A CURRENT LOOK AT WORKERS' COMPENSATION RATEMAKING

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Mr. Kallop mentions that in the ratemaking procedures utilized by independent bureaus, there are minor variations from the National Council procedures presented in his paper. In New York, there are three differences worth mentioning:

1. Due to the inflationary growth of payroll and therefore the growth of premium without any compensating increase in risk, a wage factor is used to decrease the New York experience-indicated rates. This wage factor measures the increase in the state average wage from the midpoint of the experience period to the midpoint of the policy year for which rates are being changed. There is an offset for the rise in indemnity losses due to increased wages.

2. The New York Compensation Insurance Rating Board uses five policy years of experience for reviewing classifications. For those classifications which develop 100% credibility in less than five years, only the number of years necessary to produce 100% credibility are used. Indicated pure premiums are brought to the level underlying present rates and not, as in the National Council procedure, to current level. In other words, pure premiums are brought to the rate and law benefit levels of the previous filing, not the current filing. The proposed pure premiums are the middle pure premiums of the indicated on level, the formula, and the underlying pure premiums.

3. Proposed classification pure premiums are limited to a 20% change from the underlying. The National Council does not limit pure premiums but limits its proposed rates to a maximum departure from present rates.

In New York, the history of workers' compensation rates has been rather fortunate. From 1950 to 1974, benefits increased by over 100%. Yet, because of favorable experience, rates increased by only about 5%. There has been a sudden, severe change in this favorable experience, however. Calendar year loss ratios have risen from 55% in 1970 to 71% in 1975. This steadily worsening experience makes it imperative that the ratemaking process in New York become more responsive.

The past ratemaking procedure of the New York Rating Board used a 50-50 split between experience indications of one policy year two years before the effective date of the filing, and one calendar year six months before the effective date. The policy year experience was processed from individual unit card data. The experience indications were then modified by the wage factor.

Although this ratemaking procedure was adequate in the past, it is no longer adequate. It seems that past experience has become unrepresentative of current conditions. Even if the experience of the latest calendar year were used, it would still not be an adequate predictor of future experience, without including indicators of change. One problem area is the projected wage factor, which unfortunately measures only the future growth of premiums, without considering future loss conditions. Examples of changing loss conditions are the continuous changes in award liberality and utilization rates of doctors, due to changing economic and social conditions. To get some measure of changes in award liberality, the Rating Board has looked at data on closed compensation cases, provided by the New York State Workmen's Compensation Board. On a common benefit level, the average compensation per case increased from approximately $1,850 in 1970 to $2,090 in 1973, an increase of 13%. It is evident from Exhibit I that most of this increase came from non-scheduled permanent partial cases, where liberality would have the most effect.

The New York Rating Board, in its effort to increase both premium and loss responsiveness, has adopted several ratemaking procedures which the National Council has implemented. The exposure base has been changed from payroll limited to $300 per week to total payroll. In recent filings, the Board has used policy year aggregate totals obtained from financial data reports, i.e., premiums and losses from the latest two policy years evaluated six months before the effective date of the filing. Both premium and losses are developed to an ultimate reporting base. The Board has adopted a new method of adjusting calendar year premium and loss data to the current level. In the past, a geometric method was used; currently, the Board uses policy year contributions to calendar year experience, which more accurately adjusts old claims to the current level.

The Board included a loss ratio trend factor in its most recent filing. This trend factor takes into account New York's wage factor. Loss ratios of the most recent five calendar years are adjusted to current rate, benefit, and wage levels. A least squares trend line is used to project the increase in loss ratios from the midpoint of the experience period to the midpoint of the policy year for which rates are being changed. This procedure is similar to the procedure used to calculate the wage factor. (See Exhibit II for an example of this calculation.)

A basic ratemaking problem lies in discovering accurate predictors of future loss experience, either in insurance data or in outside data. As situations change, existing predictors become inadequate, and additional predictors must be found. Ratemakers continue their efforts despite the sometimes disheartening thought that part of what we are trying to measure may not, in fact, be quantifiable.

EXHIBIT I

ALL DISABILITIES, NON-SCHEDULE PERMANENT PARTIAL, AND TEMPORARY DISABILITIES

COMPENSATED CASES CLOSED, NEW YORK STATE, 1970-1973

Data Provided by the New York State Workmen's Compensation Board

Year of Closing	All Disabilities		Non-Schedule Permanent Partial		Temporary	
	Cases	Compensation	Cases	Compensation	Cases	Compensation
1970	118,537	$188,992,138	3,025	$ 65,243,169	69,649	$30,244,772
1971	123,124	206,526,685	3,011	68,981,730	72,763	33,147,131
1972	122,044	243,907,658	3,687	94,570,672	71,601	36,097,858
1973	117,337	245,524,899	3,549	100,441,054	71,373	36,114,687

Year of Closing	All Disabilities			Permanent Partial Non-Schedule			Temporary		
	Cases	Compensation at 1973 Benefit Level	Compensation Per Case	Cases	Compensation at 1973 Benefit Level	Compensation Per Case	Cases	Compensation at 1973 Benefit Level	Compensation Per Case
1970	118,537	$219,191,240	$1,849	3,025	$ 75,986,347	$25,119	69,649	$35,392,042	$508.15
1971	123,124	217,853,512	1,769	3,011	71,631,181	23,790	72,763	34,610,817	475.67
1972	122,044	251,539,125	2,061	3,687	96,603,197	26,201	71,601	36,999,470	516.75
1973	117,337	245,524,899	2,092	3,549	100,441,054	28,301	70,373	36,114,687	513.19

EXHIBIT II

WORKMEN'S COMPENSATION—NEW YORK

Loss Ratio Trend Factor

Calendar Year	Standard Earned Premium Excluding Expense Constant	Incurred Losses Excluding Interest Adjustment	Loss Ratio	Factor to Bring Premium to 1-1-76 Rate Level	Factor to Bring Losses to 1-1-76 Law Level	Loss Ratio Adjusted to 1-1-76 Rate and Law Level (3) × (5) ÷ (4)	Factor to 1-1-76 Wage Level	Loss Ratio Adjusted to 1-1-76 Rate, Law & Wage Levels	Least Squares Line (.4575 + .0270x)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1970	366,934,084	203,398,073	.5543	1.202	1.276	.5884	.791	.4654	.4575
1971	399,591,276	236,256,628	.5912	1.197	1.210	.5976	.830	.4960	.4845
1972	383,316,891	243,996,414	.6365	1.254	1.187	.6025	.856	.5157	.5115
1973	403,838,132	242,446,219	.5930	1.246	1.158	.5511	.892	.4916	.5385
1974	444,742,065	293,010,752	.6588	1.205	1.092	.5970	.938	.5600	.5655
1975	468,479,146	311,519,805	.7077	1.148	1.021	.6294	.986	.6206	.5925

$$\frac{\text{Calendar Year 1975 Least Squares Loss Ratio (.5925)}}{\text{Policy Years '73 - '74 Least Squares Loss Ratio (.5655)}} = 1.0477$$

$$\frac{\text{1-1-77 Least Squares Loss Ratio (.6330)}}{\text{Calendar Year 1975 Least Squares Loss Ratio (.5925)}} = 1.0684$$

Adjusted Loss Ratio Trend Factor $= .5 \times (1.0000 + 1.0477) \times 1.0684 = 1.0939$

Selected Adjusted Loss Ratio Trend Factor $= 1.0313$