

LOSS COSTS – IMPLEMENTATION

NOVEMBER 11, 2021

COMMERCIAL PROPERTY

LI-CF-2021-056

## MARYLAND COMMERCIAL FIRE AND ALLIED LINES ADVISORY PROSPECTIVE LOSS COST REVISION TO BE IMPLEMENTED; EXHIBITS NEWLY PRESENTED IN EXCEL

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### KEY MESSAGE

Revised advisory prospective loss costs reflecting a statewide loss cost level change of 5.6% to be implemented.

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### UPGRADE TO WORD AND EXCEL DOCUMENTS

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

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### BACKGROUND

In circular [LI-CF-2021-027](#), 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-2021-RLA1, which presents a review of Commercial Fire and Allied Lines loss cost experience. Refer to the attachment(s) for complete details.

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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, based on the information currently available, that those changes will have negligible and/or offsetting effects on prospective loss costs.

Occasional cases of possible deviation from long-term trends are difficult to separate from inherent volatility in Commercial Property losses due to the low-frequency, high-severity nature of BGI, and the weather-driven perils in BGII and SCL. However, we are continuing to monitor the economic environment to determine whether adjustments will be necessary. As stated above, based on the information available at the time of this filing, ISO is not making any explicit adjustment to our Commercial Property prospective loss costs due to COVID-19.

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## SUPPLEMENTARY INFORMATION

We are including the following supplementary information:

- An Actuarial Analysis Supplement, which provides discussion and analysis of changes in the experience and adjustments used to derive the loss cost level analysis.
- Section S, which provides supplementary exhibits displaying 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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## IMPORTANT NOTE

### Change in Format

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

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

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

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## EFFECTIVE DATE

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

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

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 April 1, 2022, 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 MARCH 1, 2022. 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-2021-RLA1, 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-2021-004](#) contains the ISO Guide To Renewals With Changed Conditions For Commercial Lines, which is available only as a guide to assist participating companies in complying with various conditional renewal statutes or regulations, for the major commercial lines of insurance serviced by ISO. The information in the Guide does not necessarily reflect all requirements or exceptions that may apply, and it is not intended as a substitute for your review of all applicable statutes and regulations concerning policyholder notification.

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## REVISION DISTRIBUTION INFORMATION

- **Manual And ISO Suite**

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

- **ProMetrix**

Revised loss costs for specifically rated and class-rated properties contained in ProMetrix will be displayed as "Pending" beginning on December 13, 2021. On April 1, 2022, 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 December 13, 2021 to April 1, 2022. On April 1, 2022, 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 available via toll-free telephone service will distinguish between loss costs which reflect the effect of limit of insurance (LOI) relativities and pre-LOI loss costs.

**NOTE:** Specific property information is provided for Basic Group I and Basic Group II in this state. However, the eligibility criteria for Basic Group I and Basic Group II are independent and, therefore, an individual property may be eligible for Basic Group I and/or Basic Group II specific rating.

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## REFERENCE(S)

- [LI-CF-2021-027](#) (05/26/2021) Commercial Fire And Allied Lines Experience Level Indications Reviewed By ISO Staff
- [LI-CL-2021-004](#) (02/17/2021) Revised Lead Time Requirements Listing

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## ATTACHMENT(S)

- CF-2021-RLA1
- Actuarial Analysis Supplement
- Excel Workbook

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## FILES AVAILABLE FOR DOWNLOAD

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

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

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## DATA QUALITY

Statistical plan data reported to ISO is first processed through a system of rigorous automated data verification procedures so that only valid data would be used for ratemaking. Subsequent to this initial data submission review, additional analyses on the statistical plan data and AIR Hurricane Model 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, Nancy Narisi, am a Senior Actuarial Associate in Actuarial Operations for ISO, and I, Brian Klaif, am an Actuarial Associate 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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**CONTACT INFORMATION**

If you have any questions concerning

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- Other issues for this circular, please contact Customer Support:

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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).

MARYLAND

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 5.6% 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 12/31/2019, evaluated as of 3/31/2020.
  - incorporates hurricane modeled loss costs based on Touchstone Version 8.0 of AIR Worldwide Corporation's (AIR) tropical cyclone model.
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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, based on the information currently available, that those changes will have negligible and/or offsetting effects on prospective loss costs.

Occasional cases of possible deviation from long-term trends are difficult to separate from inherent volatility in Commercial Property losses due to the low-frequency, high-severity nature of BGI, and the weather-driven perils in BGII and SCL. However, we are continuing to monitor the economic environment to determine whether adjustments will be necessary. As stated above, based on the information available at the time of this filing, ISO is not making any explicit adjustment 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

With this filing, we are removing the Rating ID (class vs. specifically-rated) and Rating Group dimensions from the Basic Group I relativity analysis in Exhibits B4 and B6 and removing Exhibit A2. Rating ID is being removed from the relativity analysis since it is not expected that indications should vary based on rating method, whether class or specifically-rated. Future class relativity reviews will be derived from countrywide data, in order to increase the credibility and stability of those relativities.

As an associated change, we are removing the credibility weighting from Exhibit B6, as the raw experience ratios without the Rating Group dimension are sufficient for use in the subsequent least squares iterative procedure.

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LOSS COST  
LEVEL  
CHANGES

The statewide monoline prospective loss cost level changes are:

<u>Coverage</u>	<u>Indicated</u>	<u>Selected</u>
Basic Group I	7.0%	4.6%
Basic Group II	8.2%	8.2%
Special Causes of Loss	5.9%	5.9%
Total	6.8%	5.6%

Indicated loss cost level changes are changes from the current loss cost level. Individual loss cost changes for BG I have been capped at +/-15% in order to moderate loss cost level swings.

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PRIOR ISO  
REVISIONS

The latest revisions in this state are:

<u>Reference Document or Filing</u>	CF-2017-RLA1	CF-2013-RLA1
<u>Rates/ Loss Costs</u>	Loss Costs	Loss Costs
<u>Dates Implemented</u>	09/01/2017	09/01/2013
<u>Changes</u>		
Basic Group I	-7.4%	-11.4%
Basic Group II	3.3%	2.6%
Special Causes of Loss	6.0%	14.3%
Total	-1.7%	-2.1%

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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 12/31/2019 for Basic Group I and Special Causes of Loss.
  - Ten calendar/accident years ending 12/31/2019 for Basic Group II.
- 

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) for Basic Group I or category for 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.

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TREND AND  
OTHER  
ADJUSTMENTS

Loss Trend

For trend purposes, the period of use for this revision is assumed to begin on 7/01/2021. 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 2019.

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	3.6%
Contents	1.8%
Time Element	-0.2%

TREND AND  
OTHER  
ADJUSTMENTS  
(cont'd)

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	1.2%	1.5%	2.4%
Basic Group II	-0.4%	0.6%	2.6%
Special Causes of Loss	0.2%	-1.0%	2.4%

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	4.8%	3.3%	2.2%
Basic Group II	3.2%	2.4%	2.4%
Special Causes of Loss	3.8%	0.8%	2.2%

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	1.9%	1.8%	1.0%
Basic Group II	1.8%	1.6%	1.0%
Special Causes of Loss	1.8%	1.4%	1.0%

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.

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TEN LARGEST  
COMPANY  
GROUPS IN  
ISO DATA BASE

COMMERCIAL MULTIPERIL - NON-LIABILITY (ASLOB 51)

1. Travelers Indemnity Company
2. Harford Mutual Insurance Company
3. Tokio Marine Companies
4. Cincinnati Insurance Company
5. Nationwide Mutual Insurance Company
6. Brethren Mutual Insurance Company
7. Millers Capital Insurance Company
8. Selective Insurance Company Of America
9. Zurich American Insurance Company
10. Harleysville Insurance

Insurers are listed in descending order based on the percent of statewide written premium volume from Annual Statement Page 15 for year ending 12/31/2019 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 12/31/2019 is:

Commercial Multi-peril - Non-liability (ASLOB 51) - 39.8%

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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	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?
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	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.

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) - BG II

NON-HURRICANE AGGREGATE LOSS COSTS - BASIC GROUP II ONLY

The non-hurricane aggregate loss costs reflect that portion of the BG II loss cost volume due to perils other than hurricane. These loss costs are calculated by multiplying the total aggregate loss costs for each rating territory, coverage, and symbol by the ratio of the current non-hurricane to current total loss costs found on Exhibit C25.

COLUMN (3) -  
BG I, SCL  
COLUMN (4) - BG II

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 Basic Group II, losses due to hurricanes reflected in the modeled hurricane loss costs have been removed from the experience and replaced with average non-hurricane losses for each rating territory and loss month.

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.

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

COLUMN (4) - BG I, SCL EXPERIENCE RATIO  
COLUMN (5) - BG II

The experience ratio is the ratio of adjusted incurred losses to aggregate loss costs for each year. For BG II, the experience ratio is a measure of non-hurricane experience only. It is the ratio of the adjusted non-hurricane incurred losses to the non-hurricane aggregate loss costs.

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) WEIGHTED EXPERIENCE RATIO

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) CREDIBILITY

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) EXPECTED EXPERIENCE RATIO

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.



## 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.

For BG II, losses due to hurricanes with wind speeds of 40 miles per hour or greater have been excluded and replaced with average non-hurricane losses for each BG II rating territory and loss month.

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 level change is distributed across type of policy and territory. The indicated monoline change is the product of the monoline type of policy relativity, the territory 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.</p> <p>The statewide monoline non-hurricane loss cost change is the product of the monoline normalized formula relativity, shown on Exhibit B8 and the indicated statewide loss cost level change. This change is applied to the non-hurricane portion of the BG II loss costs to produce indicated non-hurricane loss costs. The indicated loss costs by territory, coverage, and symbol are equal to the sum of the indicated non-hurricane loss costs plus the hurricane modeled loss costs.</p> <hr/>

## OVERVIEW OF ISO ACTUARIAL PROCEDURES - COMMERCIAL PROPERTY

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

#### BASIC GROUP II (cont'd)

The overall monoline loss cost level change is the weighted average of the loss cost changes by territory, coverage and symbol. In calculating this weighted average, the latest year aggregate monoline and multiline combined loss costs at current level are used as weights.

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#### 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 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 (BG1) or a set of  $n$  category relativities (SCL) are determined. These steps form an iterative process which continues until there is no appreciable difference in results from one iteration to the next.

COLUMN (2)

CREDIBILITY

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

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

where  $P$  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.)

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

COLUMN (5)  
(cont'd)

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.

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:

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

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 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 on 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>2019 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>2015 - 2019 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 on 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>2019 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>2015 - 2019 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.

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

COLUMN (1)

2019 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)

2010 - 2019 EXPERIENCE RATIO

These experience ratios are the ratios of the combined ten-year CSP adjusted incurred non-hurricane 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 non-hurricane 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:

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

For each CPP type of policy the indicated IPMF is subject to a minimum value of 0.50 and a maximum value of 1.50. If an indicated IPMF falls outside one of those limits, it is capped at that amount, the aggregate loss costs for that type of policy are adjusted to the capped IPMF level, and the entire relativity review as described above is 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 change is the statewide BG II total (hurricane and non-hurricane combined) monoline loss cost change found on Exhibit C25. The multiline change for each TOP is the product of the statewide monoline loss cost change times the ratio of the TOP y relativity divided by the monoline relativity found in column (7).

The overall multiline loss cost level change is a weighted average of the individual multiline TOP changes based on the aggregate loss cost volume shown in column (1). The coverage change is a weighted average of the monoline and average multiline TOP changes based on the aggregate loss cost volume shown in column (1).

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

Exhibits 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, C5 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, Exhibit C5 provides rate level/loss cost level histories by territory, coverage, and symbol (where applicable) for Basic Group II, and 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, C2 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 Exhibit 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 Exhibit 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

These factors are used to bring individual policies with inception dates prior to the effective date up to current loss cost level. The actual loss cost/rate changes vary by rating id, rating group, and territory (where applicable) for Basic Group I, by territory, coverage, and symbol (where applicable) for Basic Group II, and by category for Special Causes of Loss. Consequently, these 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 in detail, refer to Exhibits C4, C5 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 C5

HISTORY OF BASIC GROUP II LOSS COST CHANGES BY TERRITORY

COLUMN (1)	<u>TERRITORY</u> The loss cost level changes shown apply to the rating territory shown here.
COLUMN (2)	<u>EFFECTIVE DATE</u> The effective dates of the latest loss cost level changes are shown.
COLUMN (3)	<u>SYMBOL</u> The construction group symbol is shown here. Refer to the explanatory notes to Exhibit C25 for the symbol definitions.
COLUMN (4)	<u>BUILDING</u> Building loss cost changes are shown in percent form.
COLUMN (5)	<u>CONTENTS</u> Contents loss cost changes are shown in percent form.

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. August 15, 2021 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, 2020. 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)

PARTS B, C and D: COMPUTATION OF THE LOSS PROJECTION FACTOR

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 E: 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)

#### COVERAGE

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

#### 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.

#### 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 2021 COMFAL reviews is based on internal commercial property experience through 12/31/2019 and external cost indices through 12/31/2019. 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 12/31/2019 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 1/1/2018, for BG II it is 1/1/2015. Accordingly, there are 54 and 90 months, respectively, to the anticipated average accident date of 7/1/2022.

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)

7/1/2020 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 2020 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 2020 are applicable for the entire year.

COLUMNS (3)  
AND (7)

1/1/2022 PROJECTED FACTORS

The 1/1/2022 factors are calculated by applying a factor to adjust the 7/1/2020 written factors to the amount of insurance level at the average date of writing, 1/1/2022. This is done using the selected annual changes in exposure or premium.

COLUMNS (4)  
AND (8)

1/1/2022 EARNED EXPOSURES/PREMIUM FACTORS

The projected earned factors at the 1/1/2022 level (where 1/1/2022 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 March 31, 2020, 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 March 31, 2020.

Accident year ended December 31, 2019 includes all losses paid on accidents from January 1, 2019 to December 31, 2019 and all losses outstanding on those accidents as of March 31, 2020, fifteen months after the inception of the accident year. Similarly, accident years ended December 31, 2018, 2017, 2016 and 2015 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 BG I 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 and years in the experience period by construction, protection, and amount of insurance intervals. 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 that the original ten-year multistate incurred loss level is maintained.

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.

## EXCESS LOSS PROCEDURES (cont'd)

### BASIC GROUP II

Since wind caused by non-hurricane events can cause large and unexpected losses, a long-term excess procedure is used for Basic Group II. The purpose of this procedure is to avoid the shifts in loss costs which would result from reflecting large, unexpected losses only in the year in which they occur.

The Basic Group II excess procedure identifies periods of overall adverse experience, rather than individual large losses, since catastrophic non-hurricane wind losses affect both the frequency and the severity of losses. Also, due to the extreme volatility of these losses, a long-term review period (1950 - present) is used. Losses reflected in the hurricane model are not included in this procedure. For those years reported under the Commercial Statistical Plan (CSP), 1982 and later, hurricane losses have been replaced with average non-hurricane losses. For years prior to CSP reporting, any year in which a hurricane occurred has been excluded.

A loss ratio cutoff is used to determine normal and excess losses in the excess procedure. The application of this cutoff is described in the explanatory notes to Exhibit C20. The excess losses are used to determine the excess multiplier. The excess multiplier is derived in such a manner as to provide an estimate of the expected excess non-hurricane loss dollars per normal non-hurricane loss dollar.

The excess multiplier is applied to the normal non-hurricane losses for 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 non-hurricane loss experience and the average excess non-hurricane 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 non-hurricane 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 (1985 - 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. 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)                    ADJUSTED INCURRED LOSSES

The adjusted 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 adjusted 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

BASIC GROUP II EXCESS MULTIPLIER

COLUMN (1) EARNED PREMIUMS

The unadjusted earned premiums are shown for each year.

COLUMN (2) INCURRED NON-HURRICANE LOSSES

The unadjusted non-hurricane incurred losses are shown for each year. Note that any year prior to 1982 (pre-CSP) in which a hurricane occurred has been excluded from the excess review period. The incurred losses have been adjusted to reflect loss development.

COLUMN (3) NORMAL INCURRED NON-HURRICANE LOSSES

The normal incurred losses for each year are those non-hurricane losses which do not exceed 0.500 times the earned premium for that year.

COLUMN (4) NORMAL LOSS RATIO

For each year in the excess review period, the normal loss ratio is the ratio of the normal incurred losses to the earned premium for the same year.

COLUMN (5) STATE EXCESS LOSS RATIO

The state 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) STATE EXCESS COMPONENT

The state excess component is determined by dividing the sum of the state excess loss ratios by the sum of all normal loss ratios (where each sum is taken across all non-hurricane accident years in the excess review period).

LINE (7) STATE EXCESS MULTIPLIER

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

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.

## BASIC GROUP II

### HURRICANE PROCEDURES

#### INTRODUCTION

The Basic Group II ratemaking procedures in hurricane-prone states incorporate the use of a computerized hurricane model which can estimate hurricane losses more accurately and with greater geographic specificity than traditional experience-based techniques. The model uses a meteorological database of both landfalling and nonlandfalling tropical cyclones since 1900, a sophisticated wind field model, and engineering and insurance-based damage relationships to develop reliable estimates of expected hurricane losses. The model evaluates the probability of a hurricane at a specific location, the duration of the wind speeds at that location and the relative damageability by type of structure for the current distribution of exposures.

---

#### OVERVIEW OF THE USE OF HURRICANE MODELS IN RATEMAKING

The model provides hurricane loss costs (expected hurricane losses per \$100 of replacement cost value) by ZIP code, construction class, and coverage (building vs. contents). These loss costs are weighted together using the latest year Basic Group II premium distribution to calculate expected hurricane loss costs by BG II rating territory, symbol (construction grouping) and coverage (building vs. contents). The hurricane loss costs are then adjusted to an 80% coinsurance, base deductible, and base limit of insurance level, and a factor is applied to reflect all loss adjustment expenses.

The non-hurricane portion of the prospective loss costs is calculated by applying the statewide non-hurricane monoline change, based on the latest ten years of non-hurricane experience, to the non-hurricane portion of the current BG II loss costs.

The revised BG II loss costs are then equal to the sum of the modeled hurricane loss costs and the non-hurricane portion of the prospective loss costs.

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## BASIC GROUP II

### DESCRIPTION OF THE HURRICANE MODEL

#### HURRICANE DEFINED

A hurricane is a tropical cyclone technically defined as a non-frontal, low pressure synoptic-scale system in which the maximum sustained surface wind speed is at least 74 miles per hour.

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#### HURRICANE MODEL

The model consists of several components or modules - an event generation module, local intensity module, and damage module.

The event generation module is used to create the stochastic storm catalog. Over 100 years of historical data on the frequency of hurricanes and their meteorological characteristics were used to fit statistical distributions for each parameter used. These parameters include storm track, landfall location and track angle at landfall, and the intensity variables of central pressure, radius of maximum winds, and forward speed. By stochastically drawing from these statistical distributions, the fundamental characteristics of each simulated storm are generated. The result is a large, representative catalog of potential events.

Once the model generates the characteristics of a simulated event, it propagates the event along its track. Peak gust wind speeds and wind duration are estimated for each geographical location affected by the storm, and the local intensity is estimated as a function of the magnitude of the event, distance from the source of the event, and a variety of local conditions.

Damageability functions are then used to determine the relationship between the local intensity and the resulting damage to buildings and contents. Expected hurricane losses are calculated by applying the appropriate damage functions to the replacement value of the insured properties.

Following is a discussion of those elements reflected in the AIR tropical cyclone model for the Gulf and Atlantic Coasts of the continental United States.

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EVENT  
GENERATION  
MODULE

The following storm characteristics are modeled as part of the event generation module:

Frequency of Occurrence - The model estimates frequency of occurrence based on tropical cyclones occurring since 1900.

Landfall Location - The model estimates the probability of a hurricane occurring at points along the smoothed coastline from Texas to Maine.

Central Pressure - Central pressure is the primary determinant of hurricane wind speed and therefore of intensity. All else being equal, as central pressure decreases, wind speeds increase or, more precisely, wind speed is an increasing function of the difference between the central and peripheral pressure.

Radius of Maximum Winds (Rmax) - The radius of maximum winds is the distance from the storm's center, or eye, to where the strongest winds are found. On average, the radius of maximum winds tends to be larger at higher latitudes. Similarly, the radius will be smaller, on average, for more intense storms. These relationships are explicitly accounted for in the model. While a smaller radius of maximum winds corresponds to greater storm intensity, it does not necessarily follow that losses will be greater. This is because a smaller radius usually results in a smaller affected area.

Forward Speed - Forward, or translational, speed is the rate at which a hurricane moves from point to point along its track. In general, the higher the latitude, the faster the hurricane's translational speed. Faster moving storms result in higher losses further inland. On the other hand, the faster a storm travels, the shorter the duration that a building is subjected to high wind speeds. In some areas, particularly along the coast, this can lead to lower losses than would otherwise be the case.

Track Angle at Landfall - Separate distributions for track angle at landfall are estimated for segments of coastline that are variable in length, depending upon the coastal orientation of that segment.

Storm Track - Once landfall location and the track angle at landfall are identified, the simulated storm track is generated using conditional probability matrices which resemble the curving and recurving tracks actually observed from the stochastic storm database.

Multiple-Landfalling Storms - In order to model multiple landfalling events as single storms, simulated storm tracks are joined statistically based on consistency of certain storm parameters.

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LOCAL  
INTENSITY  
MODULE

Once the model probabilistically generates the hurricane's meteorological characteristics, it simulates the storm's movement along its track. Calculations of local intensity begin with the maximum over-water windspeed, and then adjustments are made for the asymmetric nature of the hurricane windfield, storm filling over land, surface friction, and relative wind speed profiles.

**Asymmetry Effect** - In the Northern Hemisphere, hurricane winds rotate in a counter-clockwise direction. The combined effects of hurricane winds and forward motion produce higher wind speeds on the right side of the storm, as viewed facing the storm's forward direction. The model accounts for the dynamic interaction of the forward (translational) and rotational speeds, as well as the inflow angle.

**Filling Effect** - As the storm moves inland its intensity begins to dissipate. Central pressure rises and the eye of the hurricane begins to "fill" as it moves away from its energy source, i.e., warm ocean water. The model filling equations are a function of the geographic location (particularly distance from coastline) and the time elapsed since landfall. Rates of filling vary by region, consistent with historical observations.

**Surface Friction Effect** - Differences in surface terrain (or land use/land cover) also affect windspeeds. Wind velocity profiles typically show higher wind speeds at higher elevations. Winds travel more slowly at ground-level because of the horizontal drag force of the earth's surface, or surface friction. The addition of obstacles such as buildings will further degrade wind speed. In general, the rougher the terrain, due to both natural and man-made obstacles, the more quickly wind speeds dissipate.

**Relative Wind Speeds** - The wind speed at any particular location is dependent on the radial distance between the eye of the storm and the location of interest.

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DAMAGE  
ESTIMATION  
MODULE

The tropical cyclone model develops a complete time profile of wind speeds for each location affected by the storm, thus capturing the effect of wind duration on structures as well as the effect of peak wind speed. Damage estimation for hurricanes begins at sustained wind speeds of 40 mph and is calculated cumulatively until sustained winds are once again below 40 mph.

Separate damageability estimates exist by construction type (e.g., frame, joisted masonry, masonry non-combustible) and coverage (buildings vs. contents). Estimated hurricane damage is measured as the ratio of repair cost (i.e., expected hurricane losses) to the replacement cost of the property, capped at 80% of the replacement cost. 80% replacement cost is the exposure base, or limit of insurance, used in ISO's commercial property program.

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## BASIC GROUP II

### RATEMAKING PROCEDURES AND LOSS COST CALCULATIONS

The following is an overview of the Basic Group II ratemaking procedures incorporating computer modeled hurricane loss costs in the hurricane-prone states.

#### REMOVAL OF HURRICANE LOSSES

Losses due to hurricanes reflected in the modeled hurricane loss costs are excluded from the Basic Group II loss database. Storm track data from several meteorological sources are analyzed to determine the date, location, and wind speed of each hurricane during the BG II experience period, and those losses incurred during the month of a hurricane reflected in the model are replaced with the average monthly non-hurricane losses for each rating territory. The resulting non-hurricane losses are used in the calculation of the statewide non-hurricane coverage change, the excess procedure (for CSP years, 1982 and later), and the type of policy relativities.

#### EXCESS PROCEDURE

The excess procedure smoothes catastrophic BG II losses due to perils other than hurricane. The procedure is based on long-term (1950 to present) statewide BG II non-hurricane experience. For those years prior to 1982 (pre-CSP), any year in which a hurricane occurred has been excluded from the excess procedure. For 1982 and later, losses incurred during the month of a hurricane have been replaced by average non-hurricane losses as described above. The normal loss ratio cutoff for each year included in the excess procedure is 0.500. From this follows the following definitions:

The Normal incurred losses for each year are those losses which do not exceed 0.500 times the earned premium for the year. The Excess incurred losses for each year are equal to the Incurred losses minus the Normal losses for the year.

$$\text{Normal Loss Ratio (NLR)} = \frac{\text{Normal Losses}}{\text{Earned Premium}}, \text{ for each year}$$

$$\text{Excess Loss Ratio (ELR)} = \frac{\text{Excess Losses}}{\text{Earned Premium}}, \text{ for each year}$$

$$\text{Excess Component} = \frac{\text{Sum of ELR's}}{\text{Sum of NLR's}}, \text{ over the long-term non-hurricane experience period}$$

The Excess Multiplier is equal to the excess component plus 1.000, and is applied to the normal non-hurricane losses used in the statewide experience review.

STATEWIDE  
EXPERIENCE  
LEVEL REVIEW

The statewide experience review (Exhibit B2) is based on the latest ten years of non-hurricane loss experience. The losses are normal non-hurricane losses (i.e., hurricane losses reflected by the model have been replaced by average non-hurricane losses and the resulting losses have been capped at 0.500 times the earned premium for each year), multiplied by the excess multiplier, loss adjustment expense factor, trend factors, and loss development factors. The non-hurricane aggregate loss costs are at current manual level and have been trended to the average date of writing in the assumed effective period.

NON-HURRICANE  
LOSS COST  
PROVISION

The non-hurricane portion of the revised BG II loss costs for each territory (where applicable), coverage, and symbol is calculated as:

$$\text{Current Non-Hurricane Loss Cost} \times \text{Statewide Monoline Non-Hurr. Change}$$

where the statewide monoline non-hurricane change is the product of the statewide non-hurricane coverage change (Exhibit B2) and the indicated monoline relativity found on Exhibit B8, Column (7).

MODELED  
HURRICANE  
LOSS COSTS

The model produces hurricane loss costs (expected hurricane losses per \$100 of replacement cost) including demand surge and truncated at 80% of value in ZIP code, coverage, and construction detail. These loss costs are weighted together to derive expected hurricane loss costs for each rating territory, coverage, and symbol, using the latest BG II premium distribution. The hurricane loss costs are then adjusted to an 80% coinsurance, base deductible, and base limit of insurance level, and a factor is applied to reflect all loss adjustment expenses.

REVISED  
BASIC GROUP II  
LOSS COSTS

The revised BG II loss costs are the sum of the non-hurricane portion of the revised loss costs plus the modeled hurricane loss costs.

The statewide BG II monoline change shown on Exhibit A1 is calculated as a weighted average of the individual loss cost changes for each territory (where applicable), coverage, and symbol. This monoline change (based on hurricane plus non-hurricane experience combined) is then used to determine the indicated loss cost adjustments by type of policy as described on Exhibit B8.

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EXPLANATORY NOTES TO EXHIBIT C25

CALCULATION OF REVISED BASIC GROUP II LOSS COSTS

SYMBOL  
DEFINITIONS

The Basic Group II (BG II) symbol definitions are:

<u>Symbol</u>	<u>Definition</u>
AA	Superior Wind Resistive
A	Wind Resistive
AB	Semi-Wind Resistive
B	Ordinary

The OA, OAB, and OB construction symbols are based on the old construction definitions and are included for weighting purposes since not all of the experience has been reported under the revised construction definitions.

COLUMN (1)      Latest Year Aggregate Loss Costs

The latest accident year statewide aggregate loss costs for each symbol.

COLUMN (2)      Current Loss Costs

The current manual loss costs are shown here.

COLUMN (3)      Current Non-Hurricane Loss Costs

These are the current manual loss costs minus their hurricane component.

COLUMN (4)      Statewide Monoline Non-Hurricane Loss Cost Change

The statewide monoline non-hurricane loss cost change is the product of the indicated statewide coverage change shown on Exhibit B2, line (10), times the monoline normalized formula relativity shown on Exhibit B8, column (7).

COLUMN (5)      Indicated Non-Hurricane Loss Costs

The indicated non-hurricane loss costs are calculated as the current non-hurricane loss costs times the statewide non-hurricane monoline change, and reflect that portion of the indicated BG II loss costs due to non-hurricane perils.

EXPLANATORY NOTES TO EXHIBIT C25

CALCULATION OF REVISED BASIC GROUP II LOSS COSTS (Cont'd)

COLUMN (6)            Hurricane Modeled Loss Costs

These are the expected hurricane loss costs based on the computer simulation model. The model produces hurricane loss costs (expected hurricane loss per \$100 of replacement cost) by ZIP code, coverage (building vs. contents) and construction. These loss costs are weighted together using the latest year written premium to calculate expected hurricane loss costs by territory, coverage and symbol. The loss costs are then adjusted to reflect the 80% coinsurance clause, \$500 base deductible level, base limit of insurance (\$250,000 for buildings and \$50,000 for contents), and all loss adjustment expenses.

COLUMN (7)            Indicated Total Loss Costs

The indicated total loss costs are equal to the sum of the revised non-hurricane loss costs plus the hurricane modeled loss costs.

COLUMN (8)            Percent Change

The percentage change is the ratio of the indicated loss cost to current loss cost, minus one. The overall statewide change is a weighted average of the percent changes for each symbol based on the aggregate loss costs shown in column (1).

## 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 2015-2019 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	1.110
Special Causes of Loss	1.110

## MARYLAND

## SUMMARY OF MONOLINE PROSPECTIVE LOSS COST CHANGES (A)

COVERAGE	INDICATIONS	SELECTIONS (B)	AGGREGATE LOSS COSTS AT CURRENT LEVEL
BASIC GROUP I	+7.0%	+4.6%	25,269,355
TERRITORY 01	+16.7%	+15.0%	
TERRITORY 02	+4.1%	+4.1%	
TERRITORY 03	-25.0%	-15.0%	
TERRITORY 04	+10.9%	+10.9%	
TERRITORY 05	-2.6%	-2.6%	
TERRITORY 08	+26.2%	+15.0%	
BASIC GROUP II	+8.2%	+8.2%	8,634,481
Territory I	+8.4%	+8.4%	
Territory II	+7.9%	+7.9%	
Territory III	+5.5%	+5.5%	
SPECIAL CAUSES OF LOSS	+5.9%	+5.9%	17,511,238
ALL COVERAGES COMBINED	+6.8%	+5.6%	51,415,074
TERRITORY DEFINITIONS			
Territory 1	Baltimore City		
Territory 2	Anne Arundel County		
Territory 3	Baltimore County Excl. Baltimore City		
Territory 4	Montgomery County		
Territory 5	Prince George's County		
Territory 8	Balance of State		

(A) FOR TREND PURPOSES, THE PERIOD OF USE FOR THIS REVISION IS ASSUMED TO BEGIN ON 07/01/2021.

(B) BG I CHANGES BY TERRITORY HAVE BEEN CAPPED AT -15% AND +15% IN ORDER TO MODERATE LOSS COST LEVEL SWINGS.

## MARYLAND

BASIC GROUP II PROSPECTIVE LOSS COST CHANGES  
BY TERRITORY, COVERAGE, AND SYMBOL

## TERRITORY

COVERAGE	SYMBOL	Territory I	Territory II	Territory III
BUILDINGS	AA	10.0%	6.9%	5.2%
	A	9.1%	6.3%	6.3%
	AB	10.3%	9.3%	6.5%
	B	8.3%	7.9%	5.3%
CONTENTS	AA	9.1%	9.7%	8.5%
	A	8.0%	11.1%	9.3%
	AB	9.4%	11.9%	8.1%
	B	7.7%	7.6%	6.5%
	TOTAL	8.4%	7.9%	5.5%

## MARYLAND

## SPECIAL CAUSES OF LOSS PROSPECTIVE LOSS COST CHANGES BY CATEGORY

CATEGORY	DESCRIPTION	ENTIRE STATE
01	BUILDINGS	+12.2%
02	RES. APTS. AND CONDOS	+2.2%
03	OFFICES	-2.5%
04	MERCANTILE - HIGH	-5.9%
05	MERCANTILE - MEDIUM	-3.6%
06	MERCANTILE - LOW	+1.6%
07	MOTELS AND HOTELS	+1.7%
08	INSTITUTIONAL - HIGH	-1.9%
09	INSTITUTIONAL - LOW	-5.4%
10	INDUST-PROC - HIGH	+1.1%
11	INDUST-PROC - LOW	-1.1%
12	SERVICE - HIGH	-10.3%
13	SERVICE - LOW	-6.0%
14	CONTRACTORS	-0.8%
	STATEWIDE TOTAL	+5.9%

## MARYLAND

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

	(1)	(2)	(3)	(4)
		BASIC GROUP I	BASIC GROUP II	SPECIAL CAUSES OF LOSS
TYPE OF POLICY -----		-----	-----	-----
31	MOTEL/HOTEL	9.7%	8.4%	9.7%
32	APARTMENT	2.7%	8.2%	10.7%
33	OFFICE	3.8%	8.4%	7.0%
34	MERCANTILE	6.2%	8.2%	5.8%
35	INSTITUTIONAL	6.4%	8.1%	4.1%
36	SERVICES	5.9%	8.1%	1.8%
37	INDUST/PROCESSING	5.5%	8.2%	5.1%
38	CONTRACTORS	4.7%	8.1%	3.0%

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 BG I, OR BY CATEGORY FOR SCL, USING THE LATEST YEAR MULTILINE AGGREGATE LOSS COSTS AS WEIGHTS. BASIC GROUP II MONOLINE CHANGES ARE CALCULATED BY TAKING A WEIGHTED AVERAGE OF THE LOSS COST CHANGES BY COVERAGE AND SYMBOL, USING THE LATEST YEAR AGGREGATE LOSS COSTS AS WEIGHTS.

MARYLAND  
STATEWIDE BASIC GROUP I  
COVERAGE LOSS COST LEVEL EVALUATION

(1) YEAR	(2) AGGREGATE* LOSS COSTS	(3) ADJUSTED** INCURRED LOSSES	(4) EXPERIENCE RATIO (3)/(2)	(5) WEIGHTS
2015	29,303,632	27,189,848	0.928	0.10
2016	27,566,466	36,191,015	1.313	0.15
2017	25,063,061	28,718,547	1.146	0.20
2018	24,926,470	29,490,494	1.183	0.25
2019	25,269,355	36,525,144	1.445	0.30
(6) WEIGHTED EXPERIENCE RATIO				= 1.248
(7) CREDIBILITY				= 0.330
(8) EXPECTED EXPERIENCE RATIO				= 1.024
(9) CREDIBILITY WEIGHTED EXPERIENCE RATIO (0.330 X 1.248 ) + (0.670 X 1.024)				= 1.098
(10) INDICATED COVERAGE LOSS COST CHANGE				= 1.098
				OR 9.8%

\* AGGREGATE LOSS COSTS ARE ADJUSTED TO CURRENT ISO LOSS COST LEVEL AND 01/01/2022 AMOUNT OF INSURANCE LEVELS.

\*\* INCURRED LOSSES ARE ADJUSTED TO 07/01/2022 COST LEVELS INCLUDING LOSS DEVELOPMENT AND ALL LOSS ADJUSTMENT EXPENSES.

## MARYLAND

STATEWIDE BASIC GROUP II  
COVERAGE LOSS COST LEVEL EVALUATION

(1)	(2)	(3)	(4)	(5)
YEAR	AGGREGATE* LOSS COSTS	NON HURRICANE AGGREGATE LOSS COSTS	ADJUSTED NON-HURRICANE INCURRED LOSSES	NON-HURRICANE EXPERIENCE RATIO (4)/(3)
2010	8,743,934	6,417,546	9,180,641	1.431
2011	8,368,616	6,146,814	8,178,450	1.331
2012	8,736,249	6,438,783	9,249,894	1.437
2013	8,761,822	6,473,672	3,411,299	0.527
2014	8,960,060	6,626,312	5,129,941	0.774
2015	9,034,438	6,668,640	7,322,467	1.098
2016	8,740,650	6,435,248	6,406,057	0.995
2017	8,812,886	6,477,832	7,601,588	1.173
2018	8,801,669	6,467,962	10,159,817	1.571
2019	8,634,481	6,344,148	7,766,506	1.224
(6) WEIGHTED EXPERIENCE RATIO				= 1.156
(7) CREDIBILITY				= 0.479
(8) EXPECTED EXPERIENCE RATIO				= 1.013
(9) CREDIBILITY WEIGHTED EXPERIENCE RATIO (0.479 X 1.156) + (0.521 X 1.013)				= 1.081
(10) INDICATED COVERAGE LOSS COST CHANGE				= 1.081
				OR 8.1%

\* AGGREGATE LOSS COSTS ARE ADJUSTED TO CURRENT ISO LOSS COST LEVEL AND 01/01/2022 AMOUNT OF INSURANCE LEVELS.

\*\* INCURRED LOSSES ARE ADJUSTED TO 07/01/2022 COST LEVELS INCLUDING LOSS DEVELOPMENT AND ALL LOSS ADJUSTMENT EXPENSES.

## MARYLAND

STATEWIDE SPECIAL CAUSES OF LOSS  
COVERAGE LOSS COST LEVEL EVALUATION

(1)	(2)	(3)	(4)	(5)
YEAR	AGGREGATE* LOSS COSTS	ADJUSTED** INCURRED LOSSES	EXPERIENCE RATIO (3)/(2)	WEIGHTS
2015	17,402,134	21,547,315	1.238	0.10
2016	16,725,819	22,319,815	1.334	0.15
2017	17,417,737	11,767,437	0.676	0.20
2018	17,802,754	21,466,848	1.206	0.25
2019	17,511,238	20,745,948	1.185	0.30
(6) WEIGHTED EXPERIENCE RATIO				= 1.116
(7) CREDIBILITY				= 0.318
(8) EXPECTED EXPERIENCE RATIO				= 1.008
(9) CREDIBILITY WEIGHTED EXPERIENCE RATIO (0.318 X 1.116) + (0.682 X 1.008)				= 1.042
(10) INDICATED COVERAGE LOSS COST CHANGE				= 1.042
				OR 4.2%

\* AGGREGATE LOSS COSTS ARE ADJUSTED TO CURRENT ISO LOSS COST LEVEL AND 01/01/2022 AMOUNT OF INSURANCE LEVELS.

\*\* INCURRED LOSSES ARE ADJUSTED TO 07/01/2022 COST LEVELS INCLUDING LOSS DEVELOPMENT AND ALL LOSS ADJUSTMENT EXPENSES.

MARYLAND  
BASIC GROUP I RELATIVITY ANALYSIS

TOP	(1) \$ LST SQ FORMULA RELATIVITY	(2) CREDIBILITY Z	(3) CREDIBILITY WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	STATEWIDE COVERAGE LOSS COST CHANGE OF OR	1.098 9.8%
10	0.728	0.064	0.980	0.974		
31	0.336	0.026	0.972	0.967		
32	1.095	0.360	1.033	1.027		
33	0.796	0.034	0.992	0.987		
34	1.361	0.170	1.054	1.048		
35	0.413	0.154	0.873	0.868		
36	1.603	0.117	1.057	1.051		
37	0.513	0.071	0.954	0.948		
38	0.583	0.033	0.982	0.977		

STATEWIDE MONOLINE LOSS COST LEVEL CHANGE (A): 4.6%

(A) THE STATEWIDE MONOLINE CHANGE REFLECTS CAPPING THE TERRITORY CHANGES AT -15% AND +15% IN ORDER TO MODERATE LOSS COST LEVEL SWINGS.

MARYLAND  
BASIC GROUP I RELATIVITY ANALYSIS

TERRITORY	(1) \$ LST SQ FORMULA RELATIVITY	(2) CREDIBILITY Z	(3) CREDIBILITY WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	(5) INDICATED MONOLINE LOSS COST LEVEL CHANGE	(6) SELECTED MONOLINE LOSS COST LEVEL CHANGE*
Baltimore City	1.416	0.224	1.081	1.091	16.7%	15.0%
Anne Arundel County	0.766	0.135	0.965	0.973	4.1%	4.1%
Baltimore County Excl. Baltimore City	0.243	0.257	0.695	0.701	-25.0%	-15.0%
Montgomery County	1.17	0.177	1.028	1.037	10.9%	10.9%
Prince George's County	0.762	0.377	0.903	0.911	-2.6%	-2.6%
Balance of State	1.426	0.442	1.170	1.180	26.2%	15.0%

TERRITORY	(1) TERRITORY RELATIVITY	(2) OFF- BALANCE FACTOR	(3) CURRENT TERRITORIAL MULTIPLIER	(4) INDICATED REVISED TERRITORIAL MULTIPLIER	(5) SELECTED REVISED TERRITORIAL MULTIPLIER*
Baltimore City	1.091	1.000	1.198	1.108	1.198
Anne Arundel County	0.973	1.000	0.943	0.778	0.854
Baltimore County Excl. Baltimore City	0.701	1.000	1.816	1.079	1.342
Montgomery County	1.037	1.000	0.848	0.745	0.818
Prince George's County	0.911	1.000	3.035	2.343	2.571
Balance of State	1.180	1.000	1.000	1.000	1.000

\* TO AVOID SIGNIFICANT SWINGS IN LOSS COSTS, CHANGES BY TERRITORY HAVE BEEN CAPPED AT -15.0%/+15.0%.  
TERRITORIAL MULTIPLIERS HAVE BEEN ADJUSTED ACCORDINGLY.

MARYLAND  
BASIC GROUP I RELATIVITY ANALYSIS

EXAMPLE OF AN INDIVIDUAL LOSS COST CHANGE CALCULATION  
FOR

STATEWIDE COVERAGE LOSS COST LEVEL CHANGE	=	1.098
TERRITORIAL RELATIVITY	=	1.091
MONOLINE (TOP 10) RELATIVITY	=	0.974

INDICATED MONOLINE LOSS COSTS LEVEL CHANGE		
= 1.098 X 1.091 X 0.974	=	1.167
	OR	16.7%

MARYLAND  
SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS

TOP	(1) \$ LST SQ FORMULA RELATIVITY	(2) CREDIBILITY Z	(3) CREDIBILITY WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	STATEWIDE COVERAGE LOSS COST CHANGE OF OR	1.042 4.2%
-----	-----	-----	-----	-----	-----	
10	1.093	0.142	1.013	1.016		
31	0.754	0.048	0.987	0.989		
32	0.873	0.305	0.959	0.962		
33	0.974	0.077	0.998	1.001		
34	0.934	0.343	0.977	0.980		
35	1.290	0.252	1.066	1.069		
36	1.294	0.228	1.061	1.064		
37	0.869	0.094	0.987	0.990		
38	0.641	0.151	0.935	0.938		

CATEGORY	(1)	(2)	(3)	(4)	(5) INDICATED MONOLINE LOSS COST LEVEL CHANGE
01	1.141	0.773	1.107	1.060	12.2%
02	1.049	0.183	1.009	0.965	2.2%
03	0.759	0.140	0.962	0.921	-2.5%
04	0.682	0.192	0.929	0.889	-5.9%
05	0.802	0.221	0.952	0.911	-3.6%
06	1.053	0.064	1.003	0.960	1.6%
07	1.146	0.035	1.005	0.961	1.7%
08	0.820	0.161	0.969	0.927	-1.9%
09	0.737	0.224	0.934	0.894	-5.4%
10	0.956	0.040	0.998	0.955	1.1%
11	0.792	0.103	0.976	0.934	-1.1%
12	0.545	0.200	0.886	0.847	-10.3%
13	0.592	0.143	0.928	0.888	-6.0%
14	0.918	0.242	0.980	0.937	-0.8%

OVERALL MONOLINE LOSS COST LEVEL CHANGE 5.9%

MARYLAND  
SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS

EXAMPLE OF AN INDIVIDUAL LOSS COST CHANGE CALCULATION

STATEWIDE COVERAGE LOSS COST LEVEL CHANGE	=	1.042
MONOLINE (TOP 10) RELATIVITY	=	1.016
CATEGORY 01 RELATIVITY	=	1.060

INDICATED MONOLINE LOSS COST LEVEL CHANGE FOR CATEGORY 01	=	1.122
	OR	12.2%

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

TYPE OF POLICY	(1)	(2)	(3)	(4)
	ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE EXPERIENCE RATIO	RELATIVITY
-----				
BALTIMORE CITY				
10 MONOLINE	142,567	764,122	1.405	1.194
31 MULTILINE MOTEL/HOTEL	34,568	122,856	0.000	0.000
32 MULTILINE APARTMENT	866,661	5,875,652	1.484	1.261
33 MULTILINE OFFICE	46,745	327,603	0.592	0.503
34 MULTILINE MERCANTILE	541,205	2,975,143	2.506	2.129
35 MULTILINE INSTITUTIONAL	508,417	2,960,569	2.031	1.726
36 MULTILINE SERVICES	175,459	1,080,122	1.239	1.053
37 MULTILINE INDUST/PROCESS	247,424	1,501,364	1.311	1.114
38 MULTILINE CONTRACTORS	<u>61,088</u>	<u>277,916</u>	<u>0.615</u>	<u>0.523</u>
TOTAL ALL TOPS*	2,624,134	15,885,347	1.708	1.451
ANNE ARUNDEL COUNTY				
10 MONOLINE	84,526	470,475	0.280	0.238
31 MULTILINE MOTEL/HOTEL	77,162	320,145	8.295	7.048
32 MULTILINE APARTMENT	744,886	3,210,106	1.105	0.939
33 MULTILINE OFFICE	52,886	293,416	0.474	0.403
34 MULTILINE MERCANTILE	319,288	1,642,893	0.633	0.538
35 MULTILINE INSTITUTIONAL	186,168	944,986	0.091	0.077
36 MULTILINE SERVICES	244,073	1,084,911	1.110	0.943
37 MULTILINE INDUST/PROCESS	57,962	379,241	0.444	0.377
38 MULTILINE CONTRACTORS	<u>40,801</u>	<u>210,432</u>	<u>0.678</u>	<u>0.576</u>
TOTAL ALL TOPS*	1,807,752	8,556,605	1.137	0.966

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

TYPE OF POLICY	(1)	(2)	(3)	(4)
	ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE EXPERIENCE RATIO	RELATIVITY
-----				
BALTIMORE COUNTY EXCL. BALTIMORE CITY				
10 MONOLINE	174,299	834,280	0.268	0.228
31 MULTILINE MOTEL/HOTEL	25,304	228,323	0.166	0.141
32 MULTILINE APARTMENT	1,450,945	7,478,116	0.312	0.265
33 MULTILINE OFFICE	150,520	788,279	0.137	0.116
34 MULTILINE MERCANTILE	600,521	3,141,131	0.109	0.093
35 MULTILINE INSTITUTIONAL	537,530	2,589,048	0.505	0.429
36 MULTILINE SERVICES	334,529	1,981,243	0.785	0.667
37 MULTILINE INDUST/PROCESS	326,856	1,402,247	0.069	0.059
38 MULTILINE CONTRACTORS	<u>127,475</u>	<u>578,145</u>	<u>0.270</u>	<u>0.229</u>
TOTAL ALL TOPS*	3,727,979	19,020,812	0.317	0.269
MONTGOMERY COUNTY				
10 MONOLINE	64,291	353,957	0.376	0.319
31 MULTILINE MOTEL/HOTEL	6,476	20,678	0.000	0.000
32 MULTILINE APARTMENT	1,116,574	7,265,584	1.166	0.991
33 MULTILINE OFFICE	41,369	223,131	0.270	0.229
34 MULTILINE MERCANTILE	218,876	1,148,673	7.401	6.288
35 MULTILINE INSTITUTIONAL	283,208	1,460,400	0.671	0.570
36 MULTILINE SERVICES	136,129	925,855	2.989	2.540
37 MULTILINE INDUST/PROCESS	48,184	283,263	0.016	0.014
38 MULTILINE CONTRACTORS	<u>34,456</u>	<u>181,976</u>	<u>0.121</u>	<u>0.103</u>
TOTAL ALL TOPS*	1,949,563	11,863,517	1.826	1.551

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

TYPE OF POLICY	(1)	(2)	(3)	(4)
	ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE EXPERIENCE RATIO	RELATIVITY
-----				
PRINCE GEORGE'S COUNTY				
10 MONOLINE	241,506	1,202,574	0.664	0.564
31 MULTILINE MOTEL/HOTEL	92,033	341,992	0.019	0.016
32 MULTILINE APARTMENT	4,498,059	20,062,343	0.962	0.817
33 MULTILINE OFFICE	120,969	634,801	0.180	0.153
34 MULTILINE MERCANTILE	678,040	3,746,446	0.741	0.630
35 MULTILINE INSTITUTIONAL	563,604	2,892,346	0.517	0.439
36 MULTILINE SERVICES	458,821	2,475,039	1.067	0.907
37 MULTILINE INDUST/PROCESS	153,750	1,010,336	0.619	0.526
38 MULTILINE CONTRACTORS	<u>163,979</u>	<u>860,173</u>	<u>0.222</u>	<u>0.189</u>
TOTAL ALL TOPS*	6,970,761	33,226,050	0.850	0.722
BALANCE OF STATE				
10 MONOLINE	537,815	3,221,927	1.168	0.992
31 MULTILINE MOTEL/HOTEL	374,719	1,678,026	0.374	0.318
32 MULTILINE APARTMENT	2,340,833	12,237,096	1.819	1.545
33 MULTILINE OFFICE	248,961	1,276,601	1.404	1.193
34 MULTILINE MERCANTILE	1,530,464	7,841,591	2.132	1.811
35 MULTILINE INSTITUTIONAL	1,330,825	7,301,625	0.442	0.376
36 MULTILINE SERVICES	984,845	5,653,639	2.659	2.259
37 MULTILINE INDUST/PROCESS	563,064	3,043,937	0.738	0.627
38 MULTILINE CONTRACTORS	<u>277,640</u>	<u>1,322,211</u>	<u>1.012</u>	<u>0.860</u>
TOTAL ALL TOPS*	8,189,166	43,576,653	1.532	1.301

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

TYPE OF POLICY	(1)	(2)	(3)	(4)
	ACCIDENT YEAR			
	ENDING 12/31/2019	5 - YEAR	5 - YEAR	
	AGGREGATE LOSS COSTS	AGGREGATE LOSS COSTS	EXPERIENCE RATIO	RELATIVITY
-----				
ENTIRE STATE				
10 MONOLINE	1,245,004	6,847,335	0.870	0.739
31 MULTILINE MOTEL/HOTEL	610,262	2,712,020	1.288	1.094
32 MULTILINE APARTMENT	11,017,958	56,128,897	1.130	0.960
33 MULTILINE OFFICE	661,450	3,543,831	0.689	0.585
34 MULTILINE MERCANTILE	3,888,394	20,495,877	1.803	1.532
35 MULTILINE INSTITUTIONAL	3,409,752	18,148,974	0.701	0.596
36 MULTILINE SERVICES	2,333,856	13,200,809	1.828	1.553
37 MULTILINE INDUST/PROCESS	1,397,240	7,620,388	0.633	0.538
38 MULTILINE CONTRACTORS	<u>705,439</u>	<u>3,430,853</u>	<u>0.597</u>	<u>0.507</u>
TOTAL ALL TOPS*	25,269,355	132,128,984	1.177	1.000

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	CREDIBILITY WEIGHTED EXPERIENCE RATIO	CREDIBILITY WEIGHTED RELATIVITY
-----						
ENTIRE STATE						
10 MONOLINE	01 BUILDINGS	696,103	3,644,277	1.596	1.434	1.244
	02 RES. APTS. AND COND	19,513	67,807	1.183	1.244	1.079
	03 OFFICES	130,358	682,718	0.176	0.940	0.815
	04 MERCANTILE - HIGH	134,861	662,015	1.001	1.185	1.028
	05 MERCANTILE - MEDIUM	25,582	143,654	1.777	1.382	1.199
	06 MERCANTILE - LOW	18,100	85,725	0.138	1.008	0.874
	07 MOTELS AND HOTELS	3,071	22,351	0.000	0.987	0.856
	08 INSTITUTIONAL - HIG	37,592	172,022	0.900	1.176	1.020
	09 INSTITUTIONAL - LOW	47,171	285,085	1.601	1.347	1.168
	10 INDUST-PROC - HIGH	15,644	52,263	0.000	0.982	0.852
	11 INDUST-PROC - LOW	29,478	172,673	0.467	1.073	0.931
	12 SERVICE - HIGH	25,558	182,164	1.999	1.437	1.246
	13 SERVICE - LOW	53,445	329,022	0.390	1.039	0.901
	14 CONTRACTORS	<u>23,770</u>	<u>114,060</u>	<u>1.874</u>	<u>1.402</u>	<u>1.216</u>
	TOTAL	1,260,246	6,615,836	1.253	1.303	1.130
31 MULTILINE	01 BUILDINGS	315,011	1,472,740	0.755	0.996	0.864
MOTEL/HOTEL	07 MOTELS AND HOTELS	<u>99,758</u>	<u>528,894</u>	<u>0.504</u>	<u>1.001</u>	<u>0.868</u>
	TOTAL	414,769	2,001,634	0.695	0.997	0.865
32 MULTILINE	01 BUILDINGS	3,166,711	14,226,163	1.152	1.153	1.000
APARTMENT	02 RES. APTS. AND COND	<u>559,230</u>	<u>3,292,090</u>	<u>0.988</u>	<u>1.060</u>	<u>0.919</u>
	TOTAL	3,725,941	17,518,253	1.127	1.139	0.988

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	CREDIBILITY WEIGHTED EXPERIENCE RATIO	CREDIBILITY WEIGHTED RELATIVITY
ENTIRE STATE (Continued)						
33 MULTILINE OFFICE	01 BUILDINGS	412,384	2,103,008	1.435	1.287	1.116
	03 OFFICES	222,161	1,177,651	0.326	0.861	0.747
	04 MERCANTILE - HIGH	1,818	20,373	0.000	1.029	0.892
	08 INSTITUTIONAL - HIG	125	2,010	0.000	1.035	0.898
	12 SERVICE - HIGH	2,090	18,592	1.242	1.165	1.010
	14 CONTRACTORS	0	777	0.000	1.000	1.000
	TOTAL	638,578	3,322,411	1.044	1.138	0.987
34 MULTILINE MERCANTILE	01 BUILDINGS	2,644,791	12,753,712	1.251	1.235	1.071
	03 OFFICES	24,286	155,136	0.570	1.069	0.927
	04 MERCANTILE - HIGH	580,106	2,638,881	0.315	0.717	0.622
	05 MERCANTILE - MEDIUM	861,080	4,060,444	0.689	0.867	0.752
	06 MERCANTILE - LOW	215,425	874,701	1.111	1.142	0.990
	08 INSTITUTIONAL - HIG	250	3,005	0.000	1.035	0.898
	11 INDUST-PROC - LOW	869	1,114	0.000	1.036	0.899
	12 SERVICE - HIGH	9,308	62,472	0.299	1.051	0.912
	13 SERVICE - LOW	34,340	149,892	0.185	1.014	0.879
	14 CONTRACTORS	36,360	159,133	0.680	1.085	0.941
	TOTAL	4,406,815	20,858,490	0.992	1.086	0.942

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	CREDIBILITY WEIGHTED EXPERIENCE RATIO	CREDIBILITY WEIGHTED RELATIVITY
ENTIRE STATE (Continued)						
35 MULTILINE INSTITUTIONAL	01 BUILDINGS	1,259,426	6,795,662	1.914	1.705	1.479
	03 OFFICES	11,857	39,972	5.272	1.630	1.414
	04 MERCANTILE - HIGH	194	957	0.780	1.116	0.968
	06 MERCANTILE - LOW	31	145	0.000	1.036	0.899
	08 INSTITUTIONAL - HIG	484,208	2,631,957	1.288	1.225	1.062
	09 INSTITUTIONAL - LOW	748,121	3,937,335	1.064	1.100	0.954
	12 SERVICE - HIGH	494	5,671	0.315	1.067	0.925
	13 SERVICE - LOW	7,922	36,945	0.547	1.086	0.942
	14 CONTRACTORS	6,345	17,616	0.000	1.030	0.893
	TOTAL	2,518,598	13,466,260	1.547	1.429	1.239
36 MULTILINE SERVICES	01 BUILDINGS	1,089,322	5,853,152	2.106	1.711	1.484
	03 OFFICES	61,745	109,623	0.460	0.946	0.820
	04 MERCANTILE - HIGH	18,716	59,809	0.337	0.938	0.814
	05 MERCANTILE - MEDIUM	1,791	24,479	0.477	0.958	0.831
	06 MERCANTILE - LOW	2,751	18,255	0.000	0.909	0.788
	08 INSTITUTIONAL - HIG	12,490	56,060	0.000	0.901	0.781
	09 INSTITUTIONAL - LOW	20,952	106,442	0.000	0.889	0.771
	11 INDUST-PROC - LOW	2,749	8,125	0.000	0.911	0.790
	12 SERVICE - HIGH	616,053	3,462,015	0.632	0.816	0.708
	13 SERVICE - LOW	402,463	1,971,891	0.679	0.881	0.764
	14 CONTRACTORS	30,610	160,393	0.022	0.881	0.764
TOTAL	2,259,642	11,830,244	1.325	1.266	1.098	

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	CREDIBILITY WEIGHTED EXPERIENCE RATIO	CREDIBILITY WEIGHTED RELATIVITY
ENTIRE STATE (Continued)						
37 MULTILINE INDUST/PROC	01 BUILDINGS	379,824	1,953,718	1.350	1.148	0.996
	03 OFFICES	3,950	17,418	0.064	0.916	0.794
	04 MERCANTILE - HIGH	7,191	41,853	0.019	0.906	0.786
	05 MERCANTILE - MEDIUM	2,469	14,786	0.195	0.930	0.807
	10 INDUST-PROC - HIGH	123,428	571,702	0.792	0.967	0.839
	11 INDUST-PROC - LOW	325,165	1,523,942	0.390	0.796	0.690
	12 SERVICE - HIGH	672	1,897	0.000	0.913	0.792
	13 SERVICE - LOW	752	2,071	0.000	0.913	0.792
	14 CONTRACTORS	<u>3,039</u>	<u>24,435</u>	<u>1.578</u>	<u>1.074</u>	<u>0.931</u>
	TOTAL	846,490	4,151,822	0.878	0.982	0.852
38 MULTILINE CONTRACTORS	01 BUILDINGS	446,149	2,304,133	0.608	0.839	0.728
	03 OFFICES	54,401	264,000	1.288	1.058	0.918
	04 MERCANTILE - HIGH	30,396	133,326	0.536	0.953	0.827
	05 MERCANTILE - MEDIUM	1,649	10,510	2.628	1.180	1.023
	06 MERCANTILE - LOW	6,999	39,583	0.424	0.950	0.824
	08 INSTITUTIONAL - HIG	718	3,419	0.000	0.913	0.792
	11 INDUST-PROC - LOW	1,342	8,648	0.000	0.911	0.790
	12 SERVICE - HIGH	1,903	13,607	2.140	1.131	0.981
	13 SERVICE - LOW	1,518	10,264	0.506	0.963	0.835
	14 CONTRACTORS	<u>895,084</u>	<u>4,307,242</u>	<u>0.432</u>	<u>0.683</u>	<u>0.592</u>
TOTAL	1,440,159	7,094,732	0.525	0.754	0.654	

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	CREDIBILITY WEIGHTED EXPERIENCE RATIO	CREDIBILITY WEIGHTED RELATIVITY
ENTIRE STATE (Continued)						
TOTAL ALL TOPS*	01 BUILDINGS	10,409,721	51,106,565	1.382	1.304	1.132
	02 RES. APTS. AND COND	578,743	3,359,897	0.995	1.066	0.925
	03 OFFICES	508,758	2,446,518	0.532	0.941	0.816
	04 MERCANTILE - HIGH	773,282	3,557,214	0.440	0.816	0.708
	05 MERCANTILE - MEDIUM	892,571	4,253,873	0.722	0.883	0.766
	06 MERCANTILE - LOW	243,306	1,018,409	1.006	1.124	0.975
	07 MOTELS AND HOTELS	102,829	551,245	0.489	1.001	0.868
	08 INSTITUTIONAL - HIG	535,383	2,868,473	1.228	1.213	1.052
	09 INSTITUTIONAL - LOW	816,244	4,328,862	1.068	1.109	0.962
	10 INDUST-PROC - HIGH	139,072	623,965	0.703	0.969	0.840
	11 INDUST-PROC - LOW	359,603	1,714,502	0.391	0.820	0.712
	12 SERVICE - HIGH	656,078	3,746,418	0.686	0.845	0.734
	13 SERVICE - LOW	500,440	2,500,085	0.611	0.910	0.790
	14 CONTRACTORS	995,208	4,783,656	0.464	0.724	0.628
	TOTAL	17,511,238	86,859,682	1.113	1.152	1.000

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

MARYLAND

BASIC GROUP II RELATIVITY ANALYSIS

INDICATED TOTAL LOSS COST ADJUSTMENT: 6.3%

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	ACCIDENT YEAR ENDING 12/31/2019	ACCIDENT YEARS 2010-2019	FORMULA RELATIVITY	CREDIBILITY C	CREDIBILITY WEIGHTED RELATIVITY D	BALANCED FORMULA RELATIVITY E	NORMALIZED FORMULA RELATIVITY F	CURRENT IMPLICIT PMF	INDICATED IMPLICIT PMF G	INDICATED TOTAL LOSS COST ADJUST
	LOSS COSTS AT CURRENT IMPLICIT PMF	NON-HURRICANE EXPERIENCE RATIO AT CURRENT PMF	(2)/ 0.847							
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
MONOLINE	640,884	0.939	1.109	0.131	1.015	1.015	1.0176			8.2%
MULTILINE	7,993,597	0.840	0.992	0.642	0.995	0.996	0.9982			6.1%
	-----	-----	-----	-----	-----	-----	-----			-----
COVERAGE	8,634,481	0.847	1.001			0.9974	0.9996			6.3%
MULTILINE TOP										
31 MOTEL/HOTEL	237,220	0.822	0.970	0.047	1.000	0.987	0.9896	0.990	0.963	5.2%
32 APARTMENT	1,269,497	0.970	1.145	0.217	1.032	1.019	1.0217	0.608	0.610	8.6%
33 OFFICE	395,553	0.327	0.386	0.081	0.951	0.939	0.9414	1.036	0.958	0.1%
34 MERCANTILE	2,164,727	0.870	1.027	0.300	1.009	0.996	0.9986	1.115	1.094	6.2%
35 INSTITUTIONAL	1,543,198	0.947	1.118	0.276	1.033	1.020	1.0227	0.841	0.845	8.7%
36 SERVICES	1,623,701	0.828	0.978	0.284	0.994	0.981	0.9836	1.397	1.350	4.6%
37 INDUST/PROCESS	330,198	0.390	0.460	0.071	0.963	0.951	0.9535	0.753	0.706	1.4%
38 CONTRACTORS	429,503	0.795	0.939	0.089	0.995	0.982	0.9846	1.040	1.006	4.7%
	-----	-----	-----	-----	-----	-----	-----			-----
	7,993,597	0.840	0.992		1.008	0.996	0.9982			6.1%

B - AVERAGE WEIGHTED BY COLUMN (1)

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

D - (5) = (3) \* (4) + ((1.000 - (4)) \* 1.001

E - (6) = (5) \* (0.995/1.008)

F - (7) = (6) / 0.9974

G - (9) = (7) \* (8) / (1.0176)

MARYLAND  
BASIC GROUP I  
HISTORY OF STATEWIDE LOSS COST/RATE LEVEL CHANGES

LOSS COST/RATE LEVEL HISTORY

(1)	(2)	(3)	(4)	(5)
EFFECTIVE DATE	LOSS COST/ RATE LEVEL CHANGE (%)	LOSS COST/ RATE LEVEL INDEX	ADJUSTMENT FACTOR	WEIGHT*
2000-06-01	-8.3	0.917	0.498	0.583
2001-07-01	-5.6	0.866	0.528	0.500
2004-01-01	-3.8	0.833	0.549	1.000
2005-09-01	-2.2	0.814	0.561	0.333
2006-09-01	-15.7	0.687	0.665	0.333
2007-09-01	-2.7	0.668	0.684	0.333
2008-08-01	-12.2	0.587	0.779	0.417
2009-10-01	1.2	0.594	0.769	0.250
2011-10-01	-6.2	0.557	0.820	0.250
2013-09-01	-11.4	0.493	0.927	0.333
2017-09-01	-7.4	0.457	1.000	0.333

TIME ELEMENT ONLY LOSS COST LEVEL HISTORY

(1)	(2)	(3)	(4)	(5)
EFFECTIVE DATE	LOSS COST/ RATE LEVEL CHANGE (%)	LOSS COST/ RATE LEVEL INDEX	ADJUSTMENT FACTOR	WEIGHT*
2013-04-01	-13.1	0.869	1.000	0.750

MARYLAND  
BASIC GROUP II  
HISTORY OF STATEWIDE LOSS COST/RATE LEVEL CHANGES

LOSS COST/RATE LEVEL HISTORY

(1)	(2)	(3)	(4)	(5)
EFFECTIVE DATE	LOSS COST/ RATE LEVEL CHANGE (%)	LOSS COST/ RATE LEVEL INDEX	ADJUSTMENT FACTOR	WEIGHT*
2000-06-01	-6.8	0.932	0.766	0.583
2001-07-01	-7.2	0.865	0.825	0.500
2004-01-01	-0.8	0.858	0.832	1.000
2005-09-01	-3.2	0.831	0.859	0.333
2006-09-01	-1.6	0.817	0.874	0.333
2007-09-01	-0.2	0.816	0.875	0.333
2008-08-01	-9.1	0.741	0.964	0.417
2009-10-01	-9.2	0.673	1.061	0.250
2011-10-01	0.1	0.674	1.059	0.250
2013-09-01	2.6	0.691	1.033	0.333
2017-09-01	3.3	0.714	1.000	0.333

TIME ELEMENT ONLY LOSS COST LEVEL HISTORY

(1)	(2)	(3)	(4)	(5)
EFFECTIVE DATE	LOSS COST/ RATE LEVEL CHANGE (%)	LOSS COST/ RATE LEVEL INDEX	ADJUSTMENT FACTOR	WEIGHT*
2013-04-01	-13.3	0.867	1.000	0.750

MARYLAND  
SPECIAL CAUSES OF LOSS  
HISTORY OF STATEWIDE LOSS COST/RATE LEVEL CHANGES

LOSS COST/RATE LEVEL HISTORY

(1)	(2)	(3)	(4)	(5)
EFFECTIVE DATE	LOSS COST/ RATE LEVEL CHANGE (%)	LOSS COST/ RATE LEVEL INDEX	ADJUSTMENT FACTOR	WEIGHT*
2000-06-01	-24.1	0.759	1.490	0.583
2001-07-01	-4.4	0.726	1.558	0.500
2004-01-01	12.5	0.816	1.386	1.000
2005-09-01	10.2	0.900	1.257	0.333
2006-09-01	-2.0	0.882	1.282	0.333
2007-09-01	18.3	1.043	1.084	0.333
2008-08-01	2.8	1.072	1.055	0.417
2009-10-01	-10.7	0.957	1.182	0.250
2011-10-01	-2.5	0.933	1.212	0.250
2013-09-01	14.3	1.067	1.060	0.333
2017-09-01	6.0	1.131	1.000	0.333

TIME ELEMENT ONLY LOSS COST LEVEL HISTORY

(1)	(2)	(3)	(4)	(5)
EFFECTIVE DATE	LOSS COST/ RATE LEVEL CHANGE (%)	LOSS COST/ RATE LEVEL INDEX	ADJUSTMENT FACTOR	WEIGHT*
2013-04-01	-25.0	0.750	1.000	0.750

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

TERRITORY: Baltimore City

EFFECTIVE DATE	RATING ID	RATING GROUP																				
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	17	18	19	20	21	22
09/01/2006	SPEC.	-7.4	-11.9	-6.4	-14.9	-4.9	-1.0	-6.2	-6.1	-1.0	-6.5	-5.5	-6.7	-2.1	-2.5	-7.7	-6.9	-6.6	-7.0	-6.1	-8.0	-8.1
	CLASS	-13.6	-17.8	-12.6	-20.5	-11.2	-7.6	-12.4	-12.3	-7.6	-12.7	-11.8	-12.9	-8.6	-9.0	-13.8	-13.1	-6.6	-13.2	-6.1	-8.0	-14.2
09/01/2007	SPEC.	-7.0	-18.0	-1.7	-11.9	-12.1	-12.6	-13.8	-17.0	-13.2	-18.7	-13.2	-13.8	-13.1	-13.8	-11.6	-14.3	-14.7	-13.6	-13.1	-16.1	-17.7
	CLASS	0.7	-11.2	6.4	-4.7	-4.9	-5.4	-6.7	-10.2	-6.1	-12.0	-6.1	-6.7	-5.9	-6.7	-4.4	-7.2	-14.7	-6.5	-13.1	-16.1	-10.9
08/01/2008	SPEC.	-7.5	-23.1	-21.0	-23.5	-20.0	-19.9	-21.9	-21.6	-20.9	-24.0	-21.0	-20.4	-19.5	-18.9	-21.7	-21.9	-21.9	-21.3	-24.8	-23.1	-24.8
	CLASS	-7.1	-22.8	-20.6	-23.1	-19.6	-19.5	-21.5	-21.2	-20.5	-23.7	-20.6	-20.0	-19.1	-18.5	-21.3	-21.5	-21.9	-20.9	-24.8	-23.1	-24.4
10/01/2009	SPEC.	7.6	-11.4	0.6	-5.7	-2.3	0.2	-4.0	-0.1	-2.8	-3.9	-2.6	-2.7	-0.8	-1.9	-5.0	-5.0	-5.7	-3.6	-7.9	-6.9	-7.9
	CLASS	4.2	-11.4	-3.4	-9.5	-6.2	-3.8	-7.8	-4.1	-6.7	-7.7	-6.5	-6.6	-4.8	-5.8	-8.8	-8.8	-5.7	-7.5	-7.9	-6.9	-11.4
10/01/2011	SPEC.	-14.0	-18.8	-16.4	-9.1	-12.8	-8.6	-13.6	-10.0	-11.2	-14.9	-10.5	-12.8	-11.2	-11.6	-12.4	-13.4	-14.5	-12.5	-14.2	-13.9	-14.2
	CLASS	-8.0	-13.2	-10.7	-2.9	-6.8	-2.3	-7.7	-3.8	-5.0	-9.0	-4.4	-6.8	-5.1	-5.5	-6.4	-7.5	-14.5	-6.5	-14.2	-13.9	-8.3
09/01/2013	SPEC.	5.7	3.4	0.5	-10.1	0.5	9.5	2.3	25.0	-17.3	3.0	3.0	-7.6	-13.4	-7.6	-4.8	5.3	-5.3	2.1	-1.4	4.7	-1.4
	CLASS	-7.1	-9.1	-11.7	-17.3	-11.7	-3.7	-10.1	11.7	-17.3	-9.5	-9.5	-17.3	-17.3	-16.3	-7.5	-5.3	-10.3	-1.4	4.7	-13.2	
09/01/2017	SPEC.	-14.0	-14.0	-7.4	-11.5	-14.0	-8.1	-13.2	-11.5	-14.0	-14.0	-14.0	-13.7	-12.3	-13.7	-14.0	-13.8	-14.0	-14.0	-11.4	-11.5	-11.4
	CLASS	-6.6	-14.0	2.9	-1.7	-4.9	2.1	-3.6	-1.7	-6.8	-6.2	-5.0	-4.1	-2.5	-4.1	-5.2	-4.2	-14.0	-4.5	-11.4	-11.5	-1.6

TERRITORY: Anne Arundel County

EFFECTIVE DATE	RATING ID	RATING GROUP																				
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	17	18	19	20	21	22
09/01/2006	SPEC.	-15.3	-19.4	-14.3	-22.1	-12.9	-9.4	-14.1	-14.0	-9.4	-14.4	-13.5	-14.6	-10.4	-10.7	-15.5	-14.8	-14.5	-14.9	-14.0	-15.8	-15.9
	CLASS	-20.9	-24.7	-20.0	-27.2	-18.7	-15.4	-19.8	-19.7	-15.4	-20.1	-19.2	-20.3	-16.3	-16.7	-21.1	-20.4	-14.5	-20.5	-14.0	-15.8	-21.4
09/01/2007	SPEC.	-4.1	-15.4	1.3	-9.2	-9.4	-9.9	-11.1	-14.4	-10.6	-16.2	-10.6	-11.1	-10.4	-11.1	-8.9	-11.6	-12.1	-10.9	-10.4	-13.5	-15.2
	CLASS	3.8	-8.5	9.7	-1.7	-1.9	-2.5	-3.8	-7.4	-3.2	-9.3	-3.2	-3.8	-3.0	-3.8	-1.4	-4.4	-12.1	-3.6	-10.4	-13.5	-8.2
08/01/2008	SPEC.	4.5	-13.1	-10.7	-13.5	-9.6	-9.4	-11.7	-11.4	-10.6	-14.1	-10.7	-10.1	-9.1	-8.3	-11.5	-11.7	-11.7	-11.1	-15.0	-13.1	-15.0
	CLASS	5.0	-12.7	-10.3	-13.1	-9.2	-9.0	-11.3	-10.9	-10.2	-13.7	-10.3	-9.6	-8.6	-7.9	-11.0	-11.3	-11.7	-10.7	-15.0	-13.1	-14.6
10/01/2009	SPEC.	25.1	3.1	17.0	9.7	13.6	16.5	11.7	16.2	13.1	11.8	13.3	13.2	15.4	14.1	10.5	10.5	9.7	12.1	7.1	8.3	7.1
	CLASS	21.2	3.1	12.3	5.3	9.1	11.9	7.2	11.5	8.5	7.3	8.7	8.6	10.7	9.5	6.0	6.0	9.7	7.6	7.1	8.3	3.1
10/01/2011	SPEC.	-3.5	-8.9	-6.2	2.0	-2.2	2.6	-3.1	1.0	-0.3	-4.5	0.4	-2.2	-0.4	-0.8	-1.7	-2.9	-4.1	-1.8	-3.8	-3.4	-3.8
	CLASS	3.2	-2.6	0.2	9.0	4.6	9.6	3.6	7.9	6.6	2.1	7.3	4.6	6.5	6.0	5.1	3.8	-4.1	5.0	-3.8	-3.4	2.9
09/01/2013	SPEC.	-2.0	-4.0	-6.7	-16.5	-6.7	1.6	-5.0	16.0	-23.2	-4.3	-4.3	-14.2	-19.7	-14.2	-11.7	-2.4	-12.2	-5.2	-8.4	-2.9	-8.4
	CLASS	-13.7	-15.6	-18.0	-23.2	-18.0	-10.7	-16.5	3.7	-23.2	-15.9	-15.9	-23.2	-23.2	-23.2	-22.4	-14.1	-12.2	-16.7	-8.4	-2.9	-19.5
09/01/2017	SPEC.	-27.4	-27.4	-21.8	-25.3	-27.4	-22.4	-26.8	-25.3	-27.4	-27.4	-27.4	-27.2	-26.0	-27.2	-27.4	-27.3	-27.4	-27.4	-25.3	-25.3	-25.3
	CLASS	-21.1	-27.4	-13.1	-17.1	-19.8	-13.8	-18.6	-17.1	-21.3	-20.8	-19.8	-19.1	-17.8	-19.1	-20.0	-19.2	-27.4	-19.4	-25.3	-25.3	-17.0

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

TERRITORY: Baltimore County Excl. Baltimore City

EFFECTIVE DATE	RATING ID	RATING GROUP																				
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	17	18	19	20	21	22
09/01/2006	SPEC.	-15.4	-19.5	-14.4	-22.2	-13.0	-9.5	-14.2	-14.1	-9.5	-14.5	-13.6	-14.7	-10.5	-10.8	-15.6	-14.9	-14.6	-14.9	-14.1	-15.9	-15.9
	CLASS	-21.0	-24.8	-20.1	-27.3	-18.8	-15.5	-19.9	-19.8	-15.5	-20.2	-19.3	-20.3	-16.4	-16.7	-21.2	-20.5	-14.6	-20.6	-14.1	-15.9	-21.5
09/01/2007	SPEC.	4.2	-8.1	10.1	-1.3	-1.5	-2.1	-3.4	-7.0	-2.8	-8.9	-2.8	-3.4	-2.6	-3.4	-1.0	-4.0	-4.5	-3.2	-2.6	-6.0	-7.8
	CLASS	12.8	-0.6	19.2	6.8	6.6	5.9	4.6	0.6	5.2	-1.4	5.2	4.6	5.4	4.6	7.1	3.9	-4.5	4.8	-2.6	-6.0	-0.2
08/01/2008	SPEC.	1.9	-15.3	-13.0	-15.7	-11.9	-11.7	-14.0	-13.6	-12.9	-16.3	-13.0	-12.3	-11.4	-10.6	-13.7	-14.0	-14.0	-13.3	-17.1	-15.3	-17.1
	CLASS	2.4	-14.9	-12.5	-15.3	-11.5	-11.3	-13.5	-13.2	-12.5	-15.9	-12.5	-11.9	-10.9	-10.2	-13.3	-13.5	-14.0	-12.9	-17.1	-15.3	-16.7
10/01/2009	SPEC.	14.8	-5.4	7.4	0.7	4.3	7.0	2.5	6.6	3.8	2.6	4.0	3.9	5.9	4.7	1.4	1.4	0.7	2.9	-1.7	-0.6	-1.7
	CLASS	11.2	-5.4	3.1	-3.4	0.1	2.7	-1.7	2.4	-0.4	-1.5	-0.2	-0.3	1.6	0.5	-2.7	-2.7	0.7	-1.2	-1.7	-0.6	-5.4
10/01/2011	SPEC.	1.2	-4.5	-1.7	6.9	2.6	7.5	1.6	5.9	4.5	0.2	5.3	2.6	4.4	4.0	3.1	1.8	0.6	3.0	0.9	1.3	0.9
	CLASS	8.2	2.1	5.1	14.3	9.6	14.9	8.6	13.2	11.7	7.1	12.5	9.6	11.6	11.2	10.2	8.9	0.6	10.1	0.9	1.3	7.9
09/01/2013	SPEC.	-1.0	-3.0	-5.8	-15.7	-5.8	2.7	-4.1	17.2	-22.5	-3.4	-3.4	-13.3	-18.9	-13.3	-10.8	-1.4	-11.3	-4.2	-7.5	-1.9	-7.5
	CLASS	-13.0	-14.7	-17.2	-22.5	-17.2	-9.8	-15.7	4.8	-22.5	-15.1	-15.1	-22.5	-22.5	-22.5	-21.6	-13.2	-11.3	-15.8	-7.5	-1.9	-18.7
09/01/2017	SPEC.	-22.8	-22.8	-16.8	-20.5	-22.8	-17.4	-22.0	-20.5	-22.8	-22.8	-22.8	-22.5	-21.2	-22.5	-22.8	-22.6	-22.8	-22.8	-20.4	-20.5	-20.4
	CLASS	-16.1	-22.8	-7.6	-11.7	-14.6	-8.3	-13.4	-11.7	-16.3	-15.7	-14.7	-13.9	-12.5	-13.9	-14.8	-14.0	-22.8	-14.2	-20.4	-20.5	-11.6

TERRITORY: Montgomery County

EFFECTIVE DATE	RATING ID	RATING GROUP																				
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	17	18	19	20	21	22
09/01/2006	SPEC.	-17.8	-21.8	-16.9	-24.4	-15.5	-12.1	-16.6	-16.6	-12.1	-17.0	-16.1	-17.1	-13.1	-13.4	-18.0	-17.3	-17.1	-17.4	-16.6	-18.3	-18.4
	CLASS	-23.2	-27.0	-22.4	-29.4	-21.1	-17.9	-22.2	-22.1	-17.9	-22.5	-21.6	-22.6	-18.8	-19.1	-23.5	-22.8	-17.1	-22.9	-16.6	-18.3	-23.8
09/01/2007	SPEC.	-8.2	-19.0	-3.0	-13.0	-13.2	-13.7	-14.9	-18.1	-14.3	-19.7	-14.3	-14.9	-14.2	-14.9	-12.8	-15.4	-15.8	-14.7	-14.2	-17.2	-18.8
	CLASS	-0.6	-12.4	5.0	-5.9	-6.1	-6.6	-7.9	-11.3	-7.3	-13.1	-7.3	-7.9	-7.1	-7.9	-5.6	-8.4	-15.8	-7.7	-14.2	-17.2	-12.1
08/01/2008	SPEC.	-3.4	-19.7	-17.5	-20.0	-16.4	-16.3	-18.4	-18.1	-17.4	-20.6	-17.5	-16.9	-15.9	-15.3	-18.2	-18.4	-18.4	-17.8	-21.4	-19.7	-21.4
	CLASS	-2.9	-19.3	-17.1	-19.6	-16.0	-15.9	-18.0	-17.7	-17.0	-20.2	-17.1	-16.5	-15.5	-14.8	-17.7	-18.0	-18.4	-17.4	-21.4	-19.7	-21.0
10/01/2009	SPEC.	-2.9	-20.0	-9.2	-14.9	-11.8	-9.6	-13.4	-9.8	-12.3	-13.3	-12.1	-12.2	-10.5	-11.5	-14.3	-14.3	-14.9	-13.0	-16.9	-16.0	-16.9
	CLASS	-6.0	-20.0	-12.9	-18.3	-15.4	-13.2	-16.8	-13.5	-15.8	-16.8	-15.6	-15.7	-14.1	-15.0	-17.7	-17.7	-14.9	-16.5	-16.9	-16.0	-20.0
10/01/2011	SPEC.	-20.1	-24.6	-22.4	-15.6	-19.0	-15.1	-19.7	-16.4	-17.5	-20.9	-16.9	-19.0	-17.5	-17.9	-18.6	-19.6	-20.6	-18.7	-20.3	-20.0	-20.3
	CLASS	-14.6	-19.4	-17.0	-9.8	-13.4	-9.2	-14.2	-10.6	-11.8	-15.4	-11.2	-13.4	-11.9	-12.2	-13.0	-14.0	-20.6	-13.1	-20.3	-20.0	-14.8
09/01/2013	SPEC.	-12.4	-14.2	-16.7	-25.4	-16.7	-9.2	-15.1	3.7	-31.4	-14.5	-14.5	-23.4	-28.2	-23.4	-21.1	-12.8	-21.5	-15.3	-18.2	-13.2	-18.2
	CLASS	-23.0	-24.6	-26.7	-31.4	-26.7	-20.2	-25.4	-7.3	-31.4	-24.9	-24.9	-31.4	-31.4	-31.4	-30.6	-23.3	-21.5	-25.5	-18.2	-13.2	-28.1
09/01/2017	SPEC.	-10.4	-10.4	-3.5	-7.9	-10.4	-4.2	-9.6	-7.9	-10.4	-10.4	-10.4	-10.1	-8.6	-10.1	-10.4	-10.2	-10.4	-10.4	-7.8	-7.9	-7.8
	CLASS	-2.6	-10.4	7.2	2.4	-0.9	6.5	0.4	2.4	-2.9	-2.2	-1.0	-0.2	1.5	-0.2	-1.2	-0.3	-10.4	-0.5	-7.8	-7.9	2.5

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

TERRITORY: Prince George's County

EFFECTIVE DATE	RATING ID	RATING GROUP																				
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	17	18	19	20	21	22
09/01/2006	SPEC.	-3.5	-8.1	-2.4	-11.2	-0.8	3.2	-2.1	-2.0	3.2	-2.5	-1.4	-2.7	2.1	1.7	-3.7	-2.9	-2.6	-3.0	-2.0	-4.0	-4.1
	CLASS	-9.9	-14.2	-8.9	-17.1	-7.4	-3.6	-8.6	-8.5	-3.6	-9.0	-8.0	-9.1	-4.7	-5.0	-10.1	-9.3	-2.6	-9.4	-2.0	-4.0	-10.5
09/01/2007	SPEC.	6.7	-5.9	12.7	1.0	0.8	0.2	-1.1	-4.8	-0.5	-6.7	-0.5	-1.1	-0.3	-1.1	1.3	-1.7	-2.2	-0.9	-0.3	-3.8	-5.6
	CLASS	15.4	1.8	22.0	9.3	9.1	8.5	7.0	3.0	7.7	0.9	7.7	7.0	7.9	7.0	9.7	6.4	-2.2	7.3	-0.3	-3.8	2.1
08/01/2008	SPEC.	10.9	-7.8	-5.3	-8.2	-4.1	-3.9	-6.4	-6.0	-5.2	-8.9	-5.3	-4.6	-3.5	-2.7	-6.1	-6.4	-6.4	-5.7	-9.8	-7.8	-9.8
	CLASS	11.4	-7.4	-4.8	-7.8	-3.6	-3.4	-5.9	-5.5	-4.7	-8.5	-4.8	-4.1	-3.0	-2.3	-5.6	-5.9	-6.4	-5.2	-9.8	-7.8	-9.3
10/01/2009	SPEC.	26.2	4.0	18.1	10.7	14.7	17.6	12.7	17.2	14.1	12.8	14.3	14.2	16.4	15.1	11.5	10.7	13.1	8.1	9.2	8.1	
	CLASS	22.2	4.0	13.3	6.2	10.0	12.9	8.1	12.5	9.5	8.2	9.7	9.6	11.7	10.5	7.0	7.0	10.7	8.6	8.1	9.2	4.0
10/01/2011	SPEC.	-20.0	-24.5	-22.3	-15.5	-18.9	-15.0	-19.7	-16.3	-17.4	-20.8	-16.8	-18.9	-17.4	-17.8	-18.5	-19.5	-20.5	-18.6	-20.2	-19.9	-20.2
	CLASS	-14.5	-19.3	-16.9	-9.7	-13.3	-9.1	-14.1	-10.5	-11.7	-15.3	-11.1	-13.3	-11.8	-12.1	-12.9	-13.9	-20.5	-13.0	-20.2	-19.9	-14.7
09/01/2013	SPEC.	-6.0	-8.0	-10.6	-20.0	-10.6	-2.6	-9.0	11.3	-26.4	-8.3	-8.3	-17.7	-23.0	-17.7	-15.3	-6.3	-15.7	-9.1	-12.2	-6.9	-12.2
	CLASS	-17.3	-19.1	-21.4	-26.4	-21.4	-14.3	-20.0	-0.6	-26.4	-19.4	-19.4	-26.4	-26.4	-26.4	-25.5	-17.7	-15.7	-20.1	-12.2	-6.9	-22.9
09/01/2017	SPEC.	-17.3	-17.3	-10.9	-14.9	-17.3	-11.5	-16.5	-14.9	-17.3	-17.3	-17.3	-17.0	-15.6	-17.0	-17.3	-17.1	-17.3	-17.3	-14.8	-14.9	-14.8
	CLASS	-10.1	-17.3	-1.1	-5.5	-8.5	-1.7	-7.3	-5.5	-10.4	-9.8	-8.6	-7.8	-6.3	-7.8	-8.8	-7.9	-17.3	-8.2	-14.8	-14.9	-5.4

TERRITORY: Balance of State

EFFECTIVE DATE	RATING ID	RATING GROUP																				
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	17	18	19	20	21	22
09/01/2006	SPEC.	-16.8	-20.9	-15.9	-23.5	-14.5	-11.1	-15.7	-15.6	-11.1	-16.0	-15.1	-16.2	-12.1	-12.4	-17.1	-16.3	-16.1	-16.4	-15.6	-17.3	-17.4
	CLASS	-22.4	-26.1	-21.5	-28.6	-20.2	-17.0	-21.3	-21.2	-17.0	-21.6	-20.7	-21.7	-17.9	-18.2	-22.6	-21.9	-16.1	-22.0	-15.6	-17.3	-22.9
09/01/2007	SPEC.	0.2	-11.6	5.9	-5.1	-5.3	-5.8	-7.1	-10.6	-6.5	-12.4	-6.5	-7.1	-6.3	-7.1	-4.8	-7.6	-8.1	-6.9	-6.3	-9.6	-11.3
	CLASS	8.5	-4.3	14.6	2.7	2.5	1.9	0.6	-3.2	1.2	-5.2	1.2	0.6	1.4	0.6	3.1	0.0	-8.1	0.8	-6.3	-9.6	-4.0
08/01/2008	SPEC.	-0.1	-16.9	-14.6	-17.3	-13.6	-13.4	-15.6	-15.2	-14.5	-17.9	-14.6	-14.0	-13.0	-12.3	-15.3	-15.6	-15.6	-15.0	-18.7	-16.9	-18.7
	CLASS	0.4	-16.5	-14.2	-16.9	-13.1	-13.0	-15.2	-14.8	-14.1	-17.5	-14.2	-13.6	-12.6	-11.9	-14.9	-15.2	-15.6	-14.5	-18.7	-16.9	-18.3
10/01/2009	SPEC.	7.9	-11.1	0.9	-5.4	-2.0	0.5	-3.7	0.2	-2.5	-3.6	-2.3	-2.4	-0.5	-1.6	-4.7	-5.4	-3.3	-7.6	-6.6	-7.6	
	CLASS	4.5	-11.1	-3.1	-9.2	-5.9	-3.5	-7.6	-3.8	-6.4	-7.5	-6.2	-6.3	-4.5	-5.5	-8.5	-8.5	-5.4	-7.2	-7.6	-6.6	-11.1
10/01/2011	SPEC.	-10.3	-15.3	-12.8	-5.2	-9.1	-4.7	-9.9	-6.1	-7.3	-11.2	-6.7	-9.1	-7.4	-7.8	-8.6	-9.7	-10.8	-8.7	-10.5	-10.2	-10.5
	CLASS	-4.1	-9.5	-6.8	1.3	-2.8	1.9	-3.7	0.3	-0.9	-5.1	-0.3	-2.8	-1.0	-1.4	-2.3	-3.5	-10.8	-2.4	-10.5	-10.2	-4.4
09/01/2013	SPEC.	-0.1	-2.2	-4.9	-14.9	-4.9	3.6	-3.2	18.2	-21.8	-2.6	-2.6	-12.6	-18.1	-12.6	-10.0	-0.5	-10.5	-3.4	-6.7	-1.1	-6.7
	CLASS	-12.2	-14.0	-16.4	-21.8	-16.4	-8.9	-14.9	5.7	-21.8	-14.3	-14.3	-21.8	-21.8	-21.8	-20.9	-12.5	-10.5	-15.1	-6.7	-1.1	-18.0
09/01/2017	SPEC.	-7.8	-7.8	-0.8	-5.2	-7.8	-1.4	-7.0	-5.2	-7.8	-7.8	-7.8	-7.5	-6.0	-7.5	-7.8	-7.6	-7.8	-7.8	-5.1	-5.2	-5.1
	CLASS	0.1	-7.8	10.2	5.3	1.9	9.4	3.3	5.3	-0.2	0.5	1.8	2.7	4.4	2.7	1.6	2.6	-7.8	2.3	-5.1	-5.2	5.4

## MARYLAND

BASIC GROUP II  
 HISTORY OF LOSS COST/RATE LEVEL CHANGES  
 BY TERRITORY, SYMBOL AND COVERAGE

(1) TERRITORY	(2) EFFECTIVE DATE	(3) SYMBOL	(4) BUILDING	(5) CONTENTS
Territory I	09/01/2006	A	0.0%	0.0%
		AA	0.0%	0.0%
		AB	11.8%	11.8%
		B	-5.9%	-5.9%
	09/01/2007	A	0.0%	0.0%
		AA	0.0%	0.0%
		AB	-5.3%	-5.3%
		B	0.0%	0.0%
	08/01/2008	A	-10.0%	-10.0%
		AA	-11.1%	-11.1%
		AB	-11.1%	-11.1%
		B	-9.4%	-9.4%
	10/01/2009	A	-22.2%	-22.2%
		AA	-25.0%	-25.0%
		AB	-6.2%	-6.2%
		B	-10.3%	-10.3%
	10/01/2011	A	-4.3%	-7.1%
		AA	-4.8%	-8.0%
		AB	-6.7%	-8.8%
		B	-2.9%	-2.6%
09/01/2013	A	0.0%	0.0%	
	AA	0.0%	0.0%	
	AB	3.6%	3.2%	
	B	2.9%	2.7%	
09/01/2017	A	0.0%	-3.8%	
	AA	0.0%	-4.3%	
	AB	0.0%	0.0%	
	B	2.9%	2.6%	

## MARYLAND

BASIC GROUP II  
 HISTORY OF LOSS COST/RATE LEVEL CHANGES  
 BY TERRITORY, SYMBOL AND COVERAGE

(1) TERRITORY	(2) EFFECTIVE DATE	(3) SYMBOL	(4) BUILDING	(5) CONTENTS
Territory II	9/1/2006	A	0.0%	0.0%
		AA	0.0%	0.0%
		AB	0.0%	0.0%
		B	-2.3%	-2.3%
	9/1/2007	A	0.0%	0.0%
		AA	0.0%	0.0%
		AB	-4.0%	-4.0%
		B	2.4%	2.4%
	8/1/2008	A	-7.7%	-7.7%
		AA	-8.3%	-8.3%
		AB	-8.3%	-8.3%
		B	-7.0%	-7.0%
	10/1/2009	A	-8.3%	-8.3%
		AA	-9.1%	-9.1%
		AB	-9.1%	-9.1%
		B	-5.0%	-5.0%
	10/1/2011	A	0.0%	-2.7%
		AA	0.0%	-3.0%
		AB	0.0%	-6.8%
		B	20.8%	15.7%
	9/1/2013	A	0.0%	2.8%
		AA	0.0%	0.0%
		AB	2.5%	2.4%
		B	1.7%	1.7%
9/1/2017	A	6.7%	-2.7%	
	AA	7.4%	-3.1%	
	AB	4.9%	0.0%	
	B	6.8%	10.0%	

## MARYLAND

BASIC GROUP II  
 HISTORY OF LOSS COST/RATE LEVEL CHANGES  
 BY TERRITORY, SYMBOL AND COVERAGE

(1) TERRITORY	(2) EFFECTIVE DATE	(3) SYMBOL	(4) BUILDING	(5) CONTENTS
Territory III	9/1/2006	A	20.8%	20.8%
		AA	18.2%	18.2%
		AB	15.4%	15.4%
		B	13.2%	13.2%
	9/1/2007	A	-3.4%	-3.4%
		AA	-3.8%	-3.8%
		AB	-6.7%	-6.7%
		B	16.9%	16.9%
	8/1/2008	A	-3.6%	-3.6%
		AA	-4.0%	-4.0%
		AB	-2.4%	-2.4%
		B	-1.1%	-1.1%
	10/1/2009	A	-3.7%	-3.7%
		AA	-4.2%	-4.2%
		AB	-4.9%	-4.9%
		B	-2.2%	-2.2%
	10/1/2011	A	-3.2%	-13.0%
		AA	-3.6%	-13.0%
		AB	-9.5%	-19.4%
		B	15.9%	6.2%
9/1/2013	A	0.0%	1.5%	
	AA	0.0%	0.0%	
	AB	1.3%	1.3%	
	B	1.6%	1.7%	
9/1/2017	A	6.7%	-20.6%	
	AA	7.4%	-21.7%	
	AB	0.0%	-18.4%	
	B	4.8%	-10.7%	

## MARYLAND

## SPECIAL CAUSES OF LOSS

## HISTORY OF LOSS COST/RATE LEVEL CHANGES BY CATEGORY

(1) EFFECTIVE DATE	(2) CATEGORY													
	01	02	03	04	05	06	07	08	09	10	11	12	13	14
09/01/2006	0.3	-5.3	-0.3	-12.6	0.3									
09/01/2007	23.5	15.0	17.0	-2.2	6.5									
08/01/2008	3.4	4.0	5.6	-6.1	11.8									
10/01/2009	-13.6	-6.2	-1.8	-1.2	0.0									
10/01/2011	-1.0	-10.9	-2.5	-3.5	-8.8	-5.1	-2.1	-4.0	-1.8	-2.2	1.9	-4.4	-1.0	3.6
09/01/2013	24.4	-7.0	5.0	0.0	7.0	8.5	9.4	6.9	10.6	3.6	16.4	1.2	3.7	5.2
09/01/2017	12.4	-24.1	-4.0	7.7	8.2	7.2	3.9	-6.0	-9.6	7.1	2.9	11.6	8.9	8.0

## MARYLAND

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

CPP IMPLICIT PACKAGE MODIFICATION FACTORS (IPMFS) AND IPMF CAPS

TOP	DESCRIPTION	IPMF	LOW CAP	HIGH CAP
-----				
31	MOTEL/HOTEL	1.121	0.500	1.500
32	APARTMENT	1.095	0.500	1.500
33	OFFICE	1.119	0.500	1.500
34	MERCANTILE	0.818	0.500	1.500
35	INSTITUTIONAL	1.005	0.500	1.500
36	SERVICES	0.881	0.500	1.500
37	INDUST/PROCESSING	1.273	0.500	1.500
38	CONTRACTORS	0.837	0.500	1.500

## MARYLAND

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

CPP IMPLICIT PACKAGE MODIFICATION FACTORS (IPMFS) AND IPMF CAPS

TOP	DESCRIPTION	IPMF	LOW CAP	HIGH CAP
-----				
31	MOTEL/HOTEL	0.990	0.500	1.500
32	APARTMENT	0.608	0.500	1.500
33	OFFICE	1.036	0.500	1.500
34	MERCANTILE	1.115	0.500	1.500
35	INSTITUTIONAL	0.841	0.500	1.500
36	SERVICES	1.397	0.500	1.500
37	INDUST/PROCESSING	0.753	0.500	1.500
38	CONTRACTORS	1.040	0.500	1.500

## MARYLAND

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

## CPP IMPLICIT PACKAGE MODIFICATION FACTORS (IPMFS) AND IPMF CAPS

TOP	DESCRIPTION	IPMF	LOW CAP	HIGH CAP
-----				
31	MOTEL/HOTEL	0.873	0.500	1.500
32	APARTMENT	0.944	0.500	1.500
33	OFFICE	0.736	0.500	1.500
34	MERCANTILE	1.007	0.500	1.500
35	INSTITUTIONAL	0.826	0.500	1.500
36	SERVICES	0.876	0.500	1.500
37	INDUST/PROCESSING	0.713	0.500	1.500
38	CONTRACTORS	1.060	0.500	1.500

Development of Current Cost Factors and Loss Projection Factors  
For Commercial Property Building and Contents Experience  
 Period ending September 30, 2020

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

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

Contents - Producer Price Index (PPI) - 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>

Quarter	XCI	PPI	IMSEP	RSALES	Time Element
					Combined
					Index
1 Q4-2017	115.5	117.1	1.043	0.963	0.987
2 Q1-2018	116.6	117.6	1.045	0.969	0.992
3 Q2-2018	117.5	118.1	1.052	0.972	0.996
4 Q3-2018	118.4	118.3	1.056	0.973	0.998
5 Q4-2018	118.8	119.6	1.057	0.969	0.995
6 Q1-2019	119.8	120.4	1.058	0.964	0.992
7 Q2-2019	121.1	120.8	1.063	0.970	0.998
8 Q3-2019	121.9	120.8	1.063	0.968	0.997
9 Q4-2019	123.0	121.7	1.063	0.968	0.997
10 Q1-2020	124.6	121.9	1.061	0.965	0.994
11 Q2-2020	126.0	123.3	1.043	0.944	0.974
12 Q3-2020	128.4	122.1	1.058	0.965	0.993

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

$$\text{Annual Rate of Change} = +3.6\% \quad R^2 = 0.978$$

$$\text{Loss Projection Factor for Buildings} = 1.036^{22.5/12 (b)} = 1.0691$$

## Part C: Computation of Loss Projection Factor (LPF) for Contents based on 12 points

$$\text{Annual Rate of Change} = +1.8\% \quad R^2 = 0.945$$

$$\text{Loss Projection Factor for Contents} = 1.018^{22.5/12 (b)} = 1.0342$$

## Part D: Computation of Loss Projection Factor (LPF) for Time Element Based on 12 points

$$\text{Annual Rate of Change} = -0.2\% \quad R^2 = 0.044$$

$$\text{Loss Projection Factor for Time Element} = 0.998^{22.5/12 (b)} = 0.997$$

(a) 30% weight for IMSEP and 70% weight for RSALES. IMSEP &amp; RSALES indices were rescaled to a 2012 year base.

(b) Assuming a rate or loss cost revision date of 7/01/2021, and all one year policies, the time interval between the midpoint of the latest period (8/15/2020) and the average date of accident (7/01/2022) would be 22.5 months.

Development of Current Cost Factors and Loss Projection Factors

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

<u>Year</u>	<u>Calendar Year Averages</u>			<u>Current Cost Factors Based on Average Index Values for Period ending September 30, 2020</u>		
	<u>XCI</u>	<u>PPI</u>	<u>Index</u>	<u>Buildings</u>	<u>Contents</u>	<u>Time Element</u>
2008	97.0	98.5	0.948	128.4 / 97.0 = 1.324	122.1 / 98.5 = 1.240	0.9929 / 0.948 = 1.047
2009	100.0	100.0	0.940	128.4 / 100.0 = 1.284	122.1 / 100.0 = 1.221	0.9929 / 0.940 = 1.056
2010	99.3	101.8	0.953	128.4 / 99.3 = 1.294	122.1 / 101.8 = 1.199	0.9929 / 0.953 = 1.042
2011	100.0	105.2	0.985	128.4 / 100.0 = 1.284	122.1 / 105.2 = 1.160	0.9929 / 0.985 = 1.008
2012	101.0	108.0	1.000	128.4 / 101.0 = 1.271	122.1 / 108.0 = 1.131	0.9929 / 1.000 = 0.993
2013	102.7	109.7	1.003	128.4 / 102.7 = 1.250	122.1 / 109.7 = 1.113	0.9929 / 1.003 = 0.990
2014	104.7	112.5	1.005	128.4 / 104.7 = 1.226	122.1 / 112.5 = 1.085	0.9929 / 1.005 = 0.988
2015	109.1	113.8	0.986	128.4 / 109.1 = 1.177	122.1 / 113.8 = 1.073	0.9929 / 0.986 = 1.007
2016	111.1	114.4	0.975	128.4 / 111.1 = 1.156	122.1 / 114.4 = 1.067	0.9929 / 0.975 = 1.018
2017	114.3	116.4	0.983	128.4 / 114.3 = 1.123	122.1 / 116.4 = 1.049	0.9929 / 0.983 = 1.010
2018	117.8	118.4	0.995	128.4 / 117.8 = 1.090	122.1 / 118.4 = 1.031	0.9929 / 0.995 = 0.998
2019	121.5	120.9	0.996	128.4 / 121.5 = 1.057	122.1 / 120.9 = 1.010	0.9929 / 0.996 = 0.997

SUMMARY OF LOSS TREND ADJUSTMENTS (LTA'S)

<u>BUILDINGS</u>	<u>5 YEAR INCURRED LOSSES</u>	<u>LTA'S*</u>
BASIC GROUP I	3,222,471,318	1.2%
BASIC GROUP II	3,465,840,527	-0.4%
SPECIAL CAUSES OF LOSS	1,682,225,202	0.2%
TOTAL	8,370,537,047	0.3%
<u>CONTENTS</u>		
BASIC GROUP I	1,104,115,390	1.5%
BASIC GROUP II	337,973,836	0.6%
SPECIAL CAUSES OF LOSS	666,012,529	-1.0%
TOTAL	2,108,101,755	0.6%
<u>TIME ELEMENT</u>		
BASIC GROUP I	394,365,666	2.4%
BASIC GROUP II	183,986,074	2.6%
SPECIAL CAUSES OF LOSS	138,013,951	2.4%
TOTAL	716,365,691	2.5%
GRAND TOTAL	11,195,004,493	0.5%

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

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
2010	1.239	1.195	1.046		0.10
2011	1.230	1.157	1.012		0.10
2012	1.218	1.127	0.997		0.10
2013	1.198	1.109	0.994		0.10
2014	1.175	1.082	0.992		0.10
2015	1.127	1.069	1.011	0.10	0.10
2016	1.107	1.064	1.023	0.15	0.10
2017	1.076	1.046	1.014	0.20	0.10
2018	1.044	1.028	1.002	0.25	0.10
2019	1.013	1.007	1.001	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))	1.059	1.035	1.008
Basic Group II (Weighted on Column (5))	1.143	1.088	1.009

## (7) LOSS PROJECTION FACTORS

	Buildings	Contents	Time Element
Annual Rate of Change	0.031	0.019	0.006
Loss Projection Factor: <sup>b</sup> $(1.0 + \text{Annual Rate of Change})^{(X/12)}$	1.083	1.051	1.017

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

	Buildings	Contents	Time Element
Basic Group I and Special Causes of Loss	1.147	1.088	1.025
Basic Group II	1.238	1.143	1.026

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

	Buildings	Contents	Time Element
Basic Group I and Special Causes of Loss: $(\text{Total Trend Factor})^{12/54}$	1.031	1.019	1.006
Basic Group II: $(\text{Total Trend Factor})^{12/90}$	1.029	1.018	1.003

- (a) The Current Cost Factors and Loss Projection Factors on this exhibit are based on external economic indices through December 31, 2019 for Buildings, Contents and Time Element.
- (b) Assuming a loss cost revision date of July 1, 2021, the time interval between the midpoint of the latest period of external trend information (November 15, 2019) and the prospective average date of loss (July 1, 2022) 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, 2022) is 54 months for BG I and SCL, and 90 months for BG II. The weighted midpoint is January 1, 2018 for BG I and SCL, and January 1, 2015 for BG II.

DEVELOPMENT OF LTA'SII. INTERNAL ANNUAL RATES OF CHANGE:

## (10) SELECTED COMFAL

	Buildings	Contents	Time Element
Basic Group I (BGI)	1.055	1.050	1.055
Basic Group II (BGII)	1.020	1.030	1.055
Special Causes of Loss	1.035	1.020	1.055

III. LTA CALCULATION:

## CALCULATION OF LTAs - BUILDINGS

	(11)	(12)	(13)	(14)	(15)	(16)
	External	Internal	Indicated	Formula	Frequency	Final
	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)	1.031	1.055	2.3	1.2	0.0	1.2
Basic Group II (BGII)	1.029	1.020	-0.9	-0.4	0.0	-0.4
Special Causes of Loss	1.031	1.035	0.4	0.2	0.0	0.2

## CALCULATION OF LTAs - CONTENTS

	(11)	(12)	(13)	(14)	(15)	(16)
	External	Internal	Indicated	Formula	Frequency	Final
	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)	1.019	1.050	3.0	1.5	0.0	1.5
Basic Group II (BGII)	1.018	1.030	1.2	0.6	0.0	0.6
Special Causes of Loss	1.019	1.020	0.1	0.0	-1.0	-1.0

## CALCULATION OF LTAs - TIME ELEMENT

	(11)	(12)	(13)	(14)	(15)	(16)
	External	Internal	Indicated	Formula	Frequency	Final
	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)	1.006	1.055	4.9	2.4	0.0	2.4
Basic Group II (BGII)	1.003	1.055	5.2	2.6	0.0	2.6
Special Causes of Loss	1.006	1.055	4.9	2.4	0.0	2.4

(d) The external rates of change are based on external economic indices through December 31, 2019 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.

EXPOSURE TREND  
DEVELOPMENT OF CURRENT AND PROJECTED EARNED EXPOSURE FACTORS

Year	Buildings				Contents			
	(1) <sup>a</sup> Annual Written Increase	(2) <sup>a</sup> 7/1/2020 Written Factors	(3) <sup>b</sup> 1/1/2022 Projected Factors	(4) <sup>c</sup> 1/1/2022 Earned Factors	(5) <sup>a</sup> Annual Written Increase	(6) <sup>a</sup> 7/1/2020 Written Factors	(7) <sup>b</sup> 1/1/2022 Projected Factors	(8) <sup>c</sup> 1/1/2022 Earned Factors
2008	3.5%	1.353	1.402	1.427	2.4%	1.260	1.300	1.316
2009	3.3%	1.310	1.357	1.380	2.2%	1.233	1.272	1.286
2010	2.5%	1.278	1.324	1.341	1.7%	1.212	1.250	1.261
2011	2.5%	1.247	1.292	1.308	1.8%	1.191	1.229	1.240
2012	2.7%	1.214	1.258	1.275	1.8%	1.170	1.207	1.218
2013	2.6%	1.183	1.226	1.242	2.1%	1.146	1.182	1.195
2014	2.5%	1.154	1.196	1.211	2.1%	1.122	1.158	1.170
2015	2.3%	1.128	1.169	1.183	1.9%	1.101	1.136	1.147
2016	2.1%	1.105	1.145	1.157	1.8%	1.082	1.116	1.126
2017	2.1%	1.082	1.121	1.133	1.8%	1.063	1.097	1.107
2018	2.7%	1.054	1.092	1.107	1.9%	1.043	1.076	1.087
2019	2.9%	1.024	1.061	1.077	2.2%	1.021	1.053	1.065
2020	2.4%	1.000	1.036	1.049	2.1%	1.000	1.032	1.043

## 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 2.4% and 2.1% for Buildings and Contents, respectively. Consequently, the written factors at 7/1/2020 levels in column (2) and column (6) are brought to the level of the average date of writing in the effective period, 1/1/2022 (i.e., 6 months beyond an assumed revision date of 7/1/2021), by applying a factor of  $(1.024)^{(18/12)}$  for Buildings and  $(1.021)^{(18/12)}$  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	0
n-1	1/2
n	1/2

For example, the factors used to adjust earned exposures for the period from 01/01/2020 to 12/31/2020 to the projected level are 1.049 for Buildings and 1.043 for Contents.

EXPOSURE TREND  
DEVELOPMENT OF CURRENT AND PROJECTED EARNED EXPOSURE FACTORS

	Time Element			
	(1) <sup>a</sup> Annual Written <u>Increase</u>	(2) <sup>a</sup> 7/1/2020 Written <u>Factors</u>	(3) <sup>b</sup> 1/1/2022 Projected <u>Factors</u>	(4) <sup>c</sup> 1/1/2022 Earned <u>Factors</u>
<u>Year</u>				
2008	1.3%	1.115	1.132	1.139
2009	0.8%	1.106	1.123	1.128
2010	0.7%	1.098	1.115	1.119
2011	0.8%	1.089	1.105	1.110
2012	0.8%	1.080	1.096	1.101
2013	0.9%	1.070	1.086	1.091
2014	1.0%	1.059	1.075	1.081
2015	1.1%	1.047	1.063	1.069
2016	1.1%	1.036	1.052	1.058
2017	0.9%	1.027	1.042	1.047
2018	0.7%	1.020	1.035	1.039
2019	1.0%	1.010	1.025	1.030
2020	1.0%	1.000	1.015	1.020

## 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%. Consequently, the written factors at 7/1/2020 levels in column (2) are brought to the level of the average date of writing in the effective period, 1/1/2022 (i.e., 6 months beyond an assumed revision date of 7/1/2021), by applying a factor of  $(1.01)^{(18/12)}$  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	0
n-1	1/2
n	1/2

For example, the factors used to adjust earned exposures for the period from 01/01/2020 to 12/31/2020 to the projected level is 1.02 for Time Element

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

Year	Buildings				Contents			
	(1) <sup>a</sup> Annual Written Increase	(2) <sup>a</sup> 7/1/2020 Written Factors	(3) <sup>b</sup> 1/1/2022 Projected Factors	(4) <sup>c</sup> 1/1/2022 Earned Factors	(5) <sup>a</sup> Annual Written Increase	(6) <sup>a</sup> 7/1/2020 Written Factors	(7) <sup>b</sup> 1/1/2022 Projected Factors	(8) <sup>c</sup> 1/1/2022 Earned Factors
2008	2.8%	1.276	1.313	1.332	2.0%	1.213	1.246	1.259
2009	2.7%	1.242	1.278	1.296	1.8%	1.192	1.224	1.235
2010	2.0%	1.218	1.253	1.266	1.4%	1.176	1.208	1.216
2011	2.0%	1.194	1.228	1.241	1.5%	1.159	1.190	1.199
2012	2.2%	1.168	1.201	1.215	1.5%	1.142	1.173	1.182
2013	2.1%	1.144	1.177	1.189	1.8%	1.122	1.152	1.163
2014	2.0%	1.122	1.154	1.166	1.8%	1.102	1.132	1.142
2015	1.9%	1.101	1.133	1.144	1.6%	1.085	1.114	1.123
2016	1.7%	1.083	1.114	1.124	1.5%	1.069	1.098	1.106
2017	1.7%	1.065	1.095	1.105	1.5%	1.053	1.082	1.090
2018	2.2%	1.042	1.072	1.084	1.6%	1.036	1.064	1.073
2019	2.3%	1.019	1.048	1.060	1.8%	1.018	1.046	1.055
2020	1.9%	1.000	1.029	1.039	1.8%	1.000	1.027	1.037

## 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 1.9% and 1.8% for Buildings and Contents, respectively. Consequently, the written factors at 7/1/2020 levels in column (2) and column (6) are brought to the level of the average date of writing in the effective period, 1/1/2022 (i.e., 6 months beyond an assumed revision date of 7/1/2021), by applying a factor of  $(1.019)^{(18/12)}$  for Buildings and  $(1.018)^{(18/12)}$  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	0
n-1	1/2
n	1/2

For example, the factors used to adjust earned exposures for the period from 01/01/2020 to 12/31/2020 to the projected level are 1.039 for Buildings and 1.037 for Contents.

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

	Buildings				Contents			
	(1) <sup>a</sup> Annual Written <u>Increase</u>	(2) <sup>a</sup> 7/1/2020 Written <u>Factors</u>	(3) <sup>b</sup> 1/1/2022 Projected <u>Factors</u>	(4) <sup>c</sup> 1/1/2022 Earned <u>Factors</u>	(5) <sup>a</sup> Annual Written <u>Increase</u>	(6) <sup>a</sup> 7/1/2020 Written <u>Factors</u>	(7) <sup>b</sup> 1/1/2022 Projected <u>Factors</u>	(8) <sup>c</sup> 1/1/2022 Earned <u>Factors</u>
Year								
2008	2.6%	1.253	1.287	1.304	1.8%	1.194	1.223	1.234
2009	2.4%	1.224	1.257	1.272	1.7%	1.174	1.202	1.213
2010	1.9%	1.201	1.234	1.246	1.3%	1.159	1.187	1.195
2011	1.9%	1.179	1.211	1.223	1.4%	1.143	1.171	1.179
2012	2.0%	1.156	1.187	1.199	1.4%	1.127	1.154	1.163
2013	1.9%	1.134	1.165	1.176	1.6%	1.109	1.136	1.145
2014	1.9%	1.113	1.143	1.154	1.6%	1.092	1.118	1.127
2015	1.7%	1.094	1.124	1.134	1.4%	1.077	1.103	1.111
2016	1.6%	1.077	1.106	1.115	1.4%	1.062	1.088	1.096
2017	1.6%	1.060	1.089	1.098	1.4%	1.047	1.072	1.080
2018	2.0%	1.039	1.067	1.078	1.4%	1.033	1.058	1.065
2019	2.1%	1.018	1.046	1.057	1.7%	1.016	1.040	1.049
2020	1.8%	1.000	1.027	1.037	1.6%	1.000	1.024	1.032

## 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 1.8% and 1.6% for Buildings and Contents, respectively. Consequently, the written factors at 7/1/2020 levels in column (2) and column (6) are brought to the level of the average date of writing in the effective period, 1/1/2022 (i.e., 6 months beyond an assumed revision date of 7/1/2021), by applying a factor of  $(1.018)^{(18/12)}$  for Buildings and  $(1.016)^{(18/12)}$  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	0
n-1	1/2
n	1/2

For example, the factors used to adjust earned exposures for the period from 01/01/2020 to 12/31/2020 to the projected level are 1.037 for Buildings and 1.032 for Contents.

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

	Buildings				Contents			
	(1) <sup>a</sup> Annual Written <u>Increase</u>	(2) <sup>a</sup> 7/1/2020 Written <u>Factors</u>	(3) <sup>b</sup> 1/1/2022 Projected <u>Factors</u>	(4) <sup>c</sup> 1/1/2022 Earned <u>Factors</u>	(5) <sup>a</sup> Annual Written <u>Increase</u>	(6) <sup>a</sup> 7/1/2020 Written <u>Factors</u>	(7) <sup>b</sup> 1/1/2022 Projected <u>Factors</u>	(8) <sup>c</sup> 1/1/2022 Earned <u>Factors</u>
Year								
2008	2.7%	1.260	1.294	1.312	1.6%	1.162	1.186	1.196
2009	2.5%	1.229	1.262	1.278	1.4%	1.146	1.170	1.178
2010	1.9%	1.206	1.239	1.251	1.1%	1.134	1.158	1.164
2011	1.9%	1.184	1.216	1.228	1.2%	1.121	1.145	1.152
2012	2.1%	1.160	1.191	1.204	1.2%	1.108	1.131	1.138
2013	2.0%	1.137	1.168	1.180	1.4%	1.093	1.116	1.124
2014	1.9%	1.116	1.146	1.157	1.4%	1.078	1.101	1.109
2015	1.8%	1.096	1.126	1.136	1.2%	1.065	1.087	1.094
2016	1.6%	1.079	1.108	1.117	1.2%	1.052	1.074	1.081
2017	1.6%	1.062	1.091	1.100	1.2%	1.040	1.062	1.068
2018	2.1%	1.040	1.068	1.080	1.2%	1.028	1.050	1.056
2019	2.2%	1.018	1.046	1.057	1.4%	1.014	1.035	1.043
2020	1.8%	1.000	1.027	1.037	1.4%	1.000	1.021	1.028

## 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 1.8% and 1.4% for Buildings and Contents, respectively. Consequently, the written factors at 7/1/2020 levels in column (2) and column (6) are brought to the level of the average date of writing in the effective period, 1/1/2022 (i.e., 6 months beyond an assumed revision date of 7/1/2021), by applying a factor of  $(1.018)^{(18/12)}$  for Buildings and  $(1.014)^{(18/12)}$  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	0
n-1	1/2
n	1/2

For example, the factors used to adjust earned exposures for the period from 01/01/2020 to 12/31/2020 to the projected level are 1.037 for Buildings and 1.028 for Contents.

## MARYLAND

BASIC GROUP I  
 ADDITIONAL INFORMATION ON TREND ADJUSTMENTS

YEAR	(1)	(2)	(3)	(4)		
	UNADJUSTED INCURRED LOSSES	TRENDED INCURRED LOSSES	AVERAGE TOTAL LOSS TREND FACTOR (2) / (1)	SPLIT % ----- BUILDINGS CONTENTS TIME ELEMENT		
2015	16,384,978	21,959,712	1.340	78.1%	17.6%	4.3%
2016	26,711,742	34,779,141	1.302	80.4%	10.9%	8.7%
2017	19,434,686	24,451,177	1.258	88.2%	5.7%	6.1%
2018	21,108,573	25,381,183	1.202	79.6%	13.4%	7.0%
2019	49,149,822	56,208,329	1.144	69.1%	15.4%	15.5%

## MARYLAND

BASIC GROUP II  
 ADDITIONAL INFORMATION ON TREND ADJUSTMENTS

YEAR	(1)	(2)	(3)	(4)		
	UNADJUSTED** NON-HURRICANE INCURRED LOSSES	TRENDED** NON-HURRICANE INCURRED LOSSES	AVERAGE TOTAL LOSS TREND FACTOR (2) / (1)	SPLIT % ----- BUILDINGS CONTENTS TIME ELEMENT		
2010	6,837,005	9,187,888	1.344	91.1%	6.5%	2.4%
2011	4,407,560	5,889,677	1.336	85.2%	11.1%	3.7%
2012	9,509,165	12,501,312	1.315	83.0%	11.2%	5.8%
2013	1,876,981	2,456,631	1.309	86.5%	12.5%	1.0%
2014	2,920,654	3,694,297	1.265	59.2%	39.5%	1.3%
2015	4,300,447	5,273,238	1.226	70.7%	25.3%	4.0%
2016	3,756,291	4,572,141	1.217	91.1%	7.2%	1.7%
2017	4,515,380	5,366,903	1.189	93.2%	5.7%	1.1%
2018	15,718,240	18,142,533	1.154	90.4%	2.4%	7.2%
2019	4,573,221	5,140,632	1.124	86.7%	8.9%	4.4%

\*\* LOSSES INCURRED DURING THE MONTH OF A HURRICANE HAVE BEEN EXCLUDED AND REPLACED WITH AVERAGE NON-HURRICANE LOSSES.

## MARYLAND

SPECIAL CAUSES OF LOSS  
 ADDITIONAL INFORMATION ON TREND ADJUSTMENTS

YEAR	(1)	(2)	(3)	(4)		
	UNADJUSTED INCURRED LOSSES	TRENDED INCURRED LOSSES	AVERAGE TOTAL LOSS TREND FACTOR (2) / (1)	SPLIT % ----- BUILDINGS CONTENTS TIME ELEMENT		
2015	16,959,494	21,316,885	1.257	83.2%	12.9%	3.9%
2016	13,134,444	16,277,114	1.239	85.4%	11.6%	3.0%
2017	6,700,768	8,021,527	1.197	79.0%	19.8%	1.2%
2018	14,035,243	16,398,507	1.168	84.5%	12.9%	2.6%
2019	12,716,153	14,359,534	1.129	80.7%	11.7%	7.6%

BASIC GROUP I  
INCURRED LOSSES  
LOSS YEARS 2010-2019  
EVALUATED AS OF 3/2020

LOSSES AS OF					
YEAR ENDING	15 MONTHS	27 MONTHS	39 MONTHS	51 MONTHS	63 MONTHS
12/31/2010	970,010,348	949,178,484	931,222,001	922,632,798	912,073,910
12/31/2011	911,735,307	910,030,837	889,586,601	879,594,300	875,673,170
12/31/2012	888,215,701	866,920,148	853,145,228	846,885,400	843,171,086
12/31/2013	873,167,422	867,419,220	866,221,704	854,090,118	852,507,378
12/31/2014	918,404,294	891,353,938	874,149,841	863,454,705	861,111,608
12/31/2015	769,086,301	756,154,280	752,278,983	748,398,440	746,455,005
12/31/2016	893,659,548	888,853,300	866,752,662	864,160,338	
12/31/2017	1,057,950,716	1,040,915,519	994,768,984		
12/31/2018	969,016,904	928,615,217			
12/31/2019	1,140,682,228				

RATIOS				
YEAR ENDING	27:15 MONTHS	39:27 MONTHS	51:39 MONTHS	63:51 MONTHS
12/31/2010	0.979	0.981	0.991	0.989
12/31/2011	0.998	0.978	0.989	0.996
12/31/2012	0.976	0.984	0.993	0.996
12/31/2013	0.993	0.999	0.986	0.998
12/31/2014	0.971	0.981	0.988	0.997
12/31/2015	0.983	0.995	0.995	0.997
12/31/2016	0.995	0.975	0.997	
12/31/2017	0.984	0.956		
12/31/2018	0.958			
5 POINT AVERAGE	0.978	0.981	0.992	0.997

DEVELOPMENT FACTORS TO ULTIMATE

15 MONTHS TO ULTIMATE =	0.949
27 MONTHS TO ULTIMATE =	0.970
39 MONTHS TO ULTIMATE =	0.989
51 MONTHS TO ULTIMATE =	0.997

BASIC GROUP II  
INCURRED LOSSES  
LOSS YEARS 2010-2019  
EVALUATED AS OF 3/2020

LOSSES AS OF					
YEAR ENDING	15 MONTHS	27 MONTHS	39 MONTHS	51 MONTHS	63 MONTHS
12/31/2010	659,986,546	699,988,763	703,205,733	706,861,189	710,847,700
12/31/2011	1,242,781,893	1,261,423,805	1,272,593,765	1,282,426,827	1,294,202,244
12/31/2012	970,453,840	1,004,764,911	1,024,590,242	1,035,635,684	1,040,476,214
12/31/2013	633,282,027	646,504,955	648,879,552	654,861,214	664,812,983
12/31/2014	562,546,164	582,640,448	596,437,096	603,984,793	609,741,614
12/31/2015	450,380,284	468,985,844	477,040,611	483,104,544	485,180,536
12/31/2016	660,096,199	691,627,037	702,444,626	708,512,907	
12/31/2017	765,934,243	806,237,365	840,070,561		
12/31/2018	627,754,674	656,671,107			
12/31/2019	744,402,616				

RATIOS				
YEAR ENDING	27:15 MONTHS	39:27 MONTHS	51:39 MONTHS	63:51 MONTHS
12/31/2010	1.061	1.005	1.005	1.006
12/31/2011	1.015	1.009	1.008	1.009
12/31/2012	1.035	1.020	1.011	1.005
12/31/2013	1.021	1.004	1.009	1.015
12/31/2014	1.036	1.024	1.013	1.010
12/31/2015	1.041	1.017	1.013	1.004
12/31/2016	1.048	1.016	1.009	
12/31/2017	1.053	1.042		
12/31/2018	1.046			
5 POINT AVERAGE	1.045	1.021	1.011	1.009

DEVELOPMENT FACTORS TO ULTIMATE	
15 MONTHS TO ULTIMATE =	1.088
27 MONTHS TO ULTIMATE =	1.042
39 MONTHS TO ULTIMATE =	1.020
51 MONTHS TO ULTIMATE =	1.009

SPECIAL CAUSES OF LOSS  
INCURRED LOSSES  
LOSS YEARS 2010-2019  
EVALUATED AS OF 3/2020

YEAR ENDING	LOSSES AS OF				
	15 MONTHS	27 MONTHS	39 MONTHS	51 MONTHS	63 MONTHS
12/31/2010	685,754,675	672,899,658	667,393,660	666,215,046	666,009,575
12/31/2011	731,347,222	715,332,293	710,338,809	707,533,798	707,266,512
12/31/2012	387,083,761	383,486,165	381,795,587	382,486,911	383,965,861
12/31/2013	436,401,320	428,202,733	420,873,269	419,580,831	419,440,794
12/31/2014	641,918,335	636,014,550	637,572,828	637,420,334	636,325,210
12/31/2015	557,040,255	555,719,001	551,443,468	551,984,107	552,252,772
12/31/2016	376,144,789	392,551,697	394,828,278	395,824,752	
12/31/2017	396,122,018	398,275,345	400,799,030		
12/31/2018	564,512,000	557,677,533			
12/31/2019	457,892,870				

YEAR ENDING	RATIOS			
	27:15 MONTHS	39:27 MONTHS	51:39 MONTHS	63:51 MONTHS
12/31/2010	0.981	0.992	0.998	1.000
12/31/2011	0.978	0.993	0.996	1.000
12/31/2012	0.991	0.996	1.002	1.004
12/31/2013	0.981	0.983	0.997	1.000
12/31/2014	0.991	1.002	1.000	0.998
12/31/2015	0.998	0.992	1.001	1.000
12/31/2016	1.044	1.006	1.003	
12/31/2017	1.005	1.006		
12/31/2018	0.988			
5 POINT AVERAGE	1.005	0.998	1.001	1.000

<u>DEVELOPMENT FACTORS TO ULTIMATE</u>	
15 MONTHS TO ULTIMATE =	1.004
27 MONTHS TO ULTIMATE =	0.999
39 MONTHS TO ULTIMATE =	1.001
51 MONTHS TO ULTIMATE =	1.000

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	1.060	1.123	1.190	1.261	1.336	1.416	1.501	1.590	1.685	1.786
	Prot. 5-7	1.000	1.073	1.151	1.235	1.325	1.421	1.525	1.636	1.755	1.882	2.020
	Prot. 8-10	1.000	1.060	1.123	1.190	1.261	1.336	1.416	1.501	1.590	1.685	1.786

		Amount of Insurance *										
		1	2	3	4	5	6	7	8	9	10	11
Const. 4-6	Prot. 1-4	1.000	1.059	1.121	1.187	1.257	1.332	1.410	1.493	1.581	1.674	1.773
	Prot. 5-7	1.000	1.072	1.149	1.232	1.321	1.416	1.518	1.627	1.744	1.870	2.005
	Prot. 8-10	1.000	1.059	1.121	1.187	1.257	1.332	1.410	1.493	1.581	1.674	1.773

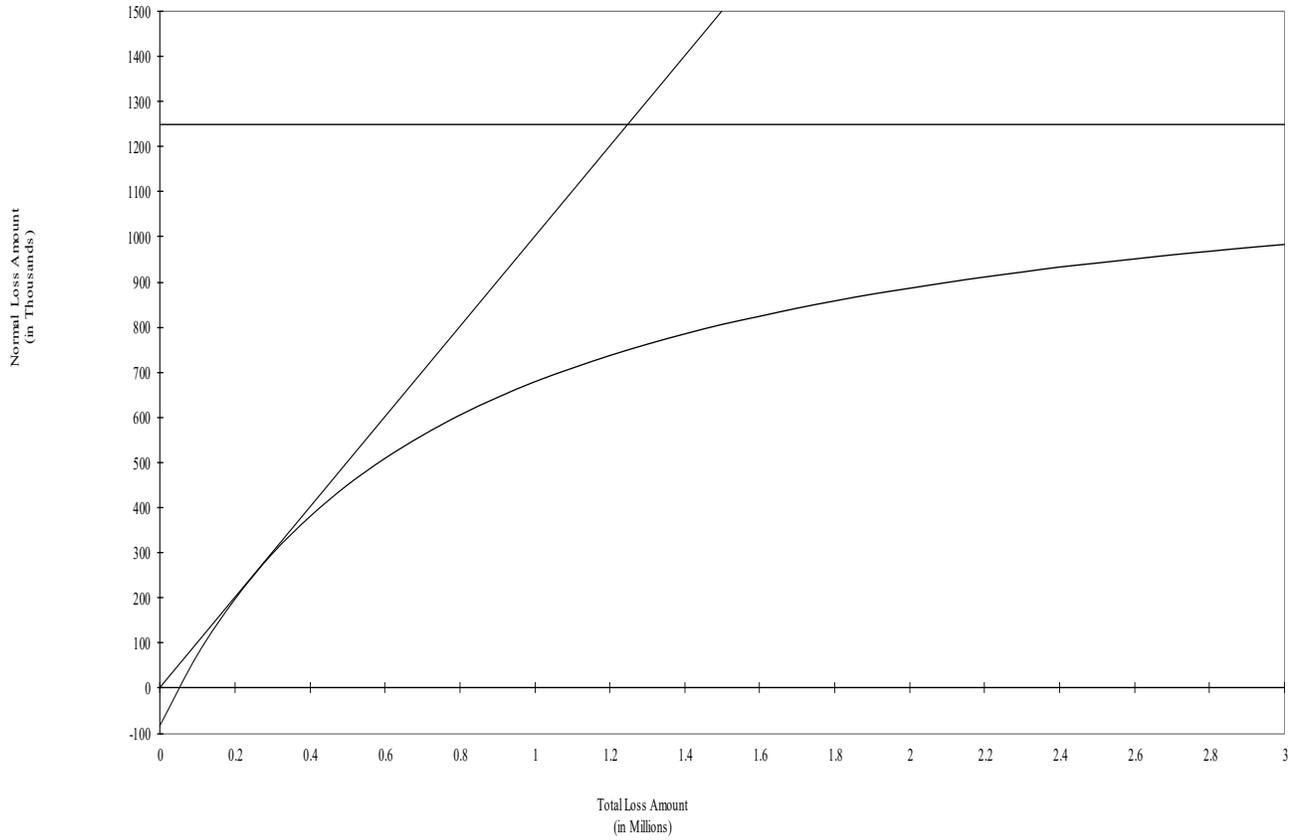
\* Amount of  
Insurance

Intervals

- 1 0-450,000
- 2 450,001-500,000
- 3 500,001-700,000
- 4 700,001-1,000,000
- 5 1,000,001-1,500,000
- 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

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



## MARYLAND

BASIC GROUP I  
ADDITIONAL EXCESS LOSS INFORMATION

YEAR	(1) TRENDED INCURRED LOSSES	(2) TRENDED NORMAL LOSSES	(3) STATE NORMAL % (2)/(1)	(4) MULTI- STATE NORMAL % %	(5) ADJUSTED INCURRED LOSSES	(6) STATE AVERAGE EXCESS FACTOR (5)/(2)
2015	21,959,712	18,097,043	82.4%	74.7%	24,944,808	1.378
2016	34,779,141	23,359,736	67.2%	71.0%	33,302,679	1.426
2017	24,451,177	18,057,319	73.9%	68.4%	26,640,332	1.475
2018	25,381,183	20,778,502	81.9%	72.6%	27,892,266	1.342
2019	56,208,329	24,007,373	42.7%	61.4%	35,310,115	1.471

MARYLAND  
DEVELOPMENT OF BASIC GROUP II EXCESS MULTIPLIER

	(1)	(2)	(3)	(4)	(5)
YEAR	EARNED PREMIUMS	NON-HURRICANE INCURRED LOSSES	NORMAL INCURRED LOSSES	NORMAL LOSS RATIO	EXCESS LOSS RATIO
1950	863,807	187,251	187,251	0.217	-
1951	925,663	378,087	378,087	0.408	-
1952	983,537	592,288	491,769	0.500	0.102
1953	1,125,539	466,143	466,143	0.414	-
1956	1,375,429	701,466	687,715	0.500	0.010
1957	1,478,020	312,094	312,094	0.211	-
1958	1,590,323	478,135	478,135	0.301	-
1959	1,724,029	399,436	399,436	0.232	-
1960	1,812,615	801,208	801,208	0.442	-
1961	1,811,589	414,588	414,588	0.229	-
1962	1,911,588	611,425	611,425	0.320	-
1963	1,800,860	691,516	691,516	0.384	-
1964	1,634,756	487,375	487,375	0.298	-
1965	1,579,086	669,059	669,059	0.424	-
1966	1,492,433	622,045	622,045	0.417	-
1967	1,495,017	488,668	488,668	0.327	-
1968	1,505,571	4,805,356	752,786	0.500	2.692
1969	1,710,134	806,219	806,219	0.471	-
1970	2,595,731	1,242,749	1,242,749	0.479	-
1972	3,491,393	784,980	784,980	0.225	-
1973	3,896,785	1,239,377	1,239,377	0.318	-
1974	4,182,093	1,839,749	1,839,749	0.440	-
1975	4,887,779	4,850,109	2,443,890	0.500	0.492
1977	6,279,049	2,913,235	2,913,235	0.464	-
1978	6,958,821	2,905,911	2,905,911	0.418	-
1980	7,379,976	4,520,847	3,689,988	0.500	0.113
1981	7,153,029	3,021,575	3,021,575	0.422	-
1982	7,171,176	2,939,050	2,939,050	0.410	-
1983	6,997,644	3,059,978	3,059,978	0.437	-
1984	6,669,396	3,137,668	3,137,668	0.470	-
1985	8,777,664	3,064,674	3,064,674	0.349	-
1986	11,920,320	6,821,408	5,960,160	0.500	0.072
1987	13,213,656	1,866,926	1,866,926	0.141	-
1988	13,036,080	4,063,455	4,063,455	0.312	-
1989	10,331,370	3,821,813	3,821,813	0.370	-
1990	9,716,199	3,604,497	3,604,497	0.371	-
1991	9,336,717	1,894,280	1,894,280	0.203	-
1992	9,438,060	2,170,439	2,170,439	0.230	-
1993	9,423,582	3,027,474	3,027,474	0.321	-
1994	9,190,311	3,316,947	3,316,947	0.361	-
1995	8,115,456	1,829,787	1,829,787	0.225	-

MARYLAND  
DEVELOPMENT OF BASIC GROUP II EXCESS MULTIPLIER

	(1)	(2)	(3)	(4)	(5)
YEAR	EARNED PREMIUMS	NON-HURRICANE INCURRED LOSSES	NORMAL INCURRED LOSSES	NORMAL LOSS RATIO	EXCESS LOSS RATIO
1996	7,020,288	5,668,984	3,510,144	0.500	0.308
1997	7,013,298	1,569,093	1,569,093	0.224	-
1998	6,515,937	3,646,339	3,257,969	0.500	0.060
1999	6,276,096	2,090,495	2,090,495	0.333	-
2000	5,805,552	2,468,270	2,468,270	0.425	-
2001	5,841,912	4,323,403	2,920,956	0.500	0.240
2002	7,197,543	6,609,400	3,598,772	0.500	0.418
2003	8,035,038	3,979,900	3,979,900	0.495	-
2004	9,457,617	1,421,323	1,421,323	0.150	-
2005	10,072,995	1,146,661	1,146,661	0.114	-
2006	10,315,317	1,528,606	1,528,606	0.148	-
2007	10,643,625	1,470,942	1,470,942	0.138	-
2008	10,481,049	4,483,625	4,483,625	0.428	-
2009	10,213,233	3,220,954	3,220,954	0.315	-
2010	9,839,500	6,837,005	4,919,750	0.500	0.195
2011	9,395,849	4,407,567	4,407,567	0.469	-
2012	10,133,809	9,509,162	5,066,905	0.500	0.438
2013	11,117,385	1,876,981	1,876,981	0.169	-
2014	12,113,833	2,920,654	2,920,654	0.241	-
2015	12,336,653	4,300,447	4,300,447	0.349	-
2016	12,482,663	3,790,094	3,790,094	0.304	-
2017	12,582,520	4,605,686	4,605,686	0.366	-
2018	12,677,753	16,378,406	6,338,877	0.500	0.792
2019	13,064,942	4,975,666	4,975,666	0.381	-
TOTALS	437,616,690	185,078,950	153,454,458	23.610	5.932

(7) STATE EXCESS COMPONENT = (EXLR / NLR) = 0.251

(8) STATE EXCESS MULTIPLIER = (1+SEC) = 1.251

\* HURRICANE YEARS BEFORE 1982 HAVE BEEN EXCLUDED. FOR THE YEARS 1982 THROUGH 2019, LOSSES INCURRED DURING THE MONTH OF A HURRICANE HAVE BEEN REPLACED WITH AVERAGE MONTHLY NON-HURRICANE LOSSES.

MARYLAND  
DEVELOPMENT OF SPECIAL CAUSES OF LOSS EXCESS MULTIPLIER

YEAR	(1)	(2)	(3)	(4)	(5)
	EARNED PREMIUMS	INCURRED LOSSES	NORMAL INCURRED LOSSES	NORMAL LOSS RATIO	STATE EXCESS LOSS RATIO
1985	5,291,580	4,613,114	4,493,391	0.849	0.023
1986	6,901,452	2,656,189	2,656,189	0.385	
1987	8,056,044	3,908,532	3,908,532	0.485	
1988	8,234,892	5,560,136	5,560,136	0.675	
1989	7,839,072	7,949,683	7,293,424	0.930	0.084
1990	10,401,228	6,263,943	6,263,943	0.602	
1991	11,372,232	5,989,937	5,989,937	0.527	
1992	11,789,061	4,955,634	4,955,634	0.420	
1993	11,627,793	7,808,399	7,808,399	0.672	
1994	10,674,726	15,548,622	9,365,729	0.877	0.580
1995	10,139,496	9,896,240	9,835,346	0.970	0.006
1996	9,329,652	12,067,996	6,742,494	0.723	0.571
1997	8,616,702	6,084,024	6,084,024	0.706	
1998	8,416,848	5,219,909	5,219,909	0.620	
1999	8,898,606	7,222,083	7,222,083	0.812	
2000	8,539,284	12,702,996	8,608,365	1.008	0.480
2001	8,827,350	5,074,960	5,074,960	0.575	
2002	9,997,065	23,473,214	6,970,935	0.697	1.651
2003	10,917,018	31,034,128	9,625,967	0.882	1.961
2004	12,567,003	7,203,013	7,203,013	0.573	
2005	13,476,417	10,482,683	6,531,686	0.485	0.293
2006	13,757,739	5,226,049	5,226,049	0.380	
2007	14,617,329	7,831,853	7,831,853	0.536	
2008	15,247,428	8,008,488	8,008,488	0.525	
2009	16,616,250	11,471,581	11,471,581	0.690	
2010	17,035,269	28,660,936	12,604,290	0.740	0.942
2011	16,548,399	8,953,802	8,953,802	0.541	
2012	16,601,031	8,124,460	8,124,460	0.489	
2013	17,602,362	7,512,262	7,512,262	0.427	
2014	18,918,483	17,210,605	9,906,297	0.524	0.386
2015	20,404,540	16,959,494	11,762,244	0.576	0.255
2016	21,259,929	13,134,444	12,271,961	0.577	0.041
2017	21,731,923	6,700,768	6,700,768	0.308	
2018	22,233,830	14,035,243	12,515,411	0.563	0.068
2019	22,992,499	12,716,153	12,410,311	0.540	0.013
TOTALS		362,261,573	272,713,873	21.889	7.354

(6) STATE EXCESS COMPONENT = (SELR / NLR) = 0.336

(7) STATE EXCESS MULTIPLIER = (SELR / NLR) = 1.336

MARYLAND  
BASIC GROUP I STATEWIDE CREDIBILITY CALCULATION  
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(1a) FULL CREDIBILITY CLAIMS STANDARD FOR FREQUENCY WITH (P,K) = ( 95.00% , 5.00%)	1,537
(1b) SEVERITY MODIFICATION FACTOR	8.754
(1c) FULL CREDIBILITY CLAIMS STANDARD ADJUSTED FOR SEVERITY ((1a) X (1b))	13,455
(2) MULTISTATE FIVE YEAR RATIO OF EARNED RISKS TO CLAIMS	355.599
(3) FULL CREDIBILITY EARNED RISKS STANDARD (1c)X(2)	4,784,585
(4) FIVE YEAR STATEWIDE EARNED RISKS	522,591
(5) FIVE YEAR AGGREGATE LOSS COSTS	132,128,984
(6) AGGREGATE LOSS COSTS PER EARNED RISK (5)/(4)	252.834
(7) AGGREGATE LOSS COSTS FOR 100% CREDIBILITY (3) X (6)	1,209,705,764
(8) STATEWIDE CREDIBILITY ((5)/(7))**(,5)	33.0%

MARYLAND  
BASIC GROUP II STATEWIDE CREDIBILITY CALCULATION

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(1) FULL CREDIBILITY CLAIMS STANDARD	30,000
(2) MULTISTATE TEN YEAR RATIO OF EARNED RISKS TO CLAIMS	144.996
(3) FULL CREDIBILITY EARNED RISKS STANDARD (1)X(2)	4,349,880
(4) TEN YEAR STATEWIDE EARNED RISKS	996,225
(5) TEN YEAR AGGREGATE LOSS COSTS	87,594,805
(6) AGGREGATE LOSS COSTS PER EARNED RISK (5)/(4)	87.927
(7) AGGREGATE LOSS COSTS FOR 100% CREDIBILITY (3) X (6)	382,471,899
(8) STATEWIDE CREDIBILITY ((5)/(7))**(.5)	47.9%

MARYLAND  
SPECIAL CAUSES OF LOSS STATEWIDE CREDIBILITY CALCULATION

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(1) FULL CREDIBILITY CLAIMS STANDARD	25,000
(2) MULTISTATE FIVE YEAR RATIO OF EARNED RISKS TO CLAIMS	205.104
(3) FULL CREDIBILITY EARNED RISKS STANDARD (1)X(2)	5,127,600
(4) FIVE YEAR STATEWIDE EARNED RISKS	516,956
(5) FIVE YEAR AGGREGATE LOSS COSTS	86,859,682
(6) AGGREGATE LOSS COSTS PER EARNED RISK (5)/(4)	168.021
(7) AGGREGATE LOSS COSTS FOR 100% CREDIBILITY (3) X (6)	861,544,480
(8) STATEWIDE CREDIBILITY ((5)/(7))**(.5)	31.8%

MARYLAND  
CALCULATION OF INDICATED BASIC GROUP II LOSS COSTS

			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TERRITORY	COVERAGE	SYMBOL	ACCIDENT YEAR ENDING 12/31/2019 BG II AGG. LOSS COSTS	CURRENT LOSS COST	CURRENT NON-HURR LOSS COST	STATEWIDE MONOLINE NON-HURR. CHANGE	INDICATED NON-HURR. LOSS COST (3) * (4)	HURRICANE MODELED LOSS COST	INDICATED TOTAL LOSS COST (5) + (6)	INDICATED PERCENT CHANGE (7)/(2) - 1
Territory I	BUILDINGS	OA	0	0.021	0.018	1.100	0.020	0.003	0.023	9.5%
		OAB	12	0.028	0.025	1.100	0.028	0.003	0.031	10.7%
		OB	22,714	0.035	0.028	1.100	0.031	0.007	0.038	8.6%
		AA	24,941	0.020	0.017	1.100	0.019	0.003	0.022	10.0%
		A	48,678	0.022	0.019	1.100	0.021	0.003	0.024	9.1%
		AB	482,282	0.029	0.026	1.100	0.029	0.003	0.032	10.3%
		B	4,594,109	0.036	0.029	1.100	0.032	0.007	0.039	8.3%
	CONTENTS	OA	0	0.024	0.022	1.100	0.024	0.002	0.026	8.3%
		OAB	110	0.031	0.028	1.100	0.031	0.003	0.034	9.7%
		OB	4,591	0.038	0.031	1.100	0.034	0.007	0.041	7.9%
		AA	2,615	0.022	0.020	1.100	0.022	0.002	0.024	9.1%
		A	7,202	0.025	0.023	1.100	0.025	0.002	0.027	8.0%
		AB	94,745	0.032	0.029	1.100	0.032	0.003	0.035	9.4%
		B	823,894	0.039	0.032	1.100	0.035	0.007	0.042	7.7%
	SUB-TOTAL		6,105,893							8.4%

MARYLAND  
CALCULATION OF INDICATED BASIC GROUP II LOSS COSTS

TERRITORY	COVERAGE	SYMBOL	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			ACCIDENT YEAR ENDING 12/31/2019	CURRENT	NON-HURR	STATEWIDE MONOLINE NON-HURR.	INDICATED NON-HURR. LOSS COST	HURRICANE MODELED LOSS COST	INDICATED TOTAL LOSS COST	INDICATED PERCENT CHANGE
			BG II AGG. LOSS COSTS	LOSS COST	LOSS COST	CHANGE	(3) * (4)	LOSS COST	(5) + (6)	(7)/(2) - 1
Territory II	BUILDINGS	OA	0	0.031	0.018	1.100	0.020	0.013	0.033	6.5%
		OAB	0	0.041	0.027	1.100	0.030	0.015	0.045	9.8%
		OB	6,723	0.061	0.030	1.100	0.033	0.033	0.066	8.2%
		AA	1,993	0.029	0.017	1.100	0.019	0.012	0.031	6.9%
		A	5,136	0.032	0.019	1.100	0.021	0.013	0.034	6.3%
		AB	53,771	0.043	0.028	1.100	0.031	0.016	0.047	9.3%
		B	1,276,538	0.063	0.031	1.100	0.034	0.034	0.068	7.9%
	CONTENTS	OA	0	0.034	0.023	1.100	0.025	0.012	0.037	8.8%
		OAB	0	0.041	0.028	1.100	0.031	0.014	0.045	9.8%
		OB	1,064	0.064	0.032	1.100	0.035	0.034	0.069	7.8%
		AA	5	0.031	0.021	1.100	0.023	0.011	0.034	9.7%
		A	359	0.036	0.025	1.100	0.028	0.012	0.040	11.1%
		AB	6,618	0.042	0.029	1.100	0.032	0.015	0.047	11.9%
		B	191,472	0.066	0.033	1.100	0.036	0.035	0.071	7.6%
		SUB-TOTAL		1,543,679						7.9%

MARYLAND  
CALCULATION OF INDICATED BASIC GROUP II LOSS COSTS

			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TERRITORY	COVERAGE	SYMBOL	ACCIDENT YEAR ENDING 12/31/2019 BG II AGG. LOSS COSTS	CURRENT LOSS COST	CURRENT NON-HURR LOSS COST	STATEWIDE MONOLINE NON-HURR. CHANGE	INDICATED NON-HURR. LOSS COST (3) * (4)	HURRICANE MODELED LOSS COST	INDICATED TOTAL LOSS COST (5) + (6)	INDICATED PERCENT CHANGE (7)/(2) - 1
Territory III	BUILDINGS	OA	0	0.061	0.018	1.100	0.020	0.045	0.065	6.6%
		OAB	197	0.074	0.026	1.100	0.029	0.050	0.079	6.8%
		OB	103	0.127	0.030	1.100	0.033	0.101	0.134	5.5%
		AA	1,183	0.058	0.017	1.100	0.019	0.042	0.061	5.2%
		A	3,429	0.064	0.019	1.100	0.021	0.047	0.068	6.3%
		AB	19,818	0.077	0.027	1.100	0.030	0.052	0.082	6.5%
		B	310,054	0.132	0.031	1.100	0.034	0.105	0.139	5.3%
	CONTENTS	OA	0	0.051	0.023	1.100	0.025	0.030	0.055	7.8%
		OAB	31	0.061	0.028	1.100	0.031	0.035	0.066	8.2%
		OB	27	0.104	0.031	1.100	0.034	0.077	0.111	6.7%
		AA	96	0.047	0.021	1.100	0.023	0.028	0.051	8.5%
		A	566	0.054	0.025	1.100	0.028	0.031	0.059	9.3%
		AB	2,255	0.062	0.028	1.100	0.031	0.036	0.067	8.1%
		B	40,318	0.108	0.032	1.100	0.035	0.080	0.115	6.5%
	SUB-TOTAL		378,077							5.5%
STATE TOTAL			8,027,649							8.2%

BASIC GROUP I RATING GROUP DEFINITIONSTHE FOLLOWING CSP CLASSES COMPRISE THE BASIC GROUP I RATING GROUPS01 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
- 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
- 0580 Greenhouses
- 0581 Multiple Occupancy Mercantile, Fire Class Rated, without furniture Occupant
- 0582 Multiple Occupancy Mercantile, Fire Class Rated, with furniture Occupant

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

07 SCHOOLS

- 1052 Schools, Academic

BASIC GROUP I RATING GROUP DEFINITIONS08 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

BASIC GROUP I RATING GROUP DEFINITIONS11 HOSPITALS & NURSING HOMES

- 0851 Hospitals
- 0852 Nursing and Convalescent Homes

12 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

BASIC GROUP I RATING GROUP DEFINITIONS15 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
- 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
- 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
- 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

BASIC GROUP I RATING GROUP DEFINITIONS18 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

21 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

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, 0550, 0562, 0566, 0567, 0581, 0702, 1180, 1185, 1190, 1200, 1211, 1212, 1213, 1251, 1300, 1400, 1751, or 1752

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, 2250, 2300, 2350, 2400, 2459, 2550, 2600, 2750, 2800, 2805, 3009, 3409, 3809, 3959, or 4400

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.

## MARYLAND

## BASIC GROUP I

## UNADJUSTED AGGREGATE LOSS COSTS, LOSSES, AND EXPERIENCE RATIOS

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YEAR	TOTAL UNADJUSTED LOSS COSTS	TOTAL UNADJUSTED INCURRED LOSSES	EXPERIENCE RATIO
2015	21,356,402	16,384,978	0.767
2016	20,969,748	26,711,742	1.274
2017	20,626,640	19,434,686	0.942
2018	20,323,491	21,108,573	1.039
2019	19,977,662	49,149,822	2.460

## MARYLAND

## BASIC GROUP II

## UNADJUSTED AGGREGATE LOSS COSTS, LOSSES, AND EXPERIENCE RATIOS

YEAR	TOTAL**		EXPERIENCE RATIO
	TOTAL UNADJUSTED LOSS COSTS	UNADJUSTED NON-HURRICANE LOSSES	
2010	5,520,610	6,837,005	1.238
2011	5,249,474	4,407,560	0.840
2012	5,662,906	9,509,165	1.679
2013	6,211,354	1,876,981	0.302
2014	6,769,006	2,920,654	0.431
2015	6,892,859	4,300,447	0.624
2016	6,974,038	3,756,291	0.539
2017	7,030,564	4,515,380	0.642
2018	7,083,610	15,718,240	2.219
2019	7,300,473	4,573,221	0.626

\*\* LOSSES INCURRED DURING THE MONTH OF A HURRICANE HAVE BEEN EXCLUDED AND REPLACED WITH AVERAGE NON-HURRICANE LOSSES.

## MARYLAND

## SPECIAL CAUSES OF LOSS

## UNADJUSTED AGGREGATE LOSS COSTS, LOSSES, AND EXPERIENCE RATIOS

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YEAR	TOTAL UNADJUSTED LOSS COSTS	TOTAL UNADJUSTED INCURRED LOSSES	EXPERIENCE RATIO
2015	11,410,022	16,959,494	1.486
2016	11,888,913	13,134,444	1.105
2017	12,153,478	6,700,768	0.551
2018	12,433,836	14,035,243	1.129
2019	12,858,892	12,716,153	0.989

FIRE AND ALLIED LINES INSURANCE  
COUNTRYWIDE LOSS ADJUSTMENT EXPENSE EXPERIENCE (A)

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Selected</u>
(1) Fire						
(a) Direct Losses Incurred	5,453,646	5,651,498	7,743,812	8,515,121	7,422,919	
(b) Direct Loss Adjustment Expense Incurred	521,637	542,989	691,423	667,872	679,915	
(2) Allied Lines						
(a) Direct Losses Incurred	4,779,658	6,416,870	17,941,113	10,344,868	7,617,526	
(b) Direct Loss Adjustment Expense Incurred	675,860	739,333	1,156,389	996,933	973,416	
(3) Loss Adjustment Expense as a Ratio to Losses						
(a) Fire (1b) / (1a)	9.6%	9.6%	8.9%	7.8%	9.2%	9.0%
(b) Allied Lines (2b) / (2a)	14.1%	11.5%	6.4%	9.6%	12.8%	11.0%

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.

MARYLAND  
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.....	E4-14

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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) Determine the territory in which the property is located. Refer to the Territory Section.
- (3) For Symbols **AA, A, AB** and **B** use the applicable rate.
- (4) For symbols with numerical prefixes, multiply the applicable rate by the prefix shown in Rule **70.E.2.a**.

	<b>Symbol/Loss Cost</b>			
	<b>AA</b>	<b>A</b>	<b>AB</b>	<b>B</b>
Territory I				
Building	<u>.020022</u>	<u>.022024</u>	<u>.029032</u>	<u>.036039</u>
Contents	<u>.022024</u>	<u>.025027</u>	<u>.032035</u>	<u>.039042</u>
Territory II				
Building	<u>.029031</u>	<u>.032034</u>	<u>.043047</u>	<u>.063068</u>
Contents	<u>.034034</u>	<u>.036040</u>	<u>.042047</u>	<u>.066071</u>
Territory III				
Building	<u>.058061</u>	<u>.064068</u>	<u>.077082</u>	<u>.132139</u>
Contents	<u>.047051</u>	<u>.054059</u>	<u>.062067</u>	<u>.108115</u>

**72. CAUSES OF LOSS – SPECIAL FORM**

**E.2. Rating Procedure – Property Damage – Other than Builders' Risk**

**b.(1) Building Coverage – Loss Cost: .063071**

**c.(2) Personal Property Coverage – Loss Costs**

<b>Occupancy Category</b>	<b>Loss Cost</b>
Residential Apartments and Condominiums	<u>.469173</u>
Offices	<u>.233227</u>
Mercantile – High	<u>.232218</u>
Mercantile – Medium	<u>.487180</u>
Mercantile – Low	<u>.459162</u>
Motels and Hotels	<u>.413115</u>
Institutional – High	<u>.408106</u>
Institutional – Low	<u>.068064</u>
Industrial and Processing – High	<u>.273276</u>
Industrial and Processing – Low	<u>.227225</u>
Service – High	<u>.234207</u>
Service – Low	<u>.485174</u>
Contractors	<u>.343310</u>
<b>Territory (County)</b>	<b>Territorial Multiplier</b>
Baltimore, Baltimore City	1.221
Montgomery, Prince George's	1.160
Anne Arundel, Howard	1.131
Remainder of State	1.000

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

All rates are subject to protection class and territorial multipliers.

**0074 – 0312 – CSP CLASS CODES**

<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					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
0074	Building (1)	0.047	0.043	0.038	0.030	0.029
	Contents (2)	0.047	0.043	0.040	0.036	0.033
0075	Building (1)	0.047	0.043	0.038	0.030	0.029
	Contents (2)	0.047	0.043	0.040	0.036	0.033
0076	Building (1)	0.047	0.043	0.038	0.030	0.029
	Contents (2)	0.047	0.043	0.040	0.036	0.033
0077	Building (1)	0.043	0.039	0.035	0.029	0.025
	Contents (2)	0.045	0.040	0.038	0.035	0.031
0078	Building (1)	0.043	0.039	0.035	0.029	0.025
	Contents (2)	0.045	0.040	0.038	0.035	0.031
0079	Building (1)	0.043	0.039	0.035	0.029	0.025
	Contents (2)	0.045	0.040	0.038	0.035	0.031
0196	Building (1)	0.030	0.026	0.023	0.020	0.017
	Contents (2)	0.032	0.030	0.028	0.023	0.022
0197	Building (1)	0.030	0.026	0.023	0.020	0.017
	Contents (2)	0.032	0.030	0.028	0.023	0.022
0198	Building (1)	0.030	0.026	0.023	0.020	0.017
	Contents (2)	0.032	0.030	0.028	0.023	0.022
0311	Building (1)	0.177	0.160	0.141	0.115	0.106
	Contents (2)	0.201	0.181	0.170	0.152	0.140
0312	Building (1)	0.177	0.160	0.141	0.115	0.106
	Contents (2)	0.201	0.181	0.170	0.152	0.140
Territory					Territorial Multiplier	
Baltimore City					1.198	
Anne Arundel County					0.854	
Baltimore County Excl. Baltimore City					1.342	
Montgomery County					0.818	
Prince Georges County					2.571	
Balance of State (Maryland)					1.000	

0313 – 0333 – CSP CLASS CODES

<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>	0.177	0.160	0.141	0.115	0.106
	<b>Contents (2)</b>	0.201	0.181	0.170	0.152	0.140
<b>0321</b>	<b>Building (1)</b>	0.273	0.246	0.219	0.177	0.162
	<b>Contents (2)</b>					
	<b>A</b>	0.406	0.366	0.345	0.305	0.284
	<b>B&amp;C</b>	0.475	0.427	0.404	0.357	0.334
<b>0322</b>	<b>Building (1)</b>	0.273	0.246	0.219	0.177	0.162
	<b>Contents (2)</b>					
	<b>A</b>	0.406	0.366	0.345	0.305	0.284
	<b>B&amp;C</b>	0.475	0.427	0.404	0.357	0.334
<b>0323</b>	<b>Building (1)</b>	0.273	0.246	0.219	0.177	0.162
	<b>Contents (2)</b>					
	<b>A</b>	0.406	0.366	0.345	0.305	0.284
	<b>B&amp;C</b>	0.475	0.427	0.404	0.357	0.334
<b>0331</b>	<b>Building (1)</b>	0.099	0.089	0.079	0.063	0.060
	<b>Contents (2)</b>	0.087	0.078	0.075	0.066	0.060
<b>0332</b>	<b>Building (1)</b>	0.099	0.089	0.079	0.063	0.060
	<b>Contents (2)</b>	0.087	0.078	0.075	0.066	0.060
<b>0333</b>	<b>Building (1)</b>	0.099	0.089	0.079	0.063	0.060
	<b>Contents (2)</b>	0.087	0.078	0.075	0.066	0.060
<b>Territory</b>				<b>Territorial Multiplier</b>		
Baltimore City				1.198		
Anne Arundel County				0.854		
Baltimore County Excl. Baltimore City				1.342		
Montgomery County				0.818		
Prince Georges County				2.571		
Balance of State (Maryland)				1.000		

0341 – 0531 – CSP CLASS CODES

<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					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
0341	Building (1)	0.153	0.138	0.124	0.101	0.092
	Contents (2)					
	A	0.176	0.158	0.150	0.130	0.122
	B&C	0.205	0.184	0.176	0.153	0.144
0342	Building (1)	0.153	0.138	0.124	0.101	0.092
	Contents (2)					
	A	0.176	0.158	0.150	0.130	0.122
	B&C	0.205	0.184	0.176	0.153	0.144
0343	Building (1)	0.153	0.138	0.124	0.101	0.092
	Contents (2)					
	A	0.176	0.158	0.150	0.130	0.122
	B&C	0.205	0.184	0.176	0.153	0.144
0511	Building (1)	0.062	0.055	0.049	0.041	0.038
	Contents (2)	0.107	0.095	0.090	0.079	0.075
0512	Building (1)	0.059	0.053	0.047	0.039	0.036
	Contents (2)	0.094	0.085	0.079	0.071	0.067
0520	Building (1)	0.074	0.067	0.059	0.048	0.045
	Contents (2)	0.138	0.124	0.118	0.104	0.097
0531	Building (1)	0.063	0.056	0.049	0.041	0.038
	Contents (2)	0.113	0.100	0.094	0.085	0.078
Territory				Territorial Multiplier		
Baltimore City				1.198		
Anne Arundel County				0.854		
Baltimore County Excl. Baltimore City				1.342		
Montgomery County				0.818		
Prince Georges County				2.571		
Balance of State (Maryland)				1.000		

**0532 – 0564 – CSP CLASS CODES**

<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>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>0564</b>	Mercantile – Sole Occupancy Only – Furniture and Home Furnishings other than Appliances					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
0532	Building (1)	0.094	0.085	0.076	0.062	0.059
	Contents (2)	0.138	0.124	0.118	0.104	0.097
0533	Building (1)	0.075	0.068	0.061	0.048	0.046
	Contents (2)	0.112	0.099	0.093	0.084	0.077
0534	Building (1)	0.105	0.093	0.084	0.068	0.063
	Contents (2)	0.116	0.105	0.098	0.087	0.082
0541	Building (1)	0.204	0.184	0.164	0.133	0.124
	Contents (2)	0.219	0.197	0.185	0.164	0.152
0545	Building (1)	0.240	0.216	0.193	0.156	0.146
	Contents (2)	0.271	0.244	0.231	0.204	0.190
0550	Building (1)	0.056	0.051	0.046	0.037	0.032
	Contents (2)	0.115	0.104	0.098	0.086	0.079
0561	Building (1)	0.060	0.054	0.047	0.039	0.036
	Contents (2)	0.115	0.104	0.098	0.086	0.079
0562	Building (1)	0.068	0.061	0.054	0.045	0.041
	Contents (2)	0.129	0.115	0.108	0.095	0.090
0563	Building (1)	0.068	0.061	0.054	0.044	0.041
	Contents (2)	0.094	0.085	0.079	0.071	0.067
0564	Building (1)	0.092	0.083	0.074	0.061	0.054
	Contents (2)	0.167	0.151	0.141	0.127	0.117
<b>Territory</b>					<b>Territorial Multiplier</b>	
Baltimore City					1.198	
Anne Arundel County					0.854	
Baltimore County Excl. Baltimore City					1.342	
Montgomery County					0.818	
Prince Georges County					2.571	
Balance of State (Maryland)					1.000	

0565 – 0582 – CSP CLASS CODES

CSP Class Codes And Description						
<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>0580</b>	Greenhouses – Sole Occupancy Only					
<b>0581</b>	Mercantile – Multiple Occupancy without 0564 Occupant					
<b>0582</b>	Mercantile – Multiple Occupancy with 0564 Occupant					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
0565	Building (1)	0.062	0.054	0.049	0.041	0.037
	Contents (2)	0.093	0.084	0.078	0.070	0.066
0566	Building (1)	0.069	0.063	0.055	0.046	0.043
	Contents (2)	0.127	0.114	0.107	0.093	0.089
0567	Building (1)	0.062	0.055	0.049	0.041	0.038
	Contents (2)	0.107	0.095	0.090	0.079	0.075
0570	Building (1)	0.062	0.055	0.049	0.041	0.038
	Contents (2)	0.113	0.100	0.094	0.085	0.078
0580	Building (1)	0.062	0.055	0.049	0.041	0.038
	Contents (2)	0.117	0.106	0.099	0.089	0.083
0581	Building (1)	0.066	0.059	0.053	0.044	0.040
	Contents (2)					
	A	0.113	0.100	0.094	0.085	0.078
	B	0.137	0.123	0.116	0.101	0.095
0582	C	0.123	0.112	0.106	0.093	0.086
	Building (1)	0.071	0.066	0.059	0.047	0.044
	Contents (2)					
	A	0.099	0.090	0.085	0.075	0.070
	B	0.123	0.110	0.105	0.092	0.085
	C	0.112	0.099	0.093	0.084	0.077
<b>Territory</b>					<b>Territorial Multiplier</b>	
Baltimore City					1.198	
Anne Arundel County					0.854	
Baltimore County Excl. Baltimore City					1.342	
Montgomery County					0.818	
Prince Georges County					2.571	
Balance of State (Maryland)					1.000	

0701 – 0747 – CSP CLASS CODES

CSP Class Codes And Description						
<b>0701</b>	Government Offices					
<b>0702</b>	Banks and Offices other than Governmental					
<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					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
0701	Building (1)	0.046	0.041	0.037	0.029	0.026
	Contents (2)					
	A	0.051	0.045	0.043	0.038	0.036
	B	0.074	0.067	0.063	0.055	0.051
0702	C	0.056	0.051	0.049	0.044	0.040
	Building (1)	0.052	0.047	0.043	0.036	0.031
	Contents (2)					
	A	0.063	0.056	0.052	0.047	0.044
0742	B	0.087	0.077	0.074	0.066	0.061
	C	0.076	0.069	0.066	0.060	0.053
	Building (1)	0.146	0.131	0.117	0.094	0.086
	Contents (2)	0.160	0.144	0.137	0.121	0.112
0743	Building (1)	0.146	0.131	0.117	0.094	0.086
	Contents (2)	0.160	0.144	0.137	0.121	0.112
0744	Building (1)	0.146	0.131	0.117	0.094	0.086
	Contents (2)	0.160	0.144	0.137	0.121	0.112
0745	Building (1)	0.063	0.056	0.051	0.041	0.038
	Contents (2)	0.068	0.062	0.059	0.052	0.047
0746	Building (1)	0.063	0.056	0.051	0.041	0.038
	Contents (2)	0.068	0.062	0.059	0.052	0.047
0747	Building (1)	0.063	0.056	0.051	0.041	0.038
	Contents (2)	0.068	0.062	0.059	0.052	0.047
Territory					Territorial Multiplier	
Baltimore City					1.198	
Anne Arundel County					0.854	
Baltimore County Excl. Baltimore City					1.342	
Montgomery County					0.818	
Prince Georges County					2.571	
Balance of State (Maryland)					1.000	

0755 – 0845 – CSP CLASS CODES

<b>CSP Class Codes And Description</b>						
<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>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					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
0755	Building (1)	0.230	0.207	0.184	0.150	0.138
	Contents (2)	0.265	0.239	0.225	0.199	0.185
0756	Building (1)	0.093	0.085	0.075	0.060	0.055
	Contents (2)	0.107	0.097	0.091	0.081	0.075
0757	Building (1)	0.101	0.091	0.081	0.066	0.060
	Contents (2)	0.107	0.097	0.091	0.081	0.075
0831	Building (1)	0.078	0.071	0.062	0.052	0.047
	Contents (2)	0.091	0.081	0.076	0.068	0.063
0832	Building (1)	0.100	0.090	0.081	0.066	0.060
	Contents (2)	0.107	0.097	0.091	0.081	0.075
0833	Building (1)	0.085	0.076	0.068	0.055	0.052
	Contents (2)	0.099	0.089	0.085	0.075	0.069
0834	Building (1)	0.137	0.123	0.109	0.089	0.082
	Contents (2)	0.139	0.125	0.118	0.105	0.097
0841	Building (1)	0.139	0.125	0.112	0.091	0.083
	Contents (2)	0.146	0.131	0.124	0.109	0.101
0843	Building (1)	0.069	0.062	0.055	0.045	0.041
	Contents (2)	0.074	0.067	0.062	0.055	0.052
0844	Building (1)	0.093	0.085	0.075	0.060	0.055
	Contents (2)	0.104	0.093	0.089	0.077	0.072
0845	Building (1)	0.061	0.055	0.049	0.040	0.038
	Contents (2)	0.071	0.063	0.060	0.053	0.049
Territory					Territorial Multiplier	
Baltimore City					1.198	
Anne Arundel County					0.854	
Baltimore County Excl. Baltimore City					1.342	
Montgomery County					0.818	
Prince Georges County					2.571	
Balance of State (Maryland)					1.000	

0846 – 0931 – CSP CLASS CODES

CSP Class Codes And Description						
<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>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					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
0846	Building (1)	0.130	0.116	0.104	0.085	0.077
	Contents (2)	0.128	0.114	0.109	0.095	0.089
0851	Building (1)	0.021	0.018	0.017	0.014	0.013
	Contents (2)	0.024	0.022	0.021	0.017	0.017
0852	Building (1)	0.022	0.020	0.017	0.014	0.013
	Contents (2)	0.024	0.023	0.022	0.018	0.017
0900	Building (1)	0.084	0.076	0.068	0.055	0.052
	Contents (2)	0.090	0.081	0.076	0.067	0.062
0911	Building (1)	0.198	0.178	0.160	0.129	0.120
	Contents (2)	0.233	0.212	0.199	0.176	0.164
0912	Building (1)	0.262	0.235	0.210	0.170	0.158
	Contents (2)	0.323	0.291	0.275	0.243	0.227
0913	Building (1)	0.173	0.155	0.138	0.113	0.102
	Contents (2)	0.202	0.182	0.171	0.151	0.141
0921	Building (1)	0.102	0.093	0.083	0.067	0.061
	Contents (2)	0.123	0.110	0.104	0.092	0.087
0922	Building (1)	0.114	0.102	0.092	0.075	0.069
	Contents (2)	0.139	0.125	0.120	0.104	0.098
0923	Building (1)	0.077	0.069	0.061	0.048	0.045
	Contents (2)	0.083	0.075	0.070	0.061	0.056
0931	Building (1)	0.056	0.051	0.046	0.037	0.033
	Contents (2)	0.066	0.059	0.056	0.049	0.047
Territory					Territorial Multiplier	
Baltimore City					1.198	
Anne Arundel County					0.854	
Baltimore County Excl. Baltimore City					1.342	
Montgomery County					0.818	
Prince Georges County					2.571	
Balance of State (Maryland)					1.000	

0932 – 1070 – CSP CLASS CODES

CSP Class Codes And Description						
0932	Gasoline Service Stations					
0933	Motor Vehicle and Aircraft Repair, with or without Sales					
0934	Tire Recapping and Vulcanizing, with or without Sales					
0940	Aircraft Hangars without Repair					
0951	Gambling Casinos with Limited Cooking Restaurants					
0952	Gambling Casinos without Restaurants					
1000	Penal Institutions					
1051	Museums, Libraries, Art Galleries (Non-Profit)					
1052	Schools, Academic					
1070	Fire Departments, Police, Sewage, Water Works and Other Public Buildings					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
0932	Building (1)	0.079	0.072	0.063	0.052	0.048
	Contents (2)	0.099	0.089	0.084	0.074	0.069
0933	Building (1)	0.067	0.061	0.054	0.046	0.040
	Contents (2)	0.085	0.077	0.074	0.063	0.060
0934	Building (1)	0.089	0.079	0.071	0.058	0.053
	Contents (2)	0.106	0.094	0.089	0.078	0.074
0940	Building (1)	0.044	0.039	0.035	0.028	0.026
	Contents (2)	0.053	0.047	0.046	0.040	0.037
0951	Building (1)	0.268	0.242	0.216	0.175	0.161
	Contents (2)	0.296	0.266	0.251	0.223	0.208
0952	Building (1)	0.091	0.081	0.072	0.059	0.054
	Contents (2)	0.130	0.117	0.110	0.097	0.091
1000	Building (1)	0.045	0.039	0.036	0.028	0.026
	Contents (2)	0.039	0.035	0.033	0.028	0.026
1051	Building (1)	0.026	0.024	0.021	0.017	0.016
	Contents (2)	0.036	0.033	0.030	0.026	0.024
1052	Building (1)	0.051	0.045	0.040	0.033	0.031
	Contents (2)	0.059	0.052	0.049	0.044	0.040
1070	Building (1)	0.043	0.039	0.035	0.026	0.025
	Contents (2)	0.051	0.046	0.044	0.039	0.036
<b>Territory</b>					<b>Territorial Multiplier</b>	
Baltimore City					1.198	
Anne Arundel County					0.854	
Baltimore County Excl. Baltimore City					1.342	
Montgomery County					0.818	
Prince Georges County					2.571	
Balance of State (Maryland)					1.000	

1150 – 1650 – CSP CLASS CODES

CSP Class Codes And Description						
1150	Builders' Risk					
1180	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, 0742-0747, 0833, 0834, 0841, 0843, 0844, 0846, 0900, 0951, 0952, 1051 or 1052.					
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					
1400	Waste and Reclaimed Materials Including Yards					
1650	Building Supply Yards, Including Retail Lumberyards, Coal and Coke Yards					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
1150	Building (1)	0.051	0.046	0.041	0.033	0.031
1211	Building (1)	0.101	0.092	0.082	0.067	0.061
	Contents (2)	0.121	0.108	0.101	0.091	0.084
1212	Building (1)	0.082	0.072	0.064	0.053	0.049
	Contents (2)	0.099	0.090	0.084	0.075	0.069
1213	Building (1)	0.071	0.064	0.058	0.047	0.044
	Contents (2)	0.094	0.086	0.082	0.071	0.067
1220	Building (1)	0.086	0.077	0.068	0.056	0.052
	Contents (2)	0.104	0.094	0.089	0.078	0.072
1230	Building (1)	0.074	0.067	0.060	0.048	0.045
	Contents (2)	0.100	0.091	0.086	0.075	0.070
1400	Building (1)	0.221	0.199	0.176	0.144	0.133
	Contents (2)	0.268	0.242	0.228	0.202	0.189
	Yard	0.335		0.033		
1650	Building (1)	0.132	0.118	0.105	0.086	0.078
	Contents (2)	0.167	0.150	0.141	0.127	0.117
	Yard	0.092		0.012		
<b>Territory</b>					<b>Territorial Multiplier</b>	
Baltimore City					1.198	
Anne Arundel County					0.854	
Baltimore County Excl. Baltimore City					1.342	
Montgomery County					0.818	
Prince Georges County					2.571	
Balance of State (Maryland)					1.000	

1700 – 4809 – CSP CLASS CODES

CSP Class Codes And Description						
<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>2350</b>	Beverage Bottlers Excluding Alcoholic Beverages					
<b>2459</b>	Distilleries and Wineries					
<b>2800</b>	Textile Mill Products					
<b>3409</b>	Leather and Leather Products					
<b>4809</b>	Printing					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
1700	Building (1)	0.107	0.097	0.086	0.070	0.064
	Contents (2)	0.163	0.147	0.139	0.123	0.115
	Yard	0.091		0.010		
1751	Building (1)	0.069	0.062	0.056	0.045	0.043
	Contents (2)	0.091	0.082	0.077	0.068	0.063
1752	Building (1)	0.064	0.060	0.053	0.043	0.039
	Contents (2)	0.064	0.059	0.055	0.048	0.045
2200	Building (1)	0.232	0.210	0.186	0.153	0.139
	Contents (2)	0.277	0.248	0.235	0.208	0.194
2350	Building (1)	0.150	0.135	0.121	0.098	0.090
	Contents (2)	0.178	0.160	0.150	0.132	0.125
2459	Building (1)	0.098	0.087	0.078	0.062	0.058
	Contents (2)	0.125	0.112	0.107	0.095	0.087
2800	Building (1)	0.260	0.236	0.210	0.169	0.158
	Contents (2)	0.344	0.308	0.291	0.256	0.242
3409	Building (1)	0.148	0.133	0.118	0.097	0.089
	Contents (2)	0.173	0.154	0.145	0.129	0.118
4809	Building (1)	0.113	0.102	0.091	0.074	0.069
	Contents (2)	0.138	0.125	0.117	0.104	0.097
<b>Territory</b>					<b>Territorial Multiplier</b>	
Baltimore City					1.198	
Anne Arundel County					0.854	
Baltimore County Excl. Baltimore City					1.342	
Montgomery County					0.818	
Prince Georges County					2.571	
Balance of State (Maryland)					1.000	

MARYLAND  
COMMERCIAL PROPERTY  
LOSS COST LEVEL REVIEW  
ACTUARIAL ANALYSIS SUPPLEMENT

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PURPOSE

This document provides discussion and analysis of changes in the experience and adjustments used to derive the advisory prospective loss cost level indications.

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MONOLINE  
INDICATIONS

The indicated statewide monoline changes are:

<u>Subline</u>	<u>Current Review</u>		<u>Prior Review*</u>
	<u>Indicated</u>	<u>Selected**</u>	
Basic Group I	7.0%	4.6%	-2.1%
Basic Group II	8.2%	8.2%	-1.3%
Special Causes of Loss	5.9%	5.9%	7.7%
All Coverages Combined	6.8%	5.6%	1.3%

\* The prior filing cited in this document refers to the 2018 loss cost level analysis.

\*\* The indicated changes were capped in order to moderate loss cost level swings.

The prior review's indications were not filed. There has been a change in the Implicit Package Modification Factors since the prior review.

Given below is a brief discussion and comparison of the multistate factors (premium and loss trend, loss adjustment expense, and loss development) used in the current and prior reviews. The discussion is followed by a state specific analysis by subline and a list of events occurring during the experience period in this state that have been identified as catastrophes by ISO's Property Claims Services.

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DATA QUALITY

Statistical plan data reported to ISO is first processed through a system of rigorous automated data verification processes so that only valid data is used for ratemaking. Subsequent to this initial data submission review, additional analyses 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, corrected or adjusted. Specifically, an on-leveling approach was used to determine aggregate loss costs at current level rather than the extension-of-exposures method for some reported exposures, and various loss cost multipliers have been adjusted prior to their use in the calculations. The ISO staff responsible for this loss cost review also reviewed the data for reasonableness.

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LOSS  
ADJUSTMENT  
EXPENSE/LOSS  
DEVELOPMENT  
FACTORS

Loss adjustment expense factors have changed since the previous review, from 1.100 in the prior review to 1.090 in the current review for BG I and from 1.125 to 1.110 for BG II and SCL. Loss development factors changed slightly but are still relatively close to unity for all sublines and years.

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LOSS TREND  
FACTORS

Given below is a comparison of the external trend factors, loss trend adjustments (LTAs) and total loss trend factors for the current and prior reviews.

External Trend

The prospective annual rates of change based on the external indices (Xactware for Buildings, PPI for Contents, and IMSEP/RSALLES for Time Element) for the current and prior year reviews are:

<u>Coverage</u>	<u>Current Review</u>	<u>Prior Review</u>	<u>Change</u>
Buildings	3.6%	2.3%	1.3%
Contents	1.8%	0.9%	0.9%
Time Element	-0.2%	-0.6%	0.4%

Loss Trend Adjustments (LTAs)

The loss trend adjustment factors underlying the current and prior reviews are:

<u>Subline</u>	<u>Current Review</u>			<u>Prior Review</u>		
	<u>Bldg.</u>	<u>Cnts.</u>	<u>TE</u>	<u>Bldg.</u>	<u>Cnts.</u>	<u>TE</u>
Basic Group I	1.2%	1.5%	2.4%	-0.4%	0.5%	2.5%
Basic Group II	-0.4%	0.6%	2.6%	0.5%	0.8%	2.2%
Special Causes of Loss	0.2%	-1.0%	2.4%	0.3%	0.5%	2.5%

Total Annual Loss Trend

The prospective total annual loss trend factors are given below and are calculated as the product of the external trend factors and loss trend adjustment factors.

<u>Subline</u>	<u>Current Review</u>			<u>Prior Review</u>		
	<u>Bldg.</u>	<u>Cnts.</u>	<u>TE</u>	<u>Bldg.</u>	<u>Cnts.</u>	<u>TE</u>
Basic Group I	4.8%	3.3%	2.2%	1.9%	1.4%	1.9%
Basic Group II	3.2%	2.4%	2.4%	2.8%	1.7%	1.6%
Special Causes of Loss	3.8%	0.8%	2.2%	2.6%	1.4%	1.9%

CHANGE IN  
AVERAGE LOSS  
TREND

The changes in average loss trend from current year to prior year are:

<u>Subline</u>	<u>Change in Average Trend</u>
Basic Group I	10.4%
Basic Group II	0.6%
Special Causes of Loss	2.4%

Average loss trend is calculated as a weighted average of the total loss trend from the midpoint of the experience year to one year past the assumed effective date for each year in the experience period based on the statewide loss cost level review year weights (.10, .15, .20, .25, .30 for BG I and SCL, and 0.10 for all years for BG II). Total loss trend includes the effect of Current Cost Factors to bring losses to the latest level of external cost information, Loss Projection Factors to project from the external cost level to one year past the assumed effective date, and Loss Trend Adjustment factors over the entire trend period.

PREMIUM TREND  
FACTORS

The prospective annual premium trend factors, based on annual changes in amounts of insurance written, for the current and prior reviews are:

<u>Subline</u>	<u>Current Review</u>			<u>Prior Review</u>		
	<u>Bldg.</u>	<u>Cnts.</u>	<u>TE</u>	<u>Bldg.</u>	<u>Cnts.</u>	<u>TE</u>
Basic Group I	1.9%	1.8%	1.0%	1.6%	1.4%	1.0%
Basic Group II	1.8%	1.6%	1.0%	1.5%	1.3%	1.0%
Special Causes of Loss	1.8%	1.4%	1.0%	1.5%	1.1%	1.0%

NET TREND

The prospective annual net (loss ÷ premium) trend factors for the current and prior year reviews are:

<u>Subline</u>	<u>Current Review</u>			<u>Prior Review</u>		
	<u>Bldg.</u>	<u>Cnts.</u>	<u>TE</u>	<u>Bldg.</u>	<u>Cnts.</u>	<u>TE</u>
Basic Group I	2.9%	1.5%	1.2%	0.6%	0.8%	2.5%
Basic Group II	1.4%	0.8%	1.4%	0.8%	0.9%	2.6%
Special Causes of Loss	2.0%	-0.6%	1.2%	1.0%	0.0%	2.5%

BASIC GROUP I

The statewide five year weighted average experience ratio, before credibility weighting, increased by 17.3%, from 1.064 in the prior review to 1.248 in the current review. The increase is due to lower-than-average experience ratios of 0.622 and 0.799 for 2012 and 2014, respectively, exiting the experience period, and a higher-than-average experience ratio of 1.445 for 2019 entering the experience period. The monoline relativity increased by 1.9%, due to a higher-than-overall monoline experience of 1.823 for 2019 entering the experience period.

Statewide Loss Cost Level Review

	<u>Current Review</u>	<u>Prior Review</u>	<u>Ratio</u>
Weighted Experience Ratio	1.248	1.064	1.173
Credibility	0.330	0.338	0.976
Expected Experience Ratio	1.024	0.999	1.025
Coverage Change	1.098	1.021	1.075
Monoline Relativity	0.974	0.956	1.019
Monoline Change	1.070	0.979	1.093

BASIC GROUP II

The statewide ten year weighted average experience ratio, before credibility weighting, increased by 11.8%, from 1.034 in the prior review to 1.156 in the current review. The increase is due to lower-than-average experience ratios of 0.492 and 0.967 for 2007 and 2009, respectively, exiting the experience period, and higher-than-average experience ratios of 1.173, 1.571 and 1.224 for 2017, 2018 and 2019 entering the experience period. The monoline relativity increased by 1.6%. The increase is due to lower-than-overall monoline experience ratios for 2007 and 2009 leaving the experience period and was partially offset by lower-than-overall monoline experience ratios for 2018 and 2019 entering the experience period.

Statewide Loss Cost Level Review

	<u>Current Review</u>	<u>Prior Review</u>	<u>Ratio</u>
Weighted Experience Ratio	1.156	1.034	1.118
Credibility	0.479	0.473	1.013
Expected Experience Ratio	1.013	1.006	1.007
Coverage Change	1.081	1.019	1.061
Monoline Relativity	1.018	1.002	1.016
Monoline Change	1.100	1.021	1.077
Monoline Change incl. Hurricane	1.082	0.987	1.096

SPECIAL CAUSES  
OF LOSS

The statewide five year weighted average experience ratio, before credibility weighting, increased by 16.1%, from 0.961 in the prior review to 1.116 in the current review. The increase is due to lower-than-average experience ratios of 0.839 and 0.742 for 2012 and 2013, respectively, exiting the experience period and higher-than-average experience ratios of 1.206 and 1.185 for 2018 and 2019 entering the experience period. The monoline relativity decreased by 6.6%, due to a lower-than-overall monoline experience of 0.714 for 2019 entering the experience period.

Statewide Loss Cost Level Review

	<u>Current Review</u>	<u>Prior Review</u>	<u>Ratio</u>
Weighted Experience Ratio	1.116	0.961	1.161
Credibility	0.318	0.353	0.901
Expected Experience Ratio	1.008	1.002	1.006
Coverage Change	1.042	0.988	1.055
Monoline Relativity	1.016	1.088	0.934
Monoline Change	1.059	1.077	0.985

PROPERTY  
CLAIMS SERVICES  
INFORMATION

The following events have been identified by Property Claims Services as catastrophes occurring in this state from 1/1/1990 through 12/31/2020.

<u>Date From</u>	<u>Date To</u>	<u>Perils</u>
10/18/1990	10/19/1990	Wind, Hail, Tornadoes, Flooding
7/7/1991	7/8/1991	Wind, Hail, Tornadoes, Flooding
3/4/1993	3/5/1993	Wind, Flooding, Ice, Snow
3/11/1993	3/14/1993	Wind, Hail, Tornadoes, Freezing, Ice, Snow
9/27/1993	9/27/1993	Wind, Hail, Tornadoes
1/17/1994	1/20/1994	Wind, Snow, Ice, Freezing
2/10/1994	2/12/1994	Wind, Snow, Ice, Freezing, Flooding
3/1/1994	3/3/1994	Wind, Snow, Ice, Freezing, Flooding
7/26/1994	7/28/1994	Wind, Hail, Tornadoes, Flooding
5/16/1995	5/19/1995	Wind, Hail, Tornadoes, Flooding
11/11/1995	11/12/1995	Wind, Hail, Tornadoes
1/6/1996	1/9/1996	Wind, Snow, Ice, Freezing, Flooding
1/17/1996	1/20/1996	Wind, Snow, Hail, Tornadoes, Flooding
1/31/1996	2/6/1996	Wind, Snow, Ice, Tornadoes, Flooding
6/24/1996	6/24/1996	Wind, Hail, Tornadoes, Flooding
9/5/1996	9/8/1996	Hurricane Fran - Wind, Tornadoes, Flooding
2/2/1998	2/5/1998	Hail, Snow, Wind, Flooding, Tornadoes
6/2/1998	6/2/1998	Hail, Wind, Flooding, Tornadoes
6/11/1998	6/15/1998	Hail, Wind, Flooding, Tornadoes
9/6/1998	9/8/1998	Hail, Wind, Flooding, Tornadoes
1/1/1999	1/4/1999	Hail, Snow, Wind, Flooding, Freezing
1/13/1999	1/16/1999	Ice, Hail, Snow, Wind, Flooding, Freezing
4/23/1999	4/25/1999	Hail, Wind, Tornadoes
9/14/1999	9/17/1999	Hurricane Floyd - Wind, Flooding, Tornadoes
5/12/2000	5/14/2000	Hail, Wind, Flooding, Tornadoes
9/24/2001	9/24/2001	Hail, Wind, Tornadoes
4/27/2002	5/3/2002	Flooding, Hail, Tornadoes, Wind
8/2/2002	8/3/2002	Flooding, Hail, Tornadoes, Wind
1/13/2003	1/25/2003	Freezing, Ice, Snow, Wind
2/14/2003	2/18/2003	Flooding, Freezing, Ice, Snow, Wind
2/21/2003	2/23/2003	Flooding, Hail, Tornadoes, Wind
9/18/2003	9/19/2003	Hurricane Isabel - Flooding, Wind
11/12/2003	11/14/2003	Flooding, Hail, Tornadoes, Wind
7/12/2004	7/14/2004	Flooding, Hail, Tornadoes, Wind
8/9/2004	8/12/2004	Flooding, Hail, Tornadoes, Wind
9/15/2004	9/21/2004	Hurricane Ivan - Flooding, Tornadoes, Wind
9/15/2004	9/29/2004	Hurricane Jeanne - Flooding, Tornadoes, Wind
10/7/2005	10/15/2005	Flooding, Wind
6/25/2006	6/28/2006	Flooding, Wind
8/29/2006	9/3/2006	Tropical Storm Ernesto - Flooding, Tornadoes, Wind
4/13/2007	4/17/2007	Flooding, Hail, Tornadoes, Wind
5/10/2008	5/12/2008	Flooding, Hail, Tornadoes, Wind
6/2/2008	6/4/2008	Flooding, Hail, Tornadoes, Wind
2/10/2009	2/13/2009	Flooding, Hail, Tornadoes, Wind
11/11/2009	11/14/2009	Flooding, Wind
2/4/2010	2/6/2010	Ice, Snow, Wind
2/9/2010	2/11/2010	Ice, Snow, Wind
5/12/2010	5/16/2010	Flooding, Hail, Tornadoes, Wind
7/20/2010	7/25/2010	Flooding, Hail, Tornadoes, Wind
8/8/2010	8/12/2010	Flooding, Hail, Wind
9/29/2010	10/1/2010	Flooding, Tornadoes, Wind

2/24/2011	2/25/2011	Flooding, Hail, Tornadoes, Wind
3/8/2011	3/11/2011	Flooding, Hail, Tornadoes, Wind
8/26/2011	8/28/2011	Hurricane Irene - Flooding, Tornadoes, Wind
9/3/2011	9/9/2011	Flooding, Tornadoes, Wind
6/28/2012	7/2/2012	Flooding, Hail, Tornadoes, Wind
9/7/2012	9/8/2012	Flooding, Hail, Tornadoes, Wind
10/28/2012	10/31/2012	Hurricane Sandy - Flooding, Snow, Wind
6/12/2013	6/14/2013	Flooding, Hail, Wind
1/5/2014	1/8/2014	Freezing, Ice, Snow, Wind
2/4/2014	2/6/2014	Flooding, Freezing, Ice, Snow, Wind
4/27/2014	5/1/2014	Flooding, Hail, Tornadoes, Wind
8/11/2014	8/13/2014	Flooding, Wind
2/14/2015	2/15/2015	Freezing, Ice, Snow, Wind
2/16/2015	2/22/2015	Freezing, Ice, Snow, Wind
4/27/2015	4/28/2015	Riot; Civil Disorder
6/21/2015	6/25/2015	Flooding, Hail, Tornadoes, Wind
10/2/2015	10/6/2015	Flooding, Wind
1/22/2016	1/24/2016	Flooding, Freezing, Ice, Snow, Wind
2/13/2016	2/15/2016	Freezing, Ice, Snow, Wind
2/22/2016	2/25/2016	Flooding, Hail, Tornadoes, Wind
4/2/2016	4/3/2016	Hail, Wind
4/29/2016	5/3/2016	Flooding, Hail, Tornadoes, Wind
7/30/2016	8/1/2016	Flooding, Hail, Wind
8/31/2016	9/4/2016	Flooding, Hurricane, Tornadoes, Tropical Storm, Wind
2/28/2017	3/2/2017	Flooding, Hail, Tornadoes, Wind
4/4/2017	4/6/2017	Flooding, Hail, Tornadoes, Wind
1/3/2018	1/6/2018	Flood, Freezing, Ice, Snow, Wind
3/1/2018	3/3/2018	Flooding, Ice, Snow, Wind
4/13/2018	4/17/2018	Flooding, Hail, Ice, Snow, Tornadoes, Wind
5/12/2018	5/16/2018	Flooding, Hail, Tornadoes, Wind
5/27/2018	5/28/2018	Flooding, Wind
7/21/2018	7/26/2018	Flooding, Wind
8/11/2018	8/14/2018	Flooding, Hail, Wind
10/10/2018	10/12/2018	Flooding, Hail, Tornadoes, Wind
11/14/2018	11/16/2018	Flooding, Freezing, Ice, Snow, Wind
2/23/2019	2/26/2019	Flooding, Freezing, Hail, Ice, Snow, Tornadoes, Wind
7/7/2019	7/8/2019	Flooding, Wind
7/10/2019	7/18/2019	Flooding, Hurricane, Tornadoes, Tropical Storm, Wind
10/16/2019	10/17/2019	Flooding, Wind
10/31/2019	11/1/2019	Flooding, Tornadoes, Wind
5/2/2020	5/3/2020	Flooding, Hail, Wind
5/4/2020	5/5/2020	Flooding, Hail, Tornadoes, Wind
8/18/2020	10/12/2020	Fire
9/8/2020	10/3/2020	Fire
10/7/2020	10/8/2020	Flooding, Wind
11/30/2020	12/1/2020	Flooding, Tornadoes, Wind

PROPERTY  
CLAIMS SERVICES  
INFORMATION  
(cont'd)

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 above 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 Catastrophe Claims Services, please see "Persons to Contact" in the circular cover letter.

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## MARYLAND

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

RATING GROUP	DESCRIPTION	Baltimore City	Anne Arundel County	Baltimore County Excl. Baltimore City	Montgomery County	Prince George's County	Balance of State
01	APARTMENTS	31.5%	17.1%	-21.7%	33.0%	36.0%	33.6%
02	OTHER HABITATIONAL	-35.6%	-42.6%	-61.7%	-34.9%	-33.4%	-34.6%
03	RESTAURANTS & BARS	13.4%	1.0%	-32.5%	14.7%	17.2%	15.2%
04	OTHER MERCANTILE RISKS	25.7%	12.0%	-25.2%	27.2%	30.0%	27.8%
05	PUBLIC BUILDINGS	15.2%	2.6%	-31.4%	16.5%	19.1%	17.0%
06	CHURCHES	11.1%	-1.0%	-33.8%	12.4%	14.9%	12.9%
07	SCHOOLS	14.5%	2.0%	-31.8%	15.8%	18.4%	16.3%
08	OFFICES AND BANKS	15.7%	3.1%	-31.1%	17.1%	19.7%	17.6%
09	RECREATIONAL FACILITIES	17.6%	4.8%	-30.0%	19.0%	21.7%	19.5%
10	HOTELS & MOTELS	12.8%	0.5%	-32.8%	14.1%	16.7%	14.6%
11	HOSPITALS & NURSING HOMES	15.7%	3.1%	-31.1%	17.1%	19.7%	17.6%
12	BLDGS UNDER CONSTRUCTION	17.9%	5.0%	-29.8%	19.2%	21.9%	19.8%
13	MOTOR VEHICLE RISKS	14.9%	2.4%	-31.6%	16.3%	18.9%	16.8%
14	OTHER NON-MANUFACTURING	17.9%	5.0%	-29.8%	19.2%	21.9%	19.8%
15	STORAGE	11.4%	-0.8%	-33.7%	12.6%	15.2%	13.1%
17	FOOD MANUFACTURING	15.4%	2.8%	-31.3%	16.7%	19.3%	17.3%
18	WOOD MANUFACTURING	14.9%	2.4%	-31.6%	16.3%	18.9%	16.8%
19	WEARING APPAREL	14.8%	2.3%	-31.6%	16.1%	18.8%	16.7%
20	CHEMICAL MANUFACTURING	14.3%	1.8%	-32.0%	15.6%	18.2%	16.1%
21	METAL MANUFACTURING	13.8%	1.4%	-32.2%	15.1%	17.7%	15.7%
22	OTHER MANUFACTURING	14.3%	1.8%	-32.0%	15.6%	18.2%	16.1%
	TOTAL	15.8%	3.2%	-32.6%	11.9%	10.0%	17.6%

(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.

MARYLAND  
BASIC GROUP I RELATIVITY ANALYSIS

TOP	(1) \$ LST SQ FORMULA RELATIVITY	(2) CREDIBILITY Z	(3) CREDIBILITY WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	STATEWIDE COVERAGE LOSS COST CHANGE OF OR	1.098 9.8%
-----	-----	-----	-----	-----	-----	
10	0.618	0.064	0.970	0.970		
31	0.995	0.026	1.000	1.000		
32	0.986	0.360	0.995	0.996		
33	0.888	0.034	0.996	0.997		
34	1.245	0.170	1.038	1.039		
35	0.796	0.154	0.965	0.966		
36	1.237	0.117	1.025	1.026		
37	1.075	0.071	1.005	1.006		
38	0.700	0.033	0.988	0.989		
RATING GROUP					(5) INDICATED MONOLINE LOSS COST LEVEL CHANGE	
01	1.339	0.458	1.143	1.170	25.4%	
02	0.210	0.372	0.560	0.573	-37.8%	
03	0.917	0.161	0.986	1.009	5.7%	
04	1.385	0.274	1.093	1.119	18.5%	
05	1.114	0.015	1.002	1.025	14.2%	
06	0.860	0.225	0.967	0.989	4.8%	
07	0.936	0.067	0.996	1.019	7.5%	
08	1.035	0.178	1.006	1.030	7.3%	
09	1.201	0.126	1.023	1.047	10.9%	
10	0.749	0.065	0.981	1.004	11.1%	
11	1.249	0.027	1.006	1.030	9.1%	
13	0.999	0.106	1.000	1.023	7.6%	
14	1.336	0.084	1.025	1.049	13.0%	
15	0.627	0.070	0.968	0.991	6.1%	
17	1.118	0.027	1.003	1.027	7.4%	
18	0.970	0.025	0.999	1.023	6.9%	
19	0.852	0.008	0.999	1.022	12.1%	
21	0.819	0.052	0.990	1.013	1.5%	
22	0.890	0.058	0.993	1.017	4.4%	

STATEWIDE MONOLINE LOSS COST LEVEL CHANGE: 6.4%

MARYLAND  
BASIC GROUP I RELATIVITY ANALYSIS

EXAMPLE OF AN INDIVIDUAL LOSS COST CHANGE CALCULATION  
FOR BALTIMORE CITY

STATEWIDE COVERAGE LOSS COST LEVEL CHANGE	=	1.098
TERRITORIAL RELATIVITY	=	1.055
MONOLINE (TOP 10) RELATIVITY	=	0.970
RATING GROUP 01 RELATIVITY	=	1.170

INDICATED MONOLINE LOSS COSTS LEVEL CHANGE FOR RATING GROUP 01		
= 1.098 X 1.055 X 0.970 X 1.170	=	1.315
	OR	31.5%

MARYLAND  
BASIC GROUP I RELATIVITY ANALYSIS

TERRITORY	(1) \$ LST SQ FORMULA RELATIVITY	(2) CREDIBILITY Z	(3) CREDIBILITY WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	(5) INDICATED MONOLINE LOSS COST LEVEL CHANGE
Baltimore City	1.202	0.224	1.042	1.055	12.4%
Anne Arundel County	0.581	0.135	0.929	0.940	0.1%
Baltimore County Excl. Baltimore City	0.156	0.257	0.620	0.628	-33.1%
Montgomery County	1.352	0.177	1.055	1.067	13.6%
Prince George's County	1.221	0.377	1.078	1.091	16.2%
Balance of State	1.140	0.442	1.060	1.072	14.2%

TERRITORY	(1) TERRITORY RELATIVITY	(2) OFF- BALANCE FACTOR	(3) CURRENT TERRITORIAL MULTIPLIER	(4) REVISED TERRITORIAL MULTIPLIER
Baltimore City	1.055	1.000	1.198	1.179
Anne Arundel County	0.940	1.000	0.943	0.827
Baltimore County Excl. Baltimore City	0.628	1.000	1.816	1.064
Montgomery County	1.067	1.000	0.848	0.844
Prince George's County	1.091	1.000	3.035	3.089
Balance of State	1.072	1.000	1.000	1.000

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
Baltimore City						
10 MONOLINE	01 APARTMENTS	9,336	86,402	0.000	1.150	0.945
	02 OTHER HABITATIONAL	4,110	20,899	7.789	2.539	2.086
	03 RESTAURANTS & BARS	6,981	19,715	5.007	2.044	1.680
	04 OTHER MERCANTILE RS	33,511	125,838	5.487	2.153	1.769
	05 PUBLIC BUILDINGS	0	293	0.000	1.157	0.951
	06 CHURCHES	1,768	14,122	0.000	1.156	0.950
	07 SCHOOLS	989	5,527	4.441	1.941	1.595
	08 OFFICES AND BANKS	22,059	109,463	0.014	1.151	0.946
	09 REC. FACILITIES	8,619	26,646	0.000	1.155	0.949
	11 HOSPITALS/NURS HOME	401	2,050	0.000	1.157	0.951
	13 MOTOR VEHICLE RISKS	8,060	46,158	0.000	1.153	0.947
	14 OTHER NON-MANUF.	20,226	121,172	0.785	1.291	1.061
	15 STORAGE	5,788	69,289	0.000	1.151	0.946
	17 FOOD MANUFACTURING	9,522	43,637	0.000	1.153	0.947
	18 WOOD MANUFACTURING	63	12,709	0.000	1.156	0.950
	21 METAL MANUFACTURING	8,945	43,757	0.000	1.153	0.947
	22 OTHER MANUFACTURING	2,189	16,445	0.000	1.155	0.949
	TOTAL	142,567	764,122	1.904	1.496	1.229
31 MULTILINE	10 HOTELS AND MOTELS	34,568	122,856	0.000	1.535	1.261
MOTEL/HOTEL	TOTAL	34,568	122,856	0.000	1.535	1.261
32 MULTILINE	01 APARTMENTS	656,739	4,730,145	1.357	1.732	1.423
APARTMENT	02 OTHER HABITATIONAL	209,922	1,145,507	2.009	1.856	1.525
	TOTAL	866,661	5,875,652	1.515	1.762	1.448

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
33 MULTILINE OFFICE	08 OFFICES AND BANKS TOTAL	<u>46,745</u> 46,745	<u>327,603</u> 327,603	<u>0.592</u> 0.592	<u>1.627</u> 1.627	<u>1.337</u> 1.337
34 MULTILINE MERCANTILE	03 RESTAURANTS & BARS 04 OTHER MERCANTILE RS 08 OFFICES AND BANKS 13 MOTOR VEHICLE RISKS 14 OTHER NON-MANUF. 15 STORAGE TOTAL	<u>221,910</u> <u>245,956</u> 11,634 5,421 8,791 <u>47,493</u> 541,205	<u>1,172,955</u> <u>1,369,236</u> 52,851 32,802 46,566 <u>300,733</u> 2,975,143	1.127 4.293 0.000 2.309 0.461 <u>0.527</u> 2.490	1.707 2.246 1.536 1.902 1.609 <u>1.617</u> 1.941	1.403 1.846 1.262 1.563 1.322 <u>1.329</u> 1.595
35 MULTILINE INSTITUTIONAL	02 OTHER HABITATIONAL 05 PUBLIC BUILDINGS 06 CHURCHES 07 SCHOOLS 08 OFFICES AND BANKS 09 REC. FACILITIES 11 HOSPITALS/NURS HOME 13 MOTOR VEHICLE RISKS 14 OTHER NON-MANUF. TOTAL	920 9,991 <u>295,619</u> 63,154 73,464 14,153 25,511 412 <u>25,193</u> 508,417	8,171 61,446 <u>1,846,671</u> 388,651 329,572 96,528 112,467 3,154 <u>113,909</u> 2,960,569	6.302 0.391 2.519 0.000 0.039 1.203 9.236 0.000 <u>1.034</u> 2.038	2.532 1.598 1.946 1.530 1.538 1.726 3.003 1.537 <u>1.699</u> 1.864	2.081 1.313 1.599 1.257 1.264 1.418 2.468 1.263 <u>1.396</u> 1.532
36 MULTILINE SERVICES	03 RESTAURANTS & BARS 04 OTHER MERCANTILE RS 08 OFFICES AND BANKS 09 REC. FACILITIES 13 MOTOR VEHICLE RISKS 14 OTHER NON-MANUF. 15 STORAGE 21 METAL MANUFACTURING 22 OTHER MANUFACTURING TOTAL	5,735 9,645 25,171 35,494 53,464 22,326 10,037 2,797 <u>10,790</u> 175,459	78,711 54,004 122,560 266,537 280,880 142,518 97,695 17,376 <u>19,841</u> 1,080,122	0.167 0.000 0.158 0.010 0.070 0.000 13.137 0.000 <u>0.000</u> 0.803	1.072 1.050 1.071 1.048 1.056 1.048 2.855 1.050 <u>1.050</u> 1.158	0.881 0.863 0.880 0.861 0.868 0.861 2.346 0.863 <u>0.863</u> 0.952
37 MULTILINE INDUST/PROCESS	04 OTHER MERCANTILE RS 08 OFFICES AND BANKS 13 MOTOR VEHICLE RISKS 14 OTHER NON-MANUF. 15 STORAGE 17 FOOD MANUFACTURING 18 WOOD MANUFACTURING 19 WEARING APPAREL 21 METAL MANUFACTURING 22 OTHER MANUFACTURING TOTAL	2,333 11,788 761 760 4,247 53,439 28,724 26,711 87,152 <u>31,509</u> 247,424	46,538 38,556 1,609 9,397 59,406 221,904 234,289 121,501 515,117 <u>253,047</u> 1,501,364	0.000 0.000 0.000 0.000 0.554 8.652 0.000 0.132 0.000 <u>0.000</u> 1.892	1.050 1.050 1.050 1.050 1.126 2.249 1.047 1.067 1.043 <u>1.047</u> 1.309	0.863 0.863 0.863 0.863 0.925 1.848 0.860 0.877 0.857 <u>0.860</u> 1.075

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
38 MULTILINE	04 OTHER MERCANTILE RS	39,411	172,023	0.300	1.090	0.896
CONTRACTORS	08 OFFICES AND BANKS	20,277	91,951	1.296	1.227	1.008
	14 OTHER NON-MANUF.	<u>1,400</u>	<u>13,942</u>	<u>0.000</u>	<u>1.050</u>	<u>0.863</u>
	TOTAL	61,088	277,916	0.624	1.135	0.932
TOTAL ALL TOPS*	01 APARTMENTS	666,075	4,816,547	1.338	1.723	1.416
	02 OTHER HABITATIONAL	214,952	1,174,577	2.138	1.872	1.538
	03 RESTAURANTS & BARS	234,626	1,271,381	1.219	1.702	1.398
	04 OTHER MERCANTILE RS	330,856	1,767,639	3.783	2.056	1.689
	05 PUBLIC BUILDINGS	9,991	61,739	0.391	1.598	1.313
	06 CHURCHES	297,387	1,860,793	2.504	1.942	1.595
	07 SCHOOLS	64,143	394,178	0.068	1.537	1.262
	08 OFFICES AND BANKS	211,138	1,072,556	0.289	1.404	1.154
	09 REC. FACILITIES	58,266	389,711	0.298	1.229	1.009
	10 HOTELS AND MOTELS	34,568	122,856	0.000	1.535	1.261
	11 HOSPITALS/NURS HOME	25,912	114,517	9.093	2.975	2.444
	13 MOTOR VEHICLE RISKS	68,118	364,603	0.239	1.138	0.935
	14 OTHER NON-MANUF.	78,696	447,504	0.584	1.382	1.135
	15 STORAGE	67,565	527,123	2.357	1.730	1.422
	17 FOOD MANUFACTURING	62,961	265,541	7.344	2.083	1.712
	18 WOOD MANUFACTURING	28,787	246,998	0.000	1.047	0.861
	19 WEARING APPAREL	26,711	121,501	0.132	1.067	0.877
	21 METAL MANUFACTURING	98,894	576,250	0.000	1.053	0.865
	22 OTHER MANUFACTURING	<u>44,488</u>	<u>289,333</u>	<u>0.000</u>	<u>1.053</u>	<u>0.865</u>
	TOTAL	2,624,134	15,885,347	1.769	1.701	1.398

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
ANNE ARUNDEL COUNTY						
10 MONOLINE	01 APARTMENTS	1,854	13,915	0.000	0.233	0.191
	02 OTHER HABITATIONAL	6,583	34,918	3.138	0.801	0.658
	03 RESTAURANTS & BARS	8,043	51,221	0.000	0.226	0.186
	04 OTHER MERCANTILE RS	20,299	146,720	0.048	0.222	0.182
	05 PUBLIC BUILDINGS	509	4,951	0.000	0.235	0.193
	06 CHURCHES	520	3,395	0.000	0.235	0.193
	07 SCHOOLS	0	360	0.000	0.236	0.194
	08 OFFICES AND BANKS	13,395	59,400	0.133	0.251	0.206
	09 REC. FACILITIES	10,719	48,666	0.068	0.240	0.197
	10 HOTELS AND MOTELS	503	3,365	0.000	0.235	0.193
	11 HOSPITALS/NURS HOME	3,097	7,848	0.000	0.235	0.193
	13 MOTOR VEHICLE RISKS	3,734	22,042	0.052	0.241	0.198
	14 OTHER NON-MANUF.	3,370	28,143	0.028	0.236	0.194
	15 STORAGE	4,312	24,058	0.088	0.247	0.203
	17 FOOD MANUFACTURING	0	291	0.000	0.236	0.194
	18 WOOD MANUFACTURING	3,922	7,653	0.000	0.235	0.193
	19 WEARING APPAREL	0	220	0.000	0.236	0.194
	21 METAL MANUFACTURING	2,626	11,342	0.000	0.234	0.192
	22 OTHER MANUFACTURING	<u>1,040</u>	<u>1,967</u>	<u>0.000</u>	<u>0.236</u>	<u>0.194</u>
	TOTAL	84,526	470,475	0.294	0.279	0.229
31 MULTILINE	10 HOTELS AND MOTELS	<u>77,162</u>	<u>320,145</u>	<u>8.295</u>	<u>3.872</u>	<u>3.182</u>
MOTEL/HOTEL	TOTAL	77,162	320,145	8.295	3.872	3.182
32 MULTILINE	01 APARTMENTS	559,431	2,078,951	0.791	0.889	0.730
APARTMENT	02 OTHER HABITATIONAL	<u>185,455</u>	<u>1,131,155</u>	<u>1.683</u>	<u>1.485</u>	<u>1.220</u>
	TOTAL	744,886	3,210,106	1.013	1.037	0.852
33 MULTILINE	08 OFFICES AND BANKS	<u>52,886</u>	<u>293,416</u>	<u>0.474</u>	<u>0.912</u>	<u>0.749</u>
OFFICE	TOTAL	52,886	293,416	0.474	0.912	0.749
34 MULTILINE	03 RESTAURANTS & BARS	133,173	719,190	0.174	0.644	0.529
MERCANTILE	04 OTHER MERCANTILE RS	143,664	754,524	0.079	0.584	0.480
	08 OFFICES AND BANKS	15,335	69,070	2.678	1.514	1.244
	13 MOTOR VEHICLE RISKS	11,859	41,591	0.000	0.920	0.756
	14 OTHER NON-MANUF.	4,000	16,158	0.697	1.076	0.884
	15 STORAGE	<u>11,257</u>	<u>42,360</u>	<u>15.550</u>	<u>4.196</u>	<u>3.448</u>
	TOTAL	319,288	1,642,893	0.794	0.800	0.657

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
35 MULTILINE	05 PUBLIC BUILDINGS	4,096	25,073	0.000	0.935	0.768
INSTITUTIONAL	06 CHURCHES	81,112	453,298	0.038	0.672	0.552
	07 SCHOOLS	36,896	186,602	0.371	0.920	0.756
	08 OFFICES AND BANKS	9,283	48,916	0.000	0.914	0.751
	09 REC. FACILITIES	9,318	26,732	0.000	0.934	0.767
	11 HOSPITALS/NURS HOME	28,357	111,062	0.000	0.861	0.707
	14 OTHER NON-MANUF.	17,106	93,303	0.000	0.876	0.720
	TOTAL	186,168	944,986	0.090	0.800	0.657
36 MULTILINE	03 RESTAURANTS & BARS	3,414	36,367	0.253	0.809	0.665
SERVICES	04 OTHER MERCANTILE RS	15,462	67,722	4.084	1.385	1.138
	08 OFFICES AND BANKS	19,434	55,308	2.303	1.114	0.915
	09 REC. FACILITIES	103,779	472,453	0.228	0.773	0.635
	13 MOTOR VEHICLE RISKS	55,888	251,556	1.621	1.028	0.845
	14 OTHER NON-MANUF.	31,008	136,152	1.897	1.063	0.873
	15 STORAGE	10,838	46,159	0.000	0.771	0.634
	21 METAL MANUFACTURING	2,107	7,884	0.000	0.775	0.637
	22 OTHER MANUFACTURING	2,143	11,310	1.590	1.004	0.825
	TOTAL	244,073	1,084,911	1.169	0.937	0.770
37 MULTILINE	04 OTHER MERCANTILE RS	1,174	7,849	0.000	0.775	0.637
INDUST/PROCESS	08 OFFICES AND BANKS	3,036	12,215	9.001	2.073	1.703
	14 OTHER NON-MANUF.	7,654	48,687	0.000	0.771	0.634
	15 STORAGE	2,432	19,575	0.000	0.774	0.636
	17 FOOD MANUFACTURING	6,231	20,581	0.000	0.774	0.636
	18 WOOD MANUFACTURING	5,536	50,874	0.000	0.770	0.633
	19 WEARING APPAREL	6,433	22,509	0.000	0.773	0.635
	21 METAL MANUFACTURING	14,548	102,500	0.088	0.779	0.640
	22 OTHER MANUFACTURING	10,918	94,451	0.524	0.846	0.695
	TOTAL	57,962	379,241	0.592	0.856	0.703
38 MULTILINE	04 OTHER MERCANTILE RS	22,284	119,190	0.568	0.852	0.700
CONTRACTORS	08 OFFICES AND BANKS	16,774	78,652	0.953	0.912	0.749
	14 OTHER NON-MANUF.	1,743	12,590	0.000	0.774	0.636
	TOTAL	40,801	210,432	0.702	0.873	0.717
TOTAL ALL TOPS*	01 APARTMENTS	561,285	2,092,866	0.788	0.887	0.729
	02 OTHER HABITATIONAL	192,038	1,166,073	1.733	1.462	1.201
	03 RESTAURANTS & BARS	144,630	806,778	0.166	0.625	0.513
	04 OTHER MERCANTILE RS	202,883	1,096,005	0.434	0.639	0.525
	05 PUBLIC BUILDINGS	4,605	30,024	0.000	0.858	0.705
	06 CHURCHES	81,632	456,693	0.038	0.669	0.550
	07 SCHOOLS	36,896	186,962	0.371	0.920	0.756
	08 OFFICES AND BANKS	130,143	616,977	1.199	0.972	0.799
	09 REC. FACILITIES	123,816	547,851	0.197	0.739	0.607
	10 HOTELS AND MOTELS	77,665	323,510	8.241	3.849	3.162
	11 HOSPITALS/NURS HOME	31,454	118,910	0.000	0.800	0.657
	13 MOTOR VEHICLE RISKS	71,481	315,189	1.270	0.969	0.796
	14 OTHER NON-MANUF.	64,881	335,033	0.951	0.929	0.764

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
15	STORAGE	28,839	132,152	6.083	2.030	1.668
17	FOOD MANUFACTURING	6,231	20,872	0.000	0.774	0.636
18	WOOD MANUFACTURING	9,458	58,527	0.000	0.548	0.450
19	WEARING APPAREL	6,433	22,729	0.000	0.773	0.635
21	METAL MANUFACTURING	19,281	121,726	0.066	0.704	0.579
22	OTHER MANUFACTURING	14,101	107,728	0.647	0.825	0.678
	TOTAL	1,807,752	8,556,605	1.141	1.030	0.846

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
BALTIMORE COUNTY EXCL. BALTIMORE CITY						
10 MONOLINE	01 APARTMENTS	5,872	16,209	2.013	0.605	0.497
	02 OTHER HABITATIONAL	6,116	25,341	0.060	0.225	0.185
	03 RESTAURANTS & BARS	19,818	56,539	0.085	0.222	0.182
	04 OTHER MERCANTILE RS	49,191	219,518	0.468	0.352	0.289
	05 PUBLIC BUILDINGS	0	401	0.000	0.223	0.183
	06 CHURCHES	7,402	27,444	0.000	0.212	0.174
	07 SCHOOLS	1,375	7,697	0.000	0.220	0.181
	08 OFFICES AND BANKS	27,083	146,780	0.016	0.178	0.146
	09 REC. FACILITIES	14,733	90,749	0.834	0.435	0.357
	11 HOSPITALS/NURS HOME	709	4,178	0.000	0.222	0.182
	13 MOTOR VEHICLE RISKS	10,259	39,173	0.097	0.229	0.188
	14 OTHER NON-MANUF.	11,016	77,647	0.000	0.193	0.159
	15 STORAGE	10,772	67,006	0.000	0.197	0.162
	17 FOOD MANUFACTURING	3,013	4,240	0.000	0.221	0.182
	18 WOOD MANUFACTURING	0	250	0.000	0.223	0.183
	19 WEARING APPAREL	2,057	3,876	0.000	0.222	0.182
	21 METAL MANUFACTURING	1,923	29,794	0.000	0.211	0.173
	22 OTHER MANUFACTURING	<u>2,960</u>	<u>17,438</u>	<u>0.000</u>	<u>0.216</u>	<u>0.177</u>
	TOTAL	174,299	834,280	0.290	0.279	0.229
31 MULTILINE	10 HOTELS AND MOTELS	<u>25,304</u>	<u>228,323</u>	<u>0.166</u>	<u>0.259</u>	<u>0.213</u>
MOTEL/HOTEL	TOTAL	25,304	228,323	0.166	0.259	0.213
32 MULTILINE	01 APARTMENTS	956,273	4,043,571	0.167	0.200	0.164
APARTMENT	02 OTHER HABITATIONAL	<u>494,672</u>	<u>3,434,545</u>	<u>0.482</u>	<u>0.426</u>	<u>0.350</u>
	TOTAL	1,450,945	7,478,116	0.274	0.277	0.227
33 MULTILINE	08 OFFICES AND BANKS	<u>150,520</u>	<u>788,279</u>	<u>0.137</u>	<u>0.227</u>	<u>0.187</u>
OFFICE	TOTAL	150,520	788,279	0.137	0.227	0.187
34 MULTILINE	03 RESTAURANTS & BARS	193,552	1,052,642	0.176	0.237	0.195
MERCANTILE	04 OTHER MERCANTILE RS	288,809	1,586,133	0.099	0.186	0.153
	08 OFFICES AND BANKS	44,870	184,568	0.000	0.222	0.182
	13 MOTOR VEHICLE RISKS	32,930	93,390	0.000	0.233	0.191
	14 OTHER NON-MANUF.	8,645	42,452	0.000	0.239	0.196
	15 STORAGE	<u>31,715</u>	<u>181,946</u>	<u>0.000</u>	<u>0.223</u>	<u>0.183</u>
	TOTAL	600,521	3,141,131	0.104	0.210	0.173

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
35 MULTILINE	02 OTHER HABITATIONAL	11,491	58,063	0.000	0.237	0.195
INSTITUTIONAL	05 PUBLIC BUILDINGS	3,622	18,560	0.000	0.242	0.199
	06 CHURCHES	332,359	1,818,617	0.507	0.415	0.341
	07 SCHOOLS	93,764	300,223	0.259	0.282	0.232
	08 OFFICES AND BANKS	27,076	114,214	2.234	0.692	0.569
	09 REC. FACILITIES	21,130	71,925	0.017	0.238	0.196
	11 HOSPITALS/NURS HOME	30,791	136,059	0.376	0.309	0.254
	13 MOTOR VEHICLE RISKS	1,645	3,612	0.000	0.244	0.200
	14 OTHER NON-MANUF.	15,652	67,775	0.000	0.236	0.194
	TOTAL	537,530	2,589,048	0.493	0.382	0.314
36 MULTILINE	03 RESTAURANTS & BARS	7,095	100,110	0.398	0.448	0.368
SERVICES	04 OTHER MERCANTILE RS	22,392	124,226	0.218	0.419	0.344
	08 OFFICES AND BANKS	20,691	110,675	0.000	0.386	0.317
	09 REC. FACILITIES	112,253	700,530	0.113	0.376	0.309
	13 MOTOR VEHICLE RISKS	114,141	581,268	2.017	0.799	0.657
	14 OTHER NON-MANUF.	31,428	174,340	1.358	0.603	0.495
	15 STORAGE	17,414	94,985	0.000	0.387	0.318
	21 METAL MANUFACTURING	30	756	0.000	0.394	0.324
	22 OTHER MANUFACTURING	9,085	94,353	0.000	0.387	0.318
	TOTAL	334,529	1,981,243	0.877	0.548	0.450
37 MULTILINE	04 OTHER MERCANTILE RS	24,321	102,377	0.000	0.387	0.318
INDUST/PROCESS	08 OFFICES AND BANKS	6,792	30,878	0.000	0.392	0.322
	13 MOTOR VEHICLE RISKS	0	982	0.000	0.394	0.324
	14 OTHER NON-MANUF.	4,154	15,435	0.000	0.393	0.323
	15 STORAGE	7,323	110,214	0.000	0.386	0.317
	17 FOOD MANUFACTURING	46,861	179,302	0.059	0.391	0.321
	18 WOOD MANUFACTURING	34,357	90,304	0.000	0.388	0.319
	19 WEARING APPAREL	1,587	19,953	0.000	0.393	0.323
	21 METAL MANUFACTURING	109,915	469,878	0.063	0.376	0.309
	22 OTHER MANUFACTURING	91,546	382,924	0.148	0.397	0.326
	TOTAL	326,856	1,402,247	0.071	0.387	0.318
38 MULTILINE	04 OTHER MERCANTILE RS	73,480	336,566	0.353	0.437	0.359
CONTRACTORS	08 OFFICES AND BANKS	48,720	223,764	0.166	0.407	0.334
	14 OTHER NON-MANUF.	5,275	17,815	0.000	0.393	0.323
	TOTAL	127,475	578,145	0.267	0.424	0.348

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
TOTAL ALL TOPS*	01 APARTMENTS	962,145	4,059,780	0.178	0.202	0.166
	02 OTHER HABITATIONAL	512,279	3,517,949	0.466	0.419	0.345
	03 RESTAURANTS & BARS	220,465	1,209,291	0.175	0.243	0.199
	04 OTHER MERCANTILE RS	458,193	2,368,820	0.180	0.266	0.219
	05 PUBLIC BUILDINGS	3,622	18,961	0.000	0.242	0.199
	06 CHURCHES	339,761	1,846,061	0.496	0.411	0.337
	07 SCHOOLS	95,139	307,920	0.255	0.281	0.231
	08 OFFICES AND BANKS	325,752	1,599,158	0.275	0.302	0.248
	09 REC. FACILITIES	148,116	863,204	0.171	0.362	0.298
	10 HOTELS AND MOTELS	25,304	228,323	0.166	0.259	0.213
	11 HOSPITALS/NURS HOME	31,500	140,237	0.368	0.307	0.252
	13 MOTOR VEHICLE RISKS	158,975	718,425	1.454	0.639	0.525
	14 OTHER NON-MANUF.	76,170	395,464	0.560	0.401	0.329
	15 STORAGE	67,224	454,151	0.000	0.279	0.229
	17 FOOD MANUFACTURING	49,874	183,542	0.055	0.381	0.313
	18 WOOD MANUFACTURING	34,357	90,554	0.000	0.388	0.319
	19 WEARING APPAREL	3,644	23,829	0.000	0.296	0.244
	21 METAL MANUFACTURING	111,868	500,428	0.062	0.373	0.307
	22 OTHER MANUFACTURING	<u>103,591</u>	<u>494,715</u>	<u>0.131</u>	<u>0.391</u>	<u>0.321</u>
	TOTAL	3,727,979	19,020,812	0.309	0.318	0.262

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
MONTGOMERY COUNTY						
10 MONOLINE	01 APARTMENTS	8,892	44,210	0.000	0.293	0.241
	02 OTHER HABITATIONAL	1,041	5,695	2.888	0.813	0.668
	03 RESTAURANTS & BARS	673	1,315	0.000	0.313	0.257
	04 OTHER MERCANTILE RS	13,781	65,589	0.000	0.284	0.233
	05 PUBLIC BUILDINGS	387	675	0.000	0.313	0.257
	06 CHURCHES	534	2,617	0.000	0.312	0.256
	07 SCHOOLS	438	6,183	0.000	0.310	0.255
	08 OFFICES AND BANKS	7,368	69,037	0.000	0.283	0.233
	09 REC. FACILITIES	15,527	80,801	1.039	0.549	0.451
	10 HOTELS AND MOTELS	2,770	6,861	0.000	0.310	0.255
	11 HOSPITALS/NURS HOME	1,931	15,923	2.055	0.690	0.567
	13 MOTOR VEHICLE RISKS	2,265	10,834	0.000	0.308	0.253
	14 OTHER NON-MANUF.	5,499	24,722	0.000	0.302	0.248
	15 STORAGE	2,502	16,254	0.000	0.306	0.251
	17 FOOD MANUFACTURING	413	1,069	0.000	0.313	0.257
	18 WOOD MANUFACTURING	270	298	0.000	0.313	0.257
	21 METAL MANUFACTURING	0	33	0.000	0.313	0.257
	22 OTHER MANUFACTURING	0	1,841	0.000	0.313	0.257
	TOTAL	64,291	353,957	0.359	0.375	0.308
31 MULTILINE	10 HOTELS AND MOTELS	6,476	20,678	0.000	1.427	1.173
MOTEL/HOTEL	TOTAL	6,476	20,678	0.000	1.427	1.173
32 MULTILINE	01 APARTMENTS	691,504	4,192,540	1.981	1.966	1.615
APARTMENT	02 OTHER HABITATIONAL	425,070	3,073,044	0.056	0.226	0.186
	TOTAL	1,116,574	7,265,584	1.248	1.304	1.071
33 MULTILINE	08 OFFICES AND BANKS	41,369	223,131	0.270	1.092	0.897
OFFICE	TOTAL	41,369	223,131	0.270	1.092	0.897
34 MULTILINE	03 RESTAURANTS & BARS	53,522	385,228	0.998	1.337	1.099
MERCANTILE	04 OTHER MERCANTILE RS	122,830	599,864	7.289	5.413	4.448
	08 OFFICES AND BANKS	9,522	42,198	1.522	1.719	1.412
	13 MOTOR VEHICLE RISKS	19,362	57,935	63.517	18.002	14.792
	14 OTHER NON-MANUF.	7,634	28,923	0.000	1.400	1.150
	15 STORAGE	6,006	34,525	0.000	1.382	1.136
	TOTAL	218,876	1,148,673	10.020	5.119	4.206

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
35 MULTILINE	02 OTHER HABITATIONAL	2,296	20,468	0.000	1.428	1.173
INSTITUTIONAL	05 PUBLIC BUILDINGS	2,553	12,949	2.901	1.986	1.632
	06 CHURCHES	145,463	804,233	0.157	0.617	0.507
	07 SCHOOLS	67,261	300,151	2.632	2.219	1.823
	08 OFFICES AND BANKS	25,315	125,712	0.207	1.220	1.002
	09 REC. FACILITIES	15,587	75,980	0.000	1.264	1.039
	11 HOSPITALS/NURS HOME	15,132	73,960	0.000	1.269	1.043
	13 MOTOR VEHICLE RISKS	137	843	0.000	1.496	1.229
	14 OTHER NON-MANUF.	9,464	46,104	0.000	1.347	1.107
	TOTAL	283,208	1,460,400	0.750	1.166	0.958
36 MULTILINE	03 RESTAURANTS & BARS	1,551	13,384	0.000	1.447	1.189
SERVICES	04 OTHER MERCANTILE RS	4,226	35,526	0.000	1.155	0.949
	08 OFFICES AND BANKS	8,002	51,796	0.288	1.150	0.945
	09 REC. FACILITIES	35,868	325,012	8.023	7.071	5.810
	13 MOTOR VEHICLE RISKS	45,122	252,342	0.575	0.852	0.700
	14 OTHER NON-MANUF.	34,822	204,536	0.000	0.455	0.374
	15 STORAGE	2,826	14,462	0.000	1.429	1.174
	21 METAL MANUFACTURING	0	53	0.000	1.706	1.402
	22 OTHER MANUFACTURING	3,712	28,744	0.000	1.231	1.012
	TOTAL	136,129	925,855	2.321	2.445	2.009
37 MULTILINE	04 OTHER MERCANTILE RS	16,823	67,382	0.000	0.896	0.736
INDUST/PROCESS	08 OFFICES AND BANKS	2,596	13,224	0.000	1.449	1.191
	14 OTHER NON-MANUF.	0	106	0.000	1.705	1.401
	17 FOOD MANUFACTURING	4,487	29,614	0.000	1.221	1.003
	18 WOOD MANUFACTURING	2,859	25,674	0.000	1.269	1.043
	19 WEARING APPAREL	5,260	28,749	0.161	1.294	1.063
	21 METAL MANUFACTURING	7,434	62,209	0.000	0.930	0.764
	22 OTHER MANUFACTURING	8,725	56,305	0.000	0.972	0.799
	TOTAL	48,184	283,263	0.018	1.041	0.855
38 MULTILINE	04 OTHER MERCANTILE RS	21,580	117,364	0.000	0.662	0.544
CONTRACTORS	08 OFFICES AND BANKS	11,231	50,094	0.440	1.237	1.016
	14 OTHER NON-MANUF.	1,645	14,518	0.000	1.428	1.173
	TOTAL	34,456	181,976	0.143	0.886	0.728

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
TOTAL ALL TOPS*	01 APARTMENTS	700,396	4,236,750	1.956	1.945	1.598
	02 OTHER HABITATIONAL	428,407	3,099,207	0.063	0.234	0.192
	03 RESTAURANTS & BARS	55,746	399,927	0.958	1.327	1.091
	04 OTHER MERCANTILE RS	179,240	885,725	4.995	3.922	3.223
	05 PUBLIC BUILDINGS	2,940	13,624	2.520	1.766	1.451
	06 CHURCHES	145,997	806,850	0.156	0.616	0.506
	07 SCHOOLS	67,699	306,334	2.615	2.207	1.813
	08 OFFICES AND BANKS	105,403	575,192	0.362	1.151	0.946
	09 REC. FACILITIES	66,982	481,793	4.537	4.208	3.458
	10 HOTELS AND MOTELS	9,246	27,539	0.000	1.092	0.898
	11 HOSPITALS/NURS HOME	17,063	89,883	0.233	1.203	0.989
	13 MOTOR VEHICLE RISKS	66,886	321,954	18.775	5.800	4.765
	14 OTHER NON-MANUF.	59,064	318,909	0.000	0.733	0.602
	15 STORAGE	11,334	65,241	0.000	1.156	0.950
	17 FOOD MANUFACTURING	4,900	30,683	0.000	1.144	0.940
	18 WOOD MANUFACTURING	3,129	25,972	0.000	1.187	0.975
	19 WEARING APPAREL	5,260	28,749	0.161	1.294	1.063
	21 METAL MANUFACTURING	7,434	62,295	0.000	0.930	0.764
	22 OTHER MANUFACTURING	12,437	86,890	0.000	1.049	0.862
	TOTAL	1,949,563	11,863,517	2.132	1.743	1.432

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
PRINCE GEORGE'S COUNTY						
10 MONOLINE	01 APARTMENTS	44,583	239,649	0.000	0.150	0.123
	02 OTHER HABITATIONAL	5,695	15,235	0.000	0.463	0.380
	03 RESTAURANTS & BARS	6,727	30,447	0.000	0.405	0.333
	04 OTHER MERCANTILE RS	67,810	306,856	1.124	1.038	0.853
	05 PUBLIC BUILDINGS	0	1,164	0.000	0.533	0.438
	06 CHURCHES	1,990	6,334	0.000	0.505	0.415
	07 SCHOOLS	1,815	11,237	0.000	0.481	0.395
	08 OFFICES AND BANKS	36,523	162,732	0.000	0.195	0.160
	09 REC. FACILITIES	16,620	85,337	0.137	0.359	0.295
	11 HOSPITALS/NURS HOME	1,193	4,486	0.000	0.515	0.423
	13 MOTOR VEHICLE RISKS	21,399	144,732	0.133	0.301	0.247
	14 OTHER NON-MANUF.	3,206	40,617	10.410	4.918	4.041
	15 STORAGE	21,569	102,579	0.000	0.255	0.210
	18 WOOD MANUFACTURING	4,500	7,795	0.000	0.497	0.408
	21 METAL MANUFACTURING	7,540	39,361	0.000	0.378	0.311
	22 OTHER MANUFACTURING	336	4,013	0.000	0.517	0.425
	TOTAL	241,506	1,202,574	0.475	0.542	0.446
31 MULTILINE	10 HOTELS AND MOTELS	92,033	341,992	0.019	0.364	0.299
MOTEL/HOTEL	TOTAL	92,033	341,992	0.019	0.364	0.299
32 MULTILINE	01 APARTMENTS	2,412,109	9,004,751	1.981	1.948	1.601
APARTMENT	02 OTHER HABITATIONAL	2,085,950	11,057,592	0.133	0.151	0.124
	TOTAL	4,498,059	20,062,343	1.124	1.115	0.916
33 MULTILINE	08 OFFICES AND BANKS	120,969	634,801	0.180	0.374	0.307
OFFICE	TOTAL	120,969	634,801	0.180	0.374	0.307
34 MULTILINE	03 RESTAURANTS & BARS	130,469	883,793	0.013	0.205	0.168
MERCANTILE	04 OTHER MERCANTILE RS	387,938	2,039,202	1.350	1.292	1.062
	08 OFFICES AND BANKS	41,741	232,931	0.000	0.422	0.347
	13 MOTOR VEHICLE RISKS	40,208	128,993	0.088	0.552	0.454
	14 OTHER NON-MANUF.	13,075	56,420	0.000	0.615	0.505
	15 STORAGE	64,609	405,107	0.000	0.323	0.265
	TOTAL	678,040	3,746,446	0.780	0.880	0.723

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
35 MULTILINE	02 OTHER HABITATIONAL	4,478	22,354	0.000	0.675	0.555
INSTITUTIONAL	05 PUBLIC BUILDINGS	1,328	7,580	0.000	0.705	0.579
	06 CHURCHES	344,372	1,871,559	0.673	0.696	0.572
	07 SCHOOLS	111,171	507,556	0.337	0.509	0.418
	08 OFFICES AND BANKS	31,181	142,930	0.296	0.625	0.514
	09 REC. FACILITIES	11,010	55,846	0.000	0.616	0.506
	11 HOSPITALS/NURS HOME	30,495	142,210	0.159	0.569	0.468
	13 MOTOR VEHICLE RISKS	0	85	0.000	0.721	0.592
	14 OTHER NON-MANUF.	29,569	142,226	0.000	0.503	0.413
	TOTAL	563,604	2,892,346	0.503	0.636	0.523
36 MULTILINE	03 RESTAURANTS & BARS	4,766	25,216	0.000	0.658	0.541
SERVICES	04 OTHER MERCANTILE RS	33,347	176,295	0.000	0.541	0.445
	08 OFFICES AND BANKS	36,445	209,351	0.000	0.521	0.428
	09 REC. FACILITIES	94,918	503,130	0.002	0.392	0.322
	13 MOTOR VEHICLE RISKS	166,185	886,952	2.524	1.884	1.548
	14 OTHER NON-MANUF.	54,025	263,478	0.520	0.690	0.567
	15 STORAGE	30,530	261,601	0.000	0.492	0.404
	21 METAL MANUFACTURING	732	8,260	32.164	5.602	4.603
	22 OTHER MANUFACTURING	37,873	140,756	0.000	0.564	0.463
	TOTAL	458,821	2,475,039	1.027	1.020	0.838
37 MULTILINE	04 OTHER MERCANTILE RS	24,122	221,276	0.904	0.834	0.685
INDUST/PROCESS	08 OFFICES AND BANKS	5,484	39,726	0.000	0.644	0.529
	14 OTHER NON-MANUF.	5,972	32,152	0.000	0.651	0.535
	15 STORAGE	3,599	33,957	0.000	0.650	0.534
	17 FOOD MANUFACTURING	12,736	69,850	1.321	0.913	0.750
	18 WOOD MANUFACTURING	16,836	121,024	0.000	0.578	0.475
	19 WEARING APPAREL	3,891	28,501	0.000	0.655	0.538
	21 METAL MANUFACTURING	59,807	305,027	1.076	0.911	0.749
	22 OTHER MANUFACTURING	21,303	158,823	0.032	0.562	0.462
	TOTAL	153,750	1,010,336	0.674	0.782	0.643
38 MULTILINE	04 OTHER MERCANTILE RS	107,649	572,633	0.027	0.384	0.316
CONTRACTORS	08 OFFICES AND BANKS	52,998	273,524	0.643	0.736	0.605
	14 OTHER NON-MANUF.	3,332	14,016	0.000	0.668	0.549
	TOTAL	163,979	860,173	0.226	0.504	0.414

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
TOTAL ALL TOPS*	01 APARTMENTS	2,456,692	9,244,400	1.945	1.915	1.574
	02 OTHER HABITATIONAL	2,096,123	11,095,181	0.132	0.153	0.126
	03 RESTAURANTS & BARS	141,962	939,456	0.012	0.230	0.189
	04 OTHER MERCANTILE RS	620,866	3,316,262	1.006	1.049	0.862
	05 PUBLIC BUILDINGS	1,328	8,744	0.000	0.705	0.579
	06 CHURCHES	346,362	1,877,893	0.669	0.695	0.571
	07 SCHOOLS	112,986	518,793	0.332	0.508	0.418
	08 OFFICES AND BANKS	325,341	1,695,995	0.200	0.464	0.381
	09 REC. FACILITIES	122,548	644,313	0.020	0.408	0.335
	10 HOTELS AND MOTELS	92,033	341,992	0.019	0.364	0.299
	11 HOSPITALS/NURS HOME	31,688	146,696	0.153	0.567	0.466
	13 MOTOR VEHICLE RISKS	227,792	1,160,762	1.869	1.500	1.233
	14 OTHER NON-MANUF.	109,179	548,909	0.563	0.752	0.618
	15 STORAGE	120,307	803,244	0.000	0.363	0.299
	17 FOOD MANUFACTURING	12,736	69,850	1.321	0.913	0.750
	18 WOOD MANUFACTURING	21,336	128,819	0.000	0.561	0.461
	19 WEARING APPAREL	3,891	28,501	0.000	0.655	0.538
	21 METAL MANUFACTURING	68,079	352,648	1.291	0.902	0.742
	22 OTHER MANUFACTURING	<u>59,512</u>	<u>303,592</u>	<u>0.011</u>	<u>0.563</u>	<u>0.463</u>
	TOTAL	6,970,761	33,226,050	0.949	0.983	0.808

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
BALANCE OF STATE						
10 MONOLINE	01 APARTMENTS	59,520	440,016	3.283	1.533	1.260
	02 OTHER HABITATIONAL	33,849	258,337	0.421	1.043	0.857
	03 RESTAURANTS & BARS	16,270	72,437	0.378	1.041	0.855
	04 OTHER MERCANTILE RS	104,947	594,983	0.639	1.074	0.882
	05 PUBLIC BUILDINGS	9,804	67,928	0.023	0.984	0.809
	06 CHURCHES	8,292	47,103	3.703	1.572	1.292
	07 SCHOOLS	5,814	36,729	0.000	0.982	0.807
	08 OFFICES AND BANKS	63,866	308,938	1.129	1.161	0.954
	09 REC. FACILITIES	56,350	308,148	1.145	1.164	0.956
	10 HOTELS AND MOTELS	6,004	71,779	2.223	1.337	1.099
	11 HOSPITALS/NURS HOME	28,179	139,086	1.699	1.254	1.030
	13 MOTOR VEHICLE RISKS	26,949	200,461	0.000	0.975	0.801
	14 OTHER NON-MANUF.	44,217	263,655	1.498	1.223	1.005
	15 STORAGE	33,654	159,191	0.000	0.977	0.803
	17 FOOD MANUFACTURING	12,444	49,408	0.000	0.981	0.806
	18 WOOD MANUFACTURING	11,285	59,496	0.000	0.981	0.806
	19 WEARING APPAREL	297	1,445	0.000	0.983	0.808
	21 METAL MANUFACTURING	9,488	43,060	0.000	0.982	0.807
	22 OTHER MANUFACTURING	<u>6,586</u>	<u>99,727</u>	<u>1.333</u>	<u>1.194</u>	<u>0.981</u>
	TOTAL	537,815	3,221,927	1.091	1.156	0.950
31 MULTILINE	10 HOTELS AND MOTELS	<u>374,719</u>	<u>1,678,026</u>	<u>0.374</u>	<u>0.956</u>	<u>0.786</u>
MOTEL/HOTEL	TOTAL	374,719	1,678,026	0.374	0.956	0.786
32 MULTILINE	01 APARTMENTS	1,747,251	8,869,197	1.682	1.639	1.347
APARTMENT	02 OTHER HABITATIONAL	<u>593,582</u>	<u>3,367,899</u>	<u>2.182</u>	<u>1.907</u>	<u>1.567</u>
	TOTAL	2,340,833	12,237,096	1.809	1.707	1.403
33 MULTILINE	08 OFFICES AND BANKS	<u>248,961</u>	<u>1,276,601</u>	<u>1.404</u>	<u>1.443</u>	<u>1.186</u>
OFFICE	TOTAL	248,961	1,276,601	1.404	1.443	1.186
34 MULTILINE	03 RESTAURANTS & BARS	506,266	2,747,181	1.697	1.600	1.315
MERCANTILE	04 OTHER MERCANTILE RS	741,043	3,697,802	3.221	2.579	2.119
	08 OFFICES AND BANKS	77,796	343,898	0.129	1.138	0.935
	13 MOTOR VEHICLE RISKS	81,720	413,760	0.130	1.116	0.917
	14 OTHER NON-MANUF.	34,853	160,486	0.285	1.231	1.012
	15 STORAGE	<u>88,786</u>	<u>478,464</u>	<u>0.000</u>	<u>1.061</u>	<u>0.872</u>
	TOTAL	1,530,464	7,841,591	2.141	1.985	1.631
35 MULTILINE	02 OTHER HABITATIONAL	12,035	55,655	0.092	1.231	1.012
INSTITUTIONAL	05 PUBLIC BUILDINGS	60,873	423,319	0.314	1.163	0.956
	06 CHURCHES	862,274	4,714,600	0.548	0.841	0.691
	07 SCHOOLS	188,228	1,106,194	0.181	0.964	0.792
	08 OFFICES AND BANKS	51,166	269,841	0.153	1.167	0.959
	09 REC. FACILITIES	44,934	149,203	0.258	1.229	1.010
	11 HOSPITALS/NURS HOME	66,671	341,539	0.474	1.224	1.006
	13 MOTOR VEHICLE RISKS	797	11,190	0.000	1.234	1.014
	14 OTHER NON-MANUF.	<u>43,847</u>	<u>230,084</u>	<u>0.276</u>	<u>1.207</u>	<u>0.992</u>

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
	TOTAL	1,330,825	7,301,625	0.443	0.934	0.767
36 MULTILINE SERVICES	03 RESTAURANTS & BARS	21,012	246,519	0.427	1.606	1.320
	04 OTHER MERCANTILE RS	49,503	271,213	9.795	3.286	2.700
	08 OFFICES AND BANKS	58,520	381,553	4.239	2.326	1.911
	09 REC. FACILITIES	423,530	2,373,199	2.288	2.035	1.672
	13 MOTOR VEHICLE RISKS	210,277	1,221,573	0.988	1.594	1.310
	14 OTHER NON-MANUF.	141,722	759,851	5.266	2.704	2.222
	15 STORAGE	63,545	327,157	0.047	1.517	1.247
	21 METAL MANUFACTURING	1,959	13,846	0.000	1.600	1.315
	22 OTHER MANUFACTURING	14,777	58,728	0.000	1.586	1.303
	TOTAL	984,845	5,653,639	2.709	2.067	1.699
37 MULTILINE INDUST/PROCESS	04 OTHER MERCANTILE RS	44,489	245,857	0.150	1.557	1.279
	08 OFFICES AND BANKS	9,427	73,664	3.290	2.071	1.702
	13 MOTOR VEHICLE RISKS	213	1,025	0.000	1.604	1.318
	14 OTHER NON-MANUF.	26,786	123,666	11.728	3.406	2.799
	15 STORAGE	5,465	55,675	6.230	2.495	2.050
	17 FOOD MANUFACTURING	115,176	482,832	0.017	1.470	1.208
	18 WOOD MANUFACTURING	73,824	425,710	0.047	1.491	1.225
	19 WEARING APPAREL	21,624	85,139	0.000	1.578	1.297
	21 METAL MANUFACTURING	83,147	519,295	0.267	1.514	1.244
	22 OTHER MANUFACTURING	182,913	1,031,074	0.003	1.336	1.098
	TOTAL	563,064	3,043,937	0.735	1.559	1.281
38 MULTILINE CONTRACTORS	04 OTHER MERCANTILE RS	169,036	830,485	0.493	1.507	1.238
	08 OFFICES AND BANKS	98,683	420,651	2.201	1.927	1.583
	14 OTHER NON-MANUF.	9,921	71,075	0.044	1.589	1.306
	TOTAL	277,640	1,322,211	1.084	1.659	1.363

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
TOTAL ALL TOPS*	01 APARTMENTS	1,806,771	9,309,213	1.735	1.635	1.344
	02 OTHER HABITATIONAL	639,466	3,681,891	2.049	1.849	1.519
	03 RESTAURANTS & BARS	543,548	3,066,137	1.608	1.584	1.301
	04 OTHER MERCANTILE RS	1,109,018	5,640,340	2.731	2.264	1.860
	05 PUBLIC BUILDINGS	70,677	491,247	0.274	1.138	0.935
	06 CHURCHES	870,566	4,761,703	0.578	0.848	0.697
	07 SCHOOLS	194,042	1,142,923	0.176	0.965	0.793
	08 OFFICES AND BANKS	608,419	3,075,146	1.538	1.524	1.253
	09 REC. FACILITIES	524,814	2,830,550	1.991	1.872	1.539
	10 HOTELS AND MOTELS	380,723	1,749,805	0.403	0.962	0.790
	11 HOSPITALS/NURS HOME	94,850	480,625	0.838	1.233	1.013
	13 MOTOR VEHICLE RISKS	319,956	1,848,009	0.683	1.419	1.166
	14 OTHER NON-MANUF.	301,346	1,608,817	3.813	2.124	1.745
	15 STORAGE	191,450	1,020,487	0.193	1.239	1.018
	17 FOOD MANUFACTURING	127,620	532,240	0.015	1.422	1.169
	18 WOOD MANUFACTURING	85,109	485,206	0.041	1.423	1.170
	19 WEARING APPAREL	21,921	86,584	0.000	1.570	1.290
	21 METAL MANUFACTURING	94,594	576,201	0.235	1.463	1.202
	22 OTHER MANUFACTURING	<u>204,276</u>	<u>1,189,529</u>	<u>0.046</u>	<u>1.349</u>	<u>1.109</u>
	TOTAL	8,189,166	43,576,653	1.534	1.586	1.303
ENTIRE STATE						
10 MONOLINE	01 APARTMENTS	130,057	840,401	1.593	0.886	0.728
	02 OTHER HABITATIONAL	57,394	360,425	1.225	0.974	0.800
	03 RESTAURANTS & BARS	58,512	231,674	0.731	0.690	0.567
	04 OTHER MERCANTILE RS	289,539	1,459,504	1.213	0.970	0.797
	05 PUBLIC BUILDINGS	10,700	75,412	0.021	0.924	0.759
	06 CHURCHES	20,506	101,015	1.497	0.875	0.719
	07 SCHOOLS	10,431	67,733	0.421	0.857	0.704
	08 OFFICES AND BANKS	170,294	856,350	0.438	0.687	0.564
	09 REC. FACILITIES	122,568	640,347	0.783	0.808	0.664
	10 HOTELS AND MOTELS	9,277	82,005	1.439	0.971	0.798
	11 HOSPITALS/NURS HOME	35,510	173,571	1.460	1.088	0.894
	13 MOTOR VEHICLE RISKS	72,666	463,400	0.056	0.632	0.520
	14 OTHER NON-MANUF.	87,534	555,956	1.320	1.149	0.944
	15 STORAGE	78,597	438,377	0.005	0.623	0.512
	17 FOOD MANUFACTURING	25,392	98,645	0.000	0.945	0.776
	18 WOOD MANUFACTURING	20,040	88,201	0.000	0.718	0.590
	19 WEARING APPAREL	2,354	5,541	0.000	0.318	0.261
	21 METAL MANUFACTURING	30,522	167,347	0.000	0.770	0.633
	22 OTHER MANUFACTURING	<u>13,111</u>	<u>141,431</u>	<u>0.670</u>	<u>0.874</u>	<u>0.718</u>
	TOTAL	1,245,004	6,847,335	0.861	0.853	0.701

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
31 MULTILINE MOTEL/HOTEL	10 HOTELS AND MOTELS TOTAL	<u>610,262</u> 610,262	<u>2,712,020</u> 2,712,020	<u>1.288</u> 1.288	<u>1.244</u> 1.244	<u>1.022</u> 1.022
32 MULTILINE APARTMENT	01 APARTMENTS 02 OTHER HABITATIONAL TOTAL	<u>7,023,307</u> <u>3,994,651</u> 11,017,958	<u>32,919,155</u> <u>23,209,742</u> 56,128,897	<u>1.506</u> <u>0.643</u> 1.193	<u>1.530</u> <u>0.605</u> 1.195	<u>1.257</u> <u>0.498</u> 0.982
33 MULTILINE OFFICE	08 OFFICES AND BANKS TOTAL	<u>661,450</u> 661,450	<u>3,543,831</u> 3,543,831	<u>0.689</u> 0.689	<u>0.919</u> 0.919	<u>0.755</u> 0.755
34 MULTILINE MERCANTILE	03 RESTAURANTS & BARS 04 OTHER MERCANTILE RS 08 OFFICES AND BANKS 13 MOTOR VEHICLE RISKS 14 OTHER NON-MANUF. 15 STORAGE TOTAL	<u>1,238,892</u> <u>1,930,240</u> <u>200,898</u> <u>191,500</u> <u>76,998</u> <u>249,866</u> 3,888,394	<u>6,960,989</u> <u>10,046,761</u> <u>925,516</u> <u>768,471</u> <u>351,005</u> <u>1,443,135</u> 20,495,877	<u>0.986</u> <u>2.539</u> <u>0.327</u> <u>6.561</u> <u>0.218</u> <u>0.801</u> 1.970	<u>1.145</u> <u>1.952</u> <u>0.864</u> <u>2.563</u> <u>1.067</u> <u>1.018</u> 1.591	<u>0.941</u> <u>1.604</u> <u>0.710</u> <u>2.106</u> <u>0.877</u> <u>0.837</u> 1.308
35 MULTILINE INSTITUTIONAL	02 OTHER HABITATIONAL 05 PUBLIC BUILDINGS 06 CHURCHES 07 SCHOOLS 08 OFFICES AND BANKS 09 REC. FACILITIES 11 HOSPITALS/NURS HOME 13 MOTOR VEHICLE RISKS 14 OTHER NON-MANUF. TOTAL	<u>31,220</u> <u>82,463</u> <u>2,061,199</u> <u>560,474</u> <u>217,485</u> <u>116,132</u> <u>196,957</u> <u>2,991</u> <u>140,831</u> 3,409,752	<u>164,711</u> <u>548,927</u> <u>11,508,978</u> <u>2,789,377</u> <u>1,031,185</u> <u>476,214</u> <u>917,297</u> <u>18,884</u> <u>693,401</u> 18,148,974	<u>0.221</u> <u>0.369</u> <u>0.797</u> <u>0.511</u> <u>0.394</u> <u>0.250</u> <u>1.440</u> <u>0.000</u> <u>0.271</u> 0.705	<u>0.838</u> <u>1.182</u> <u>0.884</u> <u>0.971</u> <u>1.151</u> <u>1.032</u> <u>1.161</u> <u>0.743</u> <u>1.009</u> 0.948	<u>0.689</u> <u>0.971</u> <u>0.726</u> <u>0.798</u> <u>0.946</u> <u>0.848</u> <u>0.954</u> <u>0.611</u> <u>0.829</u> 0.779
36 MULTILINE SERVICES	03 RESTAURANTS & BARS 04 OTHER MERCANTILE RS 08 OFFICES AND BANKS 09 REC. FACILITIES 13 MOTOR VEHICLE RISKS 14 OTHER NON-MANUF.	<u>43,573</u> <u>134,575</u> <u>168,263</u> <u>805,842</u> <u>645,077</u> <u>315,331</u>	<u>500,307</u> <u>728,986</u> <u>931,243</u> <u>4,640,861</u> <u>3,474,571</u> <u>1,680,875</u>	<u>0.313</u> <u>4.109</u> <u>1.778</u> <u>1.605</u> <u>1.516</u> <u>2.778</u>	<u>1.175</u> <u>1.683</u> <u>1.313</u> <u>1.628</u> <u>1.383</u> <u>1.623</u>	<u>0.966</u> <u>1.383</u> <u>1.079</u> <u>1.338</u> <u>1.136</u> <u>1.333</u>

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

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 12/31/2019 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	RELATIVITY	CREDIBILITY WEIGHTED RELATIVITY
	15 STORAGE	135,190	842,059	0.997	1.178	0.968
	21 METAL MANUFACTURING	7,625	48,175	3.088	1.550	1.273
	22 OTHER MANUFACTURING	<u>78,380</u>	<u>353,732</u>	<u>0.043</u>	<u>0.847</u>	<u>0.696</u>
	TOTAL	2,333,856	13,200,809	1.789	1.479	1.215
37 MULTILINE	04 OTHER MERCANTILE RS	113,262	691,279	0.251	1.035	0.850
INDUST/PROCESS	08 OFFICES AND BANKS	39,123	208,263	1.491	1.231	1.011
	13 MOTOR VEHICLE RISKS	974	3,616	0.000	1.172	0.962
	14 OTHER NON-MANUF.	45,326	229,443	6.931	2.282	1.875
	15 STORAGE	23,066	278,827	1.578	1.104	0.907
	17 FOOD MANUFACTURING	238,930	1,004,083	2.025	1.380	1.134
	18 WOOD MANUFACTURING	162,136	947,875	0.021	1.055	0.867
	19 WEARING APPAREL	65,506	306,352	0.067	1.184	0.973
	21 METAL MANUFACTURING	362,003	1,974,026	0.262	0.914	0.751
	22 OTHER MANUFACTURING	<u>346,914</u>	<u>1,976,624</u>	<u>0.059</u>	<u>0.990</u>	<u>0.813</u>
	TOTAL	1,397,240	7,620,388	0.747	1.108	0.910
38 MULTILINE	04 OTHER MERCANTILE RS	433,440	2,148,261	0.315	0.933	0.767
CONTRACTORS	08 OFFICES AND BANKS	248,683	1,138,636	1.233	1.219	1.001
	14 OTHER NON-MANUF.	<u>23,316</u>	<u>143,956</u>	<u>0.019</u>	<u>1.082</u>	<u>0.889</u>
	TOTAL	705,439	3,430,853	0.629	1.039	0.854
TOTAL ALL TOPS*	01 APARTMENTS	7,153,364	33,759,556	1.508	1.518	1.248
	02 OTHER HABITATIONAL	4,083,265	23,734,878	0.648	0.612	0.503
	03 RESTAURANTS & BARS	1,340,977	7,692,970	0.953	1.126	0.925
	04 OTHER MERCANTILE RS	2,901,056	15,074,791	2.058	1.653	1.359
	05 PUBLIC BUILDINGS	93,163	624,339	0.329	1.152	0.947
	06 CHURCHES	2,081,705	11,609,993	0.804	0.884	0.726
	07 SCHOOLS	570,905	2,857,110	0.510	0.969	0.796
	08 OFFICES AND BANKS	1,706,196	8,635,024	0.789	1.009	0.829
	09 REC. FACILITIES	1,044,542	5,757,422	1.358	1.466	1.205
	10 HOTELS AND MOTELS	619,539	2,794,025	1.290	1.240	1.019
	11 HOSPITALS/NURS HOME	232,467	1,090,868	1.443	1.150	0.945
	13 MOTOR VEHICLE RISKS	913,208	4,728,942	2.451	1.568	1.288
	14 OTHER NON-MANUF.	689,336	3,654,636	1.974	1.400	1.150
	15 STORAGE	486,719	3,002,398	0.764	1.003	0.824
	17 FOOD MANUFACTURING	264,322	1,102,728	1.831	1.338	1.100
	18 WOOD MANUFACTURING	182,176	1,036,076	0.019	1.018	0.837
	19 WEARING APPAREL	67,860	311,893	0.064	1.154	0.948
	21 METAL MANUFACTURING	400,150	2,189,548	0.296	0.915	0.752
	22 OTHER MANUFACTURING	<u>438,405</u>	<u>2,471,787</u>	<u>0.075</u>	<u>0.961</u>	<u>0.789</u>
	TOTAL	25,269,355	132,128,984	1.234	1.217	1.000

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