

# Workers Compensation Ratemaking— An Overview

## Rating Bureau Perspective

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Management Seminar - Workers Compensation Ratemaking—An Overview - CAS 2009 Ratemaking and Product Management Seminar - Workers Compensation Ratemaking

## Rating Bureau Perspective Outline

- Overview of Workers Compensation Insurance
- NCCI Filing
- Overall Rate / Loss Cost Level Change
- Classification Rate / Loss Cost Changes

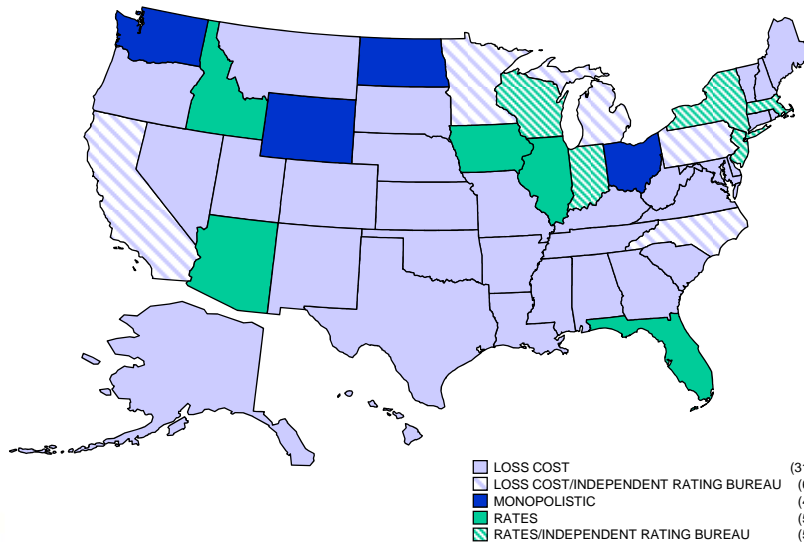
## Loss Costs—What Are They?

In general, a loss cost represents a provision for losses and LAE per \$100 of payroll for each classification

Loss costs are not final rates because they do not include provisions for the remaining expenses (including production expenses, profit and contingencies, etc.) of an insurer

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## Workers Compensation Rating Laws



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## NCCI Workers Compensation Databases

- **Financial Aggregate Calls**
  - Used for aggregate ratemaking
- **WC Statistical Plan (WCSP)**
  - Used for class ratemaking
- **Detailed Claim Information (DCI)**
  - In-depth sample of lost-time claim information

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## Financial Aggregate Calls

- **Collected annually**
  - Policy and calendar-accident year basis
  - Statewide and assigned risk data
- **Premiums, losses and claim counts**
  - Evaluated as of December 31
- **Purpose**
  - Basis for overall aggregate rate indication
  - Research

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## Designated Statistical Reporting (DSR) Level Premium

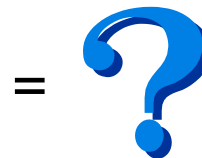
- Common benchmark level at which carriers report premium on the financial calls
- The DSR level represents the “approved” loss cost and assigned risk rate levels
- Varies by policy year and state

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## Ratemaking—The Big Picture

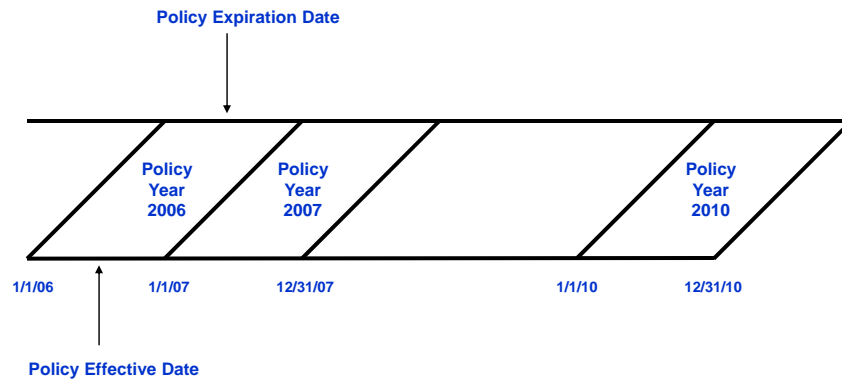
For the upcoming loss cost effective period:

Projected losses &  
Loss Adjustment Expense  
Premium at current  
loss cost level



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## NCCI Typically Uses the Two Most Recent Policy Years of Data



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## Policy Year Data

### Advantages

- Premiums and losses are from the same block of policies
- More mature
- More stable

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## Derivation of Projected Losses

Adjustments to reported losses:

- Benefit (loss) on-levels
- Loss development
- Trend

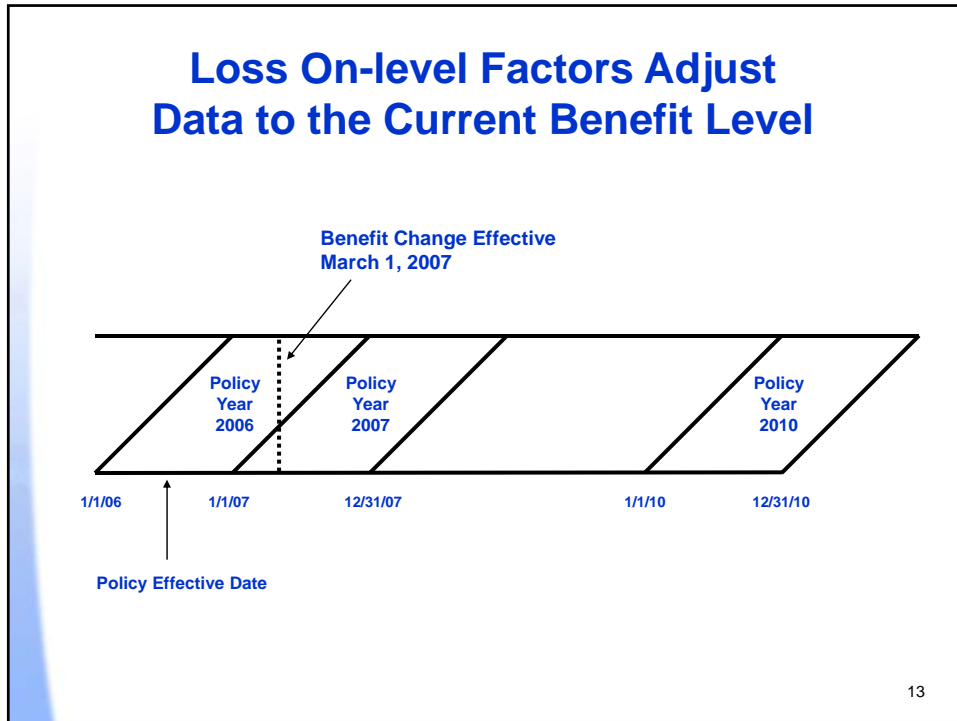
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## Benefit Changes

Changes that occur subsequent to the filing data must be reflected:

- Legislated benefit changes
- Court decisions
- New regulations

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### Loss Development

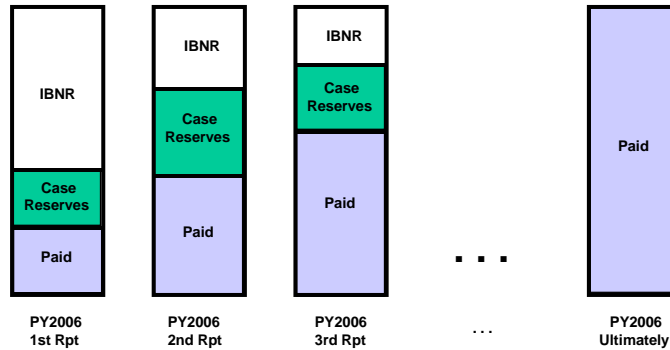
The ultimate cost of a reported claim may not be known for many years. Therefore, an initial estimate of the ultimate settlement value is made at the time the claim is reported.

This estimate may change over time as the prognosis of the injury changes, the expected life-span shortens/lengthens, the cost of medical services increases/decreases, etc.

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## Loss Development Factors Are Used to Estimate Ultimate Liabilities

Over time, the % of ultimate losses that are paid increases

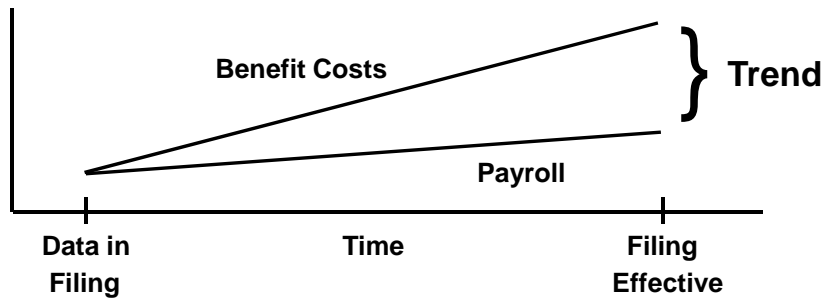


IBNR: Reserves set aside for claims that have been Incurred But Not yet Reported.

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## Trend Factor

Trend compares movements in indemnity and medical costs to movements in payroll



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## Techniques to Measure Trend

- Fitting curves to Historical Loss Ratios
- Use of Frequency and Severity Data
- Econometric Analysis
- Outside Sources (AHA, DOL)

A positive trend assumes that losses are growing faster than wages. A negative trend assumes the opposite.

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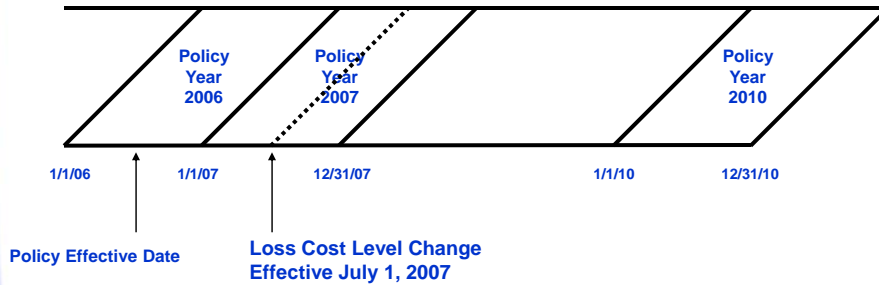
## Derivation of Premium at Current Loss Cost Level

Adjustments to reported financial data premium:

- Premium on-levels
- Policy year premium development

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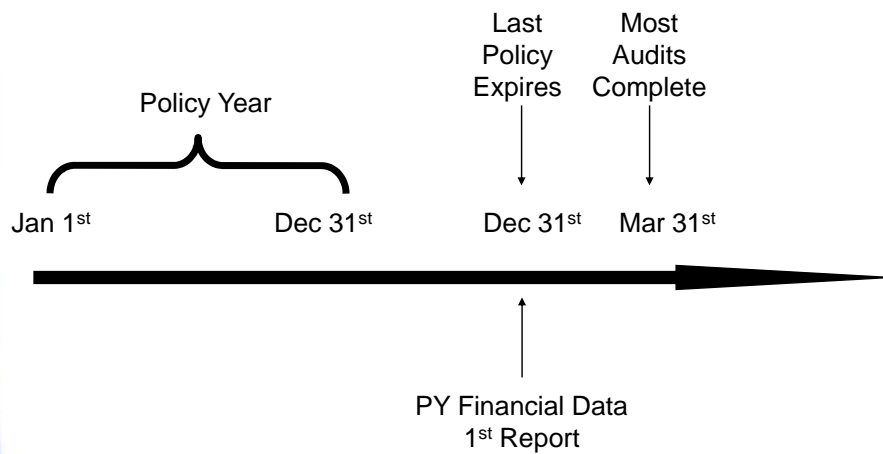
## Premium On-level Factors Adjust Historical Premium to the Current Approved Level



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## Policy Year Premium Development

(Due to payroll audits)



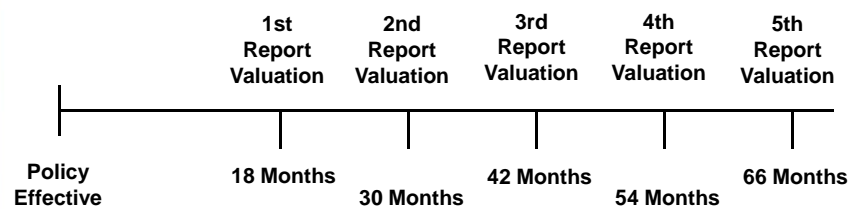
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## WC Statistical Plan (WCSP) Data

- **Experience by policy detail**
  - Exposure, premium, experience rating modifications
  - Individual claims by injury type
- **Purposes**
  - Classification relativities
  - Experience Rating Plan
  - Research

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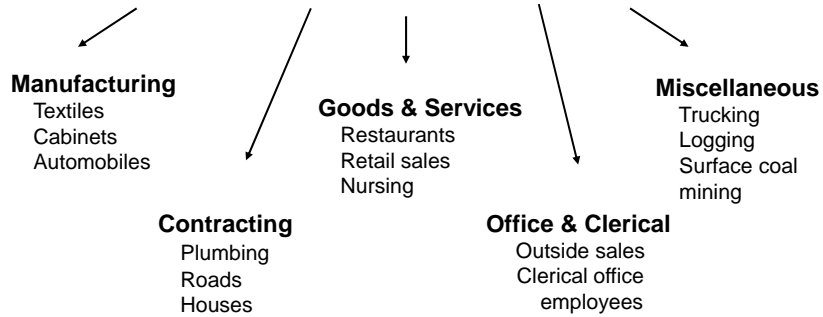
## Valuation of WCSP Data



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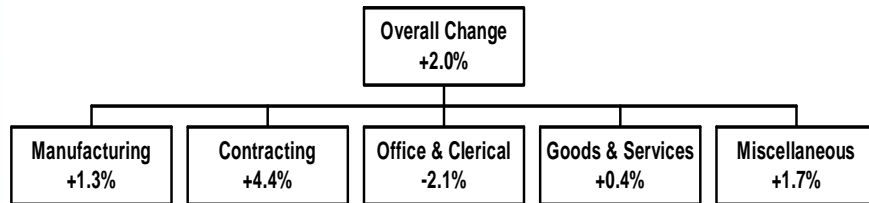
## Distribution of Overall Change to Industry Groups

The overall average change is distributed to industry groups and then to individual classes



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## State XYZ Changes by Industry Group



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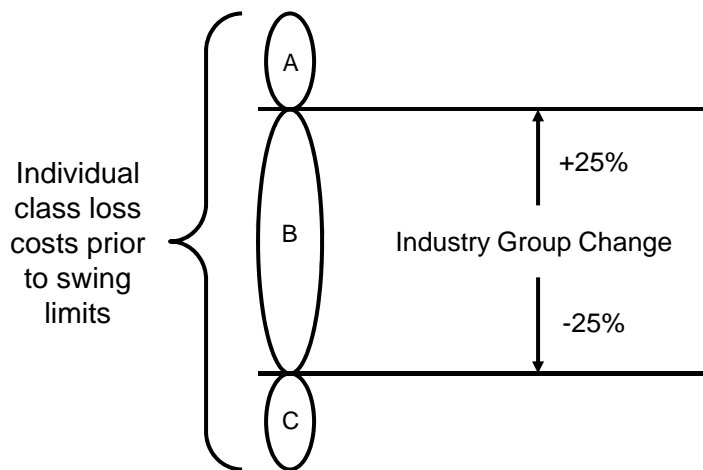
## Test Correction Procedure

Iterative process to ensure that:

- class swing limits are adhered to
- the Industry Group change is achieved

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## Classification Swing Limits



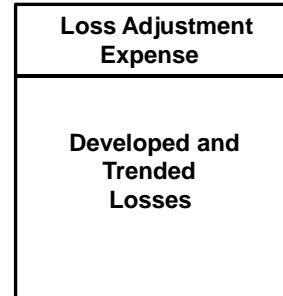
- (A) = Indicated changes exceeding the upper swing limit  
 (B) = Indicated changes within the swing limits  
 (C) = Indicated changes less than the lower swing limit

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## Final Loss Cost

- Add in a provision for Loss Adjustment Expense (Expenses of an insurer which are directly chargeable to the settlement of claims—such as investigating cases and defending law suits)
- May also include loss-based assessments

### Loss Cost including LAE



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**Thank You for Your Attention!**

**Questions/Comments?**

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