



National
Council on
Compensation
Insurance, Inc.

RATEMAKING PROCESS

Colorado Interim Committee

August 14, 2009

**Mike Taylor
NCCI**

The Dilemma

- Deciding today how many dollars will be needed for claims covered by policies written in the future.
- To price with a prefunded system, one must project benefit and expense costs in advance.
- Insurance is unusual as a product - we set the price before we know the cost



Data Used in Developing Loss Cost/Rate Filings

- **Aggregate Financial Calls**
 - Premium, losses, and claim counts by carrier
 - Reported annually
 - Used for **aggregate ratemaking** to determine the overall average change in loss cost or rate level
- **Workers Compensation Statistical Plan (WCSP)**
 - Premium, payroll, and losses by employer
 - Reported after expiration of each policy
 - Used for **class ratemaking** to distribute the overall average change in loss cost or rate level to individual classes
 - Updated reports as long as claim is open



Rate-making — The Big Picture*

$$\begin{array}{r} \text{Projected losses} \\ \hline \text{Premium at current loss cost level} \end{array} - 1$$

→ Portion of premium to cover losses

= Indicated overall change in loss cost level

* simplified



Example

$$\begin{aligned} & \frac{150,000,000 - \text{Projected Losses}}{165,000,000 - \text{Current Premium Level}} \\ & = \\ & .909 \\ & = \\ & 9.1\% \text{ Rate Decrease} \end{aligned}$$

Derivation of Premium at Current Loss Cost Level

- Starts with earned premium at NCCI Designated Statistical Reporting (DSR) Level
 - The specified common loss cost or rate level for reporting premium
- Adjustments:
 - Premium on-levels
 - Adjusts premium to current approved level
 - Premium development
 - Adjusts for corrections to premium on audit



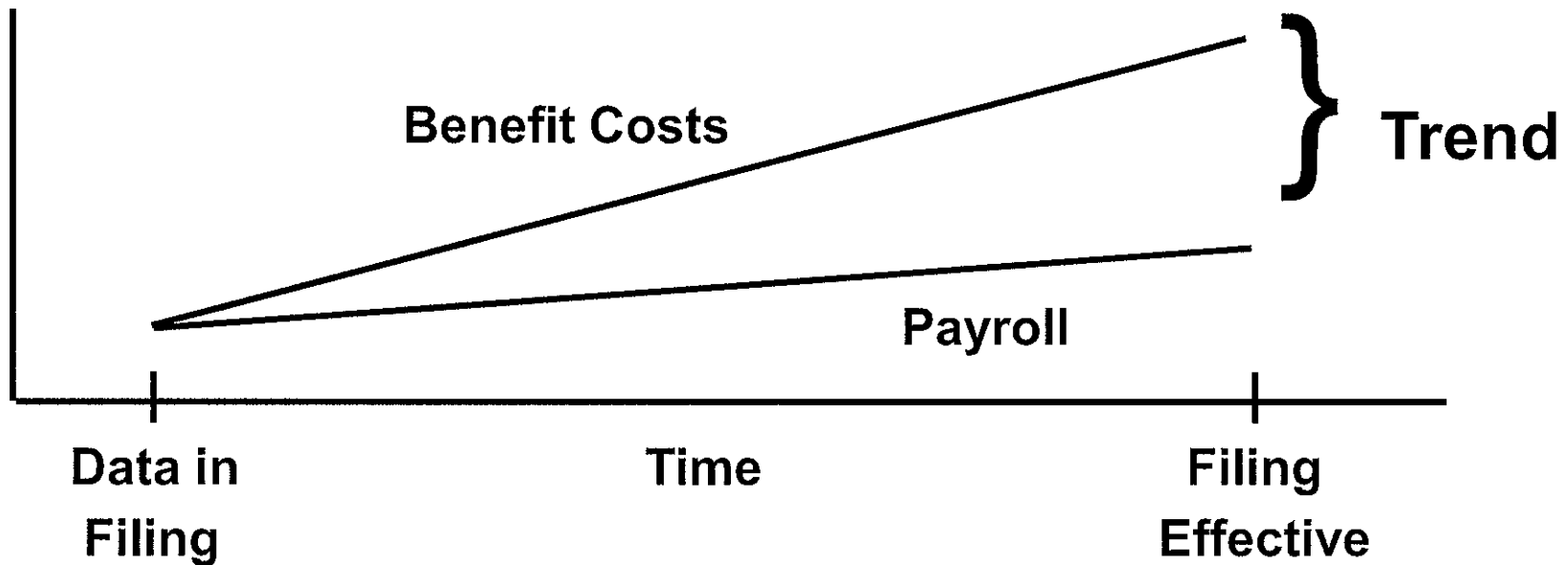
Derivation of Projected Losses

- Starts with Paid or Paid+Case losses
- Adjustments:
 - Benefit (loss) on-levels
 - Loss development – to ultimate amount
- Trend (loss ratios)
 - Indemnity
 - Medical



Trend Factor

Trend compares movements in indemnity and medical costs in excess of wage inflation



Recap:

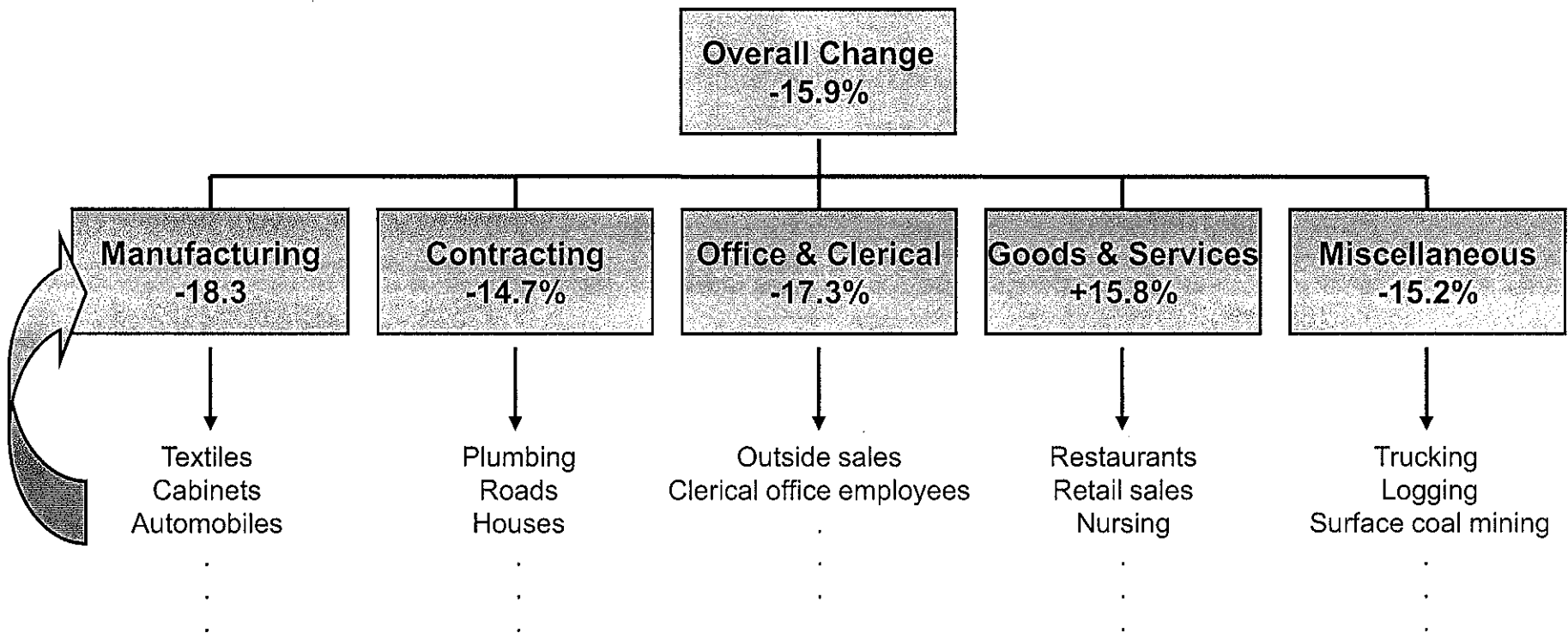
Derivation of the Indicated Change in Loss Cost Level

$$\begin{aligned}
 & \frac{\text{Projected losses}}{\text{Premium at current loss cost level}} - 1 = \frac{\text{Losses} \times \text{Benefit On-Level Factor} \times \text{Loss Development Factor} \times \text{Trend Factor}}{\text{Premium}} - 1 \\
 & = \text{Indicated overall change in loss cost level}
 \end{aligned}$$



Colorado

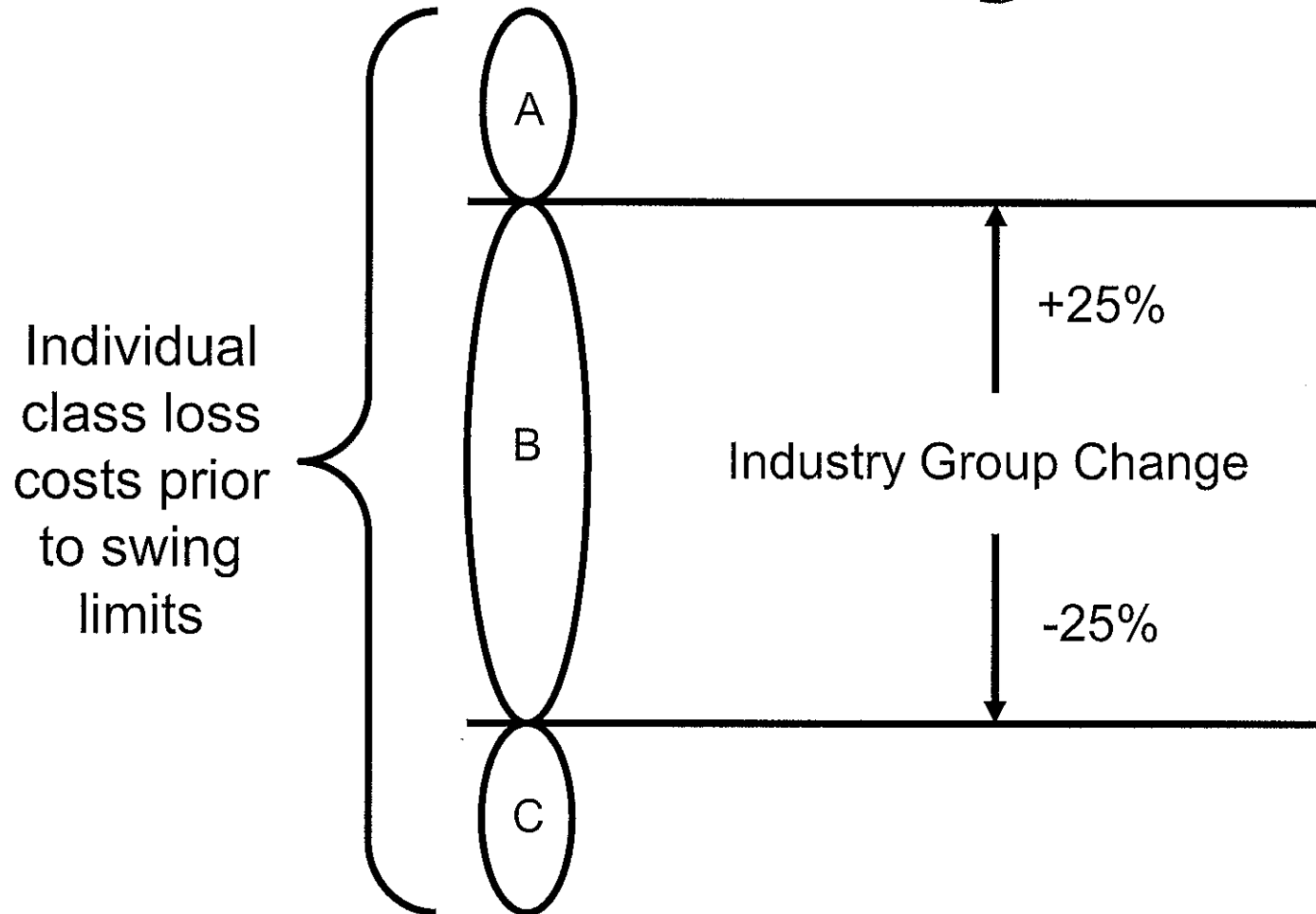
Changes by Industry Group



Changes by class are balanced to the industry group change



Classification Swing Limits



A = Indicates changes exceeding the upper swing limit

B = Indicates changes within the swing limits

C = Indicates changes less than the lower swing limit



Loss Costs—What Are They?

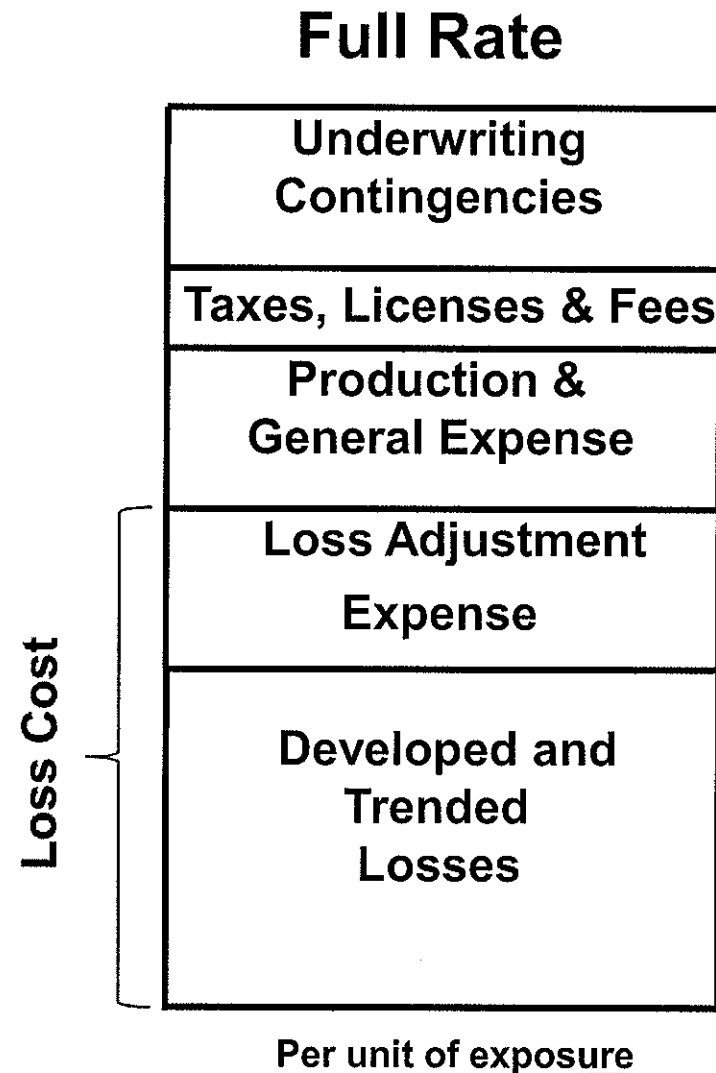
- Loss costs are not final rates because they do not include provisions for the remaining expenses of an insurer, including
 - Production & General Expenses
 - Taxes, Licenses & Fees
 - Underwriting Contingencies



Final Manual Rate

Filed By Insurer

- A provision for each expense item is added by the insurer to the final loss cost to produce a full manual rate
- Carrier expenses are expressed as a Loss Cost Multiplier (LCM)
- An LCM can also account for individual carrier experience
- Loss cost X LCM = Final Rate





RATEMAKING DATA

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Ratemaking Data Collection

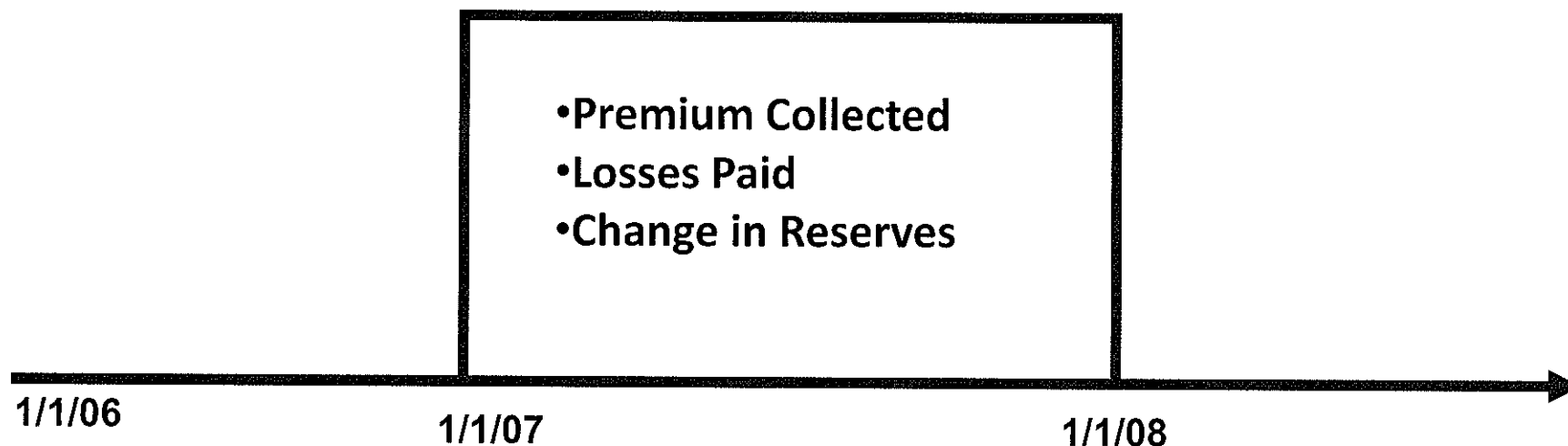
- **Data Types**
 - **Calendar Year Data**
 - **Calendar-Accident Year Data**
 - **Policy Year Data**
 - **Unit Statistical Data**
 - **Additional Data Types**

Calendar Year Data

Experience of insurer's earned premium and loss transactions that occur within a calendar year beginning January 1, regardless of the dates of the policies to which the transactions relate and the dates of the accidents.

Not used in determining the overall rate level change.

Calendar Year 2007



Consists of all transactions reported in 2008, regardless of the years which generated them.

Example: Payment made on 10-5-2007 for injury that occurred on 2-1-2006 becomes part of CY 2007.

Calendar-Accident Year

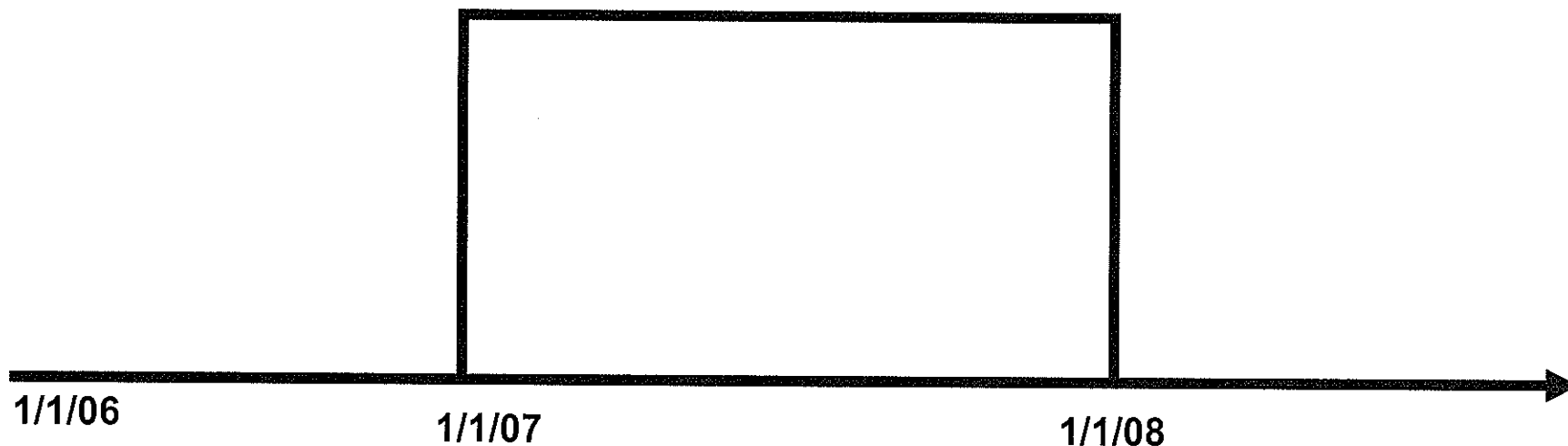
The premium figure is the same as that used in calendar year experience.

The accumulation of loss data on all accidents with the date of occurrence falling within a given calendar year.

Used in determining the overall rate level change.



Calendar – Accident Year 2007



- Losses occurring during this Calendar Year
- Premiums collected during this Calendar Year

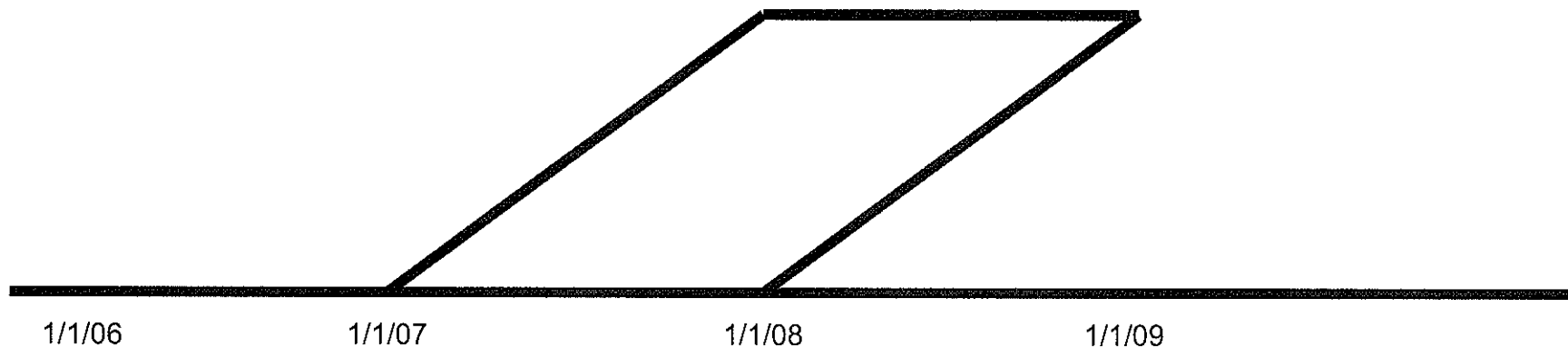
Policy Year Data

Premium and loss data on business for a 12-month period for policies with inception dates within the 12-month period.

All transactions related to that policy year no matter when occurring

Used in determining the overall rate level change

Policy Year 2007



Data is organized by matching premiums and losses to policies issued during a given year regardless of when it's reported to insurer.

Examples:

- **Policy Effective date 10-1-2007, Expires 10-1-2008 is part of Policy Year 2007**
- **Claim Paid 8-15-2009 on Policy issued 10-1-2007 is part of Policy Year 2007**

Unit Statistical Data

- Individual policyholder data
 - Classifications
 - Payrolls
 - Claim information
 - Indemnity and Medical Payments
 - Claims Status (open or closed)
 - Updated annually
- Uses
 - Determining individual classification loss costs
 - Individual employer experience modifications

Other Data Types

- **Policy /Proof of Coverage Data**
- **Detailed Claim Information Data**
- **Medical Call Data**
- **Assigned Risk Data**
- **Special Data Calls**
 - **Maritime coverage data**
 - **Federal coverage**

Questions or Comments

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