LOSS COSTS – INFORMATION   FEBRUARY 8, 2018

COMMERCIAL PROPERTY   LI-CF-2018-027

RHODE ISLAND COMMERCIAL FIRE AND ALLIED LINES LOSS COST LEVEL ANALYSIS FURNISHED FOR INFORMATION

KEY MESSAGE

This analysis is provided for your information. We are NOT revising the current loss costs based on this analysis.

BACKGROUND

In circular LI-CF-2017-159, we provided you with information about the Commercial Fire and Allied Lines loss cost level experience review.

ISO ACTION

We are NOT implementing any changes, at this time, to the current Commercial Fire and Allied Lines advisory prospective loss costs for this jurisdiction.

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.
- The loss cost exhibits contained in the loss cost level analysis in a Microsoft® Excel workbook.

NOTE: This supplementary information is not part of the loss cost level analysis.

COMPANY ACTION

You may wish to evaluate your rate level needs.

Some calculations included in the attached analysis involve areas of ISO staff judgment. You should carefully review and evaluate your own experience in order to determine whether the indications are appropriate for your use.

If you decide to independently file a rate or loss cost revision based on this analysis, you must:

- Comply with the applicable regulatory filing requirements; and
- Advise your production forces about implementation of your revised rates or loss cost adjustments.

REFERENCE(S)

LI-CF-2017-159 (12/13/2017) Commercial Fire And Allied Lines Experience Level Indications Reviewed By ISO Staff

ATTACHMENT(S)

- Loss Cost Level Analysis
- Actuarial Analysis Supplement
- Excel Workbook

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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ACKNOWLEDGMENT OF ACTUARIAL QUALIFICATIONS

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

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

AIR WORLDWIDE CORPORATION

This analysis 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 in this circular.

XACTWARE SOLUTIONS, INC.

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

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

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

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

PURPOSE	This document:

- provides advisory prospective loss cost information. The indicated loss cost level represents a -2.6% statewide change from the current ISO level.

- provides the analyses used to derive the prospective loss costs based on experience through calendar/accident year ending 12/31/2016, evaluated as of 03/31/2017.

- incorporates hurricane modeled loss costs based on Touchstone Version 5.0 of AIR Worldwide Corporation's (AIR) tropical cyclone model. Changes from the previous version of the model are explained in Section C.

- removes the Rating ID dimension (class vs. specifically-rated) from the Basic Group I relativity analysis on Table 8 since it is not expected that loss cost indications should vary by rating method.

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DEFINITION
OF THE ISO
PROSPECTIVE
LOSS COST

Advisory prospective loss costs in this document are 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. The hurricane portion of the prospective Basic Group II loss costs are expected hurricane loss costs based on AIR Worldwide Corporation's tropical cyclone model and include a provision for loss adjustment expense.

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LOSS COST
LEVEL
CHANGES

The statewide monoline prospective loss cost level changes are:

Coverage	Indicated
Basic Group I	-2.7%
Basic Group II	-8.7%
Special Causes of Loss	+3.2%
Total	-2.6%

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

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PRIOR ISO REVISIONS	The latest revisions in this state are:		

Reference Document or Filing	CF-2017-RLA1	CF-2014-RLA1
Rates/ Loss Costs	Loss Costs	Loss Costs
Dates Implemented	09/01/2017	09/01/2014
Changes		
Basic Group I	+1.9%	-17.6%
Basic Group II	+0.5%	-6.1%
Special Causes of Loss	+8.7%	-4.1%
Total	+3.3%	-11.6%

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HISTORICAL SOURCE DATA

The data used in this review is:

. Voluntary experience for ISO reporting companies.

. Five calendar/accident years ending 12/31/2016 for Basic Group I and Special Causes of Loss.

. Ten calendar/accident years ending 12/31/2016 for Basic Group II.

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DISTRIBUTION OF STATEWIDE MONOLINE LOSS COST CHANGES

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

. by rating group and 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 rating group and territory (where applicable), or category for Basic Group I and Special Causes of Loss, and based on the hurricane model for Basic Group II. Therefore, the resulting changes will vary by 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.

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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 07/01/2018. 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 2016.

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:

Coverage	Annual Rate of Change
Buildings	2.3%
Contents	0.9%
Time Element	-0.6%

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:

Line of Business	Buildings	Contents	Time Element
Basic Group I	-0.4%	0.5%	2.5%
Basic Group II	0.5%	0.8%	2.2%
Special Causes of Loss	0.3%	0.5%	2.5%

This produces a total annual loss trend of:

Line of Business	Buildings	Contents	Time Element
Basic Group I	1.9%	1.4%	1.9%
Basic Group II	2.8%	1.7%	1.6%
Special Causes of Loss	2.6%	1.4%	1.9%

Premium Trend

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

| TREND AND OTHER ADJUSTMENTS (cont'd) | 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. The selected annual trends in the amount of insurance are: |

	Buildings	2.0%
Contents	1.7%
Time Element	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. Harleysville Insurance
3. Tokio Marine Companies
4. Nationwide Mutual Insurance Company
5. Hartford Accident & Indemnity Company
6. Vermont Mutual Insurance Company
7. Quincy Mutual Fire Insurance Company
8. NGM Insurance Company
9. Providence Mutual Fire Insurance Company
10. Employers Mutual Casualty Company

Insurers are listed in descending order based on the percent of statewide written premium volume from Annual Statement Page 15 for year ending 12/31/2016 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 12/31/2016 is: |

Commercial Multi-peril - Non-liability (ASLOB 51) - 50.6%

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COMPANY
DECISION

We encourage each insurer to decide independently whether the judgments made and the procedures or data used by ISO in developing the loss costs contained herein are appropriate for its use. We have included within this document the information upon which ISO relied in order to enable companies to make such independent judgments.

The data underlying the enclosed material comes from companies reporting to Insurance Services Office, Inc. Therefore, the ISO experience permits the establishment of a much broader statistical ratemaking base than could be employed by using any individual company's data. A broader data base enhances the validity of ratemaking analysis derived therefrom. At the same time, however, an individual company may benefit from comparison of its own experience to the aggregate ISO experience, and may reach valid conclusions with respect to the manner in which its own costs can be expected to differ from ISO's projections based on the aggregate data.

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

This material has been developed by ISO staff. ISO staff has relied on information, and unique knowledge and expertise, provided by AIR Worldwide Corporation (a wholly-owned subsidiary of Insurance Services Office, Inc.) for the derivation of the modeled hurricane loss costs used in this document.
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RHODE ISLAND
COMMERCIAL PROPERTY INSURANCE

RHODE ISLAND
COMMERCIAL PROPERTY INSURANCE

SECTION A - SCOPE OF REVISION

RHODE ISLAND

TABLE 1 - SUMMARY OF MONOLINE PROSPECTIVE LOSS COST CHANGES (A)

COVERAGE	INDICATIONS	AGGREGATE LOSS COSTS AT CURRENT LEVEL
BASIC GROUP I	-2.7%	4,482,175
BASIC GROUP II	-8.7%	2,696,934
TERRITORY I	-8.4%	
TERRITORY II	-10.0%	
SPECIAL CAUSES OF LOSS	+3.2%	2,877,078
ALL COVERAGES COMBINED	-2.6%	10,056,187

(A) FOR TREND PURPOSES, THE PERIOD OF USE FOR THIS REVISION IS ASSUMED
    TO BEGIN ON 07/01/2018.

RHODE ISLAND

TABLE 2 - BASIC GROUP I PROSPECTIVE LOSS COST CHANGES
        BY RATING GROUP AND TERRITORY   (A)

RATING GROUP DESCRIPTION   ENTIRE STATE

                                       INDICATED

01 APARTMENTS   -2.9%
02 OTHER HABITATIONAL   -1.8%
03 RESTAURANTS & BARS   -1.3%
04 OTHER MERCANTILE RISKS   -0.4%
05 PUBLIC BUILDINGS   -3.9%
06 CHURCHES   -6.3%
07 SCHOOLS   -3.6%
08 OFFICES AND BANKS   -6.5%
09 RECREATIONAL FACILITIES   -4.2%
10 HOTELS & MOTELS   -3.9%
11 HOSPITALS & NURSING HOMES   -3.2%
12 BLDGS UNDER CONSTRUCTION   -3.9%
13 MOTOR VEHICLE RISKS   -1.3%
14 OTHER NON-MANUFACTURING   -3.9%
15 STORAGE   -3.7%
17 FOOD MANUFACTURING   -3.0%
18 WOOD MANUFACTURING   -2.3%
19 WEARING APPAREL   -3.2%
20 CHEMICAL MANUFACTURING   -4.0%
21 METAL MANUFACTURING   -3.8%
22 OTHER MANUFACTURING   -4.0%

    TOTAL   -2.7%

(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.

RHODE ISLAND
TABLE 2B
BASIC GROUP II PROSPECTIVE LOSS COST CHANGES
BY TERRITORY, COVERAGE, AND SYMBOL

		TERRITORY	
COVERAGE	SYMBOL	Territory I	Territory II
BUILDINGS	AA	-4.2%	-6.1%
	A	-3.8%	-6.5%
	AB	-7.8%	-10.4%
	B	-8.2%	-9.8%
CONTENTS	AA	-3.6%	-2.4%
	A	-3.3%	-2.1%
	AB	-7.0%	-3.7%
	B	-10.5%	-11.9%
	TOTAL	-8.4%	-10.0%

TABLE 3 - SPECIAL CAUSES OF LOSS PROSPECTIVE LOSS COST CHANGES BY CATEGORY

CATEGORY DESCRIPTION	ENTIRE STATE
01 BUILDINGS	+4.1%
02 RES. APTS. AND CONDOS	-0.2%
03 OFFICES	+2.2%
04 MERCANTILE - HIGH	+1.3%
05 MERCANTILE - MEDIUM	+4.1%
06 MERCANTILE - LOW	+2.8%
07 MOTELS AND HOTELS	+2.7%
08 INSTITUTIONAL - HIGH	+2.1%
09 INSTITUTIONAL - LOW	+0.1%
10 INDUST-PROC - HIGH	+2.8%
11 INDUST-PROC - LOW	+3.1%
12 SERVICE - HIGH	+3.1%
13 SERVICE - LOW	+2.6%
14 CONTRACTORS	+2.9%
STATEWIDE TOTAL	+3.2%

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

	(1)	(2)	(3)	(4)
				SPECIAL
		BASIC	BASIC	CAUSES
	TYPE OF POLICY	GROUP I	GROUP II	OF LOSS
31	MOTEL/HOTEL	-3.9%	-8.8%	+3.8%
32	APARTMENT	-2.7%	-8.4%	+2.4%
33	OFFICE	-6.5%	-8.6%	+3.6%
34	MERCANTILE	-1.1%	-8.7%	+3.8%
35	INSTITUTIONAL	-5.4%	-8.7%	+2.6%
36	SERVICES	-2.9%	-8.8%	+3.6%
37	INDUST/PROCESSING	-3.4%	-8.8%	+3.7%
38	CONTRACTORS	-1.7%	-8.9%	+3.5%

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)
AND RATING GROUP (FOR BG I), OR BY CATEGORY (FOR SCL), USING
LATEST YEAR MULTILINE TOP AGGREGATE LOSS COSTS AS WEIGHTS. BASIC GROUP II
MONOLINE CHANGES DO NOT VARY BY TOP BECAUSE THE SAME MONOLINE LOSS COST
CHANGE IS APPLIED STATEWIDE.

SECTION B - CALCULATION OF PROPOSED CHANGES

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), type of policy and rating group 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 by rating group are applied to the current manual loss costs. For those states with rating territories, the Balance of State loss cost changes by rating group 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 TABLES 5, 6 AND 7

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

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.

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.

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.

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.

RHODE ISLAND
TABLE 5

STATEWIDE BASIC GROUP I
COVERAGE LOSS COST LEVEL EVALUATION
_____

(1)	(2)	(3)	(4)	(5)
			EXPERIENCE	
	AGGREGATE*	ADJUSTED**	RATIO	
YEAR	LOSS COSTS	INCURRED LOSSES	(3)/(2)	WEIGHTS
2012	5,552,123	3,404,667	0.613	0.10
2013	5,150,932	3,515,679	0.683	0.15
2014	4,820,472	6,815,852	1.414	0.20
2015	5,185,033	5,624,313	1.085	0.25
2016	4,482,175	2,975,585	0.664	0.30

(6) WEIGHTED EXPERIENCE RATIO   = 0.916

(7) CREDIBILITY   = 0.250

(8) EXPECTED EXPERIENCE RATIO   = 0.999

(9) CREDIBILITY WEIGHTED EXPERIENCE RATIO   = 0.978
    (0.250 X 0.916) + (0.750 X 0.999)

(10) INDICATED COVERAGE LOSS COST CHANGE   = 0.978

                                            OR   -2.2%

 * AGGREGATE LOSS COSTS ARE ADJUSTED TO CURRENT ISO LOSS COST LEVEL
   AND 01/01/2019 AMOUNT OF INSURANCE LEVELS.

** INCURRED LOSSES ARE ADJUSTED TO 07/01/2019 COST LEVELS INCLUDING LOSS
   DEVELOPMENT AND ALL LOSS ADJUSTMENT EXPENSES.

RHODE ISLAND
TABLE 6

STATEWIDE BASIC GROUP II
COVERAGE LOSS COST LEVEL EVALUATION
_____

(1)	(2)	(3)	(4)	(5)
		NON HURRICANE	ADJUSTED**	NON HURRICANE EXPERIENCE RATIO
	AGGREGATE*	AGGREGATE	NON-HURRICANE	
YEAR	LOSS COSTS	LOSS COSTS	INCURRED LOSSES	(4)/(3)
2007	3,781,467	1,673,183	1,598,659	0.955
2008	3,822,020	1,712,527	1,148,276	0.671
2009	3,732,805	1,683,947	966,998	0.574
2010	3,563,463	1,620,605	1,267,494	0.782
2011	3,257,799	1,485,266	3,065,591	2.064
2012	2,975,076	1,368,695	827,154	0.604
2013	2,907,063	1,340,000	1,344,085	1.003
2014	2,754,451	1,271,149	585,306	0.460
2015	2,742,231	1,263,226	1,414,482	1.120
2016	2,696,934	1,241,574	1,364,229	1.099

(6) WEIGHTED EXPERIENCE RATIO (EQUAL WEIGHTS)   = 0.932

(7) CREDIBILITY   = 0.250

(8) EXPECTED EXPERIENCE RATIO   = 1.006

(9) CREDIBILITY WEIGHTED EXPERIENCE RATIO   = 0.988
    (0.250 x 0.932) + (0.750 x 1.006)

(10) INDICATED COVERAGE LOSS COST CHANGE   = 0.988

                                               OR   -1.2%

 * AGGREGATE LOSS COSTS ARE ADJUSTED TO CURRENT ISO LOSS COST LEVEL
   AND 01/01/2019 AMOUNT OF INSURANCE LEVELS.

** INCURRED LOSSES ARE ADJUSTED TO 07/01/2019 COST LEVELS INCLUDING LOSS
   DEVELOPMENT AND ALL LOSS ADJUSTMENT EXPENSES.

STATEWIDE SPECIAL CAUSES OF LOSS
COVERAGE LOSS COST LEVEL EVALUATION
_____

(1)	(2)	(3)	(4)	(5)
			EXPERIENCE	
	AGGREGATE*	ADJUSTED**	RATIO	
YEAR	LOSS COSTS	INCURRED LOSSES	(3)/(2)	WEIGHTS
2012	3,152,918	2,709,298	0.859	0.10
2013	3,157,217	3,016,320	0.955	0.15
2014	3,091,665	2,863,850	0.926	0.20
2015	3,015,145	3,575,228	1.186	0.25
2016	2,877,078	2,286,396	0.795	0.30

(6) WEIGHTED EXPERIENCE RATIO   = 0.950

(7) CREDIBILITY   = 0.250

(8) EXPECTED EXPERIENCE RATIO   = 1.002

(9) CREDIBILITY WEIGHTED EXPERIENCE RATIO   = 0.989
     (0.250   X 0.950) + (0.750   X 1.002)

(10) INDICATED COVERAGE LOSS COST CHANGE   = 0.989

                                            OR   -1.1%

* AGGREGATE LOSS COSTS ARE ADJUSTED TO CURRENT ISO LOSS COST LEVEL
    AND 01/01/2019 AMOUNT OF INSURANCE LEVELS.

** INCURRED LOSSES ARE ADJUSTED TO 07/01/2019 COST LEVELS INCLUDING LOSS
    DEVELOPMENT AND ALL LOSS ADJUSTMENT EXPENSES.

EXPLANATORY NOTES TO TABLES 5, 6 AND 7

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.

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 (Table 24). 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 Tables 18 through 20 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 Table 35.

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 (Tables 21 through 23). 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 (Tables 29 through 32). 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 Table 28, and loss adjustment expense factors on Table 41. Where appropriate, certain reported data elements have been adjusted prior to being used in the calculations.

COLUMN (4) - BG I, SCL   <u>EXPERIENCE RATIO</u>
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   <u>WEIGHTS</u>

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)   <u>WEIGHTED EXPERIENCE RATIO</u>

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)   <u>CREDIBILITY</u>

The standards for 100% credibility are discussed in detail in Tables 33, 33A, and 34 for Basic Group I, Basic Group II, and Special Causes of Loss, respectively.

LINE (8)   <u>EXPECTED EXPERIENCE RATIO</u>

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

LINE (9) CREDIBILITY WEIGHTED EXPERIENCE RATIO

The credibility weighted experience ratio is a weighted average of the weighted experience ratio (line (6)) and the expected experience ratio (line (8)) using the credibility factor and its complement as respective weights. For more detailed information regarding the development of the credibility factors, refer to Tables 33, 33A, and 34.

LINE (10) INDICATED COVERAGE LOSS COST CHANGE

The credibility weighted experience ratio yields the overall coverage loss cost level change for Basic Group I (see Table 5), Basic Group II (see Table 6), and Special Causes of Loss (see Table 7).

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).

DATA EXCLUDED	TYPE OF DATA	BG I	BG II	SCL
	· 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.

STEP 2 - DISTRIBUTION OF LOSS COST LEVEL CHANGES

OBJECTIVE

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?

_____

BASIC GROUP I

For Basic Group I, a consolidated simultaneous iterative procedure is used to calculate the type of policy and rating group relativities. More detail on this procedure is given in Table 8. The type of policy relativities serve to price Commercial Package policies relative to monoline policies, via the Package Modification Factors (PMF), while the rating group relativities serve to price the various rating groups relative to one another.

The indicated monoline loss cost level changes displayed on Table 2 are calculated for each rating group by taking the product of the monoline type of policy relativity, the rating group relativity and the statewide loss cost level change.

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

_____

BASIC GROUP II

The purpose of the Basic Group II relativity analysis is to determine monoline loss cost level needs, to obtain marginal relativities displayed on Table 12 and to price CPP policies relative to monoline policies via the PMFs. Unlike the BG I and SCL relativity analyses, the BG II relativity analysis does not employ a simultaneous review procedure because the overall loss cost change is distributed across type of policy only.

The statewide monoline non-hurricane loss cost change is the product of the monoline normalized formula relativity, shown on Table 12 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.

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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.

_____

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 Table 9) 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 Table 9 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.

TABLE 8 - BASIC GROUP I RELATIVITY ANALYSIS

TOP	(1) $ LST SQ FORMULA RELATIVITY	(2) CREDIBILITY Z	(3) Z-WTD. RELATIVITY	(4) BALANCED RELATIVITY	STATEWIDE COVERAGE LOSS COST CHANGE OF 0.978 OR -2.2%
10	0.755	0.021	0.994	0.995	
31	1.398	0.001	1.000	1.001	
32	1.280	0.029	1.007	1.008	
33	1.595	0.007	1.003	1.004	
34	1.086	0.066	1.005	1.006	
35	1.548	0.031	1.014	1.014	
36	0.779	0.043	0.989	0.990	
37	0.599	0.033	0.983	0.984	
38	0.348	0.010	0.990	0.990	

RATING GROUP					(5) INDICATED MONOLINE LOSS COST LEVEL CHANGE
01	1.000	0.050	1.000	0.998	-2.9
02	1.459	0.029	1.011	1.009	-1.8
03	1.297	0.064	1.017	1.014	-1.3
04	1.249	0.119	1.027	1.024	-0.4
06	0.418	0.040	0.966	0.963	-6.3
07	0.536	0.010	0.994	0.991	-3.6
08	0.518	0.056	0.964	0.961	-6.5
09	0.682	0.035	0.987	0.984	-4.2
11	0.706	0.008	0.997	0.995	-3.2
13	1.453	0.045	1.017	1.014	-1.3
14	0.716	0.030	0.990	0.988	-3.9
15	0.695	0.020	0.993	0.990	-3.7
17	0.945	0.009	0.999	0.997	-3.0
18	1.955	0.009	1.006	1.004	-2.3
19	0.705	0.008	0.997	0.995	-3.2
21	0.720	0.027	0.991	0.989	-3.8
22	0.732	0.034	0.989	0.987	-4.0

STATEWIDE MONOLINE LOSS COST LEVEL CHANGE   -2.7%

RHODE ISLAND

TABLE 8 - BASIC GROUP I RELATIVITY ANALYSIS

**EXAMPLE OF AN INDIVIDUAL LOSS COST CHANGE CALCULATION
FOR ENTIRE STATE**

```
    STATEWIDE COVERAGE LOSS COST LEVEL CHANGE      =    -2.2%

    TERRITORIAL RELATIVITY                         =   1.000

    MONOLINE (TOP 10) RELATIVITY                   =   0.995

    RATING GROUP 01 RELATIVITY                     =   0.998
```

INDICATED MONOLINE LOSS COST LEVEL CHANGE FOR RATING GROUP 01

```
    = 0.978   X  1.000    X  0.995   X  0.998    = 0.971
                                         OR    -2.9%
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RHODE ISLAND

TABLE 9 - SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS
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TOP	(1) $ LST SQ FORMULA RELATIVITY	(2) CREDIBILITY Z	(3) Z-WTD. RELATIVITY	(4) BALANCED RELATIVITY	STATEWIDE COVERAGE LOSS COST CHANGE OF 0.989 OR -1.1%
10	3.166	0.026	1.030	1.044	
31	0.768	0.002	0.999	1.013	
32	0.773	0.054	0.986	0.999	
33	1.266	0.015	1.004	1.017	
34	0.637	0.088	0.961	0.974	
35	1.630	0.050	1.025	1.038	
36	0.688	0.063	0.977	0.990	
37	0.734	0.039	0.988	1.001	
38	0.729	0.023	0.993	1.006	

CATEGORY					(5) INDICATED MONOLINE LOSS COST LEVEL CHANGE
01	1.039	0.371	1.014	1.008	+4.1
02	0.663	0.067	0.973	0.967	-0.2
03	0.833	0.022	0.996	0.990	+2.2
04	0.661	0.033	0.986	0.981	+1.3
05	1.484	0.036	1.014	1.008	+4.1
06	1.192	0.010	1.002	0.996	+2.8
07	1.868	0.002	1.001	0.995	+2.7
08	0.877	0.040	0.995	0.989	+2.1
09	0.601	0.051	0.974	0.969	+0.1
10	1.115	0.013	1.001	0.996	+2.8
11	1.171	0.033	1.005	0.999	+3.1
12	1.100	0.052	1.005	0.999	+3.1
13	0.975	0.020	0.999	0.994	+2.6
14	1.104	0.034	1.003	0.997	+2.9

OVERALL MONOLINE LOSS COST LEVEL CHANGE   +3.2%
_____   _____

RHODE ISLAND

TABLE 9 – SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS
_____

     EXAMPLE OF A LOSS COST CHANGE CALCULATION

STATEWIDE COVERAGE LOSS COST LEVEL CHANGE   =   -1.1%

     MONOLINE (TOP 10) RELATIVITY   = 1.044

     CATEGORY 01 RELATIVITY   = 1.008

INDICATED MONOLINE LOSS COST LEVEL CHANGE FOR CATEGORY 01

     = 0.989   X   1.044   X   1.008   = 1.041
                                          OR   +4.1%

EXPLANATORY NOTES TO TABLES 8 AND 9

BASIC GROUP I AND SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS

INTRODUCTION

The explanations which follow clarify Tables 8 and 9, the Basic Group I relativity analysis and the Special Causes of Loss relativity analysis, respectively. The purpose of these analyses is to:

(1)   determine monoline classification loss cost level needs for Basic Group I;

(2)   determine monoline category loss cost level needs for Special Causes of Loss;

(3)   determine indicated changes to the eight CPP package modification factors (PMFs) based on Basic Group I/Special Causes of Loss experience.

COLUMN (1)

LEAST SQUARES FORMULA RELATIVITIES

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

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

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 Table 10 for Basic Group I and Table 11 for Special Causes of Loss.) Specifically, the iteration procedure uses the following formulas:

BASIC GROUP I:

$$\text{TOP}_i = \frac{\sum_{j=1}^{n} w_{ij}^2 R_{ij} RG_j}{\sum_{j=1}^{n} w_{ij}^2 RG_j^2} \text{ , where } 1 \leq i \leq m;$$

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

SPECIAL CAUSES OF LOSS:

$$\text{TOP}_i = \frac{\sum_{j=1}^{n} w_{ij}^2 R_{ij} CAT_j}{\sum_{j=1}^{n} w_{ij}^2 CAT_j^2} \text{ ,} \qquad \text{where } 1 \leq i \leq m;$$

$$\text{CAT}_j = \frac{\sum_{i=1}^{m} w_{ij}^2 R_{ij} TOP_i}{\sum_{i=1}^{m} w_{ij}^2 TOP_i^2} \text{ ,} \qquad \text{where } 1 \leq j \leq n;$$

. TOP_i is the relativity for the ith type of policy;

. RG_j is the relativity for the jth rating group;

. CAT_j is the relativity for the jth category;

COLUMN (1)
(cont'd)

. W_{ij} is the loss cost volume at current level for the ith type of policy, and jth rating group;

. R_{ij} is the experience ratio relativity for the ith type of policy, and jth rating group or category;

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

. n is the number of rating groups or categories in the analysis;

The procedure determines m type of policy relativities using the above formulas. Then, using those results, a set of n rating group relativities is determined. These steps form an iterative process which continues until there is no appreciable difference in results from one iteration to the next.

COLUMN (2)

CREDIBILITY

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

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

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

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 rating group by taking the product of the monoline type of policy (TOP 10) relativity, the rating group relativity and the statewide loss cost level change. (An example of such a calculation appears on Table 8.)

The indicated monoline loss cost changes by rating group shown in Table 8 of this analysis are the aggregate loss cost weighted averages of the monoline loss cost changes for the rating group. The indicated overall statewide monoline loss cost level change shown at the bottom of the first page of Table 8 is the aggregate loss cost-weighted average of the individual rating group 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 Table 9.) The indicated overall statewide loss cost level change shown at the bottom of Table 9 is the aggregate loss cost-weighted average of the individual category changes.

COLUMN (5)
(cont'd)

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:

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

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 Table 8 and Table 9.

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.

RHODE ISLAND
BASIC GROUP I RELATIVITY ANALYSIS
TABLE 10 - SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

		(1) ACCIDENT YEAR ENDING 12/31/16 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) Z-WEIGHTED EXPERIENCE RATIO	(5) Z-WEIGHTED RELATIVITY
TYPE OF POLICY	CATEGORY					
10 MONOLINE	01 APARTMENTS	48,408	272,437	0.155	0.667	0.720
	02 OTHER HABITATIONAL	6,097	34,439	12.156	2.799	3.019
	03 RESTAURANTS & BARS	51,026	103,935	2.006	1.001	1.080
	04 OTHER MERCANTILE RS	58,498	410,285	0.056	0.646	0.697
	06 CHURCHES	1,133	37,726	0.000	0.643	0.694
	07 SCHOOLS	2,509	23,864	0.000	0.643	0.694
	08 OFFICES AND BANKS	24,542	231,320	0.153	0.667	0.720
	09 REC. FACILITIES	47,301	280,821	0.781	0.781	0.843
	11 HOSPITALS/NURS H0ME	14,128	105,687	1.093	0.837	0.903
	13 MOTOR VEHICLE RISKS	16,538	149,214	4.039	1.369	1.477
	14 OTHER NON-MANUF.	23,096	132,277	0.033	0.647	0.698
	15 STORAGE	15,632	134,073	0.000	0.641	0.691
	17 FOOD MANUFACTURING	1,332	3,923	0.000	0.644	0.695
	18 WOOD MANUFACTURING	2,855	9,777	0.000	0.643	0.694
	19 WEARING APPAREL	0	160	0.000	0.644	0.695
	21 METAL MANUFACTURING	11,372	98,690	0.000	0.642	0.693
	22 OTHER MANUFACTURING	32,355	108,353	0.000	0.641	0.691
	TOTAL*	356,822	2,136,981	0.871	0.796	0.859
31 MULTILINE MOTEL/HOTEL	14 OTHER NON-MANUF.	17,746	108,186	0.439	0.953	1.028
	TOTAL*	17,746	108,186	0.439	0.953	1.028
32 MULTILINE APARTMENT	01 APARTMENTS	426,904	1,840,987	1.305	1.219	1.315
	02 OTHER HABITATIONAL	115,066	1,164,081	2.462	1.775	1.915
	TOTAL*	541,970	3,005,068	1.551	1.337	1.442
33 MULTILINE OFFICE	08 OFFICES AND BANKS	113,054	746,978	0.352	0.786	0.848
	TOTAL*	113,054	746,978	0.352	0.786	0.848
34 MULTILINE MERCANTILE	03 RESTAURANTS & BARS	540,772	2,395,171	1.481	1.344	1.450
	04 OTHER MERCANTILE RS	702,395	3,803,006	1.365	1.293	1.395
	08 OFFICES AND BANKS	33,121	191,909	0.117	0.851	0.918
	13 MOTOR VEHICLE RISKS	52,382	213,663	0.000	0.813	0.877
	14 OTHER NON-MANUF.	24,389	102,630	0.258	0.916	0.988
	15 STORAGE	81,254	384,775	0.000	0.748	0.807
	TOTAL*	1,434,313	7,091,154	1.234	1.247	1.345

RHODE ISLAND
BASIC GROUP I RELATIVITY ANALYSIS
TABLE 10 - SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 12/31/16 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) Z-WEIGHTED EXPERIENCE RATIO	(5) Z-WEIGHTED RELATIVITY
35 MULTILINE	02 OTHER HABITATIONAL	581	4,129	0.000	0.909	0.981
INSTITUTIONAL	06 CHURCHES	238,570	1,610,136	0.247	0.616	0.665
	07 SCHOOLS	53,418	377,970	0.123	0.789	0.851
	08 OFFICES AND BANKS	85,771	562,150	0.052	0.710	0.766
	09 REC. FACILITIES	21,345	174,325	0.375	0.920	0.992
	11 HOSPITALS/NURS H0ME	38,266	219,999	0.802	1.018	1.098
	13 MOTOR VEHICLE RISKS	1,584	4,939	0.000	0.909	0.981
	14 OTHER NON-MANUF.	45,610	258,764	1.580	1.227	1.324
	TOTAL*	485,145	3,212,412	0.372	0.755	0.815
36 MULTILINE	03 RESTAURANTS & BARS	49,062	258,711	0.000	0.401	0.433
SERVICES	04 OTHER MERCANTILE RS	53,963	304,685	1.111	0.742	0.800
	08 OFFICES AND BANKS	56,280	357,727	0.000	0.374	0.403
	09 REC. FACILITIES	179,150	992,596	0.421	0.489	0.528
	13 MOTOR VEHICLE RISKS	224,158	1,485,103	1.465	1.129	1.218
	14 OTHER NON-MANUF.	94,153	602,435	0.243	0.427	0.461
	15 STORAGE	54,171	262,694	0.045	0.413	0.446
	21 METAL MANUFACTURING	5,833	27,430	0.000	0.480	0.518
	22 OTHER MANUFACTURING	14,218	152,200	0.000	0.434	0.468
	TOTAL*	730,988	4,443,581	0.669	0.674	0.728
37 MULTILINE	04 OTHER MERCANTILE RS	28,286	120,748	1.598	0.795	0.858
INDUST/PROCESS	08 OFFICES AND BANKS	4,945	27,591	0.000	0.480	0.518
	13 MOTOR VEHICLE RISKS	0	24,024	0.084	0.494	0.533
	14 OTHER NON-MANUF.	5,074	25,824	0.000	0.481	0.519
	15 STORAGE	2,534	27,917	0.000	0.480	0.518
	17 FOOD MANUFACTURING	76,370	363,601	0.483	0.539	0.581
	18 WOOD MANUFACTURING	59,797	351,928	2.180	1.117	1.205
	19 WEARING APPAREL	50,651	318,214	0.053	0.402	0.434
	21 METAL MANUFACTURING	179,851	995,505	0.274	0.410	0.442
	22 OTHER MANUFACTURING	218,464	1,162,507	0.300	0.415	0.448
	TOTAL*	625,972	3,417,859	0.527	0.513	0.554
38 MULTILINE	04 OTHER MERCANTILE RS	136,113	765,113	0.232	0.406	0.438
CONTRACTORS	08 OFFICES AND BANKS	36,338	241,263	0.048	0.420	0.453
	14 OTHER NON-MANUF.	3,714	22,140	0.231	0.517	0.558
	TOTAL*	176,165	1,028,516	0.194	0.411	0.444

RHODE ISLAND
BASIC GROUP I RELATIVITY ANALYSIS
TABLE 10 - SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

		(1) ACCIDENT YEAR ENDING 12/31/16 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) Z-WEIGHTED EXPERIENCE RATIO	(5) Z-WEIGHTED RELATIVITY
TYPE OF POLICY	CATEGORY					
TOTAL ALL TOPS*	01 APARTMENTS	475,312	2,113,424	1.188	1.163	1.254
	02 OTHER HABITATIONAL	121,744	1,202,649	2.936	1.822	1.966
	03 RESTAURANTS & BARS	640,860	2,757,817	1.409	1.245	1.342
	04 OTHER MERCANTILE RS	979,255	5,403,837	1.122	1.087	1.172
	06 CHURCHES	239,703	1,647,862	0.246	0.616	0.665
	07 SCHOOLS	55,927	401,834	0.117	0.783	0.844
	08 OFFICES AND BANKS	354,051	2,358,938	0.151	0.658	0.710
	09 REC. FACILITIES	247,796	1,447,742	0.486	0.582	0.628
	11 HOSPITALS/NURS H0ME	52,394	325,686	0.880	0.969	1.046
	13 MOTOR VEHICLE RISKS	294,662	1,876,943	1.341	1.085	1.171
	14 OTHER NON-MANUF.	213,782	1,252,256	0.518	0.724	0.781
	15 STORAGE	153,591	809,459	0.016	0.615	0.663
	17 FOOD MANUFACTURING	77,702	367,524	0.475	0.541	0.583
	18 WOOD MANUFACTURING	62,652	361,705	2.081	1.095	1.182
	19 WEARING APPAREL	50,651	318,374	0.053	0.402	0.434
	21 METAL MANUFACTURING	197,056	1,121,625	0.250	0.426	0.459
	22 OTHER MANUFACTURING	265,037	1,423,060	0.247	0.444	0.479
	TOTAL*	4,482,175	25,190,735	0.893	0.927	1.000

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

RHODE ISLAND

SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS
TABLE 11 - SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 12/31/16 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) Z-WEIGHTED EXPERIENCE RATIO	(5) Z-WEIGHTED RELATIVITY
10 MONOLINE	01 BUILDINGS	84,360	489,461	3.556	3.161	3.556
	02 RES. APTS. AND COND	41,647	190,551	0.107	1.221	1.373
	03 OFFICES	6,952	47,319	0.628	1.798	2.022
	04 MERCANTILE - HIGH	15,662	89,480	0.429	1.607	1.808
	05 MERCANTILE - MEDIUM	2,462	8,309	2.517	2.370	2.666
	06 MERCANTILE - LOW	1,083	9,363	0.413	1.875	2.109
	07 MOTELS AND HOTELS	12	47	0.000	1.827	2.055
	08 INSTITUTIONAL - HIG	7,107	30,107	1.814	2.183	2.456
	09 INSTITUTIONAL - LOW	16,691	97,926	1.552	2.023	2.276
	10 INDUST-PROC - HIGH	924	3,220	106.247	25.341	28.505
	11 INDUST-PROC - LOW	5,656	32,158	0.437	1.792	2.016
	12 SERVICE - HIGH	2,869	24,217	1.046	1.984	2.232
	13 SERVICE - LOW	5,904	40,182	0.118	1.668	1.876
	14 CONTRACTORS	1,817	5,638	6.604	3.297	3.709
	TOTAL*	193,146	1,067,978	2.471	2.420	2.722
31 MULTILINE MOTEL/HOTEL	01 BUILDINGS	14,658	53,737	0.357	0.735	0.827
	07 MOTELS AND HOTELS	3,934	26,797	3.309	1.322	1.487
	TOTAL*	18,592	80,534	0.981	0.859	0.966
32 MULTILINE APARTMENT	01 BUILDINGS	290,486	1,393,360	0.667	0.701	0.789
	02 RES. APTS. AND COND	195,145	883,617	0.519	0.605	0.681
	TOTAL*	485,631	2,276,977	0.608	0.662	0.745
33 MULTILINE OFFICE	01 BUILDINGS	61,649	359,773	1.459	1.195	1.344
	03 OFFICES	23,290	263,256	1.364	1.108	1.246
	08 INSTITUTIONAL - HIG	393	1,777	0.000	0.741	0.834
	12 SERVICE - HIGH	0	183	0.000	1.000	1.000
	TOTAL*	85,332	624,989	1.426	1.169	1.315
34 MULTILINE MERCANTILE	01 BUILDINGS	552,677	2,662,565	0.579	0.608	0.684
	03 OFFICES	2,594	8,609	0.000	0.727	0.818
	04 MERCANTILE - HIGH	65,980	408,087	0.213	0.477	0.537
	05 MERCANTILE - MEDIUM	111,688	556,897	0.885	0.875	0.984
	06 MERCANTILE - LOW	22,948	140,982	0.482	0.717	0.807
	08 INSTITUTIONAL - HIG	3	840	0.000	0.743	0.836
	12 SERVICE - HIGH	15,527	50,829	0.241	0.710	0.799
	13 SERVICE - LOW	656	4,467	0.000	0.735	0.827
	14 CONTRACTORS	3,883	16,119	0.000	0.713	0.802
	TOTAL*	775,956	3,849,395	0.577	0.642	0.722

RHODE ISLAND

SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS
TABLE 11 – SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 12/31/16 AGGREGATE LOSS COSTS	(2) 5 – YEAR AGGREGATE LOSS COSTS	(3) 5 – YEAR EXPERIENCE RATIO	(4) Z-WEIGHTED EXPERIENCE RATIO	(5) Z-WEIGHTED RELATIVITY
35 MULTILINE INSTITUTIONAL	01 BUILDINGS	189,603	888,939	1.800	1.561	1.756
	03 OFFICES	519	1,670	0.000	0.741	0.834
	08 INSTITUTIONAL – HIG	81,391	571,542	1.561	1.322	1.487
	09 INSTITUTIONAL – LOW	95,492	656,034	0.898	0.885	0.996
	12 SERVICE – HIGH	38	351	0.000	0.744	0.837
	14 CONTRACTORS	11	31	0.000	0.744	0.837
	TOTAL*	367,054	2,118,567	1.510	1.331	1.497
36 MULTILINE SERVICES	01 BUILDINGS	302,123	1,586,900	0.592	0.656	0.738
	03 OFFICES	1,353	7,500	0.546	0.699	0.786
	04 MERCANTILE – HIGH	1,112	14,401	11.864	1.981	2.228
	05 MERCANTILE – MEDIUM	441	1,066	0.000	0.641	0.721
	06 MERCANTILE – LOW	0	297	0.000	1.000	1.000
	08 INSTITUTIONAL – HIG	3,585	14,641	0.000	0.637	0.717
	09 INSTITUTIONAL – LOW	6,102	48,758	0.598	0.703	0.791
	11 INDUST-PROC – LOW	454	1,232	0.000	0.641	0.721
	12 SERVICE – HIGH	123,043	736,749	0.661	0.699	0.786
	13 SERVICE – LOW	43,159	254,612	0.719	0.719	0.809
	14 CONTRACTORS	1,418	6,982	0.000	0.639	0.719
	TOTAL*	482,790	2,673,138	0.640	0.676	0.761
37 MULTILINE INDUST/PROC	01 BUILDINGS	193,798	970,855	0.666	0.698	0.785
	03 OFFICES	789	1,280	0.000	0.641	0.721
	04 MERCANTILE – HIGH	293	1,036	0.000	0.641	0.721
	10 INDUST-PROC – HIGH	35,626	193,342	0.564	0.690	0.776
	11 INDUST-PROC – LOW	82,192	472,811	1.105	0.825	0.928
	12 SERVICE – HIGH	271	729	1.762	0.830	0.934
	13 SERVICE – LOW	0	62	0.000	1.000	1.000
	14 CONTRACTORS	241	720	0.000	0.641	0.721
	TOTAL*	313,210	1,640,835	0.768	0.730	0.821

SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS
TABLE 11 - SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

TYPE OF POLICY	CATEGORY	(1) ACCIDENT YEAR ENDING 12/31/16 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) Z-WEIGHTED EXPERIENCE RATIO	(5) Z-WEIGHTED RELATIVITY
38 MULTILINE	01 BUILDINGS	75,715	451,954	0.639	0.697	0.784
CONTRACTORS	03 OFFICES	2,358	12,267	1.417	0.797	0.897
	04 MERCANTILE - HIGH	519	1,473	0.000	0.641	0.721
	06 MERCANTILE - LOW	158	451	0.000	0.641	0.721
	08 INSTITUTIONAL - HIG	31	31	0.000	0.641	0.721
	11 INDUST-PROC - LOW	129	442	0.000	0.641	0.721
	12 SERVICE - HIGH	623	2,574	0.000	0.641	0.721
	13 SERVICE - LOW	0	387	0.000	1.000	1.000
	14 CONTRACTORS	75,834	492,031	0.795	0.740	0.832
	TOTAL*	155,367	961,610	0.721	0.719	0.809
TOTAL ALL TOPS*	01 BUILDINGS	1,765,069	8,857,544	0.910	0.891	1.002
	02 RES. APTS. AND COND	236,792	1,074,168	0.447	0.713	0.802
	03 OFFICES	37,855	341,901	1.062	1.160	1.305
	04 MERCANTILE - HIGH	83,566	514,477	0.406	0.710	0.799
	05 MERCANTILE - MEDIUM	114,591	566,272	0.917	0.906	1.019
	06 MERCANTILE - LOW	24,189	151,093	0.476	0.768	0.864
	07 MOTELS AND HOTELS	3,946	26,844	3.299	1.324	1.489
	08 INSTITUTIONAL - HIG	92,510	618,938	1.513	1.359	1.529
	09 INSTITUTIONAL - LOW	118,285	802,718	0.975	1.036	1.166
	10 INDUST-PROC - HIGH	36,550	196,562	3.233	1.313	1.477
	11 INDUST-PROC - LOW	88,431	506,643	1.055	0.885	0.996
	12 SERVICE - HIGH	142,371	815,632	0.622	0.726	0.817
	13 SERVICE - LOW	49,719	299,710	0.638	0.832	0.936
	14 CONTRACTORS	83,204	521,521	0.869	0.793	0.892
	TOTAL*	2,877,078	15,294,023	0.895	0.889	1.000

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

EXPLANATORY NOTES TO TABLES 10 AND 11

BASIC GROUP I/SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS
SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

INTRODUCTION

The experience used in the relativity analysis and displayed on Tables 10 and 11 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.

COLUMN (1)

2016 AGGREGATE LOSS COSTS

The latest accident year aggregate loss costs (adjusted as described above) are used as weights both in the calculation of any totals shown in this table and in the iterative formulas used in the simultaneous review procedure.

COLUMN (2)

2012-2016 AGGREGATE LOSS COSTS

The combined five-year adjusted aggregate loss costs (adjusted as described above) are used to calculate the experience ratios in column (3).

COLUMN (3)

FIVE-YEAR EXPERIENCE RATIOS

These are the ratios of the combined five-year adjusted incurred losses (adjusted as described above) to the combined five-year adjusted aggregate loss costs as shown in column (2). Any totals which are shown are weighted averages using the adjusted aggregate loss costs in column (1).

COLUMN (4)

CREDIBILITY (Z) WEIGHTED EXPERIENCE RATIO

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

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 (Territory, TOP and Rating Group/Category) within a class group. The K value is estimated from the underlying data using the empirical Bayes method and varies by TOP group and by territory where applicable. The three TOP groups used in this analysis are: Monoline (TOP 10), Premises (TOP's 31-35), and Operations (TOP's 36-38). The 3/C term corrects for the statistical bias associated with the credibility process. The minimum credibility that is possible is 3/C.

COLUMN (5)

WEIGHTED RELATIVITIES

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

RHODE ISLAND

TABLE 12 - BASIC GROUP II RELATIVITY ANALYSIS

INDICATED TOTAL LOSS COST ADJUSTMENT: -4.6%

	(1) ACCIDENT YR ENDING 12/31/16 AGGR. LOSS COSTS AT CURRENT IMPLICIT PMF	(2) ACCIDENT YRS 2007-2016 NON-HURR. EXPER. RATIO AT CURRENT PMF	(3) FORMULA RELATIVITY (2)/ 0.429	(4) CREDI- BILITY Z C	(5) Z WEIGHTED RELA- TIVITY D	(6) BALANCED FORMULA RELA- TIVITY E	(7) NORMALIZED FORMULA RELA- TIVITY F	(8) CURRENT IMPLICIT PMF	(9) INDICATED IMPLICIT PMF G	(10) INDIC. TOTAL LOSS COST ADJUST
MONOLINE	258,136	0.267	0.622	0.085	0.968	0.968	0.9579			-8.7%
MULTILINE	2,438,798	0.446	1.040	0.384	1.015	1.015	1.0046			-4.2%
	----------------	-------	------	------	------	------	--------			-------
COVERAGE	2,696,934	0.429	1.000			1.0105 B	1.0001			-4.6%
MULTILINE TOP										
31 MOTEL/HOTEL	12,668	0.290	0.676	0.007	0.998	1.006	0.9955	0.625	0.650	-5.1%
32 APARTMENT	303,026	0.516	1.203	0.073	1.015	1.023	1.0124	0.556	0.588	-3.5%
33 OFFICE	68,898	0.349	0.814	0.020	0.996	1.004	0.9936	0.758	0.786	-5.3%
34 MERCANTILE	599,519	0.414	0.965	0.123	0.996	1.004	0.9936	0.776	0.805	-5.3%
35 INSTITUTIONAL	379,751	0.520	1.212	0.086	1.018	1.026	1.0153	0.565	0.599	-3.2%
36 SERVICES	675,348	0.493	1.149	0.149	1.022	1.030	1.0193	1.072	1.141	-2.8%
37 INDUST/PROCESS	276,161	0.312	0.727	0.067	0.982	0.990	0.9797	0.643	0.658	-6.6%
38 CONTRACTORS	123,427	0.308	0.718	0.034	0.990	0.998	0.9876	0.787	0.811	-5.9%
	----------------	-------	------	------	------	------	--------			-------
	2,438,798	0.446 B	1.040		1.007 B	1.015 B	1.0046 B			-4.2%

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))
E - (6) = (5) * (1.015/1.007)
F - (7) = (6) / 1.0105
G - (9) = (7) * (8) / (0.9579)

BASIC GROUP II RELATIVITY ANALYSIS

INTRODUCTION   The explanations which follow clarify Table 12, 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)   <u>2016 AGGREGATE LOSS COSTS</u>

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)   <u>2007 - 2016 NON-HURRICANE EXPERIENCE RATIO</u>

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)   <u>FORMULA RELATIVITY</u>

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.

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.

COLUMN (9)　　　　　　　INDICATED IMPLICIT PMF

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

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

For each CPP type of policy the indicated IPMF is subject to a minimum value of 0.50 and a maximum value of 1.50. If an indicated IPMF falls outside one of those limits, it is capped at that amount, the aggregate loss costs for that type of policy are adjusted to the capped IPMF level, and the entire relativity review as described above is 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 Table 35. 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.

RHODE ISLAND
COMMERCIAL PROPERTY INSURANCE

SECTION C - SUPPORTING MATERIAL

<u>OVERVIEW</u>

AGGREGATE LOSS COSTS AT CURRENT LEVEL	Tables 13, 14 and 15 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 Tables 16, 16A and 17, provide information on the on-level factors needed to bring collected aggregate loss costs to current loss cost level.

Table 16 provides rate level/loss cost level histories by rating id (class vs. specific), rating group, and territory (where applicable) for Basic Group I, Table 16A provides rate level/loss cost level histories by territory, coverage, and symbol (where applicable) for Basic Group II, and Table 17 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 Tables 13, 14 and 15 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.

Tables 18, 19 and 20 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 Tables 21, 22 and 23 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 Table 28.

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

CREDIBILITY   Credibility may range from 0 to 1, where Z=1 is full credibility and Z=0 is no
(cont'd)   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 Tables 33, 33A,
                     and 34 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.

TABLE 13

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*
2004-01-01	-1.1	0.989	0.323	1.000
2005-07-01	-9.1	0.899	0.355	0.504
2006-09-01	-13.5	0.778	0.410	0.334
2007-08-01	-18.1	0.637	0.501	0.419
2008-08-01	-18.3	0.520	0.613	0.418
2009-07-01	-10.3	0.467	0.683	0.504
2010-07-01	-7.9	0.430	0.742	0.504
2011-09-01	-11.7	0.380	0.839	0.334
2014-09-01	-17.6	0.313	1.019	0.334
2017-09-01	1.9	0.319	1.000	0.334

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	0.753

* WEIGHT DENOTES THE PORTION OF THE EFFECTIVE YEAR FOR WHICH THE
  ADJUSTMENT FACTORS APPLY.

_____

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*
2004-01-01	13.5	1.135	0.984	1.000
2005-07-01	-2.1	1.111	1.005	0.504
2006-09-01	0.5	1.117	1.000	0.334
2007-08-01	13.3	1.265	0.883	0.419
2008-08-01	-0.8	1.255	0.890	0.418
2009-07-01	-1.4	1.238	0.902	0.504
2010-07-01	-3.6	1.193	0.936	0.504
2011-09-01	-0.8	1.183	0.944	0.334
2014-09-01	-6.1	1.111	1.005	0.334
2017-09-01	0.5	1.117	1.000	0.334

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	0.753

* WEIGHT DENOTES THE PORTION OF THE EFFECTIVE YEAR FOR WHICH THE
  ADJUSTMENT FACTORS APPLY.

RHODE ISLAND

TABLE 15

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*
2004-01-01	1.9	1.019	0.644	1.000
2005-07-01	-1.0	1.009	0.650	0.504
2006-09-01	-12.4	0.884	0.742	0.334
2007-08-01	-5.5	0.835	0.786	0.419
2008-08-01	-9.6	0.755	0.869	0.418
2009-07-01	-7.2	0.701	0.936	0.504
2010-07-01	-5.5	0.662	0.991	0.504
2011-09-01	-5.0	0.629	1.043	0.334
2014-09-01	-4.1	0.603	1.088	0.334
2017-09-01	8.7	0.656	1.000	0.334

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	0.753

* WEIGHT DENOTES THE PORTION OF THE EFFECTIVE YEAR FOR WHICH THE
  ADJUSTMENT FACTORS APPLY.

EXPLANATORY NOTES TO TABLES 13, 14 AND 15

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 Tables 16, 16A and 17.

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.

HISTORY OF BASIC GROUP I

LOSS COST CHANGES BY TERRITORY, RATING ID AND RATING GROUP
_____

TERRITORY: Entire State (Rhode Island)

EFFECTIVE DATE	RATING ID	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.	-4.3	-3.6	-2.9	-5.2	-4.6	-5.0	-4.9	-4.0	-5.7	-4.5	-4.2	-4.9	-3.9	-4.9	-3.4	-4.8	-5.2	-4.5	-6.5	-4.7	-6.5
	CLASS	-27.6	-27.0	-26.5	-28.3	-27.8	-28.1	-28.0	-27.4	-28.6	-27.8	-27.5	-28.0	-27.3	-28.0	-26.9	-28.0	-5.2	-27.8	-6.5	-4.7	-29.3
08-01-2007	SPEC.	-19.6	-19.2	-18.1	-18.3	-20.1	-20.3	-20.2	-20.5	-21.4	-19.4	-19.8	-20.2	-18.5	-20.2	-19.4	-20.1	-20.6	-20.1	-21.4	-22.2	-21.4
	CLASS	-13.9	-13.5	-12.3	-12.6	-14.5	-14.7	-14.5	-14.9	-15.8	-13.8	-14.1	-14.5	-12.7	-14.5	-13.8	-14.5	-20.6	-14.5	-21.4	-22.2	-15.8
08-01-2008	SPEC.	-18.8	-19.1	-19.5	-17.5	-20.6	-21.6	-20.6	-23.3	-22.2	-19.1	-20.0	-20.6	-14.9	-20.6	-19.9	-19.3	-19.0	-19.6	-18.7	-19.8	-18.7
	CLASS	-16.0	-16.4	-16.7	-14.6	-17.9	-18.9	-17.9	-20.6	-19.5	-16.3	-17.2	-17.9	-11.9	-17.9	-17.1	-16.5	-19.0	-16.9	-18.7	-19.8	-15.9
07-01-2009	SPEC.	-13.2	-11.7	-11.8	-7.8	-10.5	-8.9	-10.5	-4.8	-13.3	-11.1	-10.5	-10.5	-8.0	-10.5	-11.0	-9.8	-9.7	-9.7	-9.7	-10.9	-9.7
	CLASS	-15.1	-13.6	-13.7	-9.8	-12.4	-10.9	-12.4	-6.8	-15.2	-13.0	-12.4	-12.4	-10.0	-12.4	-12.9	-11.8	-9.7	-11.7	-9.7	-10.9	-11.7
07-01-2010	SPEC.	-11.4	-10.3	-9.0	-5.0	-8.7	-9.2	-8.7	-7.4	-8.3	-9.7	-9.2	-8.7	-6.5	-8.7	-9.4	-8.8	-8.8	-8.8	-8.8	-9.8	-8.8
	CLASS	-11.3	-10.2	-8.9	-4.9	-8.6	-9.1	-8.6	-7.3	-8.2	-9.6	-9.1	-8.6	-6.4	-8.6	-9.4	-8.7	-8.8	-8.7	-8.8	-9.8	-8.7
09-01-2011	SPEC.	-9.5	-9.3	-9.9	-6.4	-9.6	-11.7	-11.4	-15.3	-8.6	-9.4	-10.0	-11.4	-6.5	-11.4	-9.8	-9.8	-7.4	-7.4	-7.4	-9.7	-7.4
	CLASS	-14.9	-14.8	-15.4	-12.0	-15.0	-17.1	-16.7	-20.4	-14.1	-14.9	-15.5	-16.7	-12.1	-16.7	-15.2	-15.3	-7.4	-13.0	-7.4	-9.7	-13.0
09-01-2014	SPEC.	-22.4	-21.0	-20.2	-22.1	-23.4	-23.2	-22.0	-23.9	-19.8	-23.4	-23.4	-23.4	-24.1	-23.4	-20.7	-23.2	-21.8	-21.8	-23.2	-22.2	-23.2
	CLASS	-11.2	-9.6	-8.7	-10.9	-12.4	-12.1	-10.7	-12.9	-8.2	-12.4	-12.4	-12.4	-13.2	-12.4	-9.3	-12.1	-21.8	-10.5	-23.2	-22.2	-12.1
09-01-2017	SPEC.	-4.7	-1.8	1.7	1.8	0.0	-1.1	0.0	-0.6	1.4	0.0	0.0	0.0	1.0	0.0	0.0	-0.1	0.0	-0.2	-1.0	-0.7	-1.0
	CLASS	-0.3	2.8	6.4	6.5	4.6	3.5	4.6	4.0	6.1	4.6	4.6	4.6	5.7	4.6	4.6	4.5	0.0	4.4	-1.0	-0.7	3.6

EXPLANATORY NOTES TO TABLE 16

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.

RHODE ISLAND

TABLE 16A

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	01/01/2004	AA	28.6%	28.6%
		A	25.0%	25.0%
		AB	34.8%	34.8%
		B	16.2%	16.2%
	07/01/2005	AA	33.3%	33.3%
		A	30.0%	30.0%
		AB	32.3%	32.3%
		B	-7.7%	-7.7%
	09/01/2006	AA	33.3%	33.3%
		A	30.8%	30.8%
		AB	4.9%	4.9%
		B	0.0%	0.0%
	08/01/2007	AA	31.3%	31.3%
		A	35.3%	35.3%
		AB	-2.3%	-2.3%
		B	16.7%	16.7%
	08/01/2008	AA	9.5%	9.5%
		A	8.7%	8.7%
		AB	2.4%	2.4%
		B	-3.6%	-3.6%
	07/01/2009	AA	-4.3%	-4.3%
		A	-4.0%	-4.0%
		AB	-4.7%	-4.7%
		B	-1.2%	-1.2%
	07/01/2010	AA	-4.5%	-4.5%
		A	-4.2%	-4.2%
		AB	-2.4%	-2.4%
		B	-3.8%	-3.8%
	09/01/2011	AA	-8.5%	-20.8%
		A	-9.1%	-19.8%
		AB	-15.9%	-21.0%
		B	-5.5%	-12.3%
	09/01/2014	AA	-5.6%	-6.6%
		A	-6.7%	-7.2%
		AB	-6.8%	-7.2%
		B	-6.8%	-7.5%
	09/01/2017	AA	-5.9%	-3.5%
		A	-7.1%	-4.7%
		AB	-7.2%	-7.8%
		B	1.0%	6.1%

RHODE ISLAND

TABLE 16A

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	01/01/2004	AA	21.4%	21.4%
		A	12.5%	12.5%
		AB	20.5%	20.5%
		B	-15.0%	-15.0%
	07/01/2005	AA	29.4%	29.4%
		A	33.3%	33.3%
		AB	-3.8%	-3.8%
		B	0.0%	0.0%
	09/01/2006	AA	0.0%	0.0%
		A	0.0%	0.0%
		AB	-2.0%	-2.0%
		B	-1.1%	-1.1%
	08/01/2007	AA	13.6%	13.6%
		A	12.5%	12.5%
		AB	0.0%	0.0%
		B	6.4%	6.4%
	08/01/2008	AA	8.0%	8.0%
		A	7.4%	7.4%
		AB	6.0%	6.0%
		B	13.0%	13.0%
	07/01/2009	AA	-3.7%	-3.7%
		A	-3.4%	-3.4%
		AB	-1.9%	-1.9%
		B	-0.9%	-0.9%
	07/01/2010	AA	-3.8%	-3.8%
		A	-3.6%	-3.6%
		AB	-5.8%	-5.8%
		B	-2.7%	-2.7%
	09/01/2011	AA	39.2%	12.6%
		A	39.8%	12.3%
		AB	28.8%	14.0%
		B	39.6%	27.9%
	09/01/2014	AA	2.7%	-5.6%
		A	0.8%	-5.9%
		AB	-5.9%	-4.8%
		B	-2.4%	-5.6%
	09/01/2017	AA	-12.4%	-16.8%
		A	-12.9%	-16.1%
		AB	-12.6%	-22.1%
		B	0.5%	-4.8%

EXPLANATORY NOTES TO TABLE 16A

HISTORY OF BASIC GROUP II LOSS COST CHANGES BY TERRITORY

COLUMN (1)   TERRITORY

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

COLUMN (2)   EFFECTIVE DATE

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

COLUMN (3)   SYMBOL

The construction group symbol is shown here. Refer to the explanatory notes to Table 35 for the symbol definitions.

COLUMN (4)   BUILDING

Building loss cost changes are shown in percent form.

COLUMN (5)   CONTENTS

Contents loss cost changes are shown in percent form.

RHODE ISLAND
TABLE 17

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
01-01-2004	-1.9	3.8	12.9	11.6	7.0									
07-01-2005	-2.6	0.2	6.1	3.6	-0.9									
09-01-2006	-11.9	-13.1	-8.6	-12.4	-15.9									
08-01-2007	-4.2	-7.5	-3.5	-7.7	-11.2									
08-01-2008	-8.2	-12.2	-8.9	-16.4	-12.6									
07-01-2009	-6.3	-9.2	-8.2	-11.8	-11.1									
07-01-2010	-4.5	-6.6	-7.0	-11.5	-8.5									
09-01-2011	-7.4	-4.3	-1.1	0.3	-1.1	-1.2	-1.2	-0.7	-2.8	-0.1	5.8	0.2	-0.7	-1.1
09-01-2014	-3.8	-5.3	-4.2	-4.2	-4.0	-4.1	-4.3	-4.9	-4.4	-4.0	-3.9	-4.4	-4.5	-3.8
09-01-2017	10.1	4.5	7.0	6.6	8.2	7.6	7.4	7.3	6.4	7.7	7.4	6.6	7.0	7.9

EXPLANATORY NOTES TO TABLE 17

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 Table 37 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.

CPP IMPLICIT PACKAGE MODIFICATION FACTORS (IPMFS) AND IPMF CAPS

TOP	DESCRIPTION	IPMF	LOW CAP	HIGH CAP
31	MOTEL/HOTEL	0.978	0.500	1.500
32	APARTMENT	0.688	0.500	1.500
33	OFFICE	0.892	0.500	1.500
34	MERCANTILE	0.903	0.500	1.500
35	INSTITUTIONAL	0.786	0.500	1.500
36	SERVICES	0.884	0.500	1.500
37	INDUST/PROCESSING	0.688	0.500	1.500
38	CONTRACTORS	0.970	0.500	1.500

RHODE ISLAND
TABLE 19
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	0.625	0.500	1.500
32	APARTMENT	0.556	0.500	1.500
33	OFFICE	0.758	0.500	1.500
34	MERCANTILE	0.776	0.500	1.500
35	INSTITUTIONAL	0.565	0.500	1.500
36	SERVICES	1.072	0.500	1.500
37	INDUST/PROCESSING	0.643	0.500	1.500
38	CONTRACTORS	0.787	0.500	1.500

CPP IMPLICIT PACKAGE MODIFICATION FACTORS (IPMFS) AND IPMF CAPS

TOP	DESCRIPTION	IPMF	LOW CAP	HIGH CAP
31	MOTEL/HOTEL	1.229	0.500	1.500
32	APARTMENT	1.189	0.500	1.500
33	OFFICE	1.375	0.500	1.500
34	MERCANTILE	1.447	0.500	1.500
35	INSTITUTIONAL	0.879	0.500	1.500
36	SERVICES	1.197	0.500	1.500
37	INDUST/PROCESSING	0.950	0.500	1.500
38	CONTRACTORS	1.275	0.500	1.500

EXPLANATORY NOTES TO TABLES 18, 19, AND 20

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

TABLES 18, 19, AND 20 — 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, 2017 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.

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 Table 23 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, 2017. 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).

TABLE 21

Development of Current Cost Factors and Loss Projection Factors
For Commercial Property Building and Contents Experience
Period ending September 30, 2017

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 [a]

Quarter	XCI	PPI	IMSEP	RSALES	Time Element Combined Index
Q4-2014	107.4	113.6	1.047	1.071	1.064
Q1-2015	108.2	113.6	1.043	1.051	1.049
Q2-2015	108.8	113.7	1.050	1.055	1.054
Q3-2015	109.5	114.0	1.052	1.054	1.053
Q4-2015	110.0	113.9	1.051	1.044	1.046
Q1-2016	110.5	114.4	1.046	1.034	1.038
Q2-2016	110.7	114.3	1.051	1.035	1.040
Q3-2016	111.3	114.3	1.049	1.033	1.038
Q4-2016	111.9	114.6	1.053	1.036	1.041
Q1-2017	112.7	115.5	1.055	1.043	1.047
Q2-2017	114.0	116.5	1.052	1.035	1.040
Q3-2017	115.0	116.3	1.059	1.037	1.044

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

Annual Rate of Change = 0.0228 = 2.3% R^2 = 0.976

Loss Projection Factor for Buildings = $1.0228^{22.5/12 \, [b]}$ =   1.0432

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

Annual Rate of Change = 0.0089 = 0.9% R^2 = 0.825

Loss Projection Factor for Contents = $1.0089^{22.5/12 \, [b]}$ =   1.0168

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

Annual Rate of Change = -0.0057 = - 0.6% R^2 = 0.482

Loss Projection Factor for Time Element = $0.9943^{22.5/12 \, [b]}$ =   0.9893

(a)   30% weight for IMSEP and 70% weight for RSALES. IMSEP & RSALES indices were rescaled to a 2009 year base.
(b)   Assuming a rate or loss cost revision date of July 1, 2018, and all one year policies, the time interval between the midpoint of the latest period (8/15/2017) and the average date of accident (07/01/2019) would be 22.5 months.

TABLE 21

Development of Current Cost Factors and Loss Projection Factors

Part E: Calculation of Current Cost Factors (CCF)

	Calendar Year Averages			Current Cost Factors Based on Average Index Values for Period ending September 30, 2017						
Year	XCI	PPI	Time Element Index	Buildings			Contents			Time Element
2006	88.5	91.6	0.972	115.0/ 88.5 =	1.300	116.3 / 91.6 =	1.270	1.044 / 0.972 =	1.074
2007	92.6	94.5	0.989	115.0/ 92.6 =	1.242	116.3 / 94.5 =	1.231	1.044 / 0.989 =	1.056
2008	97.0	98.5	1.008	115.0/ 97.0 =	1.186	116.3 / 98.5 =	1.181	1.044 / 1.008 =	1.036
2009	100.0	100.0	1.000	115.0/ 100.0 =	1.150	116.3 / 100.0 =	1.163	1.044 / 1.000 =	1.044
2010	99.3	101.8	1.015	115.0/ 99.3 =	1.159	116.3 / 101.8 =	1.142	1.044 / 1.015 =	1.029
2011	100.0	105.2	1.048	115.0/ 100.0 =	1.150	116.3 / 105.2 =	1.105	1.044 / 1.048 =	0.996
2012	101.0	108.0	1.064	115.0/ 101.0 =	1.139	116.3 / 108.0 =	1.077	1.044 / 1.064 =	0.981
2013	102.7	109.8	1.067	115.0/ 102.7 =	1.120	116.3 / 109.8 =	1.060	1.044 / 1.067 =	0.978
2014	104.7	112.5	1.069	115.0/ 104.7 =	1.098	116.3 / 112.5 =	1.033	1.044 / 1.069 =	0.977
2015	109.1	113.8	1.051	115.0/ 109.1 =	1.054	116.3 / 113.8 =	1.022	1.044 / 1.051 =	0.993
2016	111.1	114.4	1.039	115.0/ 111.1 =	1.035	116.3 / 114.4 =	1.016	1.044 / 1.039 =	1.005

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)	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 2009 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.

$$MSEP = (CD + CN + FS) + (EXD\&N - IMD\&N) + (IFIX - IPP), \text{ where}$$

CD and CN represent consumption of durables and nondurables, respectively; EXD&N and IMD&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.

CHAIN-TYPE PRICE INDEX FOR RETAIL SALES (RSALES)	The Chain-Type Price Index for Retail Sales measures changes in losses due solely to inflation.

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.

TABLE 22

SUMMARY OF LOSS TREND ADJUSTMENTS (LTA'S)

BUILDINGS	5 YEAR INCURRED LOSSES	LTA'S*
BASIC GROUP I	2,963,900,922	-0.4
BASIC GROUP II	3,110,504,121	0.5
SPECIAL CAUSES OF LOSS	1,645,968,334	0.3
TOTAL	7,720,373,377	0.1
CONTENTS		
BASIC GROUP I	930,719,601	0.5
BASIC GROUP II	303,611,682	0.8
SPECIAL CAUSES OF LOSS	677,516,051	0.5
TOTAL	1,911,847,334	0.5
TIME ELEMENT		
BASIC GROUP I	335,351,732	2.5
BASIC GROUP II	80,288,943	2.2
SPECIAL CAUSES OF LOSS	112,591,087	2.5
TOTAL	528,231,762	2.5
GRAND TOTAL	10,160,452,473	0.3

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

SUMMARY OF LOSS TREND ADJUSTMENTS (LTA'S)

COLUMN (1)   COVERAGE

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

COLUMN (2)   FIVE-YEAR INCURRED LOSSES

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

COLUMN (3)   ANNUAL LTA's

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

<u>OVERVIEW</u>

<u>DEVELOPMENT OF LOSS TREND ADJUSTMENTS</u>

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 2018 COMFAL reviews is based on internal commercial property experience through 12/31/2016 and external cost indices through 12/31/2016. Therefore, the CCF's and LPF's shown on Table 23 will not necessarily match those shown on Table 21. ISO has determined that the selected LTAs are appropriate to be used with the latest external indices shown on Table 21.

TABLE 23
DEVELOPMENT OF LTA'S

I. EXTERNAL RATE OF CHANGE[a]

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
2007	1.208	1.213	1.053		0.10
2008	1.154	1.163	1.033		0.10
2009	1.119	1.146	1.041		0.10
2010	1.127	1.126	1.026		0.10
2011	1.119	1.089	0.993		0.10
2012	1.108	1.062	0.978	0.10	0.10
2013	1.090	1.044	0.976	0.15	0.10
2014	1.069	1.018	0.974	0.20	0.10
2015	1.025	1.007	0.990	0.25	0.10
2016	1.007	1.001	1.002	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))	1.047	1.019	0.987
Basic Group II (Weighted on Column (5))	1.103	1.087	1.007

(7) LOSS PROJECTION FACTORS

	Buildings	Contents	Time Element
Annual Rate of Change	0.030	0.008	-0.013
Loss Projection Factor:[b] $(1.0 + \text{Annual Rate of Change})^{(X/12)}$	1.081	1.022	0.967

(8) TOTAL TREND FACTOR (Average Current Cost Factor × Loss Projection Factor)

	Buildings	Contents	Time Element
Basic Group I and Special Causes of Loss	1.132	1.042	0.954
Basic Group II	1.193	1.111	0.974

(9) EXTERNAL ANNUAL RATE OF CHANGE[c]

	Buildings	Contents	Time Element
Basic Group I and Special Causes of Loss: $(\text{Total Trend Factor})^{12/54}$	1.028	1.009	0.990
Basic Group II: $(\text{Total Trend Factor})^{12/90}$	1.024	1.014	0.996

(a) The Current Cost Factors and Loss Projection Factors on this exhibit are based on external economic indices through December 31, 2016 for Buildings, Contents and Time Element.

(b) Assuming a loss cost revision date of July 1, 2018, the time interval between the midpoint of the latest period of external trend information (November 15, 2016) and the prospective average date of loss (July 1, 2019) 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, 2019) is 54 months for BG I and SCL, and 90 months for BG II. The weighted midpoint is January 1, 2015 for BG I and SCL, and January 1, 2012 for BG II.

TABLE 23
DEVELOPMENT OF LTA'S

II. INTERNAL ANNUAL RATES OF CHANGE:

(10) SELECTED COMFAL

	Buildings	Contents	Time Element
Basic Group I (BGI)	1.040	1.050	1.040
Basic Group II (BGII)	1.035	1.030	1.040
Special Causes of Loss	1.035	1.030	1.040

III. LTA CALCULATION:

CALCULATION OF LTAs - BUILDINGS

	(11) External Rate of Change[d]	(12) Internal Rate of Change	(13) Indicated Severity LTA [(12)/(11)-1.0]	(14) Formula Severity LTA[e]	(15) Frequency Effect	(16) Final LTA[f]
Basic Group I (BGI)	1.028	1.040	1.2	0.6	-1.0	-0.4
Basic Group II (BGII)	1.024	1.035	1.1	0.5	0.0	0.5
Special Causes of Loss	1.028	1.035	0.7	0.3	0.0	0.3

CALCULATION OF LTAs - CONTENTS

	(11) External Rate of Change[d]	(12) Internal Rate of Change	(13) Indicated Severity LTA [(12)/(11)-1.0]	(14) Formula Severity LTA[e]	(15) Frequency Effect	(16) Final LTA[f]
Basic Group I (BGI)	1.009	1.050	4.1	2.0	-1.5	0.5
Basic Group II (BGII)	1.014	1.030	1.6	0.8	0.0	0.8
Special Causes of Loss	1.009	1.030	2.1	1.0	-0.5	0.5

CALCULATION OF LTAs - TIME ELEMENT

	(11) External Rate of Change[d]	(12) Internal Rate of Change	(13) Indicated Severity LTA [(12)/(11)-1.0]	(14) Formula Severity LTA[e]	(15) Frequency Effect	(16) Final LTA[f]
Basic Group I (BGI)	0.990	1.040	5.1	2.5	0.0	2.5
Basic Group II (BGII)	0.996	1.040	4.4	2.2	0.0	2.2
Special Causes of Loss	0.990	1.040	5.1	2.5	0.0	2.5

(d) The external rates of change are based on external economic indices through December 31, 2016 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.

EXPLANATORY NOTES TO TABLE 23

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 12/31/2016 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 1/1/2015, for BG II it is 1/1/2012. Accordingly, there are 54 and 90 months, respectively, to the anticipated average accident date of 7/1/2019.

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.

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.

TABLE 24A

EXPOSURE TREND
DEVELOPMENT OF CURRENT AND PROJECTED EARNED EXPOSURE FACTORS

	Buildings				Contents			
	(1)[a] Annual Written Increase	(2)[a] 07-01-2017 Written Factors	(3)[b] 01-01-2019 Projected Factors	(4)[c] 01-01-2019 Earned Factors	(5)[a] Annual Written Increase	(6)[a] 07-01-2017 Written Factors	(7)[b] 01-01-2019 Projected Factors	(8)[c] 01-01-2019 Earned Factors
Year								
2005	3.4%	1.393	1.435	1.459	2.1%	1.267	1.299	1.313
2006	3.8%	1.342	1.382	1.409	2.1%	1.241	1.273	1.286
2007	3.9%	1.292	1.331	1.357	2.4%	1.212	1.243	1.258
2008	3.5%	1.248	1.286	1.309	2.4%	1.184	1.214	1.229
2009	3.3%	1.208	1.244	1.265	2.2%	1.159	1.189	1.202
2010	2.5%	1.179	1.215	1.230	1.7%	1.140	1.169	1.179
2011	2.5%	1.150	1.185	1.200	1.8%	1.120	1.149	1.159
2012	2.7%	1.120	1.154	1.170	1.8%	1.100	1.128	1.139
2013	2.6%	1.092	1.125	1.140	2.1%	1.077	1.105	1.117
2014	2.5%	1.065	1.097	1.111	2.1%	1.055	1.082	1.094
2015	2.3%	1.041	1.072	1.085	1.9%	1.035	1.062	1.072
2016	2.1%	1.020	1.051	1.062	1.8%	1.017	1.043	1.053
2017	2.0%	1.000	1.030	1.041	1.7%	1.000	1.026	1.035

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 2.0% and 1.7% for Buildings and Contents, respectively. Consequently, the written factors at 07/01/2017 levels in column (2) and column (6) are brought to the level of the average date of writing in the effective period, 01/01/2019 (i.e., 6 months beyond an assumed revision date of 07/01/2018), by applying a factor of $(1.020)^{18/12}$ for Buildings and $(1.017)^{18/12}$ for Contents.

c   Written factors are earned into each accident year ending 12/31 using the following factors which assume all one year policies:

	Earning Factors
Year	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 01/01/2017 to 12/31/2017 to the projected level are 1.041 for Buildings and 1.035 for Contents.

EXPOSURE TREND
DEVELOPMENT OF CURRENT AND PROJECTED EARNED EXPOSURE FACTORS

		Time Element		
	(1)[a]	(2)[a]	(3)[b]	(4)[c]
	Annual	07-01-2017	01-01-2019	01-01-2019
	Written	Written	Projected	Earned
Year	Increase	Factors	Factors	Factors
2005	1.3%	1.127	1.144	1.152
2006	1.4%	1.111	1.128	1.136
2007	1.3%	1.097	1.113	1.121
2008	1.3%	1.083	1.099	1.106
2009	0.8%	1.074	1.090	1.095
2010	0.7%	1.067	1.083	1.087
2011	0.8%	1.059	1.075	1.079
2012	0.8%	1.051	1.067	1.071
2013	0.9%	1.042	1.058	1.063
2014	1.0%	1.032	1.048	1.053
2015	1.1%	1.021	1.036	1.042
2016	1.1%	1.010	1.025	1.031
2017	1.0%	1.000	1.015	1.020

Notes

a The percentage in column (1) represents the change in written exposures from 07/01/n-1 to 07/01/n. Column (2) is the cumulative change 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 1.0%. Consequently, the written factors at 07/01/2017 levels in column (2) are brought to the level of the average date of writing in the effective period, 01/01/2019 (i.e., 6 months beyond an assumed revision date of 07/01/2018), by applying a factor of $(1.010)^{18/12}$ 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:

Year	Earning Factors All Years
n-2	0
n-1	1/2
n	1/2

For example, the factor used to adjust earned exposures for the period from 01/01/2017 to 12/31/2017 to the projected level is 1.020.

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

	Buildings				Contents			
	(1)[a] Annual Written	(2)[a] 07-01-2017 Written	(3)[b] 01-01-2019 Projected	(4)[c] 01-01-2019 Earned	(5)[a] Annual Written	(6)[a] 07-01-2017 Written	(7)[b] 01-01-2019 Projected	(8)[c] 01-01-2019 Earned
Year	Increase	Factors	Factors	Factors	Increase	Factors	Factors	Factors
2005	2.7%	1.308	1.340	1.358	1.8%	1.219	1.245	1.256
2006	3.1%	1.269	1.300	1.320	1.8%	1.197	1.222	1.234
2007	3.1%	1.231	1.261	1.281	2.0%	1.174	1.199	1.211
2008	2.8%	1.197	1.226	1.244	2.0%	1.151	1.175	1.187
2009	2.7%	1.166	1.194	1.210	1.8%	1.131	1.155	1.165
2010	2.0%	1.143	1.171	1.183	1.4%	1.115	1.138	1.147
2011	2.0%	1.121	1.148	1.160	1.5%	1.099	1.122	1.130
2012	2.2%	1.097	1.123	1.136	1.5%	1.083	1.106	1.114
2013	2.1%	1.074	1.100	1.112	1.8%	1.064	1.086	1.096
2014	2.0%	1.053	1.078	1.089	1.8%	1.045	1.067	1.077
2015	1.9%	1.033	1.058	1.068	1.6%	1.029	1.051	1.059
2016	1.7%	1.016	1.040	1.049	1.5%	1.014	1.035	1.043
2017	1.6%	1.000	1.024	1.032	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 1.6% and 1.4% for Buildings and Contents, respectively. Consequently, the written factors at 07/01/2017 levels in column (2) and column (6) are brought to the level of the average date of writing in the effective period, 01/01/2019 (i.e., 6 months beyond an assumed revision date of 07/01/2018), by applying a factor of $(1.016)^{18/12}$ 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:

| | Earning Factors |
Year	All Years
n-2	0
n-1	1/2
n	1/2

For example, the factors used to adjust earned premium for the period from 01/01/2017 to 12/31/2017 to the projected level are 1.032 for Buildings and 1.028 for Contents.

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

	Buildings				Contents			
	(1)[a]	(2)[a]	(3)[b]	(4)[c]	(5)[a]	(6)[a]	(7)[b]	(8)[c]
	Annual	07-01-2017	01-01-2019	01-01-2019	Annual	07-01-2017	01-01-2019	01-01-2019
	Written	Written	Projected	Earned	Written	Written	Projected	Earned
Year	Increase	Factors	Factors	Factors	Increase	Factors	Factors	Factors
2005	2.5%	1.283	1.312	1.329	1.6%	1.198	1.221	1.231
2006	2.8%	1.248	1.276	1.294	1.6%	1.179	1.202	1.212
2007	2.9%	1.213	1.240	1.258	1.8%	1.158	1.181	1.192
2008	2.6%	1.182	1.209	1.225	1.8%	1.138	1.160	1.171
2009	2.4%	1.154	1.180	1.195	1.7%	1.119	1.141	1.151
2010	1.9%	1.132	1.158	1.169	1.3%	1.105	1.127	1.134
2011	1.9%	1.111	1.136	1.147	1.4%	1.090	1.111	1.119
2012	2.0%	1.089	1.114	1.125	1.4%	1.075	1.096	1.104
2013	1.9%	1.069	1.093	1.104	1.6%	1.058	1.079	1.088
2014	1.9%	1.049	1.073	1.083	1.6%	1.041	1.061	1.070
2015	1.7%	1.031	1.054	1.064	1.4%	1.027	1.047	1.054
2016	1.6%	1.015	1.038	1.046	1.4%	1.013	1.033	1.040
2017	1.5%	1.000	1.023	1.031	1.3%	1.000	1.020	1.027

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 1.5% and 1.3% for Buildings and Contents, respectively. Consequently, the written factors at 07/01/2017 levels in column (2) and column (6) are brought to the level of the average date of writing in the effective period, 01/01/2019 (i.e., 6 months beyond an assumed revision date of 07/01/2018), by applying a factor of $(1.015)^{18/12}$ for Buildings and $(1.013)^{18/12}$ for Contents.

c   Written factors are earned into each accident year ending 12/31 using the following factors which assume all one year policies:

	Earning Factors
Year	All Years
n-2	0
n-1	1/2
n	1/2

For example, the factors used to adjust earned premium for the period from 01/01/2017 to 12/31/2017 to the projected level are 1.031 for Buildings and 1.027 for Contents.

TABLE 24D

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

	Buildings				Contents			
	$(1)^a$	$(2)^a$	$(3)^b$	$(4)^c$	$(5)^a$	$(6)^a$	$(7)^b$	$(8)^c$
	Annual	07-01-2017	01-01-2019	01-01-2019	Annual	07-01-2017	01-01-2019	01-01-2019
	Written	Written	Projected	Earned	Written	Written	Projected	Earned
Year	Increase	Factors	Factors	Factors	Increase	Factors	Factors	Factors
2005	2.6%	1.291	1.320	1.338	1.4%	1.169	1.188	1.197
2006	2.9%	1.255	1.283	1.302	1.4%	1.153	1.172	1.180
2007	3.0%	1.218	1.246	1.265	1.6%	1.135	1.154	1.163
2008	2.7%	1.186	1.213	1.230	1.6%	1.117	1.135	1.145
2009	2.5%	1.157	1.183	1.198	1.4%	1.102	1.120	1.128
2010	1.9%	1.135	1.161	1.172	1.1%	1.090	1.108	1.114
2011	1.9%	1.114	1.139	1.150	1.2%	1.077	1.095	1.102
2012	2.1%	1.091	1.116	1.128	1.2%	1.064	1.082	1.089
2013	2.0%	1.070	1.094	1.105	1.4%	1.049	1.066	1.074
2014	1.9%	1.050	1.074	1.084	1.4%	1.035	1.052	1.059
2015	1.8%	1.031	1.054	1.064	1.2%	1.023	1.040	1.046
2016	1.6%	1.015	1.038	1.046	1.2%	1.011	1.028	1.034
2017	1.5%	1.000	1.023	1.031	1.1%	1.000	1.017	1.023

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 1.5% and 1.1% for Buildings and Contents, respectively. Consequently, the written factors at 07/01/2017 levels in column (2) and column (6) are brought to the level of the average date of writing in the effective period, 01/01/2019 (i.e., 6 months beyond an assumed revision date of 07/01/2018), by applying a factor of $(1.015)^{18/12}$ for Buildings and $(1.011)^{18/12}$ for Contents.

c   Written factors are earned into each accident year ending 12/31 using the following factors which assume all one year policies:

	Earning Factors
Year	All Years
n-2	0
n-1	1/2
n	1/2

For example, the factors used to adjust earned premium for the period from 01/01/2017 to 12/31/2017 to the projected level are 1.031 for Buildings and 1.023 for Contents.

EXPLANATORY NOTES TO TABLES 24A - 24D
EXPOSURE AND PREMIUM TREND FACTORS

Table 24A contains Exposure trend factors.

Tables 24B, 24C and 24D contain 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 (Tables 24B, 24C and 24D) are calculated as the Annual Written Increase in Exposure tempered by the change in Limit of Insurance factor.

COLUMNS (2)
AND (6)

07-01-2017 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 2017 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 2017 are applicable for the entire year.

COLUMNS (3)
AND (7)

01-01-2019 PROJECTED FACTORS

The 01-01-2019 factors are calculated by applying a factor to adjust the 07-01-2017 written factors to the amount of insurance level at the average date of writing, 01-01-2019. This is done using the selected annual changes in exposure or premium.

COLUMNS (4)
AND (8)

01-01-2019 EARNED EXPOSURES/PREMIUM FACTORS

The projected earned factors at the 01-01-2019 level (where 01-01-2019 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).

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                          RHODE ISLAND
                           TABLE 25

                         BASIC GROUP I

              ADDITIONAL INFORMATION ON TREND ADJUSTMENTS
        _____


                 (1)          (2)          (3)                    (4)
                                       AVERAGE TOTAL            SPLIT %
              UNADJUSTED     TRENDED     LOSS TREND    -----------------------------
               INCURRED     INCURRED      FACTOR                              TIME
      YEAR      LOSSES       LOSSES      (2)/(1)    BUILDINGS   CONTENTS    ELEMENT
      ____    _____    _____    _____   _____   _____    _____

      2012     1,786,687    2,256,541     1.263       73.2%      21.5%        5.3%
      2013     2,537,277    3,075,917     1.212       60.7%      30.3%        9.0%
      2014     5,050,280    5,936,740     1.176       89.7%       6.7%        3.6%
      2015     4,391,656    4,950,503     1.127       86.3%      11.3%        2.4%
      2016     1,833,571    2,026,932     1.105       93.0%       2.6%        4.4%
```

RHODE ISLAND
TABLE 26

BASIC GROUP II

ADDITIONAL INFORMATION ON TREND ADJUSTMENTS

	(1)	(2)	(3)	(4)		
			AVG. TOTAL	SPLIT %		
	UNADJUSTED**	TRENDED**	LOSS			
	NON-HURRICANE	NON-HURRICANE	TREND			TIME
	INCURRED	INCURRED	FACTOR			ELEMENT
YEAR	LOSSES	LOSSES	(2)/(1)	BUILDINGS	CONTENTS	ELEMENT
2007	918,161	1,297,744	1.413	78.9%	20.2%	0.9%
2008	689,241	932,144	1.352	76.6%	22.6%	0.8%
2009	604,617	784,984	1.298	66.6%	29.0%	4.4%
2010	800,813	1,028,913	1.285	84.4%	12.2%	3.4%
2011	1,989,219	2,488,565	1.251	87.0%	12.1%	0.9%
2012	549,065	671,465	1.223	77.0%	22.5%	0.5%
2013	889,475	1,085,661	1.221	85.9%	8.0%	6.1%
2014	395,193	469,500	1.188	95.0%	5.0%	0.0%
2015	994,178	1,120,231	1.127	88.7%	9.5%	1.8%
2016	948,247	1,047,722	1.105	91.6%	8.4%	0.0%

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

SPECIAL CAUSES OF LOSS

ADDITIONAL INFORMATION ON TREND ADJUSTMENTS
_____

YEAR	(1) UNADJUSTED INCURRED LOSSES	(2) TRENDED INCURRED LOSSES	(3) AVERAGE TOTAL LOSS TREND FACTOR (2)/(1)	(4) SPLIT % BUILDINGS	CONTENTS	TIME ELEMENT
2012	1,551,310	1,872,598	1.207	71.5%	26.9%	1.6%
2013	1,781,675	2,128,805	1.195	75.9%	23.3%	0.8%
2014	2,261,117	2,597,289	1.149	68.1%	31.2%	0.7%
2015	4,561,211	5,112,700	1.121	82.7%	11.6%	5.7%
2016	2,156,058	2,343,665	1.087	48.0%	46.5%	5.5%

EXPLANATORY NOTES TO TABLES 25, 26 AND 27

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

COLUMN (1)   <u>UNADJUSTED INCURRED LOSSES</u>

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

COLUMN (2)   <u>TRENDED INCURRED LOSSES</u>

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

COLUMN (3)   <u>AVERAGE TREND FACTOR</u>

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 Tables 21 through 23, 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)   <u>PERCENTAGE SPLIT BETWEEN BUILDINGS, CONTENTS, AND TIME ELEMENT</u>

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, 2017, 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, 2017.

Accident year ended December 31, 2016 includes all losses paid on accidents from January 1, 2016 to December 31, 2016 and all losses outstanding on those accidents as of March 31, 2017, fifteen months after the inception of the accident year. Similarly, accident years ended December 31, 2015, 2014, 2013 and 2012 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 Table 28.

TABLE 28
BASIC GROUP I
INCURRED LOSSES
LOSS YEARS 2007-2016
EVALUATED AS OF 3/2017

LOSSES AS OF

YEAR ENDING	15 MONTHS	27 MONTHS	39 MONTHS	51 MONTHS	63 MONTHS
12/31/2007	1,065,607,800	1,052,009,165	1,039,098,421	1,033,982,851	1,032,768,802
12/31/2008	1,025,645,517	1,002,303,602	984,717,566	990,832,311	990,641,631
12/31/2009	975,235,620	963,220,644	948,045,922	941,846,680	938,382,267
12/31/2010	982,670,495	962,619,618	944,775,135	936,059,697	930,958,610
12/31/2011	901,646,749	899,904,526	880,876,453	869,830,872	865,912,455
12/31/2012	937,734,907	925,476,496	911,599,551	904,301,434	899,485,675
12/31/2013	912,157,089	906,099,664	903,646,856	891,568,642	
12/31/2014	924,743,439	901,777,178	884,996,348		
12/31/2015	800,642,023	789,245,582			
12/31/2016	905,081,345				

RATIOS

YEAR ENDING	27:15 MONTHS	39:27 MONTHS	51:39 MONTHS	63:51 MONTHS
12/31/2007	0.987	0.988	0.995	0.999
12/31/2008	0.977	0.982	1.006	1.000
12/31/2009	0.988	0.984	0.993	0.996
12/31/2010	0.980	0.981	0.991	0.995
12/31/2011	0.998	0.979	0.987	0.995
12/31/2012	0.987	0.985	0.992	0.995
12/31/2013	0.993	0.997	0.987	
12/31/2014	0.975	0.981		
12/31/2015	0.986			
5 POINT AVERAGE	0.988	0.985	0.990	0.996

DEVELOPMENT FACTORS TO ULTIMATE

15 MONTHS TO ULTIMATE = 0.988 X 0.985 X 0.990 X 0.996 = 0.960
27 MONTHS TO ULTIMATE = 0.985 X 0.990 X 0.996 = 0.971
39 MONTHS TO ULTIMATE = 0.990 X 0.996 = 0.986
51 MONTHS TO ULTIMATE = 0.996 = 0.996

TABLE 28
BASIC GROUP II
INCURRED LOSSES
LOSS YEARS 2007-2016
EVALUATED AS OF 3/2017

LOSSES
AS OF

YEAR ENDING	15 MONTHS	27 MONTHS	39 MONTHS	51 MONTHS	63 MONTHS
12/31/2007	374,031,994	379,720,501	378,648,931	380,280,569	380,270,065
12/31/2008	790,784,807	796,114,429	797,013,449	799,435,181	800,817,727
12/31/2009	542,798,108	566,583,697	569,054,306	570,778,608	573,542,231
12/31/2010	650,312,732	691,033,688	694,693,332	697,969,212	702,247,437
12/31/2011	1,228,867,523	1,247,057,881	1,257,894,802	1,267,818,365	1,279,577,902
12/31/2012	983,664,101	1,018,264,036	1,037,846,164	1,048,335,219	1,053,482,620
12/31/2013	640,550,611	653,869,380	657,463,792	663,836,272	
12/31/2014	564,081,571	585,901,220	600,507,585		
12/31/2015	447,732,833	468,361,832			
12/31/2016	674,057,383				

RATIOS

YEAR ENDING	27:15 MONTHS	39:27 MONTHS	51:39 MONTHS	63:51 MONTHS
12/31/2007	1.015	0.997	1.004	1.000
12/31/2008	1.007	1.001	1.003	1.002
12/31/2009	1.044	1.004	1.003	1.005
12/31/2010	1.063	1.005	1.005	1.006
12/31/2011	1.015	1.009	1.008	1.009
12/31/2012	1.035	1.019	1.010	1.005
12/31/2013	1.021	1.005	1.010	
12/31/2014	1.039	1.025		
12/31/2015	1.046			
5 POINT AVERAGE	1.031	1.013	1.007	1.005

DEVELOPMENT FACTORS TO ULTIMATE

15 MONTHS TO ULTIMATE = 1.031 X 1.013 X 1.007 X 1.005 = 1.057
27 MONTHS TO ULTIMATE = 1.013 X 1.007 X 1.005 = 1.025
39 MONTHS TO ULTIMATE = 1.007 X 1.005 = 1.012
51 MONTHS TO ULTIMATE = 1.005 = 1.005

TABLE 28
SPECIAL CAUSES OF LOSS
INCURRED LOSSES
LOSS YEARS 2007-2016
EVALUATED AS OF 3/2017

LOSSES AS OF

YEAR ENDING	15 MONTHS	27 MONTHS	39 MONTHS	51 MONTHS	63 MONTHS
12/31/2007	483,536,782	483,738,395	481,653,423	479,113,535	479,423,744
12/31/2008	649,457,917	642,428,928	647,705,112	646,505,670	642,231,189
12/31/2009	540,059,707	532,924,301	527,052,480	525,271,075	526,019,245
12/31/2010	689,581,821	679,644,580	674,738,697	675,066,063	675,344,380
12/31/2011	730,592,374	714,026,793	709,197,999	706,756,333	706,457,377
12/31/2012	446,942,769	446,587,581	445,483,257	446,465,098	447,901,386
12/31/2013	465,653,920	458,998,613	452,805,952	451,331,773	
12/31/2014	666,659,049	667,688,446	669,639,921		
12/31/2015	600,898,381	598,679,299			
12/31/2016	389,413,510				

RATIOS

YEAR ENDING	27:15 MONTHS	39:27 MONTHS	51:39 MONTHS	63:51 MONTHS
12/31/2007	1.000	0.996	0.995	1.001
12/31/2008	0.989	1.008	0.998	0.993
12/31/2009	0.987	0.989	0.997	1.001
12/31/2010	0.986	0.993	1.000	1.000
12/31/2011	0.977	0.993	0.997	1.000
12/31/2012	0.999	0.998	1.002	1.003
12/31/2013	0.986	0.987	0.997	
12/31/2014	1.002	1.003		
12/31/2015	0.996			
5 POINT AVERAGE	0.992	0.995	0.999	0.999

DEVELOPMENT FACTORS TO ULTIMATE

15 MONTHS TO ULTIMATE = 0.992 X 0.995 X 0.999 X 0.999 = 0.985
27 MONTHS TO ULTIMATE = 0.995 X 0.999 X 0.999 = 0.993
39 MONTHS TO ULTIMATE = 0.999 X 0.999 = 0.998
51 MONTHS TO ULTIMATE = 0.999 = 0.999

EXPLANATORY NOTES TO TABLE 28

LOSS DEVELOPMENT

INTRODUCTION

Table 28 shows multistate incurred loss development exhibits for Basic Group I, Basic Group II and Special Causes of Loss. The exhibits on Table 28 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 Table 28. 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.

<u>EXCESS LOSS PROCEDURES</u>

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 Table 29.) 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 Tables 21 through 22). 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.

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 Table 31. 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   Similar to Basic Group II, the Special Causes of Loss (SCL) smoothing procedure
OF LOSS   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 Table 32.

TABLE 29 - 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	1.045	1.092	1.141	1.192	1.246	1.302	1.360	1.421	1.485	2.002
	Prot. 5-7	1.000	1.057	1.118	1.182	1.250	1.322	1.397	1.478	1.562	1.652	2.414
	Prot. 8-10	1.000	1.059	1.121	1.187	1.256	1.330	1.408	1.490	1.578	1.670	2.461

		Amount of Insurance *										
		1	2	3	4	5	6	7	8	9	10	11
Const. 4-6	Prot. 1-4	1.000	1.039	1.081	1.123	1.167	1.214	1.261	1.311	1.363	1.417	1.844
	Prot. 5-7	1.000	1.052	1.106	1.164	1.224	1.288	1.354	1.425	1.499	1.576	2.223
	Prot. 8-10	1.000	1.053	1.109	1.168	1.230	1.296	1.364	1.437	1.513	1.594	2.267

*	Amount of Insurance	Intervals
	1	0-403,000
	2	403,001-500,000
	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

Table 29 (cont'd)

Countrywide Basic Group I
Normal vs. Total Loss Amount

Normal Loss = $1,250,000 × (1 - ($800,000 ÷ (Total Loss + $750,000)))

Total Loss Amount
(in Millions)
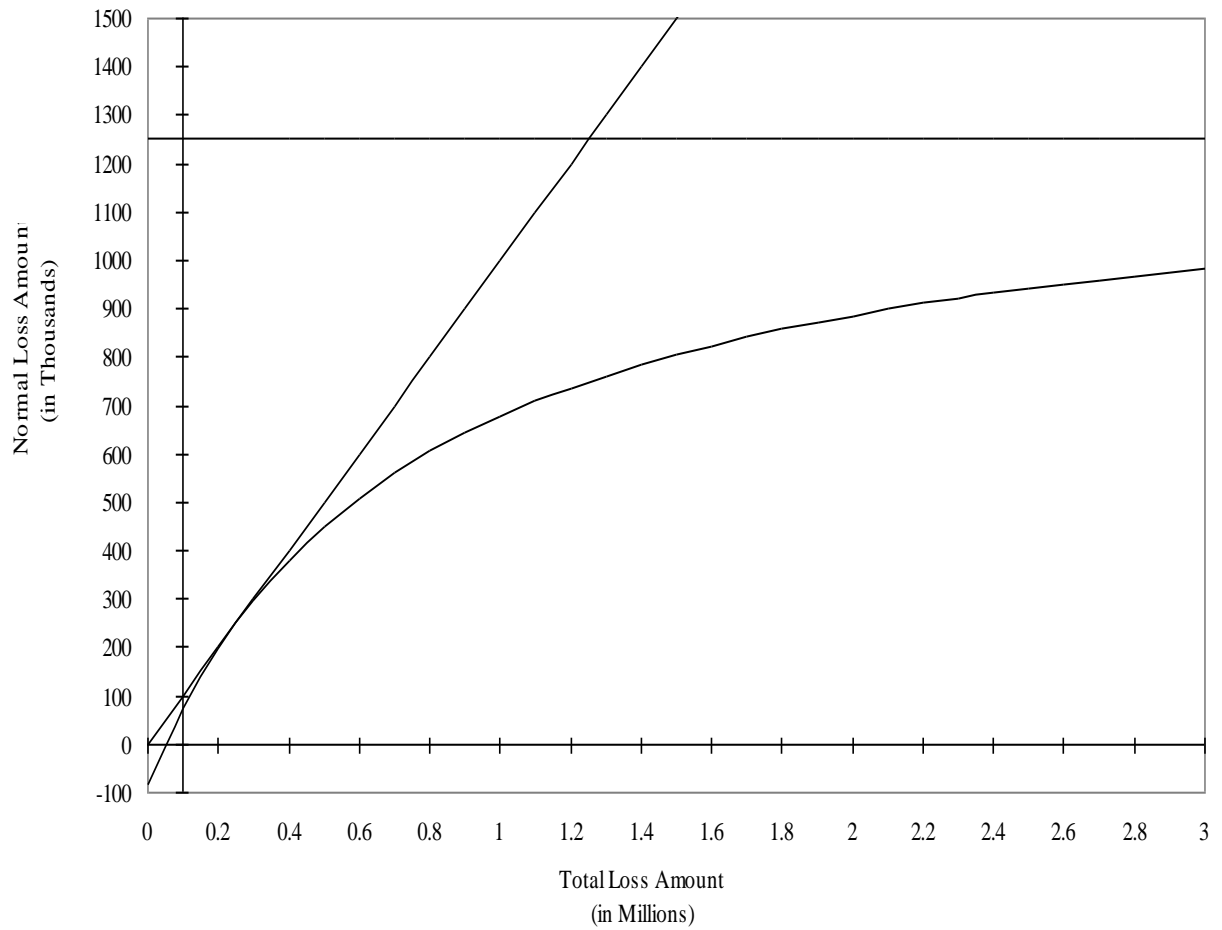
EXPLANATORY NOTES TO TABLES 29

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.

BASIC GROUP I
ADDITIONAL EXCESS LOSS INFORMATION
_____

	(1)	(2)	(3)	(4)	(5)	(6)
				MULTI-		STATE AVERAGE
	TRENDED INCURRED	TRENDED NORMAL	STATE NORMAL %	STATE NORMAL	ADJUSTED INCURRED	EXCESS FACTOR
YEAR	LOSSES	LOSSES	(2)/(1)	%	LOSSES	(5)/(2)
____	_____	_____	_____	_____	_____	_____
2012	2,256,541	2,183,825	96.8%	72.7%	3,345,651	1.532
2013	3,075,917	3,067,357	99.7%	73.4%	3,420,745	1.115
2014	5,936,740	5,000,063	84.2%	73.3%	6,608,913	1.322
2015	4,950,503	4,703,875	95.0%	74.8%	5,492,211	1.168
2016	2,026,932	2,009,269	99.1%	71.8%	2,907,724	1.447

EXPLANATORY NOTES TO TABLE 30

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.

RHODE ISLAND
TABLE 31

DEVELOPMENT OF BASIC GROUP II EXCESS MULTIPLIER*

(1)	(2)	(3)	(4)	(5)	(6)
		NON-HURRICANE	NORMAL	NORMAL	EXCESS
	EARNED	INCURRED	INCURRED	LOSS	LOSS
YEAR	PREMIUMS	LOSSES	LOSSES	RATIO	RATIO
1950	363,006	68,346	68,346	0.188	
1951	390,742	557,284	195,371	0.500	0.926
1952	436,004	145,096	145,096	0.333	
1953	498,166	194,354	194,354	0.390	
1955	557,886	298,831	278,943	0.500	0.036
1956	596,697	325,790	298,349	0.500	0.046
1957	631,207	114,860	114,860	0.182	
1958	674,330	270,784	270,784	0.402	
1959	717,969	153,451	153,451	0.214	
1961	774,517	262,272	262,272	0.339	
1962	774,900	148,842	148,842	0.192	
1963	747,302	302,974	302,974	0.405	
1964	715,610	197,467	197,467	0.276	
1965	676,495	203,967	203,967	0.302	
1966	644,876	197,089	197,089	0.306	
1967	638,252	373,294	319,126	0.500	0.085
1968	611,951	207,907	207,907	0.340	
1969	606,180	244,372	244,372	0.403	
1970	831,306	297,636	297,636	0.358	
1971	960,079	412,261	412,261	0.429	
1972	1,120,411	281,182	281,182	0.251	
1973	1,180,067	300,515	300,515	0.255	
1974	1,333,606	522,597	522,597	0.392	
1975	1,749,759	518,809	518,809	0.297	
1977	2,294,918	618,092	618,092	0.269	
1978	2,564,284	1,907,447	1,282,142	0.500	0.244
1979	2,632,884	1,020,460	1,020,460	0.388	
1980	2,424,044	883,110	883,110	0.364	
1981	1,823,279	512,991	512,991	0.281	
1982	1,703,508	677,340	677,340	0.398	
1983	1,626,804	1,073,699	813,402	0.500	0.160
1984	1,476,480	767,756	738,240	0.500	0.020
1985	1,920,564	776,460	776,460	0.404	
1986	2,798,028	1,449,481	1,399,014	0.500	0.018
1987	3,364,743	873,539	873,539	0.260	
1988	3,893,529	365,405	365,405	0.094	
1989	3,789,882	497,162	497,162	0.131	
1990	3,507,369	427,036	427,036	0.122	
1991	3,109,800	402,833	402,833	0.130	

DEVELOPMENT OF BASIC GROUP II EXCESS MULTIPLIER*

(1)	(2)	(3)	(4)	(5)	(6)
YEAR	EARNED PREMIUMS	NON-HURRICANE INCURRED LOSSES	NORMAL INCURRED LOSSES	NORMAL LOSS RATIO	EXCESS LOSS RATIO
1992	2,507,526	764,889	764,889	0.305	
1993	2,360,085	703,791	703,791	0.298	
1994	2,362,278	1,342,893	1,181,139	0.500	0.068
1995	1,905,657	475,822	475,822	0.250	
1996	1,694,541	1,032,791	847,271	0.500	0.109
1997	1,742,307	653,520	653,520	0.375	
1998	1,756,413	460,591	460,591	0.262	
1999	1,705,911	483,406	483,406	0.283	
2000	1,727,538	577,623	577,623	0.334	
2001	1,758,738	1,167,718	879,369	0.500	0.164
2002	1,813,278	419,487	419,487	0.231	
2003	2,113,389	449,865	449,865	0.213	
2004	2,390,679	234,898	234,898	0.098	
2005	2,736,948	642,346	642,346	0.235	
2006	3,104,127	486,004	486,004	0.157	
2007	3,687,919	918,161	918,161	0.249	
2008	3,909,120	689,241	689,241	0.176	
2009	4,278,833	604,617	604,617	0.141	
2010	4,395,187	800,813	800,813	0.182	
2011	4,105,838	1,989,217	1,989,217	0.484	
2012	4,051,386	549,066	549,066	0.136	
2013	4,526,220	893,923	893,923	0.197	
2014	4,813,565	399,935	399,935	0.083	
2015	4,999,199	1,019,035	1,019,035	0.204	
2016	5,225,428	1,002,297	1,002,297	0.192	
TOTALS				19.680	1.876

(7) STATE EXCESS COMPONENT = (EXLR / NLR)   =   0.095

(8) STATE EXCESS MULTIPLIER = (1 + SEC)   =   1.095

* HURRICANE YEARS BEFORE 1982 HAVE BEEN EXCLUDED. FOR THE YEARS 1982
   THROUGH 2016, LOSSES INCURRED DURING THE MONTH OF A HURRICANE HAVE BEEN
   REPLACED WITH AVERAGE MONTHLY NON-HURRICANE LOSSES.

EXPLANATORY NOTES TO TABLE 31

BASIC GROUP II EXCESS MULTIPLIER

COLUMN (2)   <u>EARNED PREMIUMS</u>

The unadjusted earned premiums are shown for each year.

COLUMN (3)   <u>INCURRED NON-HURRICANE LOSSES</u>

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 (4)   <u>NORMAL INCURRED NON-HURRICANE LOSSES</u>

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 (5)   <u>NORMAL LOSS RATIO</u>

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 (6)   <u>STATE EXCESS LOSS RATIO</u>

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 (7)   <u>STATE EXCESS COMPONENT</u>

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 (8)   <u>STATE EXCESS MULTIPLIER</u>

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

TABLE 32 - DEVELOPMENT OF SPECIAL CAUSES OF LOSS EXCESS MULTIPLIER

YEAR	(1) EARNED PREMIUMS	(2) INCURRED LOSSES	(3) NORMAL INCURRED LOSSES	(4) NORMAL LOSS RATIO	(5) STATE EXCESS LOSS RATIO
1985	1,487,484	956,090	956,090	0.643	
1986	2,014,032	794,891	794,891	0.395	
1987	2,380,644	1,473,747	1,473,747	0.619	
1988	2,477,544	1,756,890	1,703,256	0.687	0.022
1989	2,741,184	1,557,905	1,557,905	0.568	
1990	3,158,400	1,871,326	1,871,326	0.592	
1991	3,161,448	2,400,124	2,352,390	0.744	0.015
1992	2,949,006	1,338,209	1,338,209	0.454	
1993	2,755,401	1,379,690	1,379,690	0.501	
1994	2,570,112	3,072,270	1,898,926	0.739	0.456
1995	2,570,166	2,694,807	2,190,326	0.852	0.196
1996	2,387,133	2,459,218	1,654,826	0.693	0.337
1997	2,367,543	952,748	952,748	0.402	
1998	2,355,861	918,580	918,580	0.390	
1999	2,424,321	1,515,864	1,307,803	0.539	0.086
2000	2,462,970	2,173,038	1,578,865	0.641	0.241
2001	2,699,613	2,509,422	1,843,993	0.683	0.247
2002	2,865,246	894,537	894,537	0.312	
2003	3,104,754	1,693,941	1,436,643	0.463	0.083
2004	3,151,326	1,937,900	1,532,253	0.486	0.129
2005	3,066,549	1,610,553	1,610,553	0.525	
2006	3,397,170	804,152	804,152	0.237	
2007	3,714,087	1,929,897	1,929,897	0.520	
2008	3,826,482	2,386,968	2,386,968	0.624	
2009	3,911,352	2,857,123	2,765,633	0.707	0.023
2010	3,827,739	11,256,551	1,822,392	0.476	2.465
2011	3,508,269	3,771,065	3,449,080	0.983	0.092
2012	3,371,491	1,551,310	1,551,310	0.460	
2013	3,482,944	1,781,675	1,741,815	0.500	0.012
2014	3,611,769	2,261,117	1,727,128	0.478	0.148
2015	3,631,652	4,561,211	2,203,506	0.607	0.649
2016	3,591,357	2,156,058	1,468,020	0.409	0.191
TOTALS		71,278,877	53,097,458	17.929	5.392

(6) STATE EXCESS COMPONENT = (SELR / NLR)   =   0.301

(7) STATE EXCESS MULTIPLIER = (1 + SEC)   =   1.301

EXPLANATORY NOTES TO TABLE 32

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.

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 Tables 33, 33A, and 34 for a complete explanation of the credibility standards for Basic Group I, Basic Group II, and Special Causes of Loss.

RHODE ISLAND

TABLE 33 - BASIC GROUP I STATEWIDE CREDIBILITY CALCULATION

(1a) FULL CREDIBILITY CLAIMS STANDARD FOR FREQUENCY
     WITH (P,K) = (95.00% ,   5.00%)   1,537

(1b) SEVERITY MODIFICATION FACTOR   9.379

(1c) FULL CREDIBILITY CLAIMS STANDARD ADJUSTED
     FOR SEVERITY ((1a) X (1b))   14,416

(2) MULTISTATE FIVE YEAR RATIO OF EARNED
     RISKS TO CLAIMS   318.247

(3) FULL CREDIBILITY EARNED RISKS STANDARD (1c)X(2)   4,587,849

(4) FIVE YEAR STATEWIDE EARNED RISKS   85,448

(5) FIVE YEAR AGGREGATE LOSS COSTS   25,190,735

(6) AGGREGATE LOSS COSTS PER EARNED RISK (5)/(4)   294.808

(7) AGGREGATE LOSS COSTS FOR 100% CREDIBILITY   1,352,534,588
     (3) X (6)

(8) STATEWIDE CREDIBILITY   13.6%
     ((5)/(7))**(.5)

(9) MINIMUM CREDIBILITY   25.0%

RHODE ISLAND

TABLE 33A - BASIC GROUP II STATEWIDE CREDIBILITY CALCULATION
----

(1) FULL CREDIBILITY CLAIMS STANDARD   30,000

(2) MULTISTATE TEN YEAR RATIO OF EARNED
    RISKS TO CLAIMS   143.963

(3) FULL CREDIBILITY EARNED RISKS STANDARD (1)X(2)   4,318,890

(4) TEN YEAR STATEWIDE EARNED RISKS   174,302

(5) TEN YEAR AGGREGATE LOSS COSTS   32,233,309

(6) AGGREGATE LOSS COSTS PER EARNED RISK (5)/(4)   184.928

(7) AGGREGATE LOSS COSTS FOR 100% CREDIBILITY   798,683,690
    (3) X (6)

(8) STATEWIDE CREDIBILITY   20.1%
    ((5)/(7))**(.5)

(9) MINIMUM CREDIBILITY   25.0%

TABLE 34 - SPECIAL CAUSES OF LOSS STATEWIDE CREDIBILITY CALCULATION
----

(1) FULL CREDIBILITY CLAIMS STANDARD   25,000

(2) MULTISTATE FIVE YEAR RATIO OF EARNED
    RISKS TO CLAIMS   165.561

(3) FULL CREDIBILITY EARNED RISKS STANDARD (1)X(2)   4,139,025

(4) FIVE YEAR STATEWIDE EARNED RISKS   84,276

(5) FIVE YEAR AGGREGATE LOSS COSTS   15,294,023

(6) AGGREGATE LOSS COSTS PER EARNED RISK (5)/(4)   181.475

(7) AGGREGATE LOSS COSTS FOR 100% CREDIBILITY   751,129,562
    (3) X (6)

(8) STATEWIDE CREDIBILITY   14.3%
    ((5)/(7))**(.5)

(9) MINIMUM CREDIBILITY   25.0%

EXPLANATORY NOTES TO TABLES 33, 33A AND 34

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

LINE (1a)   Full Credibility Claims Standard of Frequency
(BGI only)

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)   Severity Modification Factor
(BGI only)

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   Full Credibility Claims Standard
LINE (1) - BGII, SCL

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.

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)).

LINE (9)   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.

REVISED
HURRICANE
MODEL   As noted in the Executive Summary, the hurricane loss costs contained in this filing are based on Touchstone Version 5.0 of AIR Worldwide Corporation's Atlantic Tropical Cyclone Model. This model version includes historical catalog upates based on the most recent release of the North Atlantic Hurricane Database (HURDAT2), stochastic updates to the Standard and the Warm Sea Surface Temperature (WSST) 10K, 50K, and 100K stochastic catalogs, and wind vulnerability and damage estimation updates due to updated building code adoption and enforcement at the local level.

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.

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.

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.

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.

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 form 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.

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.

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 (Table 6) 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: Current Non-Hurricane Loss Cost × Statewide Monoline Non-Hurr. Change where the statewide monoline non-hurricane change is the product of the statewide non-hurricane coverage change (Table 6) and the indicated monoline relativity found on Table 12, 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 Table 1 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 Table 12.

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                                    RHODE ISLAND
                                     TABLE 35
                        CALCULATION OF INDICATED BASIC GROUP II LOSS COSTS


                     (1)              (2)      (3)      (4)      (5)      (6)      (7)      (8)

                     ACCIDENT YEAR                      STATEWIDE INDICATED          INDICATED INDICATED
                     ENDING 12/31/16           CURRENT  MONOLINE  NON-HURR. HURRICANE TOTAL     PERCENT
                     BG II AGG.      CURRENT   NON-HURR NON-HURR. LOSS COST MODELED   LOSS COST CHANGE
TERRITORY  COVERAGE SYMBOL LOSS COSTS LOSS COST LOSS COST CHANGE  (3) * (4) LOSS COST (5) + (6) (7)/(2) - 1
-------------------------------------------------------------------------------------------------------


Territory I  BUILDINGS OA          1,166    0.051    0.030    0.946    0.028    0.021    0.049      -3.9%
             OAB         3,503    0.060    0.038    0.946    0.036    0.019    0.055      -8.3%
             OB         69,209    0.093    0.046    0.946    0.044    0.042    0.086      -7.5%
             AA             92    0.048    0.028    0.946    0.026    0.020    0.046      -4.2%
             A           5,569    0.052    0.030    0.946    0.028    0.022    0.050      -3.8%
             AB        123,904    0.064    0.041    0.946    0.039    0.020    0.059      -7.8%
             B       1,483,877    0.097    0.048    0.946    0.045    0.044    0.089      -8.2%
          CONTENTS  OA       68    0.057    0.038    0.946    0.036    0.019    0.055      -3.5%
             OAB           979    0.068    0.047    0.946    0.044    0.019    0.063      -7.4%
             OB         12,161    0.102    0.053    0.946    0.050    0.041    0.091     -10.8%
             AA             48    0.055    0.037    0.946    0.035    0.018    0.053      -3.6%
             A           1,995    0.061    0.041    0.946    0.039    0.020    0.059      -3.3%
             AB         19,876    0.071    0.049    0.946    0.046    0.020    0.066      -7.0%
             B         213,635    0.105    0.054    0.946    0.051    0.043    0.094     -10.5%
          SUB-TOTAL    1,936,082                                                          -8.4%

Territory II BUILDINGS OA           561    0.105    0.030    0.946    0.028    0.070    0.098      -6.7%
             OAB             0    0.119    0.039    0.946    0.037    0.070    0.107     -10.1%
             OB          8,019    0.195    0.046    0.946    0.044    0.133    0.177      -9.2%
             AA             0    0.099    0.029    0.946    0.027    0.066    0.093      -6.1%
             A             111    0.108    0.030    0.946    0.028    0.073    0.101      -6.5%
             AB         10,707    0.125    0.041    0.946    0.039    0.073    0.112     -10.4%
             B         376,436    0.204    0.048    0.946    0.045    0.139    0.184      -9.8%
          CONTENTS  OA        0    0.091    0.037    0.946    0.035    0.054    0.089      -2.2%
             OAB           519    0.104    0.044    0.946    0.042    0.058    0.100      -3.8%
             OB          1,172    0.170    0.049    0.946    0.046    0.103    0.149     -12.4%
             AA             20    0.084    0.034    0.946    0.032    0.050    0.082      -2.4%
             A             159    0.094    0.038    0.946    0.036    0.056    0.092      -2.1%
             AB          1,353    0.109    0.046    0.946    0.044    0.061    0.105      -3.7%
             B          56,979    0.177    0.051    0.946    0.048    0.108    0.156     -11.9%
          SUB-TOTAL      456,036                                                         -10.0%


STATE TOTAL           2,392,118                                                          -8.7%
```

EXPLANATORY NOTES TO TABLE 35

CALCULATION OF REVISED BASIC GROUP II LOSS COSTS

SYMBOL
DEFINITIONS

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

Symbol	Definition
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)   2016 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 Table 6, line (10), times the monoline normalized formula relativity shown on Table 12, 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.

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).

SECTION D - ADDITIONAL SUPPORTING MATERIAL

TABLE 36

BASIC GROUP I RATING GROUP DEFINITIONS

THE FOLLOWING CSP CLASSES COMPRISE THE BASIC GROUP I RATING GROUPS

01   APARTMENTS

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

02   OTHER HABITATIONAL

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

03   RESTAURANTS & BARS

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

04   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

08   OFFICE AND BANKS

0702   Non-Governmental Offices and Banks

09   RECREATIONAL FACILITIES

0755   Golf Clubs, Tennis Clubs and Similar Sports Facilities with Cooking
0756   Golf Clubs, Tennis Clubs and Similar Sports Facilities without Cooking
0757   Clubs, NOC, Including Fraternal and Union Halls
0831   Motion Picture Studios
0832   Theaters
0833   Drive-in Theaters
0834   Skating Rinks--Roller Rinks
0841   Bowling Alleys
0843   Halls and Auditoriums
0844   Recreational Facilities, NOC
0845   Boys' and Girls' Camps
0846   Dance Halls, Ballrooms & Discotheques
0951   Gambling Casinos with Restaurants
0952   Gambling Casinos without Restaurants

10   HOTELS & MOTELS

0742   Motels and Hotels with Restaurant - Up to 10 Units
0743   Motels and Hotels with Restaurant - 11 to 30 Units
0744   Motels and Hotels with Restaurant - Over 30 Units
0745   Motels and Hotels without Restaurant - Up to 10 Units
0746   Motels and Hotels without Restaurant - 11 to 30 Units
0747   Motels and Hotels without Restaurant - Over 30 Units

11   HOSPITALS & NURSING HOMES

0851   Hospitals
0852   Nursing and Convalescent Homes

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

15 STORAGE

1200 Piers, Wharves, Bridges
1211 Freight Terminals
1212 General Storage Warehouses - Bailee
1213 Miscellaneous Products Storage - (other than Retail or Wholesale or Cold Storage)
1220 Household Goods Storage
1230 Cold Storage Warehouses
1251 Farm Products (other than Grain, Cotton, Tobacco)
1252 Grain, Seed, Bean Warehouses
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

18   WOOD MANUFACTURING

3809   Basic Wood Production including Veneer and Plywood Plants
3959   Furniture and Other Wood Products, NOC

19   WEARING APPAREL

2800   Textile Mill Products - Natural and Synthetic
3009   Clothing and Apparel including Furs and Finished Products

20   CHEMICAL MANUFACTURING

5000   Chemicals and Pharmaceuticals - Low Hazard
5050   Chemicals and Pharmaceuticals - Moderate Hazard
5100   Chemicals and Pharmaceuticals - High Hazard

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

TABLE 37

SPECIAL CAUSES OF LOSS CATEGORY DEFINITIONS

CATEGORY 01 - BUILDING AND TIME ELEMENT COVERAGE

CATEGORY 02 - APARTMENT AND CONDOMINIUM CONTENTS COVERAGE

CATEGORY 03 - OFFICE CONTENTS COVERAGE

CATEGORIES 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.

TABLE 37

SPECIAL CAUSES OF LOSS CATEGORY DEFINITIONS

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

CATEGORY 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

TABLE 37

SPECIAL CAUSES OF LOSS CATEGORY DEFINITIONS

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.

RHODE ISLAND
TABLE 38

BASIC GROUP I

UNADJUSTED AGGREGATE LOSS COSTS, LOSSES, AND EXPERIENCE RATIOS
_____

YEAR	TOTAL UNADJUSTED LOSS COSTS	TOTAL UNADJUSTED INCURRED LOSSES	EXPERIENCE RATIO
2012	4,841,653	1,786,687	0.369
2013	4,883,495	2,537,277	0.520
2014	4,765,184	5,050,280	1.060
2015	4,611,635	4,391,656	0.952
2016	4,362,214	1,833,571	0.420

RHODE ISLAND
TABLE 39

BASIC GROUP II

UNADJUSTED AGGREGATE LOSS COSTS, LOSSES, AND EXPERIENCE RATIOS
_____

YEAR	TOTAL UNADJUSTED LOSS COSTS	TOTAL ** UNADJUSTED NON-HURRICANE INCURRED LOSSES	EXPERIENCE RATIO
2007	2,014,161	918,161	0.456
2008	2,136,477	689,241	0.323
2009	2,337,932	604,617	0.259
2010	2,401,794	800,813	0.333
2011	2,240,700	1,989,219	0.888
2012	2,212,849	549,065	0.248
2013	2,472,554	889,475	0.360
2014	2,629,879	395,193	0.150
2015	2,732,653	994,178	0.364
2016	2,860,305	948,247	0.332

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

RHODE ISLAND
TABLE 40

SPECIAL CAUSES OF LOSS

UNADJUSTED AGGREGATE LOSS COSTS, LOSSES, AND EXPERIENCE RATIOS
_____

YEAR	TOTAL UNADJUSTED LOSS COSTS	TOTAL UNADJUSTED INCURRED LOSSES	EXPERIENCE RATIO
2012	1,840,700	1,551,310	0.843
2013	1,901,888	1,781,675	0.937
2014	1,972,491	2,261,117	1.146
2015	1,983,619	4,561,211	2.299
2016	1,961,748	2,156,058	1.099

<u>OVERVIEW</u>

<u>LOSS ADJUSTMENT EXPENSE FACTORS</u>

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 Table 41 for the underlying data).

EXPERIENCE

Fire and Allied Lines incurred loss and loss adjustment expense experience for 2011-

INCLUDED

2015 is displayed on Table 41. The experience is based on Insurance Expense Exhibit information compiled by A.M. Best. For Allied Lines, the loss adjustment expense ratios [Table 41, line (3)(b)] for several 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

The following factors have been used in this review to load incurred losses for all

FACTORS

loss adjustment expenses:

Basic Group I	1.100
Basic Group II	1.125
Special Causes of Loss	1.125

TABLE 41

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

			2011	2012	2013	2014	2015	Selected
(1)	Fire							
	(a)	Direct Losses Incurred	4,974,658	5,023,493	4,682,462	5,433,082	5,190,077	
	(b)	Direct Loss Adjustment Expense Incurred	486,677	476,482	470,389	541,799	507,158	
(2)	Allied Lines							
	(a)	Direct Losses Incurred	7,224,845	8,391,540	4,752,729	4,491,715	4,676,584	
	(b)	Direct Loss Adjustment Expense Incurred	828,169	795,172	695,484	613,829	637,729	
(3)	Loss Adjustment Expense as a Ratio to Losses							
	(a)	Fire (1b) / (1a)	9.8%	9.5%	10.0%	10.0%	9.8%	10.0%
	(b)	Allied Lines (2b) / (2a)	11.5%	9.5%	14.6%	13.7%	13.6%	12.5%

NOTE: All dollar amounts are displayed in thousands.

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

PURPOSE

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

MONOLINE
INDICATIONS

The indicated statewide monoline changes are:

Subline	Current Review	Prior Review
Basic Group I	-2.7%	+1.9%
Basic Group II	-8.7%	+0.5%
Special Causes of Loss	+3.2%	+8.7%
All Coverages Combined	-2.6%	+3.3%

The prior review indications were filed and implemente. There was no change in the Implicit Package Modification Factors since the prior review.

Special Causes of Loss (SCL) Indications on an Old Category Basis

Given below are the current SCL review indications on an old category basis for those companies that have not yet adopted the current SCL rating that was introduced in conjunction with the limit of insurance curves.

Category	Loss Cost Change
01 Buildings	+4.1%
02 Apartment and Condominium Contents	-0.2%
03 Office Contents	+2.5%
04 Mercantile, Motel-Hotel, and Institutional Contents	+2.7%
05 Service, Industrial-Processing and Contractors Contents	+2.7%
Personal Property (Contents) Excluding Theft	+2.6%

Given below is a brief discussion and comparison of the multistate factors (premium and loss trend, loss adjustment expense, and loss development) used in this year's and last year's 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.

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.

LOSS ADJUSTMENT EXPENSE/LOSS DEVELOPMENT FACTORS	Loss adjustment expense factors have remained the same at 1.100 for BG I, and have changed from 1.120 to 1.125 for BG II and SCL. Loss development factors changed slightly but are still relatively close to unity for all sublines and years.

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/RSALES for Time Element) for the current and prior year reviews are:

Coverage	Current Review	Prior Review	Change
Buildings	+2.3%	+3.2%	-0.9%
Contents	+0.9%	+1.1%	-0.2%
Time Element	-0.6%	-1.3%	+0.7%

Loss Trend Adjustments (LTAs)
The loss trend adjustment factors underlying the current and prior reviews are:

	Current Review			Prior Review		
Subline	Bldg.	Cnts.	TE	Bldg.	Cnts.	TE
Basic Group I	-0.4%	+0.5%	+2.5%	-0.7%	+0.4%	+1.9%
Basic Group II	+0.5%	+0.8%	+2.2%	+0.5%	+0.5%	+1.5%
Special Causes of Loss	+0.3%	+0.5%	+2.5%	+0.3%	+0.9%	+1.9%

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.

	Current Review			Prior Review		
Subline	Bldg.	Cnts.	TE	Bldg.	Cnts.	TE
Basic Group I	+1.9%	+1.4%	+1.9%	+2.5%	+1.5%	+0.6%
Basic Group II	+2.8%	+1.7%	+1.6%	+3.7%	+1.6%	+0.2%
Special Causes of Loss	+2.6%	+1.4%	+1.9%	+3.5%	+2.0%	+0.6%

CHANGE IN AVERAGE LOSS TREND	The changes in average loss trend from current year to prior year are:

Subline	Change in Average Trend
Basic Group I	+1.1%
Basic Group II	+0.5%
Special Causes of Loss	-0.6%

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:

Coverage	Current Review	Prior Review	Change
Buildings	+2.0%	+2.2%	-0.2%
Contents	+1.7%	+1.9%	-0.2%
Time Element	+1.0%	+1.2%	-0.2%

NET TREND

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

Subline	Current Review	Prior Review	Change
Basic Group I	-0.1%	0.0%	-0.1%
Basic Group II	+0.6%	+0.8%	-0.2%
Special Causes of Loss	+0.2%	+0.6%	-0.4%

BASIC GROUP I

The statewide five-year weighted average experience ratio, before credibility weighting, decreased by 15.6%, from 1.085 in the prior review to 0.916 in the current review. The increase reflects the implementation of last year's 1.9% monoline increase and a lower than average experience ratio of 0.664 for 2016 entering the experience period. The monoline relativity decreased by 0.2% since the prior review.

Statewide Loss Cost Level Review

	Current Review	Prior Review	Ratio
Weighted Experience Ratio	0.916	1.085	0.844
Credibility	0.250	0.250	1.000
Expected Experience Ratio	0.999	1.000	0.999
Coverage Change	0.978	1.021	0.958
Monoline Relativity	0.995	0.997	0.998
Monoline Change	0.973	1.019	0.955

BASIC GROUP II   The statewide ten-year average experience ratio, before credibility weighting, increased by 21.2%, from 0.769 in the prior review to 0.932 in the current review. The increase was due to a higher-than-average experience ratio of 1.099 in 2016 entering the experience period and a lower-than-average experience ratio of 0.550 in 2006 leaving the experience period . The monoline relativity increased by 5.8% , due to a higher than overall monoline ratio for 2016 entering the experience period and a lower than overall monoline ratio for 2006 leaving the experience period.

Statewide Loss Cost Level Review

	Current Review	Prior Review	Ratio
Weighted Experience Ratio	0.932	0.769	1.212
Credibility	0.250	0.250	1.000
Expected Experience Ratio	1.006	1.008	0.998
Coverage Change	0.988	0.948	1.042
Monoline Relativity	0.9579	0.9429	1.016
Monoline Change	0.946	0.894	1.058
Monoline Change incl. Hurricane	0.913	1.005	0.908

SPECIAL CAUSES
OF LOSS   The statewide five-year weighted average experience ratio, before credibility weighting, decreased by 21%, from 1.203 in the prior review to 0.950 in the current review. The decrease reflects the implementation of last year's 8.7% monoline increase, a lower-than-average experience ratio of 0.795 in 2016 entering the experience period and a higher-than-average experience ratio of 1.962 in 2011 leaving the experience period.The monoline relativity increased by 1.4%.

Statewide Loss Cost Level Review

	Current Review	Prior Review	Ratio
Weighted Experience Ratio	0.950	1.203	0.790
Credibility	0.250	0.250	1.000
Expected Experience Ratio	1.002	1.006	0.996
Coverage Change	0.989	1.055	0.937
Monoline Relativity	1.044	1.03	1.014
Monoline Change	1.032	1.087	0.949

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 12/31/2016.

Date From	Date To	Perils
8/18/91	8/20/91	Hurricane Bob - Wind, Tornadoes, Flooding
10/29/91	11/1/91	Wind, Flooding
7/6/92	7/15/92	Wind, Hail, Tornadoes, Flooding
3/11/93	3/14/93	Wind, Hail, Tornadoes, Freezing, Ice, Snow
1/14/94	1/16/94	Wind, Snow, Ice, Freezing
1/17/94	1/20/94	Wind, Snow, Ice, Freezing
2/10/94	2/12/94	Wind, Snow, Ice, Freezing, Flooding
12/21/94	12/24/94	Wind, Flooding
11/11/95	11/12/95	Wind, Hail, Tornadoes
1/6/96	1/9/96	Wind, Snow, Ice, Freezing, Flooding
2/24/96	2/25/96	Wind
5/17/96	5/21/96	Wind, Hail, Tornadoes, Flooding
10/18/96	10/21/96	Wind, Flooding
3/4/97	3/6/97	Wind, Hail, Tornadoes, Flooding
3/31/97	4/1/97	Wind, Snow, Flooding
11/1/97	11/2/97	Wind, Hail, Tornadoes, Flooding
12/5/97	12/7/97	Wind, Flooding
6/11/98	6/15/98	Hail, Wind, Flooding, Tornadoes
6/24/98	6/30/98	Hail, Wind, Flooding, Tornadoes
1/1/99	1/4/99	Hail, Snow, Wind, Flooding, Freezing
9/14/99	9/17/99	Hurricane Floyd - Wind, Flooding, Tornadoes
1/14/00	1/19/00	Ice, Snow, Wind, Freezing
12/11/00	12/12/00	Snow, Wind, Freezing
12/16/00	12/17/00	Hail, Wind, Flooding, Tornadoes
11/16/02	11/17/02	Flooding, Hail, Ice, Wind
1/13/03	1/25/03	Freezing, Ice, Snow, Wind
2/14/03	2/18/03	Flooding, Freezing, Ice, Snow, Wind
2/21/03	2/23/03	Flooding, Hail, Tornadoes, Wind
1/9/04	1/12/04	Freezing, Wind
1/14/04	1/17/04	Freezing, Ice, Snow, Wind
1/22/05	1/23/05	Freezing, Ice, Snow, Wind
10/7/05	10/15/05	Flooding, Wind
4/13/07	4/17/07	Flooding, Hail, Tornadoes, Wind
2/23/10	2/28/10	Flooding, Freezing, Ice, Snow, Wind
3/13/10	3/15/10	Flooding, Hail, Wind
3/28/10	3/31/10	Flooding, Hail, Tornadoes, Wind
1/31/11	2/3/11	Flooding, Freezing, Ice, Snow, Wind
8/26/11	8/28/11	Hurricane Irene - Flooding, Tornadoes, Wind
10/28/12	10/31/12	Hurricane Sandy - Flooding, Snow, Wind
1/26/15	1/28/15	Freezing, Ice, Snow, Wind
2/7/15	2/11/15	Freezing, Ice, Snow, Wind
2/14/15	2/15/15	Freezing, Ice, Snow, Wind
2/16/15	2/22/15	Freezing, Ice, Snow, Wind
8/2/15	8/4/15	Flooding, Hail, Tornadoes, Wind
1/22/16	1/24/16	Flooding, Freezing, Ice, Snow, Wind
2/13/16	2/15/16	Freezing, Ice, Snow, 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.