

RULES – IMPLEMENTATION

SEPTEMBER 1, 2022

COMMERCIAL MULTIPLE LINE

LI-ML-2022-024

KANSAS COMMERCIAL PACKAGE POLICY REVISED PACKAGE MODIFICATION FACTOR REVISION FILED AND TO BE IMPLEMENTED; EXHIBITS PRESENTED IN EXCEL

KEY MESSAGE

Revised Commercial Package Policy package modification factors for an overall statewide change of -2.7% have been filed and acknowledged.

BACKGROUND

In circular [LI-ML-2022-015](#), we provided you with information about the Commercial Package Policy modification factor experience review.

CONSIDERATION OF COVID-19

ISO has considered whether any adjustments need to be made to prospective loss costs or rating factors, which are based on historical experience (pre-COVID-19), to reflect the conditions in which these loss costs or rating factors will be effective (post-COVID-19). Commercial Package Policy Modification Factors are applied to separate underlying coverages that are then combined to create a package policy. Any adjustment that is made to the underlying coverage loss costs to reflect the potential impact of COVID-19 will, therefore, also be reflected in commercial package policy rating. While there will almost certainly be long-term behavioral, social and economic changes as a result of COVID-19, we expect, based on the information currently available, that those changes will have negligible effects on Commercial Package Policy Modification Factors. Therefore, ISO is not making any explicit adjustment to those factors due to COVID-19.

ISO ACTION

We are implementing ML-2022-RLA1, which presents a review of Commercial Package Policy modification factors experience. Refer to the attachment(s) for complete details.

INSURANCE DEPARTMENT ACTION

The Insurance Department has acknowledged this revision as filed.

IMPORTANT NOTE

Change in Format

This circular offers several enhancements for customers. In addition to the PDF version, exhibits and loss cost tables are now available in user-friendly Excel format rather than Word. Where possible, exhibits are linked together formulaically to clarify how calculations flow through the entire ratemaking process and to enable customers to test the effects of different assumptions on the results.

To facilitate this change, the filing has been restructured. All explanatory text, for all sections of the filing, appears first; all exhibits and tables are grouped together and appear thereafter. Exhibits have been relabeled (Exhibit A1, Exhibit A2, etc.).

We invite customers to share feedback on this revised format and suggestions for further enhancements by contacting the individuals listed in the Contact Information block.

EFFECTIVE DATE

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

These changes are applicable to all policies written on or after January 1, 2023.

COMPANY ACTION

If you have authorized us to file on your behalf and decide:

- To use our revision and effective date, you are not required to file anything with the Insurance Department.
- To use our revision with a different effective date, to use our revision with modification, or to not use our revision, you must make an appropriate submission with the Insurance Department.

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

In all correspondence with the Insurance Department on this revision, you should refer to ISO Filing Number ML-2022-RLA1, and SERFF Tracking Number ISOF-133373565, NOT this circular number. Communications with the regulator concerning a filing affecting multiple lines of business (i.e., CL, PL, AL filing designation) should specify the line(s) of business that you are addressing.

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-2022-006 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.

REVISION DISTRIBUTION

We will issue a Notice to Manualholders with an edition date of 1-23 (or the earliest possible subsequent date), along with any new and/or revised manual pages.

REFERENCE(S)

- LI-ML-2022-015 (06/30/2022) Commercial Package Policy Experience Reviewed By Staff
- LI-CL-2022-006 (02/22/2022) Revised Lead Time Requirements Listing

ATTACHMENT(S)Filing ML-2022-RLA1

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.

DATA QUALITY

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

ACKNOWLEDGMENT OF ACTUARIAL QUALIFICATIONS

The American Academy of Actuaries' "Qualification 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 rule revision a Statement of Actuarial Opinion; therefore, we are including the following acknowledgment:

I, Nancy Narisi, am a Senior Actuarial Associate in Actuarial Operations for ISO, and I, Bei Zhou, am an Actuarial Product Director for Commercial Property 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.

COPYRIGHT EXPLANATION

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

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

IMPORTANT NOTICE FOR USERS OF ISO PRODUCTS AND SERVICES

Please make sure that your company has authorized your use of this product and has complied with the requirements applicable in the jurisdiction where you plan to use it.

We distribute both state-specific and multistate products and services. We do not distribute all the multistate products and services for use in every jurisdiction due to corporate policy, regulatory preference, or variations or lack of clarity in state laws.

We provide participating insurers with information concerning the jurisdictions for which our products and services are distributed. Even in those jurisdictions, each insurer must determine what filing requirements, if any, apply and whether those requirements have been satisfied.

Now, as in the past, all of our products and services are advisory, and are made available for optional use by participating insurers as a matter of individual choice. Your company must decide for itself which, if any, ISO products or services are needed or useful to its operation and how those selected for use should be applied. We urge that you be guided by the advice of your attorneys on the legal requirements.

CONTACT INFORMATION

If you have any questions concerning:

- The actuarial content of this circular, please contact:
Rachelle Itzkowitz
Actuarial Operations
201-469-3775
Rachelle.Itzkowitz@verisk.com
propertyactuarial@verisk.com
- The non-actuarial content of this circular, please contact:
Christopher Woolis
Production Operations, Compliance and Product Services
201-469-2928
prodops@verisk.com
- Other issues for this circular, please contact Customer Support:
E-mail: info@verisk.com
Phone: 800-888-4476

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

KANSAS
ADVISORY PACKAGE MODIFICATION FACTOR REVIEW
COMMERCIAL PACKAGE POLICY
ML-2022-RLA1
EXECUTIVE SUMMARY

PURPOSE

This document:

- presents a review of advisory Package Modification Factors (PMFs). PMFs are relativity factors used to adjust monoline loss costs as appropriate for multiline risks.
 - provides the analyses used to derive these advisory PMFs.
-

CONSIDERATION
OF COVID-19

ISO has considered whether any adjustments need to be made to prospective loss costs or rating factors, which are based on historical experience (pre-COVID-19), to reflect the conditions in which these loss costs or rating factors will be effective (post-COVID-19). Commercial Package Policy Modification Factors are applied to separate underlying coverages that are then combined to create a package policy. Any adjustment that is made to the underlying coverage loss costs to reflect the potential impact of COVID-19 will therefore also be reflected in commercial package policy rating. While there will almost certainly be long-term behavioral, social and economic changes as a result of COVID-19, we expect, based on the information currently available, that those changes will have negligible effects on Commercial Package Policy Modification Factors. Therefore, ISO is not making any explicit adjustment to those factors due to COVID-19.

PMF CHANGES

The proposed Commercial Package Policy (CPP) Package Modification Factor changes are:

<u>Type of Policy</u>	<u>Property</u>	<u>Liability</u>	<u>Prop. & Liab. Total</u>
Motel/Hotel	-4.3%	-2.5%	-4.0%
Apartment	0.0%	-3.1%	-0.4%
Office	-3.1%	2.7%	-1.1%
Mercantile	-5.3%	-3.2%	-4.8%
Institutional	-1.4%	-2.0%	-1.5%
Services	-3.5%	0.0%	-2.8%
Indust./Proc.	-1.4%	2.1%	-0.3%
Contractors	<u>-6.0%</u>	<u>-1.2%</u>	<u>-2.7%</u>
Statewide	-3.2%	-0.7%	-2.7%

KANSAS

ADVISORY PACKAGE MODIFICATION FACTOR REVIEW

COMMERCIAL PACKAGE POLICY

ML-2022-RLA1

EXECUTIVE SUMMARY

INDICATED VS. CAPPED

Indicated PMF changes are based on standard ISO methodology. Differences between indicated and capped PMF changes are caused by rounding each indicated PMF to the nearest one percent and applying an upper cap of 1.00, where necessary.

HISTORICAL SOURCE DATA

The data used in this review is from ISO reporting companies for:

- Basic Group I: five fiscal accident years ending 06/30/20.
 - Basic Group II: ten fiscal accident years ending 06/30/20.
 - Special Causes of Loss: five fiscal accident years ending 06/30/20.
 - Crime: calendar year ending 06/30/16.
 - Inland Marine: five calendar accident years ending 12/31/16.
 - Fidelity: policy year ending 12/31/15.
 - Owners, Landlords, and Tenants: five fiscal accident years ending 06/30/20.
 - Manufacturers and Contractors: five fiscal accident years ending 06/30/20.
 - Products: three calendar accident years ending 12/31/19.
 - Local Products and Completed Operations: three calendar accident years ending 12/31/19.
-

PRIOR ISO REVISIONS

The latest revisions in this state are:

<u>Filing</u>	ML-19-RLA1	ML-18-RLA1	ML-16-RLA1
<u>Dates</u>			
Implemented	6/1/2020	5/1/2019	4/1/2017
<u>Changes</u>			
Indicated	-0.6%	-4.7%	2.8%
Filed	-0.6%	-4.7%	2.7%
Implemented	-0.6%	-4.7%	2.7%

KANSAS
ADVISORY PACKAGE MODIFICATION FACTOR REVIEW
COMMERCIAL PACKAGE POLICY
ML-2022-RLA1
EXECUTIVE SUMMARY

ADJUSTMENTS
TO REPORTED
EXPERIENCE

Standard actuarial procedures have been used in the reviews underlying the calculation of the PMFs, including adjusting the fire and liability losses to ultimate settlement level and, for all coverages, reflecting all loss adjustment expenses and trend. Specific procedures vary by subline.

TEN LARGEST
GROUPS IN
ISO DATA BASE

Insurers are listed in descending order based on the percent of statewide written premium volume from Annual Statement Page 15 for the year ending 12/31/2020 for the Annual Statement Line of Business (ASLOB) indicated.

COMMERCIAL MULTI PERIL (ASLOB 51 & 52)

1. Travelers Indemnity Company
 2. Cincinnati Insurance Company
 3. Nationwide Mutual Insurance Company
 4. Tokio Marine Companies
 5. Continental Casualty Company
 6. Insurance Company Of North America
 7. Triangle Insurance Company
 8. Admiral Insurance Company
 9. Liberty Mutual Insurance Company
 10. State Auto Mutual Insurance Company
-

SIZE OF ISO
DATA BASE

The market share of ISO participating insurers as measured by Annual Statement Page 15 written premium for the year ending 12/31/2020 is:

Commercial Multi Peril (ASLOB 51 & 52). 44.4%.

ADDITIONAL
SUPPORTING
MATERIAL

Additional supporting material underlying the calculation of the experience review indications used in this PMF analysis may be found in the respective monoline experience review documents for each line.

KANSAS
ADVISORY PACKAGE MODIFICATION FACTOR REVIEW
COMMERCIAL PACKAGE POLICY
ML-2022-RLA1
EXECUTIVE SUMMARY

COMPANY DECISION

We encourage each insurer to decide independently whether the judgments made and the procedures or data used by ISO in developing the PMFs contained herein are appropriate for your use. We have included within this document the information upon which ISO relied in order to enable companies 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 projection based on the aggregate data.

Some calculations included in this document involve areas of ISO staff judgment. Each company should carefully review and evaluate whether the ISO selected PMFs are appropriate for its use.

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

COMMERCIAL PACKAGE POLICY

TABLE OF CONTENTS

	<u>Explanatory Pages</u>	<u>Corresponding Exhibits</u>
<u>SECTION A – SCOPE OF REVISION</u>		
Methodology Overview	Page 6	--
Summary of Package Modification Factor (PMF) Review	--	Exhibit A1
Calculation of Revised Package Modification Factors	Page 7-9	Exhibit A2
<u>SECTION B – CALCULATION OF PROPOSED CHANGES</u>		
PROPERTY COVERAGES		
Commercial Fire and Allied Lines		
Distribution of Advisory Loss Cost Level Change	Page 10-19	Exhibits B1-B5
Crime and Fidelity	Page 20	--
Commercial Inland Marine	Page 21	Exhibits B6-B7
LIABILITY COVERAGES		
Distribution of Advisory Loss Cost Level Change	Page 22-27	Exhibits B8-B17

COMMERCIAL PACKAGE POLICY

SECTION A: SCOPE OF REVISION METHODOLOGY OVERVIEW

OBJECTIVE

A Commercial Package Policy (CPP) is essentially a combination of monoline coverages. CPP pricing employs monoline loss costs modified by Package Modification Factors (PMFs). These factors vary by the eight CPP types of policy and are reviewed annually. Monoline and multiline experience are combined and reviewed via a monoline/multiline relativity analysis. The resulting indicated PMFs represent the loss cost for a CPP relative to that for monoline policies providing the same coverages.

STEP 1: THE RELATIVITY ANALYSES

Each line of insurance develops indicated changes to monoline and multiline aggregate loss costs based on an experience ratio relativity analysis for that coverage. The monoline indication represents the needed change to monoline loss costs. The multiline indication represents the needed change to multiline aggregate loss costs, which is implemented through changes to the PMFs. For this PMF analysis, multiline indications are developed for each line of insurance and Type of Policy. Relativity analyses are explained in Section B.

STEP 2: CALCULATION OF THE PMFs

The procedure described above generates indicated Implicit PMFs (IPMFs) which vary by the various lines of insurance and by type of policy. IPMFs represent what the PMF would be for the CPP risk if only a single coverage were written. For each Type of Policy, IPMFs are weighted by CPP aggregate loss costs to determine the indicated property and liability PMFs. These PMFs may be capped, or rounded to the nearest one percent, and certain component IPMFs appropriately adjusted for this change. These calculations are explained in the remainder of Section A.

COMMERCIAL PACKAGE POLICY

SECTION A: SCOPE OF REVISION

CALCULATION OF REVISED PACKAGE MODIFICATION FACTORS (EXHIBIT A2)

OBJECTIVE Commercial package policies were introduced in the 1960's as a convenient tool for both insurer and insured to have the many types of insurance needed by commercial risks packaged under one cover. Thus fire, extended coverage, crime, liability insurance, etc. could be written using a single policy instead of several. Today, virtually any type of monoline coverage can also be purchased as part of a package policy such as the CPP.

The types of insured which can be written under a CPP are generally categorized into the following Types of Policy:

- . Motels and Hotels (TOP 31)
- . Apartments (TOP 32)
- . Offices (TOP 33)
- . Mercantile Operations (TOP 34)
- . Institutions (TOP 35)
- . Service Operations (TOP 36)
- . Industrial and Processing Operations (TOP 37)
- . Contractors (TOP 38)

PRICING OF POLICIES Since a CPP is essentially a combination of monoline coverages, CPP pricing employs monoline loss costs modified by PMFs (Package Modification Factors). These factors vary by the categories shown above and are reviewed annually.

CPP PMF REVIEW PROCEDURE The CPP review of Package Modification Factors, which appears in Table 2 of this document, determines the appropriate PMF loss cost level for each of the eight CPP categories. This is done by combining the indications of the simultaneous reviews of monoline and multiline experience for the various lines (or coverages).

A detailed explanation of the calculation of the revised PMFs follows.

COMMERCIAL PACKAGE POLICY

SECTION A: SCOPE OF REVISION

CALCULATION OF REVISED PACKAGE MODIFICATION FACTORS (EXHIBIT A2)

LINES OF INSURANCE (COVERAGES) INCLUDED

The CPP review reflects the contribution from each significant coverage which can be written on a CPP. Included are:

Property Coverages

- . Basic Group I (BGI) - the predominant property coverage included.
- . Basic Group II (BGII) - both Basic Group I and Basic Group II must be purchased under a CPP contract.
- . Special Causes of Loss (SCL) - typically a type of insurance which is purchased in addition to Basic Group I and Basic Group II in order to provide "all risk" property coverage for the insured.
- . Crime (CRIME) - Crime insurance is a commonly purchased CPP coverage.
- . Inland Marine (INL. MAR.) - A highly specialized line of property insurance, Inland Marine coverages can be purchased as part of a package policy.
- . Fidelity (FIDELITY) - Certain forms of fidelity insurance can be part of the CPP package. Various forms of employee dishonesty coverage are available.

Liability Coverages

- . Owners, Landlords and Tenants (OL&T) Liability - this is the prevalent type of Premises/Operations liability for CPP insureds.
- . Manufacturers and Contractors Liability (M&C) - this is the type of Premises/Operations liability insurance for risks whose liability exposure is more heavily off-premises than on.
- . Products/Completed Operations Liability (PROD) - this type of insurance protects against claims for damages arising from products/completed operations in conjunction with an insured's business. For review purposes, this line of insurance is split into the following two categories:
 - Products: experience for this category is reviewed on a multistate basis.
 - Local Products/ Completed Operations: experience for this category reflects an exposure to loss which is local in nature; therefore, individual state experience is used.

COMMERCIAL PACKAGE POLICY

SECTION A: SCOPE OF REVISION

CALCULATION OF REVISED PACKAGE MODIFICATION FACTORS (EXHIBIT A2)

THE IMPLICIT PACKAGE MODIFICATION FACTOR

For each applicable coverage listed under each of the eight (8) CPP categories, a "current implicit PMF" is shown in column (2). The definition of this factor follows:

For a given CPP category (e.g., apartments) the published Package Modification Factor (PMF) represents the loss cost for a CPP relative to that for monoline policies providing the same coverages. Thus a property (liability) PMF of .80 represents a 20% lower aggregate loss cost for a CPP than for the comparable monoline policies. This PMF, however, represents the CPP "loss cost" for all property (liability) coverages combined. Based on CPP experience, it has been determined that this CPP "loss cost" can differ significantly if it is determined for each property (liability) coverage individually. The IPMF represents what the PMF would be for that CPP risk if only a single coverage were written. The use of the IPMF in monoline/ multiline ratemaking and in the determination of revised CPP Package Modification Factors is significant in that it appropriately identifies how different the component parts of the multiline "loss cost" are.

THE MULTILINE INDICATION

Under the CPP ratemaking procedures, monoline and multiline experience are combined for each coverage. The results of these coverage analyses are indicated changes to monoline loss costs and also indicated CPP aggregate loss cost level changes. The CPP indications by coverage are then incorporated in the CPP PMF review. These indications (shown in column (3)) represent the needed adjustments to the IPMFs (shown in column (2)) described above.

The development of these indications is detailed in Section B.

THE INDICATED PMF

For each CPP category (and for property vs. liability), the indicated PMF is calculated as follows:

Each of the current IPMFs in column (2) is multiplied by the indicated percent change shown in column (3). A weighted average of the indicated IPMFs, using weights based on latest year aggregate loss costs at current ISO loss cost level (column (1) divided by column (2)), yields the indicated PMF at the bottom of column (4).

THE CAPPED PMF

The indicated PMF for each category (and for property vs. liability) shown at the bottom of column (4) is limited to a maximum of 1.00 in arriving at the proposed PMF (bottom of column (5)). All indicated PMFs which are below 1.00 are rounded to the nearest .01 in determining the proposed PMF. To the extent that any indicated PMFs are capped at 1.00, indicated PMFs below this value are adjusted in order to minimize any revenue changes which would result from capping.

In addition to the adjustments just described, the IPMFs (for property and liability) in column (4) are subject to minimum and maximum values and adjusted in column (5) so that they average to the proposed PMF shown at the bottom of column (5).

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES PROPERTY COVERAGES: COMMERCIAL FIRE AND ALLIED LINES

DISTRIBUTION OF ADVISORY LOSS COST LEVEL CHANGE BASIC GROUP I AND SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS (EXHIBIT B1-B2)

OBJECTIVE

The explanations which follow clarify Exhibits B1 and B2, the Basic Group I Relativity Analysis and the Special Causes of Loss Relativity Analysis, respectively. The purpose of these analyses is to:

- (1) determine monoline classification and territorial loss cost level needs for Basic Group I;
- (2) determine monoline category loss cost level need for Special Causes of Loss;
- (3) determine indicated changes to the eight property CPP Package Modification Factors based on Basic Group I/Special Causes of Loss experience.

COLUMN (1)

LEAST SQUARES FORMULA RELATIVITIES

The Least Squares Formula Relativities are the marginal relativities which result from the application of the simultaneous review procedure to the raw experience (where marginal refers to the relativities for a given rating variable, e.g. type of policy, across all subsets of any other rating variables, i.e. territory for Basic Group I, and category for Special Causes of Loss).

The purpose of such a simultaneous review procedure is to arrive at a set of type of policy relativities (which will serve to price CPP policies relative to monoline policies via the PMF); a set of territory relativities for Basic Group I; and a set of category relativities for Special Causes of Loss that best represent the experience. This procedure is in contrast to a review of each rating variable's experience separately. Such one-way types of review do not take into account differing percentages of monoline and multiline experience in each rating variable, or differing percentages of a particular rating variable's experience in the monoline and multiline types of policy. The simultaneous relativity procedure accounts for these different distributions in generating relativities for the various rating variables.

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES PROPERTY COVERAGES: COMMERCIAL FIRE AND ALLIED LINES

DISTRIBUTION OF ADVISORY LOSS COST LEVEL CHANGE BASIC GROUP I AND SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS (EXHIBIT B1-B2)

COLUMN (1)
(Cont'd)

The procedure uses an iterative technique to determine a set of marginal relativities by rating variable that is a best fit to the individual cell relativities, with each cell being defined as the cross-section of specific values of each rating variable. The process uses the relativity of the five year experience ratios by rating cell to the overall statewide experience ratio and the latest year aggregate loss costs for each rating cell. (This experience is shown in Exhibit B3 for Basic Group I and Exhibit B4 for Special Causes of Loss). Specifically, the iteration procedure uses the following formulas:

BASIC GROUP I:

$$TOP_i = \frac{\sum_{k=1}^t W_{ik}^2 R_{ik} TER_k}{\sum_{k=1}^t W_{ik}^2 TER_k^2}, \quad \text{where } 1 \leq i \leq m;$$

$$TER_i = \frac{\sum_{k=1}^m W_{ik}^2 R_{ik} TOP_k}{\sum_{k=1}^m W_{ik}^2 TOP_k^2}, \quad \text{where } 1 \leq k \leq t;$$

SPECIAL CAUSES OF LOSS:

$$TER_i = \frac{\sum_{k=1}^m W_{ik}^2 R_{ik} TOP_k}{\sum_{k=1}^m W_{ik}^2 TOP_k^2}, \quad \text{where } 1 \leq k \leq t;$$

$$CAT_j = \frac{\sum_{i=1}^m W_{ij}^2 R_{ij} TOP_i}{\sum_{i=1}^m W_{ij}^2 TOP_i^2}, \quad \text{where } 1 \leq j \leq n;$$

- TOP_i is the relativity for the i th Type of Policy;
- CAT_j is the relativity for the j th Category;
- TER_k is the relativity for the k th Territory;

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES PROPERTY COVERAGES: COMMERCIAL FIRE AND ALLIED LINES

DISTRIBUTION OF ADVISORY LOSS COST LEVEL CHANGE BASIC GROUP I AND SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS (EXHIBIT B1-B2)

COLUMN (1)
(Cont'd)

- W_{ik} is the loss cost volume at current level for the i th Type of Policy and k th Territory;
- R_{ik} is the experience ratio relativity for the i th Type of Policy, k th Territory (Basic Group I);
- R_{ij} is the experience ratio relativity for the i th Type of Policy, j th Category (Special Causes of Loss);
- m is the number of Types of Policy in the analysis;
- n is the number of Rating Groups or Categories in the analysis;
- t is the number of Territories in the analysis.

The procedure determines m Type of Policy relativities using the above formulas. Then, using those results, a set of t Territory relativities (BG1) or a set of n category relativities (SCL) are determined. These steps form an iterative process which continues until there is no appreciable difference in results from one iteration to the next.

COLUMN (2)

CREDIBILITY

The credibility of the experience for each rating variable is determined from the formula:

$$Z = \frac{P}{P + K}$$

where P presents the five-year adjusted aggregate loss costs for a given rating variable, and K is a constant value. For Basic Group I, K equals an aggregate loss cost volume of \$55,000,000 for territory, and \$100,000,000 for type of policy. For Special Causes of Loss, K equals an aggregate loss cost volume of \$15,000,000 for category and \$40,000,000 for type of policy.

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES PROPERTY COVERAGES: COMMERCIAL FIRE AND ALLIED LINES

DISTRIBUTION OF ADVISORY LOSS COST LEVEL CHANGE BASIC GROUP I AND SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS (EXHIBIT B1-B2)

COLUMN (3)

CREDIBILITY-WEIGHTED RELATIVITIES

Credibility-weighted relativities are calculated based on the formula

$$W = R^Z$$

where Z is the credibility, R is the least squares formula relativity and W is the credibility-weighted relativity for a given rating variable.

This formula implicitly assigns the complement of credibility to a relativity of unity.

COLUMN (4)

BALANCED RELATIVITIES

The credibility-weighted relativities are balanced to assure that the average relativity across all rating variables remains at unity.

COLUMN (5)

INDICATED CHANGES

The indicated changes by Type of Policy is calculated as follows:

$$\text{Indicated Change} = \frac{\text{Balanced Relativity for TOP}}{\text{Monoline Relativity}} - 1$$

MULTILINE CONSIDERATIONS

The type of policy (TOP) relativities are used to generate multiline indications which apply to the current Implicit Package Modification Factors (IPMFs). The indicated IPMFs are calculated as follows:

$$\text{TOP y Indicated IPMF} = \frac{(\text{TOP y Current IPMF}) \times (\text{TOP y Relativity})}{\text{Monoline Relativity}}$$

For each CPP Type of Policy the indicated IPMF is subject to a minimum value of 0.50 and a maximum value of 1.50. If an indicated IPMF falls outside one of those limits, it is capped at that amount, the aggregate loss costs for that Type of Policy are adjusted to the capped IPMF level, and the entire relativity review as described above is re-performed to take this into account. If an IPMF has been capped it is so noted at the bottom of Exhibits B1 and B2.

Loss cost changes for each TOP are calculated as described on Exhibits B1-B2.

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES PROPERTY COVERAGES: COMMERCIAL FIRE AND ALLIED LINES

DISTRIBUTION OF ADVISORY LOSS COST LEVEL CHANGE BASIC GROUP I RELATIVITY ANALYSIS SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW (EXHIBIT B3)

INTRODUCTION	<p>The experience used in the relativity analysis and displayed in Exhibits B3 is the latest five years of accident year data as reported under the Commercial Statistical Plan. As in the overall review, loss costs have been adjusted to current ISO loss cost and prospective amount of insurance levels (with multiline aggregate loss costs adjusted additionally by the current implicit package modification factors). Incurred losses are adjusted to prospective cost levels, and are further adjusted by the Basic Group I large loss procedure. Losses have also been developed to their ultimate settlement value by application of loss development factors.</p>
COLUMN (1)	<p><u>AGGREGATE LOSS COSTS</u></p> <p>The latest year adjusted aggregate loss costs (adjusted as described above) are used as weights both in the calculation of any totals shown in this table and in the iterative formulae used in the simultaneous review procedure.</p>
COLUMN (2)	<p><u>5 - YEAR AGGREGATE LOSS COSTS</u></p> <p>The combined five-year adjusted aggregate loss costs (adjusted as described above) are used to calculate the experience ratios in column (3).</p>
COLUMN (3)	<p><u>FIVE-YEAR EXPERIENCE RATIOS</u></p> <p>These are the ratio of the combined five-year adjusted incurred losses (adjusted as described above) to the combined five-year adjusted aggregate loss costs as shown in Column (2). Any totals which are shown are weighted averages using the adjusted aggregate loss costs in Column (1).</p>
COLUMN (4)	<p><u>RELATIVITIES</u></p> <p>The relativities are the ratios of the five-year experience ratios shown in column (3) to the average five-year experience ratio for all TOP's and territories (where applicable) combined. These relativities represent how much better or worse than average the experience for a given cell is. They are used along with the aggregate loss costs in column (1) as input for the simultaneous review procedure.</p>

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES PROPERTY COVERAGES: COMMERCIAL FIRE AND ALLIED LINES

DISTRIBUTION OF ADVISORY LOSS COST LEVEL CHANGE SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW (EXHIBIT B4)

INTRODUCTION	<p>The experience used in the relativity analysis and displayed on Exhibit B4 is the latest five accident years of data reported under the Commercial Statistical Plan. As in the overall review, loss costs have been adjusted to current ISO loss cost and prospective amount of insurance levels (with multiline aggregate loss costs adjusted additionally by the current implicit package modification factors). Incurred losses are adjusted to prospective cost levels, and are further adjusted by the Special Causes of Loss excess procedure. Losses have also been developed to their ultimate settlement value by application of loss development factors.</p>
COLUMN (1)	<p><u>AGGREGATE LOSS COSTS</u></p> <p>The latest accident year aggregate loss costs (adjusted as described above) are used as weights both in the calculation of any totals shown in this table and in the iterative formulas used in the simultaneous review procedure.</p>
COLUMN (2)	<p><u>5 - YEAR AGGREGATE LOSS COSTS</u></p> <p>The combined five-year adjusted aggregate loss costs (adjusted as described above) are used to calculate the experience ratios in column (3).</p>
COLUMN (3)	<p><u>FIVE-YEAR EXPERIENCE RATIOS</u></p> <p>These are the ratios of the combined five-year adjusted incurred losses (adjusted as described above) to the combined five-year adjusted aggregate loss costs as shown in column (2). Any totals which are shown are weighted averages using the adjusted aggregate loss costs in column (1).</p>
COLUMN (4)	<p><u>CREDIBILITY (Z) WEIGHTED EXPERIENCE RATIO</u></p> <p>A credibility procedure is applied to the initial experience ratios in column (3) on a cell-by-cell basis prior to the simultaneous review procedure. The credibility values are calculated using an empirical Bayesian credibility procedure. In the following discussion, cell refers to an individual combination of TOP and category.</p>

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES PROPERTY COVERAGES: COMMERCIAL FIRE AND ALLIED LINES

DISTRIBUTION OF ADVISORY LOSS COST LEVEL CHANGE SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW (EXHIBIT B4)

COLUMN (4)
(cont'd)

The important concept underlying empirical Bayesian credibility is that credibility should depend both on the overall variation of the group of which the cell is a member and the variation of the yearly experience ratios for the cell. Therefore, if a cell's data is very stable then a relatively high credibility value is assigned, and vice versa.

The empirical Bayesian credibility formula for individual cell credibility is $Z = ((C-3)/C) (P/(P+K)) + (3/C)$. P equals the cell's five-year adjusted aggregate loss costs and C equals the number of unique combinations of rating variables (TOP and Category) within a class group. The K value is estimated from the underlying data using the empirical Bayes method and varies by TOP group. The three TOP groups used in this analysis are: Monoline (TOP 10), Premises (TOP's 31-35), and Operations (TOP's 36-38). The 3/C term corrects for the statistical bias associated with the credibility process. The minimum credibility that is possible is 3/C.

COLUMN (5)

Z-WEIGHTED RELATIVITIES

The relativities are the ratios of the five-year credibility-weighted experience ratios shown in column (4) to the average five-year credibility-weighted experience ratio for all TOP's and categories combined. These relativities represent how much better or worse than average the experience for a given cell is. They are used along with the aggregate loss costs in column (1) as input for the simultaneous review procedure.

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES PROPERTY COVERAGES: COMMERCIAL FIRE AND ALLIED LINES

DISTRIBUTION OF ADVISORY LOSS COST LEVEL CHANGE BASIC GROUP II RELATIVITY ANALYSIS (EXHIBIT B5)

OBJECTIVE	<p>The explanations which follow clarify Exhibit B5, the Basic Group II (BG II) relativity analysis. The purpose of this analysis is to:</p> <ol style="list-style-type: none">(1) determine the monoline loss cost level need;(2) determine indicated changes to the eight property Commercial Package Policy (CPP) Package Modification Factors (PMFs) based on Basic Group II experience.
COLUMN (1)	<p><u>AGGREGATE LOSS COSTS</u></p> <p>The latest accident year adjusted aggregate loss costs (adjusted in the same manner as in the overall review, i.e. to current manual loss cost and prospective amount of insurance levels, with multiline aggregate loss costs further adjusted to current IPMF level) are used as weights in the calculation of any totals shown in this table.</p>
COLUMN (2)	<p><u>10 - YEAR EXPERIENCE RATIO</u></p> <p>These experience ratios are the ratio of the combined ten year CSP adjusted incurred losses (adjusted to current deductible and prospective cost levels including loss development, and also adjusted to reflect the BGII excess loss procedure) to the combined ten year CSP adjusted aggregate loss costs. Any totals which are shown are weighted averages using the aggregate loss costs in Column (1). When a dash is displayed in the column, it indicates that the indicated IPMF which resulted from this procedure was capped. The procedure which follows when capping occurs is described below.</p>
COLUMN (3)	<p><u>FORMULA RELATIVITY</u></p> <p>The formula relativities are the ratios of the ten year experience ratios for the type of policy (either monoline vs. multiline or individual multiline programs) to the average ten year experience ratio for monoline and multiline combined. These relativities represent how much better or worse than average the experience for a given type of policy is. Again, any totals which are shown are weighted averages and the display of a dash indicates that the resulting IPMF was capped.</p>

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES PROPERTY COVERAGES: COMMERCIAL FIRE AND ALLIED LINES

DISTRIBUTION OF ADVISORY LOSS COST LEVEL CHANGE BASIC GROUP II RELATIVITY ANALYSIS (EXHIBIT B5)

COLUMN (3)
(Cont'd) Unlike the BGI and SCL relativity analyses, the BGII analysis does not employ a simultaneous review procedure since a one way review is involved. That is, the overall loss cost change is only distributed across type of policy; no other rating variables are considered.

COLUMN (4) CREDIBILITY

The credibility of the experience for each type of policy is determined from the formula:

$$Z = \frac{P}{P + K}$$

where P is the ten year adjusted aggregate loss costs for a given type of policy, and K is a constant loss cost volume of \$45,000,000.

COLUMN (5) Z - WEIGHTED RELATIVITY

The weighted relativity is a weighted average of the individual TOP formula relativity and the overall (coverage) formula relativity using credibility and its complement as the respective weights. Therefore, to the extent that the indication for a type of policy is not fully credible, the complement of credibility is assigned to the statewide coverage level change.

COLUMN (6) BALANCED FORMULA RELATIVITY

The individual multiline weighted relativities are balanced to the multiline weighted relativity level by applying a factor equal to the overall multiline relativity (i.e. the weighted relativity for all multiline combined which is shown on the top of the exhibit directly under the corresponding monoline relativity) divided by the average multiline relativity (i.e. the weighted average of the individual multiline weighted relativities which is shown on the bottom of the exhibit). When the indicated IPMF for a type of policy is capped, the balanced relativity is set equal to the product of the capped IPMF and the monoline balanced formula relativity, divided by the current IPMF.

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES
PROPERTY COVERAGES: COMMERCIAL FIRE AND ALLIED LINES

DISTRIBUTION OF ADVISORY LOSS COST LEVEL CHANGE
BASIC GROUP II RELATIVITY ANALYSIS (EXHIBIT B5)

COLUMN (7)

NORMALIZED FORMULA RELATIVITY

The normalized relativity is equal to the balanced formula relativity divided by the average monoline/multiline combined relativity. This balances the average monoline/multiline relativity to unity.

COLUMN (8)

INDICATED LOSS COST CHANGES

The indicated multiline (by TOP) changes are calculated by taking the ratio of the TOP relativity (Column 7) to the monoline relativity.

For each type of policy the indicated IPMF is subject to a minimum value of 0.50 and a maximum value of 1.50. If an indicated IPMF falls outside one of those limits, it is capped at that amount, the aggregate loss costs for that type of policy are adjusted to the capped IPMF level, and the entire relativity review as described above is redone to take this into account. If an IPMF has been capped it is so noted in footnote A.

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES PROPERTY COVERAGES: CRIME AND FIDELITY

The reviews for Burglary and Theft and for Fidelity are done on a multistate basis, combining both multiline and monoline experience. However, unlike other coverages included in a Commercial Package Policy, there is no simultaneous review procedure for either Burglary and Theft or for Fidelity in which separate loss cost level changes can be determined for multiline and monoline experience. In the absence of a simultaneous review procedure, we are unable to determine Type of Policy relativities with which to price CPP policies relative to monoline policies and therefore have assumed a multiline change of 0.0% and thus no change to the historic Crime or Fidelity IPMFs.

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES
PROPERTY COVERAGES: COMMERCIAL INLAND MARINE

EXHIBITS B6 AND B7

Exhibits B6 and B7 are not applicable this year. Commercial Inland Marine relativities are not being reviewed in 2021.

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES LIABILITY COVERAGES: GENERAL LIABILITY

DISTRIBUTION OF ADVISORY LOSS COST LEVEL CHANGE (EXHIBIT B8-B17)

OBJECTIVES	The objectives of this procedure are to: 1) determine monoline loss cost level needs for the appropriate rating variables; 2) determine indicated changes to the eight liability Commercial Package Policy (CPP) Package Modification Factors (PMFs) based on Premises/Operations and Products/Completed Operations data.									
EXPERIENCE BASE	The experience used in this relativity analysis is the latest five (5) years of accident year data, as reported under the Commercial Statistical Plan with aggregate loss costs adjusted to current loss cost level (multiline aggregate loss costs adjusted additionally by the current Implicit Package Modification Factors). Losses have been trended and developed in the Relativity Analysis. ALCCL have been trended.									
SIMULTANEOUS DETERMINATION OF RATING VARIABLE RELATIVITIES	<p>Once the aggregate loss costs at current level and incurred losses used in the analysis have been appropriately adjusted, the 5-year experience ratios are calculated for each combination of the appropriate rating variables. From these ratios, relativities to the statewide 5-year experience ratio are calculated. These relativities are then used in a minimum bias iterative review procedure, which simultaneously determines the relativities for each rating variable.</p> <p>The purpose of a simultaneous review procedure is to arrive at a set of relativities for each rating variable that best represent the experience. For example, the type of policy relativities will serve to derive the relationship of CPP policies relative to monoline policies, via the PMF, while the class group relativities will serve to derive the relationship of the various classifications relative to one another. An iterative technique is used to derive relativities for each rating variable. This procedure is in contrast to a one-way type of review, wherein relativities for each rating variable would each be reviewed separately.</p> <p>Such one-way types of review do not take into account differing percentages of experience of each rating variable within the other rating variables. The simultaneous review procedure accounts for these different distributions in generating relativities for each rating variable.</p>									
RATING VARIABLES USED	<p>For Premises/Operations and Products/Completed Operations, the rating variables used in the relativity analysis are as follows:</p> <table><tr><td>Owners, Landlords and Tenants -</td><td>Type of policy and Class group</td></tr><tr><td>Manufacturers and Contractors -</td><td>Type of policy and Class group</td></tr><tr><td>Products -</td><td>Type of policy and Class group</td></tr><tr><td>Local Products/Completed Operations-</td><td>Type of policy, State and Class group</td></tr></table>		Owners, Landlords and Tenants -	Type of policy and Class group	Manufacturers and Contractors -	Type of policy and Class group	Products -	Type of policy and Class group	Local Products/Completed Operations-	Type of policy, State and Class group
Owners, Landlords and Tenants -	Type of policy and Class group									
Manufacturers and Contractors -	Type of policy and Class group									
Products -	Type of policy and Class group									
Local Products/Completed Operations-	Type of policy, State and Class group									

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES LIABILITY COVERAGES: GENERAL LIABILITY

DISTRIBUTION OF ADVISORY LOSS COST LEVEL CHANGE (EXHIBIT B8-B17)

ITERATIVE PROCEDURE

The iterative technique referred to in the previous paragraph solves for a set of relativities for each rating variable based on the experience for the cells; that is, based on the experience ratio and latest year adjusted aggregate loss cost volume for each combination of rating variables relative to the experience ratio and adjusted aggregate loss cost volume for all combinations of rating variables combined. Specifically, the iterative procedure uses the following formulas:

For Owners, Landlords and Tenants:

$$TOP_i = \frac{\sum_j W_{ij} r_{ij}}{\sum_j W_{ij} CG_j} \quad \text{where } 1 \leq i \leq m$$
$$CG_j = \frac{\sum_i W_{ij} r_{ij}}{\sum_i W_{ij} TOP_i} \quad \text{where } 1 \leq j \leq n$$

TOP_i is the relative change for the i^{th} type of policy;

CG_j is the relative change for the j^{th} class group;

W_{ij} is the aggregate loss costs at current level for the i^{th} type of policy,

and j^{th} class group;

r_{ij} is the relative change for the i^{th} type of policy and j^{th} class group;

m is the number of types of policy in the analysis;

n is the number of class groups in the analysis;

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES
LIABILITY COVERAGES: GENERAL LIABILITY

DISTRIBUTION OF ADVISORY LOSS COST LEVEL CHANGE (EXHIBIT B8-B17)

For Manufacturers and Contractors, and Products:

$$TOP_i = \frac{\sum_j W_{ij} r_{ij}}{\sum_j W_{ij} CG_j} \quad \text{where } 1 \leq i \leq m$$
$$CG_j = \frac{\sum_i W_{ij} r_{ij}}{\sum_i W_{ij} TOP_i} \quad \text{where } 1 \leq j \leq n$$

TOP_i is the relative change for the i^{th} type of policy;

CG_j is the relative change for the j^{th} class group;

W_{ij} is the aggregate loss costs at current level for the i^{th} type of policy,
and j^{th} class group;

r_{ij} is the relative change for the i^{th} type of policy, and j^{th} class group;

m is the number of types of policy in the analysis;

n is the number of class groups in the analysis;

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES
LIABILITY COVERAGES: GENERAL LIABILITY

DISTRIBUTION OF ADVISORY LOSS COST LEVEL CHANGE (EXHIBIT B8-B17)

For Local Products/Completed Operations:

$$TOP_i = \frac{\sum_j \sum_k W_{ijk} r_{ijk}}{\sum_j \sum_k W_{ijk} CG_j ST_k} \quad \text{where } 1 \leq i \leq m$$
$$CG_j = \frac{\sum_i \sum_k W_{ijk} r_{ijk}}{\sum_i \sum_k W_{ijk} TOP_i ST_k} \quad \text{where } 1 \leq j \leq n$$
$$ST_k = \frac{\sum_i \sum_j W_{ijk} r_{ijk}}{\sum_i \sum_j W_{ijk} TOP_i CG_j} \quad \text{where } 1 \leq k \leq p$$

TOP_i is the relative change for the i^{th} type of policy;

CG_j is the relative change for the j^{th} class group;

ST_k is the relative change for the k^{th} state;

W_{ijk} is the aggregate loss costs at current level for the i^{th} type of policy,

j^{th} class group, and k^{th} state;

r_{ijk} is the relative change for the i^{th} type of policy, j^{th} class group, and k^{th} state;

m is the number of types of policy in the analysis;

n is the number of class groups in the analysis;

p is the number of states in the analysis;

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES
LIABILITY COVERAGES: GENERAL LIABILITY

DISTRIBUTION OF ADVISORY LOSS COST LEVEL CHANGE (EXHIBIT B8-B17)

ITERATIVE
PROCEDURE
(Cont'd)

For example, for Owners, Landlords and Tenants, the procedure starts by inserting the actual relativities for type of policy into the second formula to get a class group relativity. The resultant class group relativities then produce a new set of type of policy relativities. The process continues on in that fashion until there is no appreciable difference from one iteration to the next.

APPLICATION OF
CREDIBILITY

Consideration is then given to the credibility of the experience for each rating variable. The credibility of each of these categories is based on the formula $Z = \sqrt{P/18,000}$ for Owners, Landlords and Tenants, $Z = \sqrt{P/18,000}$ for Manufacturers and Contractors and $Z = \sqrt{P/20,000}$ for Products, where P is the 5 year occurrence total for a given class group, territory or type of policy. For Local Products/Completed Operations, separate formulas are used to calculate the credibility of the experience for each type of policy and class group versus the credibility of the experience for each state, namely $Z = \sqrt{P/15,000}$ for type of policy and class group, and $Z = \sqrt{P/5,500}$ for state (in this case, P is the 5 year occurrence total for a given state). Credibility-weighted relativities are then calculated as follows:

$$W = R^Z \quad \text{where:}$$

Z is the class group, state or type of policy credibility;
R is the class group, state or type of policy relativity;
W is the credibility-weighted relativity.

The resulting credibility-weighted relativities are then balanced to assure that the average relativity remains at unity.

INDICATED
CHANGES

The indicated changes by Type of Policy is calculated as follows:

$$\text{Indicated Change} = \frac{\text{Balanced Relativity for TOP}}{\text{Monoline Relativity}} - 1$$

COMMERCIAL PACKAGE POLICY

SECTION B: CALCULATION OF PROPOSED CHANGES
LIABILITY COVERAGES: GENERAL LIABILITY

DISTRIBUTION OF ADVISORY LOSS COST LEVEL CHANGE (EXHIBIT B8-B17)

MULTILINE
CONSIDERATIONS

The monoline relativities, the class group and state relativities which result from the aforementioned procedures are then used to generate indicated monoline classification loss cost changes. The multiline relativities, the class group and state relativities which result from the aforementioned procedures are then used to generate multiline indications that apply to the current Implicit Package Modification Factors. The indicated IPMFs are calculated as follows:

$$\text{TOP y Indicated IPMF} = \frac{(\text{TOP y Current IPMF}) \times (\text{TOP y Relativity})}{\text{Monoline relativity}}$$

For each CPP Type of Policy the indicated IPMF is subject to a minimum value of 0.50 and a maximum value of 1.50. If an indicated IPMF falls outside one of those limits, it is capped at that amount, the aggregate loss costs for that Type of Policy are adjusted to the capped IPMF level, and the entire relativity review as described above is re-performed to take this into account.

INSURANCE SERVICES OFFICE, INC.

KANSAS

COMMERCIAL PACKAGE POLICY
SUMMARY OF THIS REVIEW

TYPE OF POLICY	PROPERTY PMFS			LIABILITY PMFS			PROP. & LIAB. TOTAL
	CURRENT	CAPPED	% CHANGE	CURRENT	CAPPED	% CHANGE	% CHANGE
MOTEL/HOTEL(31)	0.92	0.88	-4.3%	0.79	0.77	-2.5%	-4.0%
APARTMENT (32)	0.99	0.99	0.0%	0.96	0.93	-3.1%	-0.4%
OFFICE (33)	0.64	0.62	-3.1%	0.74	0.76	2.7%	-1.1%
MERCANTILE (34)	0.95	0.90	-5.3%	0.95	0.92	-3.2%	-4.8%
INSTITUTION(35)	0.69	0.68	-1.4%	0.98	0.96	-2.0%	-1.5%
SERVICES (36)	0.85	0.82	-3.5%	0.98	0.98	0.0%	-2.8%
IND/PROC (37)	0.69	0.68	-1.4%	0.96	0.98	2.1%	-0.3%
CONTRACTORS(38)	0.83	0.78	-6.0%	0.85	0.84	-1.2%	-2.7%
STATEWIDE			-3.2%			-0.7%	-2.7%

INSURANCE SERVICES OFFICE, INC.

KANSAS
COMMERCIAL PACKAGE POLICY
CALCULATION OF REVISED CPP PACKAGE MODIFICATION FACTORS(PMF)

MOTEL/HOTEL(31) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	283,372	0.707	-0.5%	0.703	0.703
BASIC GRP II	460,620	1.055	-5.7%	0.995	0.995
SP CAUSE/LOSS	136,467	1.088	-4.0%	1.044	1.044
* CRIME	2,606	0.788	0.0%	0.788	0.788
* INL. MAR.	586	0.910	0.0%	0.910	0.910
* FIDELITY	19,024	1.000	0.0%	1.000	1.000
TOTAL	902,675	0.920	-4.1%	0.882	0.880
LIABILITY-					
OL&T	233,101	0.794	-3.1%	0.769	0.769
TOTAL	233,101	0.790	-2.6%	0.769	0.770

PROP. & LIAB.	1,135,776		-3.8%		-4.0%
TOTAL					

APARTMENT (32) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	437,872	0.592	0.3%	0.594	0.594
BASIC GRP II	1,829,389	1.187	-0.2%	1.185	1.185
SP CAUSE/LOSS	391,623	0.993	-3.8%	0.955	0.955
* CRIME	338	0.788	0.0%	0.788	0.788
* INL. MAR.	360	0.910	0.0%	0.910	0.910
* FIDELITY	4,095	1.000	0.0%	1.000	1.000
TOTAL	2,663,677	0.990	-0.3%	0.987	0.990
LIABILITY-					
OL&T	412,420	0.956	-2.7%	0.930	0.930
TOTAL	412,420	0.960	-3.1%	0.930	0.930

PROP. & LIAB.	3,076,097		-0.6%		-0.4%
TOTAL					

* indicates coverage for which reviews are on a MULTISTATE basis.

INSURANCE SERVICES OFFICE, INC.

KANSAS
COMMERCIAL PACKAGE POLICY
CALCULATION OF REVISED CPP PACKAGE MODIFICATION FACTORS(PMF)

OFFICE (33) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	677,486	0.772	-3.9%	0.742	0.742
BASIC GRP II	1,689,759	0.565	-5.1%	0.536	0.536
SP CAUSE/LOSS	506,745	0.823	-2.5%	0.802	0.802
* CRIME	1,768	0.788	0.0%	0.788	0.788
* INL. MAR.	21,590	0.910	0.0%	0.910	0.910
* FIDELITY	15,072	1.000	0.0%	1.000	1.000
TOTAL	2,912,420	0.640	-3.8%	0.616	0.620
LIABILITY-					
OL&T	1,540,760	0.743	2.7%	0.763	0.763
M&C	65,390	0.762	4.3%	0.795	0.795
TOTAL	1,606,150	0.740	3.3%	0.764	0.760

PROP. & LIAB. TOTAL	4,518,570		-1.3%		-1.1%

MERCANTILE (34) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	2,158,856	0.564	7.5%	0.606	0.606
BASIC GRP II	8,591,971	1.176	-6.9%	1.095	1.095
SP CAUSE/LOSS	1,489,970	0.767	-6.6%	0.716	0.716
* CRIME	16,632	0.788	0.0%	0.788	0.788
* INL. MAR.	462,908	0.910	0.0%	0.910	0.910
* FIDELITY	137,600	1.000	0.0%	1.000	1.000
TOTAL	12,857,937	0.950	-5.6%	0.897	0.900
LIABILITY-					
OL&T	2,098,419	0.965	-4.5%	0.922	0.922
M&C	542,512	1.037	1.6%	1.054	1.054
LOCAL PRODUCT	190,329	0.731	1.9%	0.745	0.745
* MULTI PRODUCT	535,532	0.853	4.2%	0.889	0.889
TOTAL	3,366,792	0.950	-2.9%	0.922	0.920

PROP. & LIAB. TOTAL	16,224,729		-5.0%		-4.8%

* indicates coverage for which reviews are on a MULTISTATE basis.

INSURANCE SERVICES OFFICE, INC.

KANSAS
 COMMERCIAL PACKAGE POLICY
 CALCULATION OF REVISED CPP PACKAGE MODIFICATION FACTORS(PMF)

INSTITUTION(35) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	3,039,690	0.560	-2.6%	0.545	0.545
BASIC GRP II	17,306,999	0.763	-2.3%	0.745	0.745
SP CAUSE/LOSS	2,386,666	0.502	-0.4%	0.500	0.500
* CRIME	24,516	0.788	0.0%	0.788	0.788
* INL. MAR.	38,584	0.910	0.0%	0.910	0.910
* FIDELITY	340,069	1.000	0.0%	1.000	1.000
TOTAL	23,136,524	0.690	-1.4%	0.681	0.680
LIABILITY-					
OL&T	1,280,880	1.169	-4.5%	1.116	1.116
M&C	254,279	0.542	8.0%	0.585	0.585
TOTAL	1,535,159	0.980	-2.3%	0.957	0.960

PROP. & LIAB.	24,671,683		-1.4%		-1.5%
TOTAL					

SERVICES (36) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	1,745,578	0.717	0.4%	0.720	0.720
BASIC GRP II	5,336,724	0.920	-4.1%	0.882	0.882
SP CAUSE/LOSS	1,188,618	0.806	-8.9%	0.734	0.734
* CRIME	9,129	0.788	0.0%	0.788	0.788
* INL. MAR.	25,147	0.910	0.0%	0.910	0.910
* FIDELITY	79,349	1.000	0.0%	1.000	1.000
TOTAL	8,384,545	0.850	-3.4%	0.821	0.820
LIABILITY-					
OL&T	766,534	0.903	-8.0%	0.831	0.831
M&C	729,737	0.940	3.8%	0.976	0.976
LOCAL PRODUCT	649,868	1.300	-5.4%	1.230	1.230
* MULTI PRODUCT	45,543	0.916	5.2%	0.964	0.964
TOTAL	2,191,682	0.980	-0.3%	0.977	0.980

PROP. & LIAB.	10,576,227		-2.8%		-2.8%
TOTAL					

* indicates coverage for which reviews are on a MULTISTATE basis.

INSURANCE SERVICES OFFICE, INC.

KANSAS
COMMERCIAL PACKAGE POLICY
CALCULATION OF REVISED CPP PACKAGE MODIFICATION FACTORS(PMF)

IND/PROC (37) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	1,385,986	0.790	4.2%	0.823	0.823
BASIC GRP II	1,978,135	0.617	-5.0%	0.586	0.586
SP CAUSE/LOSS	617,421	0.751	-2.8%	0.730	0.730
* CRIME	4,198	0.788	0.0%	0.788	0.788
* INL. MAR.	13,711	0.910	0.0%	0.910	0.910
* FIDELITY	51,619	1.000	0.0%	1.000	1.000
TOTAL	4,051,070	0.690	-1.2%	0.682	0.680
LIABILITY-					
M&C	1,320,937	1.055	1.0%	1.066	1.066
LOCAL PRODUCT	61,188	0.537	-0.1%	0.536	0.536
* MULTI PRODUCT	619,395	0.863	4.0%	0.898	0.898
TOTAL	2,001,520	0.960	2.0%	0.979	0.980

PROP. & LIAB.	6,052,590		-0.1%		-0.3%
TOTAL					

CONTRACTORS(38) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	639,079	0.655	-3.5%	0.632	0.632
BASIC GRP II	1,691,788	0.807	-7.2%	0.749	0.749
SP CAUSE/LOSS	709,045	1.168	-5.9%	1.099	1.099
* CRIME	983	0.788	0.0%	0.788	0.788
* INL. MAR.	3,215	0.910	0.0%	0.910	0.910
* FIDELITY	50,656	1.000	0.0%	1.000	1.000
TOTAL	3,094,766	0.830	-6.2%	0.779	0.780
LIABILITY-					
M&C	3,717,672	0.914	5.4%	0.963	0.963
LOCAL PRODUCT	2,900,792	0.730	-1.4%	0.720	0.720
TOTAL	6,618,464	0.850	-0.8%	0.843	0.840

PROP. & LIAB.	9,713,230		-2.5%		-2.7%
TOTAL					

* indicates coverage for which reviews are on a MULTISTATE basis.

INSURANCE SERVICES OFFICE, INC.

KANSAS
 COMMERCIAL PACKAGE POLICY
 CALCULATION OF REVISED CPP PACKAGE MODIFICATION FACTORS(PMF)

STATEWIDE *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	10,367,919	0.631	1.0%	0.637	0.637
BASIC GRP II	38,885,385	0.844	-4.0%	0.810	0.811
SP CAUSE/LOSS	7,426,555	0.692	-4.1%	0.664	0.663
* CRIME	60,170	0.788	0.0%	0.788	0.788
* INL. MAR.	566,101	0.910	0.0%	0.910	0.910
* FIDELITY	697,484	1.000	0.0%	1.000	1.000
TOTAL	58,003,614	0.779	-3.2%	0.754	0.754
LIABILITY-					
OL&T	6,332,114	0.915	-3.0%	0.888	0.888
M&C	6,630,527	0.924	4.1%	0.962	0.962
LOCAL PRODUCT	3,802,177	0.784	-1.9%	0.769	0.769
* MULTI PRODUCT	1,200,470	0.860	4.1%	0.895	0.896
TOTAL	17,965,288	0.893	-0.7%	0.886	0.886

PROP. & LIAB.	75,968,902		-2.7%		-2.7%
TOTAL					

* indicates coverage for which reviews are on a MULTISTATE basis.

INSURANCE SERVICES OFFICE, INC.

KANSAS
 COMMERCIAL PACKAGE POLICY
 CALCULATION OF REVISED CPP PACKAGE MODIFICATION FACTORS(PMF)

COMBINED PMFs

TYPE OF POLICY	CURRENT COMBINED	INDICATED COMBINED	CAPPED COMBINED
MOTEL/HOTEL(31)	0.890	0.856	0.860
APARTMENT (32)	0.980	0.979	0.980
OFFICE (33)	0.670	0.664	0.660
MERCANTILE (34)	0.950	0.902	0.900
INSTITUTION(35)	0.710	0.693	0.690
SERVICES (36)	0.880	0.849	0.850
IND/PROC (37)	0.760	0.760	0.760
CONTRACTORS(38)	0.840	0.823	0.820

NOTE: Combined PMFs are provided for informational purposes only.

INSURANCE SERVICES OFFICE, INC.

KANSAS

BASIC GROUP I RELATIVITY ANALYSIS

	(1)	(2)	(3)	(4)	(5)
	LEAST SQUARES		CREDIBILITY		
TYPE OF	FORMULA		WEIGHTED	BALANCED	INDICATED
POLICY	RELATIVITY	CREDIBILITY	RELATIVITY	RELATIVITY	CHANGE
10	0.874	0.084	0.989	0.992	
31	0.249	0.012	0.983	0.987	-0.5%
32	0.682	0.023	0.991	0.995	0.3%
33	0.216	0.034	0.949	0.953	-3.9%
34	1.804	0.102	1.062	1.066	7.5%
35	0.761	0.142	0.962	0.966	-2.6%
36	0.912	0.084	0.992	0.996	0.4%
37	1.521	0.071	1.030	1.034	4.2%
38	0.239	0.033	0.954	0.957	-3.5%

INSURANCE SERVICES OFFICE, INC.

KANSAS

SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS

	(1)	(2)	(3)	(4)	(5)
	LEAST SQUARES		CREDIBILITY		
TYPE OF	FORMULA		WEIGHTED	BALANCED	INDICATED
POLICY	RELATIVITY	CREDIBILITY	RELATIVITY	RELATIVITY	CHANGE
10	1.145	0.306	1.042	1.038	
31	1.011	0.014	1.000	0.996	-4.0%
32	1.059	0.049	1.003	0.999	-3.8%
33	1.280	0.063	1.016	1.012	-2.5%
34	0.850	0.161	0.974	0.970	-6.6%
35	-----	-----	1.038	1.034	-0.4%
36	0.673	0.130	0.950	0.946	-8.9%
37	1.177	0.077	1.013	1.009	-2.8%
38	0.805	0.087	0.981	0.977	-5.9%
CATEGORY					
1	1.025	0.678	1.017	1.007	
2	0.873	0.038	0.995	0.985	
3	0.906	0.049	0.995	0.985	
4	1.166	0.082	1.013	1.003	
5	1.443	0.038	1.014	1.004	
6	1.044	0.040	1.002	0.992	
7	0.861	0.007	0.999	0.989	
8	0.820	0.088	0.983	0.973	
9	0.875	0.067	0.991	0.981	
10	0.587	0.020	0.989	0.979	
11	0.650	0.080	0.966	0.956	
12	0.877	0.086	0.989	0.979	
13	1.187	0.047	1.008	0.998	
14	0.882	0.114	0.986	0.976	

INSURANCE SERVICES OFFICE, INC.

KANSAS

BASIC GROUP I RELATIVITY ANALYSIS

SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

TYPE OF POLICY	(1)	(2)	(3)	(4)
	ACCIDENT YEAR			
	ENDING 12/31/19	5 - YEAR	5 - YEAR	RELATIVITY
	AGGREGATE LOSS COSTS	AGGREGATE LOSS COSTS	EXPERIENCE RATIO	

ENTIRE STATE				
10 MONOLINE	1,647,752	9,181,510	0.908	0.874
31 MULTILINE MOTEL/HOTEL	283,372	1,228,783	0.259	0.249
32 MULTILINE APARTMENT	437,872	2,372,962	0.709	0.682
33 MULTILINE OFFICE	677,486	3,512,719	0.225	0.217
34 MULTILINE MERCANTILE	2,158,856	11,353,018	1.875	1.805
35 MULTILINE INSTITUTIONAL	3,039,690	16,544,750	0.791	0.761
36 MULTILINE SERVICES	1,745,578	9,113,755	0.948	0.912
37 MULTILINE INDUST/PROCESS	1,385,986	7,635,750	1.581	1.522
38 MULTILINE CONTRACTORS	<u>639,079</u>	<u>3,389,460</u>	<u>0.248</u>	<u>0.239</u>
TOTAL ALL TOPS*	12,015,671	64,332,707	1.039	1.000

* TOTALS IN COLUMNS (3) & (4) ARE AVERAGES USING COLUMN (1) AS WEIGHTS.

INSURANCE SERVICES OFFICE, INC.

KANSAS
SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS
SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 06/30/20 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) CREDIBILITY WEIGHTED EXPERIENCE RATIO	(5) CREDIBILITY WEIGHTED RELATIVITY
10 MONOLINE	01 BUILDINGS	562,794	2,941,571	1.618	1.525	1.855
	02 RES. APTS. AND COND	6,441	34,137	1.771	1.340	1.630
	03 OFFICES	45,471	237,419	0.521	0.970	1.180
	04 MERCANTILE - HIGH	67,213	342,511	0.726	1.020	1.241
	05 MERCANTILE - MEDIUM	19,185	76,079	0.541	1.033	1.257
	06 MERCANTILE - LOW	17,357	71,338	0.073	0.914	1.112
	07 MOTELS AND HOTELS	2,220	15,559	0.492	1.046	1.273
	08 INSTITUTIONAL - HIG	30,086	126,019	0.117	0.892	1.085
	09 INSTITUTIONAL - LOW	13,890	110,226	0.093	0.894	1.088
	10 INDUST-PROC - HIGH	3,824	14,488	0.125	0.965	1.174
	11 INDUST-PROC - LOW	45,253	225,723	0.253	0.883	1.074
	12 SERVICE - HIGH	23,501	139,019	0.528	1.006	1.224
	13 SERVICE - LOW	44,710	202,015	0.563	0.996	1.212
	14 CONTRACTORS	19,441	121,132	0.854	1.106	1.345
	TOTAL*	901,386	4,657,236	1.196	1.320	1.606
31 MULTILINE	01 BUILDINGS	117,075	489,571	0.840	0.828	1.007
MOTEL/HOTEL	07 MOTELS AND HOTELS	19,392	83,244	0.000	0.728	0.886
	TOTAL*	136,467	572,815	0.721	0.814	0.990
32 MULTILINE	01 BUILDINGS	282,216	1,490,528	0.960	0.871	1.060
APARTMENT	02 RES. APTS. AND COND	109,407	550,696	0.454	0.749	0.911
	TOTAL*	391,623	2,041,224	0.819	0.837	1.018
33 MULTILINE	01 BUILDINGS	419,083	2,216,237	1.383	1.055	1.283
OFFICE	03 OFFICES	85,967	478,960	1.340	0.924	1.124
	04 MERCANTILE - HIGH	305	1,180	0.000	0.743	0.904
	08 INSTITUTIONAL - HIG	1,151	6,246	0.000	0.742	0.903
	12 SERVICE - HIGH	111	2,666	0.000	0.742	0.903
	14 CONTRACTORS	128	529	0.000	0.743	0.904
	TOTAL*	506,745	2,705,818	1.371	1.032	1.255

INSURANCE SERVICES OFFICE, INC.

KANSAS
SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS
SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 06/30/20 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) CREDIBILITY WEIGHTED EXPERIENCE RATIO	(5) CREDIBILITY WEIGHTED RELATIVITY
-----	-----	-----	-----	-----	-----	-----
34 MULTILINE MERCANTILE	01 BUILDINGS	1,099,701	5,578,715	0.629	0.705	0.858
	03 OFFICES	1,310	7,859	2.530	0.998	1.214
	04 MERCANTILE - HIGH	175,144	944,149	0.889	0.842	1.024
	05 MERCANTILE - MEDIUM	97,176	499,929	1.634	0.984	1.197
	06 MERCANTILE - LOW	96,869	539,798	0.376	0.734	0.893
	08 INSTITUTIONAL - HIGH	364	1,372	0.000	0.743	0.904
	11 INDUST-PROC - LOW	16	67	0.000	0.743	0.904
	12 SERVICE - HIGH	3,372	14,335	0.359	0.777	0.945
	13 SERVICE - LOW	1,420	6,699	0.000	0.742	0.903
	14 CONTRACTORS	14,598	80,531	0.000	0.729	0.887
	TOTAL*	1,489,970	7,673,454	0.703	0.742	0.903
35 MULTILINE INSTITUTIONAL	01 BUILDINGS	1,980,241	10,778,929	0.808	0.812	0.988
	03 OFFICES	599	2,028	0.000	0.742	0.903
	04 MERCANTILE - HIGH	152	769	0.000	0.743	0.904
	06 MERCANTILE - LOW	26	112	0.000	0.743	0.904
	08 INSTITUTIONAL - HIGH	224,162	1,262,369	0.644	0.769	0.936
	09 INSTITUTIONAL - LOW	180,369	944,275	0.775	0.812	0.988
	11 INDUST-PROC - LOW	13	135	0.000	0.743	0.904
	12 SERVICE - HIGH	64	1,416	0.000	0.743	0.904
	13 SERVICE - LOW	221	964	0.263	0.769	0.936
	14 CONTRACTORS	819	4,730	0.000	0.742	0.903
	TOTAL*	2,386,666	12,995,727	0.789	0.808	0.983
36 MULTILINE SERVICES	01 BUILDINGS	813,593	4,079,490	0.517	0.568	0.691
	03 OFFICES	2,424	12,664	0.000	0.589	0.717
	04 MERCANTILE - HIGH	1,198	20,119	0.000	0.587	0.714
	05 MERCANTILE - MEDIUM	3,107	8,882	0.000	0.589	0.717
	06 MERCANTILE - LOW	1,303	6,356	0.000	0.590	0.718
	08 INSTITUTIONAL - HIGH	9,256	50,582	0.000	0.581	0.707
	09 INSTITUTIONAL - LOW	4,296	20,110	0.000	0.587	0.714
	11 INDUST-PROC - LOW	481	2,361	0.000	0.591	0.719
	12 SERVICE - HIGH	241,795	1,233,828	0.209	0.488	0.594
	13 SERVICE - LOW	104,855	521,273	1.065	0.756	0.920
	14 CONTRACTORS	6,310	36,776	0.000	0.583	0.709
	TOTAL*	1,188,618	5,992,441	0.490	0.569	0.692

INSURANCE SERVICES OFFICE, INC.

KANSAS
SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS
SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 06/30/20 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) CREDIBILITY WEIGHTED EXPERIENCE RATIO	(5) CREDIBILITY WEIGHTED RELATIVITY
-----	-----	-----	-----	-----	-----	-----
37 MULTILINE INDUST/PROC	01 BUILDINGS	381,919	1,964,560	1.379	0.998	1.214
	03 OFFICES	14	1,386	0.000	0.591	0.719
	04 MERCANTILE - HIGH	33	746	0.000	0.591	0.719
	08 INSTITUTIONAL - HIG	76	276	0.000	0.591	0.719
	10 INDUST-PROC - HIGH	47,244	284,404	0.183	0.570	0.693
	11 INDUST-PROC - LOW	186,083	1,076,857	0.565	0.625	0.760
	12 SERVICE - HIGH	1,030	7,040	0.000	0.590	0.718
	13 SERVICE - LOW	103	4,892	0.000	0.590	0.718
	14 CONTRACTORS	919	2,460	0.000	0.591	0.719
	TOTAL*	617,421	3,342,621	1.037	0.851	1.036
38 MULTILINE CONTRACTORS	01 BUILDINGS	392,957	2,022,033	0.709	0.682	0.830
	03 OFFICES	4,735	34,625	0.386	0.627	0.763
	04 MERCANTILE - HIGH	5,500	34,187	0.000	0.584	0.710
	05 MERCANTILE - MEDIUM	276	987	0.000	0.591	0.719
	06 MERCANTILE - LOW	514	4,620	0.000	0.590	0.718
	08 INSTITUTIONAL - HIG	1,050	5,733	0.000	0.590	0.718
	11 INDUST-PROC - LOW	255	2,109	0.000	0.591	0.719
	12 SERVICE - HIGH	3,771	20,150	3.103	0.917	1.116
	13 SERVICE - LOW	306	1,589	0.000	0.591	0.719
	14 CONTRACTORS	299,681	1,681,019	0.496	0.586	0.713
	TOTAL*	709,045	3,807,052	0.622	0.641	0.780
TOTAL ALL TOPS*	01 BUILDINGS	6,049,579	31,561,634	0.889	0.849	1.033
	02 RES. APTS. AND COND	115,848	584,833	0.527	0.782	0.951
	03 OFFICES	140,520	774,941	1.025	0.923	1.123
	04 MERCANTILE - HIGH	249,545	1,343,661	0.819	0.883	1.074
	05 MERCANTILE - MEDIUM	119,744	585,877	1.413	0.981	1.193
	06 MERCANTILE - LOW	116,069	622,224	0.325	0.759	0.923
	07 MOTELS AND HOTELS	21,612	98,803	0.051	0.761	0.925
	08 INSTITUTIONAL - HIG	266,145	1,452,597	0.556	0.776	0.943
	09 INSTITUTIONAL - LOW	198,555	1,074,611	0.711	0.813	0.989
	10 INDUST-PROC - HIGH	51,068	298,892	0.179	0.599	0.729
	11 INDUST-PROC - LOW	232,101	1,307,252	0.502	0.675	0.821
	12 SERVICE - HIGH	273,644	1,418,454	0.277	0.543	0.660
	13 SERVICE - LOW	151,615	737,432	0.903	0.826	1.005
	14 CONTRACTORS	341,896	1,927,177	0.483	0.622	0.757
	TOTAL*	8,327,941	43,788,388	0.815	0.822	1.000

* TOTALS IN COLUMNS (3), (4) & (5) ARE AVERAGES USING COLUMN (1) AS WEIGHTS.

INSURANCE SERVICES OFFICE, INC.

KANSAS

BASIC GROUP II RELATIVITY ANALYSIS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	ACCIDENT YEAR ENDING 06/30/20 AGGR. LOSS COSTS AT CURRENT IMPLICIT PMF	ACCIDENT YEARS 2011 - 2020 EXPER. RATIO AT CURRENT PMF	FORMULA RELATIVITY (2)/ 0.946	CREDIBILITY C	CREDIBILITY WEIGHTED RELATIVITY D	BALANCED FORMULA RELATIVITY E	NORMALIZED FORMULA RELATIVITY F	INDICATED CHANGE
	-----	-----	-----	-----	-----	-----	-----	-----
MONOLINE	3,472,614	1.0160	1.0740	0.4780	1.036	1.0360	1.0377	
MULTILINE	38,885,385	0.9400	0.9940	0.9090	0.995	0.9950	0.9964	
	-----	-----	-----	-----	-----	-----	-----	
COVERAGE	42,357,999	0.9460	1.0010			0.9984	0.9998	
MULTILINE TOP								
31 MOTEL/HOTEL	460,620	0.7430	0.7850	0.0820	0.983	0.9770	0.9786	-5.7%
32 APARTMENT	1,829,389	1.0460	1.1060	0.3700	1.040	1.0340	1.0357	-0.2%
33 OFFICE	1,689,759	0.9050	0.9570	0.2660	0.989	0.9830	0.9846	-5.1%
34 MERCANTILE	8,591,971	0.9030	0.9550	0.6570	0.971	0.9650	0.9665	-6.9%
35 INSTITUTIONAL	17,306,999	0.9660	1.0210	0.8290	1.018	1.0120	1.0136	-2.3%
36 SERVICES	5,336,724	0.9450	0.9990	0.5650	1.000	0.9940	0.9956	-4.1%
37 INDUST/PROCESS	1,978,135	0.9150	0.9670	0.3100	0.990	0.9840	0.9856	-5.0%
38 CONTRACTORS	1,691,788	0.8410	0.8890	0.3020	0.967	0.9610	0.9625	-7.2%
	-----	-----	-----	-----	-----	-----	-----	
	38,885,385	0.9400	0.9930		1.0010	0.9950	0.9964	

C - CREDIBILITY = P/(P+K) WHERE P REPRESENTS THE TOTAL 10 YEAR ADJUSTED LOSS COSTS AND K = 45,000,000

D - (5) = (3) * (4) + (1.000 - (4))

E - (6) = (5) * (0.995/1.001)

F - (7) = (6) / 0.9984

INSURANCE SERVICES OFFICE, INC.

KANSAS
OWNERS, LANDLORDS AND TENANTS
BASIC LIMIT RELATIVE CHANGE ANALYSIS

TYPE OF POLICY	(1) BAILEY FORMULA	(2) CREDIBILITY	(3) WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	(5) INDICATED CHANGE
	RELATIVITY	CREDIBILITY	RELATIVITY	RELATIVITY	CHANGE
10	1.151	0.157	1.022	1.023	
31	0.864	0.064	0.991	0.991	-3.1%
32	0.909	0.054	0.995	0.995	-2.7%
33	1.515	0.118	1.050	1.051	2.7%
34	0.829	0.126	0.977	0.977	-4.5%
35	0.855	0.155	0.976	0.977	-4.5%
36	0.492	0.087	0.940	0.941	-8.0%
CLASS GROUP					
1	1.830	0.052	1.032	1.036	
2	0.669	0.096	0.962	0.966	
3	0.680	0.067	0.974	0.979	
4	3.192	0.021	1.025	1.029	
5	0.095	0.011	0.974	0.981	
6	0.906	0.033	0.997	1.001	
7	1.709	0.082	1.045	1.048	
8	1.138	0.030	1.004	1.008	
9	0.758	0.084	0.977	0.981	
10	1.280	0.141	1.035	1.039	
11	0.999	0.080	1.000	1.004	
12	0.862	0.162	0.976	0.980	
13	1.554	0.054	1.024	1.028	
16	0.919	0.074	0.994	0.998	
TERRITORY					
501	0.923	0.175	0.986	0.986	
502	1.048	0.250	1.012	1.011	

INSURANCE SERVICES OFFICE, INC.

KANSAS

MANUFACTURERS AND CONTRACTORS

BASIC LIMIT RELATIVE CHANGE ANALYSIS

TYPE OF POLICY	(1)	(2)	(3)	(4)	(5)
	BAILEY FORMULA RELATIVITY	CREDIBILITY	CREDIBILITY WEIGHTED RELATIVITY	BALANCED RELATIVITY	INDICATED CHANGE
10	0.885	0.169	0.980	0.979	
33	2.332	0.026	1.022	1.021	4.3%
34	0.921	0.061	0.995	0.995	1.6%
35	2.025	0.079	1.057	1.057	8.0%
36	1.179	0.099	1.016	1.016	3.8%
37	0.852	0.064	0.990	0.989	1.0%
38	1.187	0.185	1.032	1.032	5.4%
CLASS GROUP					
30	0.696	0.075	0.973	0.987	
31	1.104	0.126	1.013	1.027	
32	0.797	0.198	0.956	0.970	
33	1.001	0.100	1.000	1.014	
34	1.196	0.079	1.014	1.028	
35	1.715	0.021	1.011	1.026	
36	1.193	0.055	1.010	1.024	
37	0.545	0.037	0.978	0.992	
38	2.338	0.075	1.066	1.081	

INSURANCE SERVICES OFFICE, INC.

KANSAS
OWNERS, LANDLORDS, AND TENANTS
SUMMARY OF EXPERIENCE USED IN BASIC LIMIT RELATIVE CHANGE ANALYSIS

TERRITORY ALL		(1)	(2)	(3)	(4)	(5)	(6)
TYPE OF POLICY	CLASS GROUP	CALENDAR A.Y.E. 06/30/20 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2016-2020 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIVITY	NUMBER OF OCCURRENCES	BAL CELL RELATIVITY
10 MONOLINE	01 FOOD&BEV.(RETAIL)	\$43,771	\$243,379	1.268		10	
	02 RESTAURANTS	\$114,650	\$945,721	0.439		51	
	03 STORES	\$168,872	\$876,417	0.427		22	
	04 VENDING & RENTAL	\$3,317	\$16,223	0.223		1	
	05 FOOD & BEV. DIST.	\$6,854	\$46,162	0.223		0	
	06 NON-FOOD&BEV.DIST	\$32,308	\$183,393	0.043		3	
	07 CLUBS,AMSMT&SPRTS	\$125,699	\$653,443	3.281		59	
	08 HEALTH CARE FACIL	\$19,827	\$151,988	3.311		6	
	09 HOTELS AND MOTELS	\$84,458	\$669,427	0.872		50	
	10 SCHLS & CHURCHES	\$150,145	\$623,513	1.073		37	
	11 APARTMENTS	\$391,932	\$1,710,359	1.168		65	
	12 BUILDINGS&OFFICES	\$447,726	\$2,570,332	1.267		127	
	13 MISC. PREMISES	\$24,202	\$253,497	1.437		6	
	16 GOVT SUBDIVISIONS	\$8,867	\$47,075	1.526		9	
	TOTAL *	\$1,622,628	\$8,990,929	1.213		446	
31 MULT MOTEL/HOTEL	09 HOTELS AND MOTELS	\$147,439	\$843,961	0.689		74	
	TOTAL *	\$147,439	\$843,961	0.689		74	
32 MULT APARTMENT	11 APARTMENTS	\$239,946	\$1,164,125	1.012		49	
	12 BUILDINGS&OFFICES	\$20,914	\$97,187	0.135		4	
	TOTAL *	\$260,860	\$1,261,312	0.942		53	
33 MULT OFFICE	12 BUILDINGS&OFFICES	\$962,892	\$4,953,603	1.349		249	
	13 MISC. PREMISES	\$11,656	\$61,040	3.911		2	
	TOTAL *	\$974,548	\$5,014,643	1.379		251	
34 MULT MERCANTILE	01 FOOD&BEV.(RETAIL)	\$128,918	\$603,154	1.939		39	
	02 RESTAURANTS	\$533,340	\$2,051,635	0.659		114	
	03 STORES	\$311,132	\$1,428,123	0.409		52	
	04 VENDING & RENTAL	\$5,144	\$29,780	2.448		2	
	05 FOOD & BEV. DIST.	\$14,035	\$87,529	0.027		2	
	06 NON-FOOD&BEV.DIST	\$83,362	\$375,180	1.196		17	
	12 BUILDINGS&OFFICES	\$251,342	\$1,562,557	0.498		62	
	TOTAL *	\$1,327,273	\$6,137,958	0.728		288	
35 MULT INSTITUT.	07 CLUBS,AMSMT&SPRTS	\$14,736	\$37,687	0.471		3	
	08 HEALTH CARE FACIL	\$86,097	\$447,738	0.606		10	
	10 SCHLS & CHURCHES	\$502,004	\$2,790,456	1.315		320	
	12 BUILDINGS&OFFICES	\$17,070	\$87,226	0.209		9	
	13 MISC. PREMISES	\$2,709	\$15,721	0.024		1	
	16 GOVT SUBDIVISIONS	\$187,555	\$1,342,976	0.847		90	
	TOTAL *	\$810,171	\$4,721,804	1.088		433	

INSURANCE SERVICES OFFICE, INC.

KANSAS
OWNERS, LANDLORDS, AND TENANTS
SUMMARY OF EXPERIENCE USED IN BASIC LIMIT RELATIVE CHANGE ANALYSIS

TERRITORY ALL		(1) CALENDAR A.Y.E. 06/30/20 AGGREGATE LOSS COSTS AT CURRENT LEVEL	(2) CALENDAR A.Y.E. 2016-2020 AGG LOSS COST CURRENT LEVEL	(3) FIVE YEAR EXPERIENCE RATIO	(4) RELATIVITY	(5) NUMBER OF OCCURRENCES	(6) BAL CELL RELATIVITY
TYPE OF POLICY	CLASS GROUP						
36 MULT SERVICES	03 STORES	\$18,247	\$96,920	6.622		6	
	04 VENDING & RENTAL	\$40,514	\$155,949	1.912		5	
	07 CLUBS,AMSMT&SPRTS	\$249,507	\$1,358,845	0.38		58	
	08 HEALTH CARE FACIL	\$511	\$2,866	0		0	
	09 HOTELS AND MOTELS	\$10,341	\$75,386	0.761		2	
	10 SCHLS & CHURCHES	\$200	\$1,100	0		0	
	12 BUILDINGS&OFFICES	\$75,327	\$423,478	0.441		21	
	13 MISC. PREMISES	\$90,194	\$334,785	0.767		44	
	TOTAL *	\$484,841	\$2,449,329	0.832		136	
TOTAL ALL TOP	01 FOOD&BEV.(RETAIL)	\$172,689	\$846,533	1.769		49	
	02 RESTAURANTS	\$647,990	\$2,997,356	0.62		165	
	03 STORES	\$498,251	\$2,401,460	0.643		80	
	04 VENDING & RENTAL	\$48,975	\$201,952	1.854		8	
	05 FOOD & BEV. DIST.	\$20,889	\$133,691	0.091		2	
	06 NON-FOOD&BEV.DIST	\$115,670	\$558,573	0.874		20	
	07 CLUBS,AMSMT&SPRTS	\$389,942	\$2,049,975	1.318		120	
	08 HEALTH CARE FACIL	\$106,435	\$602,592	1.107		16	
	09 HOTELS AND MOTELS	\$242,238	\$1,588,774	0.756		126	
	10 SCHLS & CHURCHES	\$652,349	\$3,415,069	1.259		357	
	11 APARTMENTS	\$631,878	\$2,874,484	1.109		114	
	12 BUILDINGS&OFFICES	\$1,775,271	\$9,694,383	1.144		472	
	13 MISC. PREMISES	\$128,761	\$665,043	1.162		53	
	16 GOVT SUBDIVISIONS	\$196,422	\$1,390,051	0.877		99	
	TOTAL *	\$5,627,760	\$29,419,936	1.05		1,681	

* TOTALS IN COLUMNS (3) ARE AVERAGES USING COLUMN (1) AS WEIGHTS.

INSURANCE SERVICES OFFICE, INC.

KANSAS
MANUFACTURERS AND CONTRACTORS
SUMMARY OF EXPERIENCE USED IN BASIC LIMIT RELATIVE CHANGE ANALYSIS

TYPE OF POLICY	CLASS GROUP	(1)	(2)	(3)	(4)	(5)	(6)
		CALENDAR A.Y.E. 06/30/20 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2016-2020 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIVITY	NUMBER OF OCCURRENCES	BAL CELL RELATIVITY
10 MONOLINE	30 SERVICE	\$186,357	\$1,014,037	0.807	0.813	23	0.966
	31 LIGHT CONTRACTING	\$395,538	\$1,635,595	1.004	1.011	109	1.005
	32 MEDIUM CONTRCTING	\$1,831,635	\$7,990,378	0.565	0.569	231	0.949
	33 HEAVY CONTRACTING	\$636,871	\$3,184,666	0.486	0.49	60	0.993
	34 DEALER OR DISTRIB	\$272,268	\$1,316,143	1.644	1.656	31	1.007
	35 LGT. MANUFACTURER	\$27,300	\$109,991	1.606	1.617	2	1.004
	36 MED. MANUFACTURER	\$279,346	\$1,272,724	1.866	1.88	26	1.003
	37 HVY. MANUFACTURER	\$157,204	\$743,483	0.055	0.056	5	0.971
	38 MISC. OPERATION	\$118,482	\$528,893	3.082	3.104	30	1.058
	TOTAL *	\$3,905,001	\$17,795,910	0.84		517	
33 MULT OFFICE	31 LIGHT CONTRACTING	\$1,297	\$12,365	1.333	1.342	5	1.049
	32 MEDIUM CONTRACTING	\$3,498	\$14,138	0	0	0	0.99
	33 HEAVY CONTRACTING	\$16,858	\$98,914	5.91	5.951	2	1.036
	38 MISC. OPERATION	\$19,707	\$108,264	2.75	2.769	5	1.104
	TOTAL *	\$41,360	\$233,681	3.761		12	
34 MULT MERCANTILE	30 SERVICE	\$21,823	\$81,224	0.372	0.374	5	0.982
	32 MEDIUM CONTRCTING	\$23,254	\$141,183	1.45	1.46	6	0.964
	34 DEALER OR DISTRIB	\$270,044	\$1,414,336	0.905	0.911	48	1.023
	36 MED. MANUFACTURER	\$0	\$21	0	0	0	1.018
	38 MISC. OPERATION	\$28,024	\$87,674	3.574	3.599	9	1.075
	TOTAL *	\$343,145	\$1,724,438	1.126		68	
35 MULT INSTITUT.	31 LIGHT CONTRACTING	\$614	\$1,869	0	0	0	1.085
	32 MEDIUM CONTRCTING	\$160,220	\$727,537	1.612	1.623	113	1.025
	TOTAL *	\$160,834	\$729,406	1.605		113	
36 MULT SERVICES	30 SERVICE	\$38,784	\$152,655	0.855	0.861	17	1.003
	31 LIGHT CONTRACTING	\$66,203	\$552,052	0.753	0.758	17	1.043
	32 MEDIUM CONTRCTING	\$26,217	\$136,134	0.898	0.904	9	0.985
	33 HEAVY CONTRACTING	\$52,250	\$284,484	4.718	4.751	42	1.03
	34 DEALER OR DISTRIB	\$136,861	\$641,799	0.605	0.609	32	1.045
	36 MED. MANUFACTURER	\$3,380	\$19,982	0.067	0.068	1	1.04
	38 MISC. OPERATION	\$137,872	\$725,092	2.47	2.488	58	1.098
	TOTAL *	\$461,567	\$2,512,198	1.683		176	

INSURANCE SERVICES OFFICE, INC.

KANSAS
MANUFACTURERS AND CONTRACTORS
SUMMARY OF EXPERIENCE USED IN BASIC LIMIT RELATIVE CHANGE ANALYSIS

TYPE OF POLICY	CLASS GROUP	(1)	(2)	(3)	(4)	(5)	(6)
		CALENDAR A.Y.E. 06/30/20 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2016-2020 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIVITY	NUMBER OF OCCURRENCES	BAL CELL RELATIVITY
37 MULT INDUST/PROC	31 LIGHT CONTRACTING	\$439	\$992	0	0	0	1.016
	32 MEDIUM CONTRCTING	\$55,276	\$312,996	0.12	0.121	8	0.959
	33 HEAVY CONTRACTING	\$101,205	\$472,225	2.82	2.84	13	1.004
	34 DEALER OR DISTRIB	\$1,360	\$5,075	0	0	0	1.018
	35 LGT. MANUFACTURER	\$24,204	\$134,814	1.338	1.347	6	1.015
	36 MED. MANUFACTURER	\$403,192	\$2,143,342	0.454	0.457	27	1.013
	37 HVY. MANUFACTURER	\$246,319	\$1,139,255	0.731	0.736	20	0.981
	38 MISC. OPERATION	\$3,512	\$19,170	0	0	0	1.069
	TOTAL *	\$835,507	\$4,227,869	0.823		74	
38 MULT CONTRACTORS	30 SERVICE	\$331,057	\$1,985,651	0.723	0.728	57	1.018
	31 LIGHT CONTRACTING	\$516,716	\$2,716,165	1.352	1.361	155	1.06
	32 MEDIUM CONTRCTING	\$1,068,290	\$5,870,826	1.191	1.199	341	1
	33 HEAVY CONTRACTING	\$411,508	\$2,534,599	0.705	0.71	62	1.046
	38 MISC. OPERATION	\$23,898	\$134,949	0	0	0	1.115
	TOTAL *	\$2,351,469	\$13,242,190	1.063		615	
TOTAL ALL TOP	30 SERVICE	\$578,021	\$3,233,567	0.746		102	
	31 LIGHT CONTRACTING	\$980,807	\$4,919,038	1.17		286	
	32 MEDIUM CONTRCTING	\$3,168,390	\$15,193,192	0.83		708	
	33 HEAVY CONTRACTING	\$1,218,692	\$6,574,888	1.01		179	
	34 DEALER OR DISTRIB	\$680,533	\$3,377,353	1.138		111	
	35 LGT. MANUFACTURER	\$51,504	\$244,805	1.48		8	
	36 MED. MANUFACTURER	\$685,918	\$3,436,069	1.027		54	
	37 HVY. MANUFACTURER	\$403,523	\$1,882,738	0.468		25	
	38 MISC. OPERATION	\$331,495	\$1,604,042	2.594		102	
	TOTAL *	\$8,098,883	\$40,465,692	0.993		1,575	

* TOTALS IN COLUMNS (3) ARE AVERAGES USING COLUMN (1) AS WEIGHTS.

INSURANCE SERVICES OFFICE, INC.

KANSAS
PRODUCTS
BASIC LIMIT RELATIVE CHANGE ANALYSIS

TYPE OF POLICY	(1) BAILEY FORMULA RELATIVITY	(2) CREDIBILITY	(3) CREDIBILITY WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	(5) INDICATED CHANGE
10	0.928	0.343	0.975	0.975	
34	1.065	0.358	1.023	1.023	4.9%
36	1.147	0.179	1.025	1.025	5.1%
37	1.002	0.474	1.001	1.001	2.7%
CLASS GROUP					
3	1.020	0.457	1.009	1.013	
4	0.934	0.390	0.974	0.977	
5	1.299	0.127	1.034	1.037	
6	1.020	0.312	1.006	1.010	
7	0.986	0.168	0.998	1.001	

NOTE: THE INDICATED CHANGES BY TOP WERE FURTHER ADJUSTED BY THE FOLLOWING
DIFFERENTIALS: TOP 34: 0.993
TOP 36: 1.001
TOP 37: 1.013

INSURANCE SERVICES OFFICE, INC.

MULTISTATE
PRODUCTS
SUMMARY OF EXPERIENCE USED IN BASIC LIMIT RELATIVE CHANGE ANALYSIS

TYPE OF POLICY	CLASS GROUP	(1)	(2)	(3)	(4)	(5)	(6)
		CALENDAR A.Y.E. 12/31/2019 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2015 - 2019 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIVITY	NUMBER OF OCCURRENCES	BAL CELL RELATIVITY
10 MONOLINE	03 MAN,DLR,DSTFD/DRG	13,750,935	66,100,554	0.988	0.977	1,263	0.987
	04 DLR,DST-NOTFD/DRG	8,477,615	41,310,448	0.911	0.900	460	0.952
	05 MAN.NTFD/DRG(LOW)	1,472,878	6,420,923	1.025	1.013	73	1.011
	06 MAN.NTFD/DRG(MED)	9,010,398	41,539,850	0.977	0.966	500	0.984
	07 MAN.NTFD/DRG(HGH)	2,241,335	11,290,085	0.650	0.643	59	0.976
	TOTAL *	34,953,161	166,661,860	0.947		2,355	
34 MULT MERCANTILE	03 MAN,DLR,DSTFD/DRG	4,329,151	22,382,753	1.183	1.169	619	1.036
	04 DLR,DST-NOTFD/DRG	27,418,064	130,792,947	0.993	0.982	1,940	1.000
	06 MAN.NTFD/DRG(MED)	8,530	45,329	0.000	0.000	-	1.033
	TOTAL *	31,755,745	153,221,029	1.019		2,559	
36 MULT SERVICES	04 DLR,DST-NOTFD/DRG	3,121,637	14,216,143	1.102	1.090	644	1.002
	06 MAN.NTFD/DRG(MED)	48,702	226,631	0.000	0.000	-	1.035
	TOTAL *	3,170,339	14,442,774	1.085		644	
37 MULT INDUST/PROC.	03 MAN,DLR,DSTFD/DRG	12,807,039	61,610,215	0.973	0.962	2,291	1.014
	05 MAN.NTFD/DRG(LOW)	3,340,860	17,802,968	1.402	1.386	250	1.039
	06 MAN.NTFD/DRG(MED)	26,492,844	125,759,189	1.030	1.018	1,448	1.011
	07 MAN.NTFD/DRG(HGH)	6,306,324	31,298,086	1.098	1.085	508	1.002
	TOTAL *	48,947,067	236,470,458	1.049		4,497	
TOTAL ALL TOP	03 MAN,DLR,DSTFD/DRG	30,887,125	150,093,522	1.009		4,173	
	04 DLR,DST-NOTFD/DRG	39,017,316	186,319,538	0.984		3,044	
	05 MAN.NTFD/DRG(LOW)	4,813,738	24,223,891	1.287		323	
	06 MAN.NTFD/DRG(MED)	35,560,474	167,570,999	1.015		1,948	
	07 MAN.NTFD/DRG(HGH)	8,547,659	42,588,171	0.980		567	
	TOTAL *	118,826,312	570,796,121	1.012		10,055	

* TOTALS IN COLUMN (3) ARE AVERAGES USING COLUMN (1) AS WEIGHTS.

INSURANCE SERVICES OFFICE, INC.

KANSAS

LOCAL PRODUCTS/COMPLETED OPERATIONS

BASIC LIMIT RELATIVE CHANGE ANALYSIS

TYPE OF POLICY	(1) BAILEY FORMULA	(2) CREDIBILITY	(3) CREDIBILITY WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	(5) INDICATED CHANGE
	RELATIVITY	CREDIBILITY	RELATIVITY	RELATIVITY	CHANGE
10	1.013	0.781	1.010	1.009	
34	1.059	0.502	1.029	1.028	1.9%
36	0.919	0.535	0.956	0.955	-5.4%
37	1.063	0.143	1.009	1.008	-0.1%
38	0.996	0.991	0.996	0.995	-1.4%
CLASS GROUP					
1	0.808	0.501	0.899	0.894	
2	0.989	0.512	0.994	0.989	
11	1.091	0.353	1.031	1.026	
12	1.018	1.000	1.018	1.012	
13	0.822	0.264	0.950	0.945	

MULTISTATE
LOCAL PRODUCTS/COMPLETED OPERATIONS
BASIC LIMIT RELATIVE CHANGE ANALYSIS *

STATE	(1)	(2)	(3)	(4)
	BAILEY	CREDIBILITY	CREDIBILITY	
	FORMULA		WEIGHTED	BALANCED
	RELATIVITY	RELATIVITY	RELATIVITY	RELATIVITY
	1.280	0.407	1.106	1.105
	1.227	0.480	1.103	1.103
	1.218	0.458	1.094	1.094
	1.437	0.240	1.091	1.091
	1.303	0.278	1.076	1.076
	1.118	0.581	1.067	1.067
	1.360	0.161	1.051	1.050
	1.190	0.265	1.047	1.047
	1.208	0.202	1.039	1.039
	1.077	0.482	1.036	1.036
	1.362	0.116	1.036	1.036
	1.171	0.145	1.023	1.023
	1.102	0.196	1.019	1.019
	1.048	0.380	1.018	1.018
	1.052	0.299	1.015	1.015
	1.047	0.330	1.015	1.015
	1.077	0.174	1.013	1.013
	1.035	0.362	1.012	1.012
	1.048	0.250	1.012	1.011
	1.031	0.324	1.010	1.009
	1.049	0.135	1.006	1.006
	1.010	0.415	1.004	1.004
	1.020	0.177	1.004	1.003
	1.007	0.567	1.004	1.003
	1.020	0.155	1.003	1.003
	1.025	0.098	1.002	1.002
	0.992	0.454	0.997	0.996
	0.990	0.469	0.995	0.995
	0.975	0.380	0.990	0.990
	0.935	0.230	0.985	0.984
	0.888	0.133	0.984	0.984
Kansas	0.926	0.238	0.982	0.982
	0.971	0.595	0.983	0.982
	0.895	0.190	0.979	0.979
	0.684	0.055	0.979	0.979
	0.931	0.383	0.973	0.972
	0.812	0.165	0.966	0.966
	0.867	0.237	0.967	0.966
	0.734	0.160	0.952	0.951
	0.859	0.336	0.950	0.950
	0.896	0.470	0.950	0.949
	0.876	0.406	0.948	0.947
	0.918	0.645	0.946	0.946
	0.887	0.489	0.943	0.943
	0.776	0.230	0.943	0.943
	0.822	0.300	0.943	0.943
	0.796	0.267	0.941	0.941
	0.088	0.035	0.919	0.918
	0.800	0.387	0.917	0.917
	0.644	0.196	0.917	0.917
	0.757	0.314	0.916	0.916
	0.619	0.293	0.869	0.869

* Sorted by balanced relative change

INSURANCE SERVICES OFFICE, INC.

KANSAS
LOCAL PRODUCTS/COMPLETED OPERATIONS
SUMMARY OF EXPERIENCE USED IN BASIC LIMIT RELATIVE CHANGE ANALYSIS

TYPE OF POLICY	CLASS GROUP	(1)	(2)	(3)	(4)	(5)	(6)
		CALENDAR A.Y.E. 06/30/20 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2016-2020 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIV.	NUMBER OF OCCURRENCES	BAL CELL RELATIV.
10 MONOLINE	01 RET.STRS-FOOD/DRG	\$28,757	\$121,507	0.455	0.419	8	0.886
	02 RET.STRS-NTFD/DRG	\$29,377	\$162,841	2.663	2.451	5	0.98
	11 COMP. OPS. (LOW)	\$45,290	\$243,592	0.468	0.431	6	1.016
	12 COMP. OPS. (MED)	\$1,081,854	\$5,354,615	0.74	0.681	60	1.003
	13 COMP. OPS. (HGH)	\$105,598	\$519,402	1.179	1.085	6	0.936
	TOTAL *	\$1,290,876	\$6,401,957	0.804		85	
34 MULT MERCANTILE	01 RET.STRS-FOOD/DRG	\$47,556	\$180,879	0.624	0.574	17	0.902
	02 RET.STRS-NTFD/DRG	\$39,716	\$169,864	0.407	0.375	5	0.998
	12 COMP. OPS. (MED)	\$23,772	\$95,348	2.966	2.73	1	1.022
	TOTAL *	\$111,044	\$446,091	1.048		23	
36 MULT SERVICES	01 RET.STRS-FOOD/DRG	\$12,986	\$60,651	0.244	0.225	1	0.838
	02 RET.STRS-NTFD/DRG	\$229,424	\$868,393	0.611	0.562	25	0.927
	11 COMP. OPS. (LOW)	\$63,187	\$285,907	1.405	1.294	14	0.962
	12 COMP. OPS. (MED)	\$61,534	\$223,354	0.756	0.696	11	0.949
	13 COMP. OPS. (HGH)	\$12,022	\$73,826	0	0	0	0.886
	TOTAL *	\$379,153	\$1,512,131	0.735		51	
37 MULT INDUST/PROC.	01 RET.STRS-FOOD/DRG	\$3,304	\$15,790	0	0	0	0.884
	11 COMP. OPS. (LOW)	\$660	\$3,959	0.697	0.642	1	1.015
	12 COMP. OPS. (MED)	\$29,097	\$158,078	2.506	2.307	5	1.001
	13 COMP. OPS. (HGH)	\$2,638	\$21,217	0	0	0	0.935
	TOTAL *	\$35,699	\$199,044	2.056		6	
38 MULT CONTRACTORS	11 COMP. OPS. (LOW)	\$95,184	\$473,708	2.177	2.004	7	1.002
	12 COMP. OPS. (MED)	\$1,442,012	\$7,192,180	1.011	0.93	124	0.989
	13 COMP. OPS. (HGH)	\$155,215	\$799,213	2.223	2.046	17	0.923
	TOTAL *	\$1,692,411	\$8,465,101	1.187		148	
TOTAL ALL TOP	01 RET.STRS-FOOD/DRG	\$92,603	\$378,827	0.496		26	
	02 RET.STRS-NTFD/DRG	\$298,517	\$1,201,098	0.786		35	
	11 COMP. OPS. (LOW)	\$204,321	\$1,007,166	1.555		28	
	12 COMP. OPS. (MED)	\$2,638,269	\$13,023,575	0.928		201	
	13 COMP. OPS. (HGH)	\$275,473	\$1,413,658	1.704		23	
	TOTAL *	\$3,509,183	\$17,024,324	1.002		313	

* TOTALS IN COLUMNS (3) ARE AVERAGES USING COLUMN (1) AS WEIGHTS.

INSURANCE SERVICES OFFICE, INC.

MULTISTATE
LOCAL PRODUCTS/COMPLETED OPERATIONS
SUMMARY OF EXPERIENCE USED IN BASIC LIMIT RELATIVE CHANGE ANALYSIS

TYPE OF POLICY	CLASS GROUP	(1)	(2)	(3)	(4)	(5)	(6)
		CALENDAR A.Y.E. 12/31/2019 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2015 - 2019 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIV.	NUMBER OF OCCURRENCES	BAL CELL RELATIV.
10 MONOLINE	01 RET.STRS-FOOD/DRG	2,438,315	11,481,124	0.912		601	
	02 RET.STRS-NTFD/DRG	2,987,973	14,421,548	1.083		495	
	11 COMP. OPS. (LOW)	5,121,852	24,832,256	1.466		645	
	12 COMP. OPS. (MED)	99,545,324	453,611,463	1.119		7,145	
	13 COMP. OPS. (HGH)	7,985,186	36,362,548	0.800		270	
	TOTAL *	118,078,650	540,708,939	1.107		9,156	
34 MULT MERCANTILE	01 RET.STRS-FOOD/DRG	8,420,906	39,991,609	0.851		2,982	
	02 RET.STRS-NTFD/DRG	5,561,155	26,343,265	1.248		672	
	12 COMP. OPS. (MED)	2,449,900	11,651,099	1.126		132	
	TOTAL *	16,431,961	77,985,973	1.026		3,786	
36 MULT SERVICES	01 RET.STRS-FOOD/DRG	850,649	4,343,160	1.305		191	
	02 RET.STRS-NTFD/DRG	14,223,267	58,971,026	0.948		2,767	
	11 COMP. OPS. (LOW)	3,234,837	15,453,155	1.070		482	
	12 COMP. OPS. (MED)	4,907,590	24,453,606	1.095		800	
	13 COMP. OPS. (HGH)	1,071,672	5,500,146	0.778		63	
	TOTAL *	24,288,015	108,721,093	0.999		4,303	
37 MULT INDUST/PROC.	01 RET.STRS-FOOD/DRG	18,708	99,534	0.356		1	
	11 COMP. OPS. (LOW)	112,124	572,337	1.066		19	
	12 COMP. OPS. (MED)	3,755,205	19,337,637	1.171		289	
	13 COMP. OPS. (HGH)	42,569	250,290	0.000		0	
	TOTAL *	3,928,606	20,259,798	1.151		309	
38 MULT CONTRACTORS	11 COMP. OPS. (LOW)	10,088,973	48,995,253	1.071		731	
	12 COMP. OPS. (MED)	164,618,861	819,998,075	1.102		13,301	
	13 COMP. OPS. (HGH)	14,387,568	69,459,681	0.947		720	
	TOTAL *	189,095,402	938,453,009	1.089		14,752	
TOTAL ALL TOP	01 RET.STRS-FOOD/DRG	11728578	55915427	0.896		3,775	
	02 RET.STRS-NTFD/DRG	22,772,395	99,735,839	1.039		3,934	
	11 COMP. OPS. (LOW)	18,557,786	89,853,001	1.180		1,877	
	12 COMP. OPS. (MED)	275,276,880	1,329,051,880	1.109		21,667	
	13 COMP. OPS. (HGH)	23,486,995	111,572,665	0.887		1,053	
	TOTAL *	351,822,634	1,686,128,812	1.086		32,306	

* TOTALS IN COLUMN (3) ARE AVERAGES USING COLUMN (1) AS WEIGHTS.

COMMERCIAL PACKAGE POLICY

TABLE OF CONTENTS

SECTION C - REVISED CLM DIVISION NINE

Commercial Package Policy Package Modification Factors (Revised MLCP-PMF-1) C-2

**COMMERCIAL LINES MANUAL
DIVISION NINE – MULTIPLE LINE
COMMERCIAL PACKAGE POLICY
PACKAGE MODIFICATION FACTORS**

KANSAS (15)

PACKAGE MODIFICATION FACTORS

Package Modification Assignment (PMA)	Premium From CLM Division			
	Two	Three, Four, Five, Eight Property	Four, Six Liability	All Other Divisions
Apartment House	.90	0.99	0.93	1.00
Contractors	.90	0.78	0.84	1.00
Industrial & Processing	.90	0.68	0.98	1.00
Institutional	.90	0.68	0.96	1.00
Mercantile	.90	0.90	0.92	1.00
Motel/Hotel	.90	0.88	0.77	1.00
Office	.90	0.62	0.76	1.00
Service	.90	0.82	0.98	1.00

Table 1. Package Modification Factors