

LOSS COSTS – IMPLEMENTATION

AUGUST 7, 2018

COMMERCIAL AUTOMOBILE

LI-CA-2018-179

TENNESSEE REVISED COMMERCIAL AUTO ADVISORY PROSPECTIVE LOSS COSTS, INCLUDING REVISED MEDICAL PAYMENTS, NON-OWNERSHIP LIABILITY AND UNINSURED AND UNDERINSURED MOTORISTS LOSS COSTS, TO BE IMPLEMENTED

KEY MESSAGE

Loss costs representing a **+1.3%** statewide change to be implemented.

BACKGROUND

In circular [LI-CA-2018-153](#), we provided you with information about the Commercial Auto loss cost level experience review.

ISO ACTION

We are implementing CA-2018-BRLA1, which:

- Revises the liability and physical damage loss costs for Trucks, Tractors and Trailers, Private Passenger Types and Public Autos;
- Revises the loss costs for medical payments coverage and introduces relativities that are different for each territory;
- Revises the loss costs for non-ownership liability coverage and introduces new employee count ranges;
- Revises the loss costs for uninsured and underinsured motorists coverage; and
- Revises the liability loss cost for Hired Autos in Rule **90.B.3.b**.

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

SUPPLEMENTARY INFORMATION

We are including the following supplementary information:

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

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

EFFECTIVE DATE

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

These changes are applicable to all policies written on or after February 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 February 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 JANUARY 3, 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-2018-BRLA1, NOT this circular number.

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

RATING SOFTWARE IMPACT

No new attributes are being introduced with this revision.

POLICYHOLDER NOTIFICATION

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

FUTURE ISO ACTION

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

REVISION DISTRIBUTION

We will issue a Notice to Manualholders with an edition date of 2-19 (or the earliest possible subsequent date), along with any new and/or revised manual pages.

REFERENCE(S)

- [LI-CA-2018-153](#) (06/06/2018) Commercial Auto Experience Level Indications Reviewed By Staff
 - [LI-CL-2017-074](#) (11/20/2017) Revised Lead Time Requirements Listing
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ATTACHMENT(S)

- Filing [CA-2018-BRLA1](#)
 - Supplementary Information Exhibit
 - Excel Workbook
-

FILES AVAILABLE FOR DOWNLOAD

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

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

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ACKNOWLEDGEMENT OF ACTUARIAL QUALIFICATIONS

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

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

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TENNESSEE

BASIC LIMITS PROSPECTIVE LOSS COST LEVEL – COMMERCIAL AUTOMOBILE

FILING CA-2018-BRLA1

EXECUTIVE SUMMARY

PURPOSE

This document:

- revises the advisory prospective loss costs for the major Commercial Automobile classes. These loss costs represent a 1.3% statewide change from the loss costs currently in effect.
- provides the analyses used to derive these advisory loss costs.

DEFINITION OF
THE ISO ADVISORY
PROSPECTIVE
LOSS COSTS

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

OPTIONAL CLASS
PLAN LOSS COSTS

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

AUTO DEALERS
LIABILITY
COVERAGE

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

MEDICAL
PAYMENTS
COVERAGE

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.

NON-OWNERSHIP
LIABILITY
COVERAGE

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.

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. 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	6.8%	6.8%
Medical Payments	-82.2%	-82.2%
Uninsured/Underinsured Motorists	-21.2%	-21.2%
Physical Damage		
Other than Collision	9.2%	9.2%
Collision	-8.3%	-8.3%
Total Trucks, Tractors & Trailers	0.6%	0.6%
<u>Private Passenger Types</u>		
Liability		
Single Limit Liability	4.8%	4.8%
Medical Payments	-48.7%	-48.7%
Uninsured/Underinsured Motorists	-8.5%	-18.2%
Physical Damage		
Other than Collision	4.8%	4.8%
Collision	-1.6%	N.C.
Total Private Passenger Types	1.2%	0.9%
<u>Public Automobile Classes</u>		
Medical Payments	-41.2%	-41.2%
<u>Non-Ownership Liability</u>	81.9%	81.9%
<u>Grand Total</u>	1.3%	1.3%

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

INDICATED VS.
FILED

Indicated changes are based on standard ISO methodology, utilizing a 2/1/2019 trend effective date. The filed loss cost level changes are the same as the indicated with the following exception: No Change (N.C.) was selected for Private Passenger Types Collision due to the modest indication. For Private Passenger Types Uninsured/Underinsured Motorists, the UM indication was capped for stability.

PRIOR ISO
REVISIONS

The latest selected revisions in this state are:

<u>Filing</u>	CA-17-BRLA1	CA-16-BRLA1	CA-15-BRLA1
Rate Level/ Loss Costs	Loss Costs	Loss Costs	Loss Costs
Effective Date	2/1/2018	2/1/2017	2/1/2016
<u>Changes</u>			
Indicated	13.4%	2.7%	4.4%
Filed	13.4%	1.2%	4.5%
Approved	13.4%	1.2%	4.5%

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 06/30/2017 for all coverages.

ADJUSTMENTS TO
REPORTED
EXPERIENCE

Loss Trend

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

Claim cost trend data through second quarter 2017 and claim frequency trend data through first 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	+2.8%
Property Damage	+6.0%
Private Passenger Types Liability:	
Bodily Injury	+2.8%
Property Damage	+6.0%
Trucks, Tractors & Trailers OTC	+7.0%
Trucks, Tractors & Trailers Collision	+5.0%
Private Passenger Types OTC	+6.0%
Private Passenger Types Collision	+5.0%

OCN Trend

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

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

TEN LARGEST
COMPANIES/
GROUPS
IN THIS REVIEW

LIABILITY (ASLOB 19.3 & 19.4)

1. Travelers Indemnity Company
2. Cherokee Insurance Company
3. Cincinnati Insurance Company
4. Zurich American Insurance Company
5. Liberty Mutual Insurance Company
6. Westfield Insurance Company
7. Tokio Marine Companies
8. American International Group
9. Hartford Accident & Indemnity Co.
10. XL Specialty Insurance Company

PHYSICAL DAMAGE (ASLOB 21.2)

1. OneBeacon Insurance Group
2. Travelers Indemnity Company
3. Cherokee Insurance Company
4. Cincinnati Insurance Company
5. Liberty Mutual Insurance Company
6. American Hallmark Ins. Co. of Texas
7. Sentry Insurance A Mutual Company
8. Westfield Insurance Company
9. Zurich American Insurance Company
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 12/31/2016 for the Annual Statement Line of Business (ASLOB) indicated.

MARKET SHARE

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

Liability (ASLOB 19.3 & 19.4)
51.2%

Physical Damage (ASLOB 21.2)
38.8%

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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TENNESSEE
COMMERCIAL AUTOMOBILE
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TENNESSEE
COMMERCIAL AUTOMOBILE

SECTION A - SCOPE OF REVISION

Summary of Prospective Loss Cost Level Changes	A2
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TENNESSEE
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	\$ 62,261,162	6.8%
Medical Payments	2,814,338	-82.2%
Uninsured (Includes Underinsured) Motorists	2,731,893	-21.2%
Combined	67,807,393	2.0%
Physical Damage		
Other Than Collision	4,579,037	9.2%
Collision	14,960,367	-8.3%
Combined	19,539,404	-4.2%
Total Trucks, Tractors & Trailers	87,346,797	0.6%
PRIVATE PASSENGER TYPES		
Liability		
Single Limit Liability	9,385,754	4.8%
Medical Payments	365,818	-48.7%
Uninsured (Includes Underinsured) Motorists	994,852	-18.2%
Combined	10,746,424	0.8%
Physical Damage		
Other Than Collision	1,090,520	4.8%
Collision	3,354,345	N.C.
Combined	4,444,865	1.2%
Total Private Passenger Types	15,191,289	0.9%
PUBLIC AUTOMOBILE CLASSES		
Medical Payments	201,300	-37.1%
NON-OWNERSHIP LIABILITY	918,477	81.1%
GRAND TOTAL ALL COVERAGES	103,657,863	1.3%
TOTAL LIABILITY	79,673,594	2.6%
TOTAL PHYSICAL DAMAGE	23,984,269	-3.2%

(A) An implementation date of 2/1/2019 is assumed for purposes of trending.

(B) Accident Year ending 06/30/2017 Aggregate Loss Cost at Current Level for Liability, Uninsured (Includes Underinsured Motorists) and Physical Damage coverages. 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.

TENNESSEE

TERRITORY LOSS COST LEVEL CHANGES

FOR TRUCKS, TRACTORS & TRAILERS POLICY COVERAGES

TERRITORY CODE	\$100,000 CSL LIABILITY	\$500 MED PAY
101	5.7%	-87.5%
102	6.9%	-85.7%
103	8.2%	-81.8%
104	6.9%	-83.3%
106	6.3%	-77.8%
109	12.1%	-87.5%
112	9.2%	-87.5%
120	6.7%	-88.9%
121	3.2%	-87.5%
122	4.9%	-75.0%
123	3.5%	-87.5%
124	6.9%	-88.9%
125	7.5%	-84.6%
126	5.8%	-87.5%
127	6.8%	-75.0%
128	2.3%	-88.9%
129	5.5%	-77.8%
130	5.8%	-87.5%

TENNESSEE

TERRITORY LOSS COST LEVEL CHANGES

FOR TRUCKS, TRACTORS & TRAILERS POLICY COVERAGES

TERRITORY	PHYSICAL DAMAGE		SPECIFIED CAUSES
CODE	COMPREHENSIVE	COLLISION	OF LOSS
101	6.7%	-6.6%	7.1%
102	9.3%	-7.4%	8.8%
103	13.9%	-5.7%	13.7%
104	8.2%	-8.8%	7.6%
106	10.9%	-8.2%	10.5%
109	14.4%	-13.0%	14.5%
112	9.7%	-7.5%	10.4%
120	9.6%	-8.4%	10.3%
121	11.4%	-7.5%	11.2%
122	9.7%	-10.8%	10.4%
123	8.7%	-8.9%	8.3%
124	12.2%	-4.7%	12.0%
125	7.2%	-7.0%	6.7%
126	6.2%	-8.7%	5.7%
127	8.9%	-5.8%	8.1%
128	11.4%	-11.6%	12.2%
129	8.2%	-9.8%	7.7%
130	13.1%	-5.3%	13.0%

TENNESSEE

REVISED BASE LOSS COSTS BY TERRITORY

FOR TRUCKS, TRACTORS & TRAILERS POLICY COVERAGES

TERRITORY	LIABILITY					
CODE	\$100,000	\$500				SPECIFIED CAUSES
	CSL	MED PAY (a)	COMPREHENSIVE (b)	COLLISION (c)		OF LOSS (d)
101	460	2	128	240		120
102	405	2	106	264		99
103	343	2	115	215		108
104	355	2	106	238		99
106	269	2	102	201		95
109	250	1	135	260		126
112	249	1	113	186		106
120	271	1	114	239		107
121	226	1	127	234		119
122	236	2	113	190		106
123	237	1	125	226		117
124	280	1	110	204		103
125	385	2	119	253		111
126	238	1	138	261		129
127	237	2	86	213		80
128	267	1	117	222		110
129	269	2	105	174		98
130	237	1	121	269		113

(a) THE LOSS COSTS FOR MEDICAL PAYMENTS HAVE BEEN CALCULATED BY MULTIPLYING A RELATIVITY BY THE TRUCKS, TRACTORS & TRAILERS CSL LIABILITY LOSS COSTS. THE RELATIVITIES DIFFER BY TERRITORY AND ARE LISTED IN SECTION D.

(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 0.936 TO THE TRUCKS, TRACTORS & TRAILERS COMPREHENSIVE BASE LOSS COSTS.

TENNESSEE

TERRITORY LOSS COST LEVEL CHANGES

FOR PRIVATE PASSENGER TYPES POLICY COVERAGES

TERRITORY CODE	LIABILITY	
	\$100,000	\$500
	CSL	MED PAY
101	6.4%	-62.5%
102	4.6%	-66.7%
103	8.9%	-66.7%
104	5.6%	-66.7%
106	4.7%	-80.0%
109	6.5%	-60.0%
112	6.0%	-60.0%
120	4.4%	-66.7%
121	4.4%	-66.7%
122	4.4%	-60.0%
123	3.1%	-80.0%
124	2.1%	-60.0%
125	4.0%	-66.7%
126	0.9%	-75.0%
127	3.3%	-60.0%
128	1.8%	-66.7%
129	2.8%	-60.0%
130	3.9%	-80.0%

TENNESSEE

TERRITORY LOSS COST LEVEL CHANGES

FOR PRIVATE PASSENGER TYPES POLICY COVERAGES

TERRITORY CODE	PHYSICAL DAMAGE COMPREHENSIVE
101	0.0%
102	5.6%
103	4.5%
104	5.4%
106	4.5%
109	4.0%
112	5.4%
120	4.2%
121	4.2%
122	4.2%
123	5.3%
124	5.0%
125	4.3%
126	7.4%
127	1.8%
128	5.6%
129	4.5%
130	7.1%

TENNESSEE

REVISED BASE LOSS COSTS BY TERRITORY

FOR PRIVATE PASSENGER TYPES POLICY COVERAGES

TERRITORY	LIABILITY	\$500	
CODE	\$100,000	MED PAY (a)	COMPREHENSIVE (b)
101	415	3	66
102	319	2	75
103	318	2	70
104	284	2	78
106	225	1	69
109	277	2	129
112	266	2	59
120	283	2	74
121	282	2	75
122	263	2	74
123	236	1	99
124	246	2	84
125	289	2	73
126	214	1	102
127	253	2	57
128	285	2	75
129	254	2	70
130	237	1	91

(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 SECTION D.

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

TENNESSEE

TERRITORY LOSS COST LEVEL CHANGES

FOR VAN POOLS POLICY COVERAGES

TERRITORY CODE	\$100,000 CSL LIABILITY	\$500 MED PAY
101	5.7%	-89.1%
102	6.9%	-87.5%
103	8.2%	-88.2%
104	7.0%	-88.6%
106	6.3%	-88.9%
109	11.9%	-87.5%
112	9.4%	-87.5%
120	6.8%	-88.9%
121	3.0%	-87.0%
122	4.7%	-87.5%
123	3.5%	-87.5%
124	6.9%	-89.3%
125	7.6%	-86.8%
126	5.6%	-87.5%
127	6.9%	-87.5%
128	2.3%	-89.3%
129	5.5%	-88.9%
130	6.0%	-87.5%

TENNESSEE

TERRITORY LOSS COST LEVEL CHANGES

FOR VAN POOLS POLICY COVERAGES

TERRITORY	PHYSICAL DAMAGE		SPECIFIED CAUSES
CODE	COMPREHENSIVE	COLLISION	OF LOSS
101	7.4%	-6.4%	7.0%
102	9.1%	-7.5%	8.6%
103	13.6%	-5.9%	13.4%
104	8.0%	-8.8%	7.4%
106	10.6%	-8.3%	10.2%
109	15.0%	-13.2%	15.2%
112	9.5%	-7.5%	10.2%
120	9.4%	-8.2%	10.1%
121	12.1%	-7.5%	11.0%
122	9.5%	-11.1%	10.2%
123	9.4%	-8.9%	8.2%
124	12.0%	-4.8%	11.7%
125	7.1%	-7.0%	6.6%
126	6.0%	-8.8%	6.5%
127	8.6%	-5.6%	9.3%
128	11.2%	-11.6%	12.0%
129	8.1%	-9.8%	7.5%
130	12.8%	-5.3%	12.7%

TENNESSEE

REVISED BASE LOSS COSTS BY TERRITORY

FOR VAN POOLS POLICY COVERAGES

TERRITORY	LIABILITY				
CODE	\$100,000	\$500			SPECIFIED CAUSES
	CSL (a)	MED PAY (b)	COMPREHENSIVE (c)	COLLISION (d)	OF LOSS (e)
101	690	5	131	305	122
102	608	5	108	335	101
103	515	4	117	273	110
104	533	4	108	302	101
106	404	3	104	255	97
109	375	3	138	330	129
112	374	3	115	236	108
120	407	3	116	304	109
121	339	3	130	297	121
122	354	3	115	241	108
123	356	3	128	287	119
124	420	3	112	259	105
125	578	5	121	321	113
126	357	3	141	331	132
127	356	3	88	271	82
128	401	3	119	282	112
129	404	3	107	221	100
130	356	3	123	342	115

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

TENNESSEE

TERRITORY LOSS COST LEVEL CHANGES
 FOR TAXIS AND LIMOUSINES POLICY COVERAGES

TERRITORY CODE	\$100,000 CSL LIABILITY	\$500 MED PAY
101	5.7%	-77.3%
102	6.9%	-76.5%
103	8.2%	-76.1%
104	6.9%	-77.0%
106	6.3%	-76.8%
109	12.1%	-76.0%
112	9.2%	-76.5%
120	6.7%	-77.2%
121	3.2%	-77.6%
122	4.9%	-78.0%
123	3.5%	-78.4%
124	6.9%	-75.9%
125	7.5%	-76.2%
126	5.8%	-76.0%
127	6.8%	-78.0%
128	2.3%	-77.6%
129	5.5%	-77.2%
130	5.8%	-78.0%

TENNESSEE

TERRITORY LOSS COST LEVEL CHANGES
FOR TAXIS AND LIMOUSINES POLICY COVERAGES

TERRITORY	PHYSICAL DAMAGE		SPECIFIED CAUSES
CODE	COMPREHENSIVE	COLLISION	OF LOSS
101	7.4%	-6.4%	7.0%
102	9.1%	-7.5%	8.6%
103	13.6%	-5.9%	13.4%
104	8.0%	-8.8%	7.4%
106	10.6%	-8.3%	10.2%
109	15.0%	-13.2%	15.2%
112	9.5%	-7.5%	10.2%
120	9.4%	-8.2%	10.1%
121	12.1%	-7.5%	11.0%
122	9.5%	-11.1%	10.2%
123	9.4%	-8.9%	8.2%
124	12.0%	-4.8%	11.7%
125	7.1%	-7.0%	6.6%
126	6.0%	-8.8%	6.5%
127	8.6%	-5.6%	9.3%
128	11.2%	-11.6%	12.0%
129	8.1%	-9.8%	7.5%
130	12.8%	-5.3%	12.7%

TENNESSEE

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

TERRITORY	LIABILITY				
CODE	\$100,000	\$500			SPECIFIED CAUSES
	CSL (a)	MED PAY (b)	COMPREHENSIVE (c)	COLLISION (d)	OF LOSS (e)
101	2852	22	131	305	122
102	2511	20	108	335	101
103	2127	17	117	273	110
104	2201	17	108	302	101
106	1668	13	104	255	97
109	1550	12	138	330	129
112	1544	12	115	236	108
120	1680	13	116	304	109
121	1401	11	130	297	121
122	1463	11	115	241	108
123	1469	11	128	287	119
124	1736	14	112	259	105
125	2387	19	121	321	113
126	1476	12	141	331	132
127	1469	11	88	271	82
128	1655	13	119	282	112
129	1668	13	107	221	100
130	1469	11	123	342	115

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

TENNESSEE

TERRITORY LOSS COST LEVEL CHANGES

FOR SCHOOL AND CHURCH BUSES POLICY COVERAGES

TERRITORY CODE	\$100,000 CSL LIABILITY	\$500 MED PAY
101	5.9%	-70.0%
102	7.2%	-66.7%
103	8.6%	-57.1%
104	6.6%	-75.0%
106	6.5%	-66.7%
109	12.2%	-60.0%
112	9.6%	-60.0%
120	6.4%	-66.7%
121	3.3%	-60.0%
122	4.8%	-60.0%
123	3.2%	-60.0%
124	6.9%	-66.7%
125	7.6%	-62.5%
126	5.6%	-60.0%
127	6.6%	-60.0%
128	2.1%	-66.7%
129	5.7%	-66.7%
130	5.7%	-60.0%

TENNESSEE

TERRITORY LOSS COST LEVEL CHANGES
FOR SCHOOL AND CHURCH BUSES POLICY COVERAGES

TERRITORY CODE	PHYSICAL DAMAGE		SPECIFIED CAUSES OF LOSS
	COMPREHENSIVE	COLLISION	
101	7.1%	-6.6%	7.7%
102	8.8%	-7.0%	7.8%
103	14.1%	-5.4%	13.4%
104	7.2%	-8.8%	7.8%
106	10.9%	-7.7%	11.7%
109	14.5%	-12.9%	14.3%
112	9.7%	-7.6%	10.4%
120	9.6%	-8.8%	10.3%
121	11.3%	-7.3%	10.7%
122	9.7%	-10.1%	10.4%
123	8.6%	-8.7%	7.9%
124	11.6%	-4.3%	12.5%
125	6.4%	-7.3%	6.8%
126	6.6%	-8.6%	5.9%
127	9.1%	-6.1%	7.7%
128	10.8%	-11.7%	11.6%
129	8.8%	-9.6%	7.8%
130	13.3%	-5.4%	12.9%

TENNESSEE

REVISED BASE LOSS COSTS BY TERRITORY

FOR SCHOOL AND CHURCH BUSES POLICY COVERAGES

TERRITORY	LIABILITY				
CODE	\$100,000	\$500			SPECIFIED CAUSES
	CSL (a)	MED PAY (b)	COMPREHENSIVE (c)	COLLISION (d)	OF LOSS (e)
101	253	3	90	156	84
102	223	3	74	172	69
103	189	3	81	140	76
104	195	2	74	155	69
106	148	2	71	131	67
109	138	2	95	169	88
112	137	2	79	121	74
120	149	2	80	155	75
121	124	2	89	152	83
122	130	2	79	124	74
123	130	2	88	147	82
124	154	2	77	133	72
125	212	3	83	164	78
126	131	2	97	170	90
127	130	2	60	138	56
128	147	2	82	144	77
129	148	2	74	113	69
130	130	2	85	175	79

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

TENNESSEE

TERRITORY LOSS COST LEVEL CHANGES
FOR ALL OTHER BUSES POLICY COVERAGES

TERRITORY CODE	\$100,000 CSL LIABILITY	\$500 MED PAY
101	5.7%	-73.6%
102	6.9%	-71.7%
103	8.1%	-66.7%
104	6.9%	-67.5%
106	6.3%	-67.7%
109	12.2%	-55.6%
112	9.2%	-60.7%
120	6.7%	-67.7%
121	3.2%	-59.3%
122	4.9%	-66.7%
123	3.6%	-60.7%
124	6.8%	-62.5%
125	7.6%	-75.0%
126	5.7%	-59.3%
127	6.8%	-59.3%
128	2.3%	-65.6%
129	5.5%	-61.3%
130	5.9%	-59.3%

TENNESSEE

TERRITORY LOSS COST LEVEL CHANGES
FOR ALL OTHER BUSES POLICY COVERAGES

TERRITORY	PHYSICAL DAMAGE		SPECIFIED CAUSES
CODE	COMPREHENSIVE	COLLISION	OF LOSS
101	7.1%	-6.6%	7.7%
102	8.8%	-7.0%	7.8%
103	14.1%	-5.4%	13.4%
104	7.2%	-8.8%	7.8%
106	10.9%	-7.7%	11.7%
109	14.5%	-12.9%	14.3%
112	9.7%	-7.6%	10.4%
120	9.6%	-8.8%	10.3%
121	11.3%	-7.3%	10.7%
122	9.7%	-10.1%	10.4%
123	8.6%	-8.7%	7.9%
124	11.6%	-4.3%	12.5%
125	6.4%	-7.3%	6.8%
126	6.6%	-8.6%	5.9%
127	9.1%	-6.1%	7.7%
128	10.8%	-11.7%	11.6%
129	8.8%	-9.6%	7.8%
130	13.3%	-5.4%	12.9%

TENNESSEE

REVISED BASE LOSS COSTS BY TERRITORY
FOR ALL OTHER BUSES POLICY COVERAGES

TERRITORY	LIABILITY					
CODE	\$100,000	\$500				SPECIFIED CAUSES
	CSL (a)	MED PAY (b)	COMPREHENSIVE (c)	COLLISION (d)		OF LOSS (e)
101	1748	14	90	156		84
102	1539	13	74	172		69
103	1303	13	81	140		76
104	1349	13	74	155		69
106	1022	10	71	131		67
109	950	12	95	169		88
112	946	11	79	121		74
120	1030	10	80	155		75
121	859	11	89	152		83
122	897	9	79	124		74
123	901	11	88	147		82
124	1064	12	77	133		72
125	1463	11	83	164		78
126	904	11	97	170		90
127	901	11	60	138		56
128	1015	11	82	144		77
129	1022	12	74	113		69
130	901	11	85	175		79

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

TENNESSEE
COMMERCIAL AUTOMOBILE

SECTION B - CALCULATION OF CHANGES

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OVERVIEW OF ISO ACTUARIAL PROCEDURES – COMMERCIAL AUTOMOBILE

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

OVERVIEW OF ISO ACTUARIAL PROCEDURES – COMMERCIAL AUTOMOBILE

STEP 1 – DETERMINATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGE

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

INCURRED
LOSSES & LAE
(Item 2)

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

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

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

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

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

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

EXPERIENCE
RATIO
(Item 3)

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

YEAR WEIGHTS
(Item 4)

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

EXPECTED
EXPERIENCE
RATIO
(Item 7)

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

CREDIBILITY

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

CREDIBILITY
WEIGHTED
EXPERIENCE
RATIO

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

INSURANCE SERVICES OFFICE, INC.

TENNESSEE

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

	(1)	(2)	(3)	(4)	(5)
ACCIDENT	AGGREGATE		EXPERIENCE	ACCIDENT	NUMBER
YEAR	LOSS COST	\$ 100,000	RATIO	YEAR	OF
ENDING	AT CURRENT	INCURRED	(2) / (1)	WEIGHTS	INCURRED
	LEVEL (B)	LOSSES (C)			CLAIMS
06/30/15	\$ 32,995,639	\$ 31,889,877	0.966	20%	3,073
06/30/16	\$ 34,225,568	\$ 38,305,529	1.119	30%	3,593
06/30/17	\$ 35,275,446	\$ 38,252,548	1.084	50%	3,646
(6)	AVERAGE EXPERIENCE RATIO (SUM OF (3) * (4)).				1.071
(7)	EXPECTED EXPERIENCE RATIO (D).				1.041
(8)	CREDIBILITY (E).				0.90
(9)	CREDIBILITY WEIGHTED EXPERIENCE RATIO: ((6) * (8)) + ((7) * (1.000 - (8))).				1.068
(10)	INDICATED PERCENTAGE CHANGE IN ADVISORY LOSS COST LEVEL ((9) - 1.000).				6.8%
(11)	FILED CHANGE.				6.8%

- (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 02/01/19 WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING, SUBJECT TO A MAXIMUM OF THE N-VALUE CORRESPONDING TO THE LATEST YEAR SHOWN ON THE FOLLOWING PAGE, FOOTNOTE B. IN THIS REVISION, THE PERIOD M IS 1.00 YEAR(S).
- (E) CREDIBILITY IS BASED ON A 3 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.

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

	ACC. YEAR ENDING	BODILY INJURY	PROPERTY DAMAGE	COMBINED
(1) INCURRED LOSSES AND	06/30/15	\$12,983,838	\$9,723,317	
ALLOCATED LOSS	06/30/16	\$14,856,435	\$12,229,454	
ADJUSTMENT EXPENSES.	06/30/17	\$13,831,572	\$11,886,455	
(2) DEVELOPED LOSSES AND	06/30/15	\$15,088,256	\$10,797,987	
ALL LOSS ADJUSTMENT	06/30/16	\$18,692,366	\$13,702,737	
EXPENSES (A) .	06/30/17	\$20,256,059	\$13,528,570	
(3) SELECTED ANNUAL LOSS TREND (SEE TREND EXHIBIT IN SECTION C) .		+ 2.8%	+ 6.0%	+ 4.1%
(4) TRENDED LOSSES AND	06/30/15	\$17,366,585	\$14,523,292	\$31,889,877
ALL LOSS ADJUSTMENT	06/30/16	\$20,916,758	\$17,388,771	\$38,305,529
EXPENSES (B) .	06/30/17	\$22,058,851	\$16,193,697	\$38,252,548

- (A) INCURRED LOSSES AND ALLOCATED LOSS ADJUSTMENT EXPENSES ARE ADJUSTED BY THE FOLLOWING FACTORS:
- 1 - UNALLOCATED LOSS ADJUSTMENT FACTORS: B.I. 1.080 P.D. 1.105
- 2 - LOSS DEVELOPMENT FACTORS:

YEAR ENDING	B.I.	P.D.
06/30/15	1.076	1.005
06/30/16	1.165	1.014
06/30/17	1.356	1.030

- (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 02/01/19, WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING.

YEAR ENDING	AVERAGE DATE OF ACCIDENT	PROJECTION PERIOD
06/30/15	01/01/15	5.083
06/30/16	01/01/16	4.083
06/30/17	01/01/17	3.083

INSURANCE SERVICES OFFICE, INC.

TENNESSEE

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

		(1) AGGREGATE LOSS COST AT CURRENT LEVEL (B)	(2) INCURRED LOSSES (C)	(3) EXPERIENCE RATIO (2) / (1)	(4) ACCIDENT YEAR WEIGHTS	(5) NUMBER OF PAID CLAIMS
COV- ERAGE O.T.C.	ACCIDENT YEAR ENDING					
	06/30/13	\$ 4,184,682	\$ 4,509,550	1.078	10%	717
	06/30/14	\$ 4,163,344	\$ 4,108,165	0.987	15%	635
	06/30/15	\$ 4,196,360	\$ 4,551,572	1.085	20%	674
	06/30/16	\$ 4,354,846	\$ 4,556,914	1.046	25%	698
	06/30/17	\$ 4,579,037	\$ 5,860,403	1.280	30%	764
COLL.	06/30/15	\$ 13,167,214	\$ 12,906,216	0.980	20%	1,277
	06/30/16	\$ 13,965,093	\$ 13,896,271	0.995	30%	1,256
	06/30/17	\$ 14,960,367	\$ 12,221,396	0.817	50%	1,297

O.T.C. COLLISION

(6) AVERAGE EXPERIENCE RATIO (SUM OF (3)*(4)). 1.119 0.904

(7) EXPECTED EXPERIENCE RATIO (D). 1.060 1.037

(8) CREDIBILITY (E). 0.55 0.90

(9) CREDIBILITY WEIGHTED EXPERIENCE RATIO:
((6) * (8)) + ((7) * (1.000 - (8))). 1.092 0.917(10) INDICATED PERCENTAGE CHANGE IN ADVISORY
LOSS COST LEVEL ((9) - 1.000). 9.2% -8.3%

(11) FILED CHANGE. 9.2% -8.3%

(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 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 02/01/19, WHICH
IS ASSUMED FOR THE PURPOSE OF TRENDING, SUBJECT TO A MAXIMUM OF THE N-VALUE
CORRESPONDING TO THE LATEST YEAR SHOWN ON THE FOLLOWING PAGE, FOOTNOTE B.
IN THIS REVISION, THE PERIOD IS 1.00 YEAR(S).(E) CREDIBILITY IS BASED ON A 5 YEAR TOTAL OF CLAIMS FOR O.T.C. AND A
3 YEAR TOTAL OF CLAIMS FOR COLLISION SHOWN IN COLUMN (5).
THE STANDARDS FOR FULL CREDIBILITY ARE 11,000 CLAIMS FOR O.T.C.
AND 4,500 CLAIMS FOR COLLISION (SEE CREDIBILITY TABLES IN SECTION C).

INSURANCE SERVICES OFFICE, INC.

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

	ACC. YEAR ENDING	O.T.C.	COLLISION
(1) PAID LOSSES.	06/30/13	\$2,449,378	----
	06/30/14	\$2,388,107	----
	06/30/15	\$2,831,636	\$8,846,662
	06/30/16	\$3,029,817	\$10,041,777
	06/30/17	\$4,051,117	\$9,472,199
(2) DEVELOPED LOSSES AND	06/30/13	\$2,792,292	----
ALL LOSS ADJUSTMENT	06/30/14	\$2,722,442	----
EXPENSES (A).	06/30/15	\$3,228,066	\$10,075,109
	06/30/16	\$3,457,445	\$11,390,388
	06/30/17	\$4,756,822	\$10,517,553
(3) SELECTED ANNUAL LOSS TREND (SEE TREND EXHIBIT IN SECTION C)		+ 7.0%	+ 5.0%
(4) TRENDED LOSSES & ALL LOSS	06/30/13	\$4,509,550	----
ADJUSTMENT EXPENSES (B).	06/30/14	\$4,108,165	----
	06/30/15	\$4,551,572	\$12,906,216
	06/30/16	\$4,556,914	\$13,896,271
	06/30/17	\$5,860,403	\$12,221,396
(A) PAID LOSSES ARE ADJUSTED BY THE FOLLOWING:			
1-LOSS ADJUSTMENT EXPENSE FACTORS:			
	O.T.C.	COLL.	
	1.140	1.140	
2-LOSS DEVELOPMENT FACTORS:			
	YEAR		
	ENDING	O.T.C.	COLL.
	06/30/13	1.000	-----
	06/30/14	1.000	-----
	06/30/15	1.000	0.999
	06/30/16	1.001	0.995
	06/30/17	1.030	0.974
(B) TRENDED LOSSES ARE EQUAL TO (2) * ((1.0 + (3))*N), WHERE N IS EQUAL TO THE NUMBER OF YEARS PROJECTION FROM THE AVERAGE DATE OF ACCIDENT TO ONE YEAR BEYOND THE ANTICIPATED IMPLEMENTATION DATES OF 02/01/19 FOR OTC AND 02/01/19 FOR COLLISION, WHICH ARE ASSUMED FOR THE PURPOSE OF TRENDING.			

YEAR ENDING	AVERAGE DATE OF ACCIDENT	PROJECTION PERIOD OTC	PROJECTION PERIOD COLL
06/30/13	01/01/13	7.083	-----
06/30/14	01/01/14	6.083	-----
06/30/15	01/01/15	5.083	5.083
06/30/16	01/01/16	4.083	4.083
06/30/17	01/01/17	3.083	3.083

INSURANCE SERVICES OFFICE, INC.

TENNESSEE
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	06/30/13	\$3,925,593	----
AT CURRENT LEVEL.	06/30/14	\$3,942,563	----
	06/30/15	\$4,007,985	\$12,328,851
	06/30/16	\$4,199,466	\$13,249,613
	06/30/17	\$4,454,314	\$14,371,150
(2) SELECTED ANNUAL OCN TREND		0.9%	1.3%
(SEE OCN EXHIBIT IN SECTION C).			
(3) TRENDED AGGREGATE	06/30/13	\$4,184,682	----
LOSS COSTS AT	06/30/14	\$4,163,344	----
CURRENT LEVEL (A).	06/30/15	\$4,196,360	\$13,167,214
	06/30/16	\$4,354,846	\$13,965,093
	06/30/17	\$4,579,037	\$14,960,367
(A) TRENDED AGGREGATE LOSS COSTS ARE EQUAL TO (1) * ((1.0 + (2))*N), WHERE N IS EQUAL TO THE NUMBER OF YEARS PROJECTION FROM THE AVERAGE DATE OF WRITING TO SIX MONTHS BEYOND THE ANTICIPATED IMPLEMENTATION DATES OF 02/01/19 FOR OTC AND 02/01/19 FOR COLLISION, WHICH ARE ASSUMED FOR THE PURPOSE OF TRENDING.			

YEAR ENDING	AVERAGE DATE OF WRITING	PROJECTION PERIOD OTC	PROJECTION PERIOD COLL
06/30/13	07/01/12	7.083	-----
06/30/14	07/01/13	6.083	-----
06/30/15	07/01/14	5.083	5.083
06/30/16	07/01/15	4.083	4.083
06/30/17	07/01/16	3.083	3.083

INSURANCE SERVICES OFFICE, INC.

TENNESSEE

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

	(1)	(2)	(3)	(4)	(5)
ACCIDENT	AGGREGATE		EXPERIENCE	ACCIDENT	NUMBER
YEAR	LOSS COST	\$ 100,000	RATIO	YEAR	OF
ENDING	AT CURRENT	INCURRED	(2) / (1)	WEIGHTS	INCURRED
	LEVEL (B)	LOSSES (C)			CLAIMS
06/30/13	\$ 5,830,149	\$ 5,566,718	0.955	10%	723
06/30/14	\$ 5,717,696	\$ 6,626,605	1.159	15%	690
06/30/15	\$ 5,595,467	\$ 6,225,736	1.113	20%	639
06/30/16	\$ 5,482,210	\$ 5,841,039	1.065	25%	702
06/30/17	\$ 5,428,429	\$ 5,344,168	0.984	30%	576
(6)	AVERAGE EXPERIENCE RATIO (SUM OF (3) * (4)).				1.054
(7)	EXPECTED EXPERIENCE RATIO (D).				1.042
(8)	CREDIBILITY (E).				0.50
(9)	CREDIBILITY WEIGHTED EXPERIENCE RATIO: ((6) * (8)) + ((7) * (1.000 - (8))).				1.048
(10)	INDICATED PERCENTAGE CHANGE IN ADVISORY LOSS COST LEVEL ((9) - 1.000).				4.8%
(11)	FILED CHANGE.				4.8%

- (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 02/01/19 WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING, SUBJECT TO A MAXIMUM OF THE N-VALUE CORRESPONDING TO THE LATEST YEAR SHOWN ON THE FOLLOWING PAGE, FOOTNOTE B. IN THIS REVISION, THE PERIOD M IS 1.00 YEAR(S).
- (E) CREDIBILITY IS BASED ON A 5 YEAR TOTAL OF CLAIMS FOR B.I. AND P.D. SHOWN IN COLUMN (5). THE STANDARD FOR FULL CREDIBILITY IS 11,500 CLAIMS (SEE CREDIBILITY TABLES IN SECTION C).

INSURANCE SERVICES OFFICE, INC.

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

	ACC. YEAR ENDING	BODILY INJURY	PROPERTY DAMAGE	COMBINED
(1) INCURRED LOSSES AND	06/30/13	\$2,014,892	\$1,737,824	
ALLOCATED LOSS	06/30/14	\$3,076,575	\$1,662,138	
ADJUSTMENT EXPENSES.	06/30/15	\$2,918,409	\$1,579,857	
	06/30/16	\$2,072,922	\$2,093,853	
	06/30/17	\$1,981,762	\$1,748,407	
(2) DEVELOPED LOSSES AND	06/30/13	\$2,186,963	\$1,924,135	
ALL LOSS ADJUSTMENT	06/30/14	\$3,382,510	\$1,842,172	
EXPENSES (A).	06/30/15	\$3,356,753	\$1,756,216	
	06/30/16	\$2,556,658	\$2,348,414	
	06/30/17	\$2,692,502	\$2,015,065	
(3) SELECTED ANNUAL LOSS TREND (SEE TREND EXHIBIT IN SECTION C).		+ 2.8%	+ 6.0%	+ 4.2%
(4) TRENDED LOSSES AND	06/30/13	\$2,659,348	\$2,907,370	\$5,566,718
ALL LOSS ADJUSTMENT	06/30/14	\$4,001,509	\$2,625,096	\$6,626,605
EXPENSES (B).	06/30/15	\$3,863,625	\$2,362,111	\$6,225,736
	06/30/16	\$2,860,902	\$2,980,137	\$5,841,039
	06/30/17	\$2,932,134	\$2,412,034	\$5,344,168

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

1 - UNALLOCATED LOSS ADJUSTMENT FACTORS: B.I. 1.080 P.D. 1.105

2 - LOSS DEVELOPMENT FACTORS:

YEAR ENDING	B.I.	P.D.
06/30/13	1.005	1.002
06/30/14	1.018	1.003
06/30/15	1.065	1.006
06/30/16	1.142	1.015
06/30/17	1.258	1.043

(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 02/01/19, WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING.

YEAR ENDING	AVERAGE DATE OF ACCIDENT	PROJECTION PERIOD
06/30/13	01/01/13	7.083
06/30/14	01/01/14	6.083
06/30/15	01/01/15	5.083
06/30/16	01/01/16	4.083
06/30/17	01/01/17	3.083

INSURANCE SERVICES OFFICE, INC.

TENNESSEE

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

		(1)	(2)	(3)	(4)	(5)
	ACCIDENT	AGGREGATE		EXPERIENCE	ACCIDENT	NUMBER
COV-	YEAR	LOSS COST		RATIO	YEAR	OF
ERAGE	ENDING	AT CURRENT	INCURRED	(2) / (1)	WEIGHTS	PAID
O.T.C.		LEVEL (B)	LOSSES (C)			CLAIMS
	06/30/13	\$ 1,160,891	\$ 1,029,788	0.887	10%	341
	06/30/14	\$ 1,155,731	\$ 1,107,052	0.958	15%	347
	06/30/15	\$ 1,125,093	\$ 1,008,741	0.897	20%	330
	06/30/16	\$ 1,081,768	\$ 1,219,697	1.128	25%	341
	06/30/17	\$ 1,090,520	\$ 1,280,330	1.174	30%	338
COLL.	06/30/15	\$ 3,580,840	\$ 3,764,417	1.051	20%	548
	06/30/16	\$ 3,389,976	\$ 3,335,811	0.984	30%	542
	06/30/17	\$ 3,354,345	\$ 2,991,335	0.892	50%	472

O.T.C. COLLISION

(6)	AVERAGE EXPERIENCE RATIO (SUM OF (3)*(4)).	1.046	0.951
(7)	EXPECTED EXPERIENCE RATIO (D).	1.050	1.044
(8)	CREDIBILITY (E).	0.40	0.65
(9)	CREDIBILITY WEIGHTED EXPERIENCE RATIO: ((6) * (8)) + ((7) * (1.000 - (8))).	1.048	0.984
(10)	INDICATED PERCENTAGE CHANGE IN ADVISORY LOSS COST LEVEL ((9) - 1.000).	4.8%	-1.6%
(11)	FILED CHANGE.	4.8%	N.C.%

(A) PRIVATE PASSENGER TYPE EXPERIENCE IS FOR VEHICLES WRITTEN IN ACCORDANCE WITH RULE 31 OF THE COMMERCIAL LINES MANUAL, DIVISION 1, AUTOMOBILE.

(B) THE AGGREGATE LOSS COST AT CURRENT LEVEL IS CALCULATED BY EXTENDING EXPOSURES BY THE CURRENT LOSS COSTS AND ADJUSTING TO A PROSPECTIVE OCN LEVEL BY THE APPLICATION OF OCN TREND FACTORS. (SEE SUBSEQUENT PAGE).

(C) LOSSES INCLUDE ALL LOSS ADJUSTMENT EXPENSES FOR O.T.C. AND COLL. SEE FOLLOWING PAGE.

(D) EXPECTED EXPERIENCE RATIO IS EQUAL TO THE LOSS TREND FACTOR DIVIDED BY THE OCN TREND FACTOR, PROJECTED FOR M YEARS. THE PERIOD M IS EQUAL TO THE NUMBER OF YEARS FROM ONE YEAR BEYOND THE IMPLEMENTATION DATE OF THE LAST REVISION TO ONE YEAR BEYOND THE ANTICIPATED IMPLEMENTATION DATE OF 02/01/19, WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING, SUBJECT TO A MAXIMUM OF THE N-VALUE CORRESPONDING TO THE LATEST YEAR SHOWN ON THE FOLLOWING PAGE, FOOTNOTE B. IN THIS REVISION, THE PERIOD IS 1.00 YEAR(S).

(E) CREDIBILITY IS BASED ON A 5 YEAR TOTAL OF CLAIMS FOR O.T.C. AND A 3 YEAR TOTAL OF CLAIMS FOR COLLISION SHOWN IN COLUMN (5). THE STANDARDS FOR FULL CREDIBILITY ARE 8,500 CLAIMS FOR O.T.C. AND 3,500 CLAIMS FOR COLLISION (SEE CREDIBILITY TABLES IN SECTION C).

INSURANCE SERVICES OFFICE, INC.

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

	ACC. YEAR ENDING	O.T.C.	COLLISION
(1) PAID LOSSES.	06/30/13	\$597,832	----
	06/30/14	\$681,471	----
	06/30/15	\$657,889	\$2,580,347
	06/30/16	\$842,271	\$2,412,961
	06/30/17	\$923,484	\$2,377,006
(2) DEVELOPED LOSSES AND	06/30/13	\$681,529	----
ALL LOSS ADJUSTMENT	06/30/14	\$776,877	----
EXPENSES (A).	06/30/15	\$749,994	\$2,938,654
	06/30/16	\$961,149	\$2,734,273
	06/30/17	\$1,069,617	\$2,574,297
(3) SELECTED ANNUAL LOSS TREND (SEE TREND EXHIBIT IN SECTION C)		+ 6.0%	+ 5.0%
(4) TRENDED LOSSES & ALL LOSS	06/30/13	\$1,029,788	----
ADJUSTMENT EXPENSES (B).	06/30/14	\$1,107,052	----
	06/30/15	\$1,008,741	\$3,764,417
	06/30/16	\$1,219,697	\$3,335,811
	06/30/17	\$1,280,330	\$2,991,335

(A) PAID LOSSES ARE ADJUSTED BY THE FOLLOWING:
1-LOSS ADJUSTMENT EXPENSE FACTORS:

O.T.C.	COLL.
1.140	1.140

2-LOSS DEVELOPMENT FACTORS:

YEAR ENDING	O.T.C.	COLL.
06/30/13	1.000	-----
06/30/14	1.000	-----
06/30/15	1.000	0.999
06/30/16	1.001	0.994
06/30/17	1.016	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 DATES OF 02/01/19 FOR OTC AND
02/01/19 FOR COLLISION, WHICH ARE ASSUMED FOR THE PURPOSE OF TRENDING.

YEAR ENDING	AVERAGE DATE OF ACCIDENT	PROJECTION PERIOD OTC	PROJECTION PERIOD COLL
06/30/13	01/01/13	7.083	-----
06/30/14	01/01/14	6.083	-----
06/30/15	01/01/15	5.083	5.083
06/30/16	01/01/16	4.083	4.083
06/30/17	01/01/17	3.083	3.083

INSURANCE SERVICES OFFICE, INC.

TENNESSEE
PRIVATE PASSENGER TYPES
AUTOMOBILE PHYSICAL DAMAGE INSURANCE
DETERMINATION OF PHYSICAL DAMAGE TRENDING
AGGREGATE LOSS COSTS

	ACC. YEAR ENDING	O.T.C.	COLLISION
(1) AGGREGATE LOSS COSTS	06/30/13	\$1,081,911	----
AT CURRENT LEVEL.	06/30/14	\$1,088,259	----
	06/30/15	\$1,069,480	\$3,473,171
	06/30/16	\$1,039,163	\$3,307,292
	06/30/17	\$1,057,732	\$3,291,802
(2) SELECTED ANNUAL OCN TREND		1.0%	0.6%
(SEE OCN EXHIBIT IN SECTION C).			
(3) TRENDED AGGREGATE	06/30/13	\$1,160,891	----
LOSS COSTS AT	06/30/14	\$1,155,731	----
CURRENT LEVEL (A).	06/30/15	\$1,125,093	\$3,580,840
	06/30/16	\$1,081,768	\$3,389,976
	06/30/17	\$1,090,520	\$3,354,345
(A) TRENDED AGGREGATE LOSS COSTS ARE EQUAL TO (1) * ((1.0 + (2))*N), WHERE N IS EQUAL TO THE NUMBER OF YEARS PROJECTION FROM THE AVERAGE DATE OF WRITING TO SIX MONTHS BEYOND THE ANTICIPATED IMPLEMENTATION DATES OF 02/01/19 FOR OTC AND 02/01/19 FOR COLLISION, WHICH ARE ASSUMED FOR THE PURPOSE OF TRENDING.			

YEAR ENDING	AVERAGE DATE OF WRITING	PROJECTION PERIOD OTC	PROJECTION PERIOD COLL
06/30/13	07/01/12	7.083	-----
06/30/14	07/01/13	6.083	-----
06/30/15	07/01/14	5.083	5.083
06/30/16	07/01/15	4.083	4.083
06/30/17	07/01/16	3.083	3.083

OVERVIEW OF ISO ACTUARIAL PROCEDURES – COMMERCIAL AUTOMOBILE

STEP 2 – DETERMINATION OF TERRITORY RELATIVITIES

OBJECTIVE	The objective of this procedure is to distribute the statewide loss cost indication by territory. In other words, what percentage changes by territory should be made in order to equitably achieve an adequate statewide prospective loss cost level?
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TRUCKS, TRACTORS & TRAILERS AND PRIVATE PASSENGER TYPES LIABILITY AND PHYSICAL DAMAGE	For Trucks, Tractors & Trailers and Private Passenger Types, this procedure compares the individual territory experience ratios to the statewide average experience ratio. The territory experience ratio is calculated for the latest 5 years and a statewide weighted-average experience ratio for the same period is calculated using the aggregate loss costs (product of earned car years (col 1) and underlying loss cost (col 2)) as weights. The territory experience ratio is then credibility weighted with the statewide average experience ratio to produce a formula experience ratio. The territory formula experience ratio is then compared to the statewide weighted average formula experience ratio to determine the territory index to state. The territory index is then multiplied by the filed loss cost level change in order to produce the indicated change to the individual territories. This change is then applied to the current territory base loss cost.
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INSURANCE SERVICES OFFICE

TENNESSEE
COMMERCIAL AUTOMOBILE INSURANCE
SINGLE LIMIT LIABILITY

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

	(1) EARNED CAR YRS YR ENDED R 06/30/2017	(2) \$100000 UND LOSS COST	(3) EXPER LOSS 5YRS END 06/30/2017	(4) EXPER RATIO	(5) CRED	(6) FORM RATIO	(7) INDEX (6) TO STATE	(8) BASE PRES	(9) CLASS LOSS COST IND*	(10) REV	(11) ADV LOSS COST CHG**
101	11148	481.20	486.78	1.012	0.45	1.020	.990	435	460	460	5.7%
102	14819	448.33	463.80	1.035	0.50	1.031	1.001	379	405	405	6.9%
103	6595	346.11	373.13	1.078	0.30	1.042	1.012	317	343	343	8.2%
104	7964	360.34	375.03	1.041	0.35	1.032	1.002	332	355	355	6.9%
106	671	278.07	287.35	1.033	0.05	1.027	.997	253	269	269	6.3%
109	11693	233.66	283.69	1.214	0.30	1.083	1.051	223	250	250	12.1%
112	2905	257.92	310.80	1.205	0.15	1.054	1.023	228	249	249	9.2%
120	107	242.03	492.64	2.035	0.00	1.027	.997	254	271	271	6.7%
121	2447	241.25	175.79	0.729	0.10	.997	.968	219	226	226	3.2%
122	874	262.83	195.42	0.744	0.05	1.013	.983	225	236	236	4.9%
123	3697	261.13	218.85	0.838	0.15	.999	.970	229	237	237	3.5%
124	2156	290.67	303.09	1.043	0.15	1.029	.999	262	280	280	6.9%
125	10980	384.54	404.37	1.052	0.40	1.037	1.007	358	385	385	7.5%
126	17852	237.75	240.37	1.011	0.40	1.021	.991	225	238	238	5.8%
127	1933	221.41	230.11	1.039	0.10	1.028	.998	222	237	237	6.8%
128	5998	290.08	239.60	0.826	0.20	.987	.958	261	267	267	2.3%
129	2929	281.09	272.49	0.969	0.15	1.018	.988	255	269	269	5.5%
130	2036	270.59	263.46	0.974	0.10	1.022	.992	224	237	237	5.8%
SW	106804	330.28	339.16	1.027		1.030					

+ REFER TO EXPLANATORY NOTE ON PAGE B-19

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 6.8 PERCENT

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

INSURANCE SERVICES OFFICE

TENNESSEE
COMMERCIAL AUTOMOBILE INSURANCE
SINGLE LIMIT LIABILITY

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

T E R	(1) EARNED CAR YRS YR ENDED 06/30/2017	(2) \$100000 UND LOSS COST	(3) EXPER LOSS 5YRS END 06/30/2017	(4) EXPER RATIO	(5) CRED	(6) FORM RATIO	(7) INDEX (6) TO STATE	(8) PRES	(9) BASE CLASS LOSS COST IND*	(10) REV	(11) ADV LOSS COST CHG**
101	2679	394.41	454.85	1.153	0.20	1.073	1.016	390	415	415	6.4%
102	2700	308.78	325.30	1.054	0.20	1.053	.997	305	319	319	4.6%
103	1491	292.76	392.92	1.342	0.15	1.096	1.038	292	318	318	8.9%
104	1818	271.82	307.55	1.131	0.15	1.065	1.009	269	284	284	5.6%
106	133	225.26	290.83	1.291	0.00	1.053	.997	215	225	225	4.7%
109	1531	260.02	323.18	1.243	0.10	1.072	1.015	260	277	277	6.5%
112	415	262.48	360.07	1.372	0.05	1.069	1.012	251	266	266	6.0%
120	13	253.69	0.00	0.000	0.00	1.053	.997	271	283	283	4.4%
121	384	273.42	284.31	1.040	0.05	1.052	.996	270	282	282	4.4%
122	102	258.10	223.48	0.866	0.00	1.053	.997	252	263	263	4.4%
123	563	236.00	187.38	0.794	0.05	1.040	.985	229	236	236	3.1%
124	269	243.22	135.72	0.558	0.05	1.028	.973	241	246	246	2.1%
125	2271	279.74	278.78	0.997	0.15	1.045	.990	278	289	289	4.0%
126	2479	212.58	173.67	0.817	0.15	1.018	.964	212	214	214	0.9%
127	467	250.97	197.32	0.786	0.05	1.040	.985	245	253	253	3.3%
128	949	284.07	222.45	0.783	0.10	1.026	.972	280	285	285	1.8%
129	511	248.83	188.16	0.756	0.05	1.038	.983	247	254	254	2.8%
130	269	227.93	211.48	0.928	0.05	1.047	.991	228	237	237	3.9%
SW	19044	285.04	300.28	1.053		1.056					

+ REFER TO EXPLANATORY NOTE ON PAGE B-19

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 4.8 PERCENT

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

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

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

COLUMN (7)
INDEX TO
STATE

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

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

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

COLUMN (8)
BASE CLASS
LOSS COST

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

COLUMN (9)
INDICATED BASE
LOSS COST

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

COLUMN (10)
REVISED BASE
LOSS COST

Revised \$100,000 base loss cost.

COLUMN (11)
ADVISORY
LOSS COST
CHANGE

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

INSURANCE SERVICES OFFICE

TENNESSEE
COMMERCIAL AUTOMOBILE INSURANCE
PHYSICAL DAMAGE - COMPREHENSIVE

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

T	(1) EARNED CAR YRS YR ENDED R 06/30/2017	(2) UND LOSS COST	(3) EXPER LOSS COST 5YRS END 06/30/2017	(4) EXPER RATIO	(5) CRED	(6) FORM RATIO	(7) INDEX (6) TO STATE	(8) PRES	(9) BASE CLASS LOSS COST IND*	(10) REV	(11) ADV LOSS COST CHG**
101	6625	81.51	75.07	0.921	0.15	1.077	.978	120	128	128	6.7%
102	9118	67.89	72.87	1.073	0.15	1.100	.999	97	106	106	9.3%
103	4411	67.20	103.69	1.543	0.10	1.149	1.044	101	115	115	13.9%
104	4586	62.68	59.49	0.949	0.10	1.089	.989	98	106	106	8.2%
106	446	61.59	86.95	1.412	0.05	1.120	1.017	92	102	102	10.9%
109	6155	67.30	97.76	1.453	0.15	1.157	1.051	118	135	135	14.4%
112	1722	70.15	77.33	1.102	0.05	1.105	1.004	103	113	113	9.7%
120	44	62.29	0.00	0.000	0.00	1.105	1.004	104	114	114	9.6%
121	1372	74.68	110.64	1.482	0.05	1.124	1.021	114	127	127	11.4%
122	597	58.42	42.43	0.726	0.00	1.105	1.004	103	113	113	9.7%
123	2022	71.81	68.15	0.949	0.05	1.097	.996	115	125	125	8.7%
124	1307	63.97	99.33	1.553	0.05	1.127	1.024	98	110	110	12.2%
125	7472	75.32	71.56	0.950	0.15	1.082	.983	111	119	119	7.2%
126	10409	78.83	73.64	0.934	0.20	1.071	.973	130	138	138	6.2%
127	1291	51.47	50.83	0.988	0.05	1.099	.998	79	86	86	8.9%
128	3604	66.80	88.63	1.327	0.10	1.127	1.024	105	117	117	11.4%
129	1913	70.03	63.06	0.900	0.05	1.095	.995	97	105	105	8.2%
130	1094	73.35	129.86	1.770	0.05	1.138	1.034	107	121	121	13.1%
SW	64188	71.33	78.82	1.105		1.101					

+ REFER TO EXPLANATORY NOTE ON PAGE B-25

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 9.2 PERCENT

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

INSURANCE SERVICES OFFICE

TENNESSEE
COMMERCIAL AUTOMOBILE INSURANCE
PHYSICAL DAMAGE - COLLISION

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

T E R R	(1) EARNED CAR YRS YR ENDED 06/30/2017	(2) UND LOSS COST	(3) EXPER LOSS COST 5YRS END 06/30/2017	(4) EXPER RATIO	(5) CRED	(6) FORM RATIO	(7) INDEX (6) TO STATE	(8) BASE CLASS PRES	(9) LOSS COST IND*	(10) CLASS REV	(11) ADV LOSS COST CHG**
101	6547	234.34	219.62	0.937	0.40	.913	1.018	257	240	240	-6.6%
102	9487	278.57	256.63	0.921	0.45	.908	1.012	285	264	264	-7.4%
103	4593	194.83	190.57	0.978	0.30	.921	1.027	228	215	215	-5.7%
104	4792	207.48	182.20	0.878	0.30	.891	.993	261	238	238	-8.8%
106	451	169.81	158.81	0.935	0.05	.899	1.002	219	201	201	-8.2%
109	6164	238.65	176.45	0.739	0.30	.850	.948	299	260	260	-13.0%
112	1798	177.72	170.41	0.959	0.15	.906	1.010	201	186	186	-7.5%
120	41	164.78	92.37	0.561	0.00	.897	1.000	261	239	239	-8.4%
121	1445	208.47	194.06	0.931	0.15	.902	1.006	253	234	234	-7.5%
122	360	160.17	69.96	0.437	0.05	.874	.974	213	190	190	-10.8%
123	2087	204.94	177.81	0.868	0.15	.893	.996	248	226	226	-8.9%
124	1139	188.90	210.59	1.115	0.15	.930	1.037	214	204	204	-4.7%
125	7848	239.38	223.83	0.935	0.35	.910	1.014	272	253	253	-7.0%
126	11572	210.32	185.63	0.883	0.40	.891	.993	286	261	261	-8.7%
127	1242	182.65	192.67	1.055	0.15	.921	1.027	226	213	213	-5.8%
128	3402	206.26	152.74	0.741	0.20	.866	.965	251	222	222	-11.6%
129	1929	231.97	182.55	0.787	0.15	.881	.982	193	174	174	-9.8%
130	1135	290.85	347.99	1.196	0.10	.927	1.033	284	269	269	-5.3%
SW	66032	226.56	203.19	0.897		.897					

+ REFER TO EXPLANATORY NOTE ON PAGE B-25

* KEYED TO A STATEWIDE LOSS COST CHANGE OF -8.3 PERCENT

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

INSURANCE SERVICES OFFICE

TENNESSEE
COMMERCIAL AUTOMOBILE INSURANCE
PHYSICAL DAMAGE - COMPREHENSIVE

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

T E R R I T O R Y	(1) EARNED CAR YRS YR ENDED 06/30/2017	(2) UND LOSS COST	(3) EXPER LOSS COST 5YRS END 06/30/2017	(4) EXPER RATIO	(5) CRED	(6) FORM RATIO	(7) INDEX (6) TO STATE	(8) PRES	(9) BASE CLASS LOSS COST IND*	(10) REV	(11) ADV LOSS COST CHG**
101	1778	73.55	55.97	0.761	0.15	.986	.960	66	66	66	0.0%
102	2068	75.82	85.08	1.122	0.15	1.040	1.013	71	75	75	5.6%
103	1163	73.49	73.80	1.004	0.10	1.024	.997	67	70	70	4.5%
104	1210	82.82	93.04	1.123	0.10	1.036	1.009	74	78	78	5.4%
106	100	76.80	167.03	2.175	0.00	1.026	.999	66	69	69	4.5%
109	834	127.16	120.58	0.948	0.10	1.018	.991	124	129	129	4.0%
112	306	60.81	73.45	1.208	0.05	1.035	1.008	56	59	59	5.4%
120	4	43.56	.0	0.000	0.00	1.026	.999	71	74	74	4.2%
121	276	78.15	12.14	0.155	0.00	1.026	.999	72	75	75	4.2%
122	68	69.32	161.93	2.336	0.00	1.026	.999	71	74	74	4.2%
123	363	99.24	107.07	1.079	0.05	1.029	1.002	94	99	99	5.3%
124	159	83.12	64.33	0.774	0.00	1.026	.999	80	84	84	5.0%
125	1799	79.16	76.89	0.971	0.10	1.021	.994	70	73	73	4.3%
126	1668	97.52	115.71	1.187	0.15	1.050	1.022	95	102	102	7.4%
127	372	57.34	29.04	0.506	0.05	1.000	.974	56	57	57	1.8%
128	587	75.97	87.43	1.151	0.05	1.032	1.005	71	75	75	5.6%
129	352	65.13	73.81	1.133	0.05	1.031	1.004	67	70	70	4.5%
130	178	86.03	128.30	1.491	0.05	1.049	1.021	85	91	91	7.1%
SW	13285	82.08	84.25	1.026		1.027					

+ REFER TO EXPLANATORY NOTE ON PAGE B-25

* KEYED TO A STATEWIDE LOSS COST CHANGE OF 4.8 PERCENT

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

INSURANCE SERVICES OFFICE

TENNESSEE
COMMERCIAL AUTOMOBILE INSURANCE
PHYSICAL DAMAGE - COLLISION

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

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
T	EARNED		EXPER						
E	CAR YRS	UND	LOSS COST				INDEX	BASE	CLASS
R	YR ENDED	LOSS	5YRS END	EXPER		FORM	(6) TO	LOSS	COST
R	06/30/2017	COST	06/30/2017	RATIO	CRED	RATIO	STATE	PRES	IND*
101	1610	334.31	365.43	1.093	0.30	1.022	1.029	393	398
102	2071	286.84	277.51	0.967	0.35	.983	.990	359	350
103	1116	278.61	282.43	1.014	0.25	.998	1.005	340	336
104	1131	271.95	282.60	1.039	0.25	1.004	1.011	325	323
106	97	174.14	101.61	0.583	0.05	.972	.979	207	199
109	880	221.12	221.97	1.004	0.20	.994	1.001	290	286
112	298	214.50	226.50	1.056	0.10	.998	1.005	271	268
120	8	171.19	22.59	0.132	0.00	.992	.999	332	326
121	225	317.81	346.77	1.091	0.10	1.002	1.009	394	391
122	67	246.92	388.49	1.573	0.05	1.021	1.028	338	342
123	344	217.47	241.69	1.111	0.10	1.004	1.011	277	276
124	165	217.42	202.94	0.933	0.05	.989	.996	282	276
125	1764	260.80	245.10	0.940	0.30	.976	.983	308	298
126	1633	203.70	193.61	0.950	0.25	.982	.989	264	257
127	359	206.91	219.26	1.060	0.10	.999	1.006	272	269
128	550	266.57	218.14	0.818	0.15	.966	.973	328	314
129	327	228.55	203.81	0.892	0.10	.982	.989	309	301
130	159	249.86	146.04	0.584	0.05	.972	.979	319	307
SW	12804	261.97	259.95	0.992		.993			

+ REFER TO EXPLANATORY NOTE ON PAGE B-25

* KEYED TO A STATEWIDE LOSS COST CHANGE OF -1.6 PERCENT. DUE TO THE MODEST INDICATION, WE WILL NOT BE FILING THESE INDICATED LOSS COSTS. THE LOSS COST IN COLUMN (8) REMAIN IN EFFECT.

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

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

COLUMN (7)
INDEX TO
STATE

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

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

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

COLUMN (8)
BASE CLASS
LOSS COST

Present ISO base class loss cost.

COLUMN (9)
INDICATED BASE
LOSS COST

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

COLUMN (10)
REVISED BASE
LOSS COST

Revised base loss cost.

COLUMN (11)
ADVISORY
LOSS COST
CHANGE

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

TENNESSEE
COMMERCIAL AUTOMOBILE

SECTION C - SUPPORTING MATERIAL

Loss Adjustment Expense	C2-C4
Loss Trend.....	C5-C28
Physical Damage OCN Trend	C29-C31
Loss Development for Liability.....	C32-C43
Loss Development for Physical Damage.....	C44-C52
Credibility Procedures and Tables.....	C53-C58
Claims for Credibility.....	C59-C60
Relativities for Developing Minor Class & Coverage Loss Costs	C61
Excess Wind and Water Procedure	C62-C67

LOSS ADJUSTMENT EXPENSE FACTORS

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

COMMERCIAL AUTOMOBILE LIABILITY INSURANCE
MULTISTATE LOSS ADJUSTMENT EXPENSE EXPERIENCE

Calendar Year

Development of Unallocated Loss Adjustment Expense Factor

Bodily Injury
(000's)

<u>ITEM</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>3 YR AVG</u>	<u>5 YR AVG</u>
(1) Direct Losses Incurred	4,059,001	4,205,932	4,811,095	5,400,783	5,769,671		
(2) Allocated Loss Adjustment Expenses Incurred	458,941	481,717	517,613	610,635	670,289		
(3) Unallocated Loss Adjustment Expenses Incurred	383,262	432,507	471,784	479,398	479,146		
(4) Unallocated LAE as a Ratio to Losses + Allocated LAE (3) / [(1) + (2)]	8.5%	9.2%	8.9%	8.0%	7.4%	8.1%	8.4%
(5) Selected Factor							8.0%

Property Damage
(000's)

<u>ITEM</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>3 YR AVG</u>	<u>5 YR AVG</u>
(1) Direct Losses Incurred	855,668	964,805	1,033,470	1,128,053	1,203,935		
(2) Allocated Loss Adjustment Expenses Incurred	57,874	70,950	69,317	85,116	71,849		
(3) Unallocated Loss Adjustment Expenses Incurred	108,187	112,861	128,692	129,040	123,937		
(4) Unallocated LAE as a Ratio to Losses + Allocated LAE (3) / [(1) + (2)]	11.8%	10.9%	11.7%	10.6%	9.7%	10.7%	11.0%
(5) Selected Factor							10.5%

All items are from Special Call Submission for available writers.

COMMERCIAL AUTOMOBILE PHYSICAL DAMAGE INSURANCE
MULTISTATE LOSS ADJUSTMENT EXPENSE EXPERIENCE

Calendar Year

Development of Factor to Include all Loss Adjustment Expenses

(000's)

<u>ITEM</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>3 YR AVG</u>	<u>5 YR AVG</u>
(1) Direct Losses Incurred	3,776,678	3,729,471	4,160,445	4,385,421	4,973,189		
(2) Loss Adjustment Expenses Incurred	551,510	589,857	664,010	585,458	628,271		
(3) Losses + LAE Incurred as Ratio to Losses Incurred [(1)+(2)]/(1)	1.146	1.158	1.160	1.134	1.126	1.140	1.145
(4) Selected							1.140

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

AVERAGE ANNUAL CHANGE IN LOSSES (LOSS TREND)

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

LIABILITY:
FREQUENCY
TREND

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

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

PHYSICAL
DAMAGE:
LOSS TREND

Data Selections

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

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

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

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

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

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

Data Adjustments

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

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

PHYSICAL
DAMAGE:
LOSS TREND
(CONT'D)

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

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

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

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

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

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

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

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

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

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

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

PHYSICAL
DAMAGE:
LOSS TREND
(CONT'D)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

PHYSICAL
DAMAGE:
LOSS TREND
(CONT'D)

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

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

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

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

	Trucks, Tractors & Trailers <u>Pure Premium</u>	Private Passenger Types <u>Pure Premium</u>
OTC:	+7.0%	+6.0%
COLL:	+5.0%	+5.0%

INSURANCE SERVICES OFFICE

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

AVERAGE PAID CLAIM COST DATA

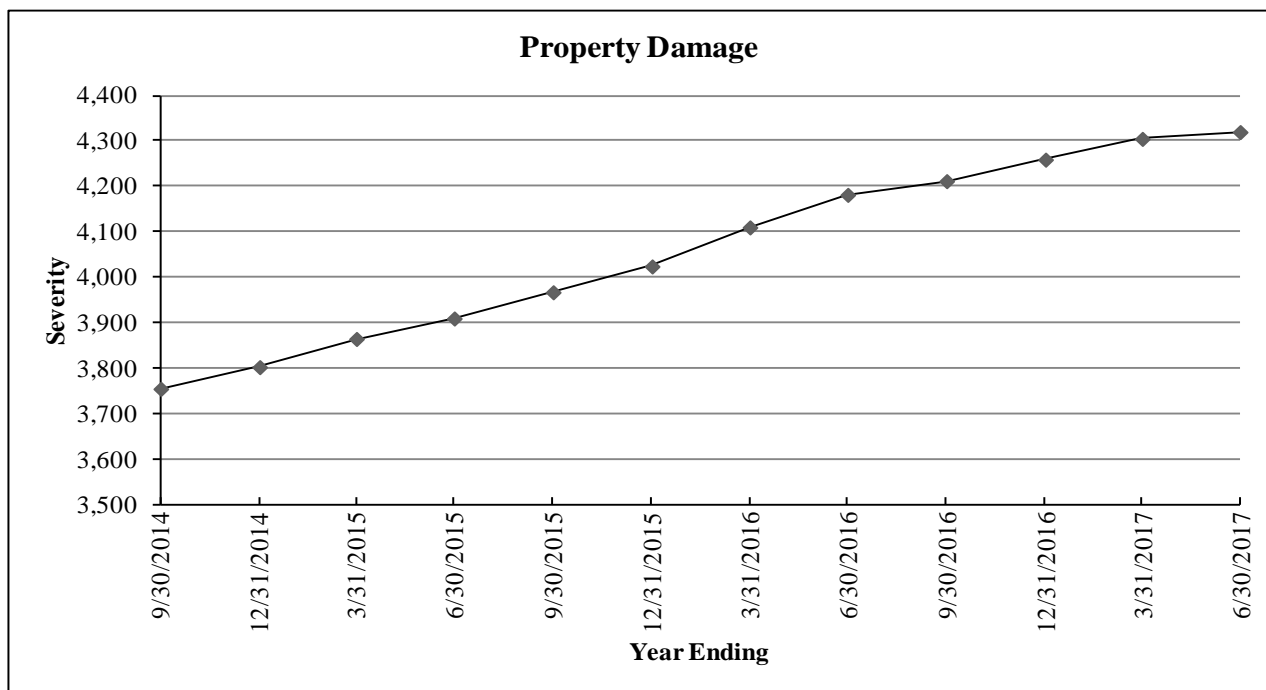
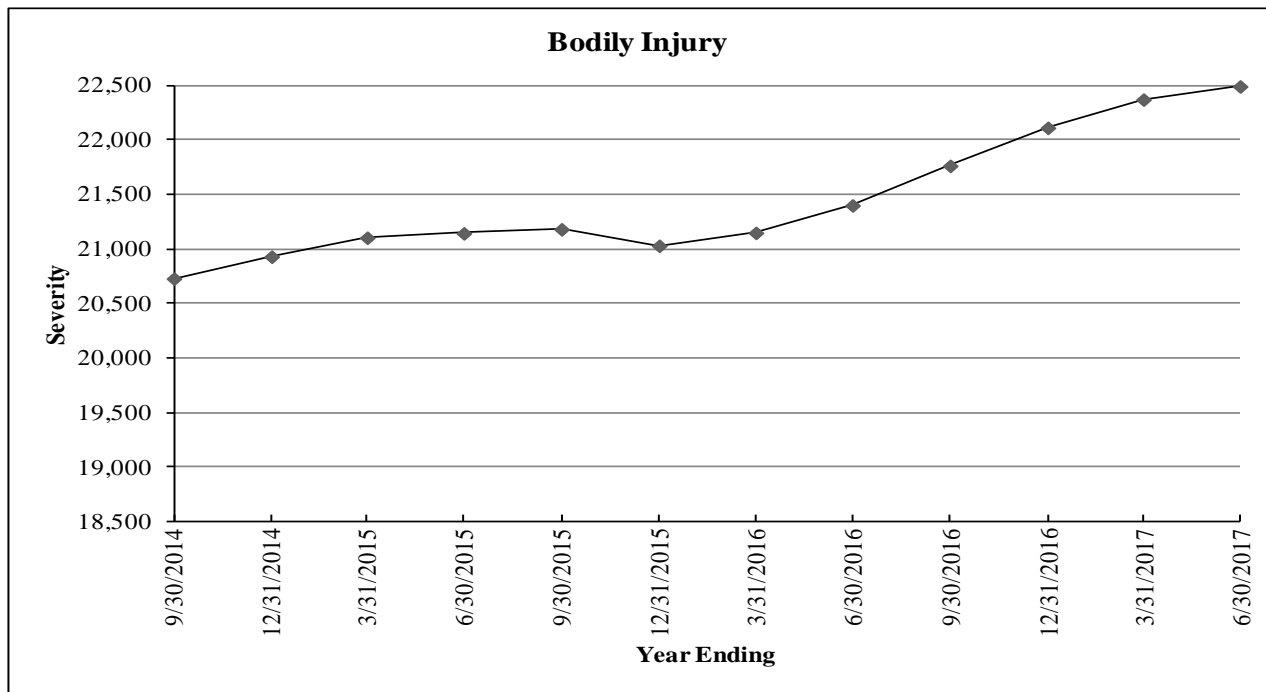
TENNESSEE					MULTISTATE*			
BODILY INJURY (\$100000 LIMITS)		PROPERTY DAMAGE (\$100000 LIMITS)			BODILY INJURY (\$100000 LIMITS)		PROPERTY DAMAGE (\$100000 LIMITS)	
(1)	(2)	(3)	(4)		(5)	(6)	(7)	(8)
YEAR ENDED	ACTUAL	EXPONEN- TIAL FIT	ACTUAL	EXPONEN- TIAL FIT	ACTUAL	EXPONEN- TIAL FIT	ACTUAL	EXPONEN- TIAL FIT
9/30/2014	16517.60	16981.87	3782.77	3750.70	20728.02	20631.40	3755.21	3762.83
12/31/2014	16426.62	17111.10	3830.94	3815.94	20929.25	20776.48	3802.99	3814.34
3/31/2015	16595.16	17241.32	3873.12	3882.32	21102.67	20922.58	3865.00	3866.56
6/30/2015	17605.30	17372.52	3816.38	3949.85	21143.21	21069.70	3909.97	3919.49
9/30/2015	18230.77	17504.73	3874.47	4018.56	21180.44	21217.86	3967.67	3973.15
12/31/2015	18791.61	17637.94	4038.88	4088.46	21028.99	21367.07	4024.49	4027.54
3/31/2016	18798.26	17772.17	4269.86	4159.58	21147.61	21517.32	4110.36	4082.68
6/30/2016	18131.67	17907.41	4486.15	4231.93	21399.12	21668.63	4181.95	4138.57
9/30/2016	18029.06	18043.69	4465.25	4305.54	21762.14	21821.01	4212.11	4195.23
12/31/2016	18127.12	18181.00	4463.03	4380.43	22110.90	21974.45	4259.42	4252.66
3/31/2017	17667.42	18319.36	4374.86	4456.63	22370.06	22128.98	4305.10	4310.88
6/30/2017	17750.47	18458.77	4321.39	4534.15	22490.21	22284.59	4320.06	4369.89

	<u>BODILY INJURY</u>	<u>PROPERTY DAMAGE</u>
(9) AVERAGE ANNUAL PERCENT CHANGE IN PAID CLAIM COST (12TH POINT / 8TH POINT)		
(A) TENNESSEE	3.1%	7.1%
(B) MULTISTATE	2.8%	5.6%
(10) CREDIBILITY	0.05	0.25
(11) WEIGHTED AVERAGE ANNUAL PERCENT CHANGE IN PAID CLAIM COSTS {(10) * (9A)} + {(1.0 - (10)) * (9B)}	2.8%	6.0%
(12) AVERAGE ANNUAL PERCENT CHANGE IN CLAIM FREQUENCY		
(A) TRUCKS, TRACTORS, TRAILERS	0.0%	0.0%
(B) PRIVATE PASSENGER TYPES#	0.0%	0.0%
(13) AVERAGE ANNUAL PERCENT CHANGE IN LIABILITY LOSS RATIO		
(A) TRUCKS, TRACTORS, TRAILERS {1.0 + (11)} * {1.0 + (12A)}	2.8%	6.0%
(B) PRIVATE PASSENGER TYPES AND AUTO DEALERS# {1.0 + (11)} * {1.0 + (12B)}	2.8%	6.0%

* EXCLUDES MASSACHUSETTS

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

Commercial Automobile Liability
Average Paid Claim Cost Experience
Multistate*



* Excludes Massachusetts

INSURANCE SERVICES OFFICE, INC.

COMMERCIAL AUTO LIABILITY
INCURRED CLAIM FREQUENCY

MULTISTATE*

TRUCKS, TRACTORS, AND TRAILERS

<u>YEAR ENDING</u>	<u>BODILY INJURY ACTUAL</u>	<u>BODILY INJURY ACTUAL CHANGE@</u>	<u>PROPERTY DAMAGE ACTUAL</u>	<u>PROPERTY DAMAGE ACTUAL CHANGE@</u>
6/30/2011	0.7917		2.9394	
9/30/2011	0.7941		2.9467	
12/31/2011	0.7922		2.9351	
3/31/2012	0.7912		2.8296	
6/30/2012	0.7925	0.1% &	2.8182	-4.1% &
9/30/2012	0.7842		2.7789	
12/31/2012	0.7932		2.7720	
3/31/2013	0.7965	0.7%	2.8080	-0.8%
6/30/2013	0.8162		2.8528	
9/30/2013	0.8364		2.8986	
12/31/2013	0.8348		2.9132	
3/31/2014	0.8426	5.8%	3.0046	7.0%
6/30/2014	0.8222		3.0002	
9/30/2014	0.8101		3.0034	
12/31/2014	0.8144		3.0048	
3/31/2015	0.8047	-4.5%	2.9701	-1.1%
6/30/2015	0.8138		2.9658	
9/30/2015	0.8235		2.9832	
12/31/2015	0.8311		2.9931	
3/31/2016	0.8407	4.5%	2.9621	-0.3%
6/30/2016	0.8461		2.9686	
9/30/2016	0.8486		2.9726	
12/31/2016	0.8425		2.9642	
3/31/2017	0.8444	0.4%	2.9324	-1.0%

* EXCLUDES MASSACHUSETTS

@ CHANGE BASED ON YEARS ENDING 3/31/XXXX

& CHANGE BASED ON YEAR ENDING 6/30/2012 DIVIDED BY 6/30/2011

INSURANCE SERVICES OFFICE, INC.

COMMERCIAL AUTO LIABILITY
INCURRED CLAIM FREQUENCY

MULTISTATE*

PRIVATE PASSENGER TYPES

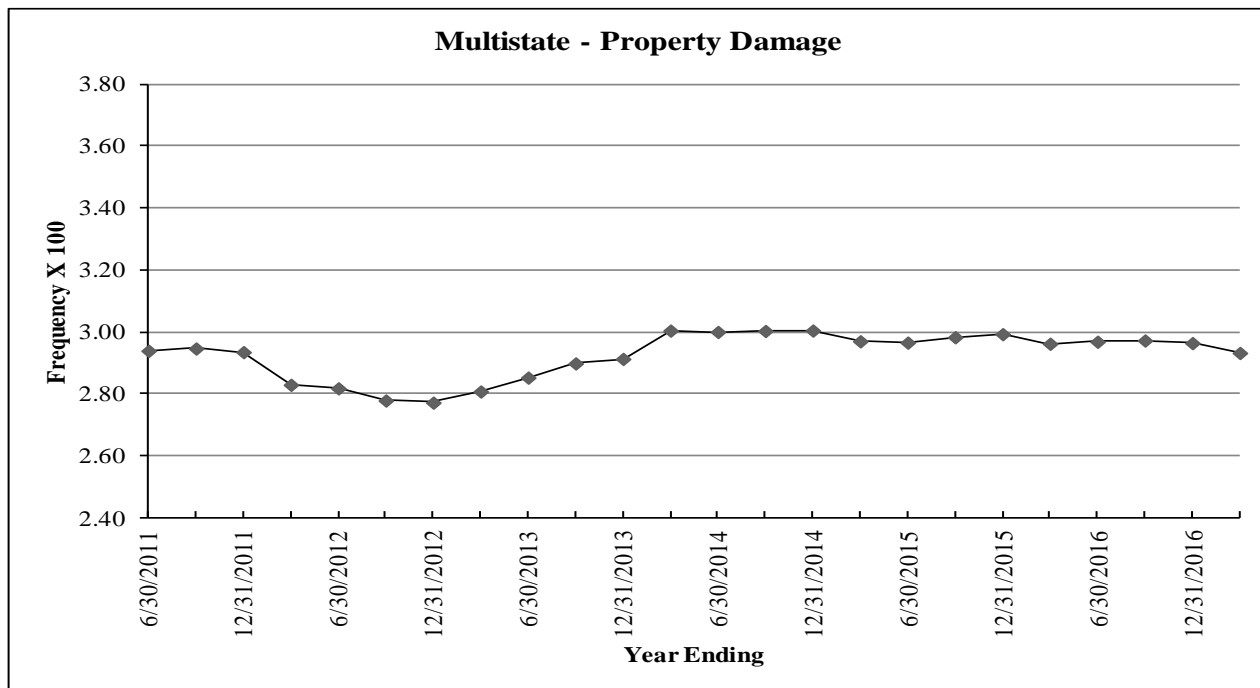
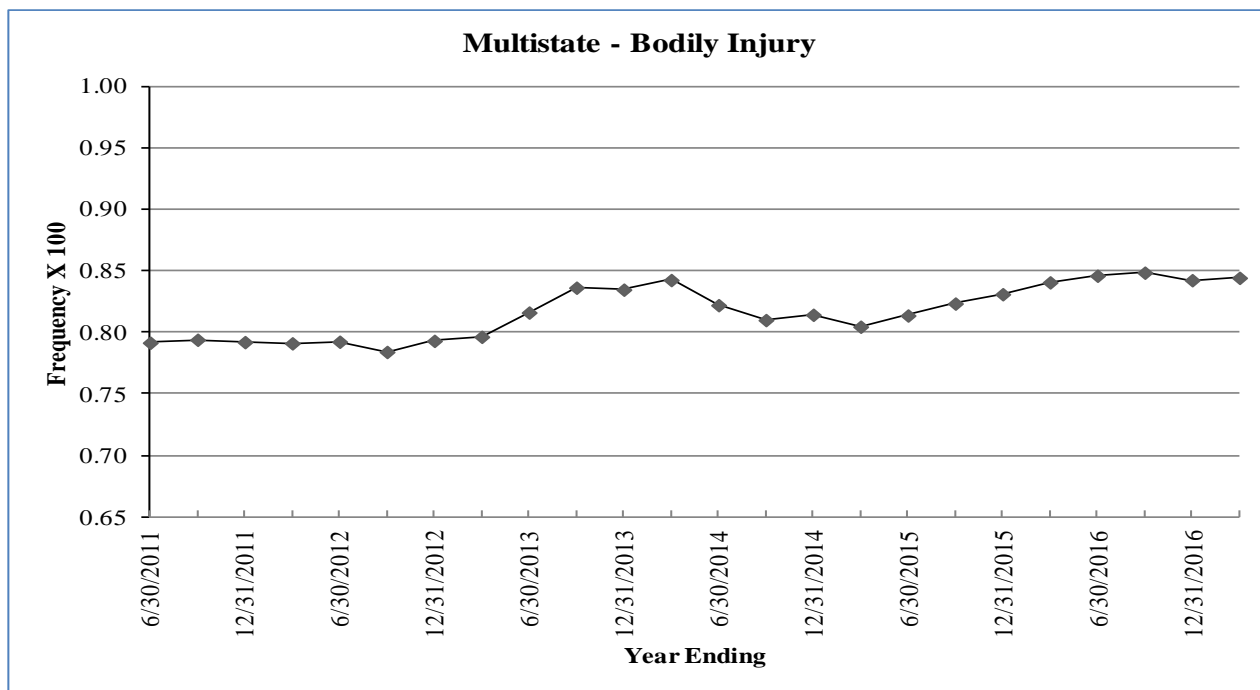
<u>YEAR ENDING</u>	<u>BODILY INJURY ACTUAL</u>	<u>BODILY INJURY ACTUAL CHANGE@</u>	<u>PROPERTY DAMAGE ACTUAL</u>	<u>PROPERTY DAMAGE ACTUAL CHANGE@</u>
6/30/2011	0.9204		3.3849	
9/30/2011	0.9382		3.3831	
12/31/2011	0.9370		3.3425	
3/31/2012	0.9616		3.3283	
6/30/2012	0.9469	2.9% &	3.3352	-1.5% &
9/30/2012	0.9339		3.3193	
12/31/2012	0.9198		3.2783	
3/31/2013	0.9115	-5.2%	3.2541	-2.2%
6/30/2013	0.9179		3.2185	
9/30/2013	0.9321		3.2234	
12/31/2013	0.9326		3.2489	
3/31/2014	0.9282	1.8%	3.2834	0.9%
6/30/2014	0.9212		3.2822	
9/30/2014	0.9072		3.2559	
12/31/2014	0.8985		3.2272	
3/31/2015	0.8703	-6.2%	3.1828	-3.1%
6/30/2015	0.8525		3.1420	
9/30/2015	0.8425		3.1566	
12/31/2015	0.8391		3.1576	
3/31/2016	0.8564	-1.6%	3.1597	-0.7%
6/30/2016	0.8627		3.1927	
9/30/2016	0.8803		3.2059	
12/31/2016	0.8726		3.1857	
3/31/2017	0.8664	1.2%	3.1040	-1.8%

* EXCLUDES MASSACHUSETTS

@ CHANGE BASED ON YEARS ENDING 3/31/XXXX

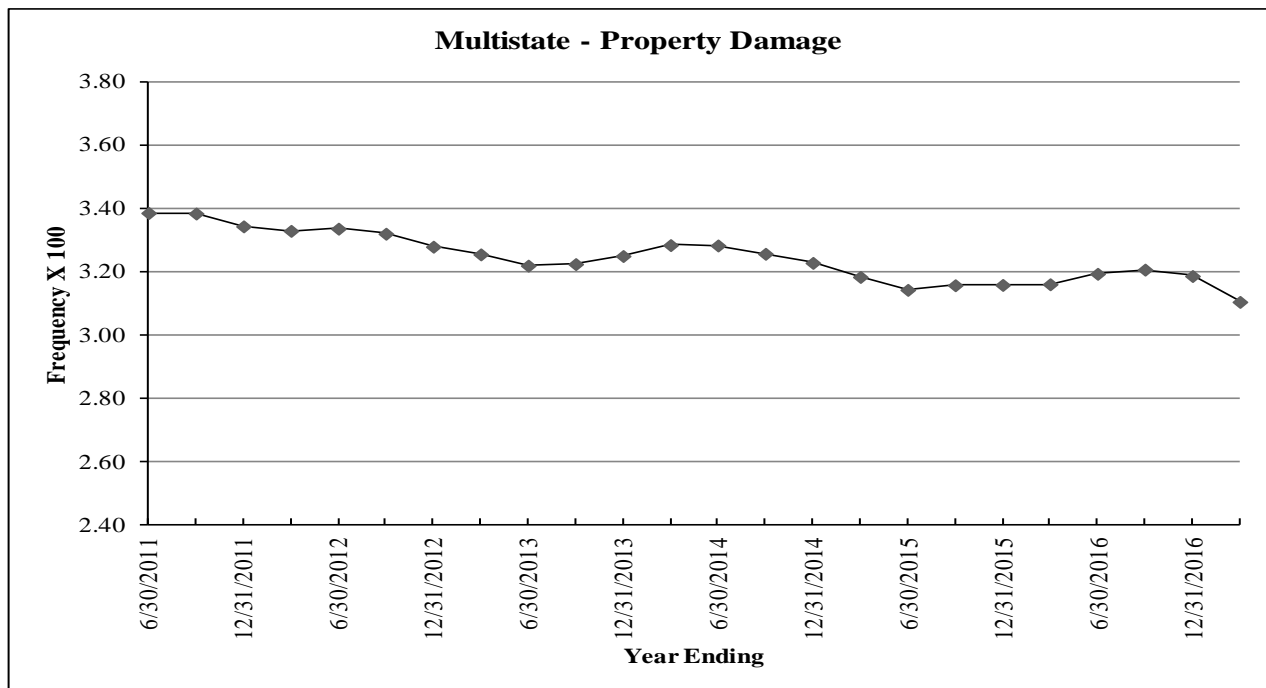
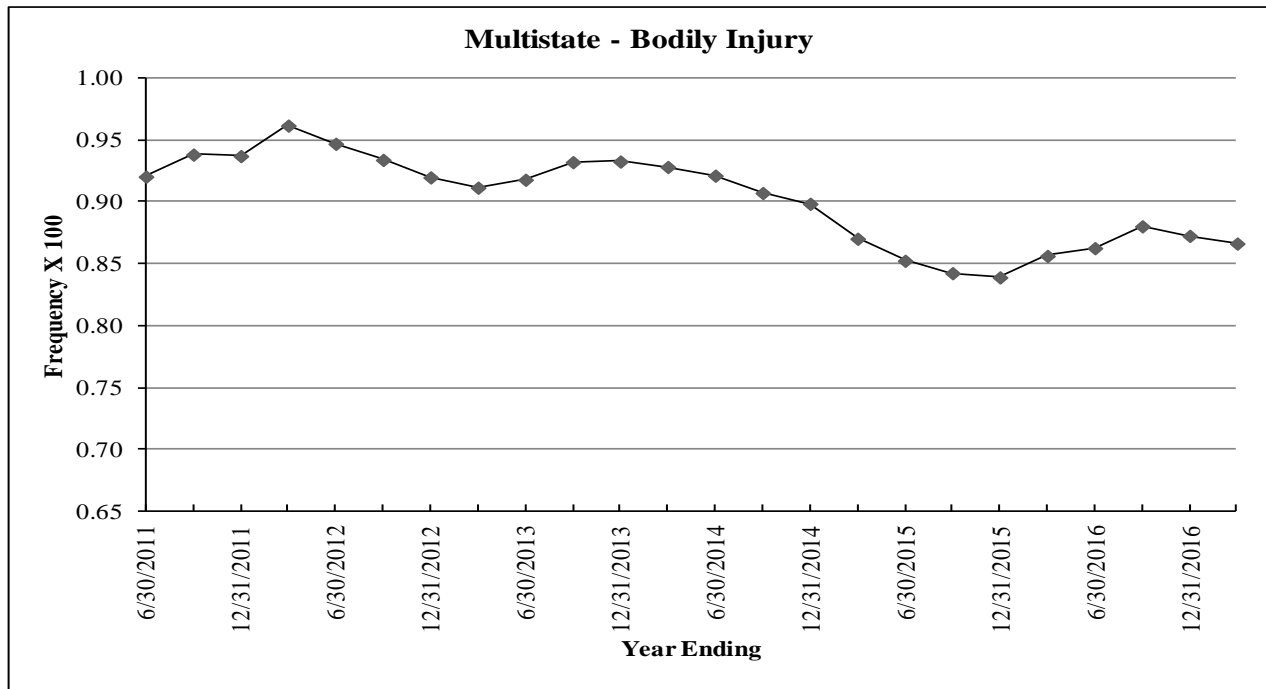
& CHANGE BASED ON YEAR ENDING 6/30/2012 DIVIDED BY 6/30/2011

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



* Excludes Massachusetts

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



* Excludes Massachusetts

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

Frequency (expressed as claims per 100 exposures)

	\$250 Deductible		\$500 Deductible		\$1,000 Deductible	
Year Ending:	Actual	Change **	Actual	Change **	Actual	Change **
12/31/2012	2.44		1.44		0.95	
06/30/2013	2.39		1.42		0.94	
12/31/2013	2.32		1.39		0.91	
06/30/2014	2.39	0.0%	1.39	-2.1%	0.91	-3.2%
12/31/2014	2.35		1.36		0.90	
06/30/2015	2.24	-6.3%	1.34	-3.6%	0.88	-3.3%
12/31/2015	2.16		1.34		0.90	
06/30/2016	2.07	-7.6%	1.33	-0.7%	0.92	4.5%
12/31/2016	2.08		1.33		0.91	
06/30/2017	2.07	0.0%	1.33	0.0%	0.89	-3.3%

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

Deductible	Percent of Losses
Full	0.5%
\$50	1.0%
\$100	2.3%
\$200	0.3%
\$250	9.4%
\$500	34.3%
\$1,000	43.9%
\$2,000	4.7%
\$3,000	0.5%
\$5,000	1.9%

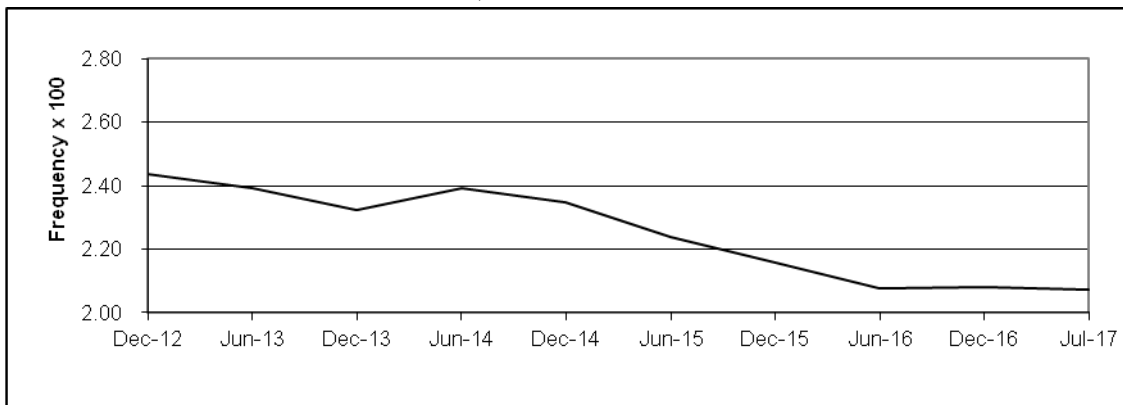
* Multistate data excludes Massachusetts

** Change based on years ending 6/30/xxxx

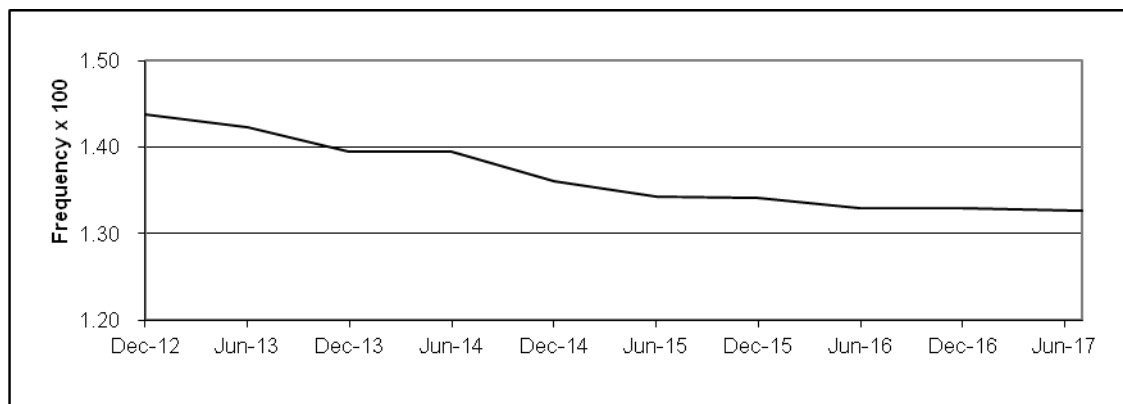
***Deductibles above \$1,000, totaling 7.1% of losses, are excluded from the trend calculations.

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

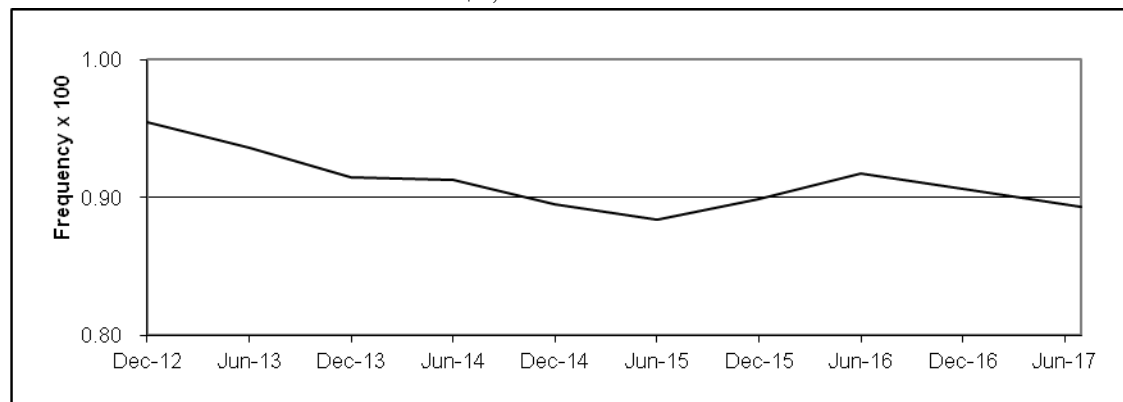
\$250 Deductible



\$500 Deductible



\$1,000 Deductible



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

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

Severity Trend

Year Ending:	\$250 Deductible	\$500 Deductible	\$1,000 Deductible
12/31/2012	2,853.36	4,755.64	7,043.91
06/30/2013	2,907.10	4,893.58	7,152.25
12/31/2013	2,903.46	4,823.20	7,121.88
06/30/2014	2,976.56	5,032.68	7,393.70
12/31/2014	3,166.11	5,262.53	7,561.42
06/30/2015	3,295.87	5,436.29	7,758.83
12/31/2015	3,393.91	5,698.45	8,110.12
06/30/2016	4,006.99	6,036.25	8,418.35
12/31/2016	4,117.84	6,165.16	8,819.79
06/30/2017	4,098.34	6,521.36	9,489.59

Average Annual Change Using Exponential Fits:

10 point fit:	9.8%	7.5%	6.6%
8 point fit:	12.0%	8.9%	8.1%
6 point fit:	12.9%	9.0%	9.3%

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

* Multistate data excludes Massachusetts

Multistate*
Trucks, Tractors & Trailers Physical Damage
Collision

Frequency (expressed as claims per 100 exposures)

	\$500 Deductible		\$1,000 Deductible		\$2,000 Deductible	
Year Ending:	Actual	Change **	Actual	Change **	Actual	Change **
12/31/2012	2.18		1.84		1.44	
06/30/2013	2.24		1.90		1.50	
12/31/2013	2.23		1.90		1.51	
06/30/2014	2.30	2.7%	1.96	3.2%	1.56	4.0%
12/31/2014	2.28		1.96		1.57	
06/30/2015	2.26	-1.7%	1.94	-1.0%	1.57	0.6%
12/31/2015	2.28		1.97		1.60	
06/30/2016	2.25	-0.4%	1.97	1.5%	1.61	2.5%
12/31/2016	2.34		2.04		1.66	
06/30/2017	2.33	3.6%	2.00	1.5%	1.65	2.5%

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

Deductible	Percent of Losses
\$100	0.1%
\$200	0.0%
\$250	2.0%
\$500	37.1%
\$1,000	50.9%
\$2,000	5.3%
\$3,000	1.5%
\$5,000	3.1%

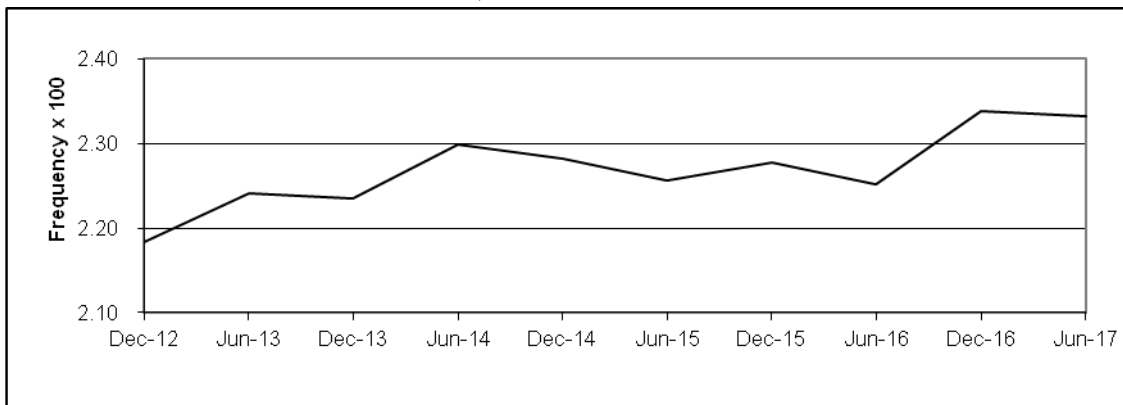
* Multistate data excludes Massachusetts

** Change based on years ending 6/30/xxxx

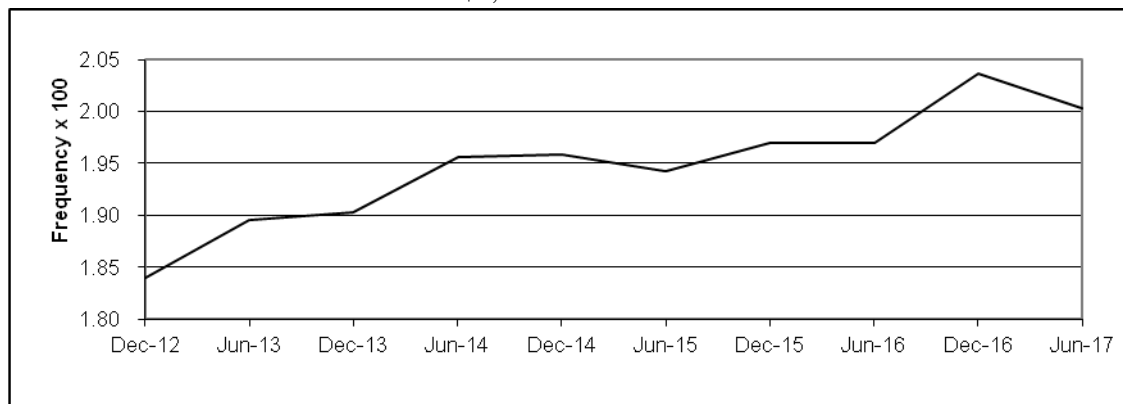
***Deductibles above \$2,000, totaling 4.6% of losses, are excluded from the trend calculations.

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

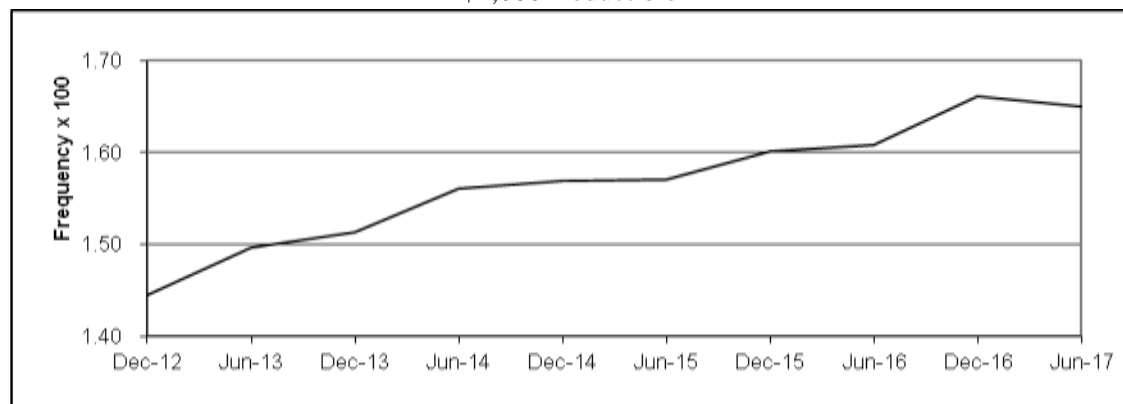
\$500 Deductible



\$1,000 Deductible



\$2,000 Deductible



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

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

Severity Trend

Year Ending:	\$500 Deductible	\$1,000 Deductible	\$2,000 Deductible
12/31/2012	7,570.23	9,273.59	10,206.98
06/30/2013	7,671.49	9,379.84	10,183.74
12/31/2013	7,871.47	9,510.40	10,310.08
06/30/2014	8,061.03	9,810.29	10,722.11
12/31/2014	8,367.39	10,192.07	11,181.23
06/30/2015	8,647.05	10,387.56	11,302.64
12/31/2015	8,791.56	10,572.24	11,483.98
06/30/2016	9,168.92	10,915.53	11,861.91
12/31/2016	9,360.39	11,197.66	12,155.24
06/30/2017	9,539.71	11,340.96	12,206.26

Average Annual Change Using Exponential Fits:

10 point fit:	5.6%	4.9%	4.7%
8 point fit:	5.8%	5.2%	4.9%
6 point fit:	5.5%	4.6%	4.0%

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

* Multistate data excludes Massachusetts

Multistate*
Private Passenger Types Physical Damage
Other Than Collision

Frequency (expressed as claims per 100 exposures)

	\$250 Deductible		\$500 Deductible		\$1,000 Deductible	
Year Ending:	Actual	Change **	Actual	Change **	Actual	Change **
12/31/2012	5.01		3.07		1.89	
06/30/2013	4.98		3.06		1.88	
12/31/2013	5.02		3.06		1.85	
06/30/2014	5.26	5.6%	3.17	3.6%	1.90	1.1%
12/31/2014	5.11		3.14		1.91	
06/30/2015	4.81	-8.6%	3.04	-4.1%	1.88	-1.1%
12/31/2015	4.91		3.14		1.95	
06/30/2016	4.95	2.9%	3.20	5.3%	1.98	5.3%
12/31/2016	4.97		3.10		1.92	
06/30/2017	4.81	-2.8%	2.99	-6.6%	1.89	-4.5%

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

Deductible	Percent of Losses
Full	0.7%
\$50	0.5%
\$100	2.8%
\$200	0.7%
\$250	12.2%
\$500	43.4%
\$1,000	37.8%
\$2,000	1.7%
\$3,000	0.1%
\$5,000	0.2%

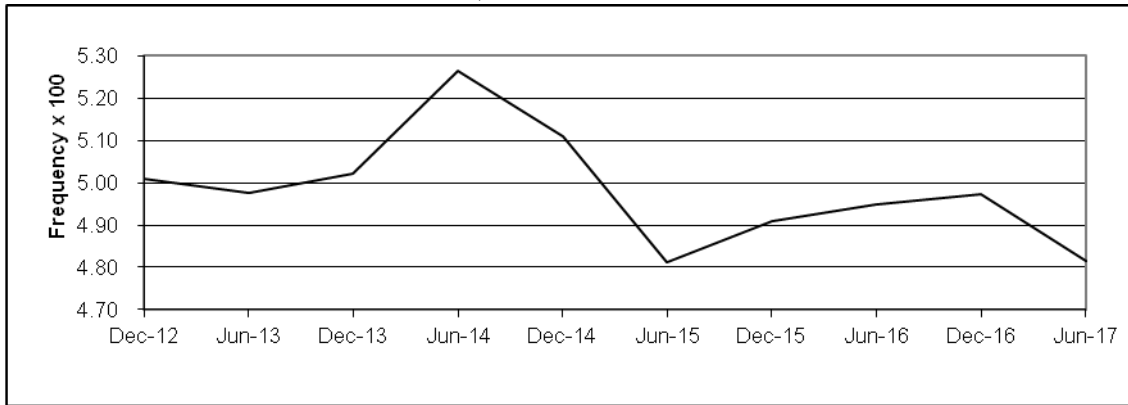
* Multistate data excludes Massachusetts

** Change based on years ending 6/30/xxxx

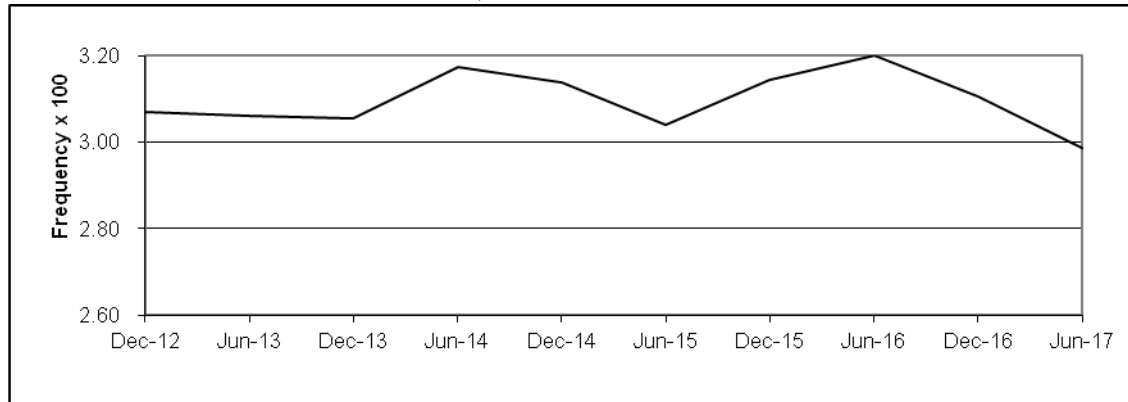
***Deductibles above \$1,000, totaling 2.0% of losses, are excluded from the trend calculations.

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

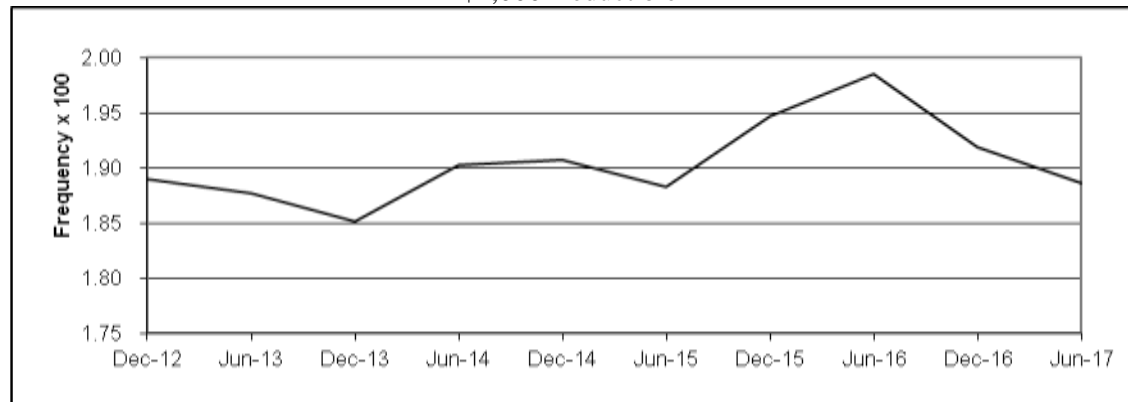
\$250 Deductible



\$500 Deductible



\$1,000 Deductible



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

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

Severity Trend

Year Ending:	\$250 Deductible	\$500 Deductible	\$1,000 Deductible
12/31/2012	1,359.32	1,875.40	2,489.52
06/30/2013	1,443.17	1,947.57	2,609.53
12/31/2013	1,418.06	1,962.75	2,662.60
06/30/2014	1,399.18	2,006.46	2,717.53
12/31/2014	1,527.69	2,098.22	2,847.07
06/30/2015	1,620.83	2,153.59	2,887.49
12/31/2015	1,692.17	2,264.58	2,971.61
06/30/2016	1,779.50	2,366.68	3,079.13
12/31/2016	1,810.67	2,382.65	3,097.41
06/30/2017	1,961.80	2,510.67	3,267.07

Average Annual Change Using Exponential Fits:

10 point fit:	8.4%	6.7%	5.8%
8 point fit:	10.2%	7.4%	5.8%
6 point fit:	9.8%	7.4%	5.5%

Selected severity trend:	6.0%
Selected frequency trend:	0.0%
Selected pure premium trend:	6.0%

* Multistate data excludes Massachusetts

Multistate*
Private Passenger Types Physical Damage
Collision

Frequency (expressed as claims per 100 exposures)

	\$500 Deductible		\$1,000 Deductible		\$2,000 Deductible	
Year Ending:	Actual	Change **	Actual	Change **	Actual	Change **
12/31/2012	5.05		4.05		2.91	
06/30/2013	5.10		4.13		2.95	
12/31/2013	5.10		4.16		2.97	
06/30/2014	5.26	3.1%	4.32	4.6%	3.11	5.4%
12/31/2014	5.30		4.42		3.21	
06/30/2015	5.27	0.2%	4.37	1.2%	3.20	2.9%
12/31/2015	5.28		4.41		3.26	
06/30/2016	5.15	-2.3%	4.35	-0.5%	3.24	1.3%
12/31/2016	5.16		4.38		3.28	
06/30/2017	5.11	-0.8%	4.34	-0.2%	3.29	1.5%

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

Deductible	Percent of Losses
\$ 100	0.4%
\$ 200	0.2%
\$ 250	2.4%
\$ 500	46.3%
\$ 1,000	48.6%
\$ 2,000	1.2%
\$ 3,000	0.4%
\$ 5,000	0.4%

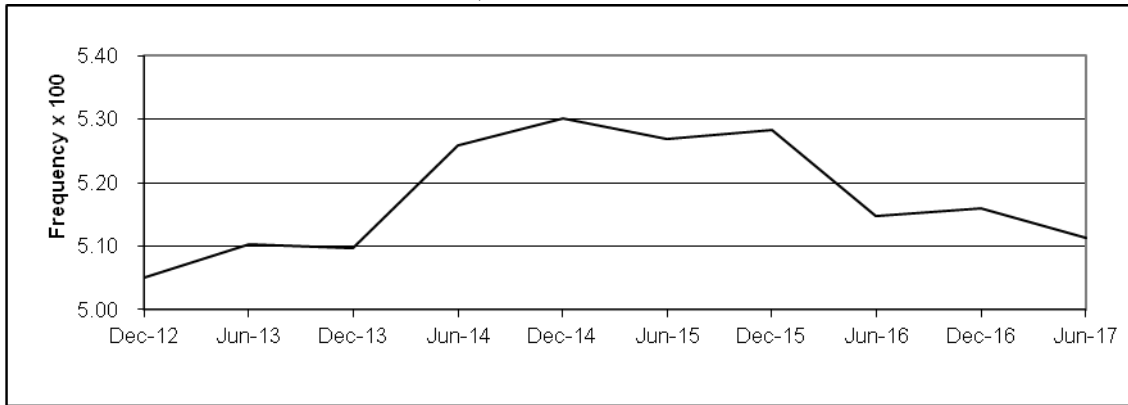
* Multistate data excludes Massachusetts

** Change based on years ending 6/30/xxxx

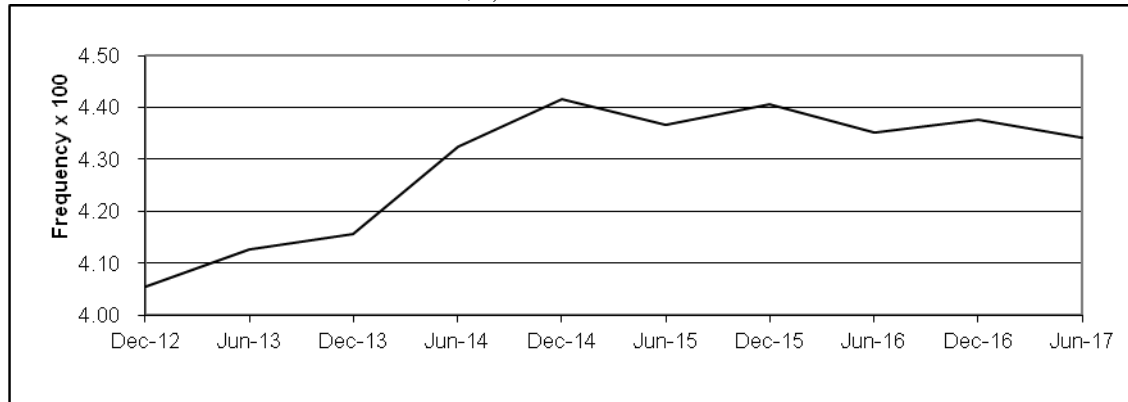
***Deductibles above \$2,000, totaling 0.8% of losses, are excluded from the trend calculations.

Multistate*
Private Passenger Types Physical Damage
Collision Frequency Trend

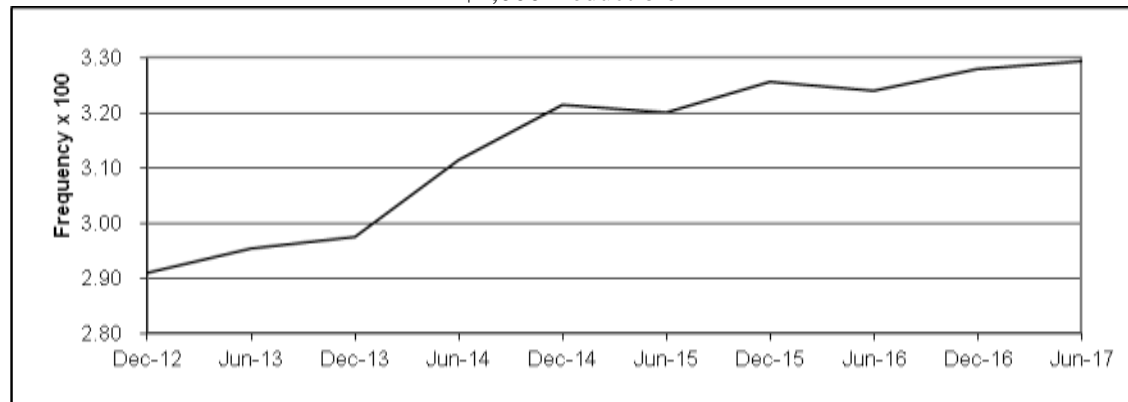
\$500 Deductible



\$1,000 Deductible



\$2,000 Deductible



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

Multistate*
Private Passenger Types Physical Damage
Collision Loss Trend

Severity Trend

Year Ending:	\$500 Deductible	\$1,000 Deductible	\$2,000 Deductible
12/31/2012	4,936.36	5,442.41	6,001.83
06/30/2013	5,004.78	5,454.32	6,026.20
12/31/2013	5,055.36	5,507.41	6,092.85
06/30/2014	5,162.88	5,595.84	6,163.37
12/31/2014	5,387.33	5,761.10	6,342.91
06/30/2015	5,513.54	5,917.13	6,492.58
12/31/2015	5,626.74	6,092.31	6,633.77
06/30/2016	5,810.14	6,238.78	6,790.29
12/31/2016	5,991.59	6,318.88	6,877.90
06/30/2017	6,125.98	6,451.16	6,931.81

Average Annual Change Using Exponential Fits:

10 point fit:	5.2%	4.3%	3.7%
8 point fit:	5.7%	4.8%	4.1%
6 point fit:	5.4%	4.6%	3.7%

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

* Multistate data excludes Massachusetts

COMMERCIAL AUTOMOBILE PHYSICAL DAMAGE
SUPPLEMENTARY EXHIBIT

Quarterly Values <u>Ending</u>	Consumer Price Index for Bodywork	
	<u>Actual</u>	<u>Exponential Fit</u>
6/30/2014	2.785	2.755
9/30/2014	2.784	2.770
12/31/2014	2.785	2.784
3/31/2015	2.792	2.799
6/30/2015	2.804	2.814
9/30/2015	2.805	2.829
12/31/2015	2.831	2.843
3/31/2016	2.847	2.858
6/30/2016	2.866	2.873
9/30/2016	2.877	2.888
12/31/2016	2.913	2.904
3/31/2017	2.925	2.919
6/30/2017	2.942	2.934
9/30/2017	2.945	2.950
12/31/2017	2.966	2.965
3/31/2018	2.999	2.981
		Average
		Annual
		<u>Change</u>
16 Point Fit	<u>R-Squared</u>	
12 Point Fit		
	0.9639	2.1%
	0.9874	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 0.9% and 1.3% for Trucks, Tractors & Trailers OTC and Collision coverages respectively. This trend is necessary to reflect the additional revenue generated by the shift in the OCN distribution as new, higher-priced automobiles are introduced.

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

MULTISTATE
TRUCKS, TRACTORS & TRAILERS
PHYSICAL DAMAGE
OCN TREND CALCULATION

AVERAGE OCN RELATIVITIES

YEAR ENDING	OTHER THAN COLLISION	COLLISION
12/31/2012	1.219	1.352
6/30/2013	1.224	1.360
12/31/2013	1.231	1.369
6/30/2014	1.237	1.378
12/31/2014	1.243	1.387
6/30/2015	1.249	1.396
12/31/2015	1.255	1.405
6/30/2016	1.260	1.415
12/31/2016	1.266	1.425
6/30/2017	1.269	1.431

EXPONENTIAL TREND (AVERAGE ANNUAL CHANGE)

9 POINTS	0.9%	1.3%
7 POINTS	0.9%	1.3%
5 POINTS	0.8%	1.3%

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

Selected Collision Physical Damage Annual OCN Trend: 1.3%

Data excludes the following state: Massachusetts.

MULTISTATE
PRIVATE PASSENGER TYPES
PHYSICAL DAMAGE
OCN TREND CALCULATION

AVERAGE OCN RELATIVITIES

YEAR ENDING	OTHER THAN COLLISION	COLLISION
12/31/2012	1.300	1.148
6/30/2013	1.304	1.150
12/31/2013	1.309	1.153
6/30/2014	1.315	1.155
12/31/2014	1.320	1.158
6/30/2015	1.326	1.162
12/31/2015	1.332	1.166
6/30/2016	1.340	1.170
12/31/2016	1.348	1.174
6/30/2017	1.352	1.175

EXPONENTIAL TREND (AVERAGE ANNUAL CHANGE)

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

Data excludes the following state: Massachusetts.

LOSS DEVELOPMENT FOR LIABILITY

OBJECTIVE	The application of loss development recognizes the important concept that some of the losses for a particular accident year have not been finally determined at the time the experience is compiled.
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DESCRIPTION OF EXPERIENCE PERIOD DATA	<p>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 September 30, 2017. In other words, accident year ended June 30, 2017 includes all losses and allocated loss adjustment expenses paid through September 30, 2017 on accidents occurring from July 1, 2016 to June 30, 2017 and all losses and allocated loss adjustment expenses outstanding on these accidents as of September 30, 2017, 15 months after the inception of the accident year. Similarly, the incurred losses and allocated loss adjustment expenses for accident year ended June 30, 2016 include all loss and loss adjustment expenses paid through September 30, 2017 on accidents occurring from July 1, 2015 to June 30, 2016 and all losses and allocated loss adjustment expenses outstanding on these accidents as of September 30, 2017, 27 months after the inception of the accident year. The immature experience reported as of 15 or as of 27 months must be adjusted to a mature or ultimate settlement basis through the use of a loss development factor.</p>
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DESCRIPTION OF LOSS DEVELOPMENT METHODOLOGY	<p>For Bodily Injury Coverage, states are divided into two multistate groups. One group (No-Fault) consists of states with a no-fault law that has a tort threshold. The other group (Tort) contains the remaining states. The applicable multistate group for this state is used in this document. Losses are developed up to 123 months and are based on \$100,000 CSL data. Three-year averages for Trucks, Tractors & Trailers and Private Passenger Types are calculated for each link ratio based on a "best three of five" approach. Specifically, for the latest five years, the highest and lowest ratios were removed from the calculation and the three year average was calculated using the three remaining factors. Beyond 123 months the loss development is assumed to be unity.</p>
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For Property Damage Coverage, one multistate group is used. Losses are developed up to 111 months and \$100,000 CSL data is used. Three-year averages for Trucks, Tractors & Trailers 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.

Insurance Services Office

Tennessee
Automobile Liability Insurance - Trucks, Tractors and Trailers
Loss Development
Incurred Losses and Expenses

Bodily Injury

Accident Year	\$100,000 Basic Limit			Loss Development Factors	
				15 to 27	27 to 39
<u>Ending</u>	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>Months</u>	<u>Months</u>
06/30/2006	8,447,614	10,532,423	11,516,369	1.247	1.093
06/30/2007	9,297,183	11,280,336	12,264,247	1.213	1.087
06/30/2008	8,991,870	11,163,597	12,442,094	1.242	1.115
06/30/2009	8,809,208	10,815,459	11,242,006	1.228	1.039
06/30/2010	7,747,671	9,707,041	10,574,685	1.253	1.089
06/30/2011	10,977,868	12,457,264	13,322,934	1.135	1.069
06/30/2012	9,975,673	10,399,625	11,178,158	1.042	1.075
06/30/2013	7,919,368	9,717,351	10,202,401	1.227	1.050
06/30/2014	10,232,434	12,027,805	12,954,954	1.175	1.077
06/30/2015	10,205,175	11,874,254	13,110,140	1.164	1.104
06/30/2016	13,127,035	14,908,778		1.136	
06/30/2017	13,290,921				
(1) Average Factor (Best 3 of 5) : (A) State				1.158	1.074
(B) Multistate				1.240	1.111
(2) Credibility				0.930	0.750
(3) Credibility Weighted Factors				1.164	1.083

Property Damage

Accident Year	\$100,000 Basic Limit			Loss Development Factors	
				15 to 27	27 to 39
<u>Ending</u>	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>Months</u>	<u>Months</u>
06/30/2006	9,278,036	9,370,446	9,284,121	1.010	0.991
06/30/2007	9,327,119	9,375,981	9,388,479	1.005	1.001
06/30/2008	9,033,459	9,243,971	9,202,868	1.023	0.996
06/30/2009	8,224,721	8,317,417	8,457,919	1.011	1.017
06/30/2010	7,194,512	7,265,255	7,263,357	1.010	1.000
06/30/2011	8,207,491	8,318,142	8,316,226	1.013	1.000
06/30/2012	8,092,174	8,167,186	8,178,807	1.009	1.001
06/30/2013	7,889,195	8,027,014	8,067,087	1.017	1.005
06/30/2014	8,642,789	8,788,202	8,756,924	1.017	0.996
06/30/2015	9,135,779	9,229,628	9,396,762	1.010	1.018
06/30/2016	10,757,909	11,340,802		1.054	
06/30/2017	11,106,510				
(1) Average Factor (Best 3 of 5) : (A) State				1.015	1.002
(B) Multistate				1.043	1.009
(2) Credibility				0.950	0.000
(3) Credibility Weighted Factors				1.016	1.009

Summary of Factors

	Bodily <u>Injury</u>	Property <u>Damage</u>
39 to Ultimate **	1.076	1.005
27 to Ultimate	1.165	1.014
15 to Ultimate	1.356	1.030
** Multistate factors		

Insurance Services Office

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

Accident Year Ended	\$100,000 Basic Limit				
	15 Months	27 Months	39 Months	51 Months	63 Months
06/30/2006	362,717,876	439,264,613	486,430,895	506,634,301	514,643,244
06/30/2007	357,658,430	440,616,925	491,527,124	512,831,335	518,986,813
06/30/2008	345,313,669	421,804,634	468,498,895	489,733,213	495,468,734
06/30/2009	307,599,505	379,355,552	422,136,319	439,565,864	446,097,042
06/30/2010	287,495,474	358,960,556	393,996,105	413,115,266	418,614,243
06/30/2011	314,579,570	382,703,084	423,793,323	444,230,736	450,239,237
06/30/2012	333,901,247	407,258,980	446,617,133	464,313,523	474,559,450
06/30/2013	332,783,737	412,602,687	458,099,582	487,068,897	496,363,782
06/30/2014	364,562,687	445,865,009	497,029,747	531,464,865	
06/30/2015	385,725,457	484,342,063	548,583,791		
06/30/2016	438,436,507	556,031,851			
06/30/2017	470,854,412				

Ratios

Accident Year Ended	27:15	39:27	51:39	63:51
06/30/2006	1.211	1.107	1.042	1.016
06/30/2007	1.232	1.116	1.043	1.012
06/30/2008	1.222	1.111	1.045	1.012
06/30/2009	1.233	1.113	1.041	1.015
06/30/2010	1.249	1.098	1.049	1.013
06/30/2011	1.217	1.107	1.048	1.014
06/30/2012	1.220	1.097	1.040	1.022
06/30/2013	1.240	1.110	1.063	1.019
06/30/2014	1.223	1.115	1.069	
06/30/2015	1.256	1.133		
06/30/2016	1.268			

Average Factor : 1.240 1.111 1.053 1.016
(Best 3 of 5)

Summary of factors

63 to Ult:	(75:63) (75:Ult) =	1.006
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.022
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	1.076
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.196
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.483

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

Insurance Services Office

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

Accident Year <u>Ended</u>	\$100,000 Basic Limit				
	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>	<u>123 Months</u>
06/30/2006	517,401,411	518,494,283	518,742,356	518,433,621	518,739,453
06/30/2007	519,756,201	520,170,705	520,411,933	520,267,349	520,398,816
06/30/2008	497,333,752	497,257,825	497,570,828	497,629,923	497,721,071
06/30/2009	448,142,894	448,576,384	448,565,932	448,932,607	
06/30/2010	421,655,871	421,501,107	421,680,900		
06/30/2011	452,801,187	455,300,518			
06/30/2012	477,052,802				

Ratios					
Accident Year <u>Ended</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>	<u>123:111</u>
06/30/2006	1.005	1.002	1.000	0.999	1.001
06/30/2007	1.001	1.001	1.000	1.000	1.000
06/30/2008	1.004	1.000	1.001	1.000	1.000
06/30/2009	1.005	1.001	1.000	1.001	
06/30/2010	1.007	1.000	1.000		
06/30/2011	1.006	1.006			
06/30/2012	1.005				
Average Factor :	1.005	1.001	1.000	1.000	1.000
(Best 3 of 5)					

Summary of factors			
123 to Ult:	(1.000)	=	1.000
111 to Ult:	(123:111) (123:Ult)	=	1.000
99 to Ult:	(111:99) (123:111) (123:Ult)	=	1.000
87 to Ult:	(99:87) (111:99) (123:111) (123:Ult)	=	1.000
75 to Ult:	(87:75) (99:87) (111:99) (123:111) (123:Ult)	=	1.001

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

Insurance Services Office

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

Accident Year Ended	\$100,000 Basic Limit				
	15 Months	27 Months	39 Months	51 Months	63 Months
06/30/2006	460,271,860	476,693,405	480,733,944	481,293,195	481,606,442
06/30/2007	470,384,141	490,307,401	493,597,489	494,601,387	494,634,452
06/30/2008	468,087,464	486,105,305	487,868,919	488,753,798	489,657,406
06/30/2009	399,711,346	410,687,740	413,015,828	413,727,773	413,801,616
06/30/2010	376,568,044	388,552,663	391,027,769	392,519,623	393,175,029
06/30/2011	407,311,260	422,312,640	424,148,787	425,393,420	425,622,540
06/30/2012	426,791,748	440,421,966	444,709,803	444,979,041	445,973,613
06/30/2013	438,423,447	454,295,751	458,624,471	460,467,676	460,625,996
06/30/2014	480,489,659	500,216,317	504,241,640	507,128,624	
06/30/2015	500,944,276	526,459,912	533,161,524		
06/30/2016	541,470,004	573,680,361			
06/30/2017	572,600,697				

Ratios

Accident Year Ended	27:15	39:27	51:39	63:51
06/30/2006	1.036	1.008	1.001	1.001
06/30/2007	1.042	1.007	1.002	1.000
06/30/2008	1.038	1.004	1.002	1.002
06/30/2009	1.027	1.006	1.002	1.000
06/30/2010	1.032	1.006	1.004	1.002
06/30/2011	1.037	1.004	1.003	1.001
06/30/2012	1.032	1.010	1.001	1.002
06/30/2013	1.036	1.010	1.004	1.000
06/30/2014	1.041	1.008	1.006	
06/30/2015	1.051	1.013		
06/30/2016	1.059			

Average Factor : 1.043 1.009 1.004 1.001
(Best 3 of 5)

Summary of factors

63 to Ult:	(75:63) (75:Ult) =	1.000
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.001
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	1.005
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.014
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.058

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

Insurance Services Office

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

Accident Year <u>Ended</u>	\$100,000 Basic Limit			
	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>
06/30/2006	481,565,786	481,379,395	481,424,433	481,577,052
06/30/2007	494,567,069	494,482,179	494,636,158	494,541,011
06/30/2008	489,833,712	489,856,322	489,820,523	489,816,233
06/30/2009	413,981,470	413,981,225	414,124,461	414,101,383
06/30/2010	392,768,595	393,078,254	393,171,220	
06/30/2011	426,373,697	426,601,690		
06/30/2012	446,022,051			

Ratios				
Accident Year <u>Ended</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>
06/30/2006	1.000	1.000	1.000	1.000
06/30/2007	1.000	1.000	1.000	1.000
06/30/2008	1.000	1.000	1.000	1.000
06/30/2009	1.000	1.000	1.000	1.000
06/30/2010	0.999	1.001	1.000	
06/30/2011	1.002	1.001		
06/30/2012	1.000			
Average Factor :	1.000	1.000	1.000	1.000
(Best 3 of 5)				

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

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

Insurance Services Office

Tennessee

Automobile Liability Insurance - Private Passenger Types

Loss Development

Incurred Losses and Expenses

Bodily Injury

Accident Year	\$100,000 Basic Limit			Loss Development Factors	
				15 to 27 Months	27 to 39 Months
<u>Ending</u>	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>		
06/30/2006	1,869,944	2,487,498	2,799,871	1.330	1.126
06/30/2007	2,378,509	2,748,508	2,864,520	1.156	1.042
06/30/2008	2,657,805	2,727,757	2,803,829	1.026	1.028
06/30/2009	2,039,918	2,411,291	2,681,685	1.182	1.112
06/30/2010	2,546,927	3,016,834	3,268,327	1.184	1.083
06/30/2011	3,130,749	3,877,267	4,352,416	1.238	1.123
06/30/2012	3,214,993	3,450,855	3,695,223	1.073	1.071
06/30/2013	3,190,802	3,098,087	2,823,397	0.971	0.911
06/30/2014	3,240,331	3,637,933	3,623,148	1.123	0.996
06/30/2015	2,612,313	2,992,679	3,506,281	1.146	1.172
06/30/2016	2,531,939	2,663,296		1.052	
06/30/2017	2,217,862				
(1) Average Factor (Best 3 of 5) : (A) State				1.083	1.063
(B) Multistate				1.212	1.094
(2) Credibility				0.850	0.710
(3) Credibility Weighted Factors				1.102	1.072

Property Damage

Accident Year	\$100,000 Basic Limit			Loss Development Factors	
				15 to 27 Months	27 to 39 Months
<u>Ending</u>	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>		
06/30/2006	1,808,956	1,841,339	1,844,938	1.018	1.002
06/30/2007	1,575,124	1,602,358	1,613,580	1.017	1.007
06/30/2008	1,773,064	1,784,670	1,813,452	1.007	1.016
06/30/2009	1,779,965	1,704,750	1,703,920	0.958	1.000
06/30/2010	1,618,310	1,650,355	1,628,318	1.020	0.987
06/30/2011	2,030,927	2,018,779	2,028,770	0.994	1.005
06/30/2012	1,745,892	1,830,804	1,802,652	1.049	0.985
06/30/2013	1,788,484	1,812,651	1,814,420	1.014	1.001
06/30/2014	1,646,036	1,694,441	1,709,871	1.029	1.009
06/30/2015	1,567,106	1,622,108	1,622,562	1.035	1.000
06/30/2016	2,103,805	2,132,883		1.014	
06/30/2017	1,659,732				
(1) Average Factor (Best 3 of 5) : (A) State				1.026	1.002
(B) Multistate				1.043	1.009
(2) Credibility				0.900	0.000
(3) Credibility Weighted Factors				1.028	1.009

Summary of Factors

	Bodily Injury	Property Damage
39 to Ultimate **	1.065	1.006
27 to Ultimate	1.142	1.015
15 to Ultimate	1.258	1.043
** Multistate factors		

Insurance Services Office

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

Accident Year Ended	\$100,000 Basic Limit				
	15 Months	27 Months	39 Months	51 Months	63 Months
06/30/2006	67,583,749	81,009,369	90,289,246	93,991,142	94,880,397
06/30/2007	68,111,536	84,172,913	93,673,999	97,275,999	98,374,697
06/30/2008	63,407,944	79,182,394	87,563,651	91,000,258	92,012,918
06/30/2009	66,654,281	81,379,323	88,125,407	90,556,635	91,238,239
06/30/2010	64,674,824	77,161,272	82,564,419	85,921,345	87,325,760
06/30/2011	73,237,704	90,377,007	98,075,194	102,782,690	103,379,175
06/30/2012	76,231,417	92,232,596	99,990,025	104,250,028	105,893,453
06/30/2013	72,382,290	85,391,479	92,742,392	96,997,208	98,910,147
06/30/2014	72,239,782	87,002,441	96,601,923	101,876,885	
06/30/2015	71,090,147	88,304,016	100,456,172		
06/30/2016	73,681,193	90,107,432			
06/30/2017	70,218,678				

Ratios

Accident Year Ended	27:15	39:27	51:39	63:51
06/30/2006	1.199	1.115	1.041	1.009
06/30/2007	1.236	1.113	1.038	1.011
06/30/2008	1.249	1.106	1.039	1.011
06/30/2009	1.221	1.083	1.028	1.008
06/30/2010	1.193	1.070	1.041	1.016
06/30/2011	1.234	1.085	1.048	1.006
06/30/2012	1.210	1.084	1.043	1.016
06/30/2013	1.180	1.086	1.046	1.020
06/30/2014	1.204	1.110	1.055	
06/30/2015	1.242	1.138		
06/30/2016	1.223			

Average Factor : 1.212 1.094 1.046 1.013
(Best 3 of 5)

Summary of factors

63 to Ult:	(75:63) (75:Ult) =	1.005
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.018
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	1.065
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.165
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.412

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

Insurance Services Office

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

Accident Year Ended	\$100,000 Basic Limit				
	75 Months	87 Months	99 Months	111 Months	123 Months
06/30/2006	95,330,986	95,601,812	95,695,429	95,702,003	95,673,577
06/30/2007	98,675,407	98,782,402	98,651,446	98,660,641	98,618,482
06/30/2008	92,160,306	92,547,336	92,585,501	92,532,224	92,650,975
06/30/2009	91,232,356	91,033,915	91,325,827	91,304,530	
06/30/2010	87,457,382	87,329,883	87,492,610		
06/30/2011	103,746,124	103,971,637			
06/30/2012	106,827,814				

Ratios					
Accident Year Ended	75:63	87:75	99:87	111:99	123:111
06/30/2006	1.005	1.003	1.001	1.000	1.000
06/30/2007	1.003	1.001	0.999	1.000	1.000
06/30/2008	1.002	1.004	1.000	0.999	1.001
06/30/2009	1.000	0.998	1.003	1.000	
06/30/2010	1.002	0.999	1.002		
06/30/2011	1.004	1.002			
06/30/2012	1.009				
Average Factor :	1.003	1.001	1.001	1.000	1.000
(Best 3 of 5)					

Summary of factors			
123 to Ult:	(1.000)	=	1.000
111 to Ult:	(123:111) (123:Ult)	=	1.000
99 to Ult:	(111:99) (123:111) (123:Ult)	=	1.000
87 to Ult:	(99:87) (111:99) (123:111) (123:Ult)	=	1.001
75 to Ult:	(87:75) (99:87) (111:99) (123:111) (123:Ult)	=	1.002

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

Insurance Services Office

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

Accident Year Ended	\$100,000 Basic Limit				
	15 Months	27 Months	39 Months	51 Months	63 Months
06/30/2006	89,362,109	92,114,007	92,692,861	92,899,234	92,945,095
06/30/2007	91,173,540	94,450,278	94,750,553	94,782,619	94,828,528
06/30/2008	91,620,032	94,391,878	95,153,094	95,105,179	95,124,596
06/30/2009	86,654,787	89,263,435	89,752,569	89,917,349	89,822,516
06/30/2010	81,972,024	84,600,527	85,059,368	85,323,092	85,416,141
06/30/2011	87,125,274	90,355,779	91,078,019	91,320,623	91,724,135
06/30/2012	90,369,368	93,096,305	93,647,267	94,251,482	94,386,290
06/30/2013	90,055,811	93,557,486	94,315,966	94,533,289	94,592,040
06/30/2014	92,752,697	96,629,169	97,566,525	97,819,757	
06/30/2015	91,792,187	96,254,212	97,779,168		
06/30/2016	97,469,912	103,163,195			
06/30/2017	94,537,694				

Ratios

Accident Year Ended	27:15	39:27	51:39	63:51
06/30/2006	1.031	1.006	1.002	1.000
06/30/2007	1.036	1.003	1.000	1.000
06/30/2008	1.030	1.008	0.999	1.000
06/30/2009	1.030	1.005	1.002	0.999
06/30/2010	1.032	1.005	1.003	1.001
06/30/2011	1.037	1.008	1.003	1.004
06/30/2012	1.030	1.006	1.006	1.001
06/30/2013	1.039	1.008	1.002	1.001
06/30/2014	1.042	1.010	1.003	
06/30/2015	1.049	1.016		
06/30/2016	1.058			

Average Factor : 1.043 1.009 1.003 1.001
(Best 3 of 5)

Summary of factors

63 to Ult: (75:63) (75:Ult) = 1.002
 51 to Ult: (63:51) (75:63) (75:Ult) = 1.003
 39 to Ult: (51:39) (63:51) (75:63) (75:Ult) = 1.006
 27 to Ult: (39:27) (51:39) (63:51) (75:63) (75:Ult) = 1.015
 15 to Ult: (27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) = 1.059

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

Insurance Services Office

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

Accident Year Ended	\$100,000 Basic Limit			
	75 Months	87 Months	99 Months	111 Months
06/30/2006	92,972,766	92,929,054	93,050,315	93,046,241
06/30/2007	94,746,820	94,804,848	94,743,873	94,751,501
06/30/2008	95,158,038	95,164,668	95,161,159	95,161,214
06/30/2009	89,893,939	89,856,814	89,862,519	89,883,132
06/30/2010	85,563,037	85,533,762	85,527,037	
06/30/2011	91,948,750	92,113,425		
06/30/2012	94,567,607			

Ratios				
Accident Year Ended	75:63	87:75	99:87	111:99
06/30/2006	1.000	1.000	1.001	1.000
06/30/2007	0.999	1.001	0.999	1.000
06/30/2008	1.000	1.000	1.000	1.000
06/30/2009	1.001	1.000	1.000	1.000
06/30/2010	1.002	1.000	1.000	
06/30/2011	1.002	1.002		
06/30/2012	1.002			
Average Factor :	1.002	1.000	1.000	1.000
(Best 3 of 5)				

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

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

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 September 30, 2017. In other words, accident year ended June 30, 2017 includes all losses paid through September 30, 2017 on accidents occurring from July 1, 2016 to June 30, 2017. Similarly, the paid losses for accident year ended June 30, 2016 include all losses paid through September 30, 2017 on accidents occurring from July 1, 2015 to June 30, 2016. The immature paid loss experience reported as of 15 or as of 27 months must be adjusted to a mature or ultimate settlement basis through the use of a loss development factor.
DESCRIPTION OF LOSS DEVELOPMENT METHODOLOGY	For Collision and Other Than Collision coverages, one multistate group is used. Losses are developed to an ultimate settlement basis. Three-year averages are calculated for each age-to-age link ratio. These link ratios are accumulated to develop losses to 123 months. Development beyond 123 months is assumed to be 1.000.

Insurance Services Office

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

Accident Year <u>Ended</u>	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>51 Months</u>	<u>63 Months</u>
06/30/2006	115,868,879	117,537,450	117,417,860	117,499,074	117,368,312
06/30/2007	106,060,474	108,310,209	108,237,892	108,016,793	107,950,289
06/30/2008	132,354,829	136,019,713	135,872,617	135,740,246	135,717,406
06/30/2009	129,545,019	131,557,295	131,346,003	131,488,687	131,535,333
06/30/2010	133,435,723	136,691,601	137,048,525	137,054,316	136,931,054
06/30/2011	146,046,383	150,723,075	150,845,279	150,823,038	150,902,048
06/30/2012	157,626,723	162,208,875	161,963,070	162,075,208	162,117,883
06/30/2013	181,213,600	185,687,553	185,896,091	186,040,016	186,229,494
06/30/2014	153,100,011	158,118,583	158,540,896	158,494,013	
06/30/2015	149,850,053	154,114,037	154,090,929		
06/30/2016	169,372,705	174,477,073			
06/30/2017	215,253,465				

Ratios

Accident Year <u>Ended</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
06/30/2006	1.014	0.999	1.001	0.999
06/30/2007	1.021	0.999	0.998	0.999
06/30/2008	1.028	0.999	0.999	1.000
06/30/2009	1.016	0.998	1.001	1.000
06/30/2010	1.024	1.003	1.000	0.999
06/30/2011	1.032	1.001	1.000	1.001
06/30/2012	1.029	0.998	1.001	1.000
06/30/2013	1.025	1.001	1.001	1.001
06/30/2014	1.033	1.003	1.000	
06/30/2015	1.028	1.000		
06/30/2016	1.030			

Average Factor : 1.029 1.001 1.000 1.000
(Best 3 of 5)

Summary of factors

63 to Ult:	(75:63) (75:Ult) =	1.000
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.000
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	1.000
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.001
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.030

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

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

Accident Year Ended	75 Months	87 Months	99 Months	111 Months	123 Months
06/30/2006	117,407,039	117,391,379	117,374,502	117,360,003	117,355,467
06/30/2007	107,916,197	107,951,785	107,913,161	107,905,484	107,908,747
06/30/2008	135,709,069	135,677,823	135,598,197	135,592,126	135,594,517
06/30/2009	131,487,958	131,457,810	131,526,907	131,540,603	
06/30/2010	137,057,099	137,020,213	137,024,910		
06/30/2011	150,949,591	150,956,940			
06/30/2012	161,960,526				

Accident Year Ended	Ratios				
	75:63	87:75	99:87	111:99	123:111
06/30/2006	1.000	1.000	1.000	1.000	1.000
06/30/2007	1.000	1.000	1.000	1.000	1.000
06/30/2008	1.000	1.000	0.999	1.000	1.000
06/30/2009	1.000	1.000	1.001	1.000	
06/30/2010	1.001	1.000	1.000		
06/30/2011	1.000	1.000			
06/30/2012	0.999				
Average Factor :	1.000	1.000	1.000	1.000	1.000
(Best 3 of 5)					

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

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

Accident Year Ended	15 Months	27 Months	39 Months	51 Months	63 Months
06/30/2006	319,108,163	311,919,211	310,257,826	309,709,961	309,657,041
06/30/2007	335,162,168	328,051,123	325,875,815	325,592,315	325,664,408
06/30/2008	366,293,088	360,041,740	358,426,743	357,912,602	357,612,332
06/30/2009	325,561,471	320,649,896	319,515,812	319,032,628	318,968,130
06/30/2010	304,106,534	300,221,619	299,387,269	299,158,806	299,001,629
06/30/2011	340,464,457	336,749,730	335,396,005	334,871,126	334,820,260
06/30/2012	357,384,422	352,510,196	350,983,697	350,637,829	350,620,968
06/30/2013	367,242,557	359,892,634	358,243,507	357,665,942	357,990,499
06/30/2014	400,738,906	392,684,917	391,228,722	390,905,724	
06/30/2015	425,611,300	414,215,591	411,855,342		
06/30/2016	452,682,946	442,172,563			
06/30/2017	492,432,168				

Ratios

Accident Year Ended	27:15	39:27	51:39	63:51
06/30/2006	0.977	0.995	0.998	1.000
06/30/2007	0.979	0.993	0.999	1.000
06/30/2008	0.983	0.996	0.999	0.999
06/30/2009	0.985	0.996	0.998	1.000
06/30/2010	0.987	0.997	0.999	0.999
06/30/2011	0.989	0.996	0.998	1.000
06/30/2012	0.986	0.996	0.999	1.000
06/30/2013	0.980	0.995	0.998	1.001
06/30/2014	0.980	0.996	0.999	
06/30/2015	0.973	0.994		
06/30/2016	0.977			

Average Factor : 0.979 0.996 0.999 1.000
(Best 3 of 5)

Summary of factors

63 to Ult:	(75:63) (75:Ult) =	1.000
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.000
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	0.999
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	0.995
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	0.974

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

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

Accident Year <u>Ended</u>	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>	<u>123 Months</u>
06/30/2006	309,688,588	309,761,415	309,746,334	309,739,842	309,703,609
06/30/2007	325,563,135	326,070,410	325,487,380	325,472,430	325,452,043
06/30/2008	357,522,861	357,444,572	357,427,226	357,395,019	357,412,683
06/30/2009	318,946,538	318,824,008	318,771,017	318,756,358	
06/30/2010	299,022,187	298,975,775	298,971,210		
06/30/2011	334,743,886	334,622,582			
06/30/2012	350,551,245				

Ratios					
Accident Year <u>Ended</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>	<u>123:111</u>
06/30/2006	1.000	1.000	1.000	1.000	1.000
06/30/2007	1.000	1.002	0.998	1.000	1.000
06/30/2008	1.000	1.000	1.000	1.000	1.000
06/30/2009	1.000	1.000	1.000	1.000	
06/30/2010	1.000	1.000	1.000		
06/30/2011	1.000	1.000			
06/30/2012	1.000				
Average Factor :	1.000	1.000	1.000	1.000	1.000
(Best 3 of 5)					

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

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

Accident Year <u>Ended</u>	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>51 Months</u>	<u>63 Months</u>
06/30/2006	54,890,106	55,651,782	55,612,183	55,522,159	55,509,154
06/30/2007	45,613,394	46,218,676	46,256,156	46,280,284	46,230,615
06/30/2008	48,478,015	49,089,698	49,007,909	48,946,321	48,942,767
06/30/2009	48,187,677	48,511,377	48,467,654	48,407,434	48,372,567
06/30/2010	51,040,956	51,828,301	51,858,480	51,891,304	51,891,727
06/30/2011	60,915,751	62,527,771	62,527,392	62,522,157	62,541,293
06/30/2012	65,387,718	65,988,836	66,106,815	66,095,497	66,083,639
06/30/2013	75,615,309	76,147,864	76,185,090	76,255,471	76,266,089
06/30/2014	57,132,080	58,766,058	59,055,165	59,062,414	
06/30/2015	51,770,272	52,705,510	52,794,315		
06/30/2016	57,614,750	58,692,303			
06/30/2017	63,634,043				

Ratios

Accident Year <u>Ended</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
06/30/2006	1.014	0.999	0.998	1.000
06/30/2007	1.013	1.001	1.001	0.999
06/30/2008	1.013	0.998	0.999	1.000
06/30/2009	1.007	0.999	0.999	0.999
06/30/2010	1.015	1.001	1.001	1.000
06/30/2011	1.026	1.000	1.000	1.000
06/30/2012	1.009	1.002	1.000	1.000
06/30/2013	1.007	1.000	1.001	1.000
06/30/2014	1.029	1.005	1.000	
06/30/2015	1.018	1.002		
06/30/2016	1.019			

Average Factor : 1.015 1.001 1.000 1.000
(Best 3 of 5)

Summary of factors

63 to Ult:	(75:63) (75:Ult) =	1.000
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.000
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	1.000
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.001
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	1.016

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

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

Accident Year <u>Ended</u>	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>	<u>123 Months</u>
06/30/2006	55,522,562	55,526,315	55,532,554	55,533,236	55,533,096
06/30/2007	46,286,071	46,287,291	46,279,314	46,277,976	46,280,692
06/30/2008	48,944,835	48,937,480	48,938,103	48,938,125	48,950,665
06/30/2009	48,382,964	48,382,175	48,379,938	48,379,078	
06/30/2010	51,873,942	51,871,109	51,903,022		
06/30/2011	62,542,944	62,536,742			
06/30/2012	66,103,488				

Ratios

Accident Year <u>Ended</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>	<u>123:111</u>
06/30/2006	1.000	1.000	1.000	1.000	1.000
06/30/2007	1.001	1.000	1.000	1.000	1.000
06/30/2008	1.000	1.000	1.000	1.000	1.000
06/30/2009	1.000	1.000	1.000	1.000	
06/30/2010	1.000	1.000	1.001		
06/30/2011	1.000	1.000			
06/30/2012	1.000				
Average Factor :	1.000	1.000	1.000	1.000	1.000
(Best 3 of 5)					

Summary of factors

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

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

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

Accident Year <u>Ended</u>	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>51 Months</u>	<u>63 Months</u>
06/30/2006	146,227,184	141,398,179	140,711,333	140,460,118	140,379,319
06/30/2007	142,394,682	137,339,070	136,556,013	136,469,785	136,385,035
06/30/2008	147,858,279	142,708,067	141,862,419	141,665,393	141,592,334
06/30/2009	144,911,397	140,252,488	139,807,269	139,500,585	139,443,412
06/30/2010	136,534,494	131,986,715	131,650,899	131,490,479	131,410,081
06/30/2011	143,622,057	138,595,095	138,076,818	137,846,339	137,860,021
06/30/2012	154,450,463	149,422,982	148,709,221	148,649,883	148,561,020
06/30/2013	154,321,109	147,804,999	146,947,605	146,860,843	146,903,281
06/30/2014	159,265,580	152,436,627	151,743,873	151,565,825	
06/30/2015	168,169,232	160,306,530	158,872,101		
06/30/2016	175,716,107	167,508,421			
06/30/2017	165,972,443				

Ratios

Accident Year <u>Ended</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>
06/30/2006	0.967	0.995	0.998	0.999
06/30/2007	0.964	0.994	0.999	0.999
06/30/2008	0.965	0.994	0.999	0.999
06/30/2009	0.968	0.997	0.998	1.000
06/30/2010	0.967	0.997	0.999	0.999
06/30/2011	0.965	0.996	0.998	1.000
06/30/2012	0.967	0.995	1.000	0.999
06/30/2013	0.958	0.994	0.999	1.000
06/30/2014	0.957	0.995	0.999	
06/30/2015	0.953	0.991		
06/30/2016	0.953			

Average Factor : 0.956 0.995 0.999 1.000
(Best 3 of 5)

Summary of factors

63 to Ult:	(75:63) (75:Ult) =	1.000
51 to Ult:	(63:51) (75:63) (75:Ult) =	1.000
39 to Ult:	(51:39) (63:51) (75:63) (75:Ult) =	0.999
27 to Ult:	(39:27) (51:39) (63:51) (75:63) (75:Ult) =	0.994
15 to Ult:	(27:15) (39:27) (51:39) (63:51) (75:63) (75:Ult) =	0.950

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

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

Accident Year <u>Ended</u>	<u>75 Months</u>	<u>87 Months</u>	<u>99 Months</u>	<u>111 Months</u>	<u>123 Months</u>
06/30/2006	140,435,053	140,466,906	140,451,303	140,442,677	140,417,706
06/30/2007	136,323,634	136,298,762	136,285,390	136,272,033	136,258,920
06/30/2008	141,568,993	141,551,880	141,541,883	141,538,018	141,540,016
06/30/2009	139,409,041	139,384,117	139,368,830	139,355,644	
06/30/2010	131,371,269	131,334,429	131,331,779		
06/30/2011	137,788,766	137,785,953			
06/30/2012	148,532,527				

Ratios					
Accident Year <u>Ended</u>	<u>75:63</u>	<u>87:75</u>	<u>99:87</u>	<u>111:99</u>	<u>123:111</u>
06/30/2006	1.000	1.000	1.000	1.000	1.000
06/30/2007	1.000	1.000	1.000	1.000	1.000
06/30/2008	1.000	1.000	1.000	1.000	1.000
06/30/2009	1.000	1.000	1.000	1.000	
06/30/2010	1.000	1.000	1.000		
06/30/2011	0.999	1.000			
06/30/2012	1.000				
Average Factor :	1.000	1.000	1.000	1.000	1.000
(Best 3 of 5)					

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

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

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CREDIBILITY PROCEDURE FOR EXPERIENCE LOSS RATIO

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

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

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

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

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

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

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

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

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

Step
2: Determine the Experience Period Credibility

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

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

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

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

Step 2: Determine the Experience Period Credibility

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

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

Tables For Use With Trend Data

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

K = 25,000

K = 10,000

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

ALL LIABILITY COVERAGES
CREDIBILITY TABLE
NUMBER OF CLAIMS

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

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

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

PHYSICAL DAMAGE
CREDIBILITY TABLES
NUMBER OF CLAIMS

OTHER THAN COLLISION

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

COLLISION

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

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

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

TENNESSEE
CLAIMS PER TERRITORY
LIABILITY

Territory	Trucks, Tractors & Trailers	Private Passenger Types
	Incurred Claims 5 Years Ending 06/30/2017 Combined BI and PD	Incurred Claims 5 Years Ending 06/30/2017 Combined BI and PD
101	2,518	630
102	3,097	525
103	1,181	290
104	1,453	328
106	102	15
109	1,273	223
112	364	80
120	12	0
121	246	56
122	71	13
123	373	77
124	348	30
125	1,930	415
126	1,982	318
127	257	89
128	661	145
129	309	65
130	205	31
SW Total	16,382	3,330

Claims for Trend

BI	PD
<u>1,071</u>	<u>3,293</u>

TENNESSEE
CLAIMS PER TERRITORY
PHYSICAL DAMAGE

Territory	Trucks, Tractors & Trailers Paid Claims 5 Years Ending 06/30/2017		Private Passenger Types Paid Claims 5 Years Ending 06/30/2017	
	OTC	Coll	OTC	Coll
101	420	846	281	412
102	425	1,026	236	501
103	237	457	156	250
104	239	481	165	256
106	44	38	10	11
109	401	467	132	179
112	109	157	27	55
120	0	4	0	1
121	85	116	15	43
122	8	19	5	19
123	97	152	74	50
124	61	117	14	28
125	411	708	190	361
126	585	850	231	280
127	65	111	30	73
128	161	275	71	87
129	68	129	34	38
130	72	87	26	27
SW Total	3,488	6,040	1,697	2,671

RELATIVITIES USED TO DEVELOP MINOR CLASS AND COVERAGE LOSS COSTS

(1) Public Automobiles Liability

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

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

(2) Public Automobiles Physical Damage

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

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

(3) Specified Causes of Loss Relativity

The relativity applied to the Trucks, Tractors & Trailers \$500 Deductible Comprehensive loss cost to develop the Trucks, Tractors & Trailers Specified Causes of Loss loss cost is: 0.936

(4) 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.

WIND AND WATER PROCEDURE
OTHER THAN COLLISION

OBJECTIVE

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

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

DESCRIPTION OF
WIND AND WATER
ADJUSTMENT
PROCEDURE

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

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

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

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

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

INSURANCE SERVICES OFFICE, INC.

WIND AND WATER PROCEDURE
OTHER THAN COLLISION
TENNESSEE

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	27,239	2,104,070	2,076,831	0.013	0.187	388,367	2,492,437
1988	34,786	2,380,208	2,345,422	0.015	0.185	433,903	2,814,111
1989	89,877	2,904,501	2,814,624	0.032	0.168	472,857	3,377,358
1990	59,006	2,072,107	2,013,101	0.029	0.171	344,240	2,416,347
1991	238,585	2,364,904	2,126,319	0.112	0.088	187,116	2,552,020
1992	26,262	2,034,897	2,008,635	0.013	0.187	375,615	2,410,512
1993	178,299	2,389,622	2,211,323	0.081	0.119	263,147	2,652,769
1994	124,186	2,607,041	2,482,855	0.050	0.150	372,428	2,979,469
1995	458,784	2,753,574	2,294,790	0.200	0.000	0	2,753,574
1996	117,665	3,007,171	2,889,506	0.041	0.159	459,431	3,466,602
1997	224,298	3,404,670	3,180,372	0.071	0.129	410,268	3,814,938
1998	1,001,556	4,237,699	3,236,143	0.309	-0.109	-352,740	3,884,959
1999	230,744	3,761,155	3,530,411	0.065	0.135	476,605	4,237,760
2000	154,943	3,911,826	3,756,883	0.041	0.159	597,344	4,509,170
2001	126,117	3,927,096	3,800,979	0.033	0.167	634,763	4,561,859
2002	556,782	3,700,236	3,143,454	0.177	0.023	72,299	3,772,535
2003	1,012,605	3,293,012	2,280,407	0.444	-0.244	-556,419	2,736,593
2004	256,166	1,977,619	1,721,453	0.149	0.051	87,794	2,065,413
2005	85,828	1,730,316	1,644,488	0.052	0.148	243,384	1,973,700
2006	462,749	2,263,888	1,801,139	0.257	-0.057	-102,665	2,161,223
2007	42,893	1,572,218	1,529,325	0.028	0.172	263,044	1,835,262
2008	184,927	2,183,767	1,998,840	0.093	0.107	213,876	2,397,643
2009	100,137	1,822,998	1,722,861	0.058	0.142	244,646	2,067,644
2010	3,978,986	6,744,213	2,765,227	1.439	-1.239	-3,426,116	3,318,097
2011	3,578,122	6,223,136	2,645,014	1.353	-1.153	-3,049,701	3,173,435
2012	1,366,814	3,869,914	2,503,100	0.546	-0.346	-866,073	3,003,841
2013	193,997	2,235,066	2,041,069	0.095	0.105	214,312	2,449,378
2014	169,205	2,159,253	1,990,048	0.085	0.115	228,856	2,388,109
2015	158,592	2,517,854	2,359,262	0.067	0.133	313,782	2,831,636
2016	196,906	2,721,782	2,524,876	0.078	0.122	308,035	3,029,817
2017	558,443	3,933,008	3,374,565	0.165	0.035	118,110	4,051,118

(8) NORMAL WIND TO NON W&W RATIO= AVG. (4) 0.200

INSURANCE SERVICES OFFICE, INC.

WIND AND WATER PROCEDURE
OTHER THAN COLLISION
TENNESSEE

PRIVATE PASSENGER TYPES

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
			(2) - (1)	(1) / (3)	AVG (4) - (4)	(3) x (5)	(2) + (6)
YEAR ENDING	OTC WIND & WATER LOSSES	OTC TOTAL LOSSES	TOTAL - WIND&WATER LOSSES	WIND & WATER / NON (W&W)	VARIATION FROM AVG. WIND RATIO	WIND & WATER ADJUSTMENT	ADJ OTC TOTAL LOSSES
1987	22,374	1,752,257	1,729,883	0.013	0.338	584,700	2,336,957
1988	45,488	1,442,812	1,397,324	0.033	0.318	444,349	1,887,161
1989	66,985	1,438,231	1,371,246	0.049	0.302	414,116	1,852,347
1990	80,296	1,253,347	1,173,051	0.068	0.283	331,973	1,585,320
1991	196,270	1,416,223	1,219,953	0.161	0.190	231,791	1,648,014
1992	29,747	1,064,203	1,034,456	0.029	0.322	333,095	1,397,298
1993	52,048	1,128,598	1,076,550	0.048	0.303	326,195	1,454,793
1994	143,541	1,338,407	1,194,866	0.120	0.231	276,014	1,614,421
1995	318,723	1,504,223	1,185,500	0.269	0.082	97,211	1,601,434
1996	145,578	1,624,632	1,479,054	0.098	0.253	374,201	1,998,833
1997	295,564	1,645,627	1,350,063	0.219	0.132	178,208	1,823,835
1998	748,975	2,324,014	1,575,039	0.476	-0.125	-196,880	2,127,134
1999	167,938	1,146,191	978,253	0.172	0.179	175,107	1,321,298
2000	95,286	1,224,560	1,129,274	0.084	0.267	301,516	1,526,076
2001	54,037	1,047,453	993,416	0.054	0.297	295,045	1,342,498
2002	362,313	1,146,963	784,650	0.462	-0.111	-87,096	1,059,867
2003	620,697	1,430,328	809,631	0.767	-0.416	-336,806	1,093,522
2004	127,211	618,394	491,183	0.259	0.092	45,189	663,583
2005	41,828	682,599	640,771	0.065	0.286	183,261	865,860
2006	338,408	751,301	412,893	0.820	-0.469	-193,647	557,654
2007	26,898	504,373	477,475	0.056	0.295	140,855	645,228
2008	109,146	678,567	569,421	0.192	0.159	90,538	769,105
2009	67,885	565,495	497,610	0.136	0.215	106,986	672,481
2010	492,131	964,297	472,166	1.042	-0.691	-326,267	638,030
2011	2,476,609	3,601,219	1,124,610	2.202	-1.851	-2,081,653	1,519,566
2012	1,078,864	1,726,536	647,672	1.666	-1.315	-851,689	874,847
2013	124,207	566,850	442,643	0.281	0.070	30,985	597,835
2014	51,928	556,370	504,442	0.103	0.248	125,102	681,472
2015	142,987	630,123	487,136	0.294	0.057	27,767	657,890
2016	129,664	753,116	623,452	0.208	0.143	89,154	842,270
2017	299,547	982,940	683,393	0.438	-0.087	-59,455	923,485

(8) NORMAL WIND TO NON W&W RATIO= AVG. (4) 0.351

EXPLANATORY MEMORANDUM FOR WIND AND WATER PROCEDURE

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

TERRITORIAL WIND AND WATER PROCEDURE OTHER THAN COLLISION

OBJECTIVE

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

DESCRIPTION OF TERRITORIAL WIND AND WATER PROCEDURE

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

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

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

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

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

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

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

METHODOLOGY FOR CALCULATING 'WIND & WATER PROVISIONS' BY TERRITORY

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

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

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

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

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

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

TENNESSEE
COMMERCIAL AUTOMOBILE

SECTION D - MEDICAL PAYMENTS

Medical Payments Loss Cost Revision Overview	D2-D4
Loss Development for Trucks, Tractors, and Trailers Medical Payments	D5-D8
Loss Development for Private Passenger Types Medical Payments	D9-D12
Loss Development for Public Autos and Buses Medical Payments	D13-D16
Summary of Loss Experience Review	D17-D22
Medical Payments Relativity Selections	D23
Summary of Predictive Modeling and Predictive Modeling Indications	D24-D28
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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

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	1,016,598	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

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	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

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	1,831,051	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

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	0.988	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

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	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

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	0.968	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

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	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

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	0.964	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

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	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

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	0.934	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

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	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

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	0.918	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

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	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

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	0.907	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

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	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

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	0.956	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
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	1,226,424	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

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	0.887	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
Public Autos and Buses
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	1,766,101	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

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	0.847	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

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	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

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	0.805	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		Earned Car	Aggregate Loss	Trended and	Calculated	Indicated
	year	Years	Cost at Current Level	Developed Losses	Claim Count	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 Losses	Claim Count	Change
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 Level	Developed Losses	Claim Count	Change
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	
	year	Years	Cost at Current	Developed	Claim	Indicated
			Level	Losses	Count	Change
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 Losses	Claim Count	Change
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 Level	Developed Losses	Claim Count	Change
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 Relativity Selections				Trended and					
	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:

Model

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.

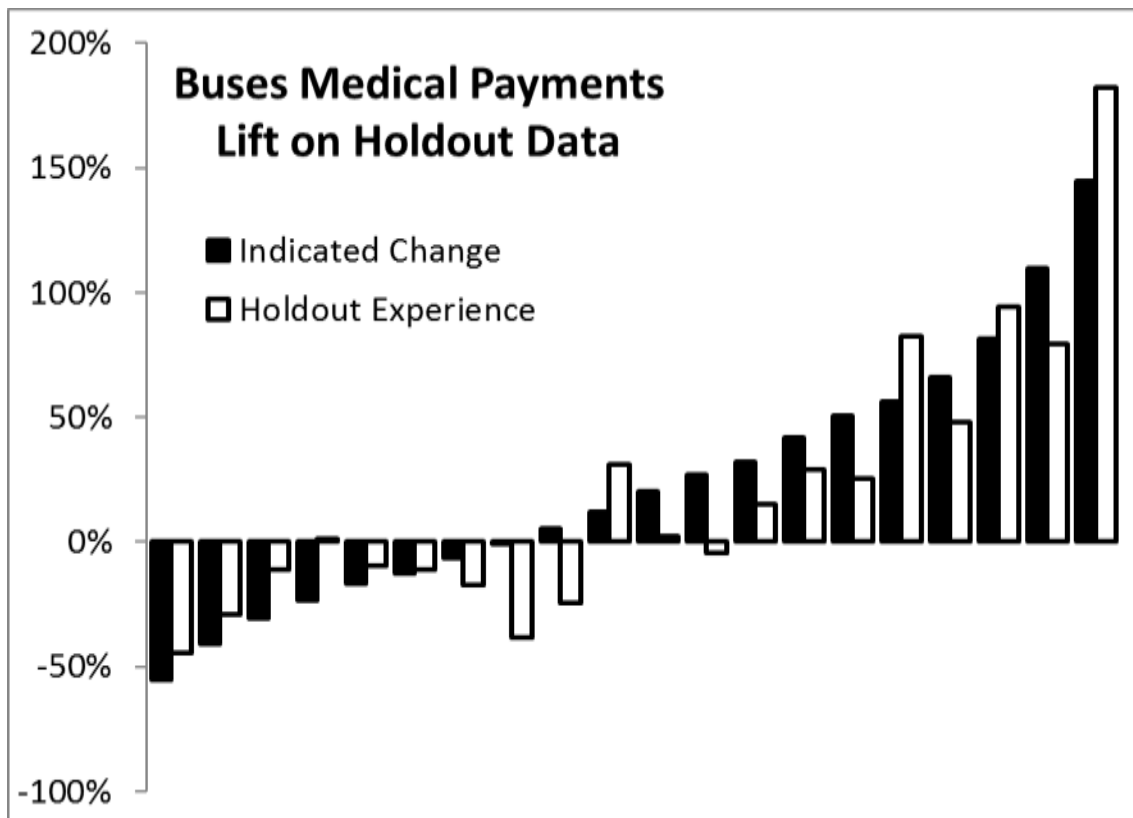
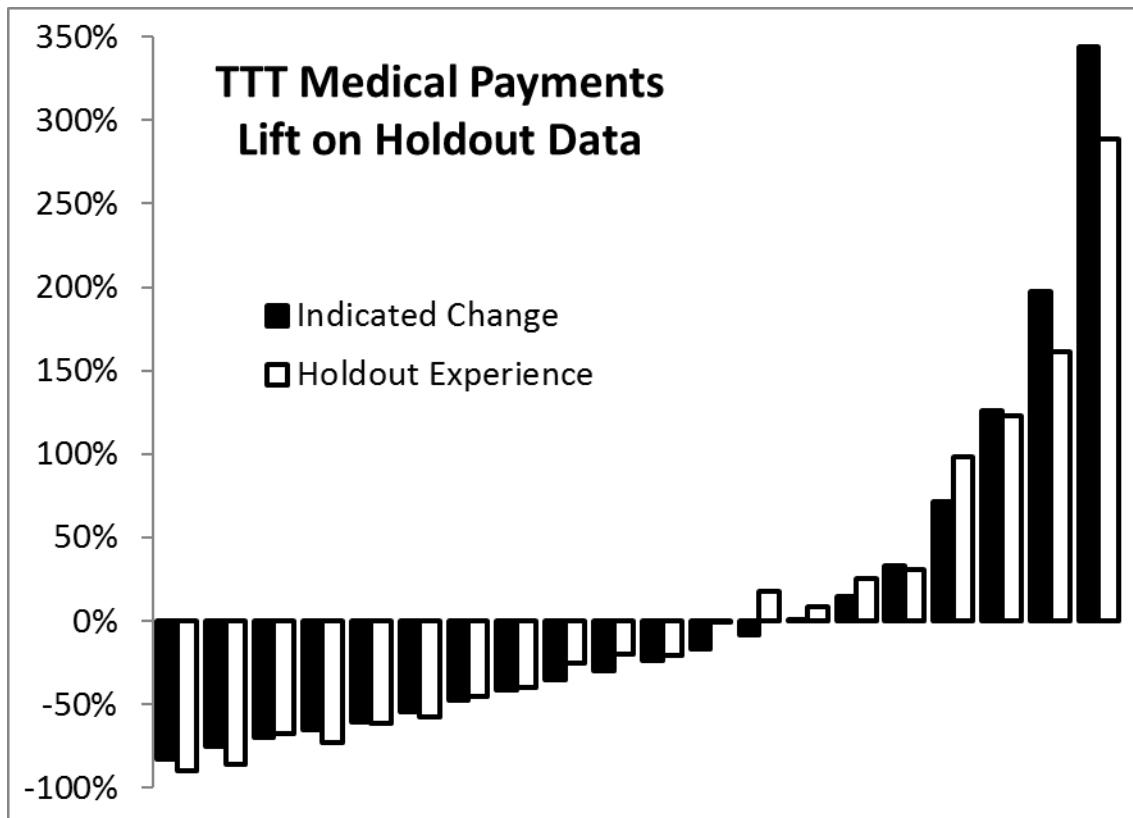
We also found that the Liability base loss costs have more variation than medical payments losses: Medical Payment losses are higher in higher-rated liability territories, but not as much higher as we see in Bodily Injury and Property Damage. Thus, in comparison to the current rating structure, the best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

Table 5: Predictive Modeling Indications		Training	All Data
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 access 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 totoal, 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

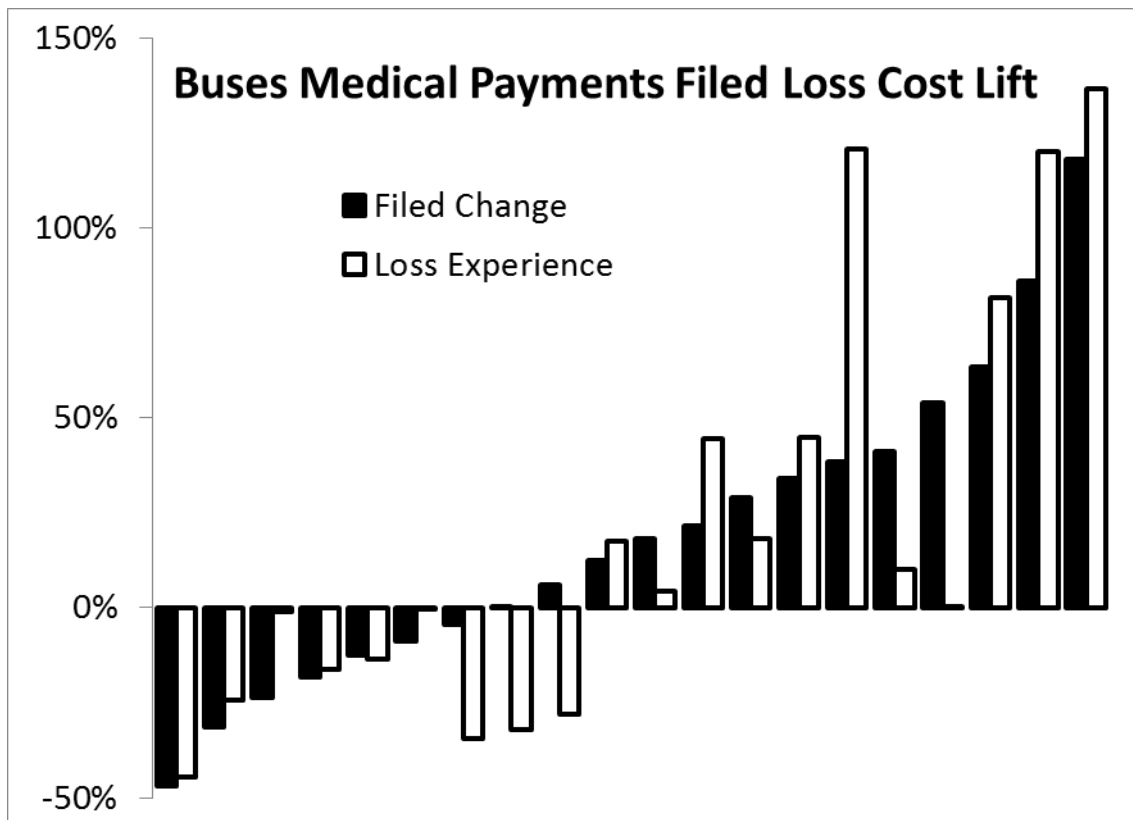
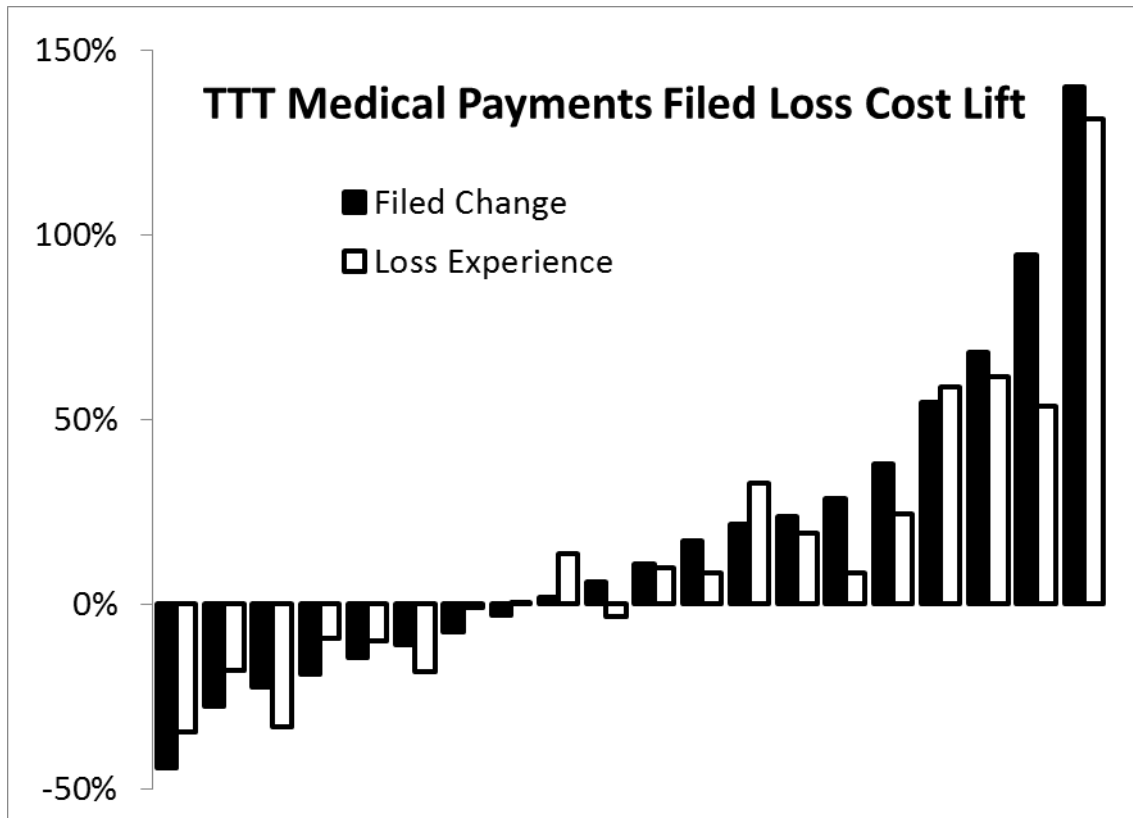
- that all the loss costs were greater than zero after rounding, and that
- each increase in the medical payments coverage resulted in an increase in premium.

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:

Tennessee 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	0.0035	0.0055	0.0083	0.0142	0.0063	0.0109	0.0180	0.0318	0.0079	0.0129	0.0202	0.0345
102	0.0039	0.0061	0.0093	0.0158	0.0063	0.0109	0.0180	0.0318	0.0082	0.0134	0.0211	0.0361
103	0.0046	0.0071	0.0109	0.0185	0.0063	0.0109	0.0180	0.0318	0.0096	0.0157	0.0247	0.0422
104	0.0046	0.0072	0.0110	0.0187	0.0063	0.0109	0.0180	0.0318	0.0093	0.0152	0.0238	0.0407
106	0.0057	0.0089	0.0135	0.0229	0.0063	0.0109	0.0180	0.0318	0.0095	0.0155	0.0244	0.0417
109	0.0047	0.0073	0.0111	0.0189	0.0063	0.0109	0.0180	0.0318	0.0125	0.0204	0.0321	0.0548
112	0.0060	0.0094	0.0142	0.0242	0.0063	0.0109	0.0180	0.0318	0.0113	0.0186	0.0292	0.0499
120	0.0047	0.0073	0.0112	0.0189	0.0063	0.0109	0.0180	0.0318	0.0095	0.0155	0.0244	0.0417
121	0.0057	0.0089	0.0135	0.0229	0.0063	0.0109	0.0180	0.0318	0.0126	0.0206	0.0324	0.0554
122	0.0074	0.0115	0.0175	0.0298	0.0063	0.0109	0.0180	0.0318	0.0095	0.0155	0.0244	0.0417
123	0.0062	0.0097	0.0148	0.0251	0.0063	0.0109	0.0180	0.0318	0.0122	0.0200	0.0314	0.0537
124	0.0049	0.0077	0.0117	0.0198	0.0063	0.0109	0.0180	0.0318	0.0112	0.0183	0.0287	0.0491
125	0.0051	0.0079	0.0120	0.0203	0.0063	0.0109	0.0180	0.0318	0.0078	0.0128	0.0202	0.0345
126	0.0057	0.0088	0.0134	0.0227	0.0063	0.0109	0.0180	0.0318	0.0120	0.0197	0.0310	0.0529
127	0.0064	0.0099	0.0151	0.0257	0.0063	0.0109	0.0180	0.0318	0.0122	0.0200	0.0314	0.0537
128	0.0053	0.0083	0.0126	0.0213	0.0063	0.0109	0.0180	0.0318	0.0111	0.0181	0.0284	0.0486
129	0.0056	0.0087	0.0133	0.0226	0.0063	0.0109	0.0180	0.0318	0.0114	0.0186	0.0292	0.0500
130	0.0062	0.0096	0.0146	0.0248	0.0063	0.0109	0.0180	0.0318	0.0124	0.0204	0.0320	0.0547

Tennessee 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	0.0112	0.0185	0.0291	0.0465	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
102	0.0119	0.0198	0.0311	0.0497	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
103	0.0138	0.0229	0.0360	0.0575	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
104	0.0125	0.0207	0.0326	0.0520	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
106	0.0163	0.0270	0.0425	0.0678	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
109	0.0171	0.0284	0.0447	0.0714	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
112	0.0175	0.0290	0.0456	0.0728	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
120	0.0139	0.0230	0.0361	0.0577	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
121	0.0177	0.0294	0.0463	0.0739	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
122	0.0174	0.0289	0.0454	0.0725	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
123	0.0169	0.0281	0.0442	0.0706	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
124	0.0156	0.0259	0.0407	0.0651	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
125	0.0126	0.0209	0.0329	0.0526	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
126	0.0156	0.0259	0.0406	0.0649	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
127	0.0174	0.0289	0.0454	0.0725	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
128	0.0157	0.0261	0.0410	0.0655	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
129	0.0159	0.0264	0.0415	0.0663	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321
130	0.0173	0.0287	0.0451	0.0720	0.0078	0.0138	0.0228	0.0416	0.0078	0.0120	0.0185	0.0321

TENNESSEE
COMMERCIAL AUTOMOBILE

SECTION E - NON-OWNERSHIP LIABILITY

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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

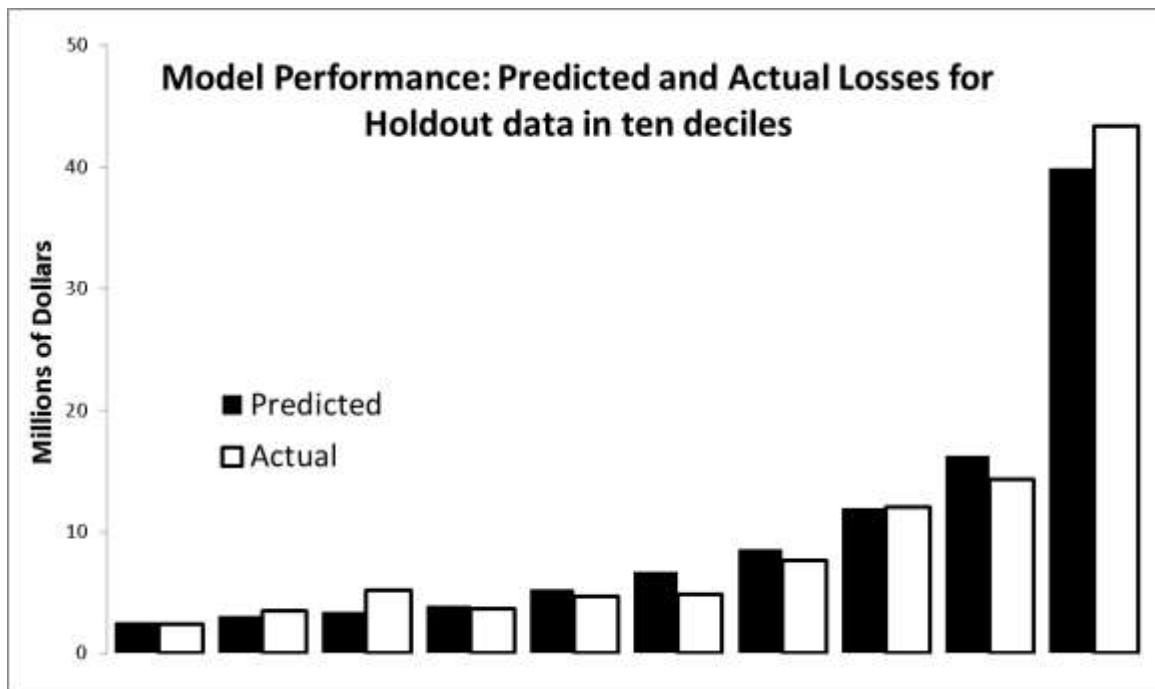
$$(\text{State Average Loss Cost})^K$$

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

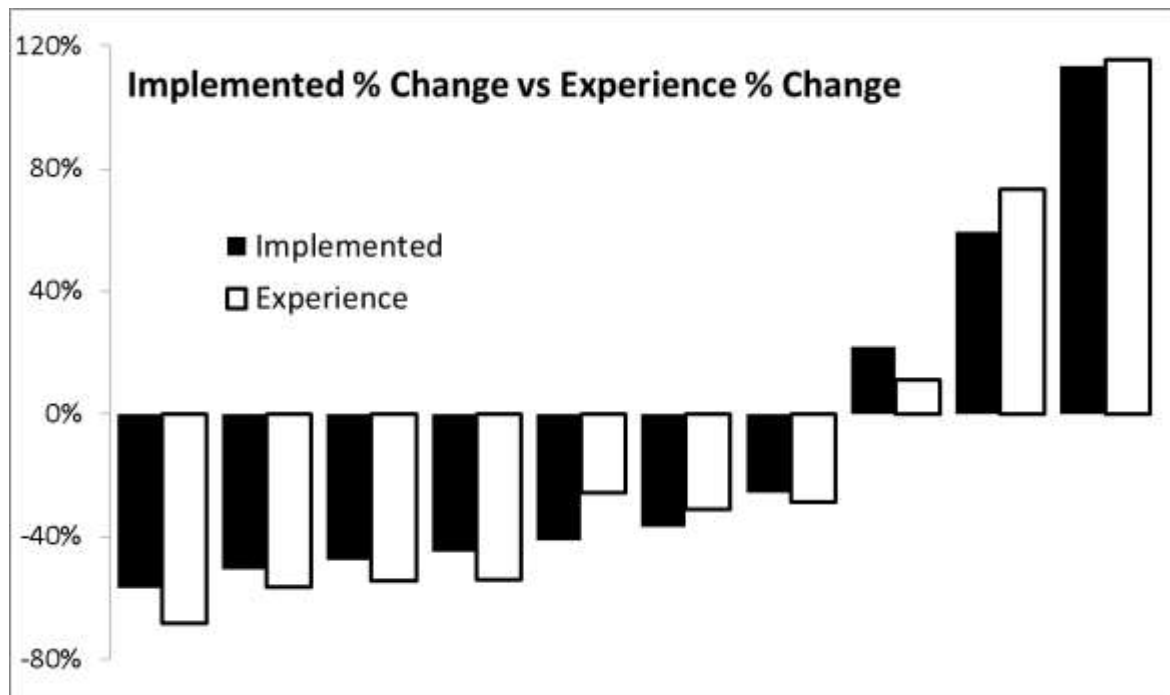
These new class relativities must be combined with a representation of the difference by state, which comes from our severity model. We returned to our predicted loss amounts and removed the effect of the employee count from that prediction, leaving a single per-policy prediction for each state. This 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>Tennessee Intermediate Loss Costs</u>	<u>Intermediate Percentage Change</u>	<u>Final Indicated Loss Costs</u>	<u>Overall Percentage Change</u>
0 – 9	48	24.67	-49%	49	2%
10 – 19	48	52.59	10%	105	119%
20 – 25	48	84.55	76%	169	252%
26 – 100	112	142.89	28%	286	155%
101 – 500	245	373.46	52%	748	205%
501 – 1000	386	858.95	123%	1,720	346%
1001 +	865	1810.22	109%	3,626	319%

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.

**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.

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.

INSURANCE SERVICES OFFICE, INC.

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 100.3%
LOSS COST LEVEL ((6) - 1.000) .

(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.

INSURANCE SERVICES OFFICE, INC.

MULTISTATE
AUTOMOBILE LIABILITY INSURANCE
DETERMINATION OF SINGLE LIMIT LOSSES

	ACC. YEAR ENDING	BODILY INJURY	PROPERTY DAMAGE	COMBINED
(1) INCURRED LOSSES AND	12/31/12	\$45,854,511	\$15,572,022	
ALLOCATED LOSS	12/31/13	\$46,692,601	\$15,347,718	
ADJUSTMENT EXPENSES	12/31/14	\$45,074,613	\$18,929,596	
	12/31/15	\$32,308,374	\$14,885,703	
	12/31/16	\$25,268,516	\$13,472,207	
(2) DEVELOPED LOSSES AND	12/31/12	\$50,548,179	\$17,284,944	
ALL LOSS ADJUSTMENT	12/31/13	\$52,535,947	\$17,070,039	
EXPENSES (A)	12/31/14	\$55,214,823	\$21,242,982	
	12/31/15	\$48,550,601	\$16,837,070	
	12/31/16	\$55,243,925	\$15,791,582	
(3) SELECTED ANNUAL LOSS TREND		2.7%	5.7%	3.4%
(4) TRENDED LOSSES AND	12/31/12	\$61,719,327	\$26,203,975	\$87,923,302
ALL LOSS ADJUSTMENT	12/31/13	\$62,465,241	\$24,478,436	\$86,943,677
EXPENSES (B)	12/31/14	\$63,938,765	\$28,805,484	\$92,744,249
	12/31/15	\$54,716,527	\$21,601,961	\$76,318,488
	12/31/16	\$60,657,830	\$19,170,981	\$79,828,810

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

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

YEAR ENDING	B.I.	P.D.
12/31/12	1.016	1.000
12/31/13	1.037	1.002
12/31/14	1.129	1.011
12/31/15	1.385	1.019
12/31/16	2.015	1.056

(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 1/1/2019
WHICH IS ASSUMED FOR THE PURPOSE OF TRENDING.

YEAR ENDING	AVERAGE DATE OF ACCIDENT	PROJECTION PERIOD
12/31/12	7/1/12	7.500
12/31/13	7/1/13	6.500
12/31/14	7/1/14	5.500
12/31/15	7/1/15	4.500
12/31/16	7/1/16	3.500

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.

INSURANCE SERVICES OFFICE

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

AVERAGE PAID CLAIM COST DATA

MULTISTATE*					
YEAR ENDED	BODILY INJURY		PROPERTY DAMAGE		
	(\$100000 LIMITS)		(\$100000 LIMITS)		
	(1)	(2)	(3)	(4)	
	ACTUAL	EXPONEN- TIAL FIT	ACTUAL	EXPONEN- 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

TENNESSEE
COMMERCIAL AUTOMOBILE

SECTION F - UNINSURED AND UNDERINSURED MOTORISTS

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UNINSURED AND UNDERINSURED MOTORISTS EXPLANATORY MEMORANDUM

INTRODUCTION

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.

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.

OBJECTIVE

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?

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 five combined years of experience. This experience ratio is the indicated statewide advisory loss cost level change in decimal form.

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.

EXPERIENCE BASE

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 July 1, 2016 through June 30, 2017 and reported losses evaluated as of September 30, 2017 for UM. The most recent accident year for UIM spans April 1, 2016 through March 31, 2017 and reported losses are evaluated as of June 30, 2017.

The UM analysis is on a basic limits basis, capping the losses at the basic split limit for the state.

**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.
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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.
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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.

TENNESSEE
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
6/30/2013	391,281	291,046	0.744	17
6/30/2014	398,329	241,356	0.606	15
6/30/2015	402,269	466,738	1.160	20
6/30/2016	412,439	408,234	0.990	22
6/30/2017	410,491	909,835	2.216	34
Total	2,014,810	2,317,209	1.150	

(5) Indicated change based on experience data [Column (3) Total]	15.0%
(6) Selected change	15.0%

(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.

**TENNESSEE
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
6/30/2013	264,463	1.019	291,046
6/30/2014	216,548	1.032	241,356
6/30/2015	379,759	1.138	466,738
6/30/2016	277,937	1.360	408,234
6/30/2017	421,431	1.999	909,835
Total	1,560,137		2,317,209

(4a) Unallocated loss adjustment factor	1.080
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Accident Year Ending	(5a) Average Accident Date	(6a) Trend Period (A)	(7a) Trended Loss And ALAE (B)
6/30/2013	01/01/13	7.083	291,046
6/30/2014	01/01/14	6.083	241,356
6/30/2015	01/01/15	5.083	466,738
6/30/2016	01/01/16	4.083	408,234
6/30/2017	01/01/17	3.083	909,835
Total			2,317,209

(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 02/01/19.

(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 +3.0% claim cost trend factor and then capped the trended losses on a per claim/per occurrence basis at TENNESSEE'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.

TENNESSEE
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
6/30/2013	133,820	173,578	1.297	12
6/30/2014	133,777	395,562	2.957	13
6/30/2015	131,178	145,388	1.108	5
6/30/2016	128,516	360,952	2.809	14
6/30/2017	125,599	17,064	0.136	4
Total	652,890	1,092,544	1.673	

(5) Indicated change based on experience data [Column (3) Total]	67.3%
(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.

**TENNESSEE
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
6/30/2013	160,882	0.999	173,578
6/30/2014	348,488	1.051	395,562
6/30/2015	118,190	1.139	145,388
6/30/2016	245,927	1.359	360,952
6/30/2017	7,900	2.000	17,064
Total	881,387		1,092,544

(4a) Unallocated loss adjustment factor	1.080
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Accident Year Ending	(5a) Average Accident Date	(6a) Trend Period (A)	(7a) Trended Loss And ALAE (B)
6/30/2013	01/01/13	7.083	173,578
6/30/2014	01/01/14	6.083	395,562
6/30/2015	01/01/15	5.083	145,388
6/30/2016	01/01/16	4.083	360,952
6/30/2017	01/01/17	3.083	17,064
Total			1,092,544

(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 02/01/19.

(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 +3.0% claim cost trend factor and then capped the trended losses on a per claim/per occurrence basis at TENNESSEE'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.

TENNESSEE
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
3/31/2013	2,121,484	680,054	0.321	4
3/31/2014	2,143,667	1,194,879	0.557	13
3/31/2015	2,250,030	1,718,062	0.764	14
3/31/2016	2,411,163	1,492,073	0.619	11
3/31/2017	2,453,700	1,607,132	0.655	12
Total	11,380,044	6,692,199	0.588	

(5) Indicated change based on experience data [Column (3) Total]	- 41.2%
(6) Selected change	- 41.2%

(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.

**TENNESSEE
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
3/31/2013	1,458,108	97,395	2
3/31/2014	1,477,135	456,203	6
3/31/2015	1,557,657	215,938	7
3/31/2016	1,699,503	486,622	7
3/31/2017	1,759,029	133,227	6
Total	7,951,433	1,389,385	

(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)
3/31/2013	10/01/2012	7.333	129,852
3/31/2014	10/01/2013	6.333	584,838
3/31/2015	10/01/2014	5.333	266,179
3/31/2016	10/01/2015	4.333	576,770
3/31/2017	10/01/2016	3.333	151,834
Total			1,709,474

(A) Trend period is equal to the number of years from the average accident date to one year beyond the anticipated implementation date of 02/01/2019.

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

**TENNESSEE
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
3/31/2013	663,376	328,341	2
3/31/2014	666,532	305,768	7
3/31/2015	692,372	832,082	7
3/31/2016	711,659	200,424	4
3/31/2017	694,671	371,154	6
Total	3,428,610	2,037,769	

(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)
3/31/2013	10/01/2012	7.333	437,760
3/31/2014	10/01/2013	6.333	391,985
3/31/2015	10/01/2014	5.333	1,025,677
3/31/2016	10/01/2015	4.333	237,553
3/31/2017	10/01/2016	3.333	422,992
Total			2,515,968

(C) Trend period is equal to the number of years from the average accident date to one year beyond the anticipated implementation date of 02/01/2019.

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

**TENNESSEE
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)
3/31/2013	1.050	0.952	1,388,674
3/31/2014	1.113	0.898	1,327,166
3/31/2015	1.311	0.763	1,188,145
3/31/2016	1.737	0.576	978,413
3/31/2017	3.008	0.332	584,784
Total			5,467,181

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)
3/31/2013	1.072	0.933	618,821
3/31/2014	1.152	0.868	578,586
3/31/2015	1.350	0.741	512,868
3/31/2016	1.820	0.549	391,022
3/31/2017	3.624	0.276	191,686
Total			2,292,984

(E) See Exhibit 2 for Loss Development.

TENNESSEE
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)]	0.545
(12) Unallocated Loss Adjustment Expense (ULAE) Factor	1.08

Accident Year Ending	(13) Ultimate Loss And ALAE (F)	(14) Ultimate Loss And All LAE (13) * (12)
3/31/2013	629,679	680,054
3/31/2014	1,106,369	1,194,879
3/31/2015	1,590,798	1,718,062
3/31/2016	1,381,549	1,492,073
3/31/2017	1,488,085	1,607,132
Total	6,196,480	6,692,199

(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.

$$(2a) + (2b) + [(1a) + (1b) - (10a) - (10b)] * (11)$$

**UNINSURED MOTORISTS
Loss Development**

Trucks, Tractors & Trailers

Multistate 25/50 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
2008Q2	5,743,280	8,164,426	9,530,843	10,534,311	10,739,934	10,715,160
2009Q2	9,486,297	14,220,001	17,133,904	19,138,496	19,102,608	19,557,759
2010Q2	9,482,801	12,938,261	15,292,990	16,488,874	17,556,819	17,925,078
2011Q2	8,496,282	13,431,100	16,816,528	18,150,192	18,112,104	18,523,528
2012Q2	9,753,256	15,367,273	17,524,097	19,634,926	19,708,931	19,943,280
2013Q2	9,926,247	14,465,498	17,612,864	19,547,218	20,237,297	
2014Q2	10,385,956	13,560,267	16,005,407	18,010,193		
2015Q2	10,485,061	14,432,114	17,151,988			
2016Q2	10,227,459	16,481,428				
2017Q2	11,048,558					

Multistate 25/50 Link Ratios

Year Ending		27:15	39:27	51:39	63:51	75:63
2008Q2		1.422	1.167	1.105	1.020	0.998
2009Q2		1.499	1.205	1.117	0.998	1.024
2010Q2		1.364	1.182	1.078	1.065	1.021
2011Q2		1.581	1.252	1.079	0.998	1.023
2012Q2		1.576	1.140	1.120	1.004	1.012
2013Q2		1.457	1.218	1.110	1.035	
2014Q2		1.306	1.180	1.125		
2015Q2		1.376	1.188			
2016Q2		1.611				
Average Factor	(Best 3 of 5)	1.470	1.195	1.103	1.012	1.019
Average Factor	(Latest 3)	1.431	1.195	1.119	1.012	1.019
Average Factor	(Latest 5)	1.465	1.196	1.103	1.020	1.015
Selected Factor		1.470	1.195	1.103	1.012	1.019

*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	1.999	1.360	1.138	1.032	1.019

**UNINSURED MOTORISTS
Loss Development**

Private Passenger Types

Multistate 25/50 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
2008Q2	1,672,397	3,118,969	3,563,047	3,985,666	4,503,660	4,493,478
2009Q2	4,082,256	5,586,327	6,468,308	7,107,259	7,484,501	7,753,647
2010Q2	4,240,295	5,999,772	7,104,923	7,897,669	8,320,467	8,369,222
2011Q2	3,698,887	6,065,873	6,403,503	6,967,904	7,517,772	7,308,855
2012Q2	4,186,254	6,053,380	7,397,549	7,957,725	8,070,681	8,016,268
2013Q2	4,918,890	7,169,783	8,846,915	9,381,995	9,839,631	
2014Q2	4,887,377	6,859,382	8,174,663	8,883,424		
2015Q2	4,395,318	6,641,922	7,750,608			
2016Q2	5,047,508	7,746,995				
2017Q2	5,015,556					

Multistate 25/50 Link Ratios

Year Ending		27:15	39:27	51:39	63:51	75:63
2008Q2		1.865	1.142	1.119	1.130	0.998
2009Q2		1.368	1.158	1.099	1.053	1.036
2010Q2		1.415	1.184	1.112	1.054	1.006
2011Q2		1.640	1.056	1.088	1.079	0.972
2012Q2		1.446	1.222	1.076	1.014	0.993
2013Q2		1.458	1.234	1.060	1.049	
2014Q2		1.403	1.192	1.087		
2015Q2		1.511	1.167			
2016Q2		1.535				
Average Factor	(Best 3 of 5)	1.472	1.194	1.084	1.052	0.999
Average Factor	(Latest 3)	1.483	1.198	1.074	1.047	0.990
Average Factor	(Latest 5)	1.471	1.174	1.085	1.050	1.001
Selected Factor		1.472	1.194	1.084	1.052	0.999

*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	2.000	1.359	1.139	1.051	0.999

TENNESSEE
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
2004Q1	14,692,605	29,873,598	38,675,634	46,809,037	51,798,300	53,409,018	54,155,313	54,999,355	55,015,919	54,594,917
2005Q1	21,960,735	39,040,048	54,082,811	64,880,367	74,022,921	76,066,562	77,816,194	79,127,068	79,118,801	78,726,408
2006Q1	18,345,213	36,314,724	55,095,451	61,818,391	67,201,240	71,039,083	72,203,114	73,120,723	73,299,244	73,406,992
2007Q1	35,068,853	55,276,151	67,275,124	76,404,731	81,824,014	83,997,862	83,724,012	85,972,768	84,569,059	84,329,210
2008Q1	30,586,436	52,288,597	71,825,032	90,420,737	97,355,804	100,809,443	101,004,611	101,087,483	102,426,612	101,929,349
2009Q1	36,927,236	56,646,472	78,692,014	93,377,279	98,782,195	103,363,873	104,671,803	104,263,622	105,571,956	
2010Q1	38,587,149	66,553,230	86,997,197	97,003,184	99,703,591	102,801,852	104,116,292	104,281,843		
2011Q1	33,224,095	65,303,737	81,746,713	97,988,812	106,103,352	108,811,804	109,371,366			
2012Q1	35,733,623	60,378,952	79,181,624	91,501,970	97,849,200	104,992,177				
2013Q1	38,114,873	62,121,587	82,805,301	97,667,682	102,632,448					
2014Q1	29,645,644	55,823,793	76,513,381	94,078,933						
2015Q1	46,573,523	71,839,097	106,271,843							
2016Q1	33,933,414	71,734,008								
2017Q1	51,814,159									

**TENNESSEE
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
2004Q1	2.033	1.295	1.210	1.107	1.031	1.014	1.016	1.000	0.992
2005Q1	1.778	1.385	1.200	1.141	1.028	1.023	1.017	1.000	0.995
2006Q1	1.980	1.517	1.122	1.087	1.057	1.016	1.013	1.002	1.001
2007Q1	1.576	1.217	1.136	1.071	1.027	0.997	1.027	0.984	0.997
2008Q1	1.710	1.374	1.259	1.077	1.035	1.002	1.001	1.013	0.995
2009Q1	1.534	1.389	1.187	1.058	1.046	1.013	0.996	1.013	
2010Q1	1.725	1.307	1.115	1.028	1.031	1.013	1.002		
2011Q1	1.966	1.252	1.199	1.083	1.026	1.005			
2012Q1	1.690	1.311	1.156	1.069	1.073				
2013Q1	1.630	1.333	1.179	1.051					
2014Q1	1.883	1.371	1.230						
2015Q1	1.542	1.479							
2016Q1	2.114								
Average Factor (Best 3 of 5)	1.734	1.338	1.178	1.059	1.038	1.007	1.005	1.005	0.996

*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	3.042	1.754	1.311	1.113	1.050	1.012	1.006	1.001	0.996

**TENNESSEE
UNDERINSURED MOTORISTS
Loss Development**

Trucks, Tractors, and Trailers

TENNESSEE Loss Development

Total Limits Incurred Losses and ALAE				Link Ratios		
Year Ending	15 months	27 months	39 months	Year Ending	27:15	39:27
2011Q1	484,922	733,288	1,017,826	2011Q1	1.512	1.388
2012Q1	647,028	669,623	928,142	2012Q1	1.035	1.386
2013Q1	441,893	465,548	99,836	2013Q1	1.054	0.214
2014Q1	445,608	583,392	565,870	2014Q1	1.309	0.970
2015Q1	115,658	282,617	306,136	2015Q1	2.444	1.083
2016Q1	105,600	616,253		2016Q1	5.836	
2017Q1	133,227			2017Q1		
3-Yr Volume (A)	354,485	1,482,262		Average Factor:	1.602	1.146
State Credibility (B)	0.017	0.069		(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)	1.732	1.325			
Multistate LDF to Ultimate			1.311	1.113	1.050
Credibility Wtd. LDF to Ult.	3.008	1.737	1.311	1.113	1.050

(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.

TENNESSEE
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
2004Q1	10,970,311	13,817,949	18,533,680	21,250,335	21,977,103	21,601,106	22,686,898	21,948,213	22,297,892	22,408,747
2005Q1	7,148,706	12,524,892	16,195,654	18,708,633	20,668,258	21,026,013	21,099,889	21,222,914	21,216,865	22,217,640
2006Q1	5,095,573	9,872,228	14,057,881	17,003,360	17,421,354	18,214,405	18,703,548	19,835,765	19,954,918	19,934,919
2007Q1	7,681,596	15,793,237	19,325,066	21,552,123	22,256,156	23,646,455	24,152,084	23,657,322	23,750,030	23,760,834
2008Q1	8,548,823	16,046,334	19,984,667	25,994,964	26,700,846	26,883,414	27,476,186	27,997,453	28,153,917	28,371,904
2009Q1	13,207,570	24,051,085	33,983,383	37,826,866	40,331,461	41,236,989	42,059,292	41,613,473	41,983,354	
2010Q1	8,665,556	19,655,195	24,744,075	27,654,108	29,796,076	31,107,036	31,498,849	32,632,532		
2011Q1	9,137,346	19,638,240	23,571,625	30,067,303	33,802,918	33,537,309	35,231,879			
2012Q1	11,104,575	17,986,824	22,927,405	27,044,814	29,269,666	33,424,074				
2013Q1	10,690,037	19,158,740	27,823,951	31,182,883	32,679,464					
2014Q1	13,756,403	20,436,698	29,832,372	36,242,670						
2015Q1	10,439,673	22,409,173	31,303,446							
2016Q1	14,431,498	27,454,599								
2017Q1	14,577,074									

**TENNESSEE
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
2004Q1	1.260	1.341	1.147	1.034	0.983	1.050	0.967	1.016	1.005
2005Q1	1.752	1.293	1.155	1.105	1.017	1.004	1.006	1.000	1.047
2006Q1	1.937	1.424	1.210	1.025	1.046	1.027	1.061	1.006	0.999
2007Q1	2.056	1.224	1.115	1.033	1.062	1.021	0.980	1.004	1.000
2008Q1	1.877	1.245	1.301	1.027	1.007	1.022	1.019	1.006	1.008
2009Q1	1.821	1.413	1.113	1.066	1.022	1.020	0.989	1.009	
2010Q1	2.268	1.259	1.118	1.077	1.044	1.013	1.036		
2011Q1	2.149	1.200	1.276	1.124	0.992	1.051			
2012Q1	1.620	1.275	1.180	1.082	1.142				
2013Q1	1.792	1.452	1.121	1.048					
2014Q1	1.486	1.460	1.215						
2015Q1	2.147	1.397							
2016Q1	1.902								
Average Factor (Best 3 of 5)	1.771	1.375	1.172	1.075	1.024	1.021	1.015	1.005	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	3.288	1.856	1.350	1.152	1.072	1.046	1.025	1.010	1.004

TENNESSEE
UNDERINSURED MOTORISTS
Loss Development

Private Passenger Types

TENNESSEE Loss Development

	Total Limits Incurred Losses and ALAE				Link Ratios		
Year Ending	15 months	27 months	39 months		Year Ending	27:15	39:27
2011Q1	50,000	85,832	85,832		2011Q1	1.717	1.000
2012Q1	7,501	254,633	253,482		2012Q1	33.947	0.995
2013Q1	508,084	574,979	349,976		2013Q1	1.132	0.609
2014Q1	87,904	295,204	380,163		2014Q1	3.358	1.288
2015Q1	710,105	916,803	832,082		2015Q1	1.291	0.908
2016Q1	15,000	200,424			2016Q1	13.362	
2017Q1	371,154				2017Q1		
3-Yr Volume (A)	1,096,259	1,412,431			Average Factor:	6.004	0.968
State Credibility (B)	0.052	0.066			(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)	1.991	1.348			
Multistate LDF to Ultimate			1.350	1.152	1.072
Credibility Wtd. LDF to Ult.	3.624	1.820	1.350	1.152	1.072

(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
9/30/2011	14,087.29
12/31/2011	14,139.61
3/31/2012	14,127.40
6/30/2012	14,208.75
9/30/2012	14,158.46
12/31/2012	14,151.99
3/31/2013	14,175.88
6/30/2013	14,166.06
9/30/2013	14,126.37
12/31/2013	14,391.54
3/31/2014	14,618.77
6/30/2014	14,863.57
9/30/2014	15,154.80
12/31/2014	15,218.71
3/31/2015	15,289.54
6/30/2015	15,296.65
9/30/2015	15,326.50
12/31/2015	15,327.08
3/31/2016	15,344.19
6/30/2016	15,585.46
9/30/2016	15,851.55
12/31/2016	16,098.39
3/31/2017	16,331.24
6/30/2017	16,404.76
Average Annual 24 PT: Change 12 PT:	2.8% 3.0%
Coefficient of 24 PT: Determination R ² 12 PT:	0.9237 0.8532

Trend Selection: + 3.0%

*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.

UNDERINSURED MOTORISTS
Trend Selection

Multistate Average Claim Cost*

Calendar Year Paid

Year Ended	\$1,000,000 Bodily Injury	Total Limits Bodily Injury
9/30/2011	34,524.26	34,619.83
12/31/2011	34,896.55	35,050.43
3/31/2012	34,698.67	34,854.20
6/30/2012	35,505.61	35,634.61
9/30/2012	35,461.16	35,605.91
12/31/2012	35,460.55	35,516.59
3/31/2013	35,512.30	35,588.72
6/30/2013	34,807.78	34,897.79
9/30/2013	35,013.89	35,090.25
12/31/2013	36,004.06	36,108.15
3/31/2014	37,029.92	37,113.74
6/30/2014	38,701.85	38,886.89
9/30/2014	39,513.22	39,691.10
12/31/2014	40,147.77	40,314.47
3/31/2015	40,807.93	40,988.95
6/30/2015	40,801.58	40,964.30
9/30/2015	40,924.44	41,146.74
12/31/2015	41,003.16	41,260.26
3/31/2016	41,050.85	41,305.50
6/30/2016	41,877.78	42,041.96
9/30/2016	42,922.41	43,045.27
12/31/2016	43,327.18	43,400.08
3/31/2017	43,997.60	44,104.33
6/30/2017	44,116.04	44,204.07
Average Annual 24 PT:	4.9%	4.9%
Change 12 PT:	4.0%	3.9%
Coefficient of 24 PT:	0.9324	0.9298
Determination R ² 12 PT:	0.9293	0.9393

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.

TENNESSEE
COMMERCIAL AUTOMOBILE

SECTION G - REVISED PROSPECTIVE LOSS COSTS

Liability and Medical Payments	G2-G19
Physical Damage - All Coverages Except Garages	G20-G37
Non-Ownership Liability (Rule 89).....	G38
Hired Autos (Rule 90).....	G39
Uninsured Motorists Insurance (Rule 97).....	G40-G41

COMMERCIAL LINES MANUAL
DIVISION ONE
AUTOMOBILE
LOSS COST PAGES

TENNESSEE (41)
TERRITORY 101

LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
	Limit Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 460	\$2	\$3	\$4	\$7	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 415	\$3	\$5	\$7	\$13	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 2852	\$22	\$39	\$65	\$119	N/A
– SCHOOL AND CHURCH BUSES					
\$ 253	\$3	\$5	\$7	\$12	N/A
– OTHER BUSES					
\$ 1748	\$14	\$23	\$35	\$60	N/A
– VAN POOLS					
\$ 690	\$5	\$8	\$13	\$22	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 425	Refer to Rule 49.				N/A
<ul style="list-style-type: none">• For liability increased limits factors, refer to Rule 100.• For liability fleet factors, refer to Rules 22. and 39.• Other Than Auto losses for Auto Dealers risks are subject to an aggregate limit equal to three times the liability limit. For additional limits, refer to Rule 49.					

COMMERCIAL LINES MANUAL
DIVISION ONE
AUTOMOBILE
LOSS COST PAGES

LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
	Limit Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 405	\$2	\$3	\$4	\$6	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 319	\$2	\$3	\$6	\$10	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 2511	\$20	\$35	\$57	\$104	N/A
– SCHOOL AND CHURCH BUSES					
\$ 223	\$3	\$4	\$7	\$11	N/A
– OTHER BUSES					
\$ 1539	\$13	\$21	\$32	\$56	N/A
– VAN POOLS					
\$ 608	\$5	\$7	\$11	\$20	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 369	Refer to Rule 49.				N/A
<ul style="list-style-type: none">• For liability increased limits factors, refer to Rule 100.• For liability fleet factors, refer to Rules 22. and 39.• Other Than Auto losses for Auto Dealers risks are subject to an aggregate limit equal to three times the liability limit. For additional limits, refer to Rule 49.					

COMMERCIAL LINES MANUAL
DIVISION ONE
AUTOMOBILE
LOSS COST PAGES

TENNESSEE (41)
TERRITORY 103

LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
	Limit Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 343	\$2	\$3	\$4	\$6	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 318	\$2	\$3	\$6	\$10	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 2127	\$17	\$29	\$48	\$88	N/A
– SCHOOL AND CHURCH BUSES					
\$ 189	\$3	\$4	\$7	\$11	N/A
– OTHER BUSES					
\$ 1303	\$13	\$20	\$32	\$55	N/A
– VAN POOLS					
\$ 515	\$4	\$6	\$10	\$17	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 295	Refer to Rule 49.				N/A
<ul style="list-style-type: none">• For liability increased limits factors, refer to Rule 100.• For liability fleet factors, refer to Rules 22. and 39.• Other Than Auto losses for Auto Dealers risks are subject to an aggregate limit equal to three times the liability limit. For additional limits, refer to Rule 49.					

COMMERCIAL LINES MANUAL
DIVISION ONE
AUTOMOBILE
LOSS COST PAGES

LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
	Limit Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 355	\$2	\$3	\$4	\$7	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 284	\$2	\$3	\$5	\$9	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 2201	\$17	\$30	\$50	\$92	N/A
– SCHOOL AND CHURCH BUSES					
\$ 195	\$2	\$4	\$6	\$10	N/A
– OTHER BUSES					
\$ 1349	\$13	\$21	\$32	\$55	N/A
– VAN POOLS					
\$ 533	\$4	\$6	\$10	\$17	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 302	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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TENNESSEE (41)
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LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
	Limit Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 269	\$2	\$3	\$4	\$6	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 225	\$1	\$2	\$4	\$7	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1668	\$13	\$23	\$38	\$69	N/A
– SCHOOL AND CHURCH BUSES					
\$ 148	\$2	\$4	\$6	\$10	N/A
– OTHER BUSES					
\$ 1022	\$10	\$16	\$25	\$43	N/A
– VAN POOLS					
\$ 404	\$3	\$5	\$7	\$13	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 244	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 Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 250	\$1	\$2	\$3	\$5	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 277	\$2	\$3	\$5	\$9	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1550	\$12	\$21	\$35	\$64	N/A
– SCHOOL AND CHURCH BUSES					
\$ 138	\$2	\$4	\$6	\$10	N/A
– OTHER BUSES					
\$ 950	\$12	\$19	\$30	\$52	N/A
– VAN POOLS					
\$ 375	\$3	\$5	\$7	\$12	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 216	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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TENNESSEE (41)
TERRITORY 112

LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
	Limit Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 249	\$1	\$2	\$4	\$6	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 266	\$2	\$3	\$5	\$8	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1544	\$12	\$21	\$35	\$64	N/A
– SCHOOL AND CHURCH BUSES					
\$ 137	\$2	\$4	\$6	\$10	N/A
– OTHER BUSES					
\$ 946	\$11	\$18	\$28	\$47	N/A
– VAN POOLS					
\$ 374	\$3	\$4	\$7	\$12	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 213	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 Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 271	\$1	\$2	\$3	\$5	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 283	\$2	\$3	\$5	\$9	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1680	\$13	\$23	\$38	\$70	N/A
– SCHOOL AND CHURCH BUSES					
\$ 149	\$2	\$3	\$5	\$9	N/A
– OTHER BUSES					
\$ 1030	\$10	\$16	\$25	\$43	N/A
– VAN POOLS					
\$ 407	\$3	\$5	\$8	\$13	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 244	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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TENNESSEE (41)
TERRITORY 121

LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
	Limit Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 226	\$1	\$2	\$3	\$5	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 282	\$2	\$3	\$5	\$9	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1401	\$11	\$19	\$32	\$58	N/A
– SCHOOL AND CHURCH BUSES					
\$ 124	\$2	\$4	\$6	\$9	N/A
– OTHER BUSES					
\$ 859	\$11	\$18	\$28	\$48	N/A
– VAN POOLS					
\$ 339	\$3	\$4	\$6	\$11	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 217	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 Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 236	\$2	\$3	\$4	\$7	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 263	\$2	\$3	\$5	\$8	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1463	\$11	\$20	\$33	\$61	N/A
– SCHOOL AND CHURCH BUSES					
\$ 130	\$2	\$4	\$6	\$9	N/A
– OTHER BUSES					
\$ 897	\$9	\$14	\$22	\$37	N/A
– VAN POOLS					
\$ 354	\$3	\$4	\$7	\$11	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 214	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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TERRITORY 123

LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
	Limit Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 237	\$1	\$2	\$4	\$6	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 236	\$1	\$3	\$4	\$8	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	\$9	N/A
– OTHER BUSES					
\$ 901	\$11	\$18	\$28	\$48	N/A
– VAN POOLS					
\$ 356	\$3	\$4	\$7	\$11	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 229	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 Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 280	\$1	\$2	\$3	\$6	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 246	\$2	\$3	\$4	\$8	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1736	\$14	\$24	\$40	\$72	N/A
– SCHOOL AND CHURCH BUSES					
\$ 154	\$2	\$4	\$6	\$10	N/A
– OTHER BUSES					
\$ 1064	\$12	\$19	\$31	\$52	N/A
– VAN POOLS					
\$ 420	\$3	\$5	\$8	\$13	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 251	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 Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 385	\$2	\$3	\$5	\$8	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 289	\$2	\$3	\$5	\$9	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 2387	\$19	\$33	\$54	\$99	N/A
– SCHOOL AND CHURCH BUSES					
\$ 212	\$3	\$4	\$7	\$11	N/A
– OTHER BUSES					
\$ 1463	\$11	\$19	\$30	\$50	N/A
– VAN POOLS					
\$ 578	\$5	\$7	\$11	\$19	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 324	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 Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 238	\$1	\$2	\$3	\$5	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 214	\$1	\$2	\$4	\$7	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1476	\$12	\$20	\$34	\$61	N/A
– SCHOOL AND CHURCH BUSES					
\$ 131	\$2	\$3	\$5	\$9	N/A
– OTHER BUSES					
\$ 904	\$11	\$18	\$28	\$48	N/A
– VAN POOLS					
\$ 357	\$3	\$4	\$7	\$11	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 218	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 Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 237	\$2	\$3	\$4	\$6	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 253	\$2	\$3	\$5	\$8	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	\$9	N/A
– OTHER BUSES					
\$ 901	\$11	\$18	\$28	\$48	N/A
– VAN POOLS					
\$ 356	\$3	\$4	\$7	\$11	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 205	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 Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 267	\$1	\$2	\$3	\$6	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 285	\$2	\$3	\$5	\$9	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1655	\$13	\$23	\$38	\$69	N/A
– SCHOOL AND CHURCH BUSES					
\$ 147	\$2	\$4	\$6	\$10	N/A
– OTHER BUSES					
\$ 1015	\$11	\$18	\$29	\$49	N/A
– VAN POOLS					
\$ 401	\$3	\$5	\$7	\$13	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 262	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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TERRITORY 129

LIABILITY	MEDICAL PAYMENTS				PERSONAL INJURY PROTECTION
	Limit Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 269	\$2	\$3	\$4	\$6	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 254	\$2	\$3	\$5	\$8	N/A
RULE 40. PUBLIC AUTO CLASSIFICATIONS –					
– TAXICABS AND LIMOUSINES					
\$ 1668	\$13	\$23	\$38	\$69	N/A
– SCHOOL AND CHURCH BUSES					
\$ 148	\$2	\$4	\$6	\$10	N/A
– OTHER BUSES					
\$ 1022	\$12	\$19	\$30	\$51	N/A
– VAN POOLS					
\$ 404	\$3	\$5	\$7	\$13	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 244	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 Per Person				
Limit Of Liab. \$100,000	500	1000	2000	5000	Basic Limits
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS					
\$ 237	\$1	\$2	\$3	\$6	N/A
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS					
\$ 237	\$1	\$3	\$4	\$8	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	\$9	N/A
– OTHER BUSES					
\$ 901	\$11	\$18	\$29	\$49	N/A
– VAN POOLS					
\$ 356	\$3	\$4	\$7	\$11	N/A
RULE 49. AUTO DEALERS – PREMIUM DEVELOPMENT					
\$ 212	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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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			
	\$ 120	\$ 128	\$ 240
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 66	\$ 393
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 122	\$ 131	\$ 305
– SCHOOL AND CHURCH BUSES			
	\$ 84	\$ 90	\$ 156
– OTHER BUSES			
	\$ 84	\$ 90	\$ 156
– VAN POOLS			
	\$ 122	\$ 131	\$ 305
<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			
	\$ 99	\$ 106	\$ 264
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 75	\$ 359
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 101	\$ 108	\$ 335
– SCHOOL AND CHURCH BUSES			
	\$ 69	\$ 74	\$ 172
– OTHER BUSES			
	\$ 69	\$ 74	\$ 172
– VAN POOLS			
	\$ 101	\$ 108	\$ 335
<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			
	\$ 108	\$ 115	\$ 215
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 70	\$ 340
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 110	\$ 117	\$ 273
– SCHOOL AND CHURCH BUSES			
	\$ 76	\$ 81	\$ 140
– OTHER BUSES			
	\$ 76	\$ 81	\$ 140
– VAN POOLS			
	\$ 110	\$ 117	\$ 273
<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			
	\$ 99	\$ 106	\$ 238
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 78	\$ 325
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 101	\$ 108	\$ 302
– SCHOOL AND CHURCH BUSES			
	\$ 69	\$ 74	\$ 155
– OTHER BUSES			
	\$ 69	\$ 74	\$ 155
– VAN POOLS			
	\$ 101	\$ 108	\$ 302
<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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TERRITORY 106

PHYSICAL DAMAGE Original Cost New Range \$15,001 – 20,000			
	Specified Causes Of Loss	\$500 Ded. Comp.	\$500 Ded. Coll.
RULE 23. TRUCKS, TRACTORS AND TRAILERS CLASSIFICATIONS			
– Local And Intermediate – All Vehicles			
– Long Distance – Light Trucks And Trailers Used With Light Trucks			
	\$ 95	\$ 102	\$ 201
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 69	\$ 207
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 97	\$ 104	\$ 255
– SCHOOL AND CHURCH BUSES			
	\$ 67	\$ 71	\$ 131
– OTHER BUSES			
	\$ 67	\$ 71	\$ 131
– VAN POOLS			
	\$ 97	\$ 104	\$ 255
<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			
	\$ 126	\$ 135	\$ 260
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 129	\$ 290
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 129	\$ 138	\$ 330
– SCHOOL AND CHURCH BUSES			
	\$ 88	\$ 95	\$ 169
– OTHER BUSES			
	\$ 88	\$ 95	\$ 169
– VAN POOLS			
	\$ 129	\$ 138	\$ 330
<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			
	\$ 106	\$ 113	\$ 186
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 59	\$ 271
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 108	\$ 115	\$ 236
– SCHOOL AND CHURCH BUSES			
	\$ 74	\$ 79	\$ 121
– OTHER BUSES			
	\$ 74	\$ 79	\$ 121
– VAN POOLS			
	\$ 108	\$ 115	\$ 236
<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			
	\$ 107	\$ 114	\$ 239
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 74	\$ 332
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 109	\$ 116	\$ 304
– SCHOOL AND CHURCH BUSES			
	\$ 75	\$ 80	\$ 155
– OTHER BUSES			
	\$ 75	\$ 80	\$ 155
– VAN POOLS			
	\$ 109	\$ 116	\$ 304
<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			
	\$ 119	\$ 127	\$ 234
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 75	\$ 394
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 121	\$ 130	\$ 297
– SCHOOL AND CHURCH BUSES			
	\$ 83	\$ 89	\$ 152
– OTHER BUSES			
	\$ 83	\$ 89	\$ 152
– VAN POOLS			
	\$ 121	\$ 130	\$ 297
<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			
	\$ 106	\$ 113	\$ 190
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 74	\$ 338
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 108	\$ 115	\$ 241
– SCHOOL AND CHURCH BUSES			
	\$ 74	\$ 79	\$ 124
– OTHER BUSES			
	\$ 74	\$ 79	\$ 124
– VAN POOLS			
	\$ 108	\$ 115	\$ 241
<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			
	\$ 117	\$ 125	\$ 226
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 99	\$ 277
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 119	\$ 128	\$ 287
– SCHOOL AND CHURCH BUSES			
	\$ 82	\$ 88	\$ 147
– OTHER BUSES			
	\$ 82	\$ 88	\$ 147
– VAN POOLS			
	\$ 119	\$ 128	\$ 287
<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			
	\$ 103	\$ 110	\$ 204
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 84	\$ 282
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 105	\$ 112	\$ 259
– SCHOOL AND CHURCH BUSES			
	\$ 72	\$ 77	\$ 133
– OTHER BUSES			
	\$ 72	\$ 77	\$ 133
– VAN POOLS			
	\$ 105	\$ 112	\$ 259
<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			
	\$ 111	\$ 119	\$ 253
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 73	\$ 308
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 113	\$ 121	\$ 321
– SCHOOL AND CHURCH BUSES			
	\$ 78	\$ 83	\$ 164
– OTHER BUSES			
	\$ 78	\$ 83	\$ 164
– VAN POOLS			
	\$ 113	\$ 121	\$ 321
<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			
	\$ 129	\$ 138	\$ 261
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 102	\$ 264
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 132	\$ 141	\$ 331
– SCHOOL AND CHURCH BUSES			
	\$ 90	\$ 97	\$ 170
– OTHER BUSES			
	\$ 90	\$ 97	\$ 170
– VAN POOLS			
	\$ 132	\$ 141	\$ 331
<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			
	\$ 80	\$ 86	\$ 213
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 57	\$ 272
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 82	\$ 88	\$ 271
– SCHOOL AND CHURCH BUSES			
	\$ 56	\$ 60	\$ 138
– OTHER BUSES			
	\$ 56	\$ 60	\$ 138
– VAN POOLS			
	\$ 82	\$ 88	\$ 271
<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			
	\$ 110	\$ 117	\$ 222
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 75	\$ 328
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 112	\$ 119	\$ 282
– SCHOOL AND CHURCH BUSES			
	\$ 77	\$ 82	\$ 144
– OTHER BUSES			
	\$ 77	\$ 82	\$ 144
– VAN POOLS			
	\$ 112	\$ 119	\$ 282
<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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TENNESSEE (41)
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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			
	\$ 98	\$ 105	\$ 174
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 70	\$ 309
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 100	\$ 107	\$ 221
– SCHOOL AND CHURCH BUSES			
	\$ 69	\$ 74	\$ 113
– OTHER BUSES			
	\$ 69	\$ 74	\$ 113
– VAN POOLS			
	\$ 100	\$ 107	\$ 221
<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			
	\$ 113	\$ 121	\$ 269
RULE 32. PRIVATE PASSENGER TYPES CLASSIFICATIONS			
	N/A	\$ 91	\$ 319
RULE 40. PUBLIC AUTO CLASSIFICATIONS			
– TAXICABS AND LIMOUSINES			
	\$ 115	\$ 123	\$ 342
– SCHOOL AND CHURCH BUSES			
	\$ 79	\$ 85	\$ 175
– OTHER BUSES			
	\$ 79	\$ 85	\$ 175
– VAN POOLS			
	\$ 115	\$ 123	\$ 342
<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>\$ 49</u>
<u>6639</u>	<u>10 = 19</u>	<u>105</u>
<u>6640</u>	<u>20 = 25</u>	<u>169</u>
<u>6602</u>	<u>26 = 100</u>	<u>286</u>
<u>6603</u>	<u>101 = 500</u>	<u>748</u>
<u>6604</u>	<u>501 = 1,000</u>	<u>1720</u>
<u>6605</u>	<u>Over 1,000</u>	<u>3626</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. <u>53</u> 49

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

97. UNINSURED MOTORISTS INSURANCE

Uninsured Motorists Bodily Injury		
Bodily Injury Limits	Private Passenger Types Per Exposure	Other Than Private Passenger Types Per Exposure
\$ 65,000	\$ <u>19.39</u> 18.08	\$ <u>12.77</u> 13.70
100,000	<u>23.18</u> 23.40	<u>15.26</u> 16.78
125,000	<u>28.68</u> 31.70	<u>18.86</u> 22.28
150,000	<u>30.66</u> 34.21	<u>20.15</u> 23.99
200,000	<u>34.39</u> 39.05	<u>22.59</u> 27.28
250,000	<u>37.14</u> 42.65	<u>24.38</u> 29.73
300,000	<u>40.01</u> 46.69	<u>26.27</u> 32.44
350,000	<u>42.65</u> 50.54	<u>27.99</u> 35.00
400,000	<u>44.39</u> 52.75	<u>29.12</u> 36.51
500,000	<u>47.18</u> 56.65	<u>30.95</u> 39.13
600,000	<u>49.98</u> 60.65	<u>32.78</u> 41.80
750,000	<u>52.78</u> 64.56	<u>34.61</u> 44.42
1,000,000	<u>56.01</u> 69.08	<u>36.72</u> 47.46
1,500,000	<u>61.87</u> 77.78	<u>40.55</u> 53.24
2,000,000	<u>64.76</u> 82.06	<u>42.43</u> 56.08
2,500,000	<u>67.13</u> 85.43	<u>43.98</u> 58.34
3,000,000	<u>68.87</u> 87.96	<u>45.11</u> 60.02
5,000,000	<u>73.30</u> 94.44	<u>48.01</u> 64.34
7,500,000	<u>76.63</u> 99.35	<u>50.18</u> 67.60
10,000,000	<u>78.37</u> 101.89	<u>51.32</u> 69.30

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

Uninsured Motorists Bodily Injury And Property Damage		
Limits	Private Passenger Types Per Exposure	Other Than Private Passenger Types Per Exposure
\$ 65,000	\$ <u>21.98</u> 21.57	\$ <u>15.38</u> 16.31
100,000	<u>25.77</u> 25.99	<u>17.87</u> 19.39
125,000	<u>31.27</u> 34.29	<u>21.47</u> 24.89
150,000	<u>33.25</u> 36.80	<u>22.76</u> 26.60
200,000	<u>36.98</u> 41.64	<u>25.20</u> 29.89
250,000	<u>39.73</u> 45.24	<u>26.99</u> 32.34
300,000	<u>42.60</u> 49.28	<u>28.88</u> 35.05
350,000	<u>45.24</u> 53.13	<u>30.60</u> 37.61
400,000	<u>46.98</u> 55.34	<u>31.73</u> 39.12
500,000	<u>49.77</u> 59.24	<u>33.56</u> 41.74
600,000	<u>52.57</u> 63.24	<u>35.39</u> 44.41
750,000	<u>55.37</u> 67.15	<u>37.22</u> 47.03
1,000,000	<u>58.60</u> 71.67	<u>39.33</u> 50.07

1,500,000	<u>64.46</u> 80.37	<u>43.16</u> 55.85
2,000,000	<u>67.35</u> 84.65	<u>45.04</u> 58.69
2,500,000	<u>69.72</u> 88.02	<u>46.59</u> 60.95
3,000,000	<u>71.46</u> 90.55	<u>47.72</u> 62.63
5,000,000	<u>75.89</u> 97.03	<u>50.62</u> 66.95
7,500,000	<u>79.22</u> 101.94	<u>52.79</u> 70.21
10,000,000	<u>80.96</u> 104.48	<u>53.93</u> 71.91

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

Uninsured Motorists Bodily Injury		
Bodily Injury Limits	Private Passenger Types Per Exposure	Other Than Private Passenger Types Per Exposure
\$ 25,000/50,000	\$ <u>11.12</u> 8.24	\$ <u>7.36</u> 6.40
50,000/100,000	<u>17.00</u> 15.36	<u>11.23</u> 11.32
100,000/300,000	<u>25.01</u> 25.65	<u>16.46</u> 18.32
250,000/500,000	<u>38.17</u> 43.99	<u>25.06</u> 30.64
500,000/1,000,000	<u>48.58</u> 58.84	<u>31.86</u> 40.55
1,000,000/2,000,000	<u>57.90</u> 72.24	<u>37.95</u> 49.50
2,500,000/5,000,000	<u>67.68</u> 86.27	<u>44.34</u> 58.89
5,000,000/10,000,000	<u>73.71</u> 95.04	<u>48.29</u> 64.75

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

Uninsured Motorists Property Damage		
Property Damage Limits	Private Passenger Types Per Exposure	Other Than Private Passenger Types Per Exposure
\$ 15,000	\$ 2.45	\$ 2.83
25,000	3.70	3.73
50,000	6.30	5.50
100,000	11.67	9.06

Table 97.B.1.d.(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 – Tennessee

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 Tennessee

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>
09/30/2013	+0.9%	+5.5%
12/31/2013	+1.1%	+5.4%
03/31/2014	+1.4%	+4.8%
06/30/2014	+1.5%	+4.2%
09/30/2014	+1.8%	+3.7%
12/31/2014	+1.8%	+3.3%
03/31/2015	+1.5%	+3.3%
06/30/2015	+2.2%	+3.5%
09/30/2015	+1.9%	+3.7%
12/31/2015	+2.3%	+4.6%
03/31/2016	+2.9%	+4.8%
06/30/2016	+2.9%	+5.2%
09/30/2016	+2.6%	+5.5%
12/31/2016	+2.7%	+5.7%
03/31/2017	+2.7%	+5.7%
06/30/2017	+2.8%	+5.6%

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 – Tennessee

Trends in Medical Care Costs

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

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

Claim Frequencies

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

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 – Tennessee

Tennessee Trends

Trucks, Tractors & Trailers and Private Passenger Types Liability

	Current Trends <u>Data through 6/30/2017</u>	Previous Trends <u>Data through 6/30/2016</u>
Tennessee Claim Cost Trends		
Bodily Injury (\$100,000 Limit)	3.1%	7.5%
Property Damage (\$100,000 Limit)	7.1%	8.8%
Credibility-Weighted Claim Cost Trends		
Bodily Injury (\$100,000 Limit)	2.8%	3.1%
Property Damage (\$100,000 Limit)	6.0%	6.1%
Selected Claim Frequency Trends		
Trucks, Tractors & Trailers		
Bodily Injury	0.0%	0.0%
Property Damage	0.0%	0.0%
Private Passenger Types		
Bodily Injury	0.0%	0.0%
Property Damage	0.0%	0.0%
Selected Pure Premium Trends		
Trucks, Tractors & Trailers		
Bodily Injury (\$100,000 Limit)	2.8%	3.1%
Property Damage (\$100,000 Limit)	6.0%	6.1%
Private Passenger Types		
Bodily Injury (\$100,000 Limit)	2.8%	3.1%
Property Damage (\$100,000 Limit)	6.0%	6.1%

Tennessee bodily injury severity trend receives 5% weight when combined with multistate trend in the filing, property damage trend receives 25% weight.

If the prior trends were used to calculate the indicated changes in this document, the Truck, Tractors & Trailers Liability indication would have been 7.5% rather than 6.8%. For the Private Passenger Types coverage, the indication would have been 5.4% instead of 4.8%.

Supplementary Information – Tennessee

Physical Damage Loss Trend

		Current Trends <u>Data through 6/30/2017</u>	Previous Trends <u>Data through 6/30/2016</u>
Trucks, Tractors & Trailers	<u>Coverage</u>		
	OTC	+7.0%	+6.0%
	Collision	+5.0%	+6.0%
Private Passenger Types	OTC	+6.0%	+5.0%
	Collision	+5.0%	+5.5%

Physical Damage OCN Trend

		Current Trends <u>Data through 6/30/2017</u>	Previous Trends <u>Data through 6/30/2016</u>
Trucks, Tractors & Trailers	<u>Coverage</u>		
	OTC	+0.9%	+0.9%
	Collision	+1.3%	+1.1%
Private Passenger Types	OTC	+1.0%	+0.9%
	Collision	+0.6%	+0.5%

The loss trend has increased by 1.0 points for Trucks, Tractors & Trailers OTC and Private Passenger Types OTC. The OCN trend has remained the same for Trucks, Tractors and Trailers OTC and has increased by 0.1 points for Private Passenger Types OTC. If the prior loss and OCN trends were used, the Trucks, Tractors and Trailers and Private Passenger Types OTC indications in this document would have 6.3%, instead of 9.2%, and 2.8%, instead of 4.8%, respectively.

The loss trend has decreased by 1.0 points for Trucks, Tractors & Trailers collision and has decreased by 0.5 points for Private Passenger Types collision. The collision OCN trend has increased by 0.2 points for Trucks, Tractors, & Trailers collision and has increased by 0.1 points for Private Passenger Types collision. If the prior loss and OCN trends were used, the Trucks, Tractors and Trailers and Private Passenger Types collision indications in this document would have been -4.5%, instead of -8.3%, and 0.0%, instead of -1.6%, respectively.

Supplementary Information – Tennessee

Loss Development

Methodology

For the Trucks, Tractors & Trailers and Private Passenger Types Liability coverages, we continue to employ a credibility-weighted combination of Tennessee 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	1.076	1.069
27 to Ultimate	1.165	1.155
15 to Ultimate	1.356	1.347
Trucks, Tractors and Trailers PD		
39 to Ultimate	1.005	1.004
27 to Ultimate	1.014	1.011
15 to Ultimate	1.030	1.024
Private Passenger Types BI		
39 to Ultimate	1.065	1.050
27 to Ultimate	1.142	1.112
15 to Ultimate	1.258	1.269
Private Passenger Types PD		
39 to Ultimate	1.006	1.004
27 to Ultimate	1.015	1.011
15 to Ultimate	1.043	1.031

Supplementary Information – Tennessee

Other Factors

Unallocated Loss Adjustment Expense factors:

	<u>Data through 12/31/2016</u>	<u>Data through 12/31/2015</u>
Bodily Injury	1.080	1.085
Property Damage	1.105	1.110
Physical Damage	1.140	1.150

Indicated vs. Filed Changes

An overall change of 1.3% is indicated when each of the coverage indications is weighted by its respective loss cost volume. Staff will file the indications, which reflect a 02/01/2019 proposed effective date, with the following exceptions:

<u>Coverage</u>	<u>Indicated Change</u>	<u>Filed Change</u>
Private Passenger Types Uninsured Motorists	-8.5%	-18.2%
Private Passenger Types Collision	-1.6%	N.C.

The overall filed change is 1.3%.

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.
- Trucks, Tractors and Trailers OTC indication of 9.2% is mainly due to poor experience in the latest year.
- Trucks, Tractors and Trailers Collision indication of -8.3% is mainly due to good experience in the latest year.