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Agenda

- Experience Rating Background
- A Brief History of NCCI's Experience Rating Plans
- Increasing the Primary/Excess Split Point
- Performance Testing
- Hypothetical Examples
- Increasing the Eligibility Threshold



Experience Rating Background

Experience Rating Background

- Adjusts manual premium based on individual employer's actual loss experience as compared to the industry average benchmarks
- Benchmarks vary by state and classification
- Designed to predict whether an employer's loss experience will be better or worse than the average risk within that classification
- Mandatory for all employers that exceed a premium threshold
- The goals of the Plan are to:
 - Promote equity by modifying the class manual rate to reflect individual risk characteristics
 - Provide employers a financial incentive for safety in the workplace

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A Brief History of NCCI's Experience Rating Plans



Experience Rating for Work Comp A Brief History

- Experience Rating (ER) for Workers Compensation (WC) was in use by 1915
- A high level description of ER plans over the years might be:
 - "Comparing actual losses to expected losses ... sort of"
- The next several slides highlight some of the major features of the WC ER plans over the years and how they've changed
- The main focus of this review is on the NCCI ER plans

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Experience Rating for Work Comp A Brief History

Early Plans: Pre-1960

- 1916-1917: claim frequency given more weight than severity by adjusting actual losses through the use of expected severities
- 1918: credibility is introduced; varies by employer premium size
- 1920: expected loss begins to vary by class (as opposed to other groupings used previously)
- 1923: actual loss and expected loss split into primary vs excess (via tables)
- 1940: D-ratios and ELRs are introduced; Ws and Bs are introduced as a new way to reflect credibility; actual primary/excess split varies by size of claim

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Experience Rating for Work Comp A Brief History

Later Plans: 1961-2012

- 1961: current version of Mod formula adopted; actual primary/excess split changed but still varies by size of claim
- 1977: actual primary/excess split changed but still varies by size of claim
- 1991: single split point of \$5,000 implemented
- 1998: Medical-only claims reduced by 70% (after the primary/excess split applied); proposed indexing the split point as needed



Experience Rating for Work Comp A Brief History

Current Plan: 2013 and subsequent

- 2013: Item E-1402 (Increase and Index of Split Point)
 - \$5,000 primary/excess split point increased to \$15,000 plus severity indexation
 - A 3-year transition utilized
 - 2013 split point: \$10K
 2014 split point: \$13.5K
 2015 split point: \$15.5K
 - 2016 and subsequent: severity-indexed value
 - 2016 split point: \$16K2017 split point: \$16.5K
 - Changes in the split point are now a part of the regular annual update of the ER values

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Increasing the Primary/Excess Split Point

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Experience Rating Plan Split Point Review

- The split point separates losses into primary and excess components. Prior to 2013 it had been \$5,000.
- If the split point is not indexed for claim cost "inflation," a greater proportion of losses fall into the excess category as time goes on.
- Since excess losses receive less weight than primary losses in the experience rating formula, the plan becomes less responsive.
- Performance testing indicated that the split point needed to be increased to \$15,000. This is not surprising since the average cost of a claim had tripled since the last split point update (20 years earlier).





Current NCCI Mod Formula

$$Mod = \frac{Ap + wAx + (1 - w)Ex + B}{E + B}$$

Ap = Actual primary losses; the portion of the claim below the split point. For medical only claims (under ERA plan), only 30% of the loss is included

 $\label{eq:Ax} \textbf{Ax} = \text{Actual excess losses} = \textbf{A-Ap}; \text{ the portion of the claim above the split point. Claims subject to cap of State Accident Limit (SAL)}$

E = Expected losses for the risk = Payroll/100 x ELR

Ep = Expected primary losses = **E x D-Ratio**

 $\mathbf{E}\mathbf{x} = \mathbf{E} - \mathbf{E}\mathbf{p}$

 $\mathbf{W} = \text{credibility weighting value (generally between .03 and .80)}$

B = Ballast value: stabilizes the mod around unity (1.00)

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Performance Testing

Explanation of Quintile Performance Test

- Risks are sorted by value of mod (low to high) and divided into 5 equally sized groups called "quintiles", large enough to be credible
- "Loss ratios" are computed using the actual experience that subsequently emerges
- The loss ratios for the five groups on the left half of the exhibit use unmodified premium while the five groups on the right use modified premium



Couintile Analysis: Prior \$5,000 Split Point PY 2006 Experience Under the ER Plan, Indexed for Severity Inflation Before Experience Rating After Experience Rating Output Service Superience Rating After Experience Rating Superience Rating Modification Relative Pure Loss Ratio for Quintile / Loss Ratio for All Quintiles Combined

Quintile Analysis: Indicated \$15,000 Split Point PY 2006 Experience Under the ER Plan, Indexed for Severity Inflation Before Experience Rating After Experience Rating 150% 150% 0.32 0.81 0.87 0.92 1.08 0.81 0.87 0.92 1.08 0.81 0.87 0.92 1.08 0.81 0.87 0.92 1.08 0.81 0.87 0.92 1.08 4.26 Groups Based on Experience Rating Modification Relative Pure Loss Ratio - Loss Ratio For Quintelles Combined

Hypothetical Examples 6 Cappage 2013 Annual Canada de Campandales Hannaca de de la ligada basea.

Hypothetical Examples

- Although the split point itself does not vary by employer size under the NCCI Plan, the impact of a claim does vary significantly by employer size
 - Weight (W) values temper the excess portion of a claim much more for smaller employers
 - Ballast (B) values effectively temper claims much more for smaller employers
- The following examples help illustrate this

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Hypothetical Examples: Impacts by Claim Size and by Employer Size

Hypothetical impacts from a single claim of either \$10K or \$100K for two employer sizes: 10K in expected loss and 100K in expected loss

Impacts assume a split point of 15K and the W and B values shown below

(1)	Employer Size (Expec Loss or E)	10.000	100.000	10.000	100.000
				.,	,
(2)	W (Weight)	0.05	0.10	0.05	0.10
(3)	B (Ballast)	40,000	50,000	40,000	50,000
(4)	Claim	10,000	10,000	100,000	100,000
(5)	Primary Amnt	10,000	10,000	15,000	15,000
(6)	Excess Amnt x W	-	-	4,250	8,500
(7)	Total Claim \$ Used (5)+(6)	10,000	10,000	19,250	23,500
(8)	Total Claim \$ Normalized to E*	2,000	6,667	3,850	15,667
(9)	Mod Impact	0.200	0.067	0.385	0.157

^{*} This represents the Total Claim \$ Used relative to a denominator of E, rather than (E+B). The adjustment factor is: F/(F+B)



Increasing the Eligibility Threshold



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Increasing the Eligibility Threshold

Item E-1404: Establishment of a Methodology to Calculate ER Premium Eligibility Amounts

- Establishes an indexing methodology and a process for continued annual updates
- State-specific premium eligibility amounts will be calculated annually and indexed based on the year-toyear change in a state's Average Weekly Wage
- Effective six months and later after a state's loss cost/rate effective date, beginning with loss cost/rate effective dates on and after January 1, 2017

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Increasing the Eligibility Threshold

EXPERIENCE RATING PLAN MANUAL—2003 EDITION RULE 2—EXPERIENCE RATING ELEMENTS AND FORMULA A. PREMIUM ELIGIBILITY

State	Rating Effective Date	Column A (\$)	Column B (\$)
	7/1/17 and after	5,000	2,500
AK	6/30/17 and before	5.000	2,500
	9/1/17 and after	10,000	5,000
AL	8/31/17 and before	10,000	5,000
AR	1/1/18 and after	8,000	4,000
AK	12/31/17 and before	8,000	4,000
	7/1/17 and after	6,000	3,000
AZ	5/30/17 and before	6,000	3,000
	7/1/17 and after	8,500	4,250
co	6/30/17 and before	8,000	4,000
	7/1/17 and after	11,500	5,750
CT	6/30/17 and before	11,000	5,500
DC	5/1/18 and after	7,000	3,500
DC	4/30/18 and before	7,000	3,500
	7/1/17 and after	10,500	5,250
PL.	6/30/17 and before	10,000	5,000

Note: Col A refers to most recent 24 mos subject premium; Col B refers to avg annual subject premium



Increasing the Eligibility Threshold

EXPERIENCE RATING PLAN MANUAL—2003 EDITION RULE 2—EXPERIENCE RATING ELEMENTS AND FORMULA A. PREMIM ELIGIBILITY (Cont'd)

State	Rating Effective Date	Column A (5)	Column B (\$)
GA	9/1/17 and after	10,500	5,250
UA.	8/31/17 and before	10,000	5,000
	7/1/17 and after	5,000	2,500
HI	6/30/17 and before	5,000	2,500
22	7/1/17 and after	8,000	4,000
IA	6/30/17 and before	7,500	3,750
	7/1/17 and after	6,000	3,000
ID	6/30/17 and before	6,000	3,000
400	7/1/17 and after	10,500	5,250
IL.	6/30/17 and before	10,000	5,000
	7/1/17 and after	5,000	2,500
IN	6/30/17 and before	5,000	2,500
	7/1/17 and after	6,000	3,000
KS	1/1/16 to 6/30/17	6,000	3,000
	12/31/15 and before	4,500	2,250
100	4/1/18 and after	10,500	5,250
KY	3/31/18 and before	10,000	5,000

Note: Col A refers to most recent 24 mos subject premium; Col B refers to avg annual subject premium

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Increasing the Eligibility Threshold

EXPERIENCE RATING PLAN MANUAL—2003 EDITION RULE 2—EXPERIENCE RATING ELEMENTS AND FORMULA A. PREMIUM ELIGIBILITY (Confd)

State	Rating Effective Date	Column A (5)	Column B (\$)
	11/1/17 and after	10,500	5,250
LA	10/31/17 and before	10,000	5,000
MA	12/1/2003 and after	11,000	5,500
	7/1/17 and after	10,000	5,000
MD	6/30/17 and before	10,000	5,000
ME	10/1/17 and after	9,500	4,750
ME	9/30/17 and before	9,000	4,500
	7/1/17 and after	7,000	3,500
MO	6/30/17 and before	7,000	3,500
MS	9/1/17 and after	9,000	4,500
ma	8/31/17 and before	9,000	4,500
	1/1/18 and after	10,500	5,250
MT	7/1/16 to 12/31/17	10,000	5,000
	6/30/16 and before	5,000	2,500
	10/1/17 and after	10,500	5,250
NC	4/1/16 to 9/30/17	10,000	5,000
	3/31/16 and before	8.000	4.000

Note: Col A refers to most recent 24 mos subject premium; Col B refers to avg annual subject premium



Increasing the Eligibility Threshold

EXPERIENCE RATING PLAN MANUAL—2003 EDITION RULE 2—EXPERIENCE RATING ELEMENTS AND FORMULA A. PREMIUM ELIGIBILITY (Cont'd)

State	Rating Effective Date	Column A (5)	Column B (\$)
NE	8/1/17 and after	6,000	3,000
25%	7/31/17 and before	6,000	3,000
NH	7/1/17 and after	11,500	5,750
in	6/30/17 and before	11,000	5,500
NM	7/1/17 and after	9,000	4,500
rem	6/30/17 and before	9,000	4,500
NV	9/1/17 and after	6,000	3,000
···	8/31/17 and before	6,000	3,000
ок	7/1/17 and after	10,500	5,250
900	6/30/17 and before	10,000	5,000
OR	7/1/17 and after	5,000	2,500
UN	6/30/17 and before	5,000	2,500
RI	2/1/18 and after	10,500	5,250
Til.	1/31/18 and before	10,000	5,000
sc	3/1/18 and after	9,000	4,500
34	2/28/18 and before	9.000	4.500

Note: Col A refers to most recent 24 mos subject premium; Col B refers to avg annual subject premium



Increasing the Eligibility Threshold

EXPERIENCE RATING PLAN MANUAL—2003 EDITION RULE 2—EXPERIENCE RATING ELEMENTS AND FORMULA A. PREMIUM ELIGIBILITY (Confd)

State	Rating Effective Date	Column A (5)	Column B (\$)
en	1/1/18 and after	8,000	4,000
SD	12/31/17 and before	7,500	3,750
***	9/1/17 and after	9,000	4,500
TN	8/31/17 and before	9,000	4,500
mul.	1/1/18 and after	10,500	5,250
TX1	12/31/17 and before	10,000	5,000
UT	6/1/18 and after	7,000	3,500
UI	5/31/18 and before	7,000	3,500
VA	10/1/17 and after	7,000	3,500
VA	9/30/17 and before	7,000	3,500
VT	10/1/17 and after	8,000	4,000
VI	9/30/17 and before	8,000	4,000
	5/1/18 and after	9,000	4,500
WV	7/1/08 to 4/30/18	9.000	4,500

Note: Col A refers to most recent 24 mos subject premium; Col B refers to avg annual subject premium 1 Col A and B amounts are total manual premium in TX

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