## MAINE STATE LEGISLATURE

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September 30, 1992

Mr. Richard B. Dalbeck Mr. William D. Hathaway Mr. Emilien Levesque

Dr. Harvey Picker

Maine Blue Ribbon Commission on Workers Compensation

#### Gentlemen:

Attached you will find our final report on actuarial valuation of the changes in the Maine Workers Compensation laws. We have evaluated changes incorporated in the version dated August 27, 1992, as amended, with respect to existing law.

We have enjoyed working on this project, and are grateful for the opportunity to serve the Commission and the Legislature. Please call us on 312/879-2156 (Smith) or 312/879-2143 (Heckman) if you have any questions or require anything further.

Very truly yours,

Lee M. Smith, FCAS, MAAA, FCIA

Partner

Philip E. Heckman, Ph.D., ACAS, MAAA

Thilip E. Heckman

Senior Consulting Actuary

Copies to: Ms. Jane Orbeton, Maine Legislature

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### STATE LAW LIMMY AUGUSTA, MAINE

# Actuarial Report on the Evaluation of Workers' Compensation Law Changes

#### I. Executive Summary

#### A. Introduction and Scope of Engagement

Ernst & Young has been engaged by the Blue Ribbon Commission on Workers' Compensation of the Maine State Legislature (BRC) to perform an independent actuarial valuation of proposed changes to Maine's Workers' Compensation law. Our detailed review is limited to those items which lend themselves to direct costing. Other items are omitted from direct consideration because the uncertainties in their effects are, in our judgment, larger than the probable effects themselves. We have agreed to express an opinion as to which of the indirect items ("soft costs") are worth examining for their potential impact on rate level. In particular we have done a detailed valuation under the assumption that Temporary Total Benefit durations will revert to the national average following enactment of the legislation.

We have had access to the findings of the Commission's other consulting actuary, John Herzfeld of Milliman and Robertson (M&R), and to certain findings and technical resources of the National Council on Compensation Insurance (NCCI); but the judgments presented here are entirely our own.

#### B. Conditions and Limitations

This report represents a summary of our findings and recommendations. It has been prepared for use by the BRC and the Maine Legislature. The information employed in our analysis was provided by the BRC, the NCCI and the Maine Bureau of Insurance. The data have not been audited by Ernst & Young and any errors in the data will affect the accuracy of the report.

The scope of our review was limited to items mentioned herein. We express no opinion regarding other aspects of the Maine Workers' Compensation laws.

#### C. Methods

Standard actuarial techniques were used in evaluating the financial impact of proposed changes to the Maine Workers' Compensation Laws. These techniques primarily involved the estimation of expected duration and benefit cost for different injury types under the current and proposed laws. Our techniques are similar to those used by the NCCI in its Law Amendment evaluation process.

In general outline, this process consists of evaluating losses payable on claims involving changed benefits under new and existing provisions. From these valuations, one can find the fractional change in cost for each type of benefit. These are then weighted by the percentage of total payments ascribed to each benefit type under existing law and summed. The result is the overall percentage change in loss costs attributable to the changes in benefit provisions, other things being equal. This overall

change is a point-in-time estimate which is independent of inflationary trend and long-term changes in benefit utilization and may never be observed directly - isolated from other effects - in any rate review. The overall result of -13.7% of benefits is shown in Table I.

We have also employed other techniques and assumptions that we believe are appropriate. We further believe the conclusions presented herein are reasonable, given information currently available. However, it should be recognized that many subjective elements influence the estimates of changes in ultimate loss costs due to law changes. The techniques used in this investigation are designed to produce the most appropriate results at a point in time. As additional information becomes available, these results may require revision.

#### D. Findings

The present valuation represents our independent findings, although - as noted above - we have relied on certain findings of the NCCI after subjecting them to detailed review.

Table I on page 5 presents our estimates for the effect of the proposed law in comparison to existing law. A more detailed summary is given in Exhibit I.

Table II provides a listing of specific provisions which we have been able to cost on a quantitative basis.

One effect of the law changes is a sharp reduction in the attractiveness of Temporary Total Benefits paid during the "Healing Period". As noted above, we have done a benefit valuation under the assumption that the average duration of these benefits will decrease dramatically to the national average. Under the old law, these benefits start to escalate in proportion to the State Average Weekly Wage (SAWW).on the third anniversary of the injury. The NCCI estimates the average Duration of Healing Period Benefits at 120 weeks. It is reasonable to expect that the removal of escalation will reduce benefit utilization at the longer durations, causing earlier recovery or transition to Permanent Partial (wage loss) or formal Permanent Total Benefits. Since all loss-of-time claimants (32% of all cases) receive Temporary Total Benefits until their condition stabilizes, the effect is potentially important. We cannot estimate it directly, but we have studied the effect on benefit levels if durations revert to values in line with the national average, estimated by NCCI at 36 weeks.

The changes in the medical benefit system are also difficult to value directly, consisting, as they do, of modifications to administrative procedure.

Our techniques and findings are detailed in Sections II and III of the report.

#### E. Acknowledgments

In the execution of this work, we have benefited from conversations and communications with Mr. John Lewis, the BRC's primary consultant, Mr. John Herzfeld, FCAS, MAAA, of M&R, Boston, and Mr. Barry Llewellyn, FCAS, MAAA, of the NCCI.

This report has undergone critical review by Art Cohen, ACAS, MAAA, Al Weller, FCAS, MAAA, and John Dawson, FCAS, MAAA of Ernst & Young Actuarial Services.

Table I
Summary of Quantitative Results

Benefit Type	Percent of Benefits	Percentage Effect	Overall Effect
Fatal	1.8%	-75.41%	-1.34%
Permanent Total	1.9%	-54.42%	-1.05%
Permanent Partial	44.6%	-12.22%	-5.46%
Temporary Total	6.2%	-7.10%	-0.44%
Medical	45.4%	-6.50%	-2.95%
Total All Benefits	100.0%		-11.2%
Loss Adjustment Expenses	5.0%	-50.0%	-2.5%
Overall Effect as Ratio to Benefits	105.0%		-13.7%
Overall Effect as Ratio to LALAE	100.0%		-13.1%

#### Table II

#### Digest of Costable Benefit Changes in New Law.

(Labeling follows organization of Legislative text.)

- §209 Declared legislative intent is to replace current medical fee schedule with one like that used in Michigan. This is not explicit in the law itself.
- **Maximum benefit levels.** Maximum weekly compensation will be the larger of \$441 or 90% of SAWW. (Was 136% of SAWW.)
- §212 1. Total incapacity.

Weekly compensation shall be 80% of after-tax AWW (Was 2/3 of gross AWW.)

Benefits will no longer be adjusted annually in proportion to the change in SAWW capped at 5%.

§213 Compensation for partial incapacity.

New Wage loss Formula: 80% of difference of pre-injury and post-injury after-tax AWW. (Was 2/3 of difference of gross AWW.)
Term of benefits: Disabilities with 15% whole-body impairment or less will

be compensated for a maximum of 260 weeks. Otherwise compensation will be for the duration of the disability. (Was 520 weeks for all cases.)

§215 Death benefits.

Benefits run for 500 weeks or to age 18 (or duration of full-time student status).(spouse's benefits were for life unremarried.)

Benefits will no longer be adjusted annually in proportion to the change in SAWW capped at 5%.

Survivorship benefits shall also be limited accordingly.

- §217 Employment rehabilitation.
  - 5. Limitation. Term is limited to 52 weeks except by special order. (Was 156 weeks.)
- §325 1. Costs and attorney's fees. Each party shall be responsible for its own attorney's fees. (Employer paid both under the old law.)

#### Table III

# Maine Workers' Compensation Law Reform Documents Received as of 9/29/92 12:26 PM

From Blue Ribbon Commission:

Report of the Blue Ribbon Commission..., August 31, 1992 (9/2/92) Report to the Blue Ribbon Commission (M&R), Executive Summary (9/2/92)

From Maine Bureau of Insurance:

An Act to Reform the Workers' Compensation Act and Workers' Compensation Insurance Laws, 8/27/92, 202 pages (9/5/92).

From Milliman & Robertson, Wakefield, MA:

Copy of FAX from Maine Bureau of Insurance: Legal Expense. (9/4/92) From NCCI, NY: (9/9/92)

Memorandum from Stephen Searle to George Phillips: 8/17/92
 "Maine versus Michigan comparison - Permanent Partial limited to 260 weeks"

Copy of 8/7/92 FAX to Mark Mulvaney (M&R)

Maine Versus Michigan with expected wage & benefit calculations .

- Memorandum from Barry Llewellyn, NCCI, to Mark Mulvaney (M&R), 8/3/92
   "Maine/Michigan Benefit Cost Analysis".
- Memorandum from Barry Llewellyn, NCCI, to Blue Ribbon Commission, 7/2/92, with attachments.
- FAX from Joyce Lopez, NCCI, 9/9/92

"The 1992 Injured Worker Wage Distribution".

From Abby Holman, Governor's Office, State of Maine (9/10/92):

- Maine Workers' Compensation Act..., 1991.
- A Comparative Analysis of the Maine Workers' Compensation Law, John H. Lewis, 6/28/92.

From Joyce Lopez, NCCI, NY: (9/11/92):

FAX of "WC Injury Table: Fatal Disability".

From John Dawson, E&Y Boston(9/14/92):

- FAX copy of letter from Emilien Levesque to John Herzfeld and John Dawson (9/11/92).
- FAX copy of Letter of Understanding from Maine Legislature with cover: Sarah Tubbesing to John Dawson.(9/9/92).

From Richard Johnson, Maine Bureau of Insurance(9/15/92):

FAX copy of 9/4/92 memorandum from Lisa Copenhaven and Jane Orbeton to BRC on technical changes in legislation.

#### II. Actuarial Approach

#### A. Introduction

This section will provide a description of the data and procedures used in the report.

Our procedures were selected to provide an actuarial analysis most appropriate given the data available.

#### B. Data

The data employed in our analysis were somewhat limited. Among the sources were the NCCI, Maine Bureau of Insurance, and industry publications. A list of data used in the report, as well as all other documents received in the course on the engagement, is given in Table III.

#### C. Description of Procedures

Our methodology for evaluating law changes is listed by category and follows.

#### 1. Benefit Weights and General Summary

The general summary and the benefit statistics used to weight the results are shown in Exhibit I. The general summary shows the percentage effect of changes in each benefit type and applies weights reflecting the proportion of dollars in each category under existing law. Two scenarios are shown: the "Select", which assumes that short-term benefit utilization will remain the same or change slowly after enactment, and the "Decreased Utilization", which assumes that Temporary Total and Healing Period

durations will rapidly approach the national average. The statistics shown on Page 2 of Exhibit I come from successive issues of the NCCI *Annual Statistical Bulletin*. Indemnity weights ( at fifth report ) have been summarized across years and the relative weights of indemnity and medical have been trended from the 10/17/91 law enactment date to mid-1993. The overall results are shown as a percentage of benefits under current law and as a percentage of loss and loss adjustment expense since the attorney's fees change is outside the benefit framework. A column is also included which shows the M&R results for comparison.

#### 2. Changes in Maximum Benefit and Weekly Compensation

These are key changes which affect all indemnity related benefits. The effect of the redefinitions are shown in Exhibit II. Our approach is essentially a confirmation of the NCCI approach, using the NCCI standard wage distribution (details in Part 6 of the Exhibit). We have made an independent estimate of the State Average Weekly Wage as of mid 1993 (Part 5). This is carried to Parts 1 - 4 of Exhibit II which shows the calculation of average weekly compensation amount under the old law and the new law. Two comparisons are shown, one for Permanent Partial benefits and one for all other due to differing minimum compensation amounts under the old law. Our calculations reproduced NCCI findings exactly when we did comparisons.

#### 3. Fatal Benefits

Our calculations for fatal benefits are shown in Exhibit III. We have treated the change in duration and the repeal of escalation together, comparing approximate annuity

values weighted by case frequencies from the NCCI Injury Table. Where joint status annuities are involved, we have used the larger of the two annuity values as an approximation. We have ignored mortality for minor dependent annuities. All values are discounted at 3.5% *per annum*, and the escalation rate is 4.6% based on Exhibit II Part 5..

#### 3. Permanent Total

The most important change to Permanent Total Benefits is the repeal of escalation. Exhibit IV shows our calculations which resemble those for fatal benefits. We have compared straight annuity values at 3.5% with mixed annuities, also at 3.5%, which begin escalating at 4.6% after three years from date of injury. Temporary Total Benefits received before the Permanent Total award are treated as part of the total. Schedule benefits, which are unchanged under the new law are added in separately. We have assumed, in the absence of more detailed information that the Social Security offset reduces benefits by half after age 65 under the old law an will reduce them to nothing after age 65 under the new law.

#### 4. Permanent Partial

Calculations for Permanent Partial Benefits are shown in Exhibit V. The only material effect, aside from compensation formula changes, is that due to the changes in duration by whole-body impairment percentage. These changes cut both ways, lengthening durations for serious cases and shortening them for milder cases. A crucial assumption is the claimant population above and below the 15% cutoff. We

have reviewed the NCCI's findings in the preliminary work on the Maine/Michigan comparison, and selected a 75%/25% split. This number is assumed to be static, although it will be under forensic pressure in the actual administration of benefits. "Healing Period" (Temporary Total) Benefits are a significant component of the total, as are Schedule Benefits. In order to combine these with wage loss to obtain an overall effect, we have had to assume an average wage loss percentage of 80%. This is a soft number, and we hope to obtain a better estimate in the near future. We have further assumed that wage loss benefits are insignificant after retirement due to the Social Security offset. Hence the wage loss annuities all terminate at age 65.

Excluding the effect of compensation formula changes, benefits are reduced by the factor .90 under our select assumptions. Changing the 75%/25% assumption to 65%/35% makes this .98. Assuming that Healing Period durations will revert to the national average gives .71. Keeping durations for serious ( > 15% impairment ) cases limited to 520 weeks gives .79.

#### 5. Temporary Total

These benefits apply to cases which involve lost time but eventuate in complete recovery. Apart from compensation formula changes, the only change to Temporary Total Benefits is the increase in the waiting period from three to seven days. We have calculated this effect using the NCCI Short-Term Disability Table. Calculations are shown in Exhibit VI. The table itself is shown graphically on Page 2.

#### 6. Medical Benefits

The only material change in Medical Benefits is the announced intention to go over to a maximum fee schedule of the kind used in Michigan. At this time we have no independent basis for assessing the effect of this change. NCCI estimates a reduction of 5% to 10% in medical costs. We have selected -6.50% as a mid-range estimate, but we have no new evidence at this time. We judge that this matter is worth pursuing in detail since medical costs are a rapidly growing portion of the total benefits.

#### 7. Attorney's Fees

Our treatment of the exclusion of claimant attorney's fees is given in Exhibit VII. We have used data on payments and case incurred broken out by category for accident years 1988 to 1991. We have estimated an ultimate allocated expense ratio and an ultimate ratio of claimant fees to all loss adjustment. The effect is likely to be substantial in its own right, and it may also lead to reductions in benefit costs by discouraging litigation. We expect that the magnitude of this indirect effect will be worth researching.

#### III. Conclusions

An examination of Exhibit I shows that our results, obtained without reference or access to M&R's calculations, do not differ materially from M&R's results except in the matter of attorney's fees. We have given full weight to this change first, because it involves a significant amount of money under the present law, second, because it may have further substantial ,though unquantified, effects on benefit amounts and utilization by making litigation much less attractive.

Our examination of the "Decreased Utilization Scenario" suggests how large such unquantified effects may be. This scenario, while not defensible as a basis for pricing the benefit changes, does give a reasonable indication of the kind of savings which can be achieved given the will to administer the law in a strict fashion. This point has already been noted in the report of the Blue Ribbon Commission to the Legislature. The benefit costing shown in this report assumes that benefit administration after enactment may be much like that before enactment. In fact, it can change in the direction of laxity, vitiating the savings designed into the benefit changes, or it can become stricter, more attentive to the injured worker's genuine needs, magnifying the savings.

It remains to address the question of Medical Benefits. It is regrettable that we have not been able to cost the changes in this system independently. The data and time requirements of such an undertaking put it clearly beyond the reach of this investigation. Medical is a large and rapidly growing portion of total benefits. The numbers in the NCCI *Annual Statistical Bulletins* present a bleak picture of medical cost per claim rising at roughly 18% per year against 5% wage inflation. This is worthy of

notice because a rate of increase that large has to be susceptible to control, though how and how much remain questions. This is clearly a worthwhile, even urgent area for future efforts in controlling benefit costs.

For present purposes, we are limited to the question of what immediate change in benefit levels will result from the present enactments. Our best estimate is the -13.7% of total benefits from the Select Scenario.