Pricing Threshold No-Fault Automobile Insurance in Canada

by Claudette Cantin & David J. Oakden

BIOGRAPHIES

Claudette Cantin is a Consultant with Tillinghast, a Towers Perrin company in Toronto. She graduated from Laval University in Quebec City in 1980 with a Bachelor's Degree in Actuarial Science. She is a Fellow of both the Canadian Institute of Actuaries and the Casualty Actuarial Society. During her ten years of Property-Casualty experience, Ms. Cantin has been active on Industry Committees such as the Insurance Bureau of Canada's Actuarial Committee. She serves as a member of the Syllabus Committee of the Casualty Actuarial Society. Currently she is the chairman of the Joint Organizing Committee for the Property and Casualty Insurance Liabilities Seminar and the CIA Examination and Education Subcommittee for Property and Casualty.

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ABSTRACT

The purpose of this paper is to illustrate a methodology which Canadian actuaries have used to price no-fault automobile insurance. This purpose is accomplished through a calculation of the impact of the Ontario Motorist Protection Plan on automobile loss costs.

The basic method is to estimate the impact of the law change on each component of the cover. The overall impact is then calculated as a weighted average of the percentage change by component using the current loss costs as weights.

The advantage of this approach is that all assumptions are clearly documented and it is relatively easy to modify them and calculate the impact. The disadvantage is that underlying loss costs must be available for each component of the coverage.

I Introduction

The introduction of a verbal threshold no-fault system for automobile insurance in the province of Ontario has presented the actuary with some unique challenges. This new system called the Ontario Motorist Protection Plan (OMPP) combines a verbal threshold, slightly stronger than Michigan's, with enhanced no-fault benefits under the accident benefits coverage. The OMPP also provides for Direct Compensation of Third Party Liability Property Damage but does not change the current physical damage coverages.

Since the proposed no-fault benefits are all enhancements of existing benefits, we have used a four step approach in pricing these benefits. First, the cost of the old accident benefits premium was calculated using current ratemaking methods. Second, the percentage increase resulting from the OMPP was estimated separately for each coverage. Third, the percentage increase for the accident benefits premium was calculated as the weighted average of the percentage increase in the individual coverages where the weights were the discounted loss costs for the current coverages. Finally the new premium was calculated by applying this increase to the existing coverage.

A similar approach was used for the liability coverage, however, for bodily injury it was necessary to estimate the reduction resulting from the threshold, the additional reduction resulting from the increased no-fault benefits and the impact of tort reform. For property damage, the impact was based on experience in Quebec where a similar plan was introduced for property damage liability.

The primary emphasis in this paper is the estimated impact of the OMPP on the individual coverages. We will, however, present exhibits showing the overall impact of the OMPP but we will not show how the current loss costs are developed.

II An Overview of the OMPP

The details of the coverage under the old plan and the OMPP are described in the exhibits and in Section IV. In this Section we will provide an overview of the Ontario automobile policy, describe the major changes under the OMPP and provide some of the reasons for these changes.

All provinces in Canada provide no-fault benefits for disability, medical costs and funeral expenses as well as a lump sum payment upon death resulting from an automobile accident. In most provinces, however, these benefits have low maximums. For example under Ontario's old plan the maximum weekly disability benefit was $140, the limit on medical expenses was $25,000 and the funeral benefit was $1,000.

Several recent studies (see bibliography) had recommended that these benefits be increased significantly so that victims and their families would be adequately compensated when there was no access to tort. It was also recommended that these increased benefits be financed by a restriction on tort similar to the thresholds' in Michigan and New York.

While the discussion of enhanced no-fault benefits continued in the background, the government froze automobile insurance rates on April 23, 1987. While several small increases were later permitted, by late 1989 rate increases in excess of 30% were required to bring premiums up to profitable levels. The government, of course, was reluctant to permit a rate increase of this magnitude.

Since the no-fault studies had indicated that pure no-fault or threshold no-fault could reduce loss costs, the government saw this as a solution to their dilemma. The final solution was largely dictated by the government's desire to avoid a rate increase, however, this was impossible so a rate increase was permitted in urban areas only.

In its final implementation, the OMPP increased the disability maximum to $600 per week, the medical expense limit to $500,000 and the funeral benefit to $3,000. In addition, the eligibility requirements for disability benefits were broadened and a long term care benefit with a maximum of $500,000 was added. There was, however, no provision for indexing these benefits primarily because of the increased costs which would have resulted.

The threshold which is probably the strictest in North America, restricts tort recovery to (i) death, (ii) permanent serious disfigurement and (iii) permanent serious impairment of an important bodily function caused by a continuing injury which is physical in nature. This strict threshold resulted both from a desire to limit costs and to avoid the problems that have caused the erosion of thresholds in the U.S.A. Only time will tell whether it succeeds or not.

In addition to the threshold, other changes were introduced to reduce premiums. First, premium tax was eliminated for private passenger vehicles. Second, subrogation by the Ontario Hospital Insurance Plan against automobile insurers was eliminated. (Prior to this change, subrogation was based on a formula percentage of premium). Third, tort reform was introduced which permitted deduction from tort awards of all employment related indemnity income and government income replacement (except Old Age Security) and reduced pre-judgement interest on general damages to 2.5%. Fourth, traffic fines for speeding were doubled and police enforcement was increased. Fifth, the Ontario Insurance Commission was established and given the power to regulate automobile premiums.

As mentioned above, these changes were not sufficient to eliminate the need for a rate increase. Companies were therefore permitted to increase premiums by up to 8% in the major metropolitan areas. No increases were permitted in the rest of the province.

III Discounted Loss Costs

When estimating the impact of the OMPP on incurred losses, we have compared the cost of each coverage on a discounted basis. This approach was taken because the timing of payments is significant for a rich package of no-fault benefits.

In this paper we have used a rate of 8% which is similar to returns earned by Canadian insurers in 1987 and similar to rates used in previous studies[2]. Current interest rates are higher and in order to test the impact of higher interest rates, we also performed the calculation using 9%. This change increased the savings under the OMPP by less than 0.1% (compare Exhibits I & I-A). It should be noted that increasing the interest rate from 8% to 9% actually reduced the discounted losses under OMPP by 1.4%, however, in Exhibit I-A loss costs before OMPP have also been discounted at 9%.

Since small changes in the interest rate have little impact on the relative reduction in premium under the OMPP we have used an 8% rate in our analysis. Exhibits I-A, IV-4A, V-5A, VI-A, VII-A and VIII-A show the impact of using 9%.

IV Impact of OMPP by Coverage

1. **Funeral Benefits**

   The OMPP now covers all funeral expenses incurred up to a maximum of $3000 per deceased person as compared to the previous limit of $1,000. If we assume that all claimants receive the maximum, the increase is 200%.

2. **Death Benefits**

   The benefits under both systems are summarized in Exhibit II-1. Basically, the benefits payable for the death of the head of the household or his/her spouse have increased from $10,000 for the first dependent and $1,000 for each additional

dependent to $25,000 for the first and $10,000 for each dependent after the first. The benefit payable on the death of a dependent has increased from $2,000 to $10,000.

Clearly the average claim payment and percentage increase depend on the average number of dependents and the ratio of deaths of dependents to deaths of the head of household or spouse. We have based these estimates on census and tax data reducing the number of dependent children to reflect the fact that automobile fatality rates are much lower at the younger ages.

It should be noted that we ignored multiple deaths since the impact was small and accurate statistics unavailable.

The population data was taken from the 1986 Census - Statistics Canada. The population distribution by type of family was used to estimate the distribution of claimants. The average number of dependent children is estimated by taking the average number of children from the census data and dividing by the ratio of the total number of children in the census data to the number of dependent children claimed for tax purposes. The resulting average number of dependent children was 1.6 for two parent families and 1.3 for single parent families. The number of other dependents was taken from the number of other dependents claimed for tax purposes.

Based on data from the Ontario Road Safety Report of 1987, we concluded that dependent children have half the likelihood of adults of being killed in an automobile accident (see Exhibit III-3). We therefore reduced the number of dependent children by 50% in our calculations.

The average benefit under both, the old plan and OMPP, were calculated for each category of claimant by multiplying the number of recipients by the death benefit payable. For example, for the death of a head of the household in a two parent family, the average benefit would be:

Old Plan   = 1 x $10,000 + 1.6 x $1,000 = $11,600
OMPP   = 1 x $25,000 + 1.6 x $10,000 = $41,000

The overall impact is calculated as:

$$\text{New Average Benefit x Number of Claimants}$$
$$\text{Old Average Benefit x Number of Claimants}$$

The resulting increase is 223.9% as shown in Exhibit III-3.

3.   **Medical, Rehabilitation and Long Term Care**

In Canada, a large portion of the medical and hospital expenses are covered by government plans, however items such as drugs, prothesis, rehabilitation and structural changes to homes are not covered. The OMPP also covers expenses in excess of those covered by public or private plans including rehabilitation to a maximum of $500,000. This is a significant increase over the previous maximum of $25,000 and, considering the government health plan, provides virtually unlimited coverage. The OMPP also provides for long term care expenses incurred by the victim or his (her) family up to $3000 a month with a lifetime maximum of $500,000.

The primary considerations in estimating the increased costs of this coverage are

● the number and distribution by amount of claims in excess of $25,000;

- the increased frequency of claims due to the lack of tort recovery;

- the frequency of long term care which is a new benefit; and

- the increased utilization of rehabilitation (and medical) benefits due to the higher limit.

We resolved these questions by assuming that the medical and rehabilitation costs depend on the length of disability as shown in Exhibit IV-2. The disability table of the "Régie d'Assurance Automobile du Québec" (RAAQ) was used to calculate the distribution by length of disability. The disability table of the Régie provides the number of automobile victims disabled at various durations. It is based on automobile accident experience in the province of Quebec and was last updated in 1983. We further assumed that only 10% of those disabled over three years would require the long term care benefit. For rehabilitation benefits we assumed that the duration would be one year for those disabled one to two years and, two years for those disabled for two years or more.

For people recovering in the first year, we assumed that the average claim will remain the same under OMPP as it was under the old plan. Based on industry statistics, the average claim for disability of less than 1 year was estimated at $500.

Under the old plan, for victims with injuries lasting one year or more, we assumed the maximum of $25,000 is reached. Furthermore, we assume all medical expenses are paid at the time of the accident (up-front).

The average benefit, under OMPP, was calculated by adding the medical benefit (paid up-front) to the present value of the weekly rehabilitation benefit for the payment period. For example, victims disabled for 1 to 2 years receive $25,000 for

medical costs and $500 per week during one (1) year for rehabilitation starting 6 months after the time of the accident. Consequently, the average benefit is $25,000 plus the present value of 52 weekly payments of $500 commencing at week 27.

A similar calculation applies to claimants disabled for 2 to 3 years, except that the rehabilitation lasts 2 years and the medical coverage is $50,000.

Finally, we assume that 10% of the people disabled for more than 3 years will receive the maximum long term care benefit of $3,000 per month for the duration of their disability or 14 years at which time the lifetime maximum is reached.

The overall average benefits pre-OMPP and post-OMPP are calculated as the sum of the average benefit by duration multiplied by the percentage of disabled claimants at each duration.

The impact was determined as the ratio of both overall averages. Finally, the resulting impact was increased by a further 15% to account for the increased frequency due to the lack of tort recovery and the addition of long term care.

We estimated an increase of 240.6% over the current medical costs (Exhibit IV-4).

The medical expenses are one of the most difficult to cost because of the lack of historical data and difficulty in predicting the reaction to increased benefit levels. Due to the government plans, medical costs represent a lower portion of the overall losses in Canada relative to the U.S.A. Therefore, a large percentage change in medical costs would only have a small impact on total costs. For example, if the actual increase in medical costs was twice our estimate, the loss cost would increase

by only **4%**. Conversely, if medical costs did not increase at all, the loss cost would be **4%** less.

4.   **Disability Income Replacement & Home and Child Care Benefits**

The major changes in this coverage under OMPP are the increase in the maximum weekly benefit from $140 to $600, the introduction of a minimum weekly income benefit of $185 and the extension of coverage to students & pre-schoolers.

The significant increase in the level of weekly income replacement and the tort restrictions will likely affect the utilization of that coverage by the employed population. We therefore assumed a 25% increase in the frequency.

Following the same logic used for death benefits, we assumed the distribution of claimants would be similar to the general population based on tax and census data. The number of student claimants was adjusted to reflect their reduced or increased exposure to injuries in automobile accidents using statistics published in the Ontario Road and Safety Report of 1987 as shown on Exhibit V-4. All the assumptions regarding the distribution of claimants by category are set out in Exhibit V.

The average weekly income under the old plan and OMPP was calculated using Income Tax data from 1986. The 1986 Income was judgmentally increased by 5.5% a year to bring it to the 1991 level. We also assumed that 50% of the wage earners with salaries over $20,000 have collateral source benefits and claim an average of only 10% of gross income subject to the minimum and maximum benefits.

The estimated average weekly benefits payable of $129.03 under the Old Plan and $298.35 under OMPP are shown in Exhibit XII. These averages are reduced at age 65 by the average weekly pension benefit of $75 (from Statistics Canada).

Therefore, using the disability table of the RAAQ and a maximum lifespan of 100 years, the average benefit for the employed and deemed employed was calculated as follows:

Employed (average age 37 years)

Old Plan =

WBNO [PV (2wks) - PV (1wk)] + WBO [PV(28yrs) - PV(2wks)] + (WBO - $75) [PV (63yrs) - PV (28 yrs)]

OMPP =

WBO [PV(28yrs) - PV(1wk)] + (WBO - $75) [PV (63yrs) - PV (28yrs)]

Deemed employed (average age 37 years)

The deemed employed are also assumed to be eligible to the disability pension of $63.41 benefit after 17 weeks.

Old Plan =

(WBNO - $63.41) [PV (28yrs) - PV (17wks) + (WBNO - $75) [PV (63yrs) - PV (28yrs)]

OMPP =

(WBO - $63.41) [PV (28yrs) - PV (17wks) + (WBO - $75) [PV (63yrs) - PV (28yrs)]

Where			
	WBO	=	Weekly benefit with offset
	WBNO	=	Weekly benefit without offset
	PV (x)	=	Present value of a non-indexed annuity for a period of x based on the Quebec Disability Table (Exhibit XIII)

Similar calculations were used for the other claimant categories based on their respective benefits entitlement.

Using an 8% return on investment in calculating the present value of benefits, we estimated an increase of 289.4% over the current costs (Exhibit V-5). A 9% rate of return resulted in a slightly lower increase of 278.7%, however, the difference did not materially affect the overall results.

5. **Direct Compensation of Property Damage Losses**

The concept of direct compensation of property damage liability was introduced as part of the OMPP and is similar to inverse liability which was introduced in Quebec in 1978. Direct compensation provides for payment of property damage losses for which the insured was not at fault by the insured's own insurer.

This system allows the insurer to base property damage liability rates on the insured's vehicle and based on experience in Quebec, the differentials for third party property damage liability are similar to collision differentials for each vehicle group.

In the year immediately following the introduction of the inverse liability plan in Quebec, losses increased by roughly 10% (see Exhibit IX). This increase has been attributed to more generous treatment of insureds by their own insurer as opposed to a third party. In addition, for many accidents where fault is questionable, neither party is considered "at-fault" and both parties are compensated, therefore increasing total losses. Anticipating a similar impact in Ontario, we have increased the property damage liability losses by 10%.

6. **Bodily Injury Liability**

The inability to sue under the verbal threshold will eliminate most bodily injury claims. The remaining claims will be further offset by the increased no-fault benefits and tort reform.

The effectiveness of the threshold clearly has a large impact on incurred losses under OMPP, however, the impact is difficult to estimate due to insufficient data and uncertainty over how the courts will interpret the threshold.

Several approaches can be used to estimate the potential savings under the threshold. The following paragraphs describe some factors and considerations in selecting the threshold assumptions:

- **Sample of Claims:** If the threshold can be defined as given types of "injuries" such as fatalities, brain damage, quadriplegic etc... then the savings from the threshold can be estimated using a sample of closed claims by type of injuries. A calendar year is an appropriate choice as they will contain all sizes and types of claims. The use of closed claims is important so that the ultimate values of the claims are known. This approach can be used to estimate the percentage of claims and/or dollars of loss eliminated.

- If the percentage of claims eliminated is known, then incurred dollars eliminated from the sample can be estimated using a size of loss distribution for Bodily Injury (BI) claims assuming that most of the claims eliminated would be the smaller claims. Should the sample be biased by a disproportionate number of large claims, the estimated savings could be understated or vice versa. The BI loss distribution can also be used to assess the reasonableness of the minimum size of loss that would remain in tort.

- **Experience from other jurisdictions:** In order to obtain estimates of the savings, one could look at other jurisdictions' loss data and experience. However, differences in the limits of coverage, the density of traffic and the legal climate, may significantly affect the results.

- **Limits of Coverage:** The compulsory liability limit in Ontario is $200,000. To use a loss distribution for lower limits would result in overstating the percentage of dollars of losses for a similar percentage of claims eliminated.

- **Density of traffic:** A large number of minor accidents occur in high density traffic areas. Since minor accidents are less likely to penetrate the threshold the savings would be smaller if the high density traffic experience is excluded.

- **Legal Climate:** The average size of a loss is higher in jurisdictions with a high level of lawsuit activity. Therefore, the savings in these areas would be higher than elsewhere as claims are removed from tort. However, it is more likely that the threshold would be eroded in these areas.

The approach we used was to judgementally estimate the percentage of claims that would be eliminated using data from the All-Industry Research Advisory Council (AIRAC - 1989) and use an Ontario size of loss distribution to estimate the dollars of loss eliminated. There were, however, two problems in interpreting the AIRAC data. First, there were differences by state and second, a certain amount of judgement was required to determine which injuries would meet the threshold. Therefore, it was impossible to obtain a precise answer and we concluded that serious injuries would account for 5% to 9% of all injuries. (For example the total in Table 6-13 for Scar/Disfigurement, fracture of a weight bearing bone, internal organ, permanent brain injury, loss of body part paralysis/paresis, TMJ dysfunction,

loss of senses and fatality account for 8.5% of injuries which reduces to 5.1% if double counting is eliminated).

Since there is a significant difference between these estimates, we felt it would be better to calculate our estimates under two scenarios. In Scenario A we assumed 10% of claims would meet the threshold and in Scenario B we assumed 6% of claims would meet the threshold. The additional 1% was added to allow for some erosion of the threshold over a strict interpretation of the statistics. The reduction in total dollars of loss was 36.5% for Scenario A and 45% for Scenario B.

While the effectiveness of the threshold has the largest impact on bodily injury costs, there are further reductions resulting from the increased no-fault benefits and tort reform.

Based on findings in the Osborne Report[2], 65% of the victims are not totally at fault. Therefore, 65% of the enhanced no-fault benefits meeting the threshold would be offset by a dollar-for-dollar third party liability reduction were it not for the threshold. Taking the threshold into account the reduction due to enriched no-fault benefits will equal:

$$.65 \times (1-A) \times (B-C)$$

Where: A = % of losses eliminated by the verbal threshold.
          B = Accident Benefits under no-fault.
          C = Accident Benefits under tort.

The collateral source rule will also eliminate recovery under tort for pecuniary losses already compensated through income replacement coverage from other sources (such as employee disability plan). An industry study showed that the savings will be 6% of the total Bodily Injury Losses.

There will also be reduction in the prejudgment interest rate which we have estimated at about 20% of the prejudgment interest portion of BI losses or 2% of total BI losses.

Finally, out-of-province accidents will not fall under the OMPP and they represent 2% of all losses (as per Osborne). They are excluded from the total impact.

Therefore the introduction of a verbal threshold will reduce the Third Party Bodily Injury Loss by an amount equal to the sum of

(1)   the percentage of losses eliminated by the verbal threshold
(2)   the reduction in tort recovery for Enriched No-Fault Benefits
(3)   the reduction in tort recovery for benefits received from other sources of income replacement (Collateral Benefits Rules)
(4)   the reduction in pre-judgement interest rate

The total reduction in BI losses will equal:

$$(1-.02) \, [.365 + .65 \, (1-.365) \text{ (Increased in Accident Benefits as 1\% of BI loss costs)} + (1 - .365) \text{ (Collateral Benefits (6\%))} + (1 - .365) \text{ (Pre Judgement Interest (2\%))}]$$

Exhibit VI and VI-A show the impact of the threshold on BI losses using 8% and 9% interest rate respectively.

While the difference between Scenarios A and B may appear large, the total savings for all lines combined under Scenario B are only 3.3 percentage points higher than under Scenario A.

7.   **Other Coverages**

The no-fault system also affects the Uninsured Motorist Coverage, the Family Protection Endorsement and the Quebec Supplementary Benefits.

Under the Uninsured Motorist Coverage victims are covered up to the mandatory third part limit of $200,000. Therefore, we used the same assumption as for bodily injury but capped the loss distribution at $200,000.

The SEF 44 (Family Protection Endorsement) covers the difference between an insured's limit of insurance and the third party's coverage. The minimum mandatory limit in Ontario is $200,000 and we assumed that the distribution of losses over $200,000 would be representative of SEF 44 losses and that all SEF 44 losses will pierce the threshold.

$$(1-OP) \; [(1-OP)(THR + .65(1-THR)(IAB) + (1-THR) \; CB + (1-THR)(PJI)]$$

OP   =   Percent of Out of Province accidents, 2%

THR =   Percent reduction due to threshold (i.e. 36.5% for Scenario A and 45% for Scenario B)

IAB =   Increase in accident benefit losses as a percent of BI loss costs

CB   =   Percent reduction due to collateral benefits

PJI =   Percent reduction due to pre-judgement interest

The remaining assumptions were the same as for BI.

Since SEF 44 claims already exceed policy limits of $200,000 a large portion of these claims will also exceed the SEF 44 limit. In these cases the above savings will

not be realized. While the data is limited, we have assumed that the offsets will only be effective in 45% of the cases. The results are shown in Exhibit VIII.

Finally, Ontario and Quebec have a joint agreement under which an Ontario driver injured in Quebec would receive the Quebec no-fault benefits. The cost of this coverage is small and the impact is shown in Exhibit X.

V Determination of the Average Premium

The estimated adjustment factors shown in Exhibit I for total liability and accident benefits can now be used as an adjustment to loss costs in the rating process. This will enable companies to use their normal rating methods in developing premiums for OMPP.

Under the OMPP, it is also necessary to split the old liability coverage between direct compensation and liability. This split can be obtained using the OMPP discounted loss costs for bodily injury and property damage. The non-automobile property damage losses which will remain as part of the liability premium are small and can be estimated on a judgemental basis.

In determining the final premiums under the OMPP the rating formula for some coverages was modified. First the accident benefits (no-fault) premium was flat rated under the old plan. This treatment may not have been appropriate, however, the total premium was small. Under the OMPP the accident benefits premium is now significantly larger and most companies are using the liability classification factors for the accident benefits factors. In addition some companies have added discounts and surcharges by type of vehicle judgementally based on data from the Highway Loss Data Institute.

Second, as mentioned above, companies are incorporating vehicle rate group factors into their direct compensation premiums. Since the direct compensation coverage is almost identical to the inverse liability coverage in Quebec most companies used their Quebec rate group differentials for the initial rates.

In addition, since insurance companies would now be paying for not at fault accidents, the credits for good drivers and surcharges for bad drivers were reduced for the direct compensation coverages. Again most companies followed their Quebec experience when selecting these factors.

VI Conclusion

Our purpose in writing this paper was to document the methods and assumptions used to price automobile insurance under the OMPP and to describe the background leading to the implementation of the plan.

As experience is accumulated under this plan it will be interesting and instructive to compare the actual results to the projected results. The OMPP, however, may be short lived as the party which introduced it was defeated in a recent election and the new government has announced their intention to make major modifications.

REFERENCES

1.   Slater, David W.; Final Report of the Ontario Task on Insurance, May 1986.

2.   Osborne, Coulter A.; Report of Inquiry Into Motor Vehicle Accident
      Compensation in Ontario, February 1988.

3.   All-Industry Research Advisory Council; Compensation for Automobile Injuries in
      the United States, March 1989.

Comparisons of Discounted Loss Costs and Premiums

Private Passenger Automobile

	OLD PLAN	SCENARIO A		SCENARIO B	
		Estimated	OMPP	Estimated	OMPP
	Discounted	Adjustement	Discounted	Adjustement	Discounted
BENEFITS	Loss Cost	Factors	Loss Cost	Factors	Loss Cost
	($)	(%)	($)	(%)	($)
Medical (a)	$13.08	240.6%	$44.55	240.6%	$44.55
Funeral (b)	0.17	200.0%	0.51	200.0%	0.51
Death (c)	1.11	223.9%	3.60	223.9%	3.60
Disability (d)	21.65	289.4%	84.31	289.4%	84.31
Quebec Part III (e)	0.66	-31.8%	0.45	-31.8%	0.45
TOTAL NO FAULT	$36.67	263.8%	$133.41	263.8%	$133.41
Uninsured Motorist-BI (f)	$11.62	-58.5%	$4.82	-66.5%	$3.89
-PD (g)	1.74	0.0%	1.74	0.0%	1.74
(1) TOTAL ACCIDENT BENEFITS	$50.03	179.8%	$139.97	177.9%	$139.04
Bodily Injury (h)	$369.03	-51.5%	$178.98	-57.7%	$156.10
Property Damage (i)	$91.11	10.0%	$100.22	10.0%	$100.22
O.H.I.P.	$14.00	-100.0%	$0.00	-100.0%	$0.00
SEF 44 (j)	$11.42	-12.7%	$9.97	-12.7%	$9.97
(2) TOTAL LIABILITY	485.56	-40.4%	$289.17	-45.2%	$266.29
(3) TOTAL LIABILITY AND ACC. BENEFI (SUM (1) & (2))	$535.59	-19.9%	$429.14	-24.3%	$405.33
(4) COLLISION	$144.73	0.0%	$144.73	0.0%	$144.73
(5) COMPREHENSIVE	$48.00	0.0%	$48.00	0.0%	$48.00
(6) TOTAL LOSS COST (SUM (1) TO (5))	$728.32	-14.6%	$621.87	-17.9%	$598.06

Notes:

SCENARIO A assumes 90% of the (#) claims and 36.5% of the ($) losses are eliminated by the threshold
SCENARIO B assumes 94% of the (#) claims and 45.0% of the ($) losses are eliminated by the threshold

(a) Exhibit II	(d) Exhibit V	(g) Assume no change
(b) Exhibit II	(e) Exhibit X	(h) Exhibit VI
(c) Exhibit III	(f) Exhibit VII	(i) Exhibit IX
		(j) Exhibit VIII

Comparisons of Discounted Loss Costs and Premiums

Private Passenger Automobile
(using 9%)

	OLD PLAN	SCENARIO A		SCENARIO B	
		Estimated	OMPP	Estimated	OMPP
BENEFITS	Discounted Loss Cost ($)	Adjustement Factors (%)	Discounted Loss Cost ($)	Adjustement Factors (%)	Discounted Loss Cost ($)
Medical (a)	$12.87	237.8%	$43.47	237.8%	$43.47
Funeral (b)	0.17	200.0%	0.51	200.0%	0.51
Death (c)	1.10	223.9%	3.56	223.9%	3.56
Disability (d)	21.28	278.7%	80.58	278.7%	80.58
Quebec Part III (e)	0.64	-31.8%	0.44	-31.8%	0.44
TOTAL NO FAULT	$36.06	256.5%	$128.55	256.5%	$128.55
Uninsured Motorist-BI (f)	$11.25	-58.3%	$4.69	-66.4%	$3.78
-PD (g)	$1.74	0.0%	1.74	0.0%	1.74
(1) TOTAL ACCIDENT BENEFITS	$49.05	175.2%	$134.98	173.4%	$134.07
Bodily Injury (h)	$360.36	-51.2%	$175.86	-57.5%	$153.15
Property Damage (i)	$90.63	10.0%	$99.70	10.0%	$99.70
O.H.I.P.	$14.00	-100.0%	$0.00	-100.0%	$0.00
SEF 44 (j)	$11.42	-12.6%	$9.98	-12.6%	$9.98
(2) TOTAL LIABILITY	$476.42	-40.1%	$285.54	-44.8%	$262.83
(3) TOTAL LIABILITY AND ACC. BENEFI (SUM (1) & (2))	$525.46	-20.0%	$420.52	-24.5%	$396.91
(4) COLLISION	$144.73	0.0%	$144.73	0.0%	$144.73
(5) COMPREHENSIVE	$48.00	0.0%	$48.00	0.0%	$48.00
(6) TOTAL LOSS COST SUM (1)&(2)&(4)&(5))	$718.19	-14.6%	$613.25	-17.9%	$589.64

Notes:

SCENARIO A assumes 90% of the (#) claims and 36.5% of the ($) losses are eliminated by the threshold
SCENARIO B assumes 94% of the (#) claims and 45.0% of the ($) losses are eliminated by the threshold

(a) Exhibit II	(d) Exhibit V	(g) Assume no change
(b) Exhibit II	(e) Exhibit X	(h) Exhibit VI
(c) Exhibit III	(f) Exhibit VII	(i) Exhibit IX
		(j) Exhibit VIII

Funeral Benefits

COVERAGE	
OLD PLAN	**OMPP**
Expenses incurred up to $1,000 per insured deceased person.	Expenses incurred up to $3,000 per insured deceased person.

COSTING ASSUMPTION
All expected claimants will get the new maximum.

ADJUSTMENT FACTOR
OMPP [$3,000/$1,000] - 1 = 200% increase.

Death Benefits

COVERAGE	
OLD PLAN	**OMPP**
• $10,000 to surviving spouse or surviving dependent if no surviving spouse	• $25,000 to surviving spouse or first surviving dependent if no surviving spouse
• $1,000 to surviving dependent other than the first	• $10,000 to each additional surviving dependent
• $2,000 for each deceased dependent	• $10,000 to surviving parent of a deceased dependent
	• $10,000 to brothers or sisters if no surviving parents

COSTING ASSUMPTIONS

1.	The population distribution by type of family is used to estimate the distribution of claimants.

2.	The number of wholly dependent children claimed for tax purposes is an appropriate surrogate for the number of dependent children.

3.	The average # of dependent children per family is estimated from the distribution of families by size prorating the total children (1.92) per family to the number of dependent children.

COSTING ASSUMPTIONS

4.	The number of other dependents claimed for tax exemption is a reasonable surrogate for the number of other dependents.

5.	Accidents involving two or more family members were ignored. This assumption will not significantly impact the calculation of the change in benefit.

6.	Dependent children have 50% of the likelihood of the parents of being killed in an accident.

Death Benefits

ESTIMATED IMPACT OVER THE OLD PLAN

TYPE OF BENEFICIARY Husband & Wife Families	Average Number of Dependent Children (1)	Estimated 1990 Population (2)	Estimated Claimant Population (3)	OLD PLAN Benefit Payable (4)	O.M.P.P. Benefit Payable (5)
Spouse with Children	1.6	1,338,465	2,676,930	$11,600	$41,000
Spouse with no children		816,525	1,633,050	$10,000	$25,000
Single Parent Families					
Dependent child(ren)	1.3	290,755	290,755	$10,300	$28,000
Other Dependent		26,610	26,610	$2,000	$10,000
Dependent Children		2,485,271	1,242,636	$2,000	$10,000
AVERAGE BENEFIT				$9,015	$29,202

ESTIMATED % IMPACT OVER CURRENT COST:
[Proposed Average Benefit / Current Average Benefit] − 1   223.9%

Columns:
   (1) Number of Dependents Children is estimated prorating the number of dependent children
       to the total number of children
   (2) Population Statistics from Census Data. Number of Dependents from Income Tax Data
   (3) For Families : Number of families times number of Adults (1 or 2)
       Dependent children are assumed to have 50% of the probability of an adult to be killed
       in an accident. Data from The Ontario Ministry of Transportation − Ontario Road and Safety Report 1987

Age group	% Killed (a)	% of Population (b)	Relative Probability of Claim (a)/(b)
0 to 17	12.8%	25.1%	51.0%
25 and over	63.1%	62.9%	100.3%

   (4) Two Parent Families: $10,000 for first survivor plus $1000 times no. of children
       Single Parent Families: $10,000 for first survivor plus $1000 times (no. of children minus 1)
       Other: $2,000
   (5) Two Parent Families: $25,000 for first survivor plus $10,000 times no. of children
       Single Parent Families: $25,000 for first survivor plus $10,000 times (no. of children minus 1)
       Other: $10,000

Medical, Rehabilitation and Long Term Care

COVERAGE	
OLD PLAN	**OMPP**
● All reasonable medical and rehabilitation expenses up to a maximum of $25,000	● All reasonable medical and rehabilitation expenses up to a maximum of $500,000
● To the extent that these expenses are not covered by any public or private plan	● To the extent that these expenses are not covered by any public or private plan
● Medical and rehabilitation expenses must be incurred within 4 years from the date of accident.	● Medical or rehabilitation expenses must be incurred within 10 years or 20 years less the age of the victim from the accident
	Date of Long Term Care
	● All reasonable expenses incurred by the victim or his family
	● Maximum $3,000/month
	● Lifetime maximum $500,000

COSTING ASSUMPTIONS

1. The frequency will increase by 15% because of the enriched benefits. The addition of long term care will also increase the number of claimants as this coverage does not currently exist. The tort limitation will also make insureds more benefit conscious to ensure their needs are covered

Medical, Rehabilitation
and Long Term Care

COSTING ASSUMPTIONS

2.　The current average medical claim is estimated at $500 (Based on Industry Data)

3.　From the Québec disability table we have that 93.5% of injured persons will recover within 1 year. For these people, we assume the average claim would remain the same as under the old plan.

4.　Under the old plan, for victims with injuries lasting for one year or more, we assumed the maximum of $25,000 is reached.

5.　Under OMPP, we have assumed the following payments depending on the duration:

Duration	% of Claimants	Medical	Rehabilitation	Long Term Care
1 to 2 years	100%	$ 25,000	$500/week	nil
2 to 3 years	100%	$ 50,000	$500/week	nil
3 + years	90%	$ 50,000	$500/week	nil
3 + years	10%	$250,000	$500/week	$3,000/month

All medical expenses are paid up front.

Medical, Rehabilitation
and Long Term Care

COSTING ASSUMPTIONS

6. We assumed that rehabilitation takes place for a period of 1 year for people disabled 1 to 2 years and on average 2 years for people disabled more than 2 years.

Medical/Rehabilitation

ESTIMATED IMPACT OVER THE OLD PLAN

LENGTH OF DISABILITY (1)	% DISABLED (2) (a)	OLD PLAN P.V. of BENEFITS (3) (b)	O.M.P.P. P.V. of BENEFITS (4) (c)
1 YEAR OR LESS	93.5%	$500	$500
1 TO 2 YEARS	3.5%	$25,000	$48,990
2 TO 3 YEARS	1.0%	$25,000	$96,138
3+ YEARS	2.0%	$25,000	$152,689
TOTAL	100%	$2,093	$6,197
CHANGE IN FREQUENCY			15.0%
Estimated % Impact [{1.15 x (4)/(3)}−1]			240.6%

Notes:

(a) From the Quebec Disability Plan

(b) Based on industry data, the OLD PLAN average loss for Medical is $500.
Victims disabled for over 1 year receive the maximum current benefits.
Medical payments are assumed to be made at the beginning of the period.

(c) The P.V. of Benefits is calculated as follows :

1 to 2 Years : $25,000 + PV(500,.08/52,78) − PV(500,.08/52,26)
2 to 3 Years : $50,000 + PV(500,.08/52,130)−PV(500,.08/52,26)
3+Years : [.9x($50,000+PV(500,.08/52,130)−PV(500,.08/52,26)]+
    [.1x($250,000+PV(500,.08/52,130)−PV(500,.08/52,26)+(692.30*PVD(14)/.02)]
Where PV($,i/52,n) is the present value of a weekly indemnity of $ during n weeks
at i% per annum. And PVD is the Present Value of a disability annuity for 14 years.
The lifetime Maximum is reached after 14 years.

More details are part of the Assumptions Section.

Medical/Rehabilitation
(Using 9%)

ESTIMATED IMPACT OVER THE OLD PLAN

LENGTH OF DISABILITY	% STILL DISABLED	OLD PLAN P.V. of BENEFITS	O.M.P.P. P.V. of BENEFITS
(1)	(2) (a)	(3) (b)	(4) (c)
1 YEAR OR LESS	93.5%	$500	$500
1 TO 2 YEARS	3.5%	$25,000	$48,752
2 TO 3 YEARS	1.0%	$25,000	$95,460
3+ YEARS	2.0%	$25,000	$150,891
TOTAL	100%	$2,093	$6,146
CHANGE IN FREQUENCY			15.0%

Estimated % Impact [{1.15 x (4)/(3)}−1]	237.8%

Notes:

(a) From the Quebec Disability Plan

(b) Based on industry data, the OLD PLAN average loss for Medical is $500.
Victims disabled for over 1 year receive the maximum current benefits.
Medical payments are assumed to be made at the beginning of the period.

(c) The P.V. of Benefits is calculated as follows :

1 to 2 Years : $25,000 + PV(500,.09/52,78) − PV(500,.09/52,26)
2 to 3 Years : $50,000 + PV(500,.09/52,130)−PV(500,.09/52,26)
3+Years : [.9x($50,000+PV(500,.09/52,130)−PV(500,.09/52,26)]+
[.1x($250,000+PV(500,.09/52,130)−PV(500,.09/52,26)+(692.30*PVD(14)/.02)]
Where PV($,i/52,n) is the present value of a weekly indemnity of $ during n weeks
at i% per annum. And PVD is the Present Value of a disability annuity for 14 years.
The lifetime Maximum is reached after 14 years.

More details are part of the Assumptions Section.

Disability Income Benefits
Income Replacement and Home and Child Care

INCOME REPLACEMENT	
OLD PLAN	**OMPP**

OLD PLAN	OMPP
Total Disability	**Total or Partial Disability**
● Inability to perform any occupation for which the insured is reasonably suited	● Substantial inability to perform the essential task of his or her occupation
● Must occur within 20 days of the accident	● Must occur within 2 years of the accident
● Waiting period: 1 week	● Waiting period: 1 week
● Indexation: none	Indexation: None
● Maximum duration:	● Maximum duration:
-- 2 years unless the insured cannot perform any occupation for which he/she is reasonably suited.	-- 3 years unless the insured cannot perform any occupation for which she/he is reasonably suited.
Employed or Deemed Employed:	**Employed or Deemed Employed:**
● 80% of gross earnings	● 80% of gross earnings
● Minimum: none	● Minimum: $185 per week
● Maximum: $140/week	● Maximum: $600 per week
Benefit Offsets:	Benefit offsets:
-- Any wages or profits received during the period of disability except UIC	-- Any wages or profits received during the period of disability except UIC
-- No offset for the first 2 weeks	-- At age 65, CPP, OAS or private pension plan
	Unemployed
	● $185 per week less any income received except UIC benefits
	● Must be 16 years of age
	● Must be unable to perform all duties

Disability Income Benefits
Income Replacement and Home and Child Care

HOME AND CHILD CARE	
OLD PLAN	OMPP
• <u>Homemakers</u> • $70 per week • Maximum: 12 weeks	$50/week for each dependent less than 16 years old or mentally or physically disabled Maximum $200 per week Not payable in addition to income replacement

Disability Income Benefits
Home & Child Care Replacement

COSTING ASSUMPTIONS

1. The disability will follow the 1983 R.A.A.Q. Table adjusted to consider the change in eligibility requirement after 3 years.

2. The distribution of gross and net income based on the Ontario 1987 Income Distribution from Revenue Canada.

3. The 1987 Gross Income was increased by 5.5% a year for three years to bring it to the level in effect during 1990.

4. An unemployment rate of 7.4% was used. We further assumed that 50% of the unemplyed had been unemployed for over 6 months.

5. The number of persons claimed for the married exemption is a reasonable surrogate for the population of unpaid home makers.

6. Half of the employed population earning over $20,000 in 1987 is assumed to have access to short and long-term disability benefits from other sources which cover 70% of their gross income.

Disability Income Benefits
Home & Child Care Replacement

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7. Average weekly CPP disability benefit $63.41
    Average weekly pension benefit available at 65 $75.00
    Were used to offset income replacement benefits after age 65

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8. The unemployed received unemployment insurance benefits for the first 2 weeks of disability.

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10. The likelihood of being injured in an accident for various types of claimants relative to an employee is assumed to be:

- Unemployed   100%

- Unpaid housekeeper   100%

- Retirees   40%

- Pre Schooler   25%

- Elementary Students   40%

- Secondary Students   115%

- University Students   200%

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11. The average number of dependent children per unpaid housekeeper is the same as the average number of dependents per family for the general population (1.52).

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12. All injured housekeepers will incur the maximum expenses permitted for home and child care.

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13. The higher benefits and tort restrictions will result in a 25% increase in utilization for the employed population.

Disability Income Benefits
Home & Child Care Replacement

ESTIMATED IMPACT OVER THE OLD PLAN

TYPE OF CLAIMANTS (1)	ESTIMATED AVERAG CLAIMAN AGE (2) (a)	ESTIMATED POPULATION DISTRIBUTION (3) (b)	O.M.P.P. ESTIMATED CLAIMANTS DISTRIBUTION (4) (c)	O.M.P.P. ESTIMATED AVERAGE BENEFIT (5) (d)	OLD PLAN ESTIMATED CLAIMANTS ISTRIBUTIO (6) (c)	OLD PLAN ESTIMATED AVERAGE BENEFIT (7) (d)
EMPLOYED	37	4,470,236	4,470,236	$6,265	3,576,189	$2,503
DEEMED EMPLOYED	37	172,494	172,494	$4,212	172,494	$907
STUDENTS:						
ELEMENTARY SCHOOL	8.5	1,112,058	444,823	$857	0	$0
SECONDARY SCHOOL	14.5	539,473	620,394	$1,602	0	$0
COLLEGE/UNIVERSITY	20.5	300,665	601,330	$3,910	0	$0
PRESCHOOLER	2	631,390	157,848	$463	0	$0
UNPAID HOUSEKEEPERS – No dependent	37	364,107	364,107	$3,910	364,107	$421
UNPAID HOUSEKEEPERS – With dependents (1.5	10	596,852	596,852	$5,164	596,852	$421
AVERAGE BENEFITS		8,187,275	7,428,084	$4,986	4,709,642	$2,019

Estimated % Impact Over Current Cost	289.4%
$\{[(5)/(7)] \times [(4)/(6)]\} - 1$	

Notes:

(a) From Statistics Canada – Ontario Population

(b) From Statistics Canada – Ontario Population

(c) See Assumptions on likelihood of being involved in an accident

(d) The P.V. of Benefits is calculated as follows:

OLD PLAN

EMPLOYED	(WBNO X [(PV(2W)-PV(1W)]) + (WBO X [PV(28Y)-PV(2W)]) + ((WBO-$75) X [(PV(63Y)-PV(28Y)]))
DEEMED EMPLOYED	([WBO - $63.41] X [PV(28Y.) - PV(17W.)])) + ((WBO - $75) X (PV(63Y.) - PV(28Y.))
UNPAID HOUSEKEEPER	$70 X (PV(12W)-PV(1W))

OMPP

EMPLOYED	((WBO) X (PV(28Y.) - PV(1W.))) + ((WBO-$75) X (PV(63Y.) - PV(28Y.)))
DEEMED EMPLOYED	(WBO X [PV(17W)-PV(1W)])+((WBO - $63.41) X [PV(28Y.) - PV(17W.)]) + ((WBO-$63.41-$75) X [PV(63Y.) - PV(28Y.)])
PRESCHOOLER	$185 X (PV(98Y)-PV(14Y))
ELEMENTARY	$185 X (PV(91.5Y)-PV(8Y))
SECONDARY	$185 X (PV(85.5Y)-PV(2Y))
COLLEGE/UNIVERSITY	$185 X (PV(79.5Y)-PV(1W))
UNPAID HOUSEKEEPER	$185 X (PV(63W.)-PV(1W.)) if no dependent
UNPAID HOUSEKEEPER	[$185 X (PV(63YRS)-PV(1W.)]+[50*1.5*(PV(8YRS)-PV(1W))] assuming average age of a dependent is 10 and there is 1.5 dependents

WBNO : Weekly benefit without offsett

WBO : Weekly benefit with offsett

PV is the present value of an annuity for the lenght of disability from the Quebec Table PRESENT VALUE FOR THE LENGTH OF DISABILITY

Disability Income Benefits
Home & Child Care Replacement
(using 9%)

ESTIMATED IMPACT OVER THE OLD PLAN

TYPE OF CLAIMANTS (1)	ESTIMATED AVERAG CLAIMAN AGE (2) (a)	ESTIMATED POPULATION DISTRIBUTION (3) (b)	O.M.P.P. ESTIMATED CLAIMANTS DISTRIBUTION (4) (c)	O.M.P.P. ESTIMATED AVERAGE BENEFIT (5) (d)	OLD PLAN ESTIMATED CLAIMANTS ISTRIBUTIO (6) (c)	OLD PLAN ESTIMATED AVERAGE BENEFIT (7) (d)
EMPLOYED	37	4,470,236	4,470,236	$5,627	3,576,189	$2,283
DEEMED EMPLOYED	37	172,494	172,494	$3,838	172,494	$773
STUDENTS:						
ELEMENTARY SCHOOL	8.5	1,112,058	444,823	$511	0	$0
SECONDARY SCHOOL	15.5	539,473	620,394	$1,175	0	$0
COLLEGE/UNIVERSITY	20.5	300,665	601,330	$3,462	0	$0
PRESCHOOLER	3	631,390	157,848	$197	0	$0
UNPAID HOUSEKEEPERS – No dependent	37	364,107	364,107	$3,488	364,107	$421
UNPAID HOUSEKEEPERS – With dependents (1.5	10	596,852	596,852	$4,699	596,852	$421
AVERAGE BENEFITS		8,187,275	7,428,084	$4,437	4,709,642	$1,848

Estimated % Impact Over Current Cost	278.7%
$\{[(5)/(7)] \times [(4)/(6)]\} - 1$	

Notes:

See Assumptions

(a) From Statistics Canada – Ontario Population

(b) From Statistics Canada – Ontario Population

(c) See Assumptions on likelihood of being involved in an accident

(d) The P.V. of Benefits is calculated as follows:

OLD PLAN

EMPLOYED	(WBNO X [(PV(2W)-PV(1W)]) + (WBO X [PV(28Y)-PV(2W)]) + ((WBO-$75) X [(PV(63Y)-PV(28Y)]))
DEEMED EMPLOYED	([WBO – $63.41] X [PV(28Y.) - PV(17W.)]]) + ((WBO - $75) X (PV(63Y.) - PV(28Y.))
UNPAID HOUSEKEEPER	$70 X (PV(12W)-PV(1W))

OMPP

EMPLOYED	((WBO) X (PV(28Y.) - PV(1W.))) + ((WBO-$75) X (PV(63Y.) - PV(28Y.)))
DEEMED EMPLOYED	(WBO X [PV(17W)-PV(1W)])+((WBO – $63.41) X [PV(28Y.) - PV(17W.)]] + ((WBO-$63.41-$75) X [PV(63Y.) – PV(28Y.)])
PRESCHOOLER	$185 X (PV(98Y)-PV(13Y))
ELEMENTARY	$185 X (PV(91.5Y)-PV(8Y))
SECONDARY	$185 X (PV(85.5Y)-PV(2Y))
COLLEGE/UNIVERSITY	$185 X (PV(79.5Y)-PV(1W))
UNPAID HOUSEKEEPER	$185 X (PV(63Y.)-PV(1W.)) if no dependent
UNPAID HOUSEKEEPER	[$185 X (PV(63YRS)-PV(1W.)]+[50*1.5*(PV(8YRS)-PV(1W))] assuming the average dependent is 10 and 1.5 dependents

WBNO : Weekly benefit without offsett

WBO : Weekly benefit with offsett

PV is the present value of an annuity for the length of disability from the Quebec Table PRESENT VALUE FOR THE LENGTH OF DISABILITY

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Impact of the Threshold on Public Liability BI Losses

		Scenario A	Scenario B
(1)	Percentage of losses eliminated by the Verbal Threshold	36.5%	45.0%
(2)	Tort Offset for Enriched Accident Benefits		
	(a) % of victims not totally at fault (A)	65.0%	65.0%
	(b) Accident Benefit Enhancement [133.41-36.67] (B)	$96.74	$96.74
	(c) Reduction in the Economic Component of BI claims		
	[{ 2(a) x [1-(1)] x 2(b) }/$369.03] (C)	10.8%	9.4%
(3)	Collateral Benefits Reduction (D)	6.1%	6.1%
(4)	Pre-Judgment Interest (E)	2.0%	2.0%
(5)	Out-of-Province Accident (A)	2.0%	2.0%
(6)	Total Impact on Public Liability Bodily Injury Losses		
	[1-(5)] x [(1)+(2)+{1-(1)}x{(3)+(4)}]	51.5%	57.7%

Notes:
Scenario A assumes that 90% of the number of claims will be eliminated by the Threshold (Exhibit XI)
Scenario B assumes that 94% of the number of claims will be eliminated by the Threshold (Exhibit XI)
- (A)   % of victims not totally at fault and out-of-province accidents were estimated using the Osborne report findings.
- (B)   The Accident Benefits Enhancement is the increase in the discounted Loss Cost for No-Fault benefits
   due to the enriched no-fault benefits available under OMPP. From Exhibit I, the OLD PLAN Loss Costs was $36.6
   the discounted NO-FAULT Loss Costs under OMPP is $133.41.
- (C)   The Bodily Injury Loss Cost of 369.03 is taken from Exhibit I. The BI claims under OMPP are reduced by the
   increase in No-Fault benefits.
- (D)   Collateral benefits: 21.9% of income replacement & special damages (which is 28.0% of total losses) is removed
   due to the abolition of collateral source rule (IAO Analysis, November 1989).
- (E)   Pre-judgement interest: The savings will exceed the reduction in tort losses. We assumed an additional 20%.
   Pre-judgement interest represents 10.2% of all losses.

Impact of the Threshold on Public Liability BI Losses
(Using 9%)

		Scenario A	Scenario B
(1)	Percentage of losses eliminated by the Verbal Threshold	36.5%	45.0%
(2)	Tort Offset for Enriched Accident Benefits		
	(a) % of victims not totally at fault (A)	65.0%	65.0%
	(b) Accident Benefit Enhancement [128.55−36.06] (B)	$92.49	$92.49
	(c) Reduction in the Economic Component of BI claims		
	[{ 2(a) x [1−(1)] x 2(b) }/$360.36] (C)	10.6%	9.2%
(3)	Collateral Benefits Reduction (D)	6.1%	6.1%
(4)	Pre−Judgment Interest (E)	2.0%	2.0%
(5)	Out−of−Province Accident (A)	2.0%	2.0%
(6)	Total Impact on Public Liability Bodily Injury Losses [1−(5)] x [(1)+(2)+{1−(1)}x(3)+(4)]	51.2%	57.5%

Notes:
    Scenario A assumes that 90% of the number of claims will be eliminated by the Threshold (Exhibit XI)
    Scenario B assumes that 94% of the number of claims will be eliminated by the Threshold (Exhibit XI)
(A) % of victims not totally at fault and out−of−province accidents were estimated using the Osborne report findings.
(B) The Accident Benefits Enhancement is the increase in the discounted Loss Cost for No−Fault benefits
    due to the enriched no−fault benefits available under OMPP. From Exhibit I−A, the OLD PLAN Loss Costs was $3
    the discounted NO−FAULT Loss Costs under OMPP is $128.55.
(C) The Bodily Injury Loss Cost of $360.36 is taken from Exhibit I−A. The BI claims under OMPP are reduced by the
    increase in No−Fault benefits.
(D) Collateral benefits: 21.9% of income replacement & special damages (which is 28.0% of total losses) is removed
    due to the abolition of collateral source rule (IAO Analysis, November 1989).
(E) Pre−judgement interest: The savings will exceed the reduction in tort losses. We assumed an additional 20%.
    Pre−judgement interest represents 10.2% of all losses.

		Scenario A	Scenario B
	Impact of the Threshold on Uninsured Motorist Coverage		
(1)	Percentage of losses eliminated by the Verbal Threshold (A)	46.9%	57.7%
(2)	Tort Offset for Enriched Accident Benefits (B)		
	(a) % of victims not totally at fault	65.0%	65.0%
	(b) Accident Benefit Enhancement [133.41−36.67]	$96.74	$96.74
	(c) Reduction in the Economic Component of claims		
	[{ 2(a) x [1−(1)] x 2(b) }/$369.03]	9.0%	7.2%
(3)	Collateral Benefits Reduction (C)	4.6%	4.6%
(4)	Pre−Judgment Interest (D)	2.4%	2.4%
(5)	Out−of−Province Accident (E)	2.0%	2.0%
(6)	Total Impact on Uninsured Motorist Losses		
	[1−(5)] x [(1)+(2)+{1−(1)}x{(3)+(4)}]	58.5%	66.5%

Notes:

   Scenario A assumes that 90% of the number of claims will be eliminated by the Threshold (Exhibit XI)
   Scenario B assumes that 94% of the number of claims will be eliminated by the Threshold (Exhibit XI)

(A)   We assume losses limited to $200,000 were representative of the losses under the Uninsured Motorist Coverage
      since the mandatory limit is $200,000. They represent 79% of all losses.

(B)   The Accident Benefits Enhancement is the increase in the discounted Loss Cost for No-Fault benefits
      due to the enriched no-fault benefits available under OMPP. From Exhibit I, the OLD PLAN Loss Costs was $36.6
      the discounted NO−FAULT Loss Costs under OMPP is $127.74. Assume to be the same as for the Bodily Injury co
      The Bodily Injury Loss Cost of 369.03 is taken from Exhibit I.

(C)   Collateral benefits: 21.9% of income replacement & special damages (which is 21.0% of total losses) is removed
      due to the abolition of collateral source rule (IAO Analysis, November 1989).

(D)   Pre−judgement interest: The savings will exceed the reduction in tort losses. We assumed an additional 20%.
      Pre−judgement interest represents 12.1% of all losses.

(E)   % of victims not totally at fault and out−of−province accidents were estimated using the Osborne report findings.

		Impact of the Threshold on Uninsured Motorist Coverage (using 9%)		
			Scenario A	Scenario B
(1)	Percentage of losses eliminated by the Verbal Threshold (A)		46.9%	57.7%
(2)	Tort Offset for Enriched Accident Benefits (B)			
	(a) % of victims not totally at fault		65.0%	65.0%
	(b) Accident Benefit Enhancement [128.55-36.06]		$92.49	$92.49
	(c) Reduction in the Economic Component of claims [{ 2(a) x [1-(1)] x 2(b) }/$360.36]		8.9%	7.1%
(3)	Collateral Benefits Reduction (C)		4.6%	4.6%
(4)	Pre-Judgment Interest (D)		2.4%	2.4%
(5)	Out-of-Province Accident (E)		2.0%	2.0%
(6)	Total Impact on Uninsured Motorist Losses [1-(5)] x [(1)+(2)+{1-(1)}x{(3)+(4)}]		58.3%	66.4%

Notes:
Scenario A assumes that 90% of the number of claims will be eliminated by the Threshold (Exhibit XI)
Scenario B assumes that 94% of the number of claims will be eliminated by the Threshold (Exhibit XI)
(A) We assume losses limited to $200,000 were representative of the losses under the Uninsured Motorist Coverage since the mandatory limit is $200,000. They represent 79% of all losses.
(B) The Accident Benefits Enhancement is the increase in the discounted Loss Cost for No-Fault benefits due to the enriched no-fault benefits available under OMPP. From Exhibit I, the OLD PLAN Loss Costs was $36.06, the discounted NO-FAULT Loss Costs under OMPP is $122.87. Assume to be the same as for the Bodily Injury cov The Bodily Injury Loss Cost of 360.36 is taken from Exhibit I.
(C) Collateral benefits: 21.9% of income replacement & special damages (which is 21.0% of total losses) is removed due to the abolition of collateral source rule (IAO Analysis, November 1989).
(D) Pre-judgement interest: The savings will exceed the reduction in tort losses. We assumed an additional 20%. Pre-judgement interest represents 12.1% of all losses.
(E) % of victims not totally at fault and out-of-province accidents were estimated using the Osborne report findings.

Impact of the Threshold on Family Protection Endorsement Losses

		Scenario A	Scenario B
(1)	Percentage of losses eliminated by the Verbal Threshold (A)	0.0%	0.0%
(2)	Tort Offset for Enriched Accident Benefits (B)		
	(a) % of victims not totally at fault	65.0%	65.0%
	(b) Accident Benefit Enhancement [133.41−36.67]	$96.74	$96.74
	(c) Reduction in the Economic Component of claims		
	[{ 2(a) x [1−(1)] x 2(b) }/$369.03]	17.0%	17.0%
(3)	Collateral Benefits Reduction (C)	9.0%	9.0%
(4)	Pre−Judgment Interest (D)	1.7%	1.7%
(5)	Out−of−Province Accident (E)	2.0%	2.0%
(6)	Total Impact on Family Protection (SEF 44) Losses [1−(5)] x [(1)+(2)+{1−(1)}x{(3)+(4)}]	27.2%	27.2%
(7)	Offsett effectiveness (F)	45.0%	45.0%
(8)	Net Impact [(7)x(6)]	12.7%	12.7%

Notes:

Scenario A assumes that 90% of the number of claims will be eliminated by the Threshold (Exhibit XI)
Scenario B assumes that 94% of the number of claims will be eliminated by the Threshold (Exhibit XI)

(A) Assume the threshold will be ineffective because the Family Losses are in general very large.

(B) The Accident Benefits Enhancement is the increase in the discounted Loss Cost for No−Fault benefits due to the enriched no−fault benefits available under OMPP. From Exhibit I, the OLD PLAN Loss Costs was $36.67, the discounted NO−FAULT Loss Costs under OMPP is $133.41 Assume to be the same as for the Bodily Injury coverage. The Bodily Injury Loss Cost of 369.03 is taken from Exhibit I.

(C) Collateral benefits: 21.9% of income replacement & special damages (which is 41.1% of total losses) is removed due to the abolition of collateral source rule (IAO Analysis, November 1989).

(D) Pre−judgement interest: The savings will exceed the reduction in tort losses. We assumed an additional 20%. Pre−judgement interest represents 8.5% of all losses.

(E) % of victims not totally at fault and out−of−province accidents were estimated using the Osborne report findings.

(F) Assume 45% of the awards will not be affected since they already exceed the SEF 44 limit.

Impact of the Threshold on Family Protection Endoresement Losses
(using 9%)

		Scenario A	Scenario B
(1)	Percentage of losses eliminated by the Verbal Threshold (A)	0.0%	0.0%
(2)	Tort Offset for Enriched Accident Benefits (B)		
	(a) % of victims not totally at fault	65.0%	65.0%
	(b) Accident Benefit Enhancement [128.55–36.06]	$92.49	$92.49
	(c) Reduction in the Economic Component of claims [{ 2(a) x [1–(1)] x 2(b) }/$360.36]	16.7%	16.7%
(3)	Collateral Benefits Reduction (C)	9.0%	9.0%
(4)	Pre–Judgment Interest (D)	1.7%	1.7%
(5)	Out–of–Province Accident (E)	2.0%	2.0%
(6)	Total Impact on Family Protection (SEF 44) Losses [1–(5)] x [(1)+(2)+{1–(1)}x{(3)+(4)}]	26.8%	26.8%
(7)	Offsett effectiveness (F)	45.0%	45.0%
(8)	Net Impact [(7)x(6)]	12.6%	12.6%

Notes:

Scenario A assumes that 90% of the number of claims will be eliminated by the Threshold (Exhibit XI)
Scenario B assumes that 94% of the number of claims will be eliminated by the Threshold (Exhibit XI)

(A) Assume the threshold will be ineffective because the Family Losses are in general very large.

(B) The Accident Benefits Enhancement is the increase in the discounted Loss Cost for No–Fault benefits due to the enriched no–fault benefits available under OMPP. From Exhibit I, the OLD PLAN Loss Costs was $36.06, the discounted NO–FAULT Loss Costs under OMPP is $128.55. Assume to be the same as for the Bodily Injury coverage. The Bodily Injury Loss Cost of 360.36 is taken from Exhibit I.

(C) Collateral benefits: 21.9% of income replacement & special damages (which is 41.1% of total losses) is removed due to the abolition of collateral source rule (IAO Analysis, November 1989).

(D) Pre–judgement interest: The savings will exceed the reduction in tort losses. We assumed an additional 20%. Pre–judgement interest represents 8.5% of all losses.

(E) % of victims not totally at fault and out–of–province accidents were estimated using the Osborne report findings.

(F) Assume 45% of the awards will not be affected since they already exceed the SEF 44 limit.

Direct Compensation Agreement
Property Damage

Historical Experience in Quebec

Accident Year (1)	Incurred Losses ($'000) @ 48 Month (2)	Incurred Claims @ 48 Month (3)	Earned Vehicles (4)	Claim Frequency (3)/(4) (5)	Claim Severity (2)/(3) (6)	Pure Premium (2)/(4) (7)	Pure Premium Growth Rate (8)
1977	$113,622	125,160	1,776,132	7.05%	$908	$63.97	
1978	151,384	204,749	1,964,497	10.42%	739	77.06	20.5%
1979	196,438	255,695	2,094,524	12.21%	768	93.79	21.7%
1980	218,099	260,361	2,180,200	11.94%	838	100.04	6.7%
1981	214,937	241,167	2,169,771	11.11%	891	99.06	-1.0%
1982	175,514	203,365	2,146,720	9.47%	863	81.76	-17.5%
1983	177,021	199,989	2,204,038	9.07%	885	80.32	-1.8%

Average Growth in Pure Premium in 1978/1979	21.1%
Estimated Claims Inflation in 1978/1979	9.5%
Selected Net Growth Rate due to D.C.A.	10.0%

Note :   The Direct Compensation System was introduced March 1, 1978.
Data Source : Insurance Bureau of Canada – Accident Half–Year Experience.

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SUPPLEMENTARY BENEFITS - QUEBEC

COSTING ASSUMPTIONS :

    (1) AN 8% ANNUAL COMPOUND INTEREST RATE ON THE INVESTMENT OF WEEKLY BENEFITS IS ASSUMED
    (2) THE ASSUMPTIONS FOR DISABILITY SUPPLEMENTARY BENEFITS ARE THE SAME AS IN THE SECTION
        ON DISABILITY BENEFITS, EXCEPT THAT THERE IS NO ASSUMED INCREASE IN THE NUMBER OF CLAIMANTS
    (3) THE AVERAGE QUEBEC BENEFIT FOR RETIREES/UNEMPLOYED IS THE SAME AS FOR THE DEEMED EMPLOYED
    (4) THE COST OF SUPPLEMENTARY BENEFITS FOR MEDICAL/REHABILITATION IS NEGLIGIBLE
    (5) NO-FAULT LUMP-SUM DEATH BENEFITS ELIMINATE WEEKLY ANNUITY PAYMENTS UNTIL
        THE PRESENT VALUE OF WEEKLY PAYMENTS SUPPRESSED EQUALS THE LUMP-SUM BENEFIT
    (6) NON-PECUNIARY QUEBEC BENEFITS REPRESENT 10% OF CURRENT TOTAL COST OF SUPPLEMETARY BEBEFITS

NOTES :

TYPE OF BENEFIT	PURE PREMIUM OF PROPOSED ACCIDENT BENEFITS	AVERAGE PROPOSED ACCIDENT BENEFITS	AVERAGE SUPPL. BENEFITS (CURRENT)	PURE PREMIUM UNDERLYING CURR.SUPPL. BENEFITS	AVERAGE SUPPL BENEFITS (PROPOSED)	PURE PREMIUM UNDERLYING PROP.SUPPL. BENEFITS
DISABILITY SUPPL.BEN.	$92.01	$177	$208	$108.14	$125	$64.94
MEDICAL/REH.	$29.72		$0		$0	
DEATH	$2.36	$26,508	$138,293	$12.31	$124,614	$11.09
FUNERAL EXP.	$0.36	$3,000	$2,000	$0.24	$0	$0.00
UNINSURED M. LUMP-SUM	$0.00		$8,549	$13.27	$8,549	$13.27
TOTAL	$124.45			$133.96		$89.30
PREMIUM FOR SUPPL.BENEFITS				$0.46	-31.8%	$0.31

Note :

    This Exhibit is extracted from Tillinghast report to OAIB.

DISTRIBUTION OF ONTARIO BODILY INJURY LOSSES
FOR ACCIDENT YEAR 1984

UPPER BOUND OF THE RANGE	CUMULATIVE DISTRIBUTION OF TOTAL LOSSES*	CUMULATIVE DISTRIBUTION OF NUMBER OF CLAIMS	CUMULATIVE DISTRIBUTION OF CLAIM AMOUNT BY TYPE OF LOSS**				
			INCOME*** REPLACEMENT	OTHER SPECIAL DAMAGES	NON PECUNIARY	PARTY TO PARTY COSTS	PRE JUDGMENT INTEREST
$1,000	0.9%	27.7%	7.7%	3.2%	85.7%	2.9%	0.5%
$2,000	1.5%	33.1%	8.3%	3.5%	82.4%	4.8%	1.0%
$3,000	3.2%	44.6%	8.9%	3.0%	80.0%	6.6%	1.4%
$4,000	4.5%	50.0%	8.5%	2.8%	78.4%	8.2%	2.1%
$5,000	6.0%	55.7%	8.1%	2.7%	78.2%	8.6%	2.4%
$7,500	9.7%	64.8%	9.2%	2.7%	74.3%	10.2%	3.6%
$10,000	13.3%	71.3%	10.0%	2.6%	71.8%	11.3%	4.3%
$15,000	20.0%	79.6%	11.5%	2.9%	67.6%	12.0%	6.1%
$20,000	25.6%	84.7%	13.4%	3.1%	64.8%	12.2%	6.5%
$50,000	46.3%	94.8%	15.6%	3.0%	60.5%	12.3%	8.7%
$100,000	60.7%	97.9%	17.3%	2.9%	57.4%	12.2%	10.3%
$200,000	69.2%	98.7%	18.4%	3.0%	55.4%	12.1%	11.1%
$300,000	75.2%	99.2%	19.1%	3.3%	54.9%	12.0%	10.7%
$500,000	91.7%	99.9%	22.7%	3.1%	52.6%	11.5%	10.2%
$1,000,000	97.2%	100.0%	24.2%	3.8%	50.7%	11.0%	10.2%
$2,000,000	100.0%	100.0%	24.2%	3.8%	50.7%	11.0%	10.2%

DATA SOURCE:

　　1984 CLAENDAR/ACCIDENT YEAR INCURRED LOSSES & EXTERNAL LOSS ADJUSTMENT EXPENSES
　　(EXCLUDING O.H.I.P. LOADING FACTORS)

NOTES:

　　* THE DISTRIBUTION HAS BEEN ADJUSTED TO ULTIMATE BYFACTORING THE 1.084 ULTIMATE
　　LOSS DEVELOPMENT FACTOR USED IN THE MERCER RATE PROPOSAL TO CLAIMS OF $100,000 AND OVER
　　** COLLECTED FROM THE BODILY INJURY CLAIMS SURVEY SHOW IN APPENDIX III OF VOLUME II IN
　　THE REPORT OF INQUIRY INTO MOTOR VEHICLE ACCIDENT COMPENSATION IN ONTARIO
　　THE SURVEY INCLUDED 1,350 NON-ZERO BODILY INJURY CLAIMS CLOSED DURING 1986 FOR
　　PRIVATE PASSENGER AUTO
　　*** INCOME REPLACEMENT: PAST AND FUTURE INCOME REPLACEMENT
　　OTHER SPECIAL DAMAGES: FUTURE CARE, MEDICAL EXPENSES AND FUNERAL EXPENSES
　　NON-PECUNIARY: P.L.A./F.L.R.A.

CHANGE IN LOSS COSTS

PRIVATE PASSENGER AUTOMOBILE

1986 Income Range			1986 Total Income ($'000)	1986 Number of Wage Earners	Average Annual Income @ 1/7/86 (3)/(4)x$1,000	Trended Annual Income @ 1/6/91 [5.5%/Yr.]	Trended Weekly Income @ 1/6/91 (6)/52	80% of Trended Weekly Income 80% x (7)	Proposed Weekly Income Without Offset [80% of (7), Min.$185, Max.$600]	Proposed Weekly Income With Offset [80% of (7), Min.$185, Max.$600]	Currently Weekly Income Without Offset [80% of (7), Max.$140]	Currently Weekly Income With Offset [80% of (7), Max.$140]
Lower Bound (1)		Upper Bound (2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$1	to	$5,000	$1,365,400	531,310	$2,570	$3,344	$64.30	$51.44	$185.00	$185.00	$51.44	$51.44
5,001	to	10,000	$4,246,348	634,750	$6,690	$8,704	$167.39	$133.91	$185.00	$185.00	$133.91	$133.91
10,001	to	15,000	$6,559,365	577,750	$11,353	$14,772	$284.08	$227.27	$227.27	$227.27	$140.00	$140.00
15,001	to	20,000	$9,135,130	562,540	$16,239	$21,129	$406.33	$325.07	$325.07	$325.07	$140.00	$140.00
20,001	to	25,000	$11,194,880	532,070	$21,040	$27,376	$526.47	$421.18	$421.18	$303.09	$140.00	$96.32
25,001	to	30,000	$11,553,344	448,450	$25,763	$33,521	$644.64	$515.71	$515.71	$350.36	$140.00	$102.23
30,001	to	35,000	$11,898,257	389,180	$30,573	$39,779	$764.99	$611.99	$600.00	$392.50	$140.00	$108.25
35,001	to	40,000	$10,505,714	296,530	$35,429	$46,098	$886.50	$709.20	$600.00	$392.50	$140.00	$114.33
40,001	to	45,000	$8,305,266	206,280	$40,262	$52,387	$1,007.44	$805.95	$600.00	$392.50	$140.00	$120.37
45,001	to	50,000	$6,923,226	154,690	$44,755	$58,233	$1,119.87	$895.90	$600.00	$392.50	$140.00	$125.99
50,001	to	60,000	$7,423,043	146,550	$50,652	$65,905	$1,267.41	$1,013.93	$600.00	$392.50	$140.00	$133.37
60,001	to	70,000	$3,720,912	62,630	$59,411	$77,302	$1,486.58	$1,189.27	$600.00	$392.50	$140.00	$140.00
70,001	to	80,000	$2,241,624	32,140	$69,746	$90,749	$1,745.17	$1,396.14	$600.00	$392.50	$140.00	$140.00
80,001	to	90,000	$1,435,334	17,400	$82,490	$107,332	$2,064.08	$1,651.26	$600.00	$403.20	$140.00	$140.00
90,001	to	100,000	$1,046,068	11,490	$91,042	$118,458	$2,278.04	$1,822.43	$600.00	$413.90	$140.00	$140.00
100,001	to	125,000	$1,705,769	14,960	$114,022	$148,359	$2,853.06	$2,282.45	$600.00	$442.65	$140.00	$140.00
125,001	to	150,000	$1,112,876	7,500	$148,383	$193,068	$3,712.85	$2,970.28	$600.00	$485.64	$140.00	$140.00
150,001	to	200,000	$1,373,194	7,620	$180,209	$234,478	$4,509.19	$3,607.36	$600.00	$525.46	$140.00	$140.00
200,001	to	250,000	$575,082	2,420	$237,637	$309,200	$5,946.16	$4,756.93	$600.00	$597.31	$140.00	$140.00
$250,000 & over			$2,500,930	6,470	$386,543	$502,947	$9,672.07	$7,737.65	$600.00	$600.00	$140.00	$140.00
Total / Average			$104,821,762	4,642,730	$22,578	$28,220	$542.70	$434.16	$387.44	$298.35	$129.03	$114.53

Data Source :   Revenue Canada Taxation, Taxation Statistics ~ 1986 Edition (Province of Ontario Only ~ Catalogue No. RV 44-1988).

NOTES :

Column (9) ~ Column (8) subject to minimum benefit of $185 and maximum benefit of $600.

Column (10)   Assume 50% of claimants with salary over $20,000 have collateral sources and claim an average of only 10% of income subject to minimum benefit of $185 and maximum benefit of $600.

Column (11)   Column (8) subject to maximum of $140.

Column (12)   _See Column (10). Subject only to maximum of $140._

			# CLAIMANTS STILL DISABLED R.A.A.Q. 1983 TABLE	ADJUSTED DISABILITY TABLE	P.V. FOR $1 OF WEEKLY ANNUITY INVESTED AT 8.0% NON—INDEXED	P.V. FOR $1 OF WEEKLY ANNUITY INVESTED AT 8.0% INDEXED AT 5.0%
LENGTH TYPE	LENGTH OF DISABILITY	LENGTH OF DISABILITY IN YEARS				
DAYS	1	0.0027	N.A.	1,292,590	0.1424	0.1424
	2	0.0055	N.A.	1,182,720	0.2727	0.2727
	3	0.0082	N.A.	1,135,411	0.3978	0.3978
	4	0.0110	N.A.	1,095,672	0.5185	0.5185
	5	0.0137	N.A.	1,062,802	0.6355	0.6355
	6	0.0164	N.A.	1,036,231	0.7495	0.7495
	7	0.0192	N.A.	1,015,507	0.8613	0.8613
	8	0.0219	1,000,000	1,000,000	0.9713	0.9713
	9	0.0247	988,169	988,169	1.0800	1.0800
	10	0.0274	975,780	975,780	1.1874	1.1874
	11	0.0301	962,743	962,743	1.2932	1.2932
	12	0.0329	948,956	948,956	1.3976	1.3976
	13	0.0356	934,311	934,311	1.5003	1.5003
	14	0.0384	918,747	918,747	1.6012	1.6012
	15	0.0411	902,351	902,351	1.7004	1.7004
	16	0.0438	885,441	885,441	1.7976	1.7976
	17	0.0466	868,503	868,503	1.8930	1.8930
	18	0.0493	852,015	852,015	1.9865	1.9865
	19	0.0521	836,290	836,290	2.0784	2.0784
	20	0.0548	821,406	821,406	2.1685	2.1685
	21	0.0575	807,271	807,271	2.2571	2.2571
	22	0.0603	793,766	793,766	2.3442	2.3442
	23	0.0630	780,876	780,876	2.4298	2.4298
	24	0.0658	768,734	768,734	2.5141	2.5141
	25	0.0685	757,600	757,600	2.5972	2.5972
	26	0.0712	747,797	747,797	2.6792	2.6792
	27	0.0740	739,664	739,664	2.7602	2.7602
	28	0.0767	738,105	738,105	2.8411	2.8411
WEEKS ——>	4.5	0.0863	734,041	734,041	3.1224	3.1224
	5.5	0.1055	687,923	687,923	3.6488	3.6488
	6.5	0.1247	598,120	598,120	4.1059	4.1059
	7.5	0.1438	542,608	542,608	4.5199	4.5199
	8.5	0.1630	498,142	498,142	4.8994	4.8994
	9.5	0.1822	460,058	460,058	5.2494	5.2494
	10.5	0.2014	427,115	427,115	5.5739	5.5739
	11.5	0.2205	398,368	398,368	5.8761	5.8761
	12.5	0.2397	373,065	373,065	6.1587	6.1587
	13.5	0.2589	350,615	350,615	6.4238	6.4238
	14.5	0.2781	330,561	330,561	6.6735	6.6735
	15.5	0.2973	312,485	312,485	6.9091	6.9091

REGIE D'ASSURANCE AUTOMOBILE DU QUEBEC
1983 FISCAL ACCIDENT YEAR DISABILITY PATTERN
(MARCH 1, 1983 — FEBRUARY 29, 1984)

REGIE D'ASSURANCE AUTOMOBILE DU QUEBEC
1983 FISCAL ACCIDENT YEAR DISABILITY PATTERN
(MARCH 1, 1983 - FEBRUARY 29, 1984)

LENGTH TYPE	LENGTH OF DISABILITY	LENGTH OF DISABILITY IN YEARS	# CLAIMANTS STILL DISABLED R.A.A.Q. 1983 TABLE	ADJUSTED DISABILITY TABLE	P.V. FOR $1 OF WEEKLY ANNUITY INVESTED AT 8.0% NON–INDEXED	P.V. FOR $1 OF WEEKLY ANNUITY INVESTED AT 8.0% INDEXED AT 5.0%
WEEKS	16.5	0.3164	296,124	296,124	7.1321	7.1321
	17.5	0.3356	281,300	281,300	7.3436	7.3436
	18.5	0.3548	267,818	267,818	7.5446	7.5446
	19.5	0.3740	255,516	255,516	7.7362	7.7362
	20.5	0.3932	244,256	244,256	7.9190	7.9190
	21.5	0.4123	233,910	233,910	8.0938	8.0938
	22.5	0.4315	224,355	224,355	8.2613	8.2613
	23.5	0.4507	215,475	215,475	8.4218	8.4218
	24.5	0.4699	207,168	207,168	8.5760	8.5760
	25.5	0.4890	199,352	199,352	8.7241	8.7241
	26.5	0.5082	191,273	191,273	8.8660	8.8660
	27.5	0.5274	183,135	183,135	9.0017	9.0017
	28.5	0.5466	175,448	175,448	9.1315	9.1315
	29.5	0.5658	168,188	168,188	9.2557	9.2557
	30.5	0.5849	161,327	161,327	9.3747	9.3747
	31.5	0.6041	154,843	154,843	9.4887	9.4887
	32.5	0.6233	152,476	152,476	9.6009	9.6009
	33.5	0.6425	149,304	149,304	9.7105	9.7105
	34.5	0.6616	145,362	145,362	9.8171	9.8171
	35.5	0.6808	140,655	140,655	9.9201	9.9201
	36.5	0.7000	135,587	135,587	10.0192	10.0192
	37.5	0.7192	130,581	130,581	10.1145	10.1145
	38.5	0.7384	126,032	126,032	10.2064	10.2064
	39.5	0.7575	121,873	121,873	10.2951	10.2951
	40.5	0.7767	118,160	118,160	10.3810	10.3810
	41.5	0.7959	114,742	114,742	10.4642	10.4642
	42.5	0.8151	113,435	113,435	10.5464	10.5464
	43.5	0.8342	108,266	108,266	10.6248	10.6248
	44.5	0.8534	105,238	105,238	10.7008	10.7008
	45.5	0.8726	102,345	102,345	10.7746	10.7746
	46.5	0.8918	99,577	99,577	10.8463	10.8463
	47.5	0.9110	96,928	96,928	10.9161	10.9161
	48.5	0.9301	94,391	94,391	10.9839	10.9839
	49.5	0.9493	91,958	91,958	11.0498	11.0498
	50.5	0.9685	89,626	89,626	11.1140	11.1140
	51.5	0.9877	87,387	87,387	11.1765	11.1765
MONTHS ——>	12.5	1.0417	82,662	82,662	11.3425	11.3508
	13.5	1.1250	76,527	76,527	11.5786	11.5987
	14.5	1.2083	72,286	72,286	11.8001	11.8313
	15.5	1.2917	66,747	66,747	12.0033	12.0447

LENGTH TYPE	LENGTH OF DISABILITY	LENGTH OF DISABILITY IN YEARS	# CLAIMANTS STILL DISABLED R.A.A.Q. 1983 TABLE	ADJUSTED DISABILITY TABLE	P.V. FOR $1 OF WEEKLY ANNUITY INVESTED AT 8.0% NON-INDEXED	P.V. FOR $1 OF WEEKLY ANNUITY INVESTED AT 8.0% INDEXED AT 5.0%
MONTHS	16.5	1.3750	62,806	62,806	12.1934	12.2442
	17.5	1.4583	59,346	59,346	12.3718	12.4315
	18.5	1.5417	56,888	56,888	12.5417	12.6099
	19.5	1.6250	54,715	54,715	12.7041	12.7804
	20.5	1.7083	52,776	52,776	12.8597	12.9439
	21.5	1.7917	51,051	51,051	13.0093	13.1009
	22.5	1.8750	49,503	49,503	13.1534	13.2522
	23.5	1.9583	48,125	48,125	13.2926	13.3984
	24.5	2.0417	47,051	31,830	13.3841	13.4993
	25.5	2.1250	45,896	31,049	13.4728	13.5970
	26.5	2.2083	44,858	30,346	13.5589	13.6920
	27.5	2.2917	43,919	29,711	13.6426	13.7843
	28.5	2.3750	43,079	29,143	13.7243	13.8743
	29.5	2.4583	42,323	28,632	13.8040	13.9622
	30.5	2.5417	41,656	28,180	13.8819	14.0481
	31.5	2.6250	41,094	27,800	13.9583	14.1323
	32.5	2.7083	40,601	27,467	14.0333	14.2150
	33.5	2.7917	40,176	27,179	14.1070	14.2963
	34.5	2.8750	39,810	26,931	14.1796	14.3764
	35.5	2.9583	38,510	26,052	14.2494	14.4533
	36.5	3.0417	39,087	26,442	14.3198	14.5348
	37.5	3.1250	38,650	26,147	14.3889	14.6148
	38.5	3.2083	38,265	25,886	14.4569	14.6935
	39.5	3.2917	37,929	25,659	14.5239	14.7711
	40.5	3.3750	37,642	25,465	14.5900	14.8475
	41.5	3.4583	37,391	25,295	14.6552	14.9230
	42.5	3.5417	37,107	25,103	14.7194	14.9974
	43.5	3.6250	36,862	24,937	14.7829	15.0709
	44.5	3.7083	36,655	24,797	14.8456	15.1434
	45.5	3.7917	36,443	24,654	14.9075	15.2151
	46.5	3.8750	36,248	24,522	14.9687	15.2860
	47.5	3.9583	36,074	24,404	15.0292	15.3560
	48.5	4.0417	35,839	24,245	15.0890	15.4287
	49.5	4.1250	35,627	24,102	15.1480	15.5004
	50.5	4.2083	35,429	23,968	15.2063	15.5713
	51.5	4.2917	35,244	23,843	15.2639	15.6413
	52.5	4.3750	35,072	23,726	15.3209	15.7106
	53.5	4.4583	34,914	23,619	15.3773	15.7791
	54.5	4.5417	34,793	23,537	15.4331	15.8469
	55.5	4.6250	34,680	23,461	15.4884	15.9141

REGIE D'ASSURANCE AUTOMOBILE DU QUEBEC
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LENGTH TYPE	LENGTH OF DISABILITY	LENGTH OF DISABILITY IN YEARS	# CLAIMANTS STILL DISABLED R.A.A.Q. 1983 TABLE	ADJUSTED DISABILITY TABLE	P.V. FOR $1 OF WEEKLY ANNUITY INVESTED AT 8.0% NON-INDEXED	P.V. FOR $1 OF WEEKLY ANNUITY INVESTED AT 8.0% INDEXED AT 5.0%
MONTHS	56.5	4.7083	34,576	23,391	15.5431	15.9807
	57.5	4.7917	34,473	23,321	15.5974	16.0466
	58.5	4.8750	34,387	23,263	15.6511	16.1120
	59.5	4.9583	34,303	23,206	15.7044	16.1767
YEARS ---->	5.5	5.5000	25,209	23,149	16.0417	16.6072
	6.5	6.5000	24,549	22,543	16.6132	17.3731
	7.5	7.5000	24,015	22,053	17.1309	18.1015
	8.5	8.5000	23,489	21,570	17.5997	18.7941
	9.5	9.5000	22,988	21,110	18.0245	19.4532
	10.5	10.5000	22,507	20,668	18.4097	20.0805
	11.5	11.5000	22,041	20,240	18.7589	20.6778
	12.5	12.5000	21,589	19,825	19.0756	21.2466
	13.5	13.5000	21,148	19,420	19.3629	21.7883
	14.5	14.5000	20,714	19,022	19.6234	22.3041
	15.5	15.5000	20,286	18,629	19.8596	22.7766
	16.5	16.5000	19,863	18,240	20.0738	23.2050
	17.5	17.5000	19,443	17,854	20.2679	23.5932
	18.5	18.5000	19,024	17,470	20.4438	23.9450
	19.5	19.5000	18,605	17,085	20.6031	24.2635
	20.5	20.5000	18,185	16,699	20.7472	24.5517
	21.5	21.5000	17,764	16,313	20.8776	24.8125
	22.5	22.5000	17,342	15,925	20.9954	25.0482
	23.5	23.5000	16,918	15,536	21.1019	25.2610
	24.5	24.5000	16,490	15,143	21.1979	25.4532
	25.5	25.5000	16,060	14,748	21.2846	25.6264
	26.5	26.5000	15,627	14,350	21.3626	25.7825
	27.5	27.5000	15,193	13,952	21.4329	25.9231
	28.5	28.5000	14,756	13,550	21.4961	26.0494
	29.5	29.5000	14,317	13,147	21.5528	26.1630
	30.5	30.5000	13,876	12,742	21.6038	26.2649
	31.5	31.5000	13,432	12,335	21.6494	26.3562
	32.5	32.5000	12,988	11,927	21.6903	26.4379
	33.5	33.5000	12,543	11,518	21.7269	26.5110
	34.5	34.5000	12,096	11,108	21.7595	26.5763
	35.5	35.5000	11,648	10,696	21.7886	26.6345
	36.5	36.5000	11,199	10,284	21.8145	26.6864
	37.5	37.5000	10,751	9,873	21.8375	26.7324
	38.5	38.5000	10,305	9,463	21.8580	26.7733
	39.5	39.5000	9,859	9,053	21.8761	26.8095
	40.5	40.5000	9,414	8,645	21.8921	26.8415

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LENGTH TYPE	LENGTH OF DISABILITY	LENGTH OF DISABILITY IN YEARS	# CLAIMANTS STILL DISABLED R.A.A.Q. 1983 TABLE	ADJUSTED DISABILITY TABLE	P.V. FOR $1 OF WEEKLY ANNUITY INVESTED AT 8.0% NON-INDEXED	P.V. FOR $1 OF WEEKLY ANNUITY INVESTED AT 8.0% INDEXED AT 5.0%
YEARS	41.5	41.5000	8,771	8,054	21.9059	26.8691
	42.5	42.5000	8,532	7,835	21.9184	26.8940
	43.5	43.5000	8,096	7,435	21.9293	26.9159
	44.5	44.5000	7,664	7,038	21.9389	26.9350
	45.5	45.5000	7,236	6,645	21.9472	26.9518
	46.5	46.5000	6,814	6,257	21.9545	26.9664
	47.5	47.5000	6,399	5,876	21.9609	26.9791
	48.5	48.5000	5,991	5,502	21.9664	26.9901
	49.5	49.5000	5,591	5,134	21.9711	26.9996
	50.5	50.5000	5,200	4,775	21.9752	27.0078
	51.5	51.5000	4,819	4,425	21.9788	27.0148
	52.5	52.5000	4,449	4,085	21.9818	27.0208
	53.5	53.5000	4,093	3,759	21.9843	27.0260
	54.5	54.5000	3,748	3,442	21.9865	27.0303
	55.5	55.5000	3,417	3,138	21.9883	27.0340
	56.5	56.5000	3,101	2,848	21.9899	27.0370
	57.5	57.5000	2,801	2,572	21.9911	27.0396
	58.5	58.5000	2,516	2,310	21.9922	27.0418
	59.5	59.5000	2,247	2,063	21.9931	27.0435
	60.5	60.5000	1,995	1,832	21.9938	27.0450
	61.5	61.5000	1,759	1,615	21.9944	27.0462
	62.5	62.5000	1,541	1,415	21.9949	27.0471
	63.5	63.5000	1,340	1,231	21.9953	27.0479
	64.5	64.5000	1,157	1,062	21.9956	27.0485
	65.5	65.5000	990	909	21.9959	27.0490
	66.5	66.5000	839	770	21.9960	27.0494
	67.5	67.5000	706	648	21.9962	27.0497
	68.5	68.5000	589	541	21.9963	27.0499
	69.5	69.5000	486	446	21.9964	27.0501
	70.5	70.5000	398	365	21.9965	27.0502
	71.5	71.5000	323	297	21.9965	27.0504
	72.5	72.5000	260	239	21.9966	27.0504
	73.5	73.5000	208	191	21.9966	27.0505
	74.5	74.5000	165	152	21.9966	27.0505
	75.5	75.5000	130	119	21.9966	27.0506
	76.5	76.5000	102	94	21.9966	27.0506
	77.5	77.5000	80	73	21.9966	27.0506
	78.5	78.5000	63	58	21.9966	27.0506
	79.5	79.5000	49	45	21.9966	27.0506
	80.5	80.5000	38	35	21.9966	27.0506

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YEARS	81.5	81.5000	30	28	21.9967	27.0506
	82.5	82.5000	23	21	21.9967	27.0506
	83.5	83.5000	18	17	21.9967	27.0506
	84.5	84.5000	14	13	21.9967	27.0506
	85.5	85.5000	10	9	21.9967	27.0506
	86.5	86.5000	8	7	21.9967	27.0506
	87.5	87.5000	6	6	21.9967	27.0506
	88.5	88.5000	4	4	21.9967	27.0506
	89.5	89.5000	3	3	21.9967	27.0506
	90.5	90.5000	2	2	21.9967	27.0506
	91.5	91.5000	1	1	21.9967	27.0506
	92.5	92.5000	1	1	21.9967	27.0506
	93.5	93.5000	1	1	21.9967	27.0506