

RULES – IMPLEMENTATION

FEBRUARY 9, 2024

COMMERCIAL MULTIPLE LINE

LI-ML-2024-004

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

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### KEY MESSAGE

Revised Commercial Package Policy package modification factors for an overall statewide change of **2.8%** to be implemented.

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### BACKGROUND

In circular [LI-ML-2023-002](#), we provided you with information about the Commercial Package Policy modification factor experience review.

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### CONSIDERATION OF COVID-19

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

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### ISO ACTION

We are implementing [ML-2023-RLA1](#), which presents a review of Commercial Package Policy modification factors experience.

Refer to the attachment(s) for complete details.

*For more information on the status of filings in a particular state, including filed and approved documents, associated circulars and links to Print Ready Manuals and Commercial Lines Manual, please feel free to access our [Filings](#) feature within the ISOnet Circulars product.*

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**EFFECTIVE DATE**

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

These changes are applicable to all policies written on or after June 1, 2024.

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**COMPANY ACTION**

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

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

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

WE WILL SUBMIT THIS REVISION TO THE INSURANCE DEPARTMENT ON MAY 2, 2024. IF STATE FILING REQUIREMENTS DICTATE THAT YOU MAKE A SUBMISSION WITH THE INSURANCE DEPARTMENT, DO NOT SUBMIT IT PRIOR TO THIS DATE.

In all correspondence with the Insurance Department on this revision, you should refer to ISO Filing Number [ML-2023-RLA1](#) and SERFF Tracking Number [ISOF-133978817](#), 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-2023-005](#) 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 6-24 (or the earliest possible subsequent date), along with any new and/or revised manual pages.

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**REFERENCE(S)**

- [LI-ML-2023-002](#) (07/26/2023) Commercial Package Policy Experience Reviewed By Staff
- [LI-CL-2023-005](#) (02/21/2023) Commercial Lines Revised Lead Time Requirements Listing

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**ATTACHMENT(S)**

Filing [ML-2023-RLA1](#)

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## FILES AVAILABLE FOR DOWNLOAD

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

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

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## DATA QUALITY

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

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## ACKNOWLEDGMENT OF ACTUARIAL QUALIFICATIONS

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

I, Rimma Maasbach, am an Actuarial Consultant in Actuarial Operations for ISO, and I, Bei Zhou, am an Actuarial Product Director for Commercial Property for ISO. We are jointly responsible for the content of this Statement of Actuarial Opinion. We are both members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

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## CONTACT INFORMATION

If you have any questions concerning:

- The actuarial content of this circular, please contact:  
Rachelle Itzkowitz  
Actuarial Operations  
201-469-3775  
[Rachelle.Itzkowitz@verisk.com](mailto:Rachelle.Itzkowitz@verisk.com)  
[propertyactuarial@verisk.com](mailto:propertyactuarial@verisk.com)
- The non-actuarial content of this circular, please contact:  
Akpene Simpri  
Production Operations, Compliance and Product Services  
201-469-2969  
[prodops@verisk.com](mailto:prodops@verisk.com)
- Other issues for this circular, please contact Customer Support:  
E-mail: [info@verisk.com](mailto:info@verisk.com)  
Phone: 800-888-4476

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VERMONT  
 ADVISORY PACKAGE MODIFICATION FACTOR REVIEW  
 COMMERCIAL PACKAGE POLICY  
 ML-2023-RLA1  
 EXECUTIVE SUMMARY

PURPOSE

This document:

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

CONSIDERATION OF COVID-19

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

PMF CHANGES

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

<u>Type of Policy</u>	<u>Property</u>	<u>Liability</u>	<u>Prop. &amp; Liab. Total</u>
Motel/Hotel	0.0%	0.0%	0.0%
Apartment	8.0%	-2.3%	6.3%
Office	0.0%	0.0%	0.0%
Mercantile	6.8%	-2.7%	1.8%
Institutional	8.0%	-2.0%	6.5%
Services	6.9%	-1.0%	3.5%
Indust./Proc.	4.5%	0.0%	2.8%
Contractors	<u>2.4%</u>	<u>3.1%</u>	<u>3.0%</u>
Statewide	6.1%	-0.6%	2.8%

VERMONT

ADVISORY PACKAGE MODIFICATION FACTOR REVIEW

COMMERCIAL PACKAGE POLICY

ML-2023-RLA1

EXECUTIVE SUMMARY

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

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

- Basic Group I: five fiscal accident years ending 03/31/22.
- Basic Group II: ten fiscal accident years ending 03/31/22.
- Special Causes of Loss: five fiscal accident years ending 03/31/22.
- Crime: calendar year ending 06/30/22.
- Inland Marine: five calendar accident years ending 12/31/16.
- Fidelity: policy year ending 12/31/21.
- Owners, Landlords, and Tenants: five fiscal accident years ending 03/31/22.
- Manufacturers and Contractors: five fiscal accident years ending 03/31/22.
- Products: three calendar accident years ending 12/31/21.
- Local Products and Completed Operations: three calendar accident years ending 12/31/21.

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PRIOR ISO REVISIONS                      The latest revisions in this state are:

<u>Filing</u>	ML-21-RLA1	ML-16-RLA1	ML-13-RLA1
<u>Dates</u>			
Implemented	7/1/2022	2/1/2017	2/1/2014
<u>Changes</u>			
Indicated	4.0%	-0.7%	-0.5%
Filed	4.0%	-0.7%	-0.5%
Implemented	4.0%	-0.7%	-0.5%

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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 12/31/21 for the Annual Statement Line of Business (ASLOB) indicated.

COMMERCIAL MULTI PERIL (ASLOB 51 & 52)

1. Vermont Mutual Insurance Company
  2. Liberty Mutual Insurance Company
  3. Admiral Insurance Company
  4. Patrons Cooperative Fire Insurance
  5. Tokio Marine Companies
  6. Cincinnati Insurance Company
  7. Travelers Indemnity Company
  8. Frankenmuth Mutual Insurance Company
  9. Hanover Insurance Company
  10. Concord General Mutual Insurance Company
- 

SIZE OF ISO  
DATA BASE

The market share of ISO participating insurers as measured by Annual Statement Page 15 written premium for the year ending 12/31/2021 is:

Commercial Multi-Peril (ASLOB 51 & 52). 70.2%.

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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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VERMONT  
ADVISORY PACKAGE MODIFICATION FACTOR REVIEW  
COMMERCIAL PACKAGE POLICY  
ML-2023-RLA1  
EXECUTIVE SUMMARY

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COMPANY DECISION

We encourage each insurer to decide independently whether the judgments made and the procedures or data used by ISO in developing the PMFs contained herein are appropriate for your use. We have included within this document the information upon which ISO relied in order to enable companies to make such independent judgments. The data underlying the enclosed material comes from companies reporting to Insurance Services Office, Inc. Therefore, the ISO experience permits the establishment of a much broader statistical ratemaking base than could be employed by using any individual company's data. A broader data base enhances the validity of ratemaking analysis derived therefrom.

At the same time, however, an individual company may benefit from a comparison of its own experience to the aggregate ISO experience, and may reach valid conclusions with respect to the manner in which its own costs can be expected to differ from ISO's projection based on the aggregate data.

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

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

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# COMMERCIAL PACKAGE POLICY

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## COMMERCIAL PACKAGE POLICY

### SECTION A: SCOPE OF REVISION 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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## COMMERCIAL PACKAGE POLICY

### SECTION A: SCOPE OF REVISION

#### CALCULATION OF REVISED PACKAGE MODIFICATION FACTORS (EXHIBIT A2)

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

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

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

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

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

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

## COMMERCIAL PACKAGE POLICY

### SECTION A: SCOPE OF REVISION

#### CALCULATION OF REVISED PACKAGE MODIFICATION FACTORS (EXHIBIT A2)

#### LINES OF INSURANCE (COVERAGES) INCLUDED

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

##### Property Coverages

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

##### Liability Coverages

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

COMMERCIAL PACKAGE POLICY

SECTION A: SCOPE OF REVISION

CALCULATION OF REVISED PACKAGE MODIFICATION FACTORS (EXHIBIT A2)

THE IMPLICIT  
PACKAGE  
MODIFICATION  
FACTOR

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

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

THE MULTILINE  
INDICATION

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

The development of these indications is detailed in Section B.

THE INDICATED  
PMF

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

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

THE CAPPED  
PMF

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

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

COMMERCIAL PACKAGE POLICY

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

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

OBJECTIVE

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

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

COLUMN (1)

LEAST SQUARES FORMULA RELATIVITIES

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

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

COMMERCIAL PACKAGE POLICY

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

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

COLUMN (1)  
(Cont'd)

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

BASIC GROUP I:

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

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

SPECIAL CAUSES OF LOSS:

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

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

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

COMMERCIAL PACKAGE POLICY

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

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

COLUMN (1)  
(Cont'd)

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

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

COLUMN (2)

CREDIBILITY

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

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

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

COMMERCIAL PACKAGE POLICY

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

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

COLUMN (3) CREDIBILITY-WEIGHTED RELATIVITIES

Credibility-weighted relativities are calculated based on the formula

$$W = R^Z$$

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

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

COLUMN (4) BALANCED RELATIVITIES

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

COLUMN (5) INDICATED CHANGES

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

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

MULTILINE  
CONSIDERATIONS

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

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

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

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

COMMERCIAL PACKAGE POLICY

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

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

INTRODUCTION      The experience used in the relativity analysis and displayed in Exhibits B3 is the latest five years of accident year data as reported under the Commercial Statistical Plan. As in the overall review, loss costs have been adjusted to current ISO loss cost and prospective amount of insurance levels (with multiline aggregate loss costs adjusted additionally by the current implicit package modification factors). Incurred losses are adjusted to prospective cost levels, and are further adjusted by the Basic Group I large loss procedure. Losses have also been developed to their ultimate settlement value by application of loss development factors.

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)      RELATIVITIES

The relativities are the ratios of the five-year experience ratios shown in column (3) to the average five-year experience ratio for all TOP's and territories (where applicable) combined. These relativities represent how much better or worse than average the experience for a given cell is. They are used along with the aggregate loss costs in column (1) as input for the simultaneous review procedure.

COMMERCIAL PACKAGE POLICY

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

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

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

COMMERCIAL PACKAGE POLICY

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

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

COLUMN (4)  
(cont'd)

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

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

COLUMN (5)

Z-WEIGHTED RELATIVITIES

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

COMMERCIAL PACKAGE POLICY

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

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

OBJECTIVE

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

- (1) determine the monoline loss cost level need:
- (2) determine indicated changes to the eight property Commercial Package Policy (CPP) Package Modification Factors (PMFs) based on Basic Group II experience.

The BG II relativity analysis is based on non-hurricane loss experience only, as it is assumed that type of policy relativities are the same for both non-hurricane and hurricane perils. The resulting relativities apply to the total (hurricane plus non-hurricane) BG II loss costs.

COLUMN (1)

AGGREGATE LOSS COSTS

The latest fiscal 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 NON-HURRICANE EXPERIENCE RATIO

These experience ratios are the ratio of the combined ten year CSP adjusted incurred non-hurricane losses (adjusted to current deductible and prospective cost levels 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.

COMMERCIAL PACKAGE POLICY

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

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

COLUMN (3)

FORMULA RELATIVITY

The formula relativities are the ratios of the ten year non-hurricane experience ratios for the type of policy (either monoline vs. multiline or individual multiline programs) to the average ten year non-hurricane 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. 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 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.

COMMERCIAL PACKAGE POLICY

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

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

COLUMN (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.

COLUMN (7)

NORMALIZED FORMULA RELATIVITY

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

COLUMN (8)

INDICATED LOSS COST CHANGES

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

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

## COMMERCIAL PACKAGE POLICY

### SECTION B: CALCULATION OF PROPOSED CHANGES PROPERTY COVERAGES: CRIME, FIDELITY, AND INLAND MARINE

#### Crime and Fidelity

The reviews for Crime (Burglary and Theft) and for Fidelity are performed on a multistate basis, combining both multiline and monoline experience. 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.

#### Inland Marine

A simultaneous review procedure had been performed in the past to calculate indicated IPMFs for Inland Marine. Beginning with this review, the IPMFs for Inland Marine are being frozen at 0.910 since the results of the simultaneous review procedure were not used to calculate monoline loss cost level changes and the IPMFs have little impact, or weight, in the calculation of the overall Property PMFs. Indications for Inland Marine are to bring the current IPMFs to the 0.910 level.

COMMERCIAL PACKAGE POLICY

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

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

OBJECTIVES	<p>The objectives of this procedure are to:</p> <ol style="list-style-type: none"><li>1) determine monoline loss cost level needs for the appropriate rating variables;</li><li>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.</li></ol>								
EXPERIENCE BASE	<p>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.</p>								
SIMULTANEOUS DETERMINATION OF RATING VARIABLE RELATIVITIES	<p>Once the aggregate loss costs at current level and incurred losses used in the analysis have been appropriately adjusted, the 5-year experience ratios are calculated for each combination of the appropriate rating variables. From these ratios, relativities to the statewide 5-year experience ratio are calculated. These relativities are then used in a minimum bias iterative review procedure, which simultaneously determines the relativities for each rating variable.</p> <p>The purpose of a simultaneous review procedure is to arrive at a set of relativities for each rating variable that best represent the experience. For example, the type of policy relativities will serve to derive the relationship of CPP policies relative to monoline policies, via the PMF, while the class group relativities will serve to derive the relationship of the various classifications relative to one another. An iterative technique is used to derive relativities for each rating variable. This procedure is in contrast to a one-way type of review, wherein relativities for each rating variable would each be reviewed separately.</p> <p>Such one-way types of review do not take into account differing percentages of experience of each rating variable within the other rating variables. The simultaneous review procedure accounts for these different distributions in generating relativities for each rating variable.</p>								
RATING VARIABLES USED	<p>For Premises/Operations and Products/Completed Operations, the rating variables used in the relativity analysis are as follows:</p> <table><tr><td>Owners, Landlords and Tenants -</td><td>Type of policy and Class group</td></tr><tr><td>Manufacturers and Contractors -</td><td>Type of policy and Class group</td></tr><tr><td>Products -</td><td>Type of policy and Class group</td></tr><tr><td>Local Products/Completed Operations-</td><td>Type of policy, State and Class group</td></tr></table>	Owners, Landlords and Tenants -	Type of policy and Class group	Manufacturers and Contractors -	Type of policy and Class group	Products -	Type of policy and Class group	Local Products/Completed Operations-	Type of policy, State and Class group
Owners, Landlords and Tenants -	Type of policy and Class group								
Manufacturers and Contractors -	Type of policy and Class group								
Products -	Type of policy and Class group								
Local Products/Completed Operations-	Type of policy, State and Class group								

COMMERCIAL PACKAGE POLICY

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

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

ITERATIVE  
PROCEDURE

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

For Owners, Landlords and Tenants:

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

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

COMMERCIAL PACKAGE POLICY

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

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

For Manufacturers and Contractors, and Products:

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

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

COMMERCIAL PACKAGE POLICY

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

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

For Local Products/Completed Operations:

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

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

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

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

COMMERCIAL PACKAGE POLICY

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

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

ITERATIVE  
PROCEDURE  
(Cont'd)

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

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APPLICATION OF  
CREDIBILITY

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

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

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.

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INDICATED  
CHANGES

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

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

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COMMERCIAL PACKAGE POLICY

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

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

MULTILINE  
CONSIDERATIONS

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

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

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

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INSURANCE SERVICES OFFICE, INC.

## VERMONT

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%	1.00	1.00	0.0%	0.0%
APARTMENT (32)	0.87	0.94	8.0%	0.87	0.85	-2.3%	6.3%
OFFICE (33)	1.00	1.00	0.0%	1.00	1.00	0.0%	0.0%
MERCANTILE (34)	0.73	0.78	6.8%	0.73	0.71	-2.7%	1.8%
INSTITUTION(35)	0.87	0.94	8.0%	1.00	0.98	-2.0%	6.5%
SERVICES (36)	0.87	0.93	6.9%	1.00	0.99	-1.0%	3.5%
IND/PROC (37)	0.88	0.92	4.5%	1.00	1.00	0.0%	2.8%
CONTRACTORS(38)	0.82	0.84	2.4%	0.97	1.00	3.1%	3.0%
STATEWIDE			6.1%			-0.6%	2.8%

INSURANCE SERVICES OFFICE, INC.

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

MOTEL/HOTEL(31) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	412,859	1.029	4.6%	1.076	1.042
BASIC GRP II	82,838	0.609	3.5%	0.630	0.610
SP CAUSE/LOSS	228,004	1.214	1.7%	1.235	1.195
* CRIME	2,219	0.909	0.0%	0.909	0.909
* INL. MAR.	915	0.910	0.0%	0.910	0.910
* FIDELITY	1,990	1.000	0.0%	1.000	1.000
TOTAL	728,825	1.000	3.3%	1.033	1.000
LIABILITY-					
OL&T	469,900	1.000	-1.8%	0.982	1.000
TOTAL	469,900	1.000	-1.8%	0.982	1.000
-----					
PROP. & LIAB. TOTAL	1,198,725		1.3%		0.0%

APARTMENT (32) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	971,590	0.745	9.8%	0.818	0.825
BASIC GRP II	152,326	0.525	5.0%	0.551	0.556
SP CAUSE/LOSS	681,179	1.477	1.6%	1.501	1.500
* CRIME	155	0.909	0.0%	0.909	0.909
* INL. MAR.	164	0.910	0.0%	0.910	0.910
* FIDELITY	604	1.000	0.0%	1.000	1.000
TOTAL	1,806,018	0.870	7.3%	0.934	0.940
LIABILITY-					
OL&T	363,567	0.867	-2.0%	0.850	0.850
TOTAL	363,567	0.870	-2.3%	0.850	0.850
-----					
PROP. & LIAB. TOTAL	2,169,585		5.7%		6.3%

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

INSURANCE SERVICES OFFICE, INC.

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

OFFICE (33) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	430,121	0.910	2.3%	0.931	0.891
BASIC GRP II	120,033	0.898	2.4%	0.920	0.881
SP CAUSE/LOSS	317,808	1.320	1.6%	1.341	1.284
* CRIME	845	0.909	0.0%	0.909	0.909
* INL. MAR.	10,867	0.910	0.0%	0.910	0.910
* FIDELITY	1,742	1.000	0.0%	1.000	1.000
<u>TOTAL</u>	<u>881,416</u>	<u>1.000</u>	<u>4.4%</u>	<u>1.044</u>	<u>1.000</u>
LIABILITY-					
OL&T	1,286,347	1.007	-0.3%	1.004	1.005
M&C	23,895	0.784	1.9%	0.799	0.800
<u>TOTAL</u>	<u>1,310,242</u>	<u>1.000</u>	<u>-0.1%</u>	<u>0.999</u>	<u>1.000</u>
-----					
PROP. & LIAB.	2,191,658		1.7%		0.0%
TOTAL					

MERCANTILE (34) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	1,095,462	0.571	11.6%	0.637	0.641
BASIC GRP II	255,943	0.721	3.9%	0.749	0.753
SP CAUSE/LOSS	683,759	1.239	2.5%	1.270	1.277
* CRIME	10,623	0.909	0.0%	0.909	0.909
* INL. MAR.	54,874	0.910	0.0%	0.910	0.910
* FIDELITY	15,098	1.000	0.0%	1.000	1.000
<u>TOTAL</u>	<u>2,115,759</u>	<u>0.730</u>	<u>6.8%</u>	<u>0.779</u>	<u>0.780</u>
LIABILITY-					
OL&T	1,735,944	0.656	-1.1%	0.649	0.649
M&C	341,155	1.065	-2.5%	1.038	1.038
LOCAL PRODUCT	43,708	1.041	0.0%	1.041	1.041
* MULTI PRODUCT	221,427	0.889	1.5%	0.902	0.902
<u>TOTAL</u>	<u>2,342,234</u>	<u>0.730</u>	<u>-2.5%</u>	<u>0.712</u>	<u>0.710</u>
-----					
PROP. & LIAB.	4,457,993		1.9%		1.8%
TOTAL					

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

INSURANCE SERVICES OFFICE, INC.

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

INSTITUTION(35) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	1,225,884	0.959	10.5%	1.060	1.065
BASIC GRP II	216,156	0.677	6.5%	0.721	0.725
SP CAUSE/LOSS	440,492	0.759	2.7%	0.779	0.784
* CRIME	7,088	0.909	0.0%	0.909	0.909
* INL. MAR.	4,171	0.910	0.0%	0.910	0.910
* FIDELITY	19,460	1.000	0.0%	1.000	1.000
TOTAL	1,913,251	0.870	7.6%	0.936	0.940
LIABILITY-					
OL&T	351,880	1.015	-2.8%	0.987	0.987
M&C	3,780	0.535	0.4%	0.537	0.537
TOTAL	355,660	1.000	-2.2%	0.978	0.980
-----					
PROP. & LIAB. TOTAL	2,268,911		6.0%		6.5%

SERVICES (36) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	1,017,584	0.829	9.3%	0.906	0.911
BASIC GRP II	250,696	0.882	6.0%	0.935	0.940
SP CAUSE/LOSS	409,185	0.955	0.4%	0.959	0.964
* CRIME	3,088	0.909	0.0%	0.909	0.909
* INL. MAR.	22,976	0.910	0.0%	0.910	0.910
* FIDELITY	15,057	1.000	0.0%	1.000	1.000
TOTAL	1,718,586	0.870	6.0%	0.922	0.930
LIABILITY-					
OL&T	615,099	0.962	-2.2%	0.941	0.941
M&C	521,566	1.068	-0.9%	1.058	1.058
LOCAL PRODUCT	111,969	0.980	-1.2%	0.968	0.968
* MULTI PRODUCT	43,935	0.963	1.1%	0.974	0.974
TOTAL	1,292,569	1.000	-1.1%	0.989	0.990
-----					
PROP. & LIAB. TOTAL	3,011,155		3.0%		3.5%

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

INSURANCE SERVICES OFFICE, INC.

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

IND/PROC (37) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	1,091,690	0.931	5.1%	0.978	0.996
BASIC GRP II	139,995	0.619	2.4%	0.634	0.645
SP CAUSE/LOSS	328,986	0.859	-1.6%	0.845	0.860
* CRIME	2,809	0.909	0.0%	0.909	0.909
* INL. MAR.	4,016	0.910	0.0%	0.910	0.910
* FIDELITY	9,161	1.000	0.0%	1.000	1.000
<u>TOTAL</u>	<u>1,576,657</u>	<u>0.880</u>	<u>3.0%</u>	<u>0.907</u>	<u>0.920</u>
LIABILITY-					
M&C	587,594	1.118	-0.2%	1.116	1.078
LOCAL PRODUCT	21,752	0.766	-2.2%	0.749	0.724
* MULTI PRODUCT	375,325	0.898	2.5%	0.920	0.920
<u>TOTAL</u>	<u>984,671</u>	<u>1.000</u>	<u>2.1%</u>	<u>1.021</u>	<u>1.000</u>
-----					
PROP. & LIAB.	2,561,328		2.7%		2.8%
TOTAL					

CONTRACTORS(38) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	383,982	0.780	3.8%	0.810	0.814
BASIC GRP II	55,435	0.696	3.2%	0.718	0.722
SP CAUSE/LOSS	124,457	0.991	3.0%	1.021	1.026
* CRIME	976	0.909	0.0%	0.909	0.909
* INL. MAR.	790	0.910	0.0%	0.910	0.910
* FIDELITY	7,845	1.000	0.0%	1.000	1.000
<u>TOTAL</u>	<u>573,485</u>	<u>0.820</u>	<u>2.3%</u>	<u>0.839</u>	<u>0.840</u>
LIABILITY-					
M&C	2,283,266	0.950	5.5%	1.002	1.002
LOCAL PRODUCT	1,795,241	0.998	-0.4%	0.994	0.994
<u>TOTAL</u>	<u>4,078,507</u>	<u>0.970</u>	<u>3.0%</u>	<u>0.999</u>	<u>1.000</u>
-----					
PROP. & LIAB.	4,651,992		2.9%		3.0%
TOTAL					

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

INSURANCE SERVICES OFFICE, INC.

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

STATEWIDE *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	6,629,172	0.802	8.2%	0.868	0.870
BASIC GRP II	1,273,422	0.698	4.5%	0.729	0.730
SP CAUSE/LOSS	3,213,870	1.086	1.5%	1.102	1.100
* CRIME	27,803	0.909	0.0%	0.909	0.909
* INL. MAR.	98,773	0.910	0.0%	0.910	0.910
* FIDELITY	70,957	1.000	0.0%	1.000	1.000
<u>TOTAL</u>	<u>11,313,997</u>	<u>0.851</u>	<u>6.0%</u>	<u>0.902</u>	<u>0.903</u>
LIABILITY-					
OL&T	4,822,737	0.832	-1.3%	0.821	0.823
M&C	3,761,256	0.996	3.0%	1.026	1.021
LOCAL PRODUCT	1,972,670	0.995	-0.5%	0.990	0.990
* MULTI PRODUCT	640,687	0.899	2.1%	0.918	0.917
<u>TOTAL</u>	<u>11,197,350</u>	<u>0.922</u>	<u>-0.5%</u>	<u>0.917</u>	<u>0.916</u>
-----					
PROP. & LIAB.	22,511,347		2.8%		2.8%
TOTAL					

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

INSURANCE SERVICES OFFICE, INC.

VERMONT  
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)	1.000	1.013	1.000
APARTMENT (32)	0.870	0.919	0.920
OFFICE (33)	1.000	1.017	1.000
MERCANTILE (34)	0.730	0.744	0.750
INSTITUTION(35)	0.890	0.942	0.950
SERVICES (36)	0.920	0.949	0.950
IND/PROC (37)	0.930	0.947	0.950
CONTRACTORS(38)	0.950	0.976	0.980

NOTE: Combined PMFs are provided for informational purposes only.

INSURANCE SERVICES OFFICE, INC.

VERMONT  
BASIC GROUP I RELATIVITY ANALYSIS

TYPE OF POLICY	(1)	(2)	(3)	(4)	(5)
	LEAST SQUARES FORMULA RELATIVITY	CREDIBILITY	WEIGHTED RELATIVITY	BALANCED RELATIVITY	INDICATED CHANGE
10	0.206	0.047	0.928	0.933	
31	0.277	0.023	0.971	0.976	4.6%
32	1.384	0.054	1.018	1.024	9.8%
33	0.091	0.022	0.949	0.954	2.3%
34	1.815	0.057	1.035	1.041	11.6%
35	1.504	0.061	1.025	1.031	10.5%
36	1.300	0.053	1.014	1.020	9.3%
37	0.605	0.051	0.975	0.981	5.1%
38	0.167	0.021	0.963	0.968	3.8%

## INSURANCE SERVICES OFFICE, INC.

VERMONT  
SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS

	(1)	(2)	(3)	(4)	(5)
	LEAST SQUARES		CREDIBILITY		
TYPE OF POLICY	FORMULA RELATIVITY	CREDIBILITY	WEIGHTED RELATIVITY	BALANCED RELATIVITY	INDICATED CHANGE
10	0.882	0.045	0.994	0.989	
31	1.075	0.029	1.002	1.006	1.7%
32	0.882	0.085	0.989	1.005	1.6%
33	1.034	0.037	1.001	1.005	1.6%
34	1.136	0.080	1.010	1.014	2.5%
35	1.243	0.057	1.012	1.016	2.7%
36	0.816	0.053	0.989	0.993	0.4%
37	0.435	0.038	0.969	0.973	-1.6%
38	2.252	0.018	1.015	1.019	3.0%
CATEGORY					
1	0.890	0.487	0.945	0.987	
2	0.970	0.039	0.999	1.043	
3	0.954	0.025	0.999	1.043	
4	1.202	0.021	1.004	1.048	
5	1.032	0.016	1.001	1.045	
6	0.849	0.012	0.998	1.042	
7	0.905	0.016	0.998	1.042	
8	0.965	0.048	0.998	1.042	
9	0.987	0.037	1.000	1.044	
10	2.585	0.011	1.011	1.056	
11	4.810	0.021	1.034	1.080	
12	1.893	0.022	1.014	1.059	
13	0.841	0.013	0.998	1.042	
14	0.428	0.017	0.986	1.030	

INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	(1) ACCIDENT YEAR ENDING 3/31/22 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) RELATIVITY
-----				
ENTIRE STATE				
10 MONOLINE	942,236	4,886,528	0.238	0.206
31 MULTILINE MOTEL/HOTEL	412,859	2,352,811	0.320	0.277
32 MULTILINE APARTMENT	971,590	5,721,441	1.597	1.384
33 MULTILINE OFFICE	430,121	2,256,514	0.105	0.091
34 MULTILINE MERCANTILE	1,095,462	6,058,666	2.096	1.816
35 MULTILINE INSTITUTIONAL	1,225,884	6,477,793	1.737	1.505
36 MULTILINE SERVICES	1,017,584	5,587,296	1.500	1.300
37 MULTILINE INDUST/PROCESS	1,091,690	5,338,309	0.698	0.605
38 MULTILINE CONTRACTORS	<u>383,982</u>	<u>2,137,983</u>	<u>0.193</u>	<u>0.167</u>
TOTAL ALL TOPS*	7,571,408	40,817,341	1.154	1.000

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

INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 3/31/22 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	268,841	1,415,832	0.594	0.594	0.837
	02 RES. APTS. AND COND	6,205	39,677	0.658	0.644	0.907
	03 OFFICES	10,936	55,884	0.133	0.431	0.607
	04 MERCANTILE - HIGH	11,439	62,145	0.185	0.444	0.625
	05 MERCANTILE - MEDIUM	2,318	15,888	0.203	0.493	0.694
	06 MERCANTILE - LOW	3,332	18,427	0.000	0.436	0.614
	07 MOTELS AND HOTELS	610	37,629	0.000	0.408	0.575
	08 INSTITUTIONAL - HIG	4,597	23,299	3.986	1.546	2.177
	09 INSTITUTIONAL - LOW	8,601	55,977	0.000	0.383	0.539
	10 INDUST-PROC - HIGH	1,189	7,369	9.622	2.730	3.845
	11 INDUST-PROC - LOW	12,362	72,745	0.000	0.364	0.513
	12 SERVICE - HIGH	7,247	35,233	0.741	0.641	0.903
	13 SERVICE - LOW	7,088	41,544	0.427	0.541	0.762
	14 CONTRACTORS	3,353	10,862	0.000	0.449	0.632
	TOTAL*	348,118	1,892,511	0.592	0.587	0.827
31 MULTILINE MOTEL/HOTEL	01 BUILDINGS	201,165	993,029	0.481	0.720	1.014
	07 MOTELS AND HOTELS	26,839	201,775	0.362	0.732	1.031
	TOTAL*	228,004	1,194,804	0.467	0.721	1.016
32 MULTILINE APARTMENT	01 BUILDINGS	575,248	3,162,143	0.594	0.595	0.838
	02 RES. APTS. AND COND	105,931	569,368	0.658	0.609	0.858
	TOTAL*	681,179	3,731,511	0.604	0.597	0.841
33 MULTILINE OFFICE	01 BUILDINGS	263,495	1,214,523	0.407	0.692	0.975
	03 OFFICES	53,933	319,355	0.503	0.749	1.055
	08 INSTITUTIONAL - HIG	151	2,944	0.000	0.699	0.985
	12 SERVICE - HIGH	0	13	0.000	0.699	0.985
	14 CONTRACTORS	229	436	0.000	0.699	0.985
	TOTAL*	317,808	1,537,271	0.423	0.702	0.989

INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 3/31/22 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	572,666	2,822,018	0.706	0.761	1.072
	03 OFFICES	246	3,555	0.000	0.699	0.985
	04 MERCANTILE - HIGH	45,274	265,514	2.312	1.045	1.472
	05 MERCANTILE - MEDIUM	31,647	223,350	1.335	0.883	1.244
	06 MERCANTILE - LOW	30,919	155,248	0.277	0.722	1.017
	08 INSTITUTIONAL - HIG	16	70	0.000	0.699	0.985
	11 INDUST-PROC - LOW	41	544	0.000	0.699	0.985
	12 SERVICE - HIGH	141	2,156	1.243	0.855	1.204
	13 SERVICE - LOW	694	2,237	1.757	0.919	1.294
	14 CONTRACTORS	2,115	7,710	0.000	0.699	0.985
	TOTAL*	683,759	3,482,402	0.821	0.784	1.104
35 MULTILINE INSTITUTIONAL	01 BUILDINGS	246,012	1,264,952	0.920	0.833	1.173
	03 OFFICES	29	168	0.000	0.699	0.985
	08 INSTITUTIONAL - HIG	99,280	722,985	1.260	0.901	1.269
	09 INSTITUTIONAL - LOW	94,656	440,093	1.478	0.925	1.303
	12 SERVICE - HIGH	89	624	41.167	5.849	8.238
	13 SERVICE - LOW	134	140	0.000	0.699	0.985
	14 CONTRACTORS	292	922	0.000	0.699	0.985
	TOTAL*	440,492	2,429,884	1.124	0.869	1.224
36 MULTILINE SERVICES	01 BUILDINGS	326,352	1,712,197	0.528	0.546	0.769
	03 OFFICES	108	713	0.000	0.717	1.010
	04 MERCANTILE - HIGH	488	963	0.000	0.716	1.008
	05 MERCANTILE - MEDIUM	63	81	0.000	0.721	1.015
	06 MERCANTILE - LOW	376	1,176	364.327	45.566	64.177
	08 INSTITUTIONAL - HIG	2,181	8,470	0.000	0.678	0.955
	09 INSTITUTIONAL - LOW	6,364	75,763	0.000	0.460	0.648
	11 INDUST-PROC - LOW	0	28	0.000	0.721	1.015
	12 SERVICE - HIGH	52,007	299,305	1.310	1.175	1.655
	13 SERVICE - LOW	21,141	154,134	0.311	0.518	0.730
	14 CONTRACTORS	105	950	0.000	0.716	1.008
	TOTAL*	409,185	2,253,780	0.938	0.666	0.937

INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 3/31/22 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	246,102	1,177,693	0.155	0.214	0.301
	03 OFFICES	90	195	0.000	0.720	1.014
	04 MERCANTILE - HIGH	243	694	0.000	0.717	1.010
	10 INDUST-PROC - HIGH	32,580	157,218	0.863	0.844	1.189
	11 INDUST-PROC - LOW	49,529	254,797	2.422	1.933	2.723
	12 SERVICE - HIGH	261	556	0.000	0.718	1.011
	14 CONTRACTORS	181	229	0.000	0.720	1.014
	TOTAL*	328,986	1,591,382	0.566	0.536	0.755
38 MULTILINE CONTRACTORS	01 BUILDINGS	84,868	474,947	1.676	1.509	2.125
	03 OFFICES	507	1,462	0.000	0.713	1.004
	04 MERCANTILE - HIGH	169	260	199.142	24.040	33.859
	08 INSTITUTIONAL - HIG	51	51	0.000	0.721	1.015
	11 INDUST-PROC - LOW	180	553	0.000	0.718	1.011
	12 SERVICE - HIGH	7	21	0.000	0.721	1.015
	13 SERVICE - LOW	0	2	0.000	0.721	1.015
	14 CONTRACTORS	38,675	238,753	0.681	0.724	1.020
	TOTAL*	124,457	716,049	1.625	1.291	1.818
TOTAL ALL TOPS*	01 BUILDINGS	2,784,749	14,237,334	0.606	0.657	0.925
	02 RES. APTS. AND COND	112,136	609,045	0.658	0.611	0.861
	03 OFFICES	65,849	381,332	0.434	0.696	0.980
	04 MERCANTILE - HIGH	57,613	329,576	2.438	0.989	1.393
	05 MERCANTILE - MEDIUM	34,028	239,319	1.255	0.856	1.206
	06 MERCANTILE - LOW	34,627	174,851	4.203	1.181	1.664
	07 MOTELS AND HOTELS	27,449	239,404	0.354	0.725	1.021
	08 INSTITUTIONAL - HIG	106,276	757,819	1.349	0.924	1.301
	09 INSTITUTIONAL - LOW	109,621	571,833	1.276	0.855	1.205
	10 INDUST-PROC - HIGH	33,769	164,587	1.171	0.910	1.283
	11 INDUST-PROC - LOW	62,112	328,667	1.931	1.616	2.277
	12 SERVICE - HIGH	59,752	337,908	1.294	1.114	1.570
	13 SERVICE - LOW	29,057	198,057	0.372	0.534	0.752
	14 CONTRACTORS	44,950	259,862	0.586	0.702	0.989
	TOTAL*	3,561,988	18,829,594	0.754	0.709	0.999

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

INSURANCE SERVICES OFFICE, INC.

VERMONT

BASIC GROUP II RELATIVITY ANALYSIS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	ACCIDENT YEAR ENDING 12/31/19 AGGR. LOSS COSTS AT CURRENT IMPLICIT PMF	ACCIDENT YEARS 2010 - 2019 EXPER. RATIO AT CURRENT PMF	FORMULA RELATIVITY (2)/ 0.827	CREDIBILITY C	CREDIBILITY WEIGHTED RELATIVITY D	BALANCED FORMULA RELATIVITY E	NORMALIZED FORMULA RELATIVITY F	INDICATED CHANGE
	-----	-----	-----	-----	-----	-----	-----	-----
MONOLINE	339,320	0.504	0.6090	0.053	0.979	0.9790	0.9658	
MULTILINE	1,273,422	0.913	1.1040	0.219	1.023	1.0230	1.0095	
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COVERAGE MULTILINE TOP	1,612,742	0.8270	1.0000			1.0137	1.0003	
31 MOTEL/HOTEL	82,838	0.726	0.8780	0.018	0.998	1.0130	0.9993	3.5%
32 APARTMENT	152,326	1.168	1.4120	0.032	1.013	1.0280	1.0141	5.0%
33 OFFICE	120,033	0.343	0.4150	0.023	0.987	1.0020	0.9885	2.4%
34 MERCANTILE	255,943	0.856	1.0350	0.052	1.002	1.0170	1.0033	3.9%
35 INSTITUTIONAL	216,156	1.262	1.5260	0.053	1.028	1.0430	1.0289	6.5%
36 SERVICES	250,696	1.194	1.4440	0.051	1.023	1.0380	1.0240	6.0%
37 INDUST/PROCESS	139,995	0.464	0.5610	0.028	0.988	1.0030	0.9894	2.4%
38 CONTRACTORS	55,435	0.494	0.5970	0.013	0.995	1.0100	0.9964	3.2%
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	1,273,422	0.9130	1.1040		1.0080	1.0230	1.0095	

B - For Columns (2) - (10), the Multiline total is the average weighted by Column (1)

C - Credibility = P/(P+K) where P represents the total 10-year adjusted loss costs and K = 45,000,000

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

E - (6) = (5) \* (1.023/1.008)

F - (7) = (6) / 1.0137

INSURANCE SERVICES OFFICE, INC.

VERMONT  
OWNERS, LANDLORDS AND TENANTS  
BASIC LIMIT RELATIVE CHANGE ANALYSIS

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TYPE OF POLICY	(1) BAILEY FORMULA RELATIVITY	(2) CREDIBILITY	(3) CREDIBILITY WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	(5) INDICATED CHANGE
10	1.221	0.079	1.016	1.010	
31	0.955	0.059	0.997	0.992	-1.8%
32	0.910	0.045	0.996	0.990	-2.0%
33	1.170	0.080	1.013	1.007	-0.3%
34	1.069	0.070	1.005	0.999	-1.1%
35	0.788	0.054	0.987	0.982	-2.8%
36	0.897	0.063	0.993	0.988	-2.2%
CLASS GROUP					
1	0.633	0.049	0.978	0.983	
2	0.468	0.045	0.966	0.971	
3	0.510	0.047	0.969	0.974	
4	0.000	0.000	1.000	1.005	
5	0.502	0.011	0.992	0.998	
6	0.491	0.011	0.992	0.998	
7	0.630	0.041	0.981	0.987	
8	0.126	0.017	0.965	0.971	
9	1.293	0.064	1.017	1.022	
10	2.275	0.057	1.048	1.054	
11	1.620	0.048	1.023	1.029	
12	1.000	0.104	1.000	1.005	
13	1.207	0.022	1.004	1.010	
16	0.000	0.000	1.000	1.005	

## INSURANCE SERVICES OFFICE, INC.

## VERMONT

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	0.878	0.087	0.989	0.979	
33	1.548	0.017	1.007	0.998	1.9%
34	0.402	0.040	0.964	0.955	-2.5%
35	0.334	0.007	0.992	0.983	0.4%
36	0.723	0.063	0.980	0.970	-0.9%
37	0.697	0.037	0.987	0.977	-0.2%
38	1.393	0.126	1.043	1.033	5.5%
CLASS GROUP					
30	0.296	0.028	0.966	0.970	
31	0.933	0.082	0.994	0.998	
32	0.826	0.111	0.979	0.983	
33	1.006	0.058	1.000	1.004	
34	1.824	0.067	1.041	1.045	
35	0.534	0.017	0.989	0.994	
36	1.267	0.032	1.008	1.011	
37	0.902	0.017	0.998	1.002	
38	2.239	0.040	1.033	1.037	

INSURANCE SERVICES OFFICE, INC.

VERMONT  
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. 12/31/22 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2018-2022 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIVITY	NUMBER OF OCCURRENCES	BAL CELL RELATIVITY
10 MONOLINE	01 FOOD&BEV.(RETAIL)	\$241,618	\$1,082,322	0.690	0.653	17	0.993
	02 RESTAURANTS	\$52,269	\$324,587	0.295	0.279	7	0.981
	03 STORES	\$42,492	\$509,833	0.344	0.325	14	0.984
	04 VENDING & RENTAL	\$2,747	\$18,271	0.000	0.000	0	1.015
	05 FOOD & BEV. DIST.	\$14,231	\$49,414	2.143	2.028	1	1.008
	06 NON-FOOD&BEV.DIST	\$20,403	\$80,297	0.121	0.114	0	1.008
	07 CLUBS,AMSMT&SPRTS	\$43,637	\$312,754	1.039	0.983	6	0.997
	08 HEALTH CARE FACIL	\$2,338	\$12,584	0.000	0.000	0	0.981
	09 HOTELS AND MOTELS	\$4,172	\$125,194	1.221	1.155	5	1.032
	10 SCHLS & CHURCHES	\$87,872	\$252,188	3.541	3.350	17	1.065
	11 APARTMENTS	\$108,026	\$371,314	2.841	2.687	14	1.039
	12 BUILDINGS&OFFICES	\$230,160	\$1,229,654	0.848	0.803	29	1.015
	13 MISC. PREMISES	\$5,283	\$57,202	3.275	3.098	2	1.020
	16 GOVT SUBDIVISIONS	\$49	\$4,840	0.000	0.000	0	1.015
	TOTAL *	\$855,297	\$4,430,454	1.299		112	
31 MULT MOTEL/HOTEL	09 HOTELS AND MOTELS	\$297,217	\$1,607,813	1.305	1.234	62	1.014
	TOTAL *	\$297,217	\$1,607,813	1.305		62	
32 MULT APARTMENT	11 APARTMENTS	\$168,650	\$944,844	1.076	1.018	28	1.019
	12 BUILDINGS&OFFICES	61,310	330,202	2.285	2.161	8	0.995
	TOTAL *	\$229,960	\$1,275,046	1.398		36	
33 MULT OFFICE	12 BUILDINGS&OFFICES	\$812,127	\$4,110,080	1.238	1.171	114	1.012
	13 MISC. PREMISES	1,501	7,651	0.000	0.000	0	1.017
	TOTAL *	\$813,629	\$4,117,731	1.236		114	
34 MULT MERCANTILE	01 FOOD&BEV.(RETAIL)	\$353,061	\$1,618,101	0.801	0.757	27	0.982
	02 RESTAURANTS	\$431,731	\$2,633,151	0.566	0.536	30	0.970
	03 STORES	\$209,203	\$833,865	0.517	0.489	19	0.973
	04 VENDING & RENTAL	\$169	\$8,874	0.000	0.000	0	1.004
	05 FOOD & BEV. DIST.	\$39,383	\$181,124	0.027	0.026	1	0.997
	06 NON-FOOD&BEV.DIST	\$25,402	\$143,026	0.966	0.914	2	0.997
	12 BUILDINGS&OFFICES	\$39,055	\$220,579	0.537	0.508	8	1.004
	TOTAL *	\$1,098,004	\$5,638,720	0.621		87	
35 MULT INSTITUT.	07 CLUBS,AMSMT&SPRTS	\$43,732	\$262,372	1.044	0.988	5	0.969
	08 HEALTH CARE FACIL	\$13,767	\$110,296	0.133	0.126	5	0.954
	10 SCHLS & CHURCHES	\$159,126	\$1,006,418	1.698	1.606	41	1.035
	12 BUILDINGS&OFFICES	\$4,835	\$31,993	2.506	2.371	2	0.987
	13 MISC. PREMISES	\$108	\$538	0.000	0.000	0	0.992
	16 GOVT SUBDIVISIONS	\$999	\$6,160	0.000	0.000	0	0.987
	TOTAL *	\$222,568	\$1,417,777	1.482		53	

INSURANCE SERVICES OFFICE, INC.

VERMONT  
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.	CALENDAR A.Y.E.	FIVE YEAR	RELATIVITY	NUMBER OF	BAL CELL
TYPE OF POLICY	CLASS GROUP	12/31/22 AGGREGATE LOSS COSTS AT CURRENT LEVEL	2018-2022 AGG LOSS COST CURRENT LEVEL	EXPERIENCE RATIO		OCCURRENCES	RELATIVITY
36 MULT SERVICES	03 STORES	\$59,842	\$311,607	0.915	0.866	7	0.962
	04 VENDING & RENTAL	\$14,924	\$68,623	0.000	0.000	0	0.993
	07 CLUBS,AMSMT&SPRTS	\$187,941	\$950,283	0.424	0.401	19	0.975
	08 HEALTH CARE FACIL	\$115	\$3,047	0.000	0.000	0	0.959
	09 HOTELS AND MOTELS	\$35,309	\$198,785	1.302	1.231	6	1.010
	10 SCHLS & CHURCHES	\$11,038	\$60,314	0.153	0.144	1	1.041
	12 BUILDINGS&OFFICES	\$53,196	\$240,236	1.567	1.483	32	0.993
	13 MISC. PREMISES	\$26,691	\$177,676	0.893	0.845	7	0.998
	TOTAL *	\$389,057	\$2,010,570	0.744		72	
TOTAL ALL TOP	01 FOOD&BEV.(RETAIL)	\$594,679	\$2,700,423	0.756		44	
	02 RESTAURANTS	\$484,000	\$2,957,738	0.537		37	
	03 STORES	\$311,537	\$1,655,305	0.570		40	
	04 VENDING & RENTAL	\$17,841	\$95,769	0.000		0	
	05 FOOD & BEV. DIST.	\$53,614	\$230,538	0.589		2	
	06 NON-FOOD&BEV.DIST	\$45,805	\$223,323	0.590		2	
	07 CLUBS,AMSMT&SPRTS	\$275,310	\$1,525,409	0.620		30	
	08 HEALTH CARE FACIL	\$16,221	\$125,927	0.113		5	
	09 HOTELS AND MOTELS	\$336,698	\$1,931,792	1.303		73	
	10 SCHLS & CHURCHES	\$258,036	\$1,318,920	2.259		59	
	11 APARTMENTS	\$276,676	\$1,316,158	1.765		42	
	12 BUILDINGS&OFFICES	\$1,200,683	\$6,162,744	1.214		193	
	13 MISC. PREMISES	\$33,583	\$243,067	1.225		9	
	16 GOVT SUBDIVISIONS	\$1,048	\$11,000	0.000		0	
TOTAL *	\$3,905,731	\$20,498,111	1.057		536		

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

## INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CLASS GROUP	(1)	(2)	(3)	(4)	(5)	(6)
		CALENDAR A.Y.E. 12/31/22 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2018-2022 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIVITY	NUMBER OF OCCURRENCES	BAL CELL RELATIVITY
10 MONOLINE	30 SERVICE	\$228,209	\$718,545	0.012	0.017	1	0.950
	31 LIGHT CONTRACTING	\$59,327	\$321,869	1.517	2.195	38	0.977
	32 MEDIUM CONTRCTING	\$293,753	\$1,636,506	0.223	0.323	47	0.962
	33 HEAVY CONTRACTING	\$51,569	\$306,773	1.468	2.124	21	0.983
	34 DEALER OR DISTRIB	\$102,246	\$477,042	1.662	2.405	16	1.023
	35 LGT. MANUFACTURER	\$2,565	\$7,891	0.000	0.000	0	0.973
	36 MED. MANUFACTURER	\$146,345	\$625,802	0.798	1.155	10	0.990
	37 HVY. MANUFACTURER	\$24,287	\$101,200	0.069	0.100	1	0.981
	38 MISC. OPERATION	\$22,949	\$107,326	0.086	0.124	2	1.015
	TOTAL *	\$931,252	\$4,302,956	0.563		136	
33 MULT OFFICE	31 LIGHT CONTRACTING	\$754	\$10,216	0.000	0.000	0	0.996
	32 MEDIUM CONTRCTING	\$1,302	\$4,137	0.000	0.000	0	0.981
	33 HEAVY CONTRACTING	\$6,476	\$29,747	0.143	0.207	0	1.002
	38 MISC. OPERATION	\$6,582	\$39,053	3.606	5.219	5	1.035
	TOTAL *	\$15,114	\$83,154	1.632		5	
34 MULT MERCANTILE	30 SERVICE	\$7,319	\$26,860	0.357	0.517	2	0.926
	32 MEDIUM CONTRCTING	\$11,972	\$69,870	0.000	0.000	0	0.939
	34 DEALER OR DISTRIB	\$185,582	\$931,678	0.545	0.789	26	0.998
	36 MED. MANUFACTURER	\$0	\$35	0.000	0.000	0	0.966
	38 MISC. OPERATION	\$10,910	\$43,701	0.039	0.056	1	0.990
	TOTAL *	\$215,784	\$1,072,143	0.483		29	
35 MULT INSTITUT.	31 LIGHT CONTRACTING	\$0	\$330	0.000	0.000	0	0.981
	32 MEDIUM CONTRCTING	\$2,391	\$33,567	0.190	0.275	1	0.966
	TOTAL *	\$2,391	\$33,897	0.190		1	
36 MULT SERVICES	30 SERVICE	\$14,744	\$75,478	0.656	0.949	4	0.941
	31 LIGHT CONTRACTING	\$20,640	\$104,797	0.802	1.161	8	0.968
	32 MEDIUM CONTRCTING	\$19,012	\$110,828	0.006	0.009	1	0.954
	33 HEAVY CONTRACTING	\$1,705	\$37,509	5.009	7.249	2	0.974
	34 DEALER OR DISTRIB	\$201,121	\$1,042,822	0.600	0.868	36	1.014
	36 MED. MANUFACTURER	\$5,780	\$16,283	0.000	0.000	0	0.981
	38 MISC. OPERATION	\$66,894	\$357,335	1.895	2.742	21	1.006
	TOTAL *	\$329,896	\$1,745,052	0.856		72	

INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CLASS GROUP	(1)	(2)	(3)	(4)	(5)	(6)
		CALENDAR A.Y.E. 12/31/22 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2018-2022 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIVITY	NUMBER OF OCCURRENCES	BAL CELL RELATIVITY
37 MULT INDUST/PROC	31 LIGHT CONTRACTING	\$77	\$145	0.000	0.000	0	0.975
	32 MEDIUM CONTRCTING	\$34,219	\$159,818	0.288	0.417	5	0.960
	33 HEAVY CONTRACTING	\$11,281	\$60,412	0.000	0.000	0	0.981
	34 DEALER OR DISTRIB	\$2,709	\$36,759	0.447	0.647	3	1.021
	35 LGT. MANUFACTURER	\$73,140	\$363,521	0.269	0.389	5	0.971
	36 MED. MANUFACTURER	\$133,831	\$707,881	0.606	0.877	8	0.988
	37 HVY. MANUFACTURER	\$115,019	\$515,565	0.536	0.776	4	0.979
	38 MISC. OPERATION	\$1,385	\$15,801	0.000	0.000	0	1.013
	TOTAL *	\$371,660	\$1,859,902	0.467		25	
38 MULT CONTRACTORS	30 SERVICE	\$115,421	\$629,437	0.533	0.771	7	1.002
	31 LIGHT CONTRACTING	\$377,626	\$1,859,589	0.733	1.061	75	1.031
	32 MEDIUM CONTRCTING	\$731,451	\$3,719,448	0.928	1.343	168	1.015
	33 HEAVY CONTRACTING	\$209,121	\$1,030,850	0.776	1.123	38	1.037
	38 MISC. OPERATION	\$10,572	\$22,773	0.000	0.000	0	1.071
	TOTAL *	\$1,444,191	\$7,262,098	0.817		288	
TOTAL ALL TOP	30 SERVICE	\$365,694	\$1,450,321	0.209		14	
	31 LIGHT CONTRACTING	\$458,425	\$2,296,948	0.836		121	
	32 MEDIUM CONTRCTING	\$1,094,101	\$5,734,175	0.690		222	
	33 HEAVY CONTRACTING	\$280,152	\$1,465,292	0.883		61	
	34 DEALER OR DISTRIB	\$491,659	\$2,488,300	0.799		81	
	35 LGT. MANUFACTURER	\$75,705	\$371,412	0.260		5	
	36 MED. MANUFACTURER	\$285,956	\$1,350,000	0.692		18	
	37 HVY. MANUFACTURER	\$139,307	\$616,766	0.455		5	
	38 MISC. OPERATION	\$119,291	\$585,988	1.282		29	
TOTAL *	\$3,310,289	\$16,359,202	0.691		556		

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

INSURANCE SERVICES OFFICE, INC.

VERMONT  
PRODUCTS  
BASIC LIMIT RELATIVE CHANGE ANALYSIS

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TYPE OF POLICY	(1) BAILEY FORMULA RELATIVITY	(2) CREDIBILITY	(3) CREDIBILITY WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	(5) INDICATED CHANGE
10	0.928	0.322	0.976	0.976	
34	1.049	0.356	1.017	1.016	4.2%
36	1.049	0.178	1.008	1.008	3.3%
37	1.011	0.431	1.005	1.004	2.9%
CLASS GROUP					
3	0.930	0.423	0.970	0.970	
4	1.069	0.394	1.027	1.027	
5	1.116	0.105	1.012	1.012	
6	0.992	0.299	0.998	0.998	
7	0.865	0.118	0.983	0.983	

NOTE: THE INDICATED CHANGES BY TOP WERE FURTHER ADJUSTED BY THE FOLLOWING

DIFFERENTIALS: TOP 34: 0.974

TOP 36: 0.979

TOP 37: 0.996

INSURANCE SERVICES OFFICE, INC.

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

		(1)	(2)	(3)	(4)	(5)	(6)
		CALENDAR A.Y.E. 12/31/2021 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2017 - 2021 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIVITY	NUMBER OF OCCURRENCES	BAL CELL RELATIVITY
10 MONOLINE	03 MAN,DLR,DSTFD/DRG	\$11,819,097	\$63,658,617	0.783	0.870	1,091	0.946
	04 DLR,DST-NOTFD/DRG	\$7,190,323	\$36,653,516	0.937	1.042	432	1.002
	05 MAN.NTFD/DRG(Low)	\$1,226,514	\$7,102,146	0.788	0.876	56	0.987
	06 MAN.NTFD/DRG(MED)	\$8,466,486	\$42,680,135	0.814	0.905	423	0.973
	07 MAN.NTFD/DRG(HGH)	\$2,036,214	\$10,951,431	0.681	0.757	70	0.959
	TOTAL *	\$30,738,634	\$161,045,845	0.821		2,072	
34 MULT MERCANTILE	03 MAN,DLR,DSTFD/DRG	\$5,085,663	\$25,340,297	0.947	1.053	506	0.986
	04 DLR,DST-NOTFD/DRG	\$27,891,818	\$137,888,579	0.997	1.108	2,035	1.044
	06 MAN.NTFD/DRG(MED)	\$2,648	\$13,111	0.000	0.000	0	1.014
	TOTAL *	\$32,980,129	\$163,241,987	0.989		2,541	
36 MULT SERVICES	04 DLR,DST-NOTFD/DRG	\$3,130,195	\$15,943,473	1.018	1.131	631	1.035
	06 MAN.NTFD/DRG(MED)	\$30,963	\$176,926	0.028	0.031	1	1.005
	TOTAL *	\$3,161,158	\$16,120,400	1.008		632	
37 MULT INDUST/PROC.	03 MAN,DLR,DSTFD/DRG	\$11,666,754	\$62,347,318	0.810	0.901	1,979	0.974
	05 MAN.NTFD/DRG(Low)	\$3,213,073	\$18,166,949	1.070	1.190	163	1.015
	06 MAN.NTFD/DRG(MED)	\$26,040,916	\$133,610,898	0.908	1.010	1,362	1.001
	07 MAN.NTFD/DRG(HGH)	\$6,218,877	\$29,699,655	0.800	0.890	210	0.987
	TOTAL *	\$47,139,619	\$243,824,820	0.881		3,714	
TOTAL ALL TOP	03 MAN,DLR,DSTFD/DRG	\$28,571,513	\$151,346,232	0.823		3,576	
	04 DLR,DST-NOTFD/DRG	\$38,212,336	\$190,485,568	0.987		3,098	
	05 MAN.NTFD/DRG(Low)	\$4,439,588	\$25,269,095	0.992		219	
	06 MAN.NTFD/DRG(MED)	\$34,541,014	\$176,481,070	0.884		1,786	
	07 MAN.NTFD/DRG(HGH)	\$8,255,091	\$40,651,087	0.771		280	
	TOTAL *	\$114,019,542	\$584,233,052	0.899		8,959	

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

INSURANCE SERVICES OFFICE, INC.

VERMONT  
LOCAL PRODUCTS/COMPLETED OPERATIONS  
BASIC LIMIT RELATIVE CHANGE ANALYSIS

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TYPE OF POLICY	(1) BAILEY FORMULA RELATIVITY	(2) CREDIBILITY CREDIBILITY	(3) CREDIBILITY WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	(5) INDICATED CHANGE
10	1.006	0.779	1.005	1.006	
34	1.009	0.487	1.004	1.005	0.0%
36	0.988	0.571	0.993	0.994	-1.2%
37	0.887	0.148	0.982	0.983	-2.2%
38	1.001	0.975	1.001	1.002	-0.4%
CLASS					
GROUP					
1	1.380	0.484	1.169	1.175	
2	1.005	0.553	1.003	1.008	
11	1.100	0.365	1.036	1.041	
12	0.983	1.000	0.983	0.988	
13	0.961	0.263	0.990	0.995	

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

STATE	(1)	(2)	(3)	(4)
	BAILEY FORMULA RELATIVITY	CREDIBILITY CREDIBILITY	CREDIBILITY WEIGHTED RELATIVITY	BALANCED RELATIVITY
	1.268	0.358	1.089	1.092
	1.365	0.259	1.084	1.087
	1.833	0.110	1.069	1.073
	1.342	0.222	1.068	1.071
	1.300	0.230	1.062	1.066
	1.301	0.218	1.059	1.063
	1.251	0.252	1.058	1.062
	1.289	0.180	1.047	1.050
	1.156	0.306	1.045	1.049
	1.080	0.562	1.044	1.048
	1.169	0.254	1.040	1.044
	1.081	0.487	1.039	1.042
	1.077	0.410	1.031	1.034
	1.114	0.269	1.030	1.033
	1.085	0.323	1.027	1.030
	1.260	0.111	1.026	1.029
	1.080	0.333	1.026	1.029
	1.033	0.489	1.016	1.019
	1.027	0.466	1.013	1.016
	1.047	0.211	1.010	1.013
	1.037	0.226	1.008	1.012
	1.015	0.243	1.004	1.007
	1.010	0.354	1.004	1.007
	1.111	0.030	1.003	1.007
	0.995	0.171	0.999	1.003
	0.996	0.436	0.998	1.002
	0.995	0.688	0.997	1.000
	0.984	0.327	0.995	0.998
	0.965	0.163	0.994	0.998
Vermont	0.960	0.162	0.993	0.997
	0.984	0.436	0.993	0.996
	0.966	0.208	0.993	0.996
	0.968	0.232	0.992	0.996
	0.936	0.133	0.991	0.995
	0.960	0.249	0.990	0.993
	0.977	0.493	0.988	0.992
	0.973	0.635	0.982	0.986
	0.873	0.137	0.982	0.985
	0.947	0.374	0.980	0.983
	0.924	0.314	0.975	0.979
	0.930	0.371	0.973	0.977
	0.835	0.157	0.972	0.975
	0.913	0.357	0.968	0.971
	0.899	0.376	0.961	0.964
	0.340	0.043	0.955	0.958
	0.898	0.432	0.955	0.958
	0.896	0.507	0.946	0.949
	0.690	0.163	0.941	0.944
	0.825	0.328	0.939	0.942
	0.827	0.390	0.928	0.932
	0.811	0.363	0.927	0.930
	0.683	0.237	0.914	0.917

\* Sorted by balanced relative change

## INSURANCE SERVICES OFFICE, INC.

VERMONT  
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. 12/31/21 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2017-2021 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIV.	NUMBER OF OCCURRENCES	BAL CELL RELATIV.
10 MONOLINE	01 RET.STRS-FOOD/DRG	\$1,946	\$33,570	0.000	0.000	0	1.178
	02 RET.STRS-NTFD/DRG	\$3,540	\$18,932	18.888	19.606	2	1.011
	11 COMP. OPS. (LOW)	\$4,672	\$24,929	0.000	0.000	0	1.044
	12 COMP. OPS. (MED)	\$157,702	\$951,978	0.698	0.724	18	0.991
	13 COMP. OPS. (HGH)	\$6,745	\$55,819	3.181	3.302	2	0.998
	TOTAL *	\$174,604	\$1,085,227	1.136		22	
34 MULT MERCANTILE	01 RET.STRS-FOOD/DRG	\$12,550	\$90,402	1.314	1.364	16	1.178
	02 RET.STRS-NTFD/DRG	\$9,588	\$63,324	0.239	0.248	1	1.010
	12 COMP. OPS. (MED)	\$3,363	\$11,408	0.000	0.000	0	0.990
	TOTAL *	\$25,501	\$165,134	0.737		17	
36 MULT SERVICES	01 RET.STRS-FOOD/DRG	\$2,266	\$13,683	0.000	0.000	0	1.164
	02 RET.STRS-NTFD/DRG	\$42,705	\$200,838	1.013	1.052	23	0.999
	11 COMP. OPS. (LOW)	\$15,286	\$74,542	2.383	2.473	5	1.031
	12 COMP. OPS. (MED)	\$2,914	\$16,485	0.000	0.000	0	0.979
	13 COMP. OPS. (HGH)	\$2,155	\$12,610	0.356	0.370	1	0.986
	TOTAL *	\$65,326	\$318,158	1.232		29	
37 MULT INDUST/PROC.	01 RET.STRS-FOOD/DRG	\$0	\$8,446	0.000	0.000	0	1.152
	11 COMP. OPS. (LOW)	\$30	\$126	0.000	0.000	0	1.021
	12 COMP. OPS. (MED)	\$12,661	\$55,344	0.000	0.000	0	0.968
	TOTAL *	\$12,691	\$63,915	0.000		0	
38 MULT CONTRACTORS	11 COMP. OPS. (LOW)	\$40,449	\$198,198	2.244	2.329	2	1.040
	12 COMP. OPS. (MED)	\$961,601	\$4,640,876	0.821	0.852	71	0.987
	13 COMP. OPS. (HGH)	\$45,348	\$243,343	0.867	0.899	3	0.994
	TOTAL *	\$1,047,398	\$5,082,417	0.878		76	
TOTAL ALL TOP	01 RET.STRS-FOOD/DRG	\$16,762	\$146,101	0.984		16	
	02 RET.STRS-NTFD/DRG	\$55,832	\$283,094	2.013		26	
	11 COMP. OPS. (LOW)	\$60,437	\$297,795	2.104		7	
	12 COMP. OPS. (MED)	\$1,138,240	\$5,676,090	0.790		89	
	13 COMP. OPS. (HGH)	\$54,248	\$311,771	1.134		6	
	TOTAL *	\$1,325,520	\$6,714,850	0.918		144	

\* 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. 12/31/2021 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2017 - 2021 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIV.	NUMBER OF OCCURRENCES	BAL CELL RELATIV.
10 MONOLINE	01 RET.STRS-FOOD/DRG	\$1,748,833	\$13,294,303	1.231		621	
	02 RET.STRS-NTFD/DRG	\$3,644,206	\$17,449,172	1.109		492	
	11 COMP. OPS. (LOW)	\$5,499,261	\$29,100,438	1.217		689	
	12 COMP. OPS. (MED)	\$120,011,947	\$572,386,816	0.962		7,034	
	13 COMP. OPS. (HGH)	\$7,536,492	\$38,042,850	0.672		262	
	TOTAL *	\$138,440,739	\$670,273,579	0.964		9,098	
34 MULT MERCANTILE	01 RET.STRS-FOOD/DRG	\$8,156,117	\$43,997,404	1.362		2,733	
	02 RET.STRS-NTFD/DRG	\$7,639,610	\$36,671,723	0.951		693	
	12 COMP. OPS. (MED)	\$3,008,570	\$14,169,615	0.939		125	
	TOTAL *	\$18,804,297	\$94,838,741	1.127		3,551	
36 MULT SERVICES	01 RET.STRS-FOOD/DRG	\$643,620	\$4,295,009	1.241		162	
	02 RET.STRS-NTFD/DRG	\$15,583,411	\$76,045,252	0.943		3,398	
	11 COMP. OPS. (LOW)	\$3,267,900	\$16,818,142	1.161		488	
	12 COMP. OPS. (MED)	\$5,157,211	\$26,533,736	0.988		778	
	13 COMP. OPS. (HGH)	\$1,204,826	\$5,882,500	0.609		61	
	TOTAL *	\$25,856,969	\$129,574,639	0.971		4,887	
37 MULT INDUST/PROC.	01 RET.STRS-FOOD/DRG	\$22,984	\$127,871	0.000		0	
	11 COMP. OPS. (LOW)	\$118,128	\$638,240	0.539		14	
	12 COMP. OPS. (MED)	\$5,046,084	\$25,673,289	0.857		313	
	13 COMP. OPS. (HGH)	\$2,262	\$21,501	0.000		0	
	TOTAL *	\$5,189,458	\$26,460,901	0.846		327	
38 MULT CONTRACTORS	11 COMP. OPS. (LOW)	\$11,708,508	\$61,005,531	0.958		812	
	12 COMP. OPS. (MED)	\$192,727,882	\$985,553,302	0.941		12,745	
	13 COMP. OPS. (HGH)	\$15,769,275	\$78,710,767	1.070		712	
	TOTAL *	\$220,205,665	\$1,125,269,600	0.951		14,269	
TOTAL ALL TOP	01 RET.STRS-FOOD/DRG	\$10,571,554	\$61,714,586	1.330		3,516	
	02 RET.STRS-NTFD/DRG	\$26,867,226	\$130,166,147	0.968		4,583	
	11 COMP. OPS. (LOW)	\$20,593,798	\$107,562,352	1.057		2,003	
	12 COMP. OPS. (MED)	\$325,951,694	\$1,624,316,756	0.948		20,995	
	13 COMP. OPS. (HGH)	\$24,512,856	\$122,657,618	0.925		1,035	
	TOTAL *	\$408,497,128	\$2,046,417,459	0.963		32,132	

\* 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**

**VERMONT (44)**

**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	.94	.85	1.00
Contractors	.90	.84	1.00	1.00
Industrial & Processing	.90	.92	1.00	1.00
Institutional	.90	.94	.98	1.00
Mercantile	.90	.78	.71	1.00
Motel/Hotel	.90	1.00	1.00	1.00
Office	.90	1.00	1.00	1.00
Service	.90	.93	.99	1.00

**Table 1. Package Modification Factors**