

LOSS COSTS – IMPLEMENTATION

APRIL 29, 2019

COMMERCIAL AUTOMOBILE

LI-CA-2019-075

NEW HAMPSHIRE REVISED COMMERCIAL AUTO ADVISORY PROSPECTIVE LOSS COSTS, INCLUDING REVISED MEDICAL PAYMENTS, NON-OWNERSHIP LIABILITY AND UNINSURED AND UNDERINSURED MOTORISTS LOSS COSTS, TO BE IMPLEMENTED; NEW FILING FORMAT

KEY MESSAGE

Loss costs representing a -3.9% statewide change to be implemented.

BACKGROUND

In circular [LI-CA-2019-055](#), we provided you with information about the Commercial Auto loss cost level experience review.

ISO ACTION

We filed CA-2019-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 New Hampshire, 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 October 1, 2019.

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 October 1, 2019, 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.

WE WILL SUBMIT OUR REFERENCE FILING TO THE INSURANCE DEPARTMENT ON SEPTEMBER 1, 2019. ANY SUBMISSION YOU MAY MAKE WITH THE INSURANCE DEPARTMENT WITH RESPECT TO THIS FILING SHOULD NOT BE SUBMITTED PRIOR TO THIS DATE.

In all correspondence with the Insurance Department on this revision, you should refer to ISO Reference Filing Number CA-2019-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-2018-044](#) 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 10-19 (or the earliest possible subsequent date), along with any new and/or revised manual pages.

REFERENCE(S)

- [LI-CA-2019-055](#) (03/06/2019) Commercial Auto Experience Level Indications Reviewed By Staff
- [LI-CL-2018-044](#) (11/27/2018) Revised Lead Time Requirements Listing

ATTACHMENT(S)

- Filing CA-2019-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.

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ACKNOWLEDGEMENT OF ACTUARIAL QUALIFICATIONS

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

I, David Terné, am a 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.

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NEW HAMPSHIRE

BASIC LIMITS PROSPECTIVE LOSS COST LEVEL – COMMERCIAL AUTOMOBILE

FILING CA-2019-BRLA1

EXECUTIVE SUMMARY

PURPOSE	<p>This document:</p> <ul style="list-style-type: none">revises the advisory prospective loss costs for the major Commercial Automobile classes. These loss costs represent a -3.9% 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	<p>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.”</p>
OPTIONAL CLASS PLAN LOSS COSTS	<p>The loss costs contained in this filing CA-2019-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-2019-BRLB1.</p>
CHANGE IN FORMAT	<p>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 F-24, the exhibits are labeled EXHIBIT A1 through EXHIBIT C17, and the revised prospective loss cost pages are numbered G-1 through G-33.</p>
AUTO DEALERS LIABILITY COVERAGE	<p>The Auto Dealers Liability coverage is not being reviewed this year.</p>
MEDICAL PAYMENTS COVERAGE	<p>A revision of the Medical Payments loss costs is included in this document. The overall change for the Trucks, Tractors and Trailers, Private Passenger Types and Public Automobiles medical payments revision is reflected in the overall change quoted in this filing. The documentation for this revision can be found in Section D.</p>
NON-OWNERSHIP LIABILITY COVERAGE	<p>A revision of the Non-ownership Liability loss costs contained in Rule 89.C.1.a.(1) is included in this document. The overall change for this coverage is reflected in the overall change quoted in this filing. The documentation for this revision can be found in Section E.</p>

UNINSURED/
UNDERINSURED
MOTORISTS
COVERAGE

A revision of the Uninsured and Underinsured Motorists loss costs contained in Rule 97 is included in this document. The overall change for the Private Passenger Types and Other than Private Passenger Types UM and UIM revision is reflected in the overall change quoted in this filing. Uninsured and Underinsured advisory prospective loss costs for additional higher limits are being introduced as well. The documentation for this revision can be found in Section F.

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	4.4%	4.4%
Medical Payments	-77.7%	-77.7%
Uninsured/Underinsured Motorists	-78.5%	-72.1%
Physical Damage		
Other than Collision	3.3%	N.C.
Collision	-1.0%	N.C.
Total Trucks, Tractors & Trailers	-5.0%	-4.7%
<u>Private Passenger Types</u>		
Liability		
Single Limit Liability	3.6%	3.6%
Medical Payments	-48.9%	-48.9%
Uninsured/Underinsured Motorists	-72.8%	-69.8%
Physical Damage		
Other than Collision	7.1%	7.1%
Collision	4.3%	4.3%
Total Private Passenger Types	-4.1%	-3.9%
<u>Public Automobile Classes</u>		
Medical Payments	-40.8%	-40.8%
<u>Non-Ownership Liability</u>	53.4%	53.4%
<u>Grand Total</u>	-4.2%	-3.9%

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

INDICATED VS.
FILED

Indicated changes are based on standard ISO methodology, utilizing a 10/1/2019 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 and Trailers OTC to better reflect the favorable experience in the latest year and for Collision due to the modest indication. The Trucks, Tractors & Trailers and Private Passenger Types UM indications were capped for stability.

PRIOR ISO REVISIONS

The latest selected revisions in this state are:

<u>Filing</u>	CA-2018-BRLA1	CA-2017-BRLA1	CA-2016-BRLA1
Rate Level/ Loss Costs	Loss Costs	Loss Costs	Loss Costs
Effective Date	10/1/2018	10/1/2017	10/1/2016
<u>Changes</u>			
Indicated	7.1%	6.9%	4.0%
Filed	7.1%	7.0%	3.9%
Approved	7.1%	7.0%	3.9%

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 03/31/2018 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 2017 and claim frequency trend data through third quarter 2017 were used in selecting the following annual liability trend factors:

ADJUSTMENTS TO
REPORTED
EXPERIENCE
(CONT'D)

<u>Coverage</u>	<u>Annual Trend Factor</u>
Trucks, Tractors, and Trailers Liability:	
Bodily Injury	+3.8%
Property Damage	+4.7%
Private Passenger Types Liability:	
Bodily Injury	+3.8%
Property Damage	+4.7%
Trucks, Tractors & Trailers OTC	+7.0%
Trucks, Tractors & Trailers Collision	+5.0%
Private Passenger Types OTC	+6.5%
Private Passenger Types Collision	+4.5%

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 +1.0% and +1.6% for OTC and Collision respectively. For Private Passenger Types, the OCN Trend factors are +1.1% and +0.6% for OTC and Collision respectively.

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

TEN LARGEST
COMPANIES/
GROUPS
IN THIS REVIEW

LIABILITY (ASLOB 19.3 & 19.4)

1. Liberty Mutual Insurance Company
2. Travelers Indemnity Company
3. Zurich American Insurance Company
4. Tokio Marine Companies
5. Safety Insurance Company
6. NGM Insurance Company
7. Merchants Mutual Insurance Co.
8. Concord General Mutual Ins. Co.
9. Cincinnati Insurance Company
10. Frankenmuth Mutual Insurance Co.

PHYSICAL DAMAGE (ASLOB 21.2)

1. Liberty Mutual Insurance Company
2. Travelers Indemnity Company
3. NGM Insurance Company
4. Merchants Mutual Insurance Co.
5. Safety Insurance Company
6. Concord General Mutual Ins. Co.
7. Frankenmuth Mutual Insurance Co.
8. Tokio Marine Companies
9. Hartford Accident & Indemnity Co.
10. Motors Insurance Corporation

Insurers are listed in descending order based on the percent of statewide written premium volume from Annual Statement Page 15 for the year ending 12/31/2017 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 12/31/2017 is:

Liability (ASLOB 19.3 & 19.4)
44.9%

Physical Damage (ASLOB 21.2)
42.9%

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.

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NEW HAMPSHIRE
COMMERCIAL AUTOMOBILE
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OVERVIEW OF ISO ACTUARIAL PROCEDURES – COMMERCIAL AUTOMOBILE

INTRODUCTION Commercial Automobile advisory prospective loss costs are determined by evaluating the adequacy of the current ISO loss costs to pay for our best estimate of losses and all loss adjustment expenses that will be incurred in the prospective (or future) period. This evaluation is done separately by coverage for the major classes.

**STEP 1:
DETERMINATION
OF STATEWIDE
LOSS COST
INDICATION** The first step in this process is the determination of the statewide loss cost indication by major class/coverage. In other words, what percentage changes on average must be made to the current ISO loss costs in order to achieve adequacy for the prospective conditions? The percentage changes are presented on the exhibits labeled "Determination of Statewide Advisory Loss Cost Level Change."

**STEP 2:
DISTRIBUTION TO
TERRITORIES** For all of the liability coverages and for Trucks, Tractors & Trailers and Private Passenger Types Physical Damage, ISO then distributes the filed statewide basic limit loss cost change to the individual territorial loss costs by comparing the relative loss experience by territory to the statewide average.

**STEP 3:
APPLICATION OF
PERCENT CHANGES** The last step is the calculation of the ISO advisory prospective loss costs. This is achieved by applying either the filed statewide or territorial changes to the current ISO loss costs. For liability, the percentage change is applied at the basic limit; for physical damage, it is applied at the base OCN, age and deductible. The resulting Loss Costs are displayed in Section G.

OVERVIEW OF ISO ACTUARIAL PROCEDURES – COMMERCIAL AUTOMOBILE

STEP 1 – DETERMINATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGE

OBJECTIVE 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?

DESCRIPTION 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.

EXPERIENCE BASE 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.

AGGREGATE LOSS COSTS (Item 1) 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.

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.

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

The formula experience ratio is a credibility weighted average of the territory group experience ratio and statewide experience ratio. The formula is as follows:

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

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

[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

The formula experience ratio is a credibility weighted average of the territory group experience ratio and statewide experience ratio. The formula is as follows:

$$\begin{aligned} & [\text{Terr. Group Col. (4) x Terr. Group Col. (5)}] \\ & + [\text{SW Total Col.(4) x (1.0 - Terr. Group Col. (5))}] \end{aligned}$$

COLUMN (7)
INDEX TO
STATE

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

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

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

COLUMN (8)
BASE CLASS
LOSS COST

Present ISO base class loss cost.

COLUMN (9)
INDICATED BASE
LOSS COST

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

COLUMN (10)
REVISED BASE
LOSS COST

Revised base loss cost.

COLUMN (11)
ADVISORY
LOSS COST
CHANGE

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

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 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:

$$A = C/(C+K)$$

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.

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:

Type of Loss	Year 1		Year 2	
	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	
	Glass	Fire	Glass	Fire
Type of Loss				
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	
	Glass	Fire	Glass	Fire
Type of Loss				
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:	+5.0%	+4.5%

COMMERCIAL AUTOMOBILE PHYSICAL DAMAGE
SUPPLEMENTARY EXHIBIT

Quarterly Values <u>Ending</u>	Consumer Price Index for Bodywork	
	<u>Actual</u>	<u>Exponential Fit</u>
12/31/2014	2.785	2.769
03/31/2015	2.792	2.786
06/30/2015	2.804	2.803
09/30/2015	2.805	2.819
12/31/2015	2.831	2.836
03/31/2016	2.847	2.853
06/30/2016	2.866	2.870
09/30/2016	2.877	2.887
12/31/2016	2.913	2.904
03/31/2017	2.925	2.922
06/30/2017	2.942	2.939
09/30/2017	2.945	2.956
12/31/2017	2.966	2.974
03/31/2018	2.999	2.992
06/30/2018	3.016	3.010
09/30/2018	3.033	3.028
	<u>R-Squared</u>	<u>Average Annual Change</u>
16 Point Fit	0.9891	2.4%
12 Point Fit	0.9901	2.5%

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 1.0% and 1.6% 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 1.1% 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 June 30, 2018. In other words, accident year ended March 31, 2018 includes all losses and allocated loss adjustment expenses paid through June 30, 2018 on accidents occurring from April 1, 2017 to March 31, 2018 and all losses and allocated loss adjustment expenses outstanding on these accidents as of June 30, 2018, 15 months after the inception of the accident year. Similarly, the incurred losses and allocated loss adjustment expenses for accident year ended March 31, 2017 include all loss and loss adjustment expenses paid through June 30, 2018 on accidents occurring from April 1, 2016 to March 31, 2017 and all losses and allocated loss adjustment expenses outstanding on these accidents as of June 30, 2018, 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 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.

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.

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 June 30, 2018. In other words, accident year ended March 31, 2018 includes all losses paid through June 30, 2018 on accidents occurring from April 1, 2017 to March 31, 2018. Similarly, the paid losses for accident year ended March 31, 2017 include all losses paid through June 30, 2018 on accidents occurring from April 1, 2016 to March 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 The extent to which the state experience is reflected in the development of the prospective loss costs is determined by the credibility of the data for that state. Specifically, ISO credibility procedures are based upon the volume of claims for each coverage separately.

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

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

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

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

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

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

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

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

Step 2: Determine the Experience Period Credibility

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

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

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

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

Step 2: Determine the Experience Period Credibility

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

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

Tables For Use With Trend Data

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

K = 25,000

K = 10,000

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

ALL LIABILITY COVERAGES
CREDIBILITY TABLE
NUMBER OF CLAIMS

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

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

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

PHYSICAL DAMAGE
CREDIBILITY TABLES
NUMBER OF CLAIMS

OTHER THAN COLLISION

Cred	Trucks, Tractors & Trailers			Private Passenger Types		
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

Cred	Trucks, Tractors & Trailers			Private Passenger Types		
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.

NEW HAMPSHIRE
CLAIMS PER TERRITORY
LIABILITY

Territory	Trucks, Tractors & Trailers	Private Passenger Types
	Incurred Claims 5 Years Ending 03/31/2018 Combined BI and PD	Incurred Claims 5 Years Ending 03/31/2018 Combined BI and PD
101	330	81
102	306	68
116	385	76
117	337	33
118	1,085	191
121	304	46
124	141	34
125	81	13
126	30	1
128	574	84
130	526	141
131	500	83
132	153	27
133	1,332	185
SW Total	6,084	1,063

Claims for Trend

BI	PD
<u>299</u>	<u>2,069</u>

NEW HAMPSHIRE
CLAIMS PER TERRITORY
PHYSICAL DAMAGE

Territory	Trucks, Tractors & Trailers Paid Claims 5 Years Ending 03/31/2018		Private Passenger Types Paid Claims 5 Years Ending 03/31/2018	
	OTC	Coll	OTC	Coll
101	120	161	55	90
102	66	134	58	80
116	145	233	59	115
117	92	172	45	53
118	390	629	177	230
121	154	204	55	59
124	60	61	37	27
125	36	55	20	14
126	20	21	4	4
128	395	527	94	89
130	209	317	135	170
131	152	253	99	99
132	75	109	21	33
133	601	867	194	213
SW Total	2,515	3,743	1,053	1,276

WIND AND WATER PROCEDURE
OTHER THAN COLLISION

OBJECTIVE

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

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

DESCRIPTION OF
WIND AND WATER
ADJUSTMENT
PROCEDURE

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

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

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

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

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

WIND AND WATER PROCEDURE
OTHER THAN COLLISION
NEW HAMPSHIRE

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	23,331	898,556	875,225	0.027	0.041	35,884	934,440
1988	13,391	945,136	931,745	0.014	0.054	50,314	995,450
1989	45,125	1,046,721	1,001,596	0.045	0.023	23,037	1,069,758
1990	14,748	1,304,758	1,290,010	0.011	0.057	73,531	1,378,289
1991	3,050	920,282	917,232	0.003	0.065	59,620	979,902
1992	23,793	675,895	652,102	0.036	0.032	20,867	696,762
1993	2,452	666,468	664,016	0.004	0.064	42,497	708,965
1994	8,421	826,981	818,560	0.010	0.058	47,476	874,457
1995	7,930	919,902	911,972	0.009	0.059	53,806	973,708
1996	29,077	1,201,830	1,172,753	0.025	0.043	50,428	1,252,258
1997	57,906	1,676,076	1,618,170	0.036	0.032	51,781	1,727,857
1998	56,775	1,686,786	1,630,011	0.035	0.033	53,790	1,740,576
1999	73,320	1,689,992	1,616,672	0.045	0.023	37,183	1,727,175
2000	37,119	1,911,144	1,874,025	0.020	0.048	89,953	2,001,097
2001	56,094	2,114,684	2,058,590	0.027	0.041	84,402	2,199,086
2002	18,511	1,964,222	1,945,711	0.010	0.058	112,851	2,077,073
2003	64,234	1,540,112	1,475,878	0.044	0.024	35,421	1,575,533
2004	40,463	1,026,165	985,702	0.041	0.027	26,614	1,052,779
2005	30,158	877,524	847,366	0.036	0.032	27,116	904,640
2006	63,464	1,265,359	1,201,895	0.053	0.015	18,028	1,283,387
2007	424,634	1,353,517	928,883	0.457	-0.389	-361,335	992,182
2008	130,387	1,202,013	1,071,626	0.122	-0.054	-57,868	1,144,145
2009	67,493	1,357,315	1,289,822	0.052	0.016	20,637	1,377,952
2010	207,955	1,024,731	816,776	0.255	-0.187	-152,737	871,994
2011	54,322	972,473	918,151	0.059	0.009	8,263	980,736
2012	72,375	1,090,107	1,017,732	0.071	-0.003	-3,053	1,087,054
2013	139,456	874,789	735,333	0.190	-0.122	-89,711	785,078
2014	38,677	590,173	551,496	0.070	-0.002	-1,103	589,070
2015	79,637	845,593	765,956	0.104	-0.036	-27,574	818,019
2016	24,423	733,407	708,984	0.034	0.034	24,105	757,512
2017	52,427	973,982	921,555	0.057	0.011	10,137	984,119
2018	138,101	892,313	754,212	0.183	-0.115	-86,734	805,579

(8) NORMAL WIND TO NON W&W RATIO= AVG. (4) 0.068

WIND AND WATER PROCEDURE
OTHER THAN COLLISION
NEW HAMPSHIRE

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	15,264	638,922	623,658	0.024	0.066	41,161	680,083
1988	7,558	493,075	485,517	0.016	0.074	35,928	529,003
1989	9,344	708,897	699,553	0.013	0.077	53,866	762,763
1990	7,392	719,977	712,585	0.010	0.080	57,007	776,984
1991	8,217	406,048	397,831	0.021	0.069	27,450	433,498
1992	35,682	471,501	435,819	0.082	0.008	3,487	474,988
1993	3,273	349,829	346,556	0.009	0.081	28,071	377,900
1994	0	411,212	411,212	0.000	0.090	37,009	448,221
1995	514	449,248	448,734	0.001	0.089	39,937	489,185
1996	33,337	559,539	526,202	0.063	0.027	14,207	573,746
1997	38,433	522,745	484,312	0.079	0.011	5,327	528,072
1998	7,700	523,386	515,686	0.015	0.075	38,676	562,062
1999	120,044	637,560	517,516	0.232	-0.142	-73,487	564,073
2000	39,649	596,304	556,655	0.071	0.019	10,576	606,880
2001	8,814	712,228	703,414	0.013	0.077	54,163	766,391
2002	9,711	606,259	596,548	0.016	0.074	44,145	650,404
2003	19,611	430,473	410,862	0.048	0.042	17,256	447,729
2004	4,877	414,637	409,760	0.012	0.078	31,961	446,598
2005	18,660	359,428	340,768	0.055	0.035	11,927	371,355
2006	68,872	417,395	348,523	0.198	-0.108	-37,640	379,755
2007	413,236	801,198	387,962	1.065	-0.975	-378,263	422,935
2008	21,127	420,709	399,582	0.053	0.037	14,785	435,494
2009	52,533	427,093	374,560	0.140	-0.050	-18,728	408,365
2010	24,090	329,187	305,097	0.079	0.011	3,356	332,543
2011	21,992	269,148	247,156	0.089	0.001	247	269,395
2012	30,063	289,985	259,922	0.116	-0.026	-6,758	283,227
2013	13,696	257,341	243,645	0.056	0.034	8,284	265,625
2014	18,653	234,193	215,540	0.087	0.003	647	234,840
2015	7,488	246,401	238,913	0.031	0.059	14,096	260,497
2016	14,764	219,822	205,058	0.072	0.018	3,691	223,513
2017	9,493	213,897	204,404	0.046	0.044	8,994	222,891
2018	18,645	304,154	285,509	0.065	0.025	7,138	311,292

(8) NORMAL WIND TO NON W&W RATIO= AVG. (4) 0.090

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. Column (2) - 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.
Column (1) ÷ Column (3)

COLUMN (5)
VARIATION FROM
AVERAGE WIND
RATIO

Variation from the long term average Wind and Water to non-Wind and Water ratio.
Avg (4) - Column (4).

COLUMN (6)
WIND AND WATER
ADJUSTMENT

Wind and Water loss adjustment to bring experience to average Wind and Water level.
Column (3) * Column (5).

COLUMN (7)
ADJUSTED OTC
TOTAL LOSSES

Column (2) + 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

Medical Payments Loss Cost Revision: Methodology and Support

ISO's Advisory Prospective Loss Costs for the Medical Payments Coverage are calculated by multiplying the CSL Liability Loss Costs by a relativity. The revision methodology consists of the following general steps, which are discussed in more detail in the text of this document:

- Conduct experience review to determine the overall change.
- Develop predictive model to determine differentiation by territory for some vehicle classes.
- Derive new Loss costs from the new relativities and make selections where necessary.

Experience Period: We performed the review using six Accident Years ending 12/31/2016 of exposures, incurred losses, and incurred ALAE.

Jurisdictions Included: ISO collects Commercial Auto Statistical Data from 51 jurisdictions: 49 states, Puerto Rico, and the District of Columbia. Most jurisdictions were combined for this experience review. Exposures and Losses from jurisdictions with mandatory No-Fault Legislation were excluded: Delaware, District of Columbia, Florida, Kansas, Kentucky, Maryland, Michigan, Minnesota, New York, North Dakota, Pennsylvania, Texas, Utah, and Hawaii were excluded. Private Passenger Types data from New Jersey and Oregon was also excluded.

Extension of Exposures: To review the medical payments relativities we compared the loss experience to the aggregate ISO Advisory Prospective Loss Costs, using the most recently approved loss costs in each jurisdiction, rating each reported exposure according to the instructions in the Commercial Lines Manual.

Limit Shifts: The most common limit in our dataset for Medical Payments Coverage (representing 86% of vehicles) is the \$5000 Limit. This is fortunate because we can restate any given exposure or loss as if it were written at a lower limit, reducing the loss amounts where necessary, in order to use as much data as possible in the experience review for each limit. After replicating all the available data at each lower limit, there is sufficient data to review the \$500, \$1000, \$2000, and \$5000 limits. When shifting the data to a lower limit, the exposures and ALAE are replicated as-is, while the incurred losses are reduced if necessary to the amount of the new, lower limit.

Table 1: Credibility Weighted Yearly Loss Trend

Jurisdiction	Indicated State Trend	Credibility	Credibility Weighted Trend	Average Prospective Loss Date
Alabama	1.1%	0.05	2.7%	2/1/2019
Alaska	3.1%	0.00	2.8%	7/1/2018
Arizona	4.0%	0.05	2.9%	10/1/2018
Arkansas	2.9%	0.00	2.8%	7/1/2018
California	0.5%	0.20	2.3%	6/1/2018
Colorado	2.1%	0.05	2.8%	1/1/2019
Connecticut	-1.6%	0.05	2.6%	2/1/2019
Georgia	3.7%	0.10	2.9%	5/1/2019
Idaho	5.6%	0.00	2.8%	7/1/2018
Illinois	0.1%	0.05	2.7%	10/1/2018
Indiana	3.3%	0.05	2.8%	4/1/2019
Iowa	-1.1%	0.00	2.8%	8/1/2018
Louisiana	1.4%	0.05	2.7%	11/1/2018
Maine	2.8%	0.00	2.8%	2/1/2019
Mississippi	-1.2%	0.00	2.8%	8/1/2018
Missouri	4.4%	0.05	2.9%	10/1/2018
Montana	5.5%	0.00	2.8%	7/1/2018
Nebraska	4.1%	0.00	2.8%	3/1/2019
Nevada	-0.3%	0.05	2.6%	10/1/2018
New Hampshire	4.3%	0.00	2.8%	10/1/2018
New Jersey	1.1%	0.10	2.6%	1/1/2019
New Mexico	2.6%	0.00	2.8%	10/1/2018
North Carolina	3.9%	0.10	2.9%	12/1/2018
Ohio	3.3%	0.05	2.8%	3/1/2019
Oklahoma	4.6%	0.00	2.8%	8/1/2018
Oregon	5.5%	0.05	2.9%	1/1/2019
Puerto Rico	7.7%	0.00	2.8%	1/1/2019
Rhode Island	6.8%	0.00	2.8%	3/1/2019
South Carolina	4.0%	0.05	2.9%	7/1/2019
South Dakota	6.8%	0.00	2.8%	7/1/2018
Tennessee	4.0%	0.05	2.9%	2/1/2019
Vermont	-0.9%	0.00	2.8%	1/1/2019
Virginia	4.6%	0.05	2.9%	10/1/2018
Washington	3.3%	0.05	2.8%	10/1/2018
West Virginia	2.5%	0.00	2.8%	1/1/2019
Wisconsin	0.3%	0.00	2.8%	10/1/2018
Wyoming	2.6%	0.00	2.8%	7/1/2016

Trend: The claim severity trend for Medical Payments Coverage before the application of any limit is unmeasurable since insurance losses are subject to the limit, by definition. As a stand-in, we trended claim severities using a \$100k Limit Bodily Injury Average Claim Cost trend indication from six years ending 3/31/2017. The multistate average trend was 2.8% and the state indications were credibility-weighted using the multistate average as the complement to credibility. The trend selections are summarized in Table 1.

Trend is applied by multiplying a loss amount by $(1 + \text{trend selection})^{\text{trend period}}$.

The trend period is the number of years from the date of accident to the average prospective loss date. Since the loss costs we are reviewing are filed independently in each jurisdiction, the average prospective loss date varies by jurisdiction. This date is also displayed in table 1. The average prospective loss date is assumed to be one year beyond the effective date of the loss costs we are reviewing.

After trending, the Medical Payments Limit was re-applied, which significantly reduces the impact of severity trends. After application of the limit, the annualized average impact of the loss trending procedure ranged from 0.2% at the \$500 Limit to 1.0% for the \$5000 limit.

Loss Development: Incurred Losses and ALAE were developed to ultimate using the loss triangle approach and a best 3 out of 5 link ratio selection. Development after 135 months is assumed to be immaterial. Separate development triangles were created for each limit and for the following 3 class groups:

- Trucks, Tractors, and Trailers
- Private Passenger Types
- All Public Autos and Buses Combined

Public Autos were combined with buses due to the low volume of data for the Public Autos alone. The loss development procedure was applied after the limit shifting and loss trending procedures described above.

\$500 Limit Loss Development
Trucks, Tractors, and Trailers
Medical Payments
Multistate
Incurred Losses and ALAE

Incurred Losses

Year Ending	15 Months	27 Months	39 Months	51 Months	63 Months	75 Months	87 Months	99 Months	111 Months	123 Months	135 Months
12/31/2006	1,016,598	1,025,156	1,043,727	1,087,133	1,095,205	1,063,055	1,061,920	1,059,106	1,062,283	1,062,283	1,072,490
12/31/2007	1,088,897	1,332,850	1,462,442	1,491,841	1,503,002	1,501,208	1,499,328	1,500,709	1,500,709	1,500,755	
12/31/2008	1,056,469	1,077,296	1,090,329	1,121,796	1,167,302	1,216,159	1,214,482	1,216,920	1,216,770		
12/31/2009	1,057,945	1,095,704	1,169,646	1,169,418	1,182,235	1,187,385	1,187,049	1,196,924			
12/31/2010	1,210,970	1,199,389	1,231,722	1,265,609	1,279,144	1,291,211	1,292,133				
12/31/2011	1,232,179	1,247,659	1,283,485	1,363,099	1,399,037	1,417,000					
12/31/2012	1,215,176	1,249,968	1,352,076	1,423,634	1,491,889						
12/31/2013	1,321,690	1,465,818	1,591,591	1,740,972							
12/31/2014	1,432,345	1,556,798	1,577,762								
12/31/2015	1,503,405	1,772,276									
12/31/2016	1,522,614										

Link Ratios

Year Ending	27:15	39:27	51:39	63:51	75:63	87:75	99:87	111:99	123:111	135:123
12/31/2006	1.008	1.018	1.042	1.007	0.971	0.999	0.997	1.003	1.000	1.010
12/31/2007	1.224	1.097	1.020	1.007	0.999	0.999	1.001	1.000	1.000	
12/31/2008	1.020	1.012	1.029	1.041	1.042	0.999	1.002	1.000		
12/31/2009	1.036	1.067	1.000	1.011	1.004	1.000	1.008			
12/31/2010	0.990	1.027	1.028	1.011	1.009	1.001				
12/31/2011	1.013	1.029	1.062	1.026	1.013					
12/31/2012	1.029	1.082	1.053	1.048						
12/31/2013	1.109	1.086	1.094							
12/31/2014	1.087	1.013								
12/31/2015	1.179									
Best 3 of 5	1.075	1.046	1.047	1.026	1.009	0.999	1.002	1.001	1.000	1.010
To Ultimate	1.233	1.147	1.097	1.048	1.021	1.012	1.013	1.011	1.010	1.010

\$1000 Limit Loss Development
Trucks, Tractors, and Trailers
Medical Payments
Multistate
Incurred Losses and ALAE

Incurred Losses

Year Ending	15 Months	27 Months	39 Months	51 Months	63 Months	75 Months	87 Months	99 Months	111 Months	123 Months	135 Months
12/31/2006	1,831,051	1,809,420	1,818,590	1,855,376	1,862,171	1,829,086	1,827,335	1,824,021	1,826,698	1,826,698	1,837,405
12/31/2007	1,938,053	2,179,704	2,291,098	2,312,512	2,317,658	2,317,688	2,313,856	2,316,073	2,316,073	2,316,119	
12/31/2008	1,902,677	1,918,289	1,927,332	1,956,420	2,000,919	2,049,956	2,048,779	2,051,217	2,051,067		
12/31/2009	1,872,787	1,933,386	1,967,987	1,965,813	1,977,367	1,982,517	1,982,681	1,992,556			
12/31/2010	2,168,921	2,147,423	2,193,605	2,222,302	2,234,484	2,247,483	2,249,384				
12/31/2011	2,260,646	2,250,792	2,278,272	2,357,457	2,389,515	2,408,941					
12/31/2012	2,190,399	2,214,244	2,309,943	2,342,380	2,385,273						
12/31/2013	2,302,701	2,371,046	2,517,606	2,665,140							
12/31/2014	2,406,841	2,495,473	2,518,643								
12/31/2015	2,563,355	2,881,948									
12/31/2016	2,601,193										

Link Ratios

Year Ending	27:15	39:27	51:39	63:51	75:63	87:75	99:87	111:99	123:111	135:123
12/31/2006	0.988	1.005	1.020	1.004	0.982	0.999	0.998	1.001	1.000	1.006
12/31/2007	1.125	1.051	1.009	1.002	1.000	0.998	1.001	1.000	1.000	
12/31/2008	1.008	1.005	1.015	1.023	1.025	0.999	1.001	1.000		
12/31/2009	1.032	1.018	0.999	1.006	1.003	1.000	1.005			
12/31/2010	0.990	1.022	1.013	1.005	1.006	1.001				
12/31/2011	0.996	1.012	1.035	1.014	1.008					
12/31/2012	1.011	1.043	1.014	1.018						
12/31/2013	1.030	1.062	1.059							
12/31/2014	1.037	1.009								
12/31/2015	1.124									
Best 3 of 5	1.026	1.026	1.021	1.013	1.006	1.000	1.001	1.000	1.000	1.006
To Ultimate	1.103	1.075	1.048	1.026	1.013	1.007	1.007	1.006	1.006	1.006

\$2000 Limit Loss Development
Trucks, Tractors, and Trailers
Medical Payments
Multistate
Incurred Losses and ALAE

Incurred Losses

Year Ending	15 Months	27 Months	39 Months	51 Months	63 Months	75 Months	87 Months	99 Months	111 Months	123 Months	135 Months
12/31/2006	2,804,858	2,714,876	2,719,487	2,755,121	2,761,898	2,727,404	2,725,079	2,722,765	2,725,218	2,724,677	2,736,384
12/31/2007	3,029,458	3,273,075	3,361,892	3,361,860	3,360,659	3,363,689	3,360,857	3,364,123	3,364,123	3,364,169	
12/31/2008	3,048,244	3,046,962	3,043,958	3,073,328	3,118,218	3,168,247	3,168,070	3,170,508	3,170,358		
12/31/2009	2,993,635	3,093,135	3,095,572	3,078,161	3,087,961	3,090,898	3,092,062	3,092,265			
12/31/2010	3,567,918	3,523,809	3,601,305	3,611,935	3,622,504	3,638,357	3,641,691				
12/31/2011	3,832,908	3,763,008	3,782,394	3,861,280	3,893,647	3,915,694					
12/31/2012	3,582,300	3,582,194	3,658,958	3,673,196	3,692,095						
12/31/2013	3,764,624	3,813,836	3,943,591	4,085,252							
12/31/2014	3,912,680	3,928,975	3,959,186								
12/31/2015	4,114,753	4,475,103									
12/31/2016	4,190,510										

Link Ratios

Year Ending	27:15	39:27	51:39	63:51	75:63	87:75	99:87	111:99	123:111	135:123
12/31/2006	0.968	1.002	1.013	1.002	0.988	0.999	0.999	1.001	1.000	1.004
12/31/2007	1.080	1.027	1.000	1.000	1.001	0.999	1.001	1.000	1.000	
12/31/2008	1.000	0.999	1.010	1.015	1.016	1.000	1.001	1.000		
12/31/2009	1.033	1.001	0.994	1.003	1.001	1.000	1.000			
12/31/2010	0.988	1.022	1.003	1.003	1.004	1.001				
12/31/2011	0.982	1.005	1.021	1.008	1.006					
12/31/2012	1.000	1.021	1.004	1.005						
12/31/2013	1.013	1.034	1.036							
12/31/2014	1.004	1.008								
12/31/2015	1.088									
Best 3 of 5	1.006	1.017	1.009	1.006	1.004	1.000	1.000	1.000	1.000	1.004
To Ultimate	1.047	1.041	1.023	1.014	1.008	1.004	1.004	1.004	1.004	1.004

\$5000 Limit Loss Development
 Trucks, Tractors, and Trailers
 Medical Payments
 Multistate
 Incurred Losses and ALAE

Incurred Losses

Year Ending	15 Months	27 Months	39 Months	51 Months	63 Months	75 Months	87 Months	99 Months	111 Months	123 Months	135 Months
12/31/2006	4,710,960	4,539,456	4,479,942	4,508,763	4,505,275	4,468,964	4,461,710	4,459,396	4,461,849	4,460,205	4,474,912
12/31/2007	5,107,555	5,110,979	5,193,230	5,149,755	5,159,403	5,172,513	5,165,844	5,170,520	5,170,273	5,170,323	
12/31/2008	5,362,092	5,257,885	5,159,748	5,179,114	5,188,219	5,233,294	5,236,584	5,236,063	5,235,913		
12/31/2009	5,307,743	5,416,310	5,385,690	5,337,341	5,340,341	5,339,512	5,340,124	5,339,702			
12/31/2010	6,387,662	6,318,408	6,393,163	6,315,482	6,348,918	6,366,768	6,371,957				
12/31/2011	6,973,046	6,804,811	6,759,850	6,818,604	6,829,183	6,854,863					
12/31/2012	6,528,456	6,386,281	6,416,629	6,428,069	6,399,175						
12/31/2013	6,821,163	6,737,071	6,772,763	6,894,338							
12/31/2014	7,056,965	6,929,837	6,912,069								
12/31/2015	7,428,295	7,821,620									
12/31/2016	7,547,745										

Link Ratios

Year Ending	27:15	39:27	51:39	63:51	75:63	87:75	99:87	111:99	123:111	135:123
12/31/2006	0.964	0.987	1.006	0.999	0.992	0.998	0.999	1.001	1.000	1.003
12/31/2007	1.001	1.016	0.992	1.002	1.003	0.999	1.001	1.000	1.000	
12/31/2008	0.981	0.981	1.004	1.002	1.009	1.001	1.000	1.000		
12/31/2009	1.020	0.994	0.991	1.001	1.000	1.000	1.000			
12/31/2010	0.989	1.012	0.988	1.005	1.003	1.001				
12/31/2011	0.976	0.993	1.009	1.002	1.004					
12/31/2012	0.978	1.005	1.002	0.996						
12/31/2013	0.988	1.005	1.018							
12/31/2014	0.982	0.997								
12/31/2015	1.053									
Best 3 of 5	0.983	1.002	1.000	1.001	1.003	1.000	1.000	1.000	1.000	1.003
To Ultimate	0.992	1.009	1.007	1.007	1.006	1.003	1.003	1.003	1.003	1.003

\$500 Limit Loss Development
Private Passenger Types
Medical Payments
Multistate
Incurred Losses and ALAE

Incurred Losses

Year Ending	15 Months	27 Months	39 Months	51 Months	63 Months	75 Months	87 Months	99 Months	111 Months	123 Months	135 Months
12/31/2006	769,652	719,082	719,857	733,825	728,712	727,212	727,212	727,212	726,828	726,730	726,567
12/31/2007	705,667	736,212	749,694	790,864	789,844	772,861	774,306	770,806	770,806	770,806	
12/31/2008	706,600	680,360	693,502	716,828	752,973	787,557	750,841	750,907	750,486		
12/31/2009	737,177	752,941	759,381	778,353	788,284	795,291	795,107	794,936			
12/31/2010	801,748	787,604	809,527	865,024	889,702	890,697	891,913				
12/31/2011	789,888	785,481	790,657	795,698	797,950	796,589					
12/31/2012	818,114	813,788	808,780	827,805	826,138						
12/31/2013	844,383	1,074,054	1,124,652	1,156,142							
12/31/2014	812,884	777,075	774,074								
12/31/2015	883,695	874,375									
12/31/2016	859,868										

Link Ratios

Year Ending	27:15	39:27	51:39	63:51	75:63	87:75	99:87	111:99	123:111	135:123
12/31/2006	0.934	1.001	1.019	0.993	0.998	1.000	1.000	0.999	1.000	1.000
12/31/2007	1.043	1.018	1.055	0.999	0.978	1.002	0.995	1.000	1.000	
12/31/2008	0.963	1.019	1.034	1.050	1.046	0.953	1.000	0.999		
12/31/2009	1.021	1.009	1.025	1.013	1.009	1.000	1.000			
12/31/2010	0.982	1.028	1.069	1.029	1.001	1.001				
12/31/2011	0.994	1.007	1.006	1.003	0.998					
12/31/2012	0.995	0.994	1.024	0.998						
12/31/2013	1.272	1.047	1.028							
12/31/2014	0.956	0.996								
12/31/2015	0.989									
Best 3 of 5	0.993	1.010	1.026	1.015	1.003	1.000	0.999	1.000	1.000	1.000
To Ultimate	1.047	1.054	1.043	1.017	1.002	0.999	0.999	1.000	1.000	1.000

\$1000 Limit Loss Development
Private Passenger Types
Medical Payments
Multistate
Incurred Losses and ALAE

Incurred Losses

Accident

Year Ending	15 Months	27 Months	39 Months	51 Months	63 Months	75 Months	87 Months	99 Months	111 Months	123 Months	135 Months
12/31/2006	1,347,363	1,255,881	1,258,735	1,268,440	1,264,827	1,262,065	1,262,042	1,261,847	1,260,767	1,260,603	1,260,440
12/31/2007	1,266,918	1,314,921	1,320,418	1,359,988	1,358,422	1,340,485	1,342,901	1,335,901	1,335,901	1,335,901	
12/31/2008	1,265,653	1,210,434	1,222,050	1,243,331	1,277,948	1,310,193	1,273,452	1,273,173	1,272,117		
12/31/2009	1,267,632	1,281,738	1,280,192	1,294,287	1,304,764	1,314,350	1,314,499	1,314,144			
12/31/2010	1,390,311	1,357,920	1,378,717	1,430,663	1,452,674	1,454,169	1,455,885				
12/31/2011	1,417,733	1,403,186	1,400,407	1,408,688	1,409,661	1,408,800					
12/31/2012	1,462,239	1,442,122	1,425,918	1,442,380	1,438,259						
12/31/2013	1,479,743	1,693,588	1,743,825	1,775,629							
12/31/2014	1,429,496	1,371,734	1,357,362								
12/31/2015	1,580,699	1,542,905									
12/31/2016	1,530,205										

Link Ratios

Accident

Year Ending	27:15	39:27	51:39	63:51	75:63	87:75	99:87	111:99	123:111	135:123
12/31/2006	0.932	1.002	1.008	0.997	0.998	1.000	1.000	0.999	1.000	1.000
12/31/2007	1.038	1.004	1.030	0.999	0.987	1.002	0.995	1.000	1.000	
12/31/2008	0.956	1.010	1.017	1.028	1.025	0.972	1.000	0.999		
12/31/2009	1.011	0.999	1.011	1.008	1.007	1.000	1.000			
12/31/2010	0.977	1.015	1.038	1.015	1.001	1.001				
12/31/2011	0.990	0.998	1.006	1.001	0.999					
12/31/2012	0.986	0.989	1.012	0.997						
12/31/2013	1.145	1.030	1.018							
12/31/2014	0.960	0.990								
12/31/2015	0.976									
Best 3 of 5	0.984	1.001	1.014	1.008	1.003	1.000	0.999	0.999	1.000	1.000
To Ultimate	1.008	1.024	1.023	1.009	1.001	0.998	0.998	0.999	1.000	1.000

\$2000 Limit Loss Development
Private Passenger Types
Medical Payments
Multistate
Incurred Losses and ALAE

Incurred Losses

Year Ending	15 Months	27 Months	39 Months	51 Months	63 Months	75 Months	87 Months	99 Months	111 Months	123 Months	135 Months
12/31/2006	2,157,525	1,979,741	1,978,029	1,980,966	1,979,659	1,972,532	1,972,409	1,972,214	1,970,134	1,969,970	1,969,807
12/31/2007	2,040,975	2,097,105	2,092,927	2,124,372	2,122,847	2,103,177	2,104,649	2,094,649	2,094,649	2,094,649	
12/31/2008	2,083,829	1,985,427	1,990,533	2,013,675	2,046,832	2,075,581	2,037,840	2,036,440	2,035,285		
12/31/2009	2,145,937	2,164,395	2,146,295	2,150,103	2,160,588	2,162,174	2,162,323	2,161,968			
12/31/2010	2,317,599	2,235,580	2,253,368	2,297,454	2,317,440	2,319,936	2,323,197				
12/31/2011	2,382,965	2,343,402	2,329,488	2,337,867	2,339,440	2,339,474					
12/31/2012	2,472,804	2,407,485	2,365,708	2,378,965	2,372,693						
12/31/2013	2,450,463	2,625,221	2,663,030	2,688,262							
12/31/2014	2,341,153	2,238,435	2,216,219								
12/31/2015	2,663,961	2,561,977									
12/31/2016	2,538,379										

Link Ratios

Year Ending	27:15	39:27	51:39	63:51	75:63	87:75	99:87	111:99	123:111	135:123
12/31/2006	0.918	0.999	1.001	0.999	0.996	1.000	1.000	0.999	1.000	1.000
12/31/2007	1.028	0.998	1.015	0.999	0.991	1.001	0.995	1.000	1.000	
12/31/2008	0.953	1.003	1.012	1.016	1.014	0.982	0.999	0.999		
12/31/2009	1.009	0.992	1.002	1.005	1.001	1.000	1.000			
12/31/2010	0.965	1.008	1.020	1.009	1.001	1.001				
12/31/2011	0.983	0.994	1.004	1.001	1.000					
12/31/2012	0.974	0.983	1.006	0.997						
12/31/2013	1.071	1.014	1.009							
12/31/2014	0.956	0.990								
12/31/2015	0.962									
Best 3 of 5	0.973	0.997	1.006	1.005	1.001	1.000	0.999	0.999	1.000	1.000
To Ultimate	0.980	1.007	1.010	1.004	0.999	0.998	0.998	0.999	1.000	1.000

\$5000 Limit Loss Development
Private Passenger Types
Medical Payments
Multistate
Incurred Losses and ALAE

Incurred Losses

Year Ending	15 Months	27 Months	39 Months	51 Months	63 Months	75 Months	87 Months	99 Months	111 Months	123 Months	135 Months
12/31/2006	3,721,166	3,375,926	3,394,135	3,388,529	3,395,097	3,374,418	3,370,248	3,370,052	3,369,972	3,369,808	3,369,645
12/31/2007	3,636,112	3,717,435	3,662,174	3,685,332	3,680,793	3,657,896	3,662,368	3,650,735	3,650,735	3,650,735	
12/31/2008	3,700,493	3,492,444	3,479,857	3,492,203	3,510,023	3,543,447	3,502,705	3,498,317	3,497,162		
12/31/2009	3,958,284	3,862,780	3,828,809	3,789,358	3,794,068	3,792,824	3,792,973	3,792,618			
12/31/2010	4,175,556	3,933,910	3,934,369	3,948,894	3,953,659	3,951,274	3,960,535				
12/31/2011	4,393,703	4,260,677	4,203,534	4,179,424	4,177,454	4,162,835					
12/31/2012	4,508,620	4,346,937	4,204,011	4,195,411	4,180,248						
12/31/2013	4,399,489	4,476,301	4,484,506	4,493,511							
12/31/2014	4,188,317	3,878,024	3,826,847								
12/31/2015	4,954,531	4,609,444									
12/31/2016	4,697,573										

Link Ratios

Year Ending	27:15	39:27	51:39	63:51	75:63	87:75	99:87	111:99	123:111	135:123
12/31/2006	0.907	1.005	0.998	1.002	0.994	0.999	1.000	1.000	1.000	1.000
12/31/2007	1.022	0.985	1.006	0.999	0.994	1.001	0.997	1.000	1.000	
12/31/2008	0.944	0.996	1.004	1.005	1.010	0.989	0.999	1.000		
12/31/2009	0.976	0.991	0.990	1.001	1.000	1.000	1.000			
12/31/2010	0.942	1.000	1.004	1.001	0.999	1.002				
12/31/2011	0.970	0.987	0.994	1.000	0.997					
12/31/2012	0.964	0.967	0.998	0.996						
12/31/2013	1.017	1.002	1.002							
12/31/2014	0.926	0.987								
12/31/2015	0.930									
Best 3 of 5	0.955	0.991	0.998	1.001	0.999	1.000	0.999	1.000	1.000	1.000
To Ultimate	0.944	0.988	0.997	0.999	0.998	0.999	0.999	1.000	1.000	1.000

\$500 Limit Loss Development
 Public Autos and Buses
 Medical Payments
 Multistate
 Incurred Losses and ALAE

Incurred Losses

Year Ending	15 Months	27 Months	39 Months	51 Months	63 Months	75 Months	87 Months	99 Months	111 Months	123 Months	135 Months
12/31/2006	699,838	668,937	664,930	695,651	698,527	698,507	700,007	700,007	699,507	699,507	699,507
12/31/2007	572,496	515,666	523,785	517,895	518,773	519,556	519,056	519,556	519,056	519,056	
12/31/2008	536,740	485,156	481,422	473,506	472,996	475,801	458,116	462,214	462,303		
12/31/2009	519,687	467,064	448,821	449,034	470,971	449,491	449,491	449,491			
12/31/2010	668,853	596,371	590,777	581,000	583,598	583,844	586,114				
12/31/2011	644,297	612,965	602,997	601,592	595,492	594,772					
12/31/2012	624,746	574,302	574,157	588,169	623,459						
12/31/2013	612,231	608,098	626,153	656,860							
12/31/2014	554,552	451,218	497,852								
12/31/2015	561,474	548,285									
12/31/2016	591,243										

Link Ratios

Year Ending	27:15	39:27	51:39	63:51	75:63	87:75	99:87	111:99	123:111	135:123
12/31/2006	0.956	0.994	1.046	1.004	1.000	1.002	1.000	0.999	1.000	1.000
12/31/2007	0.901	1.016	0.989	1.002	1.002	0.999	1.001	0.999	1.000	
12/31/2008	0.904	0.992	0.984	0.999	1.006	0.963	1.009	1.000		
12/31/2009	0.899	0.961	1.000	1.049	0.954	1.000	1.000			
12/31/2010	0.892	0.991	0.983	1.004	1.000	1.004				
12/31/2011	0.951	0.984	0.998	0.990	0.999					
12/31/2012	0.919	1.000	1.024	1.060						
12/31/2013	0.993	1.030	1.049							
12/31/2014	0.814	1.103								
12/31/2015	0.977									
Best 3 of 5	0.949	1.007	1.008	1.017	1.000	1.000	1.002	1.000	1.000	1.000
To Ultimate	0.982	1.034	1.027	1.019	1.002	1.002	1.002	1.000	1.000	1.000

\$1000 Limit Loss Development
 Public Autos and Buses
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 Multistate
 Incurred Losses and ALAE

Incurred Losses

Year Ending	15 Months	27 Months	39 Months	51 Months	63 Months	75 Months	87 Months	99 Months	111 Months	123 Months	135 Months
12/31/2006	1,226,424	1,087,936	1,064,542	1,093,211	1,096,087	1,096,067	1,099,067	1,099,067	1,098,229	1,098,229	1,098,229
12/31/2007	993,408	876,610	870,240	859,846	861,402	862,684	861,684	862,684	861,684	861,684	
12/31/2008	916,589	805,433	785,504	774,182	771,672	773,571	755,886	759,984	760,073		
12/31/2009	926,685	804,270	764,162	757,057	778,073	757,277	757,277	757,277			
12/31/2010	1,187,978	1,011,154	982,665	957,465	961,164	961,410	964,180				
12/31/2011	1,105,152	1,022,436	996,105	993,664	983,368	983,649					
12/31/2012	1,077,404	951,458	943,756	955,044	990,612						
12/31/2013	1,061,489	1,024,632	1,048,498	1,077,292							
12/31/2014	984,233	828,636	868,446								
12/31/2015	992,025	927,666									
12/31/2016	1,027,641										

Link Ratios

Year Ending	27:15	39:27	51:39	63:51	75:63	87:75	99:87	111:99	123:111	135:123
12/31/2006	0.887	0.978	1.027	1.003	1.000	1.003	1.000	0.999	1.000	1.000
12/31/2007	0.882	0.993	0.988	1.002	1.001	0.999	1.001	0.999	1.000	
12/31/2008	0.879	0.975	0.986	0.997	1.002	0.977	1.005	1.000		
12/31/2009	0.868	0.950	0.991	1.028	0.973	1.000	1.000			
12/31/2010	0.851	0.972	0.974	1.004	1.000	1.003				
12/31/2011	0.925	0.974	0.998	0.990	1.000					
12/31/2012	0.883	0.992	1.012	1.037						
12/31/2013	0.965	1.023	1.027							
12/31/2014	0.842	1.048								
12/31/2015	0.935									
Best 3 of 5	0.914	0.996	1.000	1.009	1.001	1.001	1.002	0.999	1.000	1.000
To Ultimate	0.921	1.008	1.012	1.012	1.003	1.002	1.001	0.999	1.000	1.000

\$2000 Limit Loss Development
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Incurred Losses

Year Ending	15 Months	27 Months	39 Months	51 Months	63 Months	75 Months	87 Months	99 Months	111 Months	123 Months	135 Months
12/31/2006	1,766,101	1,496,719	1,443,939	1,465,849	1,468,725	1,468,705	1,474,553	1,474,553	1,473,715	1,473,715	1,473,715
12/31/2007	1,352,831	1,178,315	1,161,059	1,145,761	1,148,317	1,150,599	1,148,599	1,150,599	1,148,599	1,148,599	
12/31/2008	1,426,563	1,221,126	1,169,938	1,152,443	1,149,100	1,150,034	1,131,780	1,135,878	1,135,967		
12/31/2009	1,511,823	1,269,959	1,187,429	1,164,800	1,183,766	1,163,970	1,163,970	1,163,970			
12/31/2010	1,865,320	1,526,788	1,452,402	1,406,695	1,410,116	1,410,362	1,414,045				
12/31/2011	1,727,393	1,541,915	1,473,573	1,468,710	1,454,390	1,454,745					
12/31/2012	1,682,538	1,414,161	1,400,092	1,402,732	1,438,995						
12/31/2013	1,714,533	1,603,327	1,634,025	1,646,046							
12/31/2014	1,632,293	1,351,536	1,376,239								
12/31/2015	1,650,250	1,504,938									
12/31/2016	1,687,298										

Link Ratios

Year Ending	27:15	39:27	51:39	63:51	75:63	87:75	99:87	111:99	123:111	135:123
12/31/2006	0.847	0.965	1.015	1.002	1.000	1.004	1.000	0.999	1.000	1.000
12/31/2007	0.871	0.985	0.987	1.002	1.002	0.998	1.002	0.998	1.000	
12/31/2008	0.856	0.958	0.985	0.997	1.001	0.984	1.004	1.000		
12/31/2009	0.840	0.935	0.981	1.016	0.983	1.000	1.000			
12/31/2010	0.819	0.951	0.969	1.002	1.000	1.003				
12/31/2011	0.893	0.956	0.997	0.990	1.000					
12/31/2012	0.840	0.990	1.002	1.026						
12/31/2013	0.935	1.019	1.007							
12/31/2014	0.828	1.018								
12/31/2015	0.912									
Best 3 of 5	0.882	0.988	0.993	1.005	1.000	1.000	1.001	0.999	1.000	1.000
To Ultimate	0.870	0.986	0.998	1.005	1.000	1.000	1.000	0.999	1.000	1.000

\$5000 Limit Loss Development
 Public Autos and Buses
 Medical Payments
 Multistate
 Incurred Losses and ALAE

Incurred Losses

Year Ending	15 Months	27 Months	39 Months	51 Months	63 Months	75 Months	87 Months	99 Months	111 Months	123 Months	135 Months
12/31/2006	2,785,068	2,243,083	2,126,078	2,143,552	2,145,672	2,145,606	2,152,382	2,152,382	2,151,544	2,151,544	2,151,544
12/31/2007	2,106,170	1,816,163	1,738,619	1,702,803	1,704,270	1,709,487	1,706,105	1,711,105	1,706,105	1,706,105	
12/31/2008	2,153,119	1,851,226	1,703,050	1,661,275	1,648,797	1,648,857	1,630,351	1,634,148	1,634,086		
12/31/2009	2,491,683	1,977,321	1,839,088	1,794,139	1,812,769	1,790,289	1,790,289	1,790,289			
12/31/2010	3,076,739	2,390,679	2,208,987	2,133,295	2,133,485	2,133,731	2,139,985				
12/31/2011	2,869,407	2,481,648	2,315,738	2,305,442	2,268,052	2,268,406					
12/31/2012	2,734,074	2,159,460	2,096,756	2,073,968	2,108,169						
12/31/2013	2,866,127	2,515,960	2,571,384	2,549,996							
12/31/2014	2,793,041	2,212,994	2,219,749								
12/31/2015	2,851,665	2,530,774									
12/31/2016	2,985,496										

Link Ratios

Year Ending	27:15	39:27	51:39	63:51	75:63	87:75	99:87	111:99	123:111	135:123
12/31/2006	0.805	0.948	1.008	1.001	1.000	1.003	1.000	1.000	1.000	1.000
12/31/2007	0.862	0.957	0.979	1.001	1.003	0.998	1.003	0.997	1.000	
12/31/2008	0.860	0.920	0.975	0.992	1.000	0.989	1.002	1.000		
12/31/2009	0.794	0.930	0.976	1.010	0.988	1.000	1.000			
12/31/2010	0.777	0.924	0.966	1.000	1.000	1.003				
12/31/2011	0.865	0.933	0.996	0.984	1.000					
12/31/2012	0.790	0.971	0.989	1.016						
12/31/2013	0.878	1.022	0.992							
12/31/2014	0.792	1.003								
12/31/2015	0.887									
Best 3 of 5	0.845	0.969	0.985	1.001	1.000	1.000	1.001	0.999	1.000	1.000
To Ultimate	0.807	0.955	0.986	1.001	1.000	1.000	1.000	0.999	1.000	1.000

Table 2: Summary of Loss Experience Review		Aggregate Loss	Trended and	Calculated		
	year	Earned Car Years	Cost at Current Level	Developed Losses	Claim Count	Indicated Change
Trucks, Tractors and Trailers \$500 Limit	2011	2,388,171	22,902,771	1,500,065	2,611	-93%
	2012	2,470,768	23,626,377	1,590,164	2,556	-93%
	2013	2,630,429	25,140,572	1,799,420	2,615	-93%
	2014	2,690,849	25,571,828	1,680,960	2,757	-93%
	2015	2,788,305	26,544,825	1,940,491	2,980	-93%
	2016	2,888,156	27,518,393	1,789,927	2,611	-93%
Trucks, Tractors and Trailers \$1000 Limit	2011	2,347,050	35,518,830	2,497,650	2,556	-93%
	2012	2,432,845	36,706,367	2,468,552	2,494	-93%
	2013	2,592,296	39,098,849	2,643,041	2,508	-93%
	2014	2,634,474	39,530,199	2,491,749	2,529	-94%
	2015	2,713,388	40,772,283	2,887,357	2,857	-93%
	2016	2,808,286	42,274,276	2,697,388	2,564	-94%
Trucks, Tractors and Trailers \$2000 Limit	2011	2,180,463	44,990,947	4,044,554	2,420	-91%
	2012	2,274,936	46,797,212	3,777,620	2,290	-92%
	2013	2,434,748	50,089,460	3,993,456	2,352	-92%
	2014	2,478,993	50,719,920	3,814,726	2,329	-92%
	2015	2,556,137	52,351,467	4,319,600	2,612	-92%
	2016	2,650,603	54,425,330	4,113,023	2,379	-92%
Trucks, Tractors and Trailers \$5000 Limit	2011	2,010,211	60,798,695	7,209,991	2,248	-88%
	2012	2,114,211	63,637,316	6,625,246	2,127	-90%
	2013	2,271,861	68,378,861	6,792,089	2,185	-90%
	2014	2,318,461	69,443,412	6,631,986	2,182	-90%
	2015	2,399,188	71,953,804	7,448,372	2,454	-90%
	2016	2,493,969	74,976,803	7,076,839	2,193	-91%

Table 2: Summary of Loss Experience Review (Continued)		Earned Car	Aggregate Loss	Trended and	Calculated	Indicated
year	Years	Cost at Current	Level	Developed	Claim	Change
				Losses	Count	
Private Passenger Types \$500 Limit	2011	530,157	3,285,602	776,668	1,598	-76%
	2012	524,797	3,259,218	804,246	1,600	-75%
	2013	547,386	3,397,560	1,111,370	1,587	-67%
	2014	543,223	3,376,771	723,544	1,492	-79%
	2015	558,260	3,480,649	847,875	1,687	-76%
	2016	564,653	3,529,774	829,759	1,588	-76%
Private Passenger Types \$1000 Limit	2011	519,120	5,520,584	1,374,539	1,567	-75%
	2012	513,476	5,474,906	1,405,544	1,557	-74%
	2013	535,723	5,709,545	1,688,111	1,542	-70%
	2014	527,865	5,638,204	1,237,654	1,442	-78%
	2015	538,381	5,767,166	1,450,223	1,625	-75%
	2016	540,899	5,808,590	1,418,566	1,538	-76%
Private Passenger Types \$2000 Limit	2011	490,075	7,252,605	2,296,993	1,481	-68%
	2012	486,190	7,213,119	2,326,952	1,485	-68%
	2013	509,275	7,552,434	2,556,844	1,463	-66%
	2014	502,962	7,476,126	2,032,803	1,364	-73%
	2015	513,885	7,655,554	2,376,037	1,547	-69%
	2016	517,442	7,727,932	2,299,206	1,435	-70%
Private Passenger Types \$5000 Limit	2011	460,556	8,758,837	4,124,864	1,415	-53%
	2012	458,234	8,731,230	4,125,409	1,387	-53%
	2013	481,428	9,170,476	4,263,407	1,383	-54%
	2014	476,585	9,099,584	3,507,439	1,263	-61%
	2015	488,907	9,352,818	4,225,614	1,476	-55%
	2016	493,964	9,471,869	4,119,651	1,358	-57%

Table 2: Summary of Loss Experience Review (Continued)		Earned Car	Aggregate Loss	Trended and	Calculated	Indicated
	year	Years	Cost at Current	Developed	Claim	Change
			Level	Losses	Count	
Other Buses \$500 Limit	2011	73,775	1,171,460	242,891	510	-79%
	2012	73,752	1,163,821	312,581	544	-73%
	2013	77,248	1,221,995	320,225	558	-74%
	2014	79,840	1,276,390	266,649	538	-79%
	2015	81,298	1,325,206	309,062	603	-77%
	2016	88,707	1,437,134	330,336	616	-77%
Other Buses \$1000 Limit	2011	69,311	1,342,097	401,700	501	-70%
	2012	69,000	1,328,802	484,070	531	-64%
	2013	74,116	1,428,945	517,916	549	-64%
	2014	78,522	1,528,615	454,567	527	-70%
	2015	80,050	1,584,731	507,170	580	-68%
	2016	80,033	1,588,094	565,125	607	-64%
Other Buses \$2000 Limit	2011	64,738	1,614,667	587,940	473	-64%
	2012	64,550	1,594,829	689,326	502	-57%
	2013	69,513	1,716,514	733,844	518	-57%
	2014	73,914	1,843,061	707,342	506	-62%
	2015	75,603	1,918,276	810,278	563	-58%
	2016	75,222	1,918,461	914,013	586	-52%
Other Buses \$5000 Limit	2011	61,235	2,080,588	953,664	452	-54%
	2012	61,066	2,051,247	1,008,396	450	-51%
	2013	65,907	2,212,614	1,184,106	484	-46%
	2014	70,142	2,372,398	1,132,085	465	-52%
	2015	71,695	2,472,855	1,436,886	546	-42%
	2016	71,841	2,501,396	1,650,502	560	-34%

Table 2: Summary of Loss Experience Review (Continued)		Earned Car	Aggregate Loss	Trended and	Calculated	Indicated
year	Years	Cost at Current	Developed	Claim	Count	Change
		Level	Losses			
School and Church Buses \$500 Limit	2011	117,811	1,222,648	356,118	747	-71%
	2012	112,537	1,184,790	302,150	661	-74%
	2013	111,271	1,186,941	346,737	740	-71%
	2014	108,227	1,162,852	270,531	586	-77%
	2015	104,528	1,142,794	321,264	608	-72%
	2016	104,100	1,154,564	306,911	625	-73%
School and Church Buses \$1000 Limit	2011	117,347	1,811,665	591,981	744	-67%
	2012	112,145	1,755,892	505,778	661	-71%
	2013	110,923	1,759,555	576,800	707	-67%
	2014	107,860	1,722,206	470,680	585	-73%
	2015	102,799	1,651,537	514,527	594	-69%
	2016	99,844	1,617,738	518,769	611	-68%
School and Church Buses \$2000 Limit	2011	112,158	2,103,625	888,267	711	-58%
	2012	107,670	2,045,777	754,925	630	-63%
	2013	106,706	2,055,111	932,621	677	-55%
	2014	103,932	2,013,796	736,313	532	-63%
	2015	99,102	1,932,324	803,807	581	-58%
	2016	96,337	1,895,262	839,258	590	-56%
School and Church Buses \$5000 Limit	2011	105,510	2,554,979	1,347,943	657	-47%
	2012	101,477	2,488,842	1,143,923	612	-54%
	2013	100,878	2,506,433	1,442,075	642	-42%
	2014	98,798	2,472,682	1,161,344	519	-53%
	2015	94,422	2,378,493	1,237,990	554	-48%
	2016	91,743	2,329,857	1,393,893	571	-40%

Table 2: Summary of Loss Experience Review (Continued)		Earned Car	Aggregate Loss	Trended and	Calculated	Indicated
year	Years	Cost at Current	Level	Developed	Claim	Change
				Losses	Count	
Taxis and Limousines \$500 Limit	2011	1,349	63,749	12,827	22	-80%
	2012	1,852	86,864	20,309	25	-77%
	2013	2,060	108,227	19,841	42	-82%
	2014	2,239	115,269	19,541	40	-83%
	2015	2,409	124,134	16,354	33	-87%
	2016	2,456	115,754	12,628	25	-89%
Taxis and Limousines \$1000 Limit	2011	1,168	78,299	21,823	21	-72%
	2012	1,702	114,795	29,501	25	-74%
	2013	1,907	142,429	37,076	42	-74%
	2014	2,004	146,936	36,252	40	-75%
	2015	2,154	152,236	28,674	31	-81%
	2016	2,224	141,535	21,582	24	-85%
Taxis and Limousines \$2000 Limit	2011	1,040	101,697	33,119	18	-67%
	2012	1,512	147,033	43,283	24	-71%
	2013	1,771	191,286	57,392	38	-70%
	2014	1,881	199,331	64,304	40	-68%
	2015	2,018	207,854	53,352	31	-74%
	2016	2,116	194,465	30,817	21	-84%
Taxis and Limousines \$5000 Limit	2011	883	127,944	63,556	17	-50%
	2012	1,330	190,838	58,036	21	-70%
	2013	1,572	253,751	85,636	26	-66%
	2014	1,697	269,066	128,798	37	-52%
	2015	1,801	280,111	90,549	26	-68%
	2016	1,858	253,317	39,727	13	-84%

Table 2: Summary of Loss Experience Review (Continued)		Earned Car	Aggregate Loss	Trended and	Calculated	Indicated
	year	Years	Cost at Current	Developed	Claim	Change
			Level	Losses	Count	
Van Pools \$500 Limit	2011	2,484	92,038	4,046	9	-96%
	2012	2,352	89,463	6,604	8	-93%
	2013	2,536	97,716	5,309	11	-95%
	2014	2,586	101,732	9,430	22	-91%
	2015	3,178	127,675	8,793	16	-93%
	2016	3,484	137,222	4,797	8	-97%
Van Pools \$1000 Limit	2011	2,437	126,657	7,266	9	-94%
	2012	2,306	122,977	8,608	8	-93%
	2013	2,491	134,431	8,528	11	-94%
	2014	2,463	135,438	18,107	22	-87%
	2015	3,097	174,973	13,148	15	-92%
	2016	3,449	191,304	6,776	8	-96%
Van Pools \$2000 Limit	2011	2,166	138,872	12,487	9	-91%
	2012	2,103	138,866	12,591	8	-91%
	2013	2,318	154,057	13,799	10	-91%
	2014	2,347	157,462	35,067	22	-78%
	2015	3,038	207,995	20,548	15	-90%
	2016	3,394	227,952	10,572	8	-95%
Van Pools \$5000 Limit	2011	1,943	160,989	27,487	9	-83%
	2012	1,861	159,068	14,809	7	-91%
	2013	2,135	184,533	21,799	8	-88%
	2014	2,194	191,311	78,608	20	-59%
	2015	2,837	251,894	25,667	12	-90%
	2016	3,167	275,757	20,297	8	-93%

Current Relativities, Indicated Changes, and Selections

Loss experience is compared to Aggregate Loss Cost at Current Level in Tables 2 and 3. Sizable decreases are indicated for all vehicles and limits. Due to the size of the indicated decreases, we selected changes that were 5% above each indication, in order to slightly temper the indications. Volume was smallest for Van Pools, but we noted that the existing Van Pools relativities were significantly higher than the other vehicle types, which makes the indicated decreases more credible. The new Van Pools relativities are more in line with the relativities for the other vehicle types. For this reason we didn't deem it necessary to temper the indication beyond the 5% margin we used for the other classes.

Table 3: Medical Payments				Trended and					
Relativity Selections	Limit	Earned Car Years	Aggregate LC at Current Level	Developed Losses	Calculated Claim Count	Indicated Change	Selected Change	Current Relativity	Selected Relativity
Trucks, Tractors and Trailers	500	190,280,126	151,304,766	10,301,026	16,130	-93.2%	-88.2%	0.0360	0.0043
	1000	186,340,059	233,900,804	15,685,736	15,508	-93.3%	-88.3%	0.0570	0.0067
	2000	174,910,553	299,374,336	24,062,978	14,382	-92.0%	-87.0%	0.0780	0.0102
	5000	163,294,810	409,188,891	41,784,523	13,389	-89.8%	-84.8%	0.1140	0.0173
Private Passenger Types	500	39,221,709	20,329,574	5,093,462	9,552	-74.9%	-69.9%	0.0210	0.0063
	1000	38,105,559	33,918,995	8,574,636	9,271	-74.7%	-69.7%	0.0360	0.0109
	2000	36,237,947	44,877,770	13,888,837	8,775	-69.1%	-64.1%	0.0500	0.0180
	5000	34,316,083	54,584,814	24,366,383	8,282	-55.4%	-50.4%	0.0640	0.0318
Other Buses	500	5,695,447	7,596,006	1,781,744	3,369	-76.5%	-71.5%	0.0320	0.0091
	1000	5,412,369	8,801,284	2,930,548	3,295	-66.7%	-61.7%	0.0390	0.0149
	2000	5,082,487	10,605,808	4,442,743	3,148	-58.1%	-53.1%	0.0500	0.0234
	5000	4,822,631	13,691,097	7,365,638	2,957	-46.2%	-41.2%	0.0680	0.0400
School and Church Buses	500	7,901,694	7,054,590	1,903,711	3,967	-73.0%	-68.0%	0.0430	0.0138
	1000	7,811,016	10,318,593	3,178,536	3,902	-69.2%	-64.2%	0.0640	0.0229
	2000	7,510,857	12,045,896	4,955,190	3,721	-58.9%	-53.9%	0.0780	0.0360
	5000	7,113,937	14,731,286	7,727,169	3,555	-47.5%	-42.5%	0.1000	0.0575
Taxis and Limousines	500	148,391	613,996	101,500	187	-83.5%	-78.5%	0.0360	0.0078
	1000	133,917	776,230	174,907	183	-77.5%	-72.5%	0.0500	0.0138
	2000	124,056	1,041,666	282,268	172	-72.9%	-67.9%	0.0710	0.0228
	5000	109,692	1,375,027	466,302	140	-66.1%	-61.1%	0.1070	0.0416
Van Pools	500	199,437	645,845	38,979	74	-94.0%	-89.0%	0.0710	0.0078
	1000	194,896	885,780	62,432	73	-93.0%	-88.0%	0.1000	0.0120
	2000	184,400	1,025,204	105,063	72	-89.8%	-84.8%	0.1210	0.0185
	5000	169,635	1,223,553	188,667	64	-84.6%	-79.6%	0.1570	0.0321

Predictive Modeling

We performed a predictive modeling exercise in concert with the traditional loss experience review. Relativities will vary by territory for Trucks, Tractors and Trailers, and for Buses. Attempts to make similar improvements for Private Passenger Types and Public Autos failed to significantly improve loss prediction, so those classes are unaffected and only receive a change due to the loss experience review.

We first modeled losses per exposure. Then we converted the modeling results into an adjustment to the territorial Medical Payments Loss Costs rather than implementing a more complicated rating formula with new factors reflecting vehicle classes. The primary reason for this was the information technology implementation cost savings.

Table 4:

Characteristics	<u>Trucks, Tractors, and Trailers</u>	<u>Buses</u>
Loss Distribution	Tweedie	Tweedie
Link Function	Log	Log
Offset	Base Loss Cost and Trailer Factor	Base Loss Cost and Class Factor
Weight	Count of Car-Years	Count of Car-Years
Target Variable	Loss and Expense per Car-Year	Loss and Expense per Car-Year
Control Variables	Year	Year, Major Class
Training Dataset	Accident Years 2011-2013	Accident Years 2011-2013
Holdout Dataset	Accident Years 2014-2016	Accident Years 2014-2016

We found that certain segmentations based on vehicle class were predictive. Three class-based segmentations improved loss predictions for Trucks, Tractors, and Trailers:

- The Truckers and Contractors Secondary Classes were separated from the rest of the secondary classes.
- Fleet vehicles were separated from Non-Fleet vehicles.
- Vehicles were categorized by class as Light, Medium, Heavy and Extra Heavy, or Trailers.

One class-based difference was detected for Buses: Medium Radius Buses versus all other Buses.

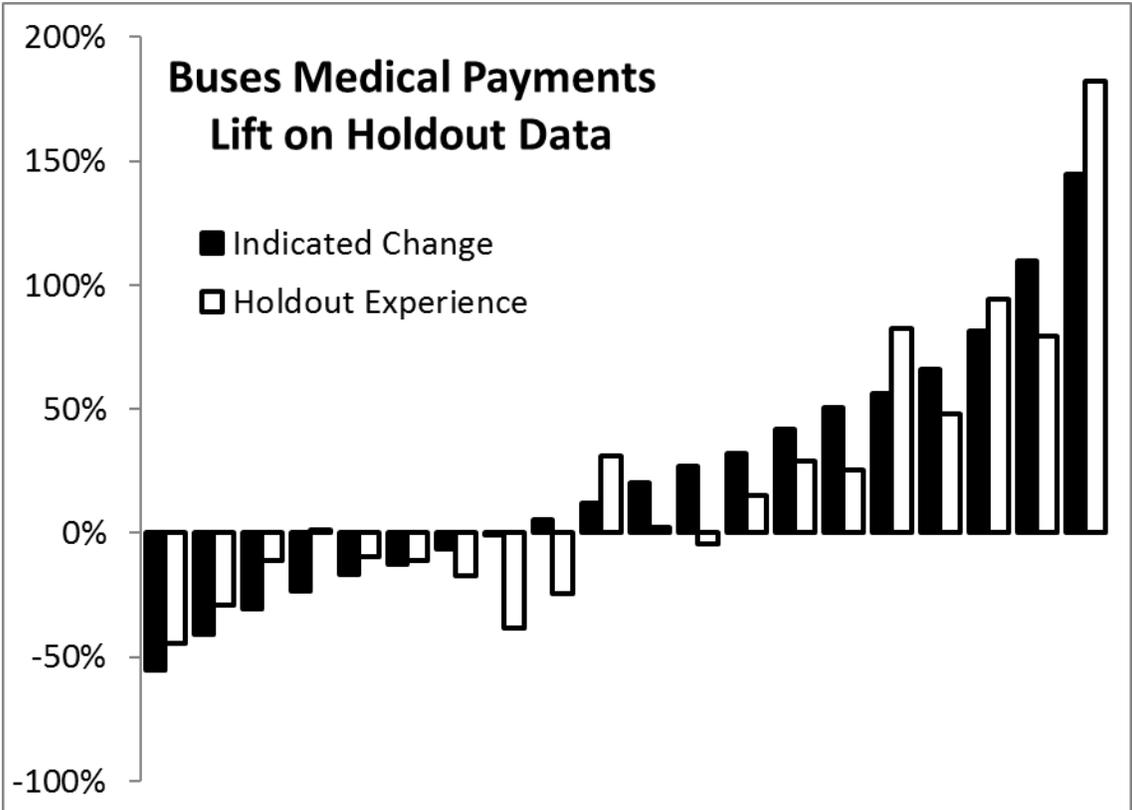
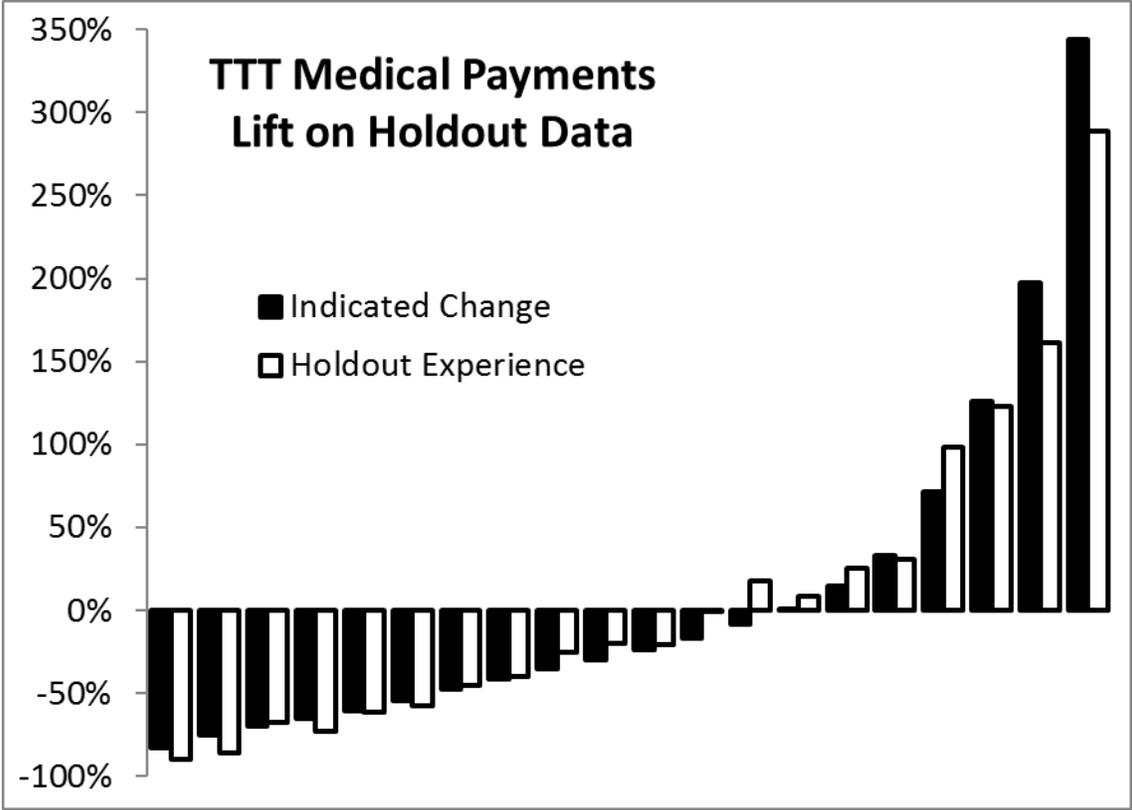
We also found that the Liability base loss costs have more variation than medical payments losses: Medical Payment losses are higher in higher-rated liability territories, but not as much higher as we see in Bodily Injury and Property Damage. Thus, in comparison to the current rating structure, the best possible prediction was lower in high-rated territories and higher in low-rated territories.

A summary of predictive model indications can be found in Table 5. With the exception of the base loss cost exponent, these results are expressed as if they were to be used in a multiplicative class plan, although we choose not to implement the results via rating factors, as is discussed below.

We used the log of the base loss cost as a continuous variable in the model. The result of this approach is that the model estimates an exponent—the number to which the Liability Base Loss Cost would be raised, *before* applying the medical payments relativity. A positive exponent between zero and one means that the differences between territories is being compressed towards the middle.

<u>Table 5: Predictive Modeling Indications</u>		<u>Training</u>	<u>All Data</u>
Trucks, Tractors, and Trailers	<u>Fleet Size</u>		
	Fleet	0.27	0.29
	Non-Fleet	1.00	1.00
	<u>Weight</u>		
	Light	1.00	1.00
	Medium	0.51	0.50
	Heavy and Extra Heavy	0.31	0.30
	Trailers	0.50	0.45
	<u>Secondary Class</u>		
	Truckers	4.50	6.64
	Contractors	1.24	1.25
	All Other Secondary Classes	1.00	1.00
	<u>Territory</u>		
	Base Loss Cost (exponent)	0.35	0.40
Buses	<u>Radius</u>		
	Intermediate	0.55	0.50
	All other Radii	1.00	1.00
	<u>Territory</u>		
	Base Loss Cost (exponent)	0.19	0.32

Two lift charts follow, visually displaying the modeling results in 20 deciles. The indicated change, based on the model developed on the training dataset, is compared with the actual loss experience on the holdout dataset. The large percentage changes on the vertical axis show that the model is separating risks well by loss propensity. The close correspondence between the black and white bars shows that the loss predictions from the model are quite accurate even on holdout data. (Both new and old loss costs have been rescaled to match the aggregate losses, in total, in order to measure lift. This allows us to zero in on the differentiation between risks, rather than the overall adequacy.)



Implementing a Medical Payment Classification Plan based on our results would be too expensive relative to the volume of premium and losses involved, yet in light of the sizable improvements the model was able to generate, we are reluctant to leave the rating totally unchanged. We decided to adjust the Medical Payments Relativities in each territory to reflect the average impact of the modeled differences. This preserves much of the loss prediction improvement without requiring any technology changes for participating insurers that use our loss costs.

Two necessary adjustments were made to the average modeled class factor in each territory. First, territories with relatively few exposures were assigned a statewide average instead of a territory average. (The cutoffs were 2500 car-years for Trucks, Tractors, and Trailers, and 167 car-years for Buses.) Next, the new set of averaged class factors for each territory were rebalanced so that their implementation would be revenue neutral on a country-wide basis. This allows us to combine the average class factors directly with the selected medical payments relativities from our experience level review, and still achieve the desired overall change.

Once the new Medical Payments Loss Costs were calculated and rounded to the nearest dollar, in some territories we selected higher values in order to ensure

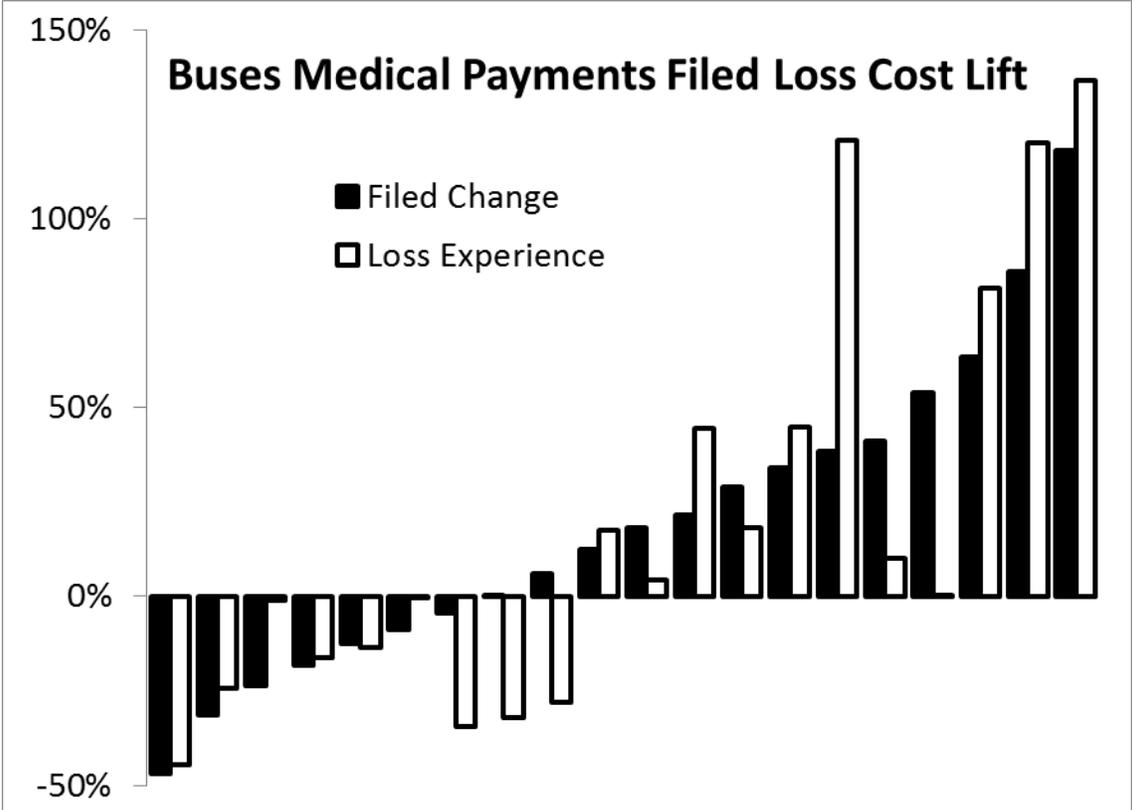
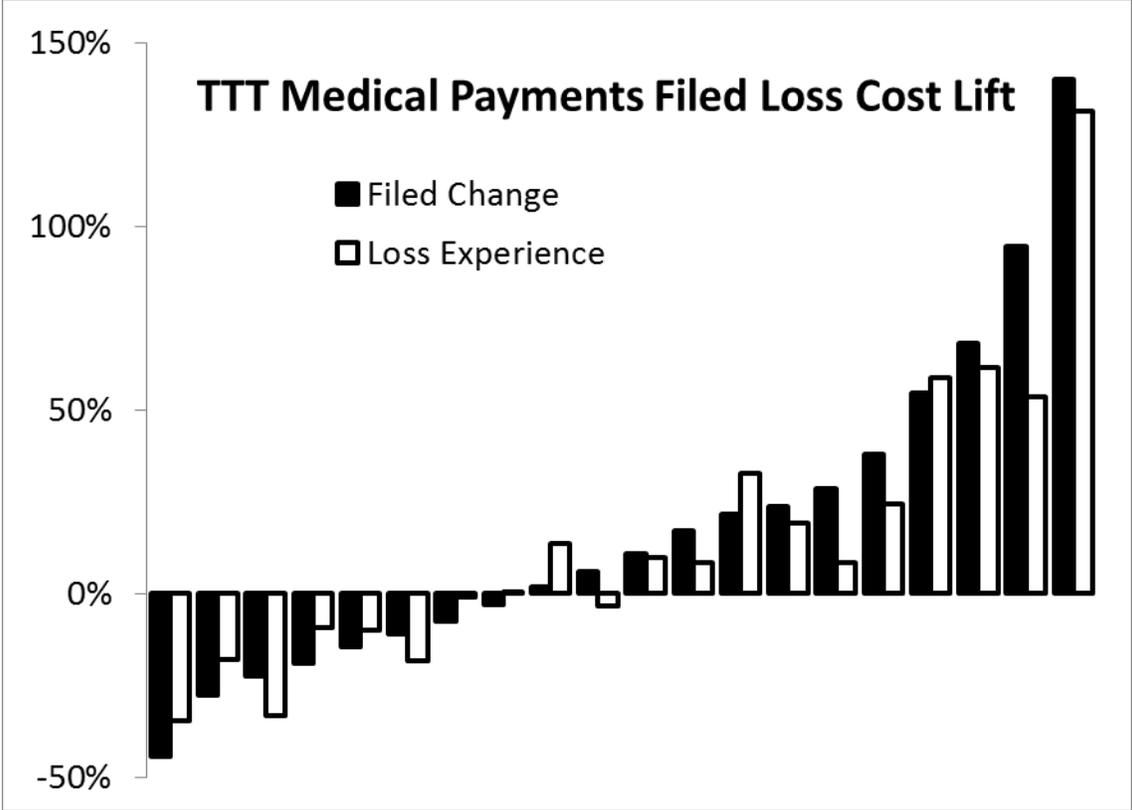
- that all the loss costs were greater than zero after rounding, and that
- each increase in the medical payments coverage resulted in an increase in premium.

The impact of these two adjustments was minimal.

It is worth inquiring, after

- averaging the model results within each territory, and
- rounding the new loss costs to the nearest whole dollar, and
- inflating a few of the loss costs to avoid zeroes and matching values for different limits,

whether there was still a significant improvement in loss prediction, or whether it was obscured by these various necessary adjustments. Lift charts comparing the actual filed rates to the current rates are on the following page. We're happy to report that the improvement in loss prediction is still quite good. The vertical axis of the lift chart shows less scale, but the changes are still quite significant. And the correspondence between the filed changes and the loss experience is still readily evident.



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

New Hampshire Medical Payments Relativities

Territory	Trucks, Tractors and Trailers				Private Passenger Types				Other Buses			
	Medical Payments Limit				Medical Payments Limit				Medical Payments Limit			
	<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	0.0041	0.0064	0.0098	0.0166	0.0063	0.0109	0.0180	0.0318	0.0078	0.0128	0.0201	0.0344
102	0.0055	0.0086	0.0130	0.0221	0.0063	0.0109	0.0180	0.0318	0.0092	0.0151	0.0237	0.0404
116	0.0045	0.0070	0.0106	0.0179	0.0063	0.0109	0.0180	0.0318	0.0104	0.0170	0.0266	0.0455
117	0.0053	0.0083	0.0126	0.0214	0.0063	0.0109	0.0180	0.0318	0.0104	0.0170	0.0266	0.0455
118	0.0045	0.0071	0.0107	0.0182	0.0063	0.0109	0.0180	0.0318	0.0081	0.0133	0.0209	0.0358
121	0.0060	0.0094	0.0143	0.0242	0.0063	0.0109	0.0180	0.0318	0.0119	0.0195	0.0306	0.0523
124	0.0061	0.0095	0.0145	0.0246	0.0063	0.0109	0.0180	0.0318	0.0099	0.0162	0.0254	0.0434
125	0.0089	0.0139	0.0212	0.0360	0.0063	0.0109	0.0180	0.0318	0.0141	0.0231	0.0362	0.0619
126	0.0059	0.0091	0.0139	0.0236	0.0063	0.0109	0.0180	0.0318	0.0130	0.0213	0.0335	0.0573
128	0.0096	0.0150	0.0228	0.0386	0.0063	0.0109	0.0180	0.0318	0.0158	0.0258	0.0405	0.0692
130	0.0060	0.0093	0.0142	0.0241	0.0063	0.0109	0.0180	0.0318	0.0101	0.0165	0.0259	0.0443
131	0.0065	0.0102	0.0155	0.0263	0.0063	0.0109	0.0180	0.0318	0.0099	0.0161	0.0253	0.0433
132	0.0076	0.0119	0.0180	0.0306	0.0063	0.0109	0.0180	0.0318	0.0104	0.0170	0.0266	0.0455
133	0.0074	0.0115	0.0176	0.0298	0.0063	0.0109	0.0180	0.0318	0.0123	0.0201	0.0316	0.0540

New Hampshire Medical Payments Relativities (Cont'd)

Territory	School and Church Buses				Taxis and Limos				Van Pools			
	Medical Payments Limit				Medical Payments Limit				Medical Payments Limit			
	<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	0.0169	0.0281	0.0441	0.0705	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
102	0.0134	0.0223	0.0350	0.0559	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
116	0.0169	0.0281	0.0441	0.0705	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
117	0.0169	0.0281	0.0441	0.0705	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
118	0.0120	0.0199	0.0312	0.0498	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
121	0.0178	0.0296	0.0465	0.0742	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
124	0.0169	0.0281	0.0441	0.0705	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
125	0.0169	0.0281	0.0441	0.0705	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
126	0.0169	0.0281	0.0441	0.0705	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
128	0.0231	0.0383	0.0602	0.0962	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
130	0.0169	0.0281	0.0441	0.0705	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
131	0.0166	0.0276	0.0434	0.0693	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
132	0.0169	0.0281	0.0441	0.0705	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
133	0.0178	0.0296	0.0465	0.0742	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321

NON-OWNERSHIP LIABILITY LOSS COST REVIEW

A review of the Rule 89 Non-Ownership Liability loss costs was performed. Non-ownership liability insurance covers an employer from liability stemming from an employee using his or her car for employer business.

This review involved the following steps:

1) Class 6601 (0-25 employees) was segmented into smaller employee count ranges of 0-9, 10-19 and 20-25 employees. Classes 6602 (26-100), 6603 (101-500), 6604 (501-1000) and 6605 (over 1000) employee count ranges remain unchanged.

2) Predictive modeling was used to determine new class relativities for these employee count ranges and to reflect differences by state. These results were combined to produce an intermediate set of loss costs that maintain revenue neutrality on a multistate basis while better matching the relative experience differences between classes and states.

3) A multistate experience review was performed to calculate an overall indicated percentage change to these intermediate revenue neutral modeled loss costs based upon historical loss experience.

4) The overall percentage change was then applied to the intermediate loss costs to produce the final indicated prospective loss costs.

Details on the predictive modeling and the experience review follow.

Predictive Modeling

State and Class differences for Non-Ownership Liability were developed using predictive models. Loss occurrence frequency and loss occurrence severity were modeled separately. In both cases we used a Generalized Linear Model.

Our dataset contained country-wide exposures and loss experience reported to ISO for five accident years through 12/31/2016. Losses were capped at the \$100,000 Basic Limit. Losses were not trended, developed, or adjusted for any expense loading.

Models were trained on Accident Years 2012-2014 and the fit was evaluated on 2015-2016. Once the final form of each model was established, a model with the same specification was rerun using all five years of data to yield the best possible prediction in the final result. The models are summarized in the table below, followed by discussion of particular aspects.

	<u>Frequency Model</u>	<u>Severity Model</u>
Loss Distribution	Negative Binomial	Gamma
Link Function	Log	Log
Offset	None	None
Weight	Count of Policy-Years	Count of Loss Occurrences
Target Variable	Occurrences per Policy-Year	Losses per Occurrence
Control Variables	Accident Year	Accident Year
Explanatory Variables	Employee Count	State Average PPT Liability Loss Cost

Modeling Discussion

For frequency, the a priori distribution for random occurrences is the Poisson Distribution. However, insurance frequency data often exhibits over-dispersion, meaning the variance is higher than the mean, in contrast to the Poisson distribution's characteristic that the variance is equal to the mean. We verified that this was the case here and selected a negative binomial distribution. The negative binomial distribution results when the mean of the Poisson distribution is itself drawn from an unobservable gamma distribution.

For severity, we selected a gamma distribution to represent the dollars of Basic Limits Bodily Injury and Property Damage losses on a per-occurrence basis.

We used a log link function in both models to ensure that the results would take the form of a multiplicative expression.

The frequency model weight was a policy-year count. Note here that we are not using employee-months as the exposure basis. Instead, the number of employees will be used as a predictive variable in the model.

In lieu of loss trend and loss development, we included Accident Year as a variable in both models.

Both employee count and State Average PPT Liability Loss Cost were tested as variables for both Frequency and Severity. We found that employee count was predictive for frequency and the Average Loss Cost was predictive for severity. Discussion of both variables follows.

Employee Count

The count of employees is the primary explanatory variable for Non-Ownership Liability and has an intuitive connection to accident frequency: Each employee of the insured company could potentially be using his or her personal vehicle for business purposes. Because the model uses a log link function, we actually used the log of employee count as our rating variable. When converting model indications to a calculation of predicted losses, this yields a multiplicative term of the form

$$(\text{Employee Count}) ^ K$$

where K is estimated by the model. K was estimated to be 0.69. This result means that a 10% increase in the number of employees results in a prediction of about 6.8% more accidents.

We also included two binary flags as predictors, (discrete variables equal to either zero or one) which allow the model to apply a multiplicative factor to specific sets of records, if the loss experience supports that. The flags identified records with employee counts of 0 and 1, whose frequency experience did not match the general pattern. Policies with either 0 or 1 employee exhibited frequencies higher than the general pattern would otherwise indicate. Specifically, the prediction for frequencies on policies with one employee receives a factor of 1.87 and policies with zero employees received a factor of 4.04. Relatively speaking, the lowest frequency prediction was for a policy with two employees. Relative frequency predictions for select employee counts are summarized below to give an idea of the model's results.

<u>Employees</u>	<u>Relative Predicted Frequency</u>
0	2.51
1	1.16
2	1.00
3	1.32
4	1.61
5	1.88
10	3.03
50	9.18

100	14.79
500	44.79
1000	72.20

State Average Private Passenger Types (PPT) Loss Cost

Our experience dataset does not contain location information for the non-owned vehicles, (for the obvious reason that this information is not readily obtainable,) but we do know the state the policy was written in. Cognizant that some states present more or less auto risk than others, we used the state average ISO Private Passenger Types (PPT) Liability Loss Cost as a proxy for general risk on the road, and treated this number as a continuous variable. Because the model uses a log link function, we used the log of the average loss cost as our rating variable. When converting model indications to a calculation of predicted losses, this yields a multiplicative term of the form

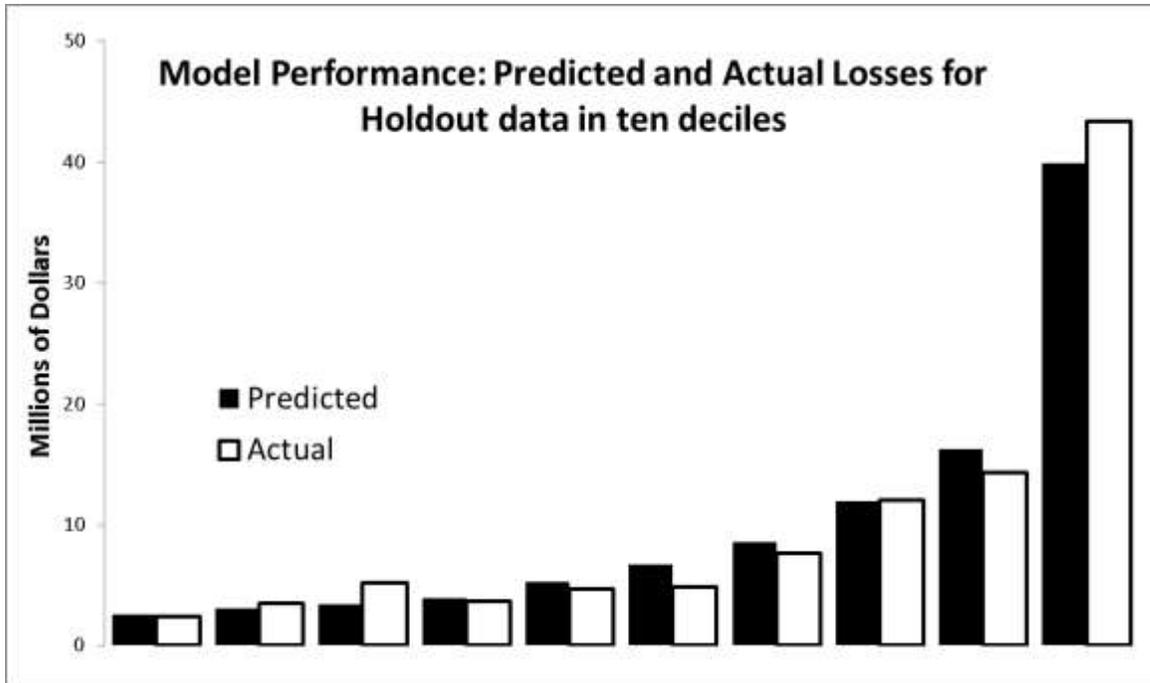
$$(\text{State Average Loss Cost}) ^ K$$

where K is estimated by the model. K was estimated to be 0.39. This means that if one state has a 10% higher PPT Liability loss cost than a second state, the model predicts that the first state would have an average accident severity about 3.8% higher.

The somewhat low estimate of K for this variable shows that Non-Ownership Liability Losses do not vary as widely as Private Passenger Type Liability losses by state. The most expensive state is 5.80 times higher than the least expensive state when looking at the PPT Liability Average Loss Cost. In contrast, the Non-Ownership Liability loss prediction for the most expensive state is only 2.00 times the least expensive state. Nevertheless this is a significant difference in loss severity.

Performance of the Predictive Models:

The two models predicted occurrence per policy-year and loss per occurrence. We can multiply the predictions to yield loss per policy-year. The following chart shows the performance of this prediction after rebalancing, on ten equally sized deciles of hold-out data. The data has been sorted by the predicted loss per policy-year and then separated into deciles.



Calculation of Indicated Loss Costs

Additional work, described here, was necessary to calculate the loss costs for filing.

We first selected new employee count ranges as follows:

<u>Old Range</u>	<u>New Range</u>	<u>Policy Distribution</u>
	0 – 9	68%
0 – 25	10 – 19	9%
	20 – 25	15%
26 – 100	26 – 100	6%
101 – 500	101 – 500	2%
501 – 1000	501 – 1000	<1%
1001 +	1001 +	<1%

Next we computed the average predicted loss per policy-year within each range on a country-wide basis to yield a set of class relativities representing the modeled relationship between the ranges or classes (“New Relationship”). Similar relationships can be calculated from the current ISO loss costs (“Current Relationship”).

<u>Range</u>	<u>Current Relationship</u>	<u>New Relationship</u>
0 – 9	1.00	1.00
10 – 19	1.00	2.13

20 – 25	1.00	3.43
26 – 100	2.33	5.79
101 – 500	5.10	15.14
501 – 1000	8.04	34.81
1001 +	18.02	73.37

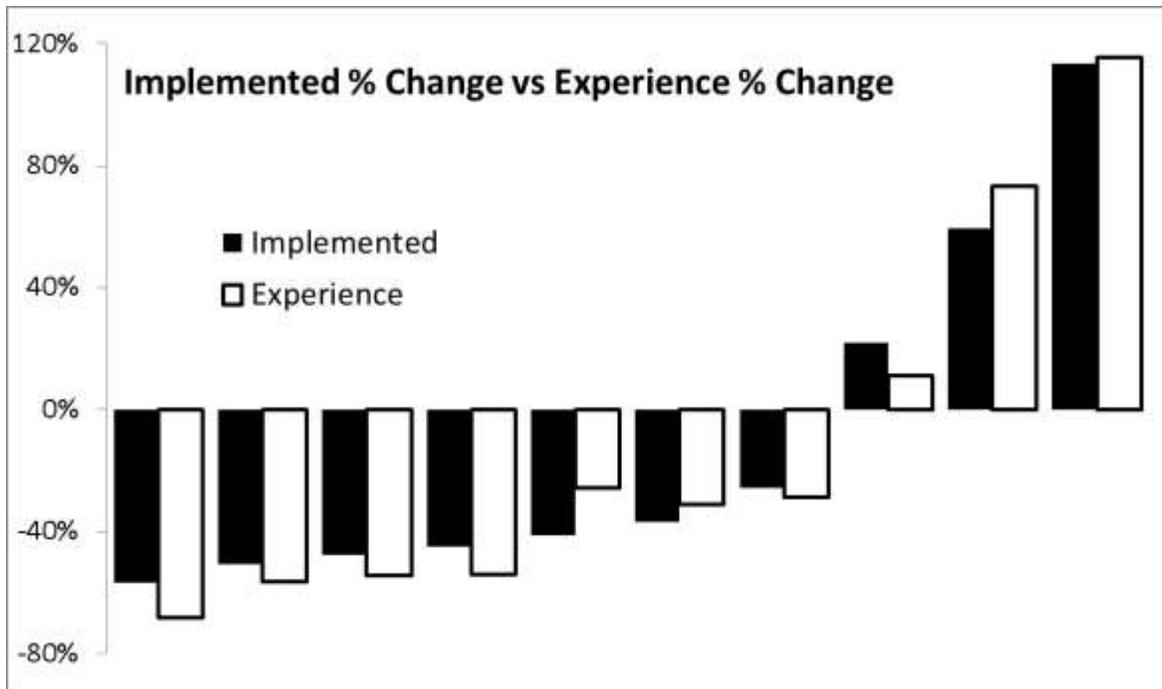
These new class relativities must be combined with a representation of the difference by state, which comes from our severity model. We returned to our predicted loss amounts and removed the effect of the employee count from that prediction, leaving a single per-policy prediction for each state. This was then multiplied by the new class relativities as developed above, and the result was off-balanced to revenue neutrality on a country-wide basis, so that the new loss costs developed from our model meet the following three constraints (before rounding):

- Relative differences from one class to another are the same in every state.
- The difference from one state and another for the same class is the same for all classes.
- The Aggregate Loss Cost for all policies in all states comes to the same grand total.

The reason for the last constraint is that we performed a separate country-wide experience review using standard actuarial methods to determine what percentage change we wanted to implement overall. The output from the calculation just described was used as an intermediate set of rates, subject to that experience review.

<u>Employee Range</u>	<u>Current Loss Costs</u>	<u>New Hampshire Intermediate Loss Costs</u>	<u>Intermediate Percentage Change</u>	<u>Final Indicated Loss Costs</u>	<u>Overall Percentage Change</u>
0 – 9	48	25.20	-47.5%	50	4.2%
10 – 19	48	53.71	11.9%	108	125.0%
20 – 25	48	86.35	79.9%	173	260.4%
26 – 100	112	145.92	30.3%	292	160.7%
101 – 500	245	381.40	55.7%	764	211.8%
501 – 1000	386	877.20	127.3%	1757	355.2%
1001 +	865	1848.69	113.7%	3703	328.1%

The methodology just described removes some resolution from the predicted losses as modeled. We can compare the Intermediate Loss Costs developed in this section to the Current Loss Costs and the experience losses to measure the predictive power of the final result, rather than the predictive power of the model (which is necessarily higher). We will compare the results for our Intermediate Loss Costs to the predictive power of the ISO Loss Costs currently in effect. Since we are comparing two different predictions to the loss experience, we will divide the Intermediate Loss Costs and the actual losses by the current ISO manual rates and express each of those as a percentage change. We sort by the percentage change of the Intermediate Loss Costs, and then summing the data in ten equal deciles.



The wide range on the vertical axis shows that we are making large changes, and there is a close general correspondence between the changes we are implementing and the experience loss data.

RULE 89- NON-OWNERSHIP LIABILITY EXPERIENCE REVIEW

DETERMINATION OF ADVISORY LOSS COST LEVEL CHANGE

OBJECTIVE The objective of this procedure is to determine the indicated overall advisory loss cost level change. This procedure answers the question: what percentage changes must be made on average to the Non-Ownership Liability 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?

DESCRIPTION This procedure compares the developed and trended incurred losses and loss adjustment expenses with the aggregate loss costs at intermediate loss cost level, which is the aggregate amount that would have been collected if the revenue neutral intermediate modeled 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. This weighted experience ratio is the indicated overall advisory loss cost level change in decimal form.

EXPERIENCE BASE The experience used in this review are 5 calendar/accident years of data ending December 31, 2016, evaluated as of March 31, 2017. Data for classes 6601, 6602, 6603, 6604 and 6605 is included. The review is being conducted on a \$100,000 Combined Single Limits basis - indemnity losses are limited to \$100,000 per occurrence. Allocated Loss Adjustment Expenses are not limited.

AGGREGATE LOSS COSTS (Item 1) The aggregate loss costs are the loss-related revenue that would have been collected if the revenue neutral intermediate modeled loss costs were used during the experience period. It is calculated by multiplying the number of policy years by the intermediate modeled loss costs.

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(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.

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.

Support for these loss related adjustments follows.

**EXPERIENCE
RATIO
(Item 3)**

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

**YEAR WEIGHTS
(Item 4)**

Year weights give more weight to recent years and were assigned as follows: accident year ending 12/31/2016: 30%; accident year ending 12/31/2015: 25%, accident year ending 12/31/2014: 20%, accident year ending 12/31/2013: 15%, and accident year ending 12/31/2012: 10%.

**AVERAGE
EXPERIENCE
RATIO
(Item 6)**

The average experience ratio, is the sum of the products of each year's experience ratio and assigned weight. This average experience ratio, converted to a percentage, is the indicated change to the revenue neutral intermediate modeled loss costs.

MULTISTATE
 AUTOMOBILE LIABILITY INSURANCE
 DETERMINATION OF ADVISORY LOSS COST LEVEL CHANGES
 NON-OWNERSHIP LIABILITY

	(1)	(2)	(3)	(4)	(5)
ACCIDENT YEAR ENDING	AGGREGATE LOSS COST (B)	\$100,000 INCURRED LOSSES (C)	EXPERIENCE RATIO (2) / (1)	ACCIDENT YEAR WEIGHTS	NUMBER OF INCURRED CLAIMS
12/31/12	\$40,075,132	\$87,923,302	2.194	10%	6,092
12/31/13	\$40,559,893	\$86,943,677	2.144	15%	6,003
12/31/14	\$41,120,603	\$92,744,249	2.255	20%	6,816
12/31/15	\$42,293,302	\$76,318,488	1.805	25%	5,316
12/31/16	\$42,734,785	\$79,828,810	1.868	30%	4,730

(6) AVERAGE EXPERIENCE RATIO (SUM OF (3) *(4)). 2.003

(7) INDICATED PERCENTAGE CHANGE IN ADVISORY LOSS COST LEVEL ((6) - 1.000) . 100.3%

(8) FILED CHANGE. 100.3%

(A) NONOWNED LIABILITY EXPERIENCE INCLUDES CLASSES 6601, 6602, 6603, 6604 AND 6605.

(B) THE AGGREGATE LOSS COST IS CALCULATED BY MULTIPLYING THE NUMBER OF POLICY YEARS BY THE INTERMEDIATE MODELED LOSS COSTS.

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

COMMERCIAL AUTOMOBILE LIABILITY INSURANCE
MULTISTATE LOSS ADJUSTMENT EXPENSE EXPERIENCE

Calendar Year

Development of Unallocated Loss Adjustment Expense Factor

Bodily Injury
(000's)

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

Property Damage
(000's)

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

All items are from Special Call Submission for available writers.

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

AVERAGE PAID CLAIM COST DATA

YEAR ENDED	MULTISTATE*			
	BODILY INJURY (\$100000 LIMITS)		PROPERTY DAMAGE (\$100000 LIMITS)	
	(1)	(2)	(3)	(4)
	EXPONEN- ACTUAL	TIAL FIT	EXPONEN- ACTUAL	TIAL FIT
3/31/2014	20088.87	20321.23	3676.14	3655.72
6/30/2014	20380.29	20456.67	3712.11	3707.17
9/30/2014	20732.93	20593.01	3752.08	3759.33
12/31/2014	20933.35	20730.27	3799.50	3812.23
3/31/2015	21106.46	20868.43	3860.83	3865.87
6/30/2015	21156.78	21007.52	3905.50	3920.27
9/30/2015	21179.18	21147.53	3962.46	3975.44
12/31/2015	21029.30	21288.48	4020.15	4031.38
3/31/2016	21143.66	21430.37	4106.33	4088.10
6/30/2016	21391.10	21573.20	4177.05	4145.63
9/30/2016	21760.24	21716.98	4205.66	4203.97
12/31/2016	22103.74	21861.73	4250.83	4263.12

	<u>BODILY INJURY</u>	<u>PROPERTY DAMAGE</u>
(5) AVERAGE ANNUAL PERCENT CHANGE IN PAID CLAIM COST (12TH POINT / 8TH POINT)	2.7%	5.7%
(6) AVERAGE ANNUAL PERCENT CHANGE IN CLAIM FREQUENCY	0.0%	0.0%
(7) AVERAGE ANNUAL PERCENT CHANGE IN LIABILITY LOSS RATIO {1.0 + (5)} * {1.0 + (6)}	2.7%	5.7%

* EXCLUDES MASSACHUSETTS

Insurance Services Office

Basic Limits Loss Development
 Non-Ownership Liability - Bodily Injury
 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>
12/31/2005	13,061,559	16,771,374	19,293,772	20,540,602	21,289,481
12/31/2006	11,632,975	15,042,589	17,418,810	18,669,149	19,454,171
12/31/2007	12,541,246	17,730,759	21,211,025	21,984,928	22,760,782
12/31/2008	13,949,225	19,629,717	23,573,736	25,073,532	25,340,297
12/31/2009	16,372,385	22,525,858	27,723,558	30,251,911	31,419,348
12/31/2010	17,708,864	24,527,385	30,713,069	33,988,107	34,923,951
12/31/2011	19,381,982	26,712,735	32,690,838	34,706,063	34,758,343
12/31/2012	25,407,377	35,584,544	43,413,230	46,774,764	47,900,415
12/31/2013	22,859,557	36,024,239	44,390,935	48,655,404	
12/31/2014	27,018,254	37,925,429	46,402,473		
12/31/2015	21,333,387	33,266,631			
12/31/2016	27,109,749				

Ratios

Accident Year <u>Ending</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2005	1.284	1.150	1.065	1.036
12/31/2006	1.293	1.158	1.072	1.042
12/31/2007	1.414	1.196	1.036	1.035
12/31/2008	1.407	1.201	1.064	1.011
12/31/2009	1.376	1.231	1.091	1.039
12/31/2010	1.385	1.252	1.107	1.028
12/31/2011	1.378	1.224	1.062	1.002
12/31/2012	1.401	1.220	1.077	1.024
12/31/2013	1.576	1.232	1.096	
12/31/2014	1.404	1.224		
12/31/2015	1.559			
Average Factor: (Best 3 of 5)	1.455	1.227	1.088	1.021

Summary of Factors

63 to Ult:	(75:63) (75:Ult) =	1.016
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.037
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	1.129
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.385
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	2.015

Excludes Massachusetts

Insurance Services Office

Basic Limits Loss Development
 Non-Ownership Liability - Bodily Injury
 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>	<u>123 Months</u>
12/31/2005	22,114,181	22,284,973	22,257,134	22,218,802	22,242,952
12/31/2006	19,680,252	19,644,591	19,677,589	19,569,159	19,571,955
12/31/2007	22,743,887	22,955,753	22,948,788	22,880,069	22,939,254
12/31/2008	26,048,487	26,113,744	25,994,674	26,257,950	
12/31/2009	31,633,170	32,022,297	32,099,114		
12/31/2010	34,934,140	35,372,233			
12/31/2011	35,273,238				

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>
12/31/2005	1.039	1.008	0.999	0.998	1.001
12/31/2006	1.012	0.998	1.002	0.994	1.000
12/31/2007	0.999	1.009	1.000	0.997	1.003
12/31/2008	1.028	1.003	0.995	1.010	
12/31/2009	1.007	1.012	1.002		
12/31/2010	1.000	1.013			
12/31/2011	1.015				
Average Factor: (Best 3 of 5)	1.007	1.008	1.000	1.000	1.001

Summary of Factors

123 to Ult:	(1.000)	=	1.000
111 to Ult:	(123:111) (123:Ult)	=	1.001
99 to Ult:	(111:99) (123:111) (123:Ult)	=	1.001
87 to Ult:	(99:87) (111:99) (123:111) (123:Ult)	=	1.001
75 to Ult:	(87:75) (99:87) (111:99) (123:111) (123:Ult)	=	1.009

Excludes Massachusetts

Insurance Services Office

Basic Limits Loss Development
 Non-Ownership Liability - 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>
12/31/2005	7,580,188	7,706,856	8,123,141	8,136,510	8,105,876
12/31/2006	8,752,260	8,994,768	9,073,616	9,205,953	9,199,007
12/31/2007	9,160,631	9,179,682	9,343,945	9,404,828	9,427,085
12/31/2008	11,590,724	11,982,414	12,072,273	11,859,140	11,929,264
12/31/2009	13,524,488	13,692,176	13,566,398	13,592,318	13,595,982
12/31/2010	12,876,315	13,421,073	13,546,664	13,742,695	13,811,326
12/31/2011	15,010,705	15,389,065	15,339,625	15,517,737	15,501,161
12/31/2012	14,967,525	15,606,103	15,767,314	15,969,855	15,978,896
12/31/2013	15,248,746	15,575,235	15,660,042	15,604,260	
12/31/2014	17,884,629	18,942,530	19,356,686		
12/31/2015	14,582,613	15,181,001			
12/31/2016	13,676,167				

Ratios

Accident Year <u>Ending</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2005	1.017	1.054	1.002	0.996
12/31/2006	1.028	1.009	1.015	0.999
12/31/2007	1.002	1.018	1.007	1.002
12/31/2008	1.034	1.007	0.982	1.006
12/31/2009	1.012	0.991	1.002	1.000
12/31/2010	1.042	1.009	1.014	1.005
12/31/2011	1.025	0.997	1.012	0.999
12/31/2012	1.043	1.010	1.013	1.001
12/31/2013	1.021	1.005	0.996	
12/31/2014	1.059	1.022		
12/31/2015	1.041			
Average Factor: (Best 3 of 5)	1.036	1.008	1.009	1.002

Summary of Factors

63 to Ult:	(75:63) (75:Ult) =	1.000
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.002
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	1.011
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.019
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.056

Excludes Massachusetts

Insurance Services Office

Basic Limits Loss Development
 Non-Ownership Liability - Property Damage
 Multistate#
 Incurred Losses and Expenses

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>
12/31/2005	8,110,269	8,119,387	8,150,477	8,150,670	8,150,670
12/31/2006	9,218,124	9,227,870	9,226,319	9,225,969	9,225,722
12/31/2007	9,407,717	9,411,181	9,424,461	9,410,060	9,410,144
12/31/2008	11,958,779	11,974,390	11,974,390	11,974,390	
12/31/2009	13,557,184	13,557,184	13,557,214		
12/31/2010	13,717,952	13,728,308			
12/31/2011	15,518,299				

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>
12/31/2005	1.001	1.001	1.004	1.000	1.000
12/31/2006	1.002	1.001	1.000	1.000	1.000
12/31/2007	0.998	1.000	1.001	0.998	1.000
12/31/2008	1.002	1.001	1.000	1.000	
12/31/2009	0.997	1.000	1.000		
12/31/2010	0.993	1.001			
12/31/2011	1.001				
Average Factor: (Best 3 of 5)	0.999	1.001	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)	=	1.001

Excludes Massachusetts

PART A - INTRODUCTION OF LOSS COSTS FOR ADDITIONAL HIGHER LIMITS

COMMERCIAL AUTOMOBILE
UNINSURED/UNDERINSURED MOTORIST COVERAGE

Uninsured Motorist Bodily Injury (UMBI) Coverage

Commercial Automobile Uninsured Motorists loss costs are developed separately for Trucks, Tractors & Trailers and Private Passenger Types. The Trucks, Tractors & Trailers loss costs are also applicable to all other non-private passenger type vehicles.

The basic \$25,000/50,000 UM bodily injury loss costs are the current \$25,000/50,000 UM bodily injury loss costs. No changes were made to the basic loss costs.

Similar to the current loss costs for limits other than the basic \$25,000/50,000 limit, the UM bodily injury loss costs at the newly introduced higher limits are calculated by multiplying the basic \$25,000/50,000 UM bodily injury loss costs by the weighted average Bodily Injury increased limits factor corresponding to the new higher limit.

The weighted average Bodily Injury increased limits factors can be found in Exhibit 1 and were calculated in the same manner as the increased limits factors that are underlying the current UM bodily injury loss costs.

Underinsured Motorist (UIM) Coverage

The UIM bodily injury loss cost at a given policy limit “k” (**UIMBI (k)**) is

$$(1 - \%UMf) * (\sum(WT(g) * CSL(g) * \%BI(g) * R(k,g))) * WC$$

where

%UMf represents the percent of uninsured vehicles in the state. Therefore, 1 - %UMf represents the percentage of vehicles that are insured. Only an accident caused by an insured driver can trigger a UIM claim. The UM claim frequency is calculated from Private Passenger Automobile data. (This information was not available for Texas, so the estimated percentage of uninsured motorists in Texas from a 2009 IRC study was used instead.) This is the same ratio of UM to BI claim frequencies used in the UM ratemaking procedure.

- WT (g) is the weight assigned for vehicle type “g”. The analysis examines each of the same five tortfeasor vehicle groups analyzed in the UM ratemaking procedure.
- CSL is the average \$100,000 CSL loss cost for vehicle type “g”.
- %BI (g) is the portion of the average CSL charge that is for bodily injury coverage. This represents the percent of losses that are bodily injury (BI) losses for vehicle type "g".
- R (k,g) is the Reduction Factor at policy limit "k" for vehicle type “g”.

WC is a factor that recognizes that Workers Compensation insurance pays first in many UIM claim situations.

The product of these values represents an average overall UIMBI loss cost for Trucks, Tractors & Trailers and Private Passenger Types combined. The UIMBI loss cost for each of these individual classes is given by

$$\text{UIMBI (k)} * RC$$

- RC is the relative cost that models the difference in exposure between Trucks, Tractors & Trailers and Private Passenger Types.

Percent BI

The portion of the average CSL charge that is bodily injury coverage is determined from the distribution of bodily injury and property damage losses (incl. ALAE) in this state. The BI losses and ALAE are expressed as a percentage of the total BI and PD basic limit losses and ALAE for Trucks, Tractors & Trailers and Private Passenger Types, respectively, for all years included in the liability statewide rate level calculation. All losses are trended, developed to an ultimate basis, and loaded for unallocated loss adjustment expenses (ULAE). The Trucks, Tractors & Trailers percentage is used for all types of Trucks, Tractors & Trailers. For personal autos, the 'Percent BI' field is not necessary (will be equal to one) since the CSL used for these autos actually is the bodily injury only single limit loss cost rather than the bodily injury and property damage combined single limit as used for the other four vehicle types.

Reduction Factor

The reduction factor $R(k,g)$ serves to express the UIM loss exposure as a portion of the full liability loss cost. In effect, the UIM coverage provides insurance for the layer in excess of the tortfeasor's liability limits.

For the Underinsured motorists coverage, the UIM coverage becomes available to the claimant only when the UIM limit purchased exceeds the limit of the liability coverage of the tortfeasor ('at-fault' driver). Once the UIM coverage is triggered, payment is provided on a 'damages reduction' basis, i.e. once the liability coverage of the tortfeasor is exhausted, UIM acts as an excess coverage, in that the full UIM limit is available in addition to any amounts received from the tortfeasor.

The damages reduction factor for a selected tortfeasor type of vehicle and limit is calculated as a weighted average of the differences between the increased limits factors for the 'implicit' UIM limit and the increased limits factor for the actual limit of the tortfeasor (the weights are the distribution of policy limits purchased by the population driving the selected type of vehicle). This 'implicit' UIM limit is determined by summing the liability limit of the tortfeasor and the driver's UIM limit.

The damages reduction factor is calculated for each of the five vehicle types listed earlier.

For example, to calculate the \$1,000,000 damages reduction factor for Light Trucks, Tractors & Trailers bodily injury, the differences in the increased limits factors between the 'implicit' amount of UIM coverage and the policy limit of the tortfeasor are averaged over the policy limit distribution. At this \$1,000,000 UIM limit, an average of the increased limit factor differences for tortfeasor policy limits up to \$750,000 is computed. It is important to note that the UIM coverage is triggered only when the UIM limits exceed the limits of liability of the tortfeasor. For example, if the tortfeasor has a \$100,000 limit, and the driver covered by UIM has a \$1,000,000 limit, the driver's 'implicit' UIM limit is \$1,000,000 excess of \$100,000 because the UIM coverage is not triggered until the limits of the tortfeasor are exhausted.

The increased limit factor for the \$100,000 limit is 1.00 while the increased limit factor for the \$1,100,000 ($\$1,000,000 + \$100,000$) limit is 1.67. The difference between these increased limit factors is

$$1.67 - 1.00 = 0.67$$

The differences in the increased limit factors for the other possible limits purchased are calculated in the same manner. Finally, each of these differences is weighted together using the multistate percentage of drivers purchasing each limit of liability coverage. This weighted average will produce the reduction factor for the \$1,000,000 UIM limit for accidents with tortfeasors driving a particular vehicle type. The percentage of drivers purchasing each liability limit for each type of vehicle are shown in Exhibit 2. We use a state group distribution of liability limits for Private Passenger Types and all Trucks, Tractors & Trailers, and state specific distributions for personal automobiles. The development of the damages reduction factor for \$1,000,000 of UIM coverage from accidents with a tortfeasor driving a light truck is shown in Exhibit 3, Sheet 1. Similar factors for each potential tortfeasor vehicle type are provided on Exhibit 3, Sheet 2 for various UIM limits.

Workers Compensation Factor - WC

The Workers' Compensation offset factor (WC) is necessary because, for commercial policies, Workers' Compensation is the primary coverage that would be utilized if an employee were injured on the job. This factor is estimated by comparing two methods of calculating UM loss costs. The first method, based on pure premium ratios, is from the UM ratemaking procedure, discussed earlier. It is also possible to develop UM loss costs via a procedure analogous to the current UIM procedure. Specifically:

$$UM = \%UMf * \sum(WT(g) * CSL(g) * \%BI(g)) * WC$$

This calculation is performed at the basic limit. The formula starts with averaging CSL liability loss cost at the basic limit, converted to a BI-only basis, over our five groups of vehicles. The result is then reduced by multiplying by the percentage of uninsured motorists in the state. This recognizes that only accidents with an uninsured motorist will trigger a claim. The remaining term is the Worker's Compensation offset. By replacing the left side of the above formula with the UM loss cost derived via the pure premium ratios, it is possible to solve for the average Workers' Compensation offset. Actually, since the pure premium ratio method is developed separately for Trucks, Tractors & Trailers and Private Passenger Types, it is necessary to weight these separate results together to derive an average Commercial Auto UM loss cost.

A Workers' Compensation factor based on a weighted average of multistate data comes out to 0.535. Last review used a factor of 0.750. A workers' compensation factor of 0.600 has been selected.

Relative Cost Factor - RC

The calculation to this point focuses on the average 'inverse liability' of another driver being involved in an accident with the UIM insured. However, we can adjust this average to reflect the differences between Trucks, Tractors & Trailers and Private Passenger Types UIM insureds. In an identical accident situation, a large, heavier vehicle will protect its occupants better than a small, lighter vehicle. In addition, drivers of Trucks, Tractors & Trailers are more likely to be using their vehicles in business operations than drivers of private passenger type vehicles. These drivers are, therefore, more likely to have any UIM-type losses covered by workers compensation insurance. Both of these effects would cause one to expect Trucks, Tractors & Trailers UIM loss costs to be less than those of Private Passenger Types. These same factors should also affect UM loss costs. Based on multistate data, we looked at the ratio of Trucks, Tractors & Trailers UM loss costs to Private Passenger Types UM loss costs. This ratio is the relative cost (RC) factor and it is approximately 0.65.

The calculation of the final Private Passenger Types and Trucks, Tractors & Trailers UIM loss costs follows from:

$$\text{UIMBI}(k) = \text{UIMBI}(\text{PP},k) * \text{Wt}(\text{PP}) + \text{UIMBI}(\text{TTT},k) * \text{Wt}(\text{TTT})$$

and

$$\text{UIMBI}(\text{TTT},k) = \text{UIMBI}(\text{PP},k) * \text{RC}$$

Substituting for UIMBI(TTT,k) and solving for UIMBI(PP,k), we get

$$\text{UIMBI}(\text{PP},k) = (\text{UIMBI}(k) / [\text{RC} * \text{Wt}(\text{TTT}) + \text{Wt}(\text{PP})])$$

or

$$\text{UIMBI}(\text{PP},k) = \frac{\text{UIMBI}(k) * (\text{Exposures}(\text{TTT}) + \text{Exposures}(\text{PP}))}{((\text{RC} * \text{Exposures}(\text{TTT})) + \text{Exposures}(\text{PP}))}$$

and

$$\text{UIMBI}(\text{TTT},k) = \text{RC} * \text{UIMBI}(\text{PP},k)$$

Combined Single Limits Coverage

In many states UMBI and UMPD coverage can or must be purchased together under a combined single limit. We use \$25,000 as the combined "basic limit" for such coverage. We wish to evaluate the additional loss cost required to "add" UMPD coverage to a \$25,000 UMBI policy. We estimate this additional UMPD cost to be .7 x (loss cost for \$25,000 of UMPD coverage as calculated in the split limit case). The relative frequency of BI claims to PD claims is approximately .3, so we expect that UMPD claims will be accompanied by UMBI claims (for the same occurrence) approximately 30% of the time. In this situation, it is less likely that money would be available under the limit to pay for the entire claim; therefore we reduce the \$25,000 UMPD loss cost by 30% (multiply the \$25,000 UMPD loss cost by .7) before adding it to the \$25,000 UMBI loss cost.

Since the \$25,000 UMPD loss cost is calculated as 1.35 times the \$5,000 UMPD loss cost, and since the \$5,000 UMPD loss costs is a function--as described above--of the \$25,000 UMBI loss costs for a given state, we can combine formulas and express the additional loss costs necessary for adding UMPD coverage to \$25,000 UMBI coverage under a combined single limit as:

$$\begin{aligned} &(\$25,000 \text{ UMPD split limit loss cost}) \times .7 = \\ &(\$5,000 \text{ UMPD split limit loss cost}) \times 1.35 \times .7 = \\ &(\$25,000 \text{ UMBI loss cost}) \times .25 \times 1.35 \times .7 = \\ &\mathbf{(\$25,000 \text{ UMBI loss cost})} \times \mathbf{.24} \text{ for Private Passenger Types and,} \end{aligned}$$

$$\begin{aligned} &(\$25,000 \text{ UMPD split limit loss cost}) \times .7 = \\ &(\$5,000 \text{ UMPD split limit loss cost}) \times 1.35 \times .7 = \\ &(\$25,000 \text{ UMBI loss cost}) \times .375 \times 1.35 \times .7 = \\ &\mathbf{(\$25,000 \text{ UMBI loss cost})} \times \mathbf{.35} \text{ for Trucks, Tractors \& Trailers.} \end{aligned}$$

At higher limits, the loss cost for the UMBI component of this coverage would increase while the loss cost for the UMPD component would remain constant. For example, the loss costs required for Trucks, Tractors & Trailers UMBI and UMPD coverage under a combined single limit of \$100,000 would be: **(\$100,000 UMBI loss cost) + (.35 x \$25,000 UMBI loss cost)**, where the latter expression represents the cost for the UMPD portion of the coverage.

Similar to the calculation of the additional charge for UMPD, the additional charge for UIMPD is calculated as 70% of the \$25,000 UIMPD loss cost.

The additional charges for UMPD and UIMPD for the newly introduced higher limits are the same as the additional charges for the current limits.

Bodily Injury Increased Limits Factors

<u>Bodily Injury Limit</u>	<u>Personal Autos</u>	<u>Light and Medium Trucks, Tractors & Trailers</u>	<u>Heavy Trucks, Tractors & Trailers</u>	<u>Extra-Heavy Trucks, Tractors & Trailers</u>	<u>Private Passenger Types</u>	<u>Weighted Average</u>
\$ 50,000	1.20	1.17	1.19	1.20	1.17	1.20
75,000	1.37	1.31	1.36	1.38	1.32	1.36
100,000	1.50	1.41	1.49	1.52	1.42	1.49
125,000	1.60	1.49	1.59	1.64	1.50	1.59
150,000	1.68	1.56	1.67	1.75	1.57	1.67
200,000	1.82	1.67	1.81	1.92	1.68	1.81
250,000	1.92	1.76	1.93	2.06	1.76	1.91
300,000	2.00	1.83	2.03	2.19	1.84	1.99
350,000	2.06	1.89	2.12	2.30	1.91	2.05
400,000	2.12	1.95	2.21	2.40	1.96	2.11
500,000	2.20	2.04	2.35	2.58	2.06	2.19
600,000	2.26	2.12	2.47	2.73	2.14	2.25
750,000	2.34	2.21	2.61	2.92	2.24	2.34
1,000,000	2.42	2.32	2.78	3.17	2.35	2.42
1,500,000	2.53	2.45	2.99	3.52	2.50	2.54
2,000,000	2.59	2.54	3.12	3.74	2.60	2.60
2,500,000	2.64	2.60	3.21	3.90	2.67	2.66
3,000,000	2.68	2.65	3.28	4.02	2.72	2.70
5,000,000	2.77	2.76	3.47	4.33	2.85	2.79
7,500,000	2.83	2.84	3.59	4.54	2.93	2.86
10,000,000	2.87	2.89	3.67	4.67	2.99	2.90
25/50	1.00	1.00	1.00	1.00	1.00	1.00
50/100	1.27	1.23	1.27	1.28	1.24	1.27
100/300	1.58	1.48	1.57	1.62	1.49	1.57
250/500	1.96	1.80	1.98	2.13	1.80	1.95
500/1000	2.22	2.06	2.38	2.62	2.08	2.21
1000/2000	2.43	2.34	2.80	3.22	2.37	2.43
2500/5000	2.65	2.61	3.23	3.94	2.68	2.67
5000/10000	2.78	2.77	3.48	4.36	2.86	2.81

All factors assume a \$25,000 per person/\$50,000 per occurrence base split limit.

For the UIM calculations, these factors have been scaled to a \$100,000 per person/\$100,000 per occurrence base split limit.

Liability Policy Limit Distribution

<u>Single Limit</u>	Light and Medium Trucks, Tractors & Trailers	Heavy Trucks, Tractors & Trailers	Extra-Heavy Trucks, Tractors & Trailers	Private Passenger Types
50,000	0.06%	0.06%	0.09%	0.23%
75,000	0.47%	0.18%	0.01%	0.26%
100,000	2.21%	0.31%	0.03%	0.99%
250,000	0.23%	0.09%	0.04%	0.14%
300,000	4.95%	1.12%	0.48%	2.76%
400,000	0.32%	0.03%	0.09%	1.90%
500,000	10.10%	4.94%	2.44%	13.22%
750,000	0.69%	3.28%	6.80%	0.47%
1,000,000	72.46%	80.68%	81.99%	71.09%
1,500,000	0.08%	0.04%	0.05%	0.41%
2,000,000	8.43%	9.27%	7.98%	8.53%

<u>Split Limit</u>	Personal Auto (New Hampshire)
25/50	4.05%
50/100	4.66%
100/100	0.04%
100/300	52.16%
250/500	31.44%
300/300	3.45%
500/500	3.96%
1000/1000	0.24%

The percentages for Private Passenger Types, and the three types of Trucks, Tractors & Trailers are calculated based on state group data. Personal Auto percentages are state specific.

Derivation of the Damages Reduction Factor
For the \$1,000,000 Limit
Light Trucks, Tractors & Trailers

(1)	(2)	(3)	(4)	(5)	(6)
<u>BI Limit of</u> <u>At-Fault Driver</u>	<u>Percentage</u> <u>Purchasing</u>	<u>'Implicit'</u> <u>UIM Limit</u>	<u>ILF</u> <u>for (1)</u>	<u>ILF</u> <u>for (3)</u>	<u>(2) x</u> <u>{(5)-(4)}</u>
\$ 50,000	0.06%	1,050,000	0.83	1.65	0.000
75,000	0.47%	1,075,000	0.93	1.66	0.003
100,000	2.21%	1,100,000	1.00	1.67	0.015
250,000	0.23%	1,250,000	1.24	1.70	0.001
300,000	4.95%	1,300,000	1.30	1.71	0.020
400,000	0.32%	1,400,000	1.38	1.72	0.001
500,000	10.10%	1,500,000	1.45	1.74	0.029
750,000	0.69%	1,750,000	1.56	1.77	0.001
1,000,000	72.46%	No Coverage	----	----	----
1,500,000	0.08%	No Coverage	----	----	----
2,000,000	8.43%	No Coverage	----	----	----
	100.00%				0.070

- (1) = The policy limits of the at-fault driver.
- (2) = The policy limit distribution. For Trucks, Tractors & Trailers (all trucks) and Private Passenger Types, we have used a multistate distribution. For Personal Auto, statewide distributions have been used.
- (3) = The 'implicit' UIM limit of the driver purchasing UIM is equal to the limit of the at-fault driver + the \$1,000,000 limit.
- (4) = Increased limits factor for column (1).
- (5) = Increased limits factor for column (3).
- (6) = Total summation of the weighted differences in column (6) for limits of \$50,000 through \$750,000; this is the Damages Reduction Factor for the \$1,000,000 limit.

Reduction Factors

<u>Single Limit</u>	<u>Personal Auto</u>	<u>Private Passenger Types</u>	<u>Light Trucks, Tractors & Trailers</u>	<u>Heavy Trucks, Tractors & Trailers</u>	<u>Extra-Heavy Trucks, Tractors & Trailers</u>
\$ 50,000	0.011	0.000	0.000	0.000	0.000
75,000	0.025	0.000	0.000	0.000	0.000
100,000	0.031	0.001	0.001	0.000	0.000
125,000	0.150	0.004	0.006	0.002	0.000
150,000	0.169	0.004	0.006	0.002	0.000
200,000	0.201	0.005	0.009	0.002	0.000
250,000	0.226	0.005	0.010	0.002	0.001
300,000	0.306	0.006	0.011	0.002	0.001
350,000	0.339	0.012	0.023	0.007	0.003
400,000	0.357	0.013	0.025	0.007	0.003
500,000	0.393	0.020	0.030	0.008	0.003
600,000	0.426	0.053	0.054	0.024	0.015
750,000	0.461	0.062	0.060	0.030	0.018
1,000,000	0.507	0.073	0.070	0.045	0.053
1,500,000	0.568	0.243	0.229	0.287	0.461
2,000,000	0.603	0.276	0.258	0.333	0.534
2,500,000	0.634	0.319	0.299	0.390	0.628
3,000,000	0.659	0.347	0.319	0.420	0.677
5,000,000	0.719	0.410	0.383	0.509	0.828
7,500,000	0.759	0.459	0.432	0.578	0.936
10,000,000	0.781	0.491	0.460	0.619	1.008
 <u>Split Limit</u>					
25/50	0.000	0.000	0.000	0.000	0.000
50/100	0.012	0.000	0.000	0.000	0.000
100/300	0.033	0.004	0.006	0.002	0.000
250/500	0.234	0.006	0.011	0.002	0.001
500/1000	0.409	0.049	0.050	0.023	0.014
1000/2000	0.517	0.202	0.188	0.240	0.375
2500/5000	0.644	0.327	0.308	0.400	0.638
5000/10000	0.720	0.419	0.393	0.519	0.838

PART B - LOSS COST REVISION

UNINSURED AND UNDERINSURED MOTORISTS EXPLANATORY MEMORANDUM

INTRODUCTION	<p>In the prior review, Uninsured Motorists(UM) loss costs were determined based on statewide experience data as well as a model that considered the relationship between UM and BI experience, the distribution of vehicles, liability loss costs, and increased limits factors. To date, loss costs for Underinsured Motorists (UIM) coverage (or the component of Uninsured Motorists loss costs attributable to UIM coverage) have been determined using a model that accounts for the expected distribution of vehicles, policy limits, and loss potential for accidents that will involve an insured.</p> <p>This section uses UM and UIM experience data to evaluate the adequacy of current ISO loss costs and makes adjustments to reflect the results. The revised UM and UIM loss costs are included in rule 97 in Section G of this filing.</p>
OBJECTIVE	<p>The objective of this procedure is to determine the indicated statewide advisory loss cost level change for UM and UIM. 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 five combined years of experience. This experience ratio is the indicated statewide advisory loss cost level change in decimal form.</p> <p>For robustness, a single UIM loss cost level change is calculated for Private Passenger Types and Other Than Private Passenger Types. To reflect that UIM property damage (if applicable at all) comprises a small portion of UIM losses, the loss cost level change is applied only to UIM bodily injury loss costs.</p>
EXPERIENCE BASE	<p>The experience used in this review is the latest available UM and UIM data as reported under the ISO Commercial Statistical Plan. Five fiscal accident years are used with the most recent spanning April 1, 2017 through March 31, 2018 and reported losses evaluated as of June 30, 2018 for UM. The most recent accident year for UIM spans January 1, 2017 through December 31, 2017 and reported losses are evaluated as of March 31, 2018.</p> <p>The UM analysis is on a basic limits basis, capping the losses at the basic split limit for the state.</p>

EXPERIENCE
BASE (CONT'D)

The UIM analysis is on a total limits basis, combining all valid combined single limit and split-limit-bodily injury UIM experience. Other analyses in this filing use capped losses to determine a loss cost for a basic limit. Such a procedure is less appropriate for UIM experience data. The UIM experience is qualitatively different than standard liability coverage, in that each incurred loss exists in an excess layer above the tortfeasor's liability limit. That lower limit is unreported on the loss record and varies for each incurred loss. Considering these limitations, it is impossible to ascertain the portion of losses within some ground up layer of liability. Considering this limitation, this review aims to ensure prospective adequacy of UIM loss costs for all limits combined, while maintaining the current UIM limit relationships.

The indications for Other Than Private Passenger Types are based on experience for Trucks and Truck-Tractors. Items corresponding to Trucks and Truck-Tractors experience are labeled as Trucks, Tractors, and Trailers for familiarity's sake, though do not include Trailers experience, for which UM and UIM are not always applicable.

AGGREGATE LOSS
COSTS AT CURRENT
LEVEL

The aggregate loss costs at current ISO loss cost level are the loss-related revenue that would have been collected if the current ISO basic split limit loss cost was used during the experience period. It is calculated by extending the exposures by the current ISO loss cost. For states where a combined loss cost is used for Uninsured and Underinsured Motorists coverages, the ALCCCL reflects only the appropriate UM or UIM component that was determined when current loss costs were implemented.

LOSSES AND LOSS
ADJUSTMENT
EXPENSES

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

The reported incurred losses and allocated loss adjustment expenses are subject to the following adjustments:

- Placed on the prospective cost levels by the application of severity trend factors;
- Developed to an ultimate settlement basis by the application of the chain ladder method of loss development for UM and by the application of the Stanard-Buhlmann method of loss development (also known as the Cape Cod method) for UIM;
- Loaded for unallocated loss adjustment expenses.

These adjustments are discussed in further depth in this section.

EXPERIENCE RATIO 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.

AVERAGE ANNUAL CHANGE IN LOSSES (TREND) 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 levels continue to change from those underlying the historical data.

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.

Due to the lack of UM and UIM volume and the nature of the coverages, it is unlikely that UM and UIM data would yield any useful trend information. Instead, this review uses standard Bodily Injury claim cost trend information as a proxy for changes in UM and UIM claim costs over time.

Prospective average annual changes for claim cost have been selected based on the historical multistate Bodily Injury Liability data. These changes are used to adjust the losses to a prospective level. The trend factors are shown in Exhibit 3 of this section.

UM LOSS DEVELOPMENT FACTORS The UM loss development factors are based on multistate data capped at this state's basic split limit, separately for Private Passenger Types and Trucks, Tractors & Trailers. Three-year averages 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. Losses are developed up to 75 months and beyond 75 months the loss development is assumed to be unity. The loss development factors are shown in Exhibit 2 of this section.

OVERVIEW OF
STANARD-
BUHLMANN
LOSS
DEVELOPMENT
METHODOLOGY
FOR UIM

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.

For standard Commercial Auto liability coverages, ISO typically uses a chain ladder approach to loss development. The UIM experience is qualitatively different than standard liability coverage:

- each incurred loss exists in an excess layer above the tortfeasor's liability limit;
- the lower limit is unreported on the loss record and varies for each incurred loss;
- losses occur less frequently but tend to be more severe (as they must eclipse the tortfeasor's limit), which can result in highly leveraged losses at immature evaluations.

In light of these characteristics, this analysis uses the Stanard-Buhlmann method (also known as the Cape Cod method) to determine the ultimate level of losses in the experience period. The Stanard-Buhlmann method was conceived with an eye toward reinsurance data, which shares the described traits. The procedure is as follows:

1. First, the method uses the losses reported to date to determine a common, ultimate expected level of losses relative to ALCCL.
2. In order to do this, typical loss development factors are determined. Using these factors, an implied portion of ultimate losses that are reported to date is determined. For instance, a loss development factor of 3.000 implies that 1/3 of ultimate losses are expected to be reported to date.
3. Using this calculation, the ALCCL for each year is apportioned into two pieces: the portion corresponding to losses that have been incurred and reported (the apportioned ALCCL), and the portion corresponding to losses that have been incurred but not reported.
4. The sum of the reported losses to date from each year is compared to the sum of the apportioned ALCCL, and this ratio is the ultimate expected level of losses relative to ALCCL for the historic period.
5. This expected experience ratio is applied to the ALCCL that has yet to be apportioned. The result is the expected unreported loss that is added to the loss reported to date to determine the total (developed) incurred loss and allocated loss adjustment expense.

The benefit of using this method is that for each accident year, the unreported loss reflects a common, overall expected level of adequacy (or inadequacy) rather than leveraging a single immature accident year's results; but each year's results to date still play a role in the computation of the historical expected experience ratio for the ALCCL not yet apportioned.

To calculate this ratio in this filing, ALCCL is apportioned separately for Trucks, Tractors and Trailers and Private Passenger Types, but then combined to determine the overall level.

DETERMINATION
OF UIM LOSS
DEVELOPMENT
FACTORS TO
APPORTION THE
ALCCL

To calculate the ALCCL apportioned to losses reported to date, a typical chain ladder approach is taken to determine loss development factors to ultimate (LDFs). In turn, the LDFs are used to determine the portion of ultimate losses expected to be reported to date.

Separately for Trucks, Tractors, and Trailers and Private Passenger Types, UIM LDFs are calculated by accumulating the statewide credibility-weighted 15-to-27-month factor and 27-to-39-month factor, and the multistate average to-ultimate factors at subsequent maturities. Losses are developed up to 123 months and are on an all limits combined basis. Three-year averages 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.

In light of countrywide variations in financial responsibility limits and UIM coverage triggers, the 15-to-27-month and 27-to-39-month link ratios are based on a credibility weighting of state specific data with multistate data. 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 link ratio. K is a constant, for which 20,000,000 is selected for all UIM calculations. A state must have losses in all three years at the earlier evaluation to receive credibility for a given link ratio.

UNALLOCATED
LOSS ADJUSTMENT
EXPENSES

Reported losses include loss adjustment expenses that can be allocated to individual claims (ALAE), but do not include unallocated loss adjustment expenses (ULAE). To account for the expected ULAE costs, a load of 8% is selected, consistent with the selection for bodily injury loss costs throughout this filing.

NEW HAMPSHIRE
UNINSURED MOTORISTS

Trucks, Tractors & Trailers

Accident Year Ending	(1) Aggregate Loss Cost at Current Level (A)	(2) 25/50 Incurred Losses (B)	(3) Experience Ratio (2) / (1)	(4) Number of Incurred Claims
3/31/2014	127,535	21,534	0.169	1
3/31/2015	127,487	86,104	0.675	3
3/31/2016	129,454	0	0.000	0
3/31/2017	135,641	46,745	0.345	3
3/31/2018	140,144	125,398	0.895	3
Total	660,261	279,781	0.424	

(5) Indicated change based on experience data [Column (3) Total]	-57.6%
(6) Selected change	-35.0%

(A) The Aggregate Loss Cost at Current Level (ALCCL) is calculated by extending earned exposures by the current ISO loss costs.

(B) Losses reflect trend and development and include all Loss Adjustment Expenses (LAE) for Uninsured Motorists. See following exhibits.

NEW HAMPSHIRE
UNINSURED MOTORISTS
Derivation of Experience Ratio

Trucks, Tractors & Trailers

Accident Year Ending	(1a) Reported Incurred Loss And ALAE*	(2a) Loss Development Factor	(3a) Developed Losses And All LAE
3/31/2014	19,697	1.017	21,534
3/31/2015	75,492	1.061	86,104
3/31/2016	0	1.158	0
3/31/2017	31,786	1.368	46,745
3/31/2018	60,378	1.932	125,398
Total	187,353		279,781

(4a) Unallocated loss adjustment factor	1.075
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Accident Year Ending	(5a) Average Accident Date	(6a) Trend Period (A)	(7a) Trended Loss And ALAE (B)
3/31/2014	10/01/13	7.000	21,534
3/31/2015	10/01/14	6.000	86,104
3/31/2016	10/01/15	5.000	0
3/31/2017	10/01/16	4.000	46,745
3/31/2018	10/01/17	3.000	125,398
Total			279,781

(8a) Selected annual loss trend	+0.0%**
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(A) Trend period is equal to the number of years from the average accident date to one year beyond the anticipated implementation date of 10/01/19.

(B) Trended losses are equal to the developed loss in column (3a) multiplied by a trend factor of $[1.0 + (8a)]^{(6a)}$.

* To arrive at the incurred losses presented in (1a), ISO applied a +3.6% claim cost trend factor and then capped the trended losses on a per claim/per occurrence basis at NEW HAMPSHIRE's minimum split limit of 25/50.

** The loss trend shown in (8a) represents only the frequency trend component and has been applied after the losses were trended and capped at 25/50.

NEW HAMPSHIRE
UNINSURED MOTORISTS

Private Passenger Types

Accident Year Ending	(1) Aggregate Loss Cost at Current Level (A)	(2) 25/50 Incurred Losses (B)	(3) Experience Ratio (2) / (1)	(4) Number of Incurred Claims
3/31/2014	49,727	0	0.000	0
3/31/2015	48,531	57,244	1.180	2
3/31/2016	48,855	33,065	0.677	1
3/31/2017	50,109	48,557	0.969	2
3/31/2018	51,009	0	0.000	0
Total	248,232	138,866	0.559	

(5) Indicated change based on experience data [Column (3) Total]	-44.1%
(6) Selected change	-35.0%

(A) The Aggregate Loss Cost at Current Level (ALCCL) is calculated by extending earned exposures by the current ISO loss costs.

(B) Losses reflect trend and development and include all Loss Adjustment Expenses (LAE) for Uninsured Motorists. See following exhibits.

NEW HAMPSHIRE
UNINSURED MOTORISTS
Derivation of Experience Ratio

Private Passenger Types

Accident Year Ending	(1a) Reported Incurred Loss And ALAE*	(2a) Loss Development Factor	(3a) Developed Losses And All LAE
3/31/2014	0	1.006	0
3/31/2015	50,618	1.052	57,244
3/31/2016	27,268	1.128	33,065
3/31/2017	33,684	1.341	48,557
3/31/2018	0	1.923	0
Total	111,569		138,866

(4a) Unallocated loss adjustment factor	1.075
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Accident Year Ending	(5a) Average Accident Date	(6a) Trend Period (A)	(7a) Trended Loss And ALAE (B)
3/31/2014	10/01/13	7.000	0
3/31/2015	10/01/14	6.000	57,244
3/31/2016	10/01/15	5.000	33,065
3/31/2017	10/01/16	4.000	48,557
3/31/2018	10/01/17	3.000	0
Total			138,866

(8a) Selected annual loss trend	+0.0%**
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(A) Trend period is equal to the number of years from the average accident date to one year beyond the anticipated implementation date of 10/01/19.

(B) Trended losses are equal to the developed loss in column (3a) multiplied by a trend factor of $[1.0 + (8a)]^{(6a)}$.

* To arrive at the incurred losses presented in (1a), ISO applied a +3.6% claim cost trend factor and then capped the trended losses on a per claim/per occurrence basis at NEW HAMPSHIRE's minimum split limit of 25/50.

** The loss trend shown in (8a) represents only the frequency trend component and has been applied after the losses were trended and capped at 25/50.

**NEW HAMPSHIRE
UNDERINSURED MOTORISTS
Summary**

Trucks, Tractors, and Trailers and Private Passenger Types Combined

Accident Year Ending	(1) Aggregate Loss Cost at Current Level (A)	(2) Total Limits Incurred Losses (B)	(3) Experience Ratio (2) / (1)	(4) Number of Incurred Claims
12/31/2013	992,781	130,657	0.132	2
12/31/2014	1,012,204	119,224	0.118	1
12/31/2015	1,026,649	77,907	0.076	1
12/31/2016	1,042,510	165,753	0.159	4
12/31/2017	1,097,400	192,974	0.176	1
Total	5,171,543	686,516	0.133	

(5) Indicated change based on experience data [Column (3) Total]	- 86.7%
(6) Selected change	- 86.7%

(A) The Aggregate Loss Cost at Current Level (ALCCL) is calculated by extending earned exposures by the current ISO loss costs.

(B) Losses reflect trend and development and include all Loss Adjustment Expenses (LAE) for Underinsured Motorists. See following exhibits.

NEW HAMPSHIRE
 UNDERINSURED MOTORISTS
 Derivation of Experience Ratio

Trucks, Tractors, and Trailers

Accident Year Ending	(1a) Aggregate Loss Cost at Current Level	(2a) Reported Incurred Loss And ALAE	(3a) Number of Incurred Claims
12/31/2013	764,596	86,180	2
12/31/2014	782,265	75,090	1
12/31/2015	794,320	32,489	1
12/31/2016	811,965	80,870	4
12/31/2017	844,359	75,000	1
Total	3,997,505	349,629	

(4a) Selected annual loss trend (see Exhibit 3)	+ 4.0%
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Accident Year Ending	(5a) Average Accident Date	(6a) Trend Period (A)	(7a) Trended Loss And ALAE (B)
12/31/2013	6/30/2013	7.25	114,524
12/31/2014	6/30/2014	6.25	95,949
12/31/2015	6/30/2015	5.25	39,917
12/31/2016	6/30/2016	4.25	95,539
12/31/2017	6/30/2017	3.25	85,196
Total			431,126

(A) Trend period is equal to the number of years from the average accident date to one year beyond the anticipated implementation date of 10/01/2019.

(B) Trended losses are equal to the reported loss in column (2a) multiplied by a trend factor of $[1.0 + (4a)]^{(6a)}$.

**NEW HAMPSHIRE
UNDERINSURED MOTORISTS
Derivation of Experience Ratio**

Private Passenger Types

Accident Year Ending	(1b) Aggregate Loss Cost at Current Level	(2b) Reported Incurred Loss And ALAE	(3b) Number of Incurred Claims
12/31/2013	228,185	0	0
12/31/2014	229,939	0	0
12/31/2015	232,329	0	0
12/31/2016	230,545	0	0
12/31/2017	253,041	0	0
Total	1,174,039	0	

(4b) Selected annual loss trend (see Exhibit 3)	+ 4.0%
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Accident Year Ending	(5b) Average Accident Date	(6b) Trend Period (C)	(7b) Trended Loss And ALAE (D)
12/31/2013	6/30/2013	7.25	0
12/31/2014	6/30/2014	6.25	0
12/31/2015	6/30/2015	5.25	0
12/31/2016	6/30/2016	4.25	0
12/31/2017	6/30/2017	3.25	0
Total			0

(C) Trend period is equal to the number of years from the average accident date to one year beyond the anticipated implementation date of 10/01/2019.

(D) Trended losses are equal to the reported loss in column (2b) multiplied by a trend factor of $[1.0 + (4b)]^{(6b)}$.

**NEW HAMPSHIRE
UNDERINSURED MOTORISTS
Derivation of Experience Ratio**

Trucks, Tractors, and Trailers

Accident Year Ending	(8a) Loss Development Factor (E)	(9a) Implied Portion of Loss Reported 1.0 / (8a)	(10a) Apportioned ALCCL (1a) * (9a)
12/31/2013	1.052	0.951	726,803
12/31/2014	1.122	0.891	697,206
12/31/2015	1.328	0.753	598,133
12/31/2016	1.813	0.552	447,857
12/31/2017	3.236	0.309	260,927
Total			2,730,925

Private Passenger Types

Accident Year Ending	(8b) Loss Development Factor (E)	(9b) Implied Portion of Loss Reported 1.0 / (8b)	(10b) Apportioned ALCCL (1b) * (9b)
12/31/2013	1.091	0.917	209,152
12/31/2014	1.186	0.843	193,878
12/31/2015	1.409	0.710	164,889
12/31/2016	1.926	0.519	119,701
12/31/2017	3.480	0.287	72,713
Total			760,333

(E) See Exhibit 2 for Loss Development.

**NEW HAMPSHIRE
UNDERINSURED MOTORISTS
Derivation of Experience Ratio**

Trucks, Tractors, and Trails and Private Passenger Types Combined

(11) Historical expected experience ratio, equal to the trended reported losses divided by the apportioned ALCCL [Total (7a) + (7b)] / [Total (10a) + (10b)]	0.123
(12) Unallocated Loss Adjustment Expense (ULAE) Factor	1.075

Accident Year Ending	(13) Ultimate Loss And ALAE (F)	(14) Ultimate Loss And All LAE (13) * (12)
12/31/2013	121,542	130,657
12/31/2014	110,906	119,224
12/31/2015	72,472	77,907
12/31/2016	154,189	165,753
12/31/2017	179,511	192,974
Total	638,619	686,516

(F) Ultimate Loss and ALAE equals the reported incurred loss and ALAE plus the historical expected losses on ALCCL not yet apportioned, which is defined as the total ALCCL less the apportioned ALCCL.

(2a) + (2b) + [(1a) + (1b) - (10a) - (10b)] * (11)
Passenger Types; Buses; Publics; and Zone-Rated.

**UNINSURED MOTORISTS
Loss Development**

Trucks, Tractors & Trailers

Multistate 25/50 Incurred Losses and ALAE

(includes District of Columbia and excludes Massachusetts and Puerto Rico)

Year Ending	15 months	27 months	39 months	51 months	63 months	75 months
2009Q1	9,025,547	12,369,189	15,102,598	16,536,806	17,826,264	17,856,308
2010Q1	9,308,047	12,638,094	14,802,135	15,559,151	16,353,350	16,713,969
2011Q1	8,574,856	11,741,874	14,541,144	15,707,864	16,616,607	16,886,898
2012Q1	9,122,142	14,304,657	16,534,754	18,183,506	18,336,199	18,542,512
2013Q1	10,005,821	12,952,413	15,749,955	17,015,075	17,991,357	18,416,963
2014Q1	8,867,105	12,142,548	13,801,692	15,103,201	15,400,089	
2015Q1	8,829,703	12,261,788	15,014,176	16,714,455		
2016Q1	8,207,351	13,511,797	15,827,683			
2017Q1	9,663,544	14,276,968				
2018Q1	9,885,240					

Multistate 25/50 Link Ratios

Year Ending		27:15	39:27	51:39	63:51	75:63
2009Q1		1.370	1.221	1.095	1.078	1.002
2010Q1		1.358	1.171	1.051	1.051	1.022
2011Q1		1.369	1.238	1.080	1.058	1.016
2012Q1		1.568	1.156	1.100	1.008	1.011
2013Q1		1.294	1.216	1.080	1.057	1.024
2014Q1		1.369	1.137	1.094	1.020	
2015Q1		1.389	1.224	1.113		
2016Q1		1.646	1.171			
2017Q1		1.477				
Average Factor	(Best 3 of 5)	1.412	1.181	1.091	1.043	1.017
Average Factor	(Latest 3)	1.504	1.178	1.096	1.028	1.017
Average Factor	(Latest 5)	1.435	1.181	1.094	1.039	1.015
Selected Factor		1.412	1.181	1.091	1.043	1.017

*Losses are assumed to reach their ultimate settlement level at 75 months.

Multistate Loss Development Factors to Ultimate

Age	15 months	27 months	39 months	51 months	63 months
LDF to Ultimate	1.932	1.368	1.158	1.061	1.017

**UNINSURED MOTORISTS
Loss Development**

Private Passenger Types

Multistate 25/50 Incurred Losses and ALAE

(includes District of Columbia and excludes Massachusetts and Puerto Rico)

Year Ending	15 months	27 months	39 months	51 months	63 months	75 months
2009Q1	3,505,176	5,352,975	6,258,067	6,594,743	7,339,680	7,551,920
2010Q1	4,036,424	5,827,877	6,451,759	7,169,153	7,588,956	7,542,780
2011Q1	3,292,424	5,489,957	6,394,166	6,714,951	7,024,637	7,026,043
2012Q1	4,186,679	5,744,494	6,684,975	7,399,815	7,111,606	7,122,183
2013Q1	4,076,499	5,751,087	7,406,171	8,091,911	8,372,492	8,497,898
2014Q1	4,520,784	5,984,903	7,316,342	7,850,103	8,391,288	
2015Q1	3,798,515	6,368,818	7,248,523	7,401,059		
2016Q1	3,794,258	5,776,948	6,823,046			
2017Q1	4,309,194	5,904,068				
2018Q1	3,715,668					

Multistate 25/50 Link Ratios

Year Ending		27:15	39:27	51:39	63:51	75:63
2009Q1		1.527	1.169	1.054	1.113	1.029
2010Q1		1.444	1.107	1.111	1.059	0.994
2011Q1		1.667	1.165	1.050	1.046	1.000
2012Q1		1.372	1.164	1.107	0.961	1.001
2013Q1		1.411	1.288	1.093	1.035	1.015
2014Q1		1.324	1.222	1.073	1.069	
2015Q1		1.677	1.138	1.021		
2016Q1		1.523	1.181			
2017Q1		1.370				
Average Factor	(Best 3 of 5)	1.434	1.189	1.072	1.046	1.006
Average Factor	(Latest 3)	1.523	1.181	1.062	1.022	1.006
Average Factor	(Latest 5)	1.461	1.199	1.069	1.034	1.008
Selected Factor		1.434	1.189	1.072	1.046	1.006

*Losses are assumed to reach their ultimate settlement level at 75 months.

Multistate Loss Development Factors to Ultimate

Age	15 months	27 months	39 months	51 months	63 months
LDF to Ultimate	1.923	1.341	1.128	1.052	1.006

NEW HAMPSHIRE
UNDERINSURED MOTORISTS
Loss Development

Trucks, Tractors, and Trailers

Multistate Total Limits Incurred Losses and ALAE
(includes District of Columbia and all states except Massachusetts)

Year Ending	15 months	27 months	39 months	51 months	63 months	75 months	87 months	99 months	111 months	123 months
2004Q4	22,530,422	36,845,163	51,331,955	63,901,556	69,862,877	72,987,705	73,378,533	74,613,140	74,390,857	74,400,459
2005Q4	18,392,464	38,016,265	54,404,477	65,918,944	70,554,385	74,515,698	75,392,784	76,468,105	76,811,085	75,786,169
2006Q4	31,575,992	51,426,470	62,255,134	74,142,843	80,492,340	84,941,203	85,153,205	86,264,799	85,219,739	84,960,433
2007Q4	27,961,501	44,738,402	65,103,523	81,178,272	85,582,687	88,571,709	89,729,861	91,121,250	90,400,099	90,282,533
2008Q4	37,061,338	61,124,059	79,106,093	91,571,102	99,034,064	102,066,482	103,712,289	104,697,829	105,018,374	105,560,742
2009Q4	36,299,276	64,443,015	84,147,098	94,902,202	100,872,729	102,314,373	102,821,451	104,102,566	103,950,572	
2010Q4	32,625,217	66,090,096	83,440,880	98,653,306	104,753,382	111,636,156	111,428,680	112,436,729		
2011Q4	34,437,921	55,833,889	74,553,318	88,350,227	94,597,239	98,924,755	101,294,368			
2012Q4	41,722,554	65,598,209	84,128,510	99,599,399	106,217,478	108,128,454				
2013Q4	29,417,448	54,265,070	76,575,561	88,122,930	99,140,766					
2014Q4	37,798,661	68,988,239	100,260,719	118,715,537						
2015Q4	34,913,745	67,715,405	91,520,273							
2016Q4	48,669,389	81,928,155								
2017Q4	51,022,086									

NEW HAMPSHIRE
UNDERINSURED MOTORISTS
Loss Development

Trucks, Tractors, and Trailers

Multistate Link Ratios

Year Ending	27:15	39:27	51:39	63:51	75:63	87:75	99:87	111:99	123*:111
2004Q4	1.635	1.393	1.245	1.093	1.045	1.005	1.017	0.997	1.000
2005Q4	2.067	1.431	1.212	1.070	1.056	1.012	1.014	1.004	0.987
2006Q4	1.629	1.211	1.191	1.086	1.055	1.002	1.013	0.988	0.997
2007Q4	1.600	1.455	1.247	1.054	1.035	1.013	1.016	0.992	0.999
2008Q4	1.649	1.294	1.158	1.081	1.031	1.016	1.010	1.003	1.005
2009Q4	1.775	1.306	1.128	1.063	1.014	1.005	1.012	0.999	
2010Q4	2.026	1.263	1.182	1.062	1.066	0.998	1.009		
2011Q4	1.621	1.335	1.185	1.071	1.046	1.024			
2012Q4	1.572	1.282	1.184	1.066	1.018				
2013Q4	1.845	1.411	1.151	1.125					
2014Q4	1.825	1.453	1.184						
2015Q4	1.940	1.352							
2016Q4	1.683								
Average Factor (Best 3 of 5)	1.784	1.366	1.183	1.067	1.031	1.011	1.012	0.998	0.999

*Losses are assumed to reach their ultimate settlement level at 123 months.

Multistate Loss Development Factors to Ultimate

Age	15 months	27 months	39 months	51 months	63 months	75 months	87 months	99 months	111 months
LDF to Ultimate	3.236	1.813	1.328	1.122	1.052	1.020	1.008	0.996	0.999

NEW HAMPSHIRE
UNDERINSURED MOTORISTS
Loss Development

Trucks, Tractors, and Trailers

NEW HAMPSHIRE Loss Development

Year Ending	Total Limits Incurred Losses and ALAE			Link Ratios		
	15 months	27 months	39 months	Year Ending	27:15	39:27
2011Q4	100,000	250,329	453,658	2011Q4	2.503	1.812
2012Q4	165,270	836,000	845,733	2012Q4	5.058	1.012
2013Q4	0	0	0	2013Q4	N/A	N/A
2014Q4	0	0	0	2014Q4	N/A	N/A
2015Q4	157,296	164,503	32,489	2015Q4	1.046	0.197
2016Q4	83,060	80,870		2016Q4	0.974	
2017Q4	75,000			2017Q4		
3-Yr Volume (A)	315,356	245,373		Average Factor:	N/A	N/A
State Credibility (B)	0.000	0.000		(Best 3 of 5)		

Credibility Weighted Loss Development Factors to Ultimate

Age	15 months	27 months	39 months	51 months	63 months
Credibility Weighted Link (C)	1.784	1.366			
Multistate LDF to Ultimate			1.328	1.122	1.052
Credibility Wtd. LDF to Ult.	3.236	1.813	1.328	1.122	1.052

(B) Credibility is calculated as $(A) / [(A) + 20,000,000]$ where the credibility constant of 20,000,000 was selected judgmentally. State must have losses in all years at the earlier evaluation to receive credibility for a given link ratio.

(C) Credibility weighted link ratio is calculated as (B) times the state link ratio + $[1 - (B)]$ times the multistate link ratio for that evaluation month.

NEW HAMPSHIRE
UNDERINSURED MOTORISTS
Loss Development

Private Passenger Types

Multistate Total Limits Incurred Losses and ALAE
(includes District of Columbia and all states except Massachusetts)

Year Ending	15 months	27 months	39 months	51 months	63 months	75 months	87 months	99 months	111 months	123 months
2004Q4	6,300,905	12,925,560	15,977,199	18,946,522	20,078,631	19,338,812	20,057,181	20,020,213	20,129,499	21,129,973
2005Q4	5,474,241	10,012,046	14,871,677	17,697,510	19,364,571	20,040,019	19,969,643	21,382,211	21,371,122	21,314,199
2006Q4	6,994,468	13,963,329	15,882,288	18,930,215	19,539,103	20,306,960	20,930,711	21,555,723	20,419,273	20,508,588
2007Q4	10,722,380	16,513,849	19,198,870	25,639,815	26,147,648	26,601,682	27,717,959	28,432,823	28,588,166	28,801,689
2008Q4	13,865,094	21,109,243	29,106,626	32,391,347	34,520,288	35,434,776	35,404,725	35,120,123	35,366,863	35,391,282
2009Q4	11,179,688	23,495,203	30,267,935	33,813,800	35,111,646	37,139,969	37,716,498	38,501,790	38,467,033	
2010Q4	8,467,272	15,948,569	20,471,881	26,598,632	28,460,555	28,863,695	29,993,414	30,709,918		
2011Q4	12,188,852	19,529,785	25,569,555	30,023,469	32,649,876	35,013,858	35,912,848			
2012Q4	11,128,118	19,466,122	28,406,593	31,482,205	35,857,330	36,173,972				
2013Q4	12,623,739	20,828,361	28,156,040	33,955,969	37,429,197					
2014Q4	10,544,502	20,111,450	26,853,668	31,796,672						
2015Q4	14,340,780	27,418,840	38,762,386							
2016Q4	15,340,507	27,064,601								
2017Q4	15,027,822									

NEW HAMPSHIRE
UNDERINSURED MOTORISTS
Loss Development

Private Passenger Types

Multistate Link Ratios

Year Ending	27:15	39:27	51:39	63:51	75:63	87:75	99:87	111:99	123*:111
2004Q4	2.051	1.236	1.186	1.060	0.963	1.037	0.998	1.005	1.050
2005Q4	1.829	1.485	1.190	1.094	1.035	0.996	1.071	0.999	0.997
2006Q4	1.996	1.137	1.192	1.032	1.039	1.031	1.030	0.947	1.004
2007Q4	1.540	1.163	1.335	1.020	1.017	1.042	1.026	1.005	1.007
2008Q4	1.522	1.379	1.113	1.066	1.026	0.999	0.992	1.007	1.001
2009Q4	2.102	1.288	1.117	1.038	1.058	1.016	1.021	0.999	
2010Q4	1.884	1.284	1.299	1.070	1.014	1.039	1.024		
2011Q4	1.602	1.309	1.174	1.087	1.072	1.026			
2012Q4	1.749	1.459	1.108	1.139	1.009				
2013Q4	1.650	1.352	1.206	1.102					
2014Q4	1.907	1.335	1.184						
2015Q4	1.912	1.414							
2016Q4	1.764								
Average Factor (Best 3 of 5)	1.807	1.367	1.188	1.087	1.033	1.027	1.024	1.001	1.004

*Losses are assumed to reach their ultimate settlement level at 123 months.

Multistate Loss Development Factors to Ultimate

Age	15 months	27 months	39 months	51 months	63 months	75 months	87 months	99 months	111 months
LDF to Ultimate	3.480	1.926	1.409	1.186	1.091	1.057	1.029	1.006	1.004

NEW HAMPSHIRE
UNDERINSURED MOTORISTS
Loss Development

Private Passenger Types

NEW HAMPSHIRE Loss Development

Year Ending	Total Limits Incurred Losses and ALAE			Link Ratios		
	15 months	27 months	39 months	Year Ending	27:15	39:27
2011Q4	0	0	0	2011Q4	N/A	N/A
2012Q4	0	0	0	2012Q4	N/A	N/A
2013Q4	0	0	0	2013Q4	N/A	N/A
2014Q4	0	0	0	2014Q4	N/A	N/A
2015Q4	0	0	0	2015Q4	N/A	N/A
2016Q4	0	0		2016Q4	N/A	N/A
2017Q4	0			2017Q4	N/A	
3-Yr Volume (A)	0	0		Average Factor:	N/A	N/A
State Credibility (B)	0.000	0.000		(Best 3 of 5)		

Credibility Weighted Loss Development Factors to Ultimate

Age	15 months	27 months	39 months	51 months	63 months
Credibility Weighted Link (C)	1.771	1.387			
Multistate LDF to Ultimate			1.409	1.186	1.091
Credibility Wtd. LDF to Ult.	3.318	1.873	1.409	1.186	1.091

(B) Credibility is calculated as $(A) / [(A) + 20,000,000]$ where the credibility constant of 20,000,000 was selected judgmentally. State must have losses in all years at the earlier evaluation to receive credibility for a given link ratio.

(C) Credibility weighted link ratio is calculated as (B) times the state link ratio + $[1.0 - (B)]$ times the multistate link ratio for that evaluation month.

UNINSURED MOTORISTS
Trend Selection

Multistate Average Claim Cost*

Calendar Year Paid

Year Ended		\$50,000 Bodily Injury
3/31/2012		14,266.49
6/30/2012		14,379.37
9/30/2012		14,329.95
12/31/2012		14,367.18
3/31/2013		14,480.14
6/30/2013		14,539.23
9/30/2013		14,607.25
12/31/2013		14,914.28
3/31/2014		15,087.30
6/30/2014		15,206.72
9/30/2014		15,401.84
12/31/2014		15,365.95
3/31/2015		15,426.99
6/30/2015		15,454.26
9/30/2015		15,526.28
12/31/2015		15,590.49
3/31/2016		15,630.14
6/30/2016		15,881.85
9/30/2016		16,108.47
12/31/2016		16,331.73
3/31/2017		16,496.08
6/30/2017		16,563.59
9/30/2017		16,580.02
12/31/2017		16,891.81
Average Annual	24 PT:	3.0%
Change	12 PT:	3.6%
Coefficient of	24 PT:	0.9761
Determination R ²	12 PT:	0.9614

Trend Selection: + 3.6%

*Data excludes Massachusetts and is based on standard bodily injury coverage (and not UM/UIM) for Commercial Auto Trucks, Tractors, and Trailers; Private Passenger Types; Buses; Publics; and Zone-Rated.

UNDERINSURED MOTORISTS
Trend Selection

Multistate Average Claim Cost*

Year Ended	\$1,000,000 Bodily Injury	Total Limits Bodily Injury
3/31/2012	35,403.51	35,519.54
6/30/2012	36,259.99	36,355.94
9/30/2012	36,209.01	36,322.54
12/31/2012	36,315.43	36,352.31
3/31/2013	36,575.76	36,635.95
6/30/2013	36,080.17	36,181.88
9/30/2013	36,622.76	36,707.62
12/31/2013	37,771.04	37,887.46
3/31/2014	38,701.25	38,793.45
6/30/2014	40,037.28	40,217.06
9/30/2014	40,628.65	40,800.80
12/31/2014	41,116.94	41,274.51
3/31/2015	41,688.10	41,862.16
6/30/2015	41,862.26	42,035.65
9/30/2015	41,992.90	42,233.00
12/31/2015	42,006.96	42,287.48
3/31/2016	42,067.14	42,337.78
6/30/2016	42,904.13	43,080.62
9/30/2016	44,040.49	44,169.77
12/31/2016	44,463.57	44,536.68
3/31/2017	44,820.41	44,925.63
6/30/2017	44,615.83	44,699.92
9/30/2017	44,801.04	44,952.67
12/31/2017	45,674.80	45,874.49
Average Annual Change	24 PT: 12 PT:	4.8% 3.6%
Coefficient of Determination R ²	24 PT: 12 PT:	0.9593 0.9213
		4.8% 3.5%
		0.9579 0.9330

Trend Selection: + 4.0%

*Data excludes Massachusetts and is based on standard bodily injury coverage (and not UM/UIM) for Commercial Auto Trucks, Tractors, and Trailers; Private Passenger Types; Buses; Publics; and Zone-Rated.

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
COMMERCIAL AUTOMOBILE INSURANCE

SUMMARY 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	\$ 15,766,116	4.4%
Medical Payments	1,315,726	-77.7%
Uninsured (Includes Underinsured) Motorists	1,177,902	-72.1%
Combined	18,259,744	-6.4%
Physical Damage		
Other Than Collision	1,284,887	N.C.
Collision	5,656,559	N.C.
Combined	6,941,446	N.C.
Total Trucks, Tractors & Trailers	25,201,190	-4.7%
PRIVATE PASSENGER TYPES		
Liability		
Single Limit Liability	2,532,174	3.6%
Medical Payments	162,365	-48.9%
Uninsured (Includes Underinsured) Motorists	375,463	-69.8%
Combined	3,070,002	-8.2%
Physical Damage		
Other Than Collision	340,777	7.1%
Collision	1,157,884	4.3%
Combined	1,498,661	4.9%
Total Private Passenger Types	4,568,663	-3.9%
PUBLIC AUTOMOBILE CLASSES		
Medical Payments	79,361	-40.8%
NON-OWNERSHIP LIABILITY	392,827	53.4%
GRAND TOTAL ALL COVERAGES	30,242,041	-3.9%
TOTAL LIABILITY	21,801,934	-5.7%
TOTAL PHYSICAL DAMAGE	8,440,107	0.9%

(A) An implementation date of 10/01/2019 is assumed for purposes of trending.

(B) Accident Year ending 03/31/2018 Aggregate Loss Cost at Current Level for Liability, Uninsured, and Physical Damage coverages. Accident Year ending 12/31/2017 Aggregate Loss Cost at Current Level for Underinsured Motorists. Accident Year ending 12/31/2016 Aggregate Loss Cost at Current Level for Medical Payments and Non-ownership Liability 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.

NEW HAMPSHIRE
COMMERCIAL AUTOMOBILE INSURANCE

REVISED 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	3.3%	-87.5%
102	11.4%	-85.7%
116	2.9%	-86.7%
117	2.5%	-84.6%
118	4.4%	-87.5%
121	6.4%	-87.5%
124	2.3%	-77.8%
125	4.2%	-71.4%
126	2.7%	-87.5%
128	6.1%	-66.7%
130	3.6%	-83.3%
131	7.0%	-77.8%
132	5.0%	-75.0%
133	3.5%	-75.0%

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
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 (a)
	Comprehensive (a)	Collision (b)	
101			
102			
116			
117			
118			
121			
124			
125			
126			
128			
130			
131			
132			
133			

(a) For Trucks, Tractors, and Trailers Comprehensive, No Change (N.C.) was selected to better reflect the favorable experience in the latest year.

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

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
COMMERCIAL AUTOMOBILE INSURANCE

REVISED 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		Specified Causes of Loss (d)
			Comprehensive (b)	Collision (c)	
101	470	2	54	241	31
102	421	2	63	232	36
116	433	2	79	296	46
117	376	2	62	252	36
118	453	2	58	245	33
121	248	1	47	187	27
124	265	2	45	211	26
125	200	2	56	223	32
126	229	1	65	231	37
128	174	2	63	208	36
130	343	2	44	198	25
131	274	2	48	220	28
132	232	2	70	225	40
133	237	2	63	219	36

(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.

NEW HAMPSHIRE
COMMERCIAL AUTOMOBILE INSURANCE

REVISED 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	4.6%	-70.0%
102	2.3%	-75.0%
116	2.5%	-62.5%
117	2.0%	-66.7%
118	4.5%	-71.4%
121	0.8%	-66.7%
124	6.4%	-60.0%
125	3.4%	-60.0%
126	3.3%	-71.4%
128	4.9%	-75.0%
130	1.5%	-66.7%
131	5.1%	-66.7%
132	3.4%	-60.0%
133	4.6%	-80.0%

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
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	
	Comprehensive	Collision
101	6.0%	5.5%
102	3.2%	1.7%
116	4.4%	8.3%
117	5.5%	-0.6%
118	5.9%	6.3%
121	7.0%	-0.8%
124	4.0%	3.5%
125	6.4%	8.7%
126	6.4%	3.9%
128	12.3%	5.6%
130	6.0%	5.6%
131	5.9%	5.9%
132	6.7%	4.3%
133	8.9%	1.5%

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
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)
101	480	3	71	328
102	393	2	65	291
116	412	3	71	339
117	306	2	77	323
118	372	2	54	321
121	267	2	46	260
124	251	2	52	237
125	270	2	50	250
126	343	2	50	402
128	193	1	64	262
130	268	2	53	246
131	286	2	54	250
132	270	2	48	244
133	226	1	61	270

(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.

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
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	3.2%	-89.6%
102	11.5%	-87.5%
116	2.8%	-88.9%
117	2.4%	-89.7%
118	4.5%	-89.1%
121	6.3%	-88.0%
124	2.3%	-89.3%
125	4.2%	-90.0%
126	2.7%	-87.5%
128	6.1%	-88.2%
130	3.6%	-88.6%
131	7.0%	-88.9%
132	4.8%	-87.5%
133	3.5%	-87.5%

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
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 (a)
	Comprehensive (a)	Collision (b)	
101			
102			
116			
117			
118			
121			
124			
125			
126			
128			
130			
131			
132			
133			

(a) For Trucks, Tractors, and Trailers Comprehensive, No Change (N.C.) was selected to better reflect the favorable experience in the latest year.

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

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
COMMERCIAL AUTOMOBILE INSURANCE

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

FOR VAN POOLS POLICY COVERAGES

Territory Code	Liability	\$500	Physical Damage		Specified Causes of Loss (e)
	\$100,000 CSL (a)	Med Pay (b)	Comprehensive (c)	Collision (d)	
101	705	5	55	306	32
102	632	5	64	295	37
116	650	5	81	376	47
117	564	4	63	320	37
118	680	5	59	311	34
121	372	3	48	237	28
124	398	3	46	268	27
125	300	2	57	283	33
126	344	3	66	293	38
128	261	2	64	264	37
130	515	4	45	251	26
131	411	3	49	279	29
132	348	3	71	286	41
133	356	3	64	278	37

- (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.

NEW HAMPSHIRE
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	3.3%	-77.5%
102	11.3%	-76.2%
116	2.9%	-77.7%
117	2.5%	-78.0%
118	4.4%	-77.3%
121	6.4%	-76.9%
124	2.3%	-77.6%
125	4.2%	-76.7%
126	2.7%	-78.0%
128	6.1%	-78.4%
130	3.7%	-77.0%
131	7.1%	-77.2%
132	5.0%	-77.6%
133	3.5%	-78.4%

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
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 (a)
	Comprehensive (a)	Collision (b)	
101			
102			
116			
117			
118			
121			
124			
125			
126			
128			
130			
131			
132			
133			

(a) For Trucks, Tractors, and Trailers Comprehensive, No Change (N.C.) was selected to better reflect the favorable experience in the latest year.

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

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
COMMERCIAL AUTOMOBILE INSURANCE

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

FOR TAXIS AND LIMOUSINES POLICY COVERAGES

Territory Code	Liability	\$500	Physical Damage		Specified Causes of Loss (e)
	\$100,000 CSL (a)	Med Pay (b)	Comprehensive (c)	Collision (d)	
101	2914	23	55	306	32
102	2610	20	64	295	37
116	2685	21	81	376	47
117	2331	18	63	320	37
118	2809	22	59	311	34
121	1538	12	48	237	28
124	1643	13	46	268	27
125	1240	10	57	283	33
126	1420	11	66	293	38
128	1079	8	64	264	37
130	2127	17	45	251	26
131	1699	13	49	279	29
132	1438	11	71	286	41
133	1469	11	64	278	37

- (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.

NEW HAMPSHIRE
COMMERCIAL AUTOMOBILE INSURANCE

REVISED 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	3.6%	-63.6%
102	11.5%	-66.7%
116	2.6%	-60.0%
117	2.5%	-66.7%
118	4.2%	-70.0%
121	6.3%	-66.7%
124	2.8%	-66.7%
125	3.8%	-60.0%
126	2.4%	-60.0%
128	6.7%	-50.0%
130	3.8%	-62.5%
131	7.1%	-50.0%
132	4.9%	-60.0%
133	3.2%	-60.0%

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
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 (a)
	Comprehensive (a)	Collision (b)	
101			
102			
116			
117			
118			
121			
124			
125			
126			
128			
130			
131			
132			
133			

(a) For Trucks, Tractors, and Trailers Comprehensive, No Change (N.C.) was selected to better reflect the favorable experience in the latest year.

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

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
COMMERCIAL AUTOMOBILE INSURANCE

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

FOR SCHOOL AND CHURCH BUSES POLICY COVERAGES

Territory Code	Liability	\$500	Physical Damage		Specified Causes of Loss (e)
	\$100,000 CSL (a)	Med Pay (b)	Comprehensive (c)	Collision (d)	
101	259	4	38	157	22
102	232	3	44	151	25
116	238	4	55	192	32
117	207	3	43	164	25
118	249	3	41	159	23
121	136	2	33	122	19
124	146	2	32	137	18
125	110	2	39	145	22
126	126	2	46	150	26
128	96	2	44	135	25
130	189	3	31	129	18
131	151	3	34	143	20
132	128	2	49	146	28
133	130	2	44	142	25

- (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.

NEW HAMPSHIRE
COMMERCIAL AUTOMOBILE INSURANCE

REVISED 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	3.3%	-74.5%
102	11.4%	-67.4%
116	2.8%	-66.7%
117	2.4%	-66.7%
118	4.4%	-73.6%
121	6.4%	-60.7%
124	2.3%	-67.7%
125	4.1%	-52.2%
126	2.7%	-59.3%
128	6.1%	-50.0%
130	3.6%	-67.5%
131	7.0%	-67.7%
132	5.0%	-66.7%
133	3.6%	-60.7%

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
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 (a)
	Comprehensive (a)	Collision (b)	
101			
102			
116			
117			
118			
121			
124			
125			
126			
128			
130			
131			
132			
133			

(a) For Trucks, Tractors, and Trailers Comprehensive, No Change (N.C.) was selected to better reflect the favorable experience in the latest year.

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

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
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	\$500	Physical Damage		Specified Causes of Loss (e)
	\$100,000 CSL (a)	Med Pay (b)	Comprehensive (c)	Collision (d)	
101	1786	14	38	157	22
102	1600	15	44	151	25
116	1645	17	55	192	32
117	1429	15	43	164	25
118	1721	14	41	159	23
121	942	11	33	122	19
124	1007	10	32	137	18
125	760	11	39	145	22
126	870	11	46	150	26
128	661	10	44	135	25
130	1303	13	31	129	18
131	1041	10	34	143	20
132	882	9	49	146	28
133	901	11	44	142	25

- (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.

NEW HAMPSHIRE
 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
03/31/14	\$8,657,684	\$10,459,270	1.208	10%	1,250
03/31/15	\$8,684,494	\$9,820,795	1.131	15%	1,350
03/31/16	\$8,902,582	\$8,415,911	0.945	20%	1,011
03/31/17	\$9,342,325	\$9,334,785	0.999	25%	1,245
03/31/18	\$9,903,339	\$10,359,095	1.046	30%	1,228
(6)	AVERAGE EXPERIENCE RATIO (SUM OF (3)*(4)).				1.044
(7)	EXPECTED EXPERIENCE RATIO (D).				1.043
(8)	CREDIBILITY (E).				0.70
(9)	CREDIBILITY WEIGHTED EXPERIENCE RATIO: ((6) * (8)) + ((7) * (1.000- (8))).				1.044
(10)	INDICATED PERCENTAGE CHANGE IN ADVISORY LOSS COST LEVEL ((9) - 1.000).				4.4%
(11)	FILED CHANGE.				4.4%
(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 10/01/19 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.

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

	ACC. YEAR ENDING	BODILY INJURY	PROPERTY DAMAGE	COMBINED
(1) INCURRED LOSSES AND	03/31/14	\$3,585,724	\$3,576,973	
ALLOCATED LOSS	03/31/15	\$3,026,443	\$3,901,082	
ADJUSTMENT EXPENSES	03/31/16	\$2,857,181	\$3,183,614	
	03/31/17	\$2,678,885	\$3,976,796	
	03/31/18	\$2,607,688	\$4,180,707	
(2) DEVELOPED LOSSES AND	03/31/14	\$3,877,781	\$3,934,670	
ALL LOSS ADJUSTMENT	03/31/15	\$3,328,255	\$4,295,481	
EXPENSES (A)	03/31/16	\$3,317,187	\$3,512,481	
	03/31/17	\$3,461,521	\$4,422,595	
	03/31/18	\$4,241,339	\$4,893,099	
(3) SELECTED ANNUAL LOSS TREND (SEE TREND EXHIBIT IN SECTION C)		3.8%	4.7%	4.3%
(4) TRENDED LOSSES AND	03/31/14	\$5,033,360	\$5,425,910	\$10,459,270
ALL LOSS ADJUSTMENT	03/31/15	\$4,163,647	\$5,657,148	\$9,820,795
EXPENSES (B)	03/31/16	\$3,997,210	\$4,418,701	\$8,415,911
	03/31/17	\$4,018,826	\$5,315,959	\$9,334,785
	03/31/18	\$4,741,817	\$5,617,278	\$10,359,095

(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.
03/31/14	1.006	1.000
03/31/15	1.023	1.001
03/31/16	1.080	1.003
03/31/17	1.202	1.011
03/31/18	1.513	1.064

(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 10/01/19
WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING.

YEAR ENDING	AVERAGE DATE OF ACCIDENT	PROJECTION PERIOD
03/31/14	10/1/13	7.000
03/31/15	10/1/14	6.000
03/31/16	10/1/15	5.000
03/31/17	10/1/16	4.000
03/31/18	10/1/17	3.000

INSURANCE SERVICES OFFICE, INC.

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

COVERAGE O.T.C	ACCIDENT YEAR ENDING	(1)	(2)	(3)	(4)	(5)
		AGGREGATE LOSS COST AT CURRENT LEVEL (B)	INCURRED LOSSES (C)	EXPERIENCE RATIO (2) / (1)	ACCIDENT YEAR WEIGHTS	NUMBER OF PAID CLAIMS
	03/31/14	\$1,231,623	\$1,069,029	0.868	10%	578
	03/31/15	\$1,228,330	\$1,387,466	1.130	15%	499
	03/31/16	\$1,255,590	\$1,200,953	0.956	20%	424
	03/31/17	\$1,274,097	\$1,459,365	1.145	25%	479
	03/31/18	\$1,284,887	\$1,143,001	0.890	30%	535
COLL.	03/31/16	\$5,553,284	\$4,524,873	0.815	20%	640
	03/31/17	\$5,576,813	\$5,908,163	1.059	30%	809
	03/31/18	\$5,656,559	\$5,546,148	0.980	50%	823

	O.T.C.	COLLISION
(6) AVERAGE EXPERIENCE RATIO (SUM OF (3)*(4)).	1.001	0.971
(7) EXPECTED EXPERIENCE RATIO (D).	1.059	1.033
(8) CREDIBILITY (E).	0.45	0.70
(9) CREDIBILITY WEIGHTED EXPERIENCE RATIO: ((6) * (8)) + ((7) * (1.000- (8))).	1.033	0.990
(10) INDICATED PERCENTAGE CHANGE IN ADVISORY LOSS COST LEVEL ((9) - 1.000).	3.3%	-1.0%
(11) FILED CHANGE.	N.C.	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 10/01/19 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.

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

	ACC. YEAR ENDING	O.T.C	COLLISION
(1) PAID LOSSES	03/31/14	\$589,068	----
	03/31/15	\$818,019	----
	03/31/16	\$757,512	\$3,141,317
	03/31/17	\$984,121	\$4,330,033
	03/31/18	\$805,579	\$4,360,519
(2) DEVELOPED LOSSES AND	03/31/14	\$665,647	----
ALL LOSS ADJUSTMENT	03/31/15	\$924,361	----
EXPENSES (A)	03/31/16	\$855,989	\$3,546,139
	03/31/17	\$1,113,169	\$4,858,687
	03/31/18	\$933,062	\$4,789,420
(3) SELECTED ANNUAL LOSS TREND (SEE TREND EXHIBIT IN SECTION C)		7.0%	5.0%
(4) TRENDED LOSSES AND	03/31/14	\$1,069,029	----
ALL LOSS ADJUSTMENT	03/31/15	\$1,387,466	----
EXPENSES (B)	03/31/16	\$1,200,953	\$4,524,873
	03/31/17	\$1,459,365	\$5,908,163
	03/31/18	\$1,143,001	\$5,546,148

(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.
03/31/14	1.000	----
03/31/15	1.000	----
03/31/16	1.000	0.999
03/31/17	1.001	0.993
03/31/18	1.025	0.972

(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 10/01/19 WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING BOTH OTC AND COLLISION.

YEAR ENDING	AVERAGE DATE OF ACCIDENT	PROJECTION PERIOD OTC	PROJECTION PERIOD COLL
03/31/14	10/1/13	7.000	----
03/31/15	10/1/14	6.000	----
03/31/16	10/1/15	5.000	5.000
03/31/17	10/1/16	4.000	4.000
03/31/18	10/1/17	3.000	3.000

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
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	03/31/14	\$1,148,902	----
AT CURRENT LEVEL	03/31/15	\$1,156,620	----
	03/31/16	\$1,194,662	\$5,127,686
	03/31/17	\$1,223,916	\$5,231,532
	03/31/18	\$1,247,463	\$5,392,335
(2) SELECTED ANNUAL OCN			
TREND (SEE TREND		1.0%	1.6%
EXHIBIT IN SECTION C)			
(3) TRENDED AGGREGATE	03/31/14	\$1,231,623	----
LOSS COSTS AT	03/31/15	\$1,228,330	----
CURRENT LEVEL (A)	03/31/16	\$1,255,590	\$5,553,284
	03/31/17	\$1,274,097	\$5,576,813
	03/31/18	\$1,284,887	\$5,656,559

(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
10/01/19 WHICH IS ASSUMED FOR THE PURPOSE OF TRENDED BOTH OTC
AND COLLISION.

YEAR ENDING	AVERAGE DATE OF WRITING	PROJECTION PERIOD OTC	PROJECTION PERIOD COLL
03/31/14	4/1/13	7.000	-----
03/31/15	4/1/14	6.000	-----
03/31/16	4/1/15	5.000	5.000
03/31/17	4/1/16	4.000	4.000
03/31/18	4/1/17	3.000	3.000

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
 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
03/31/14	\$1,622,012	\$1,947,062	1.200	10%	245
03/31/15	\$1,592,068	\$2,276,883	1.430	15%	210
03/31/16	\$1,611,753	\$1,790,648	1.111	20%	202
03/31/17	\$1,647,778	\$1,395,534	0.847	25%	216
03/31/18	\$1,668,099	\$1,396,074	0.837	30%	190
(6)	AVERAGE EXPERIENCE RATIO (SUM OF (3)*(4)).				1.020
(7)	EXPECTED EXPERIENCE RATIO (D).				1.043
(8)	CREDIBILITY (E).				0.30
(9)	CREDIBILITY WEIGHTED EXPERIENCE RATIO: ((6) * (8)) + ((7) * (1.000 - (8))).				1.036
(10)	INDICATED PERCENTAGE CHANGE IN ADVISORY LOSS COST LEVEL ((9) - 1.000).				3.6%
(11)	FILED CHANGE.				3.6%
(A)	PRIVATE PASSENGER TYPE EXPERIENCE IS FOR VEHICLES WRITTEN IN ACCORDANCE WITH RULE 31 OF THE COMMERCIAL LINES MANUAL, DIVISION 1, AUTOMOBILE.				
(B)	THE AGGREGATE LOSS COST AT CURRENT LEVEL IS CALCULATED BY EXTENDING EXPOSURES BY THE CURRENT LOSS COSTS FROM THE LAST REVISION.				
(C)	LOSSES INCLUDE ALL LOSS ADJUSTMENT EXPENSES FOR BODILY INJURY AND PROPERTY DAMAGE LIABILITY. SEE FOLLOWING PAGE.				
(D)	EXPECTED EXPERIENCE RATIO IS EQUAL TO THE COMBINED TREND FACTOR SHOWN ON THE FOLLOWING PAGE, PROJECTED FOR M YEARS. THE PERIOD M IS EQUAL TO THE NUMBER OF YEARS FROM ONE YEAR BEYOND THE IMPLEMENTATION DATE OF THE LAST REVISION TO ONE YEAR BEYOND THE ANTICIPATED IMPLEMENTATION DATE OF 10/01/19 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.

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

COVERAGE O.T.C	ACCIDENT YEAR ENDING	(1)	(2)	(3)	(4)	(5)
		AGGREGATE LOSS COST AT CURRENT LEVEL (B)	INCURRED LOSSES (C)	EXPERIENCE RATIO (2) / (1)	ACCIDENT YEAR WEIGHTS	NUMBER OF PAID CLAIMS
	03/31/14	\$363,314	\$412,380	1.135	10%	252
	03/31/15	\$359,143	\$429,471	1.196	15%	229
	03/31/16	\$357,073	\$346,021	0.969	20%	186
	03/31/17	\$340,069	\$323,898	0.952	25%	184
	03/31/18	\$340,777	\$429,176	1.259	30%	202
COLL.	03/31/14	\$1,242,530	\$1,271,113	1.023	10%	259
	03/31/15	\$1,226,492	\$1,206,994	0.984	15%	254
	03/31/16	\$1,205,339	\$1,244,783	1.033	20%	249
	03/31/17	\$1,150,960	\$1,002,003	0.871	25%	244
	03/31/18	\$1,157,884	\$1,433,516	1.238	30%	270

		O.T.C.	COLLISION
(6)	AVERAGE EXPERIENCE RATIO (SUM OF (3)*(4)).	1.103	1.046
(7)	EXPECTED EXPERIENCE RATIO (D).	1.053	1.039
(8)	CREDIBILITY (E).	0.35	0.60
(9)	CREDIBILITY WEIGHTED EXPERIENCE RATIO: ((6) * (8)) + ((7) * (1.000 - (8))).	1.071	1.043
(10)	INDICATED PERCENTAGE CHANGE IN ADVISORY LOSS COST LEVEL ((9) - 1.000).	7.1%	4.3%
(11)	FILED CHANGE.	7.1%	4.3%

- (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 10/01/19 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.

NEW HAMPSHIRE
PRIVATE PASSENGER TYPES
AUTOMOBILE PHYSICAL DAMAGE INSURANCE
DETERMINATION OF PHYSICAL DAMAGE LOSSES

	ACC. YEAR ENDING	O.T.C	COLLISION
(1) PAID LOSSES	03/31/14	\$234,838	\$826,509
	03/31/15	\$260,496	\$820,381
	03/31/16	\$223,513	\$884,976
	03/31/17	\$222,889	\$747,763
	03/31/18	\$311,292	\$1,170,347
(2) DEVELOPED LOSSES AND	03/31/14	\$265,367	\$933,955
ALL LOSS ADJUSTMENT	03/31/15	\$294,360	\$927,031
EXPENSES (A)	03/31/16	\$252,570	\$999,023
	03/31/17	\$251,865	\$839,902
	03/31/18	\$355,278	\$1,256,368
(3) SELECTED ANNUAL LOSS TREND (SEE TREND EXHIBIT IN SECTION C)		6.5%	4.5%
(4) TRENDED LOSSES AND	03/31/14	\$412,380	\$1,271,113
ALL LOSS ADJUSTMENT	03/31/15	\$429,471	\$1,206,994
EXPENSES (B)	03/31/16	\$346,021	\$1,244,783
	03/31/17	\$323,898	\$1,002,003
	03/31/18	\$429,176	\$1,433,516

(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.
03/31/14	1.000	1.000
03/31/15	1.000	1.000
03/31/16	1.000	0.999
03/31/17	1.000	0.994
03/31/18	1.010	0.950

(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 10/01/19 WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING BOTH OTC AND COLLISION.

YEAR ENDING	AVERAGE DATE OF ACCIDENT	PROJECTION PERIOD OTC	PROJECTION PERIOD COLL
03/31/14	10/1/13	7.000	7.000
03/31/15	10/1/14	6.000	6.000
03/31/16	10/1/15	5.000	5.000
03/31/17	10/1/16	4.000	4.000
03/31/18	10/1/17	3.000	3.000

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
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	03/31/14	\$336,402	\$1,191,304
AT CURRENT LEVEL	03/31/15	\$336,276	\$1,182,731
	03/31/16	\$338,137	\$1,170,232
	03/31/17	\$325,425	\$1,123,984
	03/31/18	\$329,891	\$1,137,411
(2) SELECTED ANNUAL OCN			
TREND (SEE TREND		1.1%	0.6%
EXHIBIT IN SECTION C)			
(3) TRENDED AGGREGATE	03/31/14	\$363,314	\$1,242,530
LOSS COSTS AT	03/31/15	\$359,143	\$1,226,492
CURRENT LEVEL (A)	03/31/16	\$357,073	\$1,205,339
	03/31/17	\$340,069	\$1,150,960
	03/31/18	\$340,777	\$1,157,884
(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			
10/01/19 WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING BOTH OTC			
AND COLLISION.			

YEAR ENDING	AVERAGE DATE OF WRITING	PROJECTION PERIOD OTC	PROJECTION PERIOD COLL
03/31/14	4/1/13	7.000	7.000
03/31/15	4/1/14	6.000	6.000
03/31/16	4/1/15	5.000	5.000
03/31/17	4/1/16	4.000	4.000
03/31/18	4/1/17	3.000	3.000

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
 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	
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	03/31/2018	COST	03/31/2018	RATIO	CRED	RATIO	STATE	COST	COST	COST	COST
								PRES	IND*	REV	CHG**
101	1172	496.40	498.84	1.005	0.15	1.071	0.989	455	470	470	3.3%
102	979	395.41	622.85	1.575	0.15	1.157	1.068	378	421	421	11.4%
116	1487	454.06	446.82	0.984	0.15	1.068	0.986	421	433	433	2.9%
117	1556	397.99	379.11	0.953	0.15	1.064	0.982	367	376	376	2.5%
118	4927	444.84	479.62	1.078	0.30	1.082	0.999	434	453	453	4.4%
121	1723	238.76	293.16	1.228	0.15	1.105	1.020	233	248	248	6.4%
124	818	265.89	230.84	0.868	0.10	1.062	0.981	259	265	265	2.3%
125	691	196.47	202.95	1.033	0.05	1.081	0.998	192	200	200	4.2%
126	257	251.44	182.76	0.727	0.05	1.065	0.983	223	229	229	2.7%
128	5009	163.86	188.68	1.151	0.20	1.097	1.013	164	174	174	6.1%
130	2547	346.18	359.64	1.039	0.20	1.074	0.992	331	343	343	3.6%
131	2361	258.95	313.80	1.212	0.20	1.109	1.024	256	274	274	7.0%
132	862	217.51	247.97	1.140	0.10	1.089	1.006	221	232	232	5.0%
133	9967	212.46	222.25	1.046	0.30	1.072	0.990	229	237	237	3.5%
SW	34356	288.26	312.14	1.083		1.083					

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 4.4 PERCENT.

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

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
 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 E R R I T O R Y	EARNED CAR YRS YR ENDED 03/31/2018	\$100000 UND LOSS COST	EXPER LOSS COST 5 YRS END 03/31/2018	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	299	461.32	612.95	1.329	0.05	1.092	1.010	459	480	480	4.6%
102	292	381.35	329.15	0.863	0.05	1.068	0.988	384	393	393	2.3%
116	333	398.96	351.92	0.882	0.05	1.069	0.989	402	412	412	2.5%
117	249	302.51	241.02	0.797	0.05	1.065	0.985	300	306	306	2.0%
118	955	356.54	426.65	1.197	0.10	1.091	1.009	356	372	372	4.5%
121	344	265.15	135.93	0.513	0.05	1.051	0.972	265	267	267	0.8%
124	173	235.82	396.26	1.680	0.05	1.109	1.026	236	251	251	6.4%
125	106	254.46	149.18	0.586	0.00	1.079	0.998	261	270	270	3.4%
126	45	328.78	7.73	0.024	0.00	1.079	0.998	332	343	343	3.3%
128	550	184.14	262.86	1.428	0.05	1.096	1.014	184	193	193	4.9%
130	744	263.37	230.33	0.875	0.10	1.059	0.980	264	268	268	1.5%
131	412	271.25	392.68	1.448	0.05	1.097	1.015	272	286	286	5.1%
132	145	256.77	170.72	0.665	0.00	1.079	0.998	261	270	270	3.4%
133	1156	216.39	260.74	1.205	0.10	1.092	1.010	216	226	226	4.6%
SW	5803	287.45	310.08	1.079		1.081					

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 3.6 PERCENT.

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

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
 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)
T E R R	EARNED CAR YRS YR ENDED 03/31/2018	UND LOSS COST	EXPER LOSS COST 5 YRS END 03/31/2018	EXPER RATIO	CRED	FORM RATIO	INDEX (6) TO STATE	BASE CLASS LOSS COST PRES	BASE CLASS LOSS COST IND*
101	1080	43.21	58.27	1.349	0.10	1.042	1.039	54	58
102	881	49.87	35.75	0.717	0.05	0.993	0.990	63	64
116	1262	61.49	91.90	1.495	0.10	1.057	1.054	79	86
117	1103	45.80	42.75	0.933	0.05	1.004	1.001	62	64
118	4351	45.18	43.10	0.954	0.15	1.000	0.997	58	60
121	1592	38.62	25.57	0.662	0.10	0.973	0.970	47	47
124	673	37.13	76.31	2.055	0.05	1.060	1.057	45	49
125	450	46.81	39.65	0.847	0.05	1.000	0.997	56	58
126	227	44.83	96.50	2.153	0.00	1.008	1.005	65	67
128	4309	49.34	45.13	0.915	0.15	0.994	0.991	63	65
130	2192	36.81	41.83	1.136	0.10	1.021	1.018	44	46
131	1998	37.15	47.43	1.277	0.10	1.035	1.032	48	51
132	762	58.09	39.77	0.685	0.05	0.992	0.989	70	72
133	6884	49.40	44.66	0.904	0.20	0.987	0.984	63	64
SW	27764	46.28	46.66	1.008		1.003			

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 3.3 PERCENT.

TO BETTER REFLECT THE FAVORABLE EXPERIENCE IN THE LATEST YEAR, WE WILL NOT BE FILING THESE INDICATED LOSS COSTS. THE LOSS COSTS IN COLUMN (8) REMAIN IN EFFECT.

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
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)
T E R R I T O R Y	EARNED CAR YRS YR ENDED 03/31/2018	UND LOSS COST	EXPER LOSS COST 5 YRS END 03/31/2018	EXPER RATIO	CRED	FORM RATIO	INDEX (6) TO STATE	BASE CLASS LOSS COST PRES	BASE CLASS LOSS COST IND*
101	1018	234.72	241.71	1.030	0.15	0.955	1.016	241	242
102	849	229.34	316.19	1.379	0.15	1.008	1.072	232	246
116	1361	279.92	277.73	0.992	0.20	0.952	1.013	296	297
117	1193	221.69	200.61	0.905	0.15	0.936	0.996	252	248
118	4006	239.47	235.98	0.985	0.35	0.957	1.018	245	247
121	1429	201.85	234.28	1.161	0.20	0.986	1.049	187	194
124	504	195.34	164.49	0.842	0.10	0.932	0.991	211	207
125	428	211.08	144.96	0.687	0.10	0.917	0.976	223	215
126	196	200.70	143.93	0.717	0.05	0.931	0.990	231	226
128	4107	189.14	151.78	0.802	0.30	0.900	0.957	208	197
130	2250	197.46	196.99	0.998	0.25	0.956	1.017	198	199
131	1967	196.85	159.82	0.812	0.20	0.916	0.974	220	212
132	726	205.13	181.84	0.886	0.15	0.934	0.994	225	221
133	6724	199.93	183.37	0.917	0.40	0.932	0.991	219	215
SW	26758	211.40	199.23	0.942		0.940			

* KEYED TO A STATEWIDE LOSS COST CHANGE OF -1.0 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.

NEW HAMPSHIRE
 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	03/31/2018	COST	03/31/2018	RATIO	CRED	RATIO	STATE	COST	COST	COST	COST
								PRES	IND*	REV	CHG**
101	268	82.09	92.45	1.126	0.05	1.129	0.993	67	71	71	6.0%
102	258	78.40	43.41	0.554	0.05	1.100	0.967	63	65	65	3.2%
116	291	82.12	52.60	0.641	0.05	1.105	0.972	68	71	71	4.4%
117	214	83.76	85.23	1.018	0.05	1.123	0.988	73	77	77	5.5%
118	853	62.93	71.49	1.136	0.10	1.130	0.994	51	54	54	5.9%
121	296	52.03	62.93	1.209	0.05	1.133	0.996	43	46	46	7.0%
124	164	60.12	48.94	0.814	0.05	1.113	0.979	50	52	52	4.0%
125	75	61.02	56.81	0.931	0.00	1.129	0.993	47	50	50	6.4%
126	28	45.01	9.31	0.207	0.00	1.129	0.993	47	50	50	6.4%
128	488	64.10	111.05	1.732	0.10	1.189	1.046	57	64	64	12.3%
130	699	64.24	76.52	1.191	0.10	1.135	0.998	50	53	53	6.0%
131	392	59.90	65.77	1.098	0.10	1.126	0.990	51	54	54	5.9%
132	146	57.54	29.17	0.507	0.00	1.129	0.993	45	48	48	6.7%
133	967	66.07	88.33	1.337	0.15	1.160	1.020	56	61	61	8.9%
SW	5139	66.31	74.88	1.129		1.137					

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 7.1 PERCENT.

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

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
 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)	(10)	(11)
T E R R	EARNED CAR YRS YR ENDED 03/31/2018	UND LOSS COST	EXPER LOSS COST 5 YRS END 03/31/2018	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	252	283.17	325.45	1.149	0.15	1.057	1.012	311	328	328	5.5%
102	235	265.73	238.32	0.897	0.15	1.019	0.976	286	291	291	1.7%
116	288	280.42	369.90	1.319	0.15	1.083	1.037	313	339	339	8.3%
117	211	269.39	156.27	0.580	0.10	0.995	0.953	325	323	323	-0.6%
118	822	269.42	306.11	1.136	0.25	1.065	1.020	302	321	321	6.3%
121	298	222.91	125.44	0.563	0.10	0.993	0.951	262	260	260	-0.8%
124	137	195.80	179.43	0.916	0.05	1.035	0.991	229	237	237	3.5%
125	73	203.59	411.63	2.022	0.05	1.090	1.044	230	250	250	8.7%
126	25	283.37	76.99	0.272	0.00	1.041	0.997	387	402	402	3.9%
128	473	198.36	230.29	1.161	0.15	1.059	1.014	248	262	262	5.6%
130	678	213.25	239.66	1.124	0.20	1.058	1.013	233	246	246	5.6%
131	383	201.21	237.94	1.183	0.15	1.062	1.017	236	250	250	5.9%
132	135	212.97	237.48	1.115	0.05	1.045	1.001	234	244	244	4.3%
133	917	224.21	204.94	0.914	0.20	1.016	0.973	266	270	270	1.5%
SW	4927	235.01	244.70	1.041		1.044					

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 4.3 PERCENT.

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

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>					3 YR.	5 YR.
		(000's)						
	<u>ITEM</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>AVG</u>	<u>AVG</u>
(1)	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>					3 YR.	5 YR.
		(000's)						
	<u>ITEM</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>AVG</u>	<u>AVG</u>
(1)	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.
ITEM	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>AVG</u>	<u>AVG</u>	
(1) 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

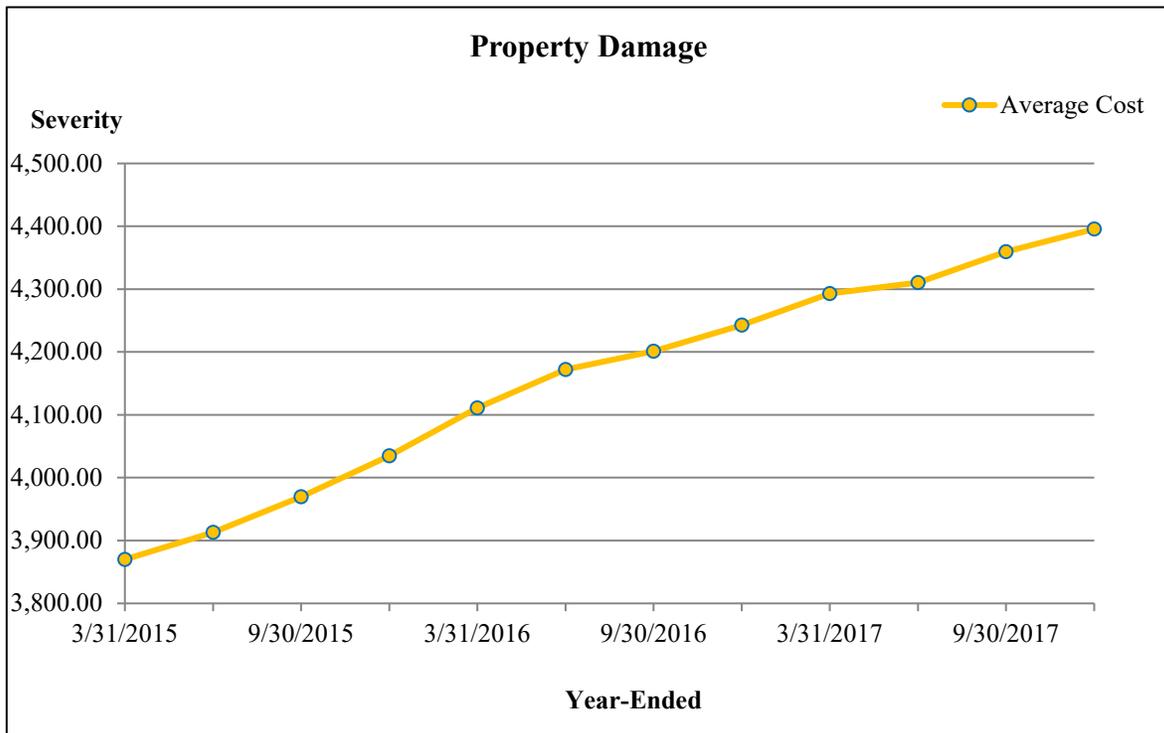
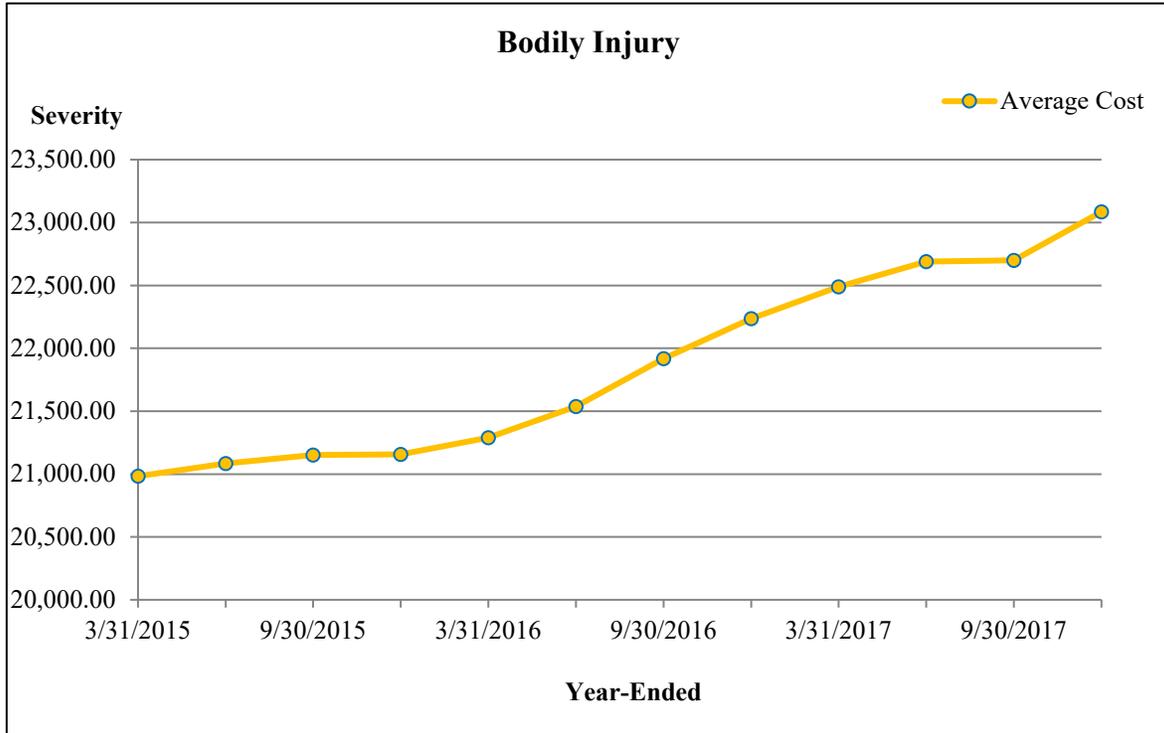
YEAR ENDED	NEW HAMPSHIRE				MULTISTATE*			
	BODILY INJURY (\$100000 LIMITS)		PROPERTY DAMAGE (\$100000 LIMITS)		BODILY INJURY (\$100000 LIMITS)		PROPERTY DAMAGE (\$100000 LIMITS)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	ACTUAL	EXPONENTIAL FIT	ACTUAL	EXPONENTIAL FIT	ACTUAL	EXPONENTIAL FIT	ACTUAL	EXPONENTIAL FIT
3/31/2015	16651.45	16293.48	3418.86	3611.45	20982.98	20758.42	3869.85	3892.57
6/30/2015	16805.82	16849.12	3482.86	3648.93	21083.55	20952.41	3913.02	3938.60
9/30/2015	17786.04	17423.71	3720.06	3686.81	21151.16	21148.21	3969.44	3985.17
12/31/2015	17339.61	18017.90	3874.34	3725.07	21157.58	21345.84	4034.82	4032.29
3/31/2016	18812.96	18632.35	3922.63	3763.74	21288.08	21545.32	4110.84	4079.97
6/30/2016	18484.65	19267.75	3984.83	3802.80	21536.65	21746.66	4172.07	4128.22
9/30/2016	19125.95	19924.82	3918.21	3842.27	21916.91	21949.88	4201.21	4177.03
12/31/2016	21032.30	20604.30	3934.17	3882.15	22237.05	22155.00	4242.98	4226.43
3/31/2017	21944.39	21306.95	3939.67	3922.44	22488.61	22362.04	4292.85	4276.40
6/30/2017	22943.13	22033.56	3905.60	3963.15	22690.73	22571.02	4310.18	4326.97
9/30/2017	23782.87	22784.95	3880.25	4004.29	22699.79	22781.94	4359.46	4378.14
12/31/2017	22146.39	23561.96	3941.38	4045.85	23085.19	22994.84	4395.65	4429.91

		BODILY INJURY	PROPERTY DAMAGE
(9)	AVERAGE ANNUAL PERCENT CHANGE IN PAID CLAIM COST (12TH POINT / 8TH POINT)		
	(A) NEW HAMPSHIRE	14.4%	4.2%
	(B) MULTISTATE	3.8%	4.8%
(10)	CREDIBILITY	0.00	0.15
(11)	WEIGHTED AVERAGE ANNUAL PERCENT CHANGE IN PAID CLAIM COSTS { (10) * (9A) } + { (1.0 - (10)) * (9B) }	3.8%	4.7%
(12)	AVERAGE ANNUAL PERCENT CHANGE IN CLAIM FREQUENCY	0.0%	0.0%
(13)	AVERAGE ANNUAL PERCENT CHANGE IN LIABILITY LOSS RATIO (11) * (12)	3.8%	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>
12/31/2011	0.7566		2.8239	
3/31/2012	0.7569		2.7273	
6/30/2012	0.7581		2.7208	
9/30/2012	0.7489		2.6835	
12/31/2012	0.7522	-0.6% &	2.6652	-5.6% &
3/31/2013	0.7498		2.7000	
6/30/2013	0.7617		2.7359	
9/30/2013	0.7732	3.2%	2.7756	3.4%
12/31/2013	0.7743		2.7955	
3/31/2014	0.7883		2.8776	
6/30/2014	0.7791		2.8728	
9/30/2014	0.7733	0.0%	2.8730	3.5%
12/31/2014	0.7760		2.8711	
3/31/2015	0.7647		2.8347	
6/30/2015	0.7663		2.8327	
9/30/2015	0.7727	-0.1%	2.8460	-0.9%
12/31/2015	0.7838		2.8531	
3/31/2016	0.7926		2.8185	
6/30/2016	0.7979		2.8157	
9/30/2016	0.8019	3.8%	2.8134	-1.1%
12/31/2016	0.7964		2.8001	
3/31/2017	0.7959		2.7872	
6/30/2017	0.7980		2.7762	
9/30/2017	0.7936	-1.0%	2.7202	-3.3%

* EXCLUDES MASSACHUSETTS

@ CHANGE BASED ON YEARS ENDING 9/30/XXXX

& CHANGE BASED ON YEAR ENDING 12/31/2012 divided by 12/31/2011

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>
12/31/2011	0.9093		3.2801	
3/31/2012	0.9276		3.2644	
6/30/2012	0.9200		3.2804	
9/30/2012	0.9015		3.2598	
12/31/2012	0.8771	-3.5% &	3.2192	-1.9% &
3/31/2013	0.8634		3.1904	
6/30/2013	0.8584		3.1458	
9/30/2013	0.8722	-3.3%	3.1541	-3.2%
12/31/2013	0.8779		3.1812	
3/31/2014	0.8798		3.2183	
6/30/2014	0.8797		3.2164	
9/30/2014	0.8738	0.2%	3.1875	1.1%
12/31/2014	0.8689		3.1599	
3/31/2015	0.8457		3.1288	
6/30/2015	0.8300		3.0990	
9/30/2015	0.8162	-6.6%	3.1118	-2.4%
12/31/2015	0.8141		3.1202	
3/31/2016	0.8290		3.1054	
6/30/2016	0.8320		3.1162	
9/30/2016	0.8529	4.5%	3.1150	0.1%
12/31/2016	0.8396		3.0864	
3/31/2017	0.8328		3.0297	
6/30/2017	0.8287		2.9899	
9/30/2017	0.8031	-5.8%	2.8859	-7.4%

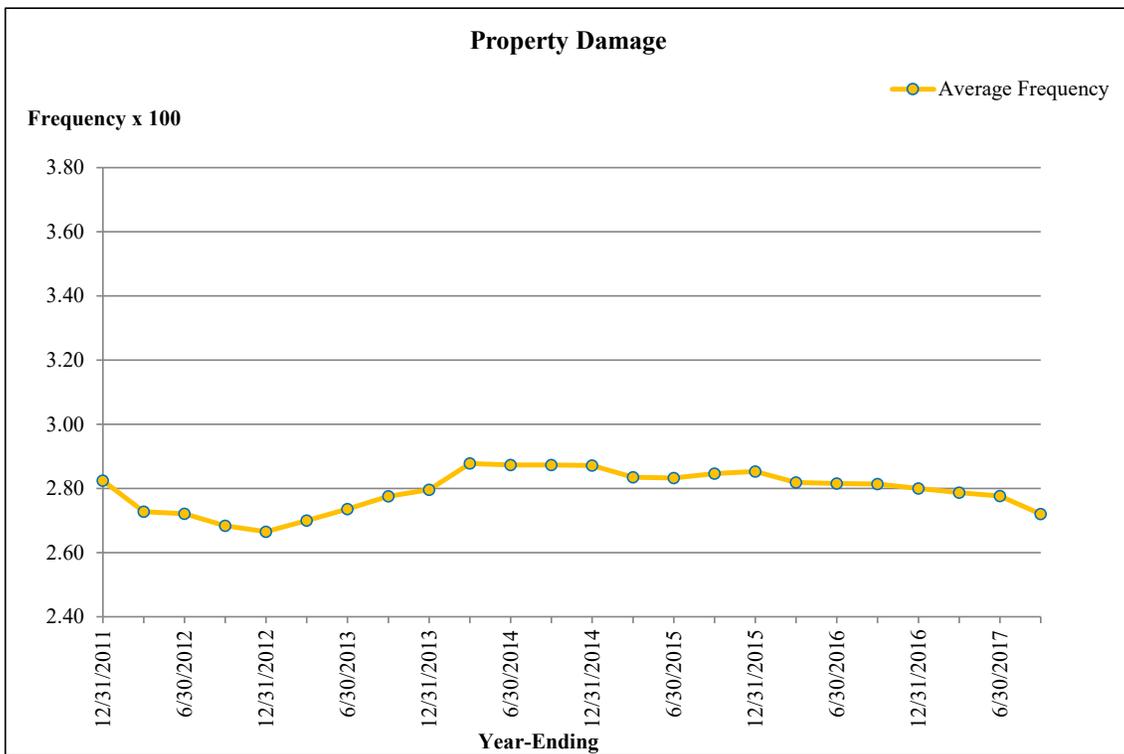
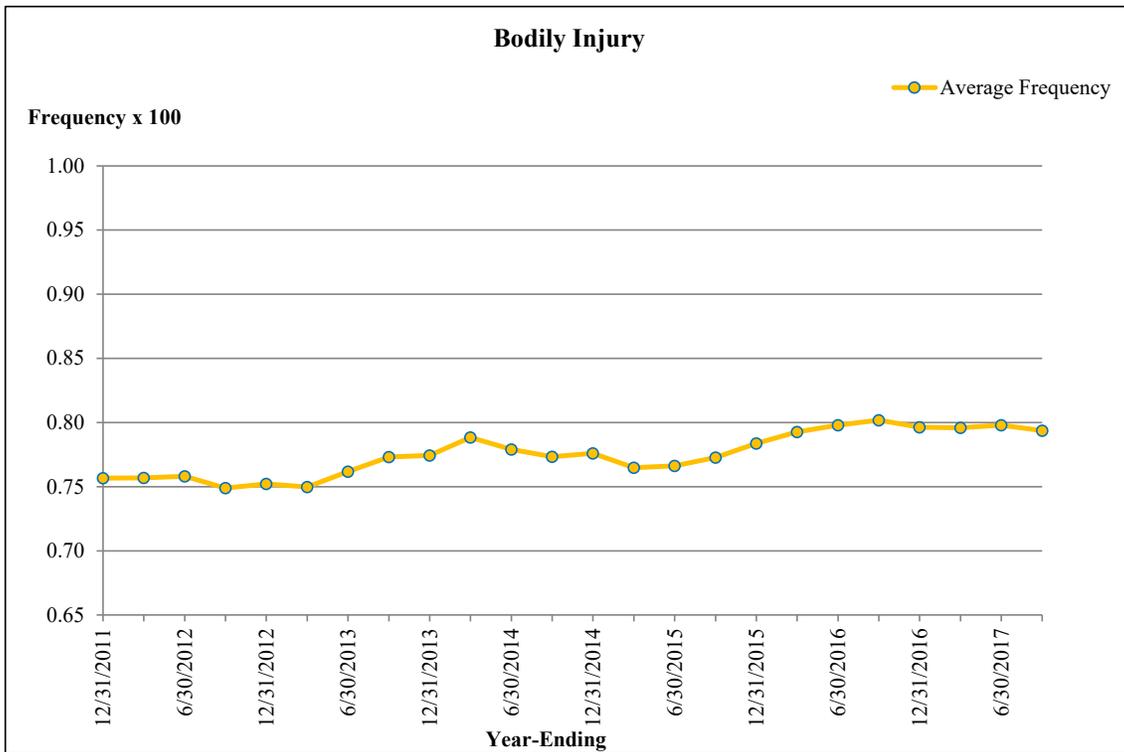
* EXCLUDES MASSACHUSETTS

@ CHANGE BASED ON YEARS ENDING 9/30/XXXX

& CHANGE BASED ON YEAR ENDING 12/31/2012 divided by 12/31/2011

INSURANCE SERVICES OFFICE, INC.

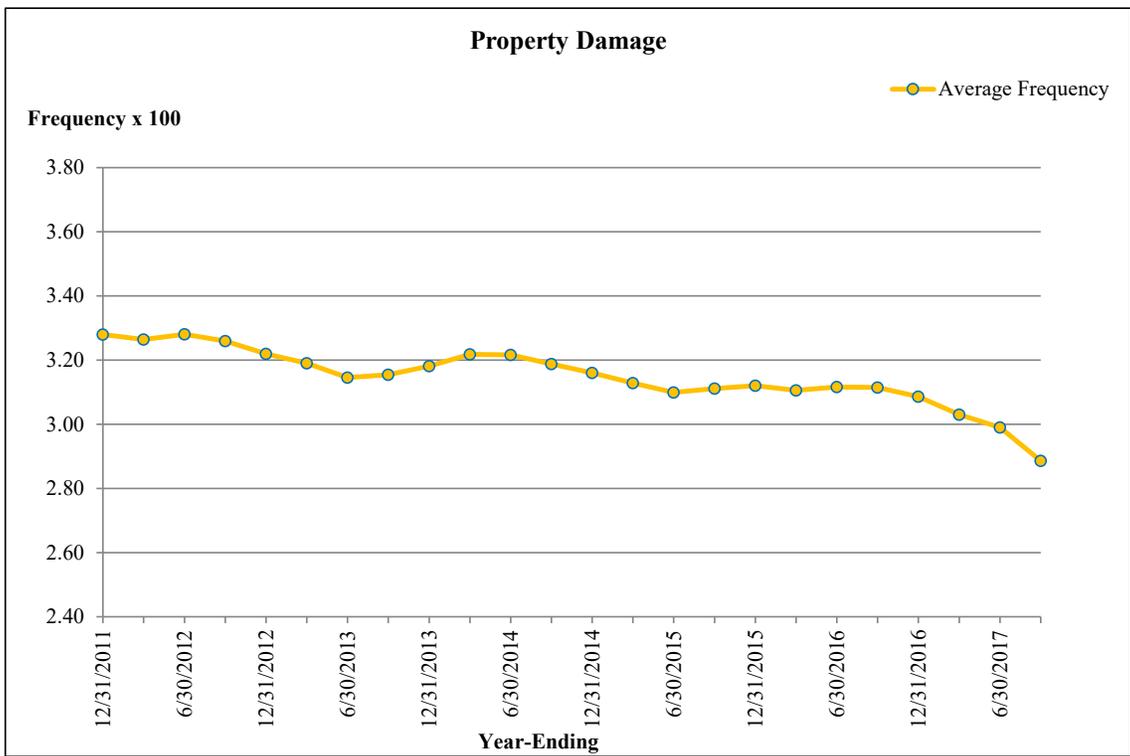
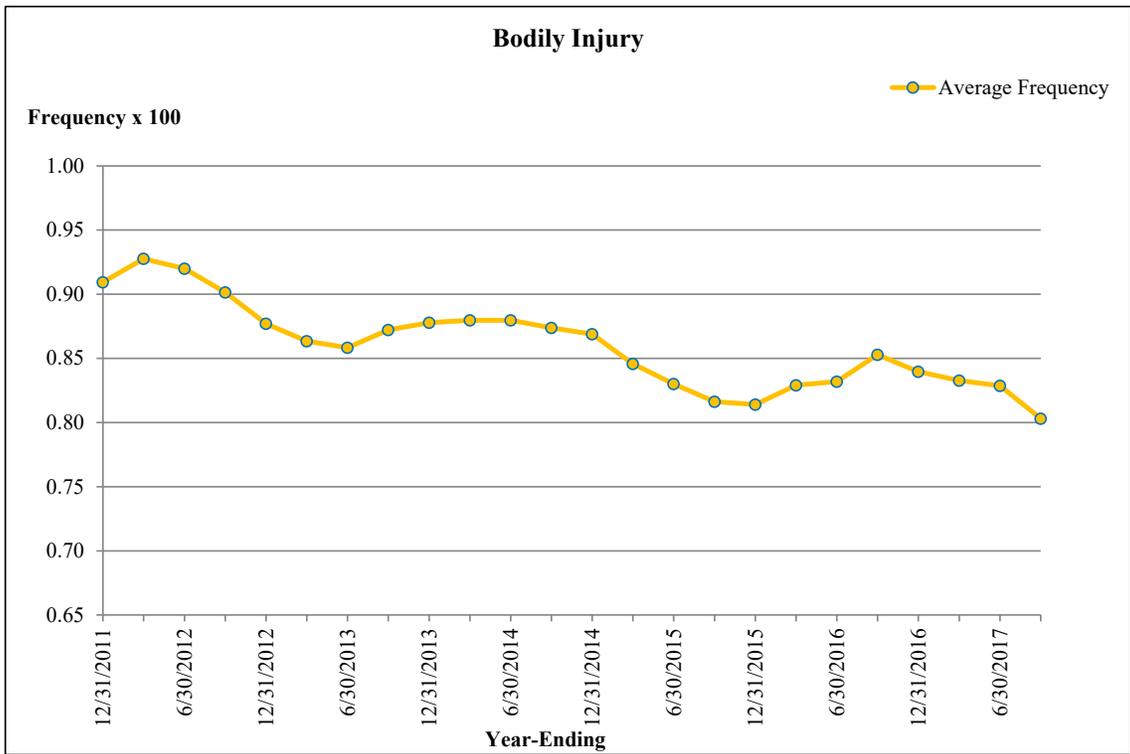
Commercial Automobile Liability
 Incurred Claim Frequency Experience
 Trucks, Tractors, and Trailers
 Multistate*



*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)

Year Ending:	\$250 Deductible		\$500 Deductible		\$1,000 Deductible	
	Actual	Change**	Actual	Change**	Actual	Change**
6/30/2013	2.44		1.44		0.95	
12/31/2013	2.37		1.42		0.93	
6/30/2014	2.44		1.41		0.92	
12/31/2014	2.39	0.8%	1.37	-3.5%	0.90	-3.2%
6/30/2015	2.28		1.35		0.89	
12/31/2015	2.19	-8.4%	1.35	-1.5%	0.91	1.1%
6/30/2016	2.13		1.35		0.92	
12/31/2016	2.15	-1.8%	1.35	0.0%	0.91	0.0%
6/30/2017	2.15		1.35		0.89	
12/31/2017	2.13	-0.9%	1.38	2.2%	0.90	-1.1%

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

Deductible:	Percent of Losses
Full	0.2%
\$50	0.8%
\$100	2.3%
\$200	0.2%
\$250	10.0%
\$500	37.0%
\$1,000	43.0%
\$2,000	3.4%
\$3,000	0.5%
\$5,000	2.4%

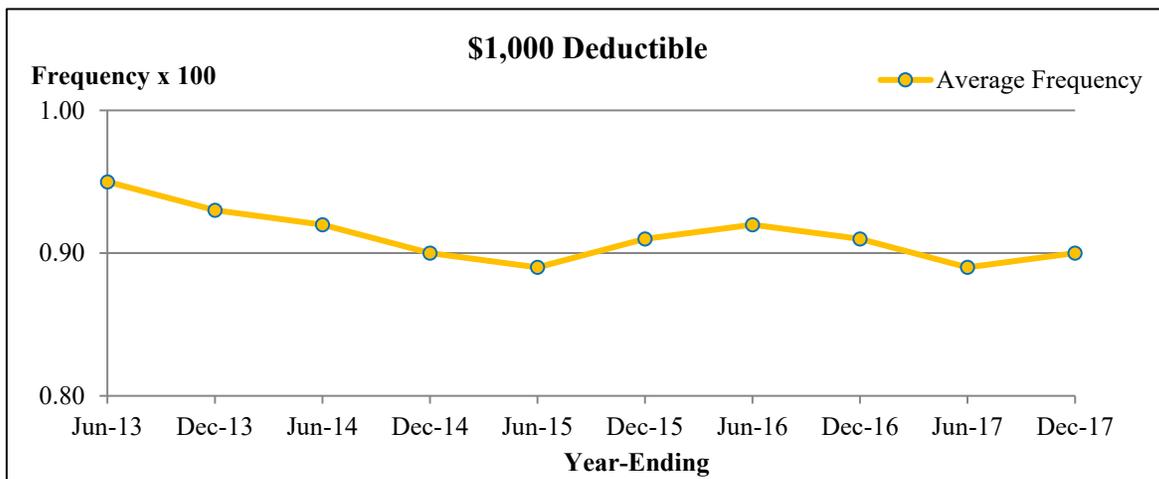
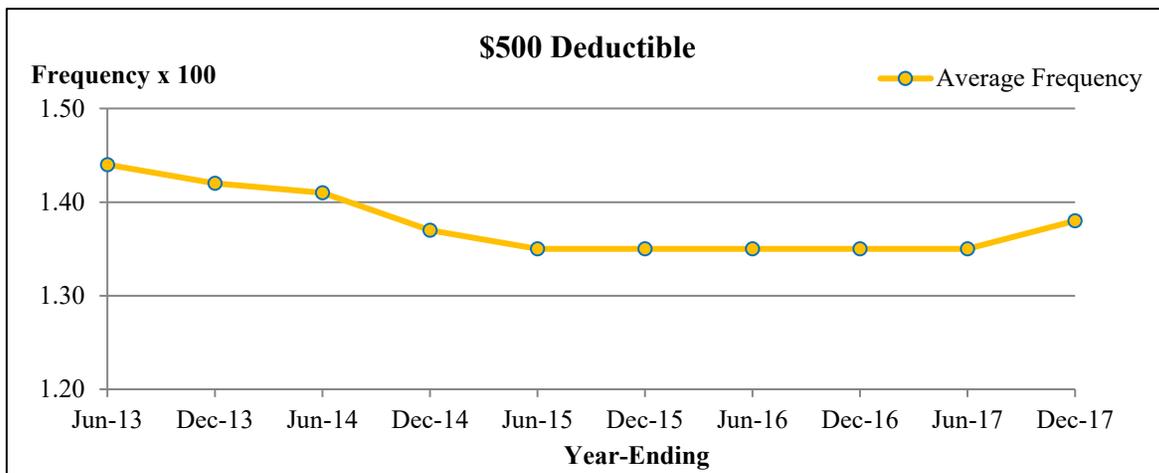
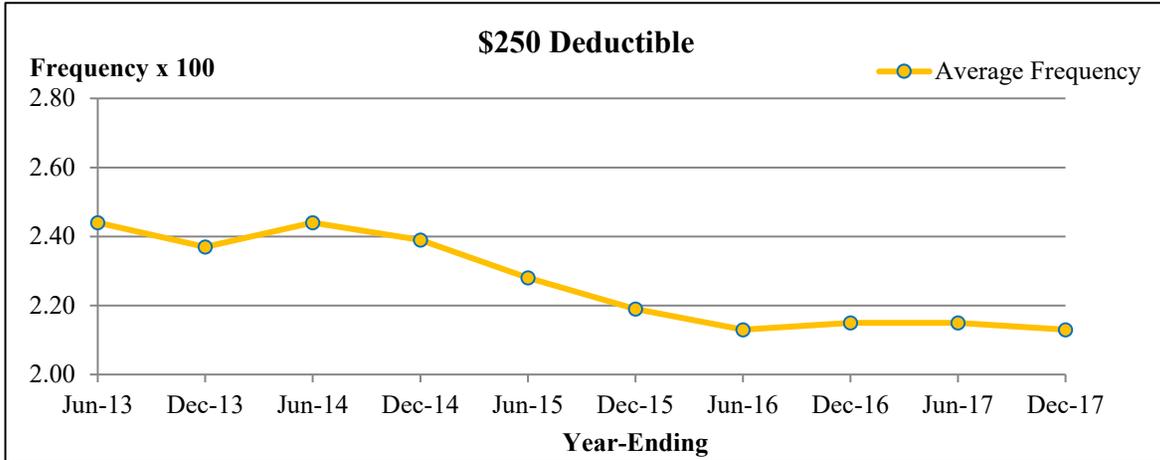
* Multistate data excludes Massachusetts

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

*** Deductibles above \$1,000, totaling 6.3% 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
6/30/2013	2,844.12	4,851.33	7,115.38
12/31/2013	2,905.68	4,839.25	7,148.95
6/30/2014	2,979.30	5,034.75	7,440.11
12/31/2014	3,109.20	5,247.75	7,623.44
6/30/2015	3,226.45	5,392.36	7,698.60
12/31/2015	3,352.74	5,666.25	7,975.68
6/30/2016	3,601.45	5,807.85	8,258.97
12/31/2016	3,688.31	5,852.68	8,647.65
6/30/2017	3,819.42	6,214.98	9,103.87
12/31/2017	4,096.01	6,551.62	9,551.12

Average Annual Change Using Exponential Fits:

10 point fit:	8.5%	7.0%	6.7%
8 point fit:	9.3%	7.3%	7.5%
6 point fit:	9.6%	7.5%	9.1%

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)

Year Ending:	\$500 Deductible		\$1,000 Deductible		\$2,000 Deductible	
	Actual	Change**	Actual	Change**	Actual	Change**
6/30/2013	2.24		1.90		1.50	
12/31/2013	2.24		1.91		1.52	
6/30/2014	2.30		1.96		1.56	
12/31/2014	2.28	1.8%	1.96	2.6%	1.57	3.3%
6/30/2015	2.25		1.94		1.57	
12/31/2015	2.27	-0.4%	1.97	0.5%	1.60	1.9%
6/30/2016	2.26		1.97		1.61	
12/31/2016	2.35	3.5%	2.05	4.1%	1.67	4.4%
6/30/2017	2.37		2.04		1.67	
12/31/2017	2.30	-2.1%	1.98	-3.4%	1.65	-1.2%

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

Deductible:	Percent of Losses
\$100	0.1%
\$200	0.0%
\$250	1.9%
\$500	35.8%
\$1,000	51.6%
\$2,000	5.7%
\$3,000	1.6%
\$5,000	3.2%

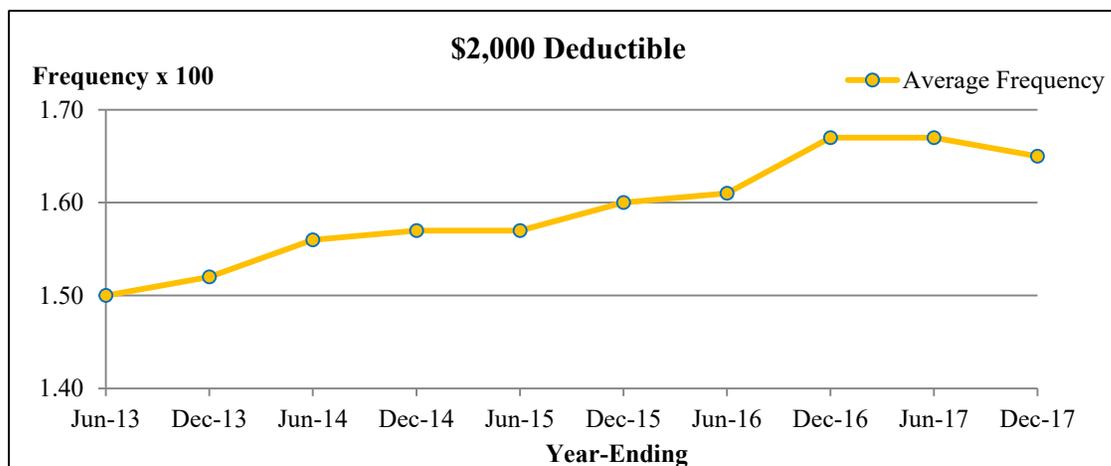
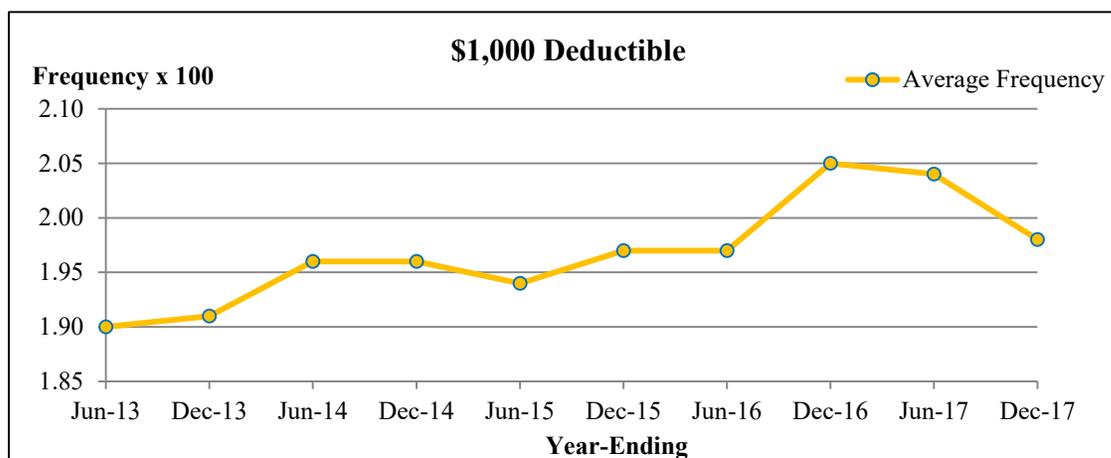
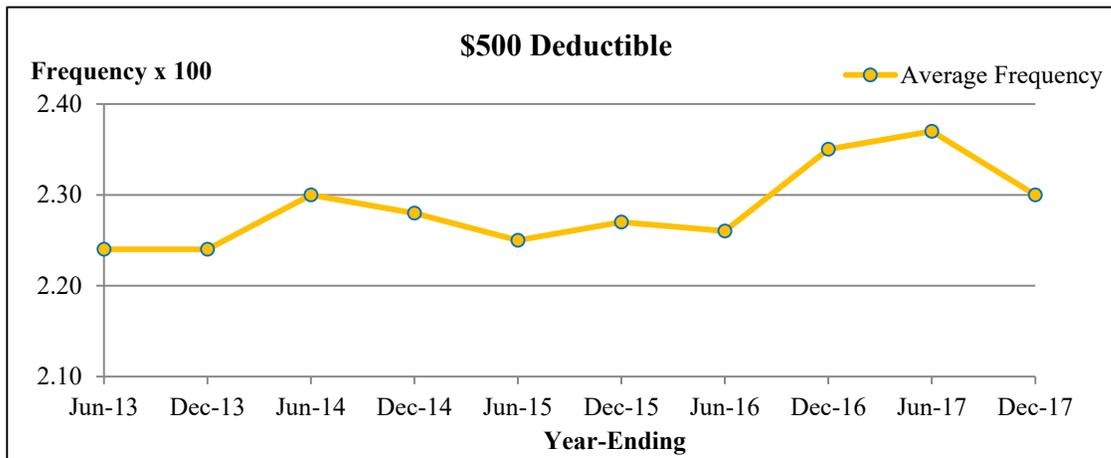
* Multistate data excludes Massachusetts

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

*** Deductibles above \$2,000, totaling 4.8% 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
6/30/2013	7,665.05	9,351.17	10,145.59
12/31/2013	7,856.13	9,502.58	10,293.38
6/30/2014	8,039.53	9,820.66	10,730.61
12/31/2014	8,346.04	10,180.04	11,160.55
6/30/2015	8,627.97	10,370.96	11,274.52
12/31/2015	8,756.51	10,524.74	11,426.52
6/30/2016	9,123.83	10,833.89	11,764.37
12/31/2016	9,325.85	11,094.48	12,039.59
6/30/2017	9,380.35	11,186.20	12,090.00
12/31/2017	9,888.11	11,621.24	12,501.51

Average Annual Change Using Exponential Fits:

10 point fit:	5.7%	4.9%	4.7%
8 point fit:	5.6%	4.6%	4.1%
6 point fit:	5.3%	4.5%	4.1%

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

* Multistate data excludes Massachusetts

INSURANCE SERVICES OFFICE, INC.

Multistate*
Private Passenger Types Physical Damage
Other Than Collision

Frequency (expressed as claims per 100 exposures)

Year Ending:	\$250 Deductible		\$500 Deductible		\$1,000 Deductible	
	Actual	Change**	Actual	Change**	Actual	Change**
6/30/2013	5.05		3.10		1.89	
12/31/2013	5.10		3.10		1.87	
6/30/2014	5.39		3.23		1.92	
12/31/2014	5.26	3.1%	3.20	3.2%	1.92	2.7%
6/30/2015	4.90		3.08		1.90	
12/31/2015	4.95	-5.9%	3.15	-1.6%	1.95	1.6%
6/30/2016	4.97		3.20		1.98	
12/31/2016	4.96	0.2%	3.10	-1.6%	1.92	-1.5%
6/30/2017	4.81		3.01		1.88	
12/31/2017	4.69	-5.4%	2.99	-3.5%	1.90	-1.0%

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

Deductible:	Percent of Losses
Full	0.5%
\$50	0.4%
\$100	3.3%
\$200	0.4%
\$250	12.3%
\$500	43.3%
\$1,000	37.3%
\$2,000	2.0%
\$3,000	0.2%
\$5,000	0.3%

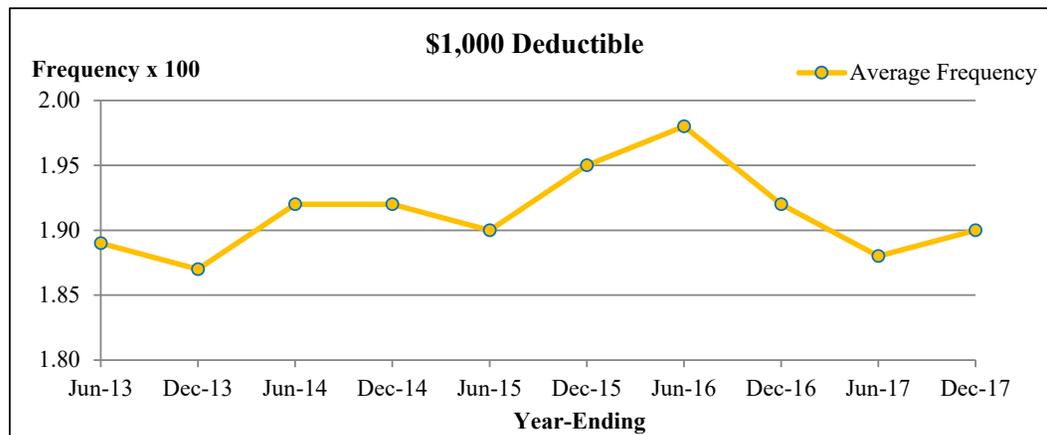
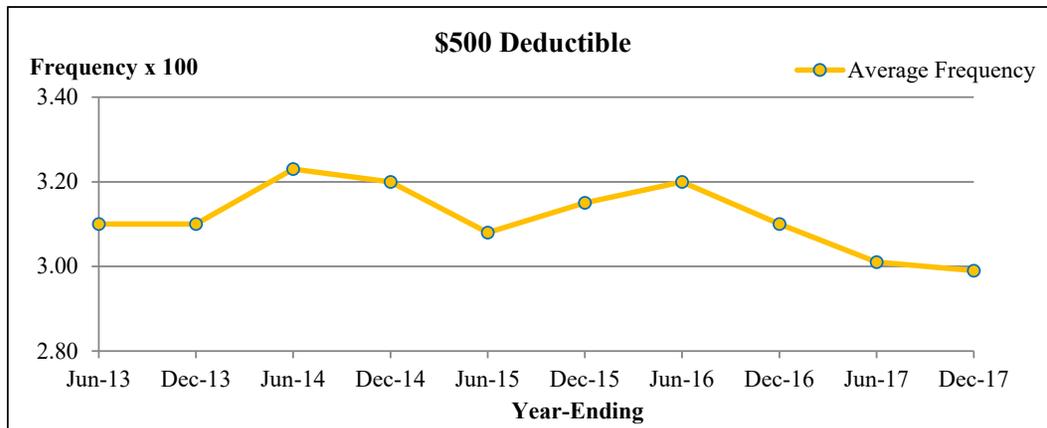
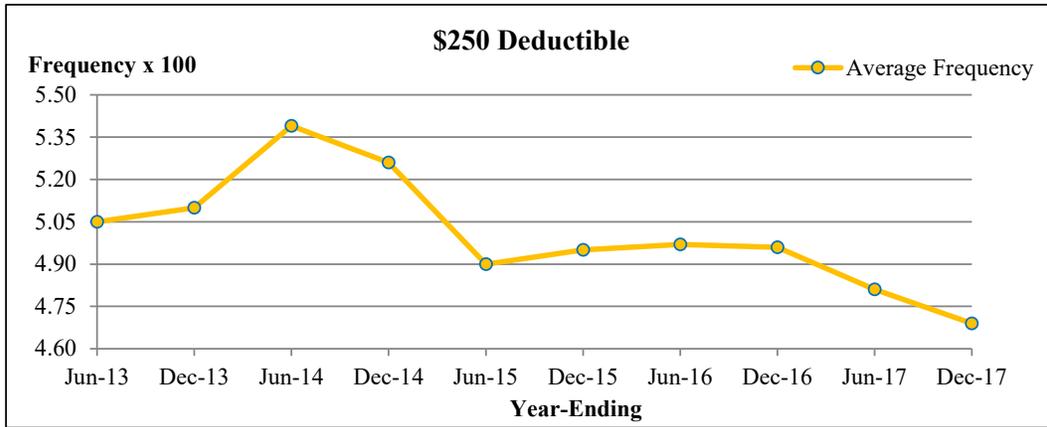
* Multistate data excludes Massachusetts

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

*** Deductibles above \$1,000, totaling 2.5% 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
6/30/2013	1,407.86	1,902.22	2,552.17
12/31/2013	1,390.80	1,914.04	2,592.50
6/30/2014	1,365.35	1,965.25	2,676.48
12/31/2014	1,474.68	2,056.42	2,807.17
6/30/2015	1,596.66	2,123.44	2,847.42
12/31/2015	1,694.77	2,244.03	2,934.74
6/30/2016	1,773.75	2,347.14	3,048.42
12/31/2016	1,784.50	2,354.08	3,060.45
6/30/2017	1,830.08	2,399.63	3,111.16
12/31/2017	1,936.01	2,575.17	3,401.89

Average Annual Change Using Exponential Fits:

10 point fit:	8.5%	7.1%	6.0%
8 point fit:	9.7%	7.5%	6.0%
6 point fit:	7.1%	6.9%	6.3%

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)

Year Ending:	\$500 Deductible		\$1,000 Deductible		\$2,000 Deductible	
	Actual	Change**	Actual	Change**	Actual	Change**
6/30/2013	5.09		4.16		2.98	
12/31/2013	5.09		4.18		2.99	
6/30/2014	5.25		4.34		3.13	
12/31/2014	5.28	3.7%	4.41	5.5%	3.21	7.4%
6/30/2015	5.25		4.36		3.20	
12/31/2015	5.26	-0.4%	4.41	0.0%	3.25	1.2%
6/30/2016	5.15		4.36		3.23	
12/31/2016	5.21	-1.0%	4.42	0.2%	3.30	1.5%
6/30/2017	5.21		4.41		3.32	
12/31/2017	5.16	-1.0%	4.35	-1.6%	3.33	0.9%

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

Deductible:	Percent of Losses
\$100	0.4%
\$200	0.2%
\$250	2.4%
\$500	46.1%
\$1,000	48.7%
\$2,000	1.4%
\$3,000	0.3%
\$5,000	0.4%

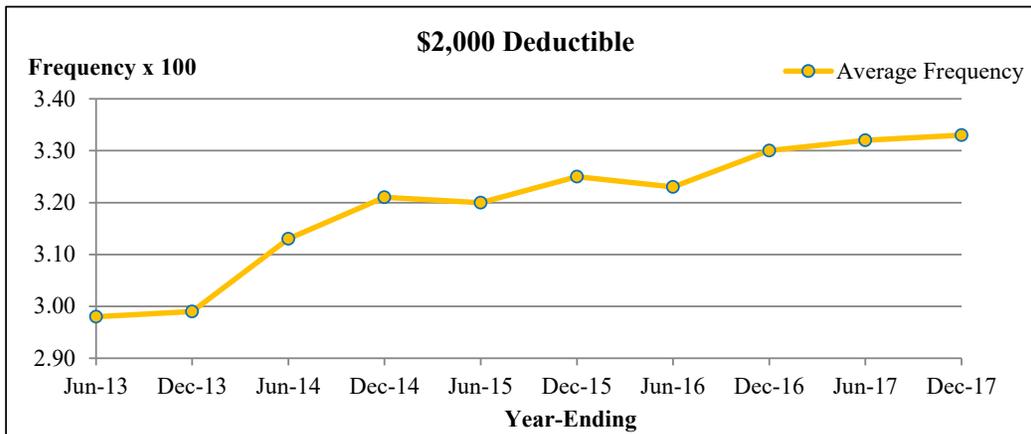
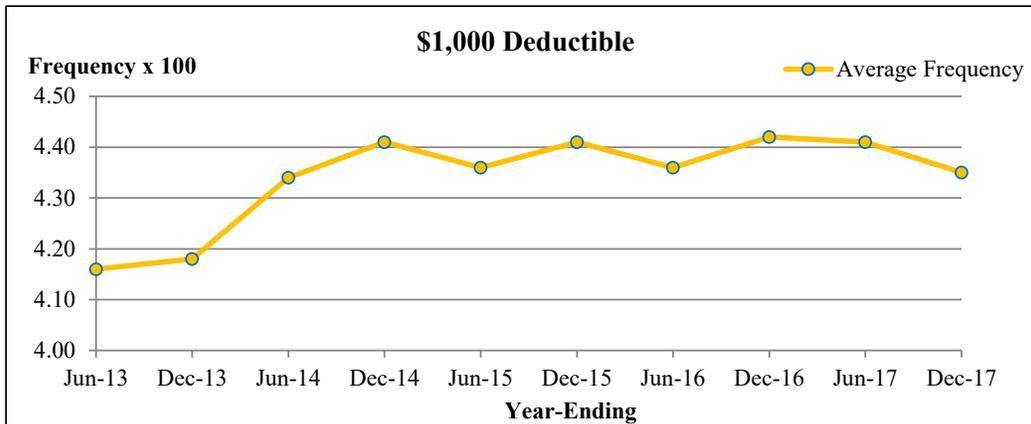
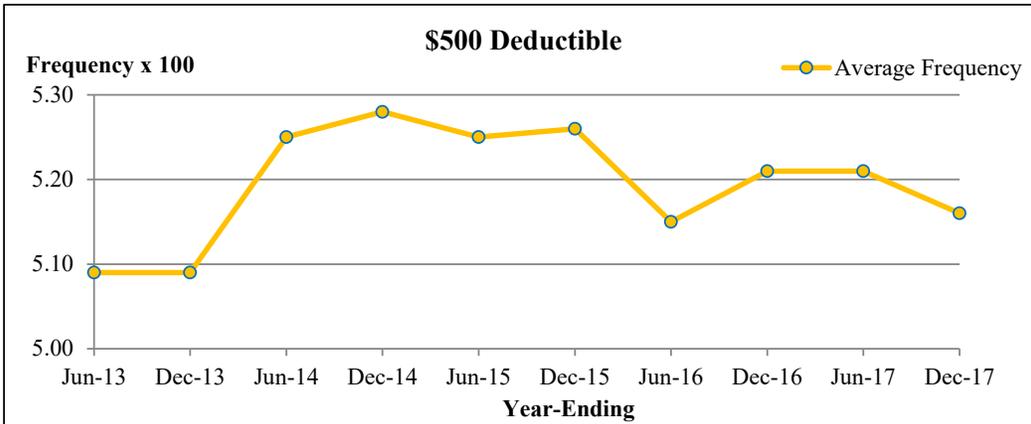
* Multistate data excludes Massachusetts

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

*** Deductibles above \$2,000, totaling 0.7% 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
6/30/2013	4,986.00	5,440.45	6,008.58
12/31/2013	5,038.04	5,483.74	6,065.42
6/30/2014	5,157.20	5,584.49	6,149.04
12/31/2014	5,375.95	5,738.26	6,322.13
6/30/2015	5,510.30	5,898.47	6,467.83
12/31/2015	5,619.47	6,052.85	6,600.82
6/30/2016	5,767.11	6,169.07	6,740.12
12/31/2016	5,949.38	6,247.28	6,818.68
6/30/2017	5,978.49	6,290.73	6,810.32
12/31/2017	6,229.69	6,606.29	7,072.99

Average Annual Change Using Exponential Fits:

10 point fit:	5.2%	4.3%	3.7%
8 point fit:	5.2%	4.4%	3.7%
6 point fit:	4.9%	4.1%	3.2%

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
TRUCKS, TRACTORS & TRAILERS
PHYSICAL DAMAGE
OCN TREND CALCULATION

AVERAGE OCN RELATIVITIES

YEAR ENDING	OTHER THAN COLLISION	COLLISION
6/30/2013	1.224	1.359
12/31/2013	1.230	1.368
6/30/2014	1.237	1.377
12/31/2014	1.242	1.385
6/30/2015	1.248	1.394
12/31/2015	1.254	1.402
6/30/2016	1.260	1.413
12/31/2016	1.266	1.424
6/30/2017	1.272	1.435
12/31/2017	1.278	1.447

EXPONENTIAL TREND (AVERAGE ANNUAL CHANGE)

9 POINTS	0.9%	1.4%
7 POINTS	1.0%	1.5%
5 POINTS	1.0%	1.6%
Selected Other Than Collision Physical Damage Annual OCN Trend:		1.0%
Selected Collision Physical Damage Annual OCN Trend:		1.6%

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
6/30/2013	1.304	1.150
12/31/2013	1.309	1.153
6/30/2014	1.314	1.155
12/31/2014	1.320	1.158
6/30/2015	1.325	1.161
12/31/2015	1.332	1.165
6/30/2016	1.340	1.170
12/31/2016	1.347	1.173
6/30/2017	1.355	1.177
12/31/2017	1.361	1.180

EXPONENTIAL TREND (AVERAGE ANNUAL CHANGE)

9 POINTS	1.0%	0.6%
7 POINTS	1.1%	0.7%
5 POINTS	1.1%	0.6%
Selected Other Than Collision Physical Damage Annual OCN Trend:		1.1%
Selected Collision Physical Damage Annual OCN Trend:		0.6%

Data excludes the following state: Massachusetts

INSURANCE SERVICES OFFICE, INC.

NEW HAMPSHIRE
Automobile Liability Insurance - Trucks, Tractors and Trailers
Loss Development
Incurred Losses and Expenses
Bodily Injury

Accident Year Ending	\$100,000 Basic Limit			Loss Development Factors		
	15 Months	27 Months	39 Months	15 to 27 Months	27 to 39 Months	
12/31/2006	2,562,135	3,021,867	3,190,359	1.179	1.056	
12/31/2007	3,133,127	3,437,623	3,832,515	1.097	1.115	
12/31/2008	2,723,381	3,220,018	3,470,061	1.182	1.078	
12/31/2009	1,849,699	1,990,572	2,323,633	1.076	1.167	
12/31/2010	1,452,217	1,978,658	2,347,628	1.363	1.186	
12/31/2011	2,175,550	2,411,189	2,513,456	1.108	1.042	
12/31/2012	900,018	1,230,417	1,400,373	1.367	1.138	
12/31/2013	2,177,691	3,172,081	3,517,108	1.457	1.109	
12/31/2014	1,726,274	2,035,052	2,701,985	1.179	1.328	
12/31/2015	2,296,293	2,755,373	2,955,852	1.200	1.073	
12/31/2016	1,907,500	2,325,042		1.219		
12/31/2017	2,027,425					
(1) Average Factor (Best 3 of 5) :				(A) State	1.262	1.107
				(B) Multistate	1.251	1.118
(2) Credibility					0.700	0.420
(3) Credibility Weighted Factors					1.259	1.113

Property Damage

Accident Year Ending	\$100,000 Basic Limit			Loss Development Factors		
	15 Months	27 Months	39 Months	15 to 27 Months	27 to 39 Months	
12/31/2006	3,226,624	3,331,651	3,344,169	1.033	1.004	
12/31/2007	3,695,647	3,821,216	3,753,668	1.034	0.982	
12/31/2008	3,753,019	3,954,971	3,993,343	1.054	1.010	
12/31/2009	3,201,242	3,297,093	3,268,271	1.030	0.991	
12/31/2010	3,169,146	3,332,805	3,355,361	1.052	1.007	
12/31/2011	3,178,146	3,309,829	3,345,337	1.041	1.011	
12/31/2012	2,562,439	2,668,795	2,718,269	1.042	1.019	
12/31/2013	3,306,870	3,458,978	3,472,344	1.046	1.004	
12/31/2014	3,158,352	3,379,745	3,409,727	1.070	1.009	
12/31/2015	3,435,518	3,573,998	3,594,197	1.040	1.006	
12/31/2016	3,144,411	3,372,538		1.073		
12/31/2017	3,735,147					
(1) Average Factor (Best 3 of 5) :				(A) State	1.053	1.009
				(B) Multistate	1.043	1.008
(2) Credibility					0.870	0.000
(3) Credibility Weighted Factors					1.052	1.008

Summary of Factors

	Bodily <u>Injury</u>	Property <u>Damage</u>
39 to Ultimate **	1.080	1.003
27 to Ultimate	1.202	1.011
15 to Ultimate	1.513	1.064

** 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>
12/31/2006	338,716,185	415,360,126	460,071,909	483,338,710	487,290,412
12/31/2007	338,900,551	415,544,173	463,077,637	481,498,373	489,585,922
12/31/2008	309,918,313	383,086,664	423,424,630	440,199,809	445,824,070
12/31/2009	275,729,529	343,149,891	380,288,849	399,761,446	404,042,869
12/31/2010	294,947,505	355,946,897	391,281,845	412,775,887	420,382,271
12/31/2011	309,048,767	374,457,890	418,476,708	433,714,920	441,257,262
12/31/2012	313,582,906	383,616,162	423,722,686	445,981,671	454,852,278
12/31/2013	325,021,431	403,589,478	448,404,834	476,353,019	484,276,814
12/31/2014	353,346,657	436,752,997	499,806,461	530,383,221	
12/31/2015	374,877,496	485,844,115	546,600,741		
12/31/2016	428,504,966	546,853,511			
12/31/2017	448,737,245				

Ratios

Accident Year <u>Ending</u>	Ratios			
	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2006	1.226	1.108	1.051	1.008
12/31/2007	1.226	1.114	1.040	1.017
12/31/2008	1.236	1.105	1.040	1.013
12/31/2009	1.245	1.108	1.051	1.011
12/31/2010	1.207	1.099	1.055	1.018
12/31/2011	1.212	1.118	1.036	1.017
12/31/2012	1.223	1.105	1.053	1.020
12/31/2013	1.242	1.111	1.062	1.017
12/31/2014	1.236	1.144	1.061	
12/31/2015	1.296	1.125		
12/31/2016	1.276			
Average Factor: (Best 3 of 5)	1.251	1.118	1.056	1.017

Summary of Factors

63 to Ult:	(75:63) (75:Ult) =	1.006
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.023
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	1.080
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.208
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.511

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>
12/31/2006	490,058,694	489,802,533	490,384,766	490,757,057	490,632,728
12/31/2007	490,685,281	491,658,068	490,994,241	491,185,361	491,192,689
12/31/2008	448,240,650	448,379,946	448,990,006	448,980,507	449,101,876
12/31/2009	406,009,326	406,103,011	405,941,503	406,009,455	
12/31/2010	422,145,349	422,185,643	422,592,478		
12/31/2011	444,818,996	445,473,929			
12/31/2012	455,825,805				

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>
12/31/2006	1.006	0.999	1.001	1.001	1.000
12/31/2007	1.002	1.002	0.999	1.000	1.000
12/31/2008	1.005	1.000	1.001	1.000	1.000
12/31/2009	1.005	1.000	1.000	1.000	
12/31/2010	1.004	1.000	1.001		
12/31/2011	1.008	1.001			
12/31/2012	1.002				
Average Factor: (Best 3 of 5)	1.005	1.000	1.001	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)	=	1.001
75 to Ult:	(87:75) (99:87) (111:99) (123:111) (123:Ult)	=	1.001

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>
12/31/2006	426,685,903	442,508,886	446,352,170	446,901,301	446,946,208
12/31/2007	445,289,641	463,368,134	467,006,304	467,142,586	467,577,558
12/31/2008	408,253,583	420,588,294	423,441,605	423,974,144	424,615,591
12/31/2009	350,188,776	360,034,935	362,397,748	362,951,296	362,659,837
12/31/2010	365,494,039	378,293,032	380,657,119	381,717,371	381,696,803
12/31/2011	401,475,726	414,910,343	417,945,898	418,894,494	419,566,297
12/31/2012	398,788,654	413,387,116	416,702,156	417,648,901	418,351,369
12/31/2013	421,156,332	437,289,076	441,783,902	442,212,153	442,101,148
12/31/2014	447,664,663	467,955,962	470,969,784	472,182,557	
12/31/2015	481,815,312	504,031,511	508,743,785		
12/31/2016	508,219,343	531,003,018			
12/31/2017	516,293,566				

Ratios

Accident Year <u>Ending</u>	Ratios			
	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2006	1.037	1.009	1.001	1.000
12/31/2007	1.041	1.008	1.000	1.001
12/31/2008	1.030	1.007	1.001	1.002
12/31/2009	1.028	1.007	1.002	0.999
12/31/2010	1.035	1.006	1.003	1.000
12/31/2011	1.033	1.007	1.002	1.002
12/31/2012	1.037	1.008	1.002	1.002
12/31/2013	1.038	1.010	1.001	1.000
12/31/2014	1.045	1.006	1.003	
12/31/2015	1.046	1.009		
12/31/2016	1.045			
Average Factor: (Best 3 of 5)	1.043	1.008	1.002	1.001

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) =	1.003
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.011
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.055

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>
12/31/2006	447,036,334	446,902,077	446,872,092	446,880,176
12/31/2007	468,131,651	467,920,604	467,934,653	467,945,287
12/31/2008	424,525,358	424,530,085	424,480,801	424,439,981
12/31/2009	362,717,859	362,756,062	362,876,892	362,967,835
12/31/2010	382,004,219	382,140,727	382,104,416	
12/31/2011	419,760,436	419,750,841		
12/31/2012	418,629,721			

Ratios

Accident Year <u>Ending</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>
12/31/2006	1.000	1.000	1.000	1.000
12/31/2007	1.001	1.000	1.000	1.000
12/31/2008	1.000	1.000	1.000	1.000
12/31/2009	1.000	1.000	1.000	1.000
12/31/2010	1.001	1.000	1.000	
12/31/2011	1.000	1.000		
12/31/2012	1.001			
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.

NEW HAMPSHIRE
Automobile Liability Insurance - Private Passenger Types
Loss Development
Incurred Losses and Expenses
Bodily Injury

Accident Year Ending	\$100,000 Basic Limit			Loss Development Factors		
	15 Months	27 Months	39 Months	15 to 27 Months	27 to 39 Months	
12/31/2006	824,690	833,772	896,381	1.011	1.075	
12/31/2007	375,904	643,142	724,089	1.711	1.126	
12/31/2008	477,913	484,862	479,223	1.015	0.988	
12/31/2009	535,451	488,810	488,739	0.913	1.000	
12/31/2010	616,652	917,819	1,003,692	1.488	1.094	
12/31/2011	243,935	229,814	244,323	0.942	1.063	
12/31/2012	481,512	545,212	532,997	1.132	0.978	
12/31/2013	627,689	804,034	912,585	1.281	1.135	
12/31/2014	517,125	661,776	725,864	1.280	1.097	
12/31/2015	767,962	783,635	843,461	1.020	1.076	
12/31/2016	454,745	527,835		1.161		
12/31/2017	182,905					
(1) Average Factor (Best 3 of 5) :						
				(A) State	1.191	1.079
				(B) Multistate	1.233	1.103
(2) Credibility						
					0.540	0.360
(3) Credibility Weighted Factors						
					1.210	1.094

Property Damage

Accident Year Ending	\$100,000 Basic Limit			Loss Development Factors		
	15 Months	27 Months	39 Months	15 to 27 Months	27 to 39 Months	
12/31/2006	638,233	648,572	661,204	1.016	1.019	
12/31/2007	628,857	658,537	650,266	1.047	0.987	
12/31/2008	672,039	715,744	717,208	1.065	1.002	
12/31/2009	600,257	642,102	644,838	1.070	1.004	
12/31/2010	480,611	482,564	480,103	1.004	0.995	
12/31/2011	466,123	489,305	487,555	1.050	0.996	
12/31/2012	409,806	429,941	431,768	1.049	1.004	
12/31/2013	522,132	556,307	557,211	1.065	1.002	
12/31/2014	586,155	613,821	619,750	1.047	1.010	
12/31/2015	597,156	583,964	590,155	0.978	1.011	
12/31/2016	663,281	668,999		1.009		
12/31/2017	552,207					
(1) Average Factor (Best 3 of 5) :						
				(A) State	1.035	1.005
				(B) Multistate	1.047	1.008
(2) Credibility						
					0.750	0.000
(3) Credibility Weighted Factors						
					1.038	1.008

Summary of Factors

	Bodily Injury	Property Damage
39 to Ultimate **	1.069	1.004
27 to Ultimate	1.169	1.012
15 to Ultimate	1.414	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>
12/31/2006	62,348,916	77,528,774	86,296,736	89,761,791	90,597,846
12/31/2007	62,831,794	76,145,431	85,197,857	88,552,118	89,804,512
12/31/2008	62,622,188	76,936,381	83,677,835	85,820,333	86,555,922
12/31/2009	60,764,108	74,535,824	81,624,150	82,853,553	84,865,458
12/31/2010	67,134,095	79,104,595	86,511,423	90,492,555	92,192,908
12/31/2011	71,611,280	87,562,114	96,014,323	99,764,985	100,798,334
12/31/2012	70,751,423	87,121,407	94,007,867	97,799,397	99,642,973
12/31/2013	73,376,677	87,416,471	96,586,013	101,912,999	103,767,711
12/31/2014	68,483,916	83,527,139	94,484,364	99,886,007	
12/31/2015	70,125,727	87,537,705	97,026,597		
12/31/2016	72,138,230	90,115,122			
12/31/2017	72,004,477				

Ratios

Accident Year <u>Ending</u>	Ratios			
	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2006	1.243	1.113	1.040	1.009
12/31/2007	1.212	1.119	1.039	1.014
12/31/2008	1.229	1.088	1.026	1.009
12/31/2009	1.227	1.095	1.015	1.024
12/31/2010	1.178	1.094	1.046	1.019
12/31/2011	1.223	1.097	1.039	1.010
12/31/2012	1.231	1.079	1.040	1.019
12/31/2013	1.191	1.105	1.055	1.018
12/31/2014	1.220	1.131	1.057	
12/31/2015	1.248	1.108		
12/31/2016	1.249			
Average Factor: (Best 3 of 5)	1.233	1.103	1.047	1.019

Summary of Factors

63 to Ult:	(75:63) (75:Ult) =	1.002
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.021
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	1.069
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.179
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.454

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>
12/31/2006	91,334,336	91,445,973	91,625,757	91,511,899	91,462,973
12/31/2007	90,142,684	90,221,494	90,418,909	90,358,834	90,392,437
12/31/2008	86,301,725	86,377,242	86,464,084	86,658,424	86,715,095
12/31/2009	84,760,040	84,595,276	84,714,192	84,723,981	
12/31/2010	92,074,135	91,807,439	91,818,848		
12/31/2011	101,399,034	101,663,602			
12/31/2012	100,028,389				

Ratios

Accident Year <u>Ending</u>	Ratios				
	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>	<u>123:111</u>
12/31/2006	1.008	1.001	1.002	0.999	0.999
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	
12/31/2010	0.999	0.997	1.000		
12/31/2011	1.006	1.003			
12/31/2012	1.004				
Average Factor: (Best 3 of 5)	1.001	1.000	1.001	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)	=	1.001
75 to Ult:	(87:75) (99:87) (111:99) (123:111) (123:Ult)	=	1.001

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>
12/31/2006	83,098,790	85,907,146	86,598,960	86,547,522	86,576,693
12/31/2007	89,099,727	91,221,074	91,698,455	92,014,965	92,058,892
12/31/2008	84,278,908	87,080,906	87,473,802	87,660,113	87,752,268
12/31/2009	79,051,900	81,631,511	82,050,225	82,310,601	82,362,550
12/31/2010	80,406,512	83,289,682	83,783,075	83,992,012	84,033,169
12/31/2011	85,300,807	87,910,015	88,722,316	89,128,522	89,633,747
12/31/2012	87,837,873	91,484,939	92,117,338	92,413,659	92,377,080
12/31/2013	88,910,315	92,951,898	93,707,131	93,998,146	94,030,889
12/31/2014	88,647,590	93,300,822	94,021,732	94,246,537	
12/31/2015	92,584,198	97,159,581	98,129,539		
12/31/2016	96,111,659	100,515,211			
12/31/2017	90,654,520				

Ratios

Accident Year <u>Ending</u>	Ratios			
	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2006	1.034	1.008	0.999	1.000
12/31/2007	1.024	1.005	1.003	1.000
12/31/2008	1.033	1.005	1.002	1.001
12/31/2009	1.033	1.005	1.003	1.001
12/31/2010	1.036	1.006	1.002	1.000
12/31/2011	1.031	1.009	1.005	1.006
12/31/2012	1.042	1.007	1.003	1.000
12/31/2013	1.045	1.008	1.003	1.000
12/31/2014	1.052	1.008	1.002	
12/31/2015	1.049	1.010		
12/31/2016	1.046			
Average Factor: (Best 3 of 5)	1.047	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) =	1.060

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>
12/31/2006	86,516,087	86,628,897	86,642,601	86,645,287
12/31/2007	92,150,595	92,043,515	92,044,457	92,045,346
12/31/2008	87,716,947	87,688,303	87,691,521	87,704,468
12/31/2009	82,400,605	82,442,958	82,435,669	82,426,862
12/31/2010	84,404,563	84,315,784	84,446,019	
12/31/2011	89,772,919	89,895,004		
12/31/2012	92,497,494			

Ratios

Accident Year <u>Ending</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>
12/31/2006	0.999	1.001	1.000	1.000
12/31/2007	1.001	0.999	1.000	1.000
12/31/2008	1.000	1.000	1.000	1.000
12/31/2009	1.000	1.001	1.000	1.000
12/31/2010	1.004	0.999	1.002	
12/31/2011	1.002	1.001		
12/31/2012	1.001			
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>
12/31/2006	98,082,141	99,570,826	99,675,876	99,664,223	99,583,503
12/31/2007	107,638,162	110,454,261	110,361,829	110,260,923	110,208,181
12/31/2008	137,122,373	139,908,087	139,866,459	139,813,877	139,779,849
12/31/2009	114,660,398	116,504,959	116,757,149	116,756,042	116,776,150
12/31/2010	135,128,533	137,634,833	137,794,964	137,585,300	137,721,236
12/31/2011	155,314,049	157,824,117	157,904,335	158,001,294	157,953,547
12/31/2012	180,363,644	184,498,422	184,490,013	184,589,660	184,837,405
12/31/2013	143,423,767	146,941,713	147,170,848	147,524,413	147,490,867
12/31/2014	152,832,576	156,631,466	156,718,406	156,584,392	
12/31/2015	151,825,756	155,301,171	155,401,626		
12/31/2016	197,225,418	201,436,790			
12/31/2017	210,656,303				

Ratios

Accident Year <u>Ending</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2006	1.015	1.001	1.000	0.999
12/31/2007	1.026	0.999	0.999	1.000
12/31/2008	1.020	1.000	1.000	1.000
12/31/2009	1.016	1.002	1.000	1.000
12/31/2010	1.019	1.001	0.998	1.001
12/31/2011	1.016	1.001	1.001	1.000
12/31/2012	1.023	1.000	1.001	1.001
12/31/2013	1.025	1.002	1.002	1.000
12/31/2014	1.025	1.001	0.999	
12/31/2015	1.023	1.001		
12/31/2016	1.021			
Average Factor: (Best 3 of 5)	1.024	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) =	1.025

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>
12/31/2006	99,531,436	99,491,076	99,645,606	99,637,532	99,634,047
12/31/2007	110,295,675	110,239,335	110,231,195	110,143,735	110,146,525
12/31/2008	139,750,075	139,719,763	139,726,923	139,782,088	139,783,800
12/31/2009	116,622,376	116,624,245	116,628,016	116,705,263	
12/31/2010	137,813,090	137,861,438	137,853,760		
12/31/2011	157,928,691	157,925,614			
12/31/2012	184,812,760				

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>
12/31/2006	0.999	1.000	1.002	1.000	1.000
12/31/2007	1.001	0.999	1.000	0.999	1.000
12/31/2008	1.000	1.000	1.000	1.000	1.000
12/31/2009	0.999	1.000	1.000	1.001	
12/31/2010	1.001	1.000	1.000		
12/31/2011	1.000	1.000			
12/31/2012	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>
12/31/2006	302,645,818	296,798,485	295,222,795	294,284,201	294,561,691
12/31/2007	340,453,072	333,909,574	332,185,435	331,893,438	331,664,028
12/31/2008	347,435,033	342,000,636	341,250,356	340,642,037	339,756,369
12/31/2009	294,402,025	289,371,339	288,570,906	288,200,387	288,337,661
12/31/2010	319,957,837	313,620,107	312,517,083	312,435,470	312,441,599
12/31/2011	347,553,934	340,912,188	339,125,243	338,785,261	338,872,521
12/31/2012	347,097,111	341,903,217	339,841,871	339,248,848	339,276,761
12/31/2013	367,238,812	360,936,623	359,658,365	360,407,015	359,176,393
12/31/2014	406,032,389	398,705,367	396,317,742	395,942,108	
12/31/2015	439,518,764	426,758,300	424,285,439		
12/31/2016	473,249,101	460,379,561			
12/31/2017	504,898,279				

Ratios

Accident Year <u>Ending</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2006	0.981	0.995	0.997	1.001
12/31/2007	0.981	0.995	0.999	0.999
12/31/2008	0.984	0.998	0.998	0.997
12/31/2009	0.983	0.997	0.999	1.000
12/31/2010	0.980	0.996	1.000	1.000
12/31/2011	0.981	0.995	0.999	1.000
12/31/2012	0.985	0.994	0.998	1.000
12/31/2013	0.983	0.996	1.002	0.997
12/31/2014	0.982	0.994	0.999	
12/31/2015	0.971	0.994		
12/31/2016	0.973			

Average Factor: 0.979 0.994 0.999 1.000
(Best 3 of 5)

Summary of Factors

63 to Ult:	(75:63) (75:Ult) =	1.000
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.000
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	0.999
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	0.993
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	0.972

INSURANCE SERVICES OFFICE, INC.

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

Accident Year Ending	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>	<u>123 Months</u>
12/31/2006	294,561,462	294,537,764	294,504,170	294,498,489	294,480,227
12/31/2007	331,596,380	331,555,640	331,509,158	331,504,619	331,484,786
12/31/2008	339,801,367	339,689,840	339,665,150	339,637,143	339,620,971
12/31/2009	288,167,973	288,094,406	288,058,541	288,077,603	
12/31/2010	312,344,533	312,243,031	312,203,804		
12/31/2011	338,814,535	338,808,804			
12/31/2012	339,198,595				

Ratios

Accident Year Ending	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>	<u>123:111</u>
12/31/2006	1.000	1.000	1.000	1.000	1.000
12/31/2007	1.000	1.000	1.000	1.000	1.000
12/31/2008	1.000	1.000	1.000	1.000	1.000
12/31/2009	0.999	1.000	1.000	1.000	
12/31/2010	1.000	1.000	1.000		
12/31/2011	1.000	1.000			
12/31/2012	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>
12/31/2006	45,114,278	45,385,500	45,319,535	45,227,602	45,212,891
12/31/2007	42,128,856	42,864,766	42,700,321	42,732,392	42,854,370
12/31/2008	49,404,261	49,930,543	49,773,473	49,756,906	49,747,595
12/31/2009	45,494,807	45,557,731	45,554,037	45,481,046	45,471,729
12/31/2010	49,970,542	50,065,679	50,048,669	50,044,521	50,042,803
12/31/2011	65,579,947	65,685,728	65,561,570	65,609,177	65,605,889
12/31/2012	76,646,808	75,604,294	75,655,840	75,689,175	75,699,041
12/31/2013	52,392,978	52,776,253	52,990,791	52,995,210	52,987,388
12/31/2014	55,417,509	56,112,419	56,190,048	56,141,485	
12/31/2015	48,449,166	48,998,670	48,885,069		
12/31/2016	60,490,144	61,135,257			
12/31/2017	69,620,635				

Ratios

Accident Year <u>Ending</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2006	1.006	0.999	0.998	1.000
12/31/2007	1.017	0.996	1.001	1.003
12/31/2008	1.011	0.997	1.000	1.000
12/31/2009	1.001	1.000	0.998	1.000
12/31/2010	1.002	1.000	1.000	1.000
12/31/2011	1.002	0.998	1.001	1.000
12/31/2012	0.986	1.001	1.000	1.000
12/31/2013	1.007	1.004	1.000	1.000
12/31/2014	1.013	1.001	0.999	
12/31/2015	1.011	0.998		
12/31/2016	1.011			
Average Factor: (Best 3 of 5)	1.010	1.000	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) =	1.000
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.010

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>
12/31/2006	45,258,837	45,257,926	45,251,978	45,251,164	45,250,006
12/31/2007	42,786,448	42,784,413	42,783,337	42,781,970	42,789,006
12/31/2008	49,744,909	49,746,319	49,744,650	49,743,452	49,752,496
12/31/2009	45,472,774	45,472,791	45,474,947	45,480,910	
12/31/2010	50,022,081	50,021,144	50,049,267		
12/31/2011	65,614,001	65,620,616			
12/31/2012	75,705,383				

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>
12/31/2006	1.001	1.000	1.000	1.000	1.000
12/31/2007	0.998	1.000	1.000	1.000	1.000
12/31/2008	1.000	1.000	1.000	1.000	1.000
12/31/2009	1.000	1.000	1.000	1.000	
12/31/2010	1.000	1.000	1.001		
12/31/2011	1.000	1.000			
12/31/2012	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>
12/31/2006	133,446,222	128,067,207	127,361,727	127,104,840	127,095,289
12/31/2007	140,082,730	135,466,447	134,924,052	134,629,930	134,625,922
12/31/2008	142,390,051	137,275,953	136,576,145	136,443,074	136,401,498
12/31/2009	134,239,533	129,513,409	128,927,299	128,851,382	128,796,720
12/31/2010	137,897,068	131,091,100	130,458,613	130,280,329	130,263,603
12/31/2011	147,518,654	141,059,573	140,588,934	140,371,170	140,330,647
12/31/2012	147,900,685	142,042,690	141,481,656	141,339,034	141,326,463
12/31/2013	149,039,642	142,479,239	141,538,708	141,540,704	141,483,316
12/31/2014	157,105,568	150,508,434	150,322,658	150,123,029	
12/31/2015	167,933,099	159,428,483	158,168,605		
12/31/2016	167,271,024	159,580,288			
12/31/2017	163,651,912				

Ratios

Accident Year <u>Ending</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
12/31/2006	0.960	0.994	0.998	1.000
12/31/2007	0.967	0.996	0.998	1.000
12/31/2008	0.964	0.995	0.999	1.000
12/31/2009	0.965	0.995	0.999	1.000
12/31/2010	0.951	0.995	0.999	1.000
12/31/2011	0.956	0.997	0.998	1.000
12/31/2012	0.960	0.996	0.999	1.000
12/31/2013	0.956	0.993	1.000	1.000
12/31/2014	0.958	0.999	0.999	
12/31/2015	0.949	0.992		
12/31/2016	0.954			
Average Factor: (Best 3 of 5)	0.956	0.995	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) =	0.994
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	0.950

INSURANCE SERVICES OFFICE, INC.

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

Accident Year Ending	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>	<u>123 Months</u>
12/31/2006	127,163,010	127,128,284	127,110,487	127,094,829	127,071,833
12/31/2007	134,578,142	134,562,396	134,550,501	134,546,377	134,543,564
12/31/2008	136,368,351	136,328,521	136,319,717	136,314,095	136,306,539
12/31/2009	128,735,197	128,710,652	128,693,873	128,684,410	
12/31/2010	130,211,565	130,179,285	130,179,687		
12/31/2011	140,249,870	140,244,299			
12/31/2012	141,279,608				

Ratios

Accident Year Ending	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>	<u>123:111</u>
12/31/2006	1.001	1.000	1.000	1.000	1.000
12/31/2007	1.000	1.000	1.000	1.000	1.000
12/31/2008	1.000	1.000	1.000	1.000	1.000
12/31/2009	1.000	1.000	1.000	1.000	
12/31/2010	1.000	1.000	1.000		
12/31/2011	0.999	1.000			
12/31/2012	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
(5)	The loss cost for hired autos is set forth in Section G. 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	0.0041	0.0064	0.0098	0.0166	0.0063	0.0109	0.0180	0.0318	0.0078	0.0128	0.0201	0.0344
102	0.0055	0.0086	0.0130	0.0221	0.0063	0.0109	0.0180	0.0318	0.0092	0.0151	0.0237	0.0404
116	0.0045	0.0070	0.0106	0.0179	0.0063	0.0109	0.0180	0.0318	0.0104	0.0170	0.0266	0.0455
117	0.0053	0.0083	0.0126	0.0214	0.0063	0.0109	0.0180	0.0318	0.0104	0.0170	0.0266	0.0455
118	0.0045	0.0071	0.0107	0.0182	0.0063	0.0109	0.0180	0.0318	0.0081	0.0133	0.0209	0.0358
121	0.0060	0.0094	0.0143	0.0242	0.0063	0.0109	0.0180	0.0318	0.0119	0.0195	0.0306	0.0523
124	0.0061	0.0095	0.0145	0.0246	0.0063	0.0109	0.0180	0.0318	0.0099	0.0162	0.0254	0.0434
125	0.0089	0.0139	0.0212	0.0360	0.0063	0.0109	0.0180	0.0318	0.0141	0.0231	0.0362	0.0619
126	0.0059	0.0091	0.0139	0.0236	0.0063	0.0109	0.0180	0.0318	0.0130	0.0213	0.0335	0.0573
128	0.0096	0.0150	0.0228	0.0386	0.0063	0.0109	0.0180	0.0318	0.0158	0.0258	0.0405	0.0692
130	0.0060	0.0093	0.0142	0.0241	0.0063	0.0109	0.0180	0.0318	0.0101	0.0165	0.0259	0.0443
131	0.0065	0.0102	0.0155	0.0263	0.0063	0.0109	0.0180	0.0318	0.0099	0.0161	0.0253	0.0433
132	0.0076	0.0119	0.0180	0.0306	0.0063	0.0109	0.0180	0.0318	0.0104	0.0170	0.0266	0.0455
133	0.0074	0.0115	0.0176	0.0298	0.0063	0.0109	0.0180	0.0318	0.0123	0.0201	0.0316	0.0540

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	0.0169	0.0281	0.0441	0.0705	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
102	0.0134	0.0223	0.0350	0.0559	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
116	0.0169	0.0281	0.0441	0.0705	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
117	0.0169	0.0281	0.0441	0.0705	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
118	0.0120	0.0199	0.0312	0.0498	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
121	0.0178	0.0296	0.0465	0.0742	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
124	0.0169	0.0281	0.0441	0.0705	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
125	0.0169	0.0281	0.0441	0.0705	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
126	0.0169	0.0281	0.0441	0.0705	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
128	0.0231	0.0383	0.0602	0.0962	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
130	0.0169	0.0281	0.0441	0.0705	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
131	0.0166	0.0276	0.0434	0.0693	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
132	0.0169	0.0281	0.0441	0.0705	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
133	0.0178	0.0296	0.0465	0.0742	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**

**NEW HAMPSHIRE (28)
TERRITORY 101**

LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
Limit Of Liab. \$100,000	Limit Per Person				Basic Limits
	500	1000	2000	5000	
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 470	\$2	\$3	\$5	\$8	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 480	\$3	\$5	\$9	\$15	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 2914	\$23	\$40	\$66	\$121	N/A
– SCHOOL AND CHURCH BUSES					
\$ 259	\$4	\$7	\$11	\$18	N/A
– OTHER BUSES					
\$ 1786	\$14	\$23	\$36	\$61	N/A
– VAN POOLS					
\$ 705	\$5	\$8	\$13	\$23	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 689	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. 					

LIABILITY Limit Of Liab. \$100,000	MEDICAL PAYMENTS Limit Per Person				PERSONAL INJURY PROTECTION Basic Limits
	500	1000	2000	5000	
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 421	\$2	\$4	\$5	\$9	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 393	\$2	\$4	\$7	\$12	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 2610	\$20	\$36	\$60	\$109	N/A
– SCHOOL AND CHURCH BUSES					
\$ 232	\$3	\$5	\$8	\$13	N/A
– OTHER BUSES					
\$ 1600	\$15	\$24	\$38	\$65	N/A
– VAN POOLS					
\$ 632	\$5	\$8	\$12	\$20	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 528	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. 					

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LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
Limit Of Liab. \$100,000	Limit Per Person				Basic Limits
	500	1000	2000	5000	
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 433	\$2	\$3	\$5	\$8	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 412	\$3	\$4	\$7	\$13	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 2685	\$21	\$37	\$61	\$112	N/A
– SCHOOL AND CHURCH BUSES					
\$ 238	\$4	\$7	\$10	\$17	N/A
– OTHER BUSES					
\$ 1645	\$17	\$28	\$44	\$75	N/A
– VAN POOLS					
\$ 650	\$5	\$8	\$12	\$21	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 647	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. 					

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LIABILITY Limit Of Liab. \$100,000	MEDICAL PAYMENTS Limit Per Person				PERSONAL INJURY PROTECTION Basic Limits
	500	1000	2000	5000	
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 376	\$2	\$3	\$5	\$8	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 306	\$2	\$3	\$6	\$10	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 2331	\$18	\$32	\$53	\$97	N/A
– SCHOOL AND CHURCH BUSES					
\$ 207	\$3	\$6	\$9	\$15	N/A
– OTHER BUSES					
\$ 1429	\$15	\$24	\$38	\$65	N/A
– VAN POOLS					
\$ 564	\$4	\$7	\$10	\$18	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 490	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. 					

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**NEW HAMPSHIRE (28)
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LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
Limit Of Liab. \$100,000	Limit Per Person				Basic Limits
	500	1000	2000	5000	
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 453	\$2	\$3	\$5	\$8	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 372	\$2	\$4	\$7	\$12	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 2809	\$22	\$39	\$64	\$117	N/A
– SCHOOL AND CHURCH BUSES					
\$ 249	\$3	\$5	\$8	\$12	N/A
– OTHER BUSES					
\$ 1721	\$14	\$23	\$36	\$62	N/A
– VAN POOLS					
\$ 680	\$5	\$8	\$13	\$22	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 498	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. 					

LIABILITY Limit Of Liab. \$100,000	MEDICAL PAYMENTS Limit Per Person				PERSONAL INJURY PROTECTION Basic Limits
	500	1000	2000	5000	
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 248	\$1	\$2	\$4	\$6	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 267	\$2	\$3	\$5	\$8	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1538	\$12	\$21	\$35	\$64	N/A
– SCHOOL AND CHURCH BUSES					
\$ 136	\$2	\$4	\$6	\$10	N/A
– OTHER BUSES					
\$ 942	\$11	\$18	\$29	\$49	N/A
– VAN POOLS					
\$ 372	\$3	\$4	\$7	\$12	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 367	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. 					

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LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
Limit Of Liab. \$100,000	Limit Per Person				Basic Limits
	500	1000	2000	5000	
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 265	\$2	\$3	\$4	\$7	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 251	\$2	\$3	\$5	\$8	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1643	\$13	\$23	\$37	\$68	N/A
– SCHOOL AND CHURCH BUSES					
\$ 146	\$2	\$4	\$6	\$10	N/A
– OTHER BUSES					
\$ 1007	\$10	\$16	\$26	\$44	N/A
– VAN POOLS					
\$ 398	\$3	\$5	\$7	\$13	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 368	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. 					

LIABILITY Limit Of Liab. \$100,000	MEDICAL PAYMENTS Limit Per Person				PERSONAL INJURY PROTECTION Basic Limits
	500	1000	2000	5000	
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 200	\$2	\$3	\$4	\$7	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 270	\$2	\$3	\$5	\$9	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1240	\$10	\$17	\$28	\$52	N/A
– SCHOOL AND CHURCH BUSES					
\$ 110	\$2	\$3	\$5	\$8	N/A
– OTHER BUSES					
\$ 760	\$11	\$18	\$28	\$47	N/A
– VAN POOLS					
\$ 300	\$2	\$4	\$6	\$10	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 300	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. 					

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LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
Limit Of Liab. \$100,000	Limit Per Person				Basic Limits
	500	1000	2000	5000	
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 229	\$1	\$2	\$3	\$5	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 343	\$2	\$4	\$6	\$11	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1420	\$11	\$20	\$32	\$59	N/A
– SCHOOL AND CHURCH BUSES					
\$ 126	\$2	\$4	\$6	\$9	N/A
– OTHER BUSES					
\$ 870	\$11	\$19	\$29	\$50	N/A
– VAN POOLS					
\$ 344	\$3	\$4	\$6	\$11	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 328	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. 					

LIABILITY Limit Of Liab. \$100,000	MEDICAL PAYMENTS Limit Per Person				PERSONAL INJURY PROTECTION Basic Limits
	500	1000	2000	5000	
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 174	\$2	\$3	\$4	\$7	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 193	\$1	\$2	\$3	\$6	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1079	\$8	\$15	\$25	\$45	N/A
– SCHOOL AND CHURCH BUSES					
\$ 96	\$2	\$4	\$6	\$9	N/A
– OTHER BUSES					
\$ 661	\$10	\$17	\$27	\$46	N/A
– VAN POOLS					
\$ 261	\$2	\$3	\$5	\$8	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 215	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. 					

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LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
Limit Of Liab. \$100,000	Limit Per Person				Basic Limits
	500	1000	2000	5000	
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 343	\$2	\$3	\$5	\$8	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 268	\$2	\$3	\$5	\$9	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 2127	\$17	\$29	\$48	\$88	N/A
– SCHOOL AND CHURCH BUSES					
\$ 189	\$3	\$5	\$8	\$13	N/A
– OTHER BUSES					
\$ 1303	\$13	\$21	\$34	\$58	N/A
– VAN POOLS					
\$ 515	\$4	\$6	\$10	\$17	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 381	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. 					

LIABILITY Limit Of Liab. \$100,000	MEDICAL PAYMENTS Limit Per Person				PERSONAL INJURY PROTECTION Basic Limits
	500	1000	2000	5000	
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 274	\$2	\$3	\$4	\$7	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 286	\$2	\$3	\$5	\$9	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1699	\$13	\$23	\$39	\$71	N/A
– SCHOOL AND CHURCH BUSES					
\$ 151	\$3	\$4	\$7	\$10	N/A
– OTHER BUSES					
\$ 1041	\$10	\$17	\$26	\$45	N/A
– VAN POOLS					
\$ 411	\$3	\$5	\$8	\$13	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 381	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. 					

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**NEW HAMPSHIRE (28)
TERRITORY 132**

LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
Limit Of Liab. \$100,000	Limit Per Person				Basic Limits
	500	1000	2000	5000	
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 232	\$2	\$3	\$4	\$7	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 270	\$2	\$3	\$5	\$9	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1438	\$11	\$20	\$33	\$60	N/A
– SCHOOL AND CHURCH BUSES					
\$ 128	\$2	\$4	\$6	\$9	N/A
– OTHER BUSES					
\$ 882	\$9	\$15	\$23	\$40	N/A
– VAN POOLS					
\$ 348	\$3	\$4	\$6	\$11	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 340	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. 					

LIABILITY Limit Of Liab. \$100,000	MEDICAL PAYMENTS Limit Per Person				PERSONAL INJURY PROTECTION Basic Limits
	500	1000	2000	5000	
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 237	\$2	\$3	\$4	\$7	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 226	\$1	\$2	\$4	\$7	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1469	\$11	\$20	\$33	\$61	N/A
– SCHOOL AND CHURCH BUSES					
\$ 130	\$2	\$4	\$6	\$10	N/A
– OTHER BUSES					
\$ 901	\$11	\$18	\$28	\$49	N/A
– VAN POOLS					
\$ 356	\$3	\$4	\$7	\$11	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 344	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. 					

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**NEW HAMPSHIRE (28)
TERRITORY 101**

PHYSICAL DAMAGE			
Original Cost New Range			
\$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 31	\$ 54	\$ 241
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 71	\$ 328
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 32	\$ 55	\$ 306
– SCHOOL AND CHURCH BUSES			
	\$ 22	\$ 38	\$ 157
– OTHER BUSES			
	\$ 22	\$ 38	\$ 157
– VAN POOLS			
	\$ 32	\$ 55	\$ 306
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

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PHYSICAL DAMAGE Original Cost New Range \$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 36	\$ 63	\$ 232
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 65	\$ 291
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 37	\$ 64	\$ 295
– SCHOOL AND CHURCH BUSES			
	\$ 25	\$ 44	\$ 151
– OTHER BUSES			
	\$ 25	\$ 44	\$ 151
– VAN POOLS			
	\$ 37	\$ 64	\$ 295
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

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**NEW HAMPSHIRE (28)
TERRITORY 116**

PHYSICAL DAMAGE			
Original Cost New Range			
\$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 46	\$ 79	\$ 296
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 71	\$ 339
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 47	\$ 81	\$ 376
– SCHOOL AND CHURCH BUSES			
	\$ 32	\$ 55	\$ 192
– OTHER BUSES			
	\$ 32	\$ 55	\$ 192
– VAN POOLS			
	\$ 47	\$ 81	\$ 376
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

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PHYSICAL DAMAGE			
Original Cost New Range \$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 36	\$ 62	\$ 252
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 77	\$ 323
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 37	\$ 63	\$ 320
– SCHOOL AND CHURCH BUSES			
	\$ 25	\$ 43	\$ 164
– OTHER BUSES			
	\$ 25	\$ 43	\$ 164
– VAN POOLS			
	\$ 37	\$ 63	\$ 320
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

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**NEW HAMPSHIRE (28)
TERRITORY 118**

PHYSICAL DAMAGE			
Original Cost New Range			
\$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 33	\$ 58	\$ 245
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 54	\$ 321
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 34	\$ 59	\$ 311
– SCHOOL AND CHURCH BUSES			
	\$ 23	\$ 41	\$ 159
– OTHER BUSES			
	\$ 23	\$ 41	\$ 159
– VAN POOLS			
	\$ 34	\$ 59	\$ 311
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

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PHYSICAL DAMAGE Original Cost New Range \$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 27	\$ 47	\$ 187
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 46	\$ 260
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 28	\$ 48	\$ 237
– SCHOOL AND CHURCH BUSES			
	\$ 19	\$ 33	\$ 122
– OTHER BUSES			
	\$ 19	\$ 33	\$ 122
– VAN POOLS			
	\$ 28	\$ 48	\$ 237
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

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**NEW HAMPSHIRE (28)
TERRITORY 124**

PHYSICAL DAMAGE			
Original Cost New Range			
\$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 26	\$ 45	\$ 211
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 52	\$ 237
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 27	\$ 46	\$ 268
– SCHOOL AND CHURCH BUSES			
	\$ 18	\$ 32	\$ 137
– OTHER BUSES			
	\$ 18	\$ 32	\$ 137
– VAN POOLS			
	\$ 27	\$ 46	\$ 268
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

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PHYSICAL DAMAGE Original Cost New Range \$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 32	\$ 56	\$ 223
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 50	\$ 250
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 33	\$ 57	\$ 283
– SCHOOL AND CHURCH BUSES			
	\$ 22	\$ 39	\$ 145
– OTHER BUSES			
	\$ 22	\$ 39	\$ 145
– VAN POOLS			
	\$ 33	\$ 57	\$ 283
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

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**NEW HAMPSHIRE (28)
TERRITORY 126**

PHYSICAL DAMAGE			
Original Cost New Range			
\$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 37	\$ 65	\$ 231
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 50	\$ 402
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 38	\$ 66	\$ 293
– SCHOOL AND CHURCH BUSES			
	\$ 26	\$ 46	\$ 150
– OTHER BUSES			
	\$ 26	\$ 46	\$ 150
– VAN POOLS			
	\$ 38	\$ 66	\$ 293
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

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PHYSICAL DAMAGE			
Original Cost New Range \$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 36	\$ 63	\$ 208
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 64	\$ 262
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 37	\$ 64	\$ 264
– SCHOOL AND CHURCH BUSES			
	\$ 25	\$ 44	\$ 135
– OTHER BUSES			
	\$ 25	\$ 44	\$ 135
– VAN POOLS			
	\$ 37	\$ 64	\$ 264
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

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**NEW HAMPSHIRE (28)
TERRITORY 130**

PHYSICAL DAMAGE			
Original Cost New Range			
\$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 25	\$ 44	\$ 198
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 53	\$ 246
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 26	\$ 45	\$ 251
– SCHOOL AND CHURCH BUSES			
	\$ 18	\$ 31	\$ 129
– OTHER BUSES			
	\$ 18	\$ 31	\$ 129
– VAN POOLS			
	\$ 26	\$ 45	\$ 251
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

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PHYSICAL DAMAGE Original Cost New Range \$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 28	\$ 48	\$ 220
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 54	\$ 250
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 29	\$ 49	\$ 279
– SCHOOL AND CHURCH BUSES			
	\$ 20	\$ 34	\$ 143
– OTHER BUSES			
	\$ 20	\$ 34	\$ 143
– VAN POOLS			
	\$ 29	\$ 49	\$ 279
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

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**NEW HAMPSHIRE (28)
TERRITORY 132**

PHYSICAL DAMAGE			
Original Cost New Range			
\$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 40	\$ 70	\$ 225
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 48	\$ 244
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 41	\$ 71	\$ 286
– SCHOOL AND CHURCH BUSES			
	\$ 28	\$ 49	\$ 146
– OTHER BUSES			
	\$ 28	\$ 49	\$ 146
– VAN POOLS			
	\$ 41	\$ 71	\$ 286
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

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PHYSICAL DAMAGE Original Cost New Range \$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 36	\$ 63	\$ 219
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 61	\$ 270
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 37	\$ 64	\$ 278
– SCHOOL AND CHURCH BUSES			
	\$ 25	\$ 44	\$ 142
– OTHER BUSES			
	\$ 25	\$ 44	\$ 142
– VAN POOLS			
	\$ 37	\$ 64	\$ 278
<ul style="list-style-type: none"> • For physical damage fleet factors, refer to Rules 22. and 39. • For additional coverages, refer to the Additional Coverages Table in Rules 23. and 40. • For Deductible factors, refer to Rule 98. • For Original Cost New and Age Group factors, refer to Rule 101. • For Stated Amount factors, refer to Rule 101. • For Towing and Labor Costs Coverage rating, refer to Rule 34. 			

89. NON-OWNERSHIP LIABILITY

Table **89.C.1.a.(1)(LC)** is replaced by the following:

<u>Class Code</u>	<u>Total Number Of Employees</u>	<u>Liability Base Loss Cost</u>
<u>6638</u>	<u>0 = 9</u>	<u>\$ 50</u>
<u>6639</u>	<u>10 = 19</u>	<u>108</u>
<u>6640</u>	<u>20 = 25</u>	<u>173</u>
<u>6602</u>	<u>26 = 100</u>	<u>292</u>
<u>6603</u>	<u>101 = 500</u>	<u>764</u>
<u>6604</u>	<u>501 = 1,000</u>	<u>1,757</u>
<u>6605</u>	<u>Over 1,000</u>	<u>3,703</u>

Table 89.C.1.a.(1)(LC) Other Than Garage Service Operations Loss Costs

90. HIRED AUTOS

Cost Of Hire Basis – All Territories Liability Base Loss Cost
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\$ 0.4544

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

97. UNINSURED MOTORISTS INSURANCE

Uninsured Motorists Bodily Injury and Property Damage Coverage		
Limits	Private Passenger Types Per Exposure	Other Than Private Passenger Types Per Exposure
\$ 50,000	\$ <u>9.0113.43</u>	\$ <u>5.948</u> <u>.60</u>
75,000	<u>10.0815.85</u>	<u>6.564</u> <u>0.09</u>
100,000	<u>10.8917.45</u>	<u>7.054</u> <u>4.06</u>
125,000	<u>12.6026.86</u>	<u>8.144</u> <u>7.13</u>
150,000	<u>13.2428.93</u>	<u>8.534</u> <u>8.43</u>
200,000	<u>14.3632.48</u>	<u>9.202</u> <u>0.67</u>
250,000	<u>15.1735.16</u>	<u>9.712</u> <u>2.36</u>
300,000	<u>16.3941.58</u>	<u>10.47</u> <u>26.54</u>
350,000	<u>17.0744.56</u>	<u>10.90</u> <u>28.44</u>
400,000	<u>17.5946.39</u>	<u>11.21</u> <u>29.67</u>
500,000	<u>18.4049.72</u>	<u>11.71</u> <u>31.70</u>
600,000	<u>19.1052.88</u>	<u>12.15</u> <u>33.74</u>
750,000	<u>19.9656.25</u>	<u>12.68</u> <u>35.86</u>
1,000,000	<u>20.8860.40</u>	<u>13.25</u> <u>38.52</u>
1,500,000	<u>22.4668.09</u>	<u>14.24</u> <u>43.46</u>
2,000,000	<u>23.1871.53</u>	<u>14.69</u> <u>45.66</u>
<u>2,500,000</u>	<u>23.90</u>	<u>15.14</u>
<u>3,000,000</u>	<u>24.41</u>	<u>15.45</u>
<u>5,000,000</u>	<u>25.61</u>	<u>16.21</u>
<u>7,500,000</u>	<u>26.48</u>	<u>16.75</u>
<u>10,000,000</u>	<u>26.98</u>	<u>17.06</u>

Table 97.B.1.a.(LC) Single Limits Uninsured (Includes Underinsured) Motorists Bodily Injury And Property Damage Coverage Loss Costs

Uninsured Motorists Bodily Injury Coverage		
Bodily Injury Limits	Private Passenger Types Per Exposure	Other Than Private Passenger Types Per Exposure

\$ 25,000/50,000	\$ 5.798 -90	\$ 3.445 -29
50,000/100,000	7.464 2.16	4.447 -28
100,000/300,000	9.404 6.37	5.619 -87
250,000/500,000	13.51 34.13	8.162 4.22
500,000/1,000,000	16.73 49.30	10.16 30.95
<u>1,000,000/2,000,000</u>	<u>19.29</u>	<u>11.75</u>
<u>2,500,000/5,000,000</u>	<u>22.09</u>	<u>13.50</u>
<u>5,000,000/10,000,000</u>	<u>23.79</u>	<u>14.55</u>

Table 97.B.1.b.(LC) Split Limits Uninsured (Includes Underinsured) Motorists Bodily Injury Coverage Loss Costs

Uninsured Motorists Property Damage Coverage		
Property Damage Limit	Private Passenger Types Per Exposure	Other Than Private Passenger Types Per Exposure
\$ 25,000	\$ 2.81	\$ 2.49

Table 97.B.1.c.(LC) Split Limits Uninsured (Includes Underinsured) Motorists Property Damage Coverage Loss Costs

Loss Cost
\$ 1.25

Table 97.B.2.a.(4)(LC) Individual Named Insured Loss Cost

Supplementary Information – New Hampshire

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 New Hampshire

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>
03/31/2014	+1.4%	+4.8%
06/30/2014	+1.5%	+4.2%
09/30/2014	+1.8%	+3.7%
12/31/2014	+1.8%	+3.3%
03/31/2015	+1.5%	+3.3%
06/30/2015	+2.2%	+3.5%
09/30/2015	+1.9%	+3.7%
12/31/2015	+2.3%	+4.6%
03/31/2016	+2.9%	+4.8%
06/30/2016	+2.9%	+5.2%
09/30/2016	+2.6%	+5.5%
12/31/2016	+2.7%	+5.7%
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%

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 – New Hampshire

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 2006 - September 2007	4.6%	6.8%
October 2007 - September 2008	3.2%	6.6%
October 2008 - September 2009	3.5%	6.6%
October 2009 - September 2010	3.4%	7.3%
October 2010 - September 2011	2.8%	4.9%
October 2011 - September 2012	4.1%	4.7%
October 2012 - September 2013	2.4%	5.4%
October 2013 - September 2014	2.0%	3.5%
October 2014 - September 2015	2.5%	3.3%
October 2015 - September 2016	4.9%	5.6%
October 2016 - September 2017	1.6%	4.3%
October 2017 - September 2018	1.7%	3.7%

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 – New Hampshire

New Hampshire Trends

Trucks, Tractors & Trailers and Private Passenger Types Liability

	Current Trends <u>Data through 12/31/2017</u>	Previous Trends <u>Data through 12/31/2016</u>
New Hampshire Claim Cost Trends		
Bodily Injury (\$100,000 Limit)	+14.4%	+4.5%
Property Damage (\$100,000 Limit)	+4.2%	+6.9%
Credibility-Weighted Claim Cost Trends		
Bodily Injury (\$100,000 Limit)	+3.8%	+2.7%
Property Damage (\$100,000 Limit)	+4.7%	+5.9%
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)	+3.8%	+2.7%
Property Damage (\$100,000 Limit)	+4.7%	+5.9%
Private Passenger Types		
Bodily Injury (\$100,000 Limit)	+3.8%	+2.7%
Property Damage (\$100,000 Limit)	+4.7%	+5.9%

New Hampshire bodily injury severity trend receives 0% weight when combined with multistate trend in the filing, property damage trend receives 15% weight.

If the prior trends were used to calculate the indicated changes in this document, the Truck, Tractors & Trailers Liability indication would have been +4.9% rather than +4.4%. For the Private Passenger Types coverage, the indication would have been +3.6%.

Supplementary Information – New Hampshire

Physical Damage Loss Trend

	<u>Coverage</u>	Current Trends	Previous Trends
		<u>Data through 12/31/2017</u>	<u>Data through 12/31/2016</u>
Trucks, Tractors & Trailers	OTC	+7.0%	+6.5%
	Collision	+5.0%	+5.5%
Private Passenger Types	OTC	+6.5%	+5.0%
	Collision	+4.5%	+5.0%

Physical Damage OCN Trend

	<u>Coverage</u>	Current Trends	Previous Trends
		<u>Data through 12/31/2017</u>	<u>Data through 12/31/2016</u>
Trucks, Tractors & Trailers	OTC	+1.0%	+0.9%
	Collision	+1.6%	+1.3%
Private Passenger Types	OTC	+1.1%	+1.0%
	Collision	+0.6%	+0.6%

The loss trend has increased by 0.5 points for Trucks, Tractors & Trailers OTC and has increased by 1.5 points for Private Passenger Types OTC. The OCN trend has increased by 0.1 points for Trucks, Tractors and Trailers OTC and 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 +2.4%, instead of +3.3%, and +4.1%, instead of +7.1%, 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 increased by 0.3 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 and Trailers and Private Passenger Types collision indications in this document would have been +1.2% instead of -1.0%, and +6.0%, instead of +4.3%, respectively.

Supplementary Information – New Hampshire

Loss Development

Methodology

For the Trucks, Tractors & Trailers and Private Passenger Types Liability coverages, we continue to employ a credibility-weighted combination of New Hampshire 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	1.080	1.078
27 to Ultimate	1.202	1.204
15 to Ultimate	1.513	1.497
Trucks, Tractors and Trailers PD		
39 to Ultimate	1.003	1.004
27 to Ultimate	1.011	1.012
15 to Ultimate	1.064	1.056
Private Passenger Types BI		
39 to Ultimate	1.069	1.064
27 to Ultimate	1.169	1.158
15 to Ultimate	1.414	1.348
Private Passenger Types PD		
39 to Ultimate	1.004	1.005
27 to Ultimate	1.012	1.012
15 to Ultimate	1.050	1.060

Supplementary Information – New Hampshire

Other Factors

Unallocated Loss Adjustment Expense factors:

	<u>Data through 12/31/2016</u>	<u>Data through 12/31/2015</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 -4.2% is indicated when each of the coverage indications is weighted by its respective loss cost volume. Staff will file the indications, which reflect a 10/01/2019 proposed effective date, with the following exceptions:

<u>Coverage</u>	<u>Indicated Change</u>	<u>Filed Change</u>
Trucks, Tractors and Trailers UM/UIM	-78.5%	-72.1%
Private Passenger Types UM/UIM	-72.8%	-69.8%
Trucks, Tractors and Trailers OTC	3.3%	N.C.
Trucks, Tractors and Trailers Collision	-1.0%	N.C.

The overall filed change is -3.9%.

Notes

- 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.
- A revision of the Medical Payments loss costs is included in this document. The overall change for the Trucks, Tractors and Trailers, Private Passenger Types and Public Automobiles medical payments revision is reflected in the overall change quoted in this filing. The documentation for this revision can be found in Section D.
- A revision of the Non-ownership Liability loss costs contained in Rule 89.C.1.a.(1) is included in this document. The overall change for this coverage is reflected in the overall change quoted in this filing. The documentation for this revision can be found in Section E.
- A revision of the Uninsured and Underinsured Motorists loss costs contained in Rule 97 is included in this document. The overall change for the Private Passenger Types and Other than Private Passenger Types UM and UIM revision is reflected in the overall change quoted in this filing. The documentation for this revision can be found in Section F.
- The high indication for Private Passenger Types Comprehensive is due to the poor experience in the three out of five experience years.