022
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.057
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	1.133
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.343
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.786

Includes Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Dist. of Col., Georgia, Idaho, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

Insurance Services Office

Basic Limits Loss Development
 Auto Dealers - Bodily Injury
 Tort States #
 Incurred Losses and Expenses

Accident Year <u>Ended</u>	\$100,000 Basic Limit				
	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>	<u>123 Months</u>
12/31/2005	35,203,903	35,495,380	35,460,912	35,543,359	35,546,033
12/31/2006	28,543,592	28,696,442	28,848,615	29,106,171	29,406,443
12/31/2007	34,024,088	33,995,090	33,888,118	33,954,564	34,000,339
12/31/2008	23,308,050	23,347,511	23,536,492	23,490,842	
12/31/2009	16,698,789	17,312,716	17,314,094		
12/31/2010	18,553,828	18,596,426			
12/31/2011	20,993,885				

Ratios					
Accident Year <u>Ended</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>	<u>123:111</u>
12/31/2005	1.012	1.008	0.999	1.002	1.000
12/31/2006	1.005	1.005	1.005	1.009	1.010
12/31/2007	1.014	0.999	0.997	1.002	1.001
12/31/2008	1.009	1.002	1.008	0.998	
12/31/2009	1.044	1.037	1.000		
12/31/2010	1.003	1.002			
12/31/2011	1.010				
Average Factor :	1.011	1.003	1.001	1.003	1.004
(Best 3 of 5)					

Summary of factors			
123 to Ult:	(1.000)	=	1.000
111 to Ult:	(123:111) (123:Ult)	=	1.004
99 to Ult:	(111:99) (123:111) (123:Ult)	=	1.007
87 to Ult:	(99:87) (111:99) (123:111) (123:Ult)	=	1.008
75 to Ult:	(87:75) (99:87) (111:99) (123:111) (123:Ult)	=	1.011

Includes Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Dist. of Col., Georgia, Idaho, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

Insurance Services Office

Basic Limits Loss Development
Auto Dealers - Property Damage
Multistate #
Incurred Losses and Expenses

Accident Year Ended	\$100,000 Basic Limit				
	15 Months	27 Months	39 Months	51 Months	63 Months
12/31/2005	16,300,591	17,236,550	17,723,400	17,809,769	17,901,518
12/31/2006	15,875,389	16,777,558	17,103,379	17,602,785	18,077,390
12/31/2007	15,536,503	16,647,092	17,049,987	17,821,723	18,254,005
12/31/2008	13,310,615	14,794,288	15,270,528	15,526,675	15,813,561
12/31/2009	10,457,915	11,401,567	11,703,865	12,394,708	12,110,896
12/31/2010	11,162,832	11,444,898	12,261,962	12,260,314	12,186,949
12/31/2011	11,574,624	12,071,655	12,538,527	13,326,196	13,529,622
12/31/2012	12,254,147	13,307,288	13,803,662	14,229,602	14,323,097
12/31/2013	10,760,139	11,593,186	12,023,974	12,251,847	
12/31/2014	10,558,081	11,704,489	12,216,161		
12/31/2015	10,003,374	11,749,550			
12/31/2016	11,177,050				

Ratios

Accident Year Ended	27:15	39:27	51:39	63:51
12/31/2005	1.057	1.028	1.005	1.005
12/31/2006	1.057	1.019	1.029	1.027
12/31/2007	1.071	1.024	1.045	1.024
12/31/2008	1.111	1.032	1.017	1.018
12/31/2009	1.090	1.027	1.059	0.977
12/31/2010	1.025	1.071	1.000	0.994
12/31/2011	1.043	1.039	1.063	1.015
12/31/2012	1.086	1.037	1.031	1.007
12/31/2013	1.077	1.037	1.019	
12/31/2014	1.109	1.044		
12/31/2015	1.175			

Average Factor : 1.091 1.040 1.036 1.005
(Best 3 of 5)

Summary of factors

63 to Ult:	(75:63) (75:Ult) =	1.005
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.010
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	1.046
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.088
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.187

Includes Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Dist. of Col., Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

Insurance Services Office

Basic Limits Loss Development
Auto Dealers - Property Damage
Multistate #
Incurred Losses and Expenses

Accident Year <u>Ended</u>	\$100,000 Basic Limit			
	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>
12/31/2005	18,035,323	18,349,243	18,199,717	18,210,472
12/31/2006	17,872,299	17,871,880	17,964,186	18,027,636
12/31/2007	18,356,441	18,393,773	18,401,551	18,390,493
12/31/2008	16,070,063	16,001,941	15,994,209	15,912,875
12/31/2009	12,146,705	12,088,057	12,080,748	
12/31/2010	12,192,378	12,196,634		
12/31/2011	13,690,125			

Ratios				
Accident Year <u>Ended</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>
12/31/2005	1.007	1.017	0.992	1.001
12/31/2006	0.989	1.000	1.005	1.004
12/31/2007	1.006	1.002	1.000	0.999
12/31/2008	1.016	0.996	1.000	0.995
12/31/2009	1.003	0.995	0.999	
12/31/2010	1.000	1.000		
12/31/2011	1.012			

Average Factor : 1.007 0.999 1.000 0.999
(Best 3 of 5)

Summary of factors			
111 to Ult:	(1.000)	=	1.000
99 to Ult:	(111:99) (111:Ult)	=	0.999
87 to Ult:	(99:87) (111:99) (111:Ult)	=	0.999
75 to Ult:	(87:75) (99:87) (111:99) (111:Ult)	=	0.998

Includes Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Dist. of Col., Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

LOSS DEVELOPMENT FOR PHYSICAL DAMAGE

OBJECTIVE	The application of loss development recognizes the important concept that some of the losses for a particular accident year have not been finally determined at the time the experience is compiled.
DESCRIPTION OF EXPERIENCE PERIOD DATA	For Physical Damage, paid losses underlying the statewide loss cost level indications are on an accident year basis and were evaluated as of March 31, 2017. In other words, accident year ended December 31, 2016 includes all losses paid through March 31, 2017 on accidents occurring from January 1, 2016 to December 31, 2016. Similarly, the paid losses for accident year ended December 31, 2015 include all losses paid through March 31, 2017 on accidents occurring from January 1, 2015 to December 31, 2015. The immature paid loss experience reported as of 15 or as of 27 months must be adjusted to a mature or ultimate settlement basis through the use of a loss development factor.
DESCRIPTION OF LOSS DEVELOPMENT METHODOLOGY	For Collision and Other Than Collision coverages, one multistate group is used. Losses are developed to an ultimate settlement basis. Three-year averages are calculated for each age-to-age link ratio. These link ratios are accumulated to develop losses to 123 months. Development beyond 123 months is assumed to be 1.000.

Insurance Services Office
Physical Damage Loss Development
Trucks, Tractors and Trailers - Other Than Collision
Multistate #
Paid Losses

Accident Year Ended	15 Months	27 Months	39 Months	51 Months	63 Months
12/31/2005	109,115,437	111,563,492	111,596,389	111,623,152	111,645,846
12/31/2006	102,807,358	104,314,626	104,417,210	104,404,749	104,325,652
12/31/2007	112,395,566	115,496,656	115,415,357	115,306,837	115,253,703
12/31/2008	142,878,639	145,759,420	145,742,818	145,628,803	145,594,299
12/31/2009	118,446,693	120,350,577	120,603,534	120,587,692	120,607,750
12/31/2010	138,996,661	141,524,438	141,686,983	141,479,820	141,615,766
12/31/2011	159,404,162	162,003,949	162,106,699	162,194,233	162,151,543
12/31/2012	186,812,587	191,092,628	191,132,273	191,235,386	191,490,844
12/31/2013	148,756,638	152,397,696	152,598,900	152,953,588	
12/31/2014	157,426,606	161,318,070	161,443,453		
12/31/2015	156,682,563	160,391,003			
12/31/2016	203,521,110				

Accident Year Ended	Ratios			
	27:15	39:27	51:39	63:51
12/31/2005	1.022	1.000	1.000	1.000
12/31/2006	1.015	1.001	1.000	0.999
12/31/2007	1.028	0.999	0.999	1.000
12/31/2008	1.020	1.000	0.999	1.000
12/31/2009	1.016	1.002	1.000	1.000
12/31/2010	1.018	1.001	0.999	1.001
12/31/2011	1.016	1.001	1.001	1.000
12/31/2012	1.023	1.000	1.001	1.001
12/31/2013	1.024	1.001	1.002	
12/31/2014	1.025	1.001		
12/31/2015	1.024			

Average Factor : 1.024 1.001 1.001 1.000
(Best 3 of 5)

Summary of factors			
63 to Ult:	(75:63) (75:Ult) =		1.000
51 to Ult:	(63:51) (75:63) (75:Ult) =		1.000
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =		1.001
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =		1.002
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =		1.026

Includes Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Dist. of Col., Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

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Insurance Services Office
Physical Damage Loss Development
Trucks, Tractors and Trailers - Other Than Collision
Multistate #
Paid Losses

Accident Year Ended	75 Months	87 Months	99 Months	111 Months	123 Months
12/31/2005	111,665,996	111,654,581	111,630,449	111,600,877	111,588,119
12/31/2006	104,274,115	104,226,793	104,369,085	104,361,011	104,357,526
12/31/2007	115,341,016	115,287,453	115,279,313	115,191,853	115,197,721
12/31/2008	145,557,256	145,526,868	145,534,028	145,589,193	
12/31/2009	120,444,322	120,443,987	120,447,758		
12/31/2010	141,707,620	141,755,968			
12/31/2011	162,126,687				

Accident Year Ended	Ratios				
	75:63	87:75	99:87	111:99	123:111
12/31/2005	1.000	1.000	1.000	1.000	1.000
12/31/2006	1.000	1.000	1.001	1.000	1.000
12/31/2007	1.001	1.000	1.000	0.999	1.000
12/31/2008	1.000	1.000	1.000	1.000	
12/31/2009	0.999	1.000	1.000		
12/31/2010	1.001	1.000			
12/31/2011	1.000				
Average Factor :	1.000	1.000	1.000	1.000	1.000
(Best 3 of 5)					

Summary of factors		
123 to Ult:	(123:Ult) =	1.000
111 to Ult:	(111:123) (123:Ult) =	1.000
99 to Ult:	(111:99) (111:123) (123:Ult) =	1.000
87 to Ult:	(99:87) (111:99) (111:123) (123:Ult) =	1.000
75 to Ult:	(87:75) (99:87) (111:99) (111:123) (123:Ult) =	1.000

Includes Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Dist. of Col., Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

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Physical Damage Loss Development
Trucks, Tractors and Trailers - Collision
Multistate #
Paid Losses

Accident Year Ended	15 Months	27 Months	39 Months	51 Months	63 Months
12/31/2005	322,462,871	315,481,884	313,924,633	313,099,494	312,986,852
12/31/2006	317,326,930	311,098,621	309,421,553	308,463,882	308,720,750
12/31/2007	356,146,440	348,974,452	347,143,636	346,829,346	346,595,856
12/31/2008	360,324,032	354,662,031	353,851,118	353,227,788	352,336,706
12/31/2009	304,165,283	298,733,571	297,915,144	297,497,601	297,622,725
12/31/2010	329,251,603	322,632,140	321,499,107	321,373,585	321,375,283
12/31/2011	356,530,430	349,805,929	347,993,425	347,651,356	347,742,914
12/31/2012	358,909,613	353,688,539	351,615,502	351,043,928	351,020,502
12/31/2013	380,389,550	373,855,744	372,641,752	373,375,687	
12/31/2014	422,368,572	414,567,492	412,060,782		
12/31/2015	454,074,201	440,852,901			
12/31/2016	486,657,593				

Ratios

Accident Year Ended	27:15	39:27	51:39	63:51
12/31/2005	0.978	0.995	0.997	1.000
12/31/2006	0.980	0.995	0.997	1.001
12/31/2007	0.980	0.995	0.999	0.999
12/31/2008	0.984	0.998	0.998	0.997
12/31/2009	0.982	0.997	0.999	1.000
12/31/2010	0.980	0.996	1.000	1.000
12/31/2011	0.981	0.995	0.999	1.000
12/31/2012	0.985	0.994	0.998	1.000
12/31/2013	0.983	0.997	1.002	
12/31/2014	0.982	0.994		
12/31/2015	0.971			

Average Factor : 0.982 0.995 0.999 1.000
(Best 3 of 5)

Summary of factors

63 to Ult:	(75:63) (75:Ult) =	1.000
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.000
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	0.999
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	0.994
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	0.976

Includes Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Dist. of Col., Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

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Physical Damage Loss Development
Trucks, Tractors and Trailers - Collision
Multistate #
Paid Losses

Accident Year Ended	75 Months	87 Months	99 Months	111 Months	123 Months
12/31/2005	312,900,474	312,915,299	312,916,819	312,891,036	312,845,391
12/31/2006	308,716,770	308,686,027	308,648,341	308,639,202	308,617,912
12/31/2007	346,524,126	346,478,641	346,431,313	346,424,745	346,429,008
12/31/2008	352,372,498	352,258,433	352,233,610	352,208,663	
12/31/2009	297,437,228	297,355,436	297,315,625		
12/31/2010	321,280,907	321,178,470			
12/31/2011	347,668,131				

Accident Year Ended	Ratios				
	75:63	87:75	99:87	111:99	123:111
12/31/2005	1.000	1.000	1.000	1.000	1.000
12/31/2006	1.000	1.000	1.000	1.000	1.000
12/31/2007	1.000	1.000	1.000	1.000	1.000
12/31/2008	1.000	1.000	1.000	1.000	
12/31/2009	0.999	1.000	1.000		
12/31/2010	1.000	1.000			
12/31/2011	1.000				
Average Factor :	1.000	1.000	1.000	1.000	1.000
(Best 3 of 5)					

Summary of factors		
123 to Ult:	(123:Ult) =	1.000
111 to Ult:	(111:123) (123:Ult) =	1.000
99 to Ult:	(111:99) (111:123) (123:Ult) =	1.000
87 to Ult:	(99:87) (111:99) (111:123) (123:Ult) =	1.000
75 to Ult:	(87:75) (99:87) (111:99) (111:123) (123:Ult) =	1.000

Includes Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Dist. of Col., Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

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Physical Damage Loss Development
Private Passenger Types - Other Than Collision
Multistate #
Paid Losses

Accident Year Ended	15 Months	27 Months	39 Months	51 Months	63 Months
12/31/2005	52,660,729	52,959,934	52,844,320	52,883,312	52,883,845
12/31/2006	47,550,085	47,832,020	47,742,310	47,652,804	47,637,924
12/31/2007	44,246,559	44,998,032	44,832,953	44,844,254	44,962,802
12/31/2008	51,460,193	51,981,969	51,823,856	51,807,289	51,797,978
12/31/2009	47,784,162	47,901,244	47,898,038	47,825,753	47,816,436
12/31/2010	52,121,005	52,245,507	52,222,238	52,217,376	52,215,658
12/31/2011	67,766,233	67,890,700	67,769,002	67,818,296	67,816,079
12/31/2012	79,043,728	78,061,908	78,135,658	78,170,898	78,187,828
12/31/2013	54,710,377	55,157,745	55,376,373	55,380,784	
12/31/2014	57,920,380	58,658,468	58,767,088		
12/31/2015	50,974,195	51,626,381			
12/31/2016	63,283,643				

Ratios

Accident Year Ended	27:15	39:27	51:39	63:51
12/31/2005	1.006	0.998	1.001	1.000
12/31/2006	1.006	0.998	0.998	1.000
12/31/2007	1.017	0.996	1.000	1.003
12/31/2008	1.010	0.997	1.000	1.000
12/31/2009	1.002	1.000	0.998	1.000
12/31/2010	1.002	1.000	1.000	1.000
12/31/2011	1.002	0.998	1.001	1.000
12/31/2012	0.988	1.001	1.000	1.000
12/31/2013	1.008	1.004	1.000	
12/31/2014	1.013	1.002		
12/31/2015	1.013			

Average Factor : 1.008 1.001 1.000 1.000
(Best 3 of 5)

Summary of factors

63 to Ult: (75:63) (75:Ult) = 1.000
 51 to Ult: (63:51) (75:63) (75:Ult) = 1.000
 39 to Ult: (51:39) (63:51) (75:63) (75:Ult) = 1.000
 27 to Ult: (39:27) (51:39) (63:51) (75:63) (75:Ult) = 1.001
 15 to Ult: (27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) = 1.009

Include Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Dist. of Col., Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

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Physical Damage Loss Development
Private Passenger Types - Other Than Collision
Multistate #
Paid Losses

Accident Year <u>Ended</u>	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>	<u>123 Months</u>
12/31/2005	52,877,734	52,888,739	52,905,885	52,906,881	52,905,381
12/31/2006	47,683,870	47,682,959	47,677,011	47,676,197	47,675,039
12/31/2007	44,894,920	44,886,358	44,885,282	44,883,865	44,890,901
12/31/2008	51,795,292	51,796,702	51,795,033	51,793,835	
12/31/2009	47,817,481	47,817,498	47,819,654		
12/31/2010	52,196,068	52,197,593			
12/31/2011	67,824,191				

Ratios					
Accident Year <u>Ended</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>	<u>123:111</u>
12/31/2005	1.000	1.000	1.000	1.000	1.000
12/31/2006	1.001	1.000	1.000	1.000	1.000
12/31/2007	0.998	1.000	1.000	1.000	1.000
12/31/2008	1.000	1.000	1.000	1.000	
12/31/2009	1.000	1.000	1.000		
12/31/2010	1.000	1.000			
12/31/2011	1.000				
Average Factor :	1.000	1.000	1.000	1.000	1.000
(Best 3 of 5)					

Summary of factors			
123 to Ult:	(123:Ult)	=	1.000
111 to Ult:	(111:123) (123:Ult)	=	1.000
99 to Ult:	(111:99) (111:123) (123:Ult)	=	1.000
87 to Ult:	(99:87) (111:99) (111:123) (123:Ult)	=	1.000
75 to Ult:	(87:75) (99:87) (111:99) (111:123) (123:Ult)	=	1.000

Include Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Dist. of Col., Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico
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Physical Damage Loss Development
Private Passenger Types - Collision
Multistate #
Paid Losses

Accident Year Ended	15 Months	27 Months	39 Months	51 Months	63 Months
12/31/2005	154,579,191	148,728,881	147,932,626	147,592,414	147,495,633
12/31/2006	140,056,612	134,281,262	133,518,349	133,248,516	133,238,424
12/31/2007	146,276,838	141,484,399	140,927,857	140,575,526	140,568,555
12/31/2008	148,738,892	143,444,291	142,739,339	142,605,668	142,563,101
12/31/2009	139,981,785	134,990,801	134,352,838	134,272,164	134,216,825
12/31/2010	143,504,046	136,502,358	135,864,999	135,661,681	135,643,072
12/31/2011	152,236,234	145,687,545	145,204,743	144,970,654	144,932,529
12/31/2012	153,435,001	147,570,957	146,966,745	146,825,288	146,805,766
12/31/2013	154,839,038	148,207,618	147,201,722	147,214,414	
12/31/2014	163,562,326	156,653,964	156,464,520		
12/31/2015	174,634,552	165,637,516			
12/31/2016	173,831,773				

Ratios

Accident Year Ended	27:15	39:27	51:39	63:51
12/31/2005	0.962	0.995	0.998	0.999
12/31/2006	0.959	0.994	0.998	1.000
12/31/2007	0.967	0.996	0.997	1.000
12/31/2008	0.964	0.995	0.999	1.000
12/31/2009	0.964	0.995	0.999	1.000
12/31/2010	0.951	0.995	0.999	1.000
12/31/2011	0.957	0.997	0.998	1.000
12/31/2012	0.962	0.996	0.999	1.000
12/31/2013	0.957	0.993	1.000	
12/31/2014	0.958	0.999		
12/31/2015	0.948			

Average Factor : 0.957 0.996 0.999 1.000
(Best 3 of 5)

Summary of factors

63 to Ult:	(75:63) (75:Ult) =	1.000
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.000
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	0.999
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	0.995
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	0.952

Include Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Dist. of Col., Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico

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Physical Damage Loss Development
Private Passenger Types - Collision
Multistate #
Paid Losses

Accident Year Ended	75 Months	87 Months	99 Months	111 Months	123 Months
12/31/2005	147,434,154	147,470,800	147,455,877	147,444,309	147,447,660
12/31/2006	133,304,797	133,268,661	133,250,034	133,233,676	133,209,780
12/31/2007	140,518,945	140,501,902	140,487,660	140,481,064	140,483,506
12/31/2008	142,528,087	142,488,167	142,479,073	142,472,300	
12/31/2009	134,153,497	134,127,695	134,109,292		
12/31/2010	135,588,998	135,554,414			
12/31/2011	144,840,017				

Accident Year Ended	Ratios				
	75:63	87:75	99:87	111:99	123:111
12/31/2005	1.000	1.000	1.000	1.000	1.000
12/31/2006	1.000	1.000	1.000	1.000	1.000
12/31/2007	1.000	1.000	1.000	1.000	1.000
12/31/2008	1.000	1.000	1.000	1.000	
12/31/2009	1.000	1.000	1.000		
12/31/2010	1.000	1.000			
12/31/2011	0.999				
Average Factor :	1.000	1.000	1.000	1.000	1.000
(Best 3 of 5)					

Summary of factors		
123 to Ult:	(123:Ult) =	1.000
111 to Ult:	(111:123) (123:Ult) =	1.000
99 to Ult:	(111:99) (111:123) (123:Ult) =	1.000
87 to Ult:	(99:87) (111:99) (111:123) (123:Ult) =	1.000
75 to Ult:	(87:75) (99:87) (111:99) (111:123) (123:Ult) =	1.000

Include Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Dist. of Col., Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Alaska, and Puerto Rico
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CREDIBILITY PROCEDURE FOR EXPERIENCE LOSS RATIO

OBJECTIVE The extent to which the state experience is reflected in the development of the prospective loss costs is determined by the credibility of the data for that state. Specifically, ISO credibility procedures are based upon the volume of claims for each coverage separately.

METHODOLOGY The standards for full credibility were determined from a credibility study using various size of loss distributions for liability, other than collision and collision respectively. Separate standards by coverage/major class for full credibility were calculated using the Mayerson, Jones and Bowers expansion formula.

CREDIBILITY FOR EXPERIENCE LOSS RATIO The assignment of credibility to the experience loss ratio is based on the total number of claims for the years used. For liability, the claims are based on BI and PD claims combined. For physical damage, credibility is determined separately for OTC and Collision. Partial credibility (Z), as used for the experience loss ratio, is determined using the square root rule as follows:

$$Z = \sqrt{\frac{\text{Claims}}{X}}$$

Where X equals the full credibility standard, by line and coverage, as shown on the following pages of this section.

YEAR WEIGHTS The weights assigned to the loss ratio by year are based on the credibility of the average number of claims for the years of experience used. A maximum of five years of experience may be used. This procedure is described in detail in the flow chart on the following page. The claim standard used to determine the year weights is based on the credibility standard for each coverage. The schedules of the number of claims required for the year weight assignments are shown on the following pages.

COMMERCIAL AUTOMOBILE LIABILITY
FLOWCHART TO DETERMINE
YEAR WEIGHTS AND
EXPERIENCE PERIOD CREDIBILITY

Step
1: Determine Number of Years to be used and Year Weights

1. Add latest 2 years of claims and divide by 2 to determine the 2 year average.
2. If 2 year Avg. claims $\geq 11,500$,
Then use 2 years of experience and assign 70/30 weights.
3. Add latest 3 years of claims and divide by 3 to determine the 3 year average.
4. If 3 year Avg. claims $\geq 1,380$,
Then use 3 years of experience and assign 50/30/20 weights.
5. If 3 year Avg. claims $< 1,380$,
Then use 5 years of experience and assign 30/25/20/15/10 weights.

Step
2: Determine the Experience Period Credibility

Calculate partial credibility based on the total number of claims for the number of years used in the review as determined from Step 1.

COMMERCIAL AUTOMOBILE PHYSICAL DAMAGE
FLOWCHART TO DETERMINE
YEAR WEIGHTS AND
EXPERIENCE PERIOD CREDIBILITY

Step 1: Determine Number of Years to be used and Year Weights

1. Add latest 2 years of claims and divide by 2 to determine the 2 year average.
2. If 2 year Avg. claims \geq Full Standard,
Then use 2 years of experience and assign 70/30 weights.
3. Add latest 3 years of claims and divide by 3 to determine the 3 year average.
4. If 3 year Avg. claims \geq Intermediate Threshold,
Then use 3 years of experience and assign 50/30/20 weights.
5. If 3 year Avg. claims $<$ Intermediate Threshold,
Then use 5 years of experience and assign 30/25/20/15/10 weights.

Step 2: Determine the Experience Period Credibility

Calculate partial credibility based on the total number of claims for the number of years used in the review as determined from Step 1.

<u>Coverage</u>	<u>Intermediate Threshold</u>	<u>Full Standard</u>
Trucks, Tractors & Trailers OTC	1,350	11,000
Trucks, Tractors & Trailers Collision	550	4,500
Private Passenger Types OTC	1,050	8,500
Private Passenger Types Collision	450	3,500

Tables For Use With Trend Data

Bodily Injury				Property Damage			
<u>Number of Claims</u>			<u>Cred.</u>	<u>Number of Claims</u>			<u>Cred.</u>
0	-	641	0.00	0	-	256	0.00
642	-	2027	0.05	257	-	810	0.05
2028	-	3571	0.10	811	-	1428	0.10
3572	-	5303	0.15	1429	-	2121	0.15
5304	-	7258	0.20	2122	-	2903	0.20
7259	-	9482	0.25	2904	-	3793	0.25
9483	-	12037	0.30	3794	-	4814	0.30
12038	-	14999	0.35	4815	-	5999	0.35
15000	-	18478	0.40	6000	-	7391	0.40
18479	-	22619	0.45	7392	-	9047	0.45
22620	-	27631	0.50	9048	-	11052	0.50
27632	-	33823	0.55	11053	-	13529	0.55
33824	-	41666	0.60	13530	-	16666	0.60
41667	-	51923	0.65	16667	-	20769	0.65
51924	-	65909	0.70	20770	-	26363	0.70
65910	-	86111	0.75	26364	-	34444	0.75
86112	-	117857	0.80	34445	-	47142	0.80
117858	-	174999	0.85	47143	-	69999	0.85
175000	-	308333	0.90	70000	-	123333	0.90
308334	-	974999	0.95	123334	-	389999	0.95
975000	-	and over	1.00	390000	-	and over	1.00

K = 25,000

K = 10,000

$$\text{CREDIBILITY FORMULA} = (\# \text{ CLAIMS}) / (\# \text{ CLAIMS} + K)$$

ALL LIABILITY COVERAGES
CREDIBILITY TABLE
NUMBER OF CLAIMS

<u>Credibility</u>			
0.00*	0	-	28
0.05	29	-	114
0.10	115	-	258
0.15	259	-	459
0.20	460	-	718
0.25	719	-	1,034
0.30	1035	-	1,408
0.35	1,409	-	1,839
0.40	1,840	-	2,328
0.45	2,329	-	2,874
0.50	2,875	-	3,478
0.55	3,479	-	4,139
0.60	4,140	-	4,858
0.65	4,859	-	5,634
0.70	5,635	-	6,468
0.75	6,469	-	7,359
0.80	7,360	-	8,308
0.85	8,309	-	9,314
0.90	9,315	-	10,378
0.95	10,379	-	11,499
1.00		>	11,499

The credibility for the loss cost level ratio is determined by the total number of claims for the total number of years of experience used in the review.

*The credibility underlying the calculation of the statewide indication is subject to a minimum of 5% given that there is at least one claim in the experience period.

PHYSICAL DAMAGE
CREDIBILITY TABLES
NUMBER OF CLAIMS

OTHER THAN COLLISION

<u>Cred</u>	<u>Trucks, Tractors & Trailers</u>			<u>Private Passenger Types</u>		
0.00*	0	-	27	0	-	21
0.05	28	-	109	22	-	84
0.10	110	-	247	85	-	191
0.15	248	-	439	192	-	339
0.20	440	-	687	340	-	531
0.25	688	-	989	532	-	764
0.30	990	-	1.347	765	-	1.041
0.35	1.348	-	1.759	1.042	-	1.359
0.40	1.760	-	2.227	1.360	-	1.721
0.45	2.228	-	2.749	1.722	-	2.124
0.50	2.750	-	3.327	2.125	-	2.571
0.55	3.328	-	3.959	2.572	-	3.059
0.60	3.960	-	4.647	3.060	-	3.591
0.65	4.648	-	5.389	3.592	-	4.164
0.70	5.390	-	6.187	4.165	-	4.781
0.75	6.188	-	7.039	4.782	-	5.439
0.80	7.040	-	7.947	5.440	-	6.141
0.85	7.948	-	8.909	6.142	-	6.884
0.90	8.910	-	9.927	6.885	-	7.671
0.95	9.928	-	10.999	7.672	-	8.499
1.00		>	10.999		>	8.499

COLLISION

<u>Cred</u>	<u>Trucks, Tractors & Trailers</u>			<u>Private Passenger Types</u>		
0.00*	0	-	11	0	-	8
0.05	12	-	44	9	-	34
0.10	45	-	101	35	-	78
0.15	102	-	179	79	-	139
0.20	180	-	281	140	-	218
0.25	282	-	404	219	-	314
0.30	405	-	551	315	-	428
0.35	552	-	719	429	-	559
0.40	720	-	911	560	-	708
0.45	912	-	1.124	709	-	874
0.50	1.125	-	1.361	875	-	1.058
0.55	1.362	-	1.619	1.059	-	1.259
0.60	1.620	-	1.901	1.260	-	1.478
0.65	1.902	-	2.204	1.479	-	1.714
0.70	2.205	-	2.531	1.715	-	1.968
0.75	2.532	-	2.879	1.969	-	2.239
0.80	2.880	-	3.251	2.240	-	2.528
0.85	3.252	-	3.644	2.529	-	2.834
0.90	3.645	-	4.061	2.835	-	3.158
0.95	4.062	-	4.499	3.159	-	3.499
1.00		>	4.499		>	3.499

The credibility for loss cost level ratio is determined by the total number of claims for the total number of years of experience used in the review.

*The credibility underlying the calculation of the statewide indication is subject to a minimum of 5% given that there is at least one claim in the experience period.

MONTANA
CLAIMS PER TERRITORY
LIABILITY

Territory	Trucks, Tractors & Trailers	Private Passenger Types
	Incurred Claims 5 Years Ending 12/31/2016 Combined BI and PD	Incurred Claims 5 Years Ending 12/31/2016 Combined BI and PD
101	974	215
105	2,000	459
106	994	315
107	836	168
SW Total	4,804	1,157

Claims for Trend

BI	PD
<u>143</u>	<u>750</u>

MONTANA
CLAIMS PER TERRITORY
PHYSICAL DAMAGE

Territory	Trucks, Tractors & Trailers Paid Claims 5 Years Ending 12/31/2016		Private Passenger Types Paid Claims 5 Years Ending 12/31/2016	
	OTC	Coll	OTC	Coll
101	706	487	370	173
105	1,718	1,275	949	516
106	1,465	846	1,129	368
107	629	449	235	169
SW Total	4,518	3,057	2,683	1,226

RELATIVITIES USED TO DEVELOP MINOR CLASS AND COVERAGE LOSS COSTS

(1) Public Automobiles Liability

\$100,000 Limit Loss Costs for the Public Automobiles section have been calculated as factor derivatives off the Trucks, Tractors & Trailers Liability \$100,000 Base loss costs. The relativities used are listed below.

	Differentials to Base Loss Cost CSL Liab
Taxis and Limousines	6.20
School and Church Buses	0.55
Other Buses	3.80
Van Pools	1.50

(2) Public Automobiles Physical Damage

The relativities applied to Trucks, Tractors & Trailers physical damage revised base loss costs to develop the Public Automobile physical damage revised base loss costs are as follows:

Taxis, Limousines and Van Pools	
Other Than Collision:	1.02
Collision:	1.27
School, Church and Other Buses	
Other Than Collision:	0.70
Collision:	0.65

(3) Medical Payments Relativities

The latest multistate differentials that relate Medical Payments loss costs to the \$100,000 limit liability base loss costs are listed below.

Class of Business	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>5000</u>
Trucks, Tractors & Trailers	0.036	0.057	0.078	0.114
Van Pools	0.071	0.100	0.121	0.157
Taxis and Limousines	0.036	0.050	0.071	0.107
School and Church Buses	0.043	0.064	0.078	0.100
All Other Buses	0.032	0.039	0.050	0.068
Private Passenger Types	0.021	0.036	0.050	0.064

(4) Specified Causes of Loss Relativity

The relativity applied to the Trucks, Tractors & Trailers \$500 Deductible Comprehensive loss cost to develop the Trucks, Tractors & Trailers Specified Causes of Loss loss cost is: 0.576

(5) The loss cost for hired autos is set forth in Section D. It applies in all territories and is calculated as 0.15% of the statewide \$100,000 Combined Single Limit average loss cost for all Trucks, Tractors & Trailers.

WIND AND WATER PROCEDURE
OTHER THAN COLLISION

OBJECTIVE

Other Than Collision losses which result from the perils of Wind and Water are relatively infrequent and do not affect each year similarly. While catastrophic incidents are rare, their impact on loss cost indications can be significant. The occurrence of a weather related catastrophe can result in a large positive indication, followed by an indicated decrease when the catastrophe leaves the experience period in subsequent reviews. This ultimately leads to loss cost instability.

In order to address this ratemaking problem, the Wind and Water procedure removes the Wind and Water losses that actually occur in a given year and replaces them with an expected Wind and Water provision, based on the state's long term history of Wind and Water losses. Due to the lower credibility of catastrophic loss experience, a longer experience period or a larger body of data is necessary to compensate.

DESCRIPTION OF
WIND AND WATER
ADJUSTMENT
PROCEDURE

The Wind and Water procedure begins by comparing Wind and Water losses to non-Wind and Water losses for each year in the long term review period. Wind and Water losses have been separately identified as losses reported under the Commercial Statistical Plan (CSP) using Type of Loss (TOL) codes 06 and 07. A ratio of Wind and Water to non-Wind and Water losses is calculated for each year.

The long term 'normal' Wind and Water to non-Wind and Water ratio is determined by calculating the average of the Wind and Water to non-Wind and Water ratios for all years for which data is currently available.

The variation from the long term normal Wind and Water to non-Wind and Water ratio is then determined by calculating the difference between the normal ratio and the Wind and Water ratio for each year.

The loss adjustment required in order to bring each year of experience to a normal Wind and Water level is determined by applying the variation factor (column (5)) to the reported non-Wind and Water losses (column (3)).

The major steps of the procedure are shown in the Exhibits on the following pages.

WIND AND WATER PROCEDURE
OTHER THAN COLLISION
MONTANA

TRUCKS, TRACTORS, AND TRAILERS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
			(2) - (1)	(1) / (3)	AVG (4) - (4)	(3) x (5)	(2) + (6)
YEAR ENDING	OTC WIND & WATER LOSSES	OTC TOTAL LOSSES	TOTAL - WIND&WATER LOSSES	WIND & WATER / NON (W&W)	VARIATION FROM AVG. WIND RATIO	WIND & WATER ADJUSTMENT	ADJ OTC TOTAL LOSSES
1987	19,453	362,343	342,890	0.057	0.295	101,153	463,496
1988	119,148	737,112	617,964	0.193	0.159	98,256	835,368
1989	46,416	425,948	379,532	0.122	0.230	87,292	513,240
1990	81,554	589,106	507,552	0.161	0.191	96,942	686,048
1991	646,806	1,207,781	560,975	1.153	-0.801	-449,341	758,440
1992	196,806	836,157	639,351	0.308	0.044	28,131	864,288
1993	117,199	846,623	729,424	0.161	0.191	139,320	985,943
1994	50,098	888,378	838,280	0.060	0.292	244,778	1,133,156
1995	206,580	1,299,868	1,093,288	0.189	0.163	178,206	1,478,074
1996	359,920	1,847,282	1,487,362	0.242	0.110	163,610	2,010,892
1997	294,639	2,147,416	1,852,777	0.159	0.193	357,586	2,505,002
1998	470,382	2,505,913	2,035,531	0.231	0.121	246,299	2,752,212
1999	485,106	2,862,427	2,377,321	0.204	0.148	351,844	3,214,271
2000	621,956	3,601,129	2,979,173	0.209	0.143	426,022	4,027,151
2001	617,095	3,417,793	2,800,698	0.220	0.132	369,692	3,787,485
2002	252,186	2,038,112	1,785,926	0.141	0.211	376,830	2,414,942
2003	319,898	1,968,815	1,648,917	0.194	0.158	260,529	2,229,344
2004	16,867	649,868	633,001	0.027	0.325	205,725	855,593
2005	99,611	678,965	579,354	0.172	0.180	104,284	783,249
2006	62,266	714,707	652,441	0.095	0.257	167,677	882,384
2007	342,383	1,178,425	836,042	0.410	-0.058	-48,490	1,129,935
2008	309,408	1,328,659	1,019,251	0.304	0.048	48,924	1,377,583
2009	304,837	1,969,122	1,664,285	0.183	0.169	281,264	2,250,386
2010	2,358,327	4,140,330	1,782,003	1.323	-0.971	-1,730,325	2,410,005
2011	495,443	1,961,013	1,465,570	0.338	0.014	20,518	1,981,531
2012	241,832	2,375,036	2,133,204	0.113	0.239	509,836	2,884,872
2013	874,101	2,508,280	1,634,179	0.535	-0.183	-299,055	2,209,225
2014	1,927,174	3,498,833	1,571,659	1.226	-0.874	-1,373,630	2,125,203
2015	1,062,662	3,220,132	2,157,470	0.493	-0.141	-304,203	2,915,929
2016	2,759,433	4,833,621	2,074,188	1.33	-0.978	-2,028,556	2,805,065

(8) NORMAL WIND TO NON W&W RATIO= AVG. (4) 0.352

WIND AND WATER PROCEDURE
OTHER THAN COLLISION
MONTANA

PRIVATE PASSENGER TYPES

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
			(2) - (1)	(1) / (3)	AVG (4) - (4)	(3) x (5)	(2) + (6)
YEAR ENDING	OTC WIND & WATER LOSSES	OTC TOTAL LOSSES	TOTAL - WIND&WATER LOSSES	WIND & WATER / NON (W&W)	VARIATION FROM AVG. WIND RATIO	WIND & WATER ADJUSTMENT	ADJ OTC TOTAL LOSSES
1987	22,004	308,964	286,960	0.077	0.207	59,401	368,365
1988	57,118	487,173	430,055	0.133	0.151	64,938	552,111
1989	119,690	800,355	680,665	0.176	0.108	73,512	873,867
1990	77,215	810,889	733,674	0.105	0.179	131,328	942,217
1991	766,044	1,827,304	1,061,260	0.722	-0.438	-464,832	1,362,472
1992	134,373	794,126	659,753	0.204	0.080	52,780	846,906
1993	143,350	761,857	618,507	0.232	0.052	32,162	794,019
1994	49,321	744,677	695,356	0.071	0.213	148,111	892,788
1995	167,431	947,251	779,820	0.215	0.069	53,808	1,001,059
1996	107,513	1,528,373	1,420,860	0.076	0.208	295,539	1,823,912
1997	209,250	1,550,092	1,340,842	0.156	0.128	171,628	1,721,720
1998	254,655	1,440,982	1,186,327	0.215	0.069	81,857	1,522,839
1999	246,905	1,423,234	1,176,329	0.210	0.074	87,048	1,510,282
2000	229,716	1,590,374	1,360,658	0.169	0.115	156,476	1,746,850
2001	255,079	1,349,284	1,094,205	0.233	0.051	55,804	1,405,088
2002	50,344	892,206	841,862	0.060	0.224	188,577	1,080,783
2003	128,123	716,857	588,734	0.218	0.066	38,856	755,713
2004	48,471	521,683	473,212	0.102	0.182	86,125	607,808
2005	62,104	539,338	477,234	0.130	0.154	73,494	612,832
2006	17,865	431,954	414,089	0.043	0.241	99,795	531,749
2007	198,223	622,097	423,874	0.468	-0.184	-77,993	544,104
2008	68,340	431,513	363,173	0.188	0.096	34,865	466,378
2009	63,242	572,931	509,689	0.124	0.160	81,550	654,481
2010	811,637	1,415,290	603,653	1.345	-1.061	-640,476	774,814
2011	233,953	962,637	728,684	0.321	-0.037	-26,961	935,676
2012	153,288	943,777	790,489	0.194	0.090	71,144	1,014,921
2013	397,505	1,200,679	803,174	0.495	-0.211	-169,470	1,031,209
2014	761,389	1,718,025	956,636	0.796	-0.512	-489,798	1,228,227
2015	261,955	1,401,917	1,139,962	0.23	0.054	61,558	1,463,475
2016	848,682	1,888,271	1,039,589	0.816	-0.532	-553,061	1,335,210

(8) NORMAL WIND TO NON W&W RATIO= AVG. (4) 0.284

EXPLANATORY MEMORANDUM FOR WIND AND WATER PROCEDURE

COLUMN (1) OTC WIND AND WATER LOSSES	Dollar amount of Other Than Collision losses resulting from the perils of Wind and Water (Type of Loss Codes 06 & 07).
COLUMN (2) OTC TOTAL LOSSES	Dollar amount of Other Than Collision losses resulting from all perils.
COLUMN (3) OTC LOSSES OTHER THAN WIND AND WATER	Dollar amount of Other Than Collision losses resulting from all perils other than Wind and Water. $\text{Column (2)} - \text{Column (1)}$.
COLUMN (4) WIND AND WATER TO NON-WIND AND WATER RATIO	Ratio of Wind and Water losses to Non-Wind and Water losses. $\text{Column (1)} \div \text{Column (3)}$
COLUMN (5) VARIATION FROM AVERAGE WIND RATIO	Variation from the long term average Wind and Water to non-Wind and Water ratio. $\text{Avg (4)} - \text{Column (4)}$.
COLUMN (6) WIND AND WATER ADJUSTMENT	Wind and Water loss adjustment to bring experience to average Wind and Water level. $\text{Column (3)} * \text{Column (5)}$.
COLUMN (7) ADJUSTED OTC TOTAL LOSSES	$\text{Column (2)} + \text{Column (6)}$.

TERRITORIAL WIND AND WATER PROCEDURE OTHER THAN COLLISION

OBJECTIVE

The statewide Wind and Water procedure removes the actual Wind and Water losses that occur in a given year and replaces them with an expected Wind and Water provision. The territorial excess Wind and Water procedure distributes the statewide expected Wind and Water loss provision to the individual territories in proportion to each territory's long-term Wind and Water loss experience.

DESCRIPTION OF TERRITORIAL WIND AND WATER PROCEDURE

The first step is to calculate long term Wind and Water to non-Wind and Water ratios by territory. The earliest year of historical Wind and Water experience available for Commercial Auto is 1987. As a new year becomes available, it is added to the procedure. For each year, the territorial ratios are calculated as Wind and Water losses divided by non-Wind and Water losses. An average is then taken of all the ratios for each territory to get the long term Wind and Water to non-Wind and Water ratio.

One potential problem with the average ratios is that a high Wind and Water ratio for one year can distort the average ratio for that territory. To mitigate the effect of unusually large ratios, the ratios are capped at 10 times the statewide median of the Wind and Water ratios before calculating the average. (The statewide median ratio is subject to a minimum value of 0.05.)

The territorial capped average Wind and Water ratios are multiplied by the latest 5 years non-Wind and Water losses for each territory to get the territorial expected Wind and Water losses. The territorial expected Wind and Water losses are divided by the statewide total expected Wind and Water losses to get the territorial expected Wind and Water distribution.

The statewide wind provision is calculated for each year from the statewide procedure by subtracting the non-Wind and Water losses from the total adjusted losses. The individual territorial Wind and Water provisions are then calculated by distributing the statewide wind provision to the territories based on the expected Wind and Water distribution.

Territorial adjusted total losses = territorial Wind and Water provision + territorial non-Wind and Water losses

Because the actual Wind and Water losses are replaced with an expected Wind and Water provision, the number of Wind and Water claims must be adjusted. The territorial Wind and Water provision is divided by the territory's average Wind and Water claim cost to produce the adjusted number of Wind and Water claims. The adjusted Wind and Water claims are added to the non-Wind and Water claims, resulting in the total adjusted claims.

A sample of the territory Wind and Water procedure is shown on the following page.

METHODOLOGY FOR CALCULATING 'WIND & WATER PROVISIONS' BY TERRITORY

In order to develop 'Wind and Water Provisions' by territory, the statewide provision is distributed using each territory's 'expected' wind and water losses. This procedure is illustrated in the following example:

Territory	(1) Long-Term Capped* Ratio of Wind & Water to Non-Wind & Water Losses	(2) Non-Wind & Water Losses for Latest Five Years	(3) 'Expected' Wind & Water Losses for Latest Five Years (1) x (2)	(4) 'Expected' Wind & Water Distribution (3) / Total (3)
A	.250	500,000	125,000	.500
B	.750	100,000	75,000	.300
C	.200	250,000	50,000	.200

Territory	(5) Statewide Wind Provision for Year 20XX **	(6) Territory Wind Provision for Year 20XX (4) x (5)	(7) Non-Wind & Water Losses for Year 20XX	(8) Adjusted Total Losses for Year 20XX (6) + (7)
A	100,000	50,000	150,000	200,000
B		30,000	50,000	80,000
C		20,000	80,000	100,000

Territory	(9) Non-Wind & Water Claims for Year 20XX	(10) Five-Year Average Wind & Water Claim Cost	(11) Adjusted Wind & Water Claims for Year 20XX (6) / (10)	(12) Total Adjusted Claims for Year 20XX (9) + (11)
A	200	500	100	300
B	100	400	75	175
C	150	400	50	200

* Average of yearly capped ratios of wind & water to non-wind & water losses, based on territory experience capped at 10 times the statewide median wind & water to non-wind & water ratio. The statewide median ratio is subject to a minimum value of 0.05.

** The Statewide Wind Provision for year 20XX = Total Adjusted Losses for Year 20XX - Non-Wind & Water Losses for Year 20XX

MONTANA
COMMERCIAL AUTOMOBILE

SECTION D - REVISED PROSPECTIVE LOSS COSTS

Liability and Medical Payments	D2-D5
Physical Damage - All Coverages Except Garages	D6-D9
Hired Autos (Rule 90).....	D10

COMMERCIAL LINES MANUAL
DIVISION ONE
AUTOMOBILE
LOSS COST PAGES

MONTANA (25)
TERRITORY 101

LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
	Limit Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 187	\$7	\$11	\$15	\$21	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 214	\$4	\$8	\$11	\$14	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1159	\$42	\$58	\$82	\$124	N/A
– SCHOOL AND CHURCH BUSES					
\$ 103	\$4	\$7	\$8	\$10	N/A
– OTHER BUSES					
\$ 711	\$23	\$28	\$36	\$48	N/A
– VAN POOLS					
\$ 281	\$20	\$28	\$34	\$44	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 475	Refer to Rule 49.				N/A
<ul style="list-style-type: none">• For liability increased limits factors, refer to Rule 100.• For liability fleet factors, refer to Rules 22. and 39.• Other Than Auto losses for Auto Dealers risks are subject to an aggregate limit equal to three times the liability limit. For additional limits, refer to Rule 49.					

COMMERCIAL LINES MANUAL
DIVISION ONE
AUTOMOBILE
LOSS COST PAGES

LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
	Limit Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 146	\$5	\$8	\$11	\$17	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 179	\$4	\$6	\$9	\$11	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 905	\$33	\$45	\$64	\$97	N/A
– SCHOOL AND CHURCH BUSES					
\$ 80	\$3	\$5	\$6	\$8	N/A
– OTHER BUSES					
\$ 555	\$18	\$22	\$28	\$38	N/A
– VAN POOLS					
\$ 219	\$16	\$22	\$26	\$34	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 371	Refer to Rule 49.				N/A
<ul style="list-style-type: none">• For liability increased limits factors, refer to Rule 100.• For liability fleet factors, refer to Rules 22. and 39.• Other Than Auto losses for Auto Dealers risks are subject to an aggregate limit equal to three times the liability limit. For additional limits, refer to Rule 49.					

COMMERCIAL LINES MANUAL
DIVISION ONE
AUTOMOBILE
LOSS COST PAGES

MONTANA (25)
TERRITORY 106

LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
	Limit Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 77	\$3	\$4	\$6	\$9	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 127	\$3	\$5	\$6	\$8	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 477	\$17	\$24	\$34	\$51	N/A
– SCHOOL AND CHURCH BUSES					
\$ 42	\$2	\$3	\$3	\$4	N/A
– OTHER BUSES					
\$ 293	\$9	\$11	\$15	\$20	N/A
– VAN POOLS					
\$ 116	\$8	\$12	\$14	\$18	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 196	Refer to Rule 49.				N/A
<ul style="list-style-type: none">• For liability increased limits factors, refer to Rule 100.• For liability fleet factors, refer to Rules 22. and 39.• Other Than Auto losses for Auto Dealers risks are subject to an aggregate limit equal to three times the liability limit. For additional limits, refer to Rule 49.					

COMMERCIAL LINES MANUAL
DIVISION ONE
AUTOMOBILE
LOSS COST PAGES

LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
	Limit Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 226	\$8	\$13	\$18	\$26	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 298	\$6	\$11	\$15	\$19	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1401	\$50	\$70	\$99	\$150	N/A
– SCHOOL AND CHURCH BUSES					
\$ 124	\$5	\$8	\$10	\$12	N/A
– OTHER BUSES					
\$ 859	\$27	\$34	\$43	\$58	N/A
– VAN POOLS					
\$ 339	\$24	\$34	\$41	\$53	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 574	Refer to Rule 49.				N/A
<ul style="list-style-type: none">• For liability increased limits factors, refer to Rule 100.• For liability fleet factors, refer to Rules 22. and 39.• Other Than Auto losses for Auto Dealers risks are subject to an aggregate limit equal to three times the liability limit. For additional limits, refer to Rule 49.					

COMMERCIAL LINES MANUAL
DIVISION ONE
AUTOMOBILE
LOSS COST PAGES

MONTANA (25)
TERRITORY 101

PHYSICAL DAMAGE Original Cost New Range \$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 85	\$ 148	\$ 164
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 160	\$ 209
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 87	\$ 151	\$ 208
– SCHOOL AND CHURCH BUSES			
	\$ 60	\$ 104	\$ 107
– OTHER BUSES			
	\$ 60	\$ 104	\$ 107
– VAN POOLS			
	\$ 87	\$ 151	\$ 208
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

COMMERCIAL LINES MANUAL
DIVISION ONE
AUTOMOBILE
LOSS COST PAGES

PHYSICAL DAMAGE Original Cost New Range \$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 106	\$ 184	\$ 188
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 206	\$ 293
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 108	\$ 188	\$ 239
– SCHOOL AND CHURCH BUSES			
	\$ 74	\$ 129	\$ 122
– OTHER BUSES			
	\$ 74	\$ 129	\$ 122
– VAN POOLS			
	\$ 108	\$ 188	\$ 239
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

COMMERCIAL LINES MANUAL
DIVISION ONE
AUTOMOBILE
LOSS COST PAGES

MONTANA (25)
TERRITORY 106

PHYSICAL DAMAGE Original Cost New Range \$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 131	\$ 227	\$ 208
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 285	\$ 240
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 134	\$ 232	\$ 264
– SCHOOL AND CHURCH BUSES			
	\$ 92	\$ 159	\$ 135
– OTHER BUSES			
	\$ 92	\$ 159	\$ 135
– VAN POOLS			
	\$ 134	\$ 232	\$ 264
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

COMMERCIAL LINES MANUAL
DIVISION ONE
AUTOMOBILE
LOSS COST PAGES

PHYSICAL DAMAGE Original Cost New Range \$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 115	\$ 199	\$ 243
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 172	\$ 297
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 117	\$ 203	\$ 309
– SCHOOL AND CHURCH BUSES			
	\$ 81	\$ 139	\$ 158
– OTHER BUSES			
	\$ 81	\$ 139	\$ 158
– VAN POOLS			
	\$ 117	\$ 203	\$ 309
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

90. HIRED AUTOS

Cost Of Hire Basis – All Territories Liability Base Loss Cost
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\$ 0.187

Table 90.B.3.b.(LC) Cost Of Hire Basis Liability Loss Cost

Supplementary Information – Montana

Introduction

This document provides additional information on the attached loss cost level experience review, including:

- A summary of recent trends in Liability claim costs
- A summary of significant factors used in the development of loss cost indications and a comparison to the factors used in the prior filing that underlie the loss costs currently in effect
- A discussion of the experience underlying the loss cost level evaluation, and how it compares to the prior review
- Issues related to Commercial Auto in Montana

Statistical plan data reported to ISO is first processed through a system of rigorous automated data verification processes so that only data that would be valid is used for ratemaking. Subsequent to this initial data submission review, additional analyses involving an even more customized data review for this line was performed by staff. During these processes, various data records were excluded from the review, corrected or adjusted. Specifically, various reported exposure amounts have been adjusted prior to their use in the calculations. The ISO staff responsible for this loss cost review also reviewed the data for reasonableness.

Trends in Liability Claim Costs

The table below shows the latest sixteen evaluations of 12-pt. paid claim cost trends.

Multistate Paid Claim Cost Trends

<u>Data Through</u>	<u>\$100,000 Bodily Injury</u>	<u>\$100,000 Property Damage</u>
03/31/2013	+0.4%	+5.2%
06/30/2013	+0.5%	+5.4%
09/30/2013	+0.9%	+5.5%
12/31/2013	+1.1%	+5.4%
03/31/2014	+1.4%	+4.8%
06/30/2014	+1.5%	+4.2%
09/30/2014	+1.8%	+3.7%
12/31/2014	+1.8%	+3.3%
03/31/2015	+1.5%	+3.3%
06/30/2015	+2.2%	+3.5%
09/30/2015	+1.9%	+3.7%
12/31/2015	+2.3%	+4.6%
03/31/2016	+2.9%	+4.8%
06/30/2016	+2.9%	+5.2%
09/30/2016	+2.6%	+5.5%
12/31/2016	+2.7%	+5.7%

ISO believes that bodily injury claim cost trends will primarily be driven by changes in the costs of providing medical care. At times, other factors serve to reduce (or exacerbate) the claim cost trends.

Supplementary Information – Montana

Trends in Medical Care Costs

The table below shows the last twelve annual rates of change, based upon the CPI, for Medical Care and Hospital & Other Related Services, separately.

<u>Period</u>	<u>CPI – Medical Care Annual Rate of Change¹</u>	<u>CPI – Hospital & Other Related Services Annual Rate of Change</u>
October 2005 - September 2006	4.2%	7.3%
October 2006 - September 2007	4.6%	6.8%
October 2007 - September 2008	3.2%	6.6%
October 2008 - September 2009	3.5%	6.6%
October 2009 - September 2010	3.4%	7.3%
October 2010 - September 2011	2.8%	4.9%
October 2011 - September 2012	4.1%	4.7%
October 2012 - September 2013	2.4%	5.4%
October 2013 - September 2014	2.0%	3.5%
October 2014 - September 2015	2.5%	3.3%
October 2015 - September 2016	4.9%	5.6%
October 2016 - September 2017	1.6%	4.3%

Claim Frequencies

Historically, frequency trend for commercial auto liability has been quite variable, often cyclic in nature. As a result, an exponential curve of the form $Y=A(B^X)$ does not fit the data well over the long term. Based on earlier analyses, there had been differences in historical frequency trends between Trucks, Tractors, and Trailers (TTT) and Private Passenger Types (PPT) liability classes. In general, Commercial Auto classes had experienced an abnormally long period of negative frequency trends prior to 2010. For the most recent 6 years, however, the frequency trends have been slightly increasing (TTT BI) or somewhat cyclical and/or flat (TTT PD and PPT BI and PD) over the experience period. To reflect these recent patterns and the difficulty in predicting turning points and rates of change, frequency trend is being selected to be 0% for TTT and PPT for both the Bodily Injury and Property Damage coverages. Due to the limited volume of data for the Auto Dealers coverage, the PPT frequency trend will be used for the Auto Dealers coverage.

Claim Counts

Claim counts are now being estimated from information on the individual loss records reported to ISO, rather than the claim counts that have been reported to ISO via the statistical plans. This is being done to address company inconsistencies in interpreting ISO's claim count reporting rules.

¹ Annual Rate of Change for a particular year is calculated as the CPI index for September of that year divided by the same index for September for the previous year, minus one.

Supplementary Information – Montana

Montana Trends

Trucks, Tractors & Trailers, Private Passenger Types, and Auto Dealers Liability

	Current Trends <u>Data through 12/31/2016</u>	Previous Trends <u>Data through 12/31/2015</u>
Montana Claim Cost Trends		
Bodily Injury (\$100,000 Limit)	13.9%	7.2%
Property Damage (\$100,000 Limit)	3.3%	6.6%
Credibility-Weighted Claim Cost Trends		
Bodily Injury (\$100,000 Limit)	2.7%	2.3%
Property Damage (\$100,000 Limit)	5.6%	4.7%
Selected Claim Frequency Trends		
Trucks, Tractors & Trailers		
Bodily Injury	0.0%	0.0%
Property Damage	0.0%	0.0%
Private Passenger Types		
Bodily Injury	0.0%	0.0%
Property Damage	0.0%	0.0%
Selected Pure Premium Trends		
Trucks, Tractors & Trailers		
Bodily Injury (\$100,000 Limit)	2.7%	2.3%
Property Damage (\$100,000 Limit)	5.6%	4.7%
Private Passenger Types*		
Bodily Injury (\$100,000 Limit)	2.7%	2.3%
Property Damage (\$100,000 Limit)	5.6%	4.7%

*The Private Passenger Types trend is also used for the Auto Dealers coverage.

Montana bodily injury severity trend receives 0% weight when combined with multistate trend in the filing, property damage trend receives 5% weight.

If the prior trends were used to calculate the indicated changes in this document, the Truck, Tractors & Trailers Liability indication would have been 2.8% rather than 4.9%. For the Private Passenger Types coverage, the indication would have been 5.3% instead of 6.6%. For the Auto Dealers coverage, the indication would have been 0.9% instead of 1.6%.

Supplementary Information – Montana

Physical Damage Loss Trend

	<u>Coverage</u>	<u>Current Trends</u>	<u>Previous Trends</u>
		<u>Data through 12/31/2016</u>	<u>Data through 12/31/2015</u>
Trucks, Tractors & Trailers	OTC	+6.5%	+4.5%
	Collision	+5.5%	+5.5%
Private Passenger Types	OTC	+5.0%	+4.5%
	Collision	+5.0%	+4.5%

Physical Damage OCN Trend

	<u>Coverage</u>	<u>Current Trends</u>	<u>Previous Trends</u>
		<u>Data through 12/31/2016</u>	<u>Data through 12/31/2015</u>
Trucks, Tractors & Trailers	OTC	+0.9%	+0.9%
	Collision	+1.3%	+1.1%
Private Passenger Types	OTC	+1.0%	+0.8%
	Collision	+0.6%	+0.5%

The loss trend has increased by 2.0 points for Trucks, Tractors & Trailers OTC and has increased by 0.5 points for Private Passenger Types OTC. The OCN trend has remained the same for Trucks, Tractors and Trailers OTC and has increased by 0.2 points for Private Passenger Types OTC. If the prior loss and OCN trends were used, the Trucks, Tractors and Trailers and Private Passenger Types OTC indications in this document would have 3.1%, instead of 9.6%, and 13.7%, instead of 14.5%, respectively.

The loss trend has remained the same for Trucks, Tractors & Trailers collision and has increased by 0.5 points for Private Passenger Types collision. The collision OCN trend has increased by 0.2 points for Trucks, Tractors, & Trailers collision and has increased by 0.1 points for Private Passenger Types collision. If the prior loss and OCN trends were used, the Trucks, Tractors and Trailers and Private Passenger Types collision indications in this document would have been -3.3%, instead of -3.8%, and 1.9%, instead of 3.0%, respectively.

Supplementary Information – Montana

Loss Development

Methodology

For the Trucks, Tractors & Trailers and Private Passenger Types Liability coverages, we continue to employ a credibility-weighted combination of Montana and multistate factors for the 15 to 27 month link ratios for BI and PD, and the 27 to 39 month link ratios for BI only. Auto Dealers Liability losses are developed using multistate data. For all coverages, the "best three of five" link ratios have been used. Specifically, the highest and lowest link ratios from the latest five years of the experience have been removed from the calculation and the remaining three ratios are used to calculate the three-year average.

Factors

	<u>Current (100K)</u>	<u>Previous (100K)</u>
Trucks, Tractors and Trailers BI		
39 to Ultimate	1.073	1.068
27 to Ultimate	1.176	1.166
15 to Ultimate	1.435	1.407
Trucks, Tractors and Trailers PD		
39 to Ultimate	1.004	1.004
27 to Ultimate	1.011	1.011
15 to Ultimate	1.071	1.049
Private Passenger Types BI		
39 to Ultimate	1.062	1.045
27 to Ultimate	1.141	1.113
15 to Ultimate	1.442	1.302
Private Passenger Types PD		
39 to Ultimate	1.004	1.003
27 to Ultimate	1.012	1.009
15 to Ultimate	1.034	1.023
Auto Dealers BI		
39 to Ultimate	1.133	1.144
27 to Ultimate	1.343	1.374
15 to Ultimate	1.786	1.850
Auto Dealers PD		
39 to Ultimate	1.046	1.048
27 to Ultimate	1.088	1.088
15 to Ultimate	1.187	1.166

Supplementary Information – Montana

Other Factors

Unallocated Loss Adjustment Expense factors:

	<u>Data through 12/31/2015</u>	<u>Data through 12/31/2014</u>
Bodily Injury	1.085	1.085
Property Damage	1.110	1.115
Physical Damage	1.150	1.150

Indicated vs. Filed Changes

An overall change of 4.3% is indicated when each of the coverage indications is weighted by its respective loss cost volume. Staff will file the indications, which reflect a 07/01/2018 proposed effective date, with the following exception:

<u>Coverage</u>	<u>Indicated Change</u>	<u>Filed Change</u>
Auto Dealers Liability	1.6%	-20.0%

The overall filed change is 3.5%.

Notes

- The Auto Dealers and Garagekeepers physical damage coverages are not being reviewed this year.
- The +9.6% indication for Trucks, Tractors & Trailers OTC is caused by poor experience in four of the five years of the experience period.
- The +14.5% indication for Private Passenger Types OTC is due to unfavorable experience in all five years of the experience period.