

RULES – IMPLEMENTATION

JANUARY 13, 2020

COMMERCIAL MULTIPLE LINE

LI-ML-2020-006

## WYOMING COMMERCIAL PACKAGE POLICY REVISED PACKAGE MODIFICATION FACTOR REVISION TO BE IMPLEMENTED; EXCEL WORKBOOK NEWLY INCLUDED

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### KEY MESSAGE

Revised Commercial Package Policy package modification factors for an overall statewide change of +4.5% to be implemented.

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### BACKGROUND

In circular [LI-ML-2019-034](#), we provided you with information about the Commercial Package Policy modification factor experience review.

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### ISO ACTION

We are implementing ML-2019-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

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.

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## COMPANY ACTION

ISO has not filed this revision.

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-2019-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.

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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-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.

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## REVISION DISTRIBUTION

We will issue a Notice to Manualholders with an edition date of 6-20 (or the earliest possible subsequent date), along with any new and/or revised manual pages.

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## REFERENCE(S)

- LI-CL-2019-057 (12/10/2019) Revised Lead Time Requirements Listing
- LI-ML-2019-034 (10/02/2019) Commercial Package Policy Experience Reviewed By Staff

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## ATTACHMENT(S)

- Filing ML-2019-RLA1
- Excel Workbook

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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).

WYOMING  
ADVISORY PACKAGE MODIFICATION FACTOR REVIEW  
COMMERCIAL PACKAGE POLICY  
ML-2019-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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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%	+1.0%	+0.5%
Apartment	0.0%	0.0%	0.0%
Office	+3.2%	+4.2%	+3.8%
Mercantile	0.0%	0.0%	0.0%
Institutional	+6.8%	+6.5%	+6.7%
Services	+2.1%	+8.7%	+4.5%
Indust./Proc.	+2.0%	+17.6%	+13.7%
Contractors	<u>0.0%</u>	<u>+3.1%</u>	<u>+2.6%</u>
Statewide	+3.8%	+5.0%	+4.5%

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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 09/30/18.
  - Basic Group II: ten fiscal accident years ending 09/30/18.
  - Special Causes of Loss: five fiscal accident years ending 09/30/18.
  - Crime: calendar year ending 06/30/16.
  - Inland Marine: five calendar accident years ending 12/31/16.
  - Fidelity: policy year ending 12/31/15.
  - Owners, Landlords, and Tenants: five fiscal accident years ending 06/30/18.
  - Manufacturers and Contractors: five fiscal accident years ending 06/30/18.
  - Products: three calendar accident years ending 12/31/17.
  - Local Products and Completed Operations: three calendar accident years ending 12/31/17.
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PRIOR ISO  
REVISIONS

The latest revisions in this state are:

<u>Filing</u>	ML-17-RLA1	ML-10-RLA1	ML-08-RLA1
<u>Dates</u>			
Implemented	6/1/2018	11/1/2010	10/1/2008
<u>Changes</u>			
Indicated	+1.1%	+0.5%	+1.6%
Filed	+1.2%	+0.5%	+1.5%
Implemented	+1.2%	+0.5%	+1.5%

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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. Liberty Mutual Insurance Company
  2. Travelers Indemnity Company
  3. Tokio Marine Companies
  4. American Alternative Insurance
  5. American International Group
  6. Nationwide Mutual Insurance Company
  7. Acuity A Mutual Insurance Company
  8. Insurance Company Of North America
  9. Cincinnati Insurance Company
  10. Continental Casualty 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). 53.6%.

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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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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

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<sub>i</sub> is the relativity for the ith Type of Policy;
- . RG<sub>j</sub> is the relativity for the jth Rating Group;
- . CAT<sub>j</sub> is the relativity for the jth Category;
- . W<sub>ij</sub> is the aggregate loss costs for the ith Type of Policy, jth Rating Group or Category;
- . R<sub>ij</sub> 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 5

### BASIC GROUP II RELATIVITY ANALYSIS

#### OBJECTIVE

The explanations which follow clarify Exhibit 5, 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 5 (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 5 (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.



## EXPLANATORY NOTES TO EXHIBITS B6 AND B7

### COMMERCIAL INLAND MARINE RELATIVITY ANALYSIS

EXPERIENCE BASE	The Commercial Inland Marine IPMF review presented in the attached exhibits is based on a review of the latest available five years of monoline and multiline experience through accident year 2016 for all companies reporting data to Insurance Services Office under the Inland Marine Module of the Commercial Statistical Plan (CSP) and the Intermediate Level of the Commercial Minimum Statistical Plan (CMSP).
ADJUSTMENT OF DATA	Aggregate loss costs for each year in the review period have been adjusted to the levels which would have been earned had the current loss costs applied throughout the experience period. Reported premiums are adjusted to current level on an individual policy basis by applying a factor equal to all loss cost level changes that have been implemented subsequent to the policy being written. These adjusted premiums are then converted to a loss cost at current level. In order to eliminate the impact of company deviations from the manual level and individual risk modifications which were in effect at the time the policy was written, aggregate loss costs are further adjusted based on reported Rate Modification and Rate Departure Factors/Loss Cost Multipliers. Multiline aggregate loss costs are further adjusted to the level of the current Implicit Package Modification Factor (IPMF). Incurred losses are loaded for all loss adjustment expenses by applying a factor of 1.105.
RELATIVITY ANALYSIS	For Inland Marine coverage, a <u>multistate</u> IPMF level is determined via a two-way relativity analysis similar to the analysis used in Basic Group I. The experience for all reviewed classes is used to form class group relativities. These relativities for monoline and multiline (all programs combined) are determined through an iterative procedure. The ratio of the multiline relativity to the monoline relativity is multiplied by the current IPMF to yield the indicated IPMF. The indicated IPMF is subject to a minimum value of 0.500 and a maximum value of 1.500. If an indicated IPMF falls outside one of those limits, it is capped at that amount, the premiums for that Type of Policy (i.e., TOP 10 versus TOP 3X) are adjusted to the capped IPMF level, and the entire relativity review is performed again to take this into account.

## 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  $i^{\text{th}}$  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 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 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.

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INSURANCE SERVICES OFFICE, INC.

## WYOMING

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	1.00	1.0%	0.5%
APARTMENT (32)	1.00	1.00	0.0%	1.00	1.00	0.0%	0.0%
OFFICE (33)	0.94	0.97	3.2%	0.96	1.00	4.2%	3.8%
MERCANTILE (34)	1.00	1.00	0.0%	1.00	1.00	0.0%	0.0%
INSTITUTION(35)	0.74	0.79	6.8%	0.93	0.99	6.5%	6.7%
SERVICES (36)	0.95	0.97	2.1%	0.92	1.00	8.7%	4.5%
IND/PROC (37)	0.98	1.00	2.0%	0.85	1.00	17.6%	13.7%
CONTRACTORS(38)	1.00	1.00	0.0%	0.97	1.00	3.1%	2.6%
STATEWIDE			3.8%			5.0%	4.5%



## INSURANCE SERVICES OFFICE, INC.

WYOMING  
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	331,344	0.932	-2.3%	0.911	0.904
BASIC GRP II	309,707	1.103	3.0%	1.136	1.128
SP CAUSE/LOSS	191,497	1.002	0.1%	1.003	0.996
* CRIME	1,955	0.904	0.0%	0.904	0.904
* INL. MAR.	7,102	0.910	0.0%	0.910	0.910
* FIDELITY	3,321	1.000	0.0%	1.000	1.000
TOTAL	844,926	1.000	0.7%	1.007	1.000
LIABILITY-					
OL&T	709,106	0.989	-1.6%	0.973	1.000
TOTAL	709,106	0.990	-1.7%	0.973	1.000
-----					
PROP. & LIAB. TOTAL	1,554,032		-0.4%		

APARTMENT (32) *****	(1) AGGREG- ATE 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	128,837	0.742	-2.0%	0.727	0.675
BASIC GRP II	444,073	1.184	11.5%	1.320	1.226
SP CAUSE/LOSS	236,882	0.949	0.5%	0.954	0.886
* CRIME	227	0.904	0.0%	0.904	0.904
* INL. MAR.	0	0.910	0.0%	0.910	0.910
* FIDELITY	1,651	1.000	0.0%	1.000	1.000
TOTAL	811,670	1.000	7.6%	1.076	1.000
LIABILITY-					
OL&T	263,393	1.000	3.9%	1.039	1.000
TOTAL	263,393	1.000	3.9%	1.039	1.000
-----					
PROP. & LIAB. TOTAL	1,075,063		6.7%		

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

## INSURANCE SERVICES OFFICE, INC.

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

OFFICE (33) *****	(1)	(2)	(3)	(4)	(5)
	AGGREGATE	CURRENT	NET	INDIC.	CAPPED
COVERAGE	<u>LOSS COSTS</u>	<u>IMPLICIT</u>	<u>INDICATION</u>	<u>PMF</u>	<u>PMF</u>
PROPERTY-					
BASIC GRP I	55,154	1.020	-1.8%	1.002	1.026
BASIC GRP II	121,913	0.878	1.1%	0.888	0.909
SP CAUSE/LOSS	94,210	1.003	-0.7%	0.996	1.020
* CRIME	151	0.904	0.0%	0.904	0.904
* INL. MAR.	547	0.910	0.0%	0.910	0.910
* FIDELITY	640	1.000	0.0%	1.000	1.000
TOTAL	272,615	0.940	0.5%	0.945	0.970
LIABILITY-					
OL&T	477,966	0.981	1.5%	0.996	1.019
M&C	26,821	0.728	1.3%	0.738	0.754
TOTAL	504,788	0.960	1.8%	0.977	1.000
-----					
PROP. & LIAB.	777,403		1.4%		
TOTAL					

MERCANTILE (34) *****	(1)	(2)	(3)	(4)	(5)
	AGGREGATE	CURRENT	NET	INDIC.	CAPPED
COVERAGE	<u>LOSS COSTS</u>	<u>IMPLICIT</u>	<u>INDICATION</u>	<u>PMF</u>	<u>PMF</u>
PROPERTY-					
BASIC GRP I	497,750	0.964	-2.2%	0.943	0.938
BASIC GRP II	745,936	1.079	3.4%	1.116	1.110
SP CAUSE/LOSS	453,395	0.939	-1.4%	0.926	0.921
* CRIME	7,722	0.904	0.0%	0.904	0.904
* INL. MAR.	57,741	0.910	0.0%	0.910	0.910
* FIDELITY	10,988	1.000	0.0%	1.000	1.000
TOTAL	1,773,532	1.000	0.5%	1.005	1.000
LIABILITY-					
OL&T	918,601	1.063	13.6%	1.208	1.077
M&C	193,196	0.944	-4.8%	0.899	0.801
LOCAL PRODUCT	39,239	0.872	0.5%	0.876	0.782
* MULTI PRODUCT	90,597	0.832	2.5%	0.853	0.853
TOTAL	1,241,632	1.000	11.2%	1.112	1.000
-----					
PROP. & LIAB.	3,015,164		4.9%		
TOTAL					

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

## INSURANCE SERVICES OFFICE, INC.

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

INSTITUTION(35) *****	(1)	(2)	(3)	(4)	(5)
	AGGREGATE	CURRENT	NET	INDIC.	CAPPED
COVERAGE	<u>LOSS COSTS</u>	<u>IMPLICIT</u>	<u>INDICATION</u>	<u>PMF</u>	<u>PMF</u>
PROPERTY-					
BASIC GRP I	236,572	0.957	-1.1%	0.947	0.969
BASIC GRP II	551,318	0.754	7.5%	0.811	0.830
SP CAUSE/LOSS	251,251	0.578	0.8%	0.583	0.597
* CRIME	5,312	0.904	0.0%	0.904	0.904
* INL. MAR.	9,763	0.910	0.0%	0.910	0.910
* FIDELITY	34,099	1.000	0.0%	1.000	1.000
TOTAL	1,088,315	0.740	4.2%	0.771	0.790
LIABILITY-					
OL&T	509,248	0.911	-7.1%	0.847	0.957
M&C	67,387	1.192	0.7%	1.200	1.357
TOTAL	576,635	0.930	-5.5%	0.879	0.990
-----					
PROP. & LIAB.	1,664,950		0.9%		
TOTAL					

SERVICES (36) *****	(1)	(2)	(3)	(4)	(5)
	AGGREGATE	CURRENT	NET	INDIC.	CAPPED
COVERAGE	<u>LOSS COSTS</u>	<u>IMPLICIT</u>	<u>INDICATION</u>	<u>PMF</u>	<u>PMF</u>
PROPERTY-					
BASIC GRP I	416,401	1.020	-2.6%	0.994	1.017
BASIC GRP II	500,355	0.922	2.5%	0.945	0.968
SP CAUSE/LOSS	313,251	0.884	0.3%	0.887	0.908
* CRIME	2,071	0.904	0.0%	0.904	0.904
* INL. MAR.	6,687	0.910	0.0%	0.910	0.910
* FIDELITY	22,949	1.000	0.0%	1.000	1.000
TOTAL	1,261,714	0.950	-0.5%	0.945	0.970
LIABILITY-					
OL&T	263,125	0.838	5.0%	0.880	0.947
M&C	371,275	1.020	0.3%	1.023	1.101
LOCAL PRODUCT	47,602	0.710	2.1%	0.725	0.780
* MULTI PRODUCT	60,159	0.899	1.8%	0.915	0.915
TOTAL	742,162	0.920	1.5%	0.934	1.000
-----					
PROP. & LIAB.	2,003,876		0.2%		
TOTAL					

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

## INSURANCE SERVICES OFFICE, INC.

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

IND/PROC (37) *****	(1)	(2)	(3)	(4)	(5)
	AGGREGATE	CURRENT	NET	INDIC.	CAPPED
COVERAGE	<u>LOSS COSTS</u>	<u>IMPLICIT</u>	<u>INDICATION</u>	<u>PMF</u>	<u>PMF</u>
PROPERTY-					
BASIC GRP I	86,980	0.951	-2.6%	0.927	0.949
BASIC GRP II	131,453	1.034	0.2%	1.036	1.061
SP CAUSE/LOSS	81,293	0.937	-0.8%	0.930	0.952
* CRIME	159	0.904	0.0%	0.904	0.904
* INL. MAR.	243	0.910	0.0%	0.910	0.910
* FIDELITY	803	1.000	0.0%	1.000	1.000
TOTAL	300,931	0.980	-0.7%	0.973	1.000
LIABILITY-					
M&C	795,987	0.887	3.2%	0.916	1.035
LOCAL PRODUCT	43,773	0.556	2.1%	0.567	0.642
* MULTI PRODUCT	47,615	0.884	-2.3%	0.864	0.864
TOTAL	887,376	0.850	4.2%	0.886	1.000
-----					
PROP. & LIAB.	1,188,307		3.0%		
TOTAL					

CONTRACTORS(38) *****	(1)	(2)	(3)	(4)	(5)
	AGGREGATE	CURRENT	NET	INDIC.	CAPPED
COVERAGE	<u>LOSS COSTS</u>	<u>IMPLICIT</u>	<u>INDICATION</u>	<u>PMF</u>	<u>PMF</u>
PROPERTY-					
BASIC GRP I	111,559	1.007	-2.0%	0.987	1.001
BASIC GRP II	188,840	1.048	-1.4%	1.033	1.049
SP CAUSE/LOSS	119,851	0.926	-0.9%	0.918	0.931
* CRIME	61	0.904	0.0%	0.904	0.904
* INL. MAR.	79	0.910	0.0%	0.910	0.910
* FIDELITY	3,377	1.000	0.0%	1.000	1.000
TOTAL	423,767	1.000	-1.4%	0.986	1.000
LIABILITY-					
M&C	1,865,918	1.123	4.1%	1.169	1.116
LOCAL PRODUCT	604,687	0.756	5.0%	0.794	0.758
TOTAL	2,470,605	0.970	7.9%	1.047	1.000
-----					
PROP. & LIAB.	2,894,372		6.6%		
TOTAL					

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

INSURANCE SERVICES OFFICE, INC.

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

STATEWIDE *****	(1)	(2)	(3)	(4)	(5)
	AGGREGATE	CURRENT	NET	INDIC.	CAPPED
COVERAGE	<u>LOSS COSTS</u>	<u>IMPLICIT</u>	<u>INDICATION</u>	<u>PMF</u>	<u>PMF</u>
PROPERTY-					
BASIC GRP I	1,864,597	0.953	-2.1%	0.933	0.936
BASIC GRP II	2,993,595	0.976	4.6%	1.021	1.019
SP CAUSE/LOSS	1,741,630	0.861	-0.3%	0.858	0.858
* CRIME	17,658	0.904	0.0%	0.904	0.904
* INL. MAR.	82,162	0.910	0.0%	0.910	0.910
* FIDELITY	77,828	1.000	0.0%	1.000	1.000
<u>TOTAL</u>	<u>6,777,470</u>	<u>0.915</u>	<u>3.8%</u>	<u>0.950</u>	<u>0.950</u>
LIABILITY-					
OL&T	3,141,440	0.980	3.4%	1.013	1.011
M&C	3,320,585	1.031	2.8%	1.060	1.072
LOCAL PRODUCT	735,301	0.742	4.4%	0.775	0.751
* MULTI PRODUCT	198,371	0.864	1.1%	0.874	0.874
<u>TOTAL</u>	<u>7,395,697</u>	<u>0.951</u>	<u>5.0%</u>	<u>0.999</u>	<u>0.999</u>
-----					
PROP. & LIAB.	14,173,167		4.4%		
TOTAL					

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

INSURANCE SERVICES OFFICE, INC.

WYOMING  
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	0.992	1.000
APARTMENT (32)	1.000	1.067	1.000
OFFICE (33)	0.960	0.966	0.990
MERCANTILE (34)	1.000	1.048	1.000
INSTITUTION(35)	0.800	0.803	0.850
SERVICES (36)	0.930	0.941	0.980
IND/PROC (37)	0.880	0.906	1.000
CONTRACTORS(38)	0.970	1.038	1.000

NOTE: Combined PMFs are provided for informational purposes only.

INSURANCE SERVICES OFFICE, INC.

WYOMING  
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	1.768	0.029	1.017	1.017	
31	0.728	0.020	0.994	0.994	-2.3%
32	0.705	0.010	0.997	0.997	-2.0%
33	0.745	0.003	0.999	0.999	-1.8%
34	0.837	0.027	0.995	0.995	-2.2%
35	1.338	0.019	1.006	1.006	-1.1%
36	0.687	0.025	0.991	0.991	-2.6%
37	0.276	0.007	0.991	0.991	-2.6%
38	0.636	0.006	0.997	0.997	-2.0%
RATING GROUP					
1	0.898	0.019	0.998	1.002	
2	1.245	0.011	1.002	1.007	
3	0.779	0.021	0.995	0.999	
4	0.837	0.072	0.987	0.992	
6	0.606	0.012	0.994	0.998	
7	0.532	0.026	0.984	0.988	
8	0.804	0.028	0.994	0.998	
9	1.042	0.024	1.001	1.005	
10	0.853	0.059	0.991	0.995	
13	1.471	0.033	1.013	1.017	
14	0.759	0.018	0.995	1.000	
15	1.131	0.014	1.002	1.006	
21	1.072	0.010	1.001	1.005	
22	3.743	0.012	1.016	1.021	

## INSURANCE SERVICES OFFICE, INC.

## WYOMING

## SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS

TYPE OF POLICY	(1) LEAST SQUARES FORMULA	(2) CREDIBILITY	(3) CREDIBILITY WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	(5) INDICATED CHANGE
	RELATIVITY				
10	1.040	0.066	1.003	1.002	
31	1.134	0.025	1.003	1.003	0.1%
32	1.206	0.040	1.008	1.007	0.5%
33	0.714	0.013	0.996	0.995	-0.7%
34	0.796	0.052	0.988	0.988	-1.4%
35	1.214	0.053	1.010	1.010	0.8%
36	1.132	0.046	1.006	1.005	0.3%
37	0.608	0.012	0.994	0.994	-0.8%
38	0.676	0.017	0.993	0.993	-0.9%
CATEGORY					
1	1.035	0.402	1.014	1.005	
2	0.673	0.029	0.989	0.980	
3	0.940	0.013	0.999	0.990	
4	1.060	0.025	1.001	0.992	
5	1.396	0.013	1.004	0.995	
6	1.113	0.007	1.001	0.992	
7	0.927	0.026	0.998	0.989	
8	0.913	0.017	0.998	0.989	
9	0.706	0.021	0.993	0.984	
10	1.233	0.003	1.001	0.991	
11	1.010	0.010	1.000	0.991	
12	0.628	0.029	0.987	0.978	
13	0.622	0.016	0.992	0.983	
14	1.303	0.019	1.005	0.996	



INSURANCE SERVICES OFFICE, INC.

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

ENTIRE STATE		(1) ACCIDENT YEAR ENDING 09/30/18 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	30,070	140,121	0.297	1.320	1.555
	02 OTHER HABITATIONAL	13,473	71,951	2.692	2.049	2.413
	03 RESTAURANTS & BARS	8,518	112,962	0.713	1.475	1.737
	04 OTHER MERCANTILE RS	140,859	730,421	0.712	1.182	1.392
	06 CHURCHES	226	1,436	10.406	3.660	4.311
	07 SCHOOLS	2,765	13,566	0.000	1.398	1.647
	08 OFFICES AND BANKS	54,273	235,929	0.160	1.180	1.390
	09 REC. FACILITIES	28,248	197,100	2.361	2.005	2.362
	10 HOTELS AND MOTELS	62,578	534,771	0.807	1.296	1.527
	13 MOTOR VEHICLE RISKS	66,397	298,236	3.103	2.342	2.759
	14 OTHER NON-MANUF.	33,310	257,562	0.249	1.196	1.409
	15 STORAGE	22,448	109,892	3.769	2.398	2.824
	21 METAL MANUFACTURING	13,608	86,745	0.036	1.302	1.534
	22 OTHER MANUFACTURING	14,202	149,782	14.158	5.865	6.908
	TOTAL*	490,975	2,940,474	1.589	1.636	1.926
31 MULTILINE MOTEL/HOTEL	10 HOTELS AND MOTELS	331,344	1,989,363	0.213	0.534	0.629
	TOTAL*	331,344	1,989,363	0.213	0.534	0.629
32 MULTILINE APARTMENT	01 APARTMENTS	63,024	647,067	0.343	0.569	0.670
	02 OTHER HABITATIONAL	65,813	377,272	1.253	0.738	0.869
	TOTAL*	128,837	1,024,339	0.808	0.655	0.772
33 MULTILINE OFFICE	08 OFFICES AND BANKS	55,154	329,961	0.041	0.515	0.607
	TOTAL*	55,154	329,961	0.041	0.515	0.607
34 MULTILINE MERCANTILE	03 RESTAURANTS & BARS	83,991	709,861	0.260	0.553	0.651
	04 OTHER MERCANTILE RS	290,361	1,540,741	0.729	0.644	0.759
	08 OFFICES AND BANKS	10,003	49,923	0.000	0.511	0.602
	13 MOTOR VEHICLE RISKS	53,979	173,603	0.181	0.542	0.638
	14 OTHER NON-MANUF.	6,982	56,600	0.219	0.550	0.648
	15 STORAGE	52,434	260,785	0.419	0.585	0.689
	TOTAL*	497,750	2,791,513	0.536	0.607	0.715

INSURANCE SERVICES OFFICE, INC.

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

ENTIRE STATE		(1) ACCIDENT YEAR ENDING 09/30/18 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	485	1,503	0.000	0.512	0.603
	06 CHURCHES	83,252	503,953	1.026	0.697	0.821
	07 SCHOOLS	79,155	1,034,006	0.569	0.611	0.720
	08 OFFICES AND BANKS	24,230	113,612	0.714	0.638	0.751
	09 REC. FACILITIES	14,505	86,844	12.360	2.713	3.196
	13 MOTOR VEHICLE RISKS	109	2,324	0.000	0.512	0.603
	14 OTHER NON-MANUF.	34,836	186,853	0.858	0.664	0.782
	TOTAL*	236,572	1,929,095	1.509	0.780	0.919
36 MULTILINE SERVICES	03 RESTAURANTS & BARS	8,453	48,423	0.000	0.567	0.668
	04 OTHER MERCANTILE RS	40,113	236,164	0.270	0.579	0.682
	08 OFFICES AND BANKS	50,113	322,914	0.797	0.726	0.855
	09 REC. FACILITIES	105,985	680,036	0.185	0.482	0.568
	13 MOTOR VEHICLE RISKS	145,207	872,172	1.128	0.896	1.055
	14 OTHER NON-MANUF.	28,887	197,100	1.456	0.888	1.046
	15 STORAGE	28,825	177,023	0.000	0.524	0.617
	21 METAL MANUFACTURING	4,837	29,252	0.000	0.574	0.676
	22 OTHER MANUFACTURING	3,981	28,768	0.000	0.574	0.676
	TOTAL*	416,401	2,591,852	0.663	0.700	0.824
37 MULTILINE INDUST/PROCESS	04 OTHER MERCANTILE RS	13,096	86,093	5.561	1.682	1.981
	08 OFFICES AND BANKS	2,351	12,750	1.586	0.841	0.991
	13 MOTOR VEHICLE RISKS	6	7,442	0.000	0.582	0.686
	14 OTHER NON-MANUF.	2,528	12,572	0.000	0.580	0.683
	15 STORAGE	1,051	5,162	0.000	0.583	0.687
	21 METAL MANUFACTURING	29,738	280,901	0.696	0.695	0.819
	22 OTHER MANUFACTURING	38,210	323,143	0.942	0.770	0.907
	TOTAL*	86,980	728,063	1.532	0.876	1.032

INSURANCE SERVICES OFFICE, INC.

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

ENTIRE STATE		(1) ACCIDENT YEAR ENDING 09/30/18 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					
38 MULTILINE	04 OTHER MERCANTILE RS	94,160	527,208	0.056	0.455	0.536
CONTRACTORS	08 OFFICES AND BANKS	12,325	75,639	0.000	0.557	0.656
	14 OTHER NON-MANUF.	5,074	32,358	0.000	0.573	0.675
	TOTAL*	111,559	635,205	0.047	0.472	0.556
TOTAL ALL TOPS*	01 APARTMENTS	93,094	787,188	0.328	0.812	0.956
	02 OTHER HABITATIONAL	79,771	450,726	1.488	0.958	1.128
	03 RESTAURANTS & BARS	100,962	871,246	0.276	0.632	0.744
	04 OTHER MERCANTILE RS	578,589	3,120,627	0.693	0.763	0.899
	06 CHURCHES	83,478	505,389	1.051	0.705	0.830
	07 SCHOOLS	81,920	1,047,572	0.550	0.638	0.751
	08 OFFICES AND BANKS	208,449	1,140,728	0.345	0.759	0.894
	09 REC. FACILITIES	148,738	963,980	1.786	0.988	1.165
	10 HOTELS AND MOTELS	393,922	2,524,134	0.307	0.655	0.772
	13 MOTOR VEHICLE RISKS	265,698	1,353,777	1.429	1.185	1.396
	14 OTHER NON-MANUF.	111,617	743,045	0.733	0.868	1.022
	15 STORAGE	104,758	552,862	1.017	0.957	1.127
	21 METAL MANUFACTURING	48,183	396,898	0.440	0.854	1.006
	22 OTHER MANUFACTURING	56,393	501,693	4.204	2.039	2.402
	TOTAL*	2,355,572	14,959,865	0.847	0.849	1.000

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

## INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 09/30/18 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	360,010	1,971,790	1.210	1.186	1.075
	02 RES. APTS. AND COND	10,070	70,474	0.101	0.945	0.857
	03 OFFICES	23,985	110,566	0.465	1.023	0.927
	04 MERCANTILE - HIGH	22,402	143,111	1.396	1.225	1.111
	05 MERCANTILE - MEDIUM	6,428	38,073	0.141	0.955	0.866
	06 MERCANTILE - LOW	4,179	19,922	0.491	1.030	0.934
	07 MOTELS AND HOTELS	21,131	117,675	1.633	1.277	1.158
	08 INSTITUTIONAL - HIC	7,642	56,670	0.000	0.924	0.838
	09 INSTITUTIONAL - LOW	14,109	87,132	0.000	0.923	0.837
	10 INDUST-PROC - HIGH	475	4,080	15.445	4.230	3.835
	11 INDUST-PROC - LOW	8,876	43,445	0.006	0.925	0.839
	12 SERVICE - HIGH	12,099	54,050	0.571	1.047	0.949
	13 SERVICE - LOW	19,139	103,632	0.128	0.950	0.861
	14 CONTRACTORS	4,269	22,875	17.028	4.582	4.154
	TOTAL*	514,814	2,843,495	1.177	1.178	1.068
31 MULTILINE MOTEL/HOTEL	01 BUILDINGS	130,924	743,641	1.512	1.300	1.179
	07 MOTELS AND HOTELS	60,573	275,767	1.152	1.137	1.031
	TOTAL*	191,497	1,019,408	1.398	1.248	1.132
32 MULTILINE APARTMENT	01 BUILDINGS	182,840	1,294,934	1.568	1.378	1.249
	02 RES. APTS. AND COND	54,042	370,704	0.368	0.891	0.808
	TOTAL*	236,882	1,665,638	1.294	1.267	1.149
33 MULTILINE OFFICE	01 BUILDINGS	81,335	446,694	0.198	0.809	0.733
	03 OFFICES	11,267	70,207	0.955	1.104	1.001
	04 MERCANTILE - HIGH	1,268	3,948	0.000	1.007	0.913
	08 INSTITUTIONAL - HIC	63	294	0.000	1.010	0.916
	12 SERVICE - HIGH	275	944	0.000	1.009	0.915
	14 CONTRACTORS	2	276	0.000	1.010	0.916
	TOTAL*	94,210	522,363	0.285	0.847	0.769

## INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 09/30/18 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	362,110	1,711,561	0.777	0.909	0.824
	03 OFFICES	309	1,045	0.000	1.009	0.915
	04 MERCANTILE - HIGH	42,831	224,456	0.310	0.930	0.843
	05 MERCANTILE - MEDIUM	26,589	156,632	1.829	1.276	1.157
	06 MERCANTILE - LOW	15,516	84,860	0.351	1.002	0.908
	08 INSTITUTIONAL - HIC	29	77	0.000	1.010	0.916
	11 INDUST-PROC - LOW	136	1,458	0.000	1.009	0.915
	12 SERVICE - HIGH	2,161	7,284	0.000	1.004	0.910
	13 SERVICE - LOW	882	2,918	0.000	1.007	0.913
	14 CONTRACTORS	2,832	13,365	0.185	1.021	0.926
	TOTAL*	453,395	2,203,656	0.770	0.937	0.850
35 MULTILINE INSTITUTIONAL	01 BUILDINGS	182,068	1,835,434	1.528	1.386	1.257
	03 OFFICES	51	1,216	0.000	1.009	0.915
	04 MERCANTILE - HIGH	41	47	0.000	1.010	0.916
	08 INSTITUTIONAL - HIC	25,375	188,030	1.594	1.235	1.120
	09 INSTITUTIONAL - LOW	43,284	220,767	0.329	0.936	0.849
	12 SERVICE - HIGH	157	396	0.000	1.009	0.915
	13 SERVICE - LOW	275	312	0.000	1.010	0.916
	14 CONTRACTORS	-	1	0.000	1.000	1.000
	TOTAL*	251,251	2,246,203	1.325	1.292	1.172
36 MULTILINE SERVICES	01 BUILDINGS	222,435	1,343,267	1.387	1.294	1.173
	03 OFFICES	282	2,298	0.000	0.828	0.751
	04 MERCANTILE - HIGH	1,771	8,795	0.000	0.814	0.738
	05 MERCANTILE - MEDIUM	61	294	0.000	0.832	0.754
	06 MERCANTILE - LOW	419	1,322	0.000	0.830	0.752
	08 INSTITUTIONAL - HIC	2,324	15,765	0.000	0.801	0.726
	09 INSTITUTIONAL - LOW	2,769	12,460	0.000	0.807	0.732
	10 INDUST-PROC - HIGH	252	2,138	0.000	0.828	0.751
	11 INDUST-PROC - LOW	365	1,023	0.000	0.830	0.752
	12 SERVICE - HIGH	55,171	374,867	0.631	0.770	0.698
	13 SERVICE - LOW	26,325	141,746	0.140	0.662	0.600
	14 CONTRACTORS	1,077	4,522	0.000	0.823	0.746
	TOTAL*	313,251	1,908,497	1.108	1.134	1.028

## INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 09/30/18 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	59,513	322,033	0.444	0.686	0.622
	03 OFFICES	182	755	0.000	0.831	0.753
	04 MERCANTILE - HIGH	2	207	0.000	0.832	0.754
	10 INDUST-PROC - HIGH	5,940	36,387	0.200	0.799	0.724
	11 INDUST-PROC - LOW	15,039	105,577	0.543	0.818	0.742
	12 SERVICE - HIGH	116	909	0.000	0.830	0.752
	13 SERVICE - LOW	20	98	0.000	0.832	0.754
	14 CONTRACTORS	481	1,674	0.000	0.829	0.752
	TOTAL*	81,293	467,640	0.440	0.720	0.653
38 MULTILINE CONTRACTORS	01 BUILDINGS	76,171	417,357	0.679	0.790	0.716
	03 OFFICES	1,332	8,829	0.789	0.914	0.829
	04 MERCANTILE - HIGH	1,104	6,255	0.000	0.820	0.743
	06 MERCANTILE - LOW	-	477	0.000	1.000	1.000
	11 INDUST-PROC - LOW	-	761	0.000	1.000	1.000
	12 SERVICE - HIGH	471	2,769	3.480	1.220	1.106
	13 SERVICE - LOW	-	92	0.000	1.000	1.000
	14 CONTRACTORS	40,773	248,776	0.910	0.922	0.836
	TOTAL*	119,851	685,316	0.764	0.838	0.760
TOTAL ALL TOPS*	01 BUILDINGS	1,657,406	10,086,711	1.136	1.137	1.031
	02 RES. APTS. AND COND	64,112	441,178	0.326	0.900	0.815
	03 OFFICES	37,408	194,916	0.614	1.041	0.944
	04 MERCANTILE - HIGH	69,419	386,819	0.642	1.022	0.927
	05 MERCANTILE - MEDIUM	33,078	194,999	1.498	1.213	1.100
	06 MERCANTILE - LOW	20,114	106,581	0.373	1.005	0.910
	07 MOTELS AND HOTELS	81,704	393,442	1.276	1.173	1.064
	08 INSTITUTIONAL - HIC	35,433	260,836	1.142	1.139	1.033
	09 INSTITUTIONAL - LOW	60,162	320,359	0.237	0.927	0.840
	10 INDUST-PROC - HIGH	6,667	42,605	1.277	1.045	0.947
	11 INDUST-PROC - LOW	24,416	152,264	0.337	0.858	0.778
	12 SERVICE - HIGH	70,450	441,219	0.615	0.829	0.752
	13 SERVICE - LOW	46,641	248,798	0.132	0.789	0.715
	14 CONTRACTORS	49,434	291,489	2.231	1.241	1.125
	TOTAL*	2,256,444	13,562,216	1.047	1.103	1.000

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

## INSURANCE SERVICES OFFICE, INC.

## WYOMING

## BASIC GROUP II RELATIVITY ANALYSIS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	ACCIDENT YEAR ENDING 09/30/18 AGGR. LOSS COSTS AT CURRENT IMPLICIT PMF	ACCIDENT YEARS 2009-2018 EXPER. RATIO AT CURRENT PMF	FORMULA RELATIVITY (2)/ 1.253	CREDIBILITY C	CREDIBILITY WEIGHTED RELATIVITY	BALANCED FORMULA RELATIVITY	NORMALIZED FORMULA RELATIVITY	INDICATED CHANGE
	-----	-----	-----	-----	-----	-----	-----	-----
MONOLINE	867,298	1.1240	0.8970	0.2650	0.973	0.9730	0.9654	
MULTILINE	2,993,595	1.2900	1.0300	0.6030	1.018	1.0180	1.0100	
	-----	-----	-----	-----	-----	-----	-----	
COVERAGE	3,860,893	1.2530	1.0000			1.0079	1.0000	
MULTILINE TOP								
31 MOTEL/HOTEL	309,707	1.2560	1.0020	0.1180	1.000	1.0020	0.9941	3.0%
32 APARTMENT	444,073	1.8050	1.4410	0.1880	1.083	1.0850	1.0765	11.5%
33 OFFICE	121,913	0.8930	0.7130	0.0630	0.982	0.9840	0.9763	1.1%
34 MERCANTILE	745,936	1.2760	1.0180	0.2230	1.004	1.0060	0.9981	3.4%
35 INSTITUTIONAL	551,318	1.4430	1.1520	0.2870	1.044	1.0460	1.0378	7.5%
36 SERVICES	500,355	1.2180	0.9720	0.1930	0.995	0.9970	0.9892	2.5%
37 INDUST/PROCESS	131,453	0.7280	0.5810	0.0640	0.973	0.9750	0.9674	0.2%
38 CONTRACTORS	188,840	0.5810	0.4640	0.0810	0.957	0.9590	0.9515	-1.4%
	-----	-----	-----	-----	-----	-----	-----	
	2,993,595	1.2900	1.0300		1.0160	1.0180	1.0100	

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

INSURANCE SERVICES OFFICE, INC.

## WYOMING

COMMERCIAL I.M. RELATIVITY ANALYSIS

(1)	(2)	(3)	(4)	(5)
TOP	BALANCED RELATIVITY	CURRENT IPMF	INDICATED IPMF	SELECTED IPMF
10	1.000	0.910	0.910	0.910
3X & 7X	1.000			

## CLASSIFICATION

150	0.923
191	1.1
192	0.785
220	0.789
221	0.755
234	1.202
235	1.088
240	0.789
241	0.715
327	0.757
328	0.932
340	0.646
341	0.757
342	0.751
343	0.767
403	0.64
451	0.946
452	0.778
453	0.811
454	0.713
460	0.479
482	0.889
510	0.662
514	0.631
530	0.628
534	0.757



INSURANCE SERVICES OFFICE, INC.

## WYOMING

COMMERCIAL INLAND MARINE RELATIVITY ANALYSIS  
SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

TYPE OF POLICY	GROUP	(1)	(2)	(3)	(4)
		RATING 2016 AGGREGATE 2012 - 2016 LOSS COSTS	AGGREGATE LOSS COSTS	FIVE-YEAR EXP RATIO	RELATIVITY
MONOLINE 10	150	311,633	1,898,096	1.151	1.353
	191	5,446,492	15,816,054	1.032	1.213
	192	862,002	2,760,886	0.627	0.737
	220	5,112	87,903	5.716	6.717
	221	1,491	2,853	1.199	1.409
	234	5,224,155	20,144,072	0.600	0.705
	235	8,439,000	24,407,283	0.761	0.894
	240	928,183	3,685,254	0.656	0.771
	241	15,553	114,739	0.053	0.062
	327	18,917	91,546	0.000	0.000
	328	2,319,887	11,908,665	0.792	0.931
	340	40,688	87,993	0.000	0.000
	341	0	0	0.000	0.000
	342	19,188	65,375	0.555	0.652
	343	589	3,417	343.665	578.925
	403	1,600,852	5,771,545	0.345	0.405
	451	3,309,677	12,953,836	0.855	1.005
	452	34,702	137,467	1.628	1.913
	453	45,575	212,456	3.203	3.764
	454	164,836	745,300	0.734	0.863
	460	790,198	3,687,530	0.415	0.488
	482	839,364	2,841,134	0.986	1.159
	510	3,252	39,977	0.020	0.024
	514	446,469	1,612,361	0.339	0.398
	530	504,434	2,697,004	0.489	0.575
	534	0	0	0.000	0.000
	TOTAL#	31,372,249	111,772,746	0.785	0.922

INSURANCE SERVICES OFFICE, INC.

## WYOMING

COMMERCIAL INLAND MARINE RELATIVITY ANALYSISSUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

TYPE OF POLICY	RATING GROUP	(1) 2016 AGGREGATE LOSS COSTS	(2) 2012 - 2016 AGGREGATE LOSS COSTS	(3) FIVE-YEAR EXP RATIO	(4) RELATIVITY
MULTILINE ##	150	720,095	3,333,227	0.795	0.934
3X & 7X	191	603,595	2,704,067	0.774	0.910
	192	202,803	783,492	0.826	0.971
	220	6,439	28,512	1.526	1.793
	221	5,606	27,010	0.258	0.303
	234	12,669,443	52,530,286	1.162	1.365
	235	478,171	2,380,353	2.879	3.383
	240	11,651	60,061	1.983	2.330
	241	5,028	15,371	0.019	0.022
	327	2,942	18,862	0.000	0.000
	328	396	2,751	168.726	198.268
	340	32,828	132,609	0.016	0.019
	341	0	0	0.000	0.000
	342	6,082	30,546	0.000	0.000
	343	2,369	7,996	0.000	0.000
	403	479,869	2,417,275	0.739	0.868
	451	95,342	438,635	0.360	0.423
	452	38,096	206,651	0.535	0.629
	453	34,375	104,958	0.147	0.173
	454	228,162	984,183	0.274	0.322
	460	3,613,811	15,118,089	0.318	0.374
	482	127,496	760,961	0.693	0.814
	510	23,290	121,842	0.000	0.000
	514	63,169	300,866	0.073	0.086
	530	1,129,574	4,779,992	0.414	0.486
	534	0	0	0.000	0.000
	TOTAL#	20,580,632	87,288,595	0.952	1.119

INSURANCE SERVICES OFFICE, INC.

## WYOMING

COMMERCIAL INLAND MARINE RELATIVITY ANALYSIS  
SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

TYPE OF POLICY	RATING GROUP	(1) 2016 AGGREGATE LOSS COSTS	(2) 2012 - 2016 AGGREGATE LOSS COSTS	(3) FIVE-YEAR EXP RATIO	(4) RELATIVITY
TOTAL ALL TOPS#	150	1,031,728	5,231,323	0.903	1.061
	191	6,050,087	18,520,121	1.006	1.182
	192	1,064,805	3,544,378	0.665	0.781
	220	11,551	116,415	3.380	3.972
	221	7,097	29,863	0.456	0.536
	234	17,893,598	72,674,358	0.998	1.173
	235	8,917,171	26,787,636	0.875	1.028
	240	939,834	3,745,315	0.672	0.790
	241	20,581	130,110	0.045	0.053
	327	21,859	110,408	0.000	0.000
	328	2,320,283	11,911,416	0.821	0.965
	340	73,516	220,602	0.007	0.008
	341	0	0	0.000	0.000
	342	25,270	95,921	0.421	0.495
	343	2,958	11,413	267.552	314.397
	403	2,080,721	8,188,820	0.436	0.512
	451	3,405,019	13,392,471	0.841	0.988
	452	72,798	344,118	1.056	1.241
	453	79,950	317,414	1.889	2.220
	454	392,998	1,729,483	0.467	0.549
	460	4,404,009	18,805,619	0.335	0.394
	482	966,860	3,602,095	0.947	1.113
	510	26,542	161,819	0.002	0.002
	514	509,638	1,913,227	0.306	0.360
	530	1,634,008	7,476,996	0.437	0.514
	534	0	0	0.000	0.000
	TOTAL#	51,952,881	199,061,341	0.851	1.000

# TOTAL IN COLUMN (3) IS AN AVERAGE USING COLUMN (1) AS WEIGHTS.

## REFLECTS CURRENT IPMF OF 0.910.

INSURANCE SERVICES OFFICE, INC.

WYOMING  
OWNERS, LANDLORDS AND TENANTS  
BASIC LIMIT RELATIVE CHANGE ANALYSIS

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	(1)	(2)	(3)	(4)	(5)
TYPE OF	BAILEY		CREDIBILITY		
POLICY	FORMULA		WEIGHTED	BALANCED	INDICATED
	RELATIVITY	CREDIBILITY	RELATIVITY	RELATIVITY	CHANGE
10	0.651	0.069	0.971	0.976	
31	0.525	0.072	0.955	0.960	-1.6%
32	1.260	0.039	1.009	1.014	3.9%
33	0.763	0.052	0.986	0.991	1.5%
34	2.985	0.090	1.103	1.109	13.6%
35	0.214	0.067	0.902	0.907	-7.1%
36	1.656	0.038	1.019	1.025	5.0%
CLASS GROUP					
1	0.197	0.032	0.949	0.943	
2	0.407	0.057	0.950	0.942	
3	0.561	0.057	0.968	0.960	
4	1.103	0.011	1.001	0.992	
5	0.587	0.015	0.992	0.984	
6	0.033	0.013	0.957	0.952	
7	0.513	0.035	0.977	0.969	
8	3.427	0.015	1.019	1.009	
9	1.895	0.080	1.052	1.043	
10	2.058	0.065	1.048	1.038	
11	1.304	0.043	1.011	1.003	
12	1.244	0.073	1.016	1.007	
13	1.194	0.021	1.004	0.995	
16	1.840	0.022	1.014	1.005	

## INSURANCE SERVICES OFFICE, INC.

## WYOMING

## 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	0.845	0.099	0.983	0.985	
33	0.626	0.007	0.997	0.998	1.3%
34	0.164	0.037	0.935	0.938	-4.8%
35	0.587	0.018	0.990	0.992	0.7%
36	0.786	0.056	0.987	0.988	0.3%
37	1.587	0.035	1.016	1.017	3.2%
38	1.254	0.101	1.023	1.025	4.1%
CLASS GROUP					
30	0.514	0.039	0.974	0.974	
31	0.827	0.065	0.988	0.987	
32	1.161	0.113	1.017	1.016	
33	0.738	0.053	0.984	0.983	
34	3.016	0.053	1.060	1.058	
35	1.662	0.011	1.006	1.004	
36	0.393	0.025	0.977	0.977	
37	0.700	0.013	0.995	0.995	
38	0.345	0.034	0.964	0.963	

## INSURANCE SERVICES OFFICE, INC.

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

TERRITORY ALL		(1)	(2)	(3)	(4)	(5)	(6)
TYPE OF POLICY	CLASS GROUP	CALENDAR A.Y.E. 06/30/18 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	01 FOOD&BEV.(RETAIL)	\$41,124	\$164,226	0.004	0.005	0	0.92
	02 RESTAURANTS	\$13,456	\$65,176	0.469	0.653	2	0.92
	03 STORES	\$33,037	\$149,116	0.089	0.124	3	0.937
	04 VENDING & RENTAL	\$2,083	\$8,562	0	0	0	0.969
	05 FOOD & BEV. DIST.	\$11,121	\$18,947	0	0	0	0.961
	06 NON-FOOD&BEV.DIST	\$14,229	\$59,503	0.007	0.01	1	0.929
	07 CLUBS,AMSMT&SPRTS	\$129,301	\$442,357	0.123	0.171	9	0.946
	08 HEALTH CARE FACIL	\$1,181	\$8,874	5.87	8.165	1	0.985
	09 HOTELS AND MOTELS	\$142,330	\$686,810	1.061	1.475	20	1.018
	10 SCHLS & CHURCHES	\$72,032	\$321,429	0.919	1.278	9	1.014
	11 APARTMENTS	\$96,155	\$356,998	0.801	1.115	12	0.979
	12 BUILDINGS&OFFICES	\$97,388	\$468,715	0.397	0.552	28	0.983
	13 MISC. PREMISES	\$2,819	\$14,710	0	0	0	0.971
	TOTAL *	\$656,256	\$2,765,423	0.556		85	
31 MULT MOTEL/HOTEL	09 HOTELS AND MOTELS	\$412,751	\$1,891,678	0.715	0.995	93	1.001
	TOTAL *	\$412,751	\$1,891,678	0.715		93	
32 MULT APARTMENT	11 APARTMENTS	\$125,398	\$722,224	1.035	1.44	22	1.017
	12 BUILDINGS&OFFICES	\$27,916	\$109,999	1.784	2.481	6	1.022
	TOTAL *	\$153,314	\$832,223	1.172		28	
33 MULT OFFICE	12 BUILDINGS&OFFICES	\$276,658	\$1,389,441	0.686	0.954	49	0.998
	13 MISC. PREMISES	\$1,553	\$5,927	0	0	0	0.986
	TOTAL *	\$278,211	\$1,395,368	0.682		49	
34 MULT MERCANTILE	01 FOOD&BEV.(RETAIL)	\$121,105	\$491,078	0.453	0.63	18	1.046
	02 RESTAURANTS	\$217,687	\$1,164,481	0.857	1.192	57	1.045
	03 STORES	\$127,631	\$613,931	1.305	1.815	54	1.065
	04 VENDING & RENTAL	\$43	\$714	0	0	0	1.101
	05 FOOD & BEV. DIST.	\$13,788	\$64,138	1.482	2.062	4	1.091
	06 NON-FOOD&BEV.DIST	\$14,226	\$84,882	0.078	0.109	2	1.055
	12 BUILDINGS&OFFICES	\$40,212	\$189,548	2.273	3.162	11	1.117
	TOTAL *	\$534,692	\$2,608,772	0.974		146	

## INSURANCE SERVICES OFFICE, INC.

WYOMING  
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. 06/30/18 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
35 MULT INSTITUT.	07 CLUBS, AMSMT & SPRTS	\$15,052	\$65,486	0.157	0.218	2	0.879
	08 HEALTH CARE FACIL	\$11,937	\$61,745	0.187	0.26	3	0.914
	10 SCHLS & CHURCHES	\$267,593	\$2,050,022	0.329	0.458	67	0.941
	12 BUILDINGS & OFFICES	\$1,754	\$7,846	0	0	0	0.913
	16 GOVT SUBDIVISIONS	\$83	\$382,081	0.284	0.395	9	0.911
	TOTAL *	\$296,419	\$2,567,180	0.313		81	
36 MULT SERVICES	03 STORES	\$12,086	\$74,536	0.067	0.094	1	0.983
	04 VENDING & RENTAL	\$4,501	\$25,746	1.575	2.191	2	1.017
	07 CLUBS, AMSMT & SPRTS	\$94,389	\$470,782	0.76	1.057	11	0.993
	08 HEALTH CARE FACIL	\$236	\$271	0	0	0	1.033
	09 HOTELS AND MOTELS	\$11,829	\$65,458	0.173	0.24	1	1.068
	10 SCHLS & CHURCHES	\$0	\$192	0	0	0	1.064
	12 BUILDINGS & OFFICES	\$9,765	\$47,237	3.023	4.204	3	1.032
	13 MISC. PREMISES	\$20,352	\$93,093	1.549	2.154	8	1.02
	TOTAL *	\$153,158	\$777,315	0.932		26	
TOTAL ALL TOF	01 FOOD & BEV. (RETAIL)	\$162,229	\$655,304	0.339		18	
	02 RESTAURANTS	\$231,143	\$1,229,657	0.835		59	
	03 STORES	\$172,754	\$837,583	0.986		58	
	04 VENDING & RENTAL	\$6,627	\$35,022	1.07		2	
	05 FOOD & BEV. DIST.	\$24,909	\$83,085	0.821		4	
	06 NON-FOOD & BEV. DIST	\$28,455	\$144,385	0.043		3	
	07 CLUBS, AMSMT & SPRTS	\$238,742	\$978,625	0.377		22	
	08 HEALTH CARE FACIL	\$13,354	\$70,890	0.686		4	
	09 HOTELS AND MOTELS	\$566,910	\$2,643,946	0.791		114	
	10 SCHLS & CHURCHES	\$339,625	\$2,371,643	0.455		76	
	11 APARTMENTS	\$221,553	\$1,079,222	0.934		34	
	12 BUILDINGS & OFFICES	\$453,693	\$2,212,786	0.88		97	
	13 MISC. PREMISES	\$24,724	\$113,730	1.275		8	
	16 GOVT SUBDIVISIONS	\$83	\$382,081	0.284		9	
	TOTAL *	\$2,484,801	\$12,837,959	0.719		508	

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

## INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CLASS GROUP	(1)	(2)	(3)	(4)	(5)	(6)
		CALENDAR A.Y.E. 06/30/18 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	30 SERVICE	\$71,229	\$410,071	0.171	0.24	9	0.959
	31 LIGHT CONTRACTING	\$84,984	\$460,799	0.817	1.145	29	0.972
	32 MEDIUM CONTRCTING	\$650,051	\$3,458,349	0.536	0.751	94	1.001
	33 HEAVY CONTRACTING	\$676,799	\$4,397,491	0.527	0.738	31	0.968
	34 DEALER OR DISTRIB	\$45,363	\$236,078	1.562	2.188	4	1.042
	35 LGT. MANUFACTURER	\$515	\$5,234	6.812	9.544	2	0.989
	36 MED. MANUFACTURER	\$42,442	\$270,810	0.63	0.883	2	0.962
	37 HVY. MANUFACTURER	\$5,575	\$43,141	5.94	8.322	1	0.98
	38 MISC. OPERATION	\$57,625	\$160,799	0.135	0.19	3	0.949
	TOTAL *	\$1,634,583	\$9,442,772	0.568		175	
33 MULT OFFICE	31 LIGHT CONTRACTING	\$6,110	\$25,855	0	0	0	0.985
	32 MEDIUM CONTRCTING	\$223	\$1,176	0	0	0	1.014
	33 HEAVY CONTRACTING	\$6,147	\$39,457	0	0	0	0.981
	38 MISC. OPERATION	\$3,132	\$11,571	1.56	2.185	1	0.962
	TOTAL *	\$15,612	\$78,059	0.313		1	
34 MULT MERCANTILE	30 SERVICE	\$24,080	\$194,830	0.281	0.394	7	0.914
	32 MEDIUM CONTRCTING	\$3,350	\$11,450	0	0	0	0.953
	34 DEALER OR DISTRIB	\$83,224	\$474,728	0.289	0.405	15	0.993
	38 MISC. OPERATION	\$1,800	\$7,968	0.343	0.481	2	0.904
	TOTAL *	\$112,454	\$688,976	0.28		24	
35 MULT INSTITUT.	31 LIGHT CONTRACTING	\$97	\$5,950	1.8	2.522	2	0.979
	32 MEDIUM CONTRCTING	\$39,127	\$207,976	0.483	0.677	4	1.008
	TOTAL *	\$39,224	\$213,926	0.486		6	
36 MULT SERVICES	30 SERVICE	\$5,054	\$26,518	0.097	0.136	1	0.962
	31 LIGHT CONTRACTING	\$8,933	\$64,123	0.991	1.388	7	0.975
	32 MEDIUM CONTRCTING	\$8,187	\$46,832	0.232	0.325	1	1.004
	33 HEAVY CONTRACTING	\$5,741	\$90,209	0	0	0	0.971
	34 DEALER OR DISTRIB	\$124,596	\$549,693	1.654	2.317	30	1.045
	36 MED. MANUFACTURER	\$7,377	\$32,124	1.184	1.659	3	0.965
	38 MISC. OPERATION	\$56,221	\$527,154	0.19	0.267	15	0.952
	TOTAL *	\$216,109	\$1,336,653	1.095		57	



## INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CLASS GROUP	(1)	(2)	(3)	(4)	(5)	(6)
		CALENDAR A.Y.E. 06/30/18 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
37 MULT INDUST/PROC	31 LIGHT CONTRACTING	\$0	\$55	0	0	0	1.004
	32 MEDIUM CONTRACTING	\$58,032	\$311,853	1.879	2.632	7	1.033
	33 HEAVY CONTRACTING	\$284,157	\$1,431,963	0.848	1.188	6	1
	34 DEALER OR DISTRIB	\$656	\$2,832	36.818	51.585	1	1.076
	35 LGT. MANUFACTURER	\$1,590	\$6,329	0	0	0	1.021
	36 MED. MANUFACTURER	\$65,206	\$352,767	0.081	0.113	6	0.994
	37 HVY. MANUFACTURER	\$52,365	\$188,662	0.205	0.287	2	1.012
	38 MISC. OPERATION	\$1,316	\$8,024	0	0	0	0.98
	TOTAL *	\$463,322	\$2,302,485	0.842		22	
38 MULT CONTRACTORS	30 SERVICE	\$118,527	\$750,525	0.507	0.71	10	0.998
	31 LIGHT CONTRACTING	\$192,611	\$911,483	0.586	0.821	37	1.011
	32 MEDIUM CONTRACTING	\$598,945	\$3,116,360	1.169	1.638	124	1.041
	33 HEAVY CONTRACTING	\$175,784	\$984,748	0.353	0.495	13	1.007
	38 MISC. OPERATION	\$232	\$4,814	0	0	0	0.987
	TOTAL *	\$1,086,099	\$5,767,930	0.861		184	
TOTAL ALL TOF	30 SERVICE	\$218,890	\$1,381,944	0.364		27	
	31 LIGHT CONTRACTING	\$292,735	\$1,468,265	0.654		75	
	32 MEDIUM CONTRACTING	\$1,357,915	\$7,153,996	0.868		230	
	33 HEAVY CONTRACTING	\$1,148,628	\$6,943,868	0.574		50	
	34 DEALER OR DISTRIB	\$253,839	\$1,263,331	1.281		50	
	35 LGT. MANUFACTURER	\$2,105	\$11,563	1.667		2	
	36 MED. MANUFACTURER	\$115,025	\$655,701	0.354		11	
	37 HVY. MANUFACTURER	\$57,940	\$231,803	0.757		3	
	38 MISC. OPERATION	\$120,326	\$720,330	0.199		21	
	TOTAL *	\$3,567,403	\$19,830,801	0.714		469	

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

## INSURANCE SERVICES OFFICE, INC.

WYOMING  
PRODUCTS  
BASIC LIMIT RELATIVE CHANGE ANALYSIS

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	(1)	(2)	(3)	(4)	(5)
TYPE OF	BAILEY		CREDIBILITY		
POLICY	FORMULA		WEIGHTED	BALANCED	INDICATED
	RELATIVITY	CREDIBILITY	RELATIVITY	RELATIVITY	CHANGE
10	0.988	0.373	0.996	0.996	
34	1.036	0.372	1.013	1.014	1.8%
36	1.005	0.187	1.001	1.002	0.6%
37	0.988	0.507	0.994	0.994	-0.2%
CLASS					
GROUP					
3	0.924	0.501	0.961	0.965	
4	1.048	0.407	1.019	1.024	
5	1.107	0.133	1.014	1.018	
6	1.007	0.320	1.002	1.006	
7	1.006	0.182	1.001	1.005	

NOTE: THE INDICATED CHANGES BY TOP WERE FURTHER ADJUSTED BY THE FOLLOWING  
 DIFFERENTIALS: TOP 34: 1.007  
 TOP 36: 1.012  
 TOP 37: 0.979

## 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. 12/31/2017 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2013 - 2017 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIVITY	NUMBER OF OCCURRENCES	BAL CELL RELATIVITY
10 MONOLINE	03 MAN,DLR,DSTFD/DRG	18,227,491	79,500,211	0.856	0.869	1,461	0.961
	04 DLR,DST-NOTFD/DRG	9,616,743	42,155,667	1.119	1.136	640	1.019
	05 MAN.NTFD/DRG(LOW)	1,605,615	6,748,634	1.039	1.055	84	1.014
	06 MAN.NTFD/DRG(MED)	9,640,686	42,498,903	0.958	0.972	466	1.002
	07 MAN.NTFD/DRG(HGH)	2,568,561	11,286,663	1.018	1.033	129	1.001
	TOTAL *	41,659,096	182,190,078	0.957		2,780	
34 MULT MERCANTILE	03 MAN,DLR,DSTFD/DRG	5,166,155	25,851,441	1.131	1.148	791	0.979
	04 DLR,DST-NOTFD/DRG	29,011,611	140,165,685	1.037	1.052	1,972	1.038
	06 MAN.NTFD/DRG(MED)	7,625	57,567	0.000	0.000	-	1.020
	TOTAL *	34,185,391	166,074,693	1.051		2,763	
36 MULT SERVICES	04 DLR,DST-NOTFD/DRG	3,197,904	14,609,890	1.041	1.057	699	1.025
	06 MAN.NTFD/DRG(MED)	54,898	258,512	0.781	0.793	1	1.008
	TOTAL *	3,252,802	14,868,402	1.037		700	
37 MULT INDUST/PROC.	03 MAN,DLR,DSTFD/DRG	16,474,514	81,117,947	0.888	0.901	2,761	0.960
	05 MAN.NTFD/DRG(LOW)	4,070,679	20,897,437	1.092	1.108	269	1.012
	06 MAN.NTFD/DRG(MED)	28,248,516	131,744,418	0.987	1.002	1,582	1.001
	07 MAN.NTFD/DRG(HGH)	7,346,721	36,933,393	0.965	0.980	537	1.000
	TOTAL *	56,140,430	270,693,195	0.963		5,149	
TOTAL ALL TOF	03 MAN,DLR,DSTFD/DRG	39,868,160	186,469,599	0.905		5,013	
	04 DLR,DST-NOTFD/DRG	41,826,258	196,931,242	1.056		3,311	
	05 MAN.NTFD/DRG(LOW)	5,676,294	27,646,071	1.077		353	
	06 MAN.NTFD/DRG(MED)	37,951,725	174,559,400	0.979		2,049	
	07 MAN.NTFD/DRG(HGH)	9,915,282	48,220,056	0.979		666	
	TOTAL *	135,237,719	633,826,368	0.985		11,392	

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

## INSURANCE SERVICES OFFICE, INC.

## WYOMING

## LOCAL PRODUCTS/COMPLETED OPERATIONS

## BASIC LIMIT RELATIVE CHANGE ANALYSIS

TYPE OF POLICY	(1) BAILEY FORMULA	(2) CREDIBILITY	(3) CREDIBILITY WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	(5) INDICATED CHANGE
	RELATIVITY	CREDIBILITY	RELATIVITY	RELATIVITY	CHANGE
10	0.966	0.748	0.974	0.972	
34	0.964	0.540	0.980	0.977	0.5%
36	0.992	0.515	0.996	0.992	2.1%
37	0.964	0.137	0.995	0.992	2.1%
38	1.026	0.954	1.025	1.021	5.0%
CLASS GROUP					
1	0.916	0.549	0.953	0.948	
2	1.035	0.493	1.017	1.012	
11	1.102	0.352	1.035	1.029	
12	1.015	1.000	1.015	1.009	
13	0.793	0.264	0.941	0.935	

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

STATE	(1)	(2)	(3)	(4)
	BAILEY	CREDIBILITY	CREDIBILITY	
	FORMULA		WEIGHTED	BALANCED
	RELATIVITY	CREDIBILITY	RELATIVITY	RELATIVITY
WYOMING	1.422	0.386	1.146	1.145
	1.207	0.623	1.124	1.124
	1.428	0.229	1.085	1.085
	1.148	0.427	1.061	1.061
	1.417	0.160	1.057	1.057
	1.441	0.153	1.057	1.057
	1.212	0.263	1.052	1.052
	1.099	0.505	1.049	1.049
	1.138	0.345	1.046	1.046
	1.125	0.368	1.044	1.044
	1.194	0.231	1.042	1.042
	1.131	0.326	1.041	1.041
	1.176	0.239	1.040	1.039
	1.152	0.224	1.032	1.032
	1.067	0.435	1.029	1.029
	1.055	0.453	1.024	1.024
	1.261	0.100	1.023	1.023
	1.092	0.227	1.020	1.020
	1.051	0.369	1.018	1.018
	1.103	0.187	1.019	1.018
	1.093	0.192	1.017	1.017
	1.040	0.307	1.012	1.012
	1.021	0.449	1.010	1.009
	1.029	0.143	1.004	1.004
	1.004	0.494	1.002	1.002
	1.006	0.131	1.001	1.001
	0.999	0.377	1.000	0.999
	0.996	0.097	1.000	0.999
	0.995	0.402	0.998	0.998
	0.978	0.190	0.996	0.996
	0.967	0.458	0.985	0.985
	0.927	0.241	0.982	0.982
	0.941	0.349	0.979	0.979
	0.898	0.260	0.972	0.972
	0.894	0.285	0.969	0.969
	0.696	0.104	0.963	0.963
	0.791	0.160	0.963	0.963
	0.891	0.364	0.959	0.959
	0.761	0.154	0.959	0.959
	0.845	0.288	0.953	0.953
	0.722	0.158	0.950	0.950
	0.769	0.195	0.950	0.950
	0.909	0.547	0.949	0.949
	0.795	0.238	0.947	0.947
	0.513	0.084	0.945	0.945
	0.640	0.136	0.941	0.941
	0.815	0.308	0.939	0.939
	0.848	0.470	0.925	0.925
	0.758	0.321	0.915	0.915
	0.604	0.179	0.914	0.913
	0.818	0.527	0.899	0.899
	0.806	0.575	0.884	0.883

\* Sorted by balanced relative change

## INSURANCE SERVICES OFFICE, INC.

WYOMING  
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. 12/31/17 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2013-2017 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIV.	NUMBER OF OCCURRENCES	BAL CELL RELATIV.
10 MONOLINE	01 RET.STRS-FOOD/DRG	\$1,609	\$6,628	0	0	0	0.922
	02 RET.STRS-NTFD/DRG	\$3,667	\$20,369	0.661	0.611	2	0.984
	11 COMP. OPS. (LOW)	\$9,319	\$38,264	1.723	1.594	2	1
	12 COMP. OPS. (MED)	\$303,257	\$1,809,037	0.57	0.527	18	0.981
	13 COMP. OPS. (HGH)	\$40,077	\$440,016	2.067	1.913	2	0.909
	TOTAL *	\$357,929	\$2,314,314	0.766		24	
34 MULT MERCANTILE	01 RET.STRS-FOOD/DRG	\$10,443	\$57,331	0.03	0.027	1	0.927
	02 RET.STRS-NTFD/DRG	\$4,172	\$24,590	0	0	0	0.989
	12 COMP. OPS. (MED)	\$8,825	\$76,132	0.015	0.014	0	0.987
	TOTAL *	\$23,440	\$158,053	0.019		1	
36 MULT SERVICES	01 RET.STRS-FOOD/DRG	\$136	\$770	0	0	0	0.941
	02 RET.STRS-NTFD/DRG	\$18,179	\$81,452	5.893	5.452	31	1.005
	11 COMP. OPS. (LOW)	\$2,092	\$7,417	5.085	4.704	3	1.022
	12 COMP. OPS. (MED)	\$1,808	\$7,239	0	0	0	1.002
	13 COMP. OPS. (HGH)	\$6,221	\$35,520	0	0	0	0.929
	TOTAL *	\$28,436	\$132,398	4.142		34	
37 MULT INDUST/PROC	11 COMP. OPS. (LOW)	\$15	\$62	0	0	0	1.021
	12 COMP. OPS. (MED)	\$23,333	\$125,967	0	0	0	1.002
	13 COMP. OPS. (HGH)	\$2,801	\$8,810	0	0	0	0.928
	TOTAL *	\$26,149	\$134,839	0		0	
38 MULT CONTRACTORS	11 COMP. OPS. (LOW)	\$12,034	\$65,243	0	0	0	1.051
	12 COMP. OPS. (MED)	\$300,908	\$1,610,630	1.424	1.318	33	1.031
	13 COMP. OPS. (HGH)	\$48,281	\$232,150	0.653	0.604	3	0.956
	TOTAL *	\$361,223	\$1,908,023	1.274		36	
TOTAL ALL TOP	01 RET.STRS-FOOD/DRG	\$12,188	\$64,729	0.025		1	
	02 RET.STRS-NTFD/DRG	\$26,018	\$126,411	4.211		33	
	11 COMP. OPS. (LOW)	\$23,460	\$110,986	1.138		5	
	12 COMP. OPS. (MED)	\$638,131	\$3,629,005	0.943		51	
	13 COMP. OPS. (HGH)	\$97,380	\$716,496	1.175		5	
	TOTAL *	\$797,177	\$4,647,627	1.069		95	

\* 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. 12/31/2017 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2013 - 2017 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIV.	NUMBER OF OCCURRENCES	BAL CELL RELATIV.
10 MONOLINE	01 RET.STRS-FOOD/DRG	2,565,927	10,980,064	0.980		762	
	02 RET.STRS-NTFD/DRG	2,610,173	11,610,218	1.215		490	
	11 COMP. OPS. (LOW)	3,985,620	17,948,273	1.339		705	
	12 COMP. OPS. (MED)	81,183,051	360,572,009	1.070		6,178	
	13 COMP. OPS. (HGH)	7,740,701	39,136,832	0.707		280	
	TOTAL *	98,085,472	440,247,396	1.054		8,415	
34 MULT MERCANTILE	01 RET.STRS-FOOD/DRG	7,831,998	36,819,520	0.941		3,576	
	02 RET.STRS-NTFD/DRG	5,162,530	23,225,919	1.001		661	
	12 COMP. OPS. (MED)	2,015,614	9,977,474	1.199		139	
	TOTAL *	15,010,142	70,022,913	0.996		4,376	
36 MULT SERVICES	01 RET.STRS-FOOD/DRG	727,613	3,418,235	1.031		196	
	02 RET.STRS-NTFD/DRG	12,212,353	48,251,774	1.091		2,506	
	11 COMP. OPS. (LOW)	3,092,023	14,000,322	1.112		510	
	12 COMP. OPS. (MED)	4,435,477	20,928,020	0.944		693	
	13 COMP. OPS. (HGH)	989,025	5,060,530	1.199		87	
	TOTAL *	21,456,491	91,658,881	1.066		3,992	
37 MULT INDUST/PROC.	01 RET.STRS-FOOD/DRG	26,825	90,444	2.392		1	
	11 COMP. OPS. (LOW)	114,357	528,705	1.231		19	
	12 COMP. OPS. (MED)	3,455,498	16,903,775	1.021		263	
	13 COMP. OPS. (HGH)	40,479	307,358	0.581		0	
	TOTAL *	3,637,159	17,830,282	1.033		283	
38 MULT CONTRACTORS	11 COMP. OPS. (LOW)	7,992,454	36,921,895	1.158		627	
	12 COMP. OPS. (MED)	139,682,161	659,850,085	1.123		12,364	
	13 COMP. OPS. (HGH)	14,266,724	66,209,562	0.927		683	
	TOTAL *	161,941,339	762,981,542	1.108		13,674	
TOTAL ALL TOP	01 RET.STRS-FOOD/DRG	11,152,363	51,308,263	0.959		4,535	
	02 RET.STRS-NTFD/DRG	19,985,056	83,087,911	1.084		3,657	
	11 COMP. OPS. (LOW)	15,184,454	69,399,195	1.197		1,861	
	12 COMP. OPS. (MED)	230,771,801	1,068,231,363	1.100		19,637	
	13 COMP. OPS. (HGH)	23,036,929	110,714,282	0.864		1,050	
	TOTAL *	300,130,603	1,382,741,014	1.081		30,740	

\* 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**

**WYOMING (49)**

**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	1.00	1.00	1.00
Contractors	.90	1.00	1.00	1.00
Industrial & Processing	.90	1.00	1.00	1.00
Institutional	.90	.79	.99	1.00
Mercantile	.90	1.00	1.00	1.00
Motel/Hotel	.90	1.00	1.00	1.00
Office	.90	.97	1.00	1.00
Service	.90	.97	1.00	1.00

**Table 1. Package Modification Factors**