

RULES – IMPLEMENTATION

SEPTEMBER 11, 2020

COMMERCIAL MULTIPLE LINE

LI-ML-2020-044

ARKANSAS COMMERCIAL PACKAGE POLICY REVISED PACKAGE MODIFICATION FACTOR REVISION TO BE IMPLEMENTED; EXHIBITS NEWLY PRESENTED IN EXCEL

KEY MESSAGE

Revised Commercial Package Policy package modification factors for an overall statewide change of +3.3% to be implemented.

BACKGROUND

In circular [LI-ML-2020-017](#), 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-2020-RLA1, which presents a review of Commercial Package Policy modification factors experience. Refer to the attachment(s) for complete details.

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

We do not establish an effective date for Commercial Package Policy rules revisions in this state. Each insurer that elects to utilize this revision is responsible for determining its own effective date.

COMPANY ACTION

ISO has not filed this revision on behalf of insurers.

You must independently determine what revision to make and when to make any revision effective. If you decide to use all or any part of our revision, you are NOT required to file anything with the Insurance Department.

You must document your files in case the Insurance Department wishes to review the information at a later date. In all internal correspondence on this revision, you should refer to ISO Revision Designation Number ML-2020-RLA1, 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-2019-057](#) contains the ISO Guide To Renewals With Changed Conditions For Commercial Lines, which is available only as a guide to assist participating companies in complying with various conditional renewal statutes or regulations, for the major commercial lines of insurance serviced by ISO. The information in the Guide does not necessarily reflect all requirements or exceptions that may apply, and it is not intended as a substitute for your review of all applicable statutes and regulations concerning policyholder notification.

REVISION DISTRIBUTION

We will issue a Notice to Manualholders with an edition date of 2-21 (or the earliest possible subsequent date), along with any new and/or revised manual pages.

REFERENCE(S)

- [LI-ML-2020-017](#) (04/01/2020) Commercial Package Policy Experience Reviewed By Staff
- [LI-CL-2019-057](#) (12/10/2019) Revised Lead Time Requirements Listing

ATTACHMENT(S)

- Filing [ML-2020-RLA1](#)
- Excel Workbook

FILES AVAILABLE FOR DOWNLOAD

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

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

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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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ARKANSAS

ADVISORY PACKAGE MODIFICATION FACTOR REVIEW

COMMERCIAL PACKAGE POLICY

ML-2020-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.
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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. & Liab. Total</u>
Motel/Hotel	0.0%	8.7%	1.9%
Apartment	0.0%	0.0%	0.0%
Office	4.5%	1.1%	3.4%
Mercantile	0.0%	6.0%	1.3%
Institutional	6.8%	-5.1%	5.6%
Services	0.0%	9.9%	2.1%
Indust./Proc.	1.4%	6.0%	3.4%
Contractors	<u>2.1%</u>	<u>9.0%</u>	<u>7.4%</u>
Statewide	2.3%	5.9%	3.3%

ARKANSAS

ADVISORY PACKAGE MODIFICATION FACTOR REVIEW

COMMERCIAL PACKAGE POLICY

ML-2020-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.
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HISTORICAL SOURCE DATA	<p>The data used in this review is from ISO reporting companies for:</p> <ul style="list-style-type: none">• Basic Group I: five fiscal accident years ending 03/31/19.• Basic Group II: ten fiscal accident years ending 03/31/19.• Special Causes of Loss: five fiscal accident years ending 03/31/19.• 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 03/31/19.• Manufacturers and Contractors: five fiscal accident years ending 03/31/19.• Products: three calendar accident years ending 12/31/18.• Local Products and Completed Operations: three calendar accident years ending 12/31/18.
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PRIOR ISO REVISIONS	The latest revisions in this state are:
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<u>Filing</u>	ML-19-RLA1	ML-17-RLA1	ML-15-RLA1
<u>Dates</u>			
Implemented	10/1/2019	11/1/2017	10/1/2015
<u>Changes</u>			
Indicated	4.7%	-3.0%	2.1%
Filed	4.7%	-3.0%	2.1%
Implemented	4.7%	-3.0%	2.1%

ARKANSAS

ADVISORY PACKAGE MODIFICATION FACTOR REVIEW

COMMERCIAL PACKAGE POLICY

ML-2020-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 12/31/18 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. Columbia Insurance Group
 6. Continental Casualty Company
 7. Liberty Mutual Insurance Company
 8. State Auto Mutual Insurance Company
 9. Hartford Accident & Indemnity Company
 10. Admiral 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). 52%.

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.

ARKANSAS
ADVISORY PACKAGE MODIFICATION FACTOR REVIEW
COMMERCIAL PACKAGE POLICY
ML-2020-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

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COMMERCIAL PACKAGE POLICY 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.

EXPLANATORY NOTES TO EXHIBIT A2

CALCULATION OF REVISED PACKAGE MODIFICATION FACTORS

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.

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 loss cost level needs for Basic Group I;
- (2) determine monoline category loss cost level needs for Special Causes of Loss;
- (3) determine indicated changes to the eight property CPP Package Modification Factors (PMFs) 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. rating group 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 rating group 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:

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

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

SPECIAL CAUSES OF LOSS:

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

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

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

COLUMN (1)
(Cont'd)

- . TOP_i is the relativity for the ith Type of Policy;
- . RG_j is the relativity for the jth Rating Group;
- . CAT_j is the relativity for the jth Category;
- . W_{ij} is the aggregate loss costs for the ith Type of Policy, jth Rating Group or Category;
- . R_{ij} is the experience ratio relativity for the ith Type of Policy, jth Rating Group or Category;
- . m is the number of Types of Policy in the analysis;
- . n is the number of Rating Groups or Categories in the analysis.

The procedure determines m Type of Policy relativities using the above formulas. Then, using those results, a set of n Rating Group or Category relativities 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 is the 5-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 \$40,000,000 for rating group and \$100,000,000 for type of policy. For Special Causes of Loss, K equals an aggregate loss cost volume of \$15,000,000.

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.

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:

$$\text{TOP y indicated IPMF} = \frac{(\text{TOP y current IPMF}) \times (\text{TOP y relativity})}{\text{monoline relativity}}$$

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

MULTILINE
CONSIDERATIONS
(Cont'd)

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 AND B4

BASIC GROUP I/SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

INTRODUCTION The experience used in the relativity analysis and displayed in Exhibits B3 and B4 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 and the Special Causes of Loss excess procedure. Losses have also been developed to their ultimate settlement value by application of loss development factors.

COLUMN (1) AGGREGATE LOSS COSTS

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.

COLUMN (2) 5 - YEAR AGGREGATE LOSS COSTS

The combined five-year adjusted aggregate loss costs (adjusted as described above) are used to calculate the experience ratios in column (3).

COLUMN (3) FIVE-YEAR EXPERIENCE RATIOS

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).

COLUMN (4) CREDIBILITY (Z) WEIGHTED EXPERIENCE RATIO

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, rating group or category, and territory (where applicable).

EXPLANATORY NOTES TO EXHIBITS B3 AND B4 (Cont'd)

COLUMN (4)
(Cont'd)

The important concept underlying empirical Bayesian credibility is that the credibility should depend both on the overall variation of the group of which the cell is a member, in addition to the variation of the yearly experience ratios for each cell. Therefore, if a cell's data is itself very stable then we would assign a relatively high credibility value, 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 (Territory, TOP and Rating Group/Category) within a class group. The K value is estimated from the underlying data using the empirical Bayes method and varies by TOP group and by territory where applicable. 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.

The calculated credibility (Z) is then applied to the five-year experience ratio with the complement of credibility applied to the credibility-weighted average of the individual experience ratios of the group, where group refers to the specified TOP/territory group. In a non-territory state, K values would be determined for the three TOP groups on an entire state basis.

COLUMN (5)

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, rating groups 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.

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 have not been reviewed in 2019 or 2020.

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 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.

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:

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

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:

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

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;

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^{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;

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^{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;

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 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

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

$$\text{Manufacturers and Contractors and } Z = \sqrt{P/20,000} \text{ for Products, where P}$$

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

$$= \sqrt{P/15,000} \text{ for type of policy and class group, and } Z = \sqrt{P/5,500} \text{ for}$$

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.

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

ARKANSAS

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%	0.92	1.00	8.7%	1.9%
APARTMENT (32)	1.00	1.00	0.0%	1.00	1.00	0.0%	0.0%
OFFICE (33)	0.67	0.70	4.5%	0.91	0.92	1.1%	3.4%
MERCANTILE (34)	0.96	0.96	0.0%	0.84	0.89	6.0%	1.3%
INSTITUTION(35)	0.88	0.94	6.8%	0.78	0.74	-5.1%	5.6%
SERVICES (36)	1.00	1.00	0.0%	0.91	1.00	9.9%	2.1%
IND/PROC (37)	0.74	0.75	1.4%	0.84	0.89	6.0%	3.4%
CONTRACTORS(38)	0.97	0.99	2.1%	0.89	0.97	9.0%	7.4%
STATEWIDE			2.3%			5.9%	3.3%

INSURANCE SERVICES OFFICE, INC.

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

MOTEL/HOTEL(31) *****	(1) AGGREGATE LOSS <u>COSTS</u>	(2) CURRENT IMPLICIT <u>PMF</u>	(3) NET <u>INDICATION</u>	(4) INDIC. <u>PMF</u>	(5) CAPPED <u>PMF</u>
COVERAGE					
PROPERTY-					
BASIC GRP I	530,276	0.770	-1.7%	0.757	0.724
BASIC GRP II	647,775	1.338	12.1%	1.500	1.434
SP CAUSE/LOSS	125,774	0.907	-0.8%	0.900	0.860
* CRIME	592	0.910	0.0%	0.910	0.910
* INL. MAR.	3,892	0.910	0.0%	0.910	0.910
* FIDELITY	4,700	1.000	0.0%	1.000	1.000
TOTAL	1,313,009	1.000	4.6%	1.046	1.000
LIABILITY-					
OL&T	364,028	0.921	-6.4%	0.862	1.000
TOTAL	364,028	0.920	-6.3%	0.862	1.000

PROP. & LIAB. TOTAL	1,677,037		2.2%		1.9%

APARTMENT (32) *****	(1) AGGREGATE LOSS <u>COSTS</u>	(2) CURRENT IMPLICIT <u>PMF</u>	(3) NET <u>INDICATION</u>	(4) INDIC. <u>PMF</u>	(5) CAPPED <u>PMF</u>
COVERAGE					
PROPERTY-					
BASIC GRP I	2,189,502	0.874	1.6%	0.888	0.812
BASIC GRP II	2,583,821	1.076	19.6%	1.287	1.177
SP CAUSE/LOSS	790,126	1.189	-1.5%	1.171	1.071
* CRIME	469	0.910	0.0%	0.910	0.910
* INL. MAR.	835	0.910	0.0%	0.910	0.910
* FIDELITY	2,975	1.000	0.0%	1.000	1.000
TOTAL	5,567,728	1.000	9.4%	1.094	1.000
LIABILITY-					
OL&T	370,999	1.000	-7.7%	0.923	1.000
TOTAL	370,999	1.000	-7.7%	0.923	1.000

PROP. & LIAB. TOTAL	5,938,727		8.3%		0.0%

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

INSURANCE SERVICES OFFICE, INC.

ARKANSAS
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	845,821	0.694	-1.4%	0.684	0.702
BASIC GRP II	944,613	0.594	8.2%	0.643	0.659
SP CAUSE/LOSS	402,735	0.824	-3.3%	0.797	0.817
* CRIME	2,622	0.910	0.0%	0.910	0.910
* INL. MAR.	54,283	0.910	0.0%	0.910	0.910
* FIDELITY	8,831	1.000	0.0%	1.000	1.000
TOTAL	2,258,905	0.670	2.4%	0.686	0.700
LIABILITY-					
OL&T	1,060,526	0.918	1.3%	0.930	0.930
M&C	64,947	0.744	7.7%	0.801	0.801
TOTAL	1,125,473	0.910	1.2%	0.921	0.920

PROP. & LIAB. TOTAL	3,384,378		2.0%		3.4%

MERCANTILE (34) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	3,714,483	0.951	-5.7%	0.897	0.919
BASIC GRP II	3,789,050	1.012	1.3%	1.025	1.051
SP CAUSE/LOSS	900,522	0.852	-7.3%	0.790	0.810
* CRIME	19,994	0.910	0.0%	0.910	0.910
* INL. MAR.	597,111	0.910	0.0%	0.910	0.910
* FIDELITY	139,615	1.000	0.0%	1.000	1.000
TOTAL	9,160,775	0.960	-2.3%	0.938	0.960
LIABILITY-					
OL&T	1,477,887	0.786	-0.5%	0.782	0.782
M&C	646,787	1.120	10.4%	1.236	1.236
LOCAL PRODUCT	68,048	0.884	-0.8%	0.877	0.877
* MULTI PRODUCT	343,445	0.853	2.0%	0.870	0.870
TOTAL	2,536,166	0.840	5.5%	0.886	0.890

PROP. & LIAB. TOTAL	11,696,941		-0.6%		1.3%

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

INSURANCE SERVICES OFFICE, INC.

ARKANSAS
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	3,298,223	0.949	-1.7%	0.933	0.956
BASIC GRP II	6,167,662	0.882	9.3%	0.964	0.988
SP CAUSE/LOSS	1,379,460	0.738	-1.5%	0.727	0.745
* CRIME	13,430	0.910	0.0%	0.910	0.910
* INL. MAR.	19,715	0.910	0.0%	0.910	0.910
* FIDELITY	65,698	1.000	0.0%	1.000	1.000
TOTAL	10,944,188	0.880	4.5%	0.920	0.940
LIABILITY-					
OL&T	1,019,139	0.894	-7.5%	0.827	0.827
M&C	249,297	0.505	5.4%	0.532	0.532
TOTAL	1,268,436	0.780	-5.4%	0.738	0.740

PROP. & LIAB. TOTAL	12,212,624		3.5%		5.6%

SERVICES (36) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	2,105,618	0.982	-5.8%	0.925	0.900
BASIC GRP II	2,454,287	1.017	12.2%	1.141	1.111
SP CAUSE/LOSS	705,331	0.998	-4.5%	0.953	0.928
* CRIME	4,324	0.910	0.0%	0.910	0.910
* INL. MAR.	17,819	0.910	0.0%	0.910	0.910
* FIDELITY	39,946	1.000	0.0%	1.000	1.000
TOTAL	5,327,325	1.000	2.7%	1.027	1.000
LIABILITY-					
OL&T	636,978	0.993	2.7%	1.020	1.043
M&C	654,850	0.813	9.8%	0.893	0.913
LOCAL PRODUCT	136,037	1.500	-1.1%	1.484	1.500
* MULTI PRODUCT	48,940	0.915	3.9%	0.950	0.950
TOTAL	1,476,805	0.910	7.6%	0.980	1.000

PROP. & LIAB. TOTAL	6,804,130		3.8%		2.1%

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

INSURANCE SERVICES OFFICE, INC.

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

IND/PROC (37) *****	(1) AGGREGATE LOSS <u>COSTS</u>	(2) CURRENT IMPLICIT <u>PMF</u>	(3) NET <u>INDICATION</u>	(4) INDIC. <u>PMF</u>	(5) CAPPED <u>PMF</u>
COVERAGE					
PROPERTY-					
BASIC GRP I	1,076,742	0.641	-7.6%	0.592	0.607
BASIC GRP II	991,149	0.869	6.2%	0.923	0.946
SP CAUSE/LOSS	261,289	0.817	-5.3%	0.774	0.793
* CRIME	1,586	0.910	0.0%	0.910	0.910
* INL. MAR.	1,286	0.910	0.0%	0.910	0.910
* FIDELITY	24,958	1.000	0.0%	1.000	1.000
TOTAL	2,357,010	0.740	-0.9%	0.733	0.750
LIABILITY-					
M&C	1,278,831	0.833	5.9%	0.882	0.882
LOCAL PRODUCT	24,149	0.679	2.9%	0.699	0.699
* MULTI PRODUCT	533,626	0.864	8.5%	0.938	0.938
TOTAL	1,836,606	0.840	6.5%	0.895	0.890

PROP. & LIAB.	4,193,616		2.3%		3.4%
TOTAL					

CONTRACTORS(38) *****	(1) AGGREGATE LOSS <u>COSTS</u>	(2) CURRENT IMPLICIT <u>PMF</u>	(3) NET <u>INDICATION</u>	(4) INDIC. <u>PMF</u>	(5) CAPPED <u>PMF</u>
COVERAGE					
PROPERTY-					
BASIC GRP I	494,690	0.861	-4.4%	0.823	0.844
BASIC GRP II	667,375	0.990	3.6%	1.026	1.052
SP CAUSE/LOSS	274,464	1.171	-4.4%	1.119	1.148
* CRIME	1,758	0.910	0.0%	0.910	0.910
* INL. MAR.	2,564	0.910	0.0%	0.910	0.910
* FIDELITY	39,536	1.000	0.0%	1.000	1.000
TOTAL	1,480,387	0.970	-0.7%	0.963	0.990
LIABILITY-					
M&C	3,725,482	0.908	11.2%	1.010	1.010
LOCAL PRODUCT	1,264,004	0.848	3.7%	0.879	0.879
TOTAL	4,989,486	0.890	9.5%	0.975	0.970

PROP. & LIAB.	6,469,873		7.2%		7.4%
TOTAL					

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

INSURANCE SERVICES OFFICE, INC.

ARKANSAS
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	14,255,355	0.880	-3.4%	0.850	0.848
BASIC GRP II	18,245,732	0.939	9.2%	1.025	1.023
SP CAUSE/LOSS	4,839,701	0.883	-3.5%	0.852	0.850
* CRIME	44,775	0.910	0.0%	0.910	0.910
* INL. MAR.	697,505	0.910	0.0%	0.910	0.910
* FIDELITY	326,259	1.000	0.0%	1.000	1.000
<hr/> TOTAL	<hr/> 38,409,327	<hr/> 0.910	<hr/> 2.5%	<hr/> 0.933	<hr/> 0.931
LIABILITY-					
OL&T	4,929,557	0.883	-2.1%	0.864	0.882
M&C	6,620,194	0.871	9.7%	0.955	0.958
LOCAL PRODUCT	1,492,237	0.881	3.0%	0.907	0.909
* MULTI PRODUCT	926,011	0.862	5.8%	0.912	0.913
<hr/> TOTAL	<hr/> 13,967,999	<hr/> 0.871	<hr/> 5.1%	<hr/> 0.916	<hr/> 0.923

PROP. & LIAB.	52,377,326		3.2%		3.3%
TOTAL					

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

INSURANCE SERVICES OFFICE, INC.

ARKANSAS
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)	0.970	1.003	1.000
APARTMENT (32)	1.000	1.083	1.000
OFFICE (33)	0.750	0.749	0.760
MERCANTILE (34)	0.930	0.926	0.940
INSTITUTION(35)	0.870	0.899	0.920
SERVICES (36)	0.980	1.016	1.000
IND/PROC (37)	0.780	0.799	0.810
CONTRACTORS(38)	0.910	0.972	0.980

NOTE: Combined PMFs are provided for informational purposes only.

INSURANCE SERVICES OFFICE, INC.

ARKANSAS

BASIC GROUP I RELATIVITY ANALYSIS

TYPE OF POLICY	(1) LEAST SQUARES FORMULA	(2) CREDIBILITY	(3) WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	(5) INDICATED CHANGE
	RELATIVITY	CREDIBILITY	RELATIVITY	RELATIVITY	CHANGE
10	1.246	0.102	1.023	1.030	
31	1.334	0.022	1.006	1.013	-1.7%
32	1.587	0.083	1.039	1.046	1.6%
33	1.235	0.042	1.009	1.016	-1.4%
34	0.810	0.171	0.965	0.971	-5.7%
35	1.037	0.132	1.005	1.012	-1.7%
36	0.688	0.100	0.963	0.970	-5.8%
37	0.352	0.054	0.945	0.952	-7.6%
38	0.437	0.026	0.979	0.985	-4.4%
RATING GROUP					
1	0.842	0.141	0.976	0.989	
2	0.701	0.114	0.960	0.973	
3	1.202	0.109	1.020	1.034	
4	0.755	0.317	0.915	0.927	
5	0.828	0.055	0.990	1.003	
6	1.756	0.182	1.108	1.122	
7	1.359	0.042	1.013	1.026	
8	0.873	0.214	0.971	0.984	
9	0.821	0.090	0.982	0.995	
10	0.951	0.073	0.996	1.009	
11	0.848	0.020	0.997	1.010	
13	1.338	0.074	1.022	1.035	
14	0.905	0.088	0.991	1.004	
15	1.022	0.055	1.001	1.014	
17	1.011	0.008	1.000	1.013	
18	1.302	0.014	1.004	1.017	
19	1.017	0.008	1.000	1.013	
21	1.096	0.078	1.007	1.020	
22	0.874	0.038	0.995	1.008	

INSURANCE SERVICES OFFICE, INC.

ARKANSAS

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	1.334	0.088	1.026	1.031	
31	3.612	0.014	1.018	1.023	-0.8%
32	1.144	0.078	1.011	1.016	-1.5%
33	0.848	0.048	0.992	0.997	-3.3%
34	0.626	0.106	0.952	0.956	-7.3%
35	1.083	0.138	1.011	1.016	-1.5%
36	0.793	0.088	0.980	0.985	-4.5%
37	0.416	0.033	0.971	0.976	-5.3%
38	0.577	0.035	0.981	0.986	-4.4%
CATEGORY					
1	1.009	0.569	1.005	1.005	
2	0.469	0.051	0.962	0.962	
3	0.946	0.046	0.997	0.997	
4	1.436	0.046	1.017	1.017	
5	1.651	0.028	1.014	1.014	
6	1.687	0.017	1.009	1.009	
7	0.233	0.011	0.984	0.984	
8	0.551	0.046	0.973	0.973	
9	0.668	0.086	0.966	0.966	
10	1.732	0.005	1.003	1.003	
11	2.529	0.026	1.024	1.024	
12	0.871	0.065	0.991	0.991	
13	1.105	0.025	1.002	1.002	
14	1.319	0.046	1.013	1.013	

INSURANCE SERVICES OFFICE, INC.

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

ENTIRE STATE		(1) ACCIDENT YEAR ENDING 03/31/19 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) CREDIBILITY WEIGHTED EXPERIENCE RATIO	(5) CREDIBILITY WEIGHTED RELATIVITY
TYPE OF POLICY	CATEGORY					
10 MONOLINE	01 APARTMENTS	141,228	1,964,150	0.257	0.914	0.956
	02 OTHER HABITATIONAL	107,479	577,066	1.064	1.055	1.104
	03 RESTAURANTS & BARS	15,174	61,016	0.000	0.887	0.928
	04 OTHER MERCANTILE RS	435,136	2,073,472	0.250	0.912	0.954
	05 PUBLIC BUILDINGS	205,348	824,380	0.723	0.999	1.045
	06 CHURCHES	21,537	115,172	0.635	0.987	1.032
	07 SCHOOLS	44,666	317,023	0.179	0.913	0.955
	08 OFFICES AND BANKS	273,083	1,240,325	2.152	1.240	1.297
	09 REC. FACILITIES	222,462	960,889	0.279	0.925	0.968
	10 HOTELS AND MOTELS	313,009	901,094	1.654	1.154	1.207
	11 HOSPITALS/NURS HOME	49,247	212,806	0.180	0.914	0.956
	13 MOTOR VEHICLE RISKS	106,278	574,331	0.751	1.004	1.050
	14 OTHER NON-MANUF.	142,778	750,258	0.938	1.035	1.083
	15 STORAGE	56,339	243,574	9.501	2.407	2.518
	17 FOOD MANUFACTURING	5,560	24,778	0.000	0.887	0.928
	18 WOOD MANUFACTURING	4,144	23,353	0.000	0.887	0.928
	19 WEARING APPAREL	-	10,271	0.000	0.887	0.928
	21 METAL MANUFACTURING	81,563	356,424	4.744	1.649	1.725
	22 OTHER MANUFACTURING	20,430	127,482	0.000	0.886	0.927
	TOTAL*	2,245,461	11,357,864	1.221	1.078	1.128
31 MULTILINE MOTEL/HOTEL	10 HOTELS AND MOTELS	530,276	2,271,489	1.396	1.235	1.292
	TOTAL*	530,276	2,271,489	1.396	1.235	1.292
32 MULTILINE APARTMENT	01 APARTMENTS	1,272,548	4,595,415	1.423	1.303	1.363
	02 OTHER HABITATIONAL	916,954	4,509,237	1.096	1.081	1.131
	TOTAL*	2,189,502	9,104,652	1.286	1.210	1.266
33 MULTILINE OFFICE	08 OFFICES AND BANKS	845,821	4,361,520	1.048	1.049	1.097
	TOTAL*	845,821	4,361,520	1.048	1.049	1.097
34 MULTILINE MERCANTILE	03 RESTAURANTS & BARS	648,716	4,563,650	0.902	0.950	0.994
	04 OTHER MERCANTILE RS	2,402,744	13,038,103	0.517	0.597	0.624
	08 OFFICES AND BANKS	119,890	661,469	1.335	1.141	1.194
	13 MOTOR VEHICLE RISKS	208,696	686,622	0.474	0.865	0.905
	14 OTHER NON-MANUF.	66,249	345,206	0.088	0.811	0.848
	15 STORAGE	268,188	1,383,548	0.417	0.776	0.812
	TOTAL*	3,714,483	20,678,598	0.593	0.708	0.741

INSURANCE SERVICES OFFICE, INC.

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

ENTIRE STATE		(1) ACCIDENT YEAR ENDING 03/31/19 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) CREDIBILITY WEIGHTED EXPERIENCE RATIO	(5) CREDIBILITY WEIGHTED RELATIVITY
TYPE OF POLICY	CATEGORY					
35 MULTILINE INSTITUTIONAL	02 OTHER HABITATIONAL	580	70,181	0.000	0.864	0.904
	05 PUBLIC BUILDINGS	365,174	1,500,740	0.577	0.838	0.877
	06 CHURCHES	1,897,362	8,754,806	1.961	1.774	1.856
	07 SCHOOLS	310,716	1,429,144	1.823	1.391	1.455
	08 OFFICES AND BANKS	247,375	1,085,309	0.100	0.679	0.710
	09 REC. FACILITIES	65,439	383,678	0.121	0.811	0.848
	11 HOSPITALS/NURS HOME	125,164	593,264	0.483	0.878	0.918
	13 MOTOR VEHICLE RISKS	49,101	251,568	0.000	0.813	0.850
	14 OTHER NON-MANUF.	237,312	1,127,379	1.119	1.078	1.128
	TOTAL*	3,298,223	15,196,069	1.472	1.434	1.501
36 MULTILINE SERVICES	03 RESTAURANTS & BARS	43,236	267,411	0.000	0.353	0.369
	04 OTHER MERCANTILE RS	203,513	1,084,116	0.094	0.296	0.310
	08 OFFICES AND BANKS	424,124	2,648,878	0.526	0.507	0.530
	09 REC. FACILITIES	548,908	2,612,947	0.626	0.572	0.598
	13 MOTOR VEHICLE RISKS	343,160	1,684,746	1.608	1.104	1.155
	14 OTHER NON-MANUF.	294,655	1,372,537	0.461	0.465	0.486
	15 STORAGE	118,152	691,900	0.241	0.383	0.401
	21 METAL MANUFACTURING	73,653	422,586	0.000	0.328	0.343
	22 OTHER MANUFACTURING	56,217	334,239	0.344	0.436	0.456
	TOTAL*	2,105,618	11,119,360	0.628	0.576	0.603
37 MULTILINE INDUST/PROCESS	04 OTHER MERCANTILE RS	100,923	516,568	0.693	0.544	0.569
	08 OFFICES AND BANKS	28,605	138,259	0.043	0.385	0.403
	13 MOTOR VEHICLE RISKS	665	4,546	2.682	0.777	0.813
	14 OTHER NON-MANUF.	31,514	187,599	0.292	0.431	0.451
	15 STORAGE	2,099	5,037	0.000	0.405	0.424
	17 FOOD MANUFACTURING	47,870	289,030	0.053	0.363	0.380
	18 WOOD MANUFACTURING	135,948	537,083	0.408	0.449	0.470
	19 WEARING APPAREL	50,209	298,915	0.004	0.349	0.365
	21 METAL MANUFACTURING	456,781	2,586,414	0.302	0.361	0.378
	22 OTHER MANUFACTURING	222,128	1,123,115	0.160	0.324	0.339
	TOTAL*	1,076,742	5,686,566	0.291	0.384	0.402
38 MULTILINE CONTRACTORS	04 OTHER MERCANTILE RS	336,924	1,841,778	0.198	0.313	0.327
	08 OFFICES AND BANKS	145,563	750,672	0.313	0.408	0.427
	14 OTHER NON-MANUF.	12,203	95,214	1.911	0.730	0.764
	TOTAL*	494,690	2,687,664	0.274	0.352	0.367

INSURANCE SERVICES OFFICE, INC.

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

ENTIRE STATE		(1) ACCIDENT YEAR ENDING 03/31/19 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) CREDIBILITY WEIGHTED EXPERIENCE RATIO	(5) CREDIBILITY WEIGHTED RELATIVITY
TYPE OF POLICY	CATEGORY					
TOTAL ALL TOPS*	01 APARTMENTS	1,413,776	6,559,565	1.307	1.264	1.322
	02 OTHER HABITATIONAL	1,025,013	5,156,484	1.092	1.078	1.128
	03 RESTAURANTS & BARS	707,126	4,892,077	0.827	0.912	0.954
	04 OTHER MERCANTILE RS	3,479,240	18,554,037	0.433	0.590	0.617
	05 PUBLIC BUILDINGS	570,522	2,325,120	0.630	0.896	0.937
	06 CHURCHES	1,918,899	8,869,978	1.946	1.765	1.846
	07 SCHOOLS	355,382	1,746,167	1.616	1.331	1.392
	08 OFFICES AND BANKS	2,084,461	10,886,432	0.925	0.871	0.911
	09 REC. FACILITIES	836,809	3,957,514	0.494	0.684	0.716
	10 HOTELS AND MOTELS	843,285	3,172,583	1.492	1.205	1.260
	11 HOSPITALS/NURS HOME	174,411	806,070	0.397	0.889	0.929
	13 MOTOR VEHICLE RISKS	707,900	3,201,813	1.034	0.998	1.044
	14 OTHER NON-MANUF.	784,711	3,878,193	0.731	0.786	0.822
	15 STORAGE	444,778	2,324,059	1.519	0.876	0.917
	17 FOOD MANUFACTURING	53,430	313,808	0.047	0.417	0.437
	18 WOOD MANUFACTURING	140,092	560,436	0.396	0.462	0.483
	19 WEARING APPAREL	50,209	309,186	0.004	0.349	0.365
	21 METAL MANUFACTURING	611,997	3,365,424	0.858	0.529	0.553
	22 OTHER MANUFACTURING	298,775	1,584,836	0.184	0.383	0.401
	TOTAL*	16,500,816	82,463,782	0.971	0.956	1.000

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

INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 03/31/19 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) CREDIBILITY WEIGHTED EXPERIENCE RATIO	(5) CREDIBILITY WEIGHTED RELATIVITY
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10 MONOLINE	01 BUILDINGS	555,379	2,806,273	0.835	0.992	1.384
	02 RES. APTS. AND COND	14,686	84,775	1.552	1.157	1.614
	03 OFFICES	36,075	180,244	1.975	1.250	1.743
	04 MERCANTILE - HIGH	42,066	210,820	0.331	0.892	1.244
	05 MERCANTILE - MEDIUM	7,155	35,071	16.003	4.262	5.944
	06 MERCANTILE - LOW	6,392	39,199	1.491	1.143	1.594
	07 MOTELS AND HOTELS	13,326	65,994	1.085	1.056	1.473
	08 INSTITUTIONAL - HIG	10,850	57,613	0.142	0.853	1.190
	09 INSTITUTIONAL - LOW	26,576	122,736	0.400	0.908	1.266
	10 INDUST-PROC - HIGH	675	3,679	0.000	0.823	1.148
	11 INDUST-PROC - LOW	8,905	45,212	0.090	0.842	1.174
	12 SERVICE - HIGH	18,855	92,918	1.324	1.108	1.545
	13 SERVICE - LOW	20,589	107,885	2.642	1.393	1.943
	14 CONTRACTORS	6,091	22,677	0.000	0.823	1.148
	TOTAL*	767,620	3,875,096	1.045	1.040	1.451
31 MULTILINE MOTEL/HOTEL	01 BUILDINGS	101,715	452,139	3.914	2.682	3.741
	07 MOTELS AND HOTELS	24,059	103,543	0.087	0.524	0.731
	TOTAL*	125,774	555,682	3.182	2.269	3.165
32 MULTILINE APARTMENT	01 BUILDINGS	603,708	2,667,705	0.863	0.849	1.184
	02 RES. APTS. AND COND	186,418	720,525	0.251	0.389	0.543
	TOTAL*	790,126	3,388,230	0.719	0.740	1.033
33 MULTILINE OFFICE	01 BUILDINGS	306,471	1,513,919	0.618	0.636	0.887
	03 OFFICES	95,763	480,090	0.388	0.514	0.717
	04 MERCANTILE - HIGH	178	1,221	0.000	0.641	0.894
	08 INSTITUTIONAL - HIG	177	958	0.000	0.641	0.894
	12 SERVICE - HIGH	146	1,009	0.000	0.641	0.894
	TOTAL*	402,735	1,997,197	0.563	0.607	0.847

INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 03/31/19 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) CREDIBILITY WEIGHTED EXPERIENCE RATIO	(5) CREDIBILITY WEIGHTED RELATIVITY
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34 MULTILINE MERCANTILE	01 BUILDINGS	709,756	3,591,218	0.437	0.460	0.642
	03 OFFICES	994	4,413	0.000	0.635	0.886
	04 MERCANTILE - HIGH	81,163	503,253	1.089	0.957	1.335
	05 MERCANTILE - MEDIUM	59,275	401,216	0.644	0.678	0.946
	06 MERCANTILE - LOW	40,226	204,624	0.906	0.806	1.124
	08 INSTITUTIONAL - HIG	9	50	0.000	0.643	0.897
	11 INDUST-PROC - LOW	289	289	0.000	0.642	0.895
	12 SERVICE - HIGH	5,663	19,398	1.381	0.832	1.160
	13 SERVICE - LOW	465	2,635	0.000	0.638	0.890
	14 CONTRACTORS	2,682	12,622	0.000	0.620	0.865
	TOTAL*	900,522	4,739,718	0.534	0.538	0.750
35 MULTILINE INSTITUTIONAL	01 BUILDINGS	919,547	4,509,682	0.809	0.804	1.121
	03 OFFICES	633	2,662	0.000	0.638	0.890
	08 INSTITUTIONAL - HIG	98,453	645,674	0.301	0.434	0.605
	09 INSTITUTIONAL - LOW	360,610	1,252,094	0.483	0.530	0.739
	12 SERVICE - HIGH	2	101	0.000	0.643	0.897
	13 SERVICE - LOW	30	30	0.000	0.643	0.897
	14 CONTRACTORS	185	1,001	0.000	0.641	0.894
	TOTAL*	1,379,460	6,411,244	0.687	0.706	0.984
36 MULTILINE SERVICES	01 BUILDINGS	487,864	2,537,087	0.593	0.590	0.823
	03 OFFICES	1,241	4,790	0.000	0.465	0.649
	04 MERCANTILE - HIGH	1,926	8,200	0.000	0.455	0.635
	05 MERCANTILE - MEDIUM	254	1,159	0.000	0.475	0.662
	06 MERCANTILE - LOW	1,928	6,141	0.000	0.461	0.643
	08 INSTITUTIONAL - HIG	2,930	13,080	0.000	0.442	0.616
	09 INSTITUTIONAL - LOW	7,446	43,154	0.000	0.376	0.524
	10 INDUST-PROC - HIGH	98	297	0.000	0.478	0.667
	11 INDUST-PROC - LOW	546	1,379	0.000	0.475	0.662
	12 SERVICE - HIGH	138,411	924,386	0.495	0.499	0.696
	13 SERVICE - LOW	56,989	279,843	0.599	0.576	0.803
	14 CONTRACTORS	5,698	28,274	0.000	0.406	0.566
	TOTAL*	705,331	3,847,790	0.556	0.565	0.789

INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 03/31/19 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) CREDIBILITY WEIGHTED EXPERIENCE RATIO	(5) CREDIBILITY WEIGHTED RELATIVITY
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37 MULTILINE INDUST/PROC	01 BUILDINGS	179,307	940,497	0.238	0.276	0.385
	03 OFFICES	238	1,741	0.000	0.473	0.660
	04 MERCANTILE - HIGH	103	355	0.000	0.478	0.667
	05 MERCANTILE - MEDIUM	257	461	0.000	0.477	0.665
	06 MERCANTILE - LOW	-	241	0.000	1.000	1.000
	10 INDUST-PROC - HIGH	14,346	72,859	0.548	0.536	0.748
	11 INDUST-PROC - LOW	65,443	354,446	1.004	0.871	1.215
	12 SERVICE - HIGH	455	1,449	0.000	0.474	0.661
	13 SERVICE - LOW	-	396	0.000	1.000	1.000
	14 CONTRACTORS	1,140	3,185	0.000	0.469	0.654
	TOTAL*	261,289	1,375,630	0.445	0.441	0.615
38 MULTILINE CONTRACTORS	01 BUILDINGS	148,597	758,224	0.404	0.423	0.590
	03 OFFICES	8,875	46,304	2.248	1.042	1.453
	04 MERCANTILE - HIGH	289	2,001	0.000	0.473	0.660
	05 MERCANTILE - MEDIUM	-	355	0.000	1.000	1.000
	06 MERCANTILE - LOW	225	1,551	0.000	0.474	0.661
	08 INSTITUTIONAL - HIG	19	35	0.000	0.479	0.668
	11 INDUST-PROC - LOW	609	1,484	0.000	0.474	0.661
	12 SERVICE - HIGH	275	1,366	0.000	0.475	0.662
	13 SERVICE - LOW	-	112	0.000	1.000	1.000
	14 CONTRACTORS	115,575	652,797	0.572	0.564	0.787
	TOTAL*	274,464	1,464,229	0.532	0.503	0.701
TOTAL ALL TOPS*	01 BUILDINGS	4,012,344	19,776,744	0.752	0.747	1.042
	02 RES. APTS. AND COND	201,104	805,300	0.346	0.445	0.621
	03 OFFICES	143,819	720,244	0.892	0.732	1.021
	04 MERCANTILE - HIGH	125,725	725,850	0.814	0.926	1.291
	05 MERCANTILE - MEDIUM	66,941	438,262	2.281	1.060	1.478
	06 MERCANTILE - LOW	48,771	251,756	0.943	0.835	1.165
	07 MOTELS AND HOTELS	37,385	169,537	0.443	0.714	0.995
	08 INSTITUTIONAL - HIG	112,438	717,410	0.277	0.475	0.662
	09 INSTITUTIONAL - LOW	394,632	1,417,984	0.468	0.553	0.771
	10 INDUST-PROC - HIGH	15,119	76,835	0.520	0.548	0.765
	11 INDUST-PROC - LOW	75,792	402,810	0.877	0.861	1.200
	12 SERVICE - HIGH	163,807	1,040,627	0.618	0.581	0.810
	13 SERVICE - LOW	78,073	390,901	1.134	0.792	1.104
	14 CONTRACTORS	131,371	720,556	0.503	0.570	0.794
	TOTAL*	5,607,321	27,654,816	0.728	0.717	1.000

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

INSURANCE SERVICES OFFICE, INC.

ARKANSAS

BASIC GROUP II RELATIVITY ANALYSIS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	ACCIDENT YEAR ENDING 03/31/19 AGGR. LOSS COSTS AT CURRENT IMPLICIT PMF	ACCIDENT YEARS 2010 - 2019 EXPER. RATIO AT CURRENT PMF A	FORMULA RELATIVITY (2)/ 0.95	CREDIBILITY C	CREDIBILITY WEIGHTED RELATIVITY D	BALANCED FORMULA RELATIVITY E	NORMALIZED FORMULA RELATIVITY F	INDICATED CHANGE
	-----	-----	-----	-----	-----	-----	-----	-----
MONOLINE	2,669,253	0.8060	0.8480	0.4110	0.937	0.9370	0.9259	
MULTILINE	18,245,732	0.9770	1.0280	0.7890	1.022	1.0230	1.0106	
	-----	-----	-----	-----	-----	-----	-----	
COVERAGE	20,914,985	0.9500	0.9990			1.0120	0.9998	
MULTILINE TOP								
31 MOTEL/HOTEL	647,775	*****	*****	*****	*****	1.0500	1.0375	12.1%
32 APARTMENT	2,583,821	1.2640	1.3310	0.3290	1.108	1.1210	1.1077	19.6%
33 OFFICE	944,613	0.9650	1.0160	0.1680	1.002	1.0140	1.0020	8.2%
34 MERCANTILE	3,789,050	0.8220	0.8650	0.4530	0.938	0.9490	0.9377	1.3%
35 INSTITUTIONAL	6,167,662	0.9720	1.0230	0.5500	1.012	1.0240	1.0119	9.3%
36 SERVICES	2,454,287	1.0510	1.1060	0.3700	1.039	1.0510	1.0385	12.2%
37 INDUST/PROCESS	991,149	0.8670	0.9130	0.1870	0.983	0.9950	0.9832	6.2%
38 CONTRACTORS	667,375	0.6950	0.7320	0.1470	0.960	0.9710	0.9595	3.6%
	-----	-----	-----	-----	-----	-----	-----	
	18,245,732	0.9770	1.0280		1.0100	1.0230	1.0106	

A - TOP 31 IMPLICIT PMF CAPPED AT 1.500.

FOR COLUMNS (2) THROUGH (5), MONOLINE INCLUDES TOPS 31
AT THESE CAPPED LEVELS AND MULTILINE EXCLUDES TOPS 31

B - AVERAGE WEIGHTED BY COLUMN (1)

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) * (1.022/1.010)

F - (7) = (6) / 1.0120

INSURANCE SERVICES OFFICE, INC.

ARKANSAS
OWNERS, LANDLORDS AND TENANTS
BASIC LIMIT RELATIVE CHANGE ANALYSIS

TYPE OF POLICY	(1) BAILEY FORMULA RELATIVITY	(2) CREDIBILITY CREDIBILITY	(3) WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	(5) INDICATED CHANGE
10	1.157	0.139	1.020	1.015	
31	0.494	0.065	0.955	0.950	-6.4%
32	0.191	0.037	0.941	0.937	-7.7%
33	1.360	0.109	1.034	1.028	1.3%
34	1.143	0.120	1.016	1.010	-0.5%
35	0.584	0.107	0.944	0.939	-7.5%
36	1.934	0.071	1.048	1.042	2.7%
CLASS GROUP					
1	0.714	0.090	0.970	0.977	
2	0.645	0.080	0.966	0.973	
3	0.420	0.067	0.944	0.951	
4	0.916	0.011	0.999	1.006	
5	0.076	0.015	0.962	0.972	
6	0.174	0.024	0.959	0.968	
7	0.818	0.069	0.986	0.994	
8	1.865	0.028	1.018	1.024	
9	1.359	0.089	1.028	1.035	
10	1.439	0.105	1.039	1.047	
11	3.763	0.052	1.071	1.079	
12	0.857	0.138	0.979	0.986	
13	0.494	0.041	0.971	0.979	
16	0.000	0.007	0.000	1.007	

INSURANCE SERVICES OFFICE, INC.

ARKANSAS

MANUFACTURERS AND CONTRACTORS

BASIC LIMIT RELATIVE CHANGE ANALYSIS

TYPE OF POLICY	(1)	(2)	(3)	(4)	(5)
	BAILEY FORMULA RELATIVITY	CREDIBILITY CREDIBILITY	CREDIBILITY WEIGHTED RELATIVITY	BALANCED RELATIVITY	INDICATED CHANGE
10	0.684	0.162	0.940	0.949	
33	2.291	0.017	1.014	1.022	7.7%
34	1.516	0.092	1.039	1.048	10.4%
35	0.809	0.041	0.991	1.000	5.4%
36	1.511	0.080	1.034	1.042	9.8%
37	0.945	0.051	0.997	1.005	5.9%
38	1.319	0.163	1.046	1.055	11.2%
CLASS GROUP					
30	1.040	0.058	1.002	0.998	
31	1.013	0.092	1.001	0.997	
32	1.151	0.172	1.024	1.020	
33	1.094	0.105	1.009	1.005	
34	0.643	0.108	0.953	0.950	
35	0.147	0.015	0.972	0.970	
36	0.731	0.053	0.984	0.980	
37	0.744	0.031	0.991	0.987	
38	0.947	0.065	0.996	0.993	

INSURANCE SERVICES OFFICE, INC.

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

TERRITORY ALL		(1) CALENDAR A.Y.E. 03/31/19 AGGREGATE LOSS COSTS AT CURRENT LEVEL	(2) CALENDAR A.Y.E. 2015-2019 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						
10 MONOLINE	01 FOOD&BEV.(RETAIL)	\$205,950	\$1,134,863	0.889	0.833	71	0.992
	02 RESTAURANTS	\$126,831	\$549,281	0.936	0.876	26	0.987
	03 STORES	\$102,285	\$298,712	0.619	0.58	23	0.965
	04 VENDING & RENTAL	\$21,083	\$132,913	0	0	0	1.021
	05 FOOD & BEV. DIST.	\$71,088	\$235,461	0.006	0.006	0	0.986
	06 NON-FOOD&BEV.DIST	\$31,378	\$173,385	0.221	0.207	3	0.982
	07 CLUBS,AMSMT&SPRTS	\$101,803	\$444,398	1.426	1.335	32	1.008
	08 HEALTH CARE FACIL	\$11,028	\$47,392	0.094	0.088	1	1.039
	09 HOTELS AND MOTELS	\$155,984	\$726,272	1.799	1.684	64	1.05
	10 SCHLS & CHURCHES	\$92,312	\$459,854	1.925	1.803	16	1.062
	11 APARTMENTS	\$103,700	\$547,171	4.681	4.383	29	1.095
	12 BUILDINGS&OFFICES	\$361,536	\$1,781,703	0.888	0.831	67	1.001
	13 MISC. PREMISES	\$35,361	\$142,372	0.864	0.809	17	0.993
	TOTAL *	\$1,420,339	\$6,673,777	1.277		349	
31 MULT MOTEL/HOTEL	09 HOTELS AND MOTELS	\$220,623	\$1,268,750	0.716	0.67	76	0.984
	TOTAL *	\$220,623	\$1,268,750	0.716		76	
32 MULT APARTMENT	11 APARTMENTS	\$191,323	\$782,553	0.752	0.704	20	1.011
	12 BUILDINGS&OFFICES	\$33,525	\$154,023	0.272	0.255	4	0.924
	TOTAL *	\$224,848	\$936,576	0.68		24	
33 MULT OFFICE	12 BUILDINGS&OFFICES	\$640,022	\$3,451,474	1.248	1.168	213	1.014
	13 MISC. PREMISES	\$2,721	\$12,243	0.01	0.009	1	1.006
	TOTAL *	\$642,743	\$3,463,717	1.243		214	
34 MULT MERCANTILE	01 FOOD&BEV.(RETAIL)	\$184,929	\$1,353,237	0.863	0.808	74	0.988
	02 RESTAURANTS	\$259,307	\$1,543,413	0.72	0.674	89	0.983
	03 STORES	\$221,242	\$1,310,674	0.547	0.512	51	0.961
	04 VENDING & RENTAL	\$104	\$673	0	0	0	1.017
	05 FOOD & BEV. DIST.	\$46,803	\$311,331	0.225	0.21	4	0.982
	06 NON-FOOD&BEV.DIST	\$90,564	\$469,895	0.211	0.197	7	0.978
	12 BUILDINGS&OFFICES	\$92,740	\$573,560	1.107	1.037	33	0.996
	TOTAL *	\$895,689	\$5,562,783	0.669		258	
35 MULT INSTITUT.	07 CLUBS,AMSMT&SPRTS	\$10,157	\$46,039	0.156	0.146	2	0.933
	08 HEALTH CARE FACIL	\$122,543	\$544,643	1.36	1.273	12	0.962
	10 SCHLS & CHURCHES	\$476,218	\$2,202,856	0.855	0.8	182	0.983
	12 BUILDINGS&OFFICES	\$8,742	\$41,046	0.484	0.454	9	0.926
	13 MISC. PREMISES	\$0	\$87	0	0	0	0.919
	16 GOVT SUBDIVISIONS	\$0	\$26	104.308	97.669	1	0.946
	TOTAL *	\$617,660	\$2,834,697	0.938		206	

INSURANCE SERVICES OFFICE, INC.

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

TERRITORY ALL		(1)	(2)	(3)	(4)	(5)	(6)
		CALENDAR A.Y.E. 03/31/19 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
36 MULT SERVICES	03 STORES	\$59,276	\$215,446	0.567	0.531	6	0.991
	04 VENDING & RENTAL	\$9,337	\$40,934	4.459	4.175	2	1.049
	07 CLUBS,AMSMT&SPRTS	\$248,371	\$1,011,125	1.533	1.435	51	1.035
	08 HEALTH CARE FACIL	\$1,224	\$2,598	4.027	3.77	1	1.067
	09 HOTELS AND MOTELS	\$7,532	\$38,707	0.322	0.301	2	1.078
	10 SCHLS & CHURCHES	\$2,147	\$8,018	6.046	5.661	1	1.091
	12 BUILDINGS&OFFICES	\$32,997	\$193,673	3.333	3.121	15	1.028
	13 MISC. PREMISES	\$25,163	\$120,085	0.739	0.692	13	1.02
	TOTAL *	\$386,047	\$1,630,586	1.567		91	
TOTAL ALL TOP	01 FOOD&BEV.(RETAIL)	\$390,879	\$2,488,100	0.877		145	
	02 RESTAURANTS	\$386,138	\$2,092,694	0.791		115	
	03 STORES	\$382,803	\$1,824,832	0.57		80	
	04 VENDING & RENTAL	\$30,524	\$174,520	1.364		2	
	05 FOOD & BEV. DIST.	\$117,891	\$546,792	0.093		4	
	06 NON-FOOD&BEV.DIST	\$121,942	\$643,280	0.213		10	
	07 CLUBS,AMSMT&SPRTS	\$360,331	\$1,501,562	1.464		85	
	08 HEALTH CARE FACIL	\$134,795	\$594,633	1.281		14	
	09 HOTELS AND MOTELS	\$384,139	\$2,033,729	1.148		142	
	10 SCHLS & CHURCHES	\$570,677	\$2,670,728	1.047		199	
	11 APARTMENTS	\$295,023	\$1,329,724	2.133		49	
	12 BUILDINGS&OFFICES	\$1,169,562	\$6,195,479	1.15		341	
	13 MISC. PREMISES	\$63,245	\$274,787	0.778		31	
	16 GOVT SUBDIVISIONS	\$0	\$26	0		1	
	TOTAL *	\$4,407,949	\$22,370,886	1.068		1,218	

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

INSURANCE SERVICES OFFICE, INC.

ARKANSAS
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. 03/31/19 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	\$173,083	\$717,895	0.407	0.441	7	0.947
	31 LIGHT CONTRACTING	\$143,788	\$602,836	0.518	0.562	49	0.946
	32 MEDIUM CONTRACTING	\$1,604,414	\$7,037,176	0.711	0.772	207	0.968
	33 HEAVY CONTRACTING	\$317,575	\$1,798,153	0.707	0.767	143	0.954
	34 DEALER OR DISTRIB	\$213,053	\$1,375,438	0.676	0.734	24	0.901
	35 LGT. MANUFACTURER	\$2,170	\$105,528	0.004	0.004	2	0.92
	36 MED. MANUFACTURER	\$391,260	\$1,692,248	0.467	0.507	26	0.93
	37 HVY. MANUFACTURER	\$173,197	\$858,788	0.703	0.763	4	0.936
	38 MISC. OPERATION	\$153,731	\$697,677	0.446	0.484	8	0.941
	TOTAL *	\$3,172,271	\$14,885,739	0.639		470	
33 MULT OFFICE	31 LIGHT CONTRACTING	\$7,465	\$40,052	2.852	3.095	2	1.019
	32 MEDIUM CONTRACTING	\$1,894	\$7,388	0	0	0	1.043
	33 HEAVY CONTRACTING	\$12,139	\$73,410	0	0	0	1.027
	38 MISC. OPERATION	\$17,864	\$76,503	3.527	3.828	3	1.014
	TOTAL *	\$39,362	\$197,353	2.141		5	
34 MULT MERCANTILE	30 SERVICE	\$18,537	\$93,868	0	0	0	1.046
	32 MEDIUM CONTRACTING	\$27,532	\$132,189	1.68	1.823	4	1.069
	34 DEALER OR DISTRIB	\$325,499	\$1,942,859	0.933	1.013	140	0.995
	36 MED. MANUFACTURER	\$3,631	\$23,745	0.431	0.468	1	1.027
	38 MISC. OPERATION	\$16,793	\$81,336	2.245	2.437	8	1.04
	TOTAL *	\$391,992	\$2,273,997	0.993		153	
35 MULT INSTITUT.	31 LIGHT CONTRACTING	\$3,268	\$17,175	7.643	8.296	3	0.997
	32 MEDIUM CONTRACTING	\$147,821	\$649,426	0.706	0.767	28	1.02
	TOTAL *	\$151,089	\$666,601	0.856		31	
36 MULT SERVICES	30 SERVICE	\$21,169	\$108,745	0.659	0.716	2	1.04
	31 LIGHT CONTRACTING	\$27,242	\$218,402	0.433	0.47	11	1.039
	32 MEDIUM CONTRACTING	\$26,080	\$153,608	0.017	0.019	2	1.063
	33 HEAVY CONTRACTING	\$18,409	\$83,339	10.261	11.137	6	1.047
	34 DEALER OR DISTRIB	\$150,067	\$1,037,605	0.333	0.362	45	0.989
	36 MED. MANUFACTURER	\$530	\$20,584	4.599	4.992	1	1.021
	38 MISC. OPERATION	\$153,382	\$681,412	1.358	1.474	47	1.034
	TOTAL *	\$396,879	\$2,303,695	1.199		114	

INSURANCE SERVICES OFFICE, INC.

ARKANSAS
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. 03/31/19 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	\$5	\$5	0	0	0	1.003
	32 MEDIUM CONTRCTING	\$80,482	\$333,410	0.75	0.814	6	1.026
	33 HEAVY CONTRACTING	\$13,537	\$61,413	4.567	4.957	3	1.011
	34 DEALER OR DISTRIB	\$54,349	\$93,059	0.833	0.904	1	0.955
	35 LGT. MANUFACTURER	\$51,516	\$132,909	0.131	0.143	2	0.975
	36 MED. MANUFACTURER	\$418,760	\$2,177,673	0.632	0.686	22	0.985
	37 HVY. MANUFACTURER	\$155,240	\$873,163	0.386	0.419	13	0.993
	38 MISC. OPERATION	\$1,160	\$10,090	0	0	0	0.998
	TOTAL *	\$775,049	\$3,681,722	0.643		47	
38 MULT CONTRACTORS	30 SERVICE	\$410,085	\$1,939,721	1.474	1.6	51	1.053
	31 LIGHT CONTRACTING	\$222,953	\$986,711	1.303	1.414	88	1.052
	32 MEDIUM CONTRCTING	\$1,132,362	\$5,808,472	1.495	1.623	283	1.076
	33 HEAVY CONTRACTING	\$402,324	\$1,951,269	0.863	0.937	45	1.06
	38 MISC. OPERATION	\$90,144	\$390,725	0.874	0.949	9	1.047
	TOTAL *	\$2,257,868	\$11,076,898	1.335		476	
TOTAL ALL TOP	30 SERVICE	\$622,874	\$2,860,229	1.106		60	
	31 LIGHT CONTRACTING	\$404,721	\$1,865,181	1.045		153	
	32 MEDIUM CONTRCTING	\$3,020,585	\$14,121,669	1.008		530	
	33 HEAVY CONTRACTING	\$763,984	\$3,967,584	1.077		197	
	34 DEALER OR DISTRIB	\$742,968	\$4,448,961	0.731		210	
	35 LGT. MANUFACTURER	\$53,686	\$238,437	0.126		4	
	36 MED. MANUFACTURER	\$814,181	\$3,914,250	0.554		50	
	37 HVY. MANUFACTURER	\$328,437	\$1,731,951	0.553		17	
	38 MISC. OPERATION	\$433,074	\$1,937,743	1.054		75	
	TOTAL *	\$7,184,510	\$35,086,005	0.921		1,296	

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

INSURANCE SERVICES OFFICE, INC.

ARKANSAS
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	0.881	0.317	0.961	0.956	
34	0.979	0.343	0.993	0.987	3.2%
36	1.029	0.185	1.005	1.000	4.6%
37	1.086	0.477	1.040	1.035	8.3%
CLASS GROUP					
3	0.867	0.447	0.938	0.942	
4	1.109	0.384	1.041	1.044	
5	1.079	0.130	1.010	1.014	
6	0.977	0.310	0.993	0.996	
7	0.998	0.143	1.000	1.003	

NOTE: THE INDICATED CHANGES BY TOP WERE FURTHER ADJUSTED BY THE FOLLOWING
DIFFERENTIALS: TOP 34: 0.988
TOP 36: 0.993
TOP 37: 1.002

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. 12/31/2018 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2014 - 2018 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIVITY	NUMBER OF OCCURRENCES	BAL CELL RELATIVITY
10 MONOLINE	03 MAN,DLR,DSTFD/DRG	8,093,332	39,443,822	0.784	0.712	920	0.900
	04 DLR,DST-NOTFD/DRG	7,050,350	31,300,283	1.139	1.034	465	0.998
	05 MAN.NTFD/DRG(LOW)	1,674,016	6,525,174	0.980	0.890	84	0.969
	06 MAN.NTFD/DRG(MED)	8,719,673	39,390,154	1.006	0.914	462	0.952
	07 MAN.NTFD/DRG(HGH)	2,487,754	10,123,703	0.821	0.745	82	0.959
	TOTAL *	28,025,125	126,783,136	0.957		2,013	
34 MULT MERCANTILE	03 MAN,DLR,DSTFD/DRG	4,331,883	21,396,487	1.047	0.951	564	0.930
	04 DLR,DST-NOTFD/DRG	25,139,034	121,279,202	1.176	1.068	1,794	1.031
	06 MAN.NTFD/DRG(MED)	3,108	19,331	0.000	0.000	-	0.984
	TOTAL *	29,474,025	142,695,020	1.157		2,358	
36 MULT SERVICES	04 DLR,DST-NOTFD/DRG	2,760,971	12,384,922	1.274	1.157	688	1.044
	06 MAN.NTFD/DRG(MED)	42,893	205,196	0.000	0.000	-	0.996
	TOTAL *	2,803,864	12,590,118	1.254		688	
37 MULT INDUST/PROC.	03 MAN,DLR,DSTFD/DRG	13,380,685	63,881,777	1.035	0.940	2,512	0.974
	05 MAN.NTFD/DRG(LOW)	3,488,504	18,393,950	1.322	1.200	254	1.048
	06 MAN.NTFD/DRG(MED)	24,557,849	115,549,330	1.149	1.043	1,462	1.031
	07 MAN.NTFD/DRG(HGH)	5,784,533	29,451,053	1.257	1.141	329	1.038
	TOTAL *	47,211,571	227,276,110	1.143		4,557	
TOTAL ALL TOP	03 MAN,DLR,DSTFD/DRG	25,805,900	124,722,086	0.959		3,996	
	04 DLR,DST-NOTFD/DRG	34,950,355	164,964,407	1.176		2,947	
	05 MAN.NTFD/DRG(LOW)	5,162,520	24,919,124	1.211		338	
	06 MAN.NTFD/DRG(MED)	33,323,523	155,164,011	1.110		1,924	
	07 MAN.NTFD/DRG(HGH)	8,272,287	39,574,756	1.126		411	
	TOTAL *	107,514,585	509,344,384	1.101		9,616	

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

INSURANCE SERVICES OFFICE, INC.

ARKANSAS

LOCAL PRODUCTS/COMPLETED OPERATIONS

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	0.978	0.722	0.984	0.982	
34	0.954	0.510	0.976	0.974	-0.8%
36	0.950	0.521	0.974	0.971	-1.1%
37	1.093	0.137	1.012	1.010	2.9%
38	1.021	0.965	1.020	1.018	3.7%
CLASS GROUP					
1	0.925	0.511	0.961	0.958	
2	1.076	0.497	1.037	1.034	
11	1.085	0.347	1.029	1.025	
12	1.008	1.000	1.008	1.004	
13	0.835	0.264	0.954	0.950	

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

STATE	(1)	(2)	(3)	(4)
	BAILEY FORMULA RELATIVITY	CREDIBILITY	CREDIBILITY WEIGHTED RELATIVITY	BALANCED RELATIVITY
ARKANSAS	2.002	0.233	1.176	1.177
	1.227	0.389	1.083	1.084
	1.165	0.453	1.071	1.072
	1.172	0.356	1.058	1.059
	1.202	0.253	1.048	1.049
	1.070	0.618	1.043	1.044
	1.204	0.212	1.040	1.041
	1.108	0.366	1.038	1.039
	1.350	0.112	1.034	1.035
	1.265	0.136	1.033	1.034
	1.211	0.158	1.031	1.032
	1.172	0.187	1.030	1.031
	1.085	0.361	1.030	1.031
	1.131	0.234	1.029	1.030
	1.115	0.256	1.028	1.029
	1.065	0.429	1.028	1.029
	1.140	0.182	1.024	1.025
	1.104	0.243	1.024	1.025
	1.190	0.130	1.023	1.024
	1.024	0.365	1.009	1.010
	1.030	0.310	1.009	1.010
	1.057	0.148	1.008	1.009
	1.014	0.557	1.008	1.009
	1.020	0.391	1.008	1.009
	1.015	0.251	1.004	1.005
	0.996	0.453	0.998	0.999
	0.899	0.095	0.990	0.991
	0.980	0.489	0.990	0.991
	0.976	0.455	0.989	0.990
	0.930	0.183	0.987	0.988
	0.958	0.334	0.986	0.987
	0.886	0.134	0.984	0.985
	0.907	0.222	0.979	0.980
	0.955	0.471	0.979	0.980
	0.921	0.285	0.977	0.978
	0.926	0.299	0.977	0.978
	0.929	0.313	0.977	0.978
	0.839	0.164	0.972	0.973
	0.833	0.156	0.972	0.973
	0.921	0.378	0.969	0.970
	0.538	0.066	0.960	0.961
	0.793	0.215	0.951	0.952
	0.891	0.451	0.949	0.950
	0.902	0.570	0.943	0.944
	0.852	0.416	0.936	0.937
	0.464	0.087	0.935	0.936
	0.683	0.179	0.934	0.935
	0.776	0.288	0.930	0.930
	0.619	0.154	0.929	0.930
	0.773	0.304	0.925	0.925
	0.843	0.553	0.910	0.911
	0.558	0.170	0.906	0.907

* Sorted by balanced relative change

INSURANCE SERVICES OFFICE, INC.

ARKANSAS
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. 12/31/18 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2014-2018 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIV.	NUMBER OF OCCURRENCES	BAL CELL RELATIV.
10 MONOLINE	01 RET.STRS-FOOD/DRG	\$8,835	\$34,278	14.583	12.689	7	0.964
	02 RET.STRS-NTFD/DRG	\$7,729	\$39,435	1.2	1.044	4	1.04
	11 COMP. OPS. (LOW)	\$22,581	\$124,047	0.286	0.249	2	1.032
	12 COMP. OPS. (MED)	\$497,381	\$2,132,068	0.758	0.659	25	1.011
	13 COMP. OPS. (HGH)	\$30,928	\$178,905	1.378	1.199	6	0.957
	TOTAL *	\$567,454	\$2,508,733	0.994		44	
34 MULT MERCANTILE	01 RET.STRS-FOOD/DRG	\$21,151	\$120,552	1.766	1.537	22	0.957
	02 RET.STRS-NTFD/DRG	\$15,163	\$90,363	5.05	4.394	13	1.032
	12 COMP. OPS. (MED)	\$4,263	\$23,211	0	0	0	1.003
	TOTAL *	\$40,577	\$234,126	2.808		35	
36 MULT SERVICES	01 RET.STRS-FOOD/DRG	\$2,789	\$12,148	0	0	0	0.954
	02 RET.STRS-NTFD/DRG	\$46,778	\$219,569	1.995	1.736	25	1.029
	11 COMP. OPS. (LOW)	\$9,670	\$37,821	0	0	0	1.021
	12 COMP. OPS. (MED)	\$8,193	\$60,750	1.056	0.919	3	1
	13 COMP. OPS. (HGH)	\$13,689	\$52,647	0.055	0.048	0	0.946
	TOTAL *	\$81,119	\$382,935	1.266		28	
37 MULT INDUST/PROC	11 COMP. OPS. (LOW)	\$1,151	\$3,010	0	0	0	1.061
	12 COMP. OPS. (MED)	\$13,224	\$74,755	0	0	0	1.04
	13 COMP. OPS. (HGH)	\$25	\$207	0	0	0	0.984
	TOTAL *	\$14,400	\$77,972	0		0	
38 MULT CONTRACTORS	11 COMP. OPS. (LOW)	\$37,757	\$168,020	1.929	1.678	4	1.07
	12 COMP. OPS. (MED)	\$617,117	\$3,128,031	1.496	1.302	65	1.048
	13 COMP. OPS. (HGH)	\$98,855	\$416,898	1.233	1.073	7	0.992
	TOTAL *	\$753,729	\$3,712,949	1.483		76	
TOTAL ALL TOP	01 RET.STRS-FOOD/DRG	\$32,775	\$166,978	5.071		29	
	02 RET.STRS-NTFD/DRG	\$69,670	\$349,367	2.572		42	
	11 COMP. OPS. (LOW)	\$71,159	\$332,898	1.114		6	
	12 COMP. OPS. (MED)	\$1,140,178	\$5,418,815	1.148		93	
	13 COMP. OPS. (HGH)	\$143,497	\$648,657	1.152		13	
	TOTAL *	\$1,457,279	\$6,916,715	1.303		183	

* 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. 12/31/2018 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2014 - 2018 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIV.	NUMBER OF OCCURRENCES	BAL CELL RELATIV.
10 MONOLINE	01 RET.STRS-FOOD/DRG	2,151,747	9,207,997	0.954		570	
	02 RET.STRS-NTFD/DRG	2,295,068	11,448,808	1.305		473	
	11 COMP. OPS. (LOW)	3,892,639	18,163,511	1.628		651	
	12 COMP. OPS. (MED)	83,135,280	371,618,514	1.130		5,859	
	13 COMP. OPS. (HGH)	7,417,394	33,727,804	0.856		270	
	TOTAL *	98,892,128	444,166,634	1.129		7,823	
34 MULT MERCANTILE	01 RET.STRS-FOOD/DRG	7,352,885	34,702,053	1.022		3,165	
	02 RET.STRS-NTFD/DRG	4,646,377	21,875,704	1.065		619	
	12 COMP. OPS. (MED)	2,019,660	9,688,586	1.284		128	
	TOTAL *	14,018,922	66,266,343	1.074		3,912	
36 MULT SERVICES	01 RET.STRS-FOOD/DRG	731,049	3,411,977	1.191		192	
	02 RET.STRS-NTFD/DRG	11,441,919	45,533,065	1.209		2,628	
	11 COMP. OPS. (LOW)	3,036,648	13,947,197	1.001		463	
	12 COMP. OPS. (MED)	3,960,968	19,706,711	1.159		722	
	13 COMP. OPS. (HGH)	1,087,876	5,580,338	0.595		73	
	TOTAL *	20,258,460	88,179,288	1.134		4,078	
37 MULT INDUST/PROC.	01 RET.STRS-FOOD/DRG	9,799	70,370	0.699		1	
	11 COMP. OPS. (LOW)	114,111	543,328	0.930		18	
	12 COMP. OPS. (MED)	3,276,550	16,096,832	1.264		263	
	13 COMP. OPS. (HGH)	46,427	271,366	0.786		0	
	TOTAL *	3,446,887	16,981,896	1.245		282	
38 MULT CONTRACTORS	11 COMP. OPS. (LOW)	8,262,574	39,057,672	1.157		683	
	12 COMP. OPS. (MED)	143,843,747	687,120,222	1.178		12,596	
	13 COMP. OPS. (HGH)	13,690,731	64,062,049	1.058		709	
	TOTAL *	165,797,052	790,239,943	1.167		13,988	
TOTAL ALL TOP	01 RET.STRS-FOOD/DRG	10,245,480	47,392,397	1.020		3,928	
	02 RET.STRS-NTFD/DRG	18,383,364	78,857,577	1.185		3,720	
	11 COMP. OPS. (LOW)	15,305,972	71,711,708	1.244		1,815	
	12 COMP. OPS. (MED)	236,236,205	1,104,230,865	1.163		19,568	
	13 COMP. OPS. (HGH)	22,242,428	103,641,557	0.967		1,052	
	TOTAL *	302,413,449	1,405,834,104	1.149		30,083	

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

COMMERCIAL PACKAGE POLICY

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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**

ARKANSAS (03)

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	1.00	1.00	1.00
Contractors	.90	.99	.97	1.00
Industrial & Processing	.90	.75	.89	1.00
Institutional	.90	.94	.74	1.00
Mercantile	.90	.96	.89	1.00
Motel/Hotel	.90	1.00	1.00	1.00
Office	.90	.70	.92	1.00
Service	.90	1.00	1.00	1.00

Table 1. Package Modification Factors