

RULES – IMPLEMENTATION

NOVEMBER 23, 2021

COMMERCIAL MULTIPLE LINE

LI-ML-2021-037

## ARIZONA COMMERCIAL PACKAGE POLICY REVISED PACKAGE MODIFICATION FACTOR REVISION TO BE IMPLEMENTED

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### KEY MESSAGE

Revised Commercial Package Policy package modification factors for an overall statewide change of -2.7% to be implemented.

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### UPGRADE TO WORD AND EXCEL DOCUMENTS

As previously noted, ISO is implementing changes to our authoring and delivery systems so that **newly created** documents will be delivered in Office 365 .docx/.xlsx format to be phased in by product/service. In addition to **form** documents, we are pleased to announce that during the third quarter 2021, you will be receiving **circular cover letter** and **Notice To Manualholders (NTM)** documents in .docx format delivered/accessed via Circulars, CLM, EFD, ERC, Filings, FIRST, Forms Library, PRM and Suite +. Changes continue for other document types to be phased in by product/service. Products impacted include, but are not limited to, documents delivered/accessed via Circulars, CLM, EFD, ERC, Filings, FIRST, Forms Library (including PolicyWriting Support Forms Instructional Supplement), PRM, Statistical Plans and Suite +.

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### BACKGROUND

In circular [LI-ML-2021-026](#), we provided you with information about the Commercial Package Policy modification factor experience review.

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### 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.

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### ISO ACTION

We are implementing ML-2021-RLA1, which presents a review of Commercial Package Policy modification factors experience. Refer to the attachment(s) for complete details.

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## 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.

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## EFFECTIVE DATE

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

These changes are applicable to all policies written on or after June 1, 2022.

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## 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.

WE WILL SUBMIT THIS REVISION TO THE INSURANCE DEPARTMENT ON APRIL 29, 2022. IF STATE FILING REQUIREMENTS DICTATE THAT YOU MAKE A SUBMISSION WITH THE INSURANCE DEPARTMENT, DO NOT SUBMIT IT PRIOR TO THIS DATE.

In all correspondence with the Insurance Department on this revision, you should refer to ISO Filing Number [ML-2021-RLA1](#) and SERFF Tracking Number [ISOF-133055602](#), 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.

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## RATING SOFTWARE IMPACT

No new attributes are being introduced with this revision.

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## 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-2021-004](#) 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.

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## REVISION DISTRIBUTION

We will issue a Notice to Manualholders with an edition date of 6-22 (or the earliest possible subsequent date), along with any new and/or revised manual pages.

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## REFERENCE(S)

- [LI-ML-2021-026](#) (09/10/2021) Commercial Package Policy Experience Reviewed By Staff
- [LI-CL-2021-004](#) (02/17/2021) Revised Lead Time Requirements Listing

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## ATTACHMENT(S)

Filing [ML-2021-RLA1](#)

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## FILES AVAILABLE FOR DOWNLOAD

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

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

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## 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.

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## 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, Rimma Maasbach, am an Actuarial Consultant 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.

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## CONTACT INFORMATION

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

ARIZONA  
ADVISORY PACKAGE MODIFICATION FACTOR REVIEW  
COMMERCIAL PACKAGE POLICY  
ML-2021-RLA1  
EXECUTIVE SUMMARY

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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.
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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. &amp; Liab. Total</u>
Motel/Hotel	0.0%	-3.0%	-1.8%
Apartment	-1.1%	4.6%	1.8%
Office	-2.1%	-1.1%	-1.4%
Mercantile	-1.0%	-5.2%	-3.1%
Institutional	-1.0%	-9.9%	-4.7%
Services	0.0%	-4.3%	-2.2%
Indust./Proc.	-8.2%	-2.1%	-4.8%
Contractors	<u>-3.1%</u>	<u>-1.0%</u>	<u>-1.2%</u>
Statewide	-1.6%	-3.4%	-2.7%

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ARIZONA

ADVISORY PACKAGE MODIFICATION FACTOR REVIEW

COMMERCIAL PACKAGE POLICY

ML-2021-RLA1

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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.

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HISTORICAL  
SOURCE DATA

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

- Basic Group I: five fiscal accident years ending 03/31/20.
  - Basic Group II: ten fiscal accident years ending 03/31/20.
  - Special Causes of Loss: five fiscal accident years ending 03/31/20.
  - 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 03/31/20.
  - Manufacturers and Contractors: five fiscal accident years ending 03/31/20.
  - Products: three calendar accident years ending 12/31/19.
  - Local Products and Completed Operations: three calendar accident years ending 12/31/19.
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PRIOR ISO  
REVISIONS

The latest revisions in this state are:

<u>Filing</u>	ML-20-RLA1	ML-17-RLA1	ML-13-RLA1
<u>Dates</u>			
Implemented	2/1/2021	1/1/2018	12:00:00 AM
<u>Changes</u>			
Indicated	0.2%	-1.0%	3.7%
Filed	0.2%	-1.0%	3.6%
Implemented	0.2%	-1.0%	3.6%

ARIZONA  
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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.

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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 12/31/18 for the Annual Statement Line of Business (ASLOB) indicated.

COMMERCIAL MULTI PERIL (ASLOB 51 & 52)

1. Travelers Indemnity Company
  2. Tokio Marine Companies
  3. Liberty Mutual Insurance Company
  4. Continental Casualty Company
  5. Cincinnati Insurance Company
  6. Hanover Insurance Company
  7. Nationwide Mutual Insurance Company
  8. Insurance Company Of North America
  9. Country Mutual Insurance Company
  10. California Capital 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 12/31/18 is:

Commercial Multi Peril (ASLOB 51 & 52). 46.7%.

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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.

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ARIZONA  
ADVISORY PACKAGE MODIFICATION FACTOR REVIEW  
COMMERCIAL PACKAGE POLICY  
ML-2021-RLA1  
EXECUTIVE SUMMARY

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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.

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## COMMERCIAL PACKAGE POLICY

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## COMMERCIAL PACKAGE POLICY METHODOLOGY OVERVIEW

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### 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.

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### 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.

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### 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.

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## EXPLANATORY NOTES TO EXHIBIT A2

### CALCULATION OF REVISED PACKAGE MODIFICATION FACTORS

OBJECTIVE	<p>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.</p> <p>The types of insured which can be written under a CPP are generally categorized into the following Types of Policy:</p> <ul style="list-style-type: none"><li>. Motels and Hotels (TOP 31)</li><li>. Apartments (TOP 32)</li><li>. Offices (TOP 33)</li><li>. Mercantile Operations (TOP 34)</li><li>. Institutions (TOP 35)</li><li>. Service Operations (TOP 36)</li><li>. Industrial and Processing Operations (TOP 37)</li><li>. Contractors (TOP 38)</li></ul>
PRICING OF POLICIES	<p>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.</p>
CPP PMF REVIEW PROCEDURE	<p>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).</p> <p>A detailed explanation of the calculation of the revised PMFs follows.</p>

## EXPLANATORY NOTES TO EXHIBIT A2 (Cont'd)

### 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.

## EXPLANATORY NOTES TO EXHIBIT A2 (Cont'd)

### 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) shown 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).

## EXPLANATORY NOTES TO EXHIBITS B1 AND B2

### BASIC GROUP I AND SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS

#### 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.

EXPLANATORY NOTES TO EXHIBITS B1 AND B2 (Cont'd)

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;

## EXPLANATORY NOTES TO EXHIBITS B1 AND B2 (Cont'd)

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.



EXPLANATORY NOTES TO EXHIBITS B1 AND B2 (Cont'd)

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 and B2.

## EXPLANATORY NOTES TO EXHIBITS B3

### BASIC GROUP I RELATIVITY ANALYSIS SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

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>

## EXPLANATORY NOTES TO EXHIBITS B4

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

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>

EXPLANATORY NOTES TO EXHIBITS B4 (cont'd)

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.

## EXPLANATORY NOTES TO EXHIBIT B5

### BASIC GROUP II RELATIVITY ANALYSIS

#### OBJECTIVE

The explanations which follow clarify Exhibit B5, the Basic Group II (BG II) relativity analysis. The purpose of this analysis is to:

- (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)

##### AGGREGATE LOSS COSTS

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.

#### COLUMN (2)

##### 10 - YEAR EXPERIENCE RATIO

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.

#### COLUMN (3)

##### FORMULA RELATIVITY

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.

EXPLANATORY NOTES TO EXHIBIT B5 (Cont'd)

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.

EXPLANATORY NOTES TO EXHIBIT B5 (Cont'd)

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.

## 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.



## EXHIBITS B6 AND B7

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

EXPLANATORY NOTES TO GENERAL LIABILITY  
RELATIVITY ANALYSIS - EXHIBITS B8 THROUGH 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

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.

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 and territory (if applicable) relativities will serve to derive the relationship of the various classification and territories 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.

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.

RATING  
VARIABLES  
USED

For Premises/Operations and Products/Completed Operations, the rating variables used in the relativity analysis are as follows:

Manufacturers and Contractors -	type of policy and class group
Owners, Landlords and Tenants -	type of policy, territory and class group
Products -	type of policy and class group
Local Products/Completed Operations-	type of policy, state and class group

EXPLANATORY NOTES TO GENERAL LIABILITY  
RELATIVITY ANALYSIS - EXHIBITS B8 THROUGH 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:

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

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

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

$TER_k$  is the relative change for the  $k^{\text{th}}$  territory;

$W_{ijk}$  is the aggregate loss costs at current level for the  $i^{\text{th}}$

type of policy,  $j^{\text{th}}$  class group and  $k^{\text{th}}$  territory;

$r_{ijk}$  is the relative change for the  $i^{\text{th}}$  type of policy,

$j^{\text{th}}$  class group and  $k^{\text{th}}$  territory;

$m$  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 territories in the analysis;

EXPLANATORY NOTES TO GENERAL LIABILITY  
RELATIVITY ANALYSIS - EXHIBITS B8 THROUGH 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  $i^{\text{th}}$  type of policy;

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

$W_{ij}$  is the aggregate loss costs at current level for the  $i^{\text{th}}$

type of policy and  $j^{\text{th}}$  class group;

$r_{ij}$  is the relative change for the  $i^{\text{th}}$  type of policy

and  $j^{\text{th}}$  class group;

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

$n$  is the number of class groups in the analysis;

EXPLANATORY NOTES TO GENERAL LIABILITY  
RELATIVITY ANALYSIS - EXHIBITS B8 THROUGH 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  $i^{\text{th}}$  type of policy;

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

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

$W_{ijk}$  is the aggregate loss costs at current level for the  $i^{\text{th}}$

type of policy,  $j^{\text{th}}$  class group and  $k^{\text{th}}$  state;

$r_{ijk}$  is the relative change for the  $i^{\text{th}}$  type of policy,

$j^{\text{th}}$  class group and  $k^{\text{th}}$  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;

EXPLANATORY NOTES TO GENERAL LIABILITY  
RELATIVITY ANALYSIS - EXHIBITS B8 THROUGH B17.

ITERATIVE  
PROCEDURE  
(Cont'd)

For example, for Owners, Landlords and Tenants, the procedure starts by inserting the actual relativities for type of policy and class group into the third formula to get a territory relativity. This result is then used with the class group relativity in the first formula to get a new type of policy relativity, which in turn is substituted along with the territory relativity into the second formula to get a new class group relativity. 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

$$Z = \sqrt{P/18,000} \text{ for Owners, Landlords and Tenants, } Z = \sqrt{P/18,000} \text{ for}$$

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:

$$W = RZ \quad \text{where:}$$

Z is the class group, territory, state or type of policy credibility;

R is the class group, territory, 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.

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INDICATED  
CHANGES

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

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

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EXPLANATORY NOTES TO GENERAL LIABILITY  
RELATIVITY ANALYSIS - EXHIBITS B8 THROUGH B17.

MULTILINE  
CONSIDERATIONS

The monoline relativities and the class group, territory (if applicable) and state relativities which result from the aforementioned procedures are then used to generate indicated monoline classification loss cost changes. The multiline relativities are 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.

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INSURANCE SERVICES OFFICE, INC.

## ARIZONA

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)	1.00	1.00	0.0%	0.99	0.96	-3.0%	-1.8%
APARTMENT (32)	0.92	0.91	-1.1%	0.65	0.68	4.6%	1.8%
OFFICE (33)	0.96	0.94	-2.1%	0.90	0.89	-1.1%	-1.4%
MERCANTILE (34)	1.00	0.99	-1.0%	0.97	0.92	-5.2%	-3.1%
INSTITUTION(35)	1.00	0.99	-1.0%	0.91	0.82	-9.9%	-4.7%
SERVICES (36)	1.00	1.00	0.0%	0.94	0.90	-4.3%	-2.2%
IND/PROC (37)	0.97	0.89	-8.2%	0.96	0.94	-2.1%	-4.8%
CONTRACTORS(38)	0.98	0.95	-3.1%	0.96	0.95	-1.0%	-1.2%
STATEWIDE			-1.6%			-3.4%	-2.7%



## INSURANCE SERVICES OFFICE, INC.

ARIZONA  
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	479,397	1.327	1.9%	1.352	1.318
BASIC GRP II	182,718	0.878	11.4%	0.978	0.954
SP CAUSE/LOSS	158,459	0.632	-5.7%	0.596	0.581
* CRIME	2,631	0.910	0.0%	0.910	0.910
* INL. MAR.	1,051	0.910	0.0%	0.910	0.910
* FIDELITY	5,264	1.000	0.0%	1.000	1.000
TOTAL	829,520	1.000	2.5%	1.025	1.000
LIABILITY-					
OL&T	1,286,726	0.989	-4.6%	0.944	0.960
TOTAL	1,286,726	0.990	-4.7%	0.944	0.960
-----					
PROP. & LIAB. TOTAL	2,116,246		-1.9%		-1.8%

APARTMENT (32) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	1,044,885	0.819	0.3%	0.821	0.821
BASIC GRP II	488,105	0.890	6.1%	0.944	0.944
SP CAUSE/LOSS	758,574	1.101	-5.0%	1.046	1.046
* CRIME	1,396	0.910	0.0%	0.910	0.910
* INL. MAR.	243	0.910	0.0%	0.910	0.910
* FIDELITY	79,840	1.000	0.0%	1.000	1.000
TOTAL	2,373,043	0.920	-0.8%	0.913	0.910
LIABILITY-					
OL&T	2,418,566	0.650	4.1%	0.677	0.677
TOTAL	2,418,566	0.650	4.1%	0.677	0.680
-----					
PROP. & LIAB. TOTAL	4,791,609		1.7%		1.8%

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

## INSURANCE SERVICES OFFICE, INC.

ARIZONA  
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	472,394	1.207	1.5%	1.225	1.225
BASIC GRP II	350,509	0.828	3.6%	0.858	0.858
SP CAUSE/LOSS	510,094	0.889	-8.5%	0.813	0.813
* CRIME	5,191	0.910	0.0%	0.910	0.910
* INL. MAR.	26,255	0.910	0.0%	0.910	0.910
* FIDELITY	25,981	1.000	0.0%	1.000	1.000
TOTAL	1,390,424	0.960	-1.7%	0.943	0.940
LIABILITY-					
OL&T	3,926,951	0.930	-2.7%	0.905	0.905
M&C	149,527	0.563	6.6%	0.600	0.600
TOTAL	4,076,478	0.900	-1.5%	0.887	0.890
-----					
PROP. & LIAB. TOTAL	5,466,902		-1.5%		-1.4%

MERCANTILE (34) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	3,811,161	1.179	4.4%	1.231	1.231
BASIC GRP II	1,365,684	0.795	1.7%	0.809	0.809
SP CAUSE/LOSS	2,039,435	0.902	-12.4%	0.790	0.790
* CRIME	28,827	0.910	0.0%	0.910	0.910
* INL. MAR.	157,091	0.910	0.0%	0.910	0.910
* FIDELITY	218,984	1.000	0.0%	1.000	1.000
TOTAL	7,621,182	1.000	-1.0%	0.990	0.990
LIABILITY-					
OL&T	6,174,800	0.957	-7.5%	0.885	0.885
M&C	676,154	1.192	0.8%	1.202	1.202
LOCAL PRODUCT	430,883	1.097	1.9%	1.118	1.118
* MULTI PRODUCT	796,019	0.870	2.2%	0.889	0.889
TOTAL	8,077,856	0.970	-5.3%	0.918	0.920
-----					
PROP. & LIAB. TOTAL	15,699,038		-3.2%		-3.1%

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

INSURANCE SERVICES OFFICE, INC.

ARIZONA  
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	1,406,871	1.303	-2.5%	1.270	1.270
BASIC GRP II	1,013,281	0.804	15.7%	0.930	0.930
SP CAUSE/LOSS	1,215,169	0.921	-9.9%	0.830	0.830
* CRIME	13,187	0.910	0.0%	0.910	0.910
* INL. MAR.	2,794	0.910	0.0%	0.910	0.910
* FIDELITY	103,774	1.000	0.0%	1.000	1.000
TOTAL	3,755,076	1.000	-0.6%	0.994	0.990
LIABILITY-					
OL&T	2,568,236	0.921	-10.3%	0.826	0.826
M&C	155,902	0.722	-1.1%	0.714	0.714
TOTAL	2,724,138	0.910	-10.1%	0.818	0.820
-----					
PROP. & LIAB.	6,479,214		-4.6%		-4.7%
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	2,332,819	1.128	1.7%	1.147	1.139
BASIC GRP II	1,562,142	1.124	8.5%	1.220	1.211
SP CAUSE/LOSS	1,170,560	0.709	-7.7%	0.654	0.650
* CRIME	12,165	0.910	0.0%	0.910	0.910
* INL. MAR.	20,932	0.910	0.0%	0.910	0.910
* FIDELITY	112,957	1.000	0.0%	1.000	1.000
TOTAL	5,211,575	1.000	0.7%	1.007	1.000
LIABILITY-					
OL&T	2,705,685	0.859	-7.7%	0.793	0.798
M&C	1,717,598	1.027	-2.6%	1.000	1.007
LOCAL PRODUCT	1,022,978	1.069	-5.3%	1.012	1.019
* MULTI PRODUCT	83,570	0.951	1.3%	0.964	0.964
TOTAL	5,529,831	0.940	-5.3%	0.890	0.900
-----					
PROP. & LIAB.	10,741,406		-2.4%		-2.2%
TOTAL					

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

## INSURANCE SERVICES OFFICE, INC.

ARIZONA  
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	1,805,161	1.188	-7.0%	1.105	1.105
BASIC GRP II	448,782	0.671	4.4%	0.701	0.701
SP CAUSE/LOSS	781,899	0.809	-15.7%	0.682	0.682
* CRIME	1,846	0.910	0.0%	0.910	0.910
* INL. MAR.	1,114	0.910	0.0%	0.910	0.910
* FIDELITY	49,192	1.000	0.0%	1.000	1.000
TOTAL	3,087,994	0.970	-8.1%	0.891	0.890
LIABILITY-					
M&C	2,582,889	0.980	-1.1%	0.969	0.969
LOCAL PRODUCT	90,021	0.689	-0.1%	0.688	0.688
* MULTI PRODUCT	1,322,268	0.938	-4.3%	0.898	0.898
TOTAL	3,995,178	0.960	-2.5%	0.936	0.940
-----					
PROP. & LIAB.	7,083,172		-4.9%		-4.8%
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	540,774	1.126	1.9%	1.147	1.147
BASIC GRP II	313,540	0.910	4.8%	0.954	0.954
SP CAUSE/LOSS	579,402	0.889	-10.6%	0.795	0.795
* CRIME	1,743	0.910	0.0%	0.910	0.910
* INL. MAR.	2,291	0.910	0.0%	0.910	0.910
* FIDELITY	55,302	1.000	0.0%	1.000	1.000
TOTAL	1,493,052	0.980	-3.2%	0.948	0.950
LIABILITY-					
M&C	7,765,493	0.962	-1.1%	0.951	0.951
LOCAL PRODUCT	8,619,658	0.968	-1.4%	0.954	0.954
TOTAL	16,385,151	0.960	-0.7%	0.953	0.950
-----					
PROP. & LIAB.	17,878,203		-0.9%		-1.2%
TOTAL					

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

INSURANCE SERVICES OFFICE, INC.

ARIZONA  
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	11,893,462	1.143	0.6%	1.150	1.147
BASIC GRP II	5,724,761	0.873	7.2%	0.936	0.933
SP CAUSE/LOSS	7,213,592	0.863	-10.2%	0.775	0.773
* CRIME	66,986	0.910	0.0%	0.910	0.910
* INL. MAR.	211,771	0.910	0.0%	0.910	0.910
* FIDELITY	651,294	1.000	0.0%	1.000	1.000
TOTAL	25,761,866	0.984	-1.4%	0.970	0.968
LIABILITY-					
OL&T	19,080,964	0.882	-5.3%	0.835	0.837
M&C	13,047,563	0.972	-1.1%	0.961	0.962
LOCAL PRODUCT	10,163,540	0.979	-1.6%	0.963	0.963
* MULTI PRODUCT	2,201,857	0.913	-1.7%	0.897	0.897
TOTAL	44,493,924	0.934	-3.5%	0.901	0.903
-----					
PROP. & LIAB.	70,255,790		-2.7%		-2.7%
TOTAL					

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

INSURANCE SERVICES OFFICE, INC.

ARIZONA  
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)	0.990	0.975	0.980
APARTMENT (32)	0.770	0.774	0.770
OFFICE (33)	0.910	0.901	0.900
MERCANTILE (34)	0.980	0.953	0.950
INSTITUTION(35)	0.960	0.916	0.920
SERVICES (36)	0.970	0.945	0.950
IND/PROC (37)	0.960	0.917	0.920
CONTRACTORS(38)	0.970	0.953	0.950

NOTE: Combined PMFs are provided for informational purposes only.

INSURANCE SERVICES OFFICE, INC.

ARIZONA  
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	0.854	0.048	0.992	0.994	
31	1.631	0.022	1.011	1.013	1.9%
32	0.882	0.040	0.995	0.997	0.3%
33	1.354	0.024	1.007	1.009	1.5%
34	1.261	0.154	1.036	1.038	4.4%
35	0.588	0.064	0.967	0.969	-2.5%
36	1.080	0.111	1.009	1.011	1.7%
37	0.378	0.083	0.922	0.924	-7.0%
38	1.560	0.025	1.011	1.013	1.9%
TERRITORY					
Phoenix	1.234	0.257	1.056	1.052	
Tucson	0.472	0.102	0.926	0.923	
Balance of State	0.978	0.407	0.991	0.988	

INSURANCE SERVICES OFFICE, INC.

ARIZONA  
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	2.094	0.104	1.080	1.101	
31	2.948	0.017	1.019	1.038	-5.7%
32	1.450	0.070	1.026	1.046	-5.0%
33	0.822	0.063	0.988	1.007	-8.5%
34	0.765	0.207	0.946	0.964	-12.4%
35	0.797	0.118	0.974	0.992	-9.9%
36	0.972	0.130	0.996	1.016	-7.7%
37	0.377	0.096	0.911	0.928	-15.7%
38	0.594	0.067	0.966	0.984	-10.6%
CATEGORY					
1	1.051	0.610	1.031	1.017	
2	0.585	0.055	0.971	0.958	
3	0.727	0.098	0.969	0.956	
4	0.667	0.105	0.958	0.945	
5	1.448	0.098	1.037	1.023	
6	1.374	0.040	1.013	0.999	
7	1.133	0.016	1.002	0.988	
8	1.086	0.071	1.006	0.992	
9	0.997	0.104	1.000	0.986	
10	1.017	0.035	1.001	0.987	
11	1.198	0.110	1.020	1.006	
12	0.522	0.090	0.943	0.930	
13	0.509	0.062	0.959	0.946	
14	0.922	0.118	0.990	0.977	



INSURANCE SERVICES OFFICE, INC.

## ARIZONA

## 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	889,476	5,047,646	0.825	0.745
31 MULTILINE MOTEL/HOTEL	479,397	2,238,343	1.562	1.410
32 MULTILINE APARTMENT	1,044,885	4,112,460	1.299	1.172
33 MULTILINE OFFICE	472,394	2,461,821	1.216	1.097
34 MULTILINE MERCANTILE	3,811,161	18,180,606	1.322	1.193
35 MULTILINE INSTITUTIONAL	1,406,871	6,805,396	0.738	0.666
36 MULTILINE SERVICES	2,332,819	12,526,133	1.137	1.026
37 MULTILINE INDUST/PROCESS	1,805,161	9,003,170	0.477	0.431
38 MULTILINE CONTRACTORS	<u>540,774</u>	<u>2,591,881</u>	<u>2.136</u>	<u>1.928</u>
TOTAL ALL TOPS*	12,782,938	62,967,456	1.108	1.000

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

INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 03/31/20 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	438,097	2,434,154	1.978	1.965	2.223
	02 RES. APTS. AND COND	16,747	84,088	0.580	1.291	1.460
	03 OFFICES	83,690	451,893	0.723	1.019	1.153
	04 MERCANTILE - HIGH	87,763	448,891	0.385	0.776	0.878
	05 MERCANTILE - MEDIUM	20,626	111,074	22.939	11.514	13.025
	06 MERCANTILE - LOW	16,359	70,626	0.598	1.328	1.502
	07 MOTELS AND HOTELS	3,407	26,138	0.592	1.446	1.636
	08 INSTITUTIONAL - HIG	23,780	107,107	0.669	1.284	1.452
	09 INSTITUTIONAL - LOW	15,421	92,040	0.020	1.033	1.169
	10 INDUST-PROC - HIGH	11,338	62,657	0.000	1.123	1.270
	11 INDUST-PROC - LOW	41,776	252,585	0.311	0.885	1.001
	12 SERVICE - HIGH	26,713	132,663	0.083	0.955	1.080
	13 SERVICE - LOW	28,607	177,971	0.712	1.205	1.363
	14 CONTRACTORS	27,034	203,679	0.481	1.044	1.181
	TOTAL*	841,358	4,655,566	1.807	1.764	1.996
31 MULTILINE	01 BUILDINGS	111,802	483,018	5.752	2.745	3.105
MOTEL/HOTEL	07 MOTELS AND HOTELS	46,657	222,370	8.894	2.963	3.352
	TOTAL*	158,459	705,388	6.677	2.809	3.178
32 MULTILINE	01 BUILDINGS	560,082	2,236,350	1.527	1.351	1.528
APARTMENT	02 RES. APTS. AND COND	198,492	796,942	0.546	0.750	0.848
	TOTAL*	758,574	3,033,292	1.270	1.194	1.350
33 MULTILINE	01 BUILDINGS	318,950	1,614,125	0.608	0.728	0.824
OFFICE	03 OFFICES	172,714	985,296	0.514	0.715	0.809
	04 MERCANTILE - HIGH	56	92	0.000	0.836	0.946
	08 INSTITUTIONAL - HIG	4,078	23,761	2.594	1.145	1.295
	12 SERVICE - HIGH	14,296	62,970	0.000	0.792	0.896
	TOTAL*	510,094	2,686,244	0.575	0.729	0.824

INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 03/31/20 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	1,396,669	7,070,117	0.685	0.716	0.810
	03 OFFICES	7,643	35,582	0.044	0.816	0.923
	04 MERCANTILE - HIGH	210,089	1,168,710	0.467	0.672	0.760
	05 MERCANTILE - MEDIUM	288,792	1,501,063	0.811	0.859	0.972
	06 MERCANTILE - LOW	103,444	523,780	1.143	1.017	1.150
	08 INSTITUTIONAL - HIG	642	3,216	0.000	0.834	0.943
	11 INDUST-PROC - LOW	52	128	0.000	0.836	0.946
	12 SERVICE - HIGH	18,117	102,172	1.084	0.963	1.089
	13 SERVICE - LOW	7,121	32,436	0.140	0.831	0.940
	14 CONTRACTORS	6,866	29,885	0.000	0.814	0.921
	TOTAL*	2,039,435	10,467,089	0.700	0.750	0.849
35 MULTILINE INSTITUTIONAL	01 BUILDINGS	581,235	2,732,047	0.667	0.737	0.834
	03 OFFICES	13,890	16,701	0.000	0.824	0.932
	04 MERCANTILE - HIGH	1,729	4,895	0.000	0.833	0.942
	06 MERCANTILE - LOW	91	423	0.000	0.836	0.946
	08 INSTITUTIONAL - HIG	243,466	934,730	0.645	0.787	0.890
	09 INSTITUTIONAL - LOW	366,314	1,570,776	0.576	0.710	0.803
	12 SERVICE - HIGH	1,312	7,389	1.214	0.968	1.095
	13 SERVICE - LOW	6,770	67,052	0.038	0.795	0.899
	14 CONTRACTORS	362	3,153	0.000	0.834	0.943
	TOTAL*	1,215,169	5,337,166	0.623	0.741	0.838
36 MULTILINE SERVICES	01 BUILDINGS	760,987	3,756,832	0.941	0.907	1.026
	03 OFFICES	4,922	20,762	5.919	1.297	1.467
	04 MERCANTILE - HIGH	5,229	29,177	0.057	0.499	0.564
	05 MERCANTILE - MEDIUM	3,542	8,270	0.000	0.513	0.580
	06 MERCANTILE - LOW	4,159	9,929	1.252	0.654	0.740
	08 INSTITUTIONAL - HIG	12,325	75,579	0.000	0.446	0.505
	09 INSTITUTIONAL - LOW	17,322	82,542	0.000	0.440	0.498
	11 INDUST-PROC - LOW	2,236	9,655	0.000	0.512	0.579
	12 SERVICE - HIGH	199,103	1,159,325	0.402	0.445	0.503
	13 SERVICE - LOW	136,905	705,681	0.325	0.412	0.466
	14 CONTRACTORS	23,830	100,641	0.000	0.425	0.481
	TOTAL*	1,170,560	5,958,393	0.748	0.746	0.844

INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 03/31/20 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	392,333	2,077,027	0.190	0.251	0.284
	03 OFFICES	4,730	25,345	0.000	0.494	0.559
	04 MERCANTILE - HIGH	6,370	39,438	0.461	0.558	0.631
	05 MERCANTILE - MEDIUM	391	4,396	0.000	0.518	0.586
	06 MERCANTILE - LOW	182	380	0.000	0.523	0.592
	08 INSTITUTIONAL - HIGH	2	165	0.000	0.523	0.592
	10 INDUST-PROC - HIGH	81,892	477,335	0.302	0.421	0.476
	11 INDUST-PROC - LOW	292,744	1,599,563	0.546	0.552	0.624
	12 SERVICE - HIGH	1,671	5,650	0.000	0.516	0.584
	13 SERVICE - LOW	1,359	5,456	0.000	0.517	0.585
	14 CONTRACTORS	225	3,397	0.000	0.519	0.587
	TOTAL*	781,899	4,238,152	0.335	0.387	0.438
38 MULTILINE CONTRACTORS	01 BUILDINGS	200,279	1,014,955	0.472	0.501	0.567
	03 OFFICES	20,491	102,358	3.515	1.358	1.536
	04 MERCANTILE - HIGH	14,988	77,320	0.371	0.530	0.600
	05 MERCANTILE - MEDIUM	124	904	7.365	1.221	1.381
	06 MERCANTILE - LOW	3,509	19,058	1.614	0.714	0.808
	08 INSTITUTIONAL - HIGH	100	640	0.000	0.522	0.590
	11 INDUST-PROC - LOW	156	908	44.040	4.706	5.324
	12 SERVICE - HIGH	1,003	4,889	0.000	0.517	0.585
	13 SERVICE - LOW	1,507	4,905	0.000	0.517	0.585
	14 CONTRACTORS	337,245	1,661,653	0.487	0.504	0.570
	TOTAL*	579,402	2,887,590	0.604	0.536	0.607
TOTAL ALL TOPS*	01 BUILDINGS	4,760,434	23,418,625	1.006	0.940	1.063
	02 RES. APTS. AND COND	215,239	881,030	0.549	0.792	0.896
	03 OFFICES	308,080	1,637,937	0.814	0.854	0.966
	04 MERCANTILE - HIGH	326,224	1,768,523	0.431	0.690	0.780
	05 MERCANTILE - MEDIUM	313,475	1,625,707	2.259	1.556	1.760
	06 MERCANTILE - LOW	127,744	624,196	1.087	1.036	1.172
	07 MOTELS AND HOTELS	50,064	248,508	8.329	2.860	3.235
	08 INSTITUTIONAL - HIGH	284,393	1,145,198	0.645	0.819	0.926
	09 INSTITUTIONAL - LOW	399,057	1,745,358	0.530	0.711	0.804
	10 INDUST-PROC - HIGH	93,230	539,992	0.265	0.507	0.573
	11 INDUST-PROC - LOW	336,964	1,862,839	0.533	0.595	0.673
	12 SERVICE - HIGH	262,215	1,475,058	0.395	0.555	0.628
	13 SERVICE - LOW	182,269	993,501	0.363	0.569	0.643
	14 CONTRACTORS	395,562	2,002,408	0.448	0.542	0.613
	TOTAL*	8,054,950	39,968,880	0.932	0.884	1.000

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

INSURANCE SERVICES OFFICE, INC.

ARIZONA							
BASIC GROUP II RELATIVITY ANALYSIS							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ACCIDENT YEAR ENDING 03/31/20 AGGR. LOSS COSTS AT CURRENT IMPLICIT PMF	ACCIDENT YEARS 2011 - 2020 EXPER. RATIO AT CURRENT PMF	FORMULA RELATIVITY (2)/ 1.124	CREDIBILITY C	CREDIBILITY WEIGHTED RELATIVITY D	BALANCED FORMULA RELATIVITY E	NORMALIZED FORMULA RELATIVITY F	INDICATED CHANGE
-----	-----	-----	-----	-----	-----	-----	-----
MONOLINE	617,312	0.7410	0.6590	0.951	0.9510	0.9385	
MULTILINE	5,724,761	1.1650	1.0360	1.020	1.0200	1.0062	
-----	-----	-----	-----	-----	-----	-----	
COVERAGE	6,342,073	1.1240	0.9990		1.0133	0.9996	
MULTILINE TOP							
31 MOTEL/HOTEL	182,718	2.3480	2.0890	1.044	1.0590	1.0451	11.4%
32 APARTMENT	488,105	1.0750	0.9560	0.995	1.0090	0.9958	6.1%
33 OFFICE	350,509	0.6890	0.6130	0.971	0.9850	0.9721	3.6%
34 MERCANTILE	1,365,684	0.9190	0.8180	0.954	0.9670	0.9543	1.7%
35 INSTITUTIONAL	1,013,281	1.6490	1.4670	1.085	1.1000	1.0856	15.7%
36 SERVICES	1,562,142	1.2020	1.0690	1.018	1.0320	1.0185	8.5%
37 INDUST/PROCESS	448,782	0.8860	0.7880	0.979	0.9930	0.9800	4.4%
38 CONTRACTORS	313,540	0.8660	0.7700	0.983	0.9970	0.9839	4.8%
-----	-----	-----	-----	-----	-----	-----	
	5,724,761	1.1650	1.0360	1.0060	1.0200	1.0062	

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 - FOR UNCAPPED MULTILINE TOPS: (6) = (5) \* (1.020/1.006)

FOR CAPPED MULTILINE TOPS: (6) = (7) \* (0.951) / (0.9385)

F - (7) = (6) / 1.0133

## INSURANCE SERVICES OFFICE, INC.

ARIZONA  
OWNERS, LANDLORDS AND TENANTS  
BASIC LIMIT RELATIVE CHANGE ANALYSIS

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TYPE OF POLICY	(1) BAILEY FORMULA RELATIVITY	(2) CREDIBILITY	(3) CREDIBILITY WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	(5) INDICATED CHANGE
10	1.141	0.276	1.037	1.036	
31	0.894	0.097	0.989	0.988	-4.6%
32	1.900	0.119	1.079	1.078	4.1%
33	1.065	0.145	1.009	1.008	-2.7%
34	0.788	0.177	0.959	0.958	-7.5%
35	0.469	0.096	0.930	0.929	-10.3%
36	0.711	0.128	0.957	0.956	-7.7%
CLASS GROUP					
1	1.090	0.049	1.004	1.008	
2	0.852	0.157	0.975	0.979	
3	1.084	0.121	1.010	1.014	
4	0.531	0.022	0.986	0.990	
5	1.364	0.038	1.012	1.016	
6	0.266	0.051	0.935	0.940	
7	1.531	0.155	1.068	1.073	
8	1.612	0.037	1.018	1.021	
9	1.012	0.139	1.002	1.006	
10	1.081	0.109	1.009	1.013	
11	0.845	0.139	0.977	0.981	
12	0.849	0.227	0.964	0.968	
13	2.291	0.066	1.056	1.060	
16	0.000	0.000	1.000	1.004	
TERRITORY					
502	1.106	0.307	1.031	1.030	
503	0.880	0.148	0.981	0.980	
504	0.907	0.246	0.976	0.975	

## INSURANCE SERVICES OFFICE, INC.

## ARIZONA

MANUFACTURERS AND CONTRACTORS  
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	
10	1.019	0.189	1.004	1.007	
33	6.106	0.037	1.069	1.073	6.6%
34	1.221	0.059	1.012	1.015	0.8%
35	0.754	0.026	0.993	0.996	-1.1%
36	0.804	0.102	0.978	0.981	-2.6%
37	0.884	0.064	0.992	0.996	-1.1%
38	0.964	0.199	0.993	0.996	-1.1%
CLASS GROUP					
30	1.281	0.109	1.027	1.025	
31	1.139	0.145	1.019	1.016	
32	1.020	0.189	1.004	1.001	
33	0.946	0.079	0.996	0.993	
34	0.885	0.094	0.989	0.986	
35	1.176	0.028	1.005	1.002	
36	1.182	0.052	1.009	1.006	
37	0.325	0.028	0.969	0.968	
38	0.706	0.085	0.971	0.969	

## INSURANCE SERVICES OFFICE, INC.

ARIZONA  
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. 03/31/20 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)	\$39,282	\$195,212	0.953		12	
	02 RESTAURANTS	\$550,727	\$2,818,897	0.802		145	
	03 STORES	\$262,983	\$2,138,724	1.645		161	
	04 VENDING & RENTAL	\$10,678	\$84,939	0.120		2	
	05 FOOD & BEV. DIST.	\$35,310	\$348,186	0.075		8	
	06 NON-FOOD&BEV.DIST	\$59,271	\$432,631	0.318		19	
	07 CLUBS,AMSMT&SPRTS	\$828,805	\$4,263,673	2.614		253	
	08 HEALTH CARE FACIL	\$137,779	\$558,973	1.492		11	
	09 HOTELS AND MOTELS	\$343,720	\$2,995,556	1.417		164	
	10 SCHLS & CHURCHES	\$881,950	\$3,421,636	1.359		75	
	11 APARTMENTS	\$1,129,319	\$6,305,632	1.041		125	
	12 BUILDINGS&OFFICES	\$1,897,105	\$9,832,440	1.246		356	
	13 MISC. PREMISES	\$82,139	\$713,195	2.204		38	
	16 GOVT SUBDIVISIONS	\$888	\$888	0.000		0	
	TOTAL *	\$6,259,956	\$34,110,582	1.392		1,369	
31 MULT MOTEL/HOTEL	09 HOTELS AND MOTELS	\$727,786	\$3,648,407	1.080		168	
	TOTAL *	\$727,786	\$3,648,407	1.080		168	
32 MULT APARTMENT	11 APARTMENTS	\$978,869	\$4,279,138	2.025		222	
	12 BUILDINGS&OFFICES	\$389,098	\$956,416	1.628		35	
	TOTAL *	\$1,367,967	\$5,235,554	1.912		257	
33 MULT OFFICE	12 BUILDINGS&OFFICES	\$2,200,236	\$11,693,510	1.144		377	
	13 MISC. PREMISES	\$20,890	\$146,055	0.011		1	
	TOTAL *	\$2,221,126	\$11,839,565	1.134		378	
34 MULT MERCANTILE	01 FOOD&BEV.(RETAIL)	\$243,598	\$1,004,050	1.097		32	
	02 RESTAURANTS	\$1,512,155	\$7,347,458	0.911		299	
	03 STORES	\$616,547	\$2,585,438	0.995		87	
	04 VENDING & RENTAL	\$6,637	\$43,951	3.592		3	
	05 FOOD & BEV. DIST.	\$143,226	\$846,300	1.654		18	
	06 NON-FOOD&BEV.DIST	\$281,829	\$1,390,103	0.267		27	
	12 BUILDINGS&OFFICES	\$688,542	\$4,434,380	0.448		100	
	TOTAL *	\$3,492,534	\$17,651,680	0.831		566	



## INSURANCE SERVICES OFFICE, INC.

ARIZONA  
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. 03/31/20 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
35 MULT INSTITUT.	07 CLUBS,AMSMT&SPRTS	\$297,238	\$1,019,758	0.308		17	
	08 HEALTH CARE FACIL	\$217,067	\$852,692	1.341		13	
	10 SCHLS & CHURCHES	\$936,177	\$4,058,864	0.639		136	
	12 BUILDINGS&OFFICES	\$932	\$5,232	0.000		0	
	13 MISC. PREMISES	\$1,208	\$8,058	0.000		0	
	16 GOVT SUBDIVISIONS	\$0	\$41,382	0.000		0	
	TOTAL *	\$1,452,622	\$5,985,986	0.675		166	
36 MULT SERVICES	03 STORES	\$104,506	\$485,621	0.625		15	
	04 VENDING & RENTAL	\$41,925	\$175,157	0.098		4	
	07 CLUBS,AMSMT&SPRTS	\$1,021,350	\$6,042,508	0.903		165	
	08 HEALTH CARE FACIL	\$214	\$2,587	0.000		0	
	09 HOTELS AND MOTELS	\$49,537	\$386,105	0.138		14	
	10 SCHLS & CHURCHES	\$2,495	\$16,039	29.201		1	
	12 BUILDINGS&OFFICES	\$176,690	\$1,133,902	1.924		58	
	13 MISC. PREMISES	\$133,648	\$757,831	3.075		39	
	TOTAL *	\$1,530,365	\$8,999,750	1.191		296	
TOTAL ALL TOP	01 FOOD&BEV.(RETAIL)	\$282,880	\$1,199,262	1.077		44	
	02 RESTAURANTS	\$2,062,882	\$10,166,355	0.882		444	
	03 STORES	\$984,036	\$5,209,783	1.129		263	
	04 VENDING & RENTAL	\$59,240	\$304,047	0.493		9	
	05 FOOD & BEV. DIST.	\$178,536	\$1,194,486	1.341		26	
	06 NON-FOOD&BEV.DIST	\$341,100	\$1,822,734	0.276		46	
	07 CLUBS,AMSMT&SPRTS	\$2,147,393	\$11,325,939	1.481		435	
	08 HEALTH CARE FACIL	\$355,060	\$1,414,252	1.399		24	
	09 HOTELS AND MOTELS	\$1,121,043	\$7,030,068	1.142		346	
	10 SCHLS & CHURCHES	\$1,820,622	\$7,496,539	1.027		212	
	11 APARTMENTS	\$2,108,188	\$10,584,770	1.498		347	
	12 BUILDINGS&OFFICES	\$5,352,603	\$28,055,880	1.151		926	
	13 MISC. PREMISES	\$237,885	\$1,625,139	2.490		78	
	16 GOVT SUBDIVISIONS	\$888	\$42,270	0.000		0	
	TOTAL *	\$17,052,356	\$87,471,524	1.193		3,200	

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

## INSURANCE SERVICES OFFICE, INC.

ARIZONA  
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. 12/31/19 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	30 SERVICE	\$541,456	\$2,423,728	1.439	1.348	68	1.032
	31 LIGHT CONTRACTING	\$557,298	\$2,616,544	1.319	1.236	145	1.024
	32 MEDIUM CONTRCTING	\$1,895,970	\$9,223,112	1.048	0.982	288	1.008
	33 HEAVY CONTRACTING	\$487,354	\$2,311,789	1.320	1.237	39	1.000
	34 DEALER OR DISTRIB	\$207,125	\$934,857	0.614	0.575	27	0.993
	35 LGT. MANUFACTURER	\$20,839	\$69,084	6.511	6.101	6	1.009
	36 MED. MANUFACTURER	\$154,249	\$1,398,810	0.438	0.410	14	1.013
	37 HVY. MANUFACTURER	\$77,263	\$285,796	0.021	0.020	1	0.975
	38 MISC. OPERATION	\$462,130	\$1,991,570	0.822	0.770	52	0.975
	TOTAL *	\$4,403,684	\$21,255,290	1.103		640	
33 MULT OFFICE	31 LIGHT CONTRACTING	\$2,844	\$88,347	0.000	0.000	0	1.091
	32 MEDIUM CONTRCTING	\$3,132	\$17,313	0.672	0.630	1	1.074
	33 HEAVY CONTRACTING	\$23,955	\$134,279	11.091	10.393	13	1.066
	38 MISC. OPERATION	\$54,643	\$283,904	3.170	2.970	11	1.039
	TOTAL *	\$84,574	\$523,843	5.215		25	
34 MULT MERCANTILE	30 SERVICE	\$46,251	\$278,034	0.015	0.014	3	1.040
	32 MEDIUM CONTRCTING	\$29,449	\$155,389	0.965	0.904	5	1.016
	34 DEALER OR DISTRIB	\$278,447	\$1,438,100	1.518	1.422	49	1.001
	38 MISC. OPERATION	\$28,293	\$75,473	0.416	0.389	5	0.983
	TOTAL *	\$382,440	\$1,946,996	1.212		62	
35 MULT INSTITUT.	31 LIGHT CONTRACTING	\$6,477	\$18,238	5.862	5.493	3	1.013
	32 MEDIUM CONTRCTING	\$81,703	\$329,944	0.428	0.401	9	0.998
	TOTAL *	\$88,180	\$348,182	0.827		12	
36 MULT SERVICES	30 SERVICE	\$57,926	\$372,390	1.217	1.140	17	1.006
	31 LIGHT CONTRACTING	\$67,397	\$381,110	0.291	0.273	19	0.997
	32 MEDIUM CONTRCTING	\$137,195	\$642,709	0.918	0.861	15	0.983
	33 HEAVY CONTRACTING	\$7,037	\$65,151	0.646	0.606	1	0.975
	34 DEALER OR DISTRIB	\$439,371	\$1,651,350	0.761	0.713	80	0.968
	36 MED. MANUFACTURER	\$11,993	\$47,484	0.000	0.000	0	0.987
	38 MISC. OPERATION	\$250,573	\$1,402,407	0.790	0.740	56	0.950
	TOTAL *	\$971,492	\$4,562,601	0.775		188	

## INSURANCE SERVICES OFFICE, INC.

ARIZONA  
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. 12/31/19 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
37 MULT INDUST/PROC.	31 LIGHT CONTRACTING	\$299	\$1,007	0.000	0.000	0	1.012
	32 MEDIUM CONTRCTING	\$126,985	\$589,546	0.732	0.686	8	0.997
	33 HEAVY CONTRACTING	\$22,344	\$101,771	0.159	0.149	2	0.989
	34 DEALER OR DISTRIB	\$42,461	\$300,649	0.125	0.117	3	0.982
	35 LGT. MANUFACTURER	\$115,165	\$430,538	0.162	0.152	8	0.998
	36 MED. MANUFACTURER	\$619,483	\$3,306,112	1.346	1.261	34	1.002
	37 HVY. MANUFACTURER	\$524,872	\$2,348,961	0.355	0.333	13	0.963
	38 MISC. OPERATION	\$9,301	\$62,608	2.465	2.310	6	0.964
	TOTAL *	\$1,460,910	\$7,141,192	0.797		74	
38 MULT CONTRACTORS	30 SERVICE	\$745,768	\$3,544,032	1.377	1.291	125	1.021
	31 LIGHT CONTRACTING	\$707,325	\$3,475,554	1.158	1.085	211	1.012
	32 MEDIUM CONTRCTING	\$2,144,634	\$10,121,876	1.143	1.071	320	0.997
	33 HEAVY CONTRACTING	\$766,767	\$3,806,931	0.657	0.616	56	0.989
	38 MISC. OPERATION	\$27,753	\$222,387	0.900	0.843	1	0.965
	TOTAL *	\$4,392,247	\$21,170,780	1.099		713	
TOTAL ALL TOP	30 SERVICE	\$1,391,401	\$6,618,184	1.349		213	
	31 LIGHT CONTRACTING	\$1,341,640	\$6,580,800	1.201		378	
	32 MEDIUM CONTRCTING	\$4,419,068	\$21,079,889	1.069		646	
	33 HEAVY CONTRACTING	\$1,307,457	\$6,419,921	1.087		111	
	34 DEALER OR DISTRIB	\$967,404	\$4,324,956	0.920		159	
	35 LGT. MANUFACTURER	\$136,004	\$499,622	1.135		14	
	36 MED. MANUFACTURER	\$785,725	\$4,752,406	1.147		48	
	37 HVY. MANUFACTURER	\$602,135	\$2,634,757	0.312		14	
	38 MISC. OPERATION	\$832,693	\$4,038,349	0.973		131	
	TOTAL *	\$11,783,527	\$56,948,884	1.067		1,714	

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

INSURANCE SERVICES OFFICE, INC.

ARIZONA  
PRODUCTS  
BASIC LIMIT RELATIVE CHANGE ANALYSIS

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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: 0.974

TOP 36: 0.964

TOP 37: 0.932

## 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.

ARIZONA  
LOCAL PRODUCTS/COMPLETED OPERATIONS  
BASIC LIMIT RELATIVE CHANGE ANALYSIS

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TYPE OF POLICY	(1) BAILEY FORMULA RELATIVITY	(2) CREDIBILITY	(3) CREDIBILITY WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	(5) INDICATED CHANGE
10	1.013	0.781	1.010	1.009	
34	1.059	0.502	1.029	1.028	1.9%
36	0.921	0.535	0.957	0.956	-5.3%
37	1.062	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	0.823	0.264	0.950	0.945	

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

STATE	(1)	(2)	(3)	(4)
	BAILEY FORMULA RELATIVITY	CREDIBILITY	CREDIBILITY WEIGHTED RELATIVITY	BALANCED RELATIVITY
	1.280	0.407	1.106	1.105
	1.226	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
	1.362	0.116	1.036	1.036
	1.077	0.482	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
	1.050	0.362	1.018	1.017
	1.051	0.299	1.015	1.015
	1.047	0.330	1.015	1.015
	1.077	0.174	1.013	1.013
	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	1.003	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	0.996	0.996
	0.989	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
	0.926	0.238	0.982	0.982
	0.971	0.595	0.983	0.982
	0.684	0.055	0.979	0.979
	0.895	0.190	0.979	0.979
	0.930	0.383	0.973	0.972
	0.812	0.165	0.966	0.966
	0.866	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
	0.644	0.196	0.917	0.917
Arizona	0.757	0.314	0.916	0.916
	0.796	0.387	0.916	0.915
	0.619	0.293	0.869	0.869

\* Sorted by balanced relative change

## INSURANCE SERVICES OFFICE, INC.

ARIZONA  
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. 03/31/20 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	\$21,412	\$71,328	1.640	1.509	11	0.826
	02 RET.STRS-NTFD/DRG	\$26,855	\$109,408	3.545	3.262	4	0.914
	11 COMP. OPS. (LOW)	\$133,025	\$755,460	0.386	0.355	9	0.948
	12 COMP. OPS. (MED)	\$2,860,018	\$10,300,928	0.847	0.779	127	0.936
	13 COMP. OPS. (HGH)	\$99,962	\$682,943	0.330	0.304	2	0.873
	TOTAL *	\$3,141,272	\$11,920,067	0.839		153	
34 MULT MERCANTILE	01 RET.STRS-FOOD/DRG	\$109,316	\$476,922	0.495	0.455	24	0.842
	02 RET.STRS-NTFD/DRG	\$79,870	\$348,731	1.742	1.604	8	0.931
	12 COMP. OPS. (MED)	\$56,892	\$277,422	1.311	1.206	1	0.953
	TOTAL *	\$246,078	\$1,103,075	1.088		33	
36 MULT SERVICES	01 RET.STRS-FOOD/DRG	\$13,882	\$63,457	0.688	0.633	3	0.783
	02 RET.STRS-NTFD/DRG	\$256,809	\$1,037,722	1.706	1.570	53	0.866
	11 COMP. OPS. (LOW)	\$152,416	\$644,308	1.107	1.019	15	0.898
	12 COMP. OPS. (MED)	\$150,753	\$1,525,335	0.249	0.229	12	0.886
	13 COMP. OPS. (HGH)	\$10,365	\$45,799	0.000	0.000	0	0.827
	TOTAL *	\$584,225	\$3,316,621	1.119		83	
37 MULT INDUST/PROC.	01 RET.STRS-FOOD/DRG	\$5	\$5	0.000	0.000	0	0.825
	11 COMP. OPS. (LOW)	\$1,066	\$4,505	0.010	0.009	0	0.947
	12 COMP. OPS. (MED)	\$50,340	\$263,226	0.790	0.727	6	0.934
	13 COMP. OPS. (HGH)	\$0	\$206	0.000	0.000	0	0.872
	TOTAL *	\$51,411	\$267,942	0.774		6	
38 MULT CONTRACTORS	11 COMP. OPS. (LOW)	\$295,868	\$1,224,079	0.946	0.870	24	0.935
	12 COMP. OPS. (MED)	\$4,313,249	\$19,048,818	0.767	0.706	233	0.923
	13 COMP. OPS. (HGH)	\$313,589	\$1,219,995	0.724	0.666	12	0.861
	TOTAL *	\$4,922,706	\$21,492,892	0.775		269	
TOTAL ALL TOP	01 RET.STRS-FOOD/DRG	\$144,615	\$611,712	0.683		38	
	02 RET.STRS-NTFD/DRG	\$363,534	\$1,495,861	1.850		65	
	11 COMP. OPS. (LOW)	\$582,375	\$2,628,352	0.858		48	
	12 COMP. OPS. (MED)	\$7,431,252	\$31,415,729	0.792		379	
	13 COMP. OPS. (HGH)	\$423,916	\$1,948,943	0.613		14	
	TOTAL *	\$8,945,692	\$38,100,597	0.829		544	

\* 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	8,416,670	39,973,133	0.852		2,982	
	02 RET.STRS-NTFD/DRG	5,558,740	26,332,002	1.248		672	
	12 COMP. OPS. (MED)	2,448,906	11,647,654	1.126		132	
	TOTAL *	16,424,316	77,952,789	1.027		3,786	
36 MULT SERVICES	01 RET.STRS-FOOD/DRG	848,644	4,334,228	1.308		191	
	02 RET.STRS-NTFD/DRG	14,186,650	58,805,129	0.951		2,767	
	11 COMP. OPS. (LOW)	3,222,726	15,414,850	1.074		482	
	12 COMP. OPS. (MED)	4,896,101	24,401,807	1.098		800	
	13 COMP. OPS. (HGH)	1,067,475	5,473,142	0.781		63	
	TOTAL *	24,221,596	108,429,156	1.002		4,303	
37 MULT INDUST/PROC.	01 RET.STRS-FOOD/DRG	18,708	99,531	0.356		1	
	11 COMP. OPS. (LOW)	112,068	571,925	1.066		19	
	12 COMP. OPS. (MED)	3,758,700	19,361,968	1.170		289	
	13 COMP. OPS. (HGH)	42,554	250,368	0.000		0	
	TOTAL *	3,932,030	20,283,792	1.150		309	
38 MULT CONTRACTORS	11 COMP. OPS. (LOW)	10,091,456	49,007,588	1.071		731	
	12 COMP. OPS. (MED)	164,631,197	819,983,232	1.102		13,301	
	13 COMP. OPS. (HGH)	14,387,699	69,460,015	0.947		720	
	TOTAL *	189,110,352	938,450,835	1.089		14,752	
TOTAL ALL TOP	01 RET.STRS-FOOD/DRG	11722337	55888016	0.896		3,775	
	02 RET.STRS-NTFD/DRG	22,733,363	99,558,679	1.041		3,934	
	11 COMP. OPS. (LOW)	18,548,102	89,826,619	1.180		1,877	
	12 COMP. OPS. (MED)	275,280,228	1,329,006,124	1.109		21,667	
	13 COMP. OPS. (HGH)	23,482,914	111,546,073	0.888		1,053	
	TOTAL *	351,766,944	1,685,825,511	1.087		32,306	

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

COMMERCIAL PACKAGE POLICY

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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**

**ARIZONA (02)**

**PACKAGE MODIFICATION FACTORS**

<b>Package Modification Assignment (PMA)</b>	<b>Premium From CLM Division</b>			
	<b>Two</b>	<b>Three, Four, Five, Eight  Property</b>	<b>Four, Six  Liability</b>	<b>All Other Divisions</b>
Apartment House	.90	.91	.68	1.00
Contractors	.90	.95	.95	1.00
Industrial & Processing	.90	.89	.94	1.00
Institutional	.90	.99	.82	1.00
Mercantile	.90	.99	.92	1.00
Motel/Hotel	.90	1.00	.96	1.00
Office	.90	.94	.89	1.00
Service	.90	1.00	.90	1.00

**Table 1. Package Modification Factors**