

LOSS COSTS – IMPLEMENTATION

MARCH 26, 2024

COMMERCIAL PROPERTY

LI-CF-2024-029

## TENNESSEE COMMERCIAL FIRE AND ALLIED LINES ADVISORY PROSPECTIVE LOSS COST REVISION TO BE IMPLEMENTED

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### KEY MESSAGE

Revised advisory prospective loss costs reflecting a statewide loss cost level change of **+12.7%** to be implemented.

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### BACKGROUND

In circular [LI-CF-2023-124](#), we provided you with information about the Commercial Fire and Allied Lines loss cost level experience review.

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### ISO ACTION

We are implementing [CF-2024-RLA1](#), which presents a review of Commercial Fire and Allied Lines loss cost 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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### CONSIDERATION OF COVID-19

ISO has considered whether any adjustments need to be made to prospective loss costs, which are based partially on historical experience (pre-COVID-19), to reflect the conditions in which these loss costs will be effective (post-COVID-19). While there will almost certainly be long-term behavioral, social and economic changes as a result of COVID-19, we expect, that those changes will have negligible and/or offsetting effects on prospective loss costs. Considering the nature of the perils covered by Basic Group I (fire) and the weather driven perils covered by Basic Group II and Special Causes of Loss, ISO is not making any explicit adjustments to our Commercial Property prospective loss costs due to COVID-19.

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### SUPPLEMENTARY INFORMATION

We are including the following supplementary information:

- PCS Catastrophe List - A list of events that have been identified as catastrophes in the state by ISO's Property Claims Services, Inc.
- Section S, which provides Basic Group I experience on a Rating Group basis.

NOTE: This supplementary information is **not** part of the experience review document and, in states where we are making a filing, is **not** part of the filing.

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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 September 1, 2024.

The effective date applies only to those insurers who have filed their Commercial Fire and Allied Lines loss cost adjustments to be automatically applicable to future ISO loss cost revisions.

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**IMPACT ON THE STATISTICAL REPORTING OF LOSS COST MULTIPLIER**

For the purpose of reporting your company Loss Cost Multiplier under the CSP, as of September 1, 2024, the multiplier must be based on the relationship between your gross rates and the ISO advisory prospective loss costs contained in this circular.

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**COMPANY ACTION**

You must independently determine the final rates you will use. The action, if any, you must take in response to this filing is dependent upon how you filed to have your loss cost adjustments apply to subsequent revisions of ISO loss costs. Any submission you make with respect to this revision must comply with applicable regulatory filing requirements.

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

**WE WILL SUBMIT OUR REFERENCE FILING TO THE INSURANCE DEPARTMENT ON AUGUST 1, 2024. ANY SUBMISSION YOU MAY MAKE WITH THE INSURANCE DEPARTMENT WITH RESPECT TO THIS FILING SHOULD NOT BE SUBMITTED PRIOR TO THIS DATE.**

In all correspondence with the Insurance Department on this revision, you should refer to ISO Filing Number CF-2024-RLA1 and SERFF Tracking Number ISOF-134031623, NOT this circular number.

**CAUTION:** This reference filing revises only certain advisory prospective loss costs for Commercial Fire and Allied Lines in this state. In determining whether or not to revise your rates, you should consider the application of your loss cost adjustments to any loss costs not included in this revision.

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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-2024-016](#) 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 INFORMATION

- **Manual And ISO Suite**

We will issue a Notice to Manualholders with an edition date of 9-24 (or the earliest possible subsequent date), along with any new and/or revised manual pages.

- **ProMetrix**

Revised loss costs for specifically rated and class-rated properties contained in ProMetrix will be displayed as "Pending" beginning on April 29, 2024. On September 1, 2024, these loss costs will move to "Current" status. The previous "Current" becomes the most recent "Prior" and joins all previously displayed "Priors". With each subsequent loss cost revision, we will make an additional "Prior" available. Information in ProMetrix will distinguish between loss costs which reflect the effect of limit of insurance (LOI) relativities and pre-LOI loss costs.

- **Toll-free Telephone Service**

Revised loss costs for specifically rated and class-rated properties will be available by calling toll-free 1-800-444-4554 and requesting "Pending" from April 29, 2024 to September 1, 2024. On September 1, 2024, these loss costs will move to "Current" status. The previous "Current" becomes the most recent "Prior" and joins all previously displayed "Priors".

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## REFERENCE(S)

- [LI-CL-2024-016](#) (03/12/2024) Commercial Lines Revised Lead Time Requirements Listing
- [LI-CF-2023-124](#) (10/04/2023) Commercial Fire And Allied Lines Experience Level Indications Reviewed By ISO Staff

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## ATTACHMENT(S)

- CF-202X-RLA1
- PCS Catastrophe List
- Supplement containing Basic Group I experience on a Rating Group basis

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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' "Qualifications 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 the loss cost level indications shown in this document 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, Brian Klaif, am an Associate Actuarial Consultant 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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## AIR WORLDWIDE CORPORATION

This filing incorporates the use of AIR Worldwide Corporation's (AIR) tropical cyclone model to produce hurricane modeled loss costs as part of the Basic Group II ratemaking procedure. AIR is the world's premier risk modeling and technology firm specializing in risks associated with natural and man-made catastrophes, weather and climate. AIR has developed models covering all major natural hazards, including hurricanes and earthquakes, and man-made perils (terrorist events) for more than 40 countries throughout North America, the Caribbean, South America, Europe, and the Asia-Pacific region. AIR provides a full suite of integrated products for underwriting, pricing, portfolio management, risk transfer and financing.

For more information concerning AIR Worldwide Corporation, please see the Contact Information block.

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## XACTWARE SOLUTIONS, INC.

This filing incorporates the use of pricing data from Xactware Solutions, Inc., to estimate trends in building costs for commercial properties. Xactware provides computer software solutions for professionals involved in estimating all phases of building construction and repair. The company has been providing building cost data, estimate tracking and data trending to the insurance repair market since 1986. Insurance carriers using Xactware data are responsible for settlement of the majority of property claims in the USA and Canada.

For more information concerning Xactware Solutions, Inc., please see the Contact Information block.

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

## TENNESSEE

### COMMERCIAL FIRE AND ALLIED LINES INSURANCE PROSPECTIVE LOSS COST LEVEL REVISION EXECUTIVE SUMMARY

#### PURPOSE

This document:

- revises advisory prospective loss costs. These loss costs represent a +12.7% statewide change from the current ISO loss costs.
  - provides the analyses used to derive the prospective loss costs based on experience through calendar/accident year ending 6/30/2022, evaluated as of 9/30/2022.
  - introduces Basic Group I loss costs for the cannabis classes (0535, 0574, 0575, 0585, and 2205). See filing CF-2021-RCCLC.
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#### CONSIDERATION OF COVID-19

ISO has considered whether any adjustments need to be made to prospective loss costs, which are based partially on historical experience (pre-COVID-19), to reflect the conditions in which these loss costs will be effective (post-COVID-19). While there will almost certainly be long-term behavioral, social and economic changes as a result of COVID-19, we expect, that those changes will have negligible and/or offsetting effects on prospective loss costs. Considering the nature of the perils covered by Basic Group I (fire) and the weather driven perils covered by Basic Group II and Special Causes of Loss, ISO is not making any explicit adjustments to our Commercial Property prospective loss costs due to COVID-19.

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#### DEFINITION OF THE ISO PROSPECTIVE LOSS COST

Advisory prospective loss costs in this document are the expected value of that portion of a rate that does not include provisions for expenses (other than loss adjustment expenses) or profit, and are based on historical aggregate losses and loss adjustment expenses adjusted and projected through trending to a future point in time.

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## CHANGES TO METHODOLOGY

### Calculation of Aggregate Loss Costs at Current Level (ALCCL)

With the implementation of a new ratemaking system, we are now able to reflect risk count in the calculation of PPR (extension of exposure approach) used to calculate Aggregate Loss Costs at Current Level (ALCCL). When there are multiple risks having the same features and are reported as such, they are now counted separately, which more accurately reflects current statistical reporting instructions.

Premiums are both on-leveled and, where possible, PPR'd for the calculation of ALCCL. It should be noted that PPR cannot be calculated for some risks, e.g., Basic Group I specifically-rated risks for which there are no manual (class-rated) loss costs to be used for PPR'ing.

In both the old system and the new, ISO's ratemaking procedures include coding which compares the ALCCL results of using the PPR approach versus the on-level approach, then selects the appropriate result. In the old system, if multiple base records were being inadvertently calculated as if they were one base record, then often the PPR approach would result in too little ALCCL, but the on-level results would have accurately reflected the higher ALCCL of the multiple exposures. In the new system, if there are extra records being reported as if they are base records, which could result in the PPR method calculating them to have too much ALCCL, then the on-level approach would accurately reflect the lower ALCCL from fewer exposures. Because not all reporting errors can be caught, this system acts to ensure that a valid ALCCL amount is selected in both the old methodology and the new.

In addition, the PPR or on-level selection criteria has also been updated with our new programs. Because we now have the ability to make the system more granular, the decision of whether to use the PPR'd or on-leveled ALCCL is being made on a record basis rather than based on an aggregation over similar fields as was done in the old system, which we believe is more accurate.

The combination of reflecting risk count for PPR and selecting on-leveled vs. PPR'd ALCCL on a unit record basis results in more accurate ALCCL for ratemaking. Note that these changes only apply for those records that can be PPR'd and have no impact on those records that are on-leveled only.

## LOSS COST LEVEL CHANGES

The statewide monoline prospective loss cost level changes are:

<u>Coverage</u>	<u>Indicated</u>	<u>Selected (a)</u>
Basic Group I	9.1%	7.1%
Basic Group II	23.9%	23.9%
Special Causes of Loss	3.2%	3.2%
Total	13.6%	12.7%

Indicated loss cost level changes are changes from the current loss cost level.

(a) The Basic Group I loss cost changes for Memphis and Nashville have been capped at +25% in order to moderate loss cost level changes.



PRIOR ISO  
REVISIONS

The latest revisions in this state are:

<u>Reference Document or Filing</u>	CF-2021-RLA1	CF-2019-RLA1
<u>Rates/ Loss Costs</u>	Loss Costs	Loss Costs
<u>Dates Implemented</u>	08/01/2022	02/01/2020
<u>Changes</u>		
Basic Group I	3.9%	-1.8%
Basic Group II	12.9%	10.2%
Special Causes of Loss	0.1%	-1.1%
Total	6.6%	2.7%

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HISTORICAL  
SOURCE DATA

The data used in this revision is:

- Voluntary experience for ISO reporting companies.
  - Five calendar/accident years ending 6/30/2022 for Basic Group I and Special Causes of Loss.
  - Ten calendar/accident years ending 6/30/2022 for Basic Group II.
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DISTRIBUTION  
OF STATEWIDE  
MONOLINE  
LOSS COST  
CHANGES

ISO has distributed the statewide monoline prospective loss cost changes as follows:

- by territory (where applicable) for Basic Group I.
- by territory, coverage and symbol (where applicable) for Basic Group II.
- by category (building coverage and occupancy type) for Special Causes of Loss.

This has been done based on the experience of each territory (where applicable) or category for Basic Group I and Special Causes of Loss. Therefore, the resulting changes will vary by territory (where applicable) for Basic Group I and by category for Special Causes of Loss.

TREND AND  
OTHER  
ADJUSTMENTS

Loss Trend

For trend purposes, the period of use for this revision is assumed to begin on 06/01/2024. To adjust the loss experience to the levels expected to prevail while the revised loss costs are in effect, trend factors have been applied to the historical incurred losses. These trend factors are based on:

- external cost indices published by the U.S. Government and information provided by Xactware Solutions, Inc.
- changes in multistate average claim costs through fourth quarter 2021.

The "historic" trend factors based on the external indices, i.e. the factors based on historic changes in the indices, vary by year. The latest annual rates of change based on these indices are:

<u>Coverage</u>	<u>Annual Rate of Change</u>
Buildings	7.3%
Contents	7.8%
Time Element	7.3%

Incurred losses are also multiplied by loss trend adjustment factors (LTA's) to reflect trends in claim frequency and claim costs that are different from those exhibited by the external indices. The annual loss trend adjustments are:

<u>Line of Business</u>	<u>Buildings</u>	<u>Contents</u>	<u>Time Element</u>
Basic Group I	-0.3%	0.3%	1.8%
Basic Group II	0.5%	3.1%	2.4%
Special Causes of Loss	0.2%	-0.2%	1.8%

TREND AND  
OTHER  
ADJUSTMENTS  
(cont'd)

This produces a total annual loss trend of:

<u>Line of Business</u>	<u>Buildings</u>	<u>Contents</u>	<u>Time Element</u>
Basic Group I	7.0%	8.1%	9.2%
Basic Group II	7.9%	11.1%	9.9%
Special Causes of Loss	7.5%	7.6%	9.2%

Premium Trend

Over time, insureds tend to purchase increased amounts of insurance in order to compensate for inflation, which results in increased premium revenue.

In order to reflect this increase in revenue, ISO uses a premium trend procedure. The premium trend factors are based on observed changes in the annual amount of insurance written for BG I renewal policies for a group of selected companies. For property damage coverages, these amount of insurance, or exposure, trend factors are adjusted for the decrease in limit of insurance factors associated with the increase in amount of insurance to calculate premium trend factors. The selected annual trends in the amount of insurance are:

<u>Line of Business</u>	<u>Buildings</u>	<u>Contents</u>	<u>Time Element</u>
Basic Group I	3.9%	2.3%	1.6%
Basic Group II	3.5%	2.1%	1.6%
Special Causes of Loss	3.7%	1.8%	1.6%

Other Adjustments

Standard actuarial procedures have been used in calculating the loss costs including loss development and the reflection of all loss adjustment expense. In addition, smoothing procedures have been applied to stabilize the effects of large or excess losses.

TEN LARGEST  
COMPANY  
GROUPS IN  
ISO DATA BASE

COMMERCIAL MULTIPERIL - NON-LIABILITY (ASLOB 51)

1. Travelers Indemnity Company
2. Cincinnati Insurance Company
3. Tokio Marine Companies
4. Nationwide Mutual Insurance Company
5. Liberty Mutual Insurance Company
6. Westfield Insurance Company
7. Frankenmuth Mutual Insurance Company
8. Harford Mutual Insurance Company
9. Central Mutual Insurance Company
10. State Auto Mutual Insurance Company

Insurers are listed in descending order based on the percent of statewide written premium volume from Annual Statement Page 15 for year ending 12/31/2022 for Annual Statement Line of Business (ASLOB) 51, Commercial Multiperil - Non-liability.

Although ASLOB 51 includes coverages in addition to commercial fire and allied lines, e.g., crime, inland marine, fidelity, the largest percentage of premium volume is due to fire and allied lines (Basic Group I, Basic Group II, and Special Causes of Loss coverages). ASLOB 51 does not include data reported under monoline fire and allied lines (ASLOBs 10 and 21), which includes both commercial and personal property experience.

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SIZE OF ISO  
DATA BASE

The market share of all insurers reporting to ISO in this state and included in the ratemaking experience underlying this review as measured by Annual Statement Page 15 written premium for year ending 12/31/2022 is:

Commercial Multi-peril - Non-liability (ASLOB 51) - 26.6%

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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 loss costs contained herein are appropriate for its 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 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 projections based on the aggregate data.

Some calculations included in this document involve areas of ISO staff judgment. Each company should carefully review and evaluate its own experience in order to determine whether the ISO selected loss costs are appropriate for its use.

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

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## COMMERCIAL PROPERTY

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## OVERVIEW OF ISO ACTUARIAL PROCEDURES - COMMERCIAL PROPERTY

### INTRODUCTION

Commercial Property prospective loss costs are determined by evaluating the adequacy of the current ISO loss costs to pay for our best estimate of losses and all loss adjustment expenses that will be incurred in the prospective (or future) period. This evaluation is done separately for Basic Group I, Basic Group II, and Special Causes of Loss.

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### STEP 1: DETERMINATION OF INDICATED STATEWIDE LOSS COST LEVEL CHANGE

The first step in this process is the determination of the indicated statewide loss cost level change. This indicated statewide loss cost level change is the average percentage change which must be made to the current ISO loss costs in order to achieve adequacy for the prospective conditions. The percentage changes are presented on the exhibits labeled "Statewide Coverage Loss Cost Level Evaluation".

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### STEP 2: DISTRIBUTION OF CHANGES

Based on the experience, ISO then distributes the indicated statewide loss cost level change by territory (where applicable) and type of policy for Basic Group I; by type of policy for Basic Group II; and by type of policy and category for Special Causes of Loss.

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### STEP 3: CALCULATION OF REVISED LOSS COSTS

The last step is the calculation of the prospective ISO loss costs. This is achieved by applying the indicated monoline changes to the current ISO loss costs. For Basic Group I, for those states without BG I rating territories, the statewide loss cost changes are applied to the current manual loss costs. For those states with rating territories, the Balance of State loss cost changes are applied to the current manual loss costs. The revised territory multipliers are calculated by multiplying the current territory multipliers by the indicated territory changes. For specifically-rated properties, the appropriate changes are applied to the current experience level adjustment factors and territory multipliers. For Basic Group II, revised loss costs are calculated by applying the indicated statewide monoline change to the current ISO loss costs, and where applicable, adding the hurricane modeled loss costs. For Special Causes of Loss, revised loss costs are calculated by applying the indicated monoline changes by category to the current ISO loss costs.

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COMMERCIAL PROPERTY INSURANCE  
CALCULATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGES IN EXHIBITS B1-B3

OBJECTIVE	<p>The objective of this procedure is to determine the indicated statewide advisory loss cost level change. This procedure answers the question: What average percentage change must be made to the current ISO loss costs in order for them to be adequate to cover indemnity losses and all loss adjustment expenses incurred in the prospective period in which the revised loss costs are assumed to be in effect?</p>
DESCRIPTION	<p>This procedure compares the trended and developed incurred losses and loss adjustment expenses with the trended aggregate loss costs at current ISO level. The aggregate loss costs at current level are the amounts that would have been collected for losses and all loss adjustment expenses if the current ISO loss costs had been in effect during the experience period.</p> <p>Experience ratios (losses and all loss adjustment expenses divided by aggregate loss costs, both trended to the prospective experience period) are calculated by year, and a weighted average of the yearly experience ratios is calculated. For Basic Group I (BG I) and Special Causes of Loss (SCL), the five year weights vary by year, giving greater weight to the more recent experience. For Basic Group II (BG II), because of the more volatile nature of the data, the ten individual years are given equal weight.</p> <p>The average experience ratio is then credibility-weighted with the expected experience ratio in order to minimize the impact of random variation in the observed losses. The resulting credibility-weighted experience ratio is the indicated statewide advisory loss cost level change in decimal form.</p>
EXPERIENCE BASE	<p>The experience used in this review is the latest available data reported under the ISO Commercial Statistical Plan for BG I, BG II and SCL. The data are aggregated on an accident year basis.</p>

## EXPLANATORY NOTES TO EXHIBITS B1-B3

### STATEWIDE BASIC GROUP I, BASIC GROUP II AND SPECIAL CAUSES OF LOSS COVERAGE LOSS COST LEVEL EVALUATION

#### COLUMN (1)

##### EXPERIENCE PERIOD

Experience for the five most recent accident years is used for BG I and SCL.  
Experience for the ten most recent accident years is used for BG II.

#### COLUMN (2)

##### AGGREGATE LOSS COSTS

Since the objective of the ratemaking procedure is to test the adequacy of the current ISO loss costs, premium data for each year in the experience period are adjusted to the loss cost level which would have been earned had the current loss costs been in effect. This is accomplished by using either an extension-of-exposures (PPR or premium at present rates/loss costs) approach or an on-level approach. Where appropriate, certain reported data elements have been adjusted prior to being used in the calculations.

##### Extension of Exposures Approach

Where feasible, aggregate loss costs at current level (ALCCL) are developed using an extension-of-exposures approach. That is, the exposure (amount of insurance per \$100) for each policy is multiplied by the current manual loss cost for that state, territory, subline, coverage, construction, occupancy and by any other applicable rating factors, such as limit of insurance factors and deductible relativities.

##### On-Level Approach

The on-level approach is applied on an individual policy basis. The first step in the process is to multiply the reported premiums by the product of all loss cost level changes that have become effective subsequent to the inception date of the policy. The premiums are divided by the reported Rating Modification Factors and Loss Cost Multipliers to bring them to current ISO monoline manual loss cost level.

For premium records with inception dates prior to the effective date of the implementation of Limit of Insurance (LOI ) curves, premiums are multiplied by off-balance factors and limit of insurance factors to bring them to a post-LOI loss cost level.

The on-level approach is used to adjust those premium records which cannot be adjusted using the extension-of-exposures techniques, for example, premium records for Basic Group I specifically-rated properties, for which manual loss costs do not exist. In addition, records failing an exposure edit which checks for a reasonable relationship between reported premium and exposure amount have also been on-leveled.



STATEWIDE BASIC GROUP I, BASIC GROUP II AND  
SPECIAL CAUSES OF LOSS COVERAGE LOSS COST LEVEL EVALUATION (cont'd)

COLUMN (2)  
(cont'd)

Current IPMF and Prospective Amount of Insurance Levels

Premiums are also adjusted to prospective amount of insurance levels by exposure trend factors to reflect the impact of inflation on the average amount of insurance written (Exhibit C13). After multiline premiums are brought to current ISO monoline manual level, they are further adjusted to implicit package modification factor (IPMF) level by the application of Commercial Package Policy (CPP) IPMF's which vary by the eight CPP types of policy. (Both the adjustments to prospective amount of insurance level and to current IPMF level are done on an aggregate basis.) For a more complete description of the IPMF's and the other premium adjustments, refer to Exhibits C7 through C9 in the supporting material.

COLUMN (3)

ADJUSTED INCURRED LOSSES

In order to assure the adequacy of the proposed loss cost level, incurred losses are adjusted to reflect the effect of inflation and other trends on loss costs. The adjustment of past losses to prospective levels is accomplished on an individual loss basis by application of current cost factors, loss projection factors and loss trend adjustments (Exhibits C10 through C12). In addition to adjusting losses to prospective cost level, the effect of inflation on the deductible portion of the loss incurred is reflected.

For each subline, incurred losses are further adjusted by an excess loss procedure which smoothes fluctuations due to large loss occurrences. The procedure removes any losses determined to be excess from the total incurred losses, resulting in normal incurred losses. These normal incurred losses (total - excess) are then multiplied by excess loss factors to calculate adjusted incurred losses (Exhibits C18 through C21). The resulting adjusted incurred losses are then developed to their ultimate settlement value and loaded by a factor to include all loss adjustment expenses. Loss development factors can be found on Exhibit C17, and loss adjustment expense factors on Exhibit D6. Where appropriate, certain reported data elements have been adjusted prior to being used in the calculations.

COLUMN (4)

EXPERIENCE RATIO

The experience ratio is the ratio of adjusted incurred losses to aggregate loss costs for each year.

STATEWIDE BASIC GROUP I, BASIC GROUP II AND  
SPECIAL CAUSES OF LOSS COVERAGE LOSS COST LEVEL EVALUATION (cont'd)

COLUMN (5) - BG I, SCL    WEIGHTS

For Basic Group I and Special Causes of Loss, the yearly experience ratios are weighted using weights of 10%, 15%, 20%, 25%, and 30% with the greatest weight assigned to the most recent year. These weights recognize the need to balance stability and responsiveness. The ten Basic Group II experience ratios are equally weighted, each given 10% weight.

LINE (6) - BG I, SCL    WEIGHTED EXPERIENCE RATIO  
LINE (5) - BG II

For Basic Group I and Special Causes of Loss, the weights are applied to the experience ratios to yield the weighted experience ratio. For Basic Group II, the experience ratios are equally weighted. These weighted experience ratios represent a projection of the experience which would result if future policies were written without a loss cost level revision.

LINE (7) - BG I, SCL    CREDIBILITY  
LINE (6) - BG II

The standards for 100% credibility are discussed in detail in Exhibits C22, C23, and C24 for Basic Group I, Basic Group II, and Special Causes of Loss, respectively.

LINE (8) - BG I, SCL    EXPECTED EXPERIENCE RATIO  
LINE (7) - BG II

The expected experience ratio is ISO's best prediction of the experience ratio if the actual incurred experience were not available. For this review, we have assumed that the current loss costs were adequate when implemented and will be inadequate for the prospective period only to the extent of the net trend. The expected experience ratio is represented by the net (loss/amount of insurance) trend factor.

LINE (9) - BG I, SCL    CREDIBILITY WEIGHTED EXPERIENCE RATIO  
LINE (8) - BG II

The credibility weighted experience ratio is a weighted average of the weighted experience ratio (line (6) for BG I and SCL; line (5) for BG II) and the expected experience ratio (line (8) for BG I and SCL; line (7) for BG II) using the credibility factor and its complement as respective weights. For more detailed information regarding the development of the credibility factors, refer to Exhibits C22, C23, and C24.

LINE (10) - BG I, SCL    INDICATED COVERAGE LOSS COST CHANGE  
LINE (9) - BG II

The credibility weighted experience ratio yields the overall coverage loss cost level change for Basic Group I (see Exhibit B1), Basic Group II (see Exhibit B2), and Special Causes of Loss (see Exhibit B3).

## COMPOSITION OF THE RATEMAKING DATA BASE

### DATA INCLUDED

#### BASIC GROUP I

- . CSP Subline 010 (Commercial Fire)
- . CSP Subline 015 (Basic Group I, i.e., Fire, Lightning, Explosion, Vandalism, Sprinkler Leakage)
- . CSP Subline 016 (BG I excluding Vandalism)
- . CSP Subline 017 (BG I excluding Sprinkler Leakage)
- . CSP Subline 018 (BG I excluding Vandalism and Sprinkler Leakage)

#### BASIC GROUP II

- . CSP Subline 020 (Extended Coverage)
- . CSP Subline 025 (Basic Group II, i.e., Windstorm or Hail, Smoke, Aircraft or Vehicles, Riot or Civil Commotion, Sinkhole Collapse and Volcanic Action)
- . CSP Subline 027 (Basic Group II Causes of Loss, i.e., Windstorm or Hail, Smoke, Aircraft or Vehicles, Riot or Civil Commotion, Sinkhole Collapse and Volcanic Action)
- . CSP Subline 029 (Basic Group II Causes of Loss excluding Windstorm or Hail)

#### SPECIAL CAUSES OF LOSS

- . CSP Subline 028 (All Other Perils Special Coverage Forms & Endorsements)
- . CSP Subline 035 (Causes of Loss Special Form Including Theft)
- . CSP Subline 045 (Causes of Loss Special Form Excluding Theft)

### NOTES ON DATA INCLUDED

All CSP data are reviewed for CSP Types of Policy 10 (monoline), 3X, 70, and 7X (multiline).

For BG I, BG II and SCL, the reviewed experience is for property damage and time element coverages (coverage codes 1-7, as well as coverage code 9 reported under pre-simplification sublines 010, 020, and 028).

COMPOSITION OF THE RATEMAKING DATA BASE (cont'd)

<u>DATA EXCLUDED</u>	<u>TYPE OF DATA</u>	<u>BG I</u>	<u>BG II</u>	<u>SCL</u>
	• Non-voluntary experience (e.g. FAIR Plans)	X	X	NA
	• Dwelling experience	X	X	X
	• Farm experience	X	X	NA
	• Countrywide rated risks	X	X	X
	• Highly protected risks	X	X	X
	• Experience for policies with large deductibles	X	X	X

X indicates that experience is excluded.

Separately identifiable terrorism premium and loss records have been excluded from the ratemaking experience.

## OVERVIEW OF ISO ACTUARIAL PROCEDURES - COMMERCIAL PROPERTY

### STEP 2 - DISTRIBUTION OF LOSS COST LEVEL CHANGES

OBJECTIVE	<p>The objective of this procedure is to distribute the indicated statewide loss cost level change for Basic Group I, Basic Group II, and Special Causes of Loss among the various rating variables used in each subline. These procedures are used to answer the question: What percentage change for each rating variable must be made to the current ISO loss costs in order to achieve adequacy for the prospective conditions?</p> <hr/>
BASIC GROUP I	<p>For Basic Group I, a consolidated simultaneous iterative procedure is used to calculate the type of policy and territory relativities. More detail on this procedure is given in Exhibit B4. The type of policy relativities serve to price Commercial Package policies relative to monoline policies, via the Package Modification Factors (PMF), while the territory relativities serve to price the various territories relative to one another.</p> <p>The overall loss cost change is distributed across type of policy and territory. The indicated monoline change is the product of the monoline type of policy relativity, the territorial relativity, and the statewide loss cost level change.</p> <hr/>
BASIC GROUP II	<p>The purpose of the Basic Group II relativity analysis is to determine monoline loss cost level needs, to obtain marginal relativities displayed on Exhibit B8 and to price CPP policies relative to monoline policies via the PMFs. Unlike the BG I and SCL relativity analyses, the BG II relativity analysis does not employ a simultaneous review procedure because the overall loss cost change is distributed across type of policy only. The indicated statewide monoline change is the product of the monoline type of policy relativity times the statewide loss cost level change.</p> <hr/>

## OVERVIEW OF ISO ACTUARIAL PROCEDURES - COMMERCIAL PROPERTY

### STEP 2 - DISTRIBUTION OF LOSS COST LEVEL CHANGES (cont'd)

#### SPECIAL CAUSES OF LOSS

For Special Causes of Loss, a simultaneous iterative procedure is used as for BG I to arrive at a set of type of policy and category relativities (as displayed on Exhibit B5) that best represent the experience within each state. The type of policy relativities serve to price CPP policies relative to monoline policies via the PMFs, while the category relativities serve to price the various categories relative to one another.

The indicated monoline loss cost level changes are calculated for each category by taking the product of the monoline type of policy relativity, the category relativity and the statewide coverage loss cost change. See Exhibit B5 for the monoline loss cost indications.

The overall monoline loss cost level change is a weighted average of the 14 monoline category changes. In calculating this weighted average, the latest year monoline and multiline combined loss costs at current level are used as weights.

## EXPLANATORY NOTES TO EXHIBITS B4 AND B5

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

#### INTRODUCTION

The explanations which follow clarify Exhibits B4 and B5, 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 territorial loss cost level needs for Basic Group I;
- (2) determine monoline category loss cost level needs for Special Causes of Loss;
- (3) determine indicated changes to the eight CPP package modification factors (PMFs) based on Basic Group I/Special Causes of Loss experience.

#### COLUMN (1)

##### LEAST SQUARES FORMULA RELATIVITIES

The least squares formula relativities are the marginal relativities which result from the application of the simultaneous review procedure to the raw experience (where marginal refers to the relativities for a given rating variable, e.g. type of policy, across all subsets of any other rating variables, i.e. 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 PMFs); 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, nor 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 B4 AND B5 (cont'd)

COLUMN (1)  
(Cont'd)

The procedure follows 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 Exhibits B6 for Basic Group I and Exhibits B7 for Special Causes of Loss.) Specifically, the iteration procedure uses the following formulas:

BASIC GROUP I:

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

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

SPECIAL CAUSES OF LOSS:

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

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



## EXPLANATORY NOTES TO EXHIBITS B4 AND B5 (cont'd)

COLUMN (1)  
(cont'd)

- $TOP_i$  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;
- $W_{ik}$  is the loss cost volume at current level for the  $i$ th type of policy and  $k$ th territory;
- $R_{ij}$  is the experience ratio relativity for the  $i$ th type of policy and  $j$ th category (Special Causes of Loss);
- $R_{ik}$  is the experience ratio relativity for the  $i$ th type of policy and  $k$ th territory (Basic Group I);
- $m$  is the number of types of policy in the analysis;
- $n$  is the number of 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 is 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  $P$  represents the five-year aggregate adjusted 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 B4 AND B5 (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 MONOLINE LOSS COST LEVEL CHANGE

For Basic Group I, the indicated monoline loss cost changes are calculated for each territory by taking the product of the monoline type of policy (TOP 10) relativity, the territory relativity, and the statewide loss cost level change. (An example of such a calculation appears on Exhibit B4.)

The indicated overall statewide monoline loss cost level change shown at the bottom of the first page of Exhibit B4 is the aggregate loss cost-weighted average of the individual territory changes.

For Special Causes of Loss, the indicated monoline loss cost changes are calculated for each category by taking the product of the monoline type of policy (TOP 10) relativity, the category relativity, and the statewide loss cost level change. (An example of such a calculation is included in Exhibits B5.) The indicated overall statewide loss cost level change shown at the bottom of Exhibits B5 is the aggregate loss cost-weighted average of the individual category changes.

In all cases, the loss costs used in these calculations are the latest year's monoline and multiline combined adjusted loss costs.

## EXPLANATORY NOTES TO EXHIBITS B4 AND B5 (cont'd)

### MULTILINE CONSIDERATIONS

The type of policy (TOP) relativities are used to generate multiline indications which apply to the current implicit package modification factors (IPMF's). The indicated IPMF's are calculated as follows:

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

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 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 B4 and Exhibits B5.

It should be noted that although this procedure generates multiline indications, this filing only addresses monoline loss cost levels. That is, upon implementation of this filing only the monoline loss costs will be revised. The multiline indications developed here will be combined with those of the other component coverages, e.g. GL Premises and Operations in the CPP review for the purpose of revising the package modification factors.

## EXPLANATORY NOTES TO EXHIBITS B6

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

INTRODUCTION	<p>The experience used in the relativity analysis and displayed in Exhibit B6 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 Basic Group I large loss procedure and the Special Causes of Loss excess procedure. Losses have also been developed to their ultimate settlement value by application of loss development factors.</p>
COLUMN (1)	<p><u>2022 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>2018 - 2022 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>RELATIVITIES</u></p> <p>The relativities are the ratios of the five-year experience ratios shown in column (3) to the average five-year experience ratio for all TOP's and territories (where applicable) combined. These relativities represent how much better or worse than average the experience for a given cell is. They are used along with the aggregate loss costs in column (1) as input for the simultaneous review procedure.</p>

## EXPLANATORY NOTES TO EXHIBITS B7

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

INTRODUCTION	<p>The experience used in the relativity analysis and displayed in Exhibit B7 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 Basic Group I large loss procedure and the Special Causes of Loss excess procedure. Losses have also been developed to their ultimate settlement value by application of loss development factors.</p>
COLUMN (1)	<p><u>2022 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>2018 - 2022 AGGREGATE LOSS COSTS</u></p> <p>The combined five-year adjusted aggregate loss costs (adjusted as described above) are used to calculate the experience ratios in column (3).</p>
COLUMN (3)	<p><u>FIVE-YEAR EXPERIENCE RATIOS</u></p> <p>These are the ratios of the combined five-year adjusted incurred losses (adjusted as described above) to the combined five-year adjusted aggregate loss costs as shown in column (2). Any totals which are shown are weighted averages using the adjusted aggregate loss costs in column (1).</p>
COLUMN (4)	<p><u>CREDIBILITY (Z) WEIGHTED EXPERIENCE RATIO</u></p> <p>A credibility procedure is applied to the initial experience ratios in column (3) on a cell-by-cell basis prior to the simultaneous review procedure. The credibility values are calculated using an empirical Bayesian credibility procedure. In the following discussion, cell refers to an individual combination of TOP and category.</p>

## EXPLANATORY NOTES TO EXHIBITS B7 (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 B8

### BASIC GROUP II RELATIVITY ANALYSIS

#### INTRODUCTION

The explanations which follow clarify Exhibit B8, 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 CPP package modification factors (PMFs) based on Basic Group II experience.

#### COLUMN (1)

##### 2022 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)

##### 2013 - 2022 EXPERIENCE RATIO

These experience ratios are the ratios of the combined ten-year CSP adjusted incurred losses (adjusted to current deductible and prospective cost levels including loss development, and smoothed by the BG II 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. Unlike the BG I and SCL relativity analyses, the BG II 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.

EXPLANATORY NOTES TO EXHIBIT B8 (cont'd)

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 aggregate adjusted 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 in column (9) and the monoline balanced formula relativity in column (6), divided by the current IPMF in column (8).

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)

CURRENT IMPLICIT PMF

This is the current IPMF for each multiline type of policy.



EXPLANATORY NOTES TO EXHIBIT B8 (cont'd)

COLUMN (9)

INDICATED IMPLICIT PMF

The indicated IPMF is calculated from the normalized relativities as follows:

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

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 redone to take this into account. If an IPMF has been capped it is so noted in footnote A.

COLUMN (10)

INDICATED LOSS COST CHANGES

The indicated monoline and multiline (by TOP) changes are calculated by taking the product of the statewide loss cost level change and the corresponding TOP relativity.

The overall multiline loss cost level change is the aggregate loss cost weighted average of all multiline TOP loss cost level changes.

MULTILINE  
CONSIDERATIONS

It should be noted that although this procedure generates multiline indications, this filing only addresses monoline loss cost levels. That is, upon implementation of this filing only the monoline loss costs will be revised. The multiline indications developed here will be combined with those of the other component coverages, e.g. GL Premises and Operations in the CPP review for the purpose of revising the package modification factors.

## OVERVIEW

### AGGREGATE LOSS COSTS AT CURRENT LEVEL

Exhibit C1, C2 and C3 provide the overall loss cost/rate level histories for Basic Group I, Basic Group II, and Special Causes of Loss respectively. These tables, along with Exhibits C4 and C6, provide information on the on-level factors needed to bring collected aggregate loss costs to current loss cost level.

Exhibit C4 provides rate level/loss cost level histories by rating id (class vs. specific), rating group, and territory (where applicable) for Basic Group I, while Exhibit C6 provides rate level/loss cost level histories by category for Special Causes of Loss. These tables can be used to develop on-level factors appropriate to bring collected aggregate loss costs up to current loss cost level. Factors based on these tables are more appropriate for company use than the overall factors shown on Exhibits C1 and C3 if the company's mix of business differs substantially from the industrywide average. For example, if a company's business is very heavily concentrated in a single class or territory, it is more appropriate to use the rate level/loss cost history for that class rather than the overall average to develop on-level factors.

Exhibits C7, C8 and C9 provide the current implicit package modification factors (IPMFs) and IPMF caps for Basic Group I, Basic Group II and Special Causes of Loss.

### ADJUSTMENTS TO LOSSES

The loss projection factors, current cost factors, and loss trend adjustments shown on Exhibits C10, C11 and C12 reflect the combined impact of all economic influences on Commercial Property underwriting results and are used to project past underwriting results to future loss levels. They are intended to reflect the impact of inflation on loss payments, the impact of higher costs due to repairs done on an “emergency” basis, the impact of coinsurance and relative insurance to value on loss payments, and any other economic influences which can affect underwriting losses but for which specific provisions are not made. Losses have also been developed to their ultimate settlement value using factors shown on Exhibit C17.

### CREDIBILITY

Credibility,  $Z$ , is a weight given to the most recent body of data. The complement of credibility,  $1-Z$ , is the weight assigned to net trend. The final estimate is a weighted average obtained by using the formula  $C = Z \times R + (1-Z) \times N$ , where

$Z$  = credibility

$C$  = final estimate

$R$  = estimate based on the most recent data

$N$  = net trend

## OVERVIEW (cont'd)

### CREDIBILITY (cont'd)

Credibility may range from 0 to 1, where  $Z=1$  is full credibility and  $Z=0$  is no credibility. The actual numerical value of  $Z$  is calculated by considering how the state's volume of experience compares with the full credibility standard. Credibility is capped at 25% if the credibility calculated is less than 25%. See Exhibits C22, C23 and C24 for a complete explanation of the credibility standards for Basic Group I, Basic Group II, and Special Causes of Loss.

### LOSS COST/RATE LEVEL HISTORY

Loss cost/rate level histories are provided for Basic Group I, Basic Group II and Special Causes of Loss. The loss cost/rate level changes are then further split out by rating territory, rating group or category since a company's business may be more heavily concentrated in a single class. These histories can be used to develop on-level factors appropriate to bring collected aggregate loss costs up to current loss cost levels.

## EXPLANATORY NOTES TO EXHIBITS C1, C2 AND C3

### LOSS COST/RATE LEVEL HISTORIES

COLUMN (1) EFFECTIVE DATE

The effective dates of the latest loss cost/rate level changes are shown.

COLUMN (2) LOSS COST/RATE LEVEL CHANGE

The overall loss cost/rate level change is shown in percent form.

COLUMN (3) LOSS COST/RATE LEVEL INDEX

The product of all loss cost/rate level changes up to and including the loss cost/rate change for that effective date is used to calculate on level factors.

COLUMN (4) WRITTEN ADJUSTMENT (ON LEVEL) FACTORS

The factors are used to bring individual policies with inception dates prior to the effective date up to current loss cost level. For Basic Group II these are the actual factors used. However, the loss cost/rate changes for Basic Group I vary by rating id, rating group, and territory (where applicable), while the loss cost/rate level changes for Special Causes of Loss vary by category. Consequently, for these coverages the on-level factors represent average factors and are not the factors actually used to adjust the aggregate loss costs on an individual policy basis. For complete loss cost/rate level histories by rating id, rating group, and territory (where applicable) for Basic Group I and by category for Special Causes of Loss refer to Exhibits C4 and C6.

COLUMN (5) WEIGHT

The weight indicates the portion of the effective year for which the on level factors apply. These can be used to calculate average yearly factors.

EXPLANATORY NOTES TO EXHIBIT C4

HISTORY OF BASIC GROUP I LOSS COST/RATE CHANGES  
BY TERRITORY, RATING ID AND RATING GROUP

TERRITORY

The loss cost/rate level changes shown apply to the rating territory shown here.

EFFECTIVE DATE

The effective dates of the latest loss cost/rate level changes are shown.

LOSS COST/RATE LEVEL CHANGES

Loss cost/rate level changes are shown in percent form for each rating group.

EXPLANATORY NOTES TO EXHIBIT C6

HISTORY OF SPECIAL CAUSES OF LOSS  
LOSS COST/RATE LEVEL CHANGES BY CATEGORY

COLUMN (1)

EFFECTIVE DATE

The effective dates of the latest loss cost/rate level changes are shown.

COLUMN (2)

LOSS COST/RATE LEVEL CHANGES BY CATEGORY

Loss cost/rate changes are shown in percent form for each category. Refer to Exhibit D2 for definitions of the current 14 categories.

The prior category definitions (before implementation of the revised rating for Special Causes of Loss) are:

- 01 - Buildings
- 02 - Apartments Contents
- 03 - Office Contents
- 04 - Mercantile, Motel/Hotel and Institutional Contents
- 05 - Service, Industrial/Processing, and Contractors Contents

COMMERCIAL PACKAGE POLICY IMPLICIT PACKAGE MODIFICATION FACTORS (IPMF's)  
AND IPMF CAPS

IMPLICIT PACKAGE  
MODIFICATION  
FACTORS

Since multiline experience is included in the loss cost level evaluations, an additional adjustment is made to multiline aggregate loss costs after they have been brought to current ISO loss cost level. This adjustment is the application of implicit CPP package modification factors which vary for each of the eight CPP types of policy.

The loss costs used to price a Commercial Package Policy (CPP) are the monoline loss costs multiplied by the PMF to reflect the package policy discount for the particular type of CPP policy relative to the individual monoline policies. However, these PMF's measure the amount of multiline discount for all property coverages combined. A more accurate measure of the amount of multiline discount for each subline (e.g., Basic Group I, Basic Group II, or Special Causes of Loss) is the implicit package modification factor that was used to calculate the overall PMF for all property coverages combined.

For example, the published PMF for Apartments (all property coverages combined) may be .85, but the implicit PMF for Apartments, Commercial Basic Group I coverage only, may be .80. The average of the implicit PMF's for the various coverages is equal to the published PMF for each type of policy.

The current IPMF's by coverage for each CPP type of policy are applied to multiline aggregate loss costs at current level for Basic Group I, Basic Group II and Special Causes of Loss.

IPMF CAPS

For Basic Group I, Basic Group II, and Special Causes of Loss, the IPMF's lower caps are set at 0.50 and the upper caps are set at 1.50 for all TOP's.



EXPLANATORY NOTES TO EXHIBITS C7, C8 AND C9

IMPLICIT PACKAGE MODIFICATION  
FACTORS (IPMF's) AND IPMF CAPS

EXHIBITS C7, C8  
AND C9

These tables provide the current IPMF's and IPMF caps for Basic Group I, Basic Group II, and Special Causes of Loss. The IPMF's shown here are those which resulted from the most recent CPP revision. The IPMF lower caps are set at .50 and the upper caps are set at 1.50 for all TOP's.

## TREND PROCEDURE

### INTRODUCTION

The prospective loss cost levels established in this document reflect the anticipated claim cost and claim frequency levels and changes in revenue due to increased amounts of insurance purchased for the period when the new loss costs are assumed to be in effect.

### LOSS TREND

#### EXTERNAL LOSS DATA

For Commercial Property, the loss trend factors are referred to as current cost factors (CCF's) and loss projection factors (LPF's). These CCF's and LPF's are based on the following accepted economic indices:

1. Xactware Commercial Index (XCI) for buildings loss projection factors and current cost factors
2. Producer Price Index (PPI) published by the US Department of Labor (Finished Goods Less Energy, Not Seasonally Adjusted) for contents factors
3. Index for Manufacturers' Sales Exposure (IMSEP) developed by ISO using indices published by the Department of Commerce and Chain-Type Price Index for Retail Sales (RSALES) produced by the Bureau of the Census, Bureau of Economic Analysis for time element factors

The CCF's adjust losses for actual inflationary changes which have taken place between the accident date and the midpoint of the latest period of external trend information, i.e. 05/15/2023 for property damage and time element. The LPF's adjust losses for projected inflationary changes from the midpoint of the latest period of external trend information to the anticipated average date of accident for policies written under the proposed loss costs (assumed to be 12 months after the assumed revision date based on all one-year policies).

The CCF's and LPF's are calculated separately for buildings, contents, and time element coverages. For coverage 3 (buildings and contents on a combined basis), combined trend factors are calculated using the following weights for buildings and contents: 70%/30% for Basic Group I, 75%/25% for Basic Group II, and 50%/50% for Special Causes of Loss. For time element (coverages 4-9) the combined trend factors are calculated using 70%/30% weights for RSALES/IMSEP. The factors are applied by coverage to the losses reported under CSP and CMSP on an individual occurrence basis.

## TREND PROCEDURE (cont'd)

### LOSS TREND (cont'd)

#### LOSS TREND ADJUSTMENT - SEVERITY

An evaluation of the latest Commercial Property insurance data shows that the cost levels inherent in the property damage coverages are increasing at a different rate than those measured by the external indices. Therefore, to insure adequate prospective loss cost levels during the period for which loss costs are to be determined, loss trend adjustments (LTA's) have been applied. These factors were developed by comparing the annual rate of change in average claim costs to the annual rate of change in the external indices. (Refer to Exhibit C12 for the calculations.)

#### LOSS TREND ADJUSTMENT - FREQUENCY

In order to reflect total trend more precisely, a frequency component is included in the loss trend adjustment factors (LTA's) separately for buildings and contents for Basic Group I and contents only for Special Causes of Loss. No frequency component is used for Basic Group II and Special Causes of Loss buildings due to the extremely volatile nature of the coverages.

### AMOUNT-OF- INSURANCE TREND

Cost changes over time to both real and personal property result in insureds purchasing increased amounts of insurance. To reflect the impact of this phenomenon, amount of insurance trend factors are applied to collected loss costs to bring them to prospective amount of insurance levels. These factors are developed by measuring amount of insurance trends on a sample of renewal policies.

The application and development of these factors parallels loss trend factors in that separate factors are developed for buildings, contents, and time element, and the adjustment to prospective amount of insurance levels is done in two steps. The current written factors adjust loss costs to the amount of insurance level for the midpoint of the latest period of renewal information, i.e. July 1, 2022. Total amount of insurance trend factors are then calculated by projecting these current factors to the average date of writing (i.e. to the amount of insurance level six months beyond the assumed effective date).

## EXPLANATORY NOTES TO EXHIBIT C10

### PART A: XACTWARE, PRODUCER PRICE, IMSEP, RSALES INDICES AND COMBINED TIME ELEMENT

QUARTER	The quarter for which the indices shown apply.
XACTWARE COMMERCIAL INDEX (XCI)	The Xactware Commercial Index measures the costs of building material and repairs for commercial properties. The index, which is available since 1st Quarter 2005, is based on regular surveys of over 42,000 material and equipment suppliers and over 9,500 contractors, in addition to claims settlement data. The index values are created by estimating the cost to rebuild a sample set of different structures ranging in size, style, and quality in each economic market. The Xactware index is used in this filing to adjust for current cost from 1/1/05 to the midpoint of the latest index point and for determining the loss projection factor.
PRODUCER PRICE INDEX (PPI)	The Producer Price Index is a time series which measures the price level for a predetermined group of goods produced relative to the price level for an earlier point in time (2009). The PPI Finished Goods Less Energy is published by the U.S. Department of Labor.
PRICE DEFLATOR INDEX FOR MANUFACTURERS' SALES EXPOSURE (IMSEP)	<p>The price deflator index for manufacturers' sales exposure is a quarter's model of Manufacturers' Sales Exposure Proxy (MSEP) for the period in question relative to MSEP measured in chained 2012 dollars. The price deflator is defined as the GNP (Gross National Product) price deflator with government expenditures, investment in intellectual property products, inventory changes, and all services except food services removed.</p> $\text{MSEP} = (\text{CD} + \text{CN} + \text{FS}) + (\text{EXD\&N} - \text{IMD\&N}) + (\text{IFIX} - \text{IPP}), \text{ where}$ <p>CD and CN represent consumption of durables and nondurables, respectively; EXD&amp;N and IMD&amp;N represent exports and imports of merchandise, respectively; FS represents food services and IFIX represents gross private domestic fixed investment (including residential fixed investment as well as nonresidential fixed investment in structures, equipment, and intellectual property products); and IPP represents nonresidential fixed investment in intellectual property products.</p>
CHAIN-TYPE PRICE INDEX FOR RETAIL SALES (RSALES)	The Chain-Type Price Index for Retail Sales measures changes in losses due solely to inflation.

## EXPLANATORY NOTES TO EXHIBIT C10 (cont'd)

### PART B: COMPUTATION OF THE LOSS PROJECTION FACTORS

#### LOSS PROJECTION FACTOR

The loss projection factor is calculated by fitting a least squares exponential curve to the appropriate number of points (where the appropriate number of points is determined based on judgment and an examination of the goodness of fit as determined by the R-squared values subject to a maximum of 12 quarterly points for property damage and time element).

The table displays the indices for those points used in fitting the curve. The relevant equations are shown and the annual rate of change in the indices based on the exponential fit is developed. This annual rate of change is projected over the period which extends from the latest period of cost information to the average accident date of the projection period.

### PART C: CALCULATION OF CURRENT COST FACTORS (CCF'S)

#### CALENDAR YEAR AVERAGES

The calendar year averages are the averages of the Xactware, PPI and Time Element indices for the given year. These average indices measure the average cost level of each year relative to the base.

#### CURRENT COST FACTORS

The current cost factors are the ratios of the indices for the latest period of cost information divided by the average indices for each calendar year. These factors measure the changes in cost levels which have occurred from the midpoint of the given year to the latest point of cost information. In this regard, they represent average factors which would result if each year's losses were distributed evenly throughout the year.

For buildings, the index for the latest point is based on the latest available Xactware point.

Since losses are trended on a record by record basis, these calendar year factors are not actually used in ISO's trend calculations. Instead, factors are calculated from the bi-monthly or quarterly indices and applied to the unit losses based on the date of occurrence.

EXPLANATORY NOTES TO EXHIBIT C11

SUMMARY OF LOSS TREND ADJUSTMENTS (LTA'S)

COLUMN (1)

COVERAGE

The LTA's vary by coverage (buildings, contents, and time element) and line of business (BG I, BG II, and SCL).

COLUMN (2)

FIVE-YEAR INCURRED LOSSES

The five-year multistate incurred losses are used as weights to determine the annual LTA for all lines of business and coverages combined.

COLUMN (3)

ANNUAL LTA's

The LTA's are the factors which are applied to losses to supplement the external indices in order to correctly reflect cost level and claim frequency changes. These are shown here as annual factors. However, they are applied over the entire length of the trend period, i.e. from the date of loss occurrence to the anticipated average accident date under the revised loss costs. The severity portion of the LTA is applied on an individual record basis in the same manner as the CCF's and LPF's. The frequency portion of the LTA is applied to the aggregate losses.

## OVERVIEW

### DEVELOPMENT OF LOSS TREND ADJUSTMENTS

#### INTRODUCTION

In order to supplement the external indices reflected in CCF's and LPF's, loss trend adjustments (LTA's) have been developed based on internal loss data. This is necessary because the external indices alone have been insufficient in reflecting cost level and claim frequency changes in Commercial Property Insurance. The following tables show the calculations used to develop these LTA's. Please note the development of the LTA's for the 2023 COMFAL reviews is based on internal commercial property experience through 12/31/2021 and external cost indices through 12/31/2021. Therefore, the CCF's and LPF's shown on Exhibit C12 will not necessarily match those shown on Exhibit C10. ISO has determined that the selected LTAs are appropriate to be used with the latest external indices shown on Exhibit C10.

## EXPLANATORY NOTES TO EXHIBIT C12

### DEVELOPMENT OF LOSS TREND ADJUSTMENTS (LTA'S)

#### I. EXTERNAL RATE OF CHANGE

COLUMN (1), (2)  
AND (3)

##### CURRENT COST FACTORS

The CCF's underlying the LTA analysis are based on external cost indices through 12/31/2021 for buildings, contents and time element.

COLUMNS (4)  
AND (5)

##### WEIGHTS

The standard review weights are shown for each line of business.

LINES (6)

##### AVERAGE CURRENT COST FACTORS

The average CCF's for the experience period are calculated based on the weights shown in columns (4) and (5).

LINE (7)

##### LOSS PROJECTION FACTORS

The LPF's underlying the LTA analysis are shown here.

LINE (8)

##### TOTAL TREND

The total trend is the product of the average CCF and the LPF.

LINE (9)

##### EXTERNAL ANNUAL RATE OF CHANGE

The total trend is converted to an annual basis by raising it to the reciprocal of the number of years between the weighted midpoint of the experience period and the anticipated average accident date. For BG I and SCL the weighted midpoint of the experience period is 01/01/2020, for BG II it is 01/01/2017. Accordingly, there are 54 and 90 months, respectively, to the anticipated average accident date of 07/01/2024.

#### II. INTERNAL ANNUAL RATES OF CHANGES

LINE (10)

##### SELECTED COMFAL

The displayed annual rates of change in the average claim costs for BG I, BG II, and SCL were selected based on several least squares exponential fits of the annual claim costs for each subline. This was done to the most recent ten years of Commercial Property data using all companies in the ratemaking data base.



EXPLANATORY NOTES TO EXHIBIT C12 (cont'd)

III. LTA CALCULATION

COLUMN (11)

ANNUAL EXTERNAL

The annual external rates of change from column (9) are shown here.

COLUMN (12)

ANNUAL INTERNAL

The adjusted annual internal rates of change in average loss from line (10) are shown here.

COLUMN (13)

INDICATED SEVERITY LTA

The indicated severity LTA's are calculated by dividing the annual internal rates of change by the annual external rates of change.

COLUMN (14)

FORMULA SEVERITY LTA

The severity LTA's in column (13) are then selected to temper the full effect of internal trend data. Without such tempering, full weight would in effect be given to the internal data without any consideration of the external cost indices.

COLUMN (15)

FREQUENCY EFFECT

The displayed annual rates of change in claim frequency for BG I and SCL were selected based on several least squares exponential fits of the claim frequency by subline. No frequency trend was selected for BG II and SCL buildings due to the extremely volatile nature of the coverage.

COLUMN (16)

FINAL LTA

The final LTA is the combination of the severity and frequency trend adjustments, calculated as column (14) times column (15), in factor form.

EXPLANATORY NOTES TO EXHIBIT C13  
EXPOSURE AND PREMIUM TREND FACTORS

Exhibit C13 contains Exposure trend factors, Premium trend factors for Basic Group I, Basic Group II and Special Causes of Loss respectively, building and contents. As annual written exposures increase (decrease), the resulting limit of insurance factors used for rating decrease (increase) and the combined effect should be reflected when trending premiums to future level. There are separate premium trend factor tables for Basic Group I, Basic Group II and Special Causes of Loss since there are separate limit of insurance curves for BG I, BG II and SCL.

For Time Element, exposure trend factors are also used to trend premiums, i.e., there are not separate Time Element premium trend factors because Time Element does not use limit of insurance factors for rating.

COLUMNS (1)  
AND (5)                      ANNUAL WRITTEN INCREASE

The annual written increases for buildings, contents, and time element are calculated from the actual changes in amount of insurance from one year to the next for a sample of renewal policies (based on BG I experience). The change in amount of insurance for each policy in the sample was weighted with its prior year's premiums to obtain a weighted average change for each year. The Annual Written Increase in Premiums (Exhibit C13) are calculated as the Annual Written Increase in Exposure tempered by the change in Limit of Insurance factor.

COLUMNS (2)  
AND (6)                      07/01/2022 WRITTEN FACTORS

The written factors for a given year are the product of the written annual changes for all years subsequent to that year. Although the 2022 written changes are based on two quarters of data, the consistency of this experience allows for the assumption that written changes for the first half of 2022 are applicable for the entire year.

COLUMNS (3)  
AND (7)                      12/01/2024 PROJECTED FACTORS

The 12/01/2024 factors are calculated by applying a factor to adjust the 07/01/2022 written factors to the amount of insurance level at the average date of writing, 12/01/2024. This is done using the selected annual changes in exposure or premium.

COLUMNS (4)  
AND (8)                      12/01/2024 EARNED EXPOSURES/PREMIUM FACTORS

The projected earned factors at the 12/01/2024 level (where 12/01/2024 is the average date of writing in the effective period) are calculated by earning the written factors assuming all one-year policies. The earning factors are shown in footnote (c).

EXPLANATORY NOTES TO EXHIBITS C14, C15 AND C16

BG I, BG II, AND SCL ADDITIONAL INFORMATION ON TREND ADJUSTMENTS

COLUMN (1)                      UNADJUSTED INCURRED LOSSES

The unadjusted incurred losses are the reported losses prior to any adjustment.

COLUMN (2)                      TRENDED INCURRED LOSSES

The trended incurred losses are the aggregate of the individual losses trended on a unit record basis.

COLUMN (3)                      AVERAGE TREND FACTOR

The average trend factors are the trended incurred losses in column (2) divided by the unadjusted incurred losses in column (1). Although average factors could be calculated from the information contained in Exhibits C10 through C12, they would differ from the factors shown in this table for the following reasons:

- (1) In calculating such averages, the usual assumption is that the losses are spread evenly throughout the year, yielding the midpoint of each year as the average date of loss. A predominance of losses at a certain time of the year could shift the average accident date away from the midpoint.
- (2) The average trend factors will be slightly higher due to the impact of trend on the deductible.

COLUMN (4)                      PERCENTAGE SPLIT BETWEEN BUILDINGS, CONTENTS, AND TIME ELEMENT

The current cost factors and loss projection factors are different for buildings, contents, and time element. Therefore, in addition to the reasons cited above, the average trend factors will differ from state to state depending on the buildings/contents/time element split. Companies with splits substantially different from the industrywide averages shown here may find it appropriate to develop trend factors which reflect their own coverage mix.

## LOSS DEVELOPMENT

### INTRODUCTION

For Commercial Property, losses are evaluated as of September 30, 2022, three months after the end of the latest experience year used in the review. In order to account for development of losses beyond fifteen months and to reflect overall loss development patterns, loss development was incorporated into the adjustment process of incurred losses to their ultimate settlement value.

### LOSS DEVELOPMENT PROCEDURES

The application of loss development factors recognizes the fact that not all of the Commercial Property losses for a particular accident year have been finally determined at the time the experience is compiled.

The incurred losses underlying the statewide loss cost level indications were evaluated as of September 30, 2022.

Accident year ended June 30, 2022 includes all losses paid on accidents from July 1, 2021 to June 30, 2022 and all losses outstanding on those accidents as of September 30, 2022, fifteen months after the inception of the accident year. Similarly, accident years ended 2021, 2020, 2019 and 2018 include all losses paid and outstanding as of 27, 39, 51 and 63 months, respectively, after the inception of the accident year.

Thus, the immature experience reported as of 15, 27, 39 or 51 months must be adjusted to an ultimate settlement basis. This adjustment is accomplished through the use of loss development factors based on the historic multistate Basic Group I, Basic Group II, and Special Causes of Loss incurred losses as shown in Exhibit C17.

## EXPLANATORY NOTES TO EXHIBIT C17

### LOSS DEVELOPMENT

#### INTRODUCTION

Exhibit C17 shows multistate incurred loss development exhibits for Basic Group I, Basic Group II and Special Causes of Loss. The exhibits on Exhibit C17 are arranged identically for each subline and can be summarized as listing the following information: incurred losses by accident year and age, age-to-age factors by accident year, and age-to-ultimate factors.

#### INCURRED LOSSES

The multistate incurred losses are shown by accident year and age at the top of Exhibit C17. The multistate incurred losses are evaluated as of 15, 27, 39, 51 and 63 months. For Basic Group II, losses due to hurricanes reflected in the modeled hurricane loss costs have been removed from the experience for each rating territory and loss month.

#### AGE-TO-AGE DEVELOPMENT FACTORS

Age-to-age development factors or link ratios are calculated for each accident year. These age-to-age factors are calculated by dividing the incurred losses evaluated at each age by the incurred losses evaluated at the immediately preceding age. For example, 27:15 month age-to-age factors are calculated by taking the losses evaluated as of 27 months and dividing them by the losses evaluated as of 15 months, for each accident year. Age-to-age development factors are also calculated for 39:27 months, 51:39 months and 63:51 months. Latest five-year averages are then determined for each age-to-age interval.

#### AGE-TO-ULTIMATE DEVELOPMENT FACTORS

Age-to-ultimate factors are then calculated for the latest four years by multiplying the five-year average age-to-age development factors. These age-to-ultimate factors are then used in the adjustment of incurred losses to develop losses to their ultimate settlement value.

## EXCESS LOSS PROCEDURES

### INTRODUCTION

If not addressed, the presence or absence of large losses during the review period can produce significant fluctuations in loss cost levels. In order to develop a more stable body of experience, large losses have been smoothed. This procedure removes any excess losses from the experience and applies excess loss factors to the resultant state normal losses to generate the adjusted incurred losses. The adjusted losses developed in this manner replace the incurred losses in the loss cost level evaluation.

### BASIC GROUP I

First, the excess portion of each large loss is removed from the trended loss experience.

Individual claim amounts that result from the same occurrence are grouped together, and if the total loss for one occurrence exceeds the normal loss cutoff (at 2005 cost levels), the total loss is identified as a large loss. Each large loss is then split into its normal and excess portions based on the normal loss cutoff.

The Basic Group I normal loss cutoff begins at \$250,000 and varies with the size of loss up to a maximum normal amount (approached asymptotically) of \$1,250,000. (The formula and a graph are shown on Exhibit C18.) The portion of each large loss exceeding the cutoff is considered excess and the portion of any loss up to the cutoff is considered normal.

As noted above, the excess loss procedure is performed on trended loss experience (i.e. loss experience adjusted to prospective cost levels by the current cost factors, loss projection factors, and loss trend adjustment factors (for claim cost only) shown in Exhibits C10 through C11). The loss trend adjustment for frequency trend is not reflected at this step in the process. The normal breakpoint of \$250,000 for BGI and the parameters in the normal loss formula are at 2005 cost levels and therefore have been similarly adjusted to prospective cost levels.

Both the normal and total incurred losses are aggregated over all states by construction, protection, and amount of insurance intervals. The most recent ten years of experience are used in this analysis. Excess loss factors by construction, protection and amount of insurance are then calculated as the ratios of the ten year multistate incurred losses to the ten-year multistate normal losses.

These factors are then smoothed by fitting curves (by amount of insurance intervals) to the indicated factors. The resulting factors are then balanced so the original ten-year multistate incurred loss level is maintained.

## EXCESS LOSS PROCEDURES (cont'd)

### BASIC GROUP I (cont'd)

The excess factors are then applied to the state normal losses, which are maintained in the same detail (construction, protection and amount of insurance) as well as by year, territory, rating group and TOP. The state normal losses used in this calculation have also been trended for frequency.

The excess loss factors vary by construction, protection and the amount of insurance because these are the most significant severity-related rating variables.

### BASIC GROUP II

Since catastrophic wind losses affect both the frequency and severity of loss, the Basic Group II excess procedure identifies periods of overall adverse experience, rather than individual large losses. Also, due to the extreme volatility of windstorm losses, a long-term review period (1950 - present) is used to estimate the expected excess losses.

Loss ratio cutoffs are used to determine normal losses, state excess losses, and regional excess losses for each year in the long-term review period. The application of these cutoffs is detailed in the explanatory notes to Exhibit C20. The state excess losses are used to determine the state excess component of the state excess multiplier, and the regional excess losses are used to determine the regional excess component. ("BASIC GROUP II REGIONS" is a list of states by region.) The state excess multiplier is derived in such a manner as to provide an estimate of the expected excess loss dollars per normal loss dollar.

The state excess multiplier is applied to each accident year in the ten-year experience period used in the review. In this way, a review database is created reflecting both the current normal loss experience and the average excess loss experience based on the long-term review. This allows a concurrent evaluation of both the normal and the excess components of the BG II loss cost level.

### SPECIAL CAUSES OF LOSS

Similar to Basic Group II, the Special Causes of Loss (SCL) smoothing procedure uses a loss ratio approach to reflect both the frequency and severity of unusual loss events which may produce significant fluctuations in loss cost levels. The excess procedure uses longer term statewide SCL experience (1986 - present) to account for the volatile nature of weather related losses (water damage from bursting pipes, or the weight of ice, sleet, or snow) which are the predominant cause of large SCL losses in a given experience period. A monthly normal loss ratio cutoff of 2.0 is used to define normal and excess losses. The resulting ratio of excess to normal losses over the long-term experience period is then applied to the normal losses used in the loss cost level review. SCL has a lower loss ratio cutoff than that used in Basic Group II in order to reflect the less catastrophic nature of unusual SCL loss events. The calculations underlying the smoothing procedure are described in the Explanatory Notes to Exhibit C21.

EXPLANATORY NOTES TO EXHIBIT C18

COUNTRYWIDE BASIC GROUP I EXCESS LOSS FACTORS

EXCESS LOSS  
FACTORS

The multistate excess loss factors are the ratios of the ten-year multistate adjusted incurred losses to the ten-year multistate adjusted normal losses (both adjusted for severity trend). They are determined separately by construction, protection and amount of insurance range. Due to credibility considerations, both constructions and protections have been consolidated as shown. The amount of insurance ranges are also shown.



## EXPLANATORY NOTES TO EXHIBIT C19

### BASIC GROUP I ADDITIONAL EXCESS LOSS INFORMATION

#### COLUMN (1) TRENDED INCURRED LOSSES

The trended incurred losses are the aggregate of all individually-trended loss records prior to any adjustment for large losses. They are shown here fully trended for severity.

#### COLUMN (2) TRENDED NORMAL LOSSES

The normal losses are the aggregate of the normal portions of each loss occurrence. These are also fully trended.

#### COLUMN (3) STATE NORMAL PERCENTAGE

The state normal percentages are the statewide normal losses divided by the statewide trended incurred losses. These percentages can be used in conjunction with the multistate percentages and actual dollar amounts of normal losses to assess the state loss experience. For example, consistently lower state normal percentages relative to multistate normal percentages could indicate that the state has a greater propensity for large losses.

#### COLUMN (4) MULTISTATE NORMAL PERCENTAGES

The multistate normal percentages are the multistate normal losses divided by the multistate trended incurred losses. As noted above these can be used as a yardstick against which the statewide experience can be measured.

#### COLUMN (5) SMOOTHED INCURRED LOSSES

The smoothed incurred losses are the totals across all constructions, protections and exposures of the fully trended normal losses multiplied by the excess loss factors.

#### COLUMN (6) STATE AVERAGE EXCESS FACTOR

The state average excess factors are the smoothed incurred losses in column (5) divided by the normal losses in column (2). These factors represent the annual averages of the factors calculated separately by construction, protection and amount of insurance. The average excess factor reflects the normal loss mix by construction, protection and exposure. Heavy concentration in those subsets of the data with high excess factors will result in large average factors.

## EXPLANATORY NOTES TO EXHIBIT C20

COLUMN (1)

### EARNED PREMIUMS

The unadjusted earned premiums are shown for each year.

COLUMN (2)

### INCURRED LOSSES

The unadjusted incurred losses are shown for each year.

COLUMN (3)

### NORMAL INCURRED LOSSES

Normal losses which are shown for each year are defined as follows:

- for losses reported under CSP (for which month of loss detail is available), that portion of each month's losses which does not exceed 2.5 times that month's earned premiums.
- for losses reported under CRSP, SCOH and SMP (for which month of loss detail is not available), that part of each year's losses which does not exceed 0.733 times that year's earned premiums.

COLUMN (4)

### NORMAL LOSS RATIO

For each year in the excess review period, the normal loss ratio is calculated as the ratio of the normal losses (for CSP data the sum of each month's normal losses) to the earned premiums for the same year.

COLUMN (5)

### STATE EXCESS LOSS RATIO

The state excess loss ratio is the ratio of the state excess losses to the unadjusted earned premium. The state excess losses are determined by the following formulas:

$$\cdot \quad EP \times \frac{20(LR-2.5)}{(LR-2.5)+20} \text{ if } LR > 2.5; \text{ otherwise } 0$$

for CSP, where EP = the monthly earned premiums, LR = the monthly loss ratio and the yearly state excess losses are the sum of the monthly state excess losses.

$$\cdot \quad EP \times \frac{2.2(LR-0.733)}{(LR-0.733)+2.2} \text{ if } LR > 0.733; \text{ otherwise } 0$$

for CRSP, SCOH, SMP, where EP = the earned premiums and LR = the yearly loss ratio.

EXPLANATORY NOTES TO EXHIBIT C20 (cont'd)

COLUMN (6)

REGIONAL EXCESS LOSS RATIO

If  $LR > NLR$ , then the regional excess loss ratio is:

regional excess loss ratio =  $LR - SELR - NLR$

where             $SELR$  = the state excess loss ratio,  
                      $NLR$  = the normal loss ratio, and  
                      $LR$  = the loss ratio

LINE (7)

STATE EXCESS COMPONENT

The state excess component is determined by dividing the sum of all state excess loss ratios by the sum of all normal loss ratios (where the sum is taken across all accident years).

LINE (8)

REGIONAL EXCESS COMPONENT

The regional excess component is determined by dividing the weighted average (determined, in each case, against the latest year unadjusted premium distribution) of the sum of regional excess loss ratios of all the states in the region by the weighted average of the sum of all loss ratio points retained by a state (normal and state excess loss ratios) of all the states in the region. See the following page for the appropriate BG II region for the state.

LINE (9)

STATE EXCESS MULTIPLIER

The state excess multiplier is derived by taking the product of the state excess component and the regional excess component.

## BASIC GROUP II REGIONS

### NORTHEAST REGION

CONNECTICUT  
DELAWARE  
DIST OF COLUMBIA  
MAINE  
MARYLAND  
MASSACHUSETTS  
NEW HAMPSHIRE  
NEW JERSEY  
NEW YORK  
PENNSYLVANIA  
RHODE ISLAND  
VERMONT  
VIRGINIA

### PLAINS REGION

ARKANSAS  
COLORADO  
IOWA  
KANSAS  
MINNESOTA  
MISSOURI  
MONTANA  
NEBRASKA  
NORTH DAKOTA  
OKLAHOMA  
SOUTH DAKOTA  
WYOMING

### SOUTHEAST REGION

ALABAMA  
FLORIDA  
GEORGIA  
LOUISIANA  
MISSISSIPPI  
NORTH CAROLINA  
SOUTH CAROLINA  
HAWAII

### MIDWEST REGION

ILLINOIS  
INDIANA  
KENTUCKY  
MICHIGAN  
OHIO  
TENNESSEE  
WEST VIRGINIA  
WISCONSIN

### WEST REGION

ARIZONA  
CALIFORNIA  
IDAHO  
NEVADA  
NEW MEXICO  
OREGON  
UTAH  
WASHINGTON  
ALASKA

EXPLANATORY NOTES TO EXHIBIT C21

SPECIAL CAUSES OF LOSS ADDITIONAL EXCESS LOSS FACTOR

COLUMN (1)                      EARNED PREMIUMS

These are the unadjusted earned premiums for each year.

COLUMN (2)                      INCURRED LOSSES

These are the unadjusted incurred losses for each year.

COLUMN (3)                      NORMAL INCURRED LOSSES

The normal incurred losses are shown for each year. The normal incurred losses are defined to be that portion of each month's losses which does not exceed 2.0 times the monthly earned premiums.

COLUMN (4)                      NORMAL LOSS RATIO

The normal loss ratio for each year is the ratio of the normal incurred losses for each year divided by the earned premiums for the year.

Column (4) = Column (3) ÷ Column (1)

COLUMN (5)                      EXCESS LOSS RATIO

The excess loss ratio for each year is the ratio of the excess losses to the earned premium for the year. The excess losses are calculated as the incurred losses minus the normal incurred losses for each year.

LINE (6)                          EXCESS COMPONENT

The excess component is determined by dividing the sum of the excess loss ratios by the sum of the normal loss ratios, where the sums are taken across all years in the excess review period.

LINE (7)                          EXCESS MULTIPLIER

The excess multiplier is derived by adding unity to the excess component.

## OVERVIEW

### APPLICATION OF CREDIBILITY

#### INTRODUCTION

Credibility,  $Z$ , is a weight given to the most recent body of data. The complement of credibility,  $1-Z$ , is the weight assigned to net trend. The final estimate is a weighted average obtained by using the formula  $C = Z \times R + (1-Z) \times N$ , where:

$Z$  = credibility

$C$  = final estimate

$R$  = estimate based on the most recent data

$N$  = net trend

Credibility may range from 0 to 1, where  $Z=1$  is full credibility and  $Z=0$  is no credibility. The actual numerical value of  $Z$  is calculated by considering how the state's volume of experience compares with an established full credibility standard. Credibility is capped at 25% if the credibility calculated is below 25%. See Exhibits C22, C23, and C24 for a complete explanation of the credibility standards for Basic Group I, Basic Group II, and Special Causes of Loss.

EXPLANATORY NOTES TO EXHIBITS C22, C23 AND C24

BASIC GROUP I, BASIC GROUP II, AND SPECIAL CAUSES OF LOSS  
STATEWIDE CREDIBILITY CALCULATION

LINE (1a)  
(BGI only)

Full Credibility Claims Standard of Frequency

Based on a Poisson distribution, the minimum sample size of claims is determined such that the probability that the actual number of claims will be within 5% of the expected number of claims is greater than 95%.

LINE (1b)  
(BGI only)

Severity Modification Factor

This factor, defined as  $(1 + S^2 / M^2)$ , is used to modify the claims standard to reflect variance due to severity, where S is the standard deviation and M is the mean of the loss severity distribution (on a normal loss basis).

LINE (1c) - BGI  
LINE (1) - BGII, SCL

Full Credibility Claims Standard

For Basic Group I, this standard is the product of the frequency standard in line (1a) and the severity modification factor in line (1b). For Basic Group II and Special Causes of Loss, standards for full credibility of 30,000 claims for BGII and 25,000 claims for SCL were selected to balance stability and responsiveness.

LINE (2)

Multistate Experience Period Ratio of Earned Risks to Claims

This ratio was determined based on Commercial Statistical Plan data for the latest experience period (Five years for Basic Group I and Special Causes of Loss; Ten years for Basic Group II).

LINE (3)

Full Credibility Earned Risks Standard

To translate the claims standard to an equivalent standard based on earned risks, the claims standard (line (1c) for BGI, (1) for BGII and SCL) is multiplied by the multistate experience period ratio of earned risks to claims (line (2)).

LINE (4)

Experience Period Statewide Earned Risks

This is the number of earned risks in the state for the experience period.

EXPLANATORY NOTES TO EXHIBITS C22, C23 AND C24 (cont'd)

LINE (5) Experience Period Aggregate Loss Costs

These are the state's experience period adjusted aggregate loss costs.

LINE (6) Statewide Experience Period Ratio of Aggregate Loss Costs to Earned Risks

This ratio is determined by dividing the state's experience period adjusted aggregate loss costs by its experience period earned risks.

LINE (7) Full Credibility Aggregate Loss Costs Standard

To translate the risk standard into an aggregate loss cost standard on a state by state basis, the ratio (line (6)) is multiplied by the full credibility earned risks standard (line (3)).

LINE (8) Credibility

The state's credibility is calculated by using the square root credibility formula:

$$Z = \sqrt{\frac{P}{C}}$$

where Z = credibility,  
P = statewide five-year adjusted aggregate loss costs (line (5)), and  
C = full credibility aggregate loss costs standard (line (7)).

When the indicated credibility is below 25%, a minimum cap of 25% is assigned to the state credibility in order to reasonably reflect the state's experience in the coverage change calculation.



## OVERVIEW

### LOSS ADJUSTMENT EXPENSE FACTORS

OBJECTIVE	The reported indemnity losses must be loaded for any loss adjustment expenses (LAE) that are not reported in statistical detail to ISO.
PROPERTY COVERAGES	For the property coverages, only the incurred indemnity losses are reported to ISO under the Commercial Statistical Plan. All loss adjustment expenses must be loaded in. A factor representing the ratio of incurred losses plus all LAE to incurred losses was selected based on multistate financial data (see Exhibit D6 for the underlying data).
EXPERIENCE INCLUDED	Fire and Allied Lines incurred loss and loss adjustment expense experience for 2017-2021 is displayed on Exhibit D6. The experience is based on Insurance Expense Exhibit information compiled by A.M. Best. For Allied Lines, the loss adjustment expense ratios [Exhibit D6, line (3)(b)] for a few years are distorted by unusual catastrophe-related losses and loss adjustment expenses. The selected Allied Lines loss adjustment expense factor used for this review was selected after consideration of this distortion and based on a review of average loss adjustment expense ratios over a longer time period.
SELECTED FACTORS	The following factors have been used in this review to load incurred losses for all loss adjustment expenses:

Basic Group I	1.090
Basic Group II	1.105
Special Causes of Loss	1.105

## TENNESSEE

SUMMARY OF MONOLINE PROSPECTIVE LOSS COST CHANGES (A)

<u>Coverage</u>	<u>Indications</u>	<u>Selections (B)</u>	<u>Aggregate Loss Costs At Current Level</u>
Basic Group I	+9.1%	+7.1%	43,202,166
Memphis	+31.8%	+25.0%	
Nashville	+35.9%	+25.0%	
Balance Of State (Tennessee)	+1.8%	+1.8%	
Basic Group II	+23.9%	+23.9%	39,313,413
Special Causes of Loss	+3.2%	+3.2%	20,613,631
All Coverages Combined	+13.6%	+12.7%	103,129,210

(A) For trend purposes, the period of use for this revision is assumed to begin on 06/01/2024.

(B) Basic Group I loss cost changes by territory have been capped at +25% in order to moderate loss cost level changes.

## TENNESSEE

SPECIAL CAUSES OF LOSS PROSPECTIVE LOSS COST CHANGES BY CATEGORY

<u>Category</u>	<u>Description</u>	<u>Entire State</u>
01	Buildings	+4.7%
02	Res. Apts. And Condos	+3.0%
03	Offices	-0.2%
04	Mercantile - High	-2.7%
05	Mercantile - Medium	+13.2%
06	Mercantile - Low	-0.5%
07	Motels And Hotels	+0.7%
08	Institutional - High	+3.5%
09	Institutional - Low	-6.0%
10	Indust-Proc - High	+2.5%
11	Indust-Proc - Low	+3.6%
12	Service - High	-12.0%
13	Service - Low	-2.5%
14	Contractors	-1.8%
	Statewide Total	+3.2%

## TENNESSEE

POTENTIAL IMPACT OF BG I, BG II, AND SCL MONOLINE REVISIONS  
ON COMMERCIAL PACKAGE POLICY

	(1)	(2)	(3)	(4)
	Type of Policy	Basic Group I	Basic Group II	Special Causes of Loss
31	Motel/Hotel	5.9%	23.9%	3.9%
32	Apartment	9.8%	23.9%	4.5%
33	Office	5.8%	23.9%	3.2%
34	Mercantile	6.6%	23.9%	4.5%
35	Institutional	6.5%	23.9%	2.5%
36	Services	6.6%	23.9%	0.6%
37	Indust/Processing	3.9%	23.9%	4.1%
38	Contractors	5.6%	23.9%	1.0%

Basic Group I, Basic Group II, and Special Causes of Loss monoline changes by type of policy (TOP) are displayed. They are calculated by taking a weighted average of the loss cost changes by territory (where applicable) for BGI, or by category for SCL, using the latest year multiline aggregate loss costs as weights. Basic Group II monoline changes do not vary by TOP because the same monoline loss cost change is applied statewide.

## TENNESSEE

STATEWIDE BASIC GROUP I  
COVERAGE LOSS COST LEVEL EVALUATION

(1)	(2)	(3)	(4)	(5)
<u>Year</u>	<u>Aggregate*</u> <u>Loss Costs</u>	<u>Adjusted**</u> <u>Incurred Losses</u>	<u>Experience</u> <u>Ratio</u> <u>(3)/(2)</u>	<u>Weights</u>
2018	40,267,744	28,521,805	0.708	0.10
2019	38,874,524	37,688,345	0.969	0.15
2020	37,915,419	44,293,026	1.168	0.20
2021	39,815,241	40,490,634	1.017	0.25
2022	43,202,166	44,671,485	1.034	0.30
(6) Weighted Experience Ratio				= 1.014
(7) Credibility				= 0.359
(8) Expected Experience Ratio				= 1.042
(9) Credibility Weighted Experience Ratio (0.359 X 1.014 ) + (0.641 X 1.042)				= 1.032
(10) Indicated Coverage Loss Cost Change				= 1.032
				OR 3.2%

\* Aggregate Loss Costs are adjusted to current ISO Loss Cost Level and 12/01/2024 Amount of Insurance levels.

\*\* Incurred Losses are adjusted to 06/01/2025 cost levels including Loss Development and all Loss Adjustment Expenses.

## TENNESSEE

STATEWIDE BASIC GROUP II  
COVERAGE LOSS COST LEVEL EVALUATION

(1)	(2)	(3)	(4)	(5)
	Aggregate*	Adjusted**	Experience	
<u>Year</u>	<u>Loss Costs</u>	<u>Incurred Losses</u>	<u>Ratio</u>	<u>Weights</u>
			<u>(3)/(2)</u>	
2013	32,550,640	41,539,612	1.276	0.10
2014	31,837,491	27,529,169	0.865	0.10
2015	32,617,593	24,184,640	0.741	0.10
2016	32,914,238	18,034,410	0.548	0.10
2017	31,840,200	80,534,953	2.529	0.10
2018	33,520,131	29,335,744	0.875	0.10
2019	34,567,483	20,871,363	0.604	0.10
2020	35,190,906	88,883,764	2.526	0.10
2021	36,671,733	39,367,006	1.073	0.10
2022	39,313,413	51,152,503	1.301	0.10
(6) Weighted Experience Ratio				= 1.234
(7) Credibility				= 0.456
(8) Expected Experience Ratio				= 1.056
(9) Credibility Weighted Experience Ratio (0.456 X 1.234 ) + (0.544 X 1.056)				= 1.137
(10) Indicated Coverage Loss Cost Change				= 1.137
				OR 13.7%

\* Aggregate Loss Costs are adjusted to current ISO Loss Cost Level and 12/01/2024 Amount of Insurance levels.

\*\* Incurred Losses are adjusted to 06/01/2025 cost levels including Loss Development and all Loss Adjustment Expenses.

## TENNESSEE

STATEWIDE SPECIAL CAUSES OF LOSS  
COVERAGE LOSS COST LEVEL EVALUATION

(1)	(2)	(3)	(4)	(5)
<u>Year</u>	<u>Aggregate*</u> <u>Loss Costs</u>	<u>Adjusted**</u> <u>Incurred Losses</u>	<u>Experience</u> <u>Ratio</u> <u>(3)/(2)</u>	<u>Weights</u>
2018	19,011,657	26,002,167	1.368	0.10
2019	19,152,401	14,137,770	0.738	0.15
2020	18,986,610	29,439,500	1.551	0.20
2021	19,682,783	31,599,218	1.605	0.25
2022	20,613,631	19,855,573	0.963	0.30
(6) Weighted Experience Ratio				= 1.248
(7) Credibility				= 0.318
(8) Expected Experience Ratio				= 1.050
(9) Credibility Weighted Experience Ratio (0.318 X 1.248 ) + (0.682 X 1.050)				= 1.113
(10) Indicated Coverage Loss Cost Change				= 1.113
				OR 11.3%

\* Aggregate Loss Costs are adjusted to current ISO Loss Cost Level and 12/01/2024 Amount of Insurance levels.

\*\* Incurred Losses are adjusted to 06/01/2025 cost levels including Loss Development and all Loss Adjustment Expenses.

TENNESSEE  
BASIC GROUP I RELATIVITY ANALYSIS

	(1)	(2)	(3)	(4)	Statewide Coverage Loss Cost Change Of	1.032 3.2%
<u>TOP</u>	<u>\$ Lst Sq Formula Relativity</u>	<u>Credibility Z</u>	<u>Credibility Weighted Relativity</u>	<u>Balanced Relativity</u>	<u>Or</u>	
10	1.353	0.177	1.055	1.057		
31	0.657	0.086	0.965	0.967		
32	0.904	0.269	0.973	0.975		
33	0.653	0.094	0.961	0.963		
34	1.001	0.297	1.000	1.002		
35	0.769	0.218	0.944	0.946		
36	1.538	0.200	1.090	1.092		
37	0.908	0.171	0.984	0.986		
38	0.513	0.060	0.961	0.963		

Statewide Monoline Loss Cost Level Change: 9.1%

	(1)	(2)	(3)	(4)	(5)	(6) *	(7)	(8)	(9)	(10)
<u>Territory</u>	<u>\$ Lst Sq Formula Relativity</u>	<u>Credibility Z</u>	<u>Credibility Weighted Relativity</u>	<u>Balanced Relativity</u>	<u>Indicated Monoline Loss Cost Level Change</u>	<u>Capped at 25.0% Change</u>	<u>Off- Balance Factor</u>	<u>Capped Territorial Multiplier Change</u>	<u>Current Territorial Multiplier</u>	<u>Revised Territorial Multiplier</u>
Memphis	1.548	0.248	1.114	1.208	31.8%	25.0%	1.000	22.8%	1.346	1.653
Nashville	1.685	0.267	1.149	1.246	35.9%	25.0%	1.000	22.8%	0.870	1.068
Bal. Of State (TN)	0.817	0.746	0.86	0.933	1.8%	1.8%	1.000	0.0%	1.000	1.000

\* Loss Cost changes by territory have been capped at +25% in order to moderate loss cost level changes.



TENNESSEE  
BASIC GROUP I RELATIVITY ANALYSIS

Sample Loss Cost Level Change Calculation for Memphis:

Statewide Coverage Loss Cost Change	=	1.032
Territorial Relativity	=	1.208
Monoline (TOP 10) Relativity	=	1.057

Indicated Monoline Loss Cost Level Change	
= 1.032 x 1.208 x 1.057	= 1.318
	or 31.8%

TENNESSEE  
SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS

	(1)	(2)	(3)	(4)	Statewide Coverage Loss Cost Change Of	1.113 11.3%
TOP	<u>\$ Lst Sq Formula Relativity</u>	<u>Credibility Z</u>	<u>Credibility Weighted Relativity</u>	<u>Balanced Relativity</u>	<u>or</u>	
10	0.731	0.222	0.933	0.927		
31	1.227	0.080	1.017	1.011		
32	0.784	0.199	0.953	0.947		
33	0.844	0.155	0.974	0.968		
34	1.163	0.339	1.053	1.046		
35	1.329	0.307	1.091	1.084		
36	1.262	0.256	1.061	1.054		
37	0.485	0.179	0.879	0.873		
38	0.717	0.102	0.967	0.961		

	(1)	(2)	(3)	(4)	(5)
Category	<u>\$ Lst Sq Formula Relativity</u>	<u>Credibility Z</u>	<u>Credibility Weighted Relativity</u>	<u>Balanced Relativity</u>	<u>Indicated Monoline Loss Cost Level Change</u>
01	1.032	0.817	1.026	1.015	4.7%
02	1.118	0.083	1.009	0.998	3.0%
03	0.879	0.172	0.978	0.967	-0.2%
04	0.781	0.189	0.954	0.943	-2.7%
05	1.930	0.158	1.109	1.097	13.2%
06	0.729	0.079	0.975	0.964	-0.5%
07	0.749	0.046	0.987	0.976	0.7%
08	1.096	0.148	1.014	1.003	3.5%
09	0.687	0.219	0.921	0.911	-6.0%
10	1.088	0.047	1.004	0.993	2.5%
11	1.092	0.171	1.015	1.004	3.6%
12	0.416	0.168	0.863	0.853	-12.0%
13	0.663	0.109	0.956	0.945	-2.5%
14	0.758	0.135	0.963	0.952	-1.8%

Statewide Monoline Loss Cost Level Change: 3.2%

TENNESSEE  
SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS

Sample Loss Cost Level Change Calculation:

Statewide Coverage Loss Cost Change	=	1.113
Monoline (TOP 10) Relativity	=	0.927
Category 1 Relativity	=	1.015
Indicated Monoline Loss Cost Level Change for Category 1	=	1.047
	OR	4.7%

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

<u>Type Of Policy</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate <u>Loss Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) 5 - Year Exp. Ratio <u>Relativity</u>
Memphis				
10 Monoline	510,758	1,853,508	0.650	0.648
31 Multiline Motel/Hotel	68,154	388,548	0.000	0.000
32 Multiline Apartment	1,637,754	4,299,619	1.452	1.448
33 Multiline Office	103,250	510,370	0.627	0.625
34 Multiline Mercantile	850,812	3,811,586	2.752	2.744
35 Multiline Institutional	618,313	3,205,593	0.645	0.643
36 Multiline Services	564,380	2,628,466	1.079	1.076
37 Multiline Indust/Process	147,348	886,086	4.855	4.840
38 Multiline Contractors	112,700	531,874	0.247	0.246
Total All Tops*	4,613,469	18,115,650	1.489	1.484
Nashville				
10 Monoline	787,674	3,018,943	3.045	3.036
31 Multiline Motel/Hotel	245,619	871,217	1.580	1.575
32 Multiline Apartment	1,828,297	5,372,589	0.625	0.623
33 Multiline Office	220,999	1,043,359	1.982	1.976
34 Multiline Mercantile	904,890	3,854,563	3.966	3.954
35 Multiline Institutional	477,278	2,308,767	1.237	1.233
36 Multiline Services	451,107	2,055,165	1.697	1.692
37 Multiline Indust/Process	223,909	1,059,761	4.138	4.126
38 Multiline Contractors	102,597	443,560	0.156	0.156
Total All Tops*	5,242,370	20,027,924	1.956	1.950

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

<u>Type Of Policy</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate <u>Loss Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) 5 - Year Exp. Ratio <u>Relativity</u>
Balance Of State (Tennessee)				
10 Monoline	4,008,625	16,576,052	1.039	1.036
31 Multiline Motel/Hotel	1,473,419	8,127,958	0.491	0.490
32 Multiline Apartment	6,594,703	27,169,309	0.832	0.830
33 Multiline Office	1,573,766	8,824,317	0.479	0.478
34 Multiline Mercantile	6,754,554	34,560,755	0.663	0.661
35 Multiline Institutional	4,295,508	22,335,702	0.625	0.623
36 Multiline Services	3,847,428	20,293,068	1.283	1.279
37 Multiline Indust/Process	3,711,462	18,653,588	0.684	0.682
38 Multiline Contractors	1,086,862	5,390,771	0.426	0.425
Total All Tops*	33,346,327	161,931,520	0.787	0.784

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

<u>Type Of Policy</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate <u>Loss Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) 5 - Year Exp. Ratio <u>Relativity</u>
Entire State				
10 Monoline	5,307,057	21,448,503	1.299	1.295
31 Multiline Motel/Hotel	1,787,192	9,387,723	0.622	0.620
32 Multiline Apartment	10,060,754	36,841,517	0.895	0.893
33 Multiline Office	1,898,015	10,378,046	0.662	0.660
34 Multiline Mercantile	8,510,256	42,226,904	1.223	1.219
35 Multiline Institutional	5,391,099	27,850,062	0.681	0.679
36 Multiline Services	4,862,915	24,976,699	1.298	1.294
37 Multiline Indust/Process	4,082,719	20,599,435	1.024	1.021
38 Multiline Contractors	1,302,159	6,366,205	0.389	0.388
Total All Tops*	43,202,166	200,075,094	1.003	1.001

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

<u>Type Of Policy</u>	<u>Category</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss Costs	(2) 5 - Year Aggregate Loss Costs	(3) 5 - Year Experience Ratio	(4) Credibility Weighted Experience Ratio	(5) Credibility Weighted Relativity
Entire State						
10 Monoline	01 Buildings	1,630,010	7,426,545	0.951	0.941	0.761
	02 Res. Apts. And Cond	28,701	96,376	1.231	0.975	0.788
	03 Offices	146,354	751,009	0.454	0.695	0.562
	04 Mercantile - High	199,711	861,838	0.558	0.733	0.593
	05 Mercantile - Medium	77,823	306,891	0.218	0.668	0.540
	06 Mercantile - Low	36,613	186,373	0.153	0.676	0.546
	07 Motels And Hotels	5,190	43,257	1.366	0.999	0.808
	08 Institutional - Hig	63,128	296,082	1.136	0.969	0.783
	09 Institutional - Low	45,643	280,130	2.077	1.269	1.026
	10 Indust-Proc - High	19,039	79,886	0.639	0.826	0.668
	11 Indust-Proc - Low	74,354	347,051	0.908	0.895	0.724
	12 Service - High	44,978	243,211	0.603	0.800	0.647
	13 Service - Low	78,443	383,336	1.356	1.053	0.851
	14 Contractors	18,199	91,210	0.084	0.685	0.554
	Total	2,468,186	11,393,195	0.881	0.901	0.729
31 Multiline Motel/Hotel	01 Buildings	586,882	2,793,283	1.653	1.573	1.272
	07 Motels And Hotels	148,272	686,334	0.665	1.142	0.923
	Total	735,154	3,479,617	1.454	1.486	1.202

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

<u>Type Of Policy</u>	<u>Category</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss Costs	(2) 5 - Year Aggregate Loss Costs	(3) 5 - Year Experience Ratio	(4) Credibility Weighted Experience Ratio	(5) Credibility Weighted Relativity
32 Multiline Apartment	01 Buildings	2,420,823	8,710,301	0.937	1.006	0.813
	02 Res. Apts. And Cond	286,089	1,254,171	0.747	1.090	0.881
	Total	2,706,912	9,964,472	0.917	1.015	0.820
33 Multiline Office	01 Buildings	1,086,945	5,226,157	0.988	1.081	0.874
	03 Offices	457,970	2,131,901	0.612	0.929	0.751
	04 Mercantile - High	328	1,808	321.017	35.965	29.074
	08 Institutional - Hig	155	1,748	0.000	1.263	1.021
	12 Service - High	328	2,470	58.551	7.612	6.154
	14 Contractors	251	744	0.000	1.264	1.022
	Total	1,545,977	7,364,828	0.956	1.045	0.845



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

<u>Type Of Policy</u>	<u>Category</u>	(1) Accident Year Ending 06/30/2022 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	3,019,531	14,463,302	1.499	1.491	1.205
	03 Offices	10,814	34,261	0.927	1.355	1.095
	04 Mercantile - High	512,864	2,305,622	0.949	1.125	0.909
	05 Mercantile - Medium	512,779	2,459,866	3.597	2.805	2.268
	06 Mercantile - Low	195,534	1,042,335	0.602	1.051	0.850
	08 Institutional - Hig	149	1,023	0.000	1.264	1.022
	11 Indust-Proc - Low	807	3,426	0.000	1.262	1.020
	12 Service - High	12,662	58,411	0.185	1.247	1.008
	13 Service - Low	21,335	81,649	0.435	1.270	1.027
	14 Contractors	9,337	69,676	0.014	1.216	0.983
	Total	4,295,812	20,519,571	1.629	1.581	1.278
35 Multiline Institutional	01 Buildings	2,471,978	11,716,471	1.740	1.704	1.378
	03 Offices	5,588	23,510	1.109	1.379	1.115
	04 Mercantile - High	583	1,111	0.000	1.263	1.021
	08 Institutional - Hig	274,302	2,174,536	2.077	1.819	1.470
	09 Institutional - Low	658,072	3,789,003	1.025	1.133	0.916
	12 Service - High	1,882	4,960	0.000	1.261	1.019
	13 Service - Low	14,411	35,831	1.464	1.422	1.150
	14 Contractors	661	4,216	0.000	1.261	1.019
	Total	3,427,477	17,749,638	1.626	1.601	1.295

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

<u>Type Of Policy</u>	<u>Category</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss Costs	(2) 5 - Year Aggregate Loss Costs	(3) 5 - Year Experience Ratio	(4) Credibility Weighted Experience Ratio	(5) Credibility Weighted Relativity
36 Multiline Services	01 Buildings	1,781,018	9,221,777	1.657	1.619	1.309
	03 Offices	8,978	37,956	0.074	0.876	0.708
	04 Mercantile - High	15,714	59,879	2.956	1.338	1.082
	05 Mercantile - Medium	9,317	40,162	0.260	0.900	0.728
	06 Mercantile - Low	6,743	24,697	2.222	1.160	0.938
	08 Institutional - Hig	24,984	125,863	0.000	0.765	0.618
	09 Institutional - Low	18,101	125,081	0.000	0.766	0.619
	10 Indust-Proc - High	1,540	9,037	0.000	0.904	0.731
	11 Indust-Proc - Low	6,198	32,986	0.000	0.872	0.705
	12 Service - High	515,944	2,694,182	0.574	0.649	0.525
	13 Service - Low	258,554	1,318,279	1.013	1.012	0.818
	14 Contractors	8,394	46,107	0.000	0.855	0.691
	Total	2,655,485	13,736,006	1.346	1.345	1.088
37 Indust/Proc	01 Buildings	1,052,528	5,243,072	0.579	0.621	0.502
	03 Offices	6,993	18,312	0.000	0.891	0.720
	04 Mercantile - High	7,990	43,719	0.000	0.858	0.694
	05 Mercantile - Medium	426	4,970	0.000	0.910	0.736
	06 Mercantile - Low	0	151	0.000	0.917	0.741
	08 Institutional - Hig	0	185	0.000	0.917	0.741
	10 Indust-Proc - High	154,712	649,052	0.374	0.659	0.533
	11 Indust-Proc - Low	567,547	2,715,038	0.588	0.660	0.534
	12 Service - High	2,024	6,218	0.000	0.908	0.734
	13 Service - Low	2,344	6,958	0.000	0.907	0.733
	14 Contractors	4,889	22,025	0.952	1.002	0.810
	Total	1,799,453	8,709,700	0.559	0.640	0.518

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

<u>Type Of Policy</u>	<u>Category</u>	(1) Accident Year Ending 06/30/2022 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 Contractors	01 Buildings	425,125	2,009,260	0.887	0.914	0.739
	03 Offices	25,432	115,456	3.826	1.659	1.341
	04 Mercantile - High	43,268	223,428	0.993	1.004	0.812
	05 Mercantile - Medium	1,242	3,196	0.000	0.913	0.738
	06 Mercantile - Low	9,445	35,946	5.553	1.643	1.328
	08 Institutional - Hig	1,197	4,283	0.000	0.911	0.736
	11 Indust-Proc - Low	1,380	3,838	0.000	0.912	0.737
	12 Service - High	1,829	9,595	1.725	1.084	0.876
	13 Service - Low	2,323	10,693	0.483	0.953	0.770
	14 Contractors	467,934	2,114,360	0.588	0.676	0.546
	Total	979,175	4,530,055	0.867	0.831	0.672
Total All TOPs	01 Buildings	14,474,840	66,810,168	1.287	1.292	1.045
	02 Res. Apts. And Cond	314,790	1,350,547	0.791	1.080	0.873
	03 Offices	662,129	3,112,405	0.696	0.915	0.740
	04 Mercantile - High	780,458	3,497,405	1.016	1.034	0.836
	05 Mercantile - Medium	601,587	2,815,085	3.098	2.494	2.016
	06 Mercantile - Low	248,335	1,289,502	0.768	1.021	0.826
	07 Motels And Hotels	153,462	729,591	0.689	1.137	0.919
	08 Institutional - Hig	363,915	2,603,720	1.763	1.596	1.290
	09 Institutional - Low	721,816	4,194,214	1.066	1.132	0.916
	10 Indust-Proc - High	175,291	737,975	0.399	0.679	0.549
	11 Indust-Proc - Low	650,286	3,102,339	0.617	0.690	0.558
	12 Service - High	579,647	3,019,047	0.600	0.682	0.552
	13 Service - Low	377,410	1,836,746	1.059	1.050	0.849
	14 Contractors	509,665	2,348,338	0.552	0.693	0.560
	Total	20,613,631	97,447,082	1.223	1.237	1.000

## TENNESSEE

BASIC GROUP II RELATIVITY ANALYSIS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Accident Year Ending 06/30/2022	Accident Years 2013-2022								Indicated Total
	Loss Costs At Current	Experience Ratio At Current	Formula Relativity	Credibility	Credibility Weighted	Balanced Formula	Normalized Formula	Current Implicit	Indicated Implicit	Loss Cost
	<u>Implicit PMF</u>	<u>PMF</u>	<u>(2)/ 1.224</u>	<u>(C)</u>	<u>Relativity (D)</u>	<u>Relativity (E)</u>	<u>Relativity (F)</u>	<u>PMF</u>	<u>PMF (G)</u>	<u>Adjustment</u>
Monoline	5,652,349	1.424	1.163	0.498	1.081	1.081	1.0896			23.9%
Multiline	33,661,064	1.191	0.973	0.868	0.977	0.977	0.9850			12.0%
Coverage	39,313,413	1.224	1.000			0.992	1.000			13.7%
<u>Multiline Top</u>										
31 Motel/Hotel	1,019,576	1.308	1.069	0.178	1.012	1.005	1.0130	1.040	0.967	15.2%
32 Apartment	4,916,438	1.119	0.914	0.412	0.965	0.958	0.9656	0.860	0.762	9.8%
33 Office	2,112,825	0.910	0.743	0.270	0.931	0.924	0.9314	0.624	0.533	5.9%
34 Mercantile	8,804,410	1.166	0.953	0.627	0.971	0.964	0.9717	0.839	0.748	10.5%
35 Institutional	7,870,963	1.253	1.024	0.645	1.015	1.008	1.0160	0.892	0.832	15.5%
36 Services	4,939,962	1.165	0.952	0.512	0.975	0.968	0.9757	0.864	0.774	10.9%
37 Indust/Process	3,080,252	1.175	0.960	0.371	0.985	0.978	0.9858	0.720	0.651	12.1%
38 Contractors	916,638	1.986	1.623	0.143	1.089	1.081	1.0896	0.617	0.617	23.9%
	33,661,064	1.191	0.973		0.984	0.977	0.9850			12.0%

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) =  $(5) * (0.977/0.984)$

F - (7) =  $(6) / 0.9921$

G - (9) =  $(7) * (8) / (1.0896)$

TENNESSEE  
BASIC GROUP I  
HISTORY OF STATEWIDE LOSS COST LEVEL CHANGES

Loss Cost Level History

(1)	(2)	(3)	(4)	(5)
Effective Date	Loss Cost Level Change	Loss Cost Level Index	Adjustment Factor	Weight
2000-05-01	-8.2%	0.918	0.429	0.667
2002-01-01	-12.1%	0.807	0.488	1.000
2003-05-01	-4.3%	0.772	0.510	0.667
2004-02-01	-22.5%	0.598	0.659	0.917
2006-01-01	-8.5%	0.548	0.719	1.000
2009-01-01	-6.0%	0.515	0.765	1.000
2010-01-01	-4.5%	0.492	0.801	1.000
2011-04-01	-13.3%	0.426	0.925	0.750
2012-04-01	-16.7%	0.355	1.110	0.750
2014-04-01	0.6%	0.357	1.104	0.750
2016-01-01	1.4%	0.362	1.088	1.000
2019-01-01	6.7%	0.386	1.021	1.000
2020-02-01	-1.8%	0.379	1.040	0.917
2022-08-01	3.9%	0.394	1.000	0.417

Time Element Only Loss Cost Level History

(1)	(2)	(3)	(4)	(5)
Effective Date	Loss Cost Level Change	Loss Cost Level Index	Adjustment Factor	Weight
2013-04-01	-13.1%	0.869	1.000	0.750

TENNESSEE  
BASIC GROUP II  
HISTORY OF STATEWIDE LOSS COST LEVEL CHANGES

Loss Cost Level History

(1)	(2)	(3)	(4)	(5)
<u>Effective Date</u>	<u>Loss Cost Level Change</u>	<u>Loss Cost Level Index</u>	<u>Adjustment Factor</u>	<u>Weight</u>
2000-05-01	0.8%	1.008	1.558	0.667
2002-01-01	9.9%	1.108	1.417	1.000
2003-05-01	-8.2%	1.017	1.544	0.667
2004-02-01	0.2%	1.019	1.541	0.917
2006-01-01	14.4%	1.166	1.346	1.000
2009-01-01	-7.0%	1.084	1.448	1.000
2010-01-01	-9.1%	0.985	1.594	1.000
2011-04-01	-11.3%	0.874	1.796	0.750
2012-04-01	0.0%	0.874	1.796	0.750
2014-04-01	8.8%	0.951	1.651	0.750
2016-01-01	17.5%	1.117	1.406	1.000
2019-01-01	12.9%	1.262	1.244	1.000
2020-02-01	10.2%	1.390	1.129	0.917
2022-08-01	12.9%	1.570	1.000	0.417

Time Element Only Loss Cost Level History

(1)	(2)	(3)	(4)	(5)
<u>Effective Date</u>	<u>Loss Cost Level Change</u>	<u>Loss Cost Level Index</u>	<u>Adjustment Factor</u>	<u>Weight</u>
2013-04-01	-13.3%	0.867	1.000	0.750

TENNESSEE  
SPECIAL CAUSES OF LOSS  
HISTORY OF STATEWIDE LOSS COST LEVEL CHANGES

Loss Cost Level History

(1)	(2)	(3)	(4)	(5)
Effective Date	Loss Cost Level Change	Loss Cost Level Index	Adjustment Factor	Weight
2000-05-01	-22.6%	0.774	0.951	0.667
2002-01-01	-1.3%	0.764	0.963	1.000
2003-05-01	-10.0%	0.688	1.070	0.667
2004-02-01	-0.4%	0.685	1.074	0.917
2006-01-01	4.3%	0.714	1.031	1.000
2009-01-01	-15.3%	0.605	1.217	1.000
2010-01-01	-8.1%	0.556	1.324	1.000
2011-04-01	-0.3%	0.554	1.329	0.750
2012-04-01	5.9%	0.587	1.254	0.750
2014-04-01	11.0%	0.652	1.129	0.750
2016-01-01	6.4%	0.693	1.062	1.000
2019-01-01	7.2%	0.743	0.991	1.000
2020-02-01	-1.1%	0.735	1.001	0.917
2022-08-01	0.1%	0.736	1.000	0.417

Time Element Only Loss Cost Level History

(1)	(2)	(3)	(4)	(5)
Effective Date	Loss Cost Level Change	Loss Cost Level Index	Adjustment Factor	Weight
2013-04-01	-25.0%	0.750	1.000	0.750

TENNESSEE

HISTORY OF BASIC GROUP I  
LOSS COST CHANGES BY TERRITORY, RATING ID AND RATING GROUP

TERRITORY: Memphis

(1) Effective Date	(2) Rating ID	(3) Rating Group																				
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	17	18	19	20	21	22
2006-01-01	Specific	-3.3%	-2.6%	-4.2%	-13.8%	-5.7%	-2.8%	-7.0%	-6.8%	-4.3%	-6.0%	-4.5%	-6.0%	-6.9%	-6.6%	-7.6%	-6.6%	-9.8%	-4.6%	-6.2%	-0.2%	-7.2%
2006-01-01	Class	11.6%	12.5%	10.7%	-0.5%	9.0%	12.3%	7.5%	7.7%	10.6%	8.5%	10.3%	8.5%	7.6%	7.9%	6.7%	7.9%	-9.8%	10.1%	-6.2%	-0.2%	7.1%
2009-01-01	Specific	-4.0%	-15.3%	-10.3%	-0.1%	-1.6%	4.0%	1.1%	-3.5%	-2.2%	9.7%	1.9%	-1.5%	-4.4%	-2.6%	-6.4%	-1.9%	-2.4%	-1.8%	-1.9%	-0.2%	-0.5%
2009-01-01	Class	-1.8%	-13.3%	-8.2%	2.2%	0.6%	6.5%	3.4%	-1.3%	0.0%	12.3%	4.3%	0.8%	-2.2%	-0.4%	-4.3%	0.3%	-2.4%	0.4%	-1.9%	-0.2%	1.8%
2010-01-01	Specific	-4.5%	-6.8%	-8.7%	-3.6%	-2.1%	2.9%	-2.1%	-5.4%	-3.5%	11.7%	1.4%	-1.8%	-4.2%	-3.2%	-5.2%	-2.3%	-3.3%	-1.1%	-2.2%	-0.9%	-1.3%
2010-01-01	Class	-7.6%	-9.9%	-11.7%	-6.8%	-5.4%	-0.5%	-5.4%	-8.6%	-6.7%	8.0%	-2.0%	-5.1%	-7.4%	-6.4%	-8.4%	-5.6%	-3.3%	-4.4%	-2.2%	-0.9%	-4.6%
2011-04-01	Specific	-23.7%	-27.3%	-32.9%	-19.7%	-22.4%	-19.0%	-18.5%	-24.8%	-22.1%	-12.2%	-21.7%	-22.0%	-24.2%	-23.0%	-27.8%	-22.6%	-22.5%	-20.7%	-22.2%	-22.5%	-19.6%
2011-04-01	Class	-19.5%	-23.3%	-29.2%	-15.3%	-18.1%	-14.6%	-14.0%	-20.7%	-17.9%	-7.4%	-17.4%	-17.7%	-20.0%	-18.8%	-23.9%	-18.4%	-22.5%	-16.3%	-22.2%	-22.5%	-15.2%
2012-04-01	Specific	-7.7%	-1.8%	-22.2%	-21.2%	-11.2%	-21.1%	-9.6%	-21.7%	-10.6%	14.8%	-9.9%	-12.7%	-20.4%	-12.7%	-22.1%	-14.3%	-15.9%	-11.1%	-12.0%	-17.4%	-8.5%
2012-04-01	Class	-0.8%	5.5%	-16.4%	-15.3%	-4.6%	-15.2%	-2.9%	-15.9%	-3.9%	23.3%	-3.2%	-6.3%	-14.5%	-6.3%	-16.3%	-7.9%	-15.9%	-4.5%	-12.0%	-17.4%	-1.8%
2014-04-01	Specific	14.7%	18.1%	12.8%	13.5%	14.0%	21.3%	14.2%	11.2%	13.0%	14.2%	14.2%	14.3%	10.4%	14.3%	11.0%	13.5%	13.9%	14.6%	14.3%	13.4%	14.4%
2014-04-01	Class	2.1%	5.1%	0.5%	1.1%	1.5%	8.0%	1.7%	-1.0%	0.6%	1.7%	1.7%	1.8%	-1.7%	1.8%	-1.2%	1.1%	13.9%	2.0%	14.3%	13.4%	1.9%
2016-01-01	Specific	6.2%	10.9%	8.4%	7.7%	8.8%	13.1%	8.7%	6.4%	7.9%	11.6%	8.9%	10.3%	10.1%	10.3%	9.0%	8.4%	8.6%	8.2%	9.0%	9.2%	9.2%
2016-01-01	Class	7.5%	12.2%	9.7%	9.0%	10.1%	14.5%	10.0%	7.7%	9.2%	13.0%	10.2%	11.6%	11.4%	11.6%	10.3%	9.7%	8.6%	9.5%	9.0%	9.2%	10.5%
2019-01-01	Specific	7.3%	17.1%	6.3%	-8.0%	5.0%	6.3%	4.4%	2.6%	6.0%	6.7%	5.0%	3.9%	3.7%	3.9%	8.0%	3.1%	1.1%	2.6%	4.0%	2.3%	1.7%
2019-01-01	Class	7.3%	17.1%	6.3%	-8.0%	5.0%	6.3%	4.4%	2.6%	6.0%	6.7%	5.0%	3.9%	3.7%	3.9%	8.0%	3.1%	1.1%	2.6%	4.0%	2.3%	1.7%
2020-02-01	Specific	-1.5%	1.9%	-4.2%	-9.0%	-2.0%	-0.6%	-2.0%	-5.1%	-2.0%	9.8%	-2.0%	-3.8%	-3.9%	-3.8%	-3.0%	-3.3%	-3.2%	-3.8%	-2.6%	-3.5%	-3.7%
2020-02-01	Class	-1.5%	1.9%	-4.2%	-9.0%	-2.0%	-0.6%	-2.0%	-5.1%	-2.0%	9.8%	-2.0%	-3.8%	-3.9%	-3.8%	-3.0%	-3.3%	-3.2%	-3.8%	-2.6%	-3.5%	-3.7%
2022-08-01	Specific	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%
2022-08-01	Class	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%



TENNESSEE

HISTORY OF BASIC GROUP I  
LOSS COST CHANGES BY TERRITORY, RATING ID AND RATING GROUP

TERRITORY: Nashville

(1) Effective Date	(2) Rating ID	(3) Rating Group																				
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	17	18	19	20	21	22
2006-01-01	Specific	-12.3%	-11.6%	-13.0%	-21.8%	-14.4%	-11.8%	-15.6%	-15.4%	-13.1%	-14.7%	-13.3%	-14.7%	-15.5%	-15.2%	-16.2%	-15.2%	-18.2%	-13.5%	-14.9%	-9.4%	-15.8%
2006-01-01	Class	1.3%	2.1%	0.4%	-9.7%	-1.1%	1.9%	-2.5%	-2.3%	0.3%	-1.5%	0.1%	-1.5%	-2.4%	-2.1%	-3.2%	-2.1%	-18.2%	-0.1%	-14.9%	-9.4%	-2.8%
2009-01-01	Specific	-2.9%	-14.3%	-9.3%	1.1%	-0.5%	5.2%	2.2%	-2.4%	-1.1%	11.0%	3.0%	-0.3%	-3.3%	-1.5%	-5.4%	-0.8%	-1.3%	-0.7%	-0.8%	1.0%	0.7%
2009-01-01	Class	-0.7%	-12.3%	-7.1%	3.4%	1.8%	7.7%	4.6%	-0.1%	1.2%	13.5%	5.4%	2.0%	-1.1%	0.8%	-3.2%	1.5%	-1.3%	1.6%	-0.8%	1.0%	3.0%
2010-01-01	Specific	5.2%	2.6%	0.6%	6.1%	7.7%	13.3%	7.7%	4.1%	6.2%	23.0%	11.6%	8.1%	5.5%	6.6%	4.3%	7.5%	6.5%	8.8%	7.6%	9.1%	8.6%
2010-01-01	Class	1.7%	-0.8%	-2.8%	2.6%	4.2%	9.5%	4.2%	0.6%	2.7%	18.9%	7.9%	4.5%	2.0%	3.0%	0.8%	3.9%	6.5%	5.2%	7.6%	9.1%	5.0%
2011-04-01	Specific	-15.6%	-19.5%	-25.7%	-11.2%	-14.1%	-10.4%	-9.8%	-16.8%	-13.8%	-2.8%	-13.3%	-13.7%	-16.1%	-14.8%	-20.1%	-14.4%	-14.3%	-12.2%	-13.9%	-14.2%	-11.0%
2011-04-01	Class	-10.9%	-15.1%	-21.7%	-6.3%	-9.4%	-5.5%	-4.9%	-12.2%	-9.1%	2.5%	-8.6%	-8.9%	-11.5%	-10.1%	-15.8%	-9.7%	-14.3%	-7.4%	-13.9%	-14.2%	-6.1%
2012-04-01	Specific	-11.3%	-5.6%	-25.2%	-24.2%	-14.7%	-24.1%	-13.1%	-24.7%	-14.0%	10.4%	-13.4%	-16.1%	-23.5%	-16.1%	-25.1%	-17.6%	-19.2%	-14.5%	-15.4%	-20.6%	-12.1%
2012-04-01	Class	-4.7%	1.4%	-19.6%	-18.6%	-8.3%	-18.5%	-6.7%	-19.1%	-7.6%	18.5%	-6.9%	-9.9%	-17.8%	-9.9%	-19.5%	-11.5%	-19.2%	-8.2%	-15.4%	-20.6%	-5.5%
2014-04-01	Specific	5.9%	9.1%	4.2%	4.8%	5.2%	12.0%	5.5%	2.7%	4.3%	5.5%	5.5%	5.6%	2.0%	5.6%	2.5%	4.8%	5.1%	5.8%	5.6%	4.7%	5.7%
2014-04-01	Class	-5.7%	-2.9%	-7.2%	-6.7%	-6.3%	-0.3%	-6.1%	-8.6%	-7.1%	-6.1%	-6.1%	-6.0%	-9.2%	-6.0%	-8.7%	-6.7%	5.1%	-5.8%	5.6%	4.7%	-5.9%
2016-01-01	Specific	-8.2%	-4.1%	-6.3%	-6.8%	-5.9%	-2.1%	-6.0%	-8.0%	-6.7%	-3.5%	-5.8%	-4.6%	-4.8%	-4.6%	-5.7%	-6.3%	-6.1%	-6.4%	-5.7%	-5.5%	-5.5%
2016-01-01	Class	-7.1%	-3.0%	-5.2%	-5.7%	-4.8%	-1.0%	-4.9%	-6.9%	-5.5%	-2.3%	-4.7%	-3.4%	-3.6%	-3.4%	-4.6%	-5.2%	-6.1%	-5.2%	-5.7%	-5.5%	-4.4%
2019-01-01	Specific	5.5%	15.2%	4.5%	-9.5%	3.3%	4.5%	2.7%	0.9%	4.3%	4.9%	3.3%	2.2%	2.0%	2.2%	6.2%	1.4%	-0.6%	0.9%	2.3%	0.5%	0.0%
2019-01-01	Class	5.5%	15.2%	4.5%	-9.5%	3.3%	4.5%	2.7%	0.9%	4.3%	4.9%	3.3%	2.2%	2.0%	2.2%	6.2%	1.4%	-0.6%	0.9%	2.3%	0.5%	0.0%
2020-02-01	Specific	-10.4%	-7.3%	-12.9%	-17.2%	-10.9%	-9.5%	-10.9%	-13.7%	-10.9%	-0.1%	-10.9%	-12.5%	-12.6%	-12.5%	-11.7%	-12.0%	-11.9%	-12.4%	-11.4%	-12.2%	-12.4%
2020-02-01	Class	-10.4%	-7.3%	-12.9%	-17.2%	-10.9%	-9.5%	-10.9%	-13.7%	-10.9%	-0.1%	-10.9%	-12.5%	-12.6%	-12.5%	-11.7%	-12.0%	-11.9%	-12.4%	-11.4%	-12.2%	-12.4%
2022-08-01	Specific	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%
2022-08-01	Class	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%

TENNESSEE

HISTORY OF BASIC GROUP I  
LOSS COST CHANGES BY TERRITORY, RATING ID AND RATING GROUP

TERRITORY: Balance Of State (Tennessee)

(1) Effective Date	(2) Rating ID	(3) Rating Group																				
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	17	18	19	20	21	22
2006-01-01	Specific	-13.4%	-12.8%	-14.2%	-22.8%	-15.5%	-12.9%	-16.7%	-16.5%	-14.2%	-15.8%	-14.4%	-15.8%	-16.6%	-16.3%	-17.2%	-16.3%	-19.2%	-14.6%	-16.0%	-10.6%	-16.9%
2006-01-01	Class	0.0%	0.8%	-0.9%	-10.9%	-2.4%	0.6%	-3.8%	-3.6%	-1.0%	-2.8%	-1.2%	-2.8%	-3.7%	-3.4%	-4.4%	-3.4%	-19.2%	-1.3%	-16.0%	-10.6%	-4.0%
2009-01-01	Specific	-10.4%	-20.9%	-16.3%	-6.8%	-8.2%	-2.9%	-5.7%	-10.0%	-8.8%	2.4%	-4.9%	-8.1%	-10.8%	-9.1%	-12.7%	-8.5%	-9.0%	-8.4%	-8.5%	-6.9%	-7.1%
2009-01-01	Class	-8.3%	-19.1%	-14.3%	-4.6%	-6.1%	-0.7%	-3.5%	-7.9%	-6.7%	4.8%	-2.7%	-5.9%	-8.7%	-7.0%	-10.7%	-6.4%	-9.0%	-6.3%	-8.5%	-6.9%	-5.0%
2010-01-01	Specific	-5.4%	-7.7%	-9.6%	-4.5%	-3.1%	1.9%	-3.1%	-6.4%	-4.5%	10.6%	0.4%	-2.8%	-5.1%	-4.2%	-6.2%	-3.3%	-4.3%	-2.1%	-3.2%	-1.8%	-2.3%
2010-01-01	Class	-8.6%	-10.8%	-12.6%	-7.7%	-6.3%	-1.5%	-6.3%	-9.5%	-7.6%	6.9%	-3.0%	-6.0%	-8.3%	-7.4%	-9.3%	-6.5%	-4.3%	-5.4%	-3.2%	-1.8%	-5.6%
2011-04-01	Specific	-17.3%	-21.2%	-27.2%	-13.0%	-15.9%	-12.2%	-11.6%	-18.5%	-15.6%	-4.8%	-15.1%	-15.4%	-17.8%	-16.5%	-21.8%	-16.1%	-16.0%	-14.0%	-15.7%	-15.9%	-12.8%
2011-04-01	Class	-12.8%	-16.9%	-23.3%	-8.2%	-11.3%	-7.4%	-6.8%	-14.0%	-11.0%	0.4%	-10.5%	-10.8%	-13.3%	-12.0%	-17.5%	-11.5%	-16.0%	-9.3%	-15.7%	-15.9%	-8.1%
2012-04-01	Specific	-13.5%	-8.0%	-27.1%	-26.1%	-16.8%	-26.1%	-15.3%	-26.6%	-16.2%	7.6%	-15.6%	-18.3%	-25.4%	-18.3%	-27.0%	-19.7%	-21.3%	-16.7%	-17.5%	-22.6%	-14.3%
2012-04-01	Class	-7.1%	-1.2%	-21.7%	-20.7%	-10.7%	-20.6%	-9.1%	-21.2%	-10.0%	15.5%	-9.3%	-12.2%	-19.9%	-12.2%	-21.6%	-13.7%	-21.3%	-10.5%	-17.5%	-22.6%	-7.9%
2014-04-01	Specific	8.2%	11.4%	6.4%	7.1%	7.5%	14.4%	7.7%	4.9%	6.5%	7.7%	7.7%	7.8%	4.2%	7.8%	4.7%	7.1%	7.4%	8.1%	7.8%	7.0%	7.9%
2014-04-01	Class	-3.7%	-0.8%	-5.2%	-4.7%	-4.3%	1.9%	-4.1%	-6.6%	-5.1%	-4.1%	-4.1%	-4.0%	-7.3%	-4.0%	-6.8%	-4.7%	7.4%	-3.8%	7.8%	7.0%	-3.9%
2016-01-01	Specific	-1.9%	2.4%	0.1%	-0.5%	0.5%	4.6%	0.4%	-1.7%	-0.3%	3.2%	0.6%	1.9%	1.7%	1.9%	0.7%	0.1%	0.3%	0.0%	0.7%	0.9%	0.9%
2016-01-01	Class	-0.7%	3.7%	1.3%	0.7%	1.7%	5.8%	1.6%	-0.5%	0.9%	4.4%	1.9%	3.2%	3.0%	3.2%	2.0%	1.3%	0.3%	1.2%	0.7%	0.9%	2.2%
2019-01-01	Specific	12.7%	23.1%	11.7%	-3.3%	10.4%	11.7%	9.7%	7.8%	11.5%	12.1%	10.4%	9.2%	9.0%	9.2%	13.5%	8.3%	6.3%	7.8%	9.3%	7.5%	6.9%
2019-01-01	Class	12.7%	23.1%	11.7%	-3.3%	10.4%	11.7%	9.7%	7.8%	11.5%	12.1%	10.4%	9.2%	9.0%	9.2%	13.5%	8.3%	6.3%	7.8%	9.3%	7.5%	6.9%
2020-02-01	Specific	1.2%	4.6%	-1.6%	-6.5%	0.7%	2.2%	0.7%	-2.5%	0.7%	12.8%	0.7%	-1.2%	-1.3%	-1.2%	-0.3%	-0.6%	-0.5%	-1.1%	0.1%	-0.8%	-1.0%
2020-02-01	Class	1.2%	4.6%	-1.6%	-6.5%	0.7%	2.2%	0.7%	-2.5%	0.7%	12.8%	0.7%	-1.2%	-1.3%	-1.2%	-0.3%	-0.6%	-0.5%	-1.1%	0.1%	-0.8%	-1.0%
2022-08-01	Specific	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%
2022-08-01	Class	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%

## TENNESSEE

## SPECIAL CAUSES OF LOSS

HISTORY OF LOSS COST LEVEL CHANGES BY CATEGORY

(1) Effective Date	(2) Category													
	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>
2006-01-01	7.0%	0.3%	0.6%	0.7%	-6.3%									
2009-01-01	-15.7%	-16.1%	-14.8%	-14.4%	-12.8%									
2010-01-01	-12.2%	-5.2%	2.1%	6.9%	1.7%									
2011-04-01	-1.1%	-9.5%	-1.8%	2.8%	8.5%	5.1%	1.8%	-10.9%	-6.5%	3.8%	-2.9%	6.2%	7.3%	14.4%
2012-04-01	5.6%	2.6%	1.9%	8.0%	15.5%	12.5%	7.0%	-4.4%	1.2%	8.3%	6.2%	7.3%	11.2%	11.5%
2014-04-01	10.7%	12.7%	5.2%	10.0%	23.2%	14.6%	12.4%	6.8%	1.7%	13.8%	20.6%	7.9%	14.1%	15.7%
2016-01-01	7.5%	7.8%	2.0%	0.5%	8.8%	6.3%	4.8%	2.7%	0.3%	5.0%	10.3%	2.5%	6.7%	7.8%
2019-01-01	11.4%	-3.3%	-1.1%	-0.7%	-2.9%	2.8%	2.0%	-5.3%	-11.3%	2.2%	2.8%	11.3%	2.7%	12.0%
2020-02-01	1.9%	-6.8%	-3.9%	-11.1%	-7.6%	-6.1%	-4.7%	-6.4%	-13.9%	-3.9%	-4.3%	-1.6%	-4.4%	-1.9%
2022-08-01	2.5%	-3.0%	-6.1%	-10.3%	-4.4%	-4.1%	-3.3%	0.9%	-5.8%	-2.1%	-2.7%	-4.0%	-3.5%	-1.9%

## TENNESSEE

BASIC GROUP I IMPLICIT PACKAGE  
MODIFICATION FACTORS (IPMFS) AND IPMF CAPS

<u>TOP</u>	<u>Description</u>	<u>IPMF</u>	<u>Low Cap</u>	<u>High Cap</u>
31	Motel/Hotel	0.912	0.500	1.500
32	Apartment	1.078	0.500	1.500
33	Office	0.999	0.500	1.500
34	Mercantile	1.028	0.500	1.500
35	Institutional	0.989	0.500	1.500
36	Services	1.066	0.500	1.500
37	Indust/Processing	1.205	0.500	1.500
38	Contractors	1.135	0.500	1.500

## TENNESSEE

BASIC GROUP II IMPLICIT PACKAGE  
MODIFICATION FACTORS (IPMFS) AND IPMF CAPS

<u>TOP</u>	<u>Description</u>	<u>IPMF</u>	Low <u>Cap</u>	High <u>Cap</u>
31	Motel/Hotel	1.040	0.500	1.500
32	Apartment	0.860	0.500	1.500
33	Office	0.624	0.500	1.500
34	Mercantile	0.839	0.500	1.500
35	Institutional	0.892	0.500	1.500
36	Services	0.864	0.500	1.500
37	Indust/Processing	0.720	0.500	1.500
38	Contractors	0.617	0.500	1.500

## TENNESSEE

SPECIAL CAUSES OF LOSS IMPLICIT PACKAGE  
MODIFICATION FACTORS (IPMFS) AND IPMF CAPS

<u>TOP</u>	<u>Description</u>	<u>IPMF</u>	Low <u>Cap</u>	High <u>Cap</u>
31	Motel/Hotel	1.223	0.500	1.500
32	Apartment	1.032	0.500	1.500
33	Office	1.038	0.500	1.500
34	Mercantile	0.848	0.500	1.500
35	Institutional	0.950	0.500	1.500
36	Services	1.010	0.500	1.500
37	Indust/Processing	0.890	0.500	1.500
38	Contractors	0.970	0.500	1.500

## TENNESSEE

DEVELOPMENT OF CURRENT COST FACTORS AND LOSS PROJECTION FACTORS

Period ending June 30, 2023

Part A: Quarterly Indices for Buildings, Contents and Time Element

Building - Xactware Commercial Index (XCI) (Base: 2009 = 100.0)

Contents - Producer Price Index (PPI) from U.S. Dept. of Labor (Finished Goods Less Energy) (Base: 2009 = 100.0)

Time Element Combined Index - Weighted average of IMSEP and RSALES indices <sup>(a)</sup>

<u>Quarter</u>	<u>Buildings</u>	<u>Contents</u>	<u>IMSEP</u>	<u>RSALLES</u>	Time Element Combined <u>Index</u>
Q3-2020	128.4	122.0	1.057	0.965	0.993
Q4-2020	129.8	122.9	1.067	0.969	0.998
Q1-2021	130.7	123.9	1.081	0.986	1.015
Q2-2021	135.9	126.7	1.105	1.012	1.040
Q3-2021	137.7	129.1	1.135	1.033	1.064
Q4-2021	140.9	131.8	1.166	1.058	1.090
Q1-2022	145.2	135.4	1.209	1.092	1.127
Q2-2022	146.2	139.7	1.248	1.118	1.157
Q3-2022	147.6	142.1	1.259	1.123	1.164
Q4-2022	149.6	144.7	1.268	1.122	1.166
Q1-2023	152.6	145.2	1.274	1.123	1.168
Q2-2023	154.5	145.6	1.278	1.124	1.170

Part B: Computation of Loss Projection Factor (LPF) based on 12 points

	<u>Buildings</u>	<u>Contents</u>	<u>Time Element</u>
Annual Rate of Change (AROC)	+7.33%	+7.80%	+7.30%
Coefficient of Determination (R <sup>2</sup> )	0.982	0.974	0.934
Loss Projection Factor = $(1.0 + \text{AROC})^{(24.5/12)}$	1.1554	1.1657	1.1547

## TENNESSEE

DEVELOPMENT OF CURRENT COST FACTORS AND LOSS PROJECTION FACTORS

Period ending June 30, 2023

## Part C: Calculation of Current Cost Factors (CCF)

<u>Calendar Year Averages</u>				<u>Current Cost Factors Based on Average Index Values for Period ending June 30, 2023</u>		
<u>Year</u>	<u>XCI</u>	<u>PPI</u>	<u>Index</u>	<u>Buildings</u>	<u>Contents</u>	<u>Time Element</u>
2013	102.7	109.7	1.003	154.5 / 102.7 = 1.504	145.6 / 109.7 = 1.327	1.17 / 1.003 = 1.167
2014	104.7	112.5	1.005	154.5 / 104.7 = 1.476	145.6 / 112.5 = 1.294	1.17 / 1.005 = 1.164
2015	109.1	113.8	0.986	154.5 / 109.1 = 1.416	145.6 / 113.8 = 1.279	1.17 / 0.986 = 1.187
2016	111.1	114.4	0.975	154.5 / 111.1 = 1.391	145.6 / 114.4 = 1.272	1.17 / 0.975 = 1.200
2017	114.3	116.4	0.983	154.5 / 114.3 = 1.352	145.6 / 116.4 = 1.251	1.17 / 0.983 = 1.190
2018	117.8	118.4	0.996	154.5 / 117.8 = 1.311	145.6 / 118.4 = 1.230	1.17 / 0.996 = 1.174
2019	121.5	120.9	0.999	154.5 / 121.5 = 1.272	145.6 / 120.9 = 1.204	1.17 / 0.999 = 1.172
2020	127.2	122.5	0.992	154.5 / 127.2 = 1.215	145.6 / 122.5 = 1.188	1.17 / 0.992 = 1.180
2021	136.3	127.9	1.052	154.5 / 136.3 = 1.134	145.6 / 127.9 = 1.138	1.17 / 1.052 = 1.112
2022	147.2	140.5	1.154	154.5 / 147.2 = 1.050	145.6 / 140.5 = 1.036	1.17 / 1.154 = 1.014

- (a) 30% weight for IMSEP and 70% weight for RSALES. IMSEP & RSALES indices were rescaled to a 2012 year base.
- (b) Assuming a rate or loss cost revision date of 6/01/2024, and all one year policies, the time interval between the midpoint of the latest period (5/15/2023) and the average date of accident (6/01/2025) would be 24.5 months.



## TENNESSEE

SUMMARY OF LOSS TREND ADJUSTMENTS (LTA'S)

(1)	(2)	(3)	(4)
<u>Coverage</u>	<u>Subline</u>	<u>5-Year Incurred</u>	<u>LTA's*</u>
Buildings	Basic Group I	3,657,062,915	-0.3%
	Basic Group II	4,450,315,838	0.5%
	Special Causes of Loss	2,327,811,519	0.2%
	Total	10,435,190,272	0.2%
Contents	Basic Group I	1,034,779,617	0.3%
	Basic Group II	486,799,243	3.1%
	Special Causes of Loss	800,403,105	-0.2%
	Total	2,321,981,965	0.7%
Time Element	Basic Group I	544,184,465	1.8%
	Basic Group II	296,823,948	2.4%
	Special Causes of Loss	242,926,481	1.8%
	Total	1,083,934,894	2.0%
Grand Total		13,841,107,130	0.4%

\*The LTA's are based on internal severity and frequency data. They apply to both the historical period and projection period.

## TENNESSEE

DEVELOPMENT OF LTA'SI. EXTERNAL RATE OF CHANGE<sup>a</sup>

Calendar Year	(1) Buildings Current Cost Factor	(2) Contents Current Cost Factor	(3) Time Element Cost Factor	(4) Basic Group I (BGI)& Special Causes of Loss (SCL) Weights	(5) Basic Group II (BGII) Weights
2012	1.395	1.221	1.090		0.10
2013	1.372	1.201	1.087		0.10
2014	1.346	1.171	1.085		0.10
2015	1.291	1.158	1.105		0.10
2016	1.268	1.152	1.118		0.10
2017	1.233	1.133	1.109	0.10	0.10
2018	1.196	1.113	1.094	0.15	0.10
2019	1.160	1.090	1.092	0.20	0.10
2020	1.108	1.076	1.099	0.25	0.10
2021	1.034	1.031	1.036	0.30	0.10

## (6) AVERAGE CURRENT COST FACTORS

	Buildings	Contents	Time Element
Basic Group I and Special Causes of Loss (Weighted on Column (4))	1.122	1.076	1.079
Basic Group II (Weighted on Column (5))	1.240	1.135	1.091

## (7) LOSS PROJECTION FACTORS

	Buildings	Contents	Time Element
Annual Rate of Change	0.060	0.029	0.027
Loss Projection Factor: <sup>b</sup> $(1.0 + \text{Annual Rate of Change})^{(X/12)}$	1.164	1.078	1.074

(8) TOTAL TREND FACTOR (Average Current Cost Factor  $\times$  Loss Projection Factor)

	Buildings	Contents	Time Element
Basic Group I and Special Causes of Loss	1.306	1.160	1.158
Basic Group II	1.444	1.223	1.171

(9) EXTERNAL ANNUAL RATE OF CHANGE<sup>c</sup>

	Buildings	Contents	Time Element
Basic Group I and Special Causes of Loss: $(\text{Total Trend Factor})^{12/54}$	1.061	1.034	1.033
Basic Group II: $(\text{Total Trend Factor})^{12/90}$	1.050	1.027	1.021

- (a) The Current Cost Factors and Loss Projection Factors on this exhibit are based on external economic indices through December 31, 2021 for Buildings, Contents and Time Element.
- (b) Assuming a loss cost revision date of July 1, 2023, the time interval between the midpoint of the latest period of external trend information (November 15, 2021) and the prospective average date of loss (July 1, 2024) is 31.5 months for Buildings, Contents and Time Element.
- (c) The time interval from the weighted midpoint of the experience period to the prospective average date of loss (July 1, 2024) is 54 months for BG I and SCL, and 90 months for BG II. The weighted midpoint is January 1, 2020 for BG I and SCL, and January 1, 2017 for BG II.

## TENNESSEE

II. INTERNAL ANNUAL RATES OF CHANGE:

## (10) SELECTED COMFAL

Severity	Buildings	Contents	Time Element
Basic Group I (BGI)	1.075	1.060	1.070
Basic Group II (BGII)	1.060	1.090	1.070
Special Causes of Loss	1.065	1.050	1.070
Frequency	Buildings	Contents	Time Element
Basic Group I (BGI)	0.990	0.990	1.000
Basic Group II (BGII)	1.000	1.000	1.000
Special Causes of Loss	1.000	0.990	1.000

III. LTA CALCULATION:

## CALCULATION OF LTAs - BUILDINGS

	(11)	(12)	(13)	(14)	(15)	(16)
	External	Internal	Indicated	Formula		
	Rate of	Rate of	Severity LTA	Severity	Frequency	Final
	<u>Change<sup>d</sup></u>	<u>Change</u>	<u>[(12)/(11)-1.0]</u>	<u>LTA<sup>e</sup></u>	<u>Effect</u>	<u>LTA<sup>f</sup></u>
Basic Group I (BGI)	1.061	1.075	1.3	0.7	-1.0	-0.3
Basic Group II (BGII)	1.050	1.060	1.0	0.5	0.0	0.5
Special Causes of Loss	1.061	1.065	0.4	0.2	0.0	0.2

## CALCULATION OF LTAs - CONTENTS

	(11)	(12)	(13)	(14)	(15)	(16)
	External	Internal	Indicated	Formula		
	Rate of	Rate of	Severity LTA	Severity	Frequency	Final
	<u>Change<sup>d</sup></u>	<u>Change</u>	<u>[(12)/(11)-1.0]</u>	<u>LTA<sup>e</sup></u>	<u>Effect</u>	<u>LTA<sup>f</sup></u>
Basic Group I (BGI)	1.034	1.060	2.5	1.3	-1.0	0.3
Basic Group II (BGII)	1.027	1.090	6.1	3.1	0.0	3.1
Special Causes of Loss	1.034	1.050	1.5	0.8	-1.0	-0.2

## CALCULATION OF LTAs - TIME ELEMENT

	(11)	(12)	(13)	(14)	(15)	(16)
	External	Internal	Indicated	Formula		
	Rate of	Rate of	Severity LTA	Severity	Frequency	Final
	<u>Change<sup>d</sup></u>	<u>Change</u>	<u>[(12)/(11)-1.0]</u>	<u>LTA<sup>e</sup></u>	<u>Effect</u>	<u>LTA<sup>f</sup></u>
Basic Group I (BGI)	1.033	1.070	3.6	1.8	0.0	1.8
Basic Group II (BGII)	1.021	1.070	4.8	2.4	0.0	2.4
Special Causes of Loss	1.033	1.070	3.6	1.8	0.0	1.8

(d) The external rates of change are based on external economic indices through December 31, 2021 for Buildings, Contents and Time Element.

(e) The formula severity LTA for Buildings, Contents and Time Element is calculated as one-half of the indicated severity LTA. This is equivalent to calculating the overall severity trend giving 50% weight to the external trend and 50% weight to the selected internal trend.

(f) The final LTA is calculated as the product (in factor form) of the formula severity LTA and frequency effect.

## TENNESSEE

EXPOSURE TREND  
DEVELOPMENT OF CURRENT AND PROJECTED EARNED EXPOSURE FACTORS

	Buildings				Contents			
	(1) <sup>a</sup> Annual Written Increase	(2) <sup>a</sup> 7/1/2022 Written Factors	(3) <sup>b</sup> 12/1/2024 Projected Factors	(4) <sup>c</sup> 12/1/2024 Earned Factors	(5) <sup>a</sup> Annual Written Increase	(6) <sup>a</sup> 7/1/2022 Written Factors	(7) <sup>b</sup> 12/1/2024 Projected Factors	(8) <sup>c</sup> 12/1/2024 Earned Factors
Year								
2010	2.5%	1.380	1.546	1.586	1.7%	1.275	1.363	1.387
2011	2.5%	1.346	1.507	1.546	1.8%	1.252	1.338	1.363
2012	2.7%	1.311	1.468	1.507	1.8%	1.230	1.315	1.338
2013	2.6%	1.278	1.431	1.468	2.1%	1.205	1.288	1.315
2014	2.5%	1.247	1.397	1.431	2.1%	1.180	1.261	1.288
2015	2.3%	1.219	1.365	1.397	1.9%	1.158	1.238	1.262
2016	2.1%	1.194	1.337	1.366	1.8%	1.138	1.217	1.238
2017	2.1%	1.169	1.309	1.337	1.8%	1.118	1.195	1.217
2018	2.7%	1.138	1.275	1.308	1.9%	1.097	1.173	1.195
2019	2.9%	1.106	1.239	1.275	2.2%	1.073	1.147	1.173
2020	2.2%	1.082	1.212	1.240	2.1%	1.051	1.124	1.147
2021	3.2%	1.048	1.174	1.211	2.2%	1.028	1.099	1.124
2022	4.8%	1.000	1.120	1.172	2.8%	1.000	1.069	1.098

## Notes

- a The percentages in columns (1) and (5) represent the change in written exposures from 07/01/n-1 to 07/01/n. Columns (2) and (6) contain the cumulative changes in written exposures for each year relative to the latest year.
- b The selected average annual changes in Amount of Insurance for projection purposes are 4.8% and 2.8% for Buildings and Contents, respectively. Consequently, the written factors at 7/1/2022 levels in column (2) and column (6) are brought to the level of the average date of writing in the effective period, 12/1/2024 (i.e., 6 months beyond an assumed revision date of 6/1/2024), by applying a factor of  $(1.048)^{(29/12)}$  for Buildings and  $(1.028)^{(29/12)}$  for Contents.
- c Written factors are earned into each accident year ending 12/31 using the following factors which assume all one year policies:

Year	Earning Factors (All Years)
n-2	1/8
n-1	3/4
n	1/8

For example, the factors used to adjust earned exposures for the period from 01/01/2022 to 12/31/2022 to the projected level are 1.172 for Buildings and 1.098 for Contents.

EXPOSURE TREND  
DEVELOPMENT OF CURRENT AND PROJECTED EARNED EXPOSURE FACTORS

Time Element				
	(1) <sup>a</sup>	(2) <sup>a</sup>	(3) <sup>b</sup>	(4) <sup>c</sup>
	Annual	7/1/2022	12/1/2024	12/1/2024
	Written	Written	Projected	Earned
<u>Year</u>	<u>Increase</u>	<u>Factors</u>	<u>Factors</u>	<u>Factors</u>
2010	0.7%	1.126	1.170	1.178
2011	0.8%	1.117	1.161	1.170
2012	0.8%	1.108	1.151	1.161
2013	0.9%	1.098	1.141	1.151
2014	1.0%	1.087	1.130	1.141
2015	1.1%	1.075	1.117	1.130
2016	1.1%	1.063	1.105	1.117
2017	0.9%	1.054	1.095	1.105
2018	0.7%	1.047	1.088	1.095
2019	1.0%	1.037	1.078	1.088
2020	0.9%	1.028	1.068	1.078
2021	1.2%	1.016	1.056	1.068
2022	1.6%	1.000	1.039	1.055

Notes

- a The percentages in columns (1) and (5) represent the change in written exposures from 07/01/n-1 to 07/01/n. Columns (2) and (6) contain the cumulative changes in written exposures for each year relative to the latest year.
- b The selected average annual change in Net Income (Time Element exposure) for projection purposes is 1.6%. Consequently, the written factors at 7/1/2022 levels in column (2) are brought to the level of the average date of writing in the effective period, 12/1/2024 (i.e., 6 months beyond an assumed revision date of 6/1/2024), by applying a factor of  $(1.016)^{(29/12)}$  for Time Element.
- c Written factors are earned into each accident year ending 12/31 using the following factors which assume all one year policies:

<u>Year</u>	<u>Earning Factors (All Years)</u>
n-2	1/8
n-1	3/4
n	1/8

For example, the factors used to adjust earned exposures for the period from 01/01/2022 to 12/31/2022 to the projected level is 1.055 for Time Element

PREMIUM TREND - BASIC GROUP I  
DEVELOPMENT OF CURRENT AND PROJECTED EARNED PREMIUM FACTORS

	<u>Buildings</u>				<u>Contents</u>			
	(1) <sup>a</sup>	(2) <sup>a</sup>	(3) <sup>b</sup>	(4) <sup>c</sup>	(5) <sup>a</sup>	(6) <sup>a</sup>	(7) <sup>b</sup>	(8) <sup>c</sup>
	Annual	7/1/2022	12/1/2024	12/1/2024	Annual	7/1/2022	12/1/2024	12/1/2024
	Written	Written	Projected	Earned	Written	Written	Projected	Earned
<u>Year</u>	<u>Increase</u>	<u>Factors</u>	<u>Factors</u>	<u>Factors</u>	<u>Increase</u>	<u>Factors</u>	<u>Factors</u>	<u>Factors</u>
2010	2.0%	1.297	1.423	1.453	1.4%	1.225	1.294	1.313
2011	2.0%	1.272	1.395	1.423	1.5%	1.207	1.275	1.294
2012	2.2%	1.245	1.366	1.395	1.5%	1.189	1.256	1.275
2013	2.1%	1.219	1.337	1.366	1.8%	1.168	1.234	1.256
2014	2.0%	1.195	1.311	1.337	1.8%	1.147	1.212	1.234
2015	1.9%	1.173	1.287	1.311	1.6%	1.129	1.193	1.212
2016	1.7%	1.153	1.265	1.287	1.5%	1.112	1.175	1.193
2017	1.7%	1.134	1.244	1.265	1.5%	1.096	1.158	1.175
2018	2.2%	1.110	1.218	1.243	1.6%	1.079	1.140	1.158
2019	2.3%	1.085	1.190	1.218	1.8%	1.060	1.120	1.140
2020	1.8%	1.066	1.169	1.191	1.8%	1.041	1.100	1.120
2021	2.6%	1.039	1.140	1.168	1.8%	1.023	1.081	1.100
2022	3.9%	1.000	1.097	1.138	2.3%	1.000	1.056	1.080

## Notes

- a The percentages in columns (1) and (5) represent the change in written premium (reflecting the combined effect of change in exposures and limit of insurance factors) from 07/01/n-1 to 07/01/n. Columns (2) and (6) contain the cumulative changes in written premiums for each year relative to the latest year.
- b The average annual changes in Premium for projection purposes are 3.9% and 2.3% for Buildings and Contents, respectively. Consequently, the written factors at 7/1/2022 levels in column (2) and column (6) are brought to the level of the average date of writing in the effective period, 12/1/2024 (i.e., 6 months beyond an assumed revision date of 6/1/2024), by applying a factor of  $(1.039)^{(29/12)}$  for Buildings and  $(1.023)^{(29/12)}$  for Contents.
- c Written factors are earned into each accident year ending 12/31 using the following factors which assume all one year policies:

<u>Year</u>	<u>Earning Factors (All Years)</u>
n-2	1/8
n-1	3/4
n	1/8

For example, the factors used to adjust earned exposures for the period from 01/01/2022 to 12/31/2022 to the projected level are 1.138 for Buildings and 1.08 for Contents.

PREMIUM TREND - BASIC GROUP II - OTHER THAN SOUTHEAST  
DEVELOPMENT OF CURRENT AND PROJECTED EARNED PREMIUM FACTORS

	Buildings				Contents			
	(1) <sup>a</sup>	(2) <sup>a</sup>	(3) <sup>b</sup>	(4) <sup>c</sup>	(5) <sup>a</sup>	(6) <sup>a</sup>	(7) <sup>b</sup>	(8) <sup>c</sup>
	Annual	7/1/2022	12/1/2024	12/1/2024	Annual	7/1/2022	12/1/2024	12/1/2024
	Written	Written	Projected	Earned	Written	Written	Projected	Earned
Year	Increase	Factors	Factors	Factors	Increase	Factors	Factors	Factors
2010	1.9%	1.271	1.381	1.408	1.3%	1.203	1.265	1.282
2011	1.9%	1.247	1.355	1.381	1.4%	1.186	1.247	1.265
2012	2.0%	1.223	1.329	1.355	1.4%	1.170	1.230	1.247
2013	1.9%	1.200	1.304	1.329	1.6%	1.152	1.211	1.230
2014	1.9%	1.178	1.280	1.304	1.6%	1.134	1.192	1.211
2015	1.7%	1.158	1.258	1.280	1.4%	1.118	1.176	1.192
2016	1.6%	1.140	1.239	1.258	1.4%	1.103	1.160	1.176
2017	1.6%	1.122	1.219	1.239	1.4%	1.088	1.144	1.160
2018	2.0%	1.100	1.195	1.219	1.4%	1.073	1.128	1.144
2019	2.1%	1.077	1.170	1.195	1.7%	1.055	1.109	1.128
2020	1.6%	1.060	1.152	1.171	1.6%	1.038	1.091	1.109
2021	2.4%	1.035	1.125	1.151	1.7%	1.021	1.074	1.091
2022	3.5%	1.000	1.087	1.124	2.1%	1.000	1.052	1.073

## Notes

- a The percentages in columns (1) and (5) represent the change in written premium (reflecting the combined effect of change in exposures and limit of insurance factors) from 07/01/n-1 to 07/01/n. Columns (2) and (6) contain the cumulative changes in written premiums for each year relative to the latest year.
- b The average annual changes in Premium for projection purposes are 3.5% and 2.1% for Buildings and Contents, respectively. Consequently, the written factors at 7/1/2022 levels in column (2) and column (6) are brought to the level of the average date of writing in the effective period, 12/1/2024 (i.e., 6 months beyond an assumed revision date of 6/1/2024), by applying a factor of  $(1.035)^{(29/12)}$  for Buildings and  $(1.021)^{(29/12)}$  for Contents.
- c Written factors are earned into each accident year ending 12/31 using the following factors which assume all one year policies:

Year	Earning Factors (All Years)
n-2	1/8
n-1	3/4
n	1/8

For example, the factors used to adjust earned exposures for the period from 01/01/2022 to 12/31/2022 to the projected level are 1.124 for Buildings and 1.073 for Contents.

PREMIUM TREND - SPECIAL CAUSES OF LOSS  
DEVELOPMENT OF CURRENT AND PROJECTED EARNED PREMIUM FACTORS

	<u>Buildings</u>				<u>Contents</u>			
	(1) <sup>a</sup>	(2) <sup>a</sup>	(3) <sup>b</sup>	(4) <sup>c</sup>	(5) <sup>a</sup>	(6) <sup>a</sup>	(7) <sup>b</sup>	(8) <sup>c</sup>
	Annual	7/1/2022	12/1/2024	12/1/2024	Annual	7/1/2022	12/1/2024	12/1/2024
	Written	Written	Projected	Earned	Written	Written	Projected	Earned
<u>Year</u>	<u>Increase</u>	<u>Factors</u>	<u>Factors</u>	<u>Factors</u>	<u>Increase</u>	<u>Factors</u>	<u>Factors</u>	<u>Factors</u>
2010	1.9%	1.280	1.397	1.425	1.1%	1.173	1.225	1.239
2011	1.9%	1.256	1.371	1.397	1.2%	1.159	1.210	1.225
2012	2.1%	1.230	1.343	1.371	1.2%	1.145	1.195	1.210
2013	2.0%	1.206	1.317	1.343	1.4%	1.129	1.179	1.195
2014	1.9%	1.184	1.293	1.317	1.4%	1.113	1.162	1.179
2015	1.8%	1.163	1.270	1.293	1.2%	1.100	1.148	1.162
2016	1.6%	1.145	1.250	1.270	1.2%	1.087	1.135	1.148
2017	1.6%	1.127	1.230	1.250	1.2%	1.074	1.121	1.135
2018	2.1%	1.104	1.205	1.229	1.2%	1.061	1.108	1.121
2019	2.2%	1.080	1.179	1.205	1.4%	1.046	1.092	1.108
2020	1.7%	1.062	1.159	1.180	1.4%	1.032	1.077	1.092
2021	2.4%	1.037	1.132	1.158	1.4%	1.018	1.063	1.077
2022	3.7%	1.000	1.092	1.130	1.8%	1.000	1.044	1.062

## Notes

- a The percentages in columns (1) and (5) represent the change in written premium (reflecting the combined effect of change in exposures and limit of insurance factors) from 07/01/n-1 to 07/01/n. Columns (2) and (6) contain the cumulative changes in written premiums for each year relative to the latest year.
- b The average annual changes in Premium for projection purposes are 3.7% and 1.8% for Buildings and Contents, respectively. Consequently, the written factors at 7/1/2022 levels in column (2) and column (6) are brought to the level of the average date of writing in the effective period, 12/1/2024 (i.e., 6 months beyond an assumed revision date of 6/1/2024), by applying a factor of  $(1.037)^{(29/12)}$  for Buildings and  $(1.018)^{(29/12)}$  for Contents.
- c Written factors are earned into each accident year ending 12/31 using the following factors which assume all one year policies:

<u>Year</u>	<u>Earning Factors (All Years)</u>
n-2	1/8
n-1	3/4
n	1/8

For example, the factors used to adjust earned exposures for the period from 01/01/2022 to 12/31/2022 to the projected level are 1.13 for Buildings and 1.062 for Contents.



## TENNESSEE

## BASIC GROUP I

ADDITIONAL INFORMATION ON TREND ADJUSTMENTS

<u>Year</u>	(1) Unadjusted Incurred <u>Losses</u>	(2) Trended Incurred <u>Losses</u>	(3) Average Total Loss Trend Factor <u>(2) / (1)</u>	(4) Split %		
				<u>Buildings</u>	<u>Contents</u>	<u>Time Element</u>
2018	15,939,705	26,013,852	1.632	74.0%	23.7%	2.3%
2019	23,679,577	37,243,926	1.573	84.9%	12.7%	2.4%
2020	39,069,410	58,585,029	1.500	67.0%	22.9%	10.1%
2021	25,038,620	36,066,620	1.440	62.7%	19.8%	17.5%
2022	30,952,699	40,556,916	1.310	75.9%	13.3%	10.8%

## TENNESSEE

## BASIC GROUP II

ADDITIONAL INFORMATION ON TREND ADJUSTMENTS

<u>Year</u>	(1) Unadjusted Incurred Losses	(2) Trended Incurred Losses	(3) Average Total Loss Trend Factor (2) / (1)	(4) Split %		
				<u>Buildings</u>	<u>Contents</u>	<u>Time Element</u>
2013	13,291,868	26,033,528	1.959	95.3%	4.6%	0.1%
2014	9,005,219	17,252,965	1.916	92.9%	6.1%	1.0%
2015	8,303,763	15,156,889	1.825	93.3%	6.3%	0.4%
2016	6,348,594	11,302,457	1.780	94.8%	5.1%	0.1%
2017	62,603,814	105,712,993	1.689	92.3%	6.3%	1.4%
2018	11,210,383	18,385,190	1.640	92.4%	5.5%	2.1%
2019	8,074,171	12,963,735	1.606	89.8%	5.5%	4.7%
2020	216,512,646	323,899,804	1.496	87.5%	6.3%	6.2%
2021	16,906,226	24,247,511	1.434	88.5%	7.5%	4.0%
2022	26,076,184	34,353,106	1.317	82.7%	16.7%	0.6%

## TENNESSEE

## SPECIAL CAUSES OF LOSS

ADDITIONAL INFORMATION ON TREND ADJUSTMENTS

<u>Year</u>	(1) Unadjusted Incurred <u>Losses</u>	(2) Trended Incurred <u>Losses</u>	(3) Average Total Loss Trend Factor <u>(2) / (1)</u>	(4) Split %		
				<u>Buildings</u>	<u>Contents</u>	<u>Time Element</u>
2018	15,753,837	25,045,586	1.590	83.5%	13.4%	3.1%
2019	6,681,493	10,474,375	1.568	71.5%	24.7%	3.8%
2020	19,342,064	28,609,574	1.479	82.4%	14.3%	3.3%
2021	30,215,650	42,655,429	1.412	62.3%	36.1%	1.6%
2022	11,177,563	14,585,282	1.305	74.0%	20.6%	5.4%

## TENNESSEE

INCURRED LOSS DEVELOPMENT  
LOSS YEARS 2013-2022  
EVALUATED AS OF 9/2022

## Basic Group I

Year Ending	Losses as of				
	15 Months	27 Months	39 Months	51 Months	63 Months
6/30/2013	980,564,097	942,552,319	929,220,620	918,130,092	903,866,485
6/30/2014	967,503,845	971,429,894	957,364,286	944,333,472	938,965,744
6/30/2015	890,297,469	878,985,964	857,743,908	855,001,723	851,485,092
6/30/2016	937,385,900	928,664,285	915,929,119	907,335,053	904,920,985
6/30/2017	1,026,077,856	1,004,452,127	989,604,871	984,492,144	984,068,201
6/30/2018	1,289,817,978	1,253,347,149	1,182,607,951	1,177,728,786	1,181,271,850
6/30/2019	1,108,224,831	1,081,918,299	1,053,423,489	1,048,275,183	
6/30/2020	1,369,955,235	1,353,038,140	1,305,107,595		
6/30/2021	1,407,229,217	1,443,694,904			
6/30/2022	1,337,638,763				

Year Ending	Ratios			
	27:15 Months	39:27 Months	51:39 Months	63:51 Months
6/30/2013	0.961	0.986	0.988	0.984
6/30/2014	1.004	0.986	0.986	0.994
6/30/2015	0.987	0.976	0.997	0.996
6/30/2016	0.991	0.986	0.991	0.997
6/30/2017	0.979	0.985	0.995	1.000
6/30/2018	0.972	0.944	0.996	1.003
6/30/2019	0.976	0.974	0.995	
6/30/2020	0.988	0.965		
6/30/2021	1.026			
5 Point Average	0.988	0.971	0.995	0.998

## Development Factors to Ultimate

15 Months to Ultimate =	0.953
27 Months to Ultimate =	0.964
39 Months to Ultimate =	0.993
51 Months to Ultimate =	0.998

## TENNESSEE

INCURRED LOSS DEVELOPMENT  
LOSS YEARS 2013-2022  
EVALUATED AS OF 9/2022

## Basic Group II

Year Ending	Losses as of				
	15 Months	27 Months	39 Months	51 Months	63 Months
6/30/2013	551,248,741	592,844,343	604,286,855	616,123,199	623,785,672
6/30/2014	622,731,538	656,205,086	666,493,941	674,631,996	679,463,001
6/30/2015	447,594,531	484,945,488	493,642,182	500,703,988	506,944,561
6/30/2016	638,190,770	684,624,568	691,885,960	698,579,931	704,204,728
6/30/2017	818,632,365	908,318,909	938,894,802	956,256,393	961,582,704
6/30/2018	559,151,659	609,488,224	623,972,940	628,163,657	637,185,907
6/30/2019	771,493,127	835,898,496	866,191,334	871,684,411	
6/30/2020	1,010,012,466	1,071,349,925	1,099,680,636		
6/30/2021	891,451,770	964,696,510			
6/30/2022	1,035,277,458				

## RATIOS

Year Ending	27:15 Months	39:27 Months	51:39 Months	63:51 Months
6/30/2013	1.075	1.019	1.020	1.012
6/30/2014	1.054	1.016	1.012	1.007
6/30/2015	1.083	1.018	1.014	1.012
6/30/2016	1.073	1.011	1.010	1.008
6/30/2017	1.110	1.034	1.018	1.006
6/30/2018	1.090	1.024	1.007	1.014
6/30/2019	1.083	1.036	1.006	
6/30/2020	1.061	1.026		
6/30/2021	1.082			
5 Point Average	1.085	1.026	1.011	1.009

## Development Factors to Ultimate

15 Months to Ultimate =	1.136
27 Months to Ultimate =	1.047
39 Months to Ultimate =	1.020
51 Months to Ultimate =	1.009

## TENNESSEE

INCURRED LOSS DEVELOPMENT  
LOSS YEARS 2013-2022  
EVALUATED AS OF 9/2022

## Special Causes of Loss

Year Ending	Losses as of				
	15 Months	27 Months	39 Months	51 Months	63 Months
6/30/2013	479,328,671	482,979,501	477,172,652	476,885,891	478,158,415
6/30/2014	709,354,075	709,200,269	703,136,252	703,146,761	700,761,691
6/30/2015	690,191,738	685,009,041	681,183,295	680,809,838	681,405,090
6/30/2016	410,045,220	420,500,279	417,090,009	419,610,482	417,241,553
6/30/2017	454,438,413	471,666,060	470,859,641	475,339,242	475,952,858
6/30/2018	620,550,472	610,419,445	607,529,087	596,028,906	598,944,772
6/30/2019	570,155,122	574,132,582	571,109,940	571,034,977	
6/30/2020	482,553,095	476,503,706	477,503,399		
6/30/2021	1,013,737,593	1,017,903,859			
6/30/2022	592,093,464				

## RATIOS

Year Ending	27:15 Months	39:27 Months	51:39 Months	63:51 Months
6/30/2013	1.008	0.988	0.999	1.003
6/30/2014	1.000	0.991	1.000	0.997
6/30/2015	0.992	0.994	0.999	1.001
6/30/2016	1.025	0.992	1.006	0.994
6/30/2017	1.038	0.998	1.010	1.001
6/30/2018	0.984	0.995	0.981	1.005
6/30/2019	1.007	0.995	1.000	
6/30/2020	0.987	1.002		
6/30/2021	1.004			
5 Point Average	1.004	0.996	0.999	1.000

## Development Factors to Ultimate

15 Months to Ultimate =	0.999
27 Months to Ultimate =	0.995
39 Months to Ultimate =	0.999
51 Months to Ultimate =	1.000

## TENNESSEE

COUNTRYWIDE BASIC GROUP I EXCESS LOSS FACTORS  
BY CONSTRUCTION, PROTECTION AND EXPOSURE

		Amount of Insurance *										
		1	2	3	4	5	6	7	8	9	10	11
Const. 1-3	Prot. 1-4	1.000	1.058	1.120	1.185	1.254	1.326	1.404	1.485	1.571	1.663	1.759
	Prot. 5-7	1.000	1.074	1.153	1.239	1.330	1.429	1.534	1.648	1.770	1.901	2.041
	Prot. 8-10	1.000	1.133	1.284	1.454	1.648	1.867	2.116	2.397	2.716	3.077	3.486

		Amount of Insurance *										
		1	2	3	4	5	6	7	8	9	10	11
Const. 4-6	Prot. 1-4	1.000	1.058	1.120	1.185	1.254	1.326	1.404	1.485	1.571	1.663	1.759
	Prot. 5-7	1.000	1.074	1.153	1.239	1.330	1.429	1.534	1.648	1.770	1.901	2.041
	Prot. 8-10	1.000	1.133	1.284	1.454	1.648	1.867	2.116	2.397	2.716	3.077	3.486

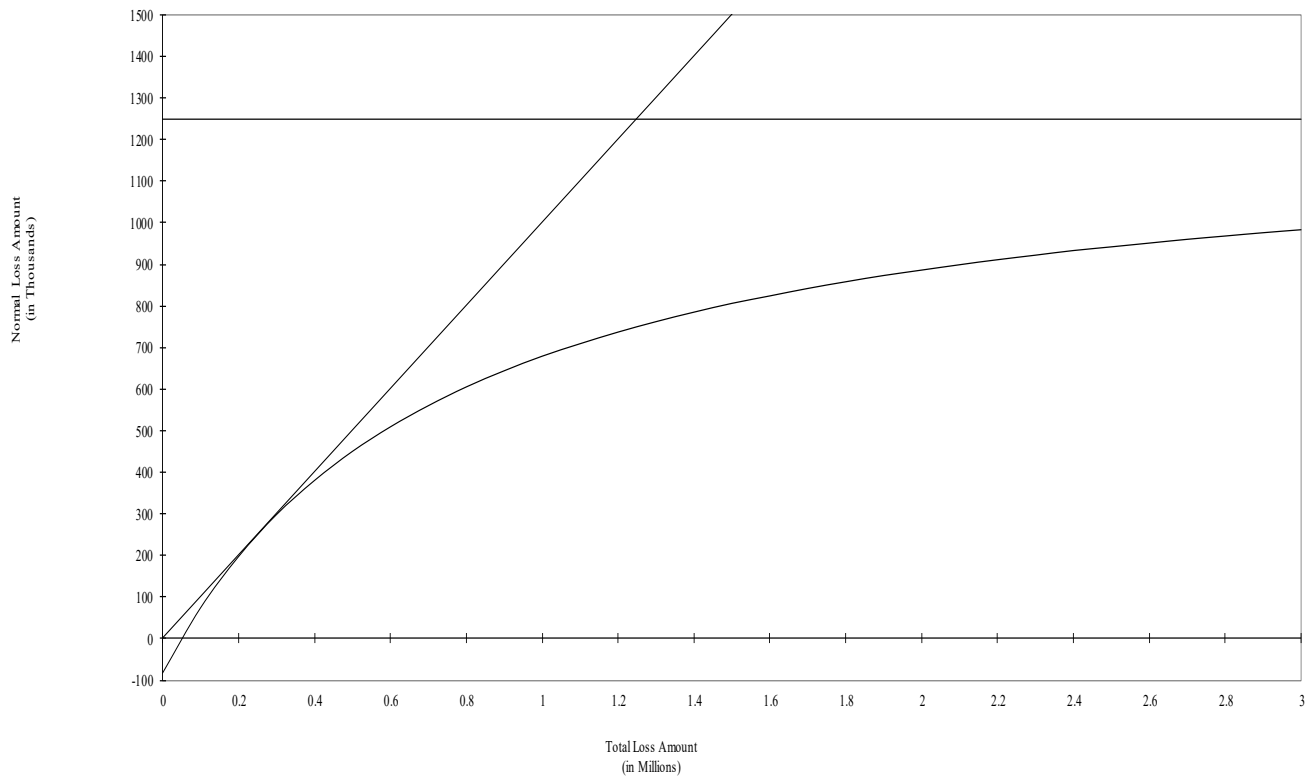
\* Amount of  
Insurance

Intervals

1	0 - 599,000
2	599,001 - 750,000
3	750,001 - 1,000,000
4	1,000,001 - 1,250,000
5	1,250,001 - 1,500,000
6	1,500,001 - 2,500,000
7	2,500,001 - 3,500,000
8	3,500,001 - 5,500,000
9	5,500,001 - 7,500,000
10	7,500,001 - 10,000,000
11	10,000,001 and over

Countrywide Basic Group I  
Normal vs. Total Loss Amount

$$\text{Normal Loss} = \$1,250,000 \times (1 - (\$800,000 \div (\text{Total Loss} + \$750,000)))$$





## TENNESSEE

## BASIC GROUP I

ADDITIONAL EXCESS LOSS INFORMATION

	(1)	(2)	(3)	(4)	(5)	(6)
				Multi-		State
	Trended	Trended	State	State	Smoothed	Average
	Incurred	Normal	Normal %	Normal	Incurred	Excess
<u>Year</u>	<u>Losses</u>	<u>Losses</u>	<u>(2)/(1)</u>	<u>%</u>	<u>Losses</u>	<u>(5)/(2)</u>
2018	26,013,852	21,206,879	81.5%	48.0%	28,139,954	1.327
2019	37,243,926	26,357,482	70.8%	72.7%	36,889,052	1.400
2020	58,585,029	31,521,601	53.8%	64.5%	42,961,202	1.363
2021	36,066,620	28,342,145	78.6%	70.8%	39,975,749	1.410
2022	40,556,916	29,987,554	73.9%	71.2%	44,346,754	1.479

TENNESSEE  
DEVELOPMENT OF BASIC GROUP II EXCESS MULTIPLIER

	(1)	(2)	(3)	(4)	(5)	(6)
			Normal	Normal	State	Regional
	Earned	Incurred	Incurred	Loss	Excess	Excess
<u>Year</u>	<u>Premiums</u>	<u>Losses</u>	<u>Losses</u>	<u>Ratio</u>	<u>Ratio</u>	<u>Ratio</u>
1950	1,309,716	276,744	276,744	0.211	0.000	0.000
1951	1,419,791	246,115	246,115	0.173	0.000	0.000
1952	1,659,418	847,825	847,825	0.511	0.000	0.000
1953	1,784,176	608,171	608,171	0.341	0.000	0.000
1954	1,878,123	306,676	306,676	0.163	0.000	0.000
1955	1,945,812	1,305,248	1,305,248	0.671	0.000	0.000
1956	2,020,452	671,279	671,279	0.332	0.000	0.000
1957	2,173,972	897,164	897,164	0.413	0.000	0.000
1958	2,171,310	706,391	706,391	0.325	0.000	0.000
1959	2,230,121	1,005,047	1,005,047	0.451	0.000	0.000
1960	2,306,777	667,972	667,972	0.290	0.000	0.000
1961	2,441,166	910,864	910,864	0.373	0.000	0.000
1962	2,520,173	774,177	774,177	0.307	0.000	0.000
1963	2,429,105	798,504	798,504	0.329	0.000	0.000
1964	2,280,935	1,114,441	1,114,441	0.489	0.000	0.000
1965	2,220,651	1,273,132	1,273,132	0.573	0.000	0.000
1966	2,245,379	1,031,091	1,031,091	0.459	0.000	0.000
1967	2,274,471	1,789,122	1,667,187	0.733	0.052	0.002
1968	2,151,323	1,101,491	1,101,491	0.512	0.000	0.000
1969	2,364,520	847,807	847,807	0.359	0.000	0.000
1970	3,169,295	2,055,949	2,055,949	0.649	0.000	0.000
1971	3,105,046	4,403,788	2,275,999	0.733	0.523	0.162
1972	3,440,045	1,961,511	1,961,511	0.570	0.000	0.000
1973	3,628,117	1,892,555	1,892,555	0.522	0.000	0.000
1974	4,020,236	6,132,102	2,946,833	0.733	0.583	0.209
1975	4,906,156	5,829,374	3,596,212	0.733	0.377	0.078
1976	5,834,836	2,690,773	2,690,773	0.461	0.000	0.000
1977	7,332,016	4,159,643	4,159,643	0.567	0.000	0.000
1978	9,065,816	4,304,820	4,304,820	0.475	0.000	0.000
1979	9,758,852	4,623,006	4,623,006	0.474	0.000	0.000
1980	9,327,979	6,815,879	5,198,230	0.557	0.152	0.022
1981	8,211,007	4,166,746	4,166,746	0.507	0.000	0.000
1982	7,314,096	4,893,432	4,893,432	0.669	0.000	0.000
1983	6,995,220	7,083,816	5,388,491	0.770	0.212	0.031
1984	6,839,136	4,222,090	4,222,090	0.617	0.000	0.000
1985	9,295,692	4,368,677	4,368,677	0.470	0.000	0.000
1986	12,054,576	5,861,309	5,861,309	0.486	0.000	0.000
1987	11,838,105	4,083,801	4,083,801	0.345	0.000	0.000
1988	12,687,285	6,507,831	4,882,992	0.385	0.119	0.009
1989	11,245,413	4,923,669	4,923,669	0.438	0.000	0.000
1990	9,882,348	4,546,060	4,546,060	0.460	0.000	0.000
1991	9,789,840	10,370,325	6,177,323	0.631	0.361	0.067
1992	9,856,905	1,754,324	1,754,324	0.178	0.000	0.000

TENNESSEE  
DEVELOPMENT OF BASIC GROUP II EXCESS MULTIPLIER

	(1)	(2)	(3)	(4)	(5)	(6)
			Normal	Normal	State	Regional
	Earned	Incurred	Incurred	Loss	Excess	Excess
Year	Premiums	Losses	Losses	Ratio	Ratio	Ratio
1993	9,271,254	4,411,877	4,406,121	0.475	0.001	0.000
1994	8,778,903	3,975,448	3,975,448	0.453	0.000	0.000
1995	9,318,315	7,056,861	5,500,280	0.590	0.152	0.015
1996	9,296,346	4,588,050	4,588,050	0.494	0.000	0.000
1997	8,975,454	5,918,855	5,830,965	0.650	0.010	-0.001
1998	8,303,481	25,788,278	7,654,351	0.922	1.090	1.094
1999	8,536,770	19,624,795	6,804,570	0.797	0.840	0.662
2000	8,397,462	4,086,823	4,086,823	0.487	0.000	0.000
2001	8,651,727	2,687,207	2,687,207	0.311	0.000	0.000
2002	10,970,148	5,141,291	5,141,291	0.469	0.000	0.000
2003	12,486,027	42,039,972	7,430,015	0.595	1.441	1.331
2004	15,535,197	7,292,653	6,638,829	0.427	0.041	0.001
2005	17,418,711	5,102,508	5,102,508	0.293	0.000	0.000
2006	18,971,556	23,063,684	8,595,199	0.453	0.520	0.243
2007	21,071,670	4,876,057	4,876,057	0.231	0.000	0.000
2008	22,088,790	72,828,083	13,295,710	0.602	1.024	1.671
2009	22,466,652	19,709,643	16,089,997	0.716	0.147	0.014
2010	22,492,380	11,360,762	10,887,746	0.484	0.021	0.000
2012	31,918,626	152,116,951	37,184,733	1.165	1.588	2.013
2013	23,401,617	13,291,868	13,291,868	0.568	0.000	0.000
2014	25,494,141	9,005,219	9,005,219	0.353	0.000	0.000
2015	28,765,203	8,303,763	8,303,763	0.289	0.000	0.000
2016	30,761,139	6,348,594	6,348,594	0.206	0.000	0.000
2017	33,690,906	62,603,814	29,627,098	0.879	0.660	0.319
2018	36,892,569	11,210,383	11,210,383	0.304	0.000	0.000
2019	39,177,861	8,074,171	8,074,171	0.206	0.000	0.000
2020	43,065,258	216,512,646	36,327,927	0.844	1.394	2.790
2021	48,178,863	16,906,226	16,424,087	0.341	0.010	0.000
2022	53,606,448	26,076,184	21,469,415	0.401	0.082	0.003
<b>Total</b>				<b>35.450</b>	<b>11.400</b>	<b>10.735</b>

(7) State Excess Component = Total (5) ÷ Total (4) = 0.322

(8) Regional Excess Component 0.092

(9) State Excess Multiplier = (1.00 + (7)) \* (1.00 + (8)) = 1.444

TENNESSEE  
DEVELOPMENT OF SPECIAL CAUSES OF LOSS EXCESS MULTIPLIER

	(1)	(2)	(3)	(4)	(5)
	Earned	Incurred	Normal	Normal	State
Year	Premiums	Losses	Incurred	Loss	Excess
			Losses	Ratio	Loss
					Ratio
1986	6,855,810	3,912,773	3,912,773	0.571	-
1987	8,306,496	3,088,428	3,088,428	0.372	-
1988	8,381,700	2,705,133	2,705,133	0.323	-
1989	8,027,160	3,669,548	3,669,548	0.457	-
1990	8,952,936	12,047,634	6,394,713	0.714	0.632
1991	9,975,594	6,431,552	6,431,552	0.645	-
1992	9,659,322	6,313,569	6,313,569	0.654	-
1993	9,196,731	7,823,438	6,360,579	0.692	0.159
1994	9,923,664	9,881,724	7,430,496	0.749	0.247
1995	10,381,557	5,887,479	5,697,522	0.549	0.018
1996	10,497,117	9,642,057	7,808,942	0.744	0.175
1997	10,563,951	7,109,031	7,109,031	0.673	-
1998	10,359,108	8,922,571	7,827,420	0.756	0.105
1999	10,485,483	6,992,755	6,992,755	0.667	-
2000	10,420,917	5,835,475	5,835,475	0.560	-
2001	10,276,248	6,863,688	6,863,688	0.668	-
2002	10,900,428	7,767,673	7,767,673	0.713	-
2003	12,156,390	15,572,933	8,966,650	0.738	0.543
2004	13,841,547	5,747,961	5,747,961	0.415	-
2005	14,528,421	7,509,586	7,212,954	0.496	0.021
2006	13,898,715	5,217,685	5,217,685	0.375	-
2007	14,248,254	8,291,668	8,291,668	0.582	-
2008	13,250,682	8,489,880	8,489,880	0.641	-
2009	14,480,292	10,162,385	10,130,599	0.700	0.002
2010	15,125,448	21,878,142	10,792,380	0.714	0.732
2011	14,771,949	20,988,563	14,632,061	0.991	0.430
2012	14,472,471	10,130,842	10,130,842	0.700	-
2013	15,315,219	6,884,922	6,884,922	0.450	-
2014	15,960,189	17,732,779	10,901,590	0.683	0.428
2015	17,370,951	26,944,713	10,205,395	0.587	0.964
2016	18,389,880	8,041,230	8,041,230	0.437	-
2017	19,935,129	10,349,803	10,349,803	0.519	-
2018	21,745,557	15,753,837	12,037,229	0.554	0.170
2019	22,421,394	6,681,493	6,681,493	0.298	-
2020	23,536,080	19,342,064	14,564,856	0.619	0.203
2021	25,223,241	30,215,650	16,555,672	0.656	0.542
2022	27,285,162	11,177,563	11,177,563	0.410	-
<b>Total</b>	<b>511,121,193</b>	<b>382,008,227</b>	<b>299,221,730</b>	<b>22.072</b>	<b>5.371</b>

(6) State Excess Component = Total (5) ÷ Total (4) = 0.243

(7) State Excess Multiplier = 1.00 + (6) = 1.243

TENNESSEE  
BASIC GROUP I STATEWIDE CREDIBILITY CALCULATION

(1A) Full Credibility Claims Standard For Frequency With (P,K) = ( 95.00% , 5.00%)	1,537
(1B) Severity Modification Factor	7.696
(1C) Full Credibility Claims Standard Adjusted For Severity ((1A) X (1B))	11,829
(2) Multistate Five Year Ratio Of Earned Risks To Claims	375.961
(3) Full Credibility Earned Risks Standard (1C)X(2)	4,447,243
(4) Five Year Statewide Earned Risks	571,805
(5) Five Year Aggregate Loss Costs	200,075,094
(6) Aggregate Loss Costs Per Earned Risk (5)/(4)	349.901
(7) Aggregate Loss Costs For 100% Credibility (3) X (6)	1,556,094,773
(8) Statewide Credibility ((5)/(7))**(.5)	35.9%

TENNESSEE  
BASIC GROUP II STATEWIDE CREDIBILITY CALCULATION

(1) Full Credibility Claims Standard	30,000
(2) Multistate Ten Year Ratio Of Earned Risks To Claims	175.375
(3) Full Credibility Earned Risks Standard (1)X(2)	5,261,250
(4) Ten Year Statewide Earned Risks	1,095,462
(5) Ten Year Aggregate Loss Costs	341,023,828
(6) Aggregate Loss Costs Per Earned Risk (5)/(4)	311.306
(7) Aggregate Loss Costs For 100% Credibility (3) X (6)	1,637,858,693
(8) Statewide Credibility $((5)/(7))^{**}(.5)$	45.6%

TENNESSEE  
SPECIAL CAUSES OF LOSS STATEWIDE CREDIBILITY CALCULATION

(1) Full Credibility Claims Standard	25,000
(2) Multistate Ten Year Ratio Of Earned Risks To Claims	227.646
(3) Full Credibility Earned Risks Standard (1)X(2)	5,691,150
(4) Five Year Statewide Earned Risks	577,266
(5) Five Year Aggregate Loss Costs	97,447,082
(6) Aggregate Loss Costs Per Earned Risk (5)/(4)	168.808
(7) Aggregate Loss Costs For 100% Credibility (3) X (6)	960,711,649
(8) Statewide Credibility $((5)/(7))^{**}(.5)$	31.8%

## TENNESSEE

BASIC GROUP I RATING GROUP DEFINITIONS

The following CSP Classes comprise the Basic Group I Rating Groups:

01 Apartments

- 0311 Apartments without Mercantile Occupancies - Up to 10 Units
- 0312 Apartments without Mercantile Occupancies - 11 to 30 Units
- 0313 Apartments without Mercantile Occupancies - Over 30 Units
- 0321 Apartments with Mercantile Occupancies - Up to 10 Units
- 0322 Apartments with Mercantile Occupancies - 11 to 30 Units
- 0323 Apartments with Mercantile Occupancies - Over 30 Units
- 0331 Residential Condominiums without Mercantile Occupancies - Up to 10 Units
- 0332 Residential Condominiums without Mercantile Occupancies - 11 to 30 Units
- 0333 Residential Condominiums without Mercantile Occupancies - Over 30 Units
- 0341 Residential Condominiums with Mercantile Occupancies - Up to 10 Units
- 0342 Residential Condominiums with Mercantile Occupancies - 11 to 30 Units
- 0343 Residential Condominiums with Mercantile Occupancies - Over 30 Units

02 OTHER HABITATIONAL

- 0074 Boarding and Lodging Houses, Rooming Houses, Fraternities and Sororities, Dormitories - Up to 10 Units
- 0075 Boarding and Lodging Houses, Rooming Houses, Fraternities and Sororities, Dormitories - 11 to 30 Units
- 0076 Boarding and Lodging Houses, Rooming Houses, Fraternities and Sororities, Dormitories - Over 30 Units
- 0077 Convents, Monasteries and Rectories, Orphan Homes, Nurses' Homes, Sisters' Homes - Up to 10 Units
- 0078 Convents, Monasteries and Rectories, Orphan Homes, Nurses' Homes, Sisters' Homes - 11 to 30 Units
- 0079 Convents, Monasteries and Rectories, Orphan Homes, Nurses' Homes, Sisters' Homes - Over 30 Units
- 0196 Dwellings Written in Conjunction with Commercial Risks from the Commercial Lines Manual - 1 Family
- 0197 Dwellings Written in Conjunction with Commercial Risks from the Commercial Lines Manual - 2 Family
- 0198 Dwellings Written in Conjunction with Commercial Risks from the Commercial Lines Manual - 3 and 4 Family
- 0300 Large Area Housing Developments (Special Rating Treatment)

03 RESTAURANTS & BARS

- 0541 Bars and Taverns
- 0542 Restaurants with Commercial Cooking
- 0545 Restaurants with Limited Cooking



BASIC GROUP I RATING GROUP DEFINITIONS04 OTHER MERCANTILES

- 0431 Sole Occupancy Mercantile, Over 15,000 Square Feet, Building Coverage, Other than Food Risks
- 0432 Sole Occupancy Mercantile, Over 15,000 Square Feet, Food Risks, Buildings and Personal Property
- 0433 Multiple Occupancy Mercantile, Over 15,000 Square Feet, Building Coverage Only, Not Fire Class Rated
- 0434 Multiple Occupancy Mercantile, Less than 15,000 Square Feet, Building Coverage Only, Not Fire Class Rated
- 0511 Risks Having Low Susceptibility Personal Property, NOC
- 0512 Tire, Battery and Accessory Dealers Without Tire Recapping and Vulcanizing
- 0520 Wearing Apparel, Textiles, Shoes
- 0531 Alcoholic Beverages other than Bars
- 0532 Food Products including Retail Bakeries (no baking and no cooking on premises; sales only); Beverages other than Alcoholic
- 0533 Retail Bakeries - Baking on Premises (No delivery to other outlets)
- 0534 Food Products with Limited Cooking, Excluding Bakeries
- 0535 Retail Bakeries - Baking on Premises (No delivery to other outlets) - Using Cannabis as an Ingredient
- 0550 Motor Vehicle (Auto, Aircraft, Marine) Sales, No Repair
- 0561 Boat and Marine Supply Dealers
- 0562 Drugs
- 0563 Electrical Goods, Hardware and Machinery
- 0564 Furniture and Home Furnishings other than Appliances
- 0565 Jewelry
- 0566 Sporting Goods
- 0567 Risks Having Moderate Susceptibility Personal Property, NOC
- 0570 Risks Having High Susceptibility Personal Property, NOC
- 0574 Cannabis containing Products Distributors or Retail Sales, Cannabis, NOC
- 0575 Mercantile - Cannabis - Growers other than Greenhouses - including hydroponics
- 0580 Greenhouses
- 0581 Multiple Occupancy Mercantile, Fire Class Rated, without furniture Occupant
- 0582 Multiple Occupancy Mercantile, Fire Class Rated, with furniture Occupant
- 0585 Greenhouses - Cannabis

05 PUBLIC BUILDINGS

- 0701 Governmental Offices
- 1000 Penal Institutions
- 1051 Museums, Libraries, Art Galleries (non-profit)
- 1070 Other Public Buildings, Fire Dept., Police, Water/Sewer

06 CHURCHES

- 0900 Churches and Synagogues

BASIC GROUP I RATING GROUP DEFINITIONS07 SCHOOLS

1052 Schools, Academic

08 OFFICE AND BANKS

0702 Non-Governmental Offices and Banks

09 RECREATIONAL FACILITIES

0755 Golf Clubs, Tennis Clubs and Similar Sports Facilities with Cooking

0756 Golf Clubs, Tennis Clubs and Similar Sports Facilities without Cooking

0757 Clubs, NOC, Including Fraternal and Union Halls

0831 Motion Picture Studios

0832 Theaters

0833 Drive-in Theaters

0834 Skating Rinks--Roller Rinks

0841 Bowling Alleys

0843 Halls and Auditoriums

0844 Recreational Facilities, NOC

0845 Boys' and Girls' Camps

0846 Dance Halls, Ballrooms & Discotheques

0951 Gambling Casinos with Restaurants

0952 Gambling Casinos without Restaurants

10 HOTELS & MOTELS

0742 Motels and Hotels with Restaurant - Up to 10 Units

0743 Motels and Hotels with Restaurant - 11 to 30 Units

0744 Motels and Hotels with Restaurant - Over 30 Units

0745 Motels and Hotels without Restaurant - Up to 10 Units

0746 Motels and Hotels without Restaurant - 11 to 30 Units

0747 Motels and Hotels without Restaurant - Over 30 Units

11 HOSPITALS & NURSING HOMES

0851 Hospitals

0852 Nursing and Convalescent Homes

BASIC GROUP I RATING GROUP DEFINITIONS12 BUILDINGS UNDER CONSTRUCTION

1150 Buildings Under Construction

13 MOTOR VEHICLE RISKS

0931 Auto Parking Garages, Car Washes

0932 Gasoline Service Stations

0933 Aircraft Hangars with Repairing, Motor Vehicle Repairing Including Auto Body Shops, with or without Sales

0934 Tire Recapping and Vulcanizing with or without Sales

0940 Aircraft Hangars without Repairing

14 OTHER NON-MANUFACTURING

0911 Dry Cleaner and Dyeing Plants, other than Self-Service

0912 Laundries, other than Self-Service

0913 Self-Service Laundries and Dry Cleaners

0921 Light Hazard Service Occupancies

0922 Services Occupancies, Other than Light Hazard, NOC

0923 Funeral Homes

1180 Vacant Buildings

1185 Billboards and Signs

1190 Yard Property, NOC, Including Property in the Open

15 STORAGE

1200 Piers, Wharves, Bridges

1211 Freight Terminals

1212 General Storage Warehouses - Bailee

1213 Miscellaneous Products Storage - (other than Retail or Wholesale or Cold Storage)

1220 Household Goods Storage

1230 Cold Storage Warehouses

1251 Farm Products (other than Grain, Cotton, Tobacco)

1252 Grain, Seed, Bean Warehouses

1255 Sales Warehouses - Cannabis

1300 Cotton Compresses and Storage

1400 Waste and Reclaimed Material, including Yards

1450 Whiskey and Liquor Warehouses in Connection with Distilleries

1501 Tobacco Warehouses, Storage

1502 Tobacco Sales Warehouses

1550 Grain Elevators - Terminal

1610 Grain Elevators - Country

BASIC GROUP I RATING GROUP DEFINITIONS

1650 Building Supply Yards, including Retail Lumberyards, Coal and Coke Yards

1700 Mill Yards

1751 Oil Distributing, Oil Terminals and LPG Tank Farms, Including Stock

1752 Oil Distributing, Oil Terminals and LPG Tank Farms, Excluding Stock

17 FOOD MANUFACTURING

2000 Dairy Products

2059 Meat, Poultry and Fish Products

2150 Grain Milling, Including Feed, Stock, Flour Mills

2200 Bakeries and Bakery Products - other than Cannabis

2205 Bakeries and Bakery Products - Using Cannabis as an Ingredient

2215 Cannabis Processing or Manufacturing - No extraction

2250 Fruit, Nut and Vegetable Products

2300 Sugar, Molasses and Syrup Refining

2350 Beverages excluding Alcoholic Beverages

2400 Breweries

2459 Distilleries and Wineries

2550 Tobacco and Tobacco Products

2600 Food Products, NOC

18 WOOD MANUFACTURING

3809 Basic Wood Production including Veneer and Plywood Plants

3959 Furniture and Other Wood Products, NOC

19 WEARING APPAREL

2800 Textile Mill Products - Natural and Synthetic

3009 Clothing and Apparel including Furs and Finished Products

20 CHEMICAL MANUFACTURING

5000 Chemicals and Pharmaceuticals - Low Hazard

5050 Chemicals and Pharmaceuticals - Moderate Hazard

5100 Chemicals and Pharmaceuticals - High Hazard

5105 Cannabis Processing or Manufacturing - Extraction using noncombustible gases or chemicals

5155 Cannabis Processing or Manufacturing - Extraction using combustible gases or chemicals, or rapid burning

BASIC GROUP I RATING GROUP DEFINITIONS21 METAL MANUFACTURING

6810 Heavy Metalworking including Basic Metalwork

6850 Metalworking, NOC

22 OTHER MANUFACTURING

2750 Cotton Gins

3409 Leather and Leather Products

4400 Paper Manufacturing

4450 Paper and Paper Products Processing

4809 Printing

5500 Plastic Products

5759 Rubber Products

6009 Stone, Glass, Concrete, Gypsum, Brick, Tile and Clay Products, Abrasives, Plaster and Other Mineral, NOC

6210 Mining Other than Coal

6250 Coal Mining

6900 Precision Products, Electronic, Radio and Television Manufacturing

## TENNESSEE

SPECIAL CAUSES OF LOSS CATEGORY DEFINITIONSCATEGORY 01 - BUILDING AND TIME ELEMENT COVERAGECATEGORY 02 - APARTMENT AND CONDOMINIUM CONTENTS COVERAGECATEGORY 03 - OFFICE CONTENTS COVERAGECATEGORIES 04, 05, & 06 - MERCANTILE CONTENTS COVERAGE

An establishment in which the principal business is the retail or wholesale buying or selling of goods, wares and merchandise. Included are bars, grills and restaurants.

CATEGORY 04 - MERCANTILE CONTENTS COVERAGE (HIGH)

Occupancy classes 0511, 0520, 0535, 0550, 0562, 0566, 0567, 0574, 0581, 0702, 1180, 1185, 1190, 1200, 1211, 1212, 1213, 1251, 1255, 1300, 1400, 1751, 1752, or 2205.

CATEGORY 05 - MERCANTILE CONTENTS COVERAGE (MEDIUM)

Occupancy classes not listed in Category 04 or Category 06

CATEGORY 06 - MERCANTILE CONTENTS COVERAGE (LOW)

Occupancy classes 0512, 0541, 0563, 0921, 0922, 0933, 0940, or 1230

CATEGORY 07 - MOTEL & HOTEL CONTENTS COVERAGE

Hotels, motels, motor inns, motor lodges, tourist courts and similar risks whose business is principally the providing of lodging accommodations for transients, including premises and operations necessary or incidental to such lodging accommodations.

CATEGORIES 08 & 09 - INSTITUTIONAL CONTENTS COVERAGE

An establishment principally occupied by an educational, religious, sanitary, charitable or governmental organization. It does not include buildings containing manufacturing of any kind, or sale, storage, processing, or repair of clothing or furniture, or paper or rag storage, or sorting or supplying of food or lodging to itinerants.

CATEGORY 08 - INSTITUTIONAL CONTENTS COVERAGE (HIGH)

Occupancy classes 0701, 0702, 0851, 0921, 1051, or 1052

SPECIAL CAUSES OF LOSS CATEGORY DEFINITIONSCATEGORY 09 - INSTITUTIONAL CONTENTS COVERAGE (LOW)

Occupancy classes not listed in Category 08

CATEGORIES 10 & 11 - INDUSTRIAL & PROCESSING CONTENTS COVERAGE

An establishment in which the principal activity is the manufacturing of goods and wares or processing of raw materials or finished goods.

CATEGORY 10 - INDUSTRIAL & PROCESSING CONTENTS COVERAGE (HIGH)

Occupancy classes 1252, 1300, 1400, 1700, 2000, 2059, 2150, 2200, 2215, 2250, 2300, 2350, 2400, 2459, 2550, 2600, 2750, 2800, 2805, 3009, 3409, 3809, 3959, 5105, or 5155.

CATEGORY 11 - INDUSTRIAL & PROCESSING CONTENTS COVERAGE (LOW)

Occupancy classes not listed in Category 10

CATEGORIES 12 & 13 - SERVICE CONTENTS COVERAGE

An establishment in which the principal operation is the providing of a personal or commercial service. Included are establishments providing entertainment or recreation; warehousing of property of others; and automobile risks, such as service, repair or garaging of automobiles and parking lots.

CATEGORY 12 - SERVICE CONTENTS COVERAGE (HIGH)

Occupancy classes 0520, 0542, 0545, 0550, 0567, 0702, 0755, 0831, 0832, 0911, 0912, 0913, 0921, 0931, 0932, 0934, 1213, or 4809

CATEGORY 13 - SERVICE CONTENTS COVERAGE (LOW)

Occupancy classes not listed in Category 12

CATEGORY 14 - CONTRACTOR CONTENTS COVERAGE

An establishment in which the principal operation is that of installation, construction, demolition or maintenance. This includes any owner/contractor, general contractor or sub-contractor whether or not he or she actually performs any part of such work or has employees on the site.

Tennessee

BASIC GROUP I

UNADJUSTED AGGREGATE LOSS COSTS, LOSSES, AND EXPERIENCE RATIOS

<u>Year</u>	<u>Total Unadjusted Loss Costs</u>	<u>Total Unadjusted Incurred Losses</u>	<u>Experience Ratio</u>
2018	23,702,829	15,939,705	0.672
2019	23,467,582	23,679,577	1.009
2020	24,494,087	39,069,410	1.595
2021	26,340,689	25,038,620	0.951
2022	28,943,050	30,952,699	1.069



## TENNESSEE

## BASIC GROUP II

UNADJUSTED AGGREGATE LOSS COSTS, LOSSES, AND EXPERIENCE RATIOS

<u>Year</u>	<u>Total Unadjusted Loss Costs</u>	<u>Total Unadjusted Incurred Losses</u>	<u>Experience Ratio</u>
2013	13,363,287	13,291,868	0.995
2014	14,559,458	9,005,219	0.619
2015	16,426,980	8,303,763	0.505
2016	17,564,851	6,348,594	0.361
2017	19,238,797	62,603,814	3.254
2018	21,067,350	11,210,383	0.532
2019	22,370,802	8,074,171	0.361
2020	24,591,205	216,512,646	8.804
2021	27,516,854	16,906,226	0.614
2022	30,609,516	26,076,184	0.852

## TENNESSEE

## SPECIAL CAUSES OF LOSS

UNADJUSTED AGGREGATE LOSS COSTS, LOSSES, AND EXPERIENCE RATIOS

<u>Year</u>	<u>Total Unadjusted Loss Costs</u>	<u>Total Unadjusted Incurred Losses</u>	<u>Experience Ratio</u>
2018	12,413,284	15,753,837	1.269
2019	12,802,677	6,681,493	0.522
2020	13,439,296	19,342,064	1.439
2021	14,409,531	30,215,650	2.097
2022	15,589,692	11,177,563	0.717

## TENNESSEE

## FIRE AND ALLIED LINES INSURANCE

COUNTRYWIDE LOSS ADJUSTMENT EXPENSE EXPERIENCE (A)

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>Selected</u>
(1) Fire						
(a) Direct Losses Incurred	7,748,589	8,518,012	7,422,977	9,568,271	11,503,724	
(b) Direct Loss Adjustment Expense Incurred	692,190	668,759	679,946	884,227	973,556	
(2) Allied Lines						
(a) Direct Losses Incurred	17,946,675	10,350,661	7,620,219	12,480,499	12,836,520	
(b) Direct Loss Adjustment Expense Incurred	1,157,440	998,273	973,445	1,234,938	1,362,840	
(3) Loss Adjustment Expense as a Ratio to Losses						
(a) Fire (1b) / (1a)	8.9%	7.9%	9.2%	9.2%	8.5%	9.0%
(b) Allied Lines (2b) / (2a)	6.4%	9.6%	12.8%	9.9%	10.6%	10.5%

NOTE: All dollar amounts are displayed in thousands.

(A) Items (1) and (2) are based on Insurance Expense Exhibit information compiled by A. M. Best.

TENNESSEE  
COMMERCIAL PROPERTY INSURANCE

SECTION E - REVISED LOSS COST PAGES

Basic Group II Loss Costs.....	E2
Special Causes of Loss Loss Costs.....	E3
Basic Group I Loss Costs.....	E4-15

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**70. CAUSES OF LOSS – BASIC FORM**

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**E. Rating Procedure****2. Property Damage – Group II Causes Of Loss****e. Loss Costs**

- (1) Determine the Basic Group II symbol from the specific publication or from Rule **70.E.2.a.**
- (2) For Symbols **AA, A, AB** and **B**, use the applicable rate.
- (3) For symbols with numerical prefixes, multiply the applicable rate by the prefix shown in Rule **70.E.2.a.**

Symbol	Building	Contents
	Loss Cost	Loss Cost
AA	<u>.107.086</u>	<u>.142.115</u>
A	<u>.118.095</u>	<u>.156.126</u>
AB	<u>.151.122</u>	<u>.186.150</u>
B	<u>.180.145</u>	<u>.208.168</u>

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**72. CAUSES OF LOSS – SPECIAL FORM**

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**E.2. Rating Procedure – Property Damage – Other than Builders' Risk****b.(1)** Building Coverage – Loss Cost: .057-.054**c.(2)** Personal Property Coverage – Loss Costs

<b>Occupancy Category</b>	<b>Loss Cost</b>
Residential Apartments and Condominiums	<u>.143-.139</u>
Offices	<u>.150-.150</u>
Mercantile – High	<u>.193-.198</u>
Mercantile – Medium	<u>.283-.250</u>
Mercantile – Low	<u>.168-.169</u>
Motels and Hotels	<u>.120-.119</u>
Institutional – High	<u>.084-.081</u>
Institutional – Low	<u>.042-.045</u>
Industrial and Processing – High	<u>.186-.181</u>
Industrial and Processing – Low	<u>.148-.143</u>
Service – High	<u>.158-.180</u>
Service – Low	<u>.130-.133</u>
Contractors	<u>.036-.367</u>
<b>Territory</b>	<b>Territorial Multiplier</b>
Davidson	0.999
Remainder of State	1.000

**COMMERCIAL LINES MANUAL**  
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**LOSS COST PAGES**

**TENNESSEE (41)**

**85. BASIC GROUP I CLASS LOSS COSTS**

All rates are subject to protection class and territorial multipliers.

<b>CSP Class Codes And Description</b>						
<b>0074</b>	Boarding and Lodging Houses, Rooming Houses, Fraternities and Sororities, Dormitories – Up to 10 Units					
<b>0075</b>	Boarding and Lodging Houses, Rooming Houses, Fraternities and Sororities, Dormitories – 11 to 30 Units					
<b>0076</b>	Boarding and Lodging Houses, Rooming Houses, Fraternities and Sororities, Dormitories – Over 30 Units					
<b>0077</b>	Convents, Monasteries and Rectories, Orphan Homes, Nurses' Homes, Sisters' Homes – Up to 10 Units					
<b>0078</b>	Convents, Monasteries and Rectories, Orphan Homes, Nurses' Homes, Sisters' Homes – 11 to 30 Units					
<b>0079</b>	Convents, Monasteries and Rectories, Orphan Homes, Nurses' Homes, Sisters' Homes – Over 30 Units					
<b>0196</b>	1 Family Dwellings (Lessor's Risk)					
<b>0197</b>	2 Family Dwellings (Lessor's Risk)					
<b>0198</b>	3 or 4 Family Dwellings (Lessor's Risk)					
<b>0311</b>	Apartments without Mercantile Occupancies – Up to 10 Units					
<b>0312</b>	Apartments without Mercantile Occupancies – 11 to 30 Units					
<b>CSP Class Code</b>	<b>Coverage</b>	<b>Construction (Code)</b>				
		<b>Frame (1)</b>	<b>Joisted Masonry (2)</b>	<b>Non-Comb. (3)</b>	<b>Mas. Non-Comb. (4)</b>	<b>Mod. F.R. (5) Or Fire Res. (6)</b>
<b>0074</b>	<b>Building (1)</b>	0.191	0.175	0.154	0.124	0.115
	<b>Contents (2)</b>	0.193	0.175	0.166	0.145	0.136
<b>0075</b>	<b>Building (1)</b>	0.191	0.175	0.154	0.124	0.115
	<b>Contents (2)</b>	0.193	0.175	0.166	0.145	0.136
<b>0076</b>	<b>Building (1)</b>	0.191	0.175	0.154	0.124	0.115
	<b>Contents (2)</b>	0.193	0.175	0.166	0.145	0.136
<b>0077</b>	<b>Building (1)</b>	0.175	0.159	0.142	0.113	0.105
	<b>Contents (2)</b>	0.183	0.166	0.155	0.138	0.126
<b>0078</b>	<b>Building (1)</b>	0.175	0.159	0.142	0.113	0.105
	<b>Contents (2)</b>	0.183	0.166	0.155	0.138	0.126
<b>0079</b>	<b>Building (1)</b>	0.175	0.159	0.142	0.113	0.105
	<b>Contents (2)</b>	0.183	0.166	0.155	0.138	0.126
<b>0196</b>	<b>Building (1)</b>	0.119	0.106	0.094	0.077	0.072
	<b>Contents (2)</b>	0.130	0.119	0.112	0.099	0.091
<b>0197</b>	<b>Building (1)</b>	0.119	0.106	0.094	0.077	0.072
	<b>Contents (2)</b>	0.130	0.119	0.112	0.099	0.091
<b>0198</b>	<b>Building (1)</b>	0.119	0.106	0.094	0.077	0.072
	<b>Contents (2)</b>	0.130	0.119	0.112	0.099	0.091
<b>0311</b>	<b>Building (1)</b>	0.277	0.250	0.222	0.180	0.166
	<b>Contents (2)</b>	0.315	0.283	0.266	0.236	0.220
<b>0312</b>	<b>Building (1)</b>	0.277	0.250	0.222	0.180	0.166
	<b>Contents (2)</b>	0.315	0.283	0.266	0.236	0.220
<b>Territory</b>					<b>Territorial Multiplier</b>	
Memphis					1.653	
Nashville					1.068	
Balance of State (Tennessee)					1.000	

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**85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)**

All rates are subject to protection class and territorial multipliers.

<b>CSP Class Codes And Description</b>						
<b>0313</b>	Apartments without Mercantile Occupancies – Over 30 Units					
<b>0321</b>	Apartments with Mercantile Occupancies – Up to 10 Units					
<b>0322</b>	Apartments with Mercantile Occupancies – 11 to 30 Units					
<b>0323</b>	Apartments with Mercantile Occupancies – Over 30 Units					
<b>0331</b>	Residential Condominiums without Mercantile Occupancies – Up to 10 Units					
<b>0332</b>	Residential Condominiums without Mercantile Occupancies – 11 to 30 Units					
<b>0333</b>	Residential Condominiums without Mercantile Occupancies – Over 30 Units					
<b>CSP Class Code</b>	<b>Coverage</b>	<b>Construction (Code)</b>				
		<b>Frame (1)</b>	<b>Joisted Masonry (2)</b>	<b>Non-Comb. (3)</b>	<b>Mas. Non-Comb. (4)</b>	<b>Mod. F.R. (5) Or Fire Res. (6)</b>
<b>0313</b>	<b>Building (1)</b>	0.277	0.250	0.222	0.180	0.166
	<b>Contents (2)</b>	0.315	0.283	0.266	0.236	0.220
<b>0321</b>	<b>Building (1)</b>	0.430	0.387	0.342	0.277	0.257
	<b>Contents (2)</b>					
	<b>A</b>	0.636	0.573	0.543	0.477	0.443
	<b>B&amp;C</b>	0.744	0.671	0.633	0.559	0.523
<b>0322</b>	<b>Building (1)</b>	0.430	0.387	0.342	0.277	0.257
	<b>Contents (2)</b>					
	<b>A</b>	0.636	0.573	0.543	0.477	0.443
	<b>B&amp;C</b>	0.744	0.671	0.633	0.559	0.523
<b>0323</b>	<b>Building (1)</b>	0.430	0.387	0.342	0.277	0.257
	<b>Contents (2)</b>					
	<b>A</b>	0.636	0.573	0.543	0.477	0.443
	<b>B&amp;C</b>	0.744	0.671	0.633	0.559	0.523
<b>0331</b>	<b>Building (1)</b>	0.155	0.140	0.124	0.099	0.095
	<b>Contents (2)</b>	0.136	0.122	0.115	0.103	0.095
<b>0332</b>	<b>Building (1)</b>	0.155	0.140	0.124	0.099	0.095
	<b>Contents (2)</b>	0.136	0.122	0.115	0.103	0.095
<b>0333</b>	<b>Building (1)</b>	0.155	0.140	0.124	0.099	0.095
	<b>Contents (2)</b>	0.136	0.122	0.115	0.103	0.095
<b>Territory</b>					<b>Territorial Multiplier</b>	
Memphis					1.653	
Nashville					1.068	
Balance of State (Tennessee)					1.000	



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**85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)**

All rates are subject to protection class and territorial multipliers.

<b>CSP Class Codes And Description</b>						
<b>0341</b>	Residential Condominiums with Mercantile Occupancies – Up to 10 Units					
<b>0342</b>	Residential Condominiums with Mercantile Occupancies – 11 to 30 Units					
<b>0343</b>	Residential Condominiums with Mercantile Occupancies – Over 30 Units					
<b>0511</b>	Mercantile – Sole Occupancy Only – Not Otherwise Classified – Low Susceptibility					
<b>0512</b>	Mercantile – Sole Occupancy Only – Tire, Battery and Accessory Dealers without Tire Recapping and Vulcanizing					
<b>0520</b>	Mercantile – Sole Occupancy Only – Wearing Apparel, Textiles, Shoes					
<b>0531</b>	Mercantile – Sole Occupancy Only – Alcoholic Beverages other than Bars					
<b>CSP Class Code</b>	<b>Coverage</b>	<b>Construction (Code)</b>				
		<b>Frame (1)</b>	<b>Joisted Masonry (2)</b>	<b>Non-Comb. (3)</b>	<b>Mas. Non-Comb. (4)</b>	<b>Mod. F.R. (5) Or Fire Res. (6)</b>
<b>0341</b>	<b>Building (1)</b>	0.242	0.217	0.194	0.160	0.144
	<b>Contents (2)</b>					
	<b>A</b>	0.274	0.247	0.236	0.204	0.192
	<b>B&amp;C</b>	0.324	0.289	0.274	0.242	0.223
<b>0342</b>	<b>Building (1)</b>	0.242	0.217	0.194	0.160	0.144
	<b>Contents (2)</b>					
	<b>A</b>	0.274	0.247	0.236	0.204	0.192
	<b>B&amp;C</b>	0.324	0.289	0.274	0.242	0.223
<b>0343</b>	<b>Building (1)</b>	0.242	0.217	0.194	0.160	0.144
	<b>Contents (2)</b>					
	<b>A</b>	0.274	0.247	0.236	0.204	0.192
	<b>B&amp;C</b>	0.324	0.289	0.274	0.242	0.223
<b>0511</b>	<b>Building (1)</b>	0.113	0.102	0.091	0.072	0.069
	<b>Contents (2)</b>	0.164	0.147	0.139	0.123	0.115
<b>0512</b>	<b>Building (1)</b>	0.108	0.098	0.087	0.069	0.064
	<b>Contents (2)</b>	0.147	0.130	0.125	0.108	0.102
<b>0520</b>	<b>Building (1)</b>	0.133	0.121	0.108	0.088	0.080
	<b>Contents (2)</b>	0.214	0.191	0.182	0.161	0.149
<b>0531</b>	<b>Building (1)</b>	0.115	0.102	0.093	0.074	0.069
	<b>Contents (2)</b>	0.172	0.155	0.147	0.129	0.121
<b>Territory</b>					<b>Territorial Multiplier</b>	
Memphis					1.653	
Nashville					1.068	
Balance of State (Tennessee)					1.000	

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**85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)**

All rates are subject to protection class and territorial multipliers.

<b>CSP Class Codes And Description</b>						
<b>0532</b>	Merc – Sole Occy Only – Food Products Inc. Retail Bakeries; Non-Alcoholic Beverages (Sales Only – No Baking or Cooking)					
<b>0533</b>	Mercantile – Sole Occupancy Only – Baking on Premises, No Delivery to Outlets					
<b>0534</b>	Mercantile – Sole Occupancy Only – Food Products with Limited Cooking, Excluding Bakeries					
<b>0535</b>	Mercantile – Sole Occupancy Only – Baking on Premises, No Delivery to Outlets – Using Cannabis as an Ingredient					
<b>0541</b>	Mercantile – Sole Occupancy Only – Bars and Taverns					
<b>0545</b>	Mercantile – Sole Occupancy Only – Restaurants with Limited Cooking					
<b>0550</b>	Mercantile – Sole Occupancy Only – Motor Vehicles, No Repair					
<b>0561</b>	Mercantile – Sole Occupancy Only – Boat and Marine Supply Dealers					
<b>0562</b>	Mercantile – Sole Occupancy Only – Drugs					
<b>0563</b>	Mercantile – Sole Occupancy Only – Electrical Goods, Hardware and Machinery					
<b>CSP Class Code</b>	<b>Coverage</b>	<b>Construction (Code)</b>				
		<b>Frame (1)</b>	<b>Joisted Masonry (2)</b>	<b>Non-Comb. (3)</b>	<b>Mas. Non-Comb. (4)</b>	<b>Mod. F.R. (5) Or Fire Res. (6)</b>
<b>0532</b>	<b>Building (1)</b>	0.173	0.158	0.139	0.113	0.104
	<b>Contents (2)</b>	0.214	0.191	0.182	0.161	0.149
<b>0533</b>	<b>Building (1)</b>	0.135	0.123	0.110	0.089	0.083
	<b>Contents (2)</b>	0.171	0.154	0.145	0.128	0.119
<b>0534</b>	<b>Building (1)</b>	0.190	0.171	0.152	0.125	0.115
	<b>Contents (2)</b>	0.177	0.161	0.151	0.134	0.126
<b>0535</b>	<b>Building (1)</b>	0.135	0.123	0.110	0.089	0.083
	<b>Contents (2)</b>	0.171	0.154	0.145	0.128	0.119
<b>0541</b>	<b>Building (1)</b>	0.380	0.343	0.305	0.247	0.230
	<b>Contents (2)</b>	0.409	0.366	0.347	0.305	0.286
<b>0545</b>	<b>Building (1)</b>	0.450	0.404	0.359	0.292	0.271
	<b>Contents (2)</b>	0.508	0.456	0.432	0.380	0.354
<b>0550</b>	<b>Building (1)</b>	0.102	0.094	0.083	0.068	0.062
	<b>Contents (2)</b>	0.176	0.161	0.150	0.131	0.125
<b>0561</b>	<b>Building (1)</b>	0.108	0.098	0.088	0.069	0.066
	<b>Contents (2)</b>	0.176	0.161	0.150	0.131	0.125
<b>0562</b>	<b>Building (1)</b>	0.123	0.111	0.100	0.080	0.074
	<b>Contents (2)</b>	0.195	0.176	0.166	0.147	0.136
<b>0563</b>	<b>Building (1)</b>	0.122	0.110	0.098	0.079	0.072
	<b>Contents (2)</b>	0.147	0.130	0.125	0.108	0.102
<b>Territory</b>					<b>Territorial Multiplier</b>	
Memphis					1.653	
Nashville					1.068	
Balance of State (Tennessee)					1.000	

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**85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)**

All rates are subject to protection class and territorial multipliers.

<b>CSP Class Codes And Description</b>						
<b>0564</b>	Mercantile – Sole Occupancy Only – Furniture and Home Furnishings other than Appliances					
<b>0565</b>	Mercantile – Sole Occupancy Only – Jewelry					
<b>0566</b>	Mercantile – Sole Occupancy Only – Sporting Goods					
<b>0567</b>	Mercantile – Sole Occupancy Only – Not Otherwise Classified – Moderate Susceptibility					
<b>0570</b>	Mercantile – Sole Occupancy Only – Not Otherwise Classified – High Susceptibility					
<b>0574</b>	Mercantile – Sole Occupancy Only – Cannabis containing Products Distributors or Retail Sales, Cannabis, NOC					
<b>0575</b>	Mercantile – Sole Occupancy Only – Cannabis - Growers other than Greenhouses					
<b>0580</b>	Greenhouses – Sole Occupancy Only					
<b>CSP Class Code</b>	<b>Coverage</b>	<b>Construction (Code)</b>				
		<b>Frame (1)</b>	<b>Joisted Masonry (2)</b>	<b>Non-Comb. (3)</b>	<b>Mas. Non-Comb. (4)</b>	<b>Mod. F.R. (5) Or Fire Res. (6)</b>
<b>0564</b>	<b>Building (1)</b>	0.167	0.151	0.133	0.110	0.101
	<b>Contents (2)</b>	0.257	0.232	0.219	0.191	0.179
<b>0565</b>	<b>Building (1)</b>	0.112	0.101	0.090	0.072	0.068
	<b>Contents (2)</b>	0.144	0.128	0.121	0.108	0.101
<b>0566</b>	<b>Building (1)</b>	0.126	0.115	0.102	0.083	0.076
	<b>Contents (2)</b>	0.191	0.174	0.164	0.145	0.135
<b>0567</b>	<b>Building (1)</b>	0.113	0.102	0.091	0.072	0.069
	<b>Contents (2)</b>	0.164	0.147	0.139	0.123	0.115
<b>0570</b>	<b>Building (1)</b>	0.113	0.102	0.091	0.072	0.069
	<b>Contents (2)</b>	0.172	0.155	0.147	0.129	0.121
<b>0574</b>	<b>Building (1)</b>	0.113	0.102	0.091	0.072	0.069
	<b>Contents (2)</b>	0.164	0.147	0.139	0.123	0.115
<b>0575</b>	<b>Building (1)</b>	0.113	0.102	0.091	0.072	0.069
	<b>Contents (2)</b>	0.172	0.155	0.147	0.129	0.121
<b>0580</b>	<b>Building (1)</b>	0.113	0.102	0.091	0.072	0.069
	<b>Contents (2)</b>	0.179	0.162	0.154	0.135	0.128
<b>Territory</b>					<b>Territorial Multiplier</b>	
Memphis					1.653	
Nashville					1.068	
Balance of State (Tennessee)					1.000	

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**85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)**

All rates are subject to protection class and territorial multipliers.

<b>CSP Class Codes And Description</b>						
<b>0581</b>	Mercantile – Multiple Occupancy without 0564 Occupant					
<b>0582</b>	Mercantile – Multiple Occupancy with 0564 Occupant					
<b>0585</b>	Greenhouses – Sole Occupancy Only – Cannabis					
<b>0701</b>	Government Offices					
<b>0702</b>	Banks and Offices other than Governmental					
<b>CSP Class Code</b>	<b>Coverage</b>	<b>Construction (Code)</b>				
		<b>Frame (1)</b>	<b>Joisted Masonry (2)</b>	<b>Non-Comb. (3)</b>	<b>Mas. Non-Comb. (4)</b>	<b>Mod. F.R. (5) Or Fire Res. (6)</b>
<b>0581</b>	<b>Building (1)</b>	0.120	0.108	0.096	0.077	0.072
	<b>Contents (2)</b>					
	<b>A</b>	0.172	0.155	0.147	0.129	0.121
	<b>B</b>	0.210	0.189	0.177	0.159	0.147
<b>0582</b>	<b>Building (1)</b>	0.131	0.118	0.106	0.088	0.079
	<b>Contents (2)</b>					
	<b>A</b>	0.154	0.139	0.130	0.115	0.108
	<b>B</b>	0.189	0.169	0.161	0.142	0.130
<b>0585</b>	<b>Building (1)</b>	0.113	0.102	0.091	0.072	0.069
	<b>Contents (2)</b>	0.179	0.162	0.154	0.135	0.128
<b>0701</b>	<b>Building (1)</b>	0.074	0.067	0.059	0.047	0.044
	<b>Contents (2)</b>					
	<b>A</b>	0.081	0.072	0.068	0.061	0.057
	<b>B</b>	0.121	0.111	0.101	0.092	0.083
<b>0702</b>	<b>Building (1)</b>	0.117	0.106	0.097	0.077	0.071
	<b>Contents (2)</b>					
	<b>A</b>	0.142	0.127	0.118	0.105	0.100
	<b>B</b>	0.195	0.176	0.167	0.146	0.137
	<b>C</b>	0.174	0.158	0.148	0.131	0.122
<b>Territory</b>					<b>Territorial Multiplier</b>	
Memphis					1.653	
Nashville					1.068	
Balance of State (Tennessee)					1.000	

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**85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)**

All rates are subject to protection class and territorial multipliers.

<b>CSP Class Codes And Description</b>						
<b>0742</b>	Motels and Hotels with Limited Cooking Restaurant – Up to 10 Units					
<b>0743</b>	Motels and Hotels with Limited Cooking Restaurant – 11 to 30 Units					
<b>0744</b>	Motels and Hotels with Limited Cooking Restaurant – Over 30 Units					
<b>0745</b>	Motels and Hotels without Restaurant – Up to 10 Units					
<b>0746</b>	Motels and Hotels without Restaurant – 11 to 30 Units					
<b>0747</b>	Motels and Hotels without Restaurant – Over 30 Units					
<b>0755</b>	Golf, Tennis and Similar Sport Facilities with Limited Cooking					
<b>0756</b>	Golf, Tennis and Similar Sport Facilities without Cooking					
<b>0757</b>	Clubs, Not Otherwise Classified, Including Fraternal and Union Halls					
<b>0831</b>	Motion Picture Studios					
<b>0832</b>	Theaters Excluding Drive-in Theaters					
<b>CSP Class Code</b>	<b>Coverage</b>	<b>Construction (Code)</b>				
		<b>Frame (1)</b>	<b>Joisted Masonry (2)</b>	<b>Non-Comb. (3)</b>	<b>Mas. Non-Comb. (4)</b>	<b>Mod. F.R. (5) Or Fire Res. (6)</b>
<b>0742</b>	<b>Building (1)</b>	0.971	0.874	0.779	0.634	0.587
	<b>Contents (2)</b>	1.073	0.965	0.911	0.803	0.751
<b>0743</b>	<b>Building (1)</b>	0.971	0.874	0.779	0.634	0.587
	<b>Contents (2)</b>	1.073	0.965	0.911	0.803	0.751
<b>0744</b>	<b>Building (1)</b>	0.971	0.874	0.779	0.634	0.587
	<b>Contents (2)</b>	1.073	0.965	0.911	0.803	0.751
<b>0745</b>	<b>Building (1)</b>	0.420	0.381	0.338	0.274	0.252
	<b>Contents (2)</b>	0.459	0.412	0.391	0.345	0.320
<b>0746</b>	<b>Building (1)</b>	0.420	0.381	0.338	0.274	0.252
	<b>Contents (2)</b>	0.459	0.412	0.391	0.345	0.320
<b>0747</b>	<b>Building (1)</b>	0.420	0.381	0.338	0.274	0.252
	<b>Contents (2)</b>	0.459	0.412	0.391	0.345	0.320
<b>0755</b>	<b>Building (1)</b>	0.349	0.314	0.281	0.228	0.212
	<b>Contents (2)</b>	0.403	0.362	0.343	0.301	0.282
<b>0756</b>	<b>Building (1)</b>	0.143	0.128	0.114	0.094	0.087
	<b>Contents (2)</b>	0.163	0.146	0.138	0.122	0.114
<b>0757</b>	<b>Building (1)</b>	0.153	0.138	0.122	0.101	0.094
	<b>Contents (2)</b>	0.163	0.146	0.138	0.122	0.114
<b>0831</b>	<b>Building (1)</b>	0.120	0.108	0.097	0.079	0.071
	<b>Contents (2)</b>	0.138	0.123	0.118	0.104	0.097
<b>0832</b>	<b>Building (1)</b>	0.152	0.137	0.122	0.101	0.093
	<b>Contents (2)</b>	0.163	0.146	0.138	0.122	0.114
<b>Territory</b>					<b>Territorial Multiplier</b>	
Memphis					1.653	
Nashville					1.068	
Balance of State (Tennessee)					1.000	

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**85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)**

All rates are subject to protection class and territorial multipliers.

<b>CSP Class Codes And Description</b>						
<b>0833</b>	Drive-in Theaters					
<b>0834</b>	Skating Rinks – Roller Rinks					
<b>0841</b>	Bowling Alleys without Cooking					
<b>0843</b>	Halls and Auditoriums					
<b>0844</b>	Recreational Facilities, Not Otherwise Classified					
<b>0845</b>	Boys' and Girls' Camps					
<b>0846</b>	Dance Halls, Ballrooms and Discotheques					
<b>0851</b>	Hospitals					
<b>0852</b>	Nursing and Convalescent Homes					
<b>0900</b>	Churches and Synagogues					
<b>0911</b>	Dry Cleaners and Dyeing Plants, other than Self-Service					
<b>CSP Class Code</b>	<b>Coverage</b>	<b>Construction (Code)</b>				
		<b>Frame (1)</b>	<b>Joisted Masonry (2)</b>	<b>Non-Comb. (3)</b>	<b>Mas. Non-Comb. (4)</b>	<b>Mod. F.R. (5) Or Fire Res. (6)</b>
<b>0833</b>	<b>Building (1)</b>	0.128	0.118	0.104	0.083	0.079
	<b>Contents (2)</b>	0.149	0.136	0.128	0.114	0.105
<b>0834</b>	<b>Building (1)</b>	0.208	0.186	0.167	0.136	0.125
	<b>Contents (2)</b>	0.212	0.189	0.179	0.160	0.148
<b>0841</b>	<b>Building (1)</b>	0.212	0.189	0.169	0.138	0.127
	<b>Contents (2)</b>	0.220	0.197	0.187	0.165	0.154
<b>0843</b>	<b>Building (1)</b>	0.105	0.097	0.083	0.069	0.062
	<b>Contents (2)</b>	0.113	0.102	0.097	0.083	0.079
<b>0844</b>	<b>Building (1)</b>	0.143	0.128	0.114	0.094	0.087
	<b>Contents (2)</b>	0.156	0.139	0.134	0.118	0.108
<b>0845</b>	<b>Building (1)</b>	0.096	0.083	0.075	0.061	0.055
	<b>Contents (2)</b>	0.108	0.097	0.094	0.081	0.075
<b>0846</b>	<b>Building (1)</b>	0.194	0.175	0.156	0.128	0.118
	<b>Contents (2)</b>	0.192	0.172	0.165	0.146	0.136
<b>0851</b>	<b>Building (1)</b>	0.038	0.033	0.027	0.022	0.021
	<b>Contents (2)</b>	0.043	0.041	0.038	0.031	0.030
<b>0852</b>	<b>Building (1)</b>	0.041	0.035	0.031	0.023	0.021
	<b>Contents (2)</b>	0.044	0.041	0.039	0.033	0.031
<b>0900</b>	<b>Building (1)</b>	0.106	0.095	0.086	0.069	0.064
	<b>Contents (2)</b>	0.113	0.101	0.095	0.083	0.079
<b>0911</b>	<b>Building (1)</b>	0.249	0.224	0.200	0.162	0.150
	<b>Contents (2)</b>	0.296	0.266	0.249	0.221	0.210
<b>Territory</b>					<b>Territorial Multiplier</b>	
Memphis					1.653	
Nashville					1.068	
Balance of State (Tennessee)					1.000	

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**85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)**

All rates are subject to protection class and territorial multipliers.

<b>CSP Class Codes And Description</b>						
<b>0912</b>	Laundries, other than Self-Service					
<b>0913</b>	Self-Service Laundries and Dry Cleaners					
<b>0921</b>	Light Hazard Service Occupancies					
<b>0922</b>	Service Occupancies, other than Light Hazard					
<b>0923</b>	Funeral Homes					
<b>0931</b>	Auto Parking Garages, Car Washes					
<b>0932</b>	Gasoline Service Stations					
<b>0933</b>	Motor Vehicle and Aircraft Repair, with or without Sales					
<b>0934</b>	Tire Recapping and Vulcanizing, with or without Sales					
<b>0940</b>	Aircraft Hangars without Repair					
<b>0951</b>	Gambling Casinos with Limited Cooking Restaurants					
<b>CSP Class Code</b>	<b>Coverage</b>	<b>Construction (Code)</b>				
		<b>Frame (1)</b>	<b>Joisted Masonry (2)</b>	<b>Non-Comb. (3)</b>	<b>Mas. Non-Comb. (4)</b>	<b>Mod. F.R. (5) Or Fire Res. (6)</b>
<b>0912</b>	<b>Building (1)</b>	0.330	0.298	0.265	0.215	0.197
	<b>Contents (2)</b>	0.407	0.366	0.346	0.305	0.285
<b>0913</b>	<b>Building (1)</b>	0.217	0.194	0.173	0.142	0.128
	<b>Contents (2)</b>	0.257	0.228	0.216	0.191	0.178
<b>0921</b>	<b>Building (1)</b>	0.128	0.117	0.104	0.083	0.076
	<b>Contents (2)</b>	0.154	0.138	0.130	0.116	0.110
<b>0922</b>	<b>Building (1)</b>	0.144	0.128	0.116	0.095	0.087
	<b>Contents (2)</b>	0.176	0.158	0.150	0.133	0.123
<b>0923</b>	<b>Building (1)</b>	0.097	0.087	0.076	0.062	0.058
	<b>Contents (2)</b>	0.103	0.095	0.088	0.076	0.071
<b>0931</b>	<b>Building (1)</b>	0.110	0.097	0.087	0.071	0.064
	<b>Contents (2)</b>	0.125	0.113	0.110	0.095	0.089
<b>0932</b>	<b>Building (1)</b>	0.153	0.139	0.122	0.100	0.093
	<b>Contents (2)</b>	0.188	0.168	0.158	0.140	0.128
<b>0933</b>	<b>Building (1)</b>	0.128	0.117	0.105	0.083	0.078
	<b>Contents (2)</b>	0.163	0.148	0.139	0.122	0.115
<b>0934</b>	<b>Building (1)</b>	0.168	0.152	0.135	0.112	0.102
	<b>Contents (2)</b>	0.201	0.180	0.169	0.150	0.140
<b>0940</b>	<b>Building (1)</b>	0.081	0.073	0.066	0.053	0.049
	<b>Contents (2)</b>	0.102	0.091	0.087	0.076	0.071
<b>0951</b>	<b>Building (1)</b>	0.407	0.365	0.325	0.266	0.245
	<b>Contents (2)</b>	0.450	0.406	0.384	0.339	0.315
<b>Territory</b>					<b>Territorial Multiplier</b>	
Memphis					1.653	
Nashville					1.068	
Balance of State (Tennessee)					1.000	

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**85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)**

All rates are subject to protection class and territorial multipliers.

<b>CSP Class Codes And Description</b>						
<b>0952</b>	Gambling Casinos without Restaurants					
<b>1000</b>	Penal Institutions					
<b>1051</b>	Museums, Libraries, Art Galleries (Non-Profit)					
<b>1052</b>	Schools, Academic					
<b>1070</b>	Fire Departments, Police, Sewage, Water Works and Other Public Buildings					
<b>1150</b>	Builders' Risk					
<b>1180</b>	Vacant Buildings – See CSP Class Code of previous or intended occupancy. Add loss cost of .015 unless Class Code of previous or intended occupancy is 0580, 0585, 0742-0747, 0833, 0834, 0841, 0843, 0844, 0846, 0900, 0951, 0952, 1051 or 1052.					
<b>1211</b>	Freight Terminals					
<b>1212</b>	General Storage Warehouses – Bailee					
<b>1213</b>	Miscellaneous Products Storage – (Other Than Retail Or Wholesale Or Cold Storage)					
<b>1220</b>	Household Goods Storage					
<b>CSP Class Code</b>	<b>Coverage</b>	<b>Construction (Code)</b>				
		<b>Frame (1)</b>	<b>Joisted Masonry (2)</b>	<b>Non-Comb. (3)</b>	<b>Mas. Non-Comb. (4)</b>	<b>Mod. F.R. (5) Or Fire Res. (6)</b>
<b>0952</b>	<b>Building (1)</b>	0.138	0.123	0.112	0.091	0.082
	<b>Contents (2)</b>	0.196	0.177	0.168	0.148	0.138
<b>1000</b>	<b>Building (1)</b>	0.070	0.064	0.057	0.046	0.044
	<b>Contents (2)</b>	0.063	0.056	0.053	0.047	0.044
<b>1051</b>	<b>Building (1)</b>	0.045	0.041	0.036	0.027	0.025
	<b>Contents (2)</b>	0.058	0.053	0.049	0.044	0.041
<b>1052</b>	<b>Building (1)</b>	0.107	0.096	0.086	0.069	0.064
	<b>Contents (2)</b>	0.122	0.108	0.102	0.093	0.086
<b>1070</b>	<b>Building (1)</b>	0.068	0.063	0.055	0.045	0.043
	<b>Contents (2)</b>	0.081	0.074	0.069	0.061	0.058
<b>1150</b>	<b>Building (1)</b>	0.115	0.102	0.092	0.074	0.070
<b>1211</b>	<b>Building (1)</b>	0.211	0.190	0.170	0.137	0.126
	<b>Contents (2)</b>	0.246	0.223	0.211	0.185	0.175
<b>1212</b>	<b>Building (1)</b>	0.169	0.151	0.134	0.110	0.102
	<b>Contents (2)</b>	0.205	0.184	0.175	0.155	0.144
<b>1213</b>	<b>Building (1)</b>	0.147	0.134	0.118	0.098	0.090
	<b>Contents (2)</b>	0.195	0.176	0.169	0.147	0.137
<b>1220</b>	<b>Building (1)</b>	0.176	0.161	0.142	0.115	0.107
	<b>Contents (2)</b>	0.213	0.193	0.183	0.163	0.151
<b>Territory</b>					<b>Territorial Multiplier</b>	
Memphis					1.653	
Nashville					1.068	
Balance of State (Tennessee)					1.000	



**COMMERCIAL LINES MANUAL**  
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**TENNESSEE (41)**

**85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)**

All rates are subject to protection class and territorial multipliers.

<b>CSP Class Codes And Description</b>						
<b>1230</b>	Cold Storage Warehouses					
<b>1400</b>	Waste and Reclaimed Materials Including Yards					
<b>1650</b>	Building Supply Yards, Including Retail Lumberyards, Coal and Coke Yards					
<b>1700</b>	Mill Yards					
<b>1751</b>	Oil Distributing, Oil Terminals and LPG Tank Farms – Including Stock					
<b>1752</b>	Oil Distributing, Oil Terminals and LPG Tank Farms – Excluding Stock					
<b>2200</b>	Baking on Premises, Delivery to Outlets					
<b>2205</b>	Baking on Premises, Delivery to Outlets, and Food Products Manufacturing – Using Cannabis as an Ingredient					
<b>2350</b>	Beverage Bottlers Excluding Alcoholic Beverages					
<b>CSP Class Code</b>	<b>Coverage</b>	<b>Construction (Code)</b>				
		<b>Frame (1)</b>	<b>Joisted Masonry (2)</b>	<b>Non-Comb. (3)</b>	<b>Mas. Non-Comb. (4)</b>	<b>Mod. F.R. (5) Or Fire Res. (6)</b>
<b>1230</b>	<b>Building (1)</b>	0.152	0.137	0.123	0.100	0.093
	<b>Contents (2)</b>	0.209	0.187	0.176	0.158	0.145
<b>1400</b>	<b>Building (1)</b>	0.456	0.411	0.365	0.295	0.272
	<b>Contents (2)</b>	0.554	0.500	0.472	0.416	0.387
	<b>Yard</b>	0.687		0.071		
<b>1650</b>	<b>Building (1)</b>	0.272	0.243	0.219	0.176	0.164
	<b>Contents (2)</b>	0.345	0.309	0.293	0.259	0.242
	<b>Yard</b>	0.190		0.024		
<b>1700</b>	<b>Building (1)</b>	0.222	0.197	0.177	0.145	0.134
	<b>Contents (2)</b>	0.339	0.303	0.287	0.252	0.237
	<b>Yard</b>	0.185		0.023		
<b>1751</b>	<b>Building (1)</b>	0.143	0.127	0.115	0.093	0.087
	<b>Contents (2)</b>	0.185	0.169	0.161	0.142	0.130
<b>1752</b>	<b>Building (1)</b>	0.134	0.121	0.108	0.089	0.079
	<b>Contents (2)</b>	0.134	0.119	0.114	0.100	0.093
<b>2200</b>	<b>Building (1)</b>	0.504	0.454	0.406	0.330	0.301
	<b>Contents (2)</b>	0.600	0.539	0.507	0.449	0.421
<b>2205</b>	<b>Building (1)</b>	0.504	0.454	0.406	0.330	0.301
	<b>Contents (2)</b>	0.600	0.539	0.507	0.449	0.421
<b>2350</b>	<b>Building (1)</b>	0.323	0.290	0.261	0.211	0.194
	<b>Contents (2)</b>	0.384	0.345	0.323	0.286	0.270
<b>Territory</b>					<b>Territorial Multiplier</b>	
Memphis					1.653	
Nashville					1.068	
Balance of State (Tennessee)					1.000	

All rates are subject to protection class and territorial multipliers.

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## PROPERTY CLAIMS SERVICES INFORMATION

ISO's Property Claims Services defines a catastrophe as an event that:

- reaches a threshold dollar amount of total insured property losses, and
- affects a significant number of property and casualty insurance policyholders and property and casualty insurers.

From 1949 to 1981, the threshold was \$1 million. From 1982 to 1996, it was \$5 million, and since January 1, 1997, the threshold has been \$25 million.

All of the events listed may not have resulted in unexpected loss experience for commercial property coverage in this state since catastrophes are defined based on total insured property losses spreading across state lines and lines of business.

For more information concerning Property Claims Services, please see "Persons to Contact" in the circular cover letter.

Tennessee  
Commercial Property

The following events have been identified as catastrophes by ISO's Property Claims Services.

<u>From</u>	<u>To</u>	<u>Perils</u>
8/28/90	8/30/90	Wind, Hail, Tornadoes, Flooding
12/18/90	12/25/90	Wind, Hail, Tornadoes, Flooding, Snow, Freezing
3/21/91	3/23/91	Wind, Hail, Tornadoes, Flooding
3/26/91	3/28/91	Wind, Hail, Tornadoes, Flooding
4/8/91	4/10/91	Wind, Hail, Tornadoes, Flooding
11/16/91	11/20/91	Wind, Hail, Tornadoes, Flooding
11/21/92	11/23/92	Wind, Hail, Tornadoes, Flooding
2/21/93	2/22/93	Wind, Hail, Tornadoes
3/11/93	3/14/93	Wind, Hail, Tornadoes, Freezing, Ice, Snow
1/14/94	1/16/94	Wind, Snow, Ice, Freezing
1/17/94	1/20/94	Wind, Snow, Ice, Freezing
2/10/94	2/12/94	Wind, Snow, Ice, Freezing, Flooding
3/26/94	3/27/94	Wind, Hail, Tornadoes, Flooding
6/9/94	6/10/94	Wind, Hail, Tornadoes, Flooding
6/24/94	6/27/94	Wind, Hail, Tornadoes, Flooding
3/6/95	3/7/95	Wind, Hail, Tornadoes, Flooding
5/13/95	5/15/95	Wind, Hail, Tornadoes, Flooding
5/16/95	5/19/95	Wind, Hail, Tornadoes, Flooding
10/4/95	10/5/95	Hurricane Opal - Wind, Tornadoes, Flooding
1/6/96	1/9/96	Wind, Snow, Ice, Freezing, Flooding
1/31/96	2/6/96	Wind, Snow, Ice, Tornadoes, Flooding
3/5/96	3/7/96	Wind, Hail, Tornadoes, Flooding
3/16/96	3/21/96	Wind, Hail, Tornadoes, Flooding
4/19/96	4/22/96	Wind, Hail, Tornadoes, Flooding
5/24/96	5/29/96	Wind, Hail, Tornadoes, Flooding
1/24/97	1/24/97	Wind, Hail, Tornadoes
2/20/97	2/22/97	Wind, Hail, Flooding
2/28/97	3/3/97	Wind, Hail, Tornadoes, Flooding
3/4/97	3/6/97	Wind, Hail, Tornadoes, Flooding
3/28/97	3/29/97	Wind, Hail, Tornadoes, Snow, Flooding
4/15/98	4/17/98	Hail, Wind, Flooding, Tornadoes
5/7/98	5/8/98	Hail, Wind, Flooding, Tornadoes
5/22/98	5/26/98	Hail, Wind, Flooding, Tornadoes
6/2/98	6/2/98	Hail, Wind, Flooding, Tornadoes
6/4/98	6/6/98	Hail, Wind, Flooding, Tornadoes
6/11/98	6/15/98	Hail, Wind, Flooding, Tornadoes
12/23/98	12/28/98	Ice, Wind, Freezing
1/1/99	1/4/99	Hail, Snow, Wind, Flooding, Freezing
1/17/99	1/18/99	Hail, Wind, Flooding, Tornadoes
4/2/99	4/4/99	Hail, Wind, Flooding, Tornadoes
5/3/99	5/7/99	Hail, Wind, Flooding, Tornadoes
6/10/99	6/14/99	Hail, Wind, Flooding, Tornadoes
7/28/99	7/29/99	Hail, Wind, Flooding
1/2/00	1/4/00	Hail, Wind, Flooding, Tornadoes
1/22/00	1/24/00	Ice, Hail, Wind, Freezing
5/25/00	5/26/00	Hail, Wind, Flooding, Tornadoes
9/20/00	9/21/00	Hail, Wind, Flooding, Tornadoes
12/16/00	12/17/00	Hail, Wind, Flooding, Tornadoes
2/24/01	2/25/01	Hail, Wind, Flooding, Tornadoes

Tennessee  
Commercial Property

The following events have been identified as catastrophes by ISO's Property Claims Services.

<u>From</u>	<u>To</u>	<u>Perils</u>
10/23/01	10/24/01	Hail, Wind, Flooding, Tornadoes
4/27/02	5/3/02	Flooding, Hail, Tornadoes, Wind
11/9/02	11/10/02	Flooding, Hail, Tornadoes, Wind
1/13/03	1/25/03	Freezing, Ice, Snow, Wind
2/14/03	2/18/03	Flooding, Freezing, Ice, Snow, Wind
2/21/03	2/23/03	Flooding, Hail, Tornadoes, Wind
4/4/03	4/8/03	Flooding, Freezing, Hail, Ice, Snow, Tornadoes, Wind
4/24/03	4/27/03	Flooding, Hail, Tornadoes, Wind
5/1/03	5/1/03	Flooding, Hail, Tornadoes, Wind
5/2/03	5/11/03	Flooding, Hail, Tornadoes, Wind
7/21/03	7/23/03	Flooding, Hail, Tornadoes, Wind
11/16/03	11/19/03	Flooding, Hail, Tornadoes, Wind
5/29/04	6/2/04	Flooding, Hail, Tornadoes, Wind
7/12/04	7/14/04	Flooding, Hail, Tornadoes, Wind
9/15/04	9/21/04	Hurricane Ivan - Flooding, Tornadoes, Wind
2/20/05	2/22/05	Flooding, Hail, Wind
4/20/05	4/24/05	Flooding, Hail, Tornadoes, Wind
8/25/05	8/30/05	Hurricane Katrina - Flooding, Tornadoes, Wind
9/20/05	9/26/05	Hurricane Rita - Flooding, Tornadoes, Wind
3/8/06	3/10/06	Flooding, Hail, Tornadoes, Wind
4/2/06	4/3/06	Hail, Tornadoes, Wind
4/6/06	4/8/06	Hail, Tornadoes, Wind
7/19/06	7/21/06	Flooding, Hail, Tornadoes, Wind
9/22/06	9/23/06	Flooding, Hail, Tornadoes, Wind
11/30/06	12/3/06	Freezing, Hail, Ice, Snow, Tornadoes, Wind
1/29/08	1/30/08	Hail, Tornadoes, Wind
2/5/08	2/6/08	Flooding, Hail, Tornadoes, Wind
2/10/09	2/13/09	Flooding, Hail, Tornadoes, Wind
4/9/09	4/11/09	Flooding, Hail, Tornadoes, Wind
5/7/09	5/9/09	Flooding, Hail, Tornadoes, Wind
6/10/09	6/18/09	Flooding, Hail, Tornadoes, Wind
4/23/10	4/25/10	Hail, Tornadoes, Wind
4/30/10	5/3/10	Flooding, Hail, Tornadoes, Wind
2/24/11	2/25/11	Flooding, Hail, Tornadoes, Wind
2/27/11	2/28/11	Flooding, Hail, Tornadoes, Wind
4/3/11	4/5/11	Flooding, Hail, Tornadoes, Wind
4/8/11	4/11/11	Flooding, Hail, Tornadoes, Wind
4/19/11	4/21/11	Hail, Tornadoes, Wind
4/22/11	4/28/11	Flooding, Hail, Tornadoes, Wind
5/20/11	5/27/11	Flooding, Hail, Tornadoes, Wind
6/16/11	6/22/11	Flooding, Hail, Tornadoes, Wind
9/3/11	9/9/11	Flooding, Tornadoes, Wind
3/2/12	3/3/12	Flooding, Hail, Tornadoes, Wind
1/29/13	1/31/13	Flooding, Tornadoes, Wind
3/18/13	3/19/13	Hail, Tornadoes, Wind
1/5/14	1/8/14	Freezing, Ice, Snow, Wind
4/27/14	5/1/14	Flooding, Hail, Tornadoes, Wind
7/26/14	7/28/14	Flooding, Hail, Tornadoes, Wind
2/16/15	2/17/15	Freezing, Ice, Snow, Wind

Tennessee  
Commercial Property

The following events have been identified as catastrophes by ISO's Property Claims Services.

<u>From</u>	<u>To</u>	<u>Perils</u>
2/16/15	2/22/15	Freezing, Ice, Snow, Wind
3/31/15	4/1/15	Flooding, Hail, Wind
4/7/15	4/10/15	Flooding, Hail, Tornadoes, Wind
4/18/15	4/21/15	Flooding, Hail, Tornadoes, Wind
7/12/15	7/14/15	Flooding, Hail, Tornadoes, Wind
12/23/15	12/24/15	Flooding, Hail, Tornadoes, Wind
1/22/16	1/24/16	Flooding, Freezing, Ice, Snow, Wind
3/5/16	3/11/16	Flooding, Hail, Tornadoes, Wind
5/7/16	5/10/16	Flooding, Hail, Tornadoes, Wind
7/5/16	7/7/16	Flooding, Hail, Tornadoes, Wind
7/7/16	7/9/16	Flooding, Hail, Wind
11/28/16	11/30/16	Fire
11/28/16	12/1/16	Flooding, Hail, Tornadoes, Wind
2/28/17	3/2/17	Flooding, Hail, Tornadoes, Wind
3/21/17	3/22/17	Flooding, Hail, Wind
3/26/17	3/28/17	Hail, Tornadoes, Wind
4/4/17	4/6/17	Flooding, Hail, Tornadoes, Wind
4/21/17	4/25/17	Flooding, Hail, Tornadoes, Wind
4/28/17	5/1/17	Flooding, Hail, Tornadoes, Wind
5/27/17	5/28/17	Flooding, Hail, Tornadoes, Wind
8/25/17	9/1/17	Flooding, Hail, Hurricane, Tornadoes, Tropical Storm, Wind
10/7/17	10/9/17	Flooding, Hurricane, Tornadoes, Tropical Storm, Wind
1/3/18	1/6/18	Flood, Freezing, Ice, Snow, Wind
2/24/18	2/26/18	Flooding, Hail, Tornadoes, Wind
6/28/18	6/28/18	Flooding, Tornadoes, Wind
7/19/18	7/22/18	Flooding, Hail, Tornadoes, Wind
2/23/19	2/26/19	Flooding, Freezing, Hail, Ice, Snow, Tornadoes, Wind
7/10/19	7/18/19	Flooding, Hurricane, Tornadoes, Tropical Storm, Wind
10/20/19	10/21/19	Flooding, Hail, Power Outage, Tornadoes, Wind
10/25/19	10/26/19	Flooding, Tornadoes, Tropical Storm, Wind
10/31/19	11/1/19	Flooding, Tornadoes, Wind
1/10/20	1/12/20	Flooding, Hail, Tornadoes, Wind
2/5/20	2/8/20	Flooding, Hail, Tornadoes, Wind
3/2/20	3/4/20	Flooding, Hail, Tornadoes, Wind
3/27/20	3/30/20	Flooding, Hail, Tornadoes, Wind
4/7/20	4/9/20	Flooding, Hail, Tornadoes, Wind
4/10/20	4/14/20	Flooding, Hail, Tornadoes, Wind
4/24/20	4/26/20	Flooding, Hail, Tornadoes, Wind
5/2/20	5/3/20	Flooding, Hail, Wind
5/4/20	5/5/20	Flooding, Hail, Tornadoes, Wind
5/20/20	5/24/20	Flooding, Hail, Wind
5/26/20	6/8/20	Riot, Civil Disorder
8/26/20	8/28/20	Flooding, Hurricane, Tornadoes, Wind
12/25/20	12/25/20	Fire and Explosion
1/25/21	1/26/21	Flooding, Hail, Tornadoes, Wind
2/16/21	2/20/21	Flooding, Freezing, Ice, Power Outage, Snow, Wind
3/24/21	3/26/21	Flooding, Hail, Tornadoes, Wind
3/27/21	3/29/21	Flooding, Hail, Tornadoes, Wind
5/3/21	5/4/21	Flooding, Hail, Tornadoes, Wind

Tennessee  
Commercial Property

The following events have been identified as catastrophes by ISO's Property Claims Services.

<u>From</u>	<u>To</u>	<u>Perils</u>
5/7/21	5/11/21	Flooding, Hail, Tornadoes, Wind
8/14/21	8/20/21	Flooding, Tornadoes, Tropical Storm, Wind
8/21/21	8/22/21	Flooding, Wind
8/29/21	9/2/21	Flooding, Hurricane, Tornadoes, Wind
12/10/21	12/12/21	Flooding, Hail, Tornadoes, Wind
1/1/22	1/3/22	Flooding, Hail, Snow, Tornadoes, Wind
2/2/22	2/5/22	Flooding, Freezing, Hail, Ice, Snow, Wind
2/16/22	2/18/22	Flooding, Hail, Tornadoes, Wind
3/29/22	4/1/22	Flooding, Hail, Tornadoes, Wind
4/10/22	4/14/22	Flooding, Hail, Tornadoes, Wind
5/4/22	5/8/22	Flooding, Hail, Tornadoes, Wind
7/7/22	7/13/22	Flooding, Hail, Tornadoes, Wind
12/21/22	12/25/22	Flooding, Freezing, Ice, Power Outage, Snow, Wind

## TENNESSEE

BASIC GROUP I PROSPECTIVE LOSS COST CHANGES  
BY RATING GROUP AND TERRITORY (A)

Rating Group	Description	Memphis	Nashville	Balance Of State
01	Apartments	51.3%	50.6%	7.2%
02	Other Habitational	57.2%	56.5%	11.3%
03	Restaurants & Bars	31.8%	31.1%	-6.7%
04	Other Mercantile Risks	34.4%	33.8%	-4.8%
05	Public Buildings	39.3%	38.7%	-1.3%
06	Churches	16.0%	15.4%	-17.9%
07	Schools	35.8%	35.2%	-3.8%
08	Offices And Banks	43.1%	42.4%	1.3%
09	Recreational Facilities	37.8%	37.1%	-2.4%
10	Hotels & Motels	50.9%	50.2%	6.9%
11	Hospitals & Nursing Homes	39.6%	38.9%	-1.1%
12	Buildings Under Construction	41.8%	41.2%	0.4%
13	Motor Vehicle Risks	36.9%	36.3%	-3.0%
14	Other Non-Manufacturing	41.8%	41.2%	0.4%
15	Storage	25.5%	24.9%	-11.1%
17	Food Manufacturing	38.0%	37.4%	-2.2%
18	Wood Manufacturing	38.9%	38.2%	-1.6%
19	Wearing Apparel	38.5%	37.8%	-1.9%
20	Chemical Manufacturing	40.1%	39.5%	-0.7%
21	Metal Manufacturing	38.7%	38.1%	-1.7%
22	Other Manufacturing	39.3%	38.7%	-1.3%
	Total	41.0%	42.1%	-1.4%

(A) For each rating group, the loss cost change for each CSP class in the rating group, by coverage and construction, is identical to the overall change shown for the rating group.



TENNESSEE  
BASIC GROUP I RELATIVITY ANALYSIS

	(1)	(2)	(3)	(4)	Statewide Coverage Loss Cost Change Of	1.032
TOP	\$ Lst Sq Formula Relativity	Credibility Z	Credibility Weighted Relativity	Balanced Relativity	Or	3.2%
10	1.257	0.177	1.041	1.049		
31	0.492	0.086	0.941	0.948		
32	0.667	0.269	0.897	0.904		
33	0.662	0.094	0.962	0.969		
34	1.098	0.297	1.028	1.036		
35	1.010	0.218	1.002	1.009		
36	1.294	0.200	1.053	1.061		
37	1.252	0.171	1.039	1.047		
38	1.139	0.060	1.008	1.016		
Rating Group						
1	1.202	0.416	1.080	1.082		
2	1.641	0.233	1.122	1.124		
3	0.753	0.214	0.941	0.942		
4	0.917	0.475	0.960	0.961		
5	0.893	0.043	0.995	0.996		
6	0.543	0.309	0.828	0.829		
7	0.752	0.106	0.970	0.971		
8	1.062	0.359	1.022	1.023		
9	0.919	0.188	0.984	0.985		
10	1.450	0.199	1.077	1.079		
11	0.927	0.035	0.997	0.998		
13	0.876	0.171	0.978	0.979		
14	1.075	0.177	1.013	1.014		
15	0.496	0.157	0.896	0.897		
17	0.771	0.053	0.986	0.987		
18	0.912	0.092	0.992	0.993		
19	0.814	0.055	0.989	0.990		
20	1.055	0.021	1.001	1.002		
21	0.936	0.131	0.991	0.992		
22	0.959	0.113	0.995	0.996		
					Indicated Monoline Loss Cost Level	
Territory					Change	
Memphis					39.9%	
Nashville					39.2%	
Balance Of State					-0.9%	

TENNESSEE  
BASIC GROUP I RELATIVITY ANALYSIS

Sample Loss Cost Level Change Calculation for Memphis:

Statewide Coverage Loss Cost Change	=	1.032
Territorial Relativity	=	1.292
Monoline (TOP 10) Relativity	=	1.049
Rating Group 01 Relativity	=	1.082
Indicated Monoline Loss Cost Level Change		
= 1.032 x 1.292 x 1.049 x 1.082	=	1.513
	or	51.3%

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

<u>Territory</u>	<u>Type of Policy</u>	<u>Rating Group</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate Loss <u>Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) Credibility Weighted Experience <u>Ratio</u>	(5) Credibility Weighted Relativity
Memphis	TOP 10: Monoline						
		1 Apartments	84,192	155,130	0.000	0.301	0.301
		2 Other Habitational	33,171	94,078	5.959	2.980	2.983
		3 Restaurants & Bars	16,108	45,903	0.000	0.438	0.438
		4 Other Mercantile Risks	112,353	448,085	0.246	0.348	0.348
		5 Public Buildings	2,539	10,912	0.000	0.513	0.514
		6 Churches	9,486	55,293	0.000	0.422	0.422
		7 Schools	7,121	32,362	0.000	0.465	0.465
		8 Offices and Banks	59,365	347,059	0.471	0.525	0.526
		9 Recreational Facilities	8,920	34,001	0.085	0.486	0.486
		11 Hospitals and Nursing Homes	11,387	38,087	8.498	3.032	3.035
		13 Motor Vehicle Risks	28,928	162,295	0.263	0.439	0.439
		14 Other Non-Manufacturing	21,755	102,597	0.000	0.355	0.355
		15 Storage	26,585	160,303	0.015	0.305	0.305
		17 Food Manufacturing	71,901	88,859	0.000	0.372	0.372
		18 Wood Manufacturing	1,064	6,429	0.000	0.525	0.526
		20 Chemical Manufacturing	7,582	27,543	0.000	0.475	0.475
		21 Metal Manufacturing	8,301	38,981	0.000	0.451	0.451
		22 Other Manufacturing	0	5,591	0.000	0.527	0.528
		TOTAL	510,758	1,853,508	0.702	0.611	0.612
Memphis	TOP 31: Hotels/Motels						
		10 Hotels and Motels	68,154	388,548	0.000	1.227	1.228
		TOTAL	68,154	388,548	0.000	1.227	1.228
Memphis	TOP 32: Apartment						
		1 Apartments	1,339,671	3,079,352	1.665	1.612	1.614
		2 Other Habitational	298,083	1,220,267	0.914	1.359	1.360
		TOTAL	1,637,754	4,299,619	1.528	1.566	1.568

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

<u>Territory</u>	<u>Type of Policy</u>	<u>Rating Group</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate Loss <u>Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) Credibility Weighted Experience <u>Ratio</u>	(5) Credibility Weighted Relativity
Memphis	TOP 33: Office	8 Offices and Banks	103,250	510,370	0.627	1.347	1.348
		TOTAL	103,250	510,370	0.627	1.347	1.348
Memphis	TOP 34: Mercantile	3 Restaurants & Bars	208,637	875,305	6.561	2.954	2.957
		4 Other Mercantile Risks	504,979	2,318,784	1.935	1.719	1.721
		8 Offices and Banks	31,905	114,246	0.000	1.290	1.291
		13 Motor Vehicle Risks	35,050	271,309	0.943	1.441	1.442
		14 Other Non-Manufacturing	13,247	56,415	0.026	1.308	1.309
		15 Storage	56,994	175,527	0.000	1.275	1.276
		TOTAL	850,812	3,811,586	2.797	1.958	1.960
Memphis	TOP 35: Institutional	2 Other Habitational	947	10,157	0.000	1.315	1.316
		5 Public Buildings	4,991	21,558	0.000	1.312	1.313
		6 Churches	373,706	1,985,096	0.375	1.103	1.104
		7 Schools	81,144	497,366	1.745	1.606	1.608
		8 Offices and Banks	73,467	300,964	0.169	1.281	1.282
		9 Recreational Facilities	35,334	176,832	0.000	1.275	1.276
		11 Hospitals and Nursing Homes	37,337	151,151	2.671	1.766	1.768
		13 Motor Vehicle Risks	48	1,041	0.000	1.318	1.319
		14 Other Non-Manufacturing	11,339	61,428	0.000	1.303	1.304
		TOTAL	618,313	3,205,593	0.637	1.246	1.247
Memphis	TOP 36: Services	3 Restaurants & Bars	33,380	103,408	0.000	1.562	1.564
		4 Other Mercantile Risks	82,796	429,477	0.235	1.591	1.593
		8 Offices and Banks	68,223	312,300	0.048	1.567	1.569
		9 Recreational Facilities	100,734	398,590	0.021	1.563	1.565
		13 Motor Vehicle Risks	158,460	785,793	2.444	1.882	1.884
		14 Other Non-Manufacturing	50,921	313,313	2.347	1.869	1.871
		15 Storage	41,847	212,005	0.016	1.563	1.565
		21 Metal Manufacturing	908	8,086	0.000	1.562	1.564
		22 Other Manufacturing	27,111	65,494	0.804	1.667	1.669
		TOTAL	564,380	2,628,466	0.982	1.690	1.692

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

<u>Territory</u>	<u>Type of Policy</u>	<u>Rating Group</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate Loss <u>Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) Credibility Weighted Experience <u>Ratio</u>	(5) Credibility Weighted <u>Relativity</u>
Memphis	TOP 37: Industrial/Processing						
		4 Other Mercantile Risks	23,010	86,386	0.000	1.562	1.564
		8 Offices and Banks	6,272	21,508	0.000	1.562	1.564
		13 Motor Vehicle Risks	853	3,946	0.000	1.562	1.564
		14 Other Non-Manufacturing	299	3,876	0.000	1.562	1.564
		15 Storage	1,600	5,446	0.000	1.562	1.564
		17 Food Manufacturing	7,305	44,544	0.646	1.646	1.648
		18 Wood Manufacturing	15,245	100,036	37.413	6.452	6.458
		19 Wearing Apparel	1,587	9,911	0.000	1.562	1.564
		20 Chemical Manufacturing	8,843	34,935	0.000	1.562	1.564
		21 Metal Manufacturing	62,850	465,753	0.879	1.676	1.678
		22 Other Manufacturing	19,484	109,745	1.103	1.706	1.708
		TOTAL	147,348	886,086	4.424	2.140	2.142
Memphis	TOP 38: Contractors						
		4 Other Mercantile Risks	79,599	358,813	0.232	1.591	1.593
		8 Offices and Banks	29,029	155,367	0.308	1.602	1.604
		14 Other Non-Manufacturing	4,072	17,694	0.000	1.562	1.564
		TOTAL	112,700	531,874	0.243	1.593	1.595

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

<u>Territory</u>	<u>Type of Policy</u>	<u>Rating Group</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate Loss <u>Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) Credibility Weighted Experience <u>Ratio</u>	(5) Credibility Weighted Relativity
Memphis	TOP: All TOPS						
		1 Apartments	1,423,863	3,234,482	1.567	1.534	1.536
		2 Other Habitational	332,201	1,324,502	1.415	1.521	1.522
		3 Restaurants & Bars	258,125	1,024,616	5.303	2.617	2.620
		4 Other Mercantile Risks	802,737	3,641,545	1.299	1.497	1.498
		5 Public Buildings	7,530	32,470	0.000	1.043	1.044
		6 Churches	383,192	2,040,389	0.366	1.086	1.087
		7 Schools	88,265	529,728	1.604	1.514	1.516
		8 Offices and Banks	371,511	1,761,814	0.316	1.262	1.263
		9 Recreational Facilities	144,988	609,423	0.020	1.427	1.428
		10 Hotels and Motels	68,154	388,548	0.000	1.227	1.228
		11 Hospitals and Nursing Homes	48,724	189,238	4.033	2.062	2.064
		13 Motor Vehicle Risks	223,339	1,224,384	1.916	1.625	1.626
		14 Other Non-Manufacturing	101,633	555,323	1.179	1.395	1.397
		15 Storage	127,026	553,281	0.008	1.170	1.172
		17 Food Manufacturing	79,206	133,403	0.060	0.489	0.490
		18 Wood Manufacturing	16,309	106,465	34.972	6.065	6.071
		19 Wearing Apparel	1,587	9,911	0.000	1.562	1.564
		20 Chemical Manufacturing	16,425	62,478	0.000	1.060	1.061
		21 Metal Manufacturing	72,059	512,820	0.767	1.533	1.535
		22 Other Manufacturing	46,595	180,830	0.929	1.683	1.685
		TOTAL	4,613,469	18,115,650	1.503	1.514	1.516

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

<u>Territory</u>	<u>Type of Policy</u>	<u>Rating Group</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate Loss <u>Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) Credibility Weighted Experience <u>Ratio</u>	(5) Credibility Weighted Relativity
Nashville	TOP 10: Monoline	1 Apartments	249,740	518,606	6.964	4.152	4.156
		2 Other Habitational	75,865	361,977	11.210	5.063	5.068
		3 Restaurants & Bars	90,834	390,773	0.286	2.344	2.346
		4 Other Mercantile Risks	123,454	485,901	1.198	2.536	2.539
		5 Public Buildings	0	127,166	0.000	2.476	2.478
		6 Churches	27,799	113,094	2.159	2.883	2.886
		7 Schools	5,354	29,124	0.000	2.561	2.564
		8 Offices and Banks	71,705	323,935	1.229	2.613	2.616
		9 Recreational Facilities	24,896	109,696	0.000	2.491	2.493
		10 Hotels and Motels	7,965	58,900	0.000	2.535	2.538
		11 Hospitals and Nursing Homes	10,791	41,440	0.000	2.550	2.553
		13 Motor Vehicle Risks	11,517	58,458	0.044	2.543	2.546
		14 Other Non-Manufacturing	22,753	107,242	0.278	2.543	2.546
		15 Storage	37,571	148,417	0.010	2.460	2.462
		17 Food Manufacturing	8,117	26,783	0.000	2.564	2.567
		18 Wood Manufacturing	10,306	43,988	0.075	2.560	2.563
		19 Wearing Apparel	0	34,065	3.740	3.156	3.159
		20 Chemical Manufacturing	0	424	0.000	2.588	2.591
		21 Metal Manufacturing	3,019	21,234	0.000	2.569	2.572
		22 Other Manufacturing	5,988	17,720	1.230	2.763	2.766
		TOTAL	787,674	3,018,943	3.716	3.287	3.290
Nashville	TOP 31: Hotels/Motels	10 Hotels and Motels	245,619	871,217	1.580	1.701	1.703
		TOTAL	245,619	871,217	1.580	1.701	1.703
Nashville	TOP 32: Apartment	1 Apartments	1,542,198	4,220,428	0.745	0.918	0.919
		2 Other Habitational	286,099	1,152,161	0.190	0.826	0.827
		TOTAL	1,828,297	5,372,589	0.658	0.904	0.905
Nashville	TOP 33: Office	8 Offices and Banks	220,999	1,043,359	1.982	1.931	1.933
		TOTAL	220,999	1,043,359	1.982	1.931	1.933

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

<u>Territory</u>	<u>Type of Policy</u>	<u>Rating Group</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate Loss <u>Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) Credibility Weighted Experience <u>Ratio</u>	(5) Credibility Weighted <u>Relativity</u>
Nashville	TOP 34: Mercantile						
		3 Restaurants & Bars	240,469	1,081,378	1.922	1.895	1.897
		4 Other Mercantile Risks	490,399	2,140,635	5.962	4.893	4.898
		8 Offices and Banks	72,233	216,964	0.000	1.273	1.274
		13 Motor Vehicle Risks	16,259	133,254	0.042	1.382	1.383
		14 Other Non-Manufacturing	16,361	91,584	0.024	1.431	1.432
		15 Storage	69,169	190,748	2.291	1.985	1.987
		TOTAL	904,890	3,854,563	3.918	3.459	3.463
Nashville	TOP 35: Institutional						
		2 Other Habitational	0	1,891	0.000	1.559	1.561
		5 Public Buildings	50,982	146,212	2.810	2.112	2.114
		6 Churches	223,904	1,163,152	1.967	1.924	1.926
		7 Schools	69,341	305,240	0.307	1.295	1.296
		8 Offices and Banks	35,221	211,980	0.180	1.335	1.336
		9 Recreational Facilities	50,173	282,328	0.084	1.236	1.237
		11 Hospitals and Nursing Homes	33,023	131,600	0.000	1.373	1.374
		13 Motor Vehicle Risks	1,589	3,753	0.000	1.556	1.558
		14 Other Non-Manufacturing	13,045	62,611	0.038	1.474	1.475
		TOTAL	477,278	2,308,767	1.291	1.685	1.687
Nashville	TOP 36: Services						
		3 Restaurants & Bars	45,867	116,785	0.048	1.933	1.935
		4 Other Mercantile Risks	29,120	144,257	0.023	1.929	1.931
		8 Offices and Banks	64,808	315,493	7.213	2.918	2.921
		9 Recreational Facilities	113,100	504,719	0.841	2.039	2.041
		13 Motor Vehicle Risks	69,903	351,248	0.377	1.976	1.978
		14 Other Non-Manufacturing	72,721	353,268	0.309	1.967	1.969
		15 Storage	32,099	123,337	0.000	1.926	1.928
		21 Metal Manufacturing	2,338	11,096	0.000	1.927	1.929
		22 Other Manufacturing	21,151	134,962	3.980	2.471	2.473
		TOTAL	451,107	2,055,165	1.548	2.138	2.140



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

<u>Territory</u>	<u>Type of Policy</u>	<u>Rating Group</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate Loss <u>Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) Credibility Weighted Experience <u>Ratio</u>	(5) Credibility Weighted Relativity
Nashville	TOP 37: Industrial/Processing	4 Other Mercantile Risks	9,111	44,115	0.000	1.927	1.929
		8 Offices and Banks	3,591	17,806	0.000	1.927	1.929
		14 Other Non-Manufacturing	16,512	52,267	6.490	2.814	2.817
		15 Storage	3,202	6,588	0.000	1.927	1.929
		17 Food Manufacturing	21,258	130,820	0.211	1.955	1.957
		18 Wood Manufacturing	44,266	260,307	0.000	1.925	1.927
		19 Wearing Apparel	34,581	123,539	0.000	1.926	1.928
		20 Chemical Manufacturing	4,474	39,407	0.000	1.927	1.929
		21 Metal Manufacturing	54,714	248,666	16.159	4.147	4.151
		22 Other Manufacturing	32,200	136,246	0.000	1.926	1.928
		TOTAL	223,909	1,059,761	4.447	2.537	2.539
Nashville	TOP 38: Contractors	4 Other Mercantile Risks	68,972	287,936	0.214	1.954	1.956
		8 Offices and Banks	27,388	117,662	0.000	1.926	1.928
		14 Other Non-Manufacturing	6,237	37,962	0.201	1.955	1.957
		TOTAL	102,597	443,560	0.156	1.947	1.949

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

<u>Territory</u>	<u>Type of Policy</u>	<u>Rating Group</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate Loss <u>Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) Credibility Weighted Experience <u>Ratio</u>	(5) Credibility Weighted Relativity
Nashville	TOP: All TOPS						
		1 Apartments	1,791,938	4,739,034	1.612	1.369	1.370
		2 Other Habitational	361,964	1,516,029	2.500	1.714	1.716
		3 Restaurants & Bars	377,170	1,588,936	1.300	2.008	2.010
		4 Other Mercantile Risks	721,056	3,102,844	4.281	4.051	4.055
		5 Public Buildings	50,982	273,378	2.810	2.112	2.114
		6 Churches	251,703	1,276,246	1.988	2.030	2.032
		7 Schools	74,695	334,364	0.285	1.386	1.387
		8 Offices and Banks	495,945	2,247,199	2.016	2.020	2.022
		9 Recreational Facilities	188,169	896,743	0.528	1.885	1.886
		10 Hotels and Motels	253,584	930,117	1.530	1.727	1.729
		11 Hospitals and Nursing Homes	43,814	173,040	0.000	1.663	1.664
		13 Motor Vehicle Risks	99,268	546,713	0.277	1.938	1.940
		14 Other Non-Manufacturing	147,629	704,934	0.935	2.047	2.049
		15 Storage	142,041	469,090	1.118	2.096	2.098
		17 Food Manufacturing	29,375	157,603	0.153	2.123	2.126
		18 Wood Manufacturing	54,572	304,295	0.014	2.045	2.047
		19 Wearing Apparel	34,581	157,604	0.000	1.926	1.928
		20 Chemical Manufacturing	4,474	39,831	0.000	1.927	1.929
		21 Metal Manufacturing	60,071	280,996	14.718	3.981	3.985
		22 Other Manufacturing	59,339	288,928	1.543	2.205	2.207
		TOTAL	5,242,370	20,027,924	2.066	2.051	2.053

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

<u>Territory</u>	<u>Type of Policy</u>	<u>Rating Group</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate Loss <u>Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) Credibility Weighted Experience <u>Ratio</u>	(5) Credibility Weighted Relativity
Balance of State	TOP 10: Monoline						
		1 Apartments	731,506	1,293,897	0.294	0.915	0.916
		2 Other Habitational	237,418	1,282,487	0.776	0.995	0.996
		3 Restaurants & Bars	101,879	438,340	0.060	0.887	0.888
		4 Other Mercantile Risks	681,380	2,992,742	0.709	0.977	0.978
		5 Public Buildings	61,598	367,252	0.255	0.918	0.919
		6 Churches	72,399	401,229	3.367	1.400	1.401
		7 Schools	112,501	545,967	0.033	0.881	0.882
		8 Offices and Banks	386,073	2,006,010	0.289	0.908	0.909
		9 Recreational Facilities	265,916	1,255,458	2.184	1.229	1.230
		10 Hotels and Motels	79,924	504,760	3.632	1.445	1.446
		11 Hospitals and Nursing Homes	79,819	254,016	1.061	1.042	1.043
		13 Motor Vehicle Risks	182,349	959,531	2.717	1.311	1.312
		14 Other Non-Manufacturing	299,197	1,189,180	0.231	0.906	0.907
		15 Storage	210,763	923,430	0.501	0.952	0.953
		17 Food Manufacturing	51,279	241,481	4.230	1.528	1.530
		18 Wood Manufacturing	184,189	765,543	0.071	0.885	0.886
		19 Wearing Apparel	40,827	120,271	0.000	0.882	0.883
		20 Chemical Manufacturing	63,923	174,083	0.000	0.881	0.882
		21 Metal Manufacturing	123,406	653,131	3.392	1.412	1.413
		22 Other Manufacturing	42,279	207,244	0.860	1.012	1.013
		TOTAL	4,008,625	16,576,052	0.892	1.012	1.013
Balance of State	TOP 31: Hotels/Motels						
		10 Hotels and Motels	1,473,419	8,127,958	0.491	0.530	0.531
		TOTAL	1,473,419	8,127,958	0.491	0.530	0.531
Balance of State	TOP 32: Apartment						
		1 Apartments	5,059,007	19,174,151	0.712	0.707	0.708
		2 Other Habitational	1,535,696	7,995,158	1.117	1.018	1.019
		TOTAL	6,594,703	27,169,309	0.806	0.779	0.780
Balance of State	TOP 33: Office						
		8 Offices and Banks	1,573,766	8,824,317	0.479	0.518	0.519
		TOTAL	1,573,766	8,824,317	0.479	0.518	0.519

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

<u>Territory</u>	<u>Type of Policy</u>	<u>Rating Group</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate Loss <u>Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) Credibility Weighted Experience <u>Ratio</u>	(5) Credibility Weighted Relativity
Balance of State	TOP 34: Mercantile						
		3 Restaurants & Bars	1,316,544	7,122,501	0.455	0.507	0.508
		4 Other Mercantile Risks	3,856,121	19,788,698	0.681	0.680	0.681
		8 Offices and Banks	340,410	1,795,774	2.873	1.736	1.738
		13 Motor Vehicle Risks	172,414	1,064,025	0.002	0.411	0.411
		14 Other Non-Manufacturing	215,589	1,202,524	0.612	0.646	0.647
		15 Storage	853,476	3,587,233	0.082	0.301	0.301
		TOTAL	6,754,554	34,560,755	0.652	0.644	0.645
Balance of State	TOP 35: Institutional						
		2 Other Habitational	6,162	39,659	0.000	0.556	0.557
		5 Public Buildings	249,477	1,112,186	0.628	0.653	0.654
		6 Churches	2,883,994	14,187,289	0.370	0.412	0.412
		7 Schools	419,721	3,355,890	0.502	0.567	0.568
		8 Offices and Banks	169,601	1,075,800	5.014	2.361	2.363
		9 Recreational Facilities	283,053	1,203,144	0.192	0.475	0.475
		11 Hospitals and Nursing Homes	159,670	826,339	0.743	0.695	0.696
		13 Motor Vehicle Risks	6,722	33,085	0.000	0.558	0.559
		14 Other Non-Manufacturing	117,108	502,310	0.192	0.534	0.535
		TOTAL	4,295,508	22,335,702	0.577	0.537	0.537
Balance of State	TOP 36: Services						
		3 Restaurants & Bars	129,065	706,952	7.330	1.795	1.797
		4 Other Mercantile Risks	400,172	1,884,111	0.527	0.869	0.870
		8 Offices and Banks	405,796	2,237,195	0.397	0.849	0.850
		9 Recreational Facilities	1,029,004	5,294,219	1.020	0.942	0.943
		13 Motor Vehicle Risks	841,078	4,424,089	0.787	0.904	0.905
		14 Other Non-Manufacturing	616,834	3,359,435	2.729	1.205	1.206
		15 Storage	335,062	1,770,835	0.431	0.856	0.857
		21 Metal Manufacturing	13,561	58,644	2.242	1.099	1.100
		22 Other Manufacturing	76,856	557,588	0.045	0.808	0.809
		TOTAL	3,847,428	20,293,068	1.271	0.977	0.978

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

<u>Territory</u>	<u>Type of Policy</u>	<u>Rating Group</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate Loss <u>Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) Credibility Weighted Experience <u>Ratio</u>	(5) Credibility Weighted Relativity
Balance of State	TOP 37: Industrial/Processing						
		4 Other Mercantile Risks	332,758	1,822,387	0.623	0.883	0.884
		8 Offices and Banks	114,973	585,845	0.081	0.813	0.814
		13 Motor Vehicle Risks	3,464	8,919	0.000	0.806	0.807
		14 Other Non-Manufacturing	113,005	483,269	0.157	0.824	0.825
		15 Storage	35,613	167,382	1.038	0.941	0.942
		17 Food Manufacturing	378,070	1,708,588	0.477	0.862	0.863
		18 Wood Manufacturing	583,331	2,872,568	0.667	0.887	0.888
		19 Wearing Apparel	467,896	2,033,407	0.013	0.794	0.795
		20 Chemical Manufacturing	118,227	593,536	2.298	1.111	1.112
		21 Metal Manufacturing	821,397	4,513,202	0.712	0.892	0.893
		22 Other Manufacturing	742,728	3,864,485	1.032	0.943	0.944
		TOTAL	3,711,462	18,653,588	0.665	0.888	0.889
Balance of State	TOP 38: Contractors						
		4 Other Mercantile Risks	616,730	2,971,531	0.719	0.895	0.896
		8 Offices and Banks	368,853	1,837,027	0.084	0.806	0.807
		14 Other Non-Manufacturing	101,279	582,213	0.010	0.803	0.804
		TOTAL	1,086,862	5,390,771	0.437	0.856	0.857

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

<u>Territory</u>	<u>Type of Policy</u>	<u>Rating Group</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate Loss <u>Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) Credibility Weighted Experience <u>Ratio</u>	(5) Credibility Weighted Relativity
Balance of State	TOP: All TOPS						
		1 Apartments	5,790,513	20,468,048	0.659	0.733	0.734
		2 Other Habitational	1,779,276	9,317,304	1.068	1.013	1.014
		3 Restaurants & Bars	1,547,488	8,267,793	1.002	0.639	0.641
		4 Other Mercantile Risks	5,887,161	29,459,469	0.674	0.761	0.762
		5 Public Buildings	311,075	1,479,438	0.554	0.705	0.706
		6 Churches	2,956,393	14,588,518	0.443	0.436	0.436
		7 Schools	532,222	3,901,857	0.403	0.633	0.634
		8 Offices and Banks	3,359,472	18,361,968	0.862	0.861	0.862
		9 Recreational Facilities	1,577,973	7,752,821	1.068	0.907	0.907
		10 Hotels and Motels	1,553,343	8,632,718	0.653	0.577	0.578
		11 Hospitals and Nursing Homes	239,489	1,080,355	0.849	0.811	0.812
		13 Motor Vehicle Risks	1,206,027	6,489,649	0.960	0.893	0.894
		14 Other Non-Manufacturing	1,463,012	7,318,931	1.316	0.951	0.952
		15 Storage	1,434,914	6,448,880	0.249	0.542	0.543
		17 Food Manufacturing	429,349	1,950,069	0.925	0.942	0.943
		18 Wood Manufacturing	767,520	3,638,111	0.524	0.887	0.888
		19 Wearing Apparel	508,723	2,153,678	0.012	0.801	0.802
		20 Chemical Manufacturing	182,150	767,619	1.492	1.030	1.031
		21 Metal Manufacturing	958,364	5,224,977	1.079	0.962	0.963
		22 Other Manufacturing	861,863	4,629,317	0.936	0.934	0.935
		TOTAL	33,346,327	161,931,520	0.752	0.763	0.764

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

<u>Territory</u>	<u>Type of Policy</u>	<u>Rating Group</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate Loss <u>Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) Credibility Weighted Experience <u>Ratio</u>	(5) Credibility Weighted Relativity
Entire State	TOP 10: Monoline						
		1 Apartments	1,065,438	1,967,633	1.834	1.625	1.627
		2 Other Habitational	346,454	1,738,542	3.557	2.076	2.078
		3 Restaurants & Bars	208,821	875,016	0.154	1.486	1.487
		4 Other Mercantile Risks	917,187	3,926,728	0.718	1.110	1.111
		5 Public Buildings	64,137	505,330	0.245	0.902	0.903
		6 Churches	109,684	569,616	2.770	1.691	1.693
		7 Schools	124,976	607,453	0.030	0.929	0.930
		8 Offices and Banks	517,143	2,677,004	0.440	1.100	1.102
		9 Recreational Facilities	299,732	1,399,155	1.940	1.312	1.313
		10 Hotels and Motels	87,889	563,660	3.303	1.544	1.545
		11 Hospitals and Nursing Homes	101,997	333,543	1.779	1.424	1.425
		13 Motor Vehicle Risks	222,794	1,180,284	2.260	1.261	1.262
		14 Other Non-Manufacturing	343,705	1,399,019	0.219	0.979	0.981
		15 Storage	274,919	1,232,150	0.387	1.096	1.097
		17 Food Manufacturing	131,297	357,123	1.652	0.959	0.960
		18 Wood Manufacturing	195,559	815,960	0.071	0.971	0.972
		19 Wearing Apparel	40,827	154,336	0.000	0.882	0.883
		20 Chemical Manufacturing	71,505	202,050	0.000	0.838	0.839
		21 Metal Manufacturing	134,726	713,346	3.107	1.379	1.380
		22 Other Manufacturing	48,267	230,555	0.906	1.229	1.230
		TOTAL	5,307,057	21,448,503	1.293	1.311	1.312
Entire State	TOP 31: Hotels/Motels						
		10 Hotels and Motels	1,787,192	9,387,723	0.622	0.718	0.719
		TOTAL	1,787,192	9,387,723	0.622	0.718	0.719
Entire State	TOP 32: Apartment						
		1 Apartments	7,940,876	26,473,931	0.879	0.901	0.902
		2 Other Habitational	2,119,878	10,367,586	0.963	1.040	1.041
		TOTAL	10,060,754	36,841,517	0.897	0.930	0.931
Entire State	TOP 33: Office						
		8 Offices and Banks	1,898,015	10,378,046	0.662	0.728	0.729
		TOTAL	1,898,015	10,378,046	0.662	0.728	0.729

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

<u>Territory</u>	<u>Type of Policy</u>	<u>Rating Group</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate Loss <u>Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) Credibility Weighted Experience <u>Ratio</u>	(5) Credibility Weighted Relativity
Entire State	TOP 34: Mercantile						
		3 Restaurants & Bars	1,765,650	9,079,184	1.376	0.985	0.987
		4 Other Mercantile Risks	4,851,499	24,248,117	1.345	1.214	1.216
		8 Offices and Banks	444,548	2,126,984	2.200	1.629	1.631
		13 Motor Vehicle Risks	223,723	1,468,588	0.152	0.643	0.643
		14 Other Non-Manufacturing	245,197	1,350,523	0.541	0.734	0.735
		15 Storage	979,639	3,953,508	0.233	0.477	0.477
		TOTAL	8,510,256	42,226,904	1.214	1.074	1.076
Entire State	TOP 35: Institutional						
		2 Other Habitational	7,109	51,707	0.000	0.657	0.658
		5 Public Buildings	305,450	1,279,956	0.982	0.907	0.908
		6 Churches	3,481,604	17,335,537	0.473	0.583	0.584
		7 Schools	570,206	4,158,496	0.655	0.803	0.805
		8 Offices and Banks	278,289	1,588,744	3.123	1.946	1.948
		9 Recreational Facilities	368,560	1,662,304	0.159	0.655	0.656
		11 Hospitals and Nursing Homes	230,030	1,109,090	0.949	0.966	0.967
		13 Motor Vehicle Risks	8,359	37,879	0.000	0.752	0.753
		14 Other Non-Manufacturing	141,492	626,349	0.162	0.682	0.683
		TOTAL	5,391,099	27,850,062	0.647	0.720	0.720
Entire State	TOP 36: Services						
		3 Restaurants & Bars	208,312	927,145	4.552	1.788	1.790
		4 Other Mercantile Risks	512,088	2,457,845	0.451	1.046	1.047
		8 Offices and Banks	538,827	2,864,988	1.173	1.189	1.190
		9 Recreational Facilities	1,242,838	6,197,528	0.923	1.092	1.093
		13 Motor Vehicle Risks	1,069,441	5,561,130	1.006	1.119	1.120
		14 Other Non-Manufacturing	740,476	4,026,016	2.465	1.325	1.327
		15 Storage	409,008	2,106,177	0.355	1.012	1.013
		21 Metal Manufacturing	16,807	77,826	1.809	1.239	1.240
		22 Other Manufacturing	125,118	758,044	0.875	1.275	1.277
		TOTAL	4,862,915	24,976,699	1.263	1.168	1.169



TENNESSEE  
BASIC GROUP I RELATIVITY ANALYSIS  
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<u>Territory</u>	<u>Type of Policy</u>	<u>Rating Group</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate Loss <u>Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) Credibility Weighted Experience <u>Ratio</u>	(5) Credibility Weighted Relativity
Entire State	TOP 37: Industrial/Processing						
		4 Other Mercantile Risks	364,879	1,952,888	0.568	0.952	0.953
		8 Offices and Banks	124,836	625,159	0.075	0.883	0.884
		13 Motor Vehicle Risks	4,317	12,865	0.000	0.955	0.957
		14 Other Non-Manufacturing	129,816	539,412	0.962	1.079	1.080
		15 Storage	40,415	179,416	0.915	1.044	1.045
		17 Food Manufacturing	406,633	1,883,952	0.466	0.933	0.934
		18 Wood Manufacturing	642,842	3,232,911	1.493	1.090	1.092
		19 Wearing Apparel	504,064	2,166,857	0.012	0.874	0.875
		20 Chemical Manufacturing	131,544	667,878	2.065	1.169	1.170
		21 Metal Manufacturing	938,961	5,227,621	1.623	1.134	1.135
		22 Other Manufacturing	794,412	4,110,476	0.992	1.002	1.003
		TOTAL	4,082,719	20,599,435	1.009	1.024	1.025
Entire State	TOP 38: Contractors						
		4 Other Mercantile Risks	765,301	3,618,280	0.623	1.063	1.064
		8 Offices and Banks	425,270	2,110,056	0.094	0.932	0.934
		14 Other Non-Manufacturing	111,588	637,869	0.020	0.895	0.896
		TOTAL	1,302,159	6,366,205	0.398	1.006	1.007

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

<u>Territory</u>	<u>Type of Policy</u>	<u>Rating Group</u>	(1) Accident Year Ending 06/30/2022 Aggregate Loss <u>Costs</u>	(2) 5 - Year Aggregate Loss <u>Costs</u>	(3) 5 - Year Experience <u>Ratio</u>	(4) Credibility Weighted Experience <u>Ratio</u>	(5) Credibility Weighted Relativity
Entire State	TOP: All TOPS						
		1 Apartments	9,006,314	28,441,564	0.992	0.986	0.988
		2 Other Habitational	2,473,441	12,157,835	1.324	1.184	1.185
		3 Restaurants & Bars	2,182,783	10,881,345	1.562	1.110	1.111
		4 Other Mercantile Risks	7,410,954	36,203,858	1.093	1.161	1.162
		5 Public Buildings	369,587	1,785,286	0.854	0.906	0.908
		6 Churches	3,591,288	17,905,153	0.543	0.617	0.618
		7 Schools	695,182	4,765,949	0.543	0.826	0.827
		8 Offices and Banks	4,226,928	22,370,981	0.949	1.032	1.033
		9 Recreational Facilities	1,911,130	9,258,987	0.935	1.042	1.043
		10 Hotels and Motels	1,875,081	9,951,383	0.748	0.756	0.757
		11 Hospitals and Nursing Homes	332,027	1,442,633	1.204	1.107	1.108
		13 Motor Vehicle Risks	1,528,634	8,260,746	1.055	1.068	1.069
		14 Other Non-Manufacturing	1,712,274	8,579,188	1.275	1.071	1.073
		15 Storage	1,703,981	7,471,251	0.303	0.718	0.719
		17 Food Manufacturing	537,930	2,241,075	0.756	0.940	0.941
		18 Wood Manufacturing	838,401	4,048,871	1.161	1.063	1.064
		19 Wearing Apparel	544,891	2,321,193	0.011	0.875	0.876
		20 Chemical Manufacturing	203,049	869,928	1.338	1.052	1.053
		21 Metal Manufacturing	1,090,494	6,018,793	1.809	1.166	1.167
		22 Other Manufacturing	967,797	5,099,075	0.972	1.048	1.049
		TOTAL	43,202,166	200,075,094	0.992	0.999	1.000