

RULES – IMPLEMENTATION

NOVEMBER 15, 2021

COMMERCIAL MULTIPLE LINE

LI-ML-2021-036

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

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### KEY MESSAGE

Revised Commercial Package Policy package modification factors for an overall statewide change of -2.0% to be implemented.

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### UPGRADE TO WORD AND EXCEL DOCUMENTS

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

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### BACKGROUND

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

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### CONSIDERATION OF COVID-19

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

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### ISO ACTION

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

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## IMPORTANT NOTE

### Change in Format

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

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

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

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## EFFECTIVE DATE

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

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

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## COMPANY ACTION

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

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

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

WE WILL SUBMIT THIS REVISION TO THE INSURANCE DEPARTMENT ON MARCH 22, 2022. IF STATE FILING REQUIREMENTS DICTATE THAT YOU MAKE A SUBMISSION WITH THE INSURANCE DEPARTMENT, DO NOT SUBMIT IT PRIOR TO THIS DATE.

In all correspondence with the Insurance Department on this revision, you should refer to ISO Filing Number ML-2021-RLA1, NOT this circular number. Communications with the regulator concerning a filing affecting multiple lines of business (i.e., CL, PL, AL filing designation) should specify the line(s) of business that you are addressing.

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## RATING SOFTWARE IMPACT

No new attributes are being introduced with this revision.

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## POLICYHOLDER NOTIFICATION

If you decide to implement this revision, you should check all applicable laws for the state(s) to which this revision applies, to determine whether or not a specific policyholder notice requirement may apply. Please note that circular [LI-CL-2021-004](#) contains the ISO Guide To Renewals With Changed Conditions For Commercial Lines, which is available only as a guide to assist participating companies in complying with various conditional renewal statutes or regulations, for the major commercial lines of insurance serviced by ISO. The information in the Guide does not necessarily reflect all requirements or exceptions that may apply, and it is not intended as a substitute for your review of all applicable statutes and regulations concerning policyholder notification.

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## REVISION DISTRIBUTION

We will issue a Notice to Manualholders with an edition date of 4-22 (or the earliest possible subsequent date), along with any new and/or revised manual pages.

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## REFERENCE(S)

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

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## ATTACHMENT(S)

Filing [ML-2021-RLA1](#)

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## FILES AVAILABLE FOR DOWNLOAD

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

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

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## DATA QUALITY

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

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## ACKNOWLEDGMENT OF ACTUARIAL QUALIFICATIONS

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

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

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## CONTACT INFORMATION

If you have any questions concerning:

- The actuarial content of this circular, please contact:  
Mia Song  
Actuarial Operations  
201-469-3350  
[Mia.Song@verisk.com](mailto:Mia.Song@verisk.com)  
[propertyactuarial@verisk.com](mailto:propertyactuarial@verisk.com)
- The non-actuarial content of this circular, please contact:  
Alexander Esau  
Production Operations, Compliance and Product Services  
201-469-2717  
[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

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

NORTH DAKOTA

ADVISORY PACKAGE MODIFICATION FACTOR REVIEW

COMMERCIAL PACKAGE POLICY

ML-2021-RLA1

EXECUTIVE SUMMARY

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PURPOSE

This document:

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

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CONSIDERATION OF COVID-19

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

PMF CHANGES

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

<u>Type of Policy</u>	<u>Property</u>	<u>Liability</u>	<u>Prop. &amp; Liab.</u> <u>Total</u>
Motel/Hotel	-3.0%	0.0%	-2.2%
Apartment	0.0%	0.0%	0.0%
Office	-4.3%	-5.0%	-4.7%
Mercantile	-3.2%	-8.0%	-4.5%
Institutional	-4.5%	0.0%	-3.7%
Services	0.0%	0.0%	0.0%
Indust./Proc.	2.1%	0.0%	0.9%
Contractors	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>
Statewide	-2.2%	-1.7%	-2.0%

NORTH DAKOTA

ADVISORY PACKAGE MODIFICATION FACTOR REVIEW

COMMERCIAL PACKAGE POLICY

ML-2021-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 12/31/19.
  - Basic Group II: ten fiscal accident years ending 12/31/19.
  - Special Causes of Loss: five fiscal accident years ending 12/31/19.
  - Crime: calendar year ending 06/30/16.
  - Inland Marine: five calendar accident years ending 12/31/16.
  - Fidelity: policy year ending 12/31/15.
  - Owners, Landlords, and Tenants: five fiscal accident years ending 12/31/19.
  - Manufacturers and Contractors: five fiscal accident years ending 12/31/19.
  - Products: three calendar accident years ending 12/31/19.
  - Local Products and Completed Operations: three calendar accident years ending 12/31/19.
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PRIOR ISO  
REVISIONS

The latest revisions in this state are:

<u>Filing</u>	ML-19-RLA1	ML-17-RLA1	ML-09-RLA1
<u>Dates</u>			
Implemented	11/1/2019	11/1/2017	1/1/2010
<u>Changes</u>			
Indicated	-1.8%	1.8%	-0.8%
Filed	-1.9%	1.8%	-0.8%
Implemented	-1.9%	1.8%	-0.8%

NORTH DAKOTA

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ML-2021-RLA1

EXECUTIVE SUMMARY

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ADJUSTMENTS  
TO REPORTED  
EXPERIENCE

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

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TEN LARGEST  
GROUPS IN  
ISO DATA BASE

Insurers are listed in descending order based on the percent of statewide written premium volume from Annual Statement Page 15 for the year ending 12/31/18 for the Annual Statement Line of Business (ASLOB) indicated.

COMMERCIAL MULTI PERIL (ASLOB 51 & 52)

1. Travelers Indemnity Company
  2. Cincinnati Insurance Company
  3. State Auto Mutual Insurance Company
  4. Admiral Insurance Company
  5. Nodak Mutual Insurance Company
  6. Acuity A Mutual Insurance Company
  7. Tokio Marine Companies
  8. Insurance Company Of North America
  9. Continental Casualty Company
  10. American International Group
- 

SIZE OF ISO  
DATA BASE

The market share of ISO participating insurers as measured by Annual Statement Page 15 written premium for the year ending 12/31/18 is:

Commercial Multi Peril (ASLOB 51 & 52). 43.4%.

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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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NORTH DAKOTA

ADVISORY PACKAGE MODIFICATION FACTOR REVIEW

COMMERCIAL PACKAGE POLICY

ML-2021-RLA1

EXECUTIVE SUMMARY

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COMPANY DECISION

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

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

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

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

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# COMMERCIAL PACKAGE POLICY

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## COMMERCIAL PACKAGE POLICY METHODOLOGY OVERVIEW

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### OBJECTIVE

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

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### STEP 1: THE RELATIVITY ANALYSES

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

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### STEP 2: CALCULATION OF THE PMFs

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

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EXPLANATORY NOTES TO EXHIBIT A2

CALCULATION OF REVISED PACKAGE MODIFICATION FACTORS

OBJECTIVE	<p>Commercial package policies were introduced in the 1960's as a convenient tool for both insurer and insured to have the many types of insurance needed by commercial risks packaged under one cover. Thus fire, extended coverage, crime, liability insurance, etc. could be written using a single policy instead of several. Today, virtually any type of monoline coverage can also be purchased as part of a package policy such as the CPP.</p> <p>The types of insured which can be written under a CPP are generally categorized into the following Types of Policy:</p> <ul style="list-style-type: none"><li>. Motels and Hotels (TOP 31)</li><li>. Apartments (TOP 32)</li><li>. Offices (TOP 33)</li><li>. Mercantile Operations (TOP 34)</li><li>. Institutions (TOP 35)</li><li>. Service Operations (TOP 36)</li><li>. Industrial and Processing Operations (TOP 37)</li><li>. Contractors (TOP 38)</li></ul>
PRICING OF POLICIES	<p>Since a CPP is essentially a combination of monoline coverages, CPP pricing employs monoline loss costs modified by PMFs (Package Modification Factors). These factors vary by the categories shown above and are reviewed annually.</p>
CPP PMF REVIEW PROCEDURE	<p>The CPP review of Package Modification Factors, which appears in Table 2 of this document, determines the appropriate PMF loss cost level for each of the eight CPP categories. This is done by combining the indications of the simultaneous reviews of monoline and multiline experience for the various lines (or coverages).</p> <p>A detailed explanation of the calculation of the revised PMFs follows.</p>

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

### LINES OF INSURANCE (COVERAGES) INCLUDED

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

#### Property Coverages

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

#### Liability Coverages

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

EXPLANATORY NOTES TO EXHIBIT A2 (Cont'd)

THE IMPLICIT  
PACKAGE  
MODIFICATION  
FACTOR

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

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

THE MULTILINE  
INDICATION

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

The development of these indications is detailed in Section B.

THE INDICATED  
PMF

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

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

THE CAPPED  
PMF

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

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

EXPLANATORY NOTES TO EXHIBITS B1 AND B2

BASIC GROUP I AND SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS

OBJECTIVE

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

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

COLUMN (1)

LEAST SQUARES FORMULA RELATIVITIES

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

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

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

COLUMN (1)  
(Cont'd)

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

BASIC GROUP I:

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

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

SPECIAL CAUSES OF LOSS:

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

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

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

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

COLUMN (1)  
(Cont'd)

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

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

COLUMN (2)

CREDIBILITY

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

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

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

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

COLUMN (3)

CREDIBILITY-WEIGHTED RELATIVITIES

Credibility-weighted relativities are calculated based on the formula

$$W = R^Z$$

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

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

COLUMN (4)

BALANCED RELATIVITIES

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

COLUMN (5)

INDICATED CHANGES

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

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

MULTILINE  
CONSIDERATIONS

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

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

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

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

EXPLANATORY NOTES TO EXHIBITS B3

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

INTRODUCTION      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.

EXPLANATORY NOTES TO EXHIBITS B4

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

INTRODUCTION                      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.

COLUMN (1)                      AGGREGATE LOSS COSTS

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.

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 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).

COLUMN (4)                      CREDIBILITY (Z) WEIGHTED EXPERIENCE RATIO

A credibility procedure is applied to the initial experience ratios in column (3) on a cell-by-cell basis prior to the simultaneous review procedure. The credibility values are calculated using an empirical Bayesian credibility procedure. In the following discussion, cell refers to an individual combination of TOP and category.

EXPLANATORY NOTES TO EXHIBITS B4 (cont'd)

COLUMN (4)  
(cont'd)

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

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

COLUMN (5)

Z-WEIGHTED RELATIVITIES

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

EXPLANATORY NOTES TO EXHIBIT B5

BASIC GROUP II RELATIVITY ANALYSIS

OBJECTIVE

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

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

COLUMN (1)

AGGREGATE LOSS COSTS

The latest accident year adjusted aggregate loss costs (adjusted in the same manner as in the overall review, i.e. to current manual loss cost and prospective amount of insurance levels, with multiline aggregate loss costs further adjusted to current IPMF level) are used as weights in the calculation of any totals shown in this table.

COLUMN (2)

10 - YEAR EXPERIENCE RATIO

These experience ratios are the ratio of the combined ten year CSP adjusted incurred losses (adjusted to current deductible and prospective cost levels including loss development, and also adjusted to reflect the BGII excess loss procedure) to the combined ten year CSP adjusted aggregate loss costs. Any totals which are shown are weighted averages using the aggregate loss costs in Column (1). When a dash is displayed in the column, it indicates that the indicated IPMF which resulted from this procedure was capped. The procedure which follows when capping occurs is described below.

COLUMN (3)

FORMULA RELATIVITY

The formula relativities are the ratios of the ten year experience ratios for the type of policy (either monoline vs. multiline or individual multiline programs) to the average ten year experience ratio for monoline and multiline combined. These relativities represent how much better or worse than average the experience for a given type of policy is. Again, any totals which are shown are weighted averages and the display of a dash indicates that the resulting IPMF was capped.

EXPLANATORY NOTES TO EXHIBIT B5 (Cont'd)

COLUMN (3)  
(Cont'd)

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

COLUMN (4)

CREDIBILITY

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

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

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

COLUMN (5)

Z - WEIGHTED RELATIVITY

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

COLUMN (6)

BALANCED FORMULA RELATIVITY

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

EXPLANATORY NOTES TO EXHIBIT B5 (Cont'd)

COLUMN (7)

NORMALIZED FORMULA RELATIVITY

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

COLUMN (8)

INDICATED LOSS COST CHANGES

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

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

## CRIME AND FIDELITY

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

EXPLANATORY NOTES TO EXHIBITS B6 AND B7

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

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

OBJECTIVES

The objectives of this procedure are to:

- 1) determine monoline loss cost level needs for the appropriate rating variables;
- 2) determine indicated changes to the eight liability Commercial Package Policy (CPP) Package Modification Factors (PMFs) based on Premises/Operations and Products/Completed Operations data.

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EXPERIENCE  
BASE

The experience used in this relativity analysis is the latest five (5) years of accident year data, as reported under the Commercial Statistical Plan with aggregate loss costs adjusted to current loss cost level (multiline aggregate loss costs adjusted additionally by the current Implicit Package Modification Factors). Losses have been trended and developed in the Relativity Analysis. ALCCCL have been trended.

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SIMULTANEOUS  
DETERMINATION  
OF RATING  
VARIABLE  
RELATIVITIES

Once the aggregate loss costs at current level and incurred losses used in the analysis have been appropriately adjusted, the 5-year experience ratios are calculated for each combination of the appropriate rating variables. From these ratios, relativities to the statewide 5-year experience ratio are calculated. These relativities are then used in a minimum bias iterative review procedure, which simultaneously determines the relativities for each rating variable.

The purpose of a simultaneous review procedure is to arrive at a set of relativities for each rating variable that best represent the experience. For example, the type of policy relativities will serve to derive the relationship of CPP policies relative to monoline policies, via the PMF, while the class group relativities will serve to derive the relationship of the various classifications relative to one another. An iterative technique is used to derive relativities for each rating variable. This procedure is in contrast to a one-way type of review, wherein relativities for each rating variable would each be reviewed separately.

Such one-way types of review do not take into account differing percentages of experience of each rating variable within the other rating variables. The simultaneous review procedure accounts for these different distributions in generating relativities for each rating variable.

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RATING  
VARIABLES  
USED

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

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

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

ITERATIVE  
PROCEDURE

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

For Owners, Landlords and Tenants:

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

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

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

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

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

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

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

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

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

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

For Manufacturers and Contractors, and Products:

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

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

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

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

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

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

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

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

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

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

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

For Local Products/Completed Operations:

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

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

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

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

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

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

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

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

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

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

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

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

$p$  is the number of states in the analysis;

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

ITERATIVE  
PROCEDURE  
(Cont'd)

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

APPLICATION OF  
CREDIBILITY

Consideration is then given to the credibility of the experience for each rating variable. The credibility of each of these categories is based on the formula

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

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

is the 5 year occurrence total for a given class group, territory or type of policy. For Local Products/Completed Operations, separate formulas are used to calculate the credibility of the experience for each type of policy and class group versus the credibility of the experience for each state, namely  $Z$

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

state(in this case, P is the 5 year occurrence total for a given state).

Credibility-weighted relativities are then calculated as follows:

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

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

$R$  is the class group, state or type of policy relativity;

$W$  is the credibility-weighted relativity.

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

INDICATED  
CHANGES

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

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

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

MULTILINE  
CONSIDERATIONS

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

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

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

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INSURANCE SERVICES OFFICE, INC.

## NORTH DAKOTA

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	0.97	-3.0%	1.00	1.00	0.0%	-2.2%
APARTMENT (32)	0.99	0.99	0.0%	1.00	1.00	0.0%	0.0%
OFFICE (33)	0.92	0.88	-4.3%	1.00	0.95	-5.0%	-4.7%
MERCANTILE (34)	0.94	0.91	-3.2%	1.00	0.92	-8.0%	-4.5%
INSTITUTION(35)	0.89	0.85	-4.5%	1.00	1.00	0.0%	-3.7%
SERVICES (36)	1.00	1.00	0.0%	1.00	1.00	0.0%	0.0%
IND/PROC (37)	0.97	0.99	2.1%	1.00	1.00	0.0%	0.9%
CONTRACTORS(38)	1.00	1.00	0.0%	1.00	1.00	0.0%	0.0%
STATEWIDE			-2.2%			-1.7%	-2.0%

INSURANCE SERVICES OFFICE, INC.

NORTH DAKOTA  
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
<u>COVERAGE</u>					
PROPERTY-					
BASIC GRP I	337,829	1.122	-0.3%	1.119	1.147
BASIC GRP II	262,654	0.846	-6.8%	0.788	0.808
SP CAUSE/LOSS	103,796	0.969	-2.5%	0.945	0.969
* CRIME	897	0.835	0.0%	0.835	0.835
* INL. MAR.	756	0.910	0.0%	0.910	0.910
* FIDELITY	4,998	1.000	0.0%	1.000	1.000
<u>TOTAL</u>	<u>710,930</u>	<u>1.000</u>	<u>-5.0%</u>	<u>0.950</u>	<u>0.970</u>
LIABILITY-					
OL&T	248,973	1.000	5.8%	1.058	1.000
<u>TOTAL</u>	<u>248,973</u>	<u>1.000</u>	<u>5.8%</u>	<u>1.058</u>	<u>1.000</u>
-----					
PROP. & LIAB. TOTAL	959,903		-2.2%		-2.2%

APARTMENT (32) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
<u>COVERAGE</u>					
PROPERTY-					
BASIC GRP I	339,890	0.822	2.0%	0.838	0.842
BASIC GRP II	654,273	1.071	-2.1%	1.049	1.053
SP CAUSE/LOSS	232,506	1.155	-2.9%	1.122	1.126
* CRIME	224	0.835	0.0%	0.835	0.835
* INL. MAR.	0	0.910	0.0%	0.910	0.910
* FIDELITY	2,182	1.000	0.0%	1.000	1.000
<u>TOTAL</u>	<u>1,229,075</u>	<u>0.990</u>	<u>0.0%</u>	<u>0.990</u>	<u>0.990</u>
LIABILITY-					
OL&T	158,240	1.000	-0.4%	0.996	0.996
<u>TOTAL</u>	<u>158,240</u>	<u>1.000</u>	<u>-0.4%</u>	<u>0.996</u>	<u>1.000</u>
-----					
PROP. & LIAB. TOTAL	1,387,315		-0.1%		0.0%

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

INSURANCE SERVICES OFFICE, INC.

NORTH DAKOTA  
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	142,294	1.256	0.5%	1.262	1.267
BASIC GRP II	235,725	0.719	-5.9%	0.677	0.679
SP CAUSE/LOSS	126,297	1.100	-2.7%	1.070	1.075
* CRIME	359	0.835	0.0%	0.835	0.835
* INL. MAR.	14,150	0.910	0.0%	0.910	0.910
* FIDELITY	3,002	1.000	0.0%	1.000	1.000
TOTAL	521,827	0.920	-4.5%	0.879	0.880
LIABILITY-					
OL&T	538,294	1.022	-5.2%	0.969	0.969
M&C	23,846	0.704	3.8%	0.731	0.731
TOTAL	562,140	1.000	-4.6%	0.954	0.950
-----					
PROP. & LIAB.	1,083,967		-4.5%		-4.7%
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	1,050,006	0.989	0.3%	0.992	0.996
BASIC GRP II	1,354,926	0.910	-8.0%	0.837	0.841
SP CAUSE/LOSS	468,134	0.938	-5.1%	0.890	0.894
* CRIME	9,408	0.835	0.0%	0.835	0.835
* INL. MAR.	423,667	0.910	0.0%	0.910	0.910
* FIDELITY	102,917	1.000	0.0%	1.000	1.000
TOTAL	3,409,058	0.940	-3.9%	0.904	0.910
LIABILITY-					
OL&T	703,003	1.069	-11.2%	0.949	0.949
M&C	180,188	1.081	-0.9%	1.071	1.071
LOCAL PRODUCT	110,597	0.679	1.9%	0.692	0.692
* MULTI PRODUCT	218,290	0.853	2.5%	0.874	0.889
TOTAL	1,212,078	1.000	-8.4%	0.916	0.920
-----					
PROP. & LIAB.	4,621,136		-5.0%		-4.5%
TOTAL					

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

INSURANCE SERVICES OFFICE, INC.

NORTH DAKOTA  
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	615,429	1.408	0.1%	1.409	1.424
BASIC GRP II	877,235	0.699	-5.3%	0.662	0.669
SP CAUSE/LOSS	285,948	0.792	-2.6%	0.771	0.780
* CRIME	2,937	0.835	0.0%	0.835	0.835
* INL. MAR.	2,567	0.910	0.0%	0.910	0.910
* FIDELITY	26,800	1.000	0.0%	1.000	1.000
TOTAL	1,810,916	0.890	-5.3%	0.842	0.850
LIABILITY-					
OL&T	369,298	1.000	2.9%	1.029	1.000
M&C	18,808	1.004	2.3%	1.027	0.998
TOTAL	388,106	1.000	2.9%	1.029	1.000
-----					
PROP. & LIAB.	2,199,022		-3.9%		-3.7%
TOTAL					

SERVICES (36) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	566,890	0.958	5.6%	1.012	0.987
BASIC GRP II	1,008,247	1.112	3.1%	1.146	1.118
SP CAUSE/LOSS	241,442	0.751	-2.7%	0.731	0.713
* CRIME	10,903	0.835	0.0%	0.835	0.835
* INL. MAR.	48,738	0.910	0.0%	0.910	0.910
* FIDELITY	27,198	1.000	0.0%	1.000	1.000
TOTAL	1,903,418	1.000	2.4%	1.024	1.000
LIABILITY-					
OL&T	183,252	1.068	-2.7%	1.039	1.055
M&C	403,289	0.965	-0.9%	0.956	0.971
LOCAL PRODUCT	83,114	1.091	-5.3%	1.033	1.049
* MULTI PRODUCT	28,730	0.915	4.8%	0.959	0.964
TOTAL	698,385	1.000	-1.5%	0.985	1.000
-----					
PROP. & LIAB.	2,601,803		1.4%		0.0%
TOTAL					

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

INSURANCE SERVICES OFFICE, INC.

NORTH DAKOTA  
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	539,946	1.277	3.1%	1.317	1.398
BASIC GRP II	407,041	0.740	-6.7%	0.690	0.733
SP CAUSE/LOSS	162,210	0.832	-2.8%	0.809	0.859
* CRIME	6,351	0.835	0.0%	0.835	0.835
* INL. MAR.	2,603	0.910	0.0%	0.910	0.910
* FIDELITY	54,501	1.000	0.0%	1.000	1.000
TOTAL	1,172,652	0.970	-3.2%	0.939	0.990
LIABILITY-					
M&C	1,222,716	1.045	4.0%	1.087	1.034
LOCAL PRODUCT	32,268	0.688	-0.1%	0.687	0.654
* MULTI PRODUCT	200,999	0.864	9.6%	0.947	0.898
TOTAL	1,455,983	1.000	5.1%	1.051	1.000
-----					
PROP. & LIAB. TOTAL	2,628,635		1.4%		0.9%

CONTRACTORS(38) *****	(1) AGGREGATE LOSS COSTS	(2) CURRENT IMPLICIT PMF	(3) NET INDICATION	(4) INDIC. PMF	(5) CAPPED PMF
COVERAGE					
PROPERTY-					
BASIC GRP I	293,371	1.032	0.6%	1.038	1.069
BASIC GRP II	391,369	1.036	-4.4%	0.990	1.020
SP CAUSE/LOSS	111,862	0.794	-2.1%	0.777	0.801
* CRIME	184	0.835	0.0%	0.835	0.835
* INL. MAR.	1,022	0.910	0.0%	0.910	0.910
* FIDELITY	14,559	1.000	0.0%	1.000	1.000
TOTAL	812,367	1.000	-3.0%	0.970	1.000
LIABILITY-					
M&C	1,370,864	1.140	5.8%	1.206	1.197
LOCAL PRODUCT	1,195,590	0.850	-1.4%	0.838	0.832
TOTAL	2,566,454	1.000	0.8%	1.008	1.000
-----					
PROP. & LIAB. TOTAL	3,378,821		-0.1%		0.0%

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

INSURANCE SERVICES OFFICE, INC.

NORTH DAKOTA  
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	3,885,655	1.072	1.6%	1.089	1.102
BASIC GRP II	5,191,470	0.891	-4.1%	0.854	0.860
SP CAUSE/LOSS	1,732,195	0.893	-3.3%	0.864	0.871
* CRIME	31,263	0.835	0.0%	0.835	0.835
* INL. MAR.	493,503	0.910	0.0%	0.910	0.910
* FIDELITY	236,157	1.000	0.0%	1.000	1.000
<u>TOTAL</u>	<u>11,570,243</u>	<u>0.960</u>	<u>-3.1%</u>	<u>0.930</u>	<u>0.939</u>
LIABILITY-					
OL&T	2,201,060	1.032	-4.0%	0.991	0.981
M&C	3,219,711	1.070	3.9%	1.112	1.089
LOCAL PRODUCT	1,421,569	0.840	-1.3%	0.829	0.823
* MULTI PRODUCT	448,019	0.862	5.8%	0.912	0.897
<u>TOTAL</u>	<u>7,290,359</u>	<u>1.000</u>	<u>-0.3%</u>	<u>0.997</u>	<u>0.983</u>
-----					
PROP. & LIAB.	18,860,602		-2.0%		-2.0%
TOTAL					

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

INSURANCE SERVICES OFFICE, INC.

NORTH DAKOTA  
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	0.978	0.980
APARTMENT (32)	0.990	0.990	0.990
OFFICE (33)	0.960	0.916	0.920
MERCANTILE (34)	0.950	0.907	0.910
INSTITUTION(35)	0.910	0.872	0.870
SERVICES (36)	1.000	1.014	1.000
IND/PROC (37)	0.980	1.000	1.000
CONTRACTORS(38)	1.000	0.999	1.000

NOTE: Combined PMFs are provided for informational purposes only.

INSURANCE SERVICES OFFICE, INC.

NORTH DAKOTA  
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	0.577	0.037	0.980	0.987	
31	0.284	0.019	0.976	0.984	-0.3%
32	0.953	0.018	0.999	1.007	2.0%
33	0.105	0.007	0.984	0.992	0.5%
34	0.743	0.057	0.983	0.990	0.3%
35	0.507	0.028	0.981	0.988	0.1%
36	3.056	0.030	1.034	1.042	5.6%
37	1.538	0.025	1.011	1.018	3.1%
38	0.401	0.016	0.985	0.993	0.6%

INSURANCE SERVICES OFFICE, INC.

NORTH DAKOTA  
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	1.921	0.038	1.025	1.029	
31	0.933	0.013	0.999	1.003	-2.5%
32	0.846	0.030	0.995	0.999	-2.9%
33	0.832	0.016	0.997	1.001	-2.7%
34	0.657	0.064	0.973	0.977	-5.1%
35	0.941	0.030	0.998	1.002	-2.6%
36	0.921	0.031	0.997	1.001	-2.7%
37	0.806	0.018	0.996	1.000	-2.8%
38	1.184	0.015	1.003	1.007	-2.1%
CATEGORY					
1	0.997	0.338	0.999	1.000	
2	0.915	0.023	0.998	0.999	
3	1.152	0.016	1.002	1.003	
4	1.111	0.024	1.003	1.003	
5	1.133	0.013	1.002	1.002	
6	1.075	0.011	1.001	1.002	
7	0.876	0.006	0.999	1.000	
8	0.992	0.007	1.000	1.001	
9	0.829	0.021	0.996	0.997	
10	1.191	0.003	1.001	1.001	
11	1.117	0.017	1.002	1.003	
12	1.014	0.021	1.000	1.001	
13	0.905	0.010	0.999	1.000	
14	0.964	0.019	0.999	1.000	

INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	(1) ACCIDENT YEAR ENDING 12/31/19 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) RELATIVITY
-----				
ENTIRE STATE				
10 MONOLINE	760,336	3,834,747	0.496	0.577
31 MULTILINE MOTEL/HOTEL	337,829	1,901,159	0.244	0.284
32 MULTILINE APARTMENT	339,890	1,831,730	0.820	0.953
33 MULTILINE OFFICE	142,294	732,502	0.090	0.105
34 MULTILINE MERCANTILE	1,050,006	6,098,204	0.639	0.743
35 MULTILINE INSTITUTIONAL	615,429	2,928,071	0.436	0.507
36 MULTILINE SERVICES	566,890	3,043,326	2.629	3.057
37 MULTILINE INDUST/PROCESS	539,946	2,521,945	1.323	1.538
38 MULTILINE CONTRACTORS	<u>293,371</u>	<u>1,669,721</u>	<u>0.345</u>	<u>0.401</u>
TOTAL ALL TOPS*	4,645,991	24,561,405	0.860	1.000

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

INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 12/31/19 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) CREDIBILITY WEIGHTED EXPERIENCE RATIO	(5) CREDIBILITY WEIGHTED RELATIVITY
-----		-----	-----	-----	-----	-----
10 MONOLINE	01 BUILDINGS	197,260	1,066,424	1.775	1.637	1.935
	02 RES. APTS. AND COND	6,958	35,098	0.332	1.298	1.534
	03 OFFICES	13,553	74,423	0.072	1.234	1.459
	04 MERCANTILE - HIGH	15,417	77,144	1.412	1.534	1.813
	05 MERCANTILE - MEDIUM	3,695	24,933	0.038	1.236	1.461
	06 MERCANTILE - LOW	3,299	22,775	0.285	1.290	1.525
	07 MOTELS AND HOTELS	748	7,728	0.000	1.231	1.455
	08 INSTITUTIONAL - HIG	2,309	12,805	0.000	1.230	1.454
	09 INSTITUTIONAL - LOW	1,208	4,633	0.363	1.310	1.548
	10 INDUST-PROC - HIGH	1,913	6,022	0.911	1.427	1.687
	11 INDUST-PROC - LOW	13,519	86,157	2.256	1.723	2.037
	12 SERVICE - HIGH	12,412	57,219	3.170	1.923	2.273
	13 SERVICE - LOW	10,457	49,717	0.532	1.340	1.584
	14 CONTRACTORS	12,089	45,079	0.621	1.360	1.608
	TOTAL*	294,837	1,570,157	1.565	1.583	1.872
31 MULTILINE MOTEL/HOTEL	01 BUILDINGS	88,835	439,114	1.174	0.792	0.936
	07 MOTELS AND HOTELS	14,961	80,066	0.684	0.697	0.824
	TOTAL*	103,796	519,180	1.103	0.779	0.920
32 MULTILINE APARTMENT	01 BUILDINGS	167,308	930,777	0.766	0.717	0.848
	02 RES. APTS. AND COND	65,198	324,283	0.502	0.664	0.785
	TOTAL*	232,506	1,255,060	0.692	0.702	0.830
33 MULTILINE OFFICE	01 BUILDINGS	97,241	474,340	0.565	0.672	0.794
	03 OFFICES	29,016	158,362	3.687	1.144	1.352
	04 MERCANTILE - HIGH	-	174	0.000	1.000	1.000
	08 INSTITUTIONAL - HIG	40	172	0.000	0.615	0.727
	11 INDUST-PROC - LOW	-	166	0.000	1.000	1.000
	TOTAL*	126,297	633,214	1.282	0.781	0.922
34 MULTILINE MERCANTILE	01 BUILDINGS	346,337	2,113,418	0.333	0.555	0.656
	03 OFFICES	339	1,414	0.000	0.615	0.727
	04 MERCANTILE - HIGH	64,752	282,621	0.513	0.668	0.790
	05 MERCANTILE - MEDIUM	31,514	166,477	0.427	0.658	0.778
	06 MERCANTILE - LOW	20,868	135,733	0.259	0.635	0.751
	08 INSTITUTIONAL - HIG	90	288	0.000	0.615	0.727
	12 SERVICE - HIGH	1,720	13,447	0.000	0.614	0.726
	13 SERVICE - LOW	252	825	0.000	0.615	0.727
	14 CONTRACTORS	2,262	8,078	0.000	0.614	0.726
	TOTAL*	468,134	2,722,301	0.358	0.581	0.688

INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 12/31/19 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) CREDIBILITY WEIGHTED EXPERIENCE RATIO	(5) CREDIBILITY WEIGHTED RELATIVITY
-----	-----	-----	-----	-----	-----	-----
35 MULTILINE INSTITUTIONAL	01 BUILDINGS	188,760	849,343	1.086	0.798	0.943
	03 OFFICES	54	82	0.000	0.615	0.727
	08 INSTITUTIONAL - HIG	21,417	92,939	1.461	0.804	0.950
	09 INSTITUTIONAL - LOW	75,486	310,252	0.495	0.664	0.785
	12 SERVICE - HIGH	207	774	0.000	0.615	0.727
	13 SERVICE - LOW	3	300	0.000	0.615	0.727
	14 CONTRACTORS	21	90	0.000	0.615	0.727
	TOTAL*	285,948	1,253,780	0.957	0.763	0.902
36 MULTILINE SERVICES	01 BUILDINGS	170,665	879,839	0.716	0.783	0.926
	03 OFFICES	354	3,036	0.000	0.728	0.861
	04 MERCANTILE - HIGH	584	3,648	0.000	0.727	0.859
	05 MERCANTILE - MEDIUM	126	312	0.000	0.729	0.862
	06 MERCANTILE - LOW	103	667	0.000	0.729	0.862
	08 INSTITUTIONAL - HIG	1,142	4,558	0.000	0.727	0.859
	09 INSTITUTIONAL - LOW	706	3,605	0.000	0.727	0.859
	10 INDUST-PROC - HIGH	-	232	0.000	1.000	1.000
	11 INDUST-PROC - LOW	367	1,541	0.000	0.728	0.861
	12 SERVICE - HIGH	48,366	256,303	0.518	0.758	0.896
	13 SERVICE - LOW	18,586	104,534	0.689	0.802	0.948
	14 CONTRACTORS	443	3,069	7.187	1.565	1.850
	TOTAL*	241,442	1,261,344	0.676	0.780	0.922
37 MULTILINE INDUST/PROC	01 BUILDINGS	115,326	524,367	0.339	0.680	0.804
	03 OFFICES	14	85	0.000	0.729	0.862
	04 MERCANTILE - HIGH	17	1,000	0.000	0.728	0.861
	10 INDUST-PROC - HIGH	10,386	41,165	1.096	0.860	1.017
	11 INDUST-PROC - LOW	35,692	173,019	0.705	0.802	0.948
	13 SERVICE - LOW	507	1,056	0.000	0.728	0.861
	14 CONTRACTORS	268	799	0.000	0.728	0.861
TOTAL*	162,210	741,491	0.466	0.719	0.849	

INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 12/31/19 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) CREDIBILITY WEIGHTED EXPERIENCE RATIO	(5) CREDIBILITY WEIGHTED RELATIVITY
38 MULTILINE	01 BUILDINGS	68,670	376,224	1.495	0.994	1.175
CONTRACTORS	03 OFFICES	64	1,920	0.000	0.728	0.861
	04 MERCANTILE - HIGH	525	1,548	0.000	0.728	0.861
	06 MERCANTILE - LOW	115	270	0.000	0.729	0.862
	12 SERVICE - HIGH	205	898	0.000	0.728	0.861
	13 SERVICE - LOW	-	294	0.000	1.000	1.000
	14 CONTRACTORS	42,283	234,908	1.676	1.000	1.182
	TOTAL*	111,862	616,062	1.551	0.994	1.175
TOTAL ALL TOPS*	01 BUILDINGS	1,440,402	7,653,846	0.848	0.834	0.986
	02 RES. APTS. AND COND	72,156	359,381	0.486	0.725	0.857
	03 OFFICES	43,394	239,322	2.488	1.164	1.375
	04 MERCANTILE - HIGH	81,295	366,135	0.676	0.833	0.985
	05 MERCANTILE - MEDIUM	35,335	191,722	0.385	0.719	0.850
	06 MERCANTILE - LOW	24,385	159,445	0.260	0.725	0.856
	07 MOTELS AND HOTELS	15,709	87,794	0.651	0.723	0.854
	08 INSTITUTIONAL - HIG	24,998	110,762	1.252	0.839	0.992
	09 INSTITUTIONAL - LOW	77,400	318,490	0.488	0.674	0.797
	10 INDUST-PROC - HIGH	12,299	47,419	1.067	0.948	1.121
	11 INDUST-PROC - LOW	49,578	260,883	1.123	1.053	1.244
	12 SERVICE - HIGH	62,910	328,641	1.024	0.984	1.162
	13 SERVICE - LOW	29,805	156,726	0.616	0.988	1.168
	14 CONTRACTORS	57,366	292,023	1.422	1.064	1.257
	TOTAL*	2,027,032	10,572,589	0.864	0.846	1.000

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

INSURANCE SERVICES OFFICE, INC.

NORTH DAKOTA  
BASIC GROUP II RELATIVITY ANALYSIS  
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	(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)/ 0.887	CREDIBILITY C	CREDIBILITY WEIGHTED RELATIVITY D	BALANCED FORMULA RELATIVITY E	NORMALIZED FORMULA RELATIVITY F	INDICATED CHANGE
	-----	-----	-----	-----	-----	-----	-----	-----
MONOLINE	944,176	1.0320	1.1630	0.1600	1.027	1.0270	1.0358	
MULTILINE	5,191,470	0.8610	0.9710	0.5250	0.985	0.9850	0.9932	
	-----	-----	-----	-----	-----	-----	-----	
COVERAGE	6,135,646	0.8870	1.0010			0.9915	0.9998	
MULTILINE TOP								
31 MOTEL/HOTEL	262,654	0.3100	0.3490	0.0420	0.974	0.9570	0.9652	-6.8%
32 APARTMENT	654,273	1.0430	1.1760	0.1280	1.023	1.0050	1.0136	-2.1%
33 OFFICE	235,725	0.5690	0.6410	0.0480	0.984	0.9660	0.9743	-5.9%
34 MERCANTILE	1,354,926	0.7320	0.8250	0.2240	0.962	0.9450	0.9531	-8.0%
35 INSTITUTIONAL	877,235	0.8290	0.9350	0.1450	0.991	0.9730	0.9813	-5.3%
36 SERVICES	1,008,247	1.2570	1.4170	0.1840	1.078	1.0590	1.0681	3.1%
37 INDUST/PROCESS	407,041	0.5900	0.6650	0.0770	0.975	0.9580	0.9662	-6.7%
38 CONTRACTORS	391,369	0.8790	0.9910	0.0900	1.000	0.9820	0.9904	-4.4%
	-----	-----	-----	-----	-----	-----	-----	
	5,191,470	0.8610	0.9700		1.0030	0.9850	0.9932	

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

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

E - FOR UNCAPPED MULTILINE TOPS: (6) = (5) \* (0.985/1.003)

FOR CAPPED MULTILINE TOPS: (6) = (9) \* (1.027) / (8)

F - (7) = (6) / 0.9915

INSURANCE SERVICES OFFICE, INC.

NORTH DAKOTA  
OWNERS, LANDLORDS AND TENANTS  
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	1.243	0.094	1.021	1.029	
31	3.324	0.065	1.081	1.089	5.8%
32	1.404	0.047	1.016	1.025	-0.4%
33	0.606	0.066	0.967	0.976	-5.2%
34	0.259	0.074	0.905	0.914	-11.2%
35	2.169	0.064	1.051	1.059	2.9%
36	0.823	0.039	0.992	1.001	-2.7%
CLASS GROUP					
1	0.919	0.058	0.995	0.996	
2	1.961	0.037	1.025	1.026	
3	2.584	0.047	1.046	1.046	
4	1.958	0.021	1.014	1.015	
5	1.520	0.013	1.005	1.006	
6	0.770	0.021	0.995	0.995	
7	0.305	0.026	0.970	0.972	
8	0.320	0.025	0.972	0.974	
9	0.621	0.074	0.965	0.967	
10	0.244	0.061	0.918	0.918	
11	0.843	0.069	0.988	0.989	
12	1.618	0.083	1.041	1.041	
13	2.171	0.022	1.017	1.018	
16	0.037	0.007	0.977	0.978	

## INSURANCE SERVICES OFFICE, INC.

NORTH DAKOTA  
 MANUFACTURERS AND CONTRACTORS  
 BASIC LIMIT RELATIVE CHANGE ANALYSIS

TYPE OF POLICY	(1) BAILEY FORMULA RELATIVITY	(2) CREDIBILITY CREDIBILITY	(3) CREDIBILITY WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	(5) INDICATED CHANGE
10	0.783	0.100	0.976	0.979	
33	2.368	0.015	1.013	1.016	3.8%
34	0.387	0.037	0.965	0.970	-0.9%
35	0.896	0.015	0.998	1.002	2.3%
36	0.571	0.061	0.966	0.970	-0.9%
37	1.379	0.046	1.015	1.018	4.0%
38	1.331	0.113	1.033	1.036	5.8%
CLASS GROUP					
30	0.474	0.040	0.971	0.973	
31	1.846	0.053	1.033	1.035	
32	0.918	0.115	0.990	0.993	
33	0.920	0.066	0.995	0.997	
34	2.264	0.060	1.050	1.053	
35	1.652	0.018	1.009	1.011	
36	0.572	0.039	0.978	0.981	
37	0.428	0.015	0.987	0.991	
38	0.877	0.051	0.993	0.996	

INSURANCE SERVICES OFFICE, INC.

NORTH DAKOTA  
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. 12/31/19 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2015-2019 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIVITY	NUMBER OF OCCURRENCES	BAL CELL RELATIVITY
10 MONOLINE	01 FOOD&BEV.(RETAIL)	\$132,524	\$856,111	1.046	1.048	31	1.025
	02 RESTAURANTS	\$21,211	\$101,315	4.059	4.065	5	1.056
	03 STORES	\$8,434	\$122,108	2.799	2.804	10	1.076
	04 VENDING & RENTAL	\$1,778	\$10,336	1.543	1.545	4	1.045
	05 FOOD & BEV. DIST.	\$7,707	\$54,325	0.000	0.000	0	1.035
	06 NON-FOOD&BEV.DIST	\$4,490	\$51,479	0.938	0.939	3	1.025
	07 CLUBS,AMSMT&SPRTS	\$17,032	\$106,103	0.386	0.387	4	1.000
	08 HEALTH CARE FACIL	\$5,967	\$25,216	0.876	0.877	2	1.003
	09 HOTELS AND MOTELS	\$41,500	\$274,553	0.881	0.882	22	0.995
	10 SCHLS & CHURCHES	\$27,665	\$142,555	0.516	0.517	8	0.945
	11 APARTMENTS	\$241,917	\$1,042,290	0.937	0.939	47	1.018
	12 BUILDINGS&OFFICES	\$100,154	\$668,007	2.187	2.190	21	1.072
	13 MISC. PREMISES	\$3,655	\$25,593	0.625	0.626	3	1.048
	16 GOVT SUBDIVISIONS	\$399	\$2,800	0.000	0.000	0	1.007
	TOTAL *	\$614,433	\$3,482,791	1.247		160	
31 MULT MOTEL/HOTEL	09 HOTELS AND MOTELS	\$162,303	\$993,868	2.060	2.063	76	1.053
	TOTAL *	\$162,303	\$993,868	2.060		76	
32 MULT APARTMENT	11 APARTMENTS	\$90,389	\$541,595	1.472	1.475	38	1.014
	12 BUILDINGS&OFFICES	\$12,766	\$64,836	0.209	0.210	2	1.067
	TOTAL *	\$103,155	\$606,431	1.316		40	
33 MULT OFFICE	12 BUILDINGS&OFFICES	\$349,264	\$1,739,377	0.985	0.987	78	1.016
	13 MISC. PREMISES	\$1,645	\$7,138	0.000	0.000	0	0.994
	TOTAL *	\$350,909	\$1,746,515	0.981		78	
34 MULT MERCANTILE	01 FOOD&BEV.(RETAIL)	\$35,935	\$503,066	0.583	0.583	30	0.910
	02 RESTAURANTS	\$223,215	\$1,086,448	0.352	0.352	20	0.938
	03 STORES	\$80,729	\$371,192	0.690	0.691	27	0.955
	04 VENDING & RENTAL	\$1,309	\$5,080	0.000	0.000	0	0.928
	05 FOOD & BEV. DIST.	\$13,432	\$81,790	1.475	1.477	3	0.919
	06 NON-FOOD&BEV.DIST	\$21,467	\$122,095	0.202	0.203	5	0.910
	12 BUILDINGS&OFFICES	\$82,194	\$457,377	0.494	0.495	13	0.951
	TOTAL *	\$458,281	\$2,627,048	0.480		98	
35 MULT INSTITUT.	07 CLUBS,AMSMT&SPRTS	\$3,705	\$16,088	1.498	1.500	3	1.029
	08 HEALTH CARE FACIL	\$39,399	\$185,985	0.070	0.070	6	1.031
	10 SCHLS & CHURCHES	\$196,264	\$886,088	0.497	0.498	60	0.972
	12 BUILDINGS&OFFICES	\$228	\$3,218	1.875	1.878	2	1.103
	13 MISC. PREMISES	\$235	\$2,050	122.882	123.062	1	1.078
	16 GOVT SUBDIVISIONS	\$911	\$4,835	0.101	0.101	1	1.036
	TOTAL *	\$240,742	\$1,098,264	0.562		73	

INSURANCE SERVICES OFFICE, INC.

NORTH DAKOTA  
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. 12/31/19 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2015-2019 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIVITY	NUMBER OF OCCURRENCES	BAL CELL RELATIVITY
36 MULT SERVICES	03 STORES	\$3,252	\$10,480	2.614	2.618	2	1.047
	04 VENDING & RENTAL	\$3,531	\$33,410	2.243	2.246	4	1.016
	07 CLUBS,AMSMT&SPRTS	\$54,235	\$204,845	0.192	0.192	5	0.973
	08 HEALTH CARE FACIL	\$482	\$2,183	45.377	45.444	3	0.975
	09 HOTELS AND MOTELS	\$8,976	\$45,831	0.000	0.000	0	0.968
	10 SCHLS & CHURCHES	\$41	\$41	0.000	0.000	0	0.919
	12 BUILDINGS&OFFICES	\$16,388	\$128,312	1.346	1.348	8	1.042
	13 MISC. PREMISES	\$32,555	\$99,234	1.229	1.231	5	1.019
	TOTAL *	\$119,460	\$524,336	0.927		27	
TOTAL ALL TOP	01 FOOD&BEV.(RETAIL)	\$168,459	\$1,359,177	0.947		61	
	02 RESTAURANTS	\$244,426	\$1,187,763	0.674		25	
	03 STORES	\$92,415	\$503,780	0.950		39	
	04 VENDING & RENTAL	\$6,618	\$48,826	1.611		8	
	05 FOOD & BEV. DIST.	\$21,139	\$136,115	0.937		3	
	06 NON-FOOD&BEV.DIST	\$25,957	\$173,574	0.330		8	
	07 CLUBS,AMSMT&SPRTS	\$74,972	\$327,036	0.300		12	
	08 HEALTH CARE FACIL	\$45,848	\$213,384	0.651		11	
	09 HOTELS AND MOTELS	\$212,779	\$1,314,252	1.743		98	
	10 SCHLS & CHURCHES	\$223,970	\$1,028,684	0.500		68	
	11 APARTMENTS	\$332,306	\$1,583,885	1.083		85	
	12 BUILDINGS&OFFICES	\$560,994	\$3,061,127	1.121		124	
	13 MISC. PREMISES	\$38,090	\$134,015	1.869		9	
	16 GOVT SUBDIVISIONS	\$1,310	\$7,635	0.070		1	
TOTAL *	\$2,049,283	\$11,079,253	0.999		552		

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

## INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CLASS GROUP	(1)	(2)	(3)	(4)	(5)	(6)
		CALENDAR A.Y.E. 12/31/19 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2015-2019 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIVITY	NUMBER OF OCCURRENCES	BAL CELL RELATIVITY
10 MONOLINE	30 SERVICE	\$57,486	\$298,263	0.273	0.292	6	0.953
	31 LIGHT CONTRACTING	\$60,705	\$307,056	0.150	0.160	7	1.014
	32 MEDIUM CONTRCTING	\$556,006	\$3,362,346	0.660	0.706	82	0.972
	33 HEAVY CONTRACTING	\$721,241	\$3,671,995	0.758	0.810	39	0.976
	34 DEALER OR DISTRIB	\$147,594	\$591,125	1.780	1.904	25	1.031
	35 LGT. MANUFACTURER	\$22,941	\$129,503	0.693	0.741	4	0.991
	36 MED. MANUFACTURER	\$54,570	\$270,828	0.560	0.599	7	0.961
	37 HVY. MANUFACTURER	\$62,919	\$340,099	0.409	0.438	3	0.970
	38 MISC. OPERATION	\$57,381	\$263,104	0.683	0.730	8	0.975
	TOTAL *	\$1,740,843	\$9,234,319	0.754		181	
33 MULT OFFICE	31 LIGHT CONTRACTING	\$62	\$3,369	0.000	0.000	0	1.052
	32 MEDIUM CONTRCTING	\$428	\$2,880	0.000	0.000	0	1.008
	33 HEAVY CONTRACTING	\$8,281	\$55,967	0.000	0.000	0	1.013
	38 MISC. OPERATION	\$6,774	\$27,830	4.596	4.916	4	1.011
	TOTAL *	\$15,545	\$90,046	2.003		4	
34 MULT MERCANTILE	30 SERVICE	\$29,792	\$135,697	0.256	0.273	2	0.944
	32 MEDIUM CONTRCTING	\$6,492	\$30,711	0.619	0.662	2	0.963
	34 DEALER OR DISTRIB	\$79,294	\$413,646	0.731	0.782	16	1.021
	38 MISC. OPERATION	\$1,885	\$13,253	1.639	1.754	4	0.966
	TOTAL *	\$117,463	\$593,307	0.619		24	
35 MULT INSTITUT.	31 LIGHT CONTRACTING	\$0	\$806	0.000	0.000	0	1.038
	32 MEDIUM CONTRCTING	\$12,261	\$75,590	0.769	0.822	4	0.995
	TOTAL *	\$12,261	\$76,396	0.769		4	
36 MULT SERVICES	30 SERVICE	\$2,259	\$19,003	0.000	0.000	0	0.944
	31 LIGHT CONTRACTING	\$7,663	\$44,424	0.430	0.459	2	1.004
	32 MEDIUM CONTRCTING	\$10,688	\$76,160	0.356	0.381	6	0.963
	33 HEAVY CONTRACTING	\$26,006	\$168,124	1.414	1.512	2	0.967
	34 DEALER OR DISTRIB	\$44,477	\$244,681	1.149	1.229	24	1.021
	36 MED. MANUFACTURER	\$4,821	\$26,429	1.106	1.184	2	0.951
	38 MISC. OPERATION	\$166,986	\$782,451	0.354	0.379	31	0.966
	TOTAL *	\$262,900	\$1,361,272	0.606		67	

INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CLASS GROUP	(1)	(2)	(3)	(4)	(5)	(6)
		CALENDAR A.Y.E. 12/31/19 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2015-2019 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIVITY	NUMBER OF OCCURRENCES	BAL CELL RELATIVITY
37 MULT INDUST/PROC	31 LIGHT CONTRACTING	\$171	\$896	0.000	0.000	0	1.054
	32 MEDIUM CONTRACTING	\$16,232	\$100,834	0.053	0.057	2	1.011
	33 HEAVY CONTRACTING	\$510,172	\$1,983,879	1.256	1.344	14	1.015
	34 DEALER OR DISTRIB	\$2,987	\$10,349	0.000	0.000	0	1.072
	35 LGT. MANUFACTURER	\$10,203	\$46,895	3.290	3.519	2	1.030
	36 MED. MANUFACTURER	\$133,800	\$573,485	0.652	0.697	19	0.999
	37 HVY. MANUFACTURER	\$121,067	\$637,571	0.502	0.537	1	1.009
	38 MISC. OPERATION	\$2,445	\$14,042	0.000	0.000	0	1.014
	TOTAL *	\$797,077	\$3,367,951	1.033		38	
38 MULT CONTRACTORS	30 SERVICE	\$98,147	\$651,533	0.613	0.655	21	1.008
	31 LIGHT CONTRACTING	\$185,506	\$1,119,824	2.717	2.906	42	1.073
	32 MEDIUM CONTRACTING	\$436,979	\$3,042,462	1.199	1.283	143	1.029
	33 HEAVY CONTRACTING	\$172,042	\$843,387	0.539	0.577	23	1.033
	38 MISC. OPERATION	\$979	\$30,394	0.000	0.000	0	1.032
	TOTAL *	\$893,653	\$5,687,600	1.322		229	
TOTAL ALL TOP	30 SERVICE	\$187,684	\$1,104,496	0.445		29	
	31 LIGHT CONTRACTING	\$254,107	\$1,476,375	2.032		51	
	32 MEDIUM CONTRACTING	\$1,039,086	\$6,690,983	0.875		239	
	33 HEAVY CONTRACTING	\$1,437,742	\$6,723,352	0.916		78	
	34 DEALER OR DISTRIB	\$274,352	\$1,259,801	1.355		65	
	35 LGT. MANUFACTURER	\$33,144	\$176,398	1.493		6	
	36 MED. MANUFACTURER	\$193,191	\$870,742	0.637		28	
	37 HVY. MANUFACTURER	\$183,986	\$977,670	0.470		4	
	38 MISC. OPERATION	\$236,450	\$1,131,074	0.561		47	
TOTAL *	\$3,839,742	\$20,410,891	0.935		547		

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

INSURANCE SERVICES OFFICE, INC.

NORTH DAKOTA  
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	0.881	0.317	0.961	0.956	
34	0.979	0.343	0.993	0.987	3.2%
36	1.029	0.185	1.005	1.000	4.6%
37	1.086	0.477	1.040	1.035	8.3%
CLASS GROUP					
3	0.867	0.000	1.000	0.942	
4	1.109	0.447	1.047	1.044	
5	1.079	0.384	1.030	1.014	
6	0.977	0.130	0.997	0.996	
7	0.998	0.310	0.999	1.003	

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

DIFFERENTIALS: TOP 34: 0.993

TOP 36: 1.002

TOP 37: 1.012

INSURANCE SERVICES OFFICE, INC.

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

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

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

INSURANCE SERVICES OFFICE, INC.

NORTH DAKOTA  
 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	1.013	0.781	1.010	1.009	
34	1.059	0.502	1.029	1.028	1.9%
36	0.921	0.535	0.957	0.956	-5.3%
37	1.062	0.143	1.009	1.008	-0.1%
38	0.996	0.991	0.996	0.995	-1.4%
CLASS					
GROUP					
1	0.808	0.501	0.899	0.894	
2	0.989	0.512	0.994	0.989	
11	1.091	0.353	1.031	1.026	
12	1.018	1.000	1.018	1.012	
13	0.823	0.264	0.950	0.945	

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

STATE	(1)	(2)	(3)	(4)
	BAILEY FORMULA RELATIVITY	CREDIBILITY	CREDIBILITY WEIGHTED RELATIVITY	BALANCED RELATIVITY
	1.280	0.407	1.106	1.105
	1.226	0.480	1.103	1.103
	1.218	0.458	1.094	1.094
	1.437	0.240	1.091	1.091
	1.303	0.278	1.076	1.076
	1.118	0.581	1.067	1.067
	1.360	0.161	1.051	1.050
	1.190	0.265	1.047	1.047
	1.208	0.202	1.039	1.039
	1.362	0.116	1.036	1.036
	1.077	0.482	1.036	1.036
North Dakota	1.171	0.145	1.023	1.023
	1.102	0.196	1.019	1.019
	1.048	0.380	1.018	1.018
	1.050	0.362	1.018	1.017
	1.051	0.299	1.015	1.015
	1.047	0.330	1.015	1.015
	1.077	0.174	1.013	1.013
	1.048	0.250	1.012	1.011
	1.031	0.324	1.010	1.009
	1.049	0.135	1.006	1.006
	1.010	0.415	1.004	1.004
	1.020	0.177	1.003	1.003
	1.007	0.567	1.004	1.003
	1.020	0.155	1.003	1.003
	1.025	0.098	1.002	1.002
	0.992	0.454	0.996	0.996
	0.989	0.469	0.995	0.995
	0.975	0.380	0.990	0.990
	0.935	0.230	0.985	0.984
	0.888	0.133	0.984	0.984
	0.926	0.238	0.982	0.982
	0.971	0.595	0.983	0.982
	0.684	0.055	0.979	0.979
	0.895	0.190	0.979	0.979
	0.930	0.383	0.973	0.972
	0.812	0.165	0.966	0.966
	0.866	0.237	0.967	0.966
	0.734	0.160	0.952	0.951
	0.859	0.336	0.950	0.950
	0.896	0.470	0.950	0.949
	0.876	0.406	0.948	0.947
	0.918	0.645	0.946	0.946
	0.887	0.489	0.943	0.943
	0.776	0.230	0.943	0.943
	0.822	0.300	0.943	0.943
	0.796	0.267	0.941	0.941
	0.088	0.035	0.919	0.918
	0.644	0.196	0.917	0.917
	0.757	0.314	0.916	0.916
	0.796	0.387	0.916	0.915
	0.619	0.293	0.869	0.869

\* Sorted by balanced relative change

INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CLASS GROUP	(1)	(2)	(3)	(4)	(5)	(6)
		CALENDAR A.Y.E. 12/31/18 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2014-2018 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIV.	NUMBER OF OCCURRENCES	BAL CELL RELATIV.
10 MONOLINE	01 RET.STRS-FOOD/DRG	\$4,266	\$25,741	11.482	10.567	1	0.923
	02 RET.STRS-NTFD/DRG	\$5,029	\$41,406	0.474	0.436	2	1.021
	11 COMP. OPS. (LOW)	\$16,879	\$60,387	0.000	0.000	0	1.059
	12 COMP. OPS. (MED)	\$452,066	\$2,596,234	0.746	0.687	13	1.045
	13 COMP. OPS. (HGH)	\$116,294	\$612,212	1.476	1.358	2	0.975
	TOTAL *	\$594,534	\$3,335,980	0.943		18	
34 MULT MERCANTILE	01 RET.STRS-FOOD/DRG	\$21,851	\$91,018	0.132	0.121	3	0.940
	02 RET.STRS-NTFD/DRG	\$13,753	\$64,044	0.556	0.512	2	1.040
	12 COMP. OPS. (MED)	\$26,704	\$139,704	4.420	4.067	1	1.065
	TOTAL *	\$62,308	\$294,766	2.063		6	
36 MULT SERVICES	01 RET.STRS-FOOD/DRG	\$462	\$2,825	0.000	0.000	0	0.874
	02 RET.STRS-NTFD/DRG	\$34,779	\$197,241	1.602	1.475	14	0.967
	11 COMP. OPS. (LOW)	\$2,985	\$33,720	3.858	3.551	2	1.003
	12 COMP. OPS. (MED)	\$2,082	\$27,786	0.000	0.000	0	0.990
	13 COMP. OPS. (HGH)	\$6,517	\$58,142	0.000	0.000	0	0.924
	TOTAL *	\$46,825	\$319,714	1.436		16	
37 MULT INDUST/PROC.	01 RET.STRS-FOOD/DRG	\$8	\$14	0.000	0.000	0	0.921
	11 COMP. OPS. (LOW)	\$151	\$776	0.000	0.000	0	1.057
	12 COMP. OPS. (MED)	\$13,896	\$107,935	1.445	1.330	1	1.043
	13 COMP. OPS. (HGH)	\$4,124	\$22,230	0.000	0.000	0	0.974
	TOTAL *	\$18,179	\$130,955	1.104		1	
38 MULT CONTRACTORS	11 COMP. OPS. (LOW)	\$35,242	\$260,285	0.545	0.502	1	1.044
	12 COMP. OPS. (MED)	\$568,652	\$3,956,263	1.304	1.200	63	1.031
	13 COMP. OPS. (HGH)	\$69,678	\$514,319	3.237	2.979	12	0.962
	TOTAL *	\$673,572	\$4,730,867	1.464		76	
TOTAL ALL TOP	01 RET.STRS-FOOD/DRG	\$26,587	\$119,598	1.951		4	
	02 RET.STRS-NTFD/DRG	\$53,561	\$302,691	1.228		18	
	11 COMP. OPS. (LOW)	\$55,257	\$355,168	0.556		3	
	12 COMP. OPS. (MED)	\$1,063,400	\$6,827,922	1.144		78	
	13 COMP. OPS. (HGH)	\$196,613	\$1,206,903	2.020		14	
	TOTAL *	\$1,395,418	\$8,812,282	1.263		117	

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

## INSURANCE SERVICES OFFICE, INC.

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

TYPE OF POLICY	CLASS GROUP	(1)	(2)	(3)	(4)	(5)	(6)
		CALENDAR A.Y.E. 12/31/2019 AGGREGATE LOSS COSTS AT CURRENT LEVEL	CALENDAR A.Y.E. 2015 - 2019 AGG LOSS COST CURRENT LEVEL	FIVE YEAR EXPERIENCE RATIO	RELATIV.	NUMBER OF OCCURRENCES	BAL CELL RELATIV.
10 MONOLINE	01 RET.STRS-FOOD/DRG	2,438,315	11,481,124	0.912		601	
	02 RET.STRS-NTFD/DRG	2,987,973	14,421,548	1.083		495	
	11 COMP. OPS. (LOW)	5,121,852	24,832,256	1.466		645	
	12 COMP. OPS. (MED)	99,545,324	453,611,463	1.119		7,145	
	13 COMP. OPS. (HGH)	7,985,186	36,362,548	0.800		270	
	TOTAL *	118,078,650	540,708,939	1.107		9,156	
34 MULT MERCANTILE	01 RET.STRS-FOOD/DRG	8,416,670	39,973,133	0.852		2,982	
	02 RET.STRS-NTFD/DRG	5,558,740	26,332,002	1.248		672	
	12 COMP. OPS. (MED)	2,448,906	11,647,654	1.126		132	
	TOTAL *	16,424,316	77,952,789	1.027		3,786	
36 MULT SERVICES	01 RET.STRS-FOOD/DRG	848,644	4,334,228	1.308		191	
	02 RET.STRS-NTFD/DRG	14,186,650	58,805,129	0.951		2,767	
	11 COMP. OPS. (LOW)	3,222,726	15,414,850	1.074		482	
	12 COMP. OPS. (MED)	4,896,101	24,401,807	1.098		800	
	13 COMP. OPS. (HGH)	1,067,475	5,473,142	0.781		63	
	TOTAL *	24,221,596	108,429,156	1.002		4,303	
37 MULT INDUST/PROC.	01 RET.STRS-FOOD/DRG	18,708	99,531	0.356		1	
	11 COMP. OPS. (LOW)	112,068	571,925	1.066		19	
	12 COMP. OPS. (MED)	3,758,700	19,361,968	1.170		289	
	13 COMP. OPS. (HGH)	42,554	250,368	0.000		0	
	TOTAL *	3,932,030	20,283,792	1.150		309	
38 MULT CONTRACTORS	11 COMP. OPS. (LOW)	10,091,456	49,007,588	1.071		731	
	12 COMP. OPS. (MED)	164,631,197	819,983,232	1.102		13,301	
	13 COMP. OPS. (HGH)	14,387,699	69,460,015	0.947		720	
	TOTAL *	189,110,352	938,450,835	1.089		14,752	
TOTAL ALL TOP	01 RET.STRS-FOOD/DRG	11722337	55888016	0.896		3,775	
	02 RET.STRS-NTFD/DRG	22,733,363	99,558,679	1.041		3,934	
	11 COMP. OPS. (LOW)	18,548,102	89,826,619	1.180		1,877	
	12 COMP. OPS. (MED)	275,280,228	1,329,006,124	1.109		21,667	
	13 COMP. OPS. (HGH)	23,482,914	111,546,073	0.888		1,053	
	TOTAL *	351,766,944	1,685,825,511	1.087		32,306	

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

COMMERCIAL PACKAGE POLICY

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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**

NORTH DAKOTA (33)

**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	.99	1.00	1.00
Contractors	.90	1.00	1.00	1.00
Industrial & Processing	.90	.99	1.00	1.00
Institutional	.90	.85	1.00	1.00
Mercantile	.90	.91	.92	1.00
Motel/Hotel	.90	.97	1.00	1.00
Office	.90	.88	.95	1.00
Service	.90	1.00	1.00	1.00

**Table 1. Package Modification Factors**