No-Fault Public Liability Insurance: Evidence from New Zealand

Bronwyn Howell, Judy Kavanagh and Lisa Marriott

Public liability insurance indemnifies an organisation against claims made by individuals for illness, injury, loss or damage to property. The spiralling cost of public liability insurance has been a recurring problem in the United States, England, Australia, and elsewhere for well over a decade (for example, Danzon, 1990; Kessler, 1999).

The cost of public liability insurance is a product of the frequency of the claims made, coupled with the size of the damages awards, plus transaction costs — the administrative costs and profits of the insurance companies, as well as the costs of justice (Goodman and Thanhauser, 2001). Recent events such as the September 11 attack in New York have highlighted the consequences of increases in both the probability of loss and the size of potential claims. As insurance companies raise premiums to cover the increased risk and the size of loss, the potential for a missing market for public liability insurance has increased. Moreover, the consequences of missing markets can extend far beyond those seeking to insure themselves against liability, and their prospective insurers. For example, societal benefits are lost when community groups cannot hold social functions because the cost of public liability insurance for hiring a venue becomes prohibitive, and where patients incur health-related costs because doctors, unable to procure medical liability insurance from a private market, refuse to treat them.

Governments, as insurers of last resort, are increasingly being called upon to address these missing markets, either by underwriting some public liabilities themselves or legislating to impose compulsory no-fault insurance schemes, offered by either private sector or government-owned insurance companies. No-fault schemes have attracted significant interest and have been proposed as an instrument potentially capable of simultaneously ‘solving’ two important insurance-based problems: providing products in the missing markets; and reducing the sharply escalating costs of tort actions that are perceived in some cases to be giving rise to missing markets. For example, Carroll et al. (1991) report that the transaction costs to private parties in tort actions involving bodily injury account for 33 per cent of compensation expenditures and would be even higher if government spending on courts was included in the total costs. Furthermore, the costs may not always be direct. Cooter and Ulen (1986) argue that potential injurers may take socially excessive precautions to decrease the costs

Bronwyn Howell is Research Principal at the New Zealand Institute for the Study of Competition and Regulation (ISCR) and a Lecturer at Victoria University of Wellington. Judy Kavanagh is Research Principal at the ISCR and a Senior Lecturer at Victoria University of Wellington. Lisa Marriott is a researcher at ISCR.

of expected liability, especially when there is a high probability of mistakenly being found liable.

While governments have a role when there is a missing market, policy intervention must be informed by analysis based upon the economics of insurance and relevant experience. The ability to pool risk (Milgrom and Roberts, 1992), combined with the power to compel (Horn, 1995), suggests that in some circumstances governments may be more efficient in offering insurance than the private sector. Centralised schemes with scale economies (whether provided by government or the private sector) may also offer transaction cost advantages and greater certainty of being able to deliver compensation when an adverse event occurs (Cummins, Phillips and Weiss, 2001). However, incentives and their effect upon participants' behaviour and hence the costs and probabilities of loss, should also be considered. Evidence from existing no-fault schemes can provide an empirical 'litmus test' of the impact of no-fault schemes in practice.

New Zealand's experience with its no-fault, government-underwritten accident compensation insurance, which provides compensation for personal injury but carries with it the waiver of the right to sue, provides one such test. A reliable counterfactual is difficult to determine. But evidence from this scheme leads us to conclude that, while providing certainty of compensation and apparent (though unverifiable) reductions in transaction costs, the absence of both a tort-based cost recovery process and risk-based premiums means that the level of care taken is less than socially optimal, resulting in total costs that rival or may even exceed those of tort-based systems.

This is not to say that there is no role for no-fault insurance systems. Rather, we suggest that judiciously applied, there may be a role for such schemes where the need for certainty of compensation is high, but the opportunities for individuals to manipulate the probability of an adverse event occurring is low (for example, natural disasters). However, we caution against discarding the right to sue and losing the ability to risk-rate individuals, when the cost of schemes can be manifestly affected by moral hazard actions. In other words we caution against giving up the incentives embodied in tort law and private insurance.

Liability and Insurance

Liability law, or tort law, allocates the cost of accidents among individuals. Tort law has two principal goals (Kessler, 1999:1): to compensate parties suffering loss; and to provide potential loss-causers with incentives to avoid the acts that incur loss.

Tort law is efficient if the resulting level of adverse events is socially optimal — that is, when the social costs of preventing loss are less than the costs created by the adverse event. The deterrence goal of tort law is to induce individuals to internalise the negative externality of careless behaviour by making them liable for the losses they cause. If taking precautions is costly, and individuals are not required to pay for the losses that they cause, then they will take fewer precautions than is optimal and more adverse events will occur.

By purchasing insurance, individuals and firms can indemnify themselves against the financial effects of adverse events that may be partially or fully caused by themselves or others. Insurance thus ensures individuals are compensated, even though an individual may be responsible for causing the loss and even though a tort process may be required to extract the costs of the loss from that individual. However, if an individual has purchased insurance to protect himself from bearing the full costs of loss incurred by others as a result of his actions (either deliberate or negligent), he will not bear the full cost of his actions and may then find it personally more efficient to take less care to prevent loss than if the insurance had not been purchased. This is the classic moral hazard problem of insurance (Milgrom and Roberts, 1992). Insurance companies generally seek to recover the additional costs of less care by varying individuals' premiums by a factor representing the individual's likelihood of acting without due care (that is, by charging premiums that are risk-adjusted).

By combining the deterrence effect of possible tort action with individual risk-adjusted insurance premiums, both the costs of loss and the optimal level of care may be extracted from potential loss-causers (that is, internalising the costs of harm) without necessarily having to resort to court action. However, the record of tort and insurance-based systems in delivering both compensation and deterrence has been poor (Huber, 1988). Evidence from the United States, for example, points to high transaction costs, distorted incentives and liability pressure leading to over-investment in precautionary practices (Kessler, 1999:2).

No-fault systems have been proposed as a means of reforming the tort-based system. No-fault systems remove the need to prove cause from the compensation equation and thereby reduce the transaction costs of the process (Danzon, 1990:4). Compensation is generally paid according to a prescribed schedule if the loss-sufferer satisfies the scheme administrators that loss has been incurred, regardless of any fault by the alleged loss-causer. Such schemes are typically funded out of levies on potential loss-causers or from general taxation and are accompanied by some limitations on the loss-sufferer's rights to seek redress from the loss-causer through tort actions.

The principal weakness of no-fault schemes is the difficulty of ensuring that the socially optimal amount of care is taken by potential loss-causers, as the links between their potential to cause loss and the costs of their actions are severed. Consequently, most no-fault schemes are accompanied by additional administrative systems, not present in typical tort systems, to monitor the behaviour of potential loss-causers in order to preserve their incentives for appropriate loss-avoidance (Kessler, 1999:13). The efficiency-improvement criterion is met if the transaction costs saved from the tort process are greater than the additional monitoring costs incurred in the no-fault system for the same level of compensation paid to individuals for the same number of adverse events.

No-fault insurance schemes are common where the probability of a loss occurring is very uncertain. These include 'acts of God' (a sudden and unavoidable occurrence caused by natural forces, such as a flood or earthquake), where there is no party obviously at fault from whom partial cost recovery can be

sought. The low probability of these events occurring, the unpredictability of the size of the loss and the exposure to large number of claims arising from a single event, mean that there is often a failure of private insurance companies to indemnify such losses. Further, as no individual has the ability to 'cause' the event, there is no need for incentives to prevent the loss-causing event and monitoring costs are low.

However, it is noted that it is still necessary to take steps to incentivise against loss-increasing behaviour by the individual whose losses are indemnified (for example inflating the value of the claim, or choosing to live in an earthquake-prone area) to obviate the moral hazard problem (Milgrom and Roberts, 1992). In these cases, compensation can be achieved more efficiently by a no-fault scheme, provided the levy paid by those covered is proportional to the size of the claim they will make in the event of a loss occurring.

No-fault schemes thus appear to be a viable way of compensating losses from terrorist activities. In such instances, access to compensation via the criminal and tort process is likely to be costly (if it is even possible), very few individuals have the ability to affect the probability of such terrorist-related losses occurring, and incentives to internalise the costs and engage in preventative action are probably futile. Indeed, such schemes are common during wartime. New Zealand's Earthquake Commission (EQC) was originally created as the Earthquake and War Damage Commission with compensation of such losses being a key motive.

No-fault schemes have, however, been increasingly suggested as solutions to market failure in other areas such as worker injury and public liability compensation and medical practitioner liability. The primary motivations in almost all cases appear to be to ensure certainty of compensation and reduction in transaction costs relative to the court process (Danzon, 1990:4-5).

However, Danzon notes that, while no-fault systems reduce transparent costs, they 'also generate hidden costs which are much harder to quantify but potentially constitute a much greater real economic cost'. In particular, she stresses that (p.4)

by eliminating liability and investigation into the causes of injuries, (such schemes) reduce expenditures on litigation but at the same time eliminate the information base and the incentives necessary for loss prevention and risk management.

Hence, the losses from the elimination of the tort system go further than just removal of incentives to minimise loss. They also remove the information base from which monitoring activities can be designed and upon which education to prevent future loss relies. Both of these are vitally important factors in a system that is heavily dependent on overt monitoring to achieve a socially optimal outcome.

In order to overcome these weaknesses, some no-fault schemes attempt to combine the certainty of compensation with experience rating (that is, setting levies to reflect historic loss-causing behaviour by individuals). They also use limited tort action to recover exemplary damages over and above the

compensation schedule in some circumstances, thereby attempting to reintroduce ex-ante incentives to take care (Kessler, 1999:13; Kneiser and Leeth, 1991, cited in Mears and Chapple, 1996:34).

It would appear, then, that no-fault insurance could provide an efficient solution to market failure in two specific circumstances:

- where there is extremely limited ability to manipulate the probability of an adverse event occurring, any moral hazard behaviour influencing the size of the claim is independent of the probability of the adverse event occurring, and the moral hazard can be internalised in the contract between insurer and insured; or
- where tort and criminal laws can act as an adjunct to the no-fault conditions to limit moral hazard behaviour that cannot be internalised in the insurance contract.

Natural hazard insurance, such as New Zealand's EQC, provides a good example of the first type. Compulsory third party motor vehicle insurance provides an example of the second type. Compensation for loss due to a vehicle accident is assured for the vehicle owner irrespective of who caused the accident. However, the ability for the wronged party to seek punitive damages or criminal penalties (in addition to compensation) for negligent or criminal driver behaviour by other parties, which increase the probability of an accident occurring, acts as an incentive for those parties to act more carefully and thereby reduces the likelihood of road accidents.

No-fault insurance in the absence of tort or criminal law sanctions may, at its ultimate, lead to no ex-ante care whatsoever and the maximum total loss. Monitoring can mitigate this loss. However, this increases transaction costs and will only increase efficiency if the costs of monitoring are less than the reduction in the total cost of loss. Incentives from tort law, on the other hand, will increase efficiency if the penalties exacted are sufficiently high to induce a reduction in moral hazard actions, and hence the total loss, net of the transaction costs of the tort action (Cutler and Reber, 1998). The choice of regime, therefore, requires a careful analysis of the trade-off of incentive effects and transaction costs against the total cost of loss.

Background to the New Zealand ACC Scheme

New Zealand has operated a no-fault workers compensation scheme for over 100 years, with the initial Worker's Compensation Act lasting from 1900 until 1974. The initial scheme provided compensation to employees injured in the workplace, but did not cover accidents that occurred outside the employment environment. In 1967, the Report of the Royal Commission of Inquiry into Compensation for Personal Injury 1967 (named the Woodhouse Report, after its Chairman, the Hon. Justice Woodhouse) reported that New Zealanders were experiencing over one hundred thousand industrial accidents per annum. At the time of the Report,

compensation could be sought from three different avenues — the common law of tort, with an action through the courts; through the aforementioned Workers Compensation Act, provided the injury occurred at work; or through the Social Security Act. The Woodhouse Report identified these methods as ‘a fragmented and capricious response to a social problem, which cries out for co-ordinated and comprehensive treatment’, concluding ‘no economic reason justifies it’.

The Woodhouse report recommended a no-fault compensation scheme designed to provide comprehensive insurance coverage for the whole population ‘in respect of industrial, highway and domestic accidents of every kind’ and certainty over entitlements for claimants. Further, it was estimated that the recommended scheme could be serviced by ‘much the same amounts in total as are absorbed at present by various systems operating independently, and which have a duplication of expense and assistance’. The report is notable for its recognition of the relevance and importance of transaction costs in the economy. These costs were perceived to be high due to the presence of 62 insurance companies creating significant duplication of costs. The authors of the Woodhouse Report were certain that administrative costs could be reduced to approximately 10 per cent of existing levels if a single authority handled the scheme. The Report echoed a growing economics literature (Ronald Coase, John Commons and others) suggesting that there were potential gains from adopting an organisational form that would minimise transaction costs.

The Woodhouse report proposed a universal, compulsory, no-fault, government-administered system for compensation of personal injury to cover all motor vehicle injuries and all injuries to earners whether occurring at work or not. The comprehensive nature of coverage stemmed from recognition that workers

do not change their status at 5.00pm, and if injured on the highway or at home they are the same men, and their needs and the country’s needs of them are unchanged (Woodhouse Report, s6).

The implicit intention was to remove or reduce the problems inherent in the Worker’s Compensation Scheme, which included:

- a power imbalance between workers and employers leaving employees unable to judge the potential for personal injury risk in the workplace (and hence individual risk-bearing);
- the need to prove negligence and the lack of resources to enable workers to pursue redress via court actions — less than one per cent of claims made for compensation as a result of industrial accident were successful. Moreover the expected standard of care was determined objectively, irrespective of the defendant’s capacity to guard against risk, and there was no principle of proportionality to link the extent of the defendant’s liability to the degree of culpability (Todd, 2000);
- the impossibility to predict with any assurance the outcome of a damages action — the Woodhouse Report acknowledges that the risks of litigation, the

difficulties of proof, the ability of advocates, the reactions of juries and mere chance itself, turned the system into a lottery;

- long delays and significant cost of the investigations and trial; and
- inconsistencies between eligibility and levels of proof leaving a large proportion of the population ineligible for recompense for injuries that were not caused by their own actions. The Workers' Compensation Act provided a limited form of compensation, which required proof of fault, while the general system of social security required a means test to be met. The common law action was available to the whole population, but limited resources severely restricted this avenue for many injured individuals.

The Accident Compensation scheme (ACC) was adopted in 1974. It was intended to provide quick and assured compensation from all injuries caused through accidents, with no requirement for proof of fault. The basis for compensation was 'personal injury by accident', irrespective of cause. Concomitant with the introduction of the scheme was the removal of the right to sue for compensatory damages related to personal injury. While penalties and sanctions remained in place to punish criminal actions leading to personal injury (for example, dangerous driving), the ability to undertake a tort action was eliminated, except in rare circumstances.

Despite a number of minor modifications to the scheme (including those in the period between 1999 and 2000, when the government monopoly on coverage was temporarily removed and six independent insurance companies, one of which was government-owned, underwrote the scheme) the right to sue for negligence has never been restored. And, apart from the brief period between 1999 and 2000, the no-fault aspect of the scheme has remained intact. There remains little tangible link between cause of accidents and individual liability, and the absence of the potential for tort action means that, beyond the setting of broad industry and activity-based levies, there are no direct individual or employer-based incentives to take due care.

Although it is legally feasible for experience rating of employers to be invoked to recover higher costs and to provide rebates to 'safe' employers, limitations in the size of eligible firms mean that only some 5,500 of New Zealand's 300,000 businesses (fewer than two per cent) face the potential of such incentives (Mears and Chapple, 1996:61). Any propensity for risk-bearing that is outside the 'average' level embodied in the levies charged to the vast majority of New Zealand's employers cannot be adjusted for by individual premiums or incentives. Furthermore, while the previous Workers Compensation Act provided cover only for employees, ACC provides cover for all New Zealanders, yet only employers face any possibility of levies being risk-rated. No such provisions apply to vehicle owners or non-earners whose levies comprised more than 43 per cent of premium income in 2001.

The result is risk-seeking actors having opportunities to engage in moral hazard actions that increase the cost of loss, while risk-averse actors pay an inefficiently high premium which does not recognise that their extra levels of care

lower the probability of loss occurring, and hence total costs. Further, the absence of the right to sue means that there is no tort-based incentive to curb the behaviour of risk-takers that may be negligent, but not criminal. Therefore, the overall efficiency of the scheme is almost entirely dependent on external monitoring and enforcement of participant behaviour. If the costs of monitoring and enforcement are lower than the potential cost of moral hazard actions that monitoring precludes, and result in a lower total cost of claims than an equivalent no-fault scheme backed with tort action, this method would be relatively more efficient for the same level of compensation paid to victims.

Performance of the New Zealand ACC Scheme

If the ACC scheme has been successful, we would expect it would have delivered:

- greater certainty of compensation for injured individuals;
- reduced transaction costs overall; and
- if the trade-off between decreased incentives and increased monitoring has been accurately and efficiently determined, no observable differences in the rate of accident occurrence for the same level of compensation relative to the old Workers Compensation Scheme.

Compensation certainty

Danzon (1990) provides a comprehensive independent review of the New Zealand scheme over its initial years. While changes have been made to the benefit schedule and levying process since then, and the period between 1999 and 2000 resulted in a short discontinuity in relation to risk-rating of employers, the key principles of no-fault and the waiver of the right to sue have remained intact. Thus, Danzon's evidence remains relevant. She notes (p. 17) that reporting rates for injury rose from 1.5 per 100 population in 1971 to 1.7 per 100 in 1984, indicating that introduction of the scheme resulted in more individuals registering injuries, and hence seeking compensation. Total expenditure also rose from 0.62 per cent of GDP in 1980 to 1.01 per cent in 1986, with total expenditure in current dollars increasing 25.8 per cent in current dollars (average annual compound growth rate of 10.1 per cent) between 1975 and 1989 (p. 18).

Further, Danzon notes that this figure is an understatement as it does not include the co-payments made by employers covering the costs of lost wages in the first week following injury (about one-half of all lost-time work accidents are estimated to fall into this category). When adjusted for inflation, the level of expenditure in 2000 was approximately 12 times higher than the level of expenditure in 1974 (expenditure of NZ\$32.9 million in 1975, equates to NZ\$100.6 million in 2000 when adjusted for inflation — the actual expenditure for the latter year was NZ\$1.2 billion). Even allowing for the greater numbers of individuals covered by the scheme, this implies a real increase in compensation

has occurred, which Danzon attributes to a significant increase in the number of small claims for minor injury receiving compensation.

Transaction costs

While it is difficult to identify a true counterfactual to the current system, there is strong evidence that the New Zealand no-fault system has reduced transparent transaction costs.

The Woodhouse Report implied that the transaction costs of a single central monitoring and enforcing provider would be more efficient than individual action under the Worker's Compensation scheme. Centralising collection and distribution of funds from 62 individual insurance companies into a single entity promised a reduction of transaction costs (estimated to equal 40 per cent of compensation paid under Workers Compensation). The Woodhouse Report states that

this division of energy, time and money together with the normal processes of competition makes it inevitable that the ratio of expenses to compensation must be high.

Furthermore, it adds that the system in place was expensive 'not because the system was mismanaged, but because the system makes this inevitable'. This inevitability arose from the absorption for administration and other charges as much as \$40 for every \$60 paid over to successful claimants (Woodhouse Report, s216).

Danzon (1990) shows that in the first 15 years of the scheme, overhead costs fell from 50 per cent of total expenditures under the tort system to under 10 per cent using ACC (Danzon, 1990:4). Operational costs in 2001 represented 10.05 per cent of expenditure as classified in the annual report. However, these costs are a significant under-representation relative to the previous insurance and tort-based scheme, as employer and employee levy collection costs under ACC are borne by the Inland Revenue Department, motor vehicle levies are collected by the Land Transport Safety Authority, employer safety monitoring and education costs are borne by the Department of Labour (\$25.4 million in 2001), and road safety education spending is the responsibility of the Land Transport Safety Authority (\$15.323 million in 2001).

Both public and private health sector providers underwrite safety and education programmes with considerable monitoring components (for example, the Royal New Zealand Plunket Society operates New Zealand's largest child car seat rental and safety programme, involving education, monitoring and compliance checks, using its own privately-sourced funding). Further, the compliance costs incurred by medical practitioners and employers in administering the scheme are also opaque. Although scheduled reimbursements to medical practitioners are intended to compensate for these costs, the schedule-

based nature of payments (insensitive to the time and expertise required to process the claim) potentially disguise the real transaction costs.

The costs of lost incentives

While ACC may have met its compensation certainty and many of its transaction cost objectives, evidence on costs arising from the loss of incentives is less clear. While counterfactuals are difficult to assemble, there is sufficient evidence for concern that the New Zealand scheme has severely distorted incentives for individuals to take care due to the very limited ability to either punish via the torts system and to the inability to relate levies to risk-based behaviour.

Kessler (1999) clearly identifies the need to increase monitoring to compensate for the removal of loss-preventing tort incentives when no-fault schemes are introduced. In the New Zealand case, in relation to employment injuries, the removal of the right to sue has reduced the incentives for both employers and employees to take precautions. However, the extension of the scheme to encompass all citizens means that the removal of right to sue should have been associated with increased monitoring and enforcement for all accident-related activities for all citizens. This includes additional monitoring and enforcement for all potential employment, self-employment, vehicle, medical misadventure and non-earner related accidents.

Generally speaking, employees can act more riskily in the certainty that they will be compensated for the additional accidents this causes, and employers have minimal incentives to invest in safety equipment and procedures as any additional accident costs are met from the fund and not from individual pockets (Mears and Chapple, 1996:35). The current arrangements include provisions to manage employer incentives through co-payments (the first week's earnings compensation for injured workers) as well as to enable linkage of employer levies to individual safety records via rebates and penalties (Mears and Chapple, 1996:61), but the latter are extremely limited.

However, incentives on employees are negligible. Consequently, spending on monitoring and enforcement of workplace safety standards should be higher to ameliorate for the loss of the tort right. Yet total occupational health and safety (OSH) spending was only \$25.4 million in 2001, equating to slightly over \$15 per employee and \$97 per business. Thus, for workplace safety at least, there appear to be both negligible incentives and negligible monitoring, enforcement and education in the New Zealand environment. It is not surprising that New Zealand's workplace accident rates are high on a world basis (Wren, 1999) and particularly high relative to Australia (Department of Labour, 2001:11).

While there is a minimal amount spent via OSH on workplace safety monitoring and enforcement, for the balance of potential claimants on ACC (for example non-workers, sports players, and motor vehicle drivers) neither incentives nor dedicated accident prevention monitoring and enforcement exist outside of bundled offerings provided by Police and the Land Transport Safety Authority dedicated to road safety — \$9.583 million in 2001 on policing and \$15,323

million on education and safety promotion (LTSA Annual Report, 2001)). While ACC does have an education role, these expenses are indistinguishable from other expenditures in the Annual Report. As they are neither compensation nor rehabilitation expenses, we presume they form part of operating expenses and are therefore substantially less than the 10.05 per cent of expenditure assigned to this function. While it is impossible to determine the actual extent of monitoring, enforcement and education undertaken, adding OSH and LTSA expenditure implies that, overtly, only \$50.3 million of Government expenditure (2.5 per cent of ACC expenditure in 2001) is being spent on strategies to directly redress for the loss of the tort right.

The costs of insufficient information

Moreover, as Danzon (1990:36) cautions, all monitoring, enforcement and loss-prevention activities require significant amounts of information to be efficiently undertaken. Mechanisms within ACC do not support the collection of information to further develop these roles. Private insurance schemes, however, do have an incentive to maintain information that will enable them to develop and deliver accident prevention programs, and thus provide more efficient compensation schemes. It is debatable whether such information can be efficiently collected, maintained and utilised in diversified, multi-agency environments. This is a very real danger in government-mandated monopoly schemes, over and above the issues associated with the removal of incentives in no-fault systems, and is a contributing factor in rising accident rates.

Potential tort liability also provides a strong incentive to maintain information and use it efficiently to lower accident risk. To quote Danzon (1990:36-37):

The low overhead rate of the system is achieved in part by foregoing the collection of the data necessary to understand the causes of accidents and implement appropriate prevention plans. ... (T)he evidence that private insurers operating in competitive insurance markets elect to keep such data suggests that it is a cost-effective investment. ... The state monopoly insurer appears to assign disproportionate weight to minimising overhead, which is the more visible component of the cost, to the relative neglect of the visible but equally real social costs of injuries that could have been avoided had there been better information-based risk management strategies in the first place.

ACC 1999-2000

Partially in response to concerns such as those of Danzon (1990) and Mears and Chapple (1996) about the costs of prevention, the worker compensation portion of ACC was opened up to private providers in 1999. These providers could charge employer premiums for worker cover on a fully risk-rated basis and compensate

employees according to the same (or better) terms as those available under the government ACC schedule. While reintroduction of the right to sue was not allowed, the reforms partially addressed the perceived low levels of prevention awareness and action in workplaces. Following the election of the Coalition Government in late 1999, the legislation enabling this variation was repealed and the six insurance companies (five private and one government-owned) established to meet this market were disbanded in 2000.

While the period of operation of the revised scheme was too short to enable any accurate assessment of outcomes in terms of either scheme cost or accident levels¹, there was considerable support for the new companies from many sectors. Anecdotal evidence supports the contention that for those firms opting to insure with the new companies, heightened priority was given to workplace accident prevention in the process of negotiating premiums.

Minimal Incentive, Negligible Monitoring: Who Bears the Risks?

Given that the New Zealand ACC system appears to have minimal incentives for the prevention of injury, negligible spending on monitoring, enforcement and risk prevention, and an apparent absence of political will for any mechanism for managing moral hazard; the question remains: who bears the costs and risks of moral hazard actions?

In the first instance, taxation revenue will meet the costs of any shortfall in revenue between levies and claims. However, if resources for reducing accident rates are minimal, the net result is that more accidents than is efficient will occur Kessell (1999) — and this is quite likely to be the case in New Zealand (Wren, 1999; Ministry of Labour, 2001). Total compensation costs will be higher (necessitating higher calls than necessary on taxation revenues and levies shown by Mears and Chapple to be, in effect, a payroll tax borne by workers) and greater suffering will be incurred (as more people than is efficient will endure accidents and their consequences).

Ironically, when the balance between incentives and monitoring and enforcement is inefficient, it is to the very people that the scheme was designed to protect — potential accident victims — to whom the extra risks and costs are shifted. Those with significant power to alter the probabilities of the accident occurring (for example, employers via their safety equipment purchases, or politicians who set the spending limits for monitoring and enforcement bodies) bear practically none of this additional risk (Howell, 2001). All New Zealanders are exposed, and few face direct incentives, resulting in a ‘tragedy of the commons’ — and overall standards of care in all accident-related activities are inefficiently low.

¹ Crichton et al. (2002) are building a matched employer/employee data set in order to investigate changes in firm and worker behaviours over this period

Lessons from the New Zealand Experience

The New Zealand experience with ACC highlights that the introduction of any no-fault scheme that waives the right to sue cannot ignore the need to increase overt monitoring and enforcement concomitant with the waiver of legal rights, if the optimal level of loss occurrence is to be achieved. While transaction cost reduction and compensation certainty may be an attractive lure to adopt such schemes, it cannot be ignored that efficient schemes must compensate for the loss of prevention incentives with other mechanisms. It also cannot be ignored that these mechanisms require both cash expenditure and collection of the appropriate information to enable them to perform as effectively as the same (or desirable) level of prevention possible via incentives.

The New Zealand experience with no-fault accident compensation, in the absence of tort action to modify moral hazard behaviour, is almost unique. While ensuring certainty of payment, it is far from clear that the scheme has succeeded in balancing the transaction costs and benefits of overt monitoring and enforcement against the costs and benefits of incentive management available from tort action. Indeed, there are indications that the net costs, in lost information and higher rates of residual, uncompensatable injuries, may be high. Whether the brief experiment with individual employer risk-rating during 1999-2000 succeeded in reducing risks and costs is hard to determine. Without a counterfactual that represents current injury-related behaviours in a tortious environment, it cannot answer the questions surrounding the extent of incentive loss due to the absence of the right to sue in all non-employment related accidents.

The lessons from the New Zealand 'experiment' appear to indicate that there are very real dangers in removing the right to sue along with no-fault insurance. Indeed, the two regimes together may provide the best of both worlds — certainty of compensation and a cost-effective way of managing moral hazard behaviour. While the right to sue in New Zealand has been removed in respect of personal injury, a form of no-fault insurance has existed in motor vehicle insurance in the agreement between insurers to meet the claims of their own clients and not pursue redress from each other for the actions of the others' clients. Only where clear fault is established, is redress sought from the individual who caused the loss, and that is of a punitive nature (for example loss of the liable party's no-claim bonus) rather than recovery of the loss. This potential cost acts as an additional incentive for third parties (akin to employers) to act with due caution, is self-reinforcing, and does not appear to have had any negative effect on either the rate of claims or the costs of accidents. Indeed, it is ironic that greater incentives should be available to prevent loss to property, which can be fully compensated financially, than for persons, where injury may not be fully compensated by monetary exchange.

With respect to increased interest in no-fault schemes, it would appear that there may be a role for such schemes where the ability to manipulate the probability of an adverse event occurring is negligible. However, where the transaction costs of monitoring and enforcement are high, or potential moral

hazard actions numerous and hard to monitor (as in New Zealand's far-reaching 'one compensation scheme suits all accidents' environment), then no-fault schemes probably require additional incentive-based mechanisms, such as tort law, in addition to criminal sanctions. The distinction between an ability to manipulate the extent of loss and an ability to manipulate the probability of the adverse event is crucial to understanding the potential costs of implementing no-fault insurance schemes. Governments contemplating such schemes in the rush to fill a missing market, as a result of recent changes in the types and forms of risks to which we have become exposed, should be aware of the efficiency implications.

References

Accident Compensation Corporation (2001), *Annual Report 2001*.

Crichton, S., J. Lane, and K. Matthews (2002), *Measuring the Impact of Changes in the Insurance Structure on Workplace Accidents in New Zealand*, Paper presented at the New Zealand Conference on Database Integration and Linked Employer-Employee Data, Wellington, 22 March.

Cutler, D. and S. Reber (1998), 'Paying for health insurance: the trade-off between competition and adverse selection', *Quarterly Journal of Economics* 113(2):433-466.

Cummins, J., R. Phillips and M. Weiss (2001), 'The Incentive Effects of No-Fault Automobile Insurance', *Journal of Law and Economics* 44 (2):427-424.

Danzon, P. (1990), *The New Zealand Accident Compensation Scheme: Lessons on No-Fault Compensation for Medical and Other Injuries*, Wharton School, University of Pennsylvania.

Goodman, G. and J. Thanhauser (2001), 'Commercial Lease Provisions Get New Focus After Attack'. *New York Law Journal*, November 27, <http://www6.law.com/ny/>

Horn, Murray J. (1995), *The Political Economy of Public Administration: Institutional Choice in the Public Sector*, Cambridge University Press, Cambridge.

Howell, B. (2001), *Medical Misadventure in New Zealand: Who bears the risks?* Working Paper, New Zealand Institute for the Study of Competition and Regulation, <http://www.iscr.org.nz>.

Huber, P. (1988), *Liability: The Legal Revolution and its Consequences*, Basic Books, New York.

Kessler, D. (1999), *The Economic Effects of the Liability System*, Hoover Institution Essay in Public Policy, <http://www-hoover.stanford.edu/publications>.

Land Transport Safety Authority (2001), *Annual Report 2001*.

Milgrom, P. and J. Roberts (1992), *Economics, Organization and Management*, Prentice Hall, New Jersey.

Mears, T. and S. Chapple (1996), *Government Involvement in Health and Safety: A Literature Review*, New Zealand Department of Labour Occasional Paper Series 1996/1, Wellington.

New Zealand Department of Labour (2001), *The Costs and Benefits of Complying with the HSE Act, 1992*, Occasional Paper 2001/4, Wellington.

Report of the Royal Commission of Inquiry: Compensation for Personal Injury in New Zealand (1967), The Honourable Mr Justice Woodhouse, D.S.C., Chairman.

Todd, S. (2000), 'Privatization of Accident Compensation: Policy and Politics in New Zealand' *Washburn Law Journal* 39:404-495.

Wren, J. (1999), 'More Money or More Effectiveness and Efficiency', *Butterworths Employment Law Bulletin* 5:83-88.

The authors acknowledge helpful comments provided by Graeme Wells and two anonymous referees in the preparation of this article.