

LOSS COSTS – IMPLEMENTATION

JANUARY 16, 2020

COMMERCIAL AUTOMOBILE

LI-CA-2020-013

MONTANA REVISED COMMERCIAL AUTO ADVISORY PROSPECTIVE LOSS COSTS TO BE IMPLEMENTED; NEW FILING FORMAT

KEY MESSAGE

Loss costs representing a **+6.5%** statewide change to be implemented.

BACKGROUND

In circular [LI-CA-2019-280](#), we provided you with information about the Commercial Auto loss cost level experience review.

ISO ACTION

We filed CA-2020-BRLA1, which presents a review of Commercial Auto loss cost experience.

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

IMPORTANT NOTE

Change in Format

The filing has been restructured. All explanatory text, for all sections of the filing, appears first; all exhibits are grouped together and appear thereafter, followed by the manual pages. We invite customers to share feedback on this revised format and suggestions for further enhancements by contacting the individuals listed in the Contact Information block.

SUPPLEMENTARY INFORMATION

We are including supplementary information for Montana, which provides additional information on the attached loss cost level experience review.

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, 2020.

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, 2020, 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 Filing Number CA-2020-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-2019-057](#) 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 7-20 (or the earliest possible subsequent date), along with any new and/or revised manual pages.

REFERENCE(S)

- [LI-CL-2019-057](#) (12/10/2019) Revised Lead Time Requirements Listing
- [LI-CA-2019-280](#) (12/04/2019) Commercial Auto Experience Level Indications Reviewed By Staff

ATTACHMENT(S)

- Filing CA-2020-BRLA1
 - Supplementary Information
-

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.

COPYRIGHT EXPLANATION

The material distributed by Insurance Services Office, Inc. is copyrighted. All rights reserved. Possession of these pages does not confer the right to print, reprint, publish, copy, sell, file, or use same in any manner without the written permission of the copyright owner. Permission is hereby granted to members, subscribers, and service purchasers to reprint, copy, or otherwise use the enclosed material for purposes of their own business use relating to that territory or line or kind of insurance, or subdivision thereof, for which they participate, provided that:

- (A) Where ISO copyrighted material is reprinted, copied, or otherwise used **as a whole**, it must reflect the copyright notice actually shown on such material.
- (B) Where ISO copyrighted material is reprinted, copied, or otherwise used **in part**, the following credit legend must appear at the bottom of each page so used:

Includes copyrighted material of Insurance Services Office, Inc., with its permission.

DATA QUALITY

Statistical plan data reported to ISO is first processed through a system of rigorous automated data verification procedures so that only valid data would be used for ratemaking. Subsequent to this initial data submission review, additional analyses on the statistical plan data involving an even more customized data review for this line were performed by staff. During these processes, various data records were excluded from the review. The ISO staff responsible for this circular also reviewed the data for reasonableness.

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 Managing Director of Strategic 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.

OPTIONAL CLASS PLAN INFORMATION

For the latest updates on the Optional Class Plan, visit <https://www.verisk.com/insurance/products/new-commercial-auto-class-plan>.

CONTACT INFORMATION

If you have any questions concerning:

- The actuarial content of this circular, please contact:
Brian Coniglio
Actuarial Operations
201-469-2504
Brian.Coniglio@verisk.com
autoactuarial@verisk.com
- The non-actuarial content of this circular, please contact:
Vincent Barila
Production Operations, Compliance and Product Services
201-469-2751
productionoperations@verisk.com
- Other issues for this circular, please contact Customer Support:
E-mail: info@verisk.com
Phone: 800-888-4476

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-2020-BRLA1

EXECUTIVE SUMMARY

PURPOSE

This document:

- revises the advisory prospective loss costs for the major Commercial Automobile classes. These loss costs represent a 6.5% 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 COSTS

Advisory prospective loss costs in this document are the expected value of 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-2020-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-2020-BRLB1.

CHANGE IN
FORMAT

In this document, all explanatory material appears first, followed by all exhibits, and then the revised prospective loss costs. Explanatory pages are numbered B-1 through C-25, the exhibits are labeled EXHIBIT A1 through EXHIBIT C17, and the revised prospective loss cost pages are numbered D-1 through D-9.

PRIVATE
PASSENGER TYPES
SPECIFIED CAUSES
OF LOSS

This filing introduces a Loss Cost for Specified Causes of Loss Coverage for Private Passenger Types Vehicles.

AUTO DEALERS
LIABILITY
COVERAGE

The Auto Dealers Liability coverage is not being reviewed this year.

REVISED LOSS
COST CHANGES

The statewide advisory loss cost level changes are:

<u>Trucks, Tractors & Trailers</u>	<u>Indicated</u>	<u>Filed</u>
Liability		
Single Limit Liability	7.4%	7.4%
Physical Damage		
Other than Collision	10.6%	10.6%
Collision	1.1%	N.C.
Total Trucks, Tractors & Trailers	6.6%	6.3%
<u>Private Passenger Types</u>		
Liability		
Single Limit Liability	9.5%	9.5%
Physical Damage		
Other than Collision	7.8%	7.8%
Collision	0.8%	N.C.
Total Private Passenger Types	7.7%	7.6%
<u>Grand Total</u>	6.8%	6.5%

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

INDICATED VS.
FILED

Indicated changes are based on standard ISO methodology, utilizing a 7/1/2020 trend effective date. The filed loss cost level changes are the same as the indicated with the following exceptions: No Change (N.C.) was selected for Trucks, Tractors & Trailers Collision and Private Passenger Types Collision due to the modest indications.

PRIOR ISO
REVISIONS

The latest selected revisions in this state are:

<u>Filing</u>	CA-2019-BRLA1	CA-2018-BRLA1	CA-2017-BRLA1
Rate Level/ Loss Costs	Loss Costs	Loss Costs	Loss Costs
Effective Date	7/1/2019	7/1/2018	7/1/2017
<u>Changes</u>			
Indicated	-1.7%	4.3%	2.3%
Filed	-1.7%	3.5%	1.3%
Approved	-1.7%	3.5%	1.3%

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 12/31/2018 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. Historically, frequency trends for Commercial Auto liability have been quite variable, have differed between Trucks, Tractors, and Trailers (TTT) and Private Passenger Types (PPT) liability classes, and have often displayed cyclical patterns. As a result, an exponential curve of the form $Y=A(B^X)$ does not fit the data well over the long term. To reflect these characteristics 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.

Claim cost trend data through fourth quarter 2018 and claim frequency trend data through third quarter 2018 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	+5.5%
Property Damage	+4.7%
Private Passenger Types Liability:	
Bodily Injury	+5.5%
Property Damage	+4.7%
Trucks, Tractors & Trailers OTC	+7.0%
Trucks, Tractors & Trailers Collision	+4.5%
Private Passenger Types OTC	+6.5%
Private Passenger Types Collision	+4.0%

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 +1.5% 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

<u>LIABILITY (ASLOB 19.3 & 19.4)</u>	<u>PHYSICAL DAMAGE (ASLOB 21.2)</u>
1. Liberty Mutual Insurance Company	1. Liberty Mutual Insurance Company
2. Cincinnati Insurance Company	2. Travelers Indemnity Company
3. Travelers Indemnity Company	3. Cincinnati Insurance Company
4. Employers Mutual Casualty Company	4. Employers Mutual Casualty Company
5. Nationwide Mutual Insurance Co.	5. Western National Mutual Ins. Co.
6. Western National Mutual Ins. Co.	6. Tokio Marine Companies
7. Zurich American Insurance Company	7. United Fire & Casualty Company
8. Firemans Fund Insurance Company	8. Nationwide Mutual Insurance Co.
9. Tokio Marine Companies	9. Zurich American Insurance Company
10. United Fire & Casualty Company	10. NGM Insurance Company

Insurers are listed in descending order based on the percent of statewide written premium volume from Annual Statement Page 15 for the year ending 12/31/2018 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 12/31/2018 is:

Liability (ASLOB 19.3 & 19.4)
55.1%

Physical Damage (ASLOB 21.2)
37.9%

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.

The material has been developed exclusively by the staff of Insurance Services Office, Inc.

COPYRIGHT
EXPLANATION

The material distributed by Insurance Services Office, Inc. is copyrighted. All rights reserved. Possession of these pages does not confer the right to print, reprint, publish, copy, sell, file or use same in any manner without the written permission of the copyright owner.

MONTANA
COMMERCIAL AUTOMOBILE
Table of Contents

	<u>Explanatory Pages</u>	<u>Corresponding Exhibits</u>
SECTION A – SCOPE OF REVISION		
Summary of Prospective Loss Cost Level Changes		Exhibit A1
Revised Prospective Loss Costs and Percentage Changes		Exhibit A2
SECTION B – CALCULATION OF CHANGES		
Overview of ISO Actuarial Procedures	B-1	
Step 1:		
Determination of Statewide Loss Cost Level Changes	B-2-4	
Trucks, Tractors & Trailers Liability Statewide Changes		Exhibit B1
Trucks, Tractors & Trailers Physical Damage Statewide Changes		Exhibit B2
Private Passenger Types Liability Statewide Changes		Exhibit B3
Private Passenger Types Physical Damage Statewide Changes		Exhibit B4
Step 2:		
Determination of Territory Relativities	B-5	
Trucks, Tractors & Trailers Liability Territory Development		Exhibit B5
Private Passenger Liability Territory Development		Exhibit B6
Explanatory Memorandum for Trucks, Tractors & Trailers and Private Passenger Types Liability Territory Development	B-6-7	
Trucks, Tractors & Trailers Physical Damage Territory Development		Exhibits B7-B8
Private Passenger Types Physical Damage Territory Development		Exhibits B9-B10
Explanatory Memorandum for Trucks, Tractors & Trailers and Private Passenger Types Physical Damage Territory Development	B-8-9	
SECTION C – SUPPORTING MATERIAL		
Loss Adjustment Expense	C-1	Exhibit C1
Loss Trend	C-2-7	Exhibits C2-C9
Physical Damage OCN Trend	C-8	Exhibits C10-C11
Loss Development for Liability	C-9-10	Exhibits C12-C13
Loss Development for Physical Damage	C-11	Exhibits C14-C15
Credibility Procedures and Tables	C-12-17	
Claims for Credibility	C-18-19	
Relativities for Developing Minor Class & Coverage Loss Costs		Exhibits C16-C17
Excess Wind and Water Procedure	C-20-25	
SECTION D – REVISED PROSPECTIVE LOSS COSTS		
Liability and Medical Payments	D-1-4	
Physical Damage - All Coverages Except Garages	D-5-8	
Hired Autos (Rule 90)	D-9	

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.

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?
-----------	--

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.
---	---

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.

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> $[\text{Terr. Group Col. (4)} \times \text{Terr. Group Col. (5)}] \\ + [\text{SW Total Col. (4)} \times (1.0 - \text{Terr. Group Col. (5)})]$

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)]

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.

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.

Historically, frequency trends for Commercial Auto liability have been quite variable, have differed between Trucks, Tractors, and Trailers (TTT) and Private Passenger Types (PPT) liability classes, and have often displayed cyclical patterns. As a result, an exponential curve of the form $Y=A(B^X)$ does not fit the data well over the long term. To reflect these characteristics 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.

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)

For the OTC coverages, there is a change to how glass losses are handled when shifting from one deductible to another. ISO collects a coverage code indicating if the deductible is waived for glass losses or not ("full glass" and "non-full glass", respectively). However some insurers waive deductibles on glass losses even when the policy isn't a "full glass" coverage policy. Recently we began to also collect a Type of Loss code indicating if a deductible has been waived for the particular claim. In situations where a claim is reported with a coverage code and Type of Loss code that aren't consistent on how a glass loss was handled, we previously used the coverage code to determine how we interpreted the loss amount. Now this scenario is handled based on the information in the new Type of Loss code.

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:	+7.0%	+6.5%
COLL:	+4.5%	+4.0%

COMMERCIAL AUTOMOBILE PHYSICAL DAMAGE
SUPPLEMENTARY EXHIBIT

Quarterly Values <u>Ending</u>	Consumer Price Index for Bodywork	
	<u>Actual</u>	<u>Exponential Fit</u>
12/31/2015	2.831	2.823
03/31/2016	2.847	2.843
06/30/2016	2.866	2.862
09/30/2016	2.877	2.882
12/31/2016	2.913	2.901
03/31/2017	2.925	2.921
06/30/2017	2.942	2.941
09/30/2017	2.945	2.962
12/31/2017	2.966	2.982
03/31/2018	2.999	3.002
06/30/2018	3.016	3.023
09/30/2018	3.033	3.044
12/31/2018	3.061	3.065
03/31/2019	3.074	3.086
06/30/2019	3.118	3.107
09/30/2019	3.158	3.128
		Average
		Annual
		<u>Change</u>
16 Point Fit	<u>R-Squared</u>	
12 Point Fit		
	0.9857	2.8%
	0.9724	2.9%

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 1.5% 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.

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.
DESCRIPTION OF EXPERIENCE PERIOD DATA	For Trucks, Tractors & Trailers and Private Passenger Types 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, 2019. In other words, accident year ended December 31, 2018 includes all losses and allocated loss adjustment expenses paid through March 31, 2019 on accidents occurring from January 1, 2018 to December 31, 2018 and all losses and allocated loss adjustment expenses outstanding on these accidents as of March 31, 2019, 15 months after the inception of the accident year. Similarly, the incurred losses and allocated loss adjustment expenses for accident year ended December 31, 2017 include all loss and loss adjustment expenses paid through March 31, 2019 on accidents occurring from January 1, 2017 to December 31, 2017 and all losses and allocated loss adjustment expenses outstanding on these accidents as of March 31, 2019, 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.
DESCRIPTION OF LOSS DEVELOPMENT METHODOLOGY	<p>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 and Private Passenger Types 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.</p> <p>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 and Private Passenger Types 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.</p>

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.

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, 2019. In other words, accident year ended December 31, 2018 includes all losses paid through March 31, 2019 on accidents occurring from January 1, 2018 to December 31, 2018. Similarly, the paid losses for accident year ended December 31, 2017 include all losses paid through March 31, 2019 on accidents occurring from January 1, 2017 to December 31, 2017. 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.

CREDIBILITY PROCEDURE FOR EXPERIENCE LOSS RATIO

OBJECTIVE	<p>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.</p>
METHODOLOGY	<p>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.</p>
CREDIBILITY FOR EXPERIENCE LOSS RATIO	<p>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:</p> $Z = \sqrt{\frac{\text{Claims}}{X}}$ <p>Where X equals the full credibility standard, by line and coverage, as shown on the following pages of this section.</p>
YEAR WEIGHTS	<p>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.</p>

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 12/31/2018 Combined BI and PD	Incurred Claims 5 Years Ending 12/31/2018 Combined BI and PD
101	953	190
105	2,076	428
106	763	318
107	742	154
SW Total	4,534	1,090

Claims for Trend

BI	PD
<u>115</u>	<u>659</u>

MONTANA
CLAIMS PER TERRITORY
PHYSICAL DAMAGE

Territory	Trucks, Tractors & Trailers Paid Claims 5 Years Ending 12/31/2018		Private Passenger Types Paid Claims 5 Years Ending 12/31/2018	
	OTC	Coll	OTC	Coll
101	820	599	394	198
103	1,793	1,471	759	458
105	1,589	733	868	271
106	677	415	195	141
SW Total	4,879	3,218	2,216	1,068

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.

INSURANCE SERVICES OFFICE, INC.

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	0.282	96,695	459,038
1988	119,148	737,112	617,964	0.193	0.146	90,223	827,335
1989	46,416	425,948	379,532	0.122	0.217	82,358	508,306
1990	81,554	589,106	507,552	0.161	0.178	90,344	679,450
1991	646,806	1,207,781	560,975	1.153	-0.814	-456,634	751,147
1992	196,806	836,157	639,351	0.308	0.031	19,820	855,977
1993	117,199	846,623	729,424	0.161	0.178	129,837	976,460
1994	50,098	888,378	838,280	0.060	0.279	233,880	1,122,258
1995	206,580	1,299,868	1,093,288	0.189	0.150	163,993	1,463,861
1996	359,920	1,847,282	1,487,362	0.242	0.097	144,274	1,991,556
1997	294,639	2,147,416	1,852,777	0.159	0.180	333,500	2,480,916
1998	470,382	2,505,913	2,035,531	0.231	0.108	219,837	2,725,750
1999	485,106	2,862,427	2,377,321	0.204	0.135	320,938	3,183,365
2000	621,956	3,601,129	2,979,173	0.209	0.130	387,292	3,988,421
2001	617,095	3,417,793	2,800,698	0.220	0.119	333,283	3,751,076
2002	252,186	2,038,112	1,785,926	0.141	0.198	353,613	2,391,725
2003	319,898	1,968,815	1,648,917	0.194	0.145	239,093	2,207,908
2004	16,867	649,868	633,001	0.027	0.312	197,496	847,364
2005	99,611	678,965	579,354	0.172	0.167	96,752	775,717
2006	62,266	714,707	652,441	0.095	0.244	159,196	873,903
2007	342,383	1,178,425	836,042	0.410	-0.071	-59,359	1,119,066
2008	309,408	1,328,659	1,019,251	0.304	0.035	35,674	1,364,333
2009	304,837	1,969,122	1,664,285	0.183	0.156	259,628	2,228,750
2010	2,358,327	4,140,330	1,782,003	1.323	-0.984	-1,753,491	2,386,839
2011	495,443	1,961,013	1,465,570	0.338	0.001	1,466	1,962,479
2012	241,832	2,375,036	2,133,204	0.113	0.226	482,104	2,857,140
2013	874,101	2,508,280	1,634,179	0.535	-0.196	-320,299	2,187,981
2014	2,156,564	3,979,394	1,822,830	1.183	-0.844	-1,538,469	2,440,925
2015	1,154,083	3,589,238	2,435,155	0.474	-0.135	-328,746	3,260,492
2016	3,082,458	5,544,156	2,461,698	1.252	-0.913	-2,247,530	3,296,626
2017	122,285	2,530,538	2,408,253	0.051	0.288	693,577	3,224,115
2018	1,096,670	3,915,710	2,819,040	0.389	-0.050	-140,952	3,774,758

(8) NORMAL WIND TO NON W&W RATIO= AVG. (4) 0.339

INSURANCE SERVICES OFFICE, INC.

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	0.203	58,253	367,217
1988	57,118	487,173	430,055	0.133	0.147	63,218	550,391
1989	119,690	800,355	680,665	0.176	0.104	70,789	871,144
1990	77,215	810,889	733,674	0.105	0.175	128,393	939,282
1991	766,044	1,827,304	1,061,260	0.722	-0.442	-469,077	1,358,227
1992	134,373	794,126	659,753	0.204	0.076	50,141	844,267
1993	143,350	761,857	618,507	0.232	0.048	29,688	791,545
1994	49,321	744,677	695,356	0.071	0.209	145,329	890,006
1995	167,431	947,251	779,820	0.215	0.065	50,688	997,939
1996	107,513	1,528,373	1,420,860	0.076	0.204	289,855	1,818,228
1997	209,250	1,550,092	1,340,842	0.156	0.124	166,264	1,716,356
1998	254,655	1,440,982	1,186,327	0.215	0.065	77,111	1,518,093
1999	246,905	1,423,234	1,176,329	0.210	0.070	82,343	1,505,577
2000	229,716	1,590,374	1,360,658	0.169	0.111	151,033	1,741,407
2001	255,079	1,349,284	1,094,205	0.233	0.047	51,428	1,400,712
2002	50,344	892,206	841,862	0.060	0.220	185,210	1,077,416
2003	128,123	716,857	588,734	0.218	0.062	36,502	753,359
2004	48,471	521,683	473,212	0.102	0.178	84,232	605,915
2005	62,104	539,338	477,234	0.130	0.150	71,585	610,923
2006	17,865	431,954	414,089	0.043	0.237	98,139	530,093
2007	198,223	622,097	423,874	0.468	-0.188	-79,688	542,409
2008	68,340	431,513	363,173	0.188	0.092	33,412	464,925
2009	63,242	572,931	509,689	0.124	0.156	79,511	652,442
2010	811,637	1,415,290	603,653	1.345	-1.065	-642,890	772,400
2011	233,953	962,637	728,684	0.321	-0.041	-29,876	932,761
2012	153,288	943,777	790,489	0.194	0.086	67,982	1,011,759
2013	397,505	1,200,595	803,090	0.495	-0.215	-172,664	1,027,931
2014	785,768	1,728,721	942,953	0.833	-0.553	-521,453	1,207,268
2015	263,737	1,298,273	1,034,536	0.255	0.025	25,863	1,324,136
2016	936,176	2,063,679	1,127,503	0.830	-0.550	-620,127	1,443,552
2017	24,418	536,918	512,500	0.048	0.232	118,900	655,818
2018	188,435	782,496	594,061	0.317	-0.037	-21,980	760,516

(8) NORMAL WIND TO NON W&W RATIO= AVG. (4) 0.280

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

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCESUMMARY OF PROSPECTIVE LOSS COST LEVEL CHANGES
STATEWIDE LOSS COST LEVEL CHANGES (A)

Coverages	Aggregate Loss Cost at Current Level (B)	Loss Cost Changes (C)
TRUCKS, TRACTORS & TRAILERS (D)		
Liability		
Single Limit Liability	\$ 16,861,716	7.4%
Physical Damage		
Other Than Collision	4,556,126	10.6%
Collision	5,869,510	N.C.
Combined	10,425,636	4.6%
Total Trucks, Tractors & Trailers	27,287,352	6.3%
PRIVATE PASSENGER TYPES		
Liability		
Single Limit Liability	3,394,038	9.5%
Physical Damage		
Other Than Collision	996,046	7.8%
Collision	862,928	N.C.
Combined	1,858,974	4.2%
Total Private Passenger Types	5,253,012	7.6%
GRAND TOTAL ALL COVERAGES	32,540,364	6.5%
TOTAL LIABILITY	20,255,754	7.8%
TOTAL PHYSICAL DAMAGE	12,284,610	4.6%

(A) An implementation date of 07/01/2020 is assumed for purposes of trending.

(B) Accident Year ending 12/31/2018 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) For Liability and Physical Damage, classes related to Trucks, Tractors & Trailers, such as the Public Automobile classes, are impacted by the Trucks, Tractors & Trailers loss cost level changes.

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCEREVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
TERRITORY LOSS COST LEVEL CHANGES

FOR TRUCKS, TRACTORS, AND TRAILERS POLICY COVERAGES

Territory Code	\$100,000 CSL Liability	\$500 Med Pay
101	2.1%	0.0%
105	10.4%	0.0%
106	6.3%	0.0%
107	9.2%	0.0%

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE

REVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
TERRITORY LOSS COST LEVEL CHANGES

FOR TRUCKS, TRACTORS, AND TRAILERS POLICY COVERAGES

Territory Code	Physical Damage		Specified Causes of Loss
	Comprehensive	Collision (a)	
101	12.0%		12.1%
105	7.1%		7.0%
106	15.0%		15.2%
107	12.0%		12.0%

(a) For Trucks, Tractors and Trailers Collision, No Change (N.C.) was selected due to the modest indication.

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCEREVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
REVISED BASE LOSS COSTS BY TERRITORY

FOR TRUCKS, TRACTORS, AND TRAILERS POLICY COVERAGES

Territory Code	Liability \$100,000 CSL	\$500 Med Pay (a)	Physical Damage Comprehensive (b)	Collision (c)	Specified Causes of Loss (d)
101	191	1	177	164	102
105	170	1	212	188	122
106	85	1	276	208	159
107	262	1	243	243	140

- (a) The loss costs for medical payments have been calculated by multiplying a relativity by the Trucks, Tractors, and Trailers CSL Liability loss costs. The relativities differ by territory and are listed in [EXHIBIT C17](#).
- (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, and Trailers Comprehensive base loss costs.

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCEREVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
TERRITORY LOSS COST LEVEL CHANGES

FOR PRIVATE PASSENGER TYPES POLICY COVERAGES

Territory Code	\$100,000 CSL Liability	\$500 Med Pay
101	9.1%	100.0%
105	8.8%	0.0%
106	10.1%	0.0%
107	10.6%	0.0%

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE

REVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
TERRITORY LOSS COST LEVEL CHANGES

FOR PRIVATE PASSENGER TYPES POLICY COVERAGES

Territory Code	Physical Damage		Specified Causes of Loss (b)
	Comprehensive	Collision (a)	
101	11.4%		
105	3.7%		
106	10.6%		
107	10.4%		

- (a) For Private Passenger Types Collision, No Change (N.C.) was selected due to the modest indication.
- (b) This filing introduces a loss cost for Specified Causes of Loss coverage for Private Passenger Types vehicles, so there is no loss cost level change to list.

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE

REVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
REVISED BASE LOSS COSTS BY TERRITORY

FOR PRIVATE PASSENGER TYPES POLICY COVERAGES

Territory Code	Liability \$100,000 CSL	\$500 Med Pay (a)	Physical Damage Comprehensive (b)	Collision (c)	Specified Causes of Loss (d)
101	251	2	196	209	113
105	210	1	225	293	130
106	153	1	345	240	199
107	365	2	212	297	122

- (a) The loss costs for medical payments have been calculated by multiplying a relativity by the Private Passenger Types CSL Liability loss costs. The relativities differ by territory and are listed in [EXHIBIT C17](#).
- (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 Private Passenger Types Comprehensive base loss costs.

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE

REVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
TERRITORY LOSS COST LEVEL CHANGES

FOR VAN POOLS POLICY COVERAGES

Territory Code	\$100,000 CSL Liability	\$500 Med Pay
101	2.1%	0.0%
105	10.4%	0.0%
106	6.7%	0.0%
107	9.2%	0.0%

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE

REVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
TERRITORY LOSS COST LEVEL CHANGES

FOR VAN POOLS POLICY COVERAGES

Territory Code	Physical Damage		Specified Causes of Loss
	Comprehensive	Collision (a)	
101	12.4%		11.8%
105	6.9%		6.9%
106	15.1%		14.9%
107	12.2%		11.7%

(a) For Trucks, Tractors and Trailers Collision, No Change (N.C.) was selected due to the modest indication.

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCEREVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
REVISED BASE LOSS COSTS BY TERRITORY

FOR VAN POOLS POLICY COVERAGES

Territory Code	Liability \$100,000 CSL (a)	\$500 Med Pay (b)	Physical Damage Comprehensive (c)	Collision (d)	Specified Causes of Loss (e)
101	287	2	181	208	104
105	255	2	216	239	124
106	128	1	282	264	162
107	393	3	248	309	143

- (a) The loss costs for Van Pools have been calculated by a relativity of 1.50 to the Trucks, Tractors, and Trailers CSL Liability loss costs.
- (b) The loss costs for medical payments have been calculated by multiplying a relativity by the Van Pools CSL liability loss costs. The relativities differ by territory and are listed in [EXHIBIT C17](#).
- (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, and 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, and Trailers loss cost.
- (e) The loss costs for Specified Causes of Loss have been calculated by a relativity of 1.02 to the Trucks, Tractors, and Trailers Comprehensive base loss costs.

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE

REVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
TERRITORY LOSS COST LEVEL CHANGES

FOR TAXIS AND LIMOUSINES POLICY COVERAGES

Territory Code	\$100,000 CSL Liability	\$500 Med Pay
101	2.2%	0.0%
105	10.4%	14.3%
106	6.3%	0.0%
107	9.1%	8.3%

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE

REVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
TERRITORY LOSS COST LEVEL CHANGES

FOR TAXIS AND LIMOUSINES POLICY COVERAGES

Territory Code	Physical Damage		Specified Causes of Loss
	Comprehensive	Collision (a)	
101	12.4%		11.8%
105	6.9%		6.9%
106	15.1%		14.9%
107	12.2%		11.7%

(a) For Trucks, Tractors and Trailers Collision, No Change (N.C.) was selected due to the modest indication.

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCEREVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
REVISED BASE LOSS COSTS BY TERRITORY

FOR TAXIS AND LIMOUSINES POLICY COVERAGES

Territory Code	Liability \$100,000 CSL (a)	\$500 Med Pay (b)	Physical Damage Comprehensive (c)	Collision (d)	Specified Causes of Loss (e)
101	1184	9	181	208	104
105	1054	8	216	239	124
106	527	4	282	264	162
107	1624	13	248	309	143

- (a) The loss costs for Taxis and Limousines have been calculated by a relativity of 6.20 to the Trucks, Tractors, and Trailers CSL Liability loss costs.
- (b) The loss costs for medical payments have been calculated by multiplying a relativity by the Taxis and Limousines CSL liability loss costs. The relativities differ by territory and are listed in [EXHIBIT C17](#).
- (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, and 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, and Trailers loss cost.
- (e) The loss costs for Specified Causes of Loss have been calculated by a relativity of 1.02 to the Trucks, Tractors, and Trailers Comprehensive base loss costs.

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCEREVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
TERRITORY LOSS COST LEVEL CHANGES

FOR SCHOOL AND CHURCH BUSES POLICY COVERAGES

Territory Code	\$100,000 CSL Liability	\$500 Med Pay
101	1.9%	0.0%
105	10.6%	0.0%
106	6.8%	0.0%
107	9.1%	50.0%

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE

REVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
TERRITORY LOSS COST LEVEL CHANGES

FOR SCHOOL AND CHURCH BUSES POLICY COVERAGES

Territory Code	Physical Damage		Specified Causes of Loss
	Comprehensive	Collision (a)	
101	11.7%		10.9%
105	6.5%		6.3%
106	14.9%		14.4%
107	11.8%		11.4%

(a) For Trucks, Tractors and Trailers Collision, No Change (N.C.) was selected due to the modest indication.

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCEREVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
REVISED BASE LOSS COSTS BY TERRITORY

FOR SCHOOL AND CHURCH BUSES POLICY COVERAGES

Territory Code	Liability \$100,000 CSL (a)	\$500 Med Pay (b)	Physical Damage Comprehensive (c)	Collision (d)	Specified Causes of Loss (e)
101	105	2	124	107	71
105	94	2	148	122	85
106	47	2	193	135	111
107	144	3	170	158	98

- (a) The loss costs for School and Church Buses have been calculated by a relativity of 0.55 to the Trucks, Tractors, and Trailers CSL Liability loss costs.
- (b) The loss costs for medical payments have been calculated by multiplying a relativity by the School and Church Buses CSL liability loss costs. The relativities differ by territory and are listed in [EXHIBIT C17](#).
- (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, and 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, and Trailers loss cost.
- (e) The loss costs for Specified Causes of Loss have been calculated by a relativity of 0.70 to the Trucks, Tractors, and Trailers Comprehensive base loss costs.

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCEREVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
TERRITORY LOSS COST LEVEL CHANGES

FOR ALL OTHER BUSES POLICY COVERAGES

Territory Code	\$100,000 CSL Liability	\$500 Med Pay
101	2.1%	0.0%
105	10.4%	11.1%
106	6.3%	12.5%
107	9.2%	8.3%

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE

REVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
TERRITORY LOSS COST LEVEL CHANGES

FOR ALL OTHER BUSES POLICY COVERAGES

Territory Code	Physical Damage		Specified Causes of Loss
	Comprehensive	Collision (a)	
101	11.7%		10.9%
105	6.5%		6.3%
106	14.9%		14.4%
107	11.8%		11.4%

(a) For Trucks, Tractors and Trailers Collision, No Change (N.C.) was selected due to the modest indication.

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE

REVISED PROSPECTIVE LOSS COSTS AND PERCENTAGE CHANGES
REVISED BASE LOSS COSTS BY TERRITORY

FOR ALL OTHER BUSES POLICY COVERAGES

Territory Code	Liability \$100,000 CSL (a)	\$500 Med Pay (b)	Physical Damage Comprehensive (c)	Collision (d)	Specified Causes of Loss (e)
101	726	10	124	107	71
105	646	10	148	122	85
106	323	9	193	135	111
107	996	13	170	158	98

- (a) The loss costs for All Other Buses have been calculated by a relativity of 3.80 to the Trucks, Tractors, and Trailers CSL Liability loss costs.
- (b) The loss costs for medical payments have been calculated by multiplying a relativity by the All Other Buses CSL liability loss costs. The relativities differ by territory and are listed in [EXHIBIT C17](#).
- (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, and 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, and Trailers loss cost.
- (e) The loss costs for Specified Causes of Loss have been calculated by a relativity of 0.70 to the Trucks, Tractors, and Trailers Comprehensive base 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 YEAR ENDING	AGGREGATE LOSS COST AT CURRENT LEVEL (B)	\$100,000 INCURRED LOSSES (C)	EXPERIENCE RATIO (2) / (1)	ACCIDENT YEAR WEIGHTS	NUMBER OF INCURRED CLAIMS
12/31/14	\$8,583,347	\$10,438,123	1.216	10%	922
12/31/15	\$8,772,754	\$8,474,697	0.966	15%	835
12/31/16	\$8,949,312	\$9,687,816	1.083	20%	925
12/31/17	\$9,192,986	\$10,570,804	1.150	25%	933
12/31/18	\$9,295,323	\$9,806,295	1.055	30%	919
(6)	AVERAGE EXPERIENCE RATIO (SUM OF (3) * (4)).				1.089
(7)	EXPECTED EXPERIENCE RATIO (D).				1.051
(8)	CREDIBILITY (E).				0.60
(9)	CREDIBILITY WEIGHTED EXPERIENCE RATIO: ((6) * (8)) + ((7) * (1.000 - (8))).				1.074
(10)	INDICATED PERCENTAGE CHANGE IN ADVISORY LOSS COST LEVEL ((9) - 1.000).				7.4%
(11)	FILED CHANGE.				7.4%
(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 07/01/20 WHICH IS ASSUMED FOR THE PURPOSES 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	12/31/14	\$3,628,599	\$3,124,687	
ALLOCATED LOSS	12/31/15	\$2,864,354	\$2,851,494	
ADJUSTMENT EXPENSES	12/31/16	\$3,391,302	\$3,289,596	
	12/31/17	\$3,917,153	\$3,291,881	
	12/31/18	\$2,434,540	\$3,951,716	
(2) DEVELOPED LOSSES AND	12/31/14	\$3,916,347	\$3,437,156	
ALL LOSS ADJUSTMENT	12/31/15	\$3,146,923	\$3,139,780	
EXPENSES (A)	12/31/16	\$3,915,428	\$3,633,030	
	12/31/17	\$4,973,120	\$3,668,143	
	12/31/18	\$3,949,250	\$4,503,376	
(3) SELECTED ANNUAL LOSS TREND (SEE TREND EXHIBIT IN SECTION C)		5.5%	4.7%	5.1%
(4) TRENDED LOSSES AND	12/31/14	\$5,698,285	\$4,739,838	\$10,438,123
ALL LOSS ADJUSTMENT	12/31/15	\$4,339,607	\$4,135,090	\$8,474,697
EXPENSES (B)	12/31/16	\$5,117,464	\$4,570,352	\$9,687,816
	12/31/17	\$6,161,696	\$4,409,108	\$10,570,804
	12/31/18	\$4,636,420	\$5,169,876	\$9,806,295
(A) INCURRED LOSSES AND ALLOCATED LOSS ADJUSTMENT EXPENSES ARE ADJUSTED BY THE FOLLOWING FACTORS:				
1 - UNALLOCATED LOSS ADJUSTMENT FACTORS:		B.I. 1.075	P.D. 1.100	
2 - LOSS DEVELOPMENT FACTORS:				
	YEAR ENDING	B.I.	P.D.	
	12/31/14	1.004	1.000	
	12/31/15	1.022	1.001	
	12/31/16	1.074	1.004	
	12/31/17	1.181	1.013	
	12/31/18	1.509	1.036	

(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 07/01/20
WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING.

YEAR ENDING	AVERAGE DATE OF ACCIDENT	PROJECTION PERIOD
12/31/14	7/1/14	7.000
12/31/15	7/1/15	6.000
12/31/16	7/1/16	5.000
12/31/17	7/1/17	4.000
12/31/18	7/1/18	3.000

INSURANCE SERVICES OFFICE, INC.

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

COVERAGE	ACCIDENT YEAR	(1)	(2)	(3)	(4)	(5)
O.T.C	ENDING	AGGREGATE LOSS COST AT CURRENT LEVEL (B)	INCURRED LOSSES (C)	EXPERIENCE RATIO (2) / (1)	ACCIDENT YEAR WEIGHTS	NUMBER OF PAID CLAIMS
	12/31/14	\$4,518,326	\$4,429,741	0.980	10%	925
	12/31/15	\$4,601,381	\$5,530,217	1.202	15%	1,056
	12/31/16	\$4,685,179	\$5,231,661	1.117	20%	1,029
	12/31/17	\$4,337,947	\$4,785,851	1.103	25%	899
	12/31/18	\$4,556,126	\$5,355,836	1.176	30%	970
COLL.	12/31/16	\$5,842,926	\$5,288,542	0.905	20%	616
	12/31/17	\$5,687,636	\$5,875,723	1.033	30%	615
	12/31/18	\$5,869,510	\$5,953,190	1.014	50%	668

		O.T.C.	COLLISION
(6)	AVERAGE EXPERIENCE RATIO (SUM OF (3)*(4)).	1.130	0.998
(7)	EXPECTED EXPERIENCE RATIO (D).	1.060	1.030
(8)	CREDIBILITY (E).	0.65	0.60
(9)	CREDIBILITY WEIGHTED EXPERIENCE RATIO: ((6) * (8)) + ((7) * (1.000- (8))).	1.106	1.011
(10)	INDICATED PERCENTAGE CHANGE IN ADVISORY LOSS COST LEVEL ((9) - 1.000).	10.6%	1.1%
(11)	FILED CHANGE.	10.6%	N.C.
(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 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 07/01/20 WHICH IS ASSUMED FOR THE PURPOSES 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 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	12/31/14	\$2,440,925	----
	12/31/15	\$3,260,491	----
	12/31/16	\$3,296,624	\$3,759,880
	12/31/17	\$3,224,114	\$4,389,279
	12/31/18	\$3,774,756	\$4,774,844
(2) DEVELOPED LOSSES AND	12/31/14	\$2,758,245	----
ALL LOSS ADJUSTMENT	12/31/15	\$3,684,355	----
EXPENSES (A)	12/31/16	\$3,728,910	\$4,244,416
	12/31/17	\$3,650,535	\$4,925,166
	12/31/18	\$4,372,111	\$5,217,520
(3) SELECTED ANNUAL LOSS TREND (SEE TREND EXHIBIT IN SECTION C)		7.0%	4.5%
(4) TRENDED LOSSES AND	12/31/14	\$4,429,741	----
ALL LOSS ADJUSTMENT	12/31/15	\$5,530,217	----
EXPENSES (B)	12/31/16	\$5,231,661	\$5,288,542
	12/31/17	\$4,785,851	\$5,875,723
	12/31/18	\$5,355,836	\$5,953,190
(A) PAID LOSSES ARE ADJUSTED BY THE FOLLOWING:			
1 - LOSS ADJUSTMENT EXPENSE FACTORS:		O.T.C	COLL.
		1.130	1.130
2 - LOSS DEVELOPMENT FACTORS:			
	YEAR ENDING	O.T.C.	COLL.
	12/31/14	1.000	-----
	12/31/15	1.000	-----
	12/31/16	1.001	0.999
	12/31/17	1.002	0.993
	12/31/18	1.025	0.967

(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 07/01/20 WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING BOTH OTC AND COLLISION.

YEAR ENDING	AVERAGE DATE OF ACCIDENT	PROJECTION PERIOD OTC	PROJECTION PERIOD COLL
12/31/14	7/1/14	7.000	-----
12/31/15	7/1/15	6.000	-----
12/31/16	7/1/16	5.000	5.000
12/31/17	7/1/17	4.000	4.000
12/31/18	7/1/18	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	12/31/14	\$4,242,560	----
AT CURRENT LEVEL	12/31/15	\$4,361,499	----
	12/31/16	\$4,479,139	\$5,425,187
	12/31/17	\$4,187,208	\$5,360,637
	12/31/18	\$4,436,345	\$5,611,386
(2) SELECTED ANNUAL OCN			
TREND (SEE TREND		0.9%	1.5%
EXHIBIT IN SECTION C)			
(3) TRENDED AGGREGATE	12/31/14	\$4,518,326	----
LOSS COSTS AT	12/31/15	\$4,601,381	----
CURRENT LEVEL (A)	12/31/16	\$4,685,179	\$5,842,926
	12/31/17	\$4,337,947	\$5,687,636
	12/31/18	\$4,556,126	\$5,869,510

(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 DATE OF
07/01/20 WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING BOTH OTC
AND COLLISION.

YEAR ENDING	AVERAGE DATE OF WRITING	PROJECTION PERIOD OTC	PROJECTION PERIOD COLL
12/31/14	1/1/14	7.000	-----
12/31/15	1/1/15	6.000	-----
12/31/16	1/1/16	5.000	5.000
12/31/17	1/1/17	4.000	4.000
12/31/18	1/1/18	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 YEAR ENDING	AGGREGATE LOSS COST AT CURRENT LEVEL (B)	\$100,000 INCURRED LOSSES (C)	EXPERIENCE RATIO (2) / (1)	ACCIDENT YEAR WEIGHTS	NUMBER OF INCURRED CLAIMS
12/31/14	\$2,115,830	\$2,699,714	1.276	10%	251
12/31/15	\$2,086,156	\$2,721,622	1.305	15%	211
12/31/16	\$2,028,778	\$1,966,897	0.969	20%	209
12/31/17	\$1,966,535	\$2,574,446	1.309	25%	224
12/31/18	\$1,875,159	\$2,190,220	1.168	30%	195
(6)	AVERAGE EXPERIENCE RATIO (SUM OF (3) * (4)).				1.195
(7)	EXPECTED EXPERIENCE RATIO (D).				1.052
(8)	CREDIBILITY (E).				0.30
(9)	CREDIBILITY WEIGHTED EXPERIENCE RATIO: ((6) * (8)) + ((7) * (1.000 - (8))).				1.095
(10)	INDICATED PERCENTAGE CHANGE IN ADVISORY LOSS COST LEVEL ((9) - 1.000).				9.5%
(11)	FILED CHANGE.				9.5%
(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 07/01/20 WHICH IS ASSUMED FOR THE PURPOSES 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	12/31/14	\$1,074,141	\$667,078	
ALLOCATED LOSS	12/31/15	\$1,217,967	\$604,321	
ADJUSTMENT EXPENSES	12/31/16	\$771,770	\$579,811	
	12/31/17	\$855,512	\$888,477	
	12/31/18	\$740,570	\$597,315	
(2) DEVELOPED LOSSES AND	12/31/14	\$1,159,320	\$734,520	
ALL LOSS ADJUSTMENT	12/31/15	\$1,338,119	\$665,418	
EXPENSES (A)	12/31/16	\$888,558	\$640,343	
	12/31/17	\$1,118,325	\$989,053	
	12/31/18	\$1,190,985	\$689,899	
(3) SELECTED ANNUAL LOSS				
TREND (SEE TREND		5.5%	4.7%	5.2%
EXHIBIT IN SECTION C)				
(4) TRENDING LOSSES AND	12/31/14	\$1,686,811	\$1,012,903	\$2,699,714
ALL LOSS ADJUSTMENT	12/31/15	\$1,845,266	\$876,356	\$2,721,622
EXPENSES (B)	12/31/16	\$1,161,345	\$805,551	\$1,966,897
	12/31/17	\$1,385,605	\$1,188,842	\$2,574,446
	12/31/18	\$1,398,216	\$792,004	\$2,190,220
(A) INCURRED LOSSES AND ALLOCATED LOSS ADJUSTMENT EXPENSES ARE ADJUSTED				
BY THE FOLLOWING FACTORS:				
1 - UNALLOCATED LOSS ADJUSTMENT FACTORS:		B.I. 1.075	P.D. 1.100	
2 - LOSS DEVELOPMENT FACTORS:				
	YEAR ENDING	B.I.	P.D.	
	12/31/14	1.004	1.001	
	12/31/15	1.022	1.001	
	12/31/16	1.071	1.004	
	12/31/17	1.216	1.012	
	12/31/18	1.496	1.050	

(B) TRENDING 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 07/01/20 WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING.

YEAR ENDING	AVERAGE DATE OF ACCIDENT	PROJECTION PERIOD
12/31/14	7/1/14	7.000
12/31/15	7/1/15	6.000
12/31/16	7/1/16	5.000
12/31/17	7/1/17	4.000
12/31/18	7/1/18	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)
COVERAGES	ACCIDENT YEAR	AGGREGATE		EXPERIENCE		NUMBER OF
O.T.C	ENDING	LOSS COST AT		RATIO (2) /	ACCIDENT	PAID
		CURRENT	INCURRED	(1)	YEAR WEIGHTS	CLAIMS
	12/31/14	\$1,894,322	\$2,119,987	1.119	10%	543
	12/31/15	\$1,841,270	\$2,183,065	1.186	15%	571
	12/31/16	\$1,746,058	\$2,234,763	1.280	20%	549
	12/31/17	\$999,617	\$953,974	0.954	25%	283
	12/31/18	\$996,046	\$1,049,554	1.054	30%	270
COLL.	12/31/14	\$1,461,747	\$1,792,516	1.226	10%	310
	12/31/15	\$1,424,800	\$1,431,153	1.004	15%	251
	12/31/16	\$1,363,099	\$1,214,480	0.891	20%	209
	12/31/17	\$876,456	\$854,409	0.975	25%	139
	12/31/18	\$862,928	\$834,285	0.967	30%	159
					O.T.C.	COLLISION
(6)	AVERAGE EXPERIENCE RATIO (SUM OF (3)*(4)).				1.101	0.986
(7)	EXPECTED EXPERIENCE RATIO (D).				1.054	1.034
(8)	CREDIBILITY (E).				0.50	0.55
(9)	CREDIBILITY WEIGHTED EXPERIENCE RATIO: ((6) * (8)) + ((7) * (1.000- (8))).				1.078	1.008
(10)	INDICATED PERCENTAGE CHANGE IN ADVISORY LOSS COST LEVEL ((9) - 1.000).				7.8%	0.8%
(11)	FILED CHANGE.				7.8%	N.C.
(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 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 07/01/20 WHICH IS ASSUMED FOR THE PURPOSES 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 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	12/31/14	\$1,207,268	\$1,205,393
	12/31/15	\$1,324,137	\$1,001,191
	12/31/16	\$1,443,552	\$884,007
	12/31/17	\$655,818	\$650,807
	12/31/18	\$760,516	\$693,733
(2) DEVELOPED LOSSES AND	12/31/14	\$1,364,213	\$1,362,094
ALL LOSS ADJUSTMENT	12/31/15	\$1,496,275	\$1,131,346
EXPENSES (A)	12/31/16	\$1,631,214	\$997,929
	12/31/17	\$741,815	\$730,264
	12/31/18	\$868,836	\$741,587
(3) SELECTED ANNUAL LOSS TREND (SEE TREND EXHIBIT IN SECTION C)		6.5%	4.0%
(4) TRENDED LOSSES AND	12/31/14	\$2,119,987	\$1,792,516
ALL LOSS ADJUSTMENT	12/31/15	\$2,183,065	\$1,431,153
EXPENSES (B)	12/31/16	\$2,234,763	\$1,214,480
	12/31/17	\$953,974	\$854,409
	12/31/18	\$1,049,554	\$834,285
(A) PAID LOSSES ARE ADJUSTED BY THE FOLLOWING:			
1 - LOSS ADJUSTMENT EXPENSE FACTORS:		O.T.C	COLL.
		1.130	1.130
2 - LOSS DEVELOPMENT FACTORS:			
	YEAR ENDING	O.T.C.	COLL.
	12/31/14	1.000	1.000
	12/31/15	1.000	1.000
	12/31/16	1.000	0.999
	12/31/17	1.001	0.993
	12/31/18	1.011	0.946
(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 07/01/20 WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING BOTH OTC AND COLLISION.			

YEAR ENDING	AVERAGE DATE OF ACCIDENT	PROJECTION PERIOD OTC	PROJECTION PERIOD COLL
12/31/14	7/1/14	7.000	7.000
12/31/15	7/1/15	6.000	6.000
12/31/16	7/1/16	5.000	5.000
12/31/17	7/1/17	4.000	4.000
12/31/18	7/1/18	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	12/31/14	\$1,767,091	\$1,401,483
AT CURRENT LEVEL	12/31/15	\$1,733,776	\$1,373,963
	12/31/16	\$1,661,330	\$1,323,397
	12/31/17	\$960,247	\$855,914
	12/31/18	\$967,035	\$847,670
(2) SELECTED ANNUAL OCN			
TREND (SEE TREND		1.0%	0.6%
EXHIBIT IN SECTION C)			
(3) TRENDED AGGREGATE	12/31/14	\$1,894,322	\$1,461,747
LOSS COSTS AT	12/31/15	\$1,841,270	\$1,424,800
CURRENT LEVEL (A)	12/31/16	\$1,746,058	\$1,363,099
	12/31/17	\$999,617	\$876,456
	12/31/18	\$996,046	\$862,928

(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 DATE OF
07/01/20 WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING BOTH OTC
AND COLLISION.

YEAR ENDING	AVERAGE DATE OF WRITING	PROJECTION PERIOD OTC	PROJECTION PERIOD COLL
12/31/14	1/1/14	7.000	7.000
12/31/15	1/1/15	6.000	6.000
12/31/16	1/1/16	5.000	5.000
12/31/17	1/1/17	4.000	4.000
12/31/18	1/1/18	3.000	3.000

INSURANCE SERVICES OFFICE, INC.

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 CAR	\$100000	EXPER LOSS					BASE	BASE	BASE	ADV
E	YRS YR	UND	COST 5 YRS				INDEX	CLASS	CLASS	CLASS	LOSS
R	ENDED	LOSS	END	EXPER		FORM	(6) TO	LOSS	LOSS	LOSS	COST
R	12/31/2018	COST	12/31/2018	RATIO	CRED	RATIO	STATE	COST	COST	COST	COST
								PRES	IND*	REV	CHG**
101	11889	190.99	173.43	0.908	0.25	1.051	0.952	187	191	191	2.1%
105	29719	134.05	159.30	1.188	0.40	1.134	1.027	154	170	170	10.4%
106	26601	58.65	61.70	1.052	0.25	1.087	0.985	80	85	85	6.3%
107	6721	220.30	263.28	1.195	0.25	1.122	1.016	240	262	262	9.2%
SW	74930	124.05	136.22	1.098		1.104					

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 7.4 PERCENT.

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

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE
SINGLE LIMIT LIABILITY

DETERMINATION OF LOSS COST LEVEL CHANGES BY TERRITORY
PRIVATE PASSENGER TYPES (PPT)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
T	EARNED CAR	\$100000	EXPER LOSS					BASE	BASE	BASE	
E	YRS YR	UND	COST 5 YRS				INDEX	CLASS	CLASS	CLASS	ADV
R	ENDED	LOSS	END	EXPER		FORM	(6) TO	LOSS	LOSS	LOSS	LOSS
R	12/31/2018	COST	12/31/2018	RATIO	CRED	RATIO	STATE	COST	COST	COST	COST
								PRES	IND*	REV	CHG**
101	1601	230.19	269.31	1.170	0.10	1.205	0.997	230	251	251	9.1%
105	3842	189.28	217.43	1.149	0.15	1.200	0.993	193	210	210	8.8%
106	3429	135.74	171.55	1.264	0.15	1.217	1.007	139	153	153	10.1%
107	955	328.75	432.43	1.315	0.10	1.220	1.009	330	365	365	10.6%
SW	9827	190.82	230.77	1.209		1.209					

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 9.5 PERCENT.

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

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE
PHYSICAL DAMAGE - COMPREHENSIVE

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

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	EARNED CAR YRS YR ENDED 12/31/2018	UND LOSS COST	EXPER LOSS COST 5 YRS END 12/31/2018	EXPER RATIO	CRED	FORM RATIO	INDEX (6) TO STATE	BASE CLASS LOSS COST PRES	BASE CLASS LOSS COST IND*	BASE CLASS LOSS COST REV	ADV LOSS COST CHG**
101	7252	104.08	120.36	1.156	0.25	1.118	1.015	158	177	177	12.0%
105	15344	128.93	129.61	1.005	0.40	1.065	0.967	198	212	212	7.1%
106	9106	128.80	156.77	1.217	0.35	1.144	1.039	240	276	276	15.0%
107	4473	145.38	166.50	1.145	0.20	1.113	1.011	217	243	243	12.0%
SW	36175	125.95	139.15	1.105		1.101					

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 10.6 PERCENT.

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

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE
PHYSICAL DAMAGE - COLLISION

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

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	EARNED CAR YRS YR ENDED 12/31/2018	UND LOSS COST	EXPER LOSS COST 5 YRS END 12/31/2018	EXPER RATIO	CRED	FORM RATIO	INDEX (6) TO STATE	BASE CLASS LOSS COST PRES	BASE CLASS LOSS COST IND*
101	7293	148.73	149.64	1.006	0.35	0.997	0.997	164	165
105	14872	162.47	175.61	1.081	0.55	1.041	1.041	188	198
106	8488	164.61	155.67	0.946	0.40	0.974	0.974	208	205
107	4325	224.61	184.20	0.820	0.30	0.940	0.940	243	231
SW	34978	167.81	166.42	0.992		1.000			

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 1.1 PERCENT.

DUE TO THE MODEST INDICATION, WE WILL NOT BE FILING THESE
INDICATED LOSS COSTS. THE LOSS COSTS IN COLUMN (8) REMAIN IN EFFECT.

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE
PHYSICAL DAMAGE - COMPREHENSIVE

DETERMINATION OF LOSS COST LEVEL CHANGES BY TERRITORY
PRIVATE PASSENGER TYPES (PPT)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
T	EARNED CAR		EXPER LOSS					BASE	BASE	BASE	ADV
E	YRS YR	UND	COST 5 YRS				INDEX	CLASS	CLASS	CLASS	LOSS
R	ENDED	LOSS	END	EXPER		FORM	(6) TO	LOSS	LOSS	LOSS	LOSS
R	12/31/2018	COST	12/31/2018	RATIO	CRED	RATIO	STATE	COST	COST	COST	COST
								PRES	IND*	REV	CHG**
101	1133	172.98	233.77	1.351	0.20	1.211	1.032	176	196	196	11.4%
105	1871	217.37	212.46	0.977	0.25	1.126	0.960	217	225	225	3.7%
106	852	316.03	398.75	1.262	0.30	1.202	1.025	312	345	345	10.6%
107	640	193.93	264.11	1.362	0.15	1.204	1.026	192	212	212	10.4%
SW	4496	221.54	260.48	1.176		1.173					

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 7.8 PERCENT.

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

INSURANCE SERVICES OFFICE, INC.

MONTANA
COMMERCIAL AUTOMOBILE INSURANCE
PHYSICAL DAMAGE - COLLISION

DETERMINATION OF LOSS COST LEVEL CHANGES BY TERRITORY
PRIVATE PASSENGER TYPES (PPT)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	EARNED CAR YRS YR ENDED 12/31/2018	UND LOSS COST	EXPER LOSS COST 5 YRS END 12/31/2018	EXPER RATIO	CRED	FORM RATIO	INDEX (6) TO STATE	BASE CLASS LOSS COST PRES	BASE CLASS LOSS COST IND*
101	1109	157.15	153.93	0.980	0.20	1.021	0.991	209	209
105	1788	217.88	220.18	1.011	0.35	1.024	0.994	293	294
106	828	179.42	188.64	1.051	0.25	1.036	1.006	240	243
107	652	230.88	259.70	1.125	0.20	1.050	1.019	297	305
SW	4377	197.15	203.31	1.031		1.030			

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 0.8 PERCENT.

DUE TO THE MODEST INDICATION, WE WILL NOT BE FILING THESE
INDICATED LOSS COSTS. THE LOSS COSTS IN COLUMN (8) REMAIN IN EFFECT.

INSURANCE SERVICES OFFICE, INC.

COMMERCIAL AUTOMOBILE LIABILITY INSURANCE
MULTISTATE LOSS ADJUSTMENT EXPENSE EXPERIENCE

Calendar Year

Development of Unallocated Loss Adjustment Expense Factor

		<u>Bodily Injury</u> (000's)					3 YR.	5 YR.
		<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>AVG</u>	<u>AVG</u>
(1)	ITEM Direct Losses Incurred	4,201,981	4,808,966	5,392,813	5,762,768	6,343,079		
(2)	Allocated Loss Adjustment Expenses Incurred	480,882	516,366	609,253	669,634	692,813		
(3)	Unallocated Loss Adjustment Expense Incurred	431,513	471,206	478,672	478,481	509,596		
(4)	Unallocated LAE as a Ratio to Losses + Allocated LAE (3)/[(1)+(2)]	9.2%	8.8%	8.0%	7.4%	7.2%	7.6%	8.1%
(5)	Selected Factor							7.5%

		<u>Property Damage</u> (000's)					3 YR.	5 YR.
		<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>AVG</u>	<u>AVG</u>
(1)	ITEM Direct Losses Incurred	965,963	1,036,103	1,144,361	1,240,811	1,278,538		
(2)	Allocated Loss Adjustment Expenses Incurred	70,743	69,240	85,269	72,162	83,354		
(3)	Unallocated Loss Adjustment Expense Incurred	113,312	129,347	129,840	127,728	134,901		
(4)	Unallocated LAE as a Ratio to Losses + Allocated LAE (3)/[(1)+(2)]	10.9%	11.7%	10.6%	9.7%	9.9%	10.1%	10.6%
(5)	Selected Factor							10.0%

All items are from Special Call Submission for available writers.

INSURANCE SERVICES OFFICE, INC.

COMMERCIAL AUTOMOBILE PHYSICAL DAMAGE INSURANCE
MULTISTATE LOSS ADJUSTMENT EXPENSE EXPERIENCE

Calendar Year

Development of Factor to Include all Loss Adjustment Expenses

		(000's)					3 YR.	5 YR.
		<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>AVG</u>	<u>AVG</u>
(1)	ITEM Direct Losses Incurred	3,615,666	4,009,807	4,293,030	4,806,080	5,434,351		
(2)	Loss Adjustment Expenses Incurred	581,191	657,537	578,445	622,951	702,920		
(3)	Losses + LAE Incurred as Ratio to Losses Incurred [(1)+(2)]/(1)	1.161	1.164	1.135	1.130	1.129	1.131	1.144
(4)	Selected							1.130

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

INSURANCE SERVICES OFFICE, INC.

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

AVERAGE PAID CLAIM COST DATA

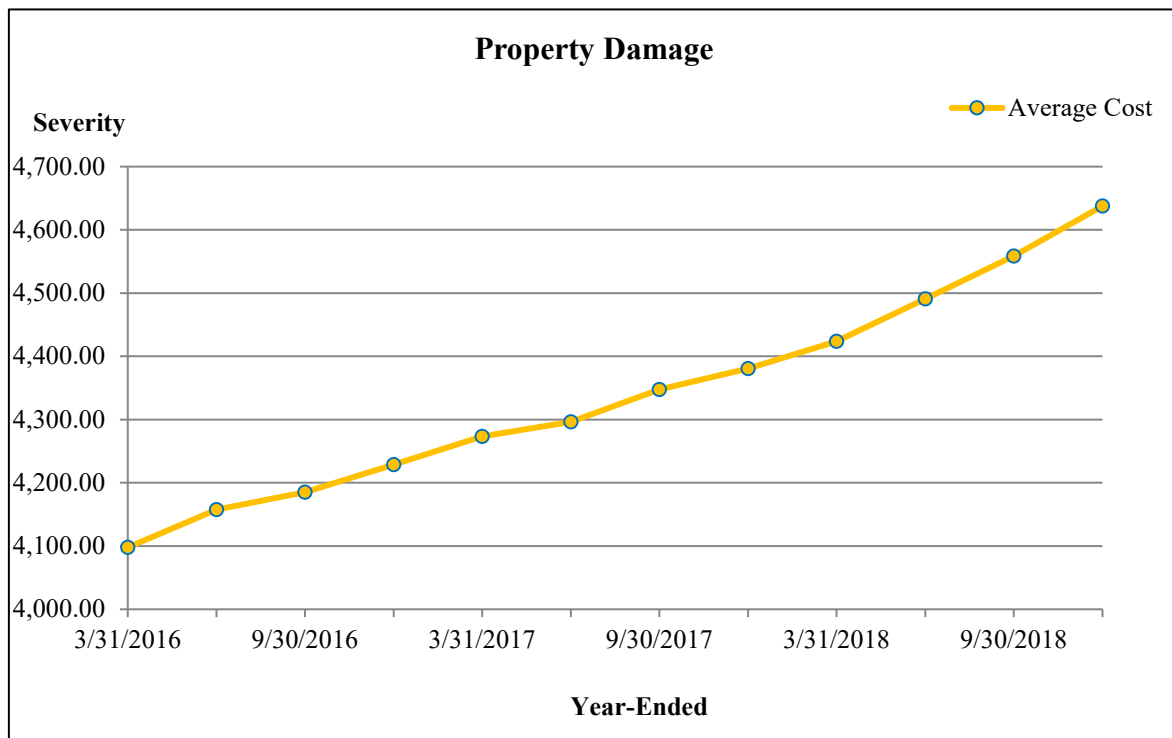
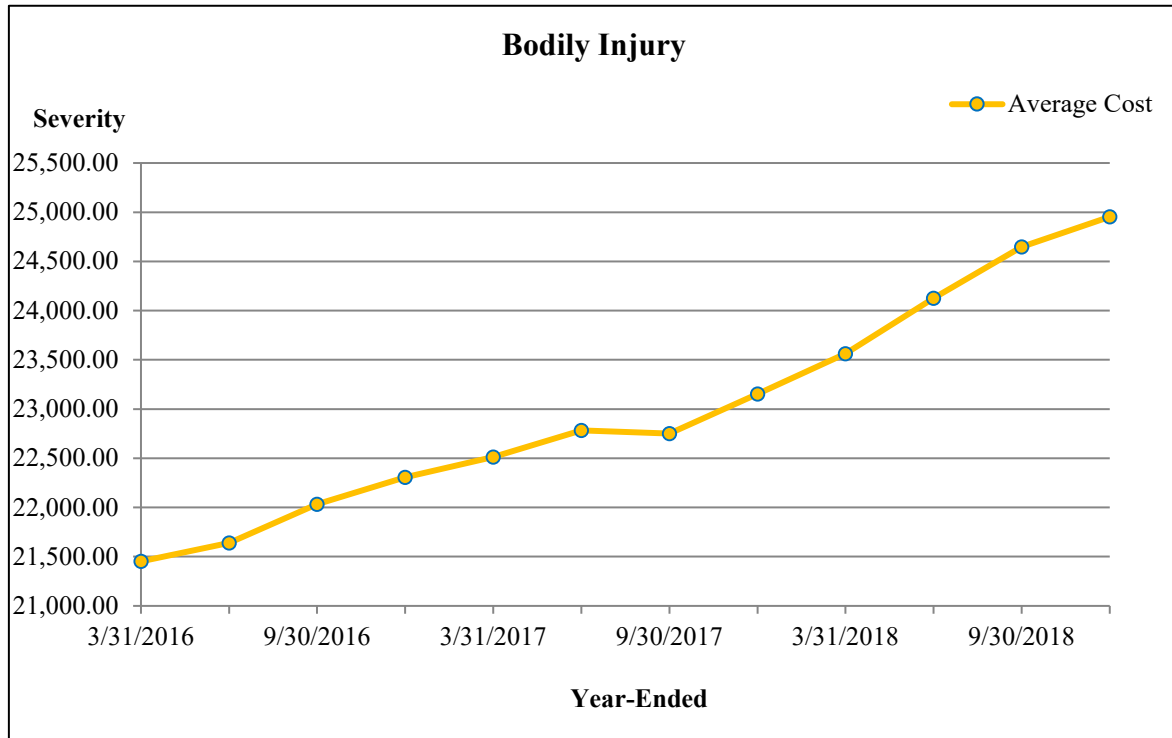
YEAR ENDED	MONTANA				MULTISTATE*			
	BODILY INJURY		PROPERTY DAMAGE		BODILY INJURY		PROPERTY DAMAGE	
	(\$100000 LIMITS)		(\$100000 LIMITS)		(\$100000 LIMITS)		(\$100000 LIMITS)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	ACTUAL	EXPONENTIAL FIT	ACTUAL	EXPONENTIAL FIT	ACTUAL	EXPONENTIAL FIT	ACTUAL	EXPONENTIAL FIT
3/31/2016	31791.18	30684.07	3955.66	3701.67	21452.49	21338.63	4097.81	4094.24
6/30/2016	29324.05	29866.66	3940.23	3813.22	21640.70	21626.08	4157.45	4137.34
9/30/2016	30735.67	29071.02	3811.88	3928.13	22032.66	21917.40	4185.35	4180.90
12/31/2016	31459.20	28296.57	3896.47	4046.49	22305.11	22212.64	4228.88	4224.91
3/31/2017	24773.80	27542.76	4122.47	4168.43	22511.43	22511.86	4273.58	4269.39
6/30/2017	27940.33	26809.03	4123.62	4294.04	22784.19	22815.11	4296.48	4314.33
9/30/2017	24002.90	26094.84	4322.28	4423.44	22751.25	23122.44	4347.40	4359.75
12/31/2017	22028.30	25399.68	4405.36	4556.73	23154.91	23433.92	4380.42	4405.65
3/31/2018	23898.95	24723.04	4752.68	4694.05	23561.65	23749.59	4423.60	4452.02
6/30/2018	23536.85	24064.43	4890.15	4835.49	24127.67	24069.51	4490.97	4498.89
9/30/2018	25168.70	23423.36	5115.65	4981.21	24648.04	24393.74	4558.73	4546.25
12/31/2018	25097.86	22799.37	5271.26	5131.31	24953.34	24722.34	4637.72	4594.11

		BODILY INJURY	PROPERTY DAMAGE
(9)	AVERAGE ANNUAL PERCENT CHANGE IN PAID CLAIM COST (12TH POINT / 8TH POINT)		
	(A) MONTANA	-10.2%	12.6%
	(B) MULTISTATE	5.5%	4.3%
(10)	CREDIBILITY	0.00	0.05
(11)	WEIGHTED AVERAGE ANNUAL PERCENT CHANGE IN PAID CLAIM COSTS { (10) * (9A) } + { (1.0 - (10)) * (9B) }	5.5%	4.7%
(12)	SELECTED ANNUAL PERCENT CHANGE IN CLAIM FREQUENCY	0.0%	0.0%
(13)	AVERAGE ANNUAL PERCENT CHANGE IN LIABILITY LOSS RATIO (11) * (12)	5.5%	4.7%

* EXCLUDES MASSACHUSETTS

INSURANCE SERVICES OFFICE, INC.

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</u> <u>ENDING</u>	<u>BODILY INJURY</u> <u>ACTUAL</u>	<u>BODILY INJURY</u> <u>ACTUAL CHANGE@</u>	<u>PROPERTY DAMAGE</u> <u>ACTUAL</u>	<u>PROPERTY DAMAGE</u> <u>ACTUAL CHANGE@</u>
12/31/2012	0.7355		2.6523	
3/31/2013	0.7330		2.6853	
6/30/2013	0.7440		2.7160	
9/30/2013	0.7560		2.7489	
12/31/2013	0.7561	2.8% &	2.7667	4.3% &
3/31/2014	0.7707		2.8565	
6/30/2014	0.7615		2.8560	
9/30/2014	0.7580	0.3%	2.8630	4.2%
12/31/2014	0.7634		2.8658	
3/31/2015	0.7542		2.8301	
6/30/2015	0.7626		2.8382	
9/30/2015	0.7717	1.8%	2.8619	0.0%
12/31/2015	0.7859		2.8770	
3/31/2016	0.8009		2.8604	
6/30/2016	0.8113		2.8688	
9/30/2016	0.8190	6.1%	2.8747	0.4%
12/31/2016	0.8230		2.8738	
3/31/2017	0.8259		2.8501	
6/30/2017	0.8321		2.8439	
9/30/2017	0.8268	1.0%	2.8082	-2.3%
12/31/2017	0.8239		2.7930	
3/31/2018	0.8187		2.8032	
6/30/2018	0.8095		2.8067	
9/30/2018	0.8054	-2.6%	2.7990	-0.3%

* EXCLUDES MASSACHUSETTS

@ CHANGE BASED ON YEARS ENDING 9/30/XXXX

& CHANGE BASED ON YEAR ENDING 12/31/2013 divided by 12/31/2012

INSURANCE SERVICES OFFICE, INC.

COMMERCIAL AUTO LIABILITY
INCURRED CLAIM FREQUENCY

MULTISTATE*

PRIVATE PASSENGER TYPES

<u>YEAR</u> <u>ENDING</u>	<u>BODILY INJURY</u> <u>ACTUAL</u>	<u>BODILY INJURY</u> <u>ACTUAL CHANGE@</u>	<u>PROPERTY DAMAGE</u> <u>ACTUAL</u>	<u>PROPERTY DAMAGE</u> <u>ACTUAL CHANGE@</u>
12/31/2012	0.8711		3.1723	
3/31/2013	0.8593		3.1432	
6/30/2013	0.8532		3.0989	
9/30/2013	0.8616		3.1097	
12/31/2013	0.8680	-0.4% &	3.1399	-1.0% &
3/31/2014	0.8645		3.1695	
6/30/2014	0.8651		3.1686	
9/30/2014	0.8549	-0.8%	3.1242	0.5%
12/31/2014	0.8504		3.0988	
3/31/2015	0.8306		3.0699	
6/30/2015	0.8147		3.0428	
9/30/2015	0.8126	-4.9%	3.0784	-1.5%
12/31/2015	0.8122		3.0889	
3/31/2016	0.8248		3.0901	
6/30/2016	0.8310		3.1116	
9/30/2016	0.8464	4.2%	3.1038	0.8%
12/31/2016	0.8370		3.0882	
3/31/2017	0.8347		3.0235	
6/30/2017	0.8335		2.9874	
9/30/2017	0.8112	-4.2%	2.9073	-6.3%
12/31/2017	0.8110		2.8743	
3/31/2018	0.8170		2.8885	
6/30/2018	0.8150		2.8403	
9/30/2018	0.8133	0.3%	2.7969	-3.8%

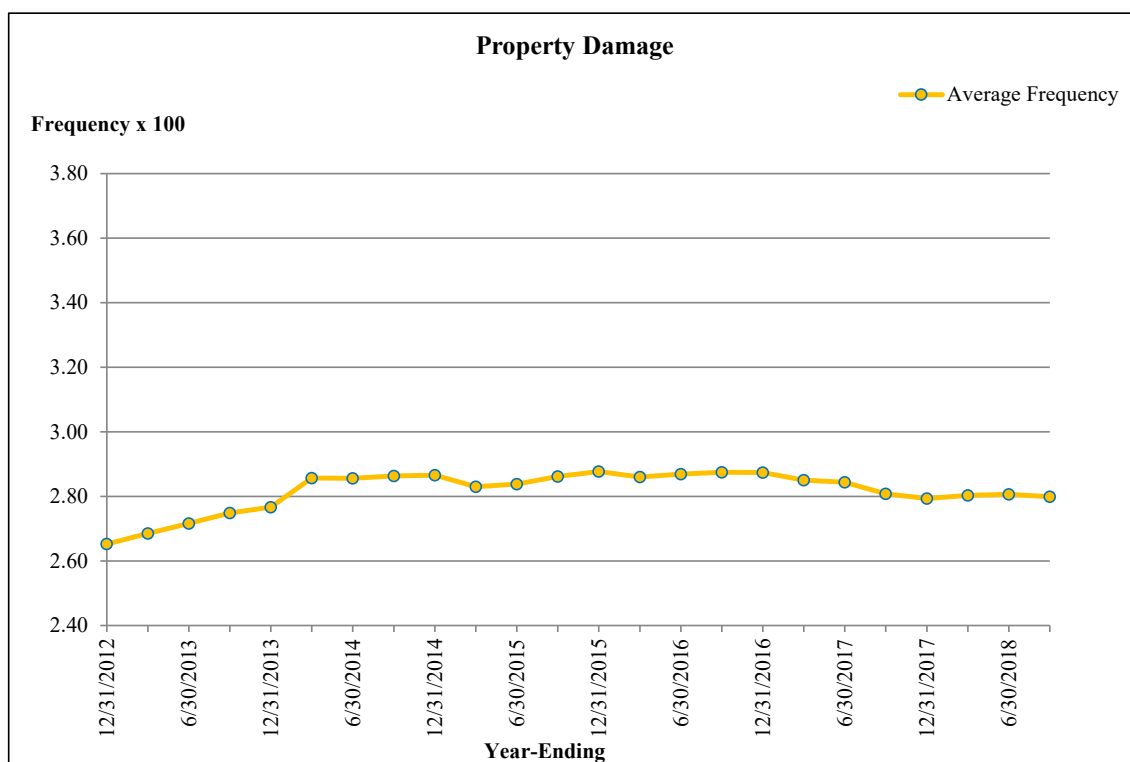
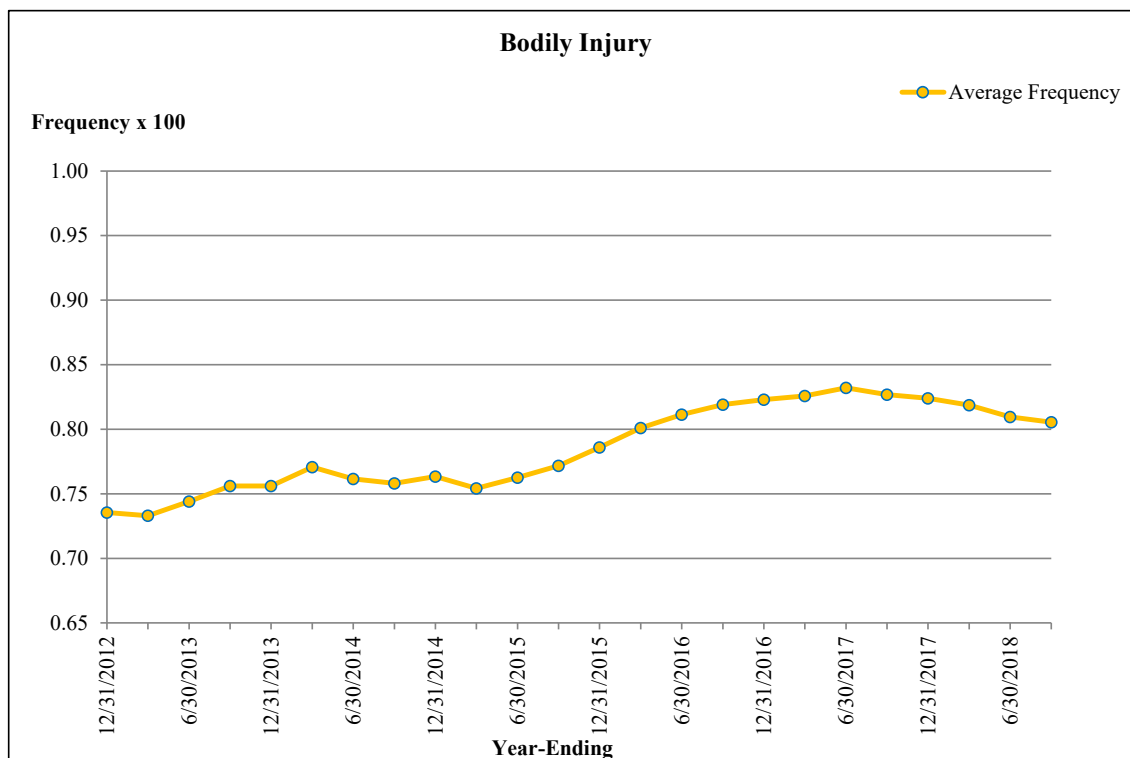
* EXCLUDES MASSACHUSETTS

@ CHANGE BASED ON YEARS ENDING 9/30/XXXX

& CHANGE BASED ON YEAR ENDING 12/31/2013 divided by 12/31/2012

INSURANCE SERVICES OFFICE, INC.

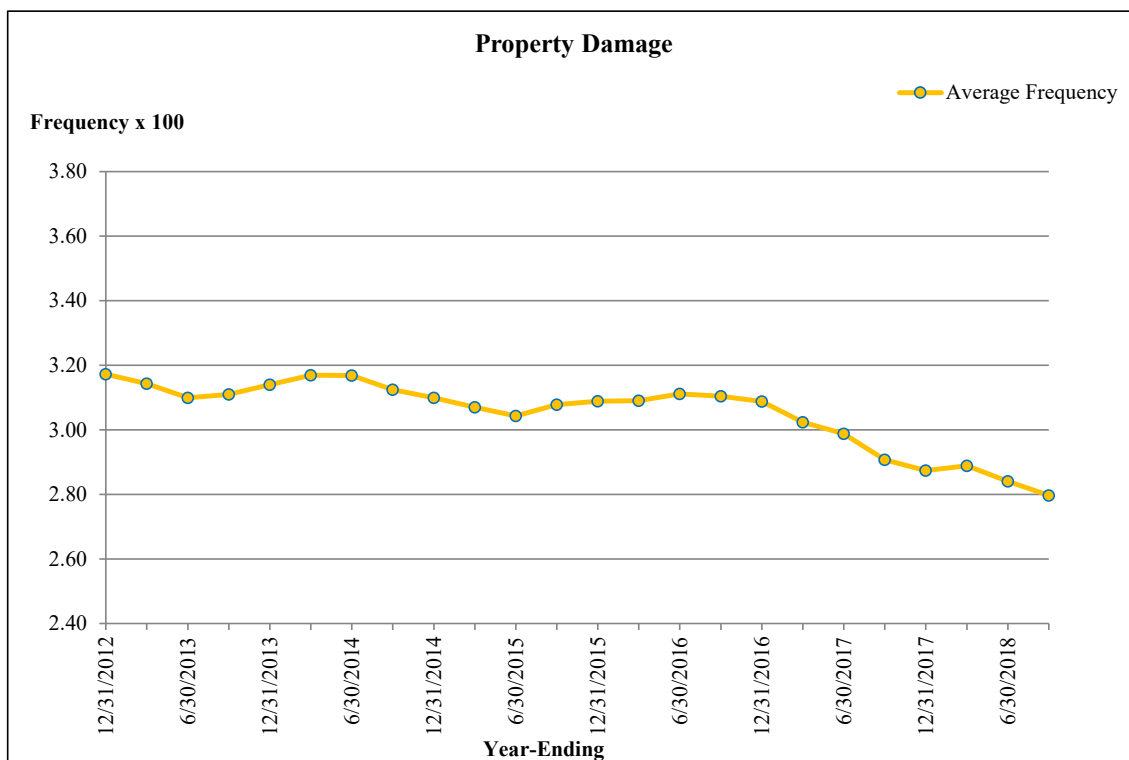
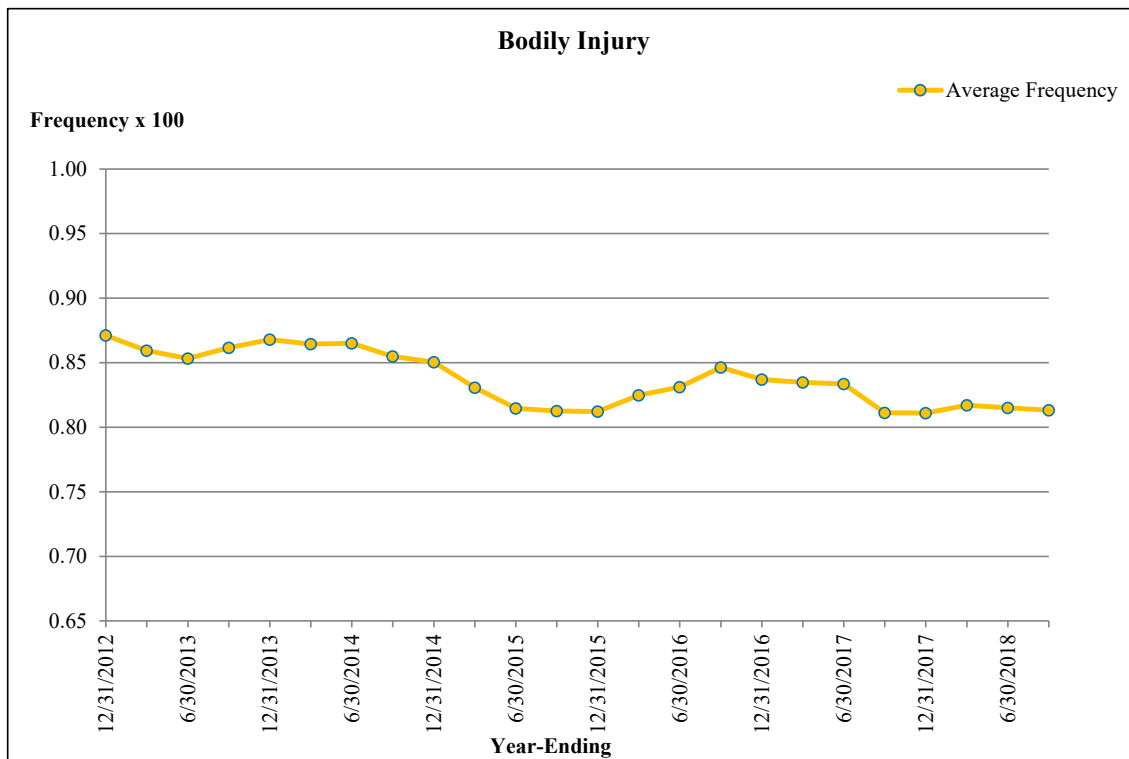
Commercial Automobile Liability
Incurred Claim Frequency Experience
Trucks, Tractors, and Trailers
Multistate*



*Excludes Massachusetts

INSURANCE SERVICES OFFICE, INC.

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



*Excludes Massachusetts

INSURANCE SERVICES OFFICE, INC.

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**
6/30/2014	2.50		1.40		0.92	
12/31/2014	2.47		1.37		0.90	
6/30/2015	2.37		1.35		0.89	
12/31/2015	2.31	-6.5%	1.35	-1.5%	0.89	-1.1%
6/30/2016	2.22		1.34		0.91	
12/31/2016	2.22	-3.9%	1.34	-0.7%	0.90	1.1%
6/30/2017	2.23		1.36		0.90	
12/31/2017	2.26	1.8%	1.41	5.2%	0.92	2.2%
6/30/2018	2.38		1.47		0.94	
12/31/2018	2.49	10.2%	1.53	8.5%	0.96	4.3%

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

Deductible:	Percent of Losses
Full	0.4%
\$50	0.4%
\$100	2.5%
\$200	0.2%
\$250	9.3%
\$500	36.3%
\$1,000	44.1%
\$2,000	4.3%
\$3,000	0.9%
\$5,000	1.6%

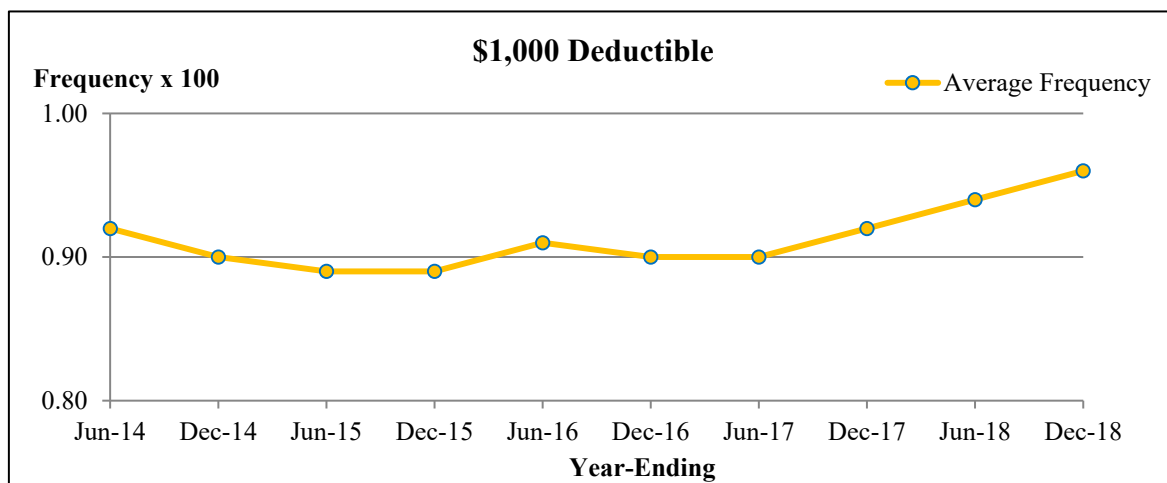
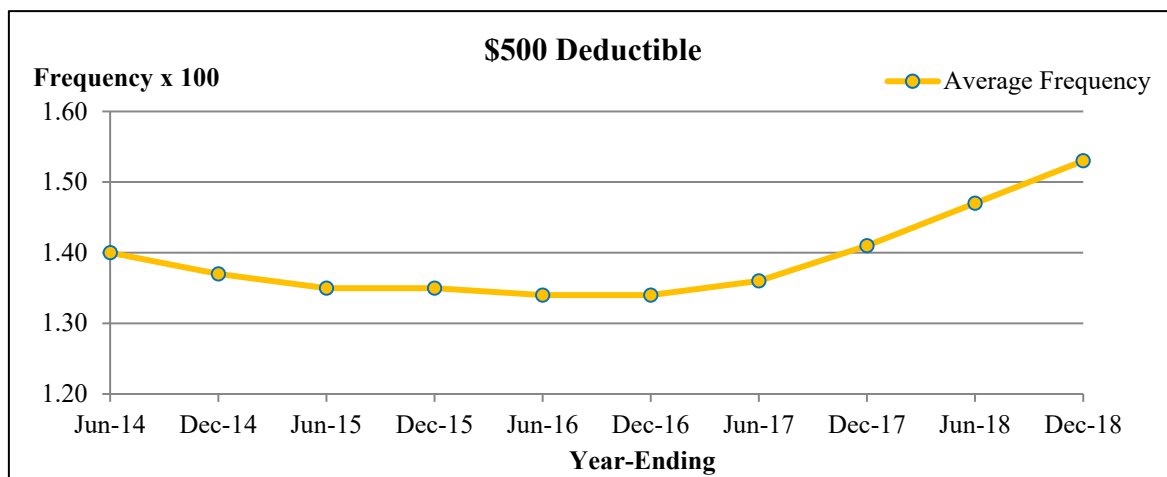
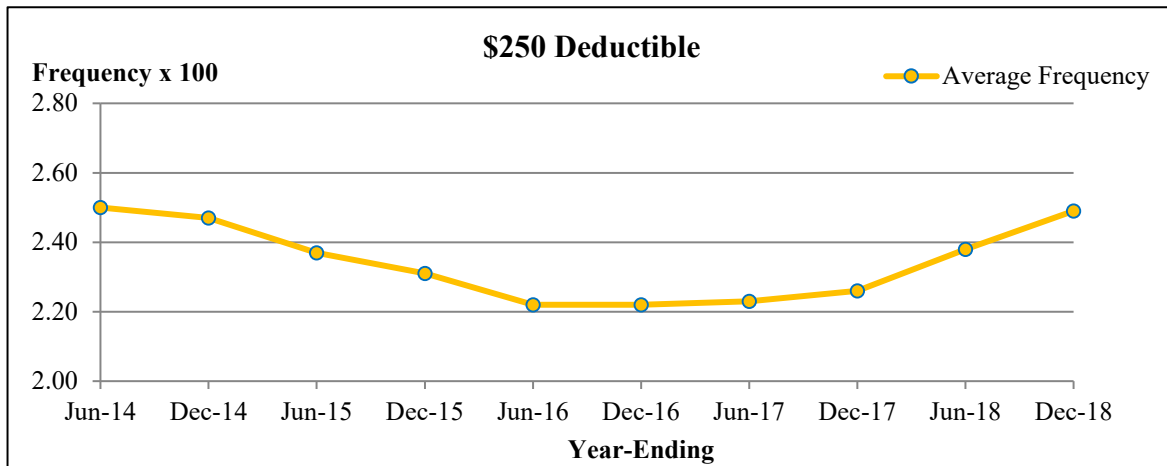
* Multistate data excludes Massachusetts

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

*** Deductibles above \$1,000, totaling 6.8% of losses, are excluded from the trend calculations.

INSURANCE SERVICES OFFICE, INC.

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



*Excludes Massachusetts

Selected Other Than Collision Frequency Trend Factor: 0.0%

INSURANCE SERVICES OFFICE, INC.

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

Severity Trend

Year Ending:	\$250 Deductible	\$500 Deductible	\$1,000 Deductible
6/30/2014	2,885.88	4,948.54	7,327.88
12/31/2014	2,981.15	5,079.85	7,452.83
6/30/2015	3,055.82	5,160.68	7,491.47
12/31/2015	3,156.42	5,431.05	7,733.42
6/30/2016	3,403.34	5,597.25	8,031.89
12/31/2016	3,469.71	5,649.55	8,378.59
6/30/2017	3,534.58	5,945.59	8,739.47
12/31/2017	3,708.55	6,293.24	9,153.24
6/30/2018	3,753.56	6,314.13	9,369.71
12/31/2018	3,862.44	6,393.21	9,409.87

Average Annual Change Using Exponential Fits:

10 point fit:	7.0%	6.4%	6.6%
8 point fit:	6.8%	6.5%	7.4%
6 point fit:	5.4%	6.2%	6.9%

Selected severity trend:	7.0%
Selected frequency trend:	0.0%
Selected pure premium trend:	7.0%

* Multistate data excludes Massachusetts

INSURANCE SERVICES OFFICE, INC.

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**
6/30/2014	2.32		1.98		1.58	
12/31/2014	2.32		1.99		1.59	
6/30/2015	2.29		1.98		1.60	
12/31/2015	2.31	-0.4%	2.01	1.0%	1.63	2.5%
6/30/2016	2.29		2.01		1.63	
12/31/2016	2.38	3.0%	2.08	3.5%	1.68	3.1%
6/30/2017	2.40		2.07		1.69	
12/31/2017	2.33	-2.1%	2.00	-3.8%	1.65	-1.8%
6/30/2018	2.35		2.02		1.67	
12/31/2018	2.37	1.7%	2.03	1.5%	1.70	3.0%

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

Deductible:	Percent of Losses
\$100	0.1%
\$200	0.0%
\$250	1.8%
\$500	34.1%
\$1,000	53.5%
\$2,000	5.4%
\$3,000	1.6%
\$5,000	3.6%

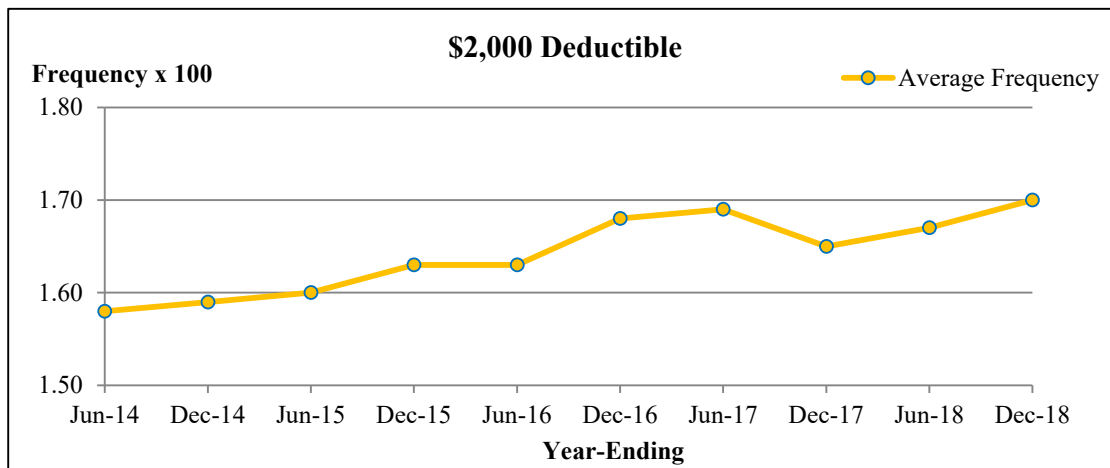
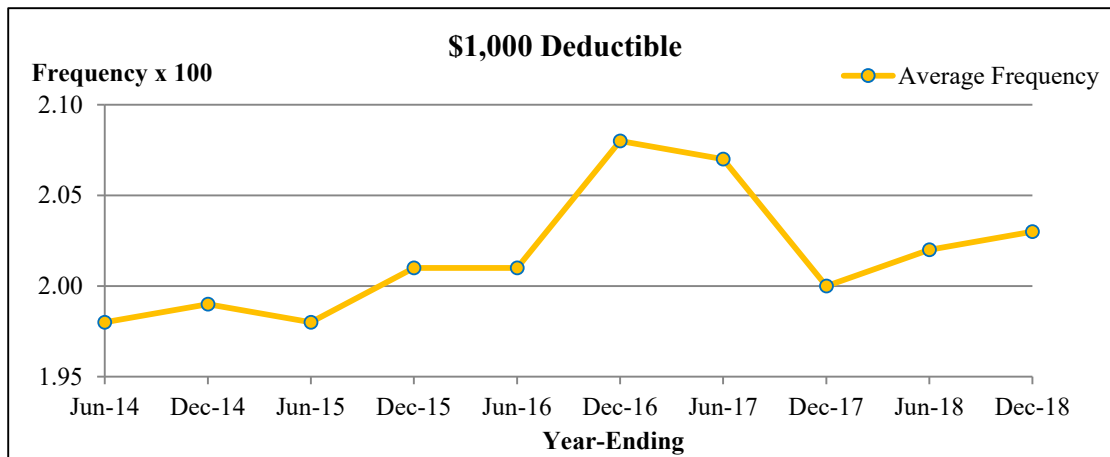
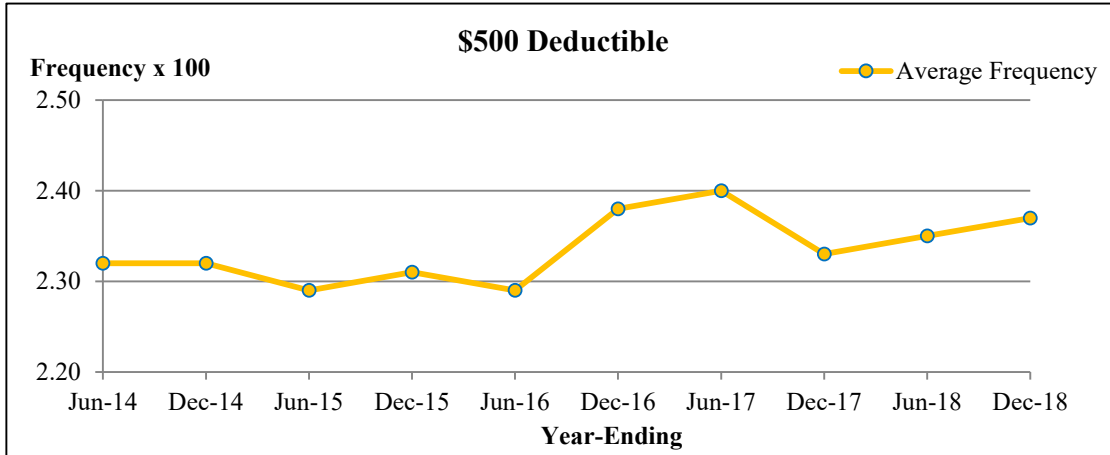
* Multistate data excludes Massachusetts

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

*** Deductibles above \$2,000, totaling 5.2% of losses, are excluded from trend calculations.

INSURANCE SERVICES OFFICE, INC.

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



*Excludes Massachusetts

Selected Collision Frequency Trend Factor: 0.0%

INSURANCE SERVICES OFFICE, INC.

Multistate*
Trucks, Tractors & Trailers Physical Damage
Collision

Severity Trend

Year Ending:	\$500 Deductible	\$1,000 Deductible	\$2,000 Deductible
6/30/2014	8,006.95	9,709.23	10,578.28
12/31/2014	8,328.42	10,052.35	10,996.98
6/30/2015	8,624.52	10,264.31	11,154.78
12/31/2015	8,784.58	10,478.77	11,361.59
6/30/2016	9,123.06	10,789.93	11,709.15
12/31/2016	9,290.63	10,973.53	11,920.32
6/30/2017	9,302.59	10,979.20	11,887.61
12/31/2017	9,547.23	11,200.14	12,123.28
6/30/2018	9,800.39	11,561.15	12,548.35
12/31/2018	10,206.82	11,967.55	12,822.63

Average Annual Change Using Exponential Fits:

10 point fit:	5.0%	4.3%	4.0%
8 point fit:	4.5%	4.1%	3.8%
6 point fit:	4.4%	4.0%	3.7%

Selected severity trend:	4.5%
Selected frequency trend:	0.0%
Selected pure premium trend:	4.5%

* Multistate data excludes Massachusetts

INSURANCE SERVICES OFFICE, INC.

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**
6/30/2014	5.47		3.24		1.93	
12/31/2014	5.30		3.18		1.92	
6/30/2015	4.95		3.07		1.89	
12/31/2015	4.97	-6.2%	3.15	-0.9%	1.94	1.0%
6/30/2016	4.97		3.19		1.98	
12/31/2016	4.98	0.2%	3.09	-1.9%	1.92	-1.0%
6/30/2017	4.83		2.99		1.89	
12/31/2017	4.79	-3.8%	3.03	-1.9%	1.94	1.0%
6/30/2018	5.04		3.16		2.00	
12/31/2018	5.13	7.1%	3.30	8.9%	2.05	5.7%

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

Deductible:	Percent of Losses
Full	0.3%
\$50	0.6%
\$100	3.3%
\$200	0.8%
\$250	12.1%
\$500	43.5%
\$1,000	36.7%
\$2,000	1.8%
\$3,000	0.2%
\$5,000	0.7%

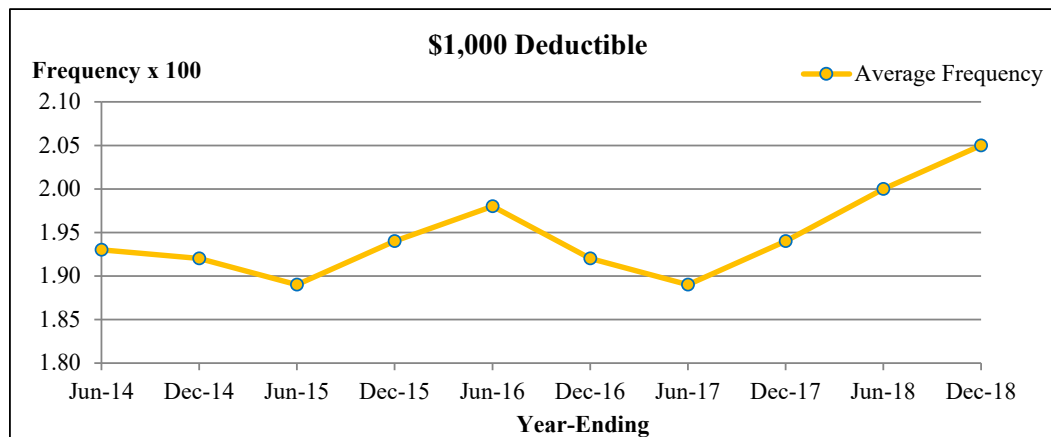
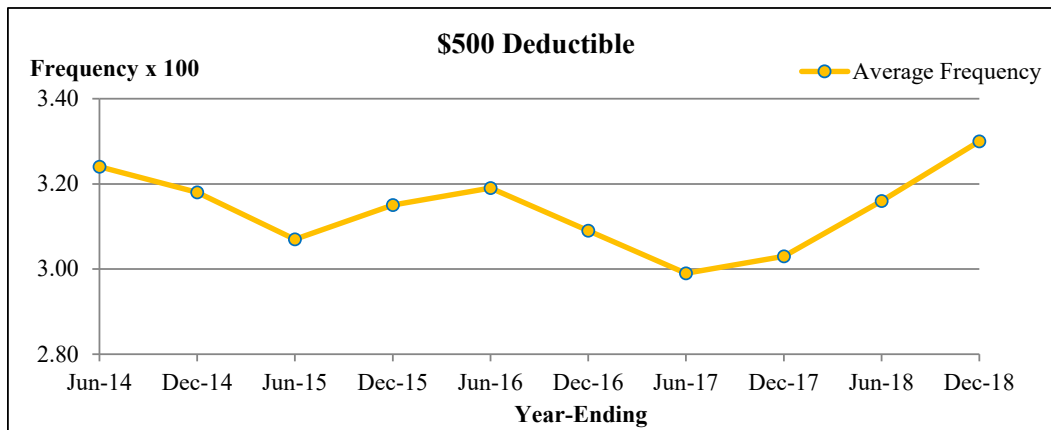
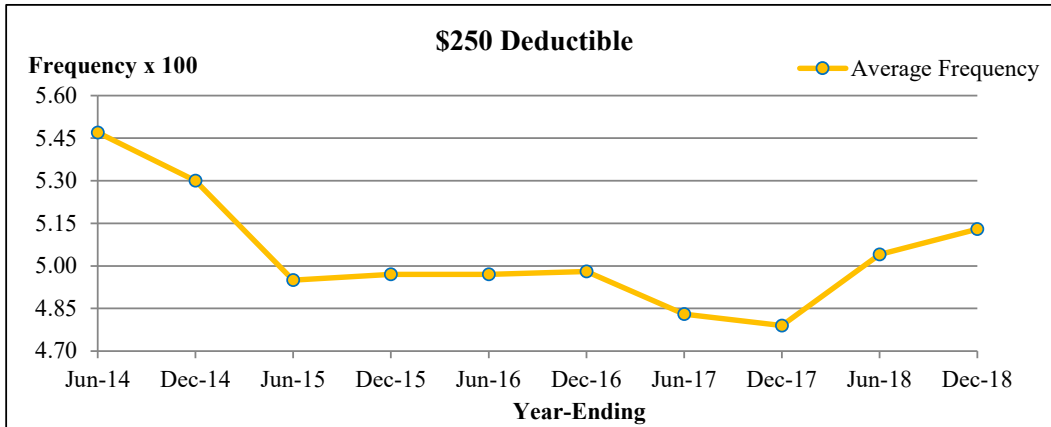
* Multistate data excludes Massachusetts

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

*** Deductibles above \$1,000, totaling 2.7% of losses, are excluded from trend calculations.

INSURANCE SERVICES OFFICE, INC.

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



*Excludes Massachusetts

Selected Other Than Collision Frequency Trend Factor: 0.0%

INSURANCE SERVICES OFFICE, INC.

Multistate*
Private Passenger Types Physical Damage
Other Than Collision

Severity Trend

Year Ending:	\$250 Deductible	\$500 Deductible	\$1,000 Deductible
6/30/2014	1,366.03	1,928.14	2,657.81
12/31/2014	1,462.11	2,016.19	2,772.23
6/30/2015	1,556.40	2,079.78	2,801.32
12/31/2015	1,642.60	2,188.48	2,872.90
6/30/2016	1,754.27	2,304.25	3,008.71
12/31/2016	1,752.96	2,315.04	3,012.76
6/30/2017	1,788.88	2,365.29	3,054.54
12/31/2017	1,880.66	2,537.30	3,344.40
6/30/2018	1,843.29	2,585.74	3,464.52
12/31/2018	1,777.16	2,602.52	3,519.67

Average Annual Change Using Exponential Fits:

10 point fit:	6.5%	7.1%	6.5%
8 point fit:	4.2%	6.7%	7.1%
6 point fit:	1.5%	5.9%	7.7%

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

* Multistate data excludes Massachusetts

INSURANCE SERVICES OFFICE, INC.

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**
6/30/2014	5.33		4.39		3.17	
12/31/2014	5.39		4.49		3.26	
6/30/2015	5.31		4.42		3.24	
12/31/2015	5.32	-1.3%	4.46	-0.7%	3.30	1.2%
6/30/2016	5.24		4.44		3.29	
12/31/2016	5.29	-0.6%	4.48	0.4%	3.34	1.2%
6/30/2017	5.27		4.46		3.34	
12/31/2017	5.25	-0.8%	4.39	-2.0%	3.32	-0.6%
6/30/2018	5.32		4.48		3.42	
12/31/2018	5.24	-0.2%	4.52	3.0%	3.48	4.8%

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

Deductible:	Percent of Losses
\$100	0.3%
\$200	0.2%
\$250	2.2%
\$500	43.8%
\$1,000	51.0%
\$2,000	1.6%
\$3,000	0.2%
\$5,000	0.7%

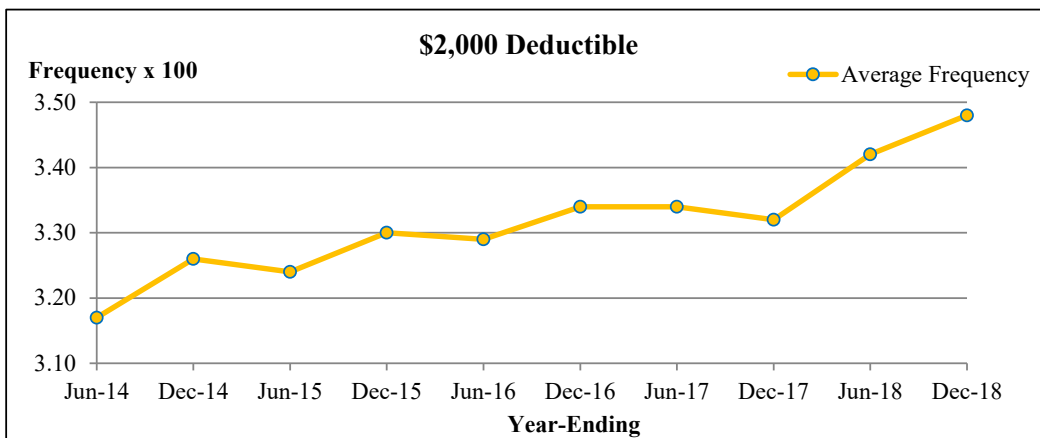
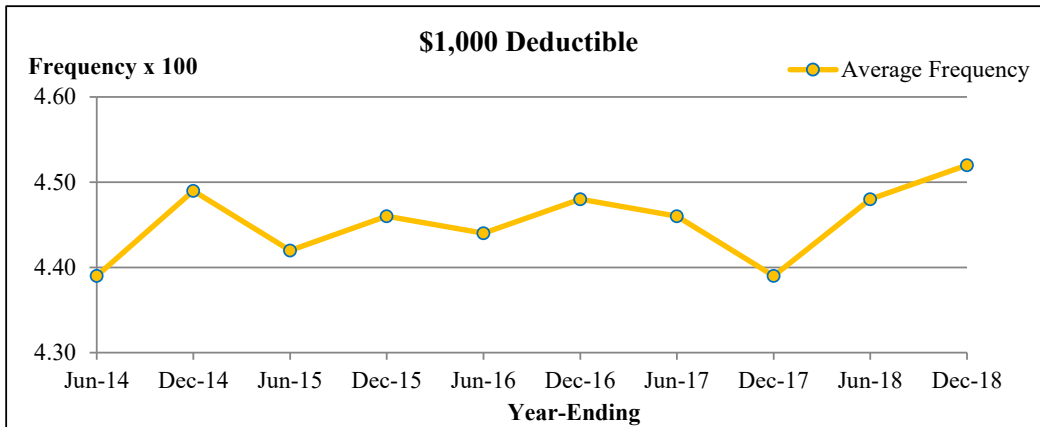
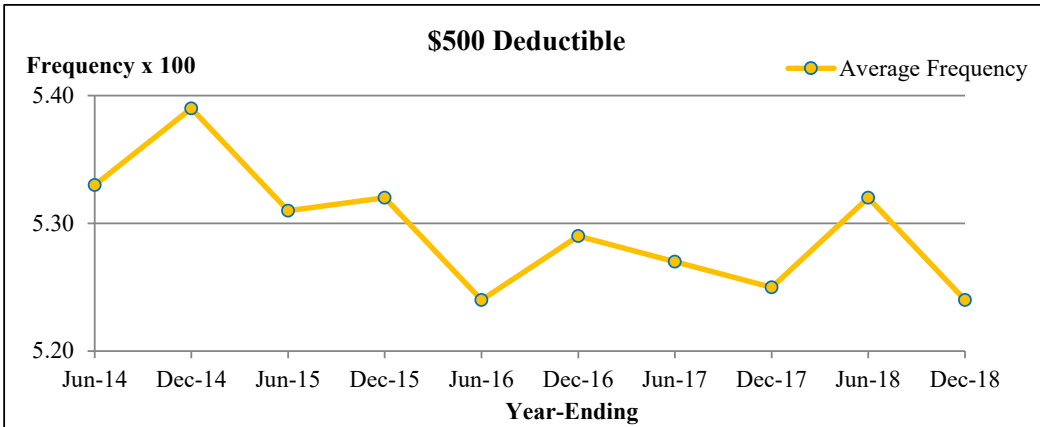
* Multistate data excludes Massachusetts

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

*** Deductibles above \$2,000, totaling 0.9% of losses, are excluded from trend calculations.

INSURANCE SERVICES OFFICE, INC.

Commercial Automobile
Private Passenger Types Physical Damage
Collision Frequency Trend
Multistate*



*Excludes Massachusetts

Selected Collision Frequency Trend Factor: 0.0%

INSURANCE SERVICES OFFICE, INC.

Multistate*
Private Passenger Types Physical Damage
Collision

Severity Trend

Year Ending:	\$500 Deductible	\$1,000 Deductible	\$2,000 Deductible
6/30/2014	5,156.37	5,594.21	6,157.26
12/31/2014	5,357.24	5,728.50	6,314.77
6/30/2015	5,488.01	5,894.43	6,480.44
12/31/2015	5,597.55	6,037.33	6,575.33
6/30/2016	5,763.57	6,147.42	6,699.19
12/31/2016	5,906.51	6,216.56	6,778.85
6/30/2017	5,881.16	6,234.50	6,756.30
12/31/2017	5,949.76	6,353.81	6,847.15
6/30/2018	6,296.12	6,571.80	7,066.71
12/31/2018	6,507.32	6,866.24	7,355.27

Average Annual Change Using Exponential Fits:

10 point fit:	4.7%	4.1%	3.4%
8 point fit:	4.6%	3.9%	3.2%
6 point fit:	4.7%	4.3%	3.5%

Selected severity trend:	4.0%
Selected frequency trend:	0.0%
Selected pure premium trend:	4.0%

* Multistate data excludes Massachusetts

INSURANCE SERVICES OFFICE, INC.

MULTISTATE
TRUCKS, TRACTORS & TRAILERS
PHYSICAL DAMAGE
OCN TREND CALCULATION

AVERAGE OCN RELATIVITIES

YEAR ENDING	OTHER THAN COLLISION	COLLISION
6/30/2014	1.238	1.376
12/31/2014	1.243	1.385
6/30/2015	1.249	1.393
12/31/2015	1.255	1.403
6/30/2016	1.261	1.414
12/31/2016	1.266	1.423
6/30/2017	1.272	1.434
12/31/2017	1.279	1.446
6/30/2018	1.285	1.458
12/31/2018	1.289	1.466

EXPONENTIAL TREND (AVERAGE ANNUAL CHANGE)

9 POINTS	0.9%	1.5%
7 POINTS	0.9%	1.5%
5 POINTS	0.9%	1.5%
Selected Other Than Collision Physical Damage Annual OCN Trend:		0.9%
Selected Collision Physical Damage Annual OCN Trend:		1.5%

Data excludes the following state: Massachusetts

INSURANCE SERVICES OFFICE, INC.

MULTISTATE
PRIVATE PASSENGER TYPES
PHYSICAL DAMAGE
OCN TREND CALCULATION

AVERAGE OCN RELATIVITIES

YEAR ENDING	OTHER THAN COLLISION	COLLISION
6/30/2014	1.315	1.156
12/31/2014	1.320	1.158
6/30/2015	1.325	1.161
12/31/2015	1.332	1.165
6/30/2016	1.339	1.169
12/31/2016	1.347	1.173
6/30/2017	1.354	1.177
12/31/2017	1.360	1.180
6/30/2018	1.365	1.182
12/31/2018	1.372	1.185

EXPONENTIAL TREND (AVERAGE ANNUAL CHANGE)

9 POINTS	1.0%	0.6%
7 POINTS	1.0%	0.6%
5 POINTS	0.9%	0.5%
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

INSURANCE SERVICES OFFICE, INC.

MONTANA

Automobile Liability Insurance - Trucks, Tractors and Trailers

Loss Development

Incurred Losses and Expenses

Bodily Injury

Accident	\$100,000 Basic Limit			Loss Development Factors	
Year				15 to 27	27 to 39
Ending	15 Months	27 Months	39 Months	Months	Months
12/31/2007	2,624,240	3,211,249	3,918,945	1.224	1.220
12/31/2008	2,240,863	2,440,079	2,481,348	1.089	1.017
12/31/2009	2,076,822	2,213,979	2,368,729	1.066	1.070
12/31/2010	2,536,914	3,205,294	3,646,344	1.263	1.138
12/31/2011	2,163,099	2,423,439	2,259,725	1.120	0.932
12/31/2012	1,433,657	1,928,315	2,170,295	1.345	1.125
12/31/2013	1,871,387	2,390,599	2,358,619	1.277	0.987
12/31/2014	1,990,896	2,196,717	2,300,004	1.103	1.047
12/31/2015	1,765,779	2,308,062	2,511,742	1.307	1.088
12/31/2016	1,879,882	2,449,862	2,678,070	1.303	1.093
12/31/2017	2,207,986	2,827,699		1.281	
12/31/2018	2,183,297				
(1) Average Factor (Best 3 of 5) :			(A) State	1.287	1.076
			(B) Multistate	1.256	1.115
(2) Credibility				0.700	0.390
(3) Credibility Weighted Factors				1.278	1.100

Property Damage

Accident	\$100,000 Basic Limit			Loss Development Factors	
Year				15 to 27	27 to 39
Ending	15 Months	27 Months	39 Months	Months	Months
12/31/2007	2,454,049	2,451,331	2,392,428	0.999	0.976
12/31/2008	2,116,131	2,129,148	2,099,299	1.006	0.986
12/31/2009	2,194,133	2,178,109	2,161,759	0.993	0.992
12/31/2010	2,334,166	2,414,674	2,412,648	1.034	0.999
12/31/2011	2,403,152	2,565,121	2,537,849	1.067	0.989
12/31/2012	2,656,189	2,729,676	2,721,546	1.028	0.997
12/31/2013	2,776,457	2,778,677	2,797,763	1.001	1.007
12/31/2014	2,615,336	2,739,077	2,738,615	1.047	1.000
12/31/2015	2,287,412	2,477,638	2,456,747	1.083	0.992
12/31/2016	2,814,893	2,840,414	2,826,160	1.009	0.995
12/31/2017	2,768,839	2,726,013		0.985	
12/31/2018	3,428,825				
(1) Average Factor (Best 3 of 5) :			(A) State	1.019	0.997
			(B) Multistate	1.045	1.009
(2) Credibility				0.840	0.000
(3) Credibility Weighted Factors				1.023	1.009

Summary of Factors

	Bodily Injury	Property Damage
39 to Ultimate **	1.074	1.004
27 to Ultimate	1.181	1.013
15 to Ultimate	1.509	1.036

** Multistate factors

INSURANCE SERVICES OFFICE, INC.

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

Accident Year <u>Ending</u>	\$100,000 Basic Limit <u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>51 Months</u>	<u>63 Months</u>
12/31/2007	341,555,771	420,051,484	465,449,277	482,670,635	490,229,571
12/31/2008	307,982,655	381,800,016	418,534,590	435,505,134	440,444,654
12/31/2009	270,148,151	337,021,977	374,940,196	394,354,724	398,786,211
12/31/2010	287,437,893	351,534,299	386,887,133	407,600,317	415,379,849
12/31/2011	307,193,721	374,187,484	417,597,684	431,978,060	438,819,460
12/31/2012	313,512,243	383,708,453	424,745,045	446,826,918	455,309,124
12/31/2013	322,713,673	402,778,226	446,370,290	472,112,380	479,745,422
12/31/2014	352,376,699	434,866,713	496,876,924	524,345,017	534,683,541
12/31/2015	372,238,844	479,983,996	534,975,182	559,236,447	
12/31/2016	421,831,008	535,178,515	600,337,080		
12/31/2017	443,253,063	554,691,479			
12/31/2018	452,909,886				

Ratios

Accident Year <u>Ending</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2007	1.230	1.108	1.037	1.016
12/31/2008	1.240	1.096	1.041	1.011
12/31/2009	1.248	1.113	1.052	1.011
12/31/2010	1.223	1.101	1.054	1.019
12/31/2011	1.218	1.116	1.034	1.016
12/31/2012	1.224	1.107	1.052	1.019
12/31/2013	1.248	1.108	1.058	1.016
12/31/2014	1.234	1.143	1.055	1.020
12/31/2015	1.289	1.115	1.045	
12/31/2016	1.269	1.122		
12/31/2017	1.251			
Average Factor: (Best 3 of 5)	1.256	1.115	1.051	1.018

Summary of Factors

63 to Ult:	(75:63) (75:Ult) =	1.004
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.022
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	1.074
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.198
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.504

INSURANCE SERVICES OFFICE, INC.

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

Accident Year <u>Ending</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>
12/31/2007	491,405,542	491,889,518	491,405,295	491,545,388	491,581,930
12/31/2008	442,380,964	442,486,878	443,041,568	443,068,363	443,092,428
12/31/2009	400,449,990	400,134,032	399,907,149	399,925,971	399,943,224
12/31/2010	416,966,060	416,926,075	416,988,761	417,422,171	
12/31/2011	440,781,190	441,398,558	441,193,645		
12/31/2012	455,809,847	456,420,600			
12/31/2013	483,189,518				

Ratios

Accident Year <u>Ending</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>	<u>123:111</u>
12/31/2007	1.002	1.001	0.999	1.000	1.000
12/31/2008	1.004	1.000	1.001	1.000	1.000
12/31/2009	1.004	0.999	0.999	1.000	1.000
12/31/2010	1.004	1.000	1.000	1.001	
12/31/2011	1.004	1.001	1.000		
12/31/2012	1.001	1.001			
12/31/2013	1.007				
Average Factor: (Best 3 of 5)	1.004	1.000	1.000	1.000	1.000

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

INSURANCE SERVICES OFFICE, INC.

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

Accident Year <u>Ending</u>	\$100,000 Basic Limit <u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>51 Months</u>	<u>63 Months</u>
12/31/2007	453,578,766	469,739,966	473,077,220	472,712,914	473,098,460
12/31/2008	404,661,210	414,935,982	417,270,996	417,514,888	418,271,866
12/31/2009	344,659,574	353,667,486	355,921,303	356,479,783	356,213,694
12/31/2010	358,561,523	371,121,418	374,062,959	374,883,916	375,081,017
12/31/2011	396,648,288	409,088,285	412,330,516	413,783,506	414,594,474
12/31/2012	396,400,012	410,519,962	413,551,050	414,340,760	414,996,640
12/31/2013	422,343,833	437,334,375	442,923,912	443,743,458	444,214,878
12/31/2014	447,785,527	467,713,496	471,176,837	472,601,704	473,298,743
12/31/2015	475,784,542	497,912,958	502,880,070	504,250,770	
12/31/2016	505,559,237	527,555,729	532,888,321		
12/31/2017	514,794,984	542,551,154			
12/31/2018	570,729,230				

Ratios

Accident Year <u>Ending</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2007	1.036	1.007	0.999	1.001
12/31/2008	1.025	1.006	1.001	1.002
12/31/2009	1.026	1.006	1.002	0.999
12/31/2010	1.035	1.008	1.002	1.001
12/31/2011	1.031	1.008	1.004	1.002
12/31/2012	1.036	1.007	1.002	1.002
12/31/2013	1.035	1.013	1.002	1.001
12/31/2014	1.045	1.007	1.003	1.001
12/31/2015	1.047	1.010	1.003	
12/31/2016	1.044	1.010		
12/31/2017	1.054			
Average Factor:	1.045	1.009	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) =	1.013
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.059

INSURANCE SERVICES OFFICE, INC.

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

Accident Year <u>Ending</u>	\$100,000 Basic Limit <u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>
12/31/2007	473,825,003	473,687,543	473,720,995	473,697,052
12/31/2008	418,229,625	418,270,326	418,414,204	418,285,323
12/31/2009	356,393,139	356,393,033	356,615,417	356,705,304
12/31/2010	375,150,876	374,996,154	375,087,116	375,162,341
12/31/2011	414,717,965	414,781,494	414,868,974	
12/31/2012	415,331,657	415,703,661		
12/31/2013	444,303,596			

Ratios

Accident Year <u>Ending</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>
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	1.001	1.000	1.001	1.000
12/31/2010	1.000	1.000	1.000	1.000
12/31/2011	1.000	1.000	1.000	
12/31/2012	1.001	1.001		
12/31/2013	1.000			
Average Factor: (Best 3 of 5)	1.000	1.000	1.000	1.000

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

INSURANCE SERVICES OFFICE, INC.

MONTANA

Automobile Liability Insurance - Private Passenger Types

Loss Development

Incurred Losses and Expenses

Bodily Injury

Accident Year	\$100,000 Basic Limit			Loss Development Factors	
<u>Ending</u>	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>15 to 27 Months</u>	<u>27 to 39 Months</u>
12/31/2007	425,325	398,431	406,601	0.937	1.021
12/31/2008	281,897	332,429	400,274	1.179	1.204
12/31/2009	775,318	1,003,514	1,096,364	1.294	1.093
12/31/2010	525,951	608,475	667,350	1.157	1.097
12/31/2011	595,969	758,066	750,754	1.272	0.990
12/31/2012	821,999	1,027,937	921,869	1.251	0.897
12/31/2013	395,334	515,924	540,006	1.305	1.047
12/31/2014	763,436	788,415	992,244	1.033	1.259
12/31/2015	704,136	936,826	1,150,452	1.330	1.228
12/31/2016	389,776	646,452	820,655	1.659	1.269
12/31/2017	816,494	856,702		1.049	
12/31/2018	804,335				
(1) Average Factor (Best 3 of 5) :				(A) State	1.228
				(B) Multistate	1.178
(2) Credibility					1.232
(3) Credibility Weighted Factors					0.560
					0.370
					1.230
					1.135

Property Damage

Accident Year	\$100,000 Basic Limit			Loss Development Factors	
<u>Ending</u>	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>15 to 27 Months</u>	<u>27 to 39 Months</u>
12/31/2007	411,977	438,265	398,675	1.064	0.910
12/31/2008	345,550	360,191	361,805	1.042	1.004
12/31/2009	371,848	378,911	379,009	1.019	1.000
12/31/2010	306,286	324,583	324,485	1.060	1.000
12/31/2011	550,313	534,857	535,371	0.972	1.001
12/31/2012	482,348	482,755	482,755	1.001	1.000
12/31/2013	538,977	549,718	549,718	1.020	1.000
12/31/2014	629,033	643,691	662,095	1.023	1.029
12/31/2015	540,043	575,209	601,558	1.065	1.046
12/31/2016	640,949	582,685	586,421	0.909	1.006
12/31/2017	806,130	899,842		1.116	
12/31/2018	622,597				
(1) Average Factor (Best 3 of 5) :				(A) State	1.036
				(B) Multistate	1.012
(2) Credibility					1.045
(3) Credibility Weighted Factors					0.770
					0.000
					1.038
					1.008

Summary of Factors

	Bodily <u>Injury</u>	Property <u>Damage</u>
39 to Ultimate **	1.071	1.004
27 to Ultimate	1.216	1.012
15 to Ultimate	1.496	1.050

** Multistate factors

INSURANCE SERVICES OFFICE, INC.

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

Accident Year <u>Ending</u>	\$100,000 Basic Limit				
	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>51 Months</u>	<u>63 Months</u>
12/31/2007	64,456,831	77,831,391	86,953,653	90,315,529	91,456,741
12/31/2008	64,441,418	78,600,844	85,109,739	87,528,769	88,089,563
12/31/2009	62,595,370	76,295,916	83,987,323	85,102,928	86,986,451
12/31/2010	68,400,293	80,891,991	88,203,401	92,409,937	94,113,824
12/31/2011	73,364,346	89,552,891	98,096,468	101,750,060	102,896,779
12/31/2012	72,324,491	88,845,608	95,729,378	99,508,730	101,423,604
12/31/2013	74,075,842	88,348,464	97,959,138	103,444,596	105,390,942
12/31/2014	69,302,345	84,099,145	95,285,726	100,722,540	102,513,968
12/31/2015	70,923,097	88,224,101	97,118,956	101,987,140	
12/31/2016	72,356,036	89,895,260	100,307,198		
12/31/2017	72,283,971	89,690,673			
12/31/2018	74,026,539				

Ratios

Accident Year <u>Ending</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2007	1.207	1.117	1.039	1.013
12/31/2008	1.220	1.083	1.028	1.006
12/31/2009	1.219	1.101	1.013	1.022
12/31/2010	1.183	1.090	1.048	1.018
12/31/2011	1.221	1.095	1.037	1.011
12/31/2012	1.228	1.077	1.039	1.019
12/31/2013	1.193	1.109	1.056	1.019
12/31/2014	1.214	1.133	1.057	1.018
12/31/2015	1.244	1.101	1.050	
12/31/2016	1.242	1.116		
12/31/2017	1.241			
Average Factor:	1.232	1.109	1.048	1.018
(Best 3 of 5)				

Summary of Factors

63 to Ult:	(75:63) (75:Ult) =	1.004
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.022
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	1.071
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.188
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.463

INSURANCE SERVICES OFFICE, INC.

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

Accident Year <u>Ending</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>
12/31/2007	91,780,424	91,859,783	92,056,908	91,996,833	92,030,436
12/31/2008	87,789,444	87,865,718	87,952,044	88,147,579	88,204,250
12/31/2009	86,909,475	86,743,161	86,862,077	86,871,866	86,884,324
12/31/2010	93,924,128	93,654,253	93,665,701	93,669,242	
12/31/2011	103,432,812	103,650,313	104,069,906		
12/31/2012	101,830,339	101,816,992			
12/31/2013	105,714,211				

Ratios

Accident Year <u>Ending</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>	<u>123:111</u>
12/31/2007	1.004	1.001	1.002	0.999	1.000
12/31/2008	0.997	1.001	1.001	1.002	1.001
12/31/2009	0.999	0.998	1.001	1.000	1.000
12/31/2010	0.998	0.997	1.000	1.000	
12/31/2011	1.005	1.002	1.004		
12/31/2012	1.004	1.000			
12/31/2013	1.003				
Average Factor: (Best 3 of 5)	1.002	1.000	1.001	1.001	1.000

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)	=	1.001
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

INSURANCE SERVICES OFFICE, INC.

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

Accident Year <u>Ending</u>	\$100,000 Basic Limit <u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>51 Months</u>	<u>63 Months</u>
12/31/2007	88,217,477	90,127,510	90,485,562	90,819,605	90,861,489
12/31/2008	83,958,499	86,601,082	86,797,411	86,855,151	86,833,617
12/31/2009	78,718,247	81,132,797	81,453,911	81,724,545	81,685,214
12/31/2010	79,918,898	82,738,957	83,056,280	83,251,080	83,234,839
12/31/2011	85,441,799	88,035,482	88,605,150	89,040,457	89,253,120
12/31/2012	87,896,204	91,282,849	91,913,860	92,122,374	92,085,827
12/31/2013	88,760,482	92,620,605	93,239,528	93,532,881	93,549,792
12/31/2014	87,916,075	92,108,244	92,577,330	92,843,486	92,903,680
12/31/2015	91,168,401	95,223,290	96,053,523	96,398,494	
12/31/2016	95,873,624	100,107,250	101,241,339		
12/31/2017	90,719,422	95,657,774			
12/31/2018	96,240,312				

Ratios

Accident Year <u>Ending</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2007	1.022	1.004	1.004	1.000
12/31/2008	1.031	1.002	1.001	1.000
12/31/2009	1.031	1.004	1.003	1.000
12/31/2010	1.035	1.004	1.002	1.000
12/31/2011	1.030	1.006	1.005	1.002
12/31/2012	1.039	1.007	1.002	1.000
12/31/2013	1.043	1.007	1.003	1.000
12/31/2014	1.048	1.005	1.003	1.001
12/31/2015	1.044	1.009	1.004	
12/31/2016	1.044	1.011		
12/31/2017	1.054			
Average Factor: (Best 3 of 5)	1.045	1.008	1.003	1.000

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) =	1.058

INSURANCE SERVICES OFFICE, INC.

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

Accident Year <u>Ending</u>	\$100,000 Basic Limit <u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>
12/31/2007	90,949,656	90,840,041	90,843,403	90,844,292
12/31/2008	86,830,882	86,802,173	86,800,373	86,798,574
12/31/2009	81,693,663	81,725,681	81,715,760	81,706,953
12/31/2010	83,438,417	83,428,317	83,427,420	83,372,138
12/31/2011	89,339,108	89,403,496	89,403,525	
12/31/2012	92,187,822	92,130,655		
12/31/2013	93,540,610			

Ratios

Accident Year <u>Ending</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>
12/31/2007	1.001	0.999	1.000	1.000
12/31/2008	1.000	1.000	1.000	1.000
12/31/2009	1.000	1.000	1.000	1.000
12/31/2010	1.002	1.000	1.000	0.999
12/31/2011	1.001	1.001	1.000	
12/31/2012	1.001	0.999		
12/31/2013	1.000			
Average Factor: (Best 3 of 5)	1.001	1.000	1.000	1.000

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

INSURANCE SERVICES OFFICE, INC.

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

Accident Year <u>Ending</u>	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>51 Months</u>	<u>63 Months</u>
12/31/2007	141,522,276	145,069,053	144,817,899	144,711,804	144,646,931
12/31/2008	171,013,107	174,320,692	174,311,746	174,229,528	174,203,296
12/31/2009	141,551,003	143,657,672	143,943,827	144,040,822	144,069,848
12/31/2010	163,525,914	166,553,181	166,726,703	166,571,590	166,703,162
12/31/2011	186,150,891	189,182,048	189,404,166	189,492,002	189,446,108
12/31/2012	209,105,866	213,371,965	213,362,467	213,446,208	213,705,968
12/31/2013	170,684,329	174,742,867	175,182,720	175,556,520	175,523,843
12/31/2014	180,159,469	184,752,951	184,883,833	184,752,485	184,705,503
12/31/2015	177,284,933	181,084,061	181,187,579	181,662,577	
12/31/2016	228,360,717	233,053,109	233,235,102		
12/31/2017	241,691,033	247,462,565			
12/31/2018	232,734,585				

Ratios

Accident Year <u>Ending</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2007	1.025	0.998	0.999	1.000
12/31/2008	1.019	1.000	1.000	1.000
12/31/2009	1.015	1.002	1.001	1.000
12/31/2010	1.019	1.001	0.999	1.001
12/31/2011	1.016	1.001	1.000	1.000
12/31/2012	1.020	1.000	1.000	1.001
12/31/2013	1.024	1.003	1.002	1.000
12/31/2014	1.025	1.001	0.999	1.000
12/31/2015	1.021	1.001	1.003	
12/31/2016	1.021	1.001		
12/31/2017	1.024			
Average Factor: (Best 3 of 5)	1.023	1.001	1.001	1.000

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) =	1.025

INSURANCE SERVICES OFFICE, INC.

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

Accident Year <u>Ending</u>	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>	<u>123 Months</u>
12/31/2007	144,728,816	144,666,655	144,653,099	144,565,639	144,586,432
12/31/2008	174,380,600	174,348,870	174,354,858	174,440,876	174,441,339
12/31/2009	143,919,576	143,918,677	143,934,901	144,011,838	144,001,352
12/31/2010	166,799,002	166,855,302	166,847,170	166,844,994	
12/31/2011	189,436,240	189,425,268	189,412,395		
12/31/2012	213,680,136	213,746,174			
12/31/2013	175,578,683				

Ratios

Accident Year <u>Ending</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>	<u>123:111</u>
12/31/2007	1.001	1.000	1.000	0.999	1.000
12/31/2008	1.001	1.000	1.000	1.000	1.000
12/31/2009	0.999	1.000	1.000	1.001	1.000
12/31/2010	1.001	1.000	1.000	1.000	
12/31/2011	1.000	1.000	1.000		
12/31/2012	1.000	1.000			
12/31/2013	1.000				
Average Factor: (Best 3 of 5)	1.000	1.000	1.000	1.000	1.000

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

INSURANCE SERVICES OFFICE, INC.

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

Accident Year <u>Ending</u>	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>51 Months</u>	<u>63 Months</u>
12/31/2007	423,085,317	415,150,351	413,292,385	412,914,282	412,587,929
12/31/2008	420,539,888	413,640,818	413,017,146	412,298,354	411,379,544
12/31/2009	351,773,999	345,262,899	344,320,006	343,910,074	344,030,262
12/31/2010	376,691,346	369,039,300	367,624,184	367,541,695	367,536,589
12/31/2011	406,198,898	397,827,255	395,595,841	395,263,424	395,343,844
12/31/2012	399,816,675	393,104,795	390,822,370	390,120,621	390,294,747
12/31/2013	423,314,142	414,708,995	413,129,300	413,852,064	412,636,165
12/31/2014	467,412,929	458,132,237	455,293,072	454,900,521	454,594,817
12/31/2015	501,663,305	487,123,978	484,164,823	483,161,035	
12/31/2016	537,118,437	522,157,950	517,652,719		
12/31/2017	561,736,034	542,984,108			
12/31/2018	610,316,140				

Ratios

Accident Year <u>Ending</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2007	0.981	0.996	0.999	0.999
12/31/2008	0.984	0.998	0.998	0.998
12/31/2009	0.981	0.997	0.999	1.000
12/31/2010	0.980	0.996	1.000	1.000
12/31/2011	0.979	0.994	0.999	1.000
12/31/2012	0.983	0.994	0.998	1.000
12/31/2013	0.980	0.996	1.002	0.997
12/31/2014	0.980	0.994	0.999	0.999
12/31/2015	0.971	0.994	0.998	
12/31/2016	0.972	0.991		
12/31/2017	0.967			
Average Factor: (Best 3 of 5)	0.974	0.994	0.999	1.000

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) =	0.993
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	0.967

INSURANCE SERVICES OFFICE, INC.

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

Accident Year <u>Ending</u>	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>	<u>123 Months</u>
12/31/2007	412,506,266	412,477,701	412,424,363	412,405,054	412,467,525
12/31/2008	412,408,793	412,281,298	412,245,518	412,267,846	412,365,073
12/31/2009	343,804,459	343,719,389	343,704,867	343,722,129	343,712,917
12/31/2010	367,453,193	367,364,091	367,322,826	367,298,542	
12/31/2011	395,318,329	395,347,733	395,322,899		
12/31/2012	390,285,109	390,211,607			
12/31/2013	412,541,783				

Ratios

Accident Year <u>Ending</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>	<u>123:111</u>
12/31/2007	1.000	1.000	1.000	1.000	1.000
12/31/2008	1.003	1.000	1.000	1.000	1.000
12/31/2009	0.999	1.000	1.000	1.000	1.000
12/31/2010	1.000	1.000	1.000	1.000	
12/31/2011	1.000	1.000	1.000		
12/31/2012	1.000	1.000			
12/31/2013	1.000				
Average Factor: (Best 3 of 5)	1.000	1.000	1.000	1.000	1.000

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

INSURANCE SERVICES OFFICE, INC.

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

Accident Year <u>Ending</u>	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>51 Months</u>	<u>63 Months</u>
12/31/2007	46,557,889	47,282,510	47,128,139	47,159,440	47,281,418
12/31/2008	55,276,971	55,712,839	55,567,520	55,552,069	55,542,828
12/31/2009	50,559,306	50,563,933	50,561,876	50,495,364	50,488,170
12/31/2010	55,049,683	55,135,618	55,121,654	55,118,331	55,135,813
12/31/2011	71,674,738	71,778,446	71,651,334	71,690,455	71,692,691
12/31/2012	79,520,364	78,693,615	78,754,369	78,787,194	78,807,770
12/31/2013	56,923,773	57,385,208	57,603,148	57,612,663	57,604,841
12/31/2014	59,183,291	60,015,446	60,101,420	60,044,399	60,082,113
12/31/2015	50,567,693	51,119,630	51,003,475	51,024,459	
12/31/2016	63,595,106	64,222,635	64,203,403		
12/31/2017	74,529,690	74,687,286			
12/31/2018	61,735,361				

Ratios

Accident Year <u>Ending</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2007	1.016	0.997	1.001	1.003
12/31/2008	1.008	0.997	1.000	1.000
12/31/2009	1.000	1.000	0.999	1.000
12/31/2010	1.002	1.000	1.000	1.000
12/31/2011	1.001	0.998	1.001	1.000
12/31/2012	0.990	1.001	1.000	1.000
12/31/2013	1.008	1.004	1.000	1.000
12/31/2014	1.014	1.001	0.999	1.001
12/31/2015	1.011	0.998	1.000	
12/31/2016	1.010	1.000		
12/31/2017	1.002			
Average Factor: (Best 3 of 5)	1.010	1.001	1.000	1.000

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) =	1.011

INSURANCE SERVICES OFFICE, INC.

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

Accident Year <u>Ending</u>	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>	<u>123 Months</u>
12/31/2007	47,213,496	47,211,461	47,210,385	47,209,023	47,223,478
12/31/2008	55,525,573	55,526,983	55,525,237	55,525,716	55,534,760
12/31/2009	50,489,215	50,489,359	50,492,986	50,498,949	50,495,252
12/31/2010	55,069,099	55,071,861	55,103,683	55,103,177	
12/31/2011	71,706,426	71,713,041	71,707,312		
12/31/2012	78,813,584	78,812,598			
12/31/2013	57,613,295				

Ratios

Accident Year <u>Ending</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>	<u>123:111</u>
12/31/2007	0.999	1.000	1.000	1.000	1.000
12/31/2008	1.000	1.000	1.000	1.000	1.000
12/31/2009	1.000	1.000	1.000	1.000	1.000
12/31/2010	0.999	1.000	1.001	1.000	
12/31/2011	1.000	1.000	1.000		
12/31/2012	1.000	1.000			
12/31/2013	1.000				
Average Factor: (Best 3 of 5)	1.000	1.000	1.000	1.000	1.000

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

INSURANCE SERVICES OFFICE, INC.

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

Accident Year <u>Ending</u>	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>51 Months</u>	<u>63 Months</u>
12/31/2007	153,841,653	148,961,397	148,165,833	147,825,298	147,811,309
12/31/2008	156,139,320	150,433,560	149,723,606	149,502,649	149,464,691
12/31/2009	146,054,839	140,865,025	140,212,638	140,125,486	140,070,737
12/31/2010	148,710,771	141,537,292	140,858,894	140,667,583	140,651,206
12/31/2011	158,979,627	152,064,908	151,584,143	151,370,324	151,326,633
12/31/2012	158,782,545	152,448,680	151,778,455	151,627,278	151,571,270
12/31/2013	159,223,131	152,021,423	150,932,101	150,943,530	150,886,640
12/31/2014	165,993,306	158,855,414	158,619,370	158,380,142	158,343,002
12/31/2015	175,484,651	166,751,053	165,446,576	165,066,386	
12/31/2016	176,164,839	167,711,729	166,386,353		
12/31/2017	172,232,300	163,709,434			
12/31/2018	187,731,302				

Ratios

Accident Year <u>Ending</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2007	0.968	0.995	0.998	1.000
12/31/2008	0.963	0.995	0.999	1.000
12/31/2009	0.964	0.995	0.999	1.000
12/31/2010	0.952	0.995	0.999	1.000
12/31/2011	0.957	0.997	0.999	1.000
12/31/2012	0.960	0.996	0.999	1.000
12/31/2013	0.955	0.993	1.000	1.000
12/31/2014	0.957	0.999	0.998	1.000
12/31/2015	0.950	0.992	0.998	
12/31/2016	0.952	0.992		
12/31/2017	0.951			
Average Factor: (Best 3 of 5)	0.953	0.994	0.999	1.000

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) =	0.993
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	0.946

INSURANCE SERVICES OFFICE, INC.

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

Accident Year <u>Ending</u>	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>	<u>123 Months</u>
12/31/2007	147,780,444	147,759,306	147,744,393	147,737,378	147,738,335
12/31/2008	149,429,620	149,390,005	149,380,475	149,380,012	149,372,490
12/31/2009	140,006,123	139,984,463	139,977,928	139,967,703	139,955,036
12/31/2010	140,600,658	140,587,382	140,586,764	140,588,289	
12/31/2011	151,255,385	151,225,731	151,213,338		
12/31/2012	151,524,488	151,500,822			
12/31/2013	150,847,725				

Ratios

Accident Year <u>Ending</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>	<u>123:111</u>
12/31/2007	1.000	1.000	1.000	1.000	1.000
12/31/2008	1.000	1.000	1.000	1.000	1.000
12/31/2009	1.000	1.000	1.000	1.000	1.000
12/31/2010	1.000	1.000	1.000	1.000	
12/31/2011	1.000	1.000	1.000		
12/31/2012	1.000	1.000			
12/31/2013	1.000				
Average Factor: (Best 3 of 5)	1.000	1.000	1.000	1.000	1.000

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

INSURANCE SERVICES OFFICE, INC.

(1)	Public Automobiles Liability	Differentials to Base Loss Cost CSL Liab	
	Taxis & Limos		6.20
	School and Church Buses		0.55
	Other Buses		3.80
	Van Pools		1.50
(2)	Public Automobiles Physical Damage		
	Taxis, Limos 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	<u>EXHIBIT C17</u>	
(4)	Specified Cause of Loss Relativity		0.576
	This factor is now being used for Private Passenger Types as well as Trucks, Tractors and Trailers.		
(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.		

INSURANCE SERVICES OFFICE, INC.

(3) Medical Payments Relativities

Territory	Class of Business											
	Trucks, Tractors and Trailers				Private Passenger Types				Other Buses			
	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>5000</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>5000</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>5000</u>
101	0.0058	0.0090	0.0136	0.0231	0.0063	0.0109	0.0180	0.0318	0.0142	0.0233	0.0366	0.0625
105	0.0075	0.0116	0.0177	0.0300	0.0063	0.0109	0.0180	0.0318	0.0158	0.0259	0.0407	0.0696
106	0.0078	0.0121	0.0185	0.0313	0.0063	0.0109	0.0180	0.0318	0.0273	0.0446	0.0701	0.1198
107	0.0051	0.0079	0.0120	0.0204	0.0063	0.0109	0.0180	0.0318	0.0129	0.0212	0.0333	0.0569

INSURANCE SERVICES OFFICE, INC.

(3) Medical Payments Relativities

Territory	Class of Business											
	School and Church Buses				Taxis and Limos				Van Pools			
	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>5000</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>5000</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>5000</u>
101	0.0202	0.0335	0.0527	0.0842	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
105	0.0225	0.0374	0.0588	0.0939	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
106	0.0389	0.0645	0.1014	0.1619	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
107	0.0183	0.0304	0.0477	0.0762	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321

**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					
\$ 191	\$1	\$2	\$3	\$4	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 251	\$2	\$3	\$5	\$8	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1184	\$9	\$16	\$27	\$49	N/A
– SCHOOL AND CHURCH BUSES					
\$ 105	\$2	\$4	\$6	\$9	N/A
– OTHER BUSES					
\$ 726	\$10	\$17	\$27	\$45	N/A
– VAN POOLS					
\$ 287	\$2	\$3	\$5	\$9	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					
\$ 170	\$1	\$2	\$3	\$5	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 210	\$1	\$2	\$4	\$7	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1054	\$8	\$15	\$24	\$44	N/A
– SCHOOL AND CHURCH BUSES					
\$ 94	\$2	\$4	\$6	\$9	N/A
– OTHER BUSES					
\$ 646	\$10	\$17	\$26	\$45	N/A
– VAN POOLS					
\$ 255	\$2	\$3	\$5	\$8	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					
\$ 85	\$1	\$2	\$3	\$4	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 153	\$1	\$2	\$3	\$5	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 527	\$4	\$7	\$12	\$22	N/A
– SCHOOL AND CHURCH BUSES					
\$ 47	\$2	\$3	\$5	\$8	N/A
– OTHER BUSES					
\$ 323	\$9	\$14	\$23	\$39	N/A
– VAN POOLS					
\$ 128	\$1	\$2	\$3	\$4	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					
\$ 262	\$1	\$2	\$3	\$5	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 365	\$2	\$4	\$7	\$12	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1624	\$13	\$22	\$37	\$68	N/A
– SCHOOL AND CHURCH BUSES					
\$ 144	\$3	\$4	\$7	\$11	N/A
– OTHER BUSES					
\$ 996	\$13	\$21	\$33	\$57	N/A
– VAN POOLS					
\$ 393	\$3	\$5	\$7	\$13	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	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			
	\$ 102	\$ 177	\$ 164
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	\$ 113	\$ 196	\$ 209
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 104	\$ 181	\$ 208
– SCHOOL AND CHURCH BUSES			
	\$ 71	\$ 124	\$ 107
– OTHER BUSES			
	\$ 71	\$ 124	\$ 107
– VAN POOLS			
	\$ 104	\$ 181	\$ 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. 			

COMMERCIAL LINES MANUAL
DIVISION ONE
AUTOMOBILE
LOSS COST PAGES

PHYSICAL DAMAGE Original Cost New Range \$15,001 – 20,000			
	Specified Causes Of Loss	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			
	\$ 122	\$ 212	\$ 188
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	\$ 130	\$ 225	\$ 293
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 124	\$ 216	\$ 239
– SCHOOL AND CHURCH BUSES			
	\$ 85	\$ 148	\$ 122
– OTHER BUSES			
	\$ 85	\$ 148	\$ 122
– VAN POOLS			
	\$ 124	\$ 216	\$ 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. 			

**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	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			
	\$ 159	\$ 276	\$ 208
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	\$ 199	\$ 345	\$ 240
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 162	\$ 282	\$ 264
– SCHOOL AND CHURCH BUSES			
	\$ 111	\$ 193	\$ 135
– OTHER BUSES			
	\$ 111	\$ 193	\$ 135
– VAN POOLS			
	\$ 162	\$ 282	\$ 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. 			

COMMERCIAL LINES MANUAL
DIVISION ONE
AUTOMOBILE
LOSS COST PAGES

PHYSICAL DAMAGE Original Cost New Range \$15,001 – 20,000			
	Specified Causes Of Loss	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			
	\$ 140	\$ 243	\$ 243
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	\$ 122	\$ 212	\$ 297
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 143	\$ 248	\$ 309
– SCHOOL AND CHURCH BUSES			
	\$ 98	\$ 170	\$ 158
– OTHER BUSES			
	\$ 98	\$ 170	\$ 158
– VAN POOLS			
	\$ 143	\$ 248	\$ 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. 			

90. HIRED AUTOS

Cost Of Hire Basis – All Territories Liability Base Loss Cost
--

\$ <u>0.200</u> -19

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>
03/31/2015	+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%
03/31/2017	+2.7%	+5.7%
06/30/2017	+2.8%	+5.6%
09/30/2017	+3.0%	+5.4%
12/31/2017	+3.8%	+4.8%
03/31/2018	+4.2%	+4.5%
06/30/2018	+4.4%	+4.3%
09/30/2018	+5.1%	+4.2%
12/31/2018	+5.5%	+4.3%

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 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%
October 2017 - September 2018	1.7%	3.7%
October 2018 - September 2019	3.5%	2.1%

Claim Frequencies

Historically, frequency trends for Commercial Auto liability have been quite variable, have differed between Trucks, Tractors, and Trailers (TTT) and Private Passenger Types (PPT) liability classes, and have often displayed cyclical patterns. As a result, an exponential curve of the form $Y=A(B^X)$ does not fit the data well over the long term. To reflect these characteristics 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.

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 and Private Passenger Types Liability

	Current Trends <u>Data through 12/31/2018</u>	Previous Trends <u>Data through 12/31/2017</u>
Montana Claim Cost Trends		
Bodily Injury (\$100,000 Limit)	-10.2%	-5.4%
Property Damage (\$100,000 Limit)	12.6%	1.3%
Credibility-Weighted Claim Cost Trends		
Bodily Injury (\$100,000 Limit)	5.5%	3.8%
Property Damage (\$100,000 Limit)	4.7%	4.6%
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)	5.5%	3.8%
Property Damage (\$100,000 Limit)	4.7%	4.6%
Private Passenger Types		
Bodily Injury (\$100,000 Limit)	5.5%	3.8%
Property Damage (\$100,000 Limit)	4.7%	4.6%

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 4.4% rather than 7.4%. For the Private Passenger Types coverage, the indication would have been 7.1% instead of 9.5%.

Supplementary Information – Montana

Physical Damage Loss Trend

	<u>Coverage</u>	<u>Current Trends</u>	<u>Previous Trends</u>
		<u>Data through 12/31/2018</u>	<u>Data through 12/31/2017</u>
Trucks, Tractors & Trailers	OTC	+7.0%	+7.0%
	Collision	+4.5%	+5.0%
Private Passenger Types	OTC	+6.5%	+6.5%
	Collision	+4.0%	+4.5%

Physical Damage OCN Trend

	<u>Coverage</u>	<u>Current Trends</u>	<u>Previous Trends</u>
		<u>Data through 12/31/2018</u>	<u>Data through 12/31/2017</u>
Trucks, Tractors & Trailers	OTC	+0.9%	+1.0%
	Collision	+1.5%	+1.6%
Private Passenger Types	OTC	+1.0%	+1.1%
	Collision	+0.6%	+0.6%

The loss trend has remained the same for Trucks, Tractors & Trailers OTC and Private Passenger Types OTC. The OCN trend has decreased by 0.1 points for Trucks, Tractors & Trailers OTC and has decreased by 0.1 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 10.2%, instead of 10.6%, and 7.5%, instead of 7.8%, respectively.

The loss trend has decreased by 0.5 points for Trucks, Tractors & Trailers collision and for Private Passenger Types collision. The OCN trend has decreased by 0.1 points for Trucks, Tractors, & Trailers collision and has remained the same for Private Passenger Types collision. If the prior loss and OCN trends were used, the Trucks, Tractors & Trailers and Private Passenger Types collision indications in this document would have been 2.0%, instead of 1.1%, and 2.1%, instead of 0.8%, 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. 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	1.074	1.080
27 to Ultimate	1.181	1.178
15 to Ultimate	1.509	1.513
Trucks, Tractors and Trailers PD		
39 to Ultimate	1.004	1.003
27 to Ultimate	1.013	1.011
15 to Ultimate	1.036	1.044
Private Passenger Types BI		
39 to Ultimate	1.071	1.069
27 to Ultimate	1.216	1.173
15 to Ultimate	1.496	1.491
Private Passenger Types PD		
39 to Ultimate	1.004	1.004
27 to Ultimate	1.012	1.012
15 to Ultimate	1.050	1.037

Supplementary Information – Montana

Other Factors

Unallocated Loss Adjustment Expense factors:

	<u>Data through 12/31/2017</u>	<u>Data through 12/31/2016</u>
Bodily Injury	1.075	1.080
Property Damage	1.100	1.105
Physical Damage	1.130	1.140

Indicated vs. Filed Changes

An overall change of 6.8% is indicated when each of the coverage indications is weighted by its respective loss cost volume. Staff will file the indications, which reflect a 07/01/2020 proposed effective date, with the following exceptions:

<u>Coverage</u>	<u>Indicated Change</u>	<u>Filed Change</u>
Trucks, Tractors & Trailers Collision	1.1%	N.C.
Private Passenger Types Collision	0.8%	N.C.

The overall filed change is 6.5%.

Notes

- Trucks, Tractors & Trailers OTC indication (10.6%) is being driven by the poor experience for the accident years ending 12/31/2015, 12/31/2016, 12/31/2017, and 12/31/2018.
- The Auto Dealers Liability coverage is not being reviewed this year.
- The Auto Dealers and Garagekeepers physical damage coverages are not being reviewed this year.