

# **ECONOMIC ANALYSIS OF CLAIM COSTS**

Prepared by

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## 1. INTRODUCTION

Our instruction was to estimate the costs of alternatives to the no-fault system which has been in place in Saskatchewan since 1995. In particular, with regard to a modified tort system we were asked to:

1. estimate the claims cost savings arising from varying levels of deductions from awards for non pecuniary damages (general damages);
2. estimate costs savings if awards for income loss were based on income net of tax, rather than before tax values;
3. estimate savings by eliminating double recovery, particularly with regard to Canada Pension Plan, disability benefits and Workers' Compensation;
4. evaluate revenues or savings from imposition of fines or deductibles on at-fault drivers;
5. evaluate elimination of pre-judgment interest on non pecuniary damages;
6. evaluate effects of use of structured settlements to compensate for future pecuniary loss.

In addition, we were requested to determine the costs of retaining certain no-fault benefits in a modified tort system and to estimate costs of enhancing the no-fault benefits which had been provided in the pre 1995, predominantly tort system.

What we have done is to:

1. estimate costs which would have been incurred in 1998, assuming the tort system had remained in place, without change, after 1994;
2. estimate costs in a modified tort system, for 1998;
3. compare estimated costs in unmodified and in modified tort systems to costs in the present no-fault system, as they were reported for the year 1998.

It must be stated that much of the information which we felt would have been useful in development of cost comparisons was not available to us and as a consequence, a substantial part of our effort has been devoted to looking for proxy information or for indirect methods on which to base our estimates.

All of the information concerning numbers of claims, claim costs and premium costs which we have received pertains to the AutoFund. We have little information concerning SGI CANADA. In the absence of such information it is, of course, impossible to make any comparison between the overall costs of a tort system, to the overall costs of a no-fault system of insurance. We note further that some information from the AutoFund was available for the entire period 1984 to 1998 (examples, claims incurred for property damage, injury accident benefits and injury liability) while other information was available for some but not all years (examples, claims paid in the three categories). Some information was not available at all (age and gender of claimants). In the absence of the kind of information which we had hoped to obtain, we have had to base our analysis on aggregated information which was available to us.

The analysis of historical patterns of cost growth which follows refers primarily to two time periods. The first is the period from 1984 to 1994. 1984 was the first year in which the AutoFund, having been segregated from SGI's other insurance operations, became the sole provider of basic motor vehicle insurance coverage in Saskatchewan. 1994 was the last year in which coverage was offered primarily on the basis of tort law. Because of certain changes in regulations and characteristics of the AutoFund's accounting procedures, the 1984 to 1994 period has, from time to time, been shortened to the 1985 to 1993 period.

The second time period is from 1995, the first year of operation of the current predominantly no-fault system, to 1998, the last year for which much of the AutoFund financial information on which we have relied was available at time of writing.

In 1984 the total dollar value of claims incurred for vehicle damage, injury liability (tort claims) and injury accident benefits (claims made through the partial or limited no-fault system in place prior to 1995) was \$149.2 million. The equivalent value, in 1998 dollars, is \$225.8 million. In 1993 claims incurred totalled \$315 million and in 1994 claims incurred increased to \$406.6 million. The equivalent values, in 1998 dollars, are \$342.7 million and \$433.3 million respectively. Comparing the values \$225.8 million and \$342.7 results in a 4.7% annual compounding real growth rate in total claims incurred. (The reason why 1993 as opposed to 1994 is used to compare the annual rate of growth in claims incurred is discussed in the final paragraph of page 12 of this report).

In 1995 claims incurred fell to \$333.3 million, or \$348.6 million in 1998 dollars. In 1998 they were \$350.3 million.

Given that the change from a predominantly tort to a predominantly no-fault system occurred in 1995, the foregoing seems to imply that the switch in systems was responsible for arresting spiralling claims

costs. However, because of the way in which insurance companies like the AutoFund must anticipate their costs, it is necessary to look a little more deeply at the numbers before drawing conclusions.

In any given year, a motor vehicle insurance company will know, within reasonable limits, how many claims have been made as consequences of property damage or bodily injuries. However, particularly with regard to bodily injuries, it is not possible to know what the costs of the claims will be, because it is not possible to know in advance how much medical care claimants will need, how long it will take them to recover or the extent of ultimate recovery claims. Claims managers must therefore make educated guesses, particularly with regard to the expected costs arising from bodily injury. In any given year the accumulation of these educated guesses becomes the claims incurred value.

In subsequent time periods the actual dollar values of claims become known and as this occurs it becomes necessary to adjust the original estimates, depending on whether the estimates were too pessimistic (higher than the true costs of the claims) or too optimistic (lower than the true costs of claims). It is our understanding that in the AutoFund financial reporting system adjustments are brought together and described under the heading "IBNR".<sup>1</sup>

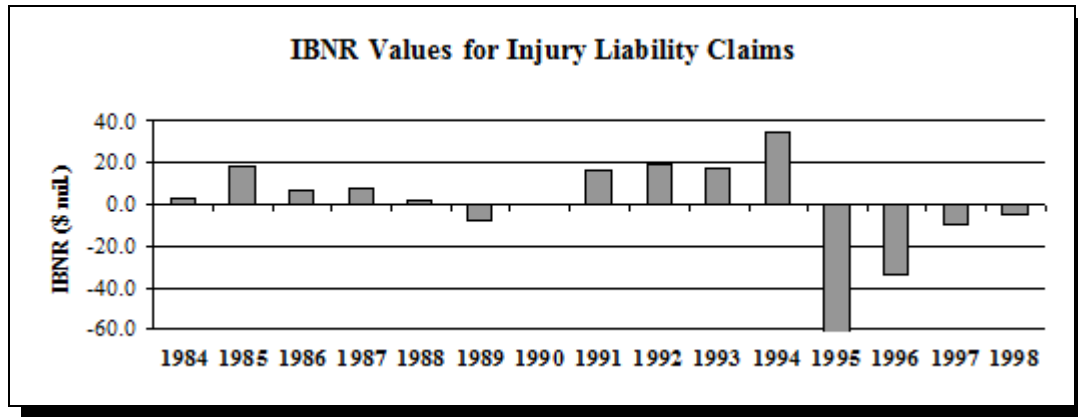
In the period 1984 to 1990 injury liability IBNR's averaged about \$4.4 million per year and they ranged from +\$17.7 million to -\$7.5 million. In other words IBNR's varied but overall, in a typical year, later adjustments added about \$4.4 million to annual claims incurred. From 1991 to 1994 there were four consecutive years of strongly positive IBNR values: \$16.3 million in 1991; \$19.4 million in 1992; \$17 million in 1993; \$34 million in 1994. These added \$86.7 million to total injury liability claims incurred over the period 1991 to 1994. The years 1995 to 1998 were four consecutive years of strongly negative IBNR values for injury liability claims: -\$62.3 million in 1995; -\$33.7 million in 1996; -\$9.2 million in 1997; -\$5.2 million in 1998, for a total of -\$110.4 million. Negative IBNR's indicate that there were overestimates of injury liability claims costs incurred in prior periods.

**Table A.3**, column 5 shows IBNR values for injury liability for the period from 1984 to 1998. **Figure 1** shows the extent of variation in this value.

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<sup>1</sup> Incurred but not reported.

**FIGURE 1**  
**REPORTED IBNR VALUES FOR INJURY LIABILITY**



Source: data provided by the AutoFund

Because the value of claims incurred in any given period of time is, in effect, an estimate and because the estimating procedures evidently underwent substantial adjustments in the period 1991 to 1998, it is not possible to identify growth trends in actual claims costs by comparing one year's claims incurred value to another, or by calculating average growth rates in claims incurred over set periods of time.

**Section 2** which follows provides a review of changes in certain demographic and economic factors which, we believe, are underlying factors which drive claims costs. A more detailed discussion of the history of claims costs at the AutoFund is presented in **Section 3**.

**Section 4** provides a comparison of costs in modified and unmodified tort systems to costs in the current no-fault system.

**2. DEMOGRAPHIC AND ECONOMIC FACTORS**

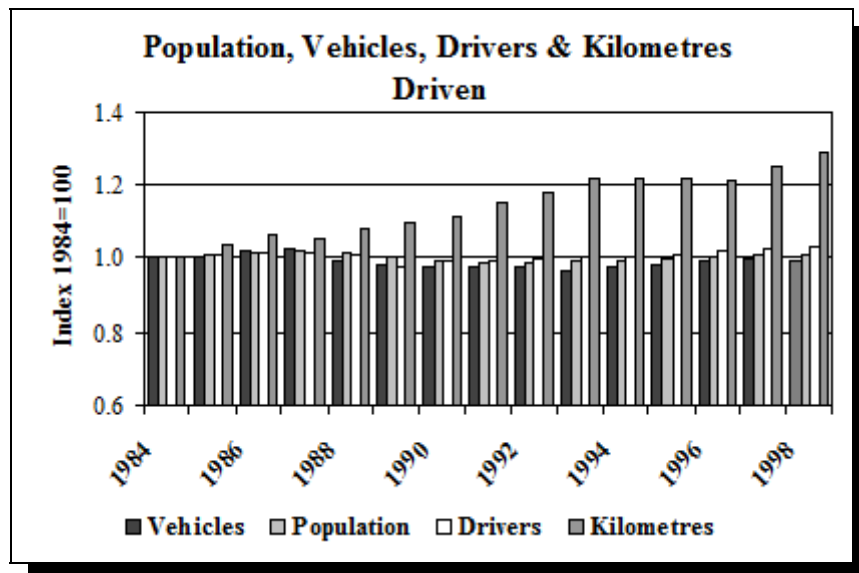
**2.1 Population, Number of Vehicles, Drivers and Distance Driven**

In 1984, the population of Saskatchewan was 1.015 million. In 1994 it was 1.009 million and in 1998, it was 1.024 million. The number of drivers in Saskatchewan in 1984 was about 642,400 and the number was virtually the same in 1994. By 1998 the number of drivers had grown marginally, to 662,800. From 1984 to 1994 the number of licensed vehicles did not increase.

These patterns of (marginal) growth are shown in **Figure 2**. In order to compare the patterns of change in series of numbers which have very different absolute values (for example, the 1994 population was 1.009 million while the number of drivers was 642,400), the values in **Figure 2** are shown as a set of indices — that is, each series of values is divided by its 1984 value to show changes, relative to the value in 1984. Thus, the 1984 value for all items is 1 and all subsequent values show how much larger, or smaller actual values are in subsequent years. For example, the drivers index in 1984 is 1 (true value, 642,400 drivers) while in 1998 it is 1.032 (total growth in the number of drivers in the 14 year period is 3.2%).

It may be concluded from **Figure 2** that increases in the total value of claims incurred in Saskatchewan cannot be attributed to population growth, and very little to increases in the number of vehicles or to increases in the number of drivers.

**FIGURE 2**





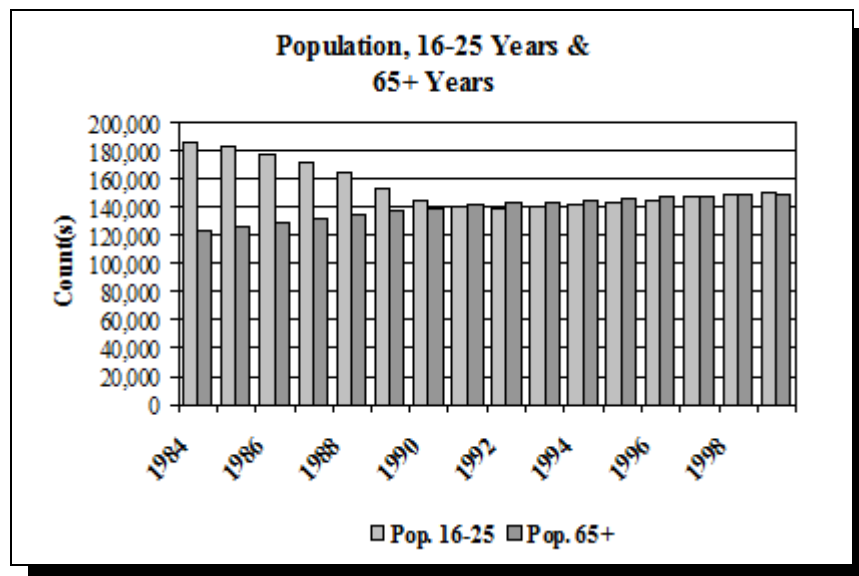
**Figure 2** also shows an index of the number of kilometers driven in Saskatchewan. From 1984 to 1994 kilometers driven increased by about 19% and by 1998 the increase in kilometers driven was almost 24%, relative to 1984. With little growth in the number of drivers this implies that the average driver in Saskatchewan was doing much more driving in 1998 than in 1984. Given that more driving implies more exposure to the risks covered by motor vehicle insurance, it seems likely that levels of driving activity have something to do with growth in claims incurred.

It is well known that accident rates are very high among young drivers and it is perhaps less well known that accident rates are also high among older drivers. Thus overall changes in the level of population may not explain trends in numbers of accidents or insurance claims, while changes in the numbers of younger or older people may be more indicative of changes in overall accident rates.

**Figure 3** shows the numbers of younger and older people in Saskatchewan in the period from 1984 to the current year. In 1984 there were 184,800 people in the age range 16 to 25. As **Figure 3** shows the number decreased by about 19%, to about 81% of the base year value in 1998. In 1984 there were 124,300 people in Saskatchewan age 65 or older. By 1998 the number had increased to 148,700, or by about 19.6%.

From the foregoing it will be evident that changes in the numbers of people in high risk groups will have had offsetting effects on claims incurred. However, in the absence of claimant data broken down by age from the AutoFund, the extent to which increases in the numbers of older drivers offset reductions in overall accident risks arising from decreases in the number of younger drivers is not known.

**FIGURE 3**



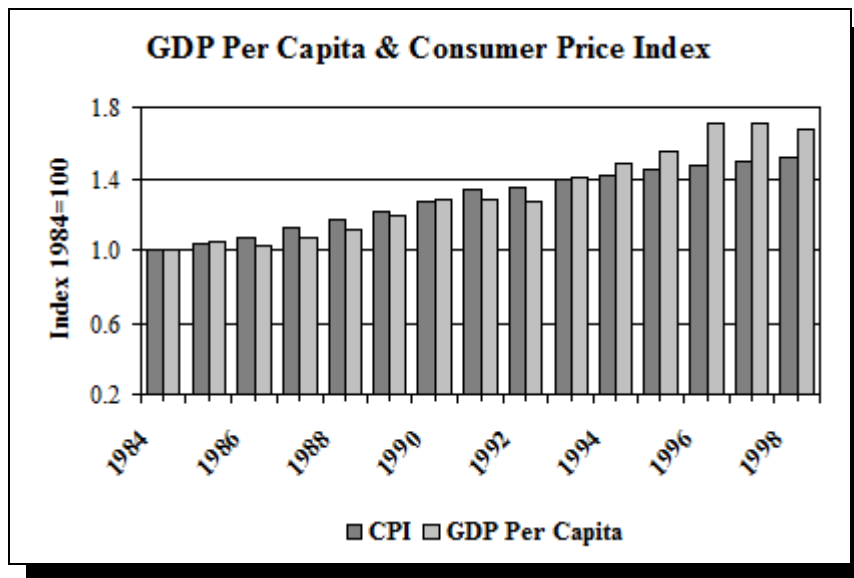
**2.2 Economic Factors**

Motor vehicle insurance covers expenses incurred to repair vehicles, to replace other goods lost or damaged in accidents, to compensate for wage loss and to cover medical expenses arising from bodily injuries. Thus, it is expected that rising prices for goods, rising wage levels and rising costs of medical care will put upward pressure on the costs of providing vehicle insurance.

As **Figure 4** shows, between 1984 and 1994 the general level of prices for goods and services in Saskatchewan increased by about 42%. By 1998 prices had increased by about 51%.

Inasmuch as bodily injury coverage is intended to compensate for loss of capacity to earn it is likely that the value of injury-related claims incurred will be more closely related to the overall level of economic activity than to the price level. **Figure 4** shows changes in prices in the period 1984 to 1998 and compares these to changes in per capita gross domestic product in Saskatchewan. As **Figure 4** shows, while prices increased by about 50% from 1984 to 1998 per capita output increased by almost 70%. In other words, in real (net of inflation) terms, output per person in Saskatchewan increased by about 11.1% from 1984 to 1998.

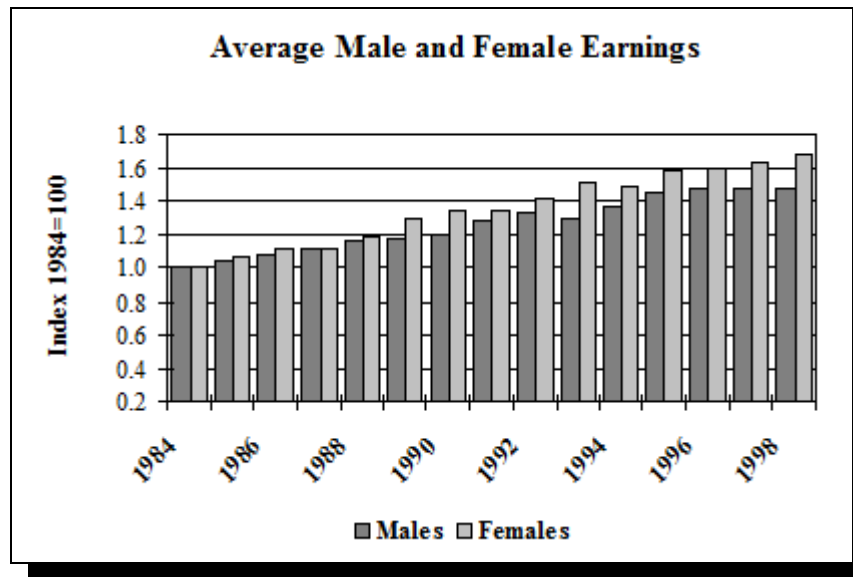
**FIGURE 4**



**Figures 5** and **6** further describe some of the economic changes which have occurred in Saskatchewan since 1984. **Figure 5** shows that among employed males, average earnings have

increased by just less than 50%, about as much as, or perhaps a little less than the increase in the price level. However, among employed women the average wage has increased by almost 70%, from 1984 to 1994, which is much more in line with the increase in per capita gross domestic product.

**FIGURE 5**



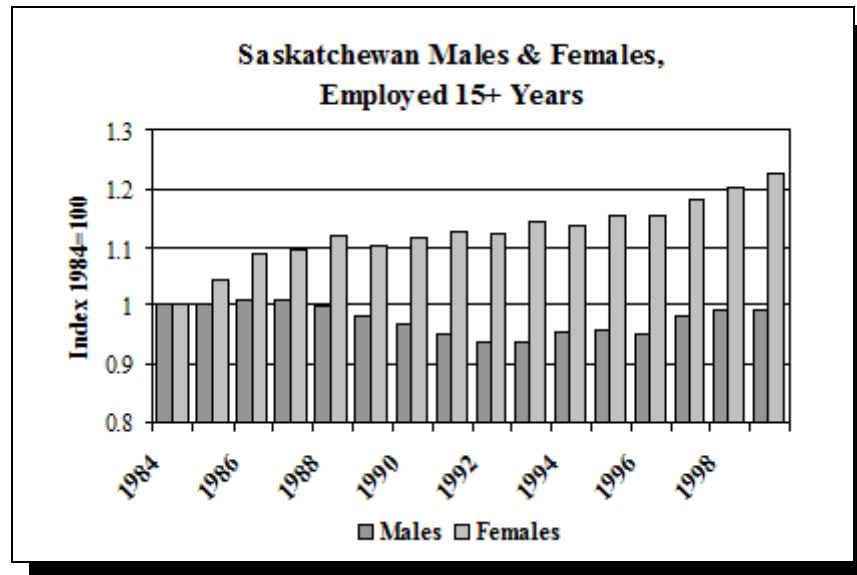
In addition to growth in the average wage among employed women, there has also been substantial growth in the numbers of employed women in Saskatchewan, as **Figure 6** shows. In 1984, 178,700 women were employed in Saskatchewan. By 1994 this number had increased to 203,400 and by 1998, to 214,700, an increase of 20%. Among men, the number employed declined and then recovered over the period but showed no clear trend to growth or decline.

Considering both **Figures 5** and **6** it will be evident that in real terms the employment incomes of men remained constant or declined slightly and they accounted for a smaller proportion of GDP at the end of the period than they had at the beginning of the period. This in turn implies changes in the level of claims incurred arising from loss of earning capacity among men are unlikely to have exceeded price inflation, in the absence of factors other than economic ones.

In contrast the real average wage of employed women and the numbers of employed women both increased. Thus women's employment earnings comprised a larger share of GDP in Saskatchewan in 1998 than they had in 1984 and it follows that it is likely claims for bodily injury among women

would have grown substantially in value from 1984 to 1998.<sup>2</sup>

**FIGURE 6**

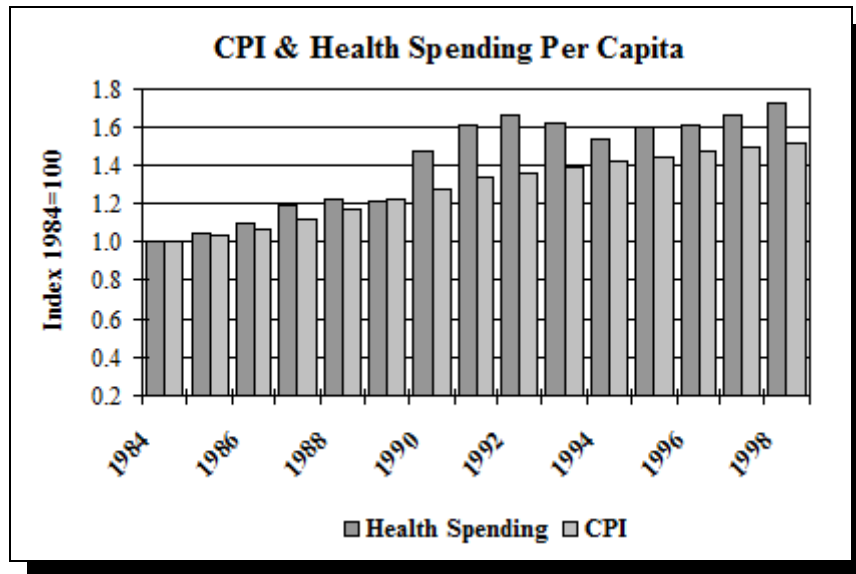


Claims for bodily injury cover both income lost as a result of injury and medical expenses incurred. In **Figure 7** levels of per capita health care spending by government in Saskatchewan are compared to levels of the Consumer Price Index. The figure shows very large increases in per capita spending after 1987, particularly in the years 1990 to 1992, and decline in real terms afterwards.

Changes in the level of health care expenditure are often equated with inflation. However, price indices for goods and services used in the provision of medical care do not indicate that prices of medical goods have been increasing any more rapidly than have the prices of other goods. What does seem to have occurred is that there has been an increase in the kinds of treatments available and there have been changing perceptions on the part of the public, with regard to appropriate levels of care. Thus there has been both an increase in the array of medical treatments available and increases in demand for medical services. Increases in the kinds of services available and changes in the public perception of what constitutes appropriate care will, of course, have had effects on the care costs incurred by insurers when there are bodily injury claims and perhaps more so, when governments are trying to limit tax financed expenditures on health care.

<sup>2</sup> The AutoFund was unable to provide any data which desegregated the numbers of claimants or costs of claims by gender.

FIGURE 7



### 2.3 Summary and Conclusions — Demographic/Economic Factors Affecting Claims Costs

The conclusions which are drawn from the data reviewed in **Sections 2.1** and **2.2** are:

1. The general price level increase in Saskatchewan from 1984 to 1994 was 42% and from 1984 to 1998, it was about 50%. The price of any good or service would have to increase in similar proportions simply to maintain the price at a constant, real level.
2. The Gross Domestic Product (per capita) of the province increased by 48% from 1984 to 1994 and by 68% from 1984 to 1998. Inasmuch as income from employment makes up a (more or less) constant proportion of GDP and given that motor vehicle insurance provides protection against risk of loss of employment income, GDP increases in excess of price inflation increase an insurer's exposure to risk of loss and tend to increase costs of proving insurance at rates exceeding general rates of price increase.
3. From 1984 to 1994 real per capita GDP increased by 4.9% and from 1984 to 1998 it increased by 11.1%. In the same periods, the amount of driving in Saskatchewan increased by 19% and by almost 24% respectively. Thus, it seems that driving comprised a higher proportion of GDP in 1994 and in 1998 than it did in 1984. This in turn implies that a motor vehicle insurer's exposure to risk of loss would have increased by more than the increase in GDP in the periods from 1984 to 1994 or 1984 to 1998.

4. From 1984 to 1998 the increase in the average wage earned by Saskatchewan males was about 50% and the increase in the Consumer Price Index was also about 50%. However, among women who worked in the paid labour market the average wage increased by 49% from 1984 to 1994 (7% in excess of the general price level increase) and by 68% from 1984 to 1998 (17% more than the general price increase). In the same periods the probabilities that women were participants in the paid work force increased from 53% in 1984 to 58% in 1994 and to 59% in 1998. Increasing wage and labour force participation rates imply that much or all of the real wage growth which occurred in Saskatchewan in the period 1984 to 1998 accrued to women. It follows that growth in labour force participation and wage levels among women are likely to have accounted for a large share in the AutoFund's increased exposure to risk of lost employment income.
5. Between 1984 and 1994 public sector expenditures on health care increased at rates well in excess of the general price level increase. Increases in the array of services available and the public's demand for health care services are likely to have put upward pressure on claimants' demands for compensation for injury.

### 3. REVIEW OF CLAIMS COSTS

#### 3.1 Review of Bodily Injury Claims

In the March 1993 report entitled *Saskatchewan Government Insurance Automobile Insurance Study* (herein referred to as the Sobeco, Ernst & Young report) it was stated that "since 1984, injury costs have increased at an average rate of 12% per annum. These increases are the result of larger court awards, an increase in the maximum liability coverage from \$100,000 to \$200,000 and an increase in the number of victims seeking legal assistance".<sup>3</sup>

It was concluded that "the Saskatchewan motorists could face annual rate increases of 6% to 12% for injury benefit coverage".<sup>4</sup>

In the **Sections 2.1** and **2.2** we have discussed certain demographic and economic changes which would be expected to increase an insurer's exposure to risk of loss and therefore its claim costs. To put this another way, we conclude that economic and demographic factors substantially increased the

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<sup>3</sup> "Saskatchewan Government Insurance Automobile Insurance Study", Sobeco Ernst & Young, March 1993 page 1.

<sup>4</sup> Ibid., p. 1.

demand for insurance coverage over the period 1984 to 1994.

It is noted that additional factors are likely to have contributed to claims costs increasing. These include severe storms in a number of years resulting in extensive vehicle damage claims, the introduction of pre-judgement interest, recognition in the tort system of the value of household work and recognition of certain issues having to do with effects of taxation on court awards. In addition restrictions on claims by guest passengers were eliminated.

In 1984 the total value of injury liability claims incurred was \$31.2 million<sup>5</sup>. This increased to \$59.2 million in 1985, the year in which the AutoFund's maximum liability coverage was increased from \$100,000 to \$200,000. Because claims in excess of \$100,000 had previously been covered by SGI CANADA such a change in the governing statutory regulations would have no effect on total damage costs. Rather, it would shift costs from SGI CANADA to the AutoFund. It is incorrect to describe such shifts as growth, which the *Automobile Insurance Study* has, in effect, done. From 1985 to 1990 there was no evident trend in injury liability claims costs incurred, as the total value varied between a high of \$80.2 million (in 1987) and a low of \$51.0 million (in 1989). The number of injury liability claims increased from 2,928 in 1984 to 4,075 in 1986 and then varied, again with no clear trend until 1992, with values ranging from 4,714 (in 1987) to 3,918 (in 1989)<sup>6</sup>.

From 1992 to 1993 there was a jump in the number of injury liability claims, from 4,311 to 5,091, and the relatively high number of claims persisted in 1994. As the total number of injury liability claims had varied widely in the past it is not clear that claims would necessarily have remained at the relatively high levels observed in 1993 and 1994, in the absence of a change from a largely tort to a largely no-fault system.

**Figure 8** shows indices of total claims costs incurred (1985 base year) for injury liability and for injury accident benefits in constant 1998 dollars<sup>7</sup>. (Injury accident benefits were no-fault benefits under the pre 1995 tort liability system). From 1985 to 1993 claims incurred for injury liability and injury accident benefits increased from \$111.3 million (in 1998 dollars) to \$184.1 million. The rate of real increase over the 8 year period was 6.5% per year. Comparisons were made using 1985 as the base year, as this was the first year in which maximum liability coverage was \$200,000. The selection of 1993, rather than 1994 as the terminal year for the comparison was based on what appears to us

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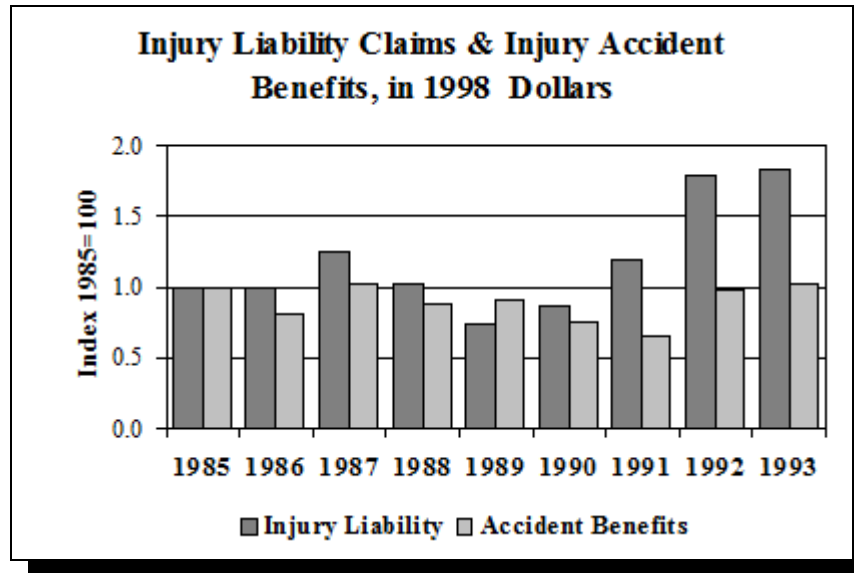
<sup>5</sup> See **Table A.3** column 6.

<sup>6</sup> See **Table A.5** column 6.

<sup>7</sup> See **Table A.2**, column 6 and **Table A.3**, column 6. Values have been adjusted to reflect constant 1998 dollars.

to have been an overestimate of tort injury claims incurred in 1994.<sup>8</sup>

**FIGURE 8**



As noted in **Section 2.3** reasons to expect costs for bodily injury claims to have increased from 1985 to 1993 include increases in the amount of driving in Saskatchewan (+16% from 1985 to 1993), increases in the number of employed women, increases in the average incomes of employed women and increases in demand for medical services. These changes are consistent with increases in both the numbers of claims and increases in the costs per claim. However, underlying economic factors do not appear to be sufficient to explain the changes in average claims incurred per bodily injury claim which, with (attempted) adjustments for variations in IBNR values, are estimated have increased from an average of about \$16,100 per claim in the years 1985 to 1991 to an average of about \$22,700 per claim in the years 1992 to 1994.<sup>9</sup> (Once again, values are in constant 1998 dollars). An explanation for cost increases, cited in the Sobeco Ernst & Young report, was that there had been precedent

<sup>8</sup> As noted above in the four years prior to the start of no-fault IBNR adjustments added \$86.7 million to tort claims incurred. In the four years after the introduction of the no-fault plan IBNR adjustments reduced tort claims incurred by \$110.4 million.

<sup>9</sup> **Table A.6** shows that the average of settlements paid for tort claims was \$18,846 in 1994 and \$23,478 in 1995. Averages increased rapidly in later years. As a majority of claims settled after 1995 are likely to have been for relatively severe injuries, this cannot be taken as an indication of a trend to increasing costs incurred in the pre no-fault era.

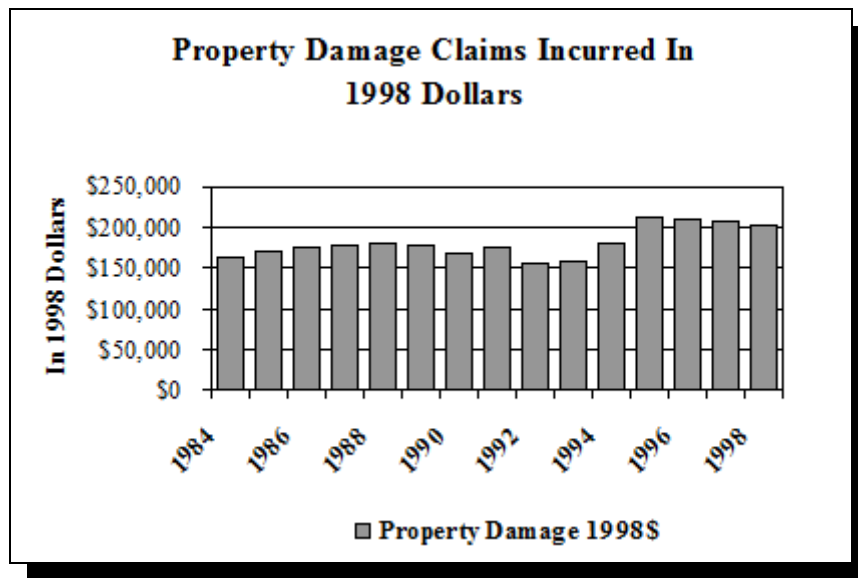


setting court awards in 1990 and 1991.<sup>10</sup> While no data clearly demonstrate this, it appears that such changes, in combination with the demographic and economic changes discussed in **Section 2**, explain the pattern of increases which occurred up to 1994.

**3.2 Review of Property Damage Claims**

Between 1984 and 1998 the number of property damage claims varied between about 101,600 and 84,700 but did not show any clear trend toward growth or decline. However, the total value of property damage claims increased from \$106.9 million in 1984 (or \$161.7 million adjusted by the CPI to the 1998 price level) to \$203.2 million in 1998. As **Figure 9** shows real increases in the annual value of property damage claims occurred primarily after 1993. Up to that time increases more or less kept pace with increases in the Consumer Price Index. From 1996 there was no indication of a continued increase in the value of property damage claims.

**FIGURE 9**



**Figure 10** shows that increases in the prices of new motor vehicles purchased in Saskatchewan have

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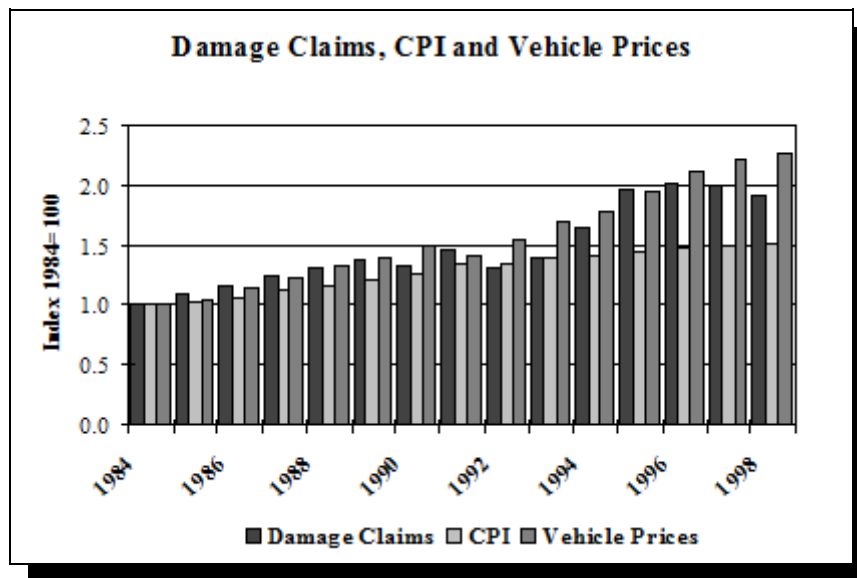
<sup>10</sup> In the Sobeco report specific mention is made of a legal precedent which doubled general damages for the most severe whiplash cases, from \$25,000 to \$50,000. There has also been mention made of awards for loss of the value of household work, as a new head of damage.

exceeded increases in the prices generally. From 1984 to 1998 the level of the Consumer Price Index increased by 50% while the average new vehicle price more than doubled.

With new vehicle prices rising so quickly it is perhaps surprising that vehicle damage claims did not increase more quickly than they did. The explanation appears to be that the rate at which vehicles were replaced declined over the period and that the value of all insured vehicles did not rise in direct proportion to new vehicle prices. In the five years from 1984 to 1988 an average of 44,200 new vehicles were purchased in Saskatchewan annually. In the ten years 1989 to 1998 the average number of new vehicles purchased was 34,200.

Relatively high costs of damage claims in the period 1994 to 1997 corresponded to a period of relatively high numbers of claims, rather than increases in the average costs per claim.

**FIGURE 10**



**4. COSTS OF CHANGES TO THE INSURANCE SYSTEM**

**4.1 Projection of Costs in the Pre 1995 System**

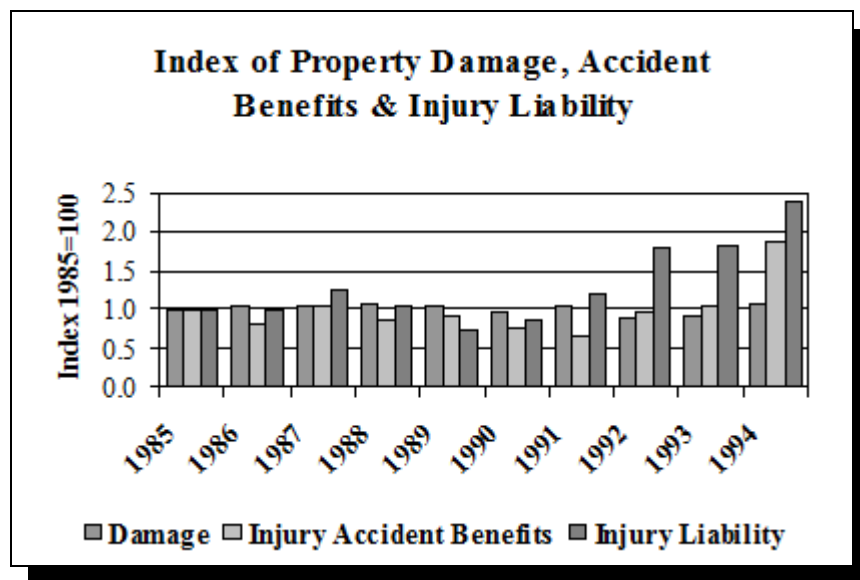
In the period 1985 to 1993 the average annual growth rates (nominal) of property damage, injury accident benefits and injury liability claims were:

1. property damage, 2.9%;
2. accident benefits (bodily injury no-fault benefits), 4.2%;
3. liability, 11.9%.

Real rates of growth (excluding the effects of general price inflation) were  $-0.9\%$ ,  $0.4\%$ , and  $7.9\%$  respectively.

Patterns of real growth are reviewed in **Figure 11**. As can be seen the periods of relatively rapid increase were 1992 to 1994 (damage claims) and 1991 to 1994 (injury accident benefits and injury liability).

**FIGURE 11**



We have recalculated injury liability values for the years 1991 to 1994 by:

1. subtracting positive IBNR values in the years 1991 to 1994;
2. taking the difference between positive IBNR values in the years 1991 to 1994 and negative values in the years 1995 to 1998, \$23.7 million, and subtracting this value for injury liability claims in 1994.

The foregoing is an attempt to adjust claims incurred values in the period 1991 to 1994 for what appears to have been excessive pessimism in the immediate pre no-fault era with regard to levels of claims incurred.<sup>11</sup> Using the restated injury liability value for 1994 to calculate a real rate of growth, from 1985 to 1994 results in the value 6%.

In order to project costs in a system like the one in place prior to 1995 we have assumed:

1. real growth of injury accident benefits and real growth of injury liability claims equal to the average real rates of growth calculated for the period 1985 to 1993, plus an adjustment for price inflation in the period 1994 to 1998, or;
2. continued real growth equal to the rate of growth in GDP in Saskatchewan, plus an adjustment for price inflation to 1998, or;
3. growth at the rate of price inflation, to 1998;
4. in all cases, property damage claims equal actual values.

Thus, we have developed three projections of costs in a continued tort system. In all cases, it is assumed that the total numbers of property damage claims have been unaffected by the change in systems.<sup>12</sup>

Estimates of total claims incurred which follow from the foregoing are summarized in **Table 1**<sup>13</sup>.

**TABLE 1**

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<sup>11</sup> This assumes that IBNR adjustments made after 1994 to injury liability claims were not affected in any way by the shift to a no-fault system. See **Table A.3**, particularly **column 5**.

<sup>12</sup> In the literature there are studies which claim that accident rates are increased under no-fault systems. Contrary findings are also reported. A review of the literature is available.

<sup>13</sup> Total claims incurred includes property damage, injury liability and injury accident benefits.

**PROJECTIONS OF TOTAL CLAIMS INCURRED**  
((\$000s))

| Year | Based on<br>History | Based on GDP<br>Growth | Based on Price<br>Inflation |
|------|---------------------|------------------------|-----------------------------|
| (1)  | (2)                 | (3)                    | (4)                         |
| 1994 | \$353,000           | \$345,400              | \$341,400                   |
| 1995 | \$402,000           | \$385,600              | \$377,500                   |
| 1996 | \$422,500           | \$396,100              | \$383,600                   |
| 1997 | \$441,600           | \$404,000              | \$386,800                   |
| 1998 | \$459,800           | \$409,400              | \$387,300                   |

The cost projection which is based on historical rates of cost increase is the one in which the method is most like the approaches which we have seen used in past in studies commissioned by automobile insurers, which have preceded efforts to change to no-fault systems. To the extent that claims costs are affected by underlying economic factors, the conclusions to **Section 2** imply that very high rates of cost increase are unlikely to have persisted much after 1994. It may also be the case that the effects of legal precedents originating in the period 1990-1991 had worked their way through tort system by 1993 and would not, in the absence of new precedents, have caused continued cost growth. In any case, a new legal precedent at one point in time may increase the level of claims costs once, but it is not cause for continued growth in claims costs in all subsequent periods.

Support for the view that rapid claims cost increases, which in Saskatchewan were concentrated in a few years of change, would not have persisted is provided by the experience of the Insurance Corporation of British Columbia. ICBC has continued with a predominantly tort based insurance system to the present. From 1985 to 1994 the real value of claims incurred by ICBC increased by almost 98%<sup>14</sup>. The compounding year to year real rate of increase in claims incurred was over 7.8%. The highest rates of increase occurred from 1988 to 1991. However, from 1994 to 1998 the real rate of increase in the value of claims incurred was only 0.75% annually.<sup>15</sup>

#### **4.2 Cost Projections Adjusted for Modified Tort Based System**

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<sup>14</sup> See **Table A.7**.

<sup>15</sup> Claims increased to a maximum value in 1996 and declined from 1996 to 1998. Note that in B.C., where population has been growing, about 2% of the real growth in claims incurred results from growth in the number of drivers. Thus the real rate of growth of per capital claims costs from 1985 to 1994 was about 6%.

Estimates of added revenues or of cost savings associated with changes to the tort system are described below.

#### **4.2.1 Levy for At-Fault Drivers**

According to the AutoFund's annual report for 1997, there were 32,207 drivers who were at fault in that year. Imposing an increased levy of \$250 (so that the surcharge for at-fault drivers involved in their first accident would increase from the current value of \$125 to \$375) would yield \$8.1 million in savings or additional revenues.

#### **4.2.2 Deductible Imposed on Awards For Pain and Suffering**

Using data from a 1992 sample of claims (see **Table A.8**), showing the distribution of payments for liability coverage claims settled from January to October in that year, we estimate that \$30 million of the \$45 million in payments for general damages would have been eliminated with a deductible of \$5,000 per claim<sup>16</sup>. That is, general damages payments could have been reduced by about 65% with a deductible of \$5,000. The impact of a deductible of \$5,000 would have been to decrease payments on all liability claims by 45.1%.<sup>17</sup>

As **Table A.8** shows, of the 5,702 settled claims there were 3,897 claims for which payments were almost entirely (95%) for general damages. The average general damage payment among these claims was \$5,328 and payments for income replacement and medical expenses were nil. In the 1,009 claims in which payments for income replacement or medical expenses were greater than zero and less than \$2,500, the average payment for general damages was \$7,227 and general damage payments comprised over 86% of total payments.

In about 85% of claims paid for general damages were below \$10,000 and in about 90% of claims payments for general damages were less than \$15,000.

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<sup>16</sup>This is the only period for which detailed amounts for claims settled were available.

<sup>17</sup> Calculated by dividing estimated savings from the deductible of \$30 million by the total value of claims settled, of \$65.5 million.

Based on the foregoing, assuming 5,000 injury liability claims per year we estimate that a \$5,000 deductible on general damages would reduce total claims costs by about \$25 million. To the extent that some general damage payments absent a deductible may have been less than \$5,000 this would mean that \$25 million overstates the savings available. However, to the extent that a large deductible may discourage claims and lead to savings in other heads of damage, there could be an underestimate of savings. We have assumed that the two sources of error are offsetting.

Again based on the distribution of claims paid in **Table A.8**, we estimate that a \$10,000 deductible on general damage claims would result in a savings of \$30.5 million. There could be additional savings associated with reductions in the numbers of claims processed and in costs of claims for other heads of damage which may not be pursued, because of the reductions in the claimants' overall recoveries.

At a \$15,000 deductible the cost reduction is estimated to be \$33.5 million.<sup>18</sup>

#### **4.2.3 Past and Future Losses Paid Net of Tax**

According to the 1998 edition of Saskatchewan Traffic Accident Facts about 33% of all drivers involved in accidents in which there were personal injuries were under the age 25. About 8% were over age 65. Among those below age 65 about 36% were in the age range 16 to 24 and about 64% were in the age range 25 to 64.

Data from the 1996 Census indicates that in 1995 the median incomes of Saskatchewan residents who worked full time full year were about:

1. age 15 to 19, \$10,000;
2. age 20 to 24, \$16,060;
3. age 25 to 64, \$28,200.

Equivalent values at 1998 wage levels are about \$11,000, \$17,600 and \$30,900.

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<sup>18</sup> All savings are calculated on the assumption that the number of tort claimants in a typical year who would be eligible to receive general damage awards, absent any deductible amount, would be 5,000. Higher numbers of eligible claimants, of course, would increase potential savings. However, the number of claims settled in **Table A.8**, 5,702, does not equal the annual number of claims. In **Table A.5** the number of injury liability claims in the last two years of the tort system — 1993 and 1994 — averaged about 5,100.

Based on the age distribution of accident victims and Saskatchewan tax regulations we calculate an average tax rate of about 18% on the past income, among people injured in motor vehicle accidents. This in turn is an estimate of the rate of savings on past income loss claims if they are paid net of tax. (It should be noted that assumptions made to arrive at this value may tend to produce an overestimate of the tax rate and therefore the cost savings rate.)

**Table A.9** shows a distribution of two samples of liability claims in the years 1992 and 1993. On average, past wage loss payments made up 9.7% of the costs of settling liability claims. Applying this ratio to the estimates of liability claims costs in the mid range projection of total claims costs described in **Section 4.1** results in past wage loss claim of \$16 million in 1998<sup>19</sup>. Savings from payment for past loss of income net of tax are estimated to be \$2.9 million.<sup>20</sup>

Future income loss awards in tort claims are paid on the basis of the present value of the loss of gross future employment earnings. The expression “present value” refers to a financial calculation which permits a future stream of cash (in the claims for income loss, anticipated lost income in future years) as a single capital sum, often described as a “lump sum”.

Under Section 81 (1)(g) of the *Income Tax Act*, lump sum awards for future loss (either income loss, or for future costs of care) are not taxable. However, to enable the injured person to withdraw funds in each year to offset their losses the initial lump sum award must be invested. The income generated by investing the award for future loss is taxable.

The practice of not reducing the lump sum award for future income loss for the taxes which would have been paid on income if it had been earned has been justified by the requirement to pay tax on the investment income generated from the award. If the capital sum is reduced for taxes saved and taxes are subsequently paid on investment income, the concern is that the injured person will then not be able to withdraw sufficient funds to offset their after-tax income loss.

For these reasons, with regard to future wage loss claims, the estimation of savings which may be

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<sup>19</sup>Injury liability claims in the CPI-based projection were estimated to be \$164 million.

<sup>20</sup> It is understood that awards for past income loss are not subject to income taxation. See Revenue Canada’s Interpretation Bulletin I5-36R2, May 8, 1987, Amounts received as Damages in Respect of Personal Injury or Death, 2.(a) (i) and (ii) and 2.(b) (i), (ii), (iii), (iv) and (v) and following paragraph. Thus awards for past loss of income represent a windfall of sorts to the individual.



achieved by deducting taxes from tort awards is not straightforward. Whether or not the principal sum can be reduced by the tax rate which would have applied to earned income, without under-compensating the recipient of the award, depends on many factors. In general, if the period of future loss is of relatively short duration (for example, if the recipient is near retirement age, or if a younger person receives funds to compensate for loss during a retraining period of a few years' duration) then it will be possible to deduct amounts which would otherwise have been paid to the tax authorities, without causing a shortfall. However, if the period of loss is long (that is, if the recipient is relatively young and the diminished capacity is permanent) then the deduction for taxes from the principal sum will lead to under compensation. For young people with high proportions of lost earning capacity, it has been our experience if the principal sum is reduced by the expected tax rate on lost income, then a tax add-back calculation is required to avoid under compensation and the add-back more or less offsets the initial reduction for tax. In other words, there is no scope for tax savings by deducting amounts equal to taxes from the lump sum award.

We advise that the remarks above pertain to circumstances in which compensation for future loss takes the form of a lump sum payment. As discussed in **Section 4.2.4** below, the situation changes if compensation takes the form of a structured settlement.

In the absence of the kind of data required to support a detailed analysis, savings from this source are assumed to be 5% of future income loss, in the absence of structured settlements. In **Table A.9** future income loss, on average, comprised 9.7% of the costs of tort claim settlements. Savings are estimated to be about \$1 million, based on the middle of the three claims costs projections described in **Section 4.1**<sup>21</sup>.

#### **4.2.4 Structured Settlements**

Under certain circumstances, if an award for future loss of income or for future care costs is used to purchase an annuity, then funds received from the annuity are not taxable in the hands of a person receiving the funds.<sup>22</sup> Structured settlements permit tax savings on future income loss awards.

As indicated in **Section 4.2.3** it is often possible to reduce a lump sum award for future income loss

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<sup>21</sup> Injury liability claims in the CPI-based projection were estimated to be \$164 million. Future income loss is estimated to be 9.7% of \$164 million = \$15.9 million. Applying a savings factor of 5% to this value results in estimated savings of \$15.9 million x 5% = \$0.8 million. Our estimate of savings has been rounded to \$1 million.

<sup>22</sup> See IT-305R2, **Section 5**.

by the amount which would have been paid in tax without under compensating the claimant. However, structured settlements provide a means to avoid under compensation because a principal sum, reduced by the tax rate which would have been applicable to lost income, can be used to purchase an annuity which produces a stream of payments equal to lost income less the taxes which would have been payable on them, and the annuity income is not taxable in the hands of the recipient.

The logic underlying awards for future income loss based on gross income is that taxes paid on the investment income generated by a lump sum award will, roughly, equal the taxes which would have been paid on earned income if no loss had occurred. As indicated in **Section 4.2.3** this approximation works well for future losses of long duration. It results in overcompensation for future losses which occur over periods of just a few years.

Lump sum awards for future costs of care introduce a new problem, because the taxes paid on the investment income from future care awards cannot be compared to taxes which would otherwise have been paid. Thus an award for future care will not likely lead to taxes to be paid by the claimant that cannot be set off against taxes which they would have paid, if they had not been injured. Under current tax regulations, medical expenses may be claimed for tax credits but these offset taxes at the lowest tax rate and so they often do not eliminate 100% of taxes paid on investment income earned from a cost of care award. This is particularly so for large awards. Further, many cost of care items cannot be claimed as medical expenses. Thus, lump sum awards for future costs of care often result in tax liabilities which the injured person would not have incurred had the injury not occurred and the taxes take up funds needed to purchase items of care. This gives rise to the need for a “tax gross-up” to offset the effects of taxation on the future cost of care award.

In addition to savings associated with taxes which would have been paid on income, structured settlements eliminate the need for a “tax gross-up” when there is an award for future costs of care.

In **Section 4.2.3** it was estimated that the average tax rate on earned income of claimants in Saskatchewan is about 18%. If payroll taxes such as Employment Insurance premiums are included this would be about 20%. Structured settlements, which pay out cash which is not taxable in the hands of the recipient of the funds, have the potential to save the amounts normally paid to income tax, for income loss awards, and to eliminate the need for tax gross-ups on cost of care awards. These typically add about 30% to costs of care claims.

Because there are coverage limits (total claims may exceed the total amount of insurance coverage) so that 100% of calculated damages cannot be paid and because many large tort damage awards which are settled by way of negotiation are settled through structured settlements in any case, imposition of a requirement that awards be settled in the form of structured settlements will not save 20% of future income loss award costs or 30% of future cost of care awards.

Savings arising from regulations requiring payment of claims for future loss in the form of structured settlements are assumed to be 10% of future income loss and future care costs. From column 7 of **Table A.9**, future loss is estimated to be 13.7% (9.7% for future income loss + 2.7% for future care homemaking +1.3% for future medical expenses) of injury liability costs.

In the CPI-based cost projection in **Table 1** injury liability claims incurred are estimated to be \$164 million. Savings from structures are estimated to be about \$2.3 million<sup>23</sup>, or about \$1.5 million more than would be saved by awarding future income loss on an after tax basis in the absence of structured settlements.

Note that I assume that the proportion of future loss costs from **Table A.9**, which appears to include both AutoFund and extended coverage costs, applies to AutoFund costs.

#### 4.2.5 Other Savings

1. Savings by eliminating double recovery from Canada Pension Plan benefits, Employment Insurance and Workers' Compensation are unknown.
2. Not paying pre-judgement interest on general damage awards is estimated to save about \$1 to \$1.5 million annually.
3. Deductibles on pain and suffering awards could reduce the numbers of claims made, resulting in savings in claims adjustment expenses. Inasmuch as a \$5,000 or \$10,000 deductible would affect very high proportions of the total numbers of claims, savings of claims adjusting expenses could be substantial.

In 1994 claims adjusting expenses on injury liability claims were almost \$3.3 million and in 1993 they were \$2.8 million. A very substantial reduction in the total number of claims, by way of a deductible on pain and suffering awards, would have reduced these expenses. The extent of the reduction is unknown but it is assumed it would perhaps be as much as 50%. The estimate of savings in claims adjusting expenses arising from a substantial deductible on pain and suffering awards is about \$1.5 million.

4. On a claim involving future losses over a period of 30 years, a 5 point increase in the discount rate from, 3% to 3.5%, will reduce the present value of future loss by about

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<sup>23</sup> Expenditures on future loss awards (future income loss and future care costs) are estimated as \$164 million x 13.7% = \$22.5 million. With savings assumed to be 10% of this amount, the value is \$22.5 million x 10% = \$2.3 million (rounded).

6%. In the absence of data with respect to the duration of awards, it is not possible to estimate with any confidence the savings that may accrue from increasing the discount rate used to estimate future losses.

5. Elimination of monies paid by the AutoFund to the Saskatchewan Health System would produce savings of about \$5 million<sup>24</sup>.

#### 4.2.6 Total Savings

**Table 2** shows the estimated revenue increases and/or savings from the modifications to the tort system described above. Modifications to the tort system are estimated to produce savings of \$39 million. Other savings (described in **Section 4.2.5**) might add \$7.5 million to \$8 million to the estimate.

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<sup>24</sup>Source: Breakdown of Claims Paid For Medical and Rehabilitation Payments provided by the AutoFund. Note that values from 1995 to 1997 were \$0.7million, \$8.3 million and \$5.5 million respectively.

**TABLE 2****ESTIMATED REVENUE INCREASES AND/OR SAVINGS FROM MODIFICATIONS TO THE TORT SYSTEM**

|  | Estimated Savings<br>(\$ million) |
|--|-----------------------------------|
| Additional levy of \$250 to at-fault drivers:        | \$8.1                             |
| Deductible on Awards For General Damages of \$5,000: | \$25.0                            |
| Past and Future Income Loss Awards Paid Net of Tax:  | \$3.7                             |
| Structured Settlements:                              | \$2.3                             |
| Sub-Total:   | <b>\$39.1</b>                     |
| Other Savings (See Section 4.2.5):                   | \$7.5 to \$8.                     |
| Total:   | <b>\$46.6 to \$47.1</b>           |

Because under the tort system the AutoFund was limited to liability claims costs under \$200,000, it is most likely that similar types of savings described above would also accrue to SGI CANADA. Because savings rates were applied to estimates of AutoFund costs, it is likely that estimates of total costs savings will be conservative.

### 4.3 Comparison of Modified Tort to No-Fault Claim Costs

The total of claims incurred reported by the AutoFund for 1998 was \$350.3 million. There was a negative IBNR value of about \$5.2 million for injury liability claims which, of course, were winding down by 1998. Assuming the negative IBNR value was a reflection of past overestimates of total liability claims incurred then in 1998, under the current no-fault system, total claims costs incurred would have been \$355.5 million.

Projected 1998 costs for an unmodified tort system, using CPI as the predictor of growth, were \$387.3 million. Savings from the modifications discussed above reduce this to \$340.7 million<sup>25</sup>. Because the method used to estimate claims cost in a modified tort system are somewhat rough and ready and because claims incurred values in the financial statements are themselves only estimates, it is not suggested that the comparison above is (or can be) a precise one. However, if the rapid

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<sup>25</sup> Calculated as \$387.3 million - \$39.1 million - \$7.5 million = \$340.7 million.

claims cost increases of the early 1990's are considered to have been played out, a point of view which appears to be borne out by the experience in British Columbia, then it may be concluded that costs in a modified tort system would not be very different from the costs in the current no-fault system.

Savings in the form of reduced administration expenses are likely to occur under a reformed tort liability system. **Table A.10** shows administration expenses as reported by the AutoFund. Our calculations suggest that the average compounded annual rate of growth in administration expenses from 1984 to 1994 was 6.3%. In the period from 1995 to 1999, after the introduction of no-fault insurance, administration expenses increased at an annual compounded rate of growth of 21.1%. Assuming an annual rate of growth at 6.3%, we project that administration expenses under the liability system would have increased from \$21.4 million in 1994 to \$29 million in 1999. Actual administration expenses in 1999 were reported to have been \$44.4 million. On this basis we estimate that possible savings from a reduction in administration costs of about **\$15.4 million**<sup>26</sup>.

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<sup>26</sup> Similar analysis with 1998 data resulted in estimated savings of about \$5 million.

#### 4.4 Modifying the Tort System to Include Enhanced No-Fault Benefits

We have been instructed to develop cost estimates for enhancements to the tort system such that a modified tort system would provide basic no-fault benefits to all persons (both at-fault and not at-fault) and to the survivors of all drivers who die as a result of injuries in motor vehicle accidents. Under the old (pre 1995) plan no-fault benefits (collectively referred to as injury accident benefits) consisted of the following:

1. Medical Benefits, maximum \$10,000;
2. Weekly Indemnity, \$150 per week for a maximum of 104 weeks;
3. Partial Weekly Indemnity, \$75 per week for a maximum of 104 weeks;
4. Homemakers, maximum \$150 per week, for a maximum 104 weeks;
5. Extended Weekly Indemnity Benefits, maximum increased to \$200 per week effective July 1, 1992, payable after 104 weeks;
6. Permanent Disability, \$10,000;
7. Death Benefits, primary dependent \$10,000, secondary dependent \$1,500. Funeral benefits of \$5,000.

You have requested that we provide an estimate of the costs of enhanced no-fault benefits in a modified tort system. The basis for our calculations is provided in **Tables A.11** and **A.12**. These tables show data reproduced from the Sobeco, Ernst and Young Study entitled "*Costing of Options For Compensation of Saskatchewan Automobile Accident Victims*".

##### 4.4.1 Weekly Indemnity Benefits

**Table A.11** shows that the average of incurred claims for weekly indemnity benefits in the period from 1987 to 1991 was \$4.45 million<sup>27</sup>. The average payment for weekly indemnity during the same period was \$2,124 per claimant. As described above weekly indemnity coverage under the pre- 1995 liability system was \$75 per week for partial disability and \$150 per week for permanent total disability. With payments under an enhanced system providing \$150 per week for partial disability and \$300 per week for permanent disability (double the previous coverage) the total cost is projected to

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<sup>27</sup> This period was chosen as it was the only data available.

be  $\$4.45 \times 2 = \$8.9$  million. The incremental costs of providing enhanced coverage is therefore  $\$8.9$  million -  $\$4.45$  million =  **$\$4.45$**  million. With the assumption that a third of all claimants are at-fault, the costs of providing enhanced coverage to at-fault drivers is estimated to be  **$\$1.5$**  million<sup>28</sup>.

#### 4.4.2 Extended Weekly Indemnity Benefits

Incurred losses in nominal dollars averaged \$909,000 in the period between 1987 to 1991. This was the cost of providing \$200 per week after two years. With coverage increased to \$300 per week, total costs are estimated to be  $\$300/\$200 \times \$909,000 = \$1.36$  million, say  **$\$1.4$**  million. The costs of providing enhanced coverage are therefore  $\$1.4$  million -  $\$909,000 = \$0.5$  million (rounded). With the assumption that a third of all claimants are at-fault, the costs of providing enhanced coverage to at-fault drivers is estimated to be about  **$\$0.17$**  million.

#### 4.4.3 Permanent Impairment Benefits

We have been arbitrarily instructed to add  **$\$1.5$  million** per year for enhanced permanent impairment benefits<sup>29</sup>. This is, in effect, a benefit pool to compensate the catastrophically and seriously injured. With the assumption that a third of all claimants are at-fault, the costs of providing enhanced permanent impairment benefits to at-fault drivers is estimated to be about  **$\$0.5$**  million.

Between 1987 and 1991 an average of 317 injured claimants were permanently impaired. The value 317 is the average number of permanently impaired claims as shown in **Table A.12**. Given our definition of catastrophic or severe injuries (quadriplegia, paraplegia, loss of limb, loss of vision, severe brain damage and 50% of those with moderate brain damage), 56 of the 317 permanently impaired would qualify for enhanced benefits out of the pool of  $\$1.5$  million. The value of 56 has been taken from column 8 of **Table A.13** and represents data for 1998. Note that values for 1998 are higher than those in 1995, 1996 and 1997. This means that our estimates of additional spending are probably more favourable to injured persons.

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<sup>28</sup>Based on the assumption that the increase in no-fault benefits payable to innocent victims need not be considered as these amounts would have been recovered under the tort system.

<sup>29</sup> The value  $\$1.5$  million reflects the values shown in column 9 of **Table A.13** for quadriplegia, paraplegia, loss of limb, loss of vision, severe brain damage and 50% of expenditures on moderate brain damage (after rounding).



#### 4.4.4 Medical Benefits

Maximum medical benefits are to be enhanced from \$10,000 in the pre-1995 system to \$20,000. **Table A.11** shows that the average ultimate incurred losses from 1987 to 1991 for medical expenses was **\$4.354** million. Projecting the impact of increasing the maximum coverage to \$20,000 is problematic because we do not know the number of claims that were being paid at the maximum amount. It is therefore difficult to assess how many claims will be affected by any increase in the ceiling for medical expenses.

With the maximum payment for medical expenses assumed to increase to \$20,000 we roughly estimate that total payments will increase by 30% from the original amount of \$4.35 million. The cost after enhancement is therefore estimated to be **\$5.7** million. The cost of providing additional coverage is therefore estimated to be **\$1.35** million (\$5.7 million - \$4.354 million, after rounding).

With the assumption that a third of all claimants are at-fault, the costs of providing enhanced medical benefits to at-fault drivers is estimated to be about **\$0.45** million.

You have also requested that the catastrophically injured have medical coverage up to a maximum of \$150,000. With the definition catastrophic injuries described in **Section 4.4.3**, 56 individuals are assumed to be catastrophically injured. With one third of those individuals assumed to be at-fault, 18 individuals are estimated to qualify for enhanced medical benefits to a maximum of \$130,000 (\$150,000 minus the limit of \$20,000).

In the absence of any other information, we have assumed that the average payment will be \$65,000 for those with catastrophic injuries. Assuming that 18 individuals qualify for enhanced benefits of \$65,000 each, this results in additional costs of **\$1.2 million** (rounded).

The total cost of enhancing medical benefits is therefore estimated to be **\$0.45** million + **\$1.2** million = **\$1.65** million.

#### 4.4.5 Fatal Accidents

You have requested that we estimate the cost of enhancing death benefits as follows:

1. 45% of the deceased's net income for the survivor's life expectancy;
2. 5% of the deceased's net income per dependant child to age 21;

3. minimum benefit of \$45,000 to a spouse or \$10,000 to an estate if no dependants (in 1998 these benefits had increased to \$47,427 and \$10,539 respectively);
4. \$5,000 for funeral costs (this has been increased to \$5,270 in 1999).

Our estimate of the costs of enhancing death benefits is based on the following:

1. the average value of claims incurred between 1987 and 1991 under the pre-1995 system was \$1.25 million (see Table A.11, rounded).
2. under the current no-fault system claims incurred in 1998 was \$11.7 million (see Table A.14).
3. with the assumption that one third of the value of claims incurred were for at-fault drivers, about \$0.4 million would have been spent on at-fault drivers in the pre-1995 system, and about \$3.9 was spent on at fault drivers in 1998 under the current no-fault system.
4. with the crude assumption that the costs under the proposed enhanced system (45% of deceased's net income payable to spouse to life expectancy and 5% of the deceased's net income payable to each dependant to age 21) are broadly similar to the costs under the current system (where the death benefit is 50% of the income replacement benefit) the additional costs of providing death benefits is estimated to be \$3.9 million (payments to at-fault drivers under current system) - \$0.4 million (payments to at-fault drivers under the pre-1995 system) = **\$3.5 million**.

Savings may be possible if the definition of a spouse in the proposed enhanced system of death benefits is changed to eliminate the potential for payments to be made to more than one spouse. These savings have not been quantified.

**Table 3** shows that estimated costs of enhancing no-fault benefits is about \$7.3 million.

**TABLE 3****SUMMARY OF THE COSTS OF ENHANCING NO-FAULT BENEFITS**

|                                  | Estimated Costs (\$ millions) |
|----------------------------------|-------------------------------|
| Weekly Indemnity Benefits:       | \$1.5                         |
| Extended Weekly Indemnity        | \$0.17                        |
| Permanent Impairment Benefits:   | \$0.5                         |
| Medical Rehabilitation Benefits: | \$1.65                        |
| Death Benefits:                  | \$3.5                         |
| Total:                           | <u><u>\$7.3</u></u>           |

**Table 4** compares the pre-1995 no fault benefits with the enhanced benefits described in **Sections 4.4.2 to 4.4.5**.

**TABLE 4**

**COMPARISON OF NO-FAULT BENEFITS IN THE PRE-1995 SYSTEM  
WITH PROPOSED ENHANCEMENTS TO NO-FAULT BENEFITS**

|                                     | <b>Pre 1995 System</b>  | <b>Enhanced Benefits</b>   |
|-------------------------------------|---|--|
| Weekly Indemnity Benefits:          | \$75/week for partial disability<br>\$150/week for permanent disability   | \$150/week for partial disability<br>\$300/week for permanent disability   |
| Extended Weekly Indemnity Benefits: | \$200/week  | \$300/week   |
| Permanent Impairment Benefits:      | Maximum of \$10,000 per claimant  | \$10,000 per claimant plus up to \$130,000 for catastrophically injured  |
| Medical Rehabilitation Benefits:    | Maximum of \$10,000 per claimant  | Maximum of \$20,000 per claimant   |
| Death Benefits:                     | \$10,000 for primary dependent<br>\$1,500 for secondary dependent<br>\$5,000 for funeral costs<br>\$2,500 to surviving parents if no dependant or to estate if no person entitled to benefits | 45% of deceased's net income to survivor's life expectancy<br>5% of the deceased net income per dependent child to age 21<br>Minimum benefit of \$45,000 to spouse<br>\$10,000 to estate if no dependents<br>\$5,000 for funeral costs |

## 5. SUMMARY

### 5.1 Comparison of Costs Under A Modified Tort System With The Current No-Fault System

**Table 5** below summarizes our estimates of the difference between total claims incurred under a modified tort system and the current no-fault system. Assuming tort and accident benefit claims would have grown with changes in the Consumer Price Index from 1994 to 1998 (the lowest projection in Table 1), we estimate total claims incurred, under a tort system like the pre-1995 one, would have been about **\$387.3** million in 1998.

We estimate that total claims incurred net of savings/additional revenues would have been about **\$340.7** million. Modifications to the tort system to provide enhanced no-fault benefits are estimated to increase costs by about **\$7.3** million. Our calculations suggest that if tort injury claims costs had increased with CPI, the cost of providing a modified tort based system would have been about **\$2.3** million less than costs, in 1998, of the current no-fault system.<sup>30</sup>

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<sup>30</sup> If tort bodily injury claims were to have increased with GDP growth, resulting in total claims incurred of \$409.4 million (Table 1, page 18) the modified tort system cost estimate exceeds the no-fault cost in 1998 by about 5.4%.

**TABLE 5****SUMMARY OF COSTS OF MODIFIED TORT SYSTEM**

|   | <b>\$ Million</b> | <b>Source:</b>   |
|---|-------------------|------------------|
| <b>Estimated Claims Incurred In 1998</b>  | \$387.3           | Table 1, page 18 |
| <b>Estimated Cost Savings/Additional Revenues</b>   |                   |                  |
| Increased Levy of \$250 For At Fault Drivers:   | \$8.1             | Section 4.2.1    |
| Deductible of \$5,000 on Awards For Pain & Suffering:   | \$25.0            | Section 4.2.2    |
| Past And Future Losses Paid Net of Tax:   | \$3.7             | Section 4.2.3    |
| Structured Settlements:   | \$2.3             | Section 4.2.4    |
| Other Savings:  | \$7.5             | Section 4.2.5    |
| Sub-Total:  | \$46.6            |                  |
| <b>Estimated Claims Incurred Net Of Savings:</b>  | <b>\$340.7</b>    |                  |
| Cost of Enhancements To Pre-1995 No Fault Benefits:   | \$7.3             | Table 3, page 32 |
| Estimated Claims Incurred Net Of Savings and Additional Costs of Enhancements to Pre 1995 No-Fault Benefits:        | <b>\$348.0</b>    |                  |
| Actual Claims Incurred in 1998 Under No-Fault System:   | \$350.3           |                  |
| Estimated Costs of Proposed Modified Tort System In Excess of Actual Claims Incurred Under No-Fault System in 1998: | <b>(\$2.3)</b>    |                  |

We emphasize that in developing our cost comparisons we have had to rely on aggregated information.

## **5.2 Other Conclusions**

1. We repeat that much of the information which we felt would have been useful in development of cost comparisons was not available. Further, virtually all of the information concerning numbers of claims, claim costs and premium costs which we have received (**Table A.8** excluded) pertains to the AutoFund. We have almost no information concerning SGI CANADA.
2. In 1984 the total dollar value of claims incurred for vehicle damage, injury liability

(tort claims) and injury accident benefits (claims made through the partial or limited no-fault system) was \$149.2 million. The equivalent value, in 1998 dollars, is \$225.8 million. In 1993 claims incurred totalled \$315 million and in 1994 claims incurred increased to \$406.6 million. The equivalent values, in 1998 dollars, are \$342.7 million and \$433.3 million respectively.

In 1995 claims incurred fell to \$333.3 million, or \$348.6 million in 1998 dollars. In 1998 they were \$350.3 million.

3. Given that the change from a predominantly tort to a predominantly no-fault system occurred in 1995 the foregoing seems to imply that the switch in systems was responsible for arresting spiralling claims costs. However, it is necessary to look a little more deeply at the numbers before drawing conclusions.

Reasons to expect costs for bodily injury claims to have increased from 1985 to 1993 include increases in the amount of driving in Saskatchewan (+16% from 1985 to 1993), increases in the number of employed women, increases in the average incomes of employed women and increases in demand for medical services. These changes are consistent with increases in both the numbers of claims and increases in the costs per claim.

Changes in underlying economic factors may not have been sufficient to explain the extent of increases in average claims incurred per bodily injury claims. With certain (attempted) adjustments averages are estimated have increased from about \$16,100 per claim in the years 1985 to 1991 to about \$22,700 per claim in the years 1992 to 1994. (Both values are in 1998 dollars.) An explanation for cost increases, cited in the Sobeco Ernst & Young report, was that there had been precedent setting court awards in 1990 and 1991. While no data clearly demonstrate this, it appears that such changes, in combination with demographic/economic changes, account for the pattern of increases which occurred up to 1994.

4. Between 1984 and 1998 the number of property damage claims varied between about 101,600 and 84,700 but did not show any clear trend toward growth or decline. Real increases in the annual value of property damage claims occurred primarily after 1993. Up to that time increases more or less kept pace with increases in the Consumer Price Index. After 1995 there was no indication of a continued increase in the value of property damage claims.

5. Relatively high costs of damage claims in the period 1994 to 1997 corresponded to a period of relatively high numbers of claims, rather than increases in the average costs per claim.
  
6. It is our view that to the extent that claims costs are affected by underlying economic factors very high rates of cost increase are unlikely to have persisted much after 1994. It may also be the case that the effects of legal precedents originating in the period 1990-1991 had worked their way through tort system by 1993 and would not, in the absence of new precedents, have caused continued cost growth. Support for the view that rapid claims cost increases, which in Saskatchewan were concentrated in a few years of change, would not have persisted is provided by the experience of the Insurance Corporation of British Columbia.



**TABLES**

**TABLE A.1**  
**DAMAGE CLAIMS INCURRED 1984 TO 1998 (\$000S)**

| Year | Total<br>Damage | Damage<br>Claims<br>Incurred | Claims<br>Adjust-<br>ing<br>Expenses | Claims<br>Adjust-<br>ing<br>Expense<br>Res erva | IBNR      |
|------|-----------------|------------------------------|--------------------------------------|---|-----------|
| (1)  | (2)             | (3)                          | (4)                                  | (5)   | (6)       |
| 1984 | \$106,926       | \$92,734                     | 13,312                               | \$0   | \$880     |
| 1985 | \$116,560       | \$101,715                    | 14,411                               | \$283   | \$151     |
| 1986 | \$123,789       | \$107,830                    | 15,824                               | \$135   | \$0       |
| 1987 | \$130,771       | \$115,482                    | 15,109                               | \$180   | \$0       |
| 1988 | \$138,724       | \$122,193                    | 16,531                               | \$0   | \$0       |
| 1989 | \$142,680       | \$127,466                    | 16,685                               | \$192   | (\$1,663) |
| 1990 | \$140,286       | \$122,782                    | 17,744                               | (\$165)   | (\$75)    |
| 1991 | \$155,636       | \$136,338                    | 18,488                               | \$234   | \$576     |
| 1992 | \$138,136       | \$122,169                    | 17,729                               | (\$262)   | (\$1,500) |
| 1993 | \$146,107       | \$130,369                    | 15,807                               | (\$69)  | \$0       |
| 1994 | \$168,995       | \$151,780                    | 17,262                               | (\$47)  | \$0       |
| 1995 | \$202,192       | \$182,177                    | 19,652                               | \$663   | (\$300)   |
| 1996 | \$205,395       | \$186,443                    | 19,556                               | \$127   | (\$731)   |
| 1997 | \$205,660       | \$184,579                    | 21,533                               | (\$483)   | \$31      |
| 1998 | \$203,195       | \$178,058                    | 23,225                               | (\$151)   | \$2,063   |

TABLE A.2

**CLAIMS INCURRED 1984 TO 1998 (\$000S)  
INJURY ACCIDENT BENEFITS**

| Year | Injury<br>Accident<br>Benefits | Claims<br>Adjust-<br>ing<br>Expenses | Claims<br>Adjust-<br>ing<br>Expense<br>Reserve | IBNR      | Total<br>Injury<br>Accident<br>Benefits |
|------|--------------------------------|--------------------------------------|--|-----------|---|
| (1)  | (2)                            | (3)                                  | (4)  | (5)       | (6)                                     |
| 1984 | \$9,255                        | \$1,322                              | \$0  | \$570     | \$11,147                                |
| 1985 | \$12,410                       | \$1,411                              | \$319  | \$2,901   | \$17,041                                |
| 1986 | \$11,781                       | \$1,541                              | \$306  | \$467     | \$14,095                                |
| 1987 | \$12,786                       | \$3,888                              | \$389  | \$1,853   | \$18,916                                |
| 1988 | \$12,638                       | \$3,952                              | \$256  | \$0       | \$16,846                                |
| 1989 | \$12,353                       | \$4,287                              | \$0  | \$1,695   | \$18,335                                |
| 1990 | \$11,272                       | \$4,542                              | (\$153)  | \$33      | \$15,694                                |
| 1991 | \$11,319                       | \$4,477                              | (\$14)   | (\$1,533) | \$14,249                                |
| 1992 | \$17,179                       | \$4,831                              | \$24   | \$0       | \$22,034                                |
| 1993 | \$17,959                       | \$5,488                              | \$137  | \$0       | \$23,584                                |
| 1994 | \$31,790                       | \$6,166                              | \$711  | \$4,961   | \$43,628                                |
| 1995 | \$8,010                        |                                      | \$855  | (\$3,961) | \$4,904                                 |
| 1996 | \$3,451                        |                                      | \$398  | (\$1,723) | \$2,126                                 |
| 1997 | \$2,251                        |                                      | (\$1)  | (\$145)   | \$2,105                                 |
| 1998 | (\$5,451)                      |                                      | \$710  | (\$639)   | (\$5,380)                               |

TABLE A.3

**CLAIMS INCURRED 1984 TO 1998 (\$000S)  
INJURY LIABILITY AND TOTAL CLAIMS INCURRED**

| Year | Injury<br>Liability | Claims<br>Adjust-<br>ing<br>Expenses | Claims<br>Adjust-<br>ing<br>Expense<br>Reserve | IBNR       | Total<br>Injury<br>Liability | Total<br>Claims<br>Incurred |
|------|---------------------|--------------------------------------|--|------------|------------------------------|-----------------------------|
| (1)  | (2)                 | (3)                                  | (4)  | (5)        | (6)                          | (7)                         |
| 1984 | \$26,969            | \$941                                | \$0  | \$3,250    | \$31,160                     | \$149,233                   |
| 1985 | \$39,135            | \$1,168                              | \$1,168  | \$17,748   | \$59,219                     | \$192,820                   |
| 1986 | \$51,689            | \$1,565                              | \$459  | \$7,029    | \$60,742                     | \$198,626                   |
| 1987 | \$70,028            | \$2,134                              | \$592  | \$7,397    | \$80,151                     | \$229,838                   |
| 1988 | \$62,530            | \$2,100                              | \$1,551  | \$2,350    | \$68,531                     | \$224,101                   |
| 1989 | \$56,850            | \$2,074                              | (\$384)  | (\$7,532)  | \$51,008                     | \$212,023                   |
| 1990 | \$60,914            | \$2,393                              | (\$64)   | \$336      | \$63,579                     | \$219,559                   |
| 1991 | \$72,287            | \$2,271                              | \$178  | \$16,264   | \$91,000                     | \$260,885                   |
| 1992 | \$116,487           | \$2,442                              | \$69   | \$19,400   | \$138,398                    | \$298,568                   |
| 1993 | \$124,426           | \$2,847                              | \$1,763  | \$17,000   | \$146,036                    | \$315,727                   |
| 1994 | \$153,953           | \$3,279                              | \$2,752  | \$33,989   | \$193,973                    | \$406,596                   |
| 1995 | \$63,570            | \$0                                  | \$812  | (\$62,289) | \$2,093                      | \$333,329                   |
| 1996 | \$51,494            | \$0                                  | (\$835)  | (\$33,674) | \$16,985                     | \$362,460                   |
| 1997 | \$20,687            | \$0                                  | \$208  | (\$9,233)  | \$11,662                     | \$372,828                   |
| 1998 | \$5,492             | \$0                                  | \$1,088  | (\$5,162)  | \$1,418                      | \$350,292                   |

**TABLE A.4****CLAIMS INCURRED UNDER PIPP (\$000S)**

| Year | PIPP<br>Injury<br>Accident<br>Benefits | Claims<br>Adjusting<br>Expense<br>Reserve | Claims<br>Adjusting<br>Expense<br>Reserve | IBNR     | Total<br>PIPP<br>Injury<br>Accident<br>Benefits | PIPP<br>Tort | Claims<br>Adjusting<br>Expense<br>Reserve | IBNR     | Total<br>PIPP<br>Tort |
|------|--|---|---|----------|---|--------------|---|----------|-----------------------|
| (1)  | (2)                                    | (3)                                       | (4)                                       | (5)      | (6)   | (7)          | (8)                                       | (9)      | (10)                  |
| 1995 | \$75,841                               | \$4,309                                   | \$3,097                                   | \$35,200 | \$118,447                                       | \$5,693      | \$0                                       | \$0      | \$5,693               |
| 1996 | \$87,482                               | \$5,548                                   | \$4,653                                   | \$19,240 | \$116,923                                       | \$5,849      | \$1,891                                   | \$13,291 | \$21,031              |
| 1997 | \$107,159                              | \$7,895                                   | \$5,763                                   | \$19,228 | \$140,045                                       | \$7,856      | \$0                                       | \$5,500  | \$13,356              |
| 1998 | \$101,999                              | \$9,975                                   | \$382                                     | \$15,067 | \$127,423                                       | \$12,121     | \$2,727                                   | \$8,788  | \$23,636              |

**TABLE A.5****NUMBER OF CLAIMS INCURRED**

| Year | Damage  | PIPP<br>Injury<br>Accident<br>Benefits | Injury<br>Accident<br>Benefits | Tort<br>Out of<br>Province<br>Liability | Injury<br>Liability | Total<br>Financial<br>Claims |
|------|---------|--|--------------------------------|---|---------------------|------------------------------|
| (1)  | (2)     | (3)                                    | (4)                            | (5)                                     | (6)                 | (7)                          |
| 1984 | 85,079  |  | 7,894                          |   | 2,928               | 92,973                       |
| 1985 | 90,237  |  | 8,169                          |   | 3,347               | 98,406                       |
| 1986 | 91,665  |  | 8,124                          |   | 4,075               | 99,789                       |
| 1987 | 91,333  |  | 8,635                          |   | 4,714               | 99,968                       |
| 1988 | 89,423  |  | 8,217                          |   | 4,352               | 97,640                       |
| 1989 | 91,311  |  | 8,103                          |   | 3,918               | 99,414                       |
| 1990 | 86,818  |  | 7,913                          |   | 4,169               | 94,731                       |
| 1991 | 92,569  |  | 8,550                          |   | 4,337               | 101,119                      |
| 1992 | 84,702  |  | 8,528                          |   | 4,311               | 93,230                       |
| 1993 | 87,204  |  | 9,813                          |   | 5,091               | 97,017                       |
| 1994 | 97,039  |  | 9,609                          |   | 5,110               | 106,648                      |
| 1995 | 99,282  | 6,318                                  |                                | 336                                     |                     | 105,936                      |
| 1996 | 101,562 | 5,568                                  |                                | 451                                     |                     | 107,581                      |
| 1997 | 100,682 | 5,685                                  |                                | 358                                     |                     | 106,725                      |
| 1998 | 85,317  | 5,788                                  |                                | 339                                     |                     | 91,444                       |

TABLE A.6

## TORT CLAIMS PAID BY SETTLEMENT SIZE

| CLOSED IN 1994     |               |               |                | CLOSED IN 1995 |               |                |
|--------------------|---------------|---------------|----------------|----------------|---------------|----------------|
| (1)                | Number<br>(2) | \$000s<br>(3) | Average<br>(4) | Number<br>(5)  | \$000s<br>(6) | Average<br>(7) |
| \$0-\$1,000        | 283           | \$146         | \$517          | 155            | \$79          | \$508          |
| \$1,000-\$2,000    | 491           | \$678         | \$1,382        | 250            | \$347         | \$1,390        |
| \$2,000-\$3,000    | 464           | \$1,101       | \$2,372        | 254            | \$604         | \$2,378        |
| \$3,000-\$4,000    | 347           | \$1,166       | \$3,359        | 224            | \$750         | \$3,349        |
| \$4,000-\$5,000    | 290           | \$1,253       | \$4,319        | 226            | \$977         | \$4,323        |
| \$5,000-\$7,500    | 606           | \$3,596       | \$5,932        | 530            | \$3,171       | \$5,983        |
| \$7,500-\$10,000   | 465           | \$3,921       | \$8,432        | 397            | \$3,369       | \$8,485        |
| \$10,000-\$15,000  | 545           | \$6,488       | \$11,904       | 620            | \$7,372       | \$11,891       |
| \$15,000-\$20,000  | 359           | \$6,058       | \$16,876       | 423            | \$7,068       | \$16,709       |
| \$20,000-\$50,000  | 759           | \$23,079      | \$30,407       | 949            | \$28,322      | \$29,844       |
| \$50,000-\$100,000 | 278           | \$18,588      | \$66,865       | 271            | \$18,416      | \$67,954       |
| \$100,000+         | 164           | \$29,118      | \$177,550      | 199            | \$35,128      | \$176,525      |
| Totals             | 5,051         | \$95,192      | \$18,846       | 4,498          | \$105,603     | \$23,478       |

TABLE A.7

CLAIMS INCURRED FOR BODILY INJURIES AND INJURY ACCIDENT BENEFITS  
INSURANCE CORPORATION OF BRITISH COLUMBIA

|                      | Bodily Injuries: Claims Incurred |               |                |                | Accident Benefits: Claims Incurred |               |                |                |
|----------------------|----------------------------------|---------------|----------------|----------------|------------------------------------|---------------|----------------|----------------|
|                      | Number<br>(1)                    | \$000s<br>(2) | Average<br>(3) | 1998 \$<br>(4) | Number<br>(6)                      | \$000s<br>(7) | Average<br>(8) | 1998 \$<br>(9) |
| 1990                 | 45,244                           | \$708,400     | \$15,657       | \$18,640       | 50,352                             | \$55,853      | \$1,109        | \$1,321        |
| 1991                 | 48,792                           | \$771,200     | \$15,806       | \$17,851       | 52,115                             | \$80,850      | \$1,551        | \$1,752        |
| 1992                 | 48,262                           | \$900,000     | \$18,648       | \$20,513       | 52,310                             | \$95,000      | \$1,816        | \$1,998        |
| 1993                 | 46,855                           | \$912,000     | \$19,464       | \$20,687       | 49,969                             | \$73,950      | \$1,480        | \$1,573        |
| 1994                 | 48,595                           | \$1,002,500   | \$20,630       | \$21,510       | 55,800                             | \$95,000      | \$1,703        | \$1,775        |
| 1995                 | 50,658                           | \$1,113,000   | \$21,971       | \$22,398       | 60,804                             | \$118,000     | \$1,941        | \$1,978        |
| 1996                 | 52,310                           | \$1,220,000   | \$23,323       | \$23,558       | 65,069                             | \$141,000     | \$2,167        | \$2,189        |
| 1997                 | 50,733                           | \$1,269,000   | \$25,013       | \$25,082       | 62,668                             | \$174,000     | \$2,777        | \$2,784        |
| 1998                 | 50,221                           | \$1,112,000   | \$22,142       | \$22,142       | 64,041                             | \$141,000     | \$2,202        | \$2,202        |
| Growth 1990 to 1998: |                                  |               | 4.43%          | 2.18%          | Growth 1990 to 1998:               |               | 8.95%          | 6.60%          |
| Growth 1995 to 1998: |                                  |               | 0.26%          | -0.38%         | Growth 1995 to 1998:               |               | 4.30%          | 3.63%          |
| Growth 1994 to 1997: |                                  |               | 6.63%          | 5.25%          | Growth 1994 to 1997:               |               | 17.71%         | 16.19%         |
| Growth 1990 to 1997: |                                  |               | 6.92%          | 4.33%          | Growth 1990 to 1997:               |               | 14.01%         | 11.24%         |
| Growth 1990 to 1994: |                                  |               | 7.14%          | 3.65%          | Growth 1990 to 1994:               |               | 11.31%         | 7.68%          |

TABLE A.8

**DISTRIBUTION OF COSTS BY AMOUNT FOR PAST AND  
FUTURE INCOME REPLACEMENT AND MEDICAL EXPENSES**

Past and Future Income replacement and medical expenses

Based on data from a sample of claims settled in October 1992

| Lower<br>Limit | Upper<br>Limit | Number<br>of<br>Claims | % of<br>Claims | General<br>Damages | Income<br>Loss | Taxable<br>costs and<br>other<br>expenses | H omemaking<br>Expenses | Medical     | Total<br>Settlement | Average<br>Settlement |
|----------------|----------------|------------------------|----------------|--------------------|----------------|---|-------------------------|-------------|---------------------|-----------------------|
| (1)            | (2)            | (3)                    | (4)            | (5)                | (6)            | (7)                                       | (8)                     | (9)         | (10)                | (11)                  |
| \$0            | \$0            | 3897                   | 68.34%         | \$20,763,154       | (\$382,596)    | \$1,148,570                               | \$322,983               | \$0         | \$21,852,111        | \$5,607               |
| \$0            | \$2,500        | 1,009                  | 17.70%         | \$7,291,807        | \$527,552      | \$345,540                                 | \$185,039               | \$90,375    | \$8,440,313         | \$8,365               |
| \$2,500        | \$5,000        | 252                    | 4.42%          | \$2,865,107        | \$618,699      | \$179,061                                 | \$87,441                | \$51,597    | \$3,801,905         | \$15,087              |
| \$5,000        | \$10,000       | 205                    | 3.60%          | \$3,100,161        | \$990,094      | \$280,115                                 | \$194,691               | \$120,908   | \$4,685,969         | \$22,858              |
| \$10,000       | \$15,000       | 101                    | 1.77%          | \$2,379,339        | \$917,124      | \$175,019                                 | \$253,781               | \$97,199    | \$3,822,462         | \$37,846              |
| \$15,000       | \$20,000       | 45                     | 0.79%          | \$1,028,351        | \$621,405      | \$174,349                                 | \$60,312                | \$31,665    | \$1,925,082         | \$42,780              |
| \$20,000       | \$25,000       | 43                     | 0.75%          | \$1,187,196        | \$707,276      | \$111,645                                 | \$114,110               | \$60,605    | \$2,180,832         | \$50,717              |
| \$25,000       | \$50,000       | 70                     | 1.23%          | \$2,098,944        | \$2,054,303    | \$313,641                                 | \$146,043               | \$91,319    | \$4,704,250         | \$67,204              |
| \$50,000       | \$100,000      | 42                     | 0.74%          | \$1,851,760        | \$2,337,895    | \$59,738                                  | \$272,971               | \$279,838   | \$4,802,202         | \$114,338             |
| \$100,000      | \$200,000      | 29                     | 0.51%          | \$1,467,089        | \$3,337,141    | \$216,373                                 | \$195,931               | \$198,633   | \$5,415,167         | \$186,730             |
| \$200,000      | \$500,000      | 8                      | 0.14%          | \$881,200          | \$2,147,762    | (\$284,258)                               | \$14,800                | \$302,465   | \$3,061,969         | \$382,746             |
| \$500,000      | and over       | 1                      | 0.02%          | \$70,000           | \$650,000      | \$15,000                                  | \$50,000                | \$50,000    | \$835,000           | \$835,000             |
| Total:         |                | 5,702                  | 100.00%        | \$44,984,108       | \$14,526,655   | \$2,734,793                               | \$1,898,102             | \$1,374,604 | \$65,527,262        | \$11,492              |

**TABLE A.9****SAMPLES OF LIABILITY CLAIMS SETTLED IN 1992 AND 1993**

1993 Costs based on sample of 5,007 settled claims

1992 costs based on sample of 5,362 settled claims

|                        | 1993<br>\$  | Percentage | 1992<br>\$  | Percentage<br>% | Average<br>\$ | Average<br>% |
|------------------------|-------------|------------|-------------|-----------------|---------------|--------------|
| (1)                    | (2)         | (3)        | (4)         | (5)             | (6)           | (7)          |
| General Damages        | \$41,410,85 | 67.04%     | \$46,470,53 | 65.96%          | \$43,940,69   | 66.5%        |
| Past Income Loss       | \$5,470,385 | 8.86%      | \$7,445,928 | 10.57%          | \$6,458,157   | 9.7%         |
| Future Income Loss     | \$4,815,551 | 7.80%      | \$8,137,701 | 11.55%          | \$6,476,626   | 9.7%         |
| Past Care Homemaking   | \$1,471,914 | 2.38%      | \$994,847   | 1.41%           | \$1,233,381   | 1.9%         |
| FutureCare Homemaking  | \$2,018,186 | 3.27%      | \$1,510,090 | 2.14%           | \$1,764,138   | 2.7%         |
| Past Care Medical      | \$330,487   | 0.54%      | \$342,018   | 0.49%           | \$336,253     | 0.5%         |
| Future Care Medical    | \$1,051,436 | 1.70%      | \$690,247   | 0.98%           | \$870,842     | 1.3%         |
| Pre-Judgement Interest | \$2,419,422 | 3.92%      | \$1,748,887 | 2.48%           | \$2,084,155   | 3.2%         |
| Taxable costs          | \$1,424,411 | 2.31%      | \$1,619,015 | 2.30%           | \$1,521,713   | 2.3%         |
| Other expenses         | \$1,356,153 | 2.20%      | \$1,496,818 | 2.12%           | \$1,426,486   | 2.2%         |
| Total                  | \$61,768,80 | 100.00%    | \$70,456,08 | 100.00%         | \$66,112,44   | 100.00%      |

**TABLE A.10****ADMINISTRATION EXPENSES REPORTED BY THE AUTOFUND  
(\$000s)**

|      | Administration<br>Expenses |
|------|----------------------------|
| 1984 | \$11,592                   |
| 1985 | \$18,899                   |
| 1986 | \$22,412                   |
| 1987 | \$22,657                   |
| 1988 | \$21,875                   |
| 1989 | \$22,629                   |
| 1990 | \$23,374                   |
| 1991 | \$21,526                   |
| 1992 | \$18,961                   |
| 1993 | \$21,186                   |
| 1994 | \$21,378                   |
| 1995 | \$20,634                   |
| 1996 | \$25,904                   |
| 1997 | \$27,874                   |
| 1998 | \$32,308                   |
| 1999 | \$44,424                   |

TABLE A.11

**SASKATCHEWAN AUTO FUND  
ULTIMATE INCURRED LOSSES (\$000S)**

| Accident Year | Weekly Indemnity | Death   | Medical Expenses | Permanent Disability | Extended Weekly Indemnity | Liability Ultimate Incurred Losses |
|---------------|------------------|---------|------------------|----------------------|---------------------------|------------------------------------|
| (1)           | (2)              | (3)     | (4)              | (5)                  | (6)                       | (7)                                |
| 1987          | 5,926            | 1,443   | 3,569            | 665                  | 1,328                     | 69,784                             |
| 1988          | 4,539            | 1,257   | 4,650            | 505                  | 1,065                     | 66,568                             |
| 1989          | 4,126            | 1,462   | 4,038            | 429                  | 566                       | 77,494                             |
| 1990          | 3,942            | 957     | 4,437            | 454                  | 488                       | 80,228                             |
| 1991          | 3,719            | 1,112   | 5,077            | 495                  | 1,097                     | 94,530                             |
| Average:      | \$4,450          | \$1,246 | \$4,354          | \$510                | \$909                     | \$77,721                           |

TABLE A.12

**SASKATCHEWAN AUTO FUND  
NUMBER OF CLAIMS**

| Accident Year | Weekly Indemnity | Death | Medical Expenses | Permanent Disability | Extended Weekly Indemnity | Liability Ultimate Incurred Losses |
|---------------|------------------|-------|------------------|----------------------|---------------------------|------------------------------------|
| (1)           | (2)              | (3)   | (4)              | (5)                  | (6)                       | (7)                                |
| 1987          | 2,269            | 224   | 8,101            | 429                  | 15                        | 4,775                              |
| 1988          | 1,962            | 198   | 7,854            | 362                  | 11                        | 4,655                              |
| 1989          | 2,012            | 213   | 7,618            | 300                  | 7                         | 4,606                              |
| 1990          | 1,999            | 161   | 7,538            | 276                  | 6                         | 4,735                              |
| 1991          | 2,224            | 181   | 8,159            | 218                  | 4                         | 5,020                              |
| Average       | 2,093            | 195   | 7,854            | 317                  | 9                         | 4,758                              |

TABLE A.13

## PERMANENT AND NON-PERMANENT INJURIES 1995 TO 1998

|                                       | 1995<br>Number | \$000s | 1996<br>Number | \$000s  | 1997<br>Number | \$000s  | 1998<br>Number | \$000s   |
|---------------------------------------|----------------|--------|----------------|---------|----------------|---------|----------------|----------|
| (1)                                   | (2)            | (3)    | (4)            | (5)     | (6)            | (7)     | (8)            | (9)      |
| Quadriplegia                          | 5              | \$238  | 1              | \$94    | 2              | \$108   | 4              | \$495    |
| Paraplegia                            | 7              | \$404  | 2              | \$106   | 2              | \$463   | 2              | \$99     |
| Loss of Limb                          | 2              | \$85   | 6              | \$124   | 5              | \$78    | 4              | \$111    |
| Loss of Vision                        | 2              | \$1    | 10             | \$208   | 10             | \$214   | 8              | \$64     |
| Loss of Hearing                       | 1              | \$0    | 2              | \$6     | 4              | \$23    | 6              | \$33     |
| Scarring                              | 94             | \$139  | 221            | \$1,931 | 419            | \$4,272 | 544            | \$5,975  |
| Loss of Limb Function                 | 23             | \$27   | 77             | \$495   | 110            | \$992   | 200            | \$1,356  |
| Severe Brain Damage                   | 18             | \$0    | 20             | \$382   | 6              | \$572   | 6              | \$429    |
| Moderate Brain Damage                 | 12             | \$0    | 14             | \$148   | 26             | \$613   | 52             | \$576    |
| Whiplash-Permanent                    | 2              | \$0    | 2              | \$22    | 7              | \$30    | 2              | \$17     |
| Other Permanent                       | 44             | \$20   | 271            | \$2,156 | 121            | \$1,523 | 207            | \$1,743  |
| Total Permanent                       | 199            | \$914  | 524            | \$5,672 | 555            | \$8,888 | 666            | \$10,898 |
| Total Permanent<br>No Perm Impairment | 6,190          |        | 5,354          |         | 5,339          |         | 5,314          |          |
| Fatality                              | 161            |        | 141            |         | 149            |         | 147            |          |
| Total:                                | 6,550          |        | 6,019          |         | 6,043          |         | 6,127          |          |

TABLE A.14

## CLAIMS INCURRED UNDER THE PERSONAL INJURY PROTECTION PLAN

|      | Appeal | Care<br>Benefits | Death<br>Benefits | Income<br>Replacement | Medical &<br>Rehabilitation | Medical<br>Funding | Permanent<br>Impairment | Out of<br>Province<br>Other<br>Liability | Change<br>in IBNR | Total PIPP<br>Claims<br>Incurred |
|------|--------|------------------|-------------------|-----------------------|-----------------------------|--------------------|-------------------------|--|-------------------|----------------------------------|
| (1)  | (2)    | (3)              | (4)               | (5)                   | (6)                         | (7)                | (8)                     | (9)                                      | (10)              | (11)                             |
| 1995 | \$0    | \$13,189         | \$11,209          | \$32,238              | \$12,574                    | \$6,678            | \$3,771                 | \$5,693                                  | \$31,382          | \$116,734                        |
| 1996 | \$4    | \$6,414          | \$11,828          | \$33,927              | \$14,652                    | \$9,737            | \$7,101                 | \$5,850                                  | \$36,349          | \$125,862                        |
| 1997 | \$10   | \$5,717          | \$9,289           | \$38,205              | \$33,117                    | \$10,907           | \$9,914                 | \$7,856                                  | \$24,728          | \$139,743                        |
| 1998 | \$51   | (\$4,965)        | \$11,736          | \$21,508              | \$40,260                    | \$19,337           | \$14,072                | \$12,121                                 | \$23,855          | \$137,975                        |



**TABLE A.15****AUTO FUND RATE INCREASES**

| Year | Autofund<br>Rate<br>Increases<br>see notes | Average<br>Premiums<br>(All classes) |
|------|--|--------------------------------------|
| (1)  | (2)  | (3)                                  |
| 1982 | 7%   | \$172                                |
| 1983 | 3%   | \$189                                |
| 1984 | none                                       | \$208                                |
| 1985 | -7.50%                                     | \$216                                |
| 1986 | None                                       | \$214                                |
| 1987 | None                                       | \$243                                |
| 1988 | 10%  | \$248                                |
| 1989 | 4%   | \$273                                |
| 1990 | none                                       | \$289                                |
| 1991 | none                                       | \$300                                |
| 1992 | 3.50%                                      | \$314                                |
| 1993 | 4.75%                                      | \$339                                |
| 1994 | none                                       | \$362                                |
| 1995 | none                                       | \$373                                |
| 1996 | none                                       | \$381                                |
| 1997 | none                                       | \$404                                |
| 1998 | 5%   | \$449                                |
| 1999 | 2%   |                                      |
| 2000 | 2%   |                                      |

Note: Scheduled Rate increases in 1999 and 2000 quoted from the AutoFund Annual Report in 1998 (page 11).